



BRIAN BAKER

# From to **Place** Infrastructure

**To create places with a focus on people, infrastructure built for traffic is being repositioned in cities across Europe and North America.**

IT IS BEGINNING TO BE A MORE WIDELY understood priority in both Europe and North America that as much traffic as possible—including some public transport—should be routed below ground, and that elevating it, and thus creating two levels of roadway above ground, wastes potentially valuable land and throttles organic growth.

Across Europe, some mid-20th century road structures that throttled and restricted city center expansion have been removed or remodeled. In Birmingham, England, the Masshouse Circus, an elevated gyratory that collared the eastern side of the city center, was demolished in 2002, creating more than

12 acres (5 ha) of developable land. This land has been divided into parcels and is being phased into the market. Currently on the site are buildings from the first parcel developed by David McLean Ltd. in a consortium with Royal Bank of Scotland and Nikal. Known as Masshouse, the 1.2 million-square-foot (111,484-sq-m), mixed-use project, now valued at \$650 million (£333 million), includes 20,000 square feet (1,858 sq m) of prime offices, some of which have 20,000-square-foot (1,858-sq-m) floor plates.

The city council partnered with the Government Regional Office and the regional development agency to finance and procure the project.

A new pattern of surface roadways—none of them with more than four lanes and with pedestrian crossings at short intervals throughout—was constructed in 2003. Altogether, the public realm works cost \$28 million (£14 million). The project was further stimulated by investment in two new higher education facilities at the perimeter of the cleared land that previously had been unattractive sites for development.

Countryside Properties is leading the second, 5.2-acre (2.1-ha) parcel phase of development. The mixed-use project known as City Park Gate will be completed in 2007 and will include 500 residential units, 10 percent of which will be subsidized.

In Göteborg (Gothenburg), Sweden, the new Gota road tunnel—a Swedish National Roads Administration project that has reintegrated the old city with the riverbank area by opening up the south bank of the river Sodra and relieving it of heavy traffic—is now ready to attract development investment. The tunnel

opened just before the city hosted the European Athletics (track and field) Championships last August.

Currently, citizens are giving extensive input on what the precise mix should be of public realm and private development for the area. The area probably will be developed in phases. The detailed plan for the Sodra Alvstranden (developable area) is to be approved by the city of Göteborg this year. Preparation of a final master plan is contingent on the choice of a tunnel or a bridge to cross the river in the vicinity.

Leading much of the discussion is Knut Stromberg of Chalmers University. "Because recent development on the north side of the river on former port industry sites has been high-end office and residential, citizens are demanding more public spaces and affordable housing on the south bank," says Stromberg.

"The land, which was predominantly roadway and parking before the Gota tunnel was built, is mostly in public hands," he says. "The probable approach will be to retain most of the land for public space and publicly owned facilities and to sell off small parcels of it for commercial development. All the public investment will have to be financed from land sales receipts.

"We formed six teams of residents and professionals for the public dialogue and all favor multiple mixed uses and activities," Stromberg continues. "The most difficult part will be financing affordable housing, which currently is in short supply in Göteborg, especially in the city center." The city's population has increased by 50,000 in the last 12 years and now stands at 490,000.

The site is a fairly narrow strip that stretches from the city's new opera house to an area of public spaces and water channels. The phasing will depend on the decision about the rail crossing, as its detailed planning and construction could take 15 years and delay delivery of any development at the northern end of the waterfront strip for ten years.

European cities have been in the forefront of investments in underground public parking spaces. As a result, many cities have been able to create pocket parks in central urban locations. Others have secured investment in residential, office, and retail construction over the parking.

In 2004, unsightly surface parking was removed from a section of the Rhine River

waterfront in Mainz, Germany, after the city invested €12 million to develop the Rhein-übergarage—a public parking facility (with some spaces contracted to nearby companies) with 500 parking spaces on two levels below ground on the Rhine. That section of the bank of the Rhine is now a promenade. The parking spaces serve local colleges and businesses, and visitors on event days, when the city center streets are closed to traffic.

In Palma, Spain, the Societat Municipal d'Aparcaments de Palma de Mallorca opened the 750-space Via Roma underground parking garage in 2005; 260 of the spaces were sold to nearby residents and the remainder are for short-term parking. On the surface, Via Roma has been traffic calmed and 70 trees have been



MASSHOUSE DEVELOPMENTS



GÖRAN ASSNER

Across Europe, road structures that have restricted city center expansion have been removed or remodeled. In Göteborg, Sweden, the new Gota road tunnel has reintegrated the old city with the riverbank area by opening up the south bank of the river Sodra and relieving it of heavy traffic (at left and on facing page). In Birmingham, England, developable land comprising more than 12 acres (5 ha) has been divided into parcels. One parcel, Masshouse, is a mixed-use project that will include 20,000 square feet (1,858 sq m) of office space.

planted. The traffic-free environment has increased the volume of people using the adjacent Plaza del Tubo.

Even more challenging is to move major transport corridors underground within central urban areas in order to create new prime sites for development at locations where land is scarce. In Spain, several cities, provinces, and regions have joined together to finance the transfer of rail lines underground in central city areas.

In the southern region of Murcia, two such plans were announced in 2006 for the coastal city of Cartagena and for the inland regional capital Murcia City. In Cartagena, lowering tracks below ground and reconstructing the principal rail station will create prime developable sites on the surface as well as new retail opportunities below ground. In Murcia City, a similar project will free up valuable sites in the core of the city. Construction is set to begin in 2007 in both places.

The project in Cartagena, promoted by Mayor Pilar Barreiro, is estimated to cost \$41.8 million (€32 million). Funding will come from

the Murcia region, the *Ayuntamiento* (city) of Cartagena, and the autonomous *comunidad* of the province. The development community in the region already is expressing interest in the parcels, which will become available and be marketed in the next three years.

