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Portland Downtown Plan: Inventory and Analysis

Portland (Or.). City Planning Commission

Cornell, Howland, Hayes, and Merryfield

DeLeuw, Cather & Company

PORTLAND DOWNTOWN PLAN
INVENTORY & ANALYSIS

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LAND USE

RETAIL AND ENTERTAINMENT

Description

Comparison retail shopping is concentrated in an east-west corridor along Morrison, Alder and Washington streets from Third Avenue to Tenth Avenue and focuses on Alder Street between Fifth and Broadway. This "retail core" contains the three major department stores Downtown—Meier & Frank, Lipman's and Rhodes. Surrounding this core is a large area of less concentrated retailing from Burnside on the north to Salmon on the south.

The quality of retailing varies by area in Downtown. Generally, Fifth Avenue divides less expensive goods to the east from more expensive goods to the west.

Specialty goods and services are becoming increasingly more evident Downtown. Several specialty retail clusters can be identified. Third Avenue between Oak and Madison is lined with small clothing stores, thrift shops, pawnbrokers, and "young mod" shops. Another group of specialty "boutique" shops is concentrated in "Old Town" along N.W. Third Avenue.

A small neighborhood-type retail concentration (grocery, drug, cleaners, cafe, etc.) is located along Jefferson Street between Tenth and Twelfth. Another such grouping is located in the urban renewal area on First Avenue near Lovejoy Fountain.

A university-oriented retail concentration, including book stores, restaurants, and clothing shops, is located along Sixth Avenue adjacent to Portland State.

Additional "convenience" retailing, including lunch time restaurants, is scattered throughout much of Downtown in support of office uses.

Entertainment activities are centered on the movie theater strip along Broadway. Other entertainment activities are scattered throughout Downtown. A number of nightclubs and restaurants are located in major hotels and motels. Two small restaurant concentrations are identifiable; the Oriental restaurant strip along N.W. Fourth, and the specialty restaurants in the Skidmore Fountain area.

The entertainment element does not comprise an extensive land area, but is a major activity in Downtown during the hours that most shops and offices are closed.

Analysis

Retail activities Downtown have experienced a transition from full-range regional shopping to major comparison and specialty shopping catering to office workers, specialty shoppers and tourists. Retail sales and retail floor area declined rapidly in the 1950's and early 1960's, but appear to have stabilized since then. Recent major growth in

Downtown office space and employment is largely responsible.

RETAIL TRENDS IN CENSUS TRACTS 53 & 54

	Sales* ($1,000's)	Percent Rate of Change Per Year	Number of Establish-ments*	Percent Rate of Change Per Year	Sq. Ft.** (100's)	Percent Rate of Change Per Year
1948	186,662	N.A.	949	N.A.	N.A.	N.A.
1951	N.A.	N.A.	N.A.	N.A.	40,000	N.A.
1954	181,851	- 0.4	878	- 1.2	N.A.	N.A.
1958	171,824	- 1.6	688	- 5.4	N.A.	N.A.
1963	145,642	- 3.0	578	- 3.2	28,946 (1961)	- 2.9
1967	140,280	- 0.9	467	- 4.8	N.A.	N.A.
1970	N.A.	N.A.	N.A.	N.A.	27,115	- 0.7

Source: * U.S. Census of Business
** Portland City Planning Commission

OFFICE AND FINANCE

Description

Office buildings are concentrated in two major areas Downtown. The office concentration in, and north of, the retail core includes many older buildings such as the Pittock Block and the Morgan Building, and a few newer buildings such as the Bank of California and the Pacific Northwest Bell addition. A number of the older office buildings have been modernized in this area which extends from Ankeny to Morrison between Third and Tenth. There is a concentration of financial institution head offices and title and trust offices within this general office area. The planned U.S. National Bank complex will reinforce this financial concentration.

The other major office concentration extends south from the retail core between Fourth and Broadway. Buildings in the area include the Standard Plaza, Public Service Building, and the new Georgia-Pacific and 40-story First National Bank buildings. Another group of major financial institutions has located in this area and is centered at Fifth and Jefferson.

Several new office buildings are located in the urban renewal area, ranging in height from one story to the 21-story "200 Market Street" Building currently under construction. Additional multi-story office buildings are being planned in this area.

Other less concentrated groupings of small office buildings and branch banks are scattered between Alder and Market west of Tenth and south of Market in the Fourth to Broadway corridor.

Areas noticeably lacking office development are the Portland State University District, the area between Second Avenue and the River, and the entire area north of Burnside.

Analysis

Like the central areas of most large cities, Portland's Downtown is evolving into an office center. This evolution parallels the de-emphasis of Downtown as a general retail center and housing area. The office building boom in Portland began accelerating during the mid-1960's. Between 1940 and 1960 only 600,000 square feet of new rental office space was constructed. Between 1960 and 1971 approximately 2.1 million square feet were built. In the next five years, 1971 to 1976, over 3.3 million square feet are projected to be built. As a means of comparison, the new First National Bank will contain approximately 680,000 square feet of net-rentable space.

NET-RENTABLE NEW DOWNTOWN OFFICE CONSTRUCTION

	Total Square Feet	Average Square Feet Per Year
1940–1960	600,000	30,000
1960–1971 (estimated)	2,100,000	190,000
1971–1975 (projected)	3,300,000	660,000

INDUSTRY

Industry is not an important Downtown land use. However, Downtown retail facilities are supplied by warehouses that must be conveniently located to provide easy transfer of goods.

Small groupings of wholesale and warehouse uses are located along S.W. First and Second avenues between the Skidmore Fountain and the Hawthorne Bridge. An isolated pocket of light manufacturing and warehouse uses is located south of the Hawthorne Bridge along Harbor Way, just outside the Downtown district.

A concentration of wholesale and warehouse activities extends from Burnside north to the railyards. The proximity to railroad and dock facilities and access from the Stadium Freeway have established this area as a distribution center for Downtown retail facilities.

HOUSING

Description

Four types of housing can be identified Downtown.

1. Apartments, which include all frame dwellings and multi-floor masonry buildings that provide complete and separate living units.

2. Residential hotels, which provide a majority of their rooms on a housekeeping basis.

3. Flophouses, which include dwellings, dormitories, and missions that rent beds on an overnight basis.

4. Tourist hotels, which provide overnight accommodations for tourists, conventioneers, and out-of-town businessmen.

The quality of housing Downtown varies considerably, as do the age and income levels and sex make-up of the residents. Several clusters which contain similar physical, social, and economic characteristics are identifiable.

1. **Residential Hotels West of the Retail Core**
   This area extends from Burnside to Morrison between Tenth and Thirteenth. These hotels are generally in fair to poor condition. Residents are mostly low-income pensioners and retirees of both sexes. Approximately 1,700 people live in this area in 1,375 dwelling units.

2. **South Park Blocks Apartment District**
   There are about 3,600 people living in 2,450 dwelling units in this area. With the exception of a few frame dwellings, the area consists of apartment buildings in fair to good condition. People of all income levels live in the area and include students and retirees of both sexes. Four hundred sixty-five apartment units with 700 students in the Portland State University precinct are scheduled for demolition within the next two years.

3. **Urban Renewal Area**
   Approximately 900 people live in 540 high-rise apartment units which have recently been constructed in this area. An additional 700 units are in the planning and development stages. People living in this area are generally young adults who work Downtown and middle-aged and elderly couples in the high income bracket.

4. **Residential Hotels East of the Retail Core**

   This housing group includes two sub-areas: (1) between Yamhill and Madison from Front to Fourth, and (2) between Stark and Alder from First to Fourth. A total of 1,300 people live in 1,075 dwelling units in these residential hotels which are generally in poor condition. Residents are mainly low-income male retirees and pensioneers.

5. **Fourth to Broadway, South of Montgomery**

   Approximately 1,000 students and low to moderate income people of both sexes live in 500 apartments and converted single-family dwellings between the urban renewal area and Portland State University. Housing in this area is generally in poor condition.

6. **Skid Road**

   This area, extending from Second to Broadway between Couch and Ankeny, contains many flophouses, missions, soup kitchens and drop-in centers. These facilities cater to an estimated 1,200 persons, most of whom are male. A high incidence of alcoholism, unemployment, divorce and other social and health problems are found in this area.

7. **Couch to Hoyt from Second to Broadway**

   This large area of residential hotels, in poor and bad conditions, north of Burnside contains about 1,600 people living in 1,340 single-room units. The residents are mostly middle-aged and elderly males on low-income pensions and welfare.

Two additional housing areas are adjacent to Downtown. These are Goose Hollow and the Civic Stadium area, which together contain an estimated 2,000 people.

Goose Hollow contains mainly converted single-family frame dwellings, the majority of which are in bad condition. Residents are largely students and elderly persons. A high-rise student apartment building is under construction in the area.

The Civic Stadium area extends from Burnside to Salmon and from Fourteenth to Eighteenth. It contains several apartments and residential hotels, most of which are in good or fair condition. The residents of this area are of mixed income and age and of both sexes.

Hotel-motel uses are located either at access points into Downtown or in the major office areas Downtown. This use-activity depends heavily on automobile accessibility. Two concentrations of tourist-convention hotels are identifiable in Downtown. These are (1) at Broadway and Stark—the Benson, Imperial and Plaza hotels, and (2) along Salmon from Sixth to Ninth—the Hilton, Heathman, Park-Haviland and Roosevelt hotels.

Analysis

Downtown housing is experiencing a continual downward trend. Resident population inside the freeway loop has decreased from 28,000 in 1950 to 11,000 in 1970. The housing stock has been displaced mainly by urban renewal projects, Portland State University expansion, and the Stadium Freeway. Due to overriding economic considerations, Downtown housing will continue to be displaced by higher yield development.

However, a small reversal of this trend is occurring for high-density, high-income housing in the south end of Downtown, where land costs are lower than in the Core. Projections by the Columbia Region Association of Governments show an increase in Downtown resident population to 14,200 by 1990.

The following table shows the population trend in census tracts covering the "central crescent," which includes Downtown and contiguous areas.

CENTRAL CRESCENT POPULATION

Census Tract	1940	1950	1960	1970
50*	2,382	1,944	1,108	800
51	2,708	2,859	2,149	1,487
52*	4,922	4,516	4,076	3,516
53	4,134	3,036	1,931	2,047
54	3,260	2,725	1,613	963
55*	2,911	2,864	2,008	1,205
56	6,311	5,260	4,332	2,778
57*	5,359	4,895	2,590	1,015
Total	31,987	28,099	19,807	13,811

* Partly outside freeway loop

COMMUNITY FACILITIES

Description

This category consists of various public and semi-public uses. Several related concentrations are distinguishable in Downtown. The most identifiable concentration is the Portland State University precinct.

A grouping of community facilities is located along the South Park Blocks between Taylor and Clay streets. The Portland Art Museum and Oregon Historical Society form a cultural focus in the area. Several clubs and fraternal organizations are located around the north end of the Park Blocks.

Several churches are also located along the South Park Blocks, in addition to being scattered throughout the area eastward to the Stadium Freeway between Alder and Clay streets.

A loose grouping of government offices is located along Fifth Avenue south of the core area. These include the State Office Building, City Hall, and County Courthouse.

Other public and semi-public uses such as the Civic Auditorium, "Old Church," central library, police station, YMCA, YWCA, bus depots, train depot and post offices function as special nodes in Downtown.

Usable parks and open space include the North and South Park Blocks, Chapman and Lownsdale squares, Auditorium Forecourt, Skidmore Fountain Plaza, Lovejoy Fountain and Pettygrove Park.

The South Park Blocks form a strong linear tie between Portland State University and the core area. They are used by students, office workers and nearby residents. The North Park Blocks are also a linear open space. However, they do not connect major functions and they lack visual termination at the north end where they deteriorate into a parking lot. They are used mainly by nearby residents.

Chapman and Lownsdale squares act as a neighborhood park for retirees and pensioners living nearby. This open space area will be extended one block to the south with the planned Federal Plaza.

The Auditorium Forecourt, Lovejoy Fountain, and Pettygrove Park, all located in the urban renewal area, are used by surrounding residents, young people, office workers and visitors. These parks and fountains are connected by a pedestrianway system throughout the urban renewal area.

Skidmore Fountain Plaza acts as a focal point for the historical area of the city. This park, like the North Park Blocks, is used mostly by men from the skid road area.

Relatively unusable open spaces are the lawn around the Pioneer Post Office, plantings around the bridge approaches and along the freeways, and the green strip between Harbor Drive and Front avenues. A narrow esplanade is located along the river from the Hawthorne Bridge to the Steel Bridge, but is rarely used except during Rose Festival when people visit ships anchored at the seawall. The future closing of Harbor Drive, coupled with better pedestrian access, will enhance both the waterfront and Downtown.

Analysis

Except for the urban renewal area and Park Blocks, no system of pedestrianways exists. Pedestrianways are needed to connect major activity centers and can also make Downtown more attractive and pleasant for shoppers, office workers, residents, and tourists. There is also no central place or main square with which to identify. A strong focal point is needed to give Downtown a sense of orientation and image.

Paralleling other land use trends, some community facilities find Downtown a congenial location, while others have left. Many city, county and federal government offices are firmly established Downtown, and the planned government center will further solidify this concentration. Some government offices have, however, moved away from Downtown, as the scope of their service covers specialized subjects or areas which do not require a central location.

Regional cultural facilities such as the Art Museum, Historical Society and Civic Auditorium require a central location, as do the YMCA, YWCA and bus and train depots. Churches, on the other hand, are more responsive to the outward movement of population and some are experiencing difficult times with a drop in membership and attendance.

DEVELOPMENT CONDITIONS

BUILDING HEIGHTS

A concentration of multi-story buildings with elevators (four floors or more) occurs in and around the retail core and is bounded roughly by Burnside, Third, Madison and Eleventh. A less concentrated pattern of multi-story buildings extends southward into the urban renewal and Portland State University areas.

Walk-up buildings (one to three floors) occur mainly in the following locations: (1) the entire area north of Burnside, (2) east of Third Avenue from Burnside south to the urban renewal area, (3) west of the Park Blocks from Burnside to Market streets, (4) south of Market Street between Fourth and Broadway.

BUILDING CONDITIONS

The field survey of building conditions used the following criteria:

Category	Criteria	Examples
Excellent	Buildings under construction or less than five years old.	· Bank of California · Georgia Pacific Bldg. · Crown Plaza
Good	Buildings over five years old which have been remodeled or exceptionally maintained.	· Morgan Building · Security Bank · Pacific Building
Fair	Buildings in reasonable condition which need some repair or renovation.	· Mead Building · Corbett Building · Oregon Bank Bldg.
Poor	Deteriorating buildings which can be renovated if economically feasible.	· Royal Building · Governor Building · Elks Temple
Bad	Dilapidated buildings which are functionally obsolete.	· Mittleman Building · Auditorium Building · Berkshire Hotel

"Good" and "excellent" buildings are evenly distributed south of Burnside, with concentrations in the Portland State University and Urban Renewal areas.

Buildings in "fair" condition are also evenly distributed throughout Downtown. A majority of the buildings north of Burnside are in fair condition. A small concentration of buildings in fair condition occurs in an area from Sixth to Ninth between Washington and Salmon.

Areas with a high proportion of "poor" and "bad" buildings include the following:

- Fourth to the river between Burnside and Madison
- Burnside to Hoyt between Front and Park
- Ninth to Eleventh between Burnside and Main
- Broadway to Fourth south of Hall Street
- Park to Twelfth between Jefferson and Market

The only area with a concentration of "bad" structures is from Fourth down to the river between Morrison and Madison streets.

MAJOR VACANCIES

Major or long-term vacancies are generally limited to older buildings, the majority of which are in poor condition. Several buildings are condemned for occupancy above the first floor.

Two areas with major vacancies are: (1) Fourth to the river between Burnside and Salmon, and (2) north of Burnside between Front and the North Park Blocks.

A few vacancies occur in the core area and in the area west of Tenth Avenue. No significant vacancies occur in the area south of Main Street except in buildings scheduled for demolition to make room for new development.

Vacancies in the industrial district north of Burnside and west of Ninth have not been surveyed as many of the buildings in that area are being used for warehousing, but may appear vacant.

NEW CONSTRUCTION AND REMODELING

Beginning in the mid-1960's, extensive new construction has occurred in the Auditorium urban renewal area. This has been followed with both public and private development on adjacent blocks to the north. This new construction includes offices, parking and high-rise housing.

Another area of new construction is the Portland State University precinct comprised of classroom and parking facilities. This development is part of a long-range building program.

Other new construction is scattered throughout Downtown from the river to Tenth between Burnside and Jefferson.

In addition to new construction, extensive remodeling has taken place in the retail core and older office areas. The majority of the remodeling has occurred from Burnside to Salmon between Fourth and Ninth. Scattered remodeling has taken place east of Fourth and west of Ninth.

Areas with limited amounts of new construction and remodeling are:

1. Immediately north of Portland State University
2. Front to Fourth between the Morrison and Hawthorne bridges
3. North of Burnside Street

PROPOSED DEVELOPMENT

Proposed development is concentrated in two areas Downtown.

1. Portland State University precinct
2. Auditorium urban renewal area

Many other proposed developments are scattered throughout Downtown. Major proposals include:

1. U.S. National Bank office complex between Fifth and Sixth from Burnside to Oak.
2. G.S.A. Federal Office Building and Plaza between Second and Fourth from Madison to Jefferson.
3. Portland Plaza apartment condominium and office complex between Fourth and Fifth from Clay to Mill.
4. Benjamin Franklin Savings & Loan office and parking structure on Oak between Fifth and Sixth.
5. Offices and apartments on the northeast corner of Fourth and Lincoln.
6. Portland Commons office and commercial facilities between Front and First from Jefferson to Clay.
7. Portland General Electric office complex between Front and First from Taylor to Main.

INFLUENCING FACTORS

ARCHITECTURAL AND HISTORIC MERIT

Fifty Downtown buildings have been designated as historic landmarks by the Portland Historic Landmarks Commission. A number of other old buildings have been identified in the field survey to be significant for their architectural uniqueness. Three categories of aesthetic value were noted in the field survey: (1) outstanding, (2) good, (3) limited.

Two clusters of buildings with outstanding merit offer opportunities to preserve or create distinctive areas Downtown. These are the Skidmore Fountain Village–Old Town area and the area around First and Yamhill. The Skidmore Fountain Village is designated an historic area which is protected by design regulations.

VISUAL IMAGE

The visual image of Downtown is conveyed by the interplay of its buildings, spaces and activities. In addition, this visual image draws on special features of unique historical, cultural and social character.

A visual image of Downtown has been obtained partly through a "visual survey" conducted by the local chapter of the American Institute of Architects (A.I.A.) and the Portland City Planning Commission, and is published in a report titled **A Visual Survey of Downtown Portland.**

The A.I.A. "visual survey" was conducted at three scales: (1) viewing Downtown in relation to other parts of the City, (2) viewing Downtown from the immediate surroundings, (3) looking at Downtown from within.

In general, Downtown was found to be highly imageable at a distance because of its strong edges—the river, the West Hills and the central freeway loop. The image of Downtown at the middle scale is very strong when viewed from surrounding paths—the East Bank Freeway, the Sunset Freeway and the bridge approaches.

Viewed at scale three, Downtown is seen as a series of distinct districts—the retail core, urban renewal area, university precinct, historic district, skid road, Oriental restaurants strip, theatre district, medical office area, financial district and warehouse district.

In addition to the "visual survey," other special features have been identified. These include building plazas, monuments and statues, unique shopping and social phenomena, congregating spaces and landscape features.

Within Downtown, certain special features stand out prominently. These are the South Park Blocks, the urban renewal walkway system, Pioneer Courthouse Block, Chapman-Lownsdale Park, and the Willamette River.

There are large areas Downtown which lack significant visual impact. These areas are (1) south of Market between Fourth and Broadway, (2) west of Ninth between Burnside and Market, (3) north of Burnside, and (4) from Front to Fourth between Stark and Clay.

Awareness of the river adjacent to Downtown is very strong; however, access to the waterfront is difficult and contact with the water is possible at only one obscure location—that being at the foot of Clay Street. Many special features in Downtown are not tied together or do not form any visual links, except in the

urban renewal area and along the South Park Blocks. The Skidmore Fountain Village—Old Town area is loosely held together by continuity of historic building facades and with a special, but not historic style, pedestrian lighting system.

A description of special features follows:

Building Plazas

Portland Federal Savings
Georgia Pacific
Standard Plaza
City Hall
Equitable Savings & Loan
Crown Plaza
Century Tower

Private Courtyards

U.S. Customs House
Nortonia Building
Hilton Hotel
City Water Works
Ione Plaza
Koinonia House
Several downtown apartment buildings

Building Facade Continuity

Skidmore Fountain Village Historic Area
Portland State University along Broadway and Park
Portland Center Housing Group

Monuments and Statues

Elk Fountain
Presidential Statues in South Park Blocks
Skidmore Fountain
Battleship Oregon Mast
Simon Benson Drinking Fountains

Landscape Features

North Park Blocks
South Park Blocks
Chapman-Lownsdale Park
Skidmore Fountain Park
Pioneer Courthouse Block
City Hall Block

Art Museum Block
Public Library Block
Ione Plaza Block
Pettygrove Park
Lovejoy Fountain
Auditorium Forecourt
Great Western Bank Block
Hawthorne Bridge Approach
Harbor Drive Edges
Stadium Freeway Edges

Tree-Lined Boulevards

First Avenue
Harrison Street
Lincoln Street

Unique Shopping Features

Morgan's Alley
Morrison Street Miracle Mile
Yamhill Food Markets
Ankeny Alley
Old Town
Oriental Restaurants Strip

Unique Social Phenomena

Burnside Skid Road
Dragging Broadway
Rose Festival Waterfront Activities
Parades

Unique Scale Spaces

Park and Ninth avenues
Ankeny Street
Meier & Frank Parking Lot — Pioneer Courthouse blocks enclosed by tall buildings

Pedestrian Lighting Districts

South Auditorium Urban Renewal Area
South Park Blocks
North Park Blocks
Skidmore Fountain Village — Old Town
Retail District
Hoyt Hotel

Congregating Spaces

Auditorium Forecourt
Lovejoy Fountain
Chapman-Lownsdale Park
Skidmore Fountain Park
Art Museum Courtyard
South Park Blocks

Pedestrianways

Waterfront Esplanade
North Park Blocks
South Park Blocks
Urban Renewal Mall System
Historical Society Walk
Art Museum Walk
Interior Arcades
    Morgan's Alley
    Mohawk Galleries
Overhead Walkways
    First National Bank
    Crown Plaza
    Portland State University System
Underground Walkways
    Benson Hotel—Bank of California
    Hilton Hotel—Parking Garage
    Georgia Pacific—Parking Garage
    Front Avenue Underpass

Transportation Nodes

Greyhound Bus Depot
Trailways Bus Depot
Union Railway Depot
Major Bus Stops along Fourth, Fifth, and Sixth avenues

Other Special Features

Chamber of Commerce Information Center
Lookout Kiosk—Front Avenue and Market Street
Public Restrooms
    Chapman-Lownsdale Park
    Pioneer Courthouse
    North Park Blocks

DEVELOPMENT REGULATIONS

Downtown development is controlled by a combination of zoning regulations, building, fire and health codes, and business licenses.

Downtown is divided into five zoning districts: C1, C2, AO, M2 and M3. The C1 central business zone covers about one-third of Downtown, including the retail core. This zone promotes and regulates commercial-office-financial building in the Downtown core. Off-street parking is allowed only as a conditional use. The C1 zone also contains a maximum floor area ratio which limits the total floor area allowed on the site, but does not restrict the height of buildings. A floor area ratio of twelve times the site area is the maximum limit allowed.

The C2 general commercial zone allows all types of retail and service establishments plus limited size wholesale and warehouse uses. Used car sales, however, are not allowed. C2 zoning was established in the South Auditorium Urban Renewal area as a blanket zone to allow mixed commercial-office-residential development. The C2 zone imposes a height limit of 45 feet within 400 feet of a "lesser" zone. There is no height limit or maximum floor area ratio beyond the 400 foot boundary. Off-street parking is required in a ratio of one space for every 500 to 700 square feet of building space, depending on the use.

The AO zone allows high-density apartment development. The building size is limited by a ratio of gross floor area to lot area, varying from three to six, with no maximum height limit. Hotels, motels and professional offices are permitted as conditional uses in the AO zone. Off-street parking is required at a ratio of one space per dwelling unit in most instances.

The AO zone includes property adjoining the South Park Blocks and adjacent areas south of Columbia Street and west to the Stadium Freeway.

The M2 general industry zone permits a broad range of industrial uses except for the heaviest types. No new residential use is allowed in the M2 zone. This zone includes the area north of Burnside Street from the Stadium Freeway to the Willamette River and south of Jefferson Street from Front Avenue to the river.

The M3 light industry zone allows small industry, general commercial and auto sales. This zone surrounds the C1 zone and includes more area Downtown than any other zone. One parking space for every 500 to 700 square feet of building space, depending on the use, is required in this zone.

Two zones that regulate appearance, design and signboards, are superimposed over the basic zones. The D design zone is a tool for preserving and enhancing the appearance and design of buildings in areas of historic value, architectural merit and scenic value or special interest. This zone presently includes two areas: the Skidmore Fountain Village and all property bordering the South Park Blocks. The Portland State Unviersity and South Auditorium renewal areas have design control review for new buildings, but are not covered by the design zone.

The S sign control zone regulates sign locations to avoid adverse effects on traffic safety, and the appearance and scenic value of the city. Bridge approaches, major throughways and all property within approximately 600 feet of the Stadium Freeway and Harbor Drive are included in this zone.

LAND VALUES

Assessed land values generally decrease concentrically from a center at the Meier and Frank Block. The highest land values (over $25.00 per square foot) occur between Fourth and Park avenues from Oak to Jefferson. A concentration of $12.50 to $25.00 per square foot value is located in roughly a two-block wide bank around the higher concentration. The remaining blocks between Burnside, Market, the river and the Stadium Freeway are in the $6.00 to $12.50 per square foot category.

The lowest land values are found north of Burnside and are in the $2.50 to $6.00 per square foot range.

Downtown Portland, from Hoyt Street south to the Stadium Freeway, accounts for slightly more than one percent of the total land area of the city, but contributes approximately 9 percent of the total assessed value of the city.

	Area	Assessed Land Value
City	89.0 square miles	$3,335,500,000
Downtown	1.1 square mile	306,000,000

GEOGRAPHIC FEATURES

The Willamette River and the West Hills form geographic barriers which have contributed to the compact development of Downtown.

Within Downtown, there is a 150-foot topographic change from the Stadium Freeway to the river. The topography runs at a diagonal to the street grid resulting in many blocks having a high southwest corner and low northeast corner.

There are three soil types in Downtown. Soils along the river are primarily alluvium or river bottom soils. Although these do not prohibit construction, they are a design constraint. Most of the Downtown area consists of sand and silt which presents no restrictions to building.

Although a major fault line runs along the base of the West Hills adjacent to Downtown, no major earthquake activity has been recorded. Some local geologists recommend against large scale building within 250 feet of the fault lines as the area is subject to soil shifts, slides and possible tremor impact.

Recent flood control dams on the Willamette and Columbia rivers have established elevation +24 as the 100-year flood level through Portland. As the lowest elevation in Downtown is +31, the flood plain is no longer a factor. Median river pool occurs at elevation +16 and seasonal fluctuations must be considered when developing the waterfront.

Portland's climate is characterized by mild, wet winters with an average temperature range of 50^{o}–60^{o}; and warm, dry summers with an average temperature range of 75^{o}–85^{o}. Average annual rainfall is 42.37 inches, with nearly 90 percent occurring between October and May. On the average, Portland has only five days of measurable snow. Heavy rain is rare, but winter rains may persist for days at a time.

There are an average of 298 cloudy or partly cloudy days per year. This, combined with precipitation, presents a dreary weather picture nine months of the year.

Temperatures tend to be slightly higher Downtown than in the rest of the city. This is due to the reflective nature of building and street surfaces, and warm air pollutants from vehicles.

Winds tend also to be stronger Downtown, due to the canyon effect created by tall buildings. Haze and fog appear to be more prevalent Downtown and this area generally has more overcast days than other parts of the city.

UTILITIES, LOADING AND SERVICE

There are extensive water, sewer, gas, electric, telephone and steam lines running under virtually every Downtown street. The existence of these lines and future utility needs must be taken into account when developing specific projects. Presumably all utility lines can be altered or relocated if costs are not considered.

Storm and sanitary sewers have been separated in the South Auditorium renewal area and in part of the Portland State University precinct. The city's long range sewer program includes expanding the separation area north to Burnside Street in Downtown.

Overhead electric power and telephone lines have recently been placed underground throughout Downtown. Remaining overhead lines south of Market and north of Burnside are to be placed underground by 1974.

The Pacific Power and Light waterfront steam plant supplies heat to over 650 Downtown accounts. There are no plans to remove or replace this important source.

Loading zones and service areas exist along almost every block in Downtown. In several locations, conflicts occur between loading and pedestrian and vehicle circulation. The most apparent conflict is along both sides of Alder Street, between Fifth and Sixth.

Older buildings, especially in the retail core, generally have curb loading. Newer buildings usually have off-street loading docks. Many of these require trucks to back in, sometimes creating traffic congestion. Drive-through service areas are preferable.

The many bus loading zones on several Downtown streets also cause congestion.

Many sidewalks have elevator vaults and basements which extend out to the curb, and will have to be considered in future detailed planning.

AIR QUALITY

A study of air quality conditions Downtown has been prepared by the Columbia-Willamette Air Pollution Authority (C-WAPA). This report, titled **Technical Report No. 71-3; Air Quality Aspects of Downtown Portland,** is based on data collected from 1967 to 1971 in seven Downtown locations. Air quality measurements at these locations are generally, but not specifically, applicable to the whole of Downtown. The following is a summary of these findings:

1. **Suspended Particulates:** These are small liquid and solid particles which remain suspended in the atmosphere for long periods. Concentrations of these can cause respiratory irritation, reduced visibility and soiling. The Downtown area is continually in violation of C-WAPA standards, although no violations of the Federal Environmental Protection Agency primary standards occurred during 1969 and 1970.

   Sources of these pollutants are located in the Guilds Lake industrial area and along the waterfront south of Downtown. Vehicle emissions within Downtown can also be a contributing source.

2. **Particulate Fallout:** Particulate matter of large sizes which falls to earth close to the point of emission creates nuisance and soiling problems. Soot, fly ash, wood cinders and dust are the main types of particulate fallout. Measurements in Downtown are almost continually in excess of C-WAPA standards.

   Sources of particulate fallout are oil furnaces, incinerators, and dust generated by traffic and construction. Soot from diesel exhaust can also be a contributing source.

3. **Carbon Monoxide:** This is a colorless, odorless, toxic gas created by incomplete combustion of carbon-containing substances. The main source of this pollutant is automobiles and trucks. During 1968, there were 182 periods of violation which occurred at one sampling station Downtown.

4. **Photochemical Oxidents:** These pollutants are produced in the atmosphere when mixtures of reactive hydrocarbons and nitrogen oxides are exposed to sunlight. They can cause eye and lung irritation, vegetation damage, deterioration of materials, offensive odor, and haze.

   Reactive hydrocarbon emissions from vehicles are the main source from which photochemical oxidents are formed. The concentration of vehicles in Downtown is greater than in any other part of the metropolitan area. Reduction of vehicle exhaust emission, or a reduction of traffic, will be required to attain satisfactory levels of photochemical oxidents in Downtown.

CIRCULATION & PARKING

PEDESTRIAN TRAFFIC

The main concentration of pedestrian traffic Downtown is between S.W. Fourth and S.W. Ninth avenues from Washington to Taylor streets. The highest counts in this area are Fifth Avenue from Washington to Yamhill, Morrison and Alder streets from Fifth to Park, Sixth Avenue from Stark to Alder, and Washington from Sixth to Broadway. The heaviest pedestrian counts relate directly to the location of major retailing.

Generally, pedestrian traffic thins out rapidly south of Salmon, east of Fourth, north of Washington, and west of Park. Exceptions are Fifth, Sixth and Broadway which extend fingers of pedestrian traffic southward from the main concentration. Morrison and Alder streets also extend fingers westward toward the Stadium Freeway.

The pedestrian survey is limited in its area of coverage. It does not relate outlying pedestrian generators such as Portland State University, the urban renewal area, and fringe parking facilities, to the retail core. It is assumed that the South Park Blocks carry a large amount of pedestrian traffic. Another area of heavy pedestrian traffic that has not been counted is the Burnside skid road strip from Second to Broadway.

Heavy pedestrian traffic also tends to be generated around public buildings. This is true of the State Office Building, police station, public library and courthouse.

Core area pedestrian counts have been conducted for many years by the Building Owners and Managers Association. A comparison of the ten highest locations shows a drop in the average hour count from 24,000 in 1950 to 9,000 in 1970. The period of most rapid decline was 1950 to 1960 with a drop of 12,000. The counts have somewhat leveled off in recent years.

VEHICULAR TRAFFIC

There are a limited number of major vehicular entrances into Downtown. The major portion of Downtown traffic enters over the several bridges from the eastside. Other major entries are the Baldock and Sunset freeways.

Within the one-way street grid Downtown, traffic is heaviest on Fourth, Fifth, Sixth and Broadway in a north-south direction, and on Washington and Alder in an east-west direction. The freeway access streets—Jefferson, Columbia, Clay, and Market—also carry heavy traffic.

Burnside Street and Harbor Drive are major two-way arterials which carry much external traffic through Downtown. Because of their extreme width and fast-moving traffic, these two arterials form barriers to pedestrian movement. This has had some effect on underutilization of the riverfront and the lack of redevelopment north of Burnside.

The largest bus volumes enter Downtown across the Hawthorne, Morrison, Steel and Broadway bridges from the eastside, and on Fourth Avenue from the southwest. The major bus transit streets within Downtown are Third, Fourth, Fifth, and Sixth in a north-south direction, and the bridge access streets in an east-west direction.

Approximately 168,000 people enter Downtown daily by private vehicle and public transit. Roughly 143,000 of these enter in 105,000 private vehicles. The remaining 25,000, or 15 percent, enter by public transit. During the morning peak hour, the transit percentage increases to about 25 percent.

PERSONS ENTERING DOWNTOWN ON AN AVERAGE WEEKDAY

	1960	1970
Automobiles Entering Downtown	76,000	105,000
People Entering Downtown by Automobile	109,000	143,000
People Entering Downtown by Bus	26,000	25,000
Total People Entering Downtown by Transit or Automobile	135,000	168,000
Percent of People Entering Downtown by Bus	19.3	14.9

Source: PVMTS and DeLeuw, Cather & Co.

The preceding table compares the number of people entering Downtown by various modes for 1960 and 1970. There was a 31 percent (34,000) increase in automobile riders and a 4 percent (1,000) decrease in transit riders per average weekday during this period.

A postcard questionnaire was distributed in several Downtown office buildings asking what mode of transportation was used to travel Downtown on that particular day. Of the 13,000 replies, 28 percent rode the bus and 52 percent drove automobiles to Downtown. The remaining 20 percent were auto passengers or walked Downtown.

The first following table summarizes the reasons for choosing various modes of transportation.

"Ten percent" of the people interviewed said they used the bus because no other mode was available. This group of captive riders accounted for 33 percent of the bus riders surveyed. Nine percent of those surveyed chose to ride the bus because it was less expensive than driving and parking Downtown.

Twenty percent of the people surveyed said they used their automobile because it was needed for more than one purpose or trip. An additional 16 percent of the automobile drivers felt that method was more comfortable and convenient than the bus.

The questionnaire also asked the reason for coming Downtown and the reason for entering a particular building. The second following table summarizes the reasons for entering a building by the main purpose for coming Downtown. Fifty-four percent of the persons who entered buildings to make a business call came Downtown specifically for that reason whereas 38 percent of those making business calls were already Downtown for work purposes. Forty-one percent of those surveyed who entered retail stores came Downtown to shop. Fifty-nine percent of those who entered retail stores came Downtown for reasons other than shopping.

CHOICE IN TRANSPORTATION MODE TO DOWNTOWN PORTLAND

Reason for Choosing Bus	Percent of Bus Riders	Percent of Total Responses
Do Not Like to Drive	6	2
Bus More Convenient	25	7
No Driver's License	13	4
Family Has No Automobile	11	3
Automobile Used by Others	9	3
Bus Less Expensive Than Automobile	19	6
Parking Too Expensive	12	3
Other	5	1
Total	100	28

Reason for Choosing to Drive Automobile	Percent of Auto Drivers	
No Bus Available	8	4
Not Familiar with Bus Service	1	1
Bus Service Too Slow	9	5
Requires Transfer Between Buses	1	1
Bus Arrival Too Infrequent	5	3
Auto More Comfortable and Convenient than Bus	31	16
Need Automobile for Other Purpose	39	20
Other	6	2
Total	100	52

Reason for Choosing to Ride as Auto Passenger or Walk	Percent of Passengers & Walkers	
No Bus Available	4	1
Not Familiar with Service	1	-
Bus Service Too Slow	7	1
Requires Transfer Between Buses	1	-
Ride Available in Automobile	61	12
Live Close Enough to Walk to Destination	17	4
Other	9	2
Total	100	20
Total		100

Source: DeLeuw, Cather & Co.

REASON FOR ENTERING BUILDING
BY MAIN PURPOSE FOR COMING DOWNTOWN

Reason for Entering Building	Main Purpose for Coming Downtown by Percent								
	Work	Business Call	Shop	Eat Meal	Social Recreation	Education	Personal Business	Other	Total
Work	99	-	-	-	-	1	-	-	100
Business Call	38	55	2	-	-	1	2	1	100
Shopping	37	4	41	1	2	3	8	5	100
Eat, Coffee Break	58	5	7	13	2	4	7	4	100
Social-Recreation	20	7	7	2	50	5	8	2	100
Education	6	2	5	-	2	78	5	1	100
Personal Business	28	3	3	-	1	4	60	1	100
Passing Through	46	9	9	1	6	7	9	14	100
Other	24	5	7	-	2	4	6	52	100

Source: DeLeuw, Cather & Co.

The travel mode for intra-Downtown trips is shown below. Sixty-nine percent of those surveyed walked, whereas 19 percent made intra-Downtown trips by automobile and 10 percent used the bus.

INTRA-DOWNTOWN MODE OF TRAVEL

	Percent
Drive Automobile	15
Automobile Passenger	4
Bus	10
Taxi	1
Walk	69
Other	1
Total	100

Source: DeLeuw, Cather & Co.

PARKING

A parking survey was conducted in the fall of 1970 within an area bounded by the Willamette River, Stadium Freeway, Columbia Street, 18th Avenue, and Hoyt Street. There are approximately 40,000 parking spaces in the study area. Of these, 10,000 are curb spaces, and 30,000 are off-street spaces.

Downtown parking is divided into three major categories: (1) surface parking, (2) parking structures, and (3) parking incidental to the use of the building.

Surface parking dominates except in the retail core area from Stark to Main and Fourth to Park. Concentrations occur along the Stadium Freeway, Front Avenue, and at the Morrison Bridgehead.

A scattering of parking structures is located around the retail core. Projected parking garages in the Portland State University precinct will create a ring around that area. Other parking garages are located in the urban renewal areas that relate to adjacent uses.

Parking that is incidental to major uses is located mainly under new buildings. A few older buildings in the core area also have underground parking.

The downtown area supports much auto-related land use except in the retail core. Much of the surface parking can be considered "soft" or subject to change. It is therefore apparent that there is much under-utilized land in Downtown.

The following table shows the number of vehicles parked in the study area during the peak hour from 12 to 1 p.m. Slightly fewer vehicles are parked in the study area between 11 a.m.–12 and 1-2 p.m.

SUMMARY OF DOWNTOWN PARKING CONDITIONS–FALL 1970

Area	Type of Parking	Inventory of Spaces	Vehicles Parked During Peak Hour (12N to 1 p.m.)	Peak Hour Occupancy (Percent)
Study Area – River, Freeway, Columbia, 18th, Hoyt	Off-Street	29,419	22,363	76.2
	Curb	10,011	7,559	75.6
	Total	39,430	29,922	75.9
Core Area – River, Market Freeway, Burnside	Off-Street	17,441	14,128	81.2
	Curb	5,121	3,973	77.4
	Total	22,562	18,101	80.4
Central Core Area – River, Yamhill, Freeway, Burnside	Off-Street	7,491	6,871	91.6
	Curb	2,374	1,879	79.1
	Total	9,865	8,750	88.6

Source: City of Portland, Bureau of Traffic Engineering
DeLeuw, Cather & Co.

Normally, all parking spaces in Downtown are never filled. This is because some available parking is beyond acceptable walking distance, some private or restricted parking may not be completely filled, and parking costs may be too high in comparison with neighboring facilities.

Parking characteristics Downtown have been developed through a postcard questionnaire handed out in 27 major buildings. A summary of these characteristics by trip purpose of the 13,000 responses is shown in the following table.

PARKING CHARACTERISTICS BY TRIP PURPOSE

Main Reason for Downtown	Average Parking Duration [1] Hrs.:Min.	Average Walking Distance to Destination Blocks	Average Parking Cost[2]	Percent of Interviewed Parkers
Work	6:17	3.1	$0.83	50
Business Call	1:52	2.1	0.47	15
Shopping	2:08	2.7	0.64	15
Eat Meal	3:01	2.8	0.62	1
Social-Recreation	2:08	2.5	0.40	1
School or College	3:33	2.4	0.49	2
Personal Business	1:34	2.4	0.40	11
Other	2:34	2.5	0.50	5
Average	4:11	2.8	$0.68	100

1 Parked in one location without being moved.

2 Includes free parking.

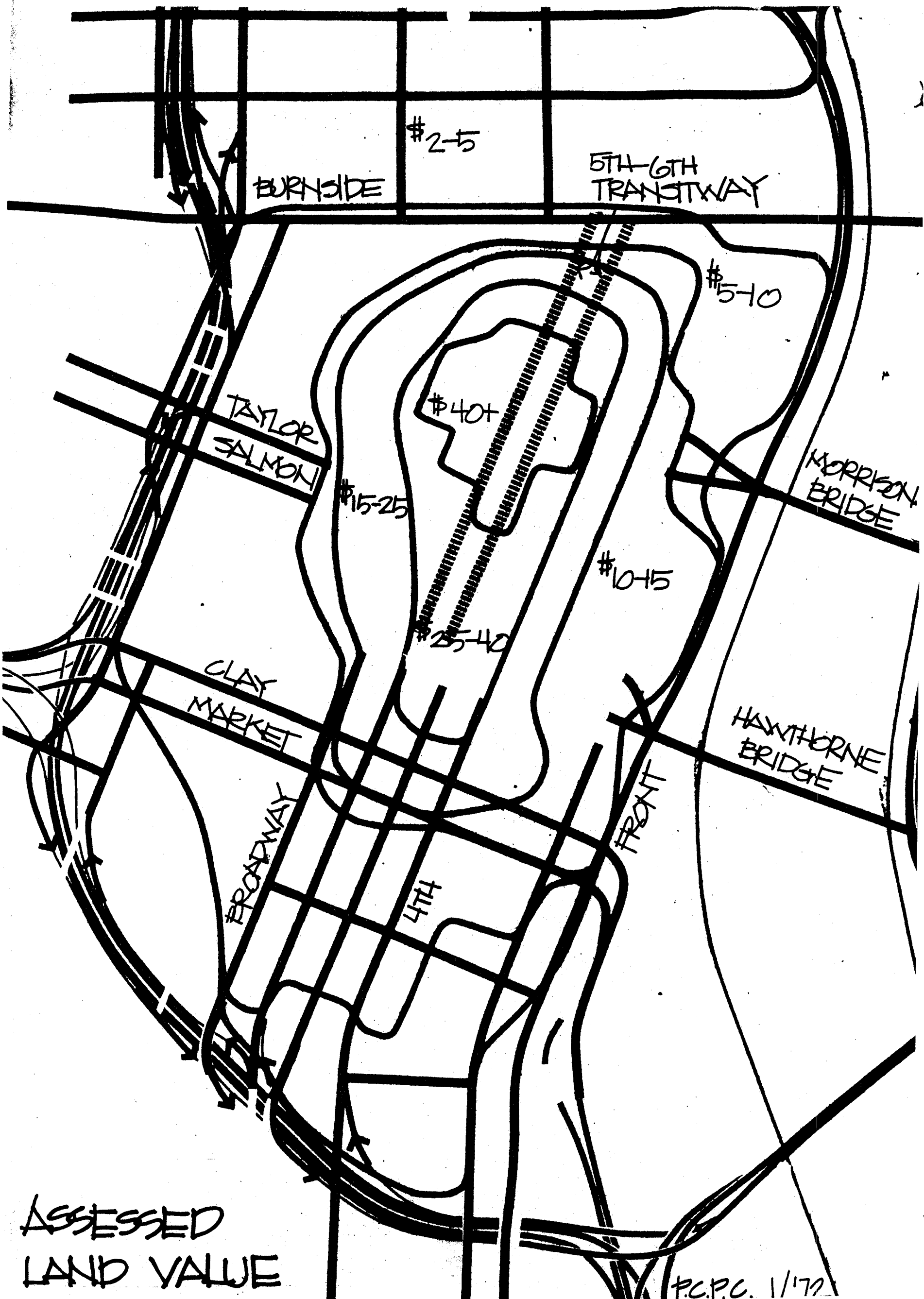
Source: DeLeuw, Cather & Co.

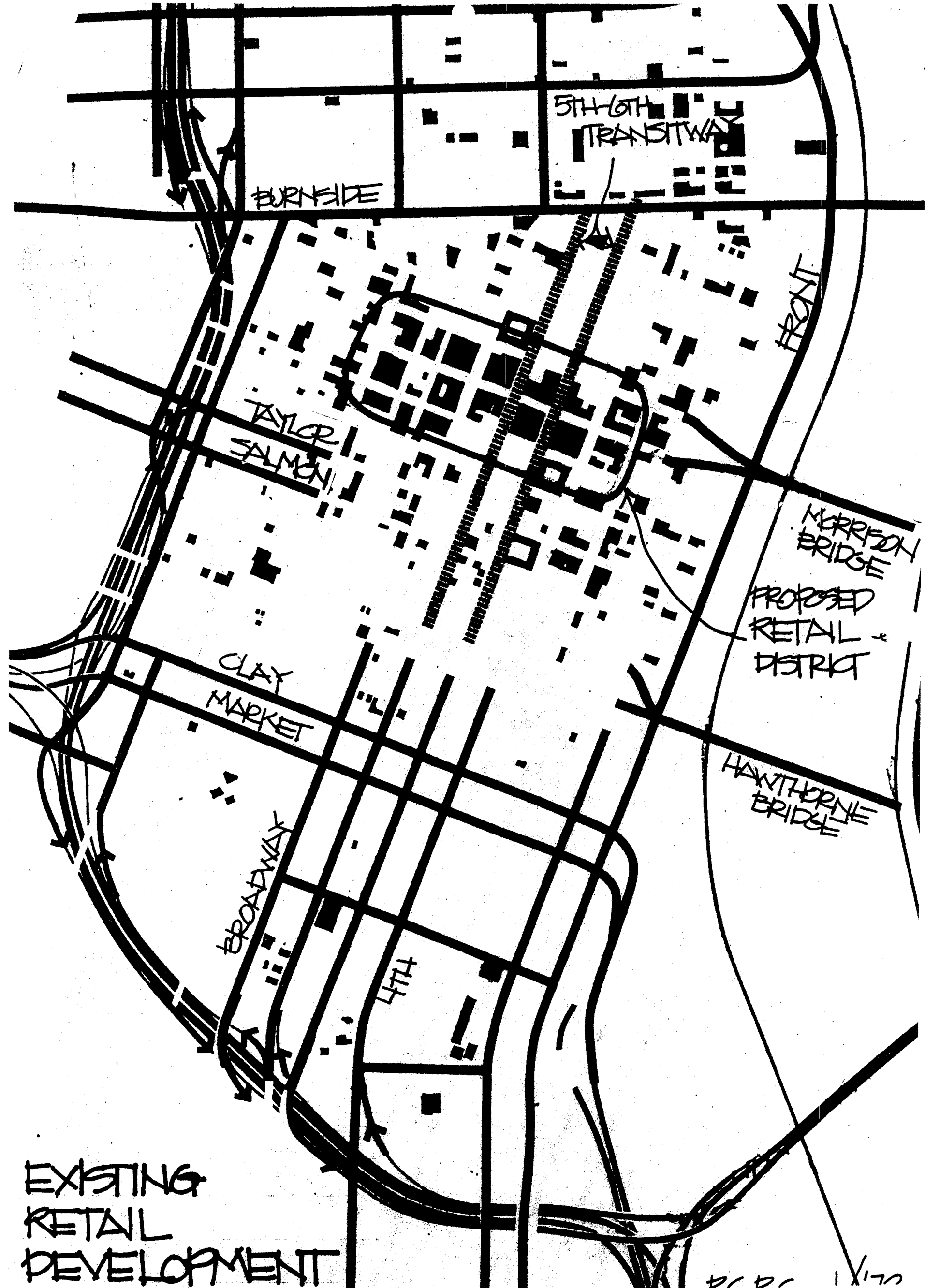
The interviews show that the average Downtown worker who drives to work parks slightly over six hours in one location, walks about three blocks to work, and pays approximately $0.83 for parking. The average parking duration for all persons interviewed was slightly over four hours. The average interviewee walks less than three blocks to his destination and pays about $0.70 for parking. The average parking cost related to the duration of parking is shown below.

AVERAGE PARKING COST BY DURATION

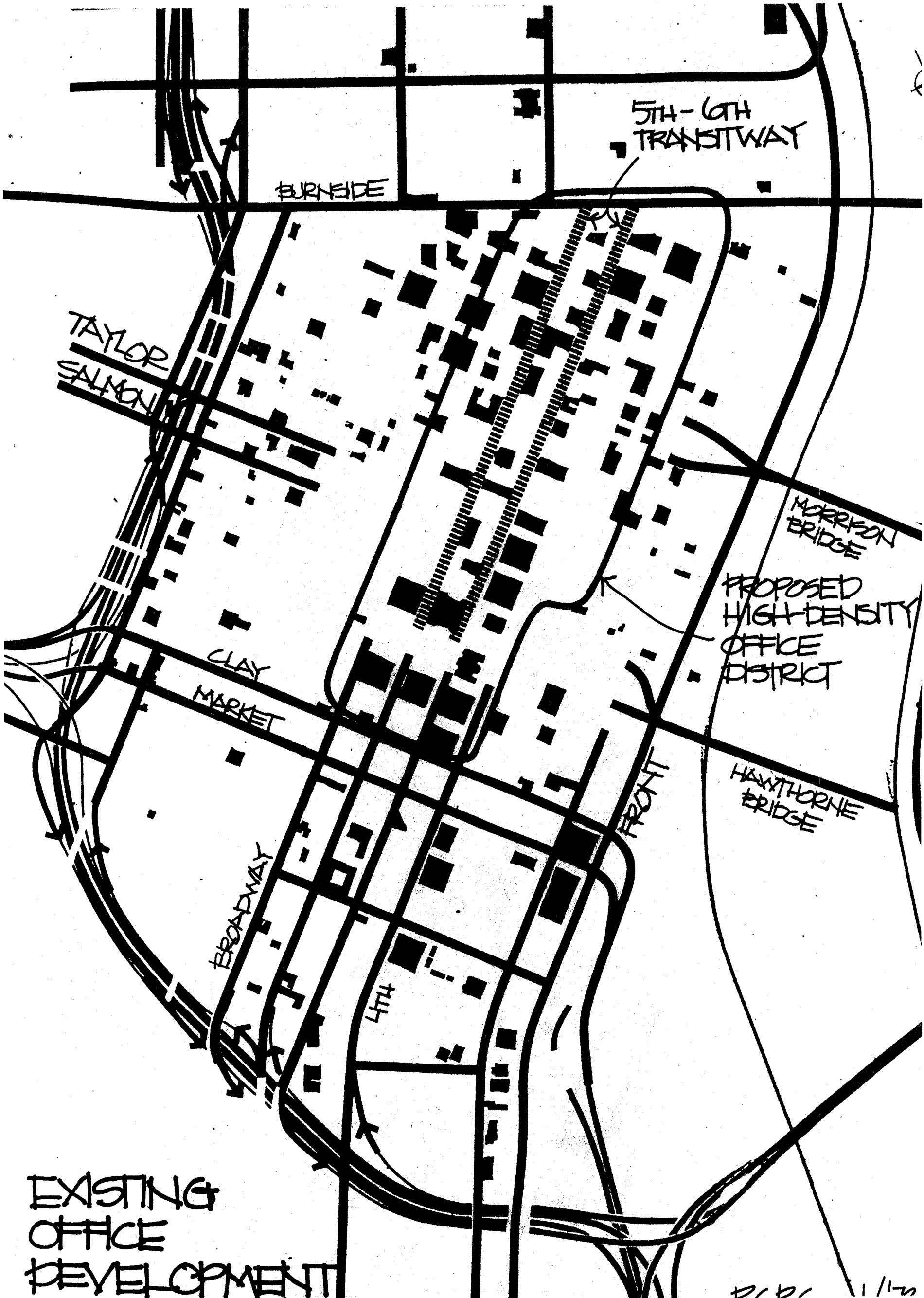
Duration	Average Parking Cost	Percent of Parkers
Under one hour	$0.16	18
1–2 hours	0.42	18
2–3 hours	0.90	8
3–4 hours	0.95	5
4–5 hours	1.10	5
Over 5 hours	0.87	46
Average	$0.68	100

Source: DeLeuw, Cather & Co.

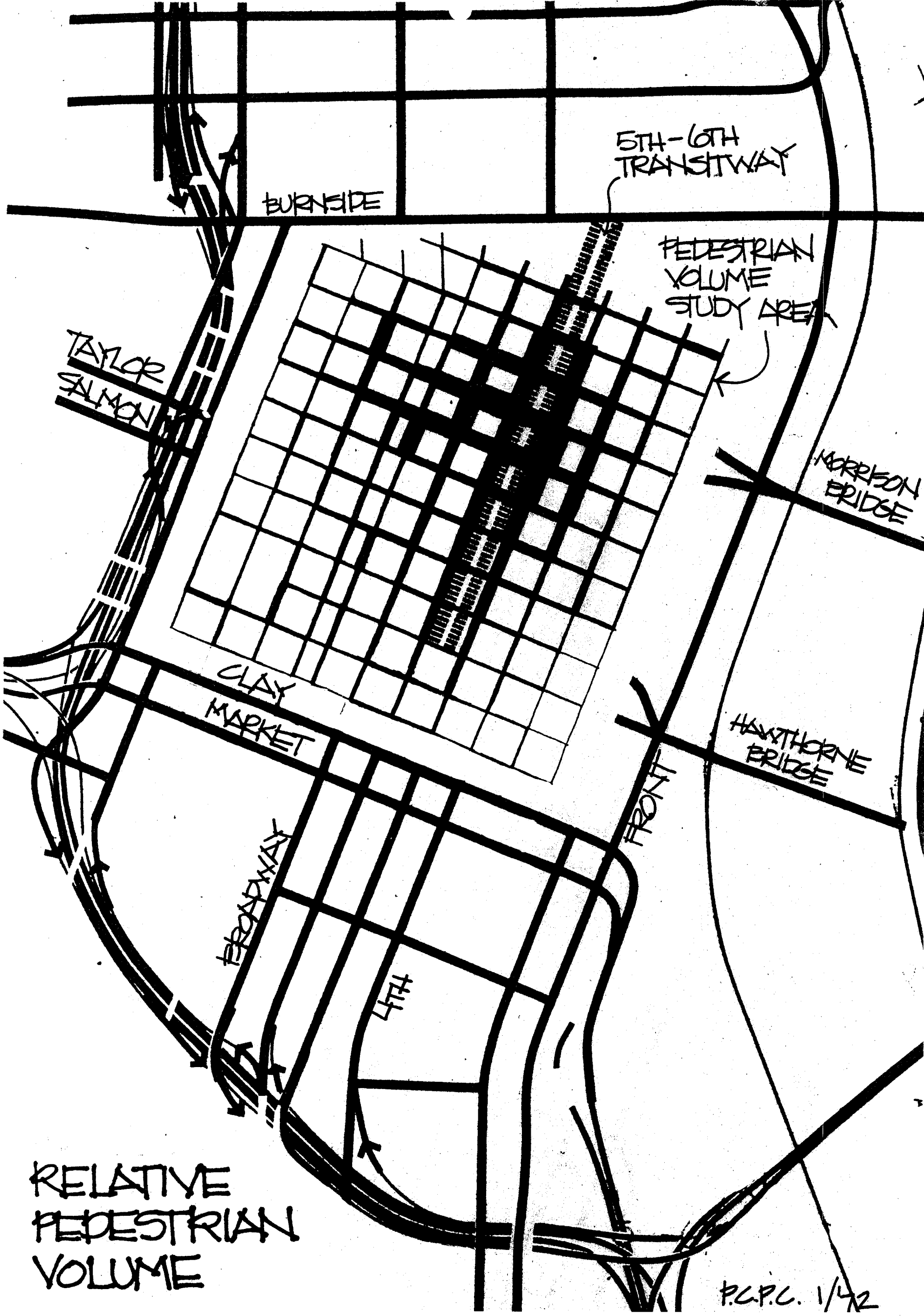

$2-5
BURNSIDE
5TH-6TH TRANSITWAY
$5-10
$40+
TAYLOR
SALMON
$15-25
MORRISON BRIDGE
$10-15
$25-40
CLAY
MARKET
HAWTHORNE BRIDGE
BROADWAY
4TH
FRONT
ASSESSED LAND VALUE
P.C.P.C. 1/72

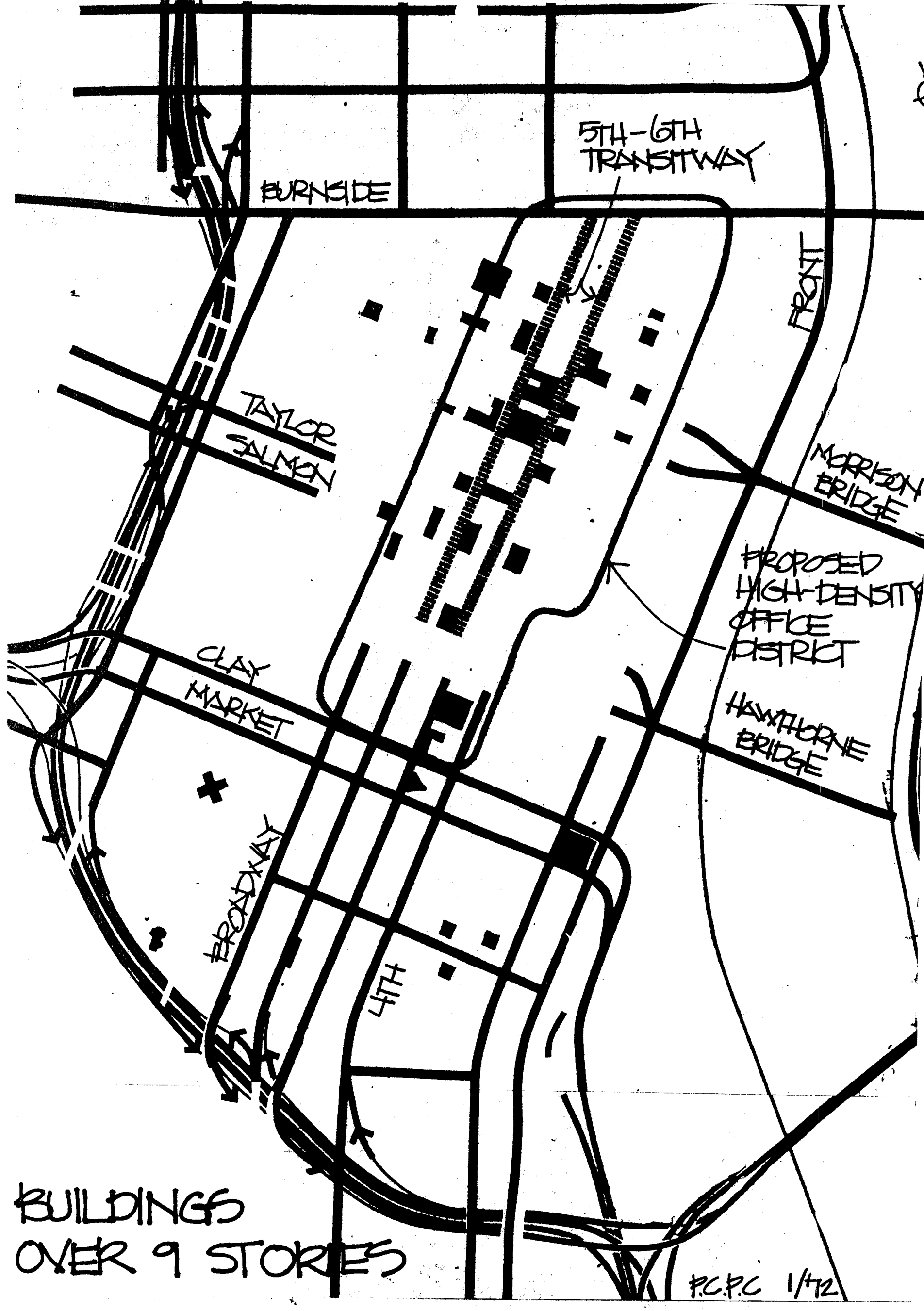


EXISTING RETAIL DEVELOPMENT



EXISTING OFFICE DEVELOPMENT


5TH-6TH TRANSITWAY
BURNSIDE
PEDESTRIAN VOLUME STUDY AREA
TAYLOR
SALMON
MORRISON BRIDGE
CLAY
MARKET
HAWTHORNE BRIDGE
FRONT
BROADWAY
4TH
RELATIVE PEDESTRIAN VOLUME
P.C.P.C. 1/72


5TH-6TH TRANSITWAY
BURNSIDE
FRONT
TAYLOR
SALMON
MORRISON BRIDGE
PROPOSED HIGH-DENSITY OFFICE DISTRICT
CLAY
MARKET
HAWTHORNE BRIDGE
BROADWAY
4TH
BUILDINGS OVER 9 STORIES
P.C.P.C 1/72

5TH-6TH TRANSITWAY

BURNSIDE

MORRISON BRIDGE

HAWTHORNE BRIDGE

10000
5000
2500
1000
500

PEOPLE CONCENTRATIONS

1960 DATA WITH 1970 ADDITIONS

PCPC 1/72