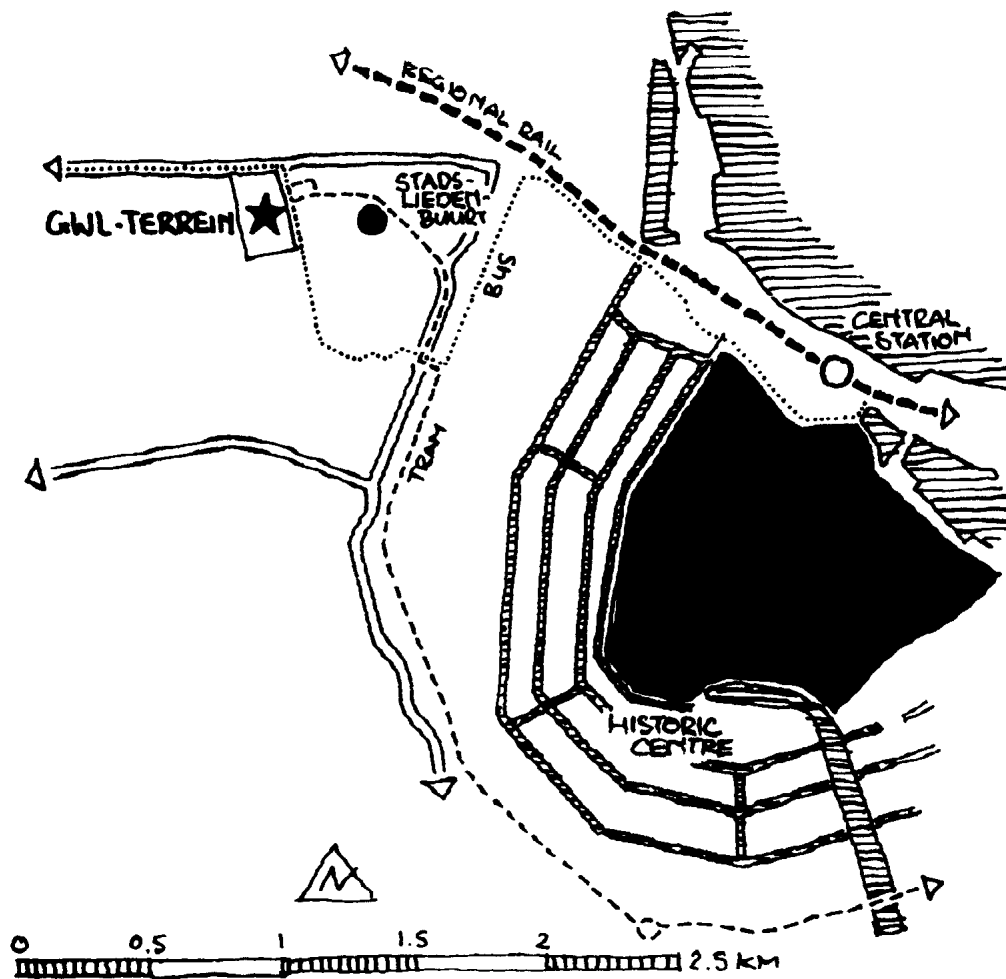

16.3. GWL-Terrein, Amsterdam: Carfree Public Housing



Map 16-A: Location of GWL-terrein in relation to Amsterdam's historic centre, transport routes and local centres

In 1993, the Amsterdam borough of Westerpark announced the realisation of a 600-unit car-free housing project. The concept of carfree housing is not entirely new to Amsterdam, as residential redevelopment within the old canal quarters has been quite commonly exempted from parking provision even since 1945 as this was seen as essential to preserve the character and functionality of the pre-industrial city. The emergence of a larger carfree demonstration project can also be traced to the strong popular support for traffic reducing policies in inner Amsterdam, which culminated in the success of the 1992 referendum in favour of a carfree city centre (Apel et al 1997). At the project's inception, Westerpark's borough council ran a newspaper ad to inform



Photo 16-A:
Amsterdam, GWL-terrein.
View of the traffic-free interior,
featuring historic and new
buildings; aerial view of the site
in 1998; integrated tram
terminus; traffic calming in
progress in Van Hallstraat (mid-
1999); artificial drainage canal
shortly after completion

the public of its plans, resulting in 4,000 serious respondents interested in buying or renting a unit on GWL-terrein. Future residents were asked to sign a non-obligatory declaration of support for the carfree nature of the site. The apartments, designed and carried out in a collaboration (*Stichting Ecoplan*) of five housing associations with their respective architects, were completed in stages between late 1996 and early 1998 (Berents 1998).