In the capital of Madrid, the largest planned real estate project in the history of Spain is being earmarked for the northern part of the city, and made possible only because of a decision, still being worked out, to lower the rail lines underground for 1.2 miles (2 km) on the northern approaches to Chamartin Station.

The master plan for the project, which has been long delayed but is now expected to be completed by 2018, is for up to 15, 40-story office towers and up to 26,000 apartments, mostly in high-rise buildings, interspersed with 4,305,566 square feet (400,000 sq m) of green space. The total area will comprise 741 acres (300 ha) and will include a large sports facility that will be relocated. The development will benefit from an extension to Metro line 10 and new access to the M40 and M30 roads. The spine of the plan will be a 2.2-mile (3.5-km) extension of the Paseo de la Castellana, Madrid's main commercial corridor.

In addition to routing public transit underground, parking vehicles underground offers an opportunity for a more positive use of land above ground. A critical decision in the evolution of Atlantic Station in Atlanta, Georgia, for example, was to construct a large structure to accommodate parking and utilities

on the original ground level of the former Atlantic steelworks, and to construct above it the streets and buildings of the central hub of the new neighborhood.

"It provides a platform on which the downtown area, which is a 14-block grid, can be constructed to feel like a traditional streetscape even though technically it is in the air," says John Whitaker, AIG global real estate chief executive officer for Atlantic Station. "The buildings there are all four to six stories."

"We had to bridge over the interstate, which runs close to the eastern perimeter," says Brian Leary, AIG vice president of design and development at Atlantic Station. "Either we could have a steep drop on the property or we could raise the level. By raising the level, we were able to put the utilities and parking below the platform," he says.

"We front-loaded the costs so that we could build it in this manner," explains Whitaker. "To be able to do that, you have to have a public/private partnership. The initial construction elements were only possible because of the support from the district's tax allocation."

Most of the 130-acre (53-ha) Atlantic Station site had had no infrastructure investment for 100 years. The cost of the public utilities was \$300 million (€229 million), and, Whitaker explains, the infrastructure all had to be developed at once. The plinth or platform extends across 30 acres (12 ha). Altogether, on two levels, it provides parking spaces for 7,300 vehicles.

"It was important that the streets feel urban and natural [not elevated but like a ground-level city street]," says Leary. "Typi-



CITY PLANNING AND DEVELOPMENT DEPARTMENT, KANSAS CITY

Several North American cities are moving forward with plans to reconnect their neighborhoods and extend their downtowns. In Kansas City, Missouri, Truman Road will be cantilevered over the existing interstate and will connect the southern downtown convention center area with the crossroads neighborhood.



cally, they are landscaped with trees. We incorporated a continuous tree well system irrigated below grade. The sidewalks are paved with brick. All the retail is street level with residential above.”

Although the project has met some criticism from urbanists, Atlantic Station will create a connectivity and a density across the midtown neighborhood of Atlanta, greatly increase the city’s tax revenues, and contribute to its now growing population.

Other North American cities that are moving forward with plans to reconnect their neighborhoods and extend their downtowns are using similar techniques. In Kansas City, Missouri, the Truman Road project, with its ambitious proposal, is to connect the southern downtown convention center area with the quirky crossroads neighborhood. Potentially, this could create hundreds of millions of dollars of investment and significantly enhance the mix of experiences for residents and visitors.

“The interstate [670] is 66 to 98 feet [20 to 30 m] below street level in a narrow high-sided cutting in that area; the plan is for Truman Road to be cantilevered over the interstate and to place the new developable parcels where the roadways currently sit,” says Bob Langenkamp, Kansas City assistant director of planning.

“We also want to extend the convention center complex over the interstate. We acquired a \$1.1 million [€840,800] federal grant for the detailed engineering study work that should be completed by spring 2007,” says Greg Williams of the office of Mayor Kay Barnes.

“Moving Truman Road and bridging it over the interstate will open up additional land for



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development,” says Langenkamp, “which will be a tangible gain, bringing more density to that part of the downtown and to the crossroads area. We will close the existing scar between the downtown and the crossroads area. Mayor Barnes has made it a priority to enhance connectivity among neighborhoods, the downtown, and surrounding areas.”

“We anticipate that this project is not going to be cheap,” says Williams. “It will take a partnership of all three levels of government to finance it. However, if the project is completed, the price of land will go up on both sides of the existing barrier.”

In Harrisburg, Pennsylvania, the Southern Gateway project has a long-term strategy to extend the downtown area of the state capitol and provide space for investments in office, residential, and retail uses. The mayor’s office is leading the project, which is expected to take 25 years to complete. The master plan envisions developable parcels across a 35-acre (14-ha) area, much of which is in the surrounds of road sections and rail tracks and currently is unused.

Initial plans call for developing more than 3 million square feet (278,709 sq m) of office

space, 250,000 square feet (23,226 sq m) of retail space, and 500,000 square feet (46,452 sq m) of residential space. Mayor Stephen Reed has stressed the importance of the construction of an underground plinth structure to support the development. Parking will be below ground along with underground access to the downtown streets.

If fully implemented, the Southern Gateway project is estimated to generate \$1 billion of construction, double the size of Harrisburg’s downtown, and significantly increase the city’s tax revenues.

Some of these European and North American public projects are very expensive. But the subsequent results—private investment, the knitting back together of the urban fabric, and the enhancement of urban environments—provide a compelling return. It is surely only a matter of time before cities throughout the world include strategic plans to run traffic and trains underground and to pull down elevated urban road sections. **U**

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