#### BUILDING THE URBAN FIELD IN SEATTLE: A Neighborhood

by Albert (Pui Lam) Kong B.S., University of Washington Seattle, WA June, 1991

# SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF ARCHITECTURE AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY FEBRUARY 1995

(c) Albert Kong 1995. All rights reserved.

The author hereby grants to M.I.T. permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part.

Signature of the author	IN COLLE	
	Albert (Pui Lam) Kong, Depa	
		January 18 1995
Certified by		
		Imre Halasz
	Pro	ofessor of Architecture
		Thesis Advisor
Accepted by		
		Ellen Dunham-Jones
Chair	person, Departmental Committee	on Graduate Students
	Rotch	

MAR 21 1995

MAGRACHUSETTS INSTITUTE OF TECHNOLOGY

LIBRARIES

#### BUILDING THE URBAN FIELD IN SEATTLE: A Neighborhood by Albert (Pui Lam) Kong

Submitted to the Department of Architecture on January 18, 1995 in partial fulfillment of the requirements for the Degree of Master of Architecture.

#### **ABSTRACT**

This thesis begins with the observation that urban forms are more than a simple sum of individual buildings. A way of knowing and working with an architecture of the city is through its spatial pattern. The spatial patterns of modern cities are to a large extent impacted by systems -organized systems of circulation for cars and people, as well as ownership. This thesis attempts to explore an architectural-urban design through a method designing overlapping systems that respond to the site.

Thesis Advisor: Imre Halasz Title: Professor of Architecture

## **Table of Content**

	Page
List of Illustrations	5
Introduction	11
Pike Place Market	13
Development of Seattle and Lake Union	17
Illustrations:	
Site Panoramas	21
Existing Conditions	25
The Existing Situation	35
Polarity in the Site	36
Zones	38
Overlay Patterns	41
Experiment in Form Construction	42
Site Intervention	43
Conclusion	47
Illustrations:	49
Type Definitions	51
Local Interventions	58
Oversized Illustrations	81
Illustration Credits	108
Bibliography	109

#### Acknowledgements:

A thesis is not the culmination of a semester's work, but only a short accumulation of experiences and explorations. Neither is it the work of an individual, but only one perspective that is developed over time, over discussions and arguments...over wine, and over food with others. So, my claim to authorship can only be limited to the depressions of a few computer keys and ink lines on the following pages. Thanks to all my friends who are my family away from home; it is from them that I've learned the most:

Amin Ahmad Kari Kimura Luis Lopez Shawn Roth Kathleen Shaeffer John Sih

Special thanks to:

Imre, my advisor, for direction and support;

Maurice, my reader and teacher, who taught me practically everything I know and more;

Christina, my reader, for clear insights I never thought of.

January 16, 1995

### LIST OF ILLUSTRATIONS

Plate		Page
1.	Pike Place Market	14
2.	Early Map of Seattle	16
3.	Denny Regrade	17
4.	Mercer Street looking West	30
5.	Denny Way looking West	31
6.	East Neighborhood Playground	34
Figure		Page
1.	South Lake Union Site: N to NE	21
2.	South Lake Union Site: W to N	22
3.	South Lake Union Site: S to W	23
4.	Existing Site: City-Wide Context	25
5.	Existing Site: Topography	26
6.	Existing Streets	27
7.	Block Type in the Existing Site	28
8.	Existing Site: Street Types	29
9.	Existing Site Barriers	30
10.	Existing Site: Boundaries and Barriers	31
11.	Existing Site: West Neighborhood	32
12.	Existing Site: East Neighborhood	33
13.	Street Types (i)	51
14.	Street Types (ii)	52
15.	Block Types	53
16.	Pedestrian Access	54

#### List of Illustrations

17.	Interior Block Access	55
18.	Edges and Semi-Public Territories	56
19.	Intervention: Site Design	57
20.	East Neighborhood Site Zone Definition	58
21.	East Neighborhood Characteristics	59
22.	East Neighborhood Site Streets	60
23.	East Neighborhood Site Street Types	61
24.	Block Type A in East Neighborhood Site	62
25.	Block Type B in East Neighborhood Site	63
26.	Block Type C in East Neighborhood Site	64
27.	Re-Oriented Parcels in East Neighborhood Site	65
28.	E-W Interior Access in East Neighborhood Site	66
29.	N-S Interior Access in East Neighborhood Site	67
30.	Pedestrian Access and Park in East Neighborhood	d Site
		68
31.	East Neighborhood Site Perspective	69
32.	West Neighborhood Site Zone Definition	70
33.	West Neighborhood Characteristics	71
34.	West Neighborhood Site Streets	72
35.	West Neighborhood Site Street Types	73
36.	Block Type A in West Neighborhood Site	74
37.	Block Type B in West Neighborhood Site	<b>7</b> 5
38.	Block Type C in West Neighborhood Site	76
39.	Re-Oriented Parcels in West Neighborhood Site	77
40.	E-W Interior Access in West Neighborhood Site	78
41.	N-S Interior Access in West Neighborhood Site	79
42.	Pedestrian Access and Park in West Neighborhoo	d Site
		80

## Oversized Pages (11 x 17)

<b>4</b> 3.	Existing Site: Map	83
44.	Existing Site: Detailed Street Map	85
45.	Pike Place Market: Location and Site Context	87
46.	Pike Place Market: Ground Level Accessible Plan	89
47.	Pike Place Market: Access System	91
48.	Pike Place Market: Sections	93
49.	Zone Formation and Block Type	95
50.	Site: Map of Zones	97
51.	West and East Neigh. Sites Comparison	99
52.	West Neighborhood Site Detail	101
53.	East Neighborhood Site Detail	103
54.	West Neighborhood Site Sections	105
55.	East Neighborhood Site Sections	107

		·

#### Introduction

Cities are still important places even amidst the age of decentralization: in governments, in global capitalism, and even "cyberspace". Today, abundant opportunities exist that could spell disaster for the survival of cities. Yet, cities continue to play an important economic and cultural roles in our lives. Economic growth in the U.S. are often measured interm of city expansions, whether it is from the push of economic problems from nearby states, or by the attractive forces of economic growth.

Growth in the urban fringes presents problems at many levels of examination: farmland and natural resource consumption, increasing use of fuel that result in more pollution, and now more visibly, the spatial imbalance of wealth which contributes to social problems. For those reasons and more, much efforts in the Western U.S. has been directed toward urban redevelopment that would preserve the current balance of 'town and country.' In the West, and particularly in Seattle, growth has been a major concern; where the difference between city and nature is abrupt and nature in the everyday lives of people still matter.

Let the complex problems of urban redevelopment be oversimplified for the moment, to the technical how's of finance and engineering, and pose the more interesting questions about cre-

1

ating place. This thesis is about making place in the city. It is about the making of a city in a capitalistic post-industrial age where legal codification takes the place of "social agreements" of built forms; where information is the new commodity, more valuable than product or gold. The question is: where can an architecture of the city be in all of this? Where social agreement is rare and individual rights is the norm. This is one exploration, at times a personal one, of what an 'architecture of the city' means: if architecture is about defining territories for use, with the intention for creating place, then there can well be an architecture of the city.

#### Pike Place Market

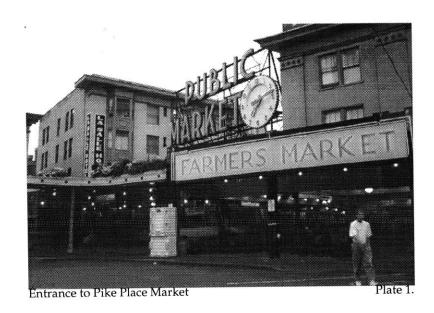
Figure page Pike Place Market is a collection of buildings and semi-closed streets that houses a farmer's market. It resides in several blocks, overlooking the Seattle Waterfront. Preserved from an attempt in urban renewal in the 1960's it is a vibrant place today attracting tourists and Seattle residents alike. It typifies Seattle as the premiercity of the Northwest, a setting for a dramatic exchange between nature and urbanity.

**45** 87

Its special character comes from the slight inflected directions of the street grid and the rupturing gash, the change in grade. Those two features provided a sort of skeletal frame for a rich and distinguishing environment. Both kinds of irregularities natural and man-made can be found in the Lake Union area thesis site. The Market present is a compelling example to learn from.

What can be deduced from Pike Place Market must surely be tempered. After all, the Market is small and confined part of the city. What meaning does the spatial organization and form of an old farmer's market have for the design of a city? One response is that the quality found in the Market can be brought into the ordinary, everyday life of the city. Another is an opportunity to learn about form; to see relationships and applications beyond the confinement of defined categories.

The Market occupies the remnant of a steep bluff dropping



West toward the Seattle Waterfront. Perched more twenty feet above Puget Sound it has the advantage of un-obstructed views of the Olympic Mountain Range and Elliot Bay. This is where the natural landscape meets its urban, man-made counterpart. The Market owes its shape and layout to urban and natural interruptions. Streets end where they should have continued in accord with the grid; block perimeters are truncated into odd, trapezoidal shapes; buildings are misaligned from their neighbors across the streets; there are streets where there should be buildings, and the other way around. Post Alley, just an alley becomes a pedestrian path fronted by stalls and shops; and one edge of Pike Place has been covered, becoming the inside of the farmer market; interstitial spaces between buildings are sequestered for the semi-enclosed market and became a part of a lace-like pattern of pedestrian network. These are spatial re-interpretations of arrangements and use; possibilities offered by intersections between the landform and the city.

48 93

45 87

46 89

**47** 91

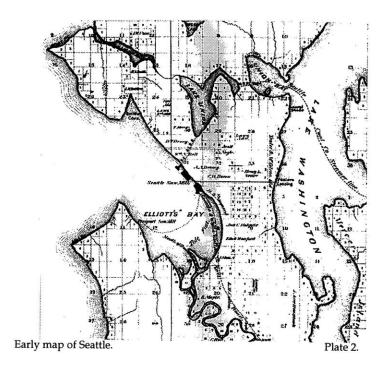
These oddities of space and use continue into building interiors

**47** 91

where the pedestrian system continues through the block. Visitors entering one end find themselves exiting the other end of the block, from a different building altogether.

**47** 91

The Market is composed of complex patterns at many scales. The territory of the block defined by streets are further defined by the many ways that it may be used. Blocks are divided into territories (parcel lots) upon which individual buildings are built; however, the continuity of the interior pedestrian network defies that division. Alleys are major block elements; yet they also present the opportunities for a life of their own. Post Alley in the Market is a spine of activities. (Of course, the Market is owned and managed by a single organization which has a great impact on its form, but the perspective here is about form and place-making qualities.) Thus, all the parts in the Market (Post Alley, interior / exterior / semi-enclosed pedestrian paths) each contributes something to the whole. Every 'part' is a pattern; and the patterns overlap to construct the whole. This is an essential lesson from Pike Place Market for this thesis.



The Development of Seattle and Lake Union

Despite Lake Union's prominence in the North, this small valley-like topography is strewn with warehouses and other light industrial buildings. They are situated to serve Downtown a short distance to the South. The site's other vital function in the city is to distribute traffic between the two major freeways nearby. Today, this situation is a peculiar fulfillment of Virgil Bogues vision for the site and for Seattle, in 1911.

**4** 25

Bogues was a civil engineer commissioned to produce a Master plan for the city. He envisioned the present site, the area South of Lake Union, as a hub of exchanges, between people and the leaders of a would-be civic center; and between North and South



Plate 3.

Seattle as a geographic center. Seattle is narrowly bounded by bodies of waters -to the West by Elliot Bay and the East by Lake Washington. The resulting landform forces the primary freeways in a North and South direction. Another 'troublesome' features of the city are the vast hills, remains from the region's glacial past. The site is in a valley bounded by two hills, homes to two of Seattle's neighborhoods.

5 26

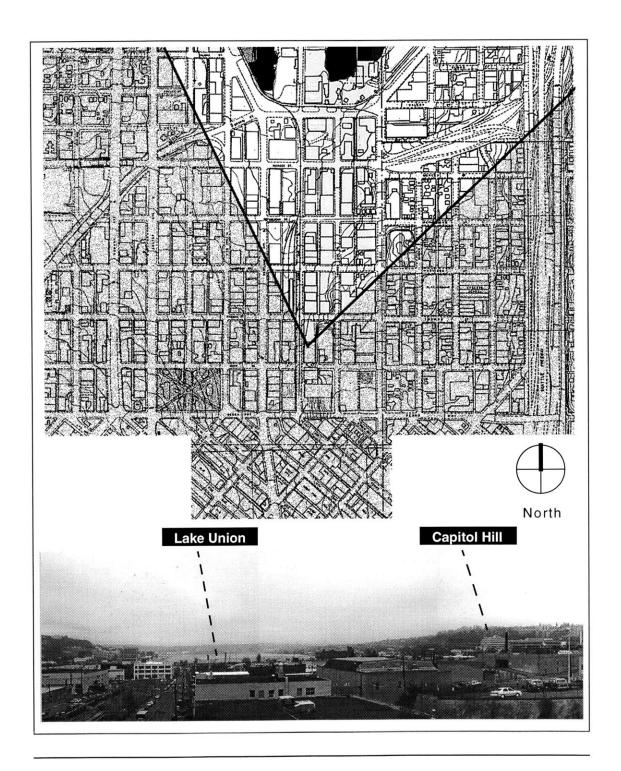
Bogues did not foresee the importance of automobiles which necessitated vast networks of arteries; but he did see the site with a structured eye. It would become the city's transport hub and civic center, a civic heart in metaphoric term as well. It would be a staging point for mass transportation (rail and electric trolley) and the new Civic Center would be well positioned to take that into account. It would be a proud Center for a young city, a civic proclamation distinct from Downtown.

The regrading of Denny Hill, which took place only seven years before the unveiling of Bogues Plan, transformed 62 blocks of steep grade into valuable real estate. With every heap of Denny Hill dirt sluiced in to Puget Sound, Seattle Downtown's extension northward came closer to fruition. The city could grow without hindrance; but it would never happen. The Regrade area, as it is known today, is a blight of sort; valuable for its parking capacity near Downtown. Neighborhoods near Lake Union today may be very different if Denny Hill had been spared. By the 1890's, outlying areas surrounding Downtown were being suburbized. The Eastern part the site was home to the city's mansions and humbler dwellings; today the neighborhood survives only in fragments: St. Spiridon's Russian Orthodox Church and Immanuel Lutheran Church still serve the community. For Downtown businessmen at the time, the decision to regrade Denny Hill as an economic one; it created cheap, easy access to print shops, warehouses, distributors and other requirements of city commerce. But the decision was not a positive contribution to neighborhoods or community in general.

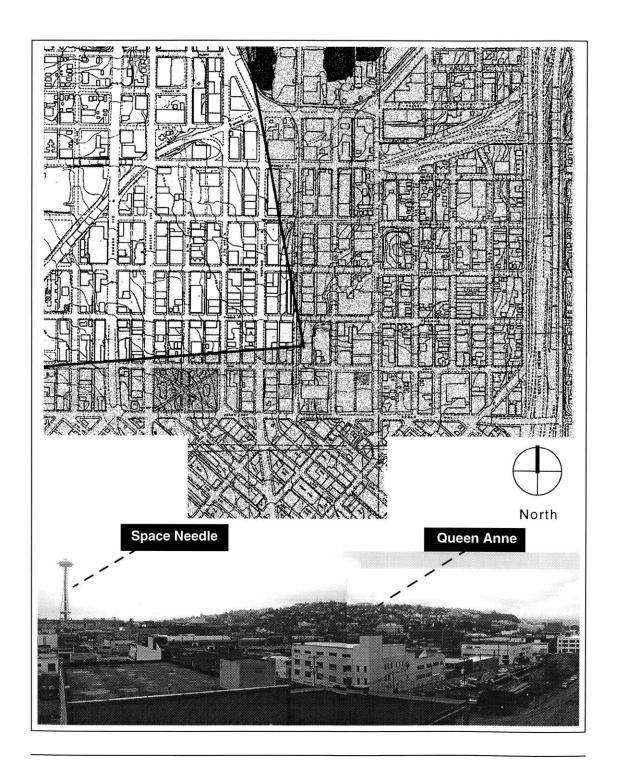
By 1916, the boundary of lakes and streams that separated town from frontier had drastically changed. It was no longer an imaginative border, but a route for industrial production. This was the year that Boeing began airplane production on the Southern shore of Lake Union . Boeing employed new graduates from the University of Washington, which had moved from Downtown decades earlier to the North of nearby Union Bay. At the same time, the Washington Ship Canal which connected Puget Sound with Lake Washington through Lake Union, began operation. Lake Union and Salmon Bay areas no longer represented the peripheries, but are activated and occupied by industry. In the 1870's Lake Union was a geographic divide; lumber towns such as Ballard and Brooklyn were outside its limits. By

the early 1900's, many of those settlements became part of Seattle. Lake Union changed its nature to become a cohesive element in the city, important for its economic function. Its shores like the surrounding areas were developed. The conflicts of an industrial economy and Seattle's topography were things that Virgil Bogues tried to address in his unadopted, but visionary plan.

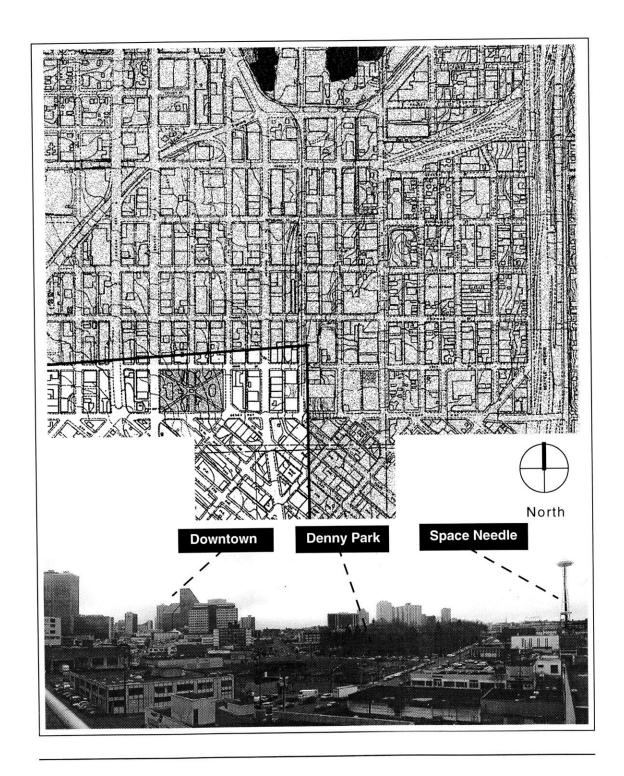
The existing site North to Northeast.



The existing site West to North.



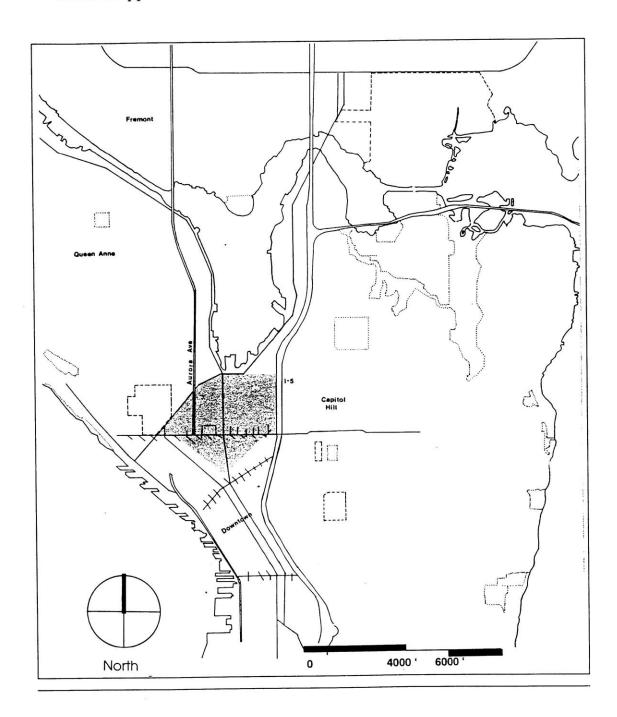
The existing site South to West.



# Existing Site: City-Wide Context

(Fig.4)

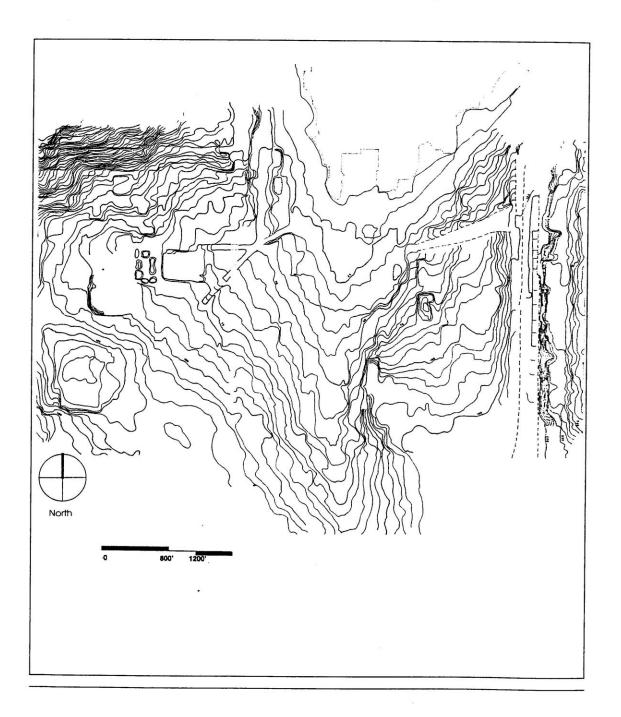
The site is favorably positioned between Seattle downtown, nature, neighborhoods, and important civic institutions. The site is nestled between two major freeways cutting through the city: I-5 at the site's Eastern boundary, and Rt. 99 which is capped at the Western end of the site.



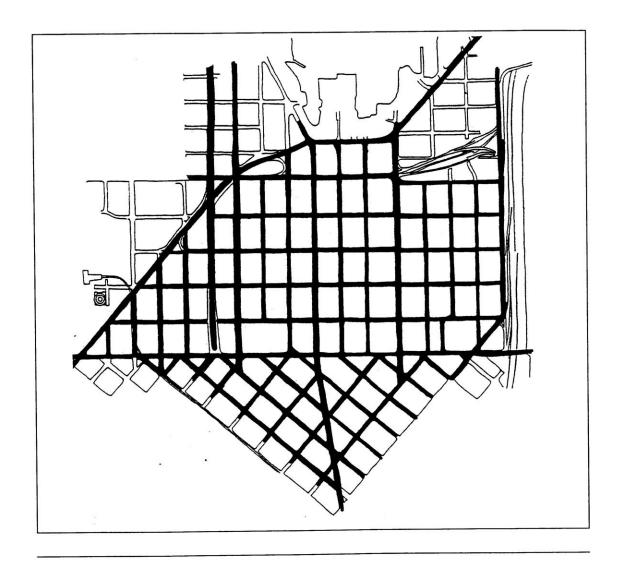
## Existing Site: Topography

(Fig. 5)

The site is situated between two major hills in the Seattle landscape: Queen Anne and Capitol Hill. The gentle slope from Downtown to the shore of South Lake Union lends prominence to the lake. Of equal importance is the steep slope at the foot of Capitol Hill which defines the site's Eastern edge.

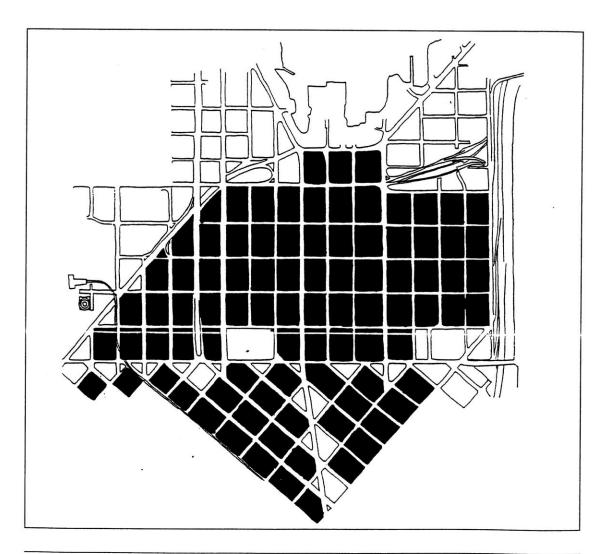


Compare this figure-ground diagram with the "Existing Block Type..." diagram; they are complements of each other. In the existing site, streets and blocks mutually and completely define each other.



The vast majority of blocks in the existing site is of **type A** (rough dimensions of 250 ' x 375'; center service access). Those blocks that have streets cutting through them are not highlighted.





# **EXISTING SITE: Street Types**

(Fig. 8)

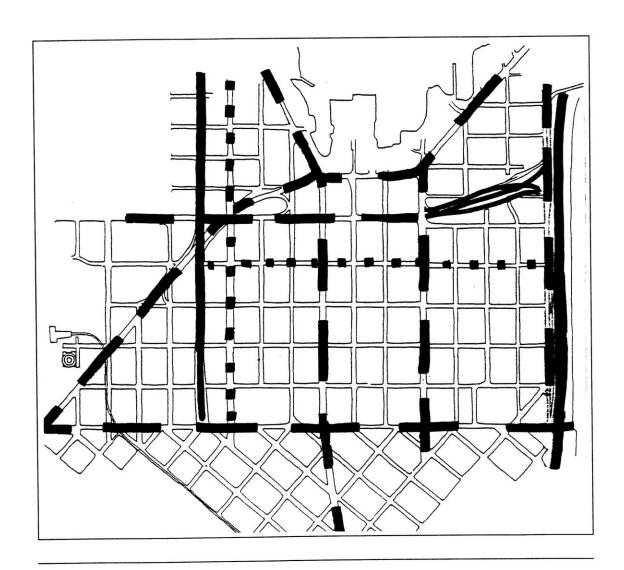
For the most part the site has four types of arterials: freeway, primary, minor, and collector.



Primary

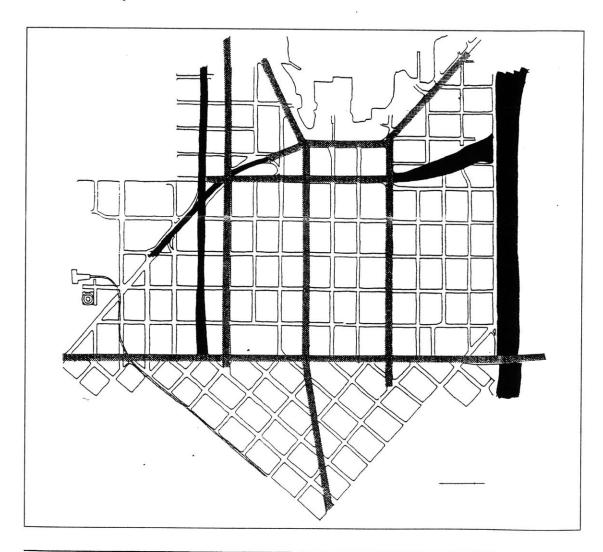
■ ■ ■ Minor

**— — —** Collector

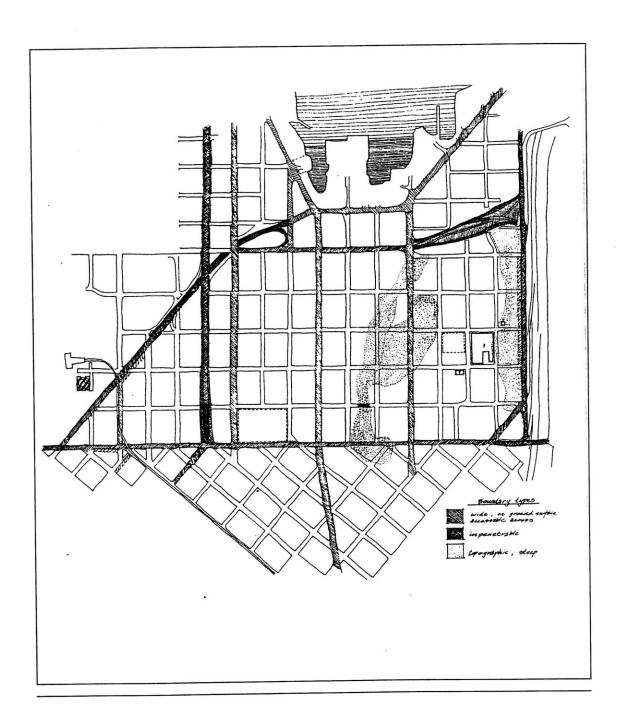


Streets or throughways in the site that impede or prevent foot or car cross-traffic.

- impenetrable / no cross access
- impeded cross access because of heavy traffic



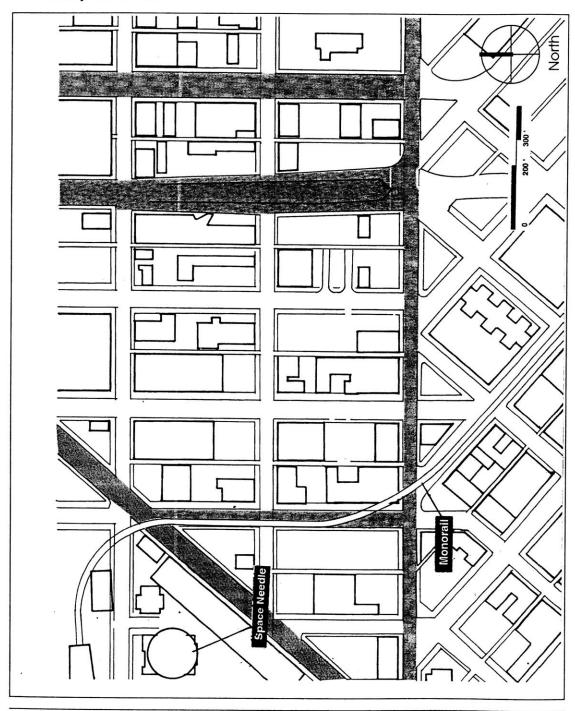
The site is fragmented into four areas by major traffic arterials; thus local characters are defined by traffic routing.



## Existing Site: West Neighborhood Survey

(Fig. 11)

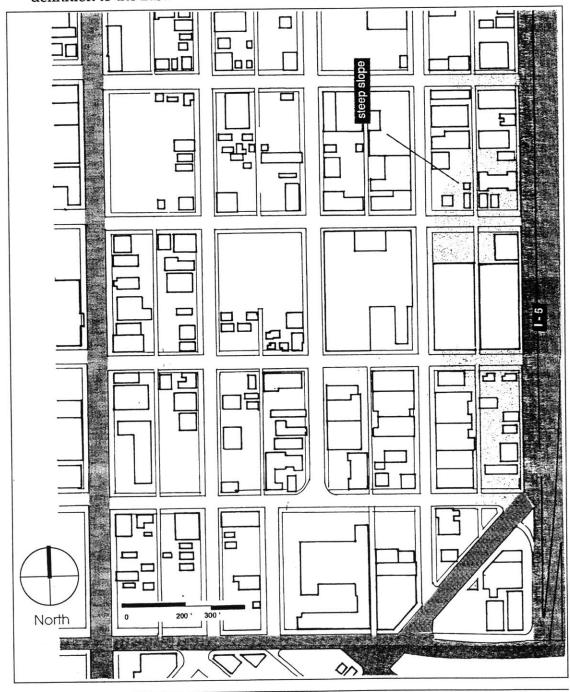
The main characteristic of the West Neighborhood Site is its segmentation by heavy traffic. However, Space Needle and the Monorail nearby gives the area identity and focus.



# Existing Site: East Neighborhood Survey

(Fig. 12)

Because, major arteries are peripheral to the site, the East Neighborhood area contain a greater number of older houses and buildings, as indicated by their smaller size. Interstate-5 freeway and the steep slope nearby is a major edge definition to the East.



#### The Existing Situation

The site is important to three kinds of traffic: 1) exchange between the two freeways, I-5 and Aurora Ave. (Rt. 99) -city wide and regional 2) traffic between the Eastside and Westside neighborhoods, and 3) traffic between north and south Seattle separated by Lake Union. Traffic exchange between two major freeways and different parts of the city requires an invasive network of roads. It created problems. The streets are built mostly for major traffic; so as consequence it impedes or prevents other modes and uses. For instance: Aurora Ave. do not allow any kinds of cross access, and Mercer Street is a major obstacle for local north-south traffic. The result is an situation that prevents the kinds of traffic and activities that neighborhoods need and depend on (cross-town, local, as well as pedestrians.) The lesson: singular purpose of major access dominate and hamper formation of other use.

Much about the site are singular and monotonous; the block system is one aspect that lends itself to this analysis. Block size and shape are formed by vehicular access. To the extent that block character influences experience, it is not a consequence of design but of chance interaction of topography and traffic.

The site under examination is bounded: to the North by Lake

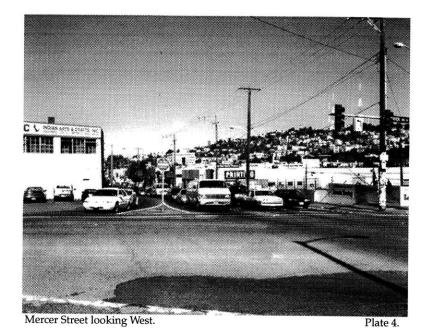
44 85

**43** 83

10 31

6 27

7 28



Union; to the East by I-5 freeway; Denny Way and several blocks to its South; and Broad Street to the West.

## Polarity in the Site

Lake Union ruptures Seattle's orderly grid. Its presence interrupts the city into North and South Seattle. Aside from impeding traffic, it reveals Seattle. The void between the opposing shores exposes the city as a skyline. The distance allow a distinct perception of the city as a place. And Seattle is made familiar with the rest of itself; the patchwork pattern of neighborhoods that occupy the landscape. The interruption exposes the physical city its layout and connections.

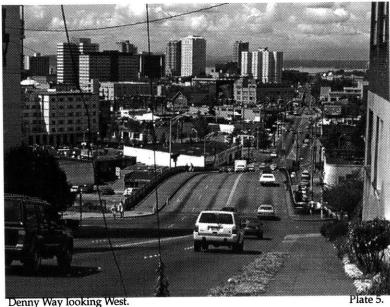
44 85

**43** 83

1 21

2 22

**3** 23



3 23

Another kind of interruption exists further South from the Lake Union shore. This is not a rupture like the one made by nature. This interruption is a disjointed meeting of two grids; one aligned North and South; the other responding to the city's waterfront. As far as the street layouts are concerned, real-estate is as immovable an obstacle as the landform itself. So, the irreconcilable dispute of Seattle's original land claims was imprinted onto the city grid.

Interruptions like the shift in the city grid also reveal the city. Building facades are exposed and projected outward by misaligned streets, closing and 'interior-izing' the space of the city. In contrast to the large rupture of Lake Union which reveal the city as an individual form, this interruption encloses space within the city. So, interruptions can have two opposing effects in the city: revelation and enclosure. They are polar characteristics occupying opposite ends in a spectrum; it is a polarity that is mirror in the site's realities and its potential. The challenge lies

in their reconciliation.

#### **Zones**

**50** 97

The space of the site is inhabited by two major kinds of zones, intended to separate areas with different intensities of activity. Intensity is defined roughly as the level of services necessary for moving goods, people, and energy for activities in a city. This means sidewalks, streets, utilities, etc. that a city requires to maintain itself as a vital place for work, production, living, and leisure. Intensity is related to density (higher density is more intense) and use (residential use requires less service than say industrial use). Only two levels of intensities are assumed for reason of simplification; otherwise methods of specifically defining, and measuring intensity becomes necessary. So, the assumption is that there are two major types of intensity relevant for this urban design: 1) one, with heavy demand on service (quick, high volume movement of goods and people at certain times) such as high density residential use, offices, or major retail centers 2) another type that demands less such as low density residential use or neighborhood type retail centers. For the first type, the term "Intense" will be used, and "Neighborhood" for the latter type of zone.

Designing within the confines of zones raises the tangent issue of scope; whether a district is region-wide, city-wide, or neigh-

borhood-wide in the role that it plays for the city. Areas of high intensity, where large concentration of people gather are usually special to the city or region is some ways. Newbury Street in Boston is a specialized retail center for areas beyond the city. Seattle Downtown is Western Washington's major financial center, important to the state. Compare that with say a small neighborhood center with a few cafes, hardware store, and a grocery store; clearly the service required to sustain it is vastly different from the previous examples.

City centers are spatially different from small neighborhoods in ways that have to do with their different nature and function in the city. But urban space should not be left to chanced use along. Intensity of activities determines not only service density, but can influences spatial character as well. Even a child can distinguish the difference between home and "big city downtown", this in an exaggerated sense is the meaning of 'spatial character'. The purposeful use of Zones is not only a device to organize activities and use, but it is also a device to create a frame-work for placemaking.

In one way, this thesis is interested in exploring spatial construction at the scale of cities; that is analogous to the building of houses. In building houses, there are definite decisions about what to put where. The meaning of pattern is about the particulars of position and element: why something is where it belongs. "Here, the pedestrian access is wider, more like a park, because the land is steeply sloped and the existing block is long. This pedestrian way becomes a small park perched on a hillside, with a view." Clearly, a city is not a house; but it is instructive to look at the similarities. Houses have different rooms (territories) for



The playground in East Neighborhood.

Plate 6.

different activities. Each room is served by particular types of systems which are independent of each other; the systems are dependent in other ways for they share the frame of the house for support. The kitchen has electricity, water, and gas but the bedrooms have only electric outlets. All the systems come together, overlapping in complicated ways to make the house; to make the house work and to make the house comfortable. There are major differences between gas pipes and electric conduits, and streets and sidewalks; the latter not only perform functionally but (perhaps) most importantly, they perform spatially.

Zones, in a sense, are like internally organized creatures that have spatial extent (continuity) that depends on its intensity of use and purpose. Intense Zones are continuous; Neighborhood Zones are contracted and localized. Neighborhood Zones define and buffer small insular neighborhood centers. Conversely, small Neighborhood Zones are the defined "privacies" in the city and the rest continue as they are.

Zones organize the site at the largest scale, but there are smaller scale organizations as well. Small collection of blocks can have a shape, direction, and extent that is different from that of the zone it is in. There are multiple levels of organizations: at the site size; at the size of a collection of blocks; and the blocks themselves has internal forms.

### **Overlay Patterns**

Spatial character of place can be constructed by weaving patterns together as in Pike Place Market. The "brick and mortar" of this construction are the patterns (the networks and fields) of streets, blocks, and pedestrian ways; basically patterns of two kinds: access and territory.

Each element in the site has a pattern, an organization: streets (vehicle access that defines block perimeter), blocks, pedestrian access, and semi-public territories (regulated building setbacks). Patterns are organizations of types that are deployed in space. For example, the street element in the site consists of four types: 1) primary 2) minor 3) collector and 4) local type. The street types differ according to the number of lanes it carries, the location median if any, and the existence of curb parking. Additionally there are rules that dictate adjacency and connection to other types and elements.

**13** 51

**14** 52

15 *53*18 *56* 

Experiment in Form Construction
Type C blocks each has two interior access: one is continuous, while the other is intersected by the first forming a 'T' connection. The block is divided into three sub-blocks by those access: two that are oriented vertically and another, horizontally. Each block has two different ends: the 'top' ends which is continuous, and the 'bottom' which is penetrated by an interior access.
There are three ways to put two Type C blocks X and Y, end-to end: Case one) top-to-top; Case two) bottom-to-bottom; and Case three) top-to-bottom. The forms generated vary in degree: case one has the most concentrated interior and exterior access; the access in case two are diffused; and case three is in between.
The experiment can be extrapolated to include more blocks and more types. Each addition increases the range of possibilities exponentially. But most permutations are uninteresting or even relevant; still, important conclusion can be drawn from the experiment: 1) large scale organizations can be built from smaller ones and 2) construction method provides a range of form possibilities.  The site can have qualities beyond its zone definition.

The experiment has shown that form qualities can be con-

**49** *95* 

structed and changed by precise operations. By inversion of one, a two block collection can change its access character from diffused to concentrated. The ability for precise change is especially relevant for existing site conditions. Intervention is not an "all or nothing" affair. It is a transformative process which relates existing to becoming.

#### **Site Intervention**

Seattle is the major metropolitan center in Western Washington. Each day, more than 200,000 people go to work from outside the city limits. With job growth projected to grow thirty percent over the next twenty years, Seattle development and growth is a regional issue. The frame work plan for growth adopted by the city intends to channel growth in special urban center while maintaining characters of local Neighborhoods. The Lake Union Site is a relatively under-developed part of the city. It is important because of its size, traffic access into Downtown, and the proximity to major neighborhoods, cultural centers, and natural amenities.

**43** *83* 

**11** *32* 

Two areas at opposite end of the site are selected to explore place making in detail. The distance between them also mark their differences. The West Neighborhood site is adjacent to the Pacific Science Center, a city-wide entertainment and recreation center, and closer to Downtown. The area is mostly flat and dis-

sected by several major traffic routes into a triangular shape. At the opposite end, the East Neighborhood site is bounded by major arteries which made it possible for a few historical buildings to survive. Interstate-5 is a major freeway that strongly defines the Eastern and Northern edge -atop the steep terrain of the site. Because the freeway prevent cross traffic, this has somehow allow a number of residents which maintain a fragile community. The steep slope lends a dramatic element to the neighborhood, which from the highest points holds a clear line of sight toward Space Needle to the West.

**16** 54

One way to grasp the different interventions in both places is to count the different types of each elements within the site. This indicates a certain possible range of character defined by the types. Counting the number of block that belong to the three block types in the Intense Zones of both sites: the West Neighborhood only contains a limited number of block and street types; compare that with the East Neighborhood which hold a larger range of both types. Similar result also holds for Neighborhood Zone analysis for both sites. West Neighborhood has a higher concentration of Local Street Type; the East Neighborhood has greater range containing both Collector and Local Street Types. In terms of numerical characteristics West Neighborhood has sharper, abrupt transitions between zones. This conclusion can be confirmed when diagrams of Re-Oriented Parcels are examined. Re-oriented parcels in the West Neighborhood are concentrated in the Intense Zones, which contrasts sharply with the situation in the East Neighborhood where they are dispersed. Alternatively, compare the North-South interior access in both sites: the differences in continuity in West Neighborhood is greater than the East Neighborhood. Another comparison, the

**33** 71

**51** 99

21 59

**39** 77

**27** *65* 

**41** *79* 

**29** 67

**42** 80

**30** *68* 

pedestrian access, also points to differences in the abruptness of transitions. West Neighborhood pedestrian access are confined to the core of its Neighborhood Zone, whereas in the East Neighborhood they extend from the edge inward.

How do ideas about zone and pattern relate to actual site condition? This question underlines what seems to be a contradiction between systems which are general and places which are specific. Systems such as street grids perform their role by standardizing and homogenizing space. But even the most monotonous grid is not the same everywhere. Some streets are traveled more than others, there are districts in the city as well and some streets are special because of vistas...etc.

**11** *32* 

**50** 97

Much of the traffic between North Seattle and Downtown has to traverse the Site. The most affected area is between 9th and Fairview Avenue, an important reason for its Intense Zone designation. Therefore the design identifies it as the most continuous and active zone (Intense Zone). This extends the Downtown urban center northward until it meets Lake Union. The last reason is to buffer the integrity and survival of small distinct neighborhoods by containing, channeling more intense activities.

The East Neighborhood is circumscribed by strong impenetrable barriers leaving only the Western side continuous with the city. The Zone's dominant role here is mostly to define the more public zone atop the ridge from a less public one below it. The core Neighborhood Zone spans the entire the area, taking advantage of natural and man-made barriers.

20 58

**12** 33

Interruptions and barriers in the East site are spatially periph-

## Site Intervention

eral; West Neighborhood on the other hand is segmented by streets and changes in the city grid. It is a flat site under the shadow of Pacific Science Center, but has a strong sense of direction by being close to the Space Needle. To encourage a viable neighborhood here would require a protected core. The Neighborhood Zone is deployed to enclose and orient the core away from Intense Zones occupying much of the area.

### Conclusion

The discussion about the construction of cities has been centered on its linear aspects. But a strictly linear process of city construction leads to monotony. Seattle's city-scape and Pike Place Market has provided clues to place-making: when elements, form, and process are in tension. The tension can be likened to the countering forces that shape a dew drop; a combination of gravity, which forces the droplet to expand, and surface tension, which draws it inward. For a memorable city or place there are also tensions, between continuity and interruption, the large and small, enclosure and exposure, and between man and nature. It is a perspective about place that welcomes contradictions and exploits defects.

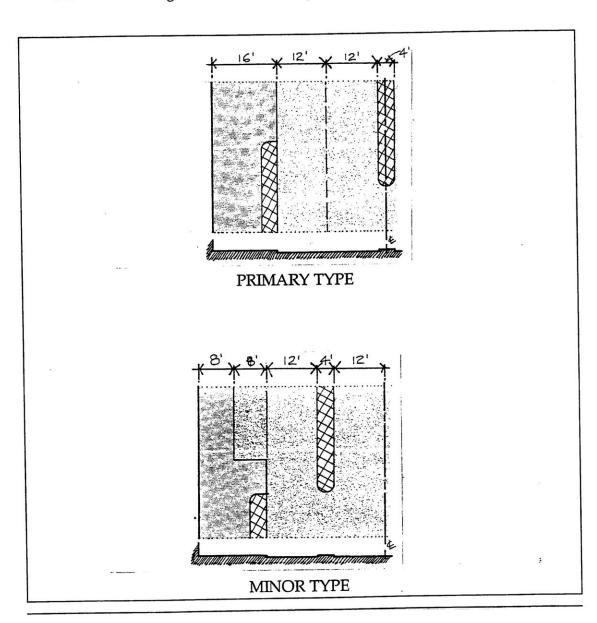
## ILLUSTRATIONS, DRAWINGS, AND DIAGRAMS

Type Definitions
Local Site Interventions
Oversized Illustrations
Existing Site Information and Diagrams
Analysis of Pike Place Market
Interventions

There are four street types that are relevant in the site design. The types impact traffic capacity, street spatial definitions, and street activities (such as parking and sidewalks). They also correspond to the existing city traffic planning types.

Primary street type - no curb parking; 4 lanes both ways; planted center median divider

Minor street type - curb parking sporadic; 4 lanes both ways; a planted median dividing local lane each way

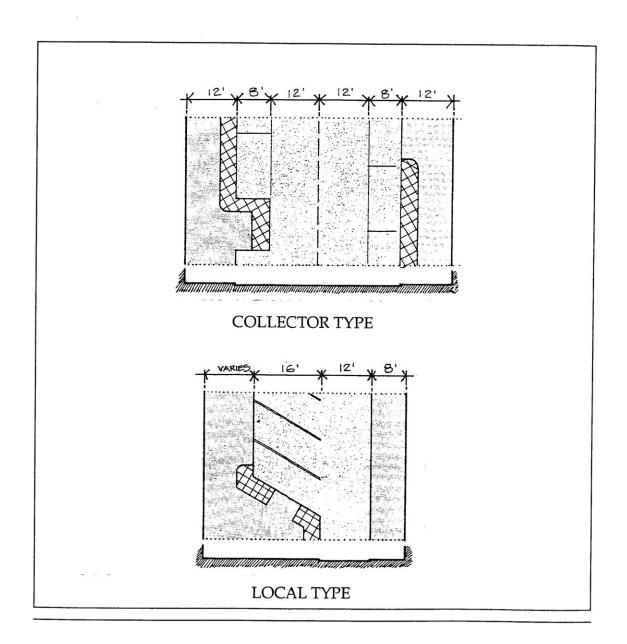


## STREET TYPES

(Fig. 14))

Collector street type - curb parking; wider sidewalk (sporadic); 2 lanes both ways

Local street type - angled parking; wider sidewalk (sporadic); 1 lane one way

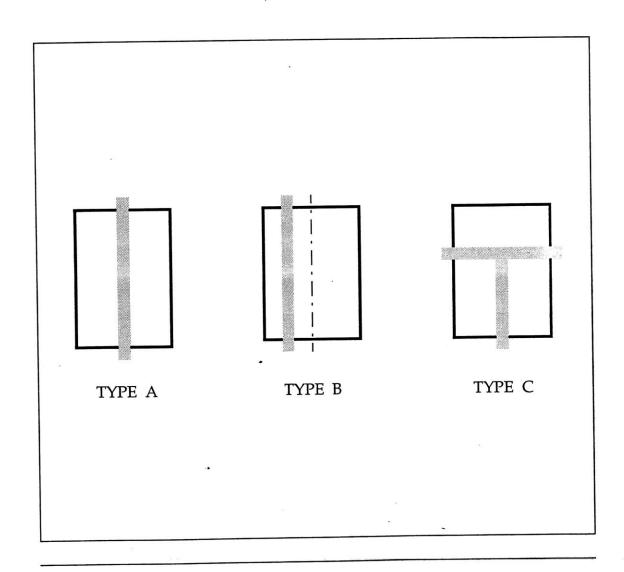


Block types play a pivotal role in the site design. They are the "building pieces" that tie together access and territory into larger structures.

Type A - N-S access in the center of the block; for the most part the only block type in the city and the site.

Type B - N-S access off center in the block; consists of narrow and wider sub-block.

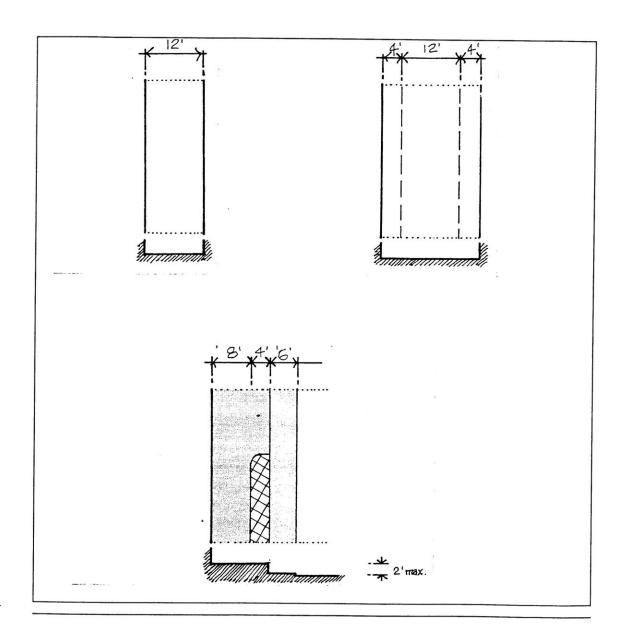
Type C - N-S and E-W access; only E-W access is continuos through the block.



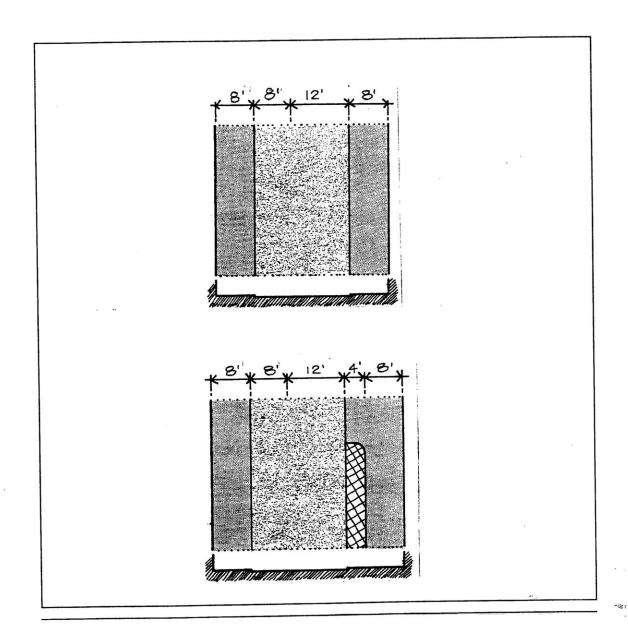
## PEDESTRIAN ACCESS

(Fig. 16)

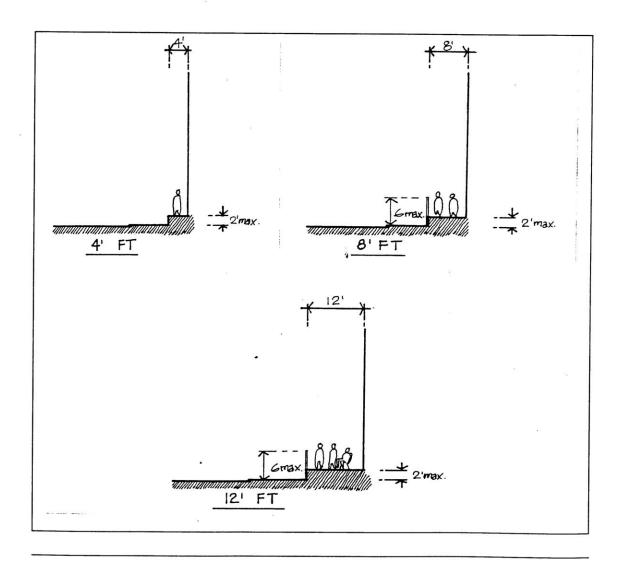
Higher density and long blocks necessitates a separate pedestrian access system. It is deploy to intensify particular characteristics of the site, or to create difference in the site. They are not deployed in Intense zones to concentrate activities on the streets.



Vehicular access inside blocks are narrower in width and provide curb parking and service access. Street widths (excluding sidewalks) are 20 feet for one way traffic with curb parking or 24 feet for two way traffic without curb parking. Sidewalk widths are 8 feet for Intense zones or 6 feet for core areas in the neighborhood zones.



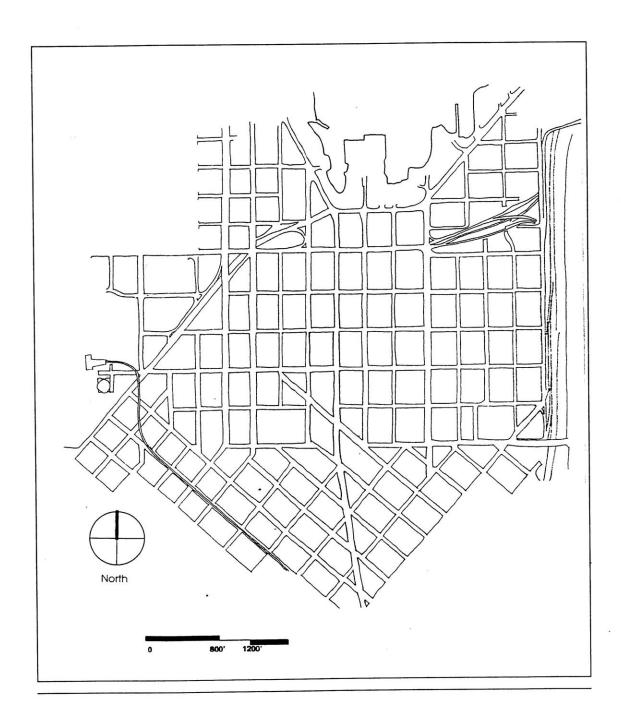
Conditions at the edge of frontage impact street character by impacting physical dimensions and activities aong streets. Building line setbacks are positioned to encourage different ranges of possible activities: 4 Feet allows just enough room to stop before entering building as well as small planting, 8 Feet allows small group standing about, or large planted areas, 12 Feet is big enough for gathering and some activites. These setback do not occure in Intense zones.

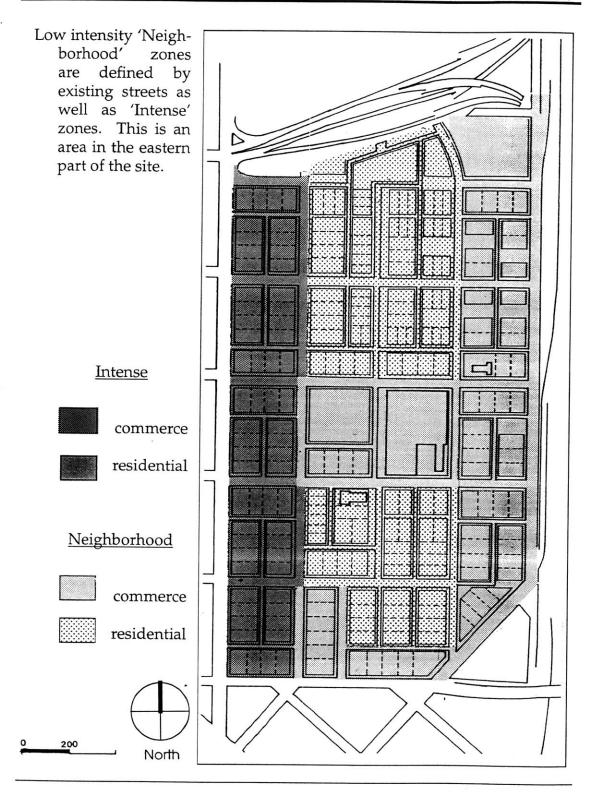


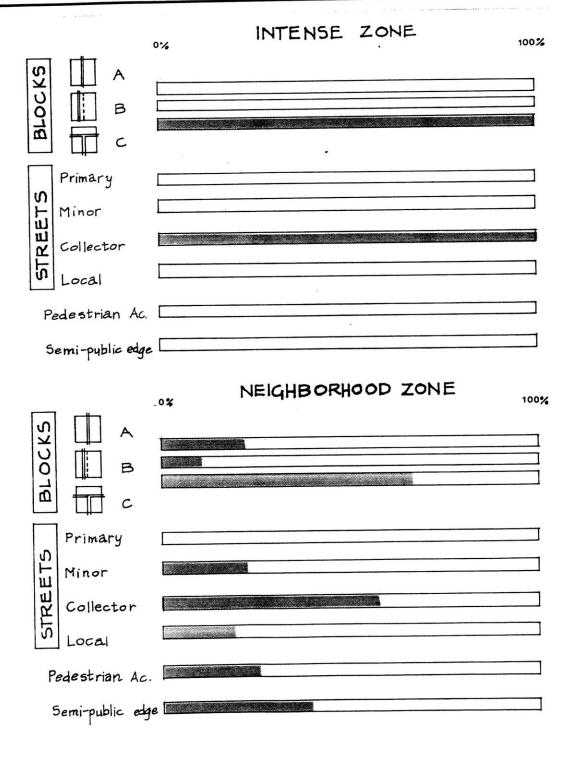
## Intervention: Site Design

(Fig. 19)

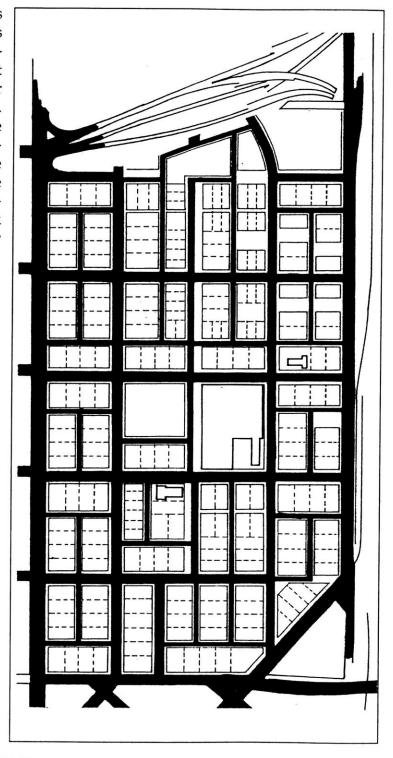
Major physical alterations in the site include a diagonal access on the Western end of the site and continuation of part of the grid across Denny Way from the South.





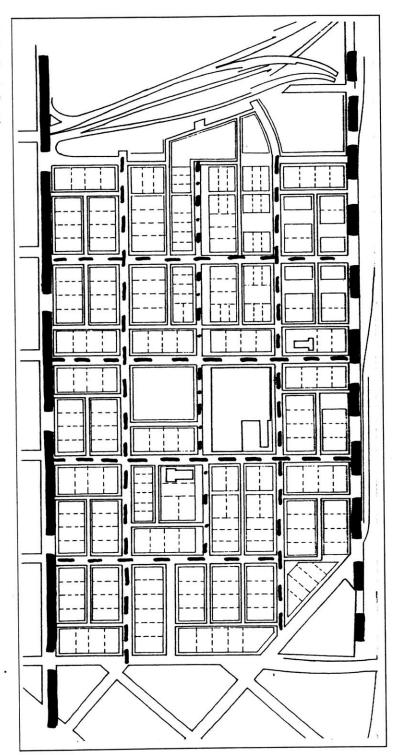


Small interior access can be seen as sub-streets system that connect with the larger system. street Alternatively, the larger access network forms the blocks and the (interior) substreet network forms the smaller sub-blocks.

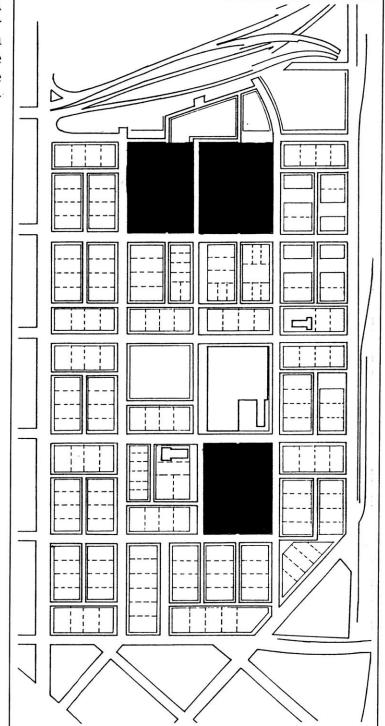


The street types inside this neighborhood zone are only collector and local; its higher order types form its boundary.

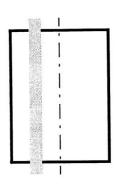
- Primary
- Minor
- - Collector
- **\_ . \_** Local

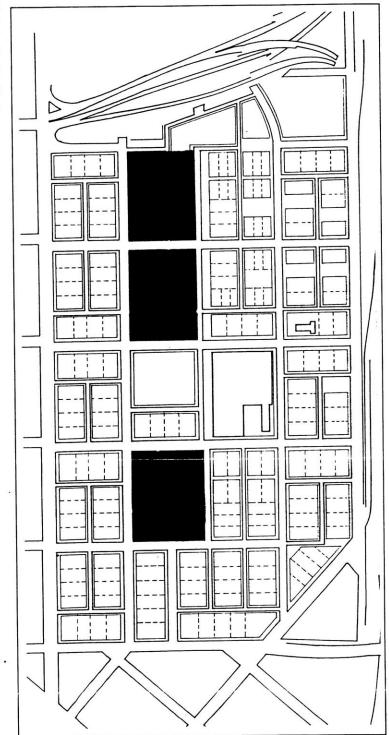


Blocks of type A (
access at the center of the block) in this site are located within the least active zone 'Neighborhood-residential'.

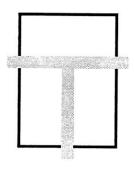


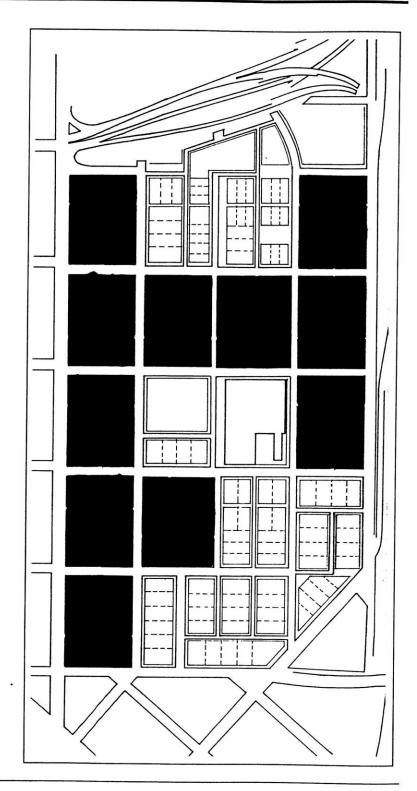
Blocks of type B (
interior access offcentered) in this
site are also
located within the
least active zone 'Neighborhoodresidential'.



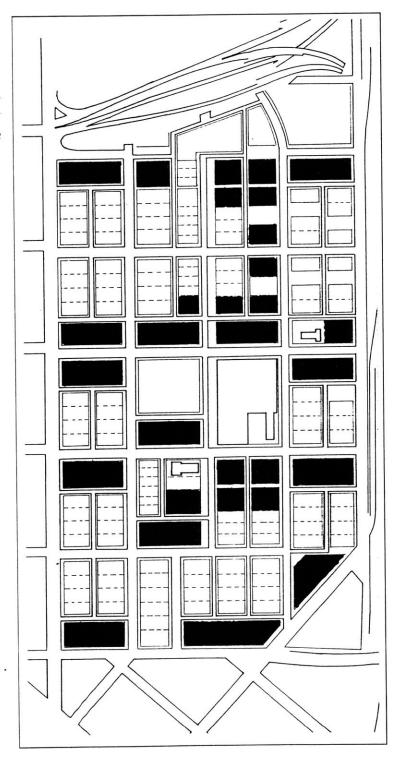


Blocks of type C
(double
directioned
interior
access) in this
site are
located
largely
within the
more active
sub-zone commercial.

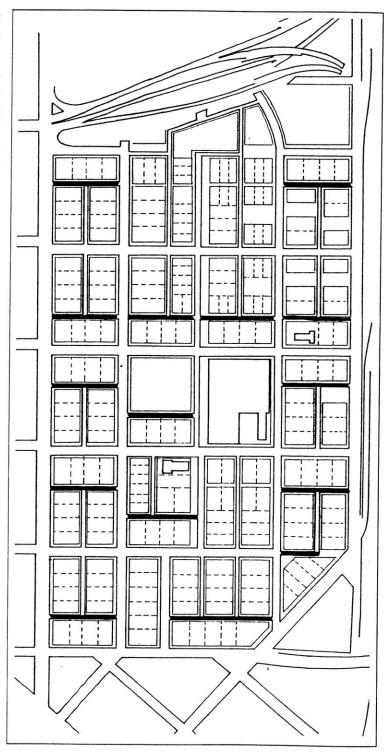




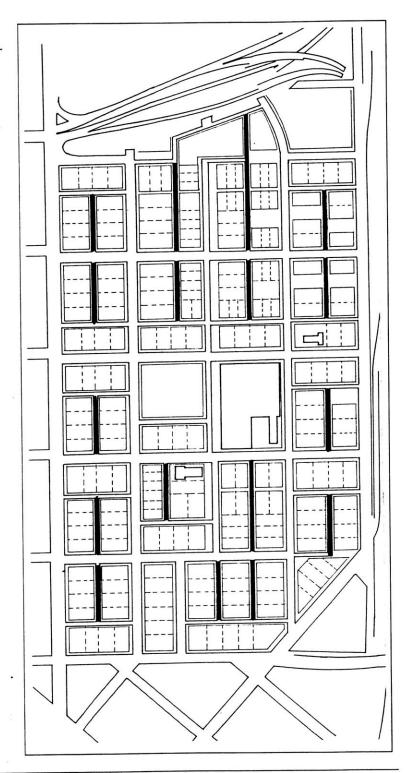
Some Parcels are reoriented so their frontages face north or south. They are re-oriented to intensify activities along the the access.



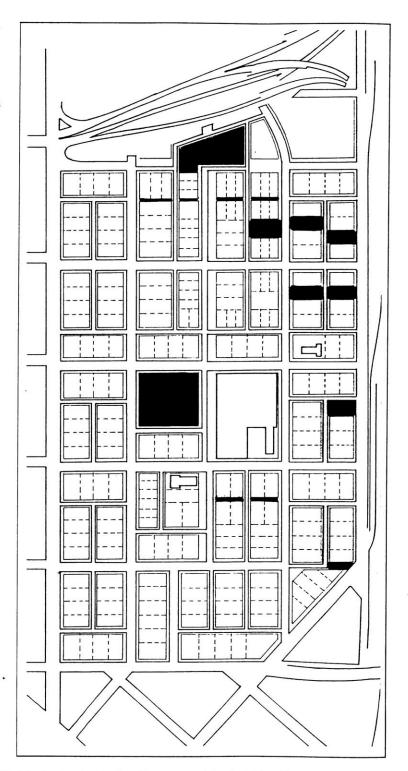
Certain areas are intensified by having more aligned interior access. Notice there is only one street where the interior access is continuous through the local site.



Interior access in the north-south direction largely indicates an internalizing deployment of an element.



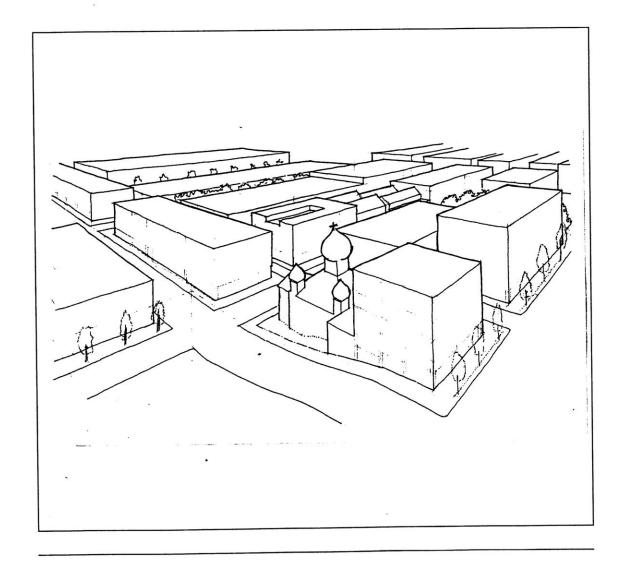
Pedestrian access are also deployed according to the local conditions of the site. In this case wider parklike access occur more frequently along the eastern edge of the site where it is steep and the views are spectacular.



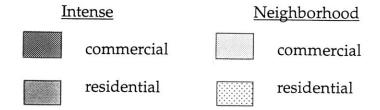
# EAST NEIGHBORHOOD. SITE PERSPECTIVE

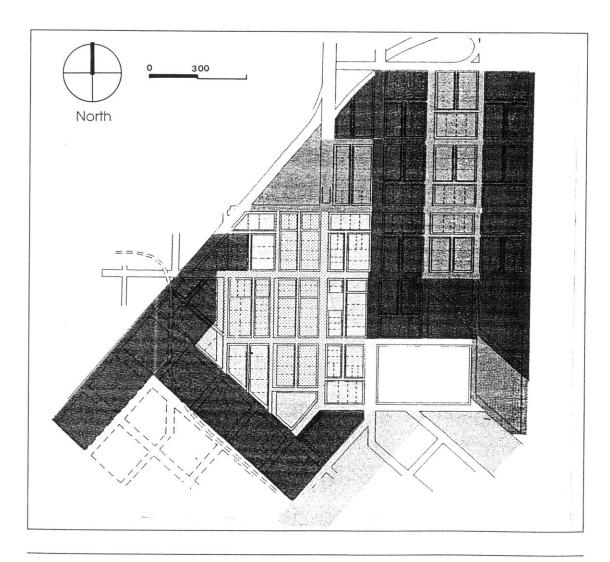
(Fig. 31)

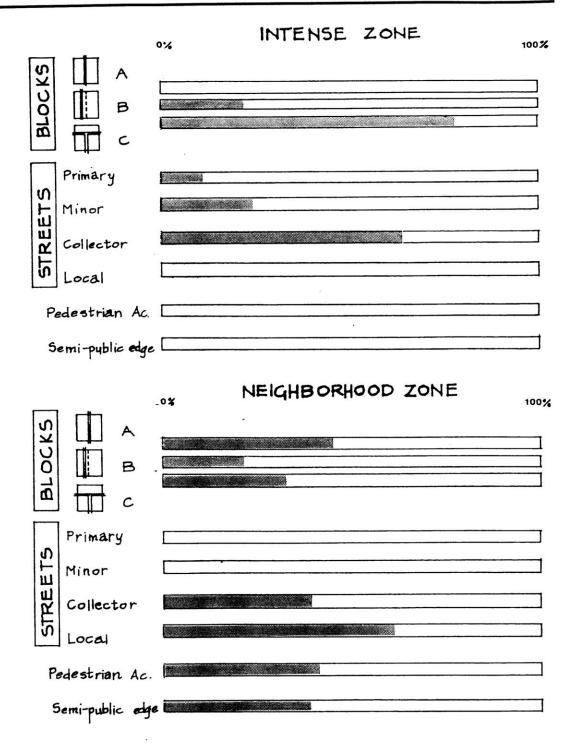
The site is given direction and qualities of internal parts by relative positions block types.



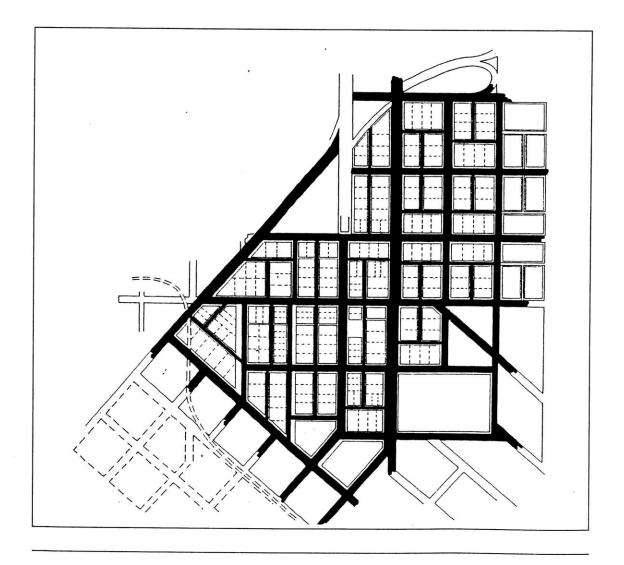
Low intensity 'Neighborhood' zones are defined by existing streets as well as 'Intense' zones. This is an area in the eastern part of the site.







Small interior access can be seen as sub-streets system that connect with the larger street system. Alternatively, the larger access network forms the blocks and the (interior) sub-street network forms the smaller sub-blocks.

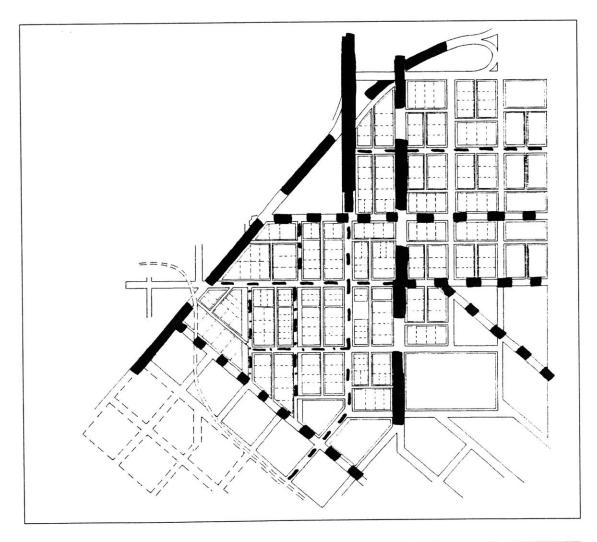


## WEST NEIGHBORHOOD SITE: Street Types

(Fig. 35)

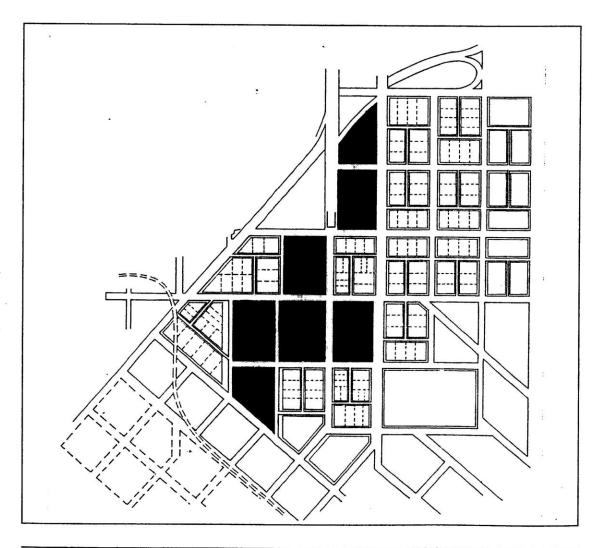
Street types within this neighborhood zones are confined to collectors and local types even though in this site there is more different types connecting it to the rest of the site.





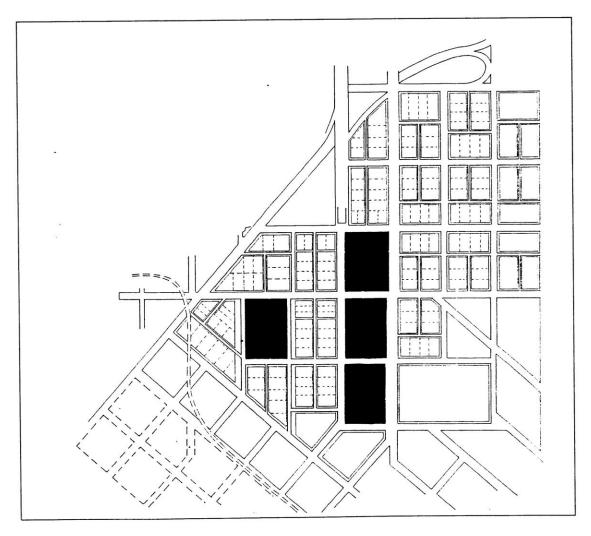
The diagrams show two different deployment of type A blocks. When they occur within an Intense Zone to buffer; in this case used to terminate a condition next to a freey way. Alternatively type A occurs largely within the lowest activity zones (residential, neighborhood).



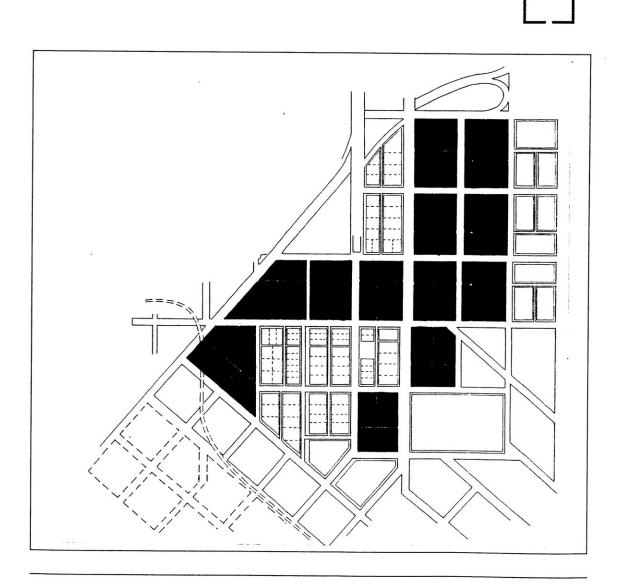


The main characteristic of block type B (unequal sub-block widths) is used at the margin of the commercial Neighborhood zone as transition.

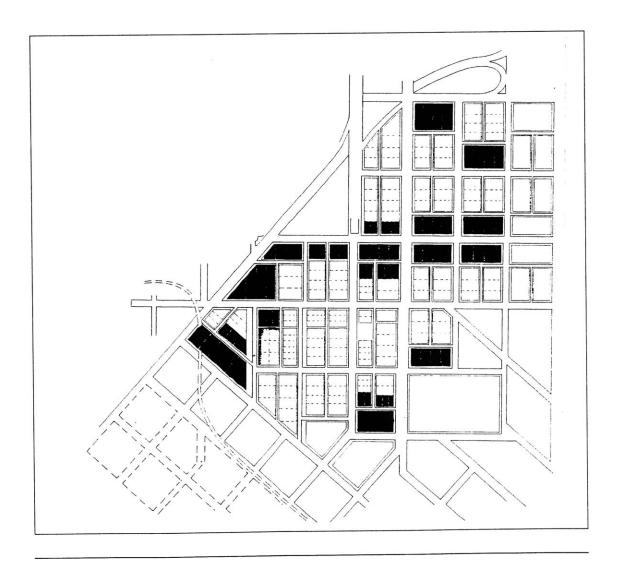




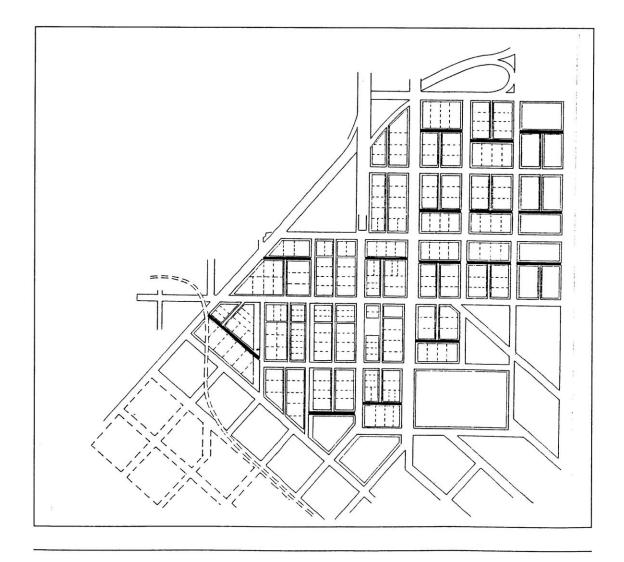
Type C block are largely deployed in Intense zones.



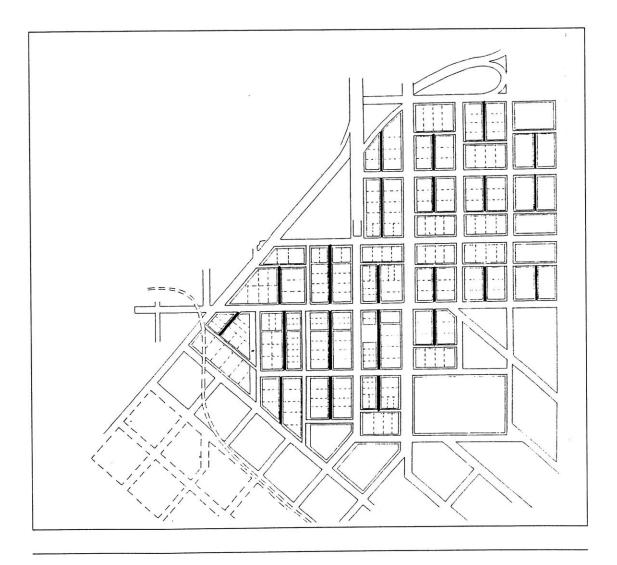
Some Parcels are re-oriented so their frontages face north or south. They are re-oriented to intensify access.



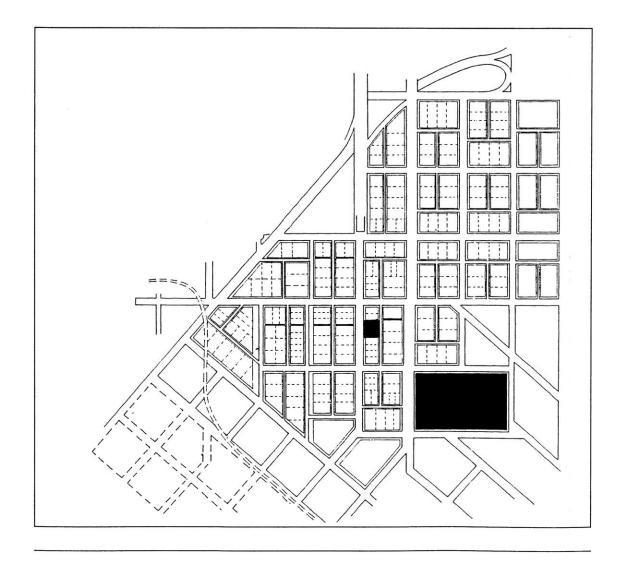
Certain areas are intensified by having more aligned interior access. Notice there is only one street where interior access is continuous all the way through the Neighborhood zone.



North-South oriented interior access is a largely internalizing element.

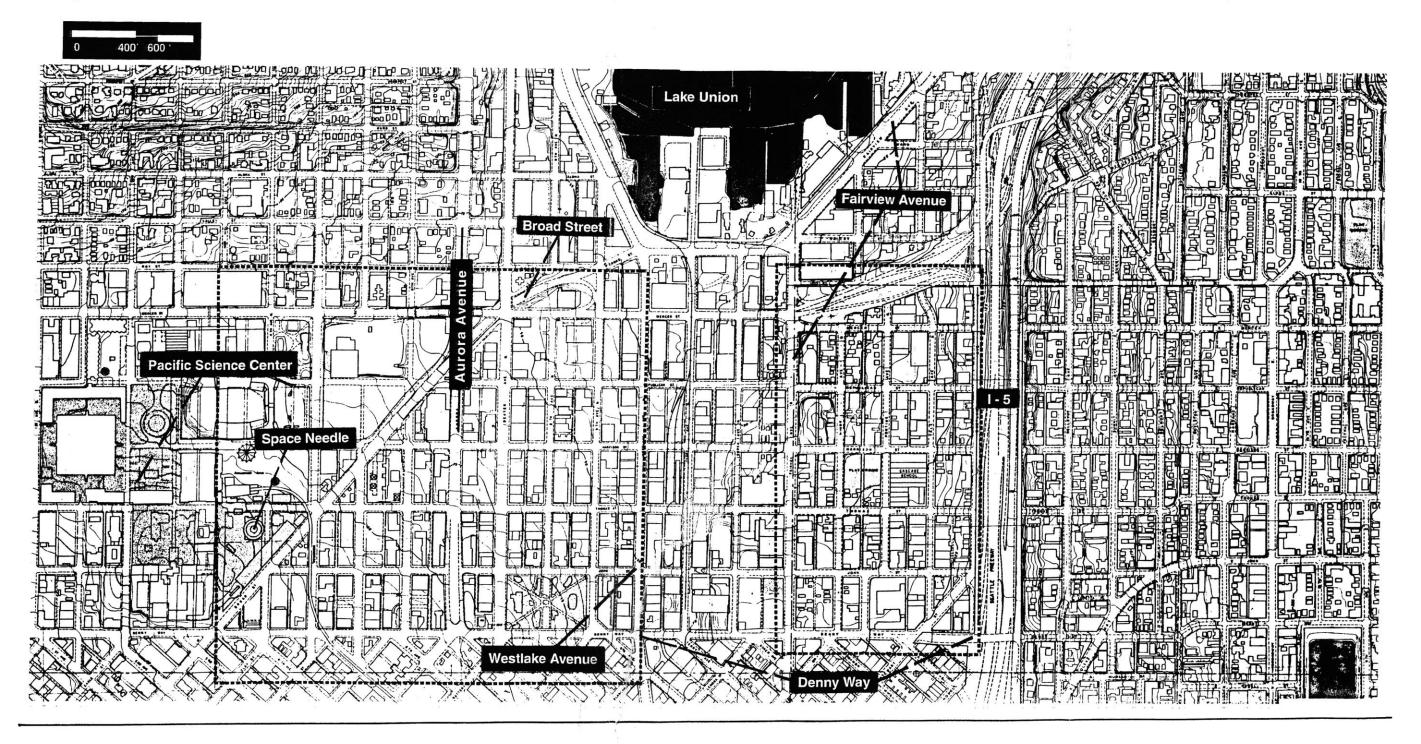


Pedestrian access are also deployed according to the local conditions of the site.



Oversized Illustrations:
Existing Site Information and Diagrams
Analysis of Pike Place Market
Interventions

Major features of the thesis site and their relationship to the local neighborhood sites.

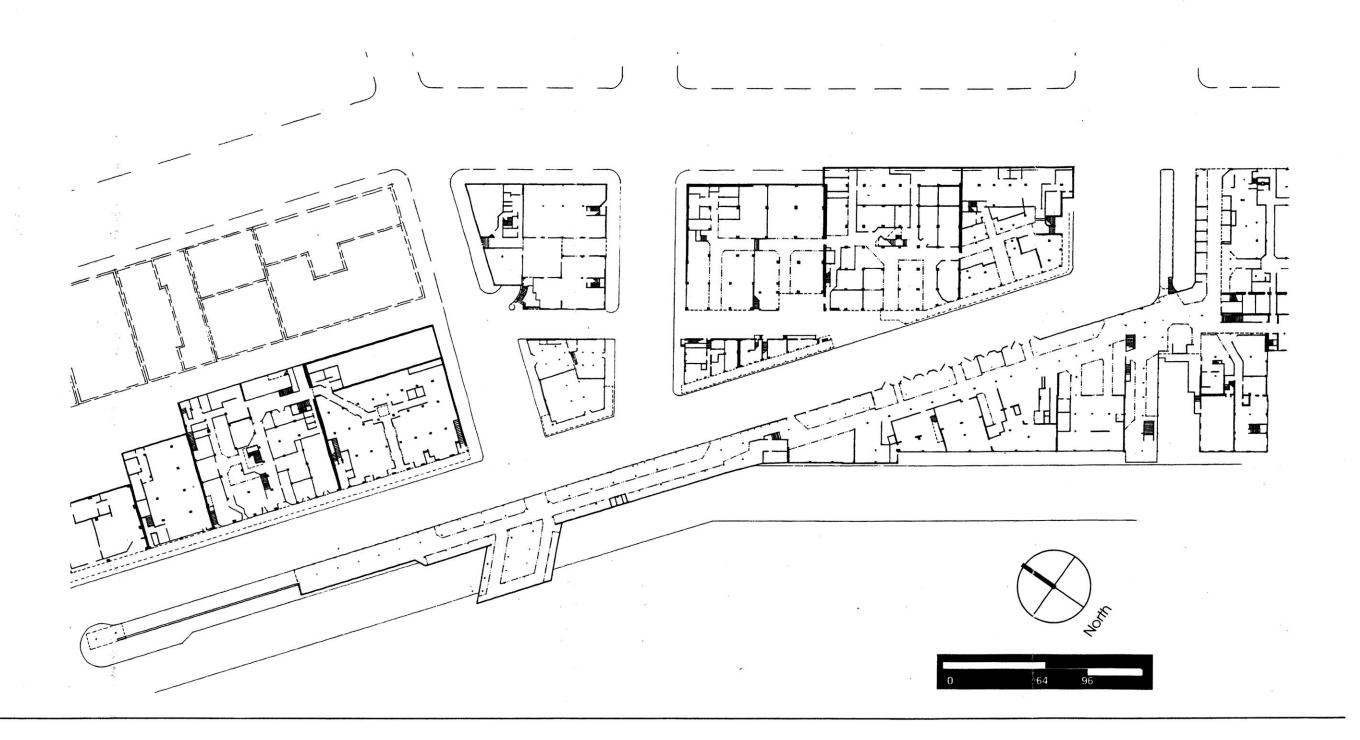


			,

North

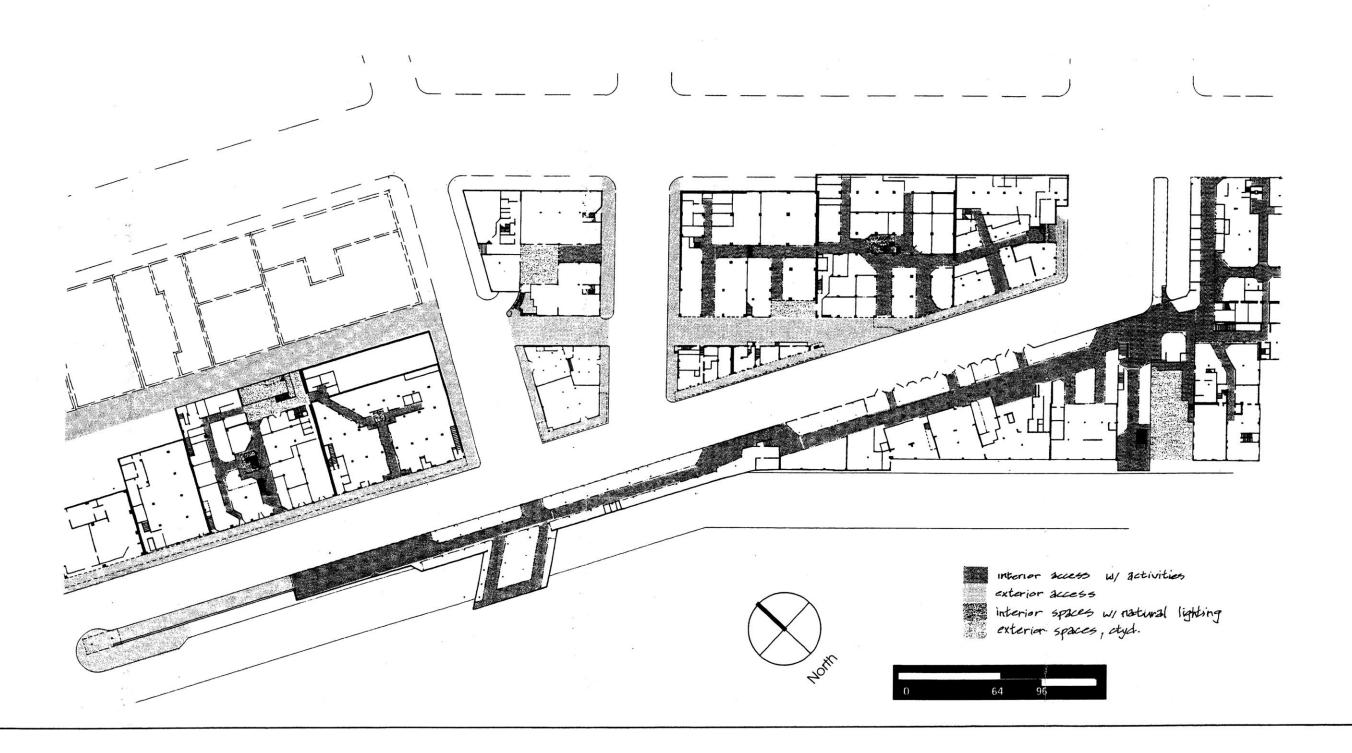
# PIKE PLACE MARKET: Location and Site Context (Fig. 45) Pike Place Market is worth analyzing for its relationship with the larger landscape (Puget Sound) and the shift in the city grid. PARKING PIKE PLACE. AVE. ALASKAN ALASKAN

	•		



PIKE PLACE MARKET: Access System

Pedestrian access is continuous from the streets through buildings, with different characteristics of light and space.

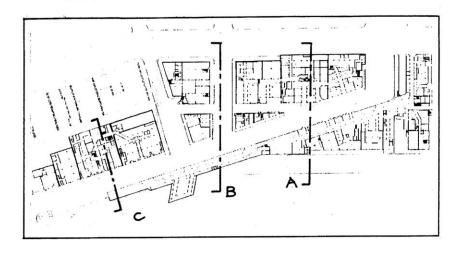


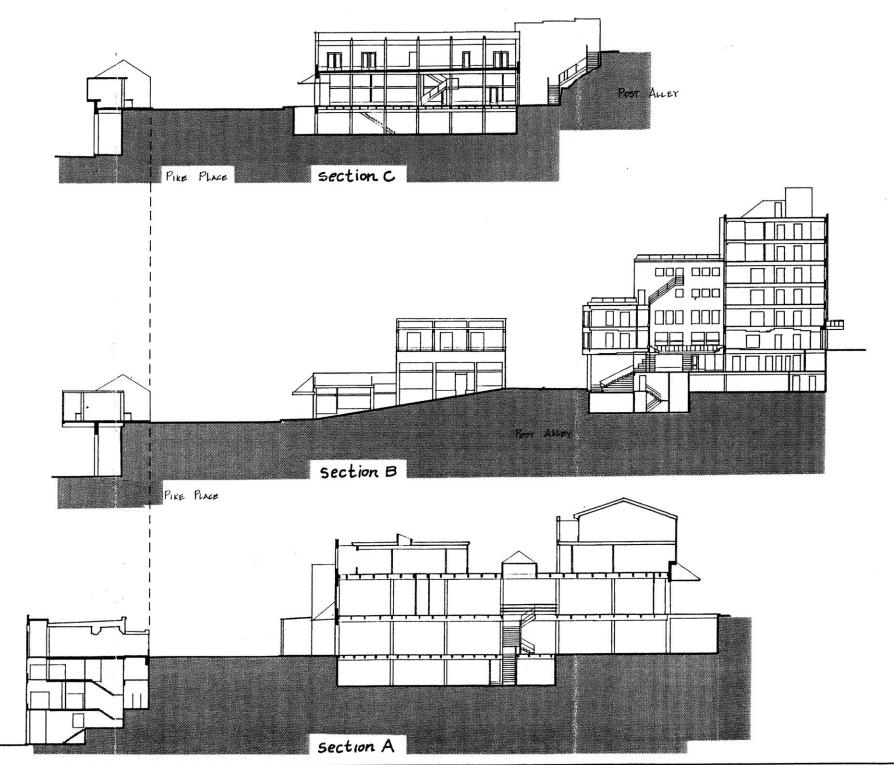
	· · ·	

(Fig. 48)

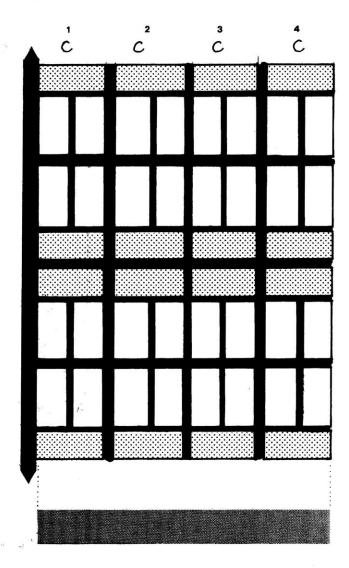
PIKE PLACE MARKET: Sections

The sections is where the interaction of the landform and the city grid is revealed.



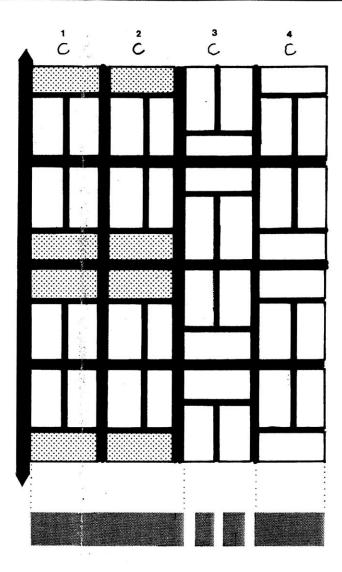


		·		
	a a			
	•			



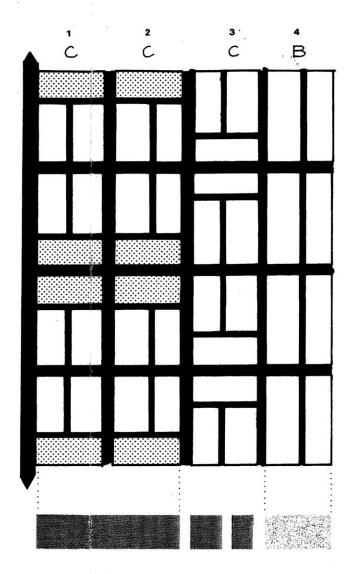
#### Homogeneous Block Field

- All the blocks are of type C.
- There are intensified zones which are horizontal with greater access; two small access flanking a larger.



#### Interrupted Field

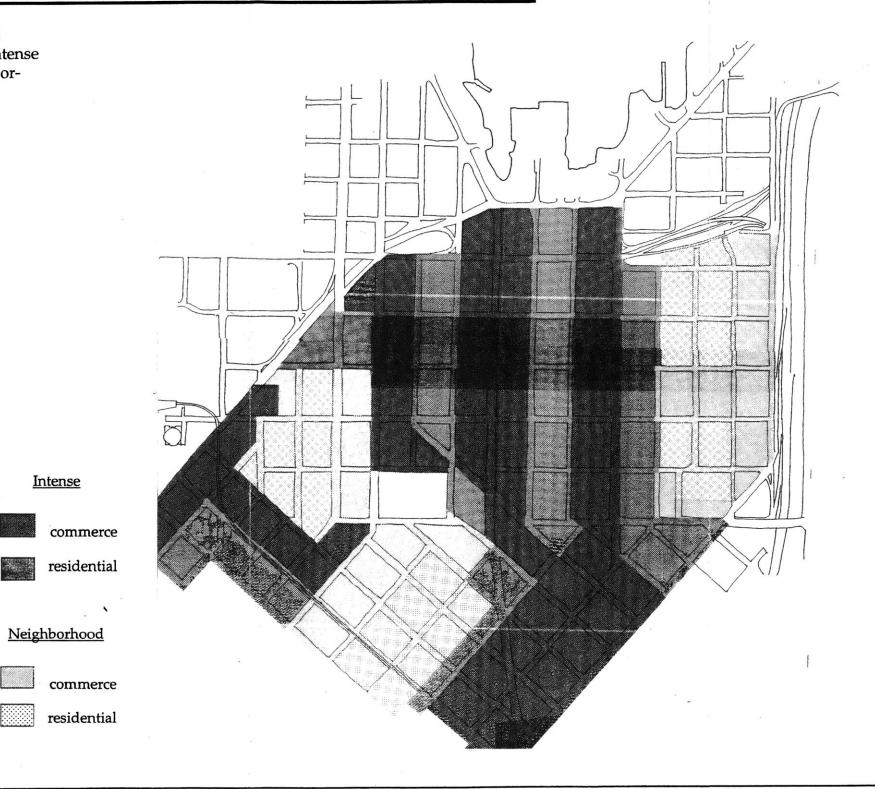
- Blocks in the third column are re-oriented, interrupting the continuity of the intensified access zones and dividing the previous larger field.
- The intensified access zones becomes shorter than before.



#### Distinct Zone Formation

- Another block type B, is introduced into the fourth block column. The different block type forms a distinct zone.
- The new zone is mediated by the re-oriented blocks at the third block column.

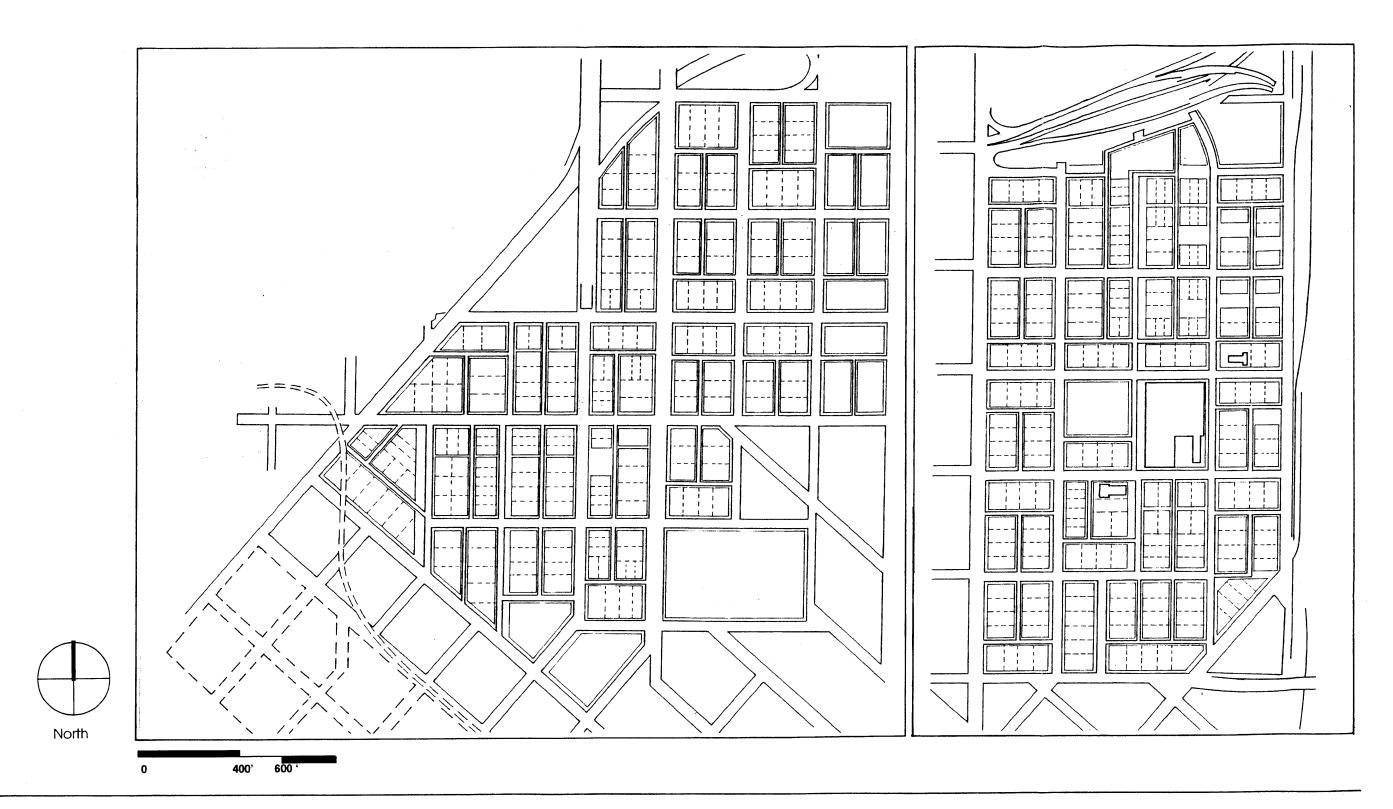
The positions and boundaries of zones defined within the site. Notice the continuity of the Intense zone which also define and buffer the neighborhood zones.

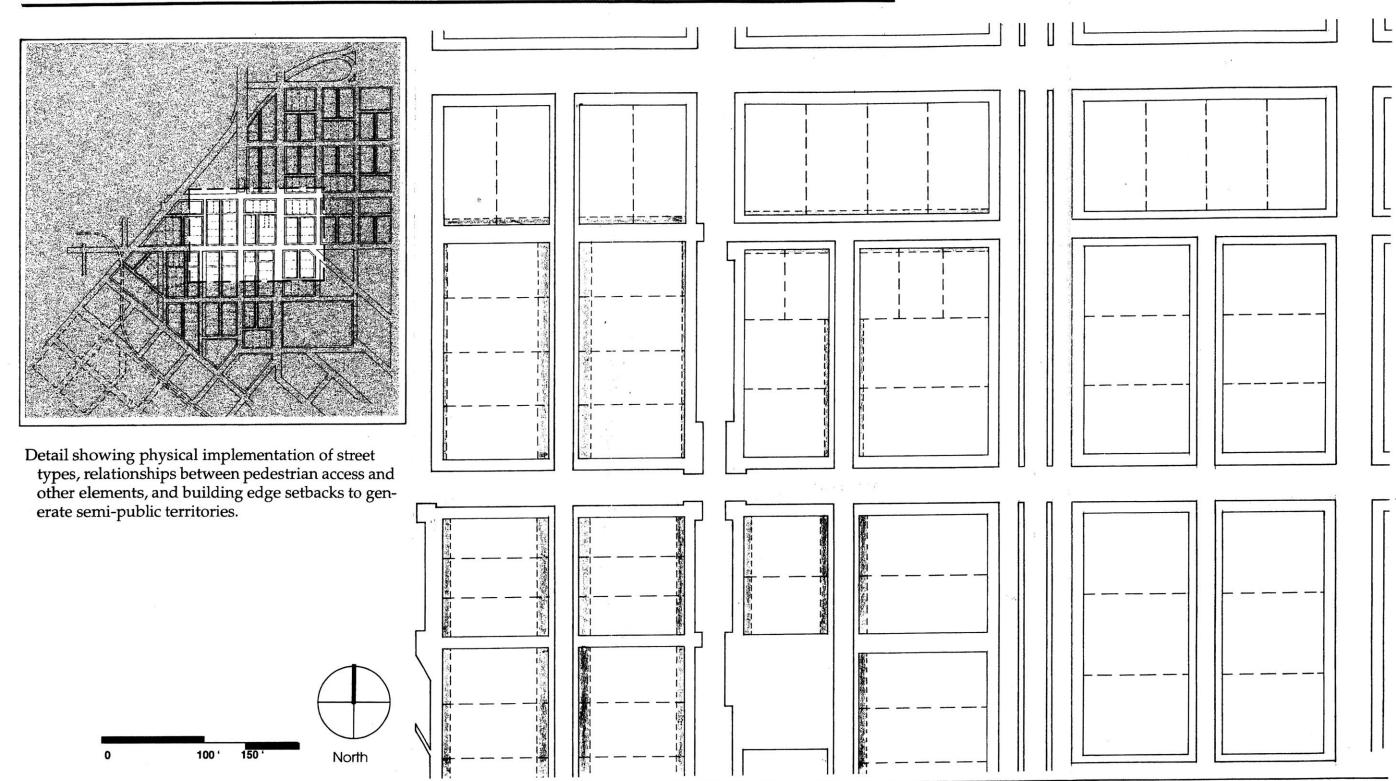


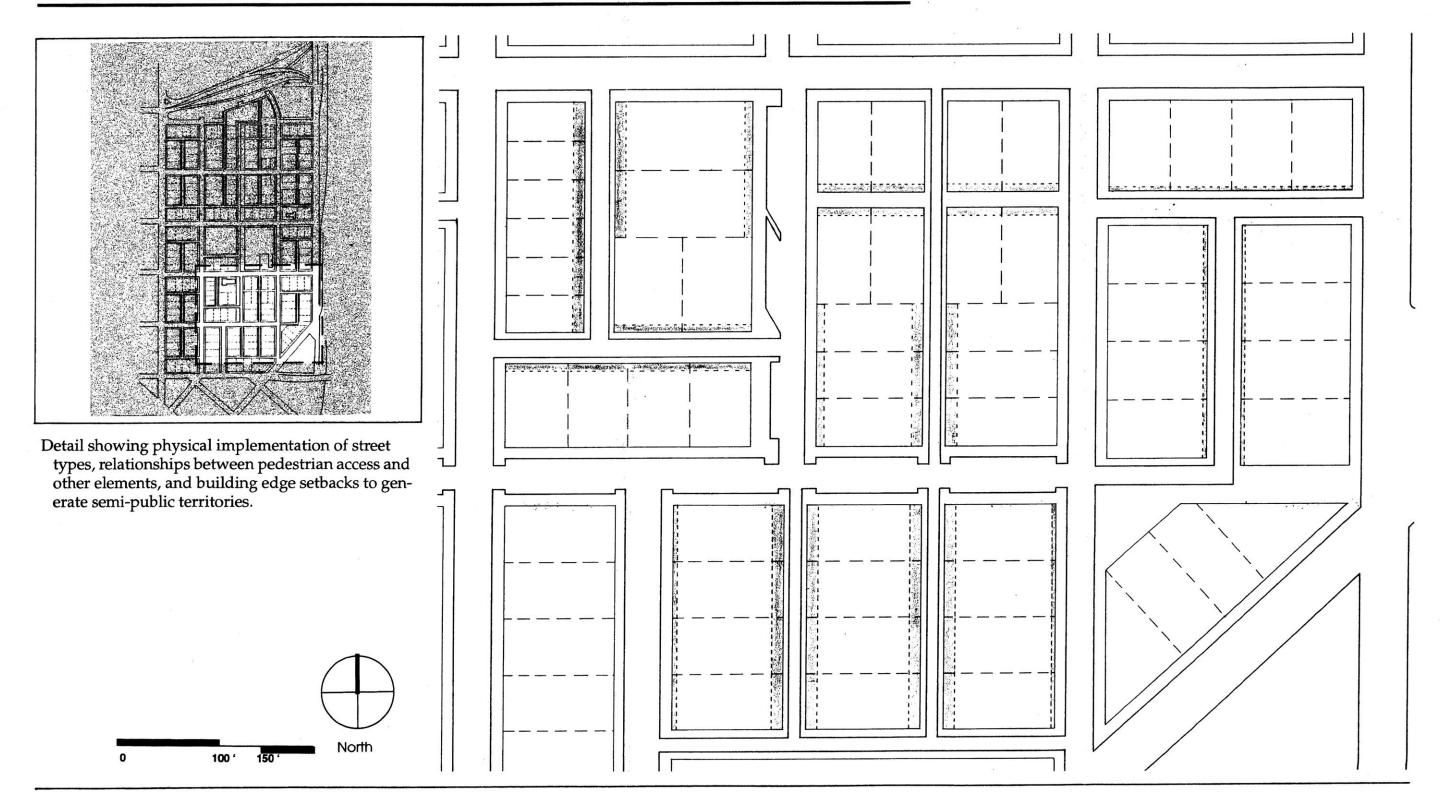
<u>Intense</u>

WEST and EAST NEIGHBORHOOD SITES COMPARISON

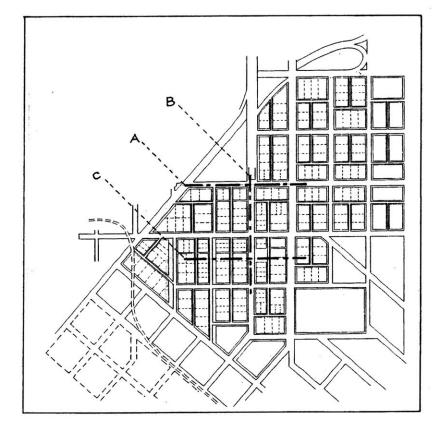
Both sites are similar in size, but are quite different by geometry and form



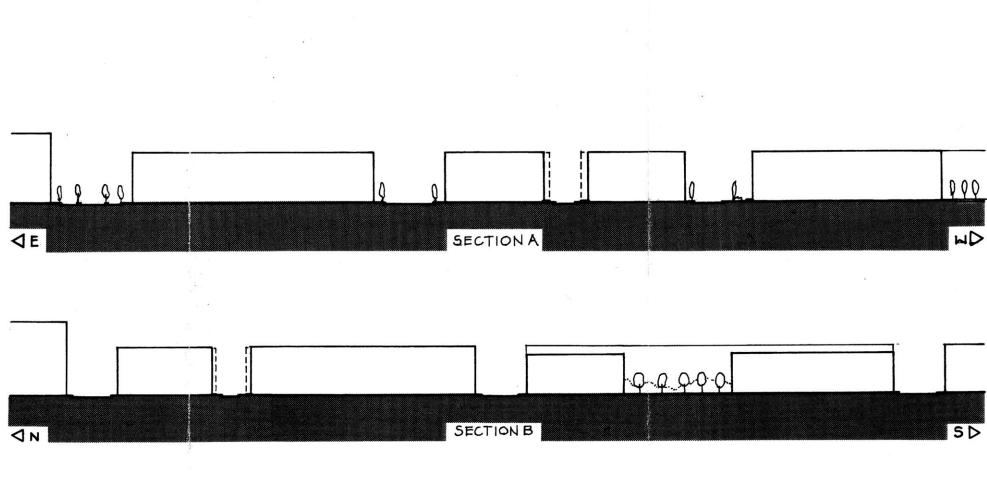




5CALE : | =100



Sections taken at various parts of the west neighborhood site. Compare sections A which does not cut through the block and section C which does: section A blocks appear large near through access while they are smaller internally. Also, notice the wider setbacks inside the blocks.

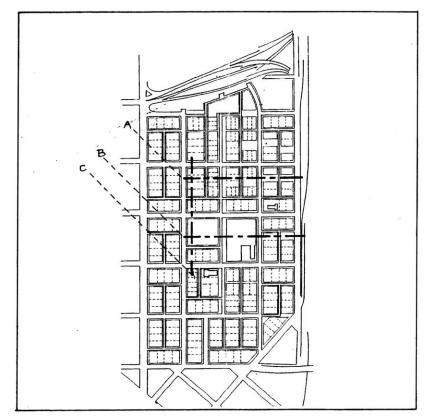


SECTION C

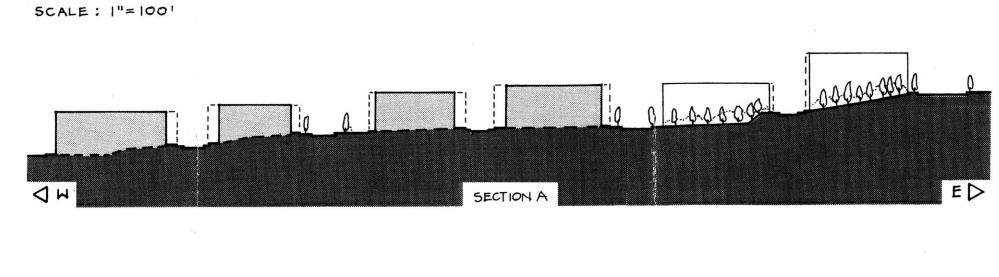


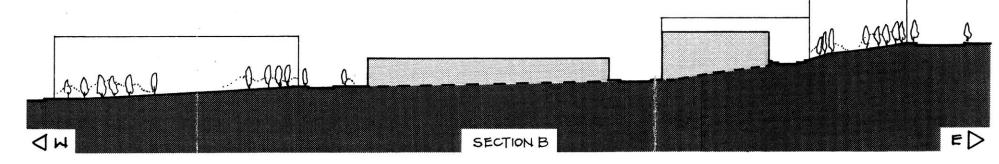
## **EAST NEIGHBORHOOD SITE SECTIONS**

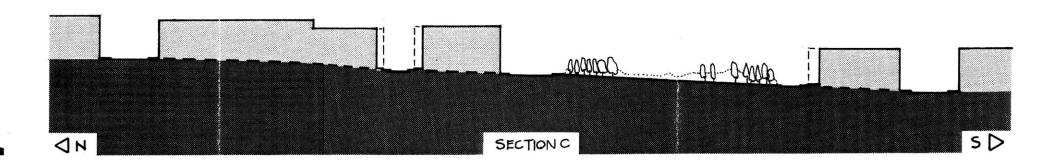
(Fig. 55)



Sections taken at various parts of the east neighborhood site; particularly evident is the steep west facing slope in this site area. Sections A and B shows much open space and pedestrian access on the slope.







#### **ILLUSTRATION CREDITS**

Plate 1. Early Map of Seattle

Reprinted from Roger Sale, <u>Seattle: Past to Present</u>, 2nd ed., (University of Washington Press, 1978), back cover.

Plate 2. Denny Regrade, circa 1910

Reprinted from Roger Sale, <u>Seattle: Past to Present</u>, 2nd ed., (University of Washington Press, 1978), facing pg. 108

All photography and illustrations by author, unless otherwise noted.

#### **BIBLIOGRAPHY**

- Stanford Anderson, ed., On Streets, (MIT Press, 1986)
- Stephen Carr et al, <u>Public Space</u>, (Cambridge University Press, 1992)
- Committee for the Seattle Commons, <u>Seattle Commons Plan: Draft 2</u>, (June, 1993)
- Alex Krieger, and William Lennertz, ed., <u>Towns and Townmaking Principles</u>, (Rizzoli Press, 1991)
- Richard Berner, <u>Seattle 1900-1920: From Boomtown, Urban Turbulence to</u>
  <u>Restoration</u>, (Charles Press, 1991)
- John Habraken
  - "The Control of Complexity," <u>Places</u>, Vol. 4, no. 2, (Design History Foundation)
  - "Cultivating the Field," <u>Places</u>, Vol. 9, no. 1, (Design History Foundation)
  - <u>The Appearance of the Form</u>, 2nd ed., (Awater Press, 1988) <u>Transformation of the Site</u>, 3rd ed., (Awater Press, 1988)
- John Habraken et al, <u>The Grunsfeld Variations: A Report on the Thematic</u>
  <u>Development of an Urban Tissue</u>, (Thomas A. Walen Press, 1981)
- August Heckscher and Phyllis Robinson, <u>Open Spaces: The Life of American Cities</u>, (Harper and Row, 1977)
- Jane Jacob, <u>The Death and Life of Great American Cities</u>, (Vintage Books, 1961)
- Doug Kelbaugh, <u>The Pedestrian Pocket Book</u>, (Princeton Architecture Press, 1989)
- Krier, Leon, <u>Houses, Palaces, Cities</u>, (Architectural Design AD Editions, 1984)

Camillo Sitte, The Art of Building Cities, (Phaidon Press, 1965)

Kevin Lynch,

The Image of the City, (MIT Press, 1960)

Good City Form, (MIT Press, 1981)

Site Planning, 2nd ed., (MIT Press, 1971)

Roger Sale, <u>Seattle: Past to Present</u>, 2nd ed., (University of Washington Press, 1978)

Seattle City Planning Department, <u>Seattle Comprehensive Plan: Public</u> Review <u>Draft</u>, (1993)

Stichting Architecten Research 73, "The Methodical Formulation of Agreements Concerning Direct Dwelling Environment,"

Richard Sennett, The Conscience of the Eye, (Norton Press, 1990)

Maurice Smith, "Fragment", (studio notes, 1993, MIT Department of Architecture and Planning)