The project is located at some 3 km from the city centre at the terminus of an existing tram line and the very edge of the late 19th century city extensions. Thus, the neighbourhood services and community facilities of 'old-growth' urban fabric can be drawn on. It makes use of a 6 hectares site formerly used by the municipal water utility (GWL), which became available after operations could be spatially rationalised. Some of the old buildings were preserved for cultural purposes and local business, and an operational water tower was integrated as a landmark. A mix of owner-occupied and rental apartments - each about 50% of the total - on the former water works site replicated both the building density (100 units per hectare) and the average parking supply (0.2 per unit) typical for the district. The typological pattern, however, consisting of open five-story terrace blocks and a nearly continuous five- to ten-story perimeter building along the northern and western edges, indicates a clear break from that of the neighbourhood. Nearly all apartments have two or more bedrooms, though there is also a small project of aged persons' flats, housing for disabled children, studio apartments for artists and a housing commune. The low allocation of space for car parks, combined with the inaccessibility of the site to motorised vehicles, enabled an interconnected system of high-quality open spaces

penetrating the entire development, with a significantly lower share of impervious surfaces if compared to conventional development. 260 small garden allotments could be included in the design, accessible from ground floor units, public walkways or rooftops, supplying almost one in two apartments with a private outdoor space.

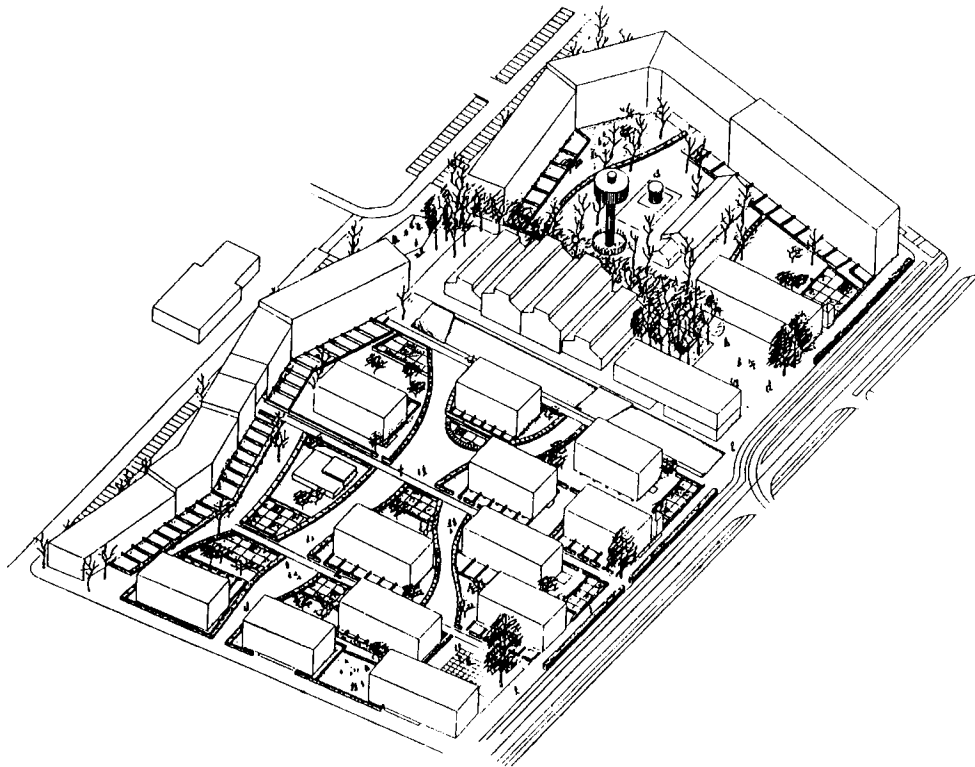


Figure 16-A: GWL-terrein isometry. Source: Werkgroep 2duizend

Apart from its carfree character, the development has various ecological and social features ranging from landscaped rooftops, rainwater use in toilets, a ban on timber from non-sustainable production and a small community centre. Waste is separated into four fractions including green waste and collected in subterranean containers at the perimeter of the site, obliterating the need for collection trucks to enter the carfree interior. There are several small shops and services including an Internet café as well as a large café and restaurant and a TV studio in the old waterworks buildings. A car sharing organisation has various vehicles for hire on site (Werkgroep 2duizend 1995, Cusveller 1999).

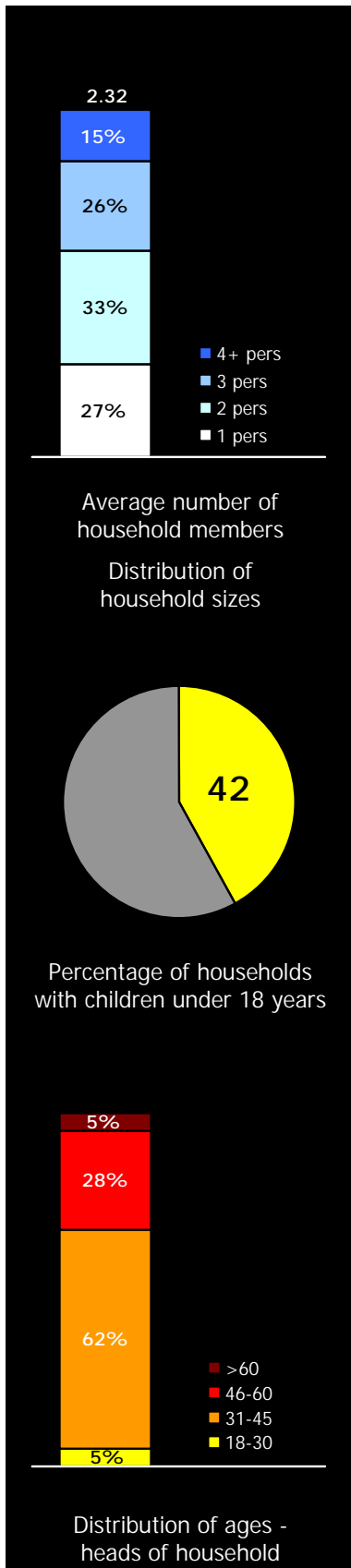
The GWL-terrein development integrates very closely with the surrounding turn-of-the-century district: each existing street approaching the site the east or south was extended through the project as a pedestrian walkway and knits the neighbourhood

together, while simultaneously generating exciting contrasts due to the radically different urban typologies in either part. Van Hallstraat, an arterial street at the interface of the old and new neighbourhoods, was traffic-calmed in mid-1999 with on-street parking removed, speed reduced, sidewalks widened and the tram terminus rebuilt and extended. As mentioned above, the entire site is inaccessible to motor vehicles including taxis and removal vans; however, 110 parking spaces have been created towards the western verge to cater for an estimated 20% of residents still owning a car. This figure had been established in a survey, and the spaces are allocated in a lottery. Besides the impediment of motorised access, enforcement of the carfree character in GWL-Terrein is administrative: Westerpark streets are controlled by residents-only parking, with GWL dwellers ineligible for permits. Owning a car and parking it somewhere completely different is not restricted, though (Pintartis 1998). However, following the removal of surface parking from a cultural centre drawing visitors from the entire urban region while its grounds are redesigned into a public park, the borough council has approved a 400-bay multi storey parking garage to be built in the vicinity of GWL-Terrein. The facility will also serve the non-residential uses on GWL itself (café-restaurant and TV studio). Spare capacities - if available - will be open for hire by Westerpark residents (with GWL dwellers also entitled, but possibly at a lower priority than those from the old district). Chances are thus that the carfree nature of the project may be somewhat watered down in the future.

GWL-TERREIN: PROVISION OF SUSTAINABILITY FEATURES	
RESOURCE USE	
Revitalisation of previously developed site	Rainwater collection and indoor use
Low-energy building standard	On-site grey water treatment
Passive solar design	On-site recycling facilities (paper, glass)
Solar-supported heating or photovoltaics	On-site composting facilities
COMMUNITY	
Purpose-built community centre	Resident involvement in running facilities
Resident participation during planning	Institutionalised representation of residents
MOBILITY	
Integration with public transit facility	On-site car sharing vehicles
Integration with pedestrian and cycling networks	Integration of basic retail facilities
Exclusion of motorised traffic	Allocation of open space for food production
Reduced parking provision (<0.5/unit)	Integration of workspaces

Figure 16-B: GWL-terrein sustainability checklist.
 Highlighted items indicate features included in the scheme.

