D R A F T

TECHNICAL MEMORANDUM 88.4.7

METRO RAIL BEFORE-AND-AFTER STUDY: DATA BASE ORGANIZATION AND STRUCTURE

Prepared for

Southern California Rapid Transit District

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1.0 INTRODUCTION

The purpose of the Metro Rail Before-and-After Study is to examine the monetary benefits which accrue over time to property located in the vicinity of Metro Rail stations and to isolate the benefits which are directly attributable to the Metro Rail system. The study is further intended to identify benefits which may be linked to particular events associated with the development of the rail system (e.g., commencement of construction, commencement of operations, etc.). The study will attempt to advance the state of the art in benefit measurement through the scientific analysis of benefits that occur over time in the vicinity of Metro Rail stations. This knowledge will be useful in understanding the process by which benefits are derived and will advance knowledge of the methodology to evaluate land use impacts of transit systems in the United States.

The following tasks constitute the Before-and-After Study:

1) Identify Indicators of Benefit and Determine Area of Coverage
2) Identify Potential Sources of Data
3) Evaluate Useability of Data
4) Refine Indicators and Areas of Coverage
5) Design Data Base and Analysis Methodologies
6) Compile Data Base and Establish Update Procedures
7) Analyze Data and Develop Prototypical Case Studies

Tasks 1 through 5 of the Study have been accomplished prior to the development of this Technical Memorandum. The results of Tasks 1, 2 and 3 are contained in Technical Memorandum 88.4.1, Metro Rail Before-and-After Study: Analysis of Potential Monetary Benefit Indicators, Identification of Potential Data Sources and Evaluation of Data Useability. The results of Tasks 4 and 5 of the Study are contained in Technical Memorandum 88.4.5, Metro Rail Before-and-After Study: Research Design, Methodology, Variables and Data Collection Plan. In these tasks, the data sources were refined and the most promising sources to carry out the methodology were identified.

This Technical Memorandum presents the results of Task 6 of the Before-and-After Study. The purpose of Task 6 is to develop the data base required to implement the methodology developed in Task 5. While the basic structure of the data base was outlined in Technical Memorandum 88.4.5, this Technical Memorandum is designed to provide further technical details concerning the data base structure, format and updating. Additional refinement of the data sources to fit the data base structure are also described in this document.

The sections which follow examine in detail: 1) the data base organization and integration with the study methodology and existing data bases; 2) specifications for the data base structure and 3) basic updating procedures for the data base.

2.0 DATA BASE ORGANIZATION

In order to effectively implement the study methodology, the data base organization must be related to the requirements of the methodology and tailored to fit the form in which the data are available. The sections which follow provide a brief summary of the study methodology and describe the organization of the data base.

2.1 STUDY METHODOLOGY

A detailed description of the research design and methodology for the study can be found in Technical Memorandum 88.4.5, Metro Rail Before-and-After Study: Research Design, Methodology, Variables and Data Collection Plan. The methodology to be used in this Study is designed to refine and expand the techniques available to isolate the impact of the transit system on changing property values from the many other factors which also influence property value.

Previous studies which have attempted to determine the impact of a transit system on land use and property value have done so by comparing "before transit" and "after transit" conditions for properties located in station areas. Unlike these previous studies, the methodology to be used in this study will attempt to isolate the impact of the Metro Rail system on property value by calculating and comparing two different values for properties located in the vicinity of Metro Rail stations: 1) property value "as if Metro Rail had not occurred" and 2) property value with Metro Rail.

The first value ("as if Metro Rail had not occurred") will be calculated by developing predictive equations using property sales data in the pre-Metro Rail period. A multiple regression technique will be used to derive these equations. The pre-Metro Rail equations are designed to reflect the pre-Metro Rail conditions which determine property value in station areas. [The pre-Metro Rail period is defined as the time frame in which Metro Rail would be expected to have no impact on property value and has been hypothesized to be the time period prior to the selection of the final rail route. Using this criterion, the pre-Metro Rail period would be defined to be 1983 and prior years.] Because these equations would be expected to reflect no influence of Metro Rail, the equations can be applied, using current conditions, to any property in the study area in the post-Metro Rail period (1984 and beyond) to estimate the expected property value if Metro Rail had not been built.

The second value ("with Metro Rail") will be determined by collecting actual sales prices for properties in the post-Metro Rail period. The projected property value "as if Metro Rail had not occurred" will be determined for all properties which have a sale point in the post-Metro Rail period using the predictive equations as described in the preceding paragraph. These two values will then be compared and an analysis conducted on the differential between the expected and actual values (termed the "residual" value).

This analysis will involve development of a bi-variate regression equation with residual value as the dependent variable and distance to the nearest Metro Rail station as the independent variable. The proportion of the residual value which can be correlated to distance from the Metro Rail station will be considered to be attributable to the influence of the Metro Rail system and, subject to additional control tests described in detail in Technical Memorandum 88.4.5,

determined to be a direct measure of the monetary impact of Metro Rail on property value.

2.2 STUDY AREA

The area to be studied includes properties in the vicinity of the first five stations of the Metro Rail system. These stations constitute Minimum Operable Segment-1 (MOS-1) of the entire Metro Rail project. MOS-1 is 4.4 miles in length and runs between Union Station and Wilshire/Alvarado station. In 1985, the SCRTD Board of Directors, under state authority established benefit assessment districts in the vicinity of these five stations, in order to fund approximately 11% of the cost of constructing MOS-1. The boundaries of these benefit assessment districts will also be used to define the study area for the Before and After Study (see Figure 1).

2.3 DATA BASE ORGANIZATION

In order to accomplish the methodology described in Section 2.1 above, it is necessary to organize a data base which supports the development of the predictive equations and the residuals analysis. This section describes the principles used to develop the Before and After study data base. The following section provides technical specifications for the data base.

2.3.1 Dependent Variable

The dependent variable for the analysis is property value, as measured by recorded sales prices of properties in the study area. The unit of analysis for the study is an individual property with a recorded sale. A separate record will be maintained for each recorded sale within the study area. Each record will contain the fields described in the following section. The data contained in each record should reflect the condition of the property at the time of the sale in order to determine the effect of the actual conditions on the actual sales price in order to produce the most accurate predictive equations.

2.3.2 Independent Variables

The list of independent variables to be potentially included in the pre-Metro Rail predictive equations must be sufficiently inclusive to ensure that the major factors which could affect property value are considered. Property values can be potentially influenced by many factors. For purposes of organizing the Before and After study data base, these factors have been grouped into four categories: 1) Site Characteristics; 2) Location Characteristics; 3) Market Characteristics and 4) Policy Characteristics (see Figure 2). Detailed examination of the potential impacts of these characteristics and their individual components can be found in Technical Memorandum 88.4.5.

2.3.3 Relationship of the Before and After Study Data Base to the Benefit Assessment Data Base

In order to conduct the study methodology, it is necessary to collect data on both the dependent and independent variables for each analysis unit (individual property sale). A significant source of the data to be used in the study is the Benefit Assessment data base. In order to implement the special assessment program in the MOS-1 benefit assessment districts, a dedicated data base

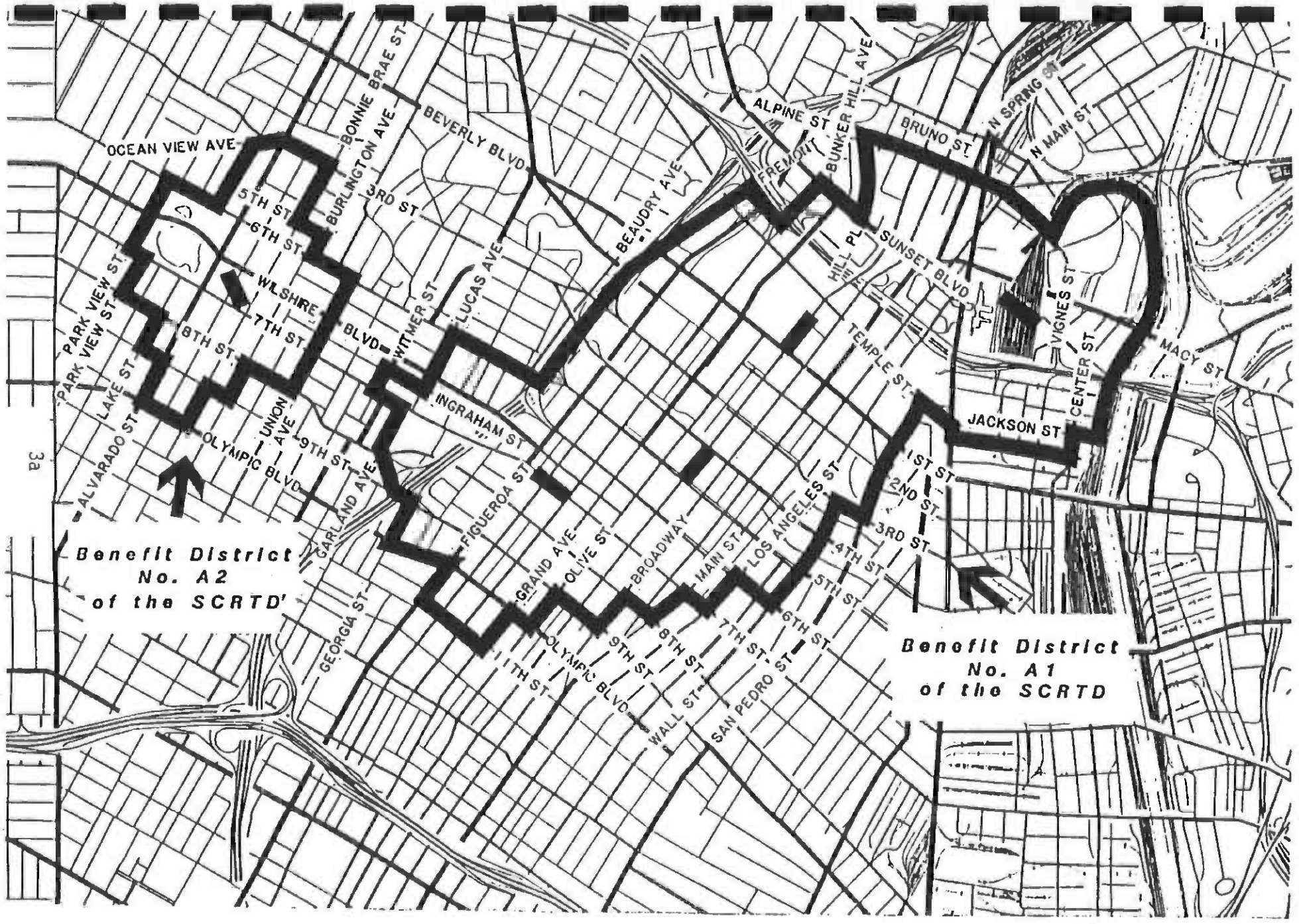

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FIGURE 1

RTD

BENEFIT ASSESSMENT DISTRICTS

JANUARY, 1985

BASIC STRUCTURE OF MULTIPLE REGRESSION EQUATIONS

VALUE OF DEPENDENT VARIABLE	IS A FUNCTION OF INDEPENDENT VARIABLES			
	SITE CHARACTERISTICS	LOCATION CHARACTERISTICS	MARKET CHARACTERISTICS	POLICY CHARACTERISTICS
○ PROPERTY VALUE/SALES PRICE-DAMAR ○ LEASE RATES-BLACK'S GUIDE	○ PARCEL SIZE-BADD ○ IMPROVEMENT ○ SIZE-BADD ○ AGE-DAMAR ○ CONDITION-DAMAR (Bldg.Class) ○ USE-BADD ○ PARKING SPACES-DAMAR/CRA ○ HEIGHT BLACK'S GUIDE/DAMAR	○ ACCESS TO PROPERTY ○ DISTANCE FROM METRO-CALCULATED ○ BUS SERVICE-RTD ○ STREET FRONTAGE-COUNTY ASSESSOR ○ DISTANCE FROM FREEWAY-CALCULATED ○ SURROUNDING AMENITIES ○ SURROUNDING LAND USE ○ SURROUNDING PARKING AGGREGATE LAND USES IN SURROUNDING BLOCKS AND ASSIGN TO PARCELS	○ REGIONAL & NATIONAL MARKET CONDITIONS-US GOVT. SCAG. WALL STREET JOURNAL ○ GNP ○ PRIME INTEREST RATE ○ CPI FOR LA ○ DISPOSABLE INCOME ○ CONSTRUCTION COST INDEX ○ FORIEGN EXCHANGE INDEX ○ EMPLOYMENT CALIFORNIA STATE EMPLOYMENT DEVELOPMENT DEPT ○ POPULATION-STATE DEPT. OF FINANCE ○ ADDITION TO SUPPLY-GRUBB&ELLIS ○ LEASE RATES IN SUBAREA-GRUBB&ELLIS ○ ABSORPTION BY REGION/SUBREGION GRUBB&ELLIS ○ BACKGROUND PARKING COST	○ REDEVELOPMENT AREA/SUBAREA-CRA MAPS ○ ZONING-BADD/DAMAR ○ CRA INVESTMENT BY SUBAREA-CRA ○ PROVISION OF PARKING-ZONING CODE/CRA ○ SPECIFIC PLAN DESIGNATED LAND USE/DENSITY-LADOP ○ GENERAL PLAN DESIGNATED LAND USE/DENSITY-LADOP ○ PROPOSITION U AFFECTED-CORE STUDY

FIGURE 2

containing detailed land use information was compiled. Of particular importance, the benefit assessment data base contains parcel-by-parcel identifiers and information on every property located within the Before and After study area. As such, the benefit assessment data base provided the "baseline" information for establishing the Before and After study data base. The following information was extracted from the benefit assessment data base for each property in the study area in order to provide this baseline:

- Assessor's Parcel Number and components (mapbook, page and parcel numbers)
- Census tract
- Situs address
- Parcel size
- Square footage of improvement by land use
- Zoning

Detailed description of these data items is provided in the following section. Although the Before and After study data base uses some of the information contained in the benefit assessment data base, it is important to note that it is a separate entity serving a separate purpose.

3.0 DATA BASE STRUCTURE

This chapter provides a detailed technical description of the records contained in the Before-And-After Study data base. As noted above, individual records will be maintained on each available recorded sale. The data fields described in the following sections will be maintained for each record. The fields are related to the data categories and elements described in the preceding section. The information contained in the record should reflect the condition of the property at the time of the sale in order to determine the effect of the actual conditions on the actual sales price and allow for the development of the best predictive equations. The information to be contained in each field, the format of the field and the source of information are described for each data field.

3.1 DATA FIELDS FOR DEPENDENT VARIABLE - PROPERTY VALUE

The dependent variable for the analysis is property value, as measured by recorded sales prices of properties in the study area (MOS-1 benefit assessment districts). The unit of analysis for the study is an individual property with a recorded sale. The following fields are used to reflect property value:

Field Name	Type of Field	Characters
SALE_PRI	Numeric	9

Description: Property Sales Price; the sales or listing price in whole dollars.
Source: DAMAR Corporation Data Base

SALE_COD	Character	1

Description: An indication of the accuracy of the reported sales price. Valid codes are as follows:

V - Verified
F - Full
U - Unconfirmed
A - Approximate
P - Partial
X - In escrow
C - INCOMNET Staff Confirmation

Source: DAMAR Corporation Data Base

SALE_DAT	Character	6

Description: Sale date for the property. Would report date Offer to Purchase was signed, escrow was opened, loan papers originated, etc. May be different from Recording Date. Format is YYMMDD.
Source: DAMAR Corporation Data Base

DOCUMENT	Character	2

Description: The type of transaction document on file for the property. Valid codes are:

AD - Administrator's Deed	AF - Affadavit
AN - Assignment Deed	AS - Agreement of Sale
CD - Correction Deed	CO - Condominium Deed

CR - Corp. Grant Deed
CS - Contract of Sale
DC - Declaration
DE - Deed
DG - Deed of Guardian
EX - Executor's Deed
GD - Grant Deed
GF - Gift Deed
ID - Individual Grant Deed
IT - Interspousal Deed
JT - Joint Tenancy Deed
PA - Public Auction Deed
PD - Partnership Grant Deed
PR - Personal Rep Deed
PT - Partial Interest
QC - Quitclaim Deed
RC - Receiver's Deed
RD - Redemption Deed
SD - Sheriff's Deed
TD - Trustee's Deed
WD - Warranty Deed

Source: DAMAR Corporation Data Base

3.2 PARCEL IDENTIFIERS

These fields are used to identify, sort and aggregate properties in the study area. These fields are also used to translate data which is aggregated in accordance with different zone systems to provide the relevant information for the zone in which a property is located. The following fields are used to reflect parcel identifiers:

Field Name	Type of Field	Characters
PARCELNO	Numeric	10

Description: Full 10-digit Assessor's parcel number for the property maintained by the Los Angeles County Assessor. The Assessor uses a hierarchical mapbook-page-parcel system to identify every property in Los Angeles County. The Assessor's parcel number constitutes a legal description for the property.
Source: Benefit assessment data base

PRCLNOBK	Numeric	4

Description: 4-Digit Assessor's mapbook number. The first level in the mapbook-page-parcel numbering system, the mapbook number describes the largest geographic area in which the property is located.
Source: Benefit assessment data base (see Appendix A for mapbooks located in study area).

PRCLNOPG	Numeric	3

Description: 3-Digit Assessor's page number. The second level in the mapbook-page-parcel numbering system, the page number describes the geographic subarea within the mapbook area in which the property is located.
Source: Benefit assessment data base

PRCLNOPC	Numeric	3

Description: 3-Digit Assessor's parcel number. The third level in the mapbook-page-parcel numbering system, the parcel number describes the individual parcel within the geographic subarea within the mapbook area.
Source: Benefit assessment data base

REDEV Numeric 2

Description: The redevelopment project area in which the property is contained. A two-digit code is used to identify the redevelopment area, if any, in which the property is located. If the property is not located in a redevelopment area, this field is blank. Valid codes are:

01 - Central Business District
02 - Chinatown
03 - Little Tokyo
04 - Bunker Hill

Source: Redevelopment Area maps provided by the Los Angeles Community Redevelopment Agency (CRA) (see Appendix B).

REDEVSUB Numeric 2

Description: The subarea within the Central Business District Redevelopment Project in which the property is located. This field is applicable only to properties located within the CBD Redevelopment Project. This field is blank for all other properties. Valid codes are:

01 - Central City East
02 - Civic Center
03 - Broadway
04 - Spring Street
05 - Main Street
06 - Financial Commercial Core
07 - South Park
08 - Central Library

Source: Central Business District redevelopment project area maps provided by CRA (see Appendix C).

SCAGZONE Numeric 4

Description: The Southern California Association of Governments (SCAG) has divided the SCAG 6-county region into 1325 analysis zones. Seventeen of these zones are located within the Before-and-After study area. This field contains the SCAG zone number in which the property is located.
Source: Base map provided by SCAG which contains the boundaries of the 1325 zone system (see Appendix D for zones in study area).

CENSTRAC Numeric 6

Description: The census tract in which the property is located.
Source: Benefit assessment data base

LAPDZONE Numeric 3

Description: The Los Angeles Police Department (LAPD) has divided the city into a series of zones (roughly the size of census tracts) to track actual and reported crimes in different areas of the city. This field contains the LAPD zone number in which the property is located.
Source: Base maps provided by LAPD (see Appendix E).

BAD_DIST	Character	2

Description: The SCRTD benefit assessment district in which the property is located (see Figure 1). Valid codes are:

A1 - Benefit District A1, Central Business District
A2 - Benefit District A2, Wilshire/Alvarado

Source: Benefit assessment data base

3.3 SITE CHARACTERISTICS

These fields contain descriptive information concerning individual properties and improvements located on properties. The following fields are used to reflect site characteristics:

Field Name	Type of Field	Characters
SITUS_NU	Numeric	5

Description: Situs address number
Source: Benefit assessment data base

SITUS_FR	Character	3

Description: Fractional portion of situs address number, if any
Source: Benefit assessment data base

SITUS_DI	Character	1

Description: Street Direction, if any
Source: Benefit assessment data base

SITUS_ST	Character	32

Description: Street Number and Name
Source: Benefit assessment data base

SITUS_UN	Character	8

Description: Unit identification, if any
Source: Benefit assessment data base

SITUS_CI	Character	24

Description: City and State
Source: Benefit assessment data base

SITUS_ZI	Character	9

Description: Zip code
Source: Benefit assessment data base

U_PRCLTO Numeric 8

Description: Square footage of parcel for the property
Source: Benefit assessment data base

U_OFFICE Numeric 7

Description: Square footage of improvements in office use located on the property.
Source: Benefit assessment data base

U_HOTEL Numeric 7

Description: Square footage of improvements in hotel use located on the property.
Source: Benefit assessment data base

U_RETRES Numeric 7

Description: Square footage of improvements in retail or restaurant use located on the property.
Source: Benefit assessment data base

U_SERVIC Numeric 7

Description: Square footage of improvements in service use located on the property.
Source: Benefit assessment data base

U_INDUWA Numeric 7

Description: Square footage of improvements in industrial or warehouse use located on the property.
Source: Benefit assessment data base

U_GARAGE Numeric 7

Description: Square footage of improvements in use as parking garage located on the property.
Source: Benefit assessment data base

U_PARKIN Numeric 7

Description: Square footage of parcel in use as parking lot located on the property.
Source: Benefit assessment data base

U_VACLAN Numeric 7

Description: Square footage of vacant parcel located on the property.
Source: Benefit assessment data base

U_INSTGO Numeric 7

Description: Square footage of improvements in use for government purposes located on the property.
Source: Benefit assessment data base

U_RESIDE Numeric 7

Description: Square footage of improvements in residential use located on the property.
Source: Benefit assessment data base

U_INSTLA Numeric 7

Description: Square footage of parcel supporting an exempt improvement (e.g., residential parking lot) located on the property.
Source: Benefit assessment data base

U_NONPRO Numeric 7

Description: Square footage of improvements in use for non-profit purposes located on the property.
Source: Benefit assessment data base

U_VACCOD Numeric 7

Description: Square footage of improvements which have been evaluated as vacant due to code located on the property.
Source: Benefit assessment data base

U_RESHOT Numeric 7

Description: Square footage of improvements which have been evaluated as residential hotel use located on the property.
Source: Benefit assessment data base

U_UPDATE Numeric 7

Description: The last date the square footage information listed in the U_ fields described above was updated.
Source: Benefit assessment data base

IMPRVTOT Numeric 7

Description: The total square footage of improvements located on the property. Derived by summing the following fields above:
Source: Derived value specifically for this data base

LAND_YR1 Numeric 2

Description: The assessment year for property land valuation.
Source: Benefit assessment data base

LAND_VAL Numeric 9

Description: The assessed value of land for the property in the assessment year.
Source: Benefit assessment data base

IMPRV_YR Numeric 2

Description: The assessment year from property improvement valuation.
Source: Benefit assessment data base

IMPRV_VA Numeric 9

Description: The assessed value of improvements on the property in the assessment year.
Source: Benefit assessment data base

YEARBLT Numeric 4

Description: The year of original construction of improvements on the property. When more than one structure is located on the property, this is the year built of the dominant structure.
Source: DAMAR Corporation data base

YRREHAB Numeric 2

Description: This year reflects the present condition of the improvements on the property, which would reflect remodeling, upgrade, addition, etc.
Source: DAMAR Corporation data base

BLDGCLSS Character 3

Description: Fire Insurance Building Classification Code. Valid Codes are as follows:

A - buildings having fireproofed structural steel frames carrying all wall, floor and roof loads. Wall, floor and roof structures are built of non-combustible materials.
B - buildings having fireproofed reinforced concrete frames carrying all wall, floor and roof loads. Wall, floor and roof structures are built of non-combustible materials.
C - buildings having exterior walls built of a non-combustible material such as brick, concrete block or poured concrete. Interior partitions and roof structure are built of combustible material. Floor may be concrete or wood frame.
D - buildings having wood or wood and steel frame.
S - specialized buildings that do not fit in any of the above categories.

Source: DAMAR Corporation data base

PARKTYPE Character 1

Description: The type of parking provided on the property. Valid codes are:

A - Attached	E - Basement	P - Paved	Y - Yes
B - Built-in	F - Off-Site	Q - Adequate	Z - Garage
C - Carport	G - Open	R - Roof	K - Covered
D - Detached	H - None	U - Unimproved	S - Subterranean

Source: DAMAR Corporation data base

PARKSPCE Numeric 3

Description: The total number of designated parking spaces.
Source: DAMAR Corporation data base

STORIES Numeric 3

Description: The actual number of stories in the primary structure.
Source: DAMAR Corporation data base

UNITS Numeric 4

Description: The actual number of units in relation to the reported land use. Could be apartment units, hospital beds, service station bays, theater seats, trailer park spaces, etc. The number reported would be the total of all structures if of similar use. For condominiums, this indicates the number of units in the entire condominium building.
Source: DAMAR Corporation data base

BLDGS Numeric 3

Description: Total number of buildings on the property.
Source: DAMAR Corporation data base

3.4 LOCATION CHARACTERISTICS

These fields contain descriptive information concerning individual properties which relates to access to transportation services and conditions surrounding the property. The following fields are used to reflect location characteristics:

METRDIST Numeric 4

Description: The walking distance from the nearest Metro Rail station portal measured along the street to the closest boundary of each property in the study area.
Source: The distance to each property has been measured specifically for this study

FRONT1 Character 2

Description: The street on which the property fronts.
Source: Determined for each property from LA County Assessor's maps

FRONT2 Character 2

Description: If a corner location, the second street on which the property fronts. If the property is not a corner location, this field will be blank.
Source: Determined for each property from LA County Assessor's maps

BUSSERV Numeric 5

Description: Measure of bus service to each property. The total count of bus passengers on and off at the nearest bus stop to the property for the sale year. This data is available to 1984. If the sale year is prior to 1984, this field contains the value for 1984.
Source: SCRTD-maintained counts of bus passenger ons and offs at bus stops in the Central Business District from 1984.

FONDIST Numeric 4

Description: Measured distance, in feet, along the street from the closest freeway on-ramp to the closest boundary of the property to that on-ramp.
Source: This distance was measured specifically for each property for this study

FOFFDIST Numeric 4

Description: Measured distance, in feet, along the street from the closest freeway off-ramp to the closest boundary of the property to that off-ramp.
Source: This distance was measured specifically for each property for this study

AVFWYDST Numeric 4

Description: The average of the value in the fields FONDIST and FOFFDIST, rounded to the nearest foot.
Source: This value was derived specifically for this study

SURROFC Numeric 7

Description: The amount of office space surrounding the property. This is defined as the amount of office space in the assessor's mapbook-page containing the property plus the sum of the office space in the assessor's mapbook-pages immediately adjacent to the mapbook-page containing the property. This value was derived as follows:

1. For each assessor's mapbook page number in the study area, the adjacent assessor's mapbook pages was determined
2. The sum total of office square footage was determined for each assessor's mapbook page by summing the value of U_OFFICE for each property located in the mapbook page
3. The total office square footage from 2. was summed for a) the assessor's mapbook/page containing the property and b) all adjacent mapbook pages.

Source: Derived from information contained in the benefit assessment data base

SURRRET Numeric 7

Description: The amount of retail/restaurant space surrounding the property, derived as described under SURROFC above, using the sum total of retail square footage (field U_RETRES) for each assessor's mapbook page
Source: Derived from information contained in the benefit assessment data base

SURRINDU Numeric 7

Description: The amount of industrial/warehouse space surrounding the property, to be derived as described under SURROFC above, using the sum total of industrial/warehouse square footage (field U_INDUWA) for each assessor's mapbook page
Source: Derived from information contained in the benefit assessment data base

SURRPARK Numeric 7

Description: The amount of parking square footage surrounding the property, to be derived as described under SURROFC above, using the sum total of parking square footage (fields U_GARAGE and U_PARKIN) for each assessor's mapbook page
Source: Derived from information contained in the benefit assessment data base

SURRGOVT Numeric 7

Description: The amount of government-used square footage surrounding the property, to be derived as described under SURROFC above, using the sum total of government square footage (field U_INSTGO) for each assessor's mapbook page
Source: Derived from information contained in the benefit assessment data base

SURRRES Numeric 7

Description: The amount of residential square footage surrounding the property, to be derived as described under SURROFC above, using the sum total of residential square footage (field U_RESIDE) for each assessor's mapbook page
Source: Derived from information contained in the benefit assessment data base

CRIMES Numeric 6

Description: The number of total actual and reported crimes in the Los Angeles Police Department zone for the property in the year of sale. The crimes included in this total include: Burglary, Robbery, Murder, Rape, Assault, Bunco, Theft.
Source: The LAPD maintains files of the number and types of actual and reported crimes aggregated according to its zone system.

3.5 MARKET CHARACTERISTICS

These fields contain descriptive information concerning the market conditions in the area where the property is located. National/regional and local market conditions are both reflected. This information is keyed to the year of the recorded sale in order to ensure that the market conditions which would have influenced the sale price are properly reflected. The following fields are used to reflect market characteristics:

3.5.1 National and Regional Economic Conditions

GNP Numeric 4

Description: The level of the gross national product in current dollars in the year the property has a recorded sale
Source: US Department of Commerce, Bureau of Economic Analysis

PIR Numeric 2+2 decimal places

Description: The average level of the prime interest rate in the year in which the property has a recorded sale
Source: US Department of Commerce, Bureau of Economic Analysis

CPI Numeric 4+2 decimal places

Description: The level of the consumer price index for the LA-Long Beach urbanized area at end of the year in which the property has a recorded sale
Source: US Department of Commerce; California State Department of Finance

BCI Numeric 5+2 decimal places

Description: The level of the index of construction costs for the Los Angeles region in the year in which the property has a recorded sale
Source: Engineering News Record magazine (ENR) maintains an index of construction costs designed to measure the combined effect of wage and price changes on the value of the construction dollar (called the Building Cost Index or BCI), dating to 1938. It is a weighted aggregate index of constant quantities of structural steel, portland cement, lumber and skilled labor. Separate indices are maintained for 20 different urban areas. The index for Los Angeles is used in this study.

FOREXCH Numeric 2+5 decimal places

Description: An index of international currencies is used to track the value of the US dollar relative to other currencies. The index tracks exchange rates as the market rates in the countries concerned, reported by their central banks. This field will reflect the value of the index at the end of the year in which a sale is recorded
Source: International Financial Statistics Journal

3.5.2 Local Economic Conditions

OFCVAC Numeric 2+1 decimal place

Description: The measured vacancy rate for office space in downtown Los Angeles in the year of sale.
Source: Coldwell Banker Office Building Real Estate Data

OFFABSRB Numeric 7

Description: The square footage of office space absorbed in the appropriate market subarea in which the property is contained in the year of sale. The market subareas to be used are: downtown Los Angeles for the CBD station areas and Mid-Wilshire, Park Mile and Miracle Mile for the Wilshire/Alvarado station.
Source: Economic Research Associates, Real Estate Development Potential in the Metro Rail Corridor

INDEMPL Numeric 3+1 decimal place

Description: This field contains the industrial employment in Los Angeles County, in thousands, in the year of sale. This is the number reported by the State Employment Development Department under SIC codes 20-39 (see Appendix F).
Source: California Employment Development Department

RETEMPL Numeric 3+1 decimal place

Description: This field contains the retail employment in Los Angeles County, in thousands, in the year of sale. This is the number reported by the State Employment Development Department under SIC codes 52-59 (see Appendix F).
Source: California Employment Development Department

FINEMPL Numeric 3+1 decimal place

Description: This field contains the total employment in Los Angeles County in Finance, Insurance and Real Estate (FIRE), in thousands, in the year of sale. This is the number reported by the State Employment Development Department under SIC codes 60-67 (see Appendix F).
Source: California Employment Development Department

SERVEMPL Numeric 3+1 decimal place

Description: This field contains the total services employment in Los Angeles County, in thousands, in the year of sale. This is the number reported by the State Employment Development Department under SIC codes 70-89 (see Appendix F).
Source: California Employment Development Department

GOVTEMPL Numeric 3+1 decimal place

Description: This field contains the total government employment in Los Angeles County, in thousands, in the year of sale. This is the number reported by the State Employment Development Department under GOVERNMENT (see Appendix F).
Source: California Employment Development Department

PARKCOST Numeric TBD

Description: Parking cost in the vicinity of the property
Source: To Be Determined

3.6 POLICY CHARACTERISTICS

These fields contain descriptive information concerning the public policy and regulatory conditions associated with the property. The following fields are used to reflect policy characteristics:

ZONING Character 15

Description: The zoning classification for the property
Source: Los Angeles County Assessor data as reflected in the benefit assessment data base

SPPLAN Numeric 2

Description: The specific plan-designated land use for the property. If the property is not within an adopted specific plan area, this field will be blank.
Source: City of Los Angeles Department of Planning specific plan area maps

SPPLANYR Numeric 2

Description: The year of adoption of the specific plan for which a land use designation is contained in field SPPLAN. If the property is not within an adopted specific plan area, this field will be blank.
Source: City of Los Angeles Department of Planning

GENLPLAN Numeric 2

Description: The general plan-designated land use for the property. A two-digit code is used to describe the designated land use. Valid codes are:

Housing
01 - Low Medium density
02 - Medium
03 - High Medium
04 - High
05 - Very High

Commerce/Parking
06 - Community
07 - Regional Center

Public Use
18 - Civic Center
19 - Recreation or School Site
20 - Other Public Land
21 - Open Space
22 - Privately Owned

Other Public and Quasi-public
23 - Quasi-public (Private School/Hospital, etc.)
24 - Public (Maintenance yard,

Industry/Parking
08 - Light
09 - Heavy

Commerce
10 - Limited
11 - Highway Oriented
12 - Community
13 - Regional Center

Industry
14 - Commercial/manufacturing
15 - Limited
16 - Light
17 - Heavy

administrative center, etc.)

Alternate Use
25 - Housing - high medium and/or commerce/parking and/or open space
26 - Housing - high and/or commerce/parking - regional center and/or open space
27 - Housing - very high and/or commerce/parking - regional center
28 - Housing - very high and/or industry/parking - light
29 - Commerce/parking - regional center and/or industry/parking - light
30 - Community commercial and/or public
31 - Community commercial and/or light industry
32 - Heavy industry and/or public

Source: City of Los Angeles Department of Planning. For Central Business District properties: Central City Community Plan and Central City North Community Plan; for Wilshire/Alvarado properties: Westlake Community Plan

PARK_REQ Numeric 3

Description: The number of parking spaces required to be provided on the property, based on the improvements, use and zoning classification of the property. If the parcel is unimproved, this field will be 0. For parcels with special parking requirements as a result of development agreements with CRA, the fields reflects the actual requirement for the project.
Source: Parking requirements for each zoning category obtained from "Generalized Summary of Zoning Regulations, City of Los Angeles" (LADOP) (see Appendix G). CRA's PROJSTAT data base will be used to determine the requirement for properties with CRA development agreements.

PROP_U Numeric 1

Description: In 1986, Proposition U was passed which reduced the allowable development density of properties which were designated as height district 1. This field reflects code 1 if the property is affected by Proposition U and 0 if the property is not affected by Proposition U. Properties designated as Height District 1 are affected.
Source: Zoning classification for the property

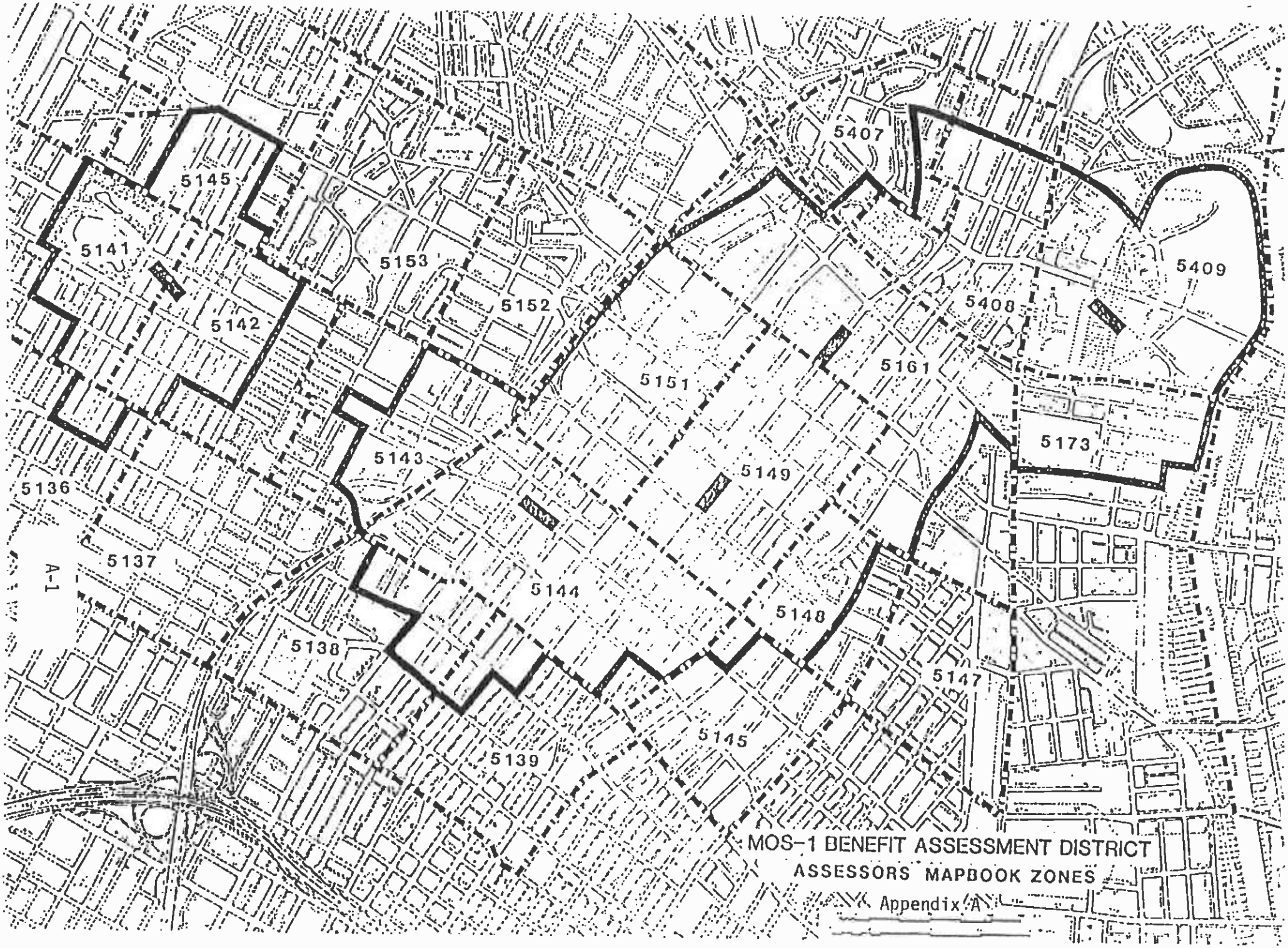
CRA_INV Numeric 8

Description: The cumulative level of public investment in the redevelopment area/subarea in which the property is contained through the year of sale. For properties located in the CBD redevelopment project area, the budgeted expenditure in the project subarea where the property is located will be used. For all other properties, the budgeted expenditure in the redevelopment area will be used (Bunker Hill, Little Tokyo, Chinatown).
Source: Annual Work Programs for redevelopment projects of the Community Redevelopment Agency.

4.0 UPDATE PROCEDURES

The methodology described in Chapter 2 of this document may be repeated for future years by creating new records based on property sales occurring after the original data base was created. Because this updating process is conjectural at this point, only a basic outline of the updating process is possible at this time. However, the principles which would guide this updating process can be provided.

The data base originally created for the Before and After study contains records based on property sales through 1987. To update the data base, property sales for year 1988 would need to be requested from DAMAR Corporation or a similar source. The sales would need to be matched against the parcel numbers of properties contained within the benefit assessment data base. The most updated version of the benefit assessment data base would be necessary to ensure that the latest changes in parcel numbers would be included in the parcel match. The properties which had recent sales which also matched the latest benefit assessment data base would then be included as new records in the Before and After study data base. The latest information on the matched parcels for parcel size, improvement square footage, situs address, and other information from the benefit assessment data base would need to be copied to the record from the benefit assessment data base. Updated economic and policy information would need to be provided for year 1988 and entered into the record. The updated information could then be used to conduct the residuals analysis on the properties with sale dates in year 1988 and beyond.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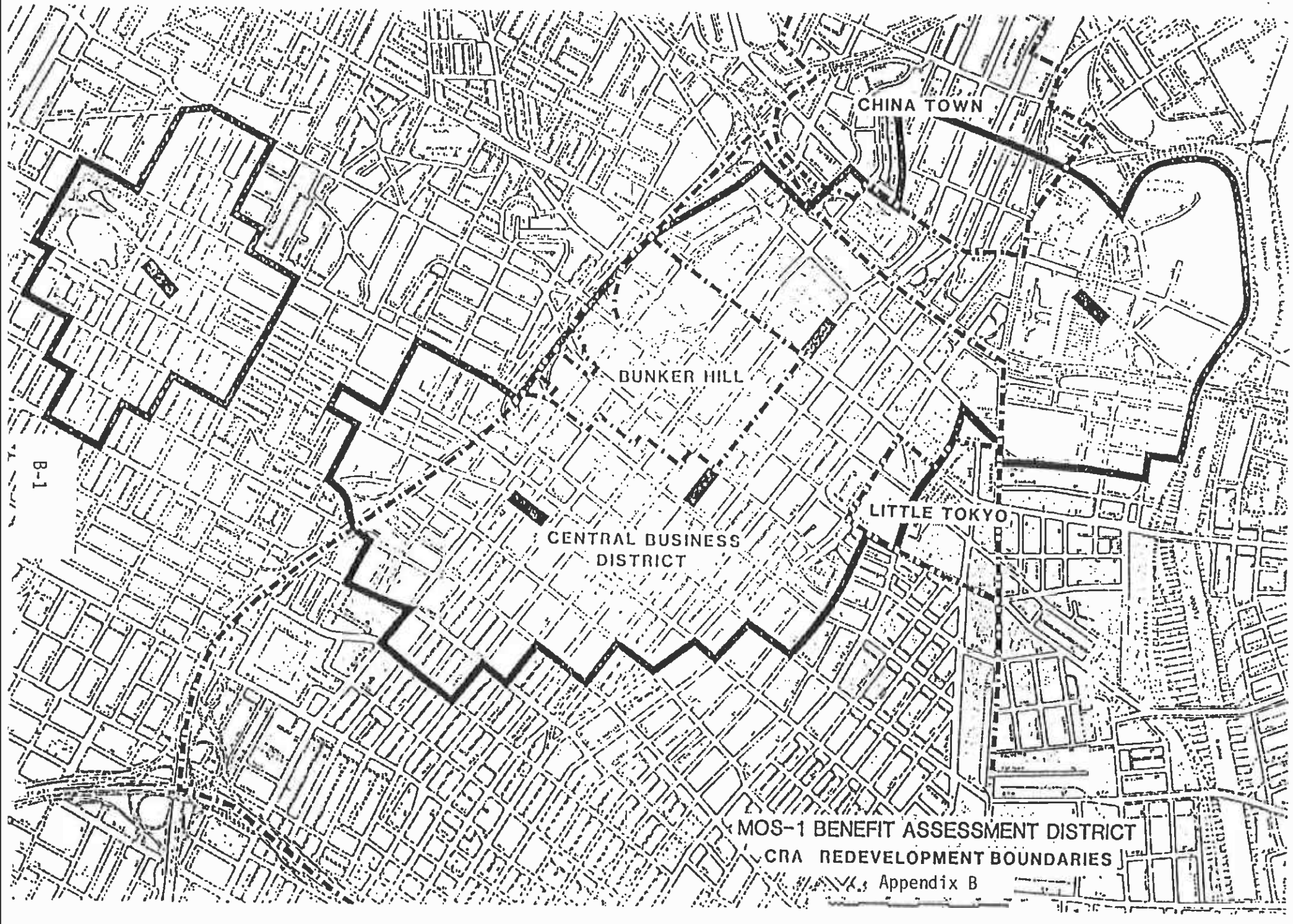
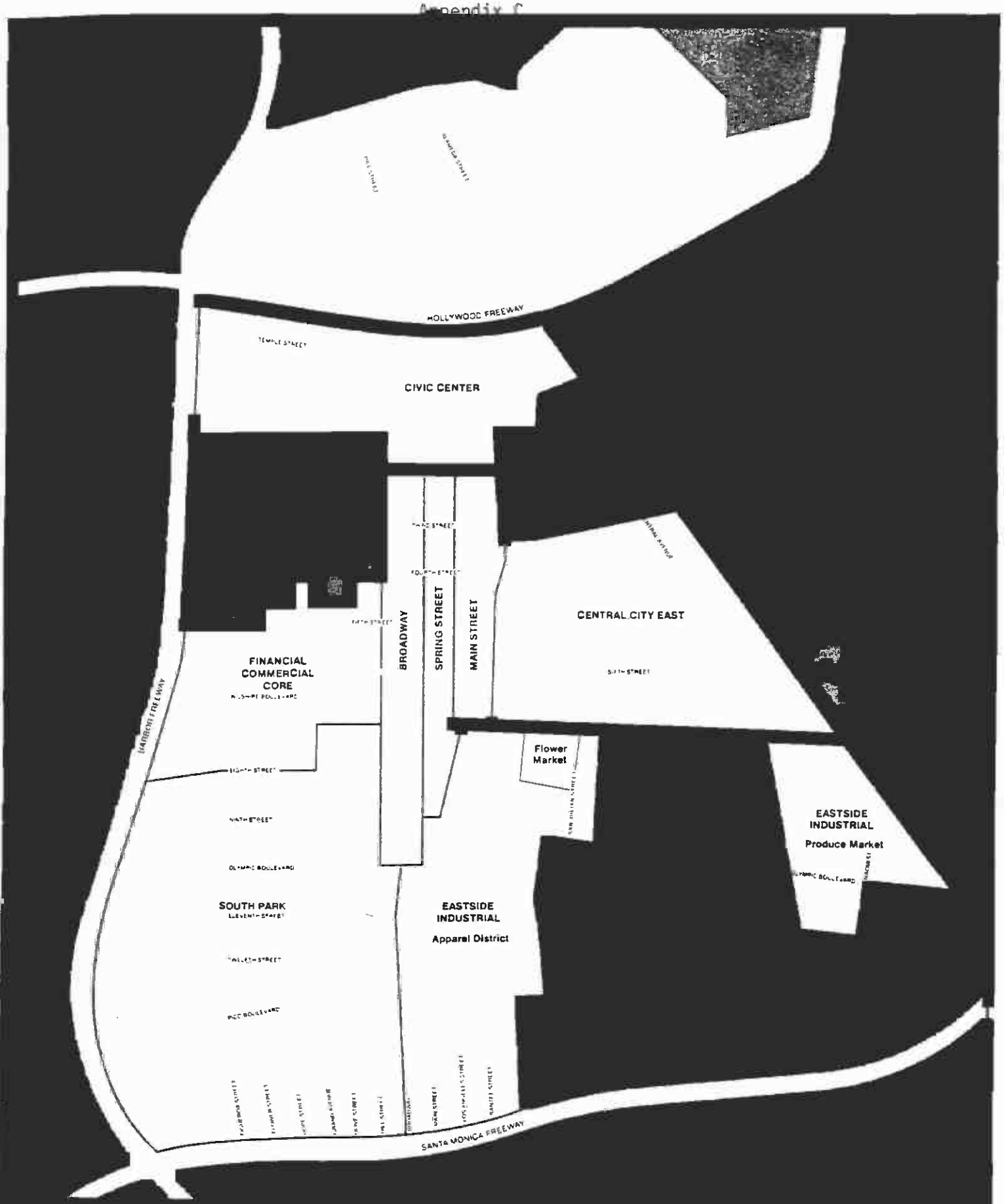
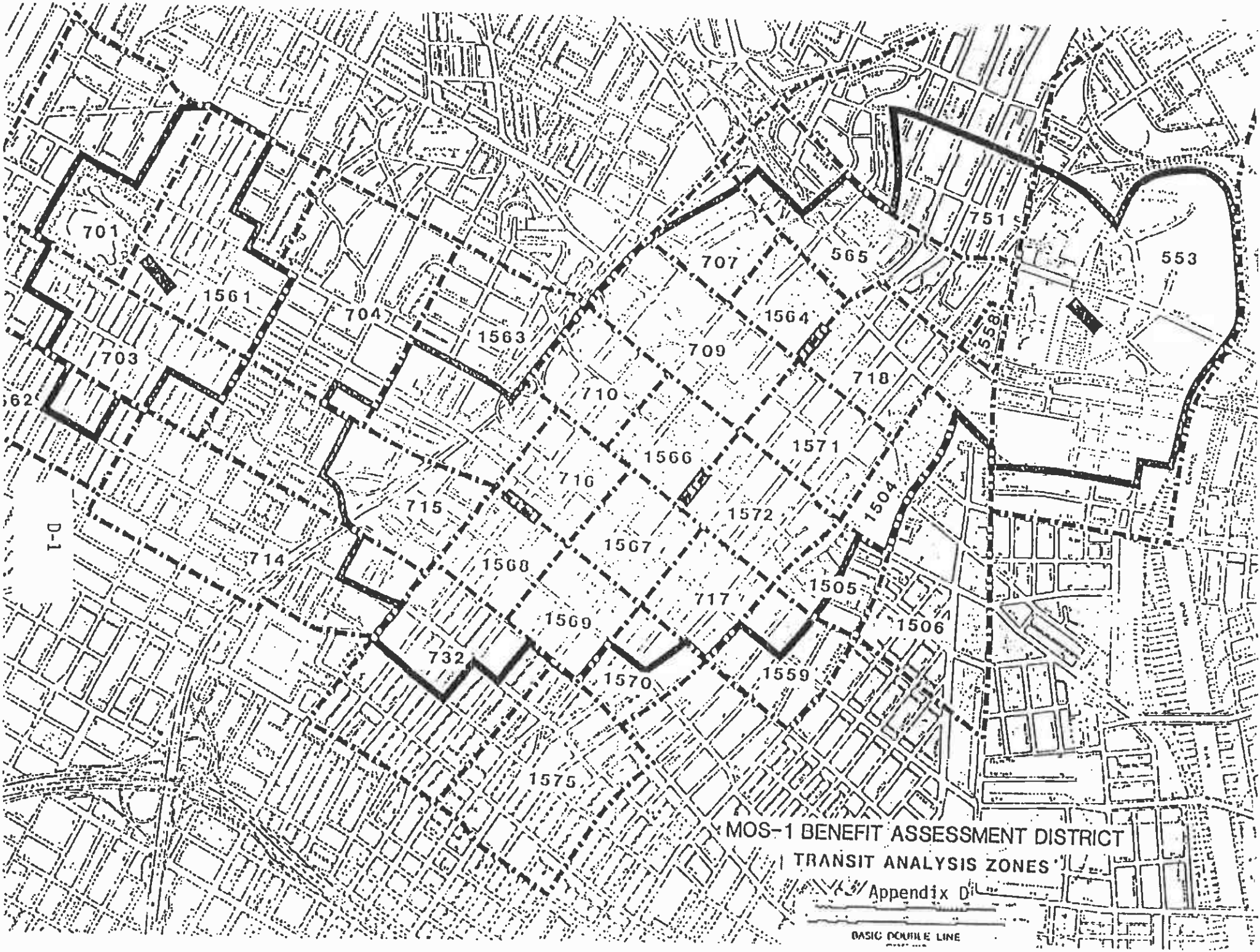
A-1
MOS-1 BENEFIT ASSESSMENT DISTRICT
ASSESSORS MAPBOOK ZONES
Appendix A


CHINA TOWN
BUNKER HILL
CENTRAL BUSINESS DISTRICT
LITTLE TOKYO
B-1
MOS-1 BENEFIT ASSESSMENT DISTRICT
CRA REDEVELOPMENT BOUNDARIES
Appendix B

Appendix C


HOLLYWOOD FREEWAY
CIVIC CENTER
HARBOR FREEWAY
FINANCIAL
COMMERCIAL
CORE
BROADWAY
SPRING STREET
MAIN STREET
CENTRAL CITY EAST
Flower
Market
EASTSIDE
INDUSTRIAL
Produce Market
SOUTH PARK
EASTSIDE
INDUSTRIAL
Apparel District
SANTA MONICA FREEWAY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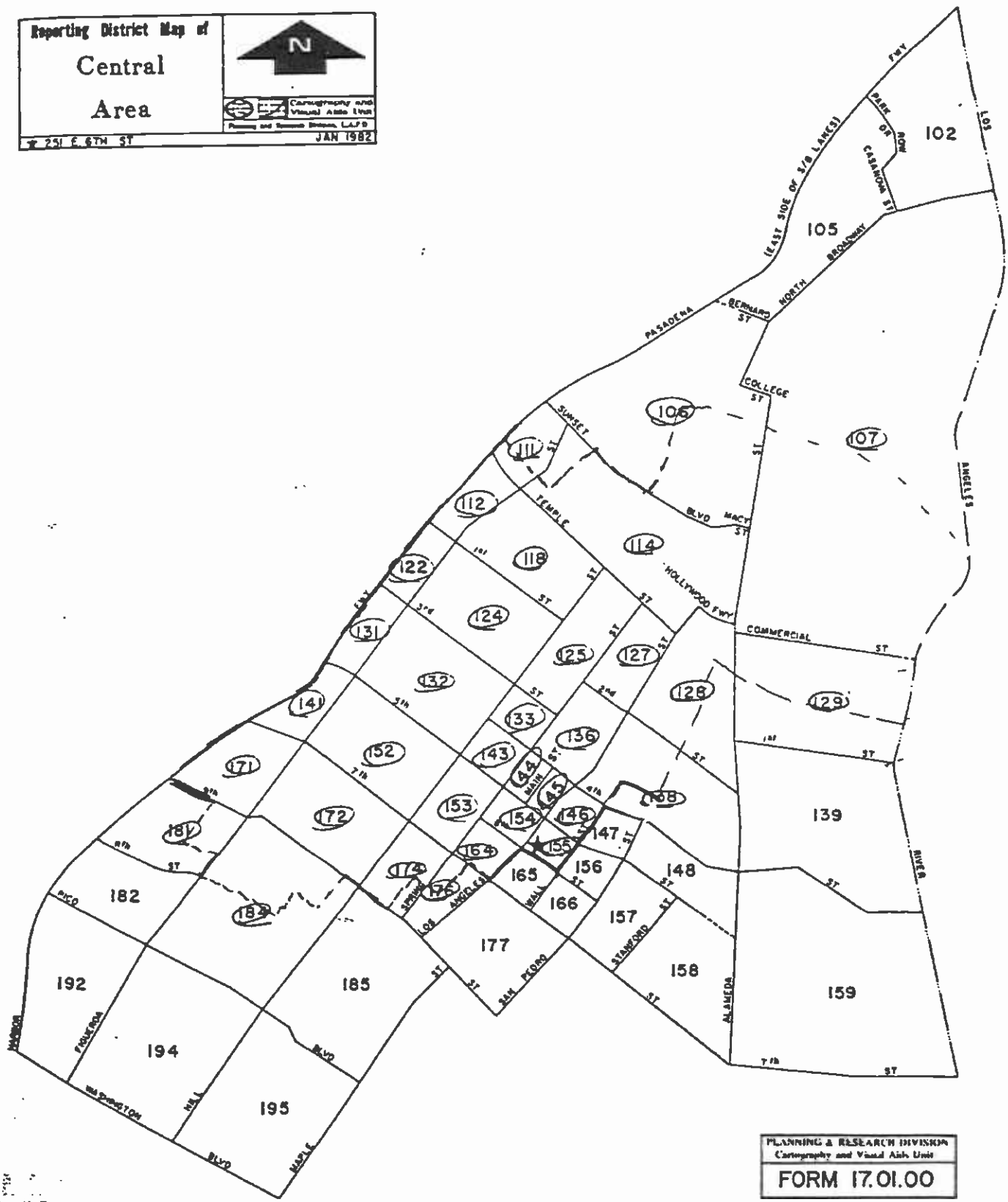
D-1
MOS-1 BENEFIT ASSESSMENT DISTRICT
TRANSIT ANALYSIS ZONES
Appendix D
BASIC DOUBLE LINE


Reporting District Map of
Central
Area
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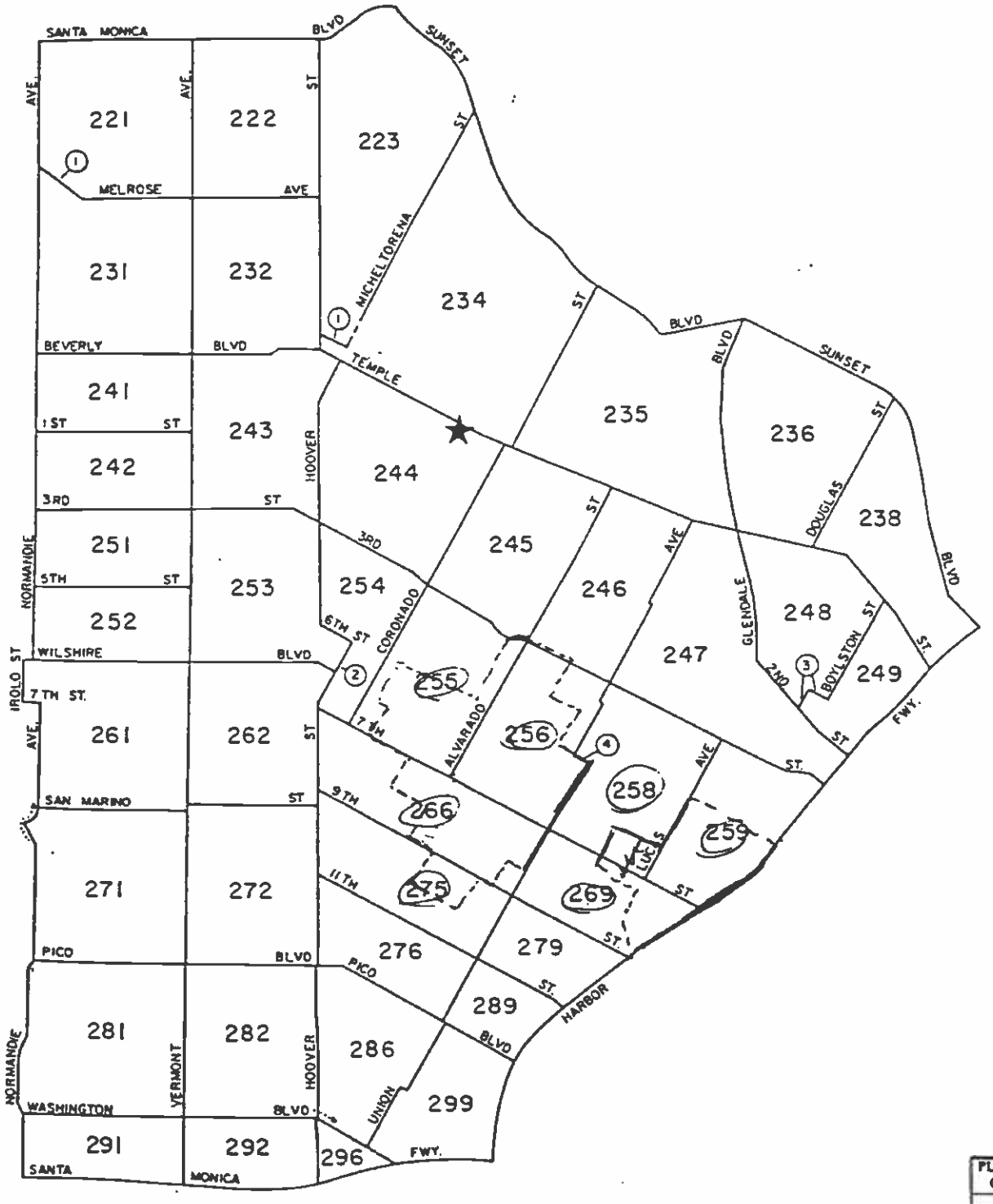
PASADENA
SUNSET
TEMPLE
HOLLYWOOD FWY
COMMERCIAL
COLLEGE
BERNARD
NORTH BROADWAY
CABRILLO ST
ANGELES
RIVER
ALAMEDA
STANFORD
SAN PEDRO
ANGELES
SPRING
MAIN
HILL
FIGUEROA
WASHINGTON
BLVD
MAPLE
PLANNING & RESEARCH DIVISION
Cartography and Visual Aids Unit
FORM 17.01.00

Reporting District Map of Rampart Area



PLANNING & RESEARCH DIVISION
Cartography and Visual Aids Unit

FORM 17.02.00

ESTIMATED NUMBER OF WAGE AND SALARY WORKERS BY INDUSTRY (A)
LOS ANGELES-LONG BEACH METROPOLITAN STATISTICAL AREA
(LOS ANGELES COUNTY)
ANNUAL AVERAGE 1972-1984
(AMOUNT IN THOUSANDS)(B)

INDUSTRY	SIC CODE	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
TOTAL ALL INDUSTRIES		2896.1	3038.2	3082.5	3034.2	3119.2	3243.2	3443.2	3596.8	3622.4	3653.0	3544.4	3567.4	3735.8
TOTAL AGRICULTURAL (C)	01-09	8.0	8.6	8.8	9.6	10.3	10.3	11.9	12.3	12.1	12.0	11.7	11.6	12.3
AGRICULTURAL PRODUCTION	01-02	7.0	7.5	7.9	8.5	9.3	9.4	10.6	10.9	10.7	10.7	10.6	10.3	11.0
AGRICULTURAL SERVICES (D)	07-09	1.1	1.1	0.9	1.1	1.1	1.0	1.3	1.4	1.5	1.3	1.2	1.3	1.3
TOTAL NONAGRICULTURAL		2888.1	3029.6	3073.7	3024.6	3108.9	3232.9	3431.3	3584.5	3610.3	3641.0	3532.7	3555.8	3723.5
MINING	10-14	10.7	10.5	10.8	11.2	11.2	11.2	11.4	12.0	13.0	14.4	14.1	12.8	12.6
OIL & GAS MINING	13	9.0	8.8	9.3	9.7	10.0	10.0	10.1	10.7	11.7	13.2	13.0	11.7	11.4
OTHER MINING & QUARRYING	10,14	1.6	1.7	1.6	1.5	1.2	1.3	1.3	1.3	1.3	1.2	1.1	1.1	1.2
CONSTRUCTION (E)	15-17	97.2	103.6	99.1	89.0	89.9	96.2	105.5	116.7	119.1	118.7	100.0	96.8	109.0
GENERAL BUILDING CONTRACTOR	15	26.6	28.4	26.3	23.5	24.0	24.5	26.3	29.1	30.0	29.5	22.1	21.5	25.4
HEAVY CONSTRUCT CONTRACTORS	16	16.5	16.3	16.8	16.8	16.1	17.2	19.5	19.5	19.6	20.2	15.9	15.2	14.1
SPECIAL TRADE CONTRACTORS	17	54.2	58.9	56.0	48.7	49.9	54.4	59.7	68.0	69.5	69.0	62.0	60.0	69.5
MANUFACTURING	20-39	774.5	821.0	824.4	766.8	789.9	818.1	877.9	924.9	912.1	916.1	862.2	853.1	885.3
NONDURABLE GOODS	20-23,26-31	250.6	264.1	266.7	256.5	269.6	279.1	294.3	300.0	293.8	298.2	286.1	284.1	288.2
DURABLE GOODS	24-25,32-39	523.9	556.9	557.7	510.3	520.3	539.1	583.6	624.9	618.3	618.0	576.1	569.0	597.1
FOOD & KINDRED PRODUCTS	20	49.8	49.9	50.4	49.3	50.3	50.7	51.4	51.4	51.4	52.3	51.8	51.6	49.8
CAN, CURED, FROZ SEA FOODS	2091-2	5.6	5.8	6.7	5.7	6.1	6.0	5.4	5.4	5.5	5.8	5.5	5.7	4.8
MEAT PRODUCTS	201	9.4	9.3	9.9	10.2	9.5	9.0	8.9	8.0	7.2	6.3	5.8	6.0	5.6
DAIRY PRODUCTS	202	5.7	5.4	5.2	4.9	4.5	4.6	4.5	4.9	5.1	6.0	5.7	5.8	5.8
CAN,PRESRVD FRUIT & VEGTBL	203	3.3	3.3	3.3	3.5	3.7	3.8	4.1	4.1	4.2	4.5	5.0	5.4	4.9
GRAIN MILL PRODUCTS	204	3.1	3.0	2.9	2.9	2.9	3.0	3.1	3.1	3.1	3.1	2.9	2.8	2.5
BAKERY PRODUCTS	205	9.1	9.3	8.7	8.2	8.5	8.5	8.6	8.6	8.6	8.7	8.9	8.6	8.9
BEVERAGES	208	4.9	4.8	4.8	5.4	5.6	5.5	6.0	5.9	6.1	6.2	6.6	6.6	6.4
OTHR FOOD & KINDRED PRODUCT	20 OTHER	8.8	9.1	8.9	8.6	9.4	10.3	10.8	11.5	11.6	11.7	11.3	10.7	10.9
TEXTILE MILL PRODUCTS	22	9.2	10.7	10.3	9.5	10.1	9.9	10.2	10.0	9.3	8.6	8.2	8.4	8.7
APPAREL & OTHER TEXTILE PROD	23	59.1	64.9	66.6	67.7	73.5	74.9	81.2	81.0	77.0	76.7	73.5	73.6	77.6
MEN'S & BOYS' FURNISHINGS	232	7.3	8.2	8.4	8.6	9.2	8.7	8.9	9.0	7.7	6.9	5.8	5.9	5.3
WOMEN'S & MISSES' OUTERWEAR	233	34.2	38.2	40.2	42.0	46.0	47.7	53.1	51.8	48.8	48.8	47.7	47.6	51.0
WOMEN & CHILDRENS UNDERGRMT	234	3.7	3.6	3.7	3.3	3.6	3.3	3.2	3.4	3.6	3.7	3.6	3.5	3.5
OTHR APPAREL & TEXTILE PROD	23 OTHER	13.9	14.8	14.3	13.8	14.6	15.2	16.1	16.8	17.0	17.3	16.5	16.7	17.8
PAPER & ALLIED PRODUCTS	26	16.4	16.5	16.4	15.2	16.3	16.6	16.7	17.7	17.3	17.8	17.3	17.2	18.2
MISC CONVERTED PAPER PRODS	264	7.0	7.1	7.2	6.8	7.1	7.2	7.4	8.0	7.7	7.9	8.2	8.1	8.7
PAPERBOARD CONTAINERS & BOX	265	7.3	7.4	7.0	6.5	7.2	7.4	7.8	7.8	7.6	7.5	7.0	7.0	7.5
OTHR PAPER & ALLIED PRODUCT	26 OTHER	2.1	2.1	2.2	2.0	2.0	1.9	1.7	2.0	2.1	2.4	2.2	2.1	2.0
PRINTING & PUBLISHING	27	41.1	43.3	43.3	42.5	44.3	46.4	50.2	52.6	54.0	54.6	53.3	53.6	55.2
NEWSPAPERS	271	12.9	12.8	12.4	11.7	12.9	13.3	14.2	15.0	15.2	15.4	15.1	15.0	16.0
OTHR PRINTING & PUBLISHING	27 OTHER	28.2	30.5	31.0	30.7	31.4	33.1	36.0	37.6	38.8	39.2	38.2	38.6	39.3

ESTIMATED NUMBER OF WAGE AND SALARY WORKERS BY INDUSTRY (A)
LOS ANGELES-LONG BEACH METROPOLITAN STATISTICAL AREA
(LOS ANGELES COUNTY)
ANNUAL AVERAGE 1972-1984
(AMOUNT IN THOUSANDS)(B)

INDUSTRY	SIC CODE	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
CHEMICALS & ALLIED PRODUCTS	28	27.1	28.5	28.9	26.2	26.0	27.5	28.1	28.9	28.8	29.9	27.8	27.0	27.4
INDUSTRIAL INORGANIC CHEMS	281	2.3	2.3	2.5	2.4	2.5	3.1	3.1	3.0	2.9	2.8	2.2	2.2	2.5
PLASTIC MATERAL & SYNTHETIC	282	2.1	1.9	1.9	1.7	1.8	2.0	1.9	2.1	1.7	1.9	1.9	1.8	1.9
DRUGS	283	5.3	5.9	6.2	4.9	4.3	4.8	4.7	5.4	5.8	6.0	5.8	6.0	5.8
SOAP, CLEANERS, TOILET GODD	284	8.7	8.9	9.3	8.6	9.0	9.6	9.8	9.5	9.7	10.3	9.7	8.5	8.6
PAINTS & ALLIED PRODUCTS	285	4.3	4.4	4.1	3.9	3.9	3.9	4.2	4.4	3.8	3.8	3.4	3.5	3.8
OTHR CHEMICAL & ALLIED PRDO	28 OTHER	4.5	5.1	4.9	4.7	4.5	4.2	4.5	4.5	4.8	5.1	4.9	5.1	4.7
PETROLEUM & COAL PROOUCTS	29	13.6	13.5	13.3	12.8	12.7	12.7	13.2	13.2	13.4	14.9	14.6	13.6	12.8
PETROLEUM REFINING	291	11.2	11.4	11.3	11.0	10.8	10.7	11.1	11.0	11.0	12.5	12.2	11.3	10.8
OTHR PETROLEUM & COAL PRODS	29 OTHER	2.4	2.2	2.1	1.8	1.9	1.9	2.1	2.2	2.4	2.3	2.4	2.3	2.1
RUBBER & MISC PLASTIC PROD	30	28.9	30.9	30.9	26.5	28.8	31.9	33.5	35.2	33.8	33.9	31.3	31.6	32.1
FOOTWEAR & FABRICATED PROOS	302,6	4.2	4.9	5.4	4.8	5.0	5.5	5.4	5.3	5.0	4.8	4.8	5.1	5.5
MISCELLANEOUS PLASTIC PRODS	307	18.4	19.7	19.3	17.0	20.4	21.9	25.0	27.3	27.2	28.1	25.6	25.7	25.9
OTHR RUBBER & PLASTIC PRODS	30 OTHER	6.3	6.3	6.1	4.7	3.4	4.6	3.1	2.7	1.6	1.0	0.9	0.8	0.7
LEATHER & LEATHER PROOUCTS	31	5.6	6.0	6.6	6.8	7.8	8.5	9.7	9.9	8.9	9.6	8.3	7.5	6.3
LUMBER & WOOD PRODS EXC FUR	24	11.2	11.5	10.3	9.3	10.6	11.8	13.0	13.1	12.4	11.5	9.2	9.7	10.8
MILWORK, PLYWOD, STRUCTURAL	243	4.0	4.2	3.8	3.3	4.0	4.3	4.5	4.7	4.6	4.6	3.8	4.0	4.7
OTHER LUMBER & WOOD PROOUCT	24 OTHER	7.2	7.4	6.5	6.0	6.6	7.5	8.5	8.4	7.8	6.9	5.4	5.7	6.1
FURNITURE & FIXTURES	25	29.2	33.2	31.8	28.1	31.0	34.3	38.1	39.6	37.1	37.9	32.8	34.1	38.0
HOUSEHOLD FURNITURE	251	21.9	24.9	23.5	20.6	22.4	24.1	26.3	27.1	24.5	24.4	20.5	21.4	23.6
OTHR FURNITURE & FIXTURES	25 OTHER	7.2	8.3	8.4	7.4	8.6	10.3	11.8	12.5	12.6	13.6	12.3	12.8	14.4
STONE, CLAY, & GLASS PRODUCT	32	23.6	25.0	25.1	23.1	24.2	24.1	25.0	24.7	23.4	22.6	19.8	18.9	19.5
STRUCTURAL CLAY PRODUCTS	325	2.4	2.3	2.4	2.0	2.0	2.0	2.0	1.5	1.3	1.3	1.1	1.0	0.7
POTTERY & RELATED PROOUCTS	326	4.2	4.8	5.2	4.9	5.3	5.2	5.1	4.9	4.5	4.3	3.2	2.8	2.8
CONCRETE, GYPSUM, PLASTER	327	4.9	4.8	4.5	3.7	4.0	4.0	4.5	4.7	4.6	4.4	3.8	3.6	4.2
OTHR STONE, CLAY, GLAS PROD	32 OTHER	12.1	13.1	13.1	12.5	13.0	12.9	13.4	13.6	13.0	12.6	11.8	11.4	11.8
PRIMARY METAL INDUSTRIES	33	24.9	26.1	26.3	23.5	22.6	24.2	25.9	27.5	26.0	25.4	22.4	20.8	21.4
IRON & STEEL FOUNDRIES	332	3.6	3.9	4.5	4.1	3.6	3.8	4.3	4.6	4.4	4.4	4.2	3.4	3.5
NONFERROUS ROLLING & DRAW	335	7.9	7.7	6.7	5.8	5.7	6.2	6.6	7.3	7.2	6.7	5.4	5.6	5.4
NONFERROUS FOUNDRIES	336	4.8	5.4	5.4	4.7	5.3	5.5	6.1	6.7	6.5	6.8	6.4	6.5	6.8
OTHR PRIMARY METALS	33 OTHER	8.5	9.2	9.8	8.8	8.0	8.8	9.0	8.9	7.9	7.5	6.4	5.4	5.6
FABRICATED METAL PRODUCTS	34	69.2	74.5	74.0	67.2	70.8	73.8	80.6	84.6	80.5	78.2	69.7	69.1	72.7
CUTLERY, HANDTOOL, HARDWARE	342	10.6	12.0	11.2	9.5	10.6	11.2	11.5	12.2	9.7	8.6	7.3	6.9	7.2
FABRICATED STRUCTURAL PRODS	344	17.2	18.2	17.6	16.9	17.7	18.5	20.7	20.9	19.1	19.0	17.2	17.1	18.2
SCREW MACHINE PRODS, BOLTS	345	6.1	6.6	7.3	8.3	5.8	6.1	7.7	8.8	10.1	10.2	8.4	7.7	8.0
FORGINGS & STAMPINGS	346	8.3	9.1	9.3	8.5	8.8	9.3	10.0	9.7	9.6	9.4	8.9	9.1	9.7
METAL SERVICES, NEC	347	9.6	11.1	11.2	10.1	11.1	11.3	12.7	13.7	13.3	13.0	11.8	12.3	13.0
OTHR FABRICATED METAL PRODS	34 OTHER	17.3	17.6	17.5	15.9	16.8	17.4	18.1	19.3	18.7	18.0	16.1	15.8	16.6

ESTIMATED NUMBER OF WAGE AND SALARY WORKERS BY INDUSTRY (A)
LOS ANGELES-LONG BEACH METROPOLITAN STATISTICAL AREA
(LOS ANGELES COUNTY)
ANNUAL AVERAGE 1972-1984
(AMOUNT IN THOUSANDS)(B)

INDUSTRY	SIC CODE	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
MACHINERY EXC ELECTRICAL	35	70.8	79.9	84.6	76.2	73.6	75.5	83.1	90.4	91.7	88.9	81.4	76.2	76.4
CONSTRUCTION & RELATED	353	9.1	10.4	11.2	9.2	9.3	9.6	10.5	11.4	10.9	10.9	9.3	6.1	5.9
METALWORKING	354	10.1	11.6	12.0	10.7	10.6	11.1	12.2	12.9	12.2	11.2	9.7	9.4	10.3
GENERAL INDUSTRIAL	356	9.8	10.6	11.1	10.3	10.3	10.4	11.5	12.2	12.5	12.2	10.9	9.8	10.1
OFFICE, COMPUTING, ACCOUNT	357	21.0	23.1	23.9	21.3	18.4	18.1	19.5	21.4	21.9	22.9	23.8	23.9	22.6
OTHER MACHINERY EXC ELECT	35 OTHER	20.8	24.2	26.3	24.6	25.0	26.3	29.5	32.5	34.2	31.7	27.7	27.1	27.4
ELECTRICAL EQUIP & SUPPLIES	36	100.2	107.5	108.0	102.4	108.0	112.2	122.9	131.5	134.8	139.3	139.1	141.4	150.7
INDUSTRIAL APPARATUS	362	5.3	5.7	6.1	5.8	6.6	7.4	8.1	7.7	7.5	7.1	6.5	6.2	6.9
HOUSEHOLD APPLIANCES	363	5.3	5.3	4.2	2.8	3.7	4.0	4.0	3.9	3.4	3.4	3.0	3.1	2.9
LIGHTING & WIRING EQUIP	364	10.1	11.1	10.4	9.0	9.9	11.0	12.3	13.5	13.1	13.6	12.1	12.4	13.2
RADIO & TV RECEIVING EQUIP	365	9.0	9.6	9.6	9.4	10.1	10.6	11.3	10.5	10.1	9.8	8.1	7.2	7.1
COMMUNICATION EQUIP	366	50.8	53.6	54.1	55.0	55.5	55.4	61.3	67.8	71.9	75.7	79.7	81.1	84.8
ELECT COMPONENTS & ACCESS	367	14.5	16.2	17.4	14.6	15.9	17.4	18.8	20.1	20.5	21.8	22.8	24.4	27.1
OTHER ELECT EQUIP & SUPPLY	36 OTHER	5.1	6.0	6.3	5.9	6.3	6.4	7.1	8.0	8.2	8.0	6.9	7.1	8.8
TRANSPORTATION EQUIPMENT	37	150.9	153.3	150.3	136.4	132.7	136.2	143.7	160.7	160.4	161.9	152.1	150.9	157.9
MOTOR VEHICLES & EQUIP	371	22.4	24.0	19.8	17.3	22.7	25.1	27.2	26.8	18.3	19.2	18.7	18.9	20.3
AIRCRAFT & PARTS	372	106.0	106.9	105.4	93.9	84.2	85.3	91.2	108.4	116.1	114.0	105.3	104.0	110.4
SHIP & BOAT BLDG & REPAIR	373	4.1	3.9	5.3	5.5	4.8	4.5	5.3	6.2	5.7	7.0	7.1	6.6	5.5
GUIDED MISS, SPACE VECH	376	15.0	14.3	16.1	16.1	16.0	15.3	14.1	15.3	17.4	19.4	19.2	19.6	19.9
OTHER TRANSPORTATION EQUIP	37 OTHER	3.4	4.2	3.8	3.6	5.1	5.9	5.9	4.0	2.8	2.3	1.8	1.8	1.8
INSTRUMENTS & RELATED PRODS	38	23.4	25.0	27.1	24.7	26.0	25.8	28.2	30.5	31.8	31.2	28.2	26.9	28.7
MEASURING & CONTROLLING	382	10.6	11.7	12.4	10.8	11.3	10.9	11.8	12.0	12.2	12.1	11.1	10.7	11.3
OTHR INSTRUMNT RELATED PROD	38 OTHER	12.8	13.3	14.7	13.9	14.7	15.0	16.5	18.5	19.6	19.1	17.2	16.1	17.4
MISCELLANEOUