



**Urban Design:
Urban Proposal for
Eisenhower Avenue West**



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Beginning

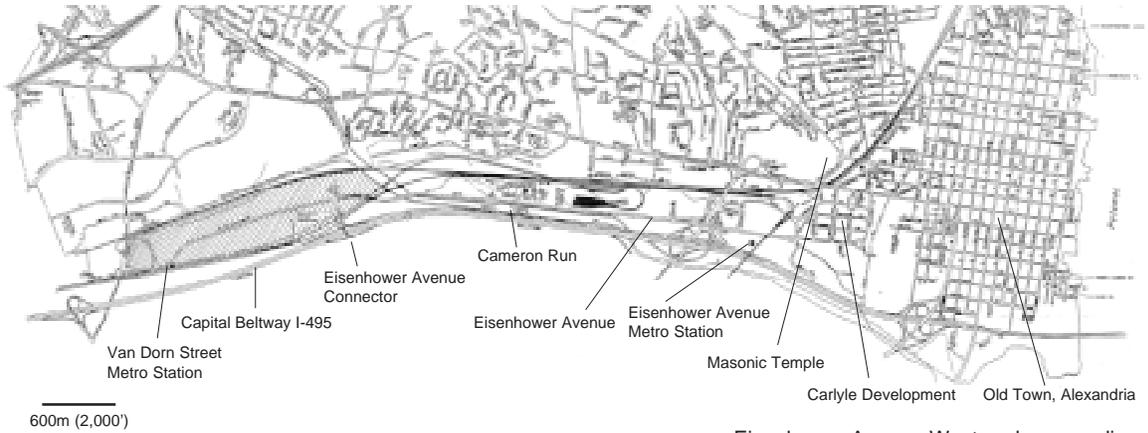


One day in the fall of 1996, I was driving my car to get to a shopping mall outside of Old Town, Alexandria. After checking on the street map, I decided to get on Eisenhower Avenue to the west, running east to west in the south of the City of Alexandria, which I had never taken before.

The first area was Carlyle development on the former Norfolk Southern rail yards where a couple of office buildings were under construction surrounded by vacant lots. This was a surprising for me, living in Old Town because of its scale and building program as well as its attempt. The Carlyle is “one of the most ambitious New Urbanist projects on the East Coast, being built on about 82 acres.”¹

The area next to it laid Eisenhower Avenue Metro Station surrounded by a huge parking lot, a Holiday Inn, and two mid-rise office buildings. The glittering purple color cladding on those buildings appeared to be unreal like a vision of the near-future realized only on film.

After passing over the Capital Beltway I-495, a mile-long open area along Cameron Run came into view. At the beginning of this section there existed an office complex that accommodates even a college. Shortly afterward Cameron Run Regional Park became visible which provides sufficient open recreational area which is lacking in the City of Alexandria.



Eisenhower Avenue West and surroundings



The raised Metro and Amtrak train tracks opened a gate to the light industry and warehouse area which composed of 13-story Army Material Command Building, the City's impound yard, the Police Department's shooting range, the City's incinerator, and Van Dorn Street Metro Station besides regular buildings. This whole trip on Eisenhower Avenue ended up with a new townhouse development called "Summers Grove." It was located inside of a quadrant of a cloverleaf to another 4-lane highway, Van Dorn Street. I learned that the City had failed to persuade the the owner and developer to use the site for commercial, retail, or office building. They responded to stable needs for housing in this area rather than taking a risk to provide for commercial use because there were ample supply of such

space in the market then. But I could not imagine people sleep and eat in such a strange environment at least for some years of their life. A later day I found another two signboards announcing two more new housing developments were coming soon to this strip.

facing page

- (left) Old Town, Alexandria. Typical houses.
- (middle) Carlyle development proposal
- (right) View from Eisenhower Avenue Metro Station. Masonic Temple on the left and Carlyle buildings on the right.

this page

- (top left) Incinerator
- (top middle) Shooting range
- (top right) Eisenhower Avenue looking the AMC building on the right
- (bottom left) Beginning of Eisenhower Avenue West area
- (bottom middle) AMC Building (Army Material Command)
- (bottom right) Signboard for "Summers Grove"



Eisenhower Avenue West in 1968



This experience revealed what was happening, as a part of metropolitan expansion, outside of already-established, antique Old Town. Joel Garreau identifies Eisenhower Valley area as one of the “Emerging Edge Cities” in his book entitled *Edge City: Life on The New Frontier*. He writes, “Already, two thirds of all American office facilities are in Edge Cities, and 80 percent of them have materialized in only the last two decades. . . . So much of our shopping is done in Edge Cities that a casual glance at most Yellow Pages shows it increasingly difficult in an old downtown to buy such a commodity item as a television set.”² According to him, “Edge City is any place that:

- Has five million square feet or more of leasable office space-the workplace of the Information Age.

- Has 600,000 square feet or more of leasable retail space.
- Has more jobs than bedrooms.
- Is perceived by the population as one place.
- Was nothing like ‘city’ as recently as thirty years ago.”³

The metropolitan core has lost its traditional workplace such as factories and warehouses, and is losing its more modern workplaces like the office and shopping spaces. Programmatic richness and juxtaposition, used to vitalize the pedestrian experience in city, occurs only in shopping malls in a limited way. Everything has spread apart for the sake of accessibility of cars and economic efficiency for individual enterprise rather than for buiding community.





Rem Koolhaas describes this current urban phenomenon as follows:

“an unavoidable fragmentation of the existing city, a displacement of the centre of gravity of urban dynamics from city centre to the urban periphery and a remarkable ingenuity in avoiding urbanistic rules. . . . Programmatically existing subjects are treated in a new way, parks, company headquarters, . . . and clients change their demands. Possibilities that are still unclear, but that contain the beginning of new forms in architecture and urbanism, without postmodern nostalgia or modern tabula rasa. The common characteristic is an absence of preconceived theories, an eager liberation of a number of self-inflicted dogmas and new sensibility for the qualities of the surrounding environment.”⁷⁴

This urban periphery, Eisenhower Valley is an appropriate study area to search for a possible strategy of city and architecture in the given condition of the Edge City-“the creation of a new world, being shaped by the free in a constantly reinvented land.”⁷⁵

Here is the question to answer:

How can architecture and urbanism work in this periphery?



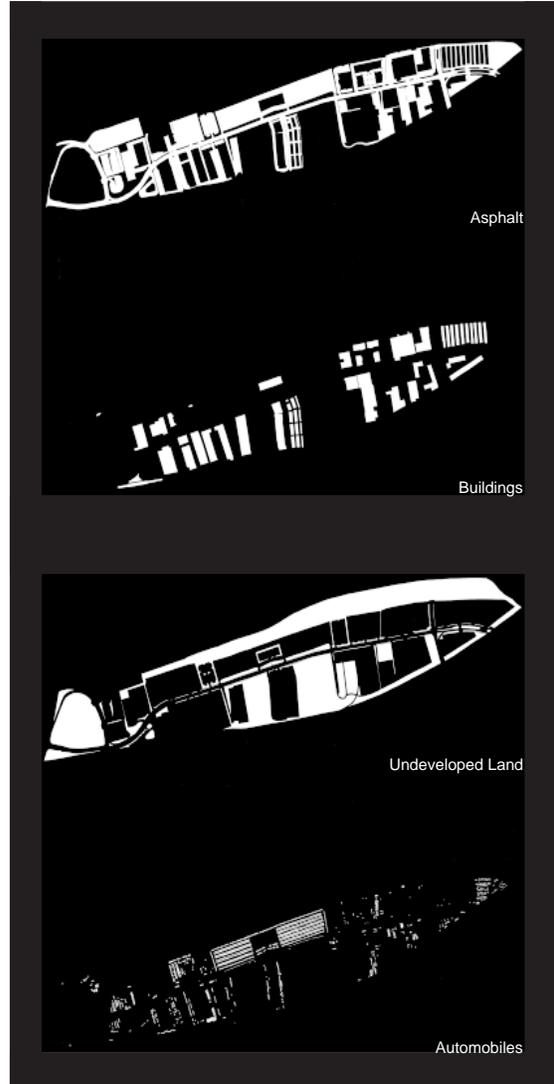
Site

Location and Condition: an urban periphery

Eisenhower Valley area is an urban periphery in the south of the City of Alexandria just inside of the Capital Beltway I-495. This area is organized along Eisenhower Avenue running east to west. It is sandwiched between the Metro line and railroad tracks to the north, and the Beltway and Cameron Run to the south. While connected to the Washington Metropolitan area with highway, Metro line, and railroads, this area is isolated from the rest of the City of Alexandria by the linear infrastructure. The study area is located in the western part of Eisenhower Avenue, and is more than one mile in length.

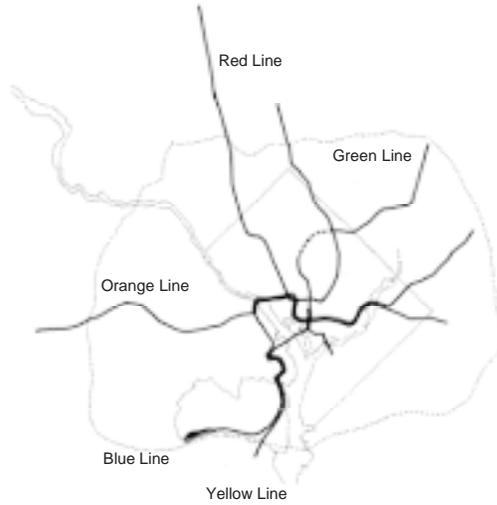
Land use in the area, organized along Eisenhower Avenue, is primarily for light industrial and service commercial, with some office space. Each building lot is connected only to Eisenhower Avenue, which is almost the only element to carry materials, goods, and employees. Each building has own surrounding parking area and does not have any relationship to the building next door. Space for autos, rather than buildings, dominates this landscape. This shows the nature of programs in a periphery, that is, **trying to isolate themselves from the others.**

One of the undeveloped parcels next to Van Dorn Street Metro Station has begun to construct townhouses. The Van Dorn Metro Station is located at the western end of the Avenue.

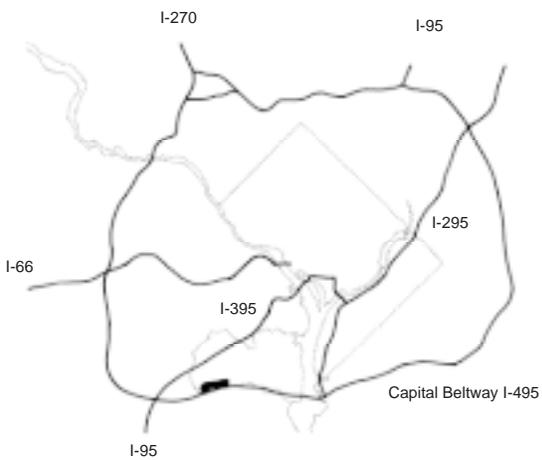




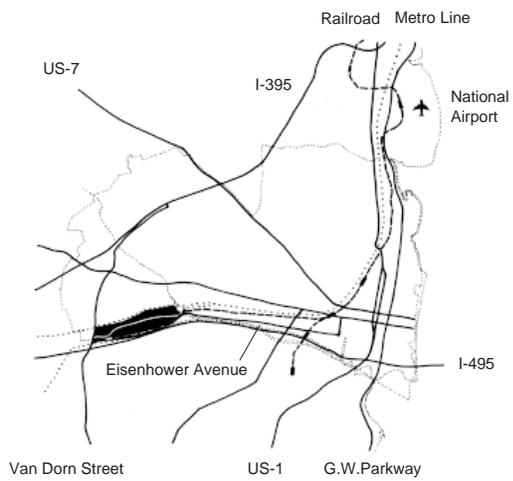
Washington Metropolitan Region



Infrastructure: Metro Line



Infrastructure: Capital Belyway I-495



Vicinity



History: a place for 'migrants'

This area has a history along with the development of Alexandria founded in 1732.⁶ The Valley used to have a water house, mill houses, and plantations cultivating tobacco at first and then grain, vegetables, sheep, and cattle. A small village called "West End" was located where Little River Turnpike (Duke Street), opened in 1806 on the north of the study area, came into the town, and was a processing/transshipment point. By the middle of the nineteenth century this area was provided with characteristics of urban peripheries which accommodate noisome or land-expansive functions necessary to support a downtown, such as slaughterhouses, butchers, tanneries, and mill houses.

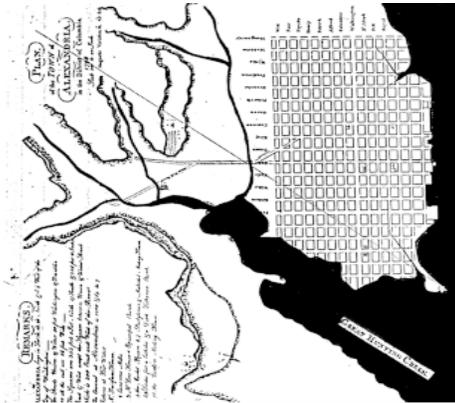
In the Civil War, Alexandria fell to the Union army in 1861 and the Union army controlled the Alexandria and Orange Railroad completed two years before. The Valley lost prized woodland and agricultural land due to the fortification and the encampment to protect D.C.. Then through the 1920s, this area showed a variety of land uses on a typical urban periphery with open space, primarily a number of factories producing fertilizer, brick, glass, woodwork, and pharmaceuticals.



Cameron Mill Race in 1889



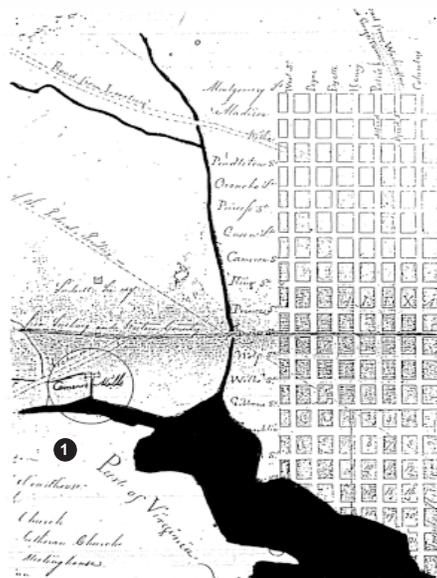
The Round House was located at the site for Carlyle Development on Duke street. It was built in the middle of 19th century by the Alexandria and Orange Railroad.



map of 1798:

Foundation

Alexandria was founded when the tobacco warehouse was replaced to the town in 1732.



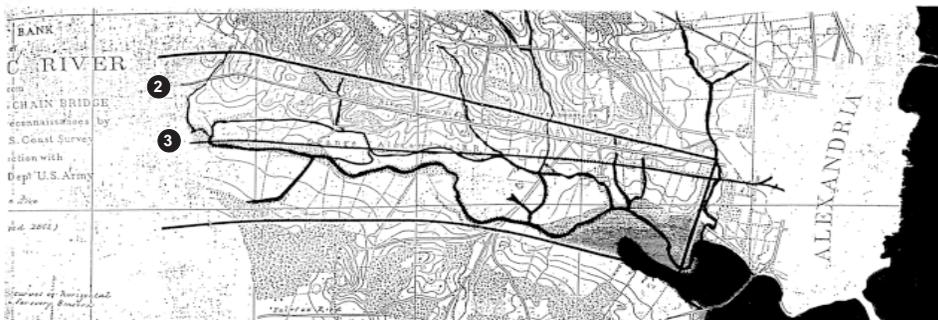
map of 1803:

1 Cameron Mills

The earliest mill at this site was built prior to 1752.

2 Little River Turnpike

The commission was organized in 1801. The first section of the road was opened in 1806. The road was finished in 1815 and operated as a toll road until 1896. It comes to the town as Duke Street.



map of 1861:

3 Alexandria and Orange Railroad

The railroad was completed in 1859.

Civil War

Alexandria fell to the Union army in 1861.



map of 1879:

4 Alexandria and Fredericksburg Railroad

It was extended along the existing railroad, and developed the area along the turnpike more intensively.

Farming

Dairying and raising poultry were two major agricultures in Fairfax County on another side of Cameron Run.

They were in business until the 1940s when rising land value under the pressure of urban and suburban growth began to encourage farmers to sell their land and move elsewhere.

During World War II, Cameron Station was constructed as a military transfer and distribution depot in 1941-1942. As a result of the construction, Cameron Run, Holmes Run, and Backlick Creek were altered. Cameron Station was converted primarily to administrative services after the war.

In the 1960s, Eisenhower Avenue began construction. Following the completion of Interstate I-95 in 1965, the City of Alexandria and Fairfax County agreed to establish the municipal boundary on the highway, and the city began a six-year flood control project channelizing Cameron Run. With that project, the area became suitable for commercial development. For example, the Hoffman Center, consisting of 1 million square feet of office space, was built between 1968 and 1972. Other commercial developments were to follow during the late 1970s and the 1980s. These were located in the east of the Avenue. The Metro line was extended to King Street Station in the late 1980s and then to Eisenhower Avenue Station. Van Dorn Street Metro Station was completed in 1994.

The 1974 Consolidated Master Plan reported, “The Eisenhower Avenue West area was identified as a development potential area. It was recommended for continued industrial uses, and relocation of industrial uses from other part of the City to this area was encouraged.”⁷ In other words, this area has been re-arranged by changing needs of the evolving city. Since the founding of Alexandria, this area has been accommodating ‘migrants’ from the urban center, which are programs alien to the center.

(left) King Street Metro Station
(right) Aerial photo in 1974. Eisenhower Avenue West area is seen at the top and Hoffman Center is seen at the bottom.





map of 1941:

Industry

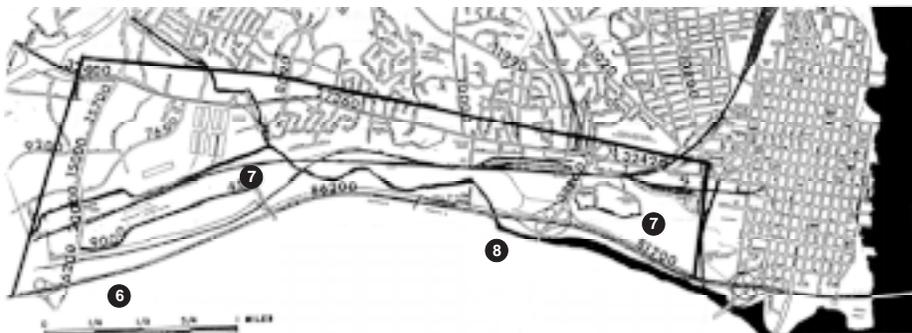
There were some industries served by the railroad spur in the south of Little River Turnpike, and some dwellings were dispersed along it as well.



map of 1949:

5 Cameon Station

A military transfer and distribution depot was constructed in 1941-1942.



map of 1972:

6 Highway

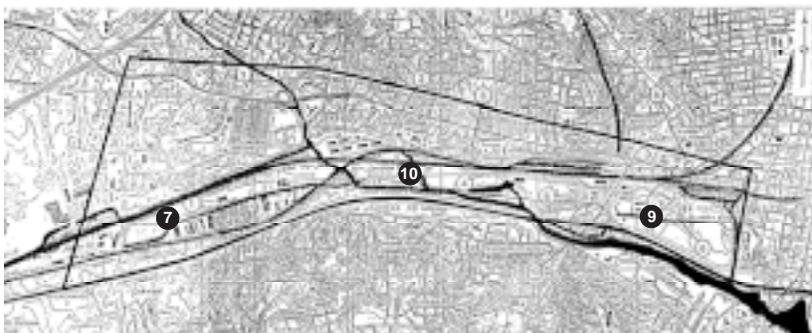
Federal Highway Act of 1956 led to the construction of I-95, that was finished in 1965.

7 Eisenhower Avenue

It began construction in the 1960s.

8 Cameron Run

Cameron Run Flood Control and Channelization Project completed during the late 1960s and the early 1970s.



map of 1983:

9 Hoffman Center

Office buildings were built between 1968 and 1972.

10 Cameron Run Regional Park

It was built along Eisenhower Avenue. Two sides of the Avenue had not connected.



map of 1992:

11 Metro Line

Metro Line was extended to King Street Station in the late 1980s.

5 Cameon Station

It is no longer in use. But it will accommodate 2,500 housing units in 2002.

12 Carlyle Development

It will be built over 20 years on the previous railroad trackage, about 82 acres.

Vision: mediation

Clear and Present Situation

Beltway Exit to Boost Businesses, Officials Say

Leaders Pin Hopes on Eisenhower Interchange

By Steve Bates
Washington Post Staff Writer

The Eisenhower Avenue interchange on the Capital Beltway, now under construction, will provide a major boost to business in the Eisenhower Valley, according to business and government leaders.

"This interchange will bring to the Eisenhower Valley the pop R needs for its economic development," said Bob Buchanan, president of the Eisenhower Avenue Public-Private Partnership, an alliance of business and governmental leaders created in 1994 to promote the four-mile-long highway corridor in western Alexandria. It currently is dotted with warehouses, factories and offices.

The project also will ease congestion on "the overly stressed" Van Dorn Street and Telegraph Road interchanges, said Virginia Transportation Commissioner David R. Gett.

The interchange, projected for completion in September 1997, has an interesting past. Conceived in the 1960s, debated heavily in the 1970s and finally approved in the 1980s, it has been controversial for many of its formative years.

Ground was broken officially on April 29, 23 years after the City Council first formally requested that the interchange be built and more than 30 years after the late Dayton Cook, the city's longtime public works director, began lobbying for its construction.

"If anything, this project represents persistence," said MayorERRY J. DONLEY (D) at the groundbreaking ceremony.

The interchange—the first new one on the Beltway in more than a decade—will not allow automobile access to and from the residential Fairfax County neighborhood immediately to its south because of years of opposition from Clerrmont Woods residents.

To the north, it will connect only to Eisenhower Avenue, in part because of community opposition to providing direct access north from that point to the heart of the city.

Motorists using the new interchange will have to drive east or west on Eisenhower Avenue. Initially, drivers whose destination is anything other than a three-mile stretch of the avenue between Van Dorn Street and Telegraph Road probably wouldn't use the interchange unless the interchanges at those two locations are backed up.

It is possible that the city government will build a connector road from Eisenhower Avenue to destinations in the more populated parts of Alexandria. A tentative alignment is on the city's planning maps. But area motorists shouldn't hold their breath.

The four alignments suggested by

See INTERCHANGE, Page 5, Col. 1

Officials Say New Beltway Exit Will Boost Businesses

INTERCHANGE, From Page 1

State transportation officials were unacceptable to many Alexandria residents and politicians.

They would have sent through traffic from the Beltway onto already-busy streets, and quiet residential areas, or would have crossed Cameron Station, which was an army military base only last year.

The fifth alignment for a connector, favored by city officials, would run north from Eisenhower Avenue near the existing Van Dorn interchange.

Some city officials say privately that they wouldn't mind if everyone just forgot about a connector road. However, identifying such a connector was crucial to obtaining state and federal approval of the Eisenhower Avenue interchange. The federal government will provide 80 percent of the estimated \$8.3 million cost of the project.

State officials say the Van Dorn interchange handles 35,000 vehicles a day and the Telegraph interchange carries more than 62,000 a day. The Eisenhower Avenue interchange is projected to handle about 14,000 vehicles on a typical day.

During construction, shoulders on the Beltway in the construction area will be narrowed or eliminated.

The sound barriers on the south side of the Beltway at the Fairfax County border will be moved a short distance to the south.

"There should not be any impact to Beltway motorists other than slightly narrowed lanes," said Joan Morris, a Virginia Department of Transportation spokeswoman.

The short road that will link the Beltway with Eisenhower Avenue, formerly Clerrmont Avenue, will be widened to five lanes. One lane in each direction will be designated for both motorists and bicyclists, Morris said. The road has not yet been named.

Washington Post, 5 May 1986

The City of Alexandria has reserved the Eisenhower Valley area as a growth area for some time. Now the area is seeing a few of new changes such as a couple of residential developments, Carlyle development, and the Eisenhower Avenue Connector interchange on the Capital Beltway I-495.

First of all, the housing development influences here significantly not only because there were hardly any houses around until now but also because this much residential use defines an image of the area and fixes future use of the area. According to the City of Alexandria 1998 annual report, there are 62,724 housing units for 119,500 population. But the number of housing units proposed along Eisenhower Avenue comes up to 3,915; this is approximately 7% of the existing units.⁸ This area is getting the basic ingredients to become 'city.' But it could become anywhere or nowhere without any action.

Second, this exit will create a major node on the Avenue and boost businesses due to easy accessibility to the Beltway. The economical pressure will bring high-density commercial developments of multi-level office buildings rather than the existing one-story warehouses. It would lose its old character of area of flexibility.

But for Alexandria's evolution, it should retain the potential or possibility to house some noisome and land-expansive programs, which do not fit with the rest of the Alexandria. Also a metropolitan area needs to keep its backyard to store goods near by. The backyard incubates new enterprises. This is a moment for architecture and urbanism to work to mediate the conflict between the existing programs and the coming programs and also to retain potential of the land. An urban proposal should consider designing urban landscape as its own goal and not as a by-product or leftover of architecture and urbanism.

Carlyle development proposal



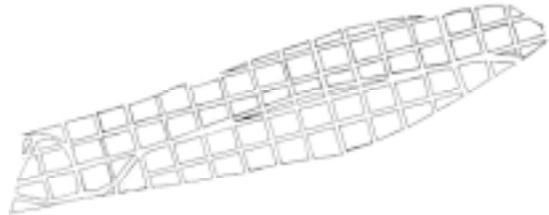


Manipulation of Density

This Nolli map of 1748 shows a glimpse of life in Rome. Width of the streets, connection of open spaces of various size, and shape of blocks suggest where to walk, eat, and shop. This two dimensional representation of the city is so talkative that we can almost experience it. Density of possible activity starts talking its own language by our visual imagination. To understand the potential of the study area I applied several city forms to the area with one condition that was to treat Eisenhower Avenue as a main street.



Existing street



Old Town, Alexandria: 400' x 300' grid



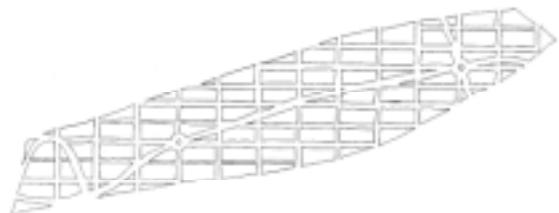
Fairfax County: single-family housing



Washington D.C.: 500' x 250' grid type A



600m (2,000')

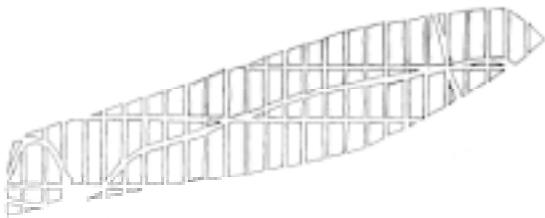


Washington D.C.: 500' x 250' grid type B





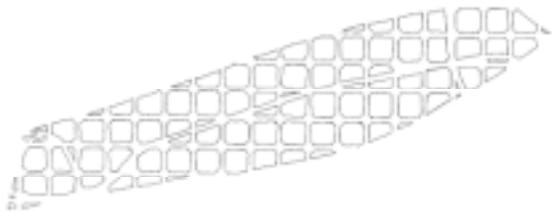
Existing condition



New York: 900' x 250' grid



Ginza, Tokyo: Central Bussines District



Barcelona: 100m x 100m grid (Cerdà Block)



Aoyama, Tokyo: 'uptown'



Paris: 400m x 400m grid (Le Corbusier, 'Plan Voison,' 1925)



Ueno, Tokyo: 'downtown'



Schemes for a Linear City

Linear cities

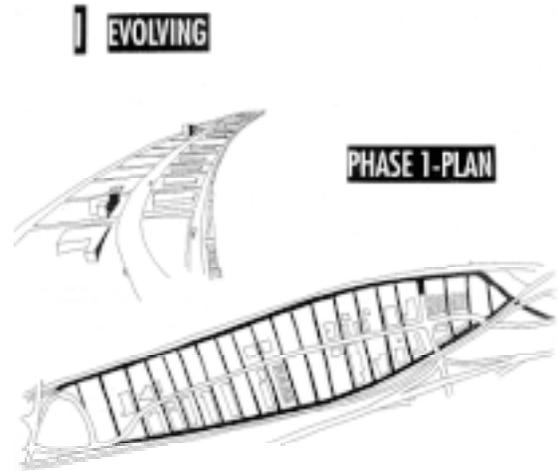


A Japanese linear village

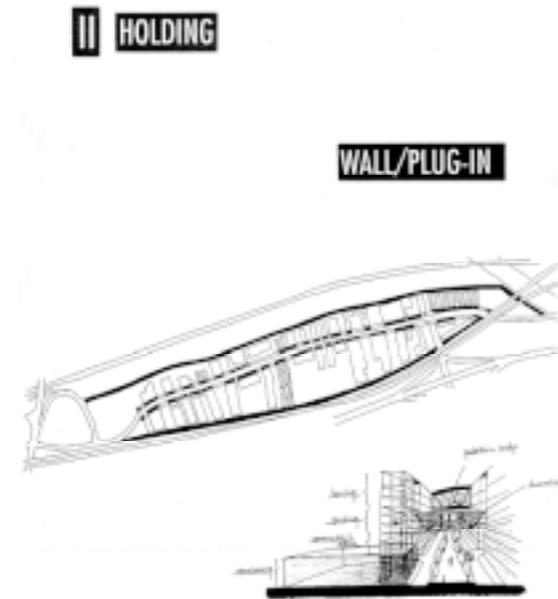


Vézely, France

Urbanisation de la ville d'Alger, Le Corbusier (1930-42)



Scheme 1-phase 1
Laying down a street pattern to generate accessibility to the available building sites.



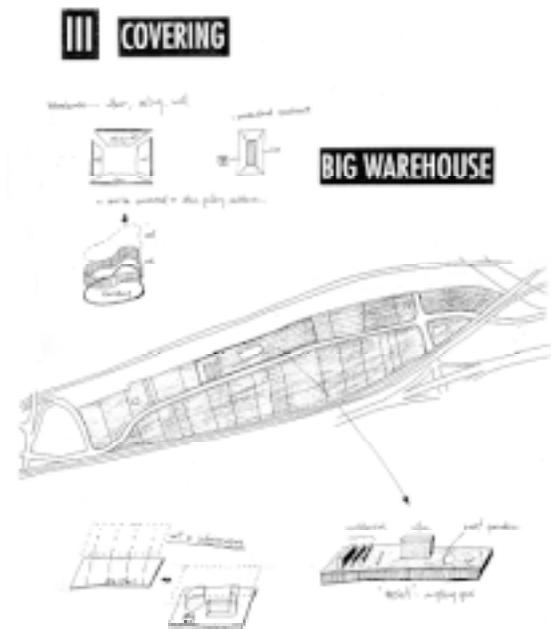
Scheme 2
Restricting office and residential use along the avenue. Permitting the warehouses to 'plug-in' to the 'wall.' Big-box retail such as Wal-Mart and Home Depot are welcome.



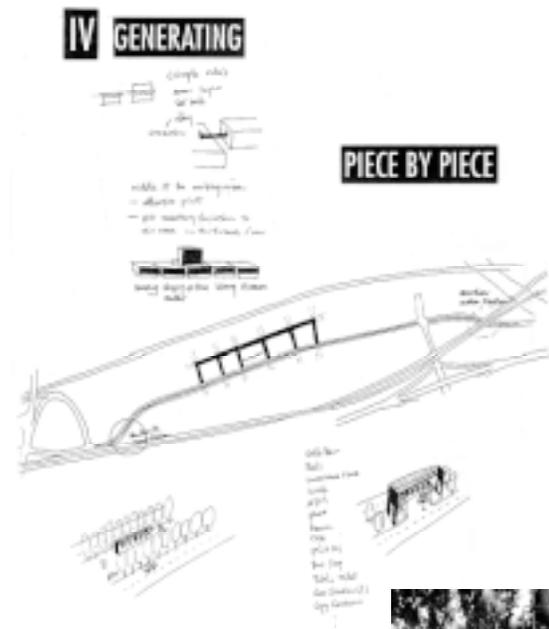
Scheme 1-phase 2
Limiting the office and residential use in the 'wall' to leave warehouses in the back and to create urban density in the front.



Scheme 1-phase 3
Encouraging intense development at points to save warehouse area when more building site is needed.

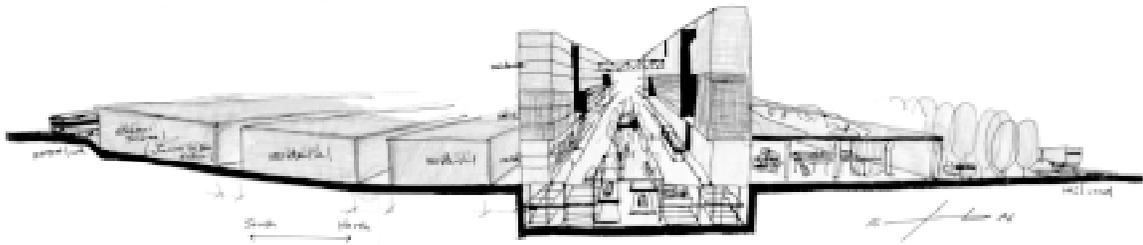


Scheme 3
Utilizing the unused surface, the roof. It can be a sport ground or a park.

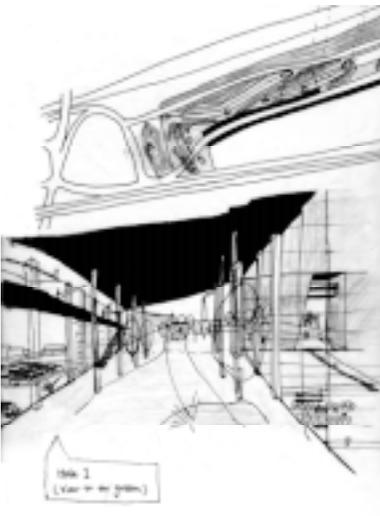


Scheme 4
Unfolding a street pattern from an effective points with stimulating programs. A simple rule makes complexity. Pedestrian path runs like Las Ramblas in Barcelona.

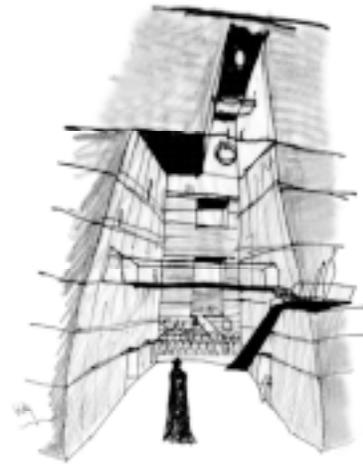




Considering the southern side of the 'wall' as a residential area and the northern side as a warehouse area. Combining scheme II and III as well.

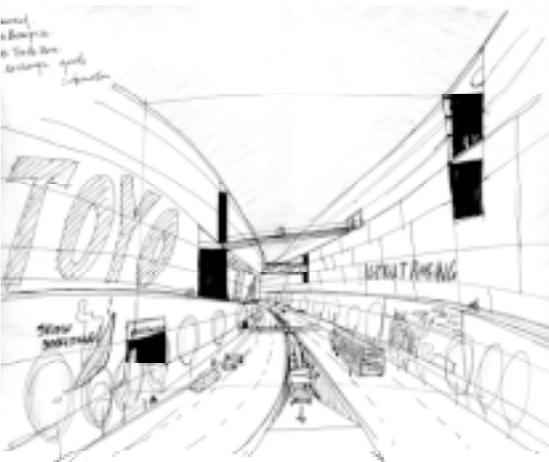


What if we have a golf course on the roof? View from the 1st hall's green. But there was not enough area to built a full course.

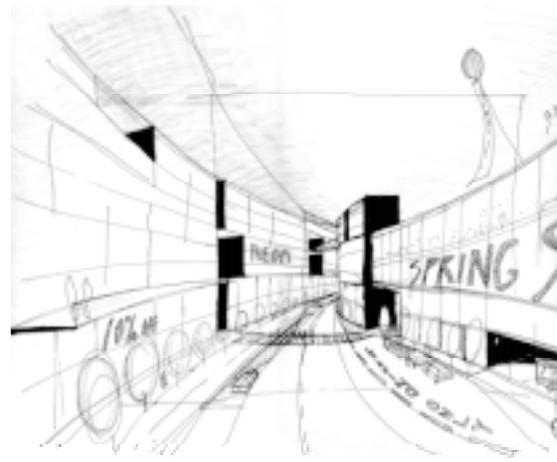


View to the other side of the 'Wall' through an opening.

View in the corridor.



View of the corridor at Van Dorn Metro Station.



**Scale comparison
between singular scale
and collective scale**



Euralille
Lille, France,
Rem Koolhaas/OMA



Kansai Airport
Osaka, Japan,
Renzo Piano



Singular scale:

WAAC
Alexandria, Virginia
USA

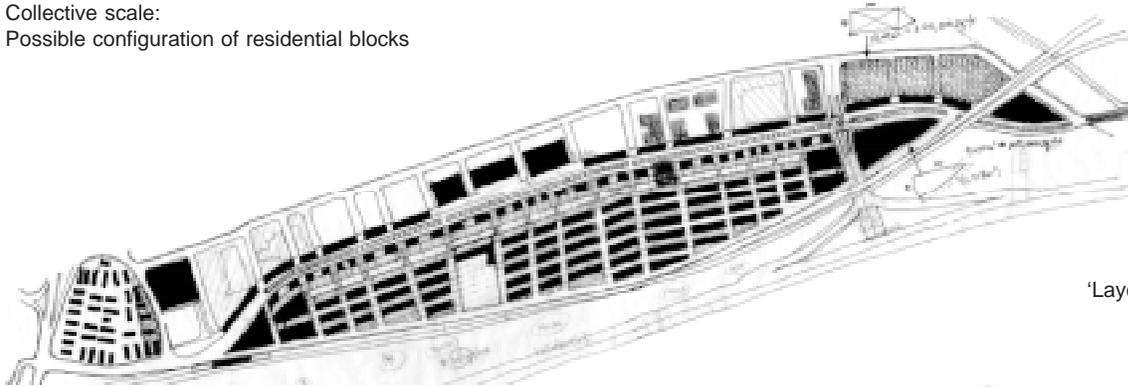
Tokyo Forum
Tokyo, Japan,
Rafael Vinoly

Norte Dame de Paris
Paris, France

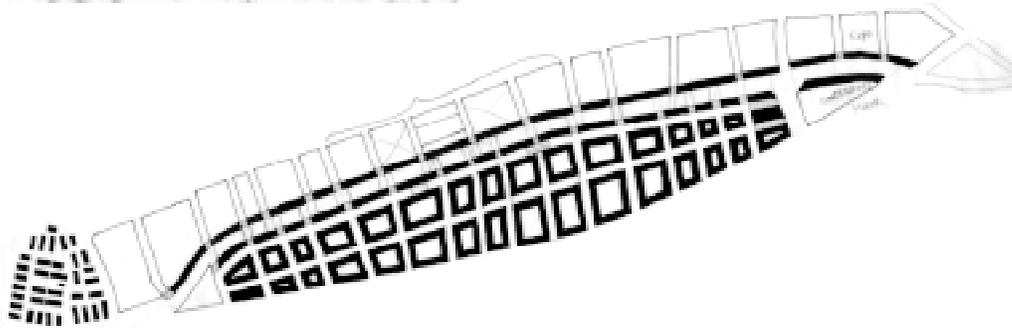
Khufu Pyramid
Giza, Egypt

600m (2,000')

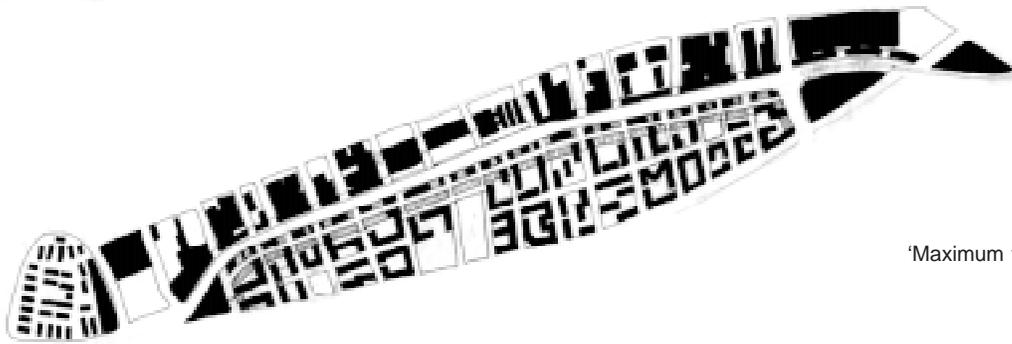
**Collective scale:
Possible configuration of residential blocks**



'Layer'



'Block'

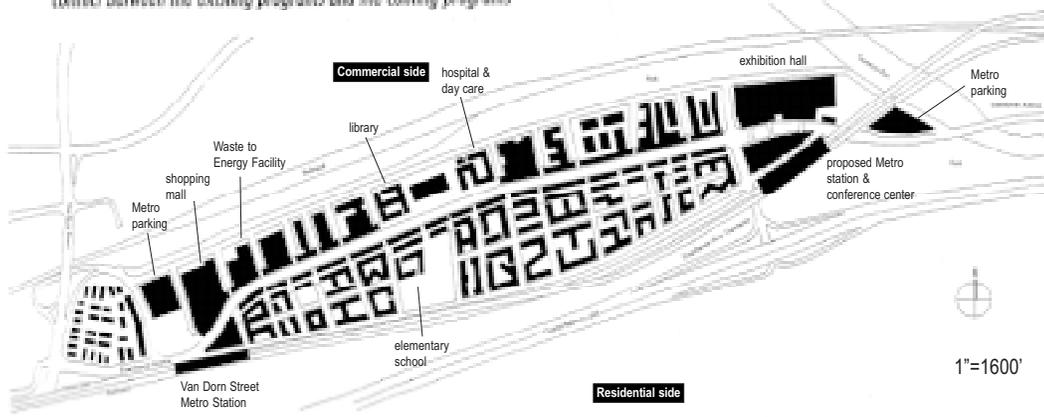


'Maximum freedom'

First Proposal

Problem: Developing without mediation

conflict between the existing programs and the coming programs

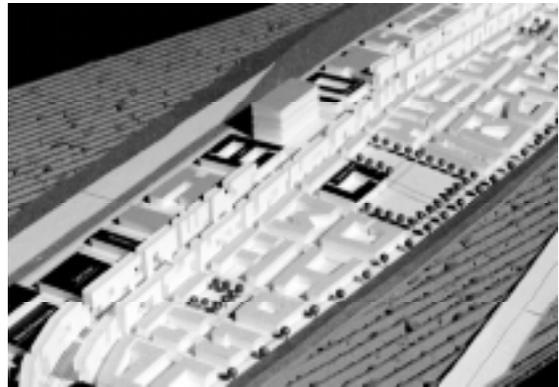


1. Organizing it densely along Eisenhower Avenue. Making an urban room.

2. **Two centers** at the both ends of the line, combined with Metro stations. One is for shopping and the other is for business.

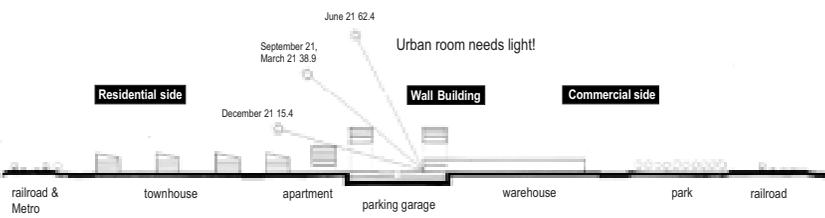
3. **Wall Building**, hybrid of retail, office, and residential, is a **plug-in** interface for any programs.

4. Minimum of structuring elements and rules allows maximum freedom for development. **Simplicity makes complexity.**



Goal: Retaining potential of the area

making a city form allowing future re-writing of programs



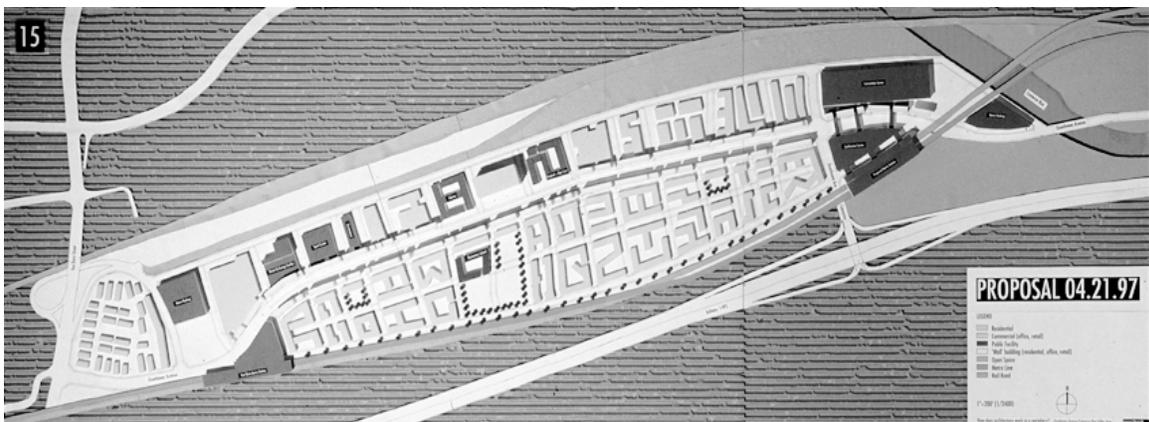
Sectional diagram 1"=400'



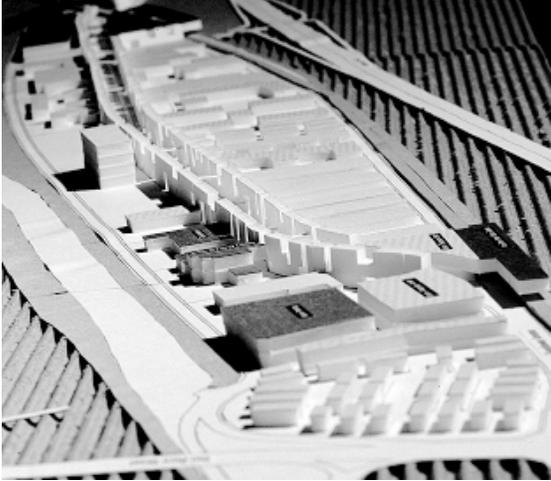
Wall Building facade 1"=800'



To create enough urban density this proposal included residential area in the south side. The play of light and shadow by the opening was successful. But the proposal went too far from the original intention that searched for an appropriate urban form in a volatile area. It conjured up an image of great stability which precluded a “re-writing of programs.” The residential side was suggesting scale and density of Neo-traditional town development ideas. At this point, I reoriented myself back to the older schemes and considered the existing warehouses area not as a sort of tabula rasa, but as the given condition.



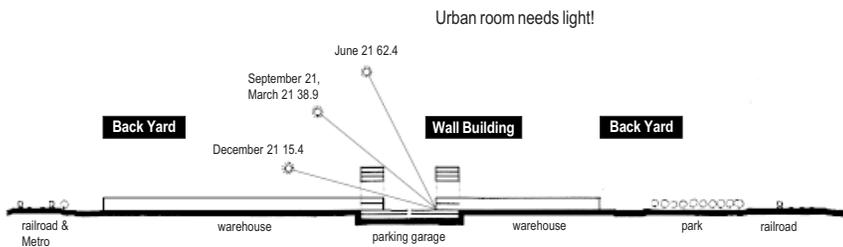
Final Proposal



This isolated 'island' will never be leftover anymore. The strong border and isolation become significant character of the area. Its advantage of compactness provides a whole range of living, working, and leisure facilities in the small area. People live and work at the same place. This counters the current sprawl at the periphery of cities.

The Wall Building runs on both sides of Eisenhower Avenue. It contains hybrid programs with residential, office, retail, and recreational. The play of light and shadow by the openings creates a memorable face to the area. The Wall Building is inserted in the existing 50 feet setback in front of warehouses, and becomes a plug-in platform to retain potential for later development in the Back Yard.

- 
 1. Organizing it densely along Eisenhower Avenue. Making an **urban room**.
- 
 2. **Two centers** at both ends of the line, combined with Metro stations. One is for shopping and the other is for bussiness.
- 
 3. **Wall Building**, hybrid of retail, office, and residential, is a **plug-in** interface for any programs.



Sectional diagram 1"=400'



Wall Building facade 1"=800'



The Back Yard area would be an appropriate for small to medium size companies manufacturing bicycle, clothing, watch, and printing. The proposal is to encourage interaction between businesses and promote exchange of both resource and information among the area in order to take advantage of being in the vicinity. Imagine if somebody who wants to make a product could collect the resource from right next door and make it happen at that very moment.



The Wall Building is the first threshold to meet a small world, Eisenhower Avenue corridor. Both ends of the corridor are the second threshold to meet a big world. The western end has Van Dorn Street Metro Station with a shopping center and the eastern end is equipped with a convention and conference facility by the new Metro station. Both ends of the axis anchor starting points for whole proposal and attract investment to carry the Wall Building development.



Each Wall Building will be designed by individual architects but follows the idea considering Eisenhower Avenue as one large room with a lot of openings in the 'Wall.' This action will acquire a clearly recognizable collective image even if each building has unique features. This approach differentiates the area from the modern city's typical periphery by creating a distinctive character to be remembered. Eisenhower Avenue West will no longer be a place where the streets have no name.