Demographic data



Many GWL-Terrein inhabitants used to live elsewhere in the district before, owing to a (now discontinued) policy to give preference to local applicants when allocating the units. With its high share of large apartments, GWL-Terrein proved particularly attractive to those who had run out of space in the older buildings (where most apartments are small) by enabling them to remain within their familiar neighbourhood - apartment size was the most popular reason given when we asked residents about their motives for moving to GWL-terrein. Such, the carfree concept is also connected to the borough's desire to cater for better-off residents and family households - Westerpark currently has the lowest per-capita income of all Amsterdam boroughs. There are no schools or kindergartens on the site as the existing ones around had spare capacity, following a long decline in the number of children in Westerpark in favour of one- and two-adult households.

An artificial canal with a café and TV studio in the former machinery building along its banks effectively divides the development into two parts. To the north, there is an urban square with some shops and surrounded by the ten-story apartment block, which is fully owner-occupied. To the south, the site is more garden-oriented, with the terrace blocks in mixed tenure and the perimeter block as rental housing. The canal appears to constitute a barrier in other respects, too: we repeatedly came across residents who were happy to let their young kids roam freely within their section but did not allow them to cross the canal on their own. There appear to be quite distinctive social milieux on either side as well. To our impression, most idealistic supporters of the carfree concept can be found in the terraces in the southern half: one third

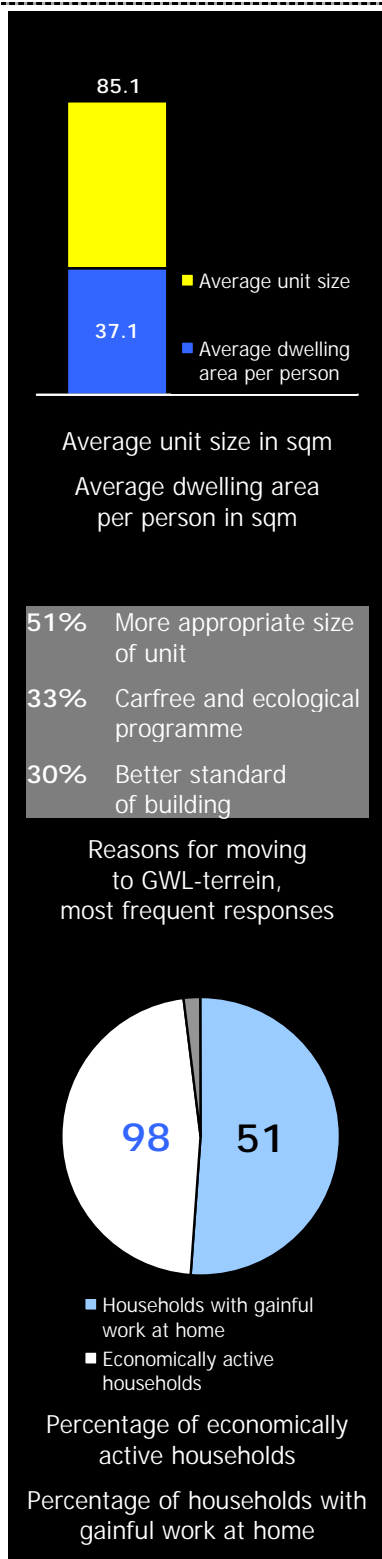
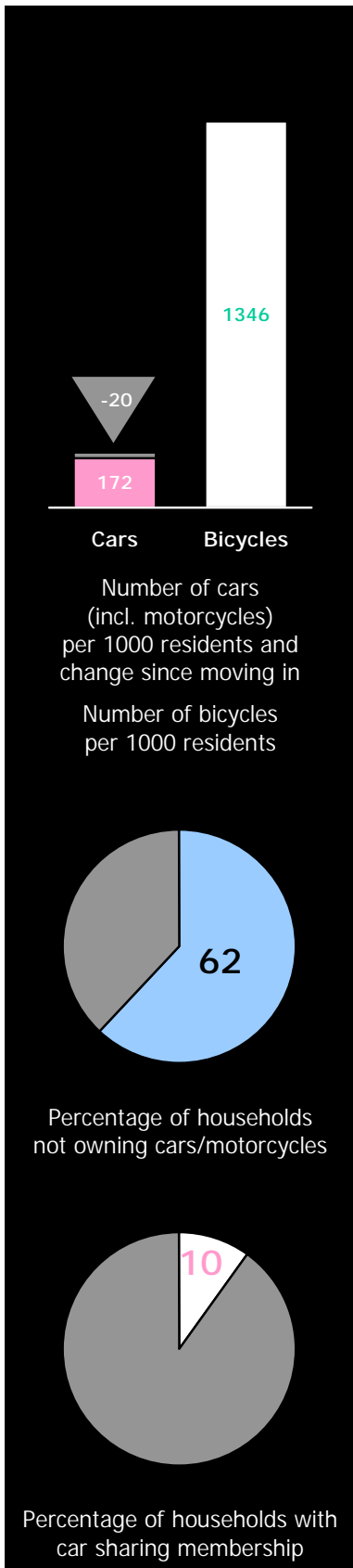


Figure 16-C:
Amsterdam - GWL-terrein,
selected demographic data

of residents gave the carfree concept as a decisive reason for moving to GWL-terrein. These are the people who simultaneously invest time and energy to cultivate a sense of place and a rich community life. It is also this group we heard most complaints from that there is still too much traffic impact on the site, particularly noise (the penetration of which is probably facilitated by the open building pattern) and that more should be done to 'get the cars out'. The northern half, however, is where many of the remaining car owners live (and at 38% of households, their number is somewhat larger than what the parking supply suggests!). A sizeable share of these people were attracted to the site by the prospect of relatively affordable home ownership near the centre of Amsterdam, while the carfree character of GWL-terrein is sometimes more of a source of discomfort ('there's not enough parking here'). We also encountered a concentration of a third group, those who do not own a car largely for practical reasons and thus found GWL-terrein an appropriate concept, within the rental perimeter block in the southern half.

The populace here is quite middle-aged: 90% of heads of households are between 31 and 60, indicating an under-representation of young adults and seniors. The majority of GWL-terrein households are adult-only: only 42% of households include children under 18 years. This is well above the Amsterdam average of some 24% (Amsterdam O+S 2000) and as such an indication for the child-friendliness of the neighbourhood; however, the number of children in all other case study areas is considerably higher. Similarly, average household sizes and their distribution show a bias towards larger households for Amsterdam conditions (where nearly 80% of all households consist of one or two persons) but slightly below-average figures in comparison to our carfree housing

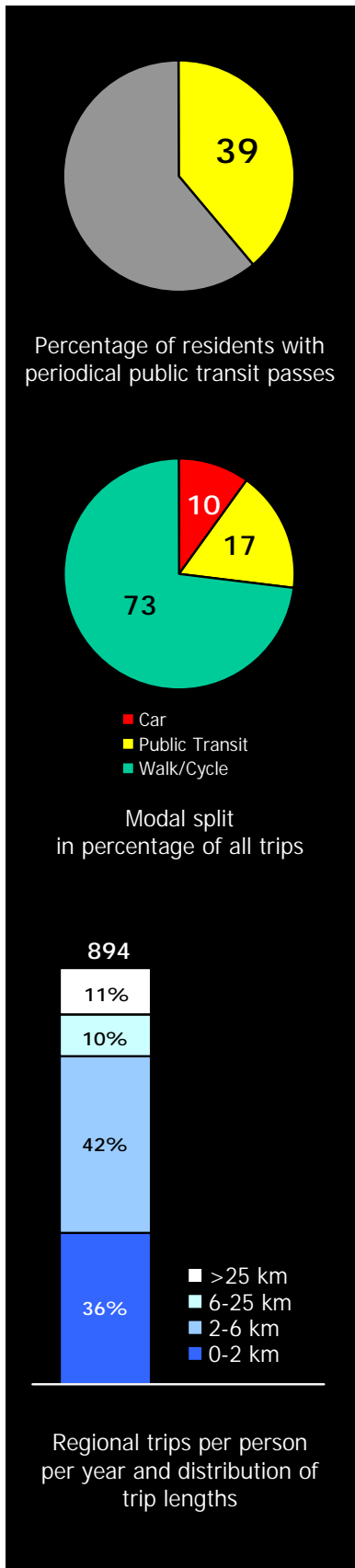
sample. Households without an independent income constitute a very marginal group - we only came across one out of a sample of 48 - and slightly more than half use their home as a base for gainful work at least occasionally. Most residents appear to work in professions requiring high qualifications, and a substantial number can be classified as part-takers of what is often termed the 'global knowledge economy'.



Travel behaviour data

Travel patterns in GWL terrein are a constant reminder that Amsterdam is anything but a stand-alone city: in fact, it forms part of a large regional agglomeration known as Randstad Holland and stretching as far as Den Haag, Rotterdam, Utrecht and Amersfoort. This becomes extremely obvious in commuting patterns with an average journey to work or school of 15.7 km, and 19% of these trips being further than 25 km and thus clearly having another city as their destination. The fact that GWL-terrein is located at a mere 2.5 km from Amsterdam's central station renders this observation both paradoxical and explainable, since it is this very centrality of location that offers convenient access to an enormous job market both within Amsterdam proper and throughout the Randstad.

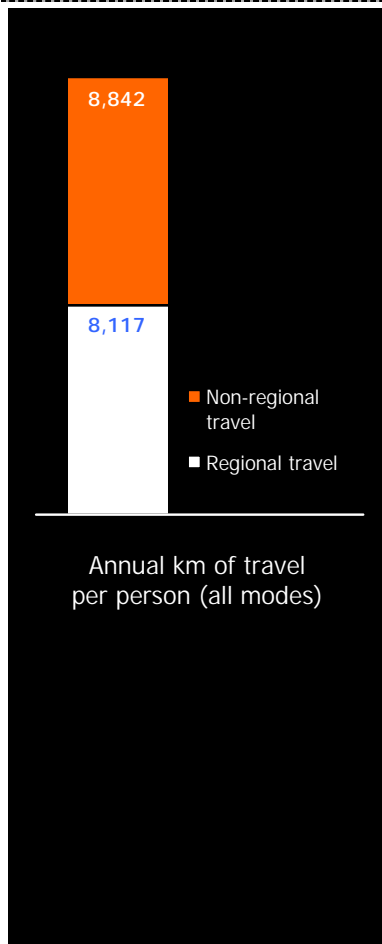
Simultaneously, however, the legendary importance of the bicycle in Amsterdam becomes conspicuous with the highest ownership rate of all case studies in this volume at 4 bikes per 3 residents, and a share of non-motorised trips of 73%. The 2-6 km distance bracket in particular, representing most destinations outside Westerpark borough but still within inner Amsterdam, and accounting for 42% of all trips (50% of trips to work and school), benefits strongly from the ubiquity of this mode. Despite the share of public transit being rather moderate at 149 trips per person and year, no less than 39% of residents hold a periodical travel pass, which can be regarded as another indicator for the significance of long-distance commuting done on a regular basis and largely by regional rail. 10% of households have signed membership for car sharing which provides several vehicles on-site. The total distance travelled per person and year is relatively high at nearly 17,000 km, both regar-



ding regional and international travel - following, once again, the occurrence of long-distance commuting as well as the importance of regular business trips in the professional groups resident in GWL-terrein, and the popularity - and affordability - of holiday trips to destinations outside the Netherlands.

As mentioned, the number of cars is higher than expected at 1 per 5.8 inhabitants (down, however, from 1 per 5.2 at the time of moving in). But most cars do not seem to be used too frequently at 10 weekly passenger trips per on-site vehicle - out of the sample of carfree housing case studies, only Hamburg's Stadthaus Schlump has an even lower figure. Hence, we came across no more than one household out of 48 that would fit the description of a car-dominated lifestyle (over 50% of all trips by car), whereas 57% of households, a share surpassed only in Vienna's Autofreier Mustersiedlung Floridsdorf, live practically carfree (less than 10% of all trips by car).

While the borough council of Westerpark may not be too comfortable with the notion that their hard-won decision to limit parking supply has resulted in a considerable demand surplus, this doesn't automatically put the carfree concept of the project to discredit. A 62% share of non-car owning households in a development designed to attract the better-off or to keep them from moving away to improve social diversity in what is effectively Amsterdam's lowest-income borough, still constitutes a remarkable figure, even under the quite special circumstances of the Dutch capital. What would the mobility patterns of these people look like had they settled in suburban locations instead? And would the quality of the local environment, and the interaction of the community, particularly in the part of the development where these are strongest, be the same if GWL-terrein had



been supplied with ample vehicle access and parking? On the other hand, there has been substantial controversy in the district over precisely this kind of redevelopment, since many locals do question the need for a policy that aims at enriching the quarter by attracting the wealthy while simultaneously not doing enough to consolidate the livelihoods of lower-income households. This debate reflects the tensions associated with gentrification processes and their propensity to introduce new social divisions into neighbourhoods, a context discussed in Chapter 10 (see also Rudlin and Falk 1999). We can now supply figures that do indeed support the view that GWL-terrein residents' cars - approximately 120 of them - cannot be accommodated on-site and may have an impact on the neighbourhood. A household's arrangements with car ownership in the absence of a home-based parking space, however, can have many faces, not all of which necessarily provide additional burdens on the surroundings of the residence. We will revisit this issue in section 16.8.

Figure 16-D:
Amsterdam - GWL terrain,
selected travel behaviour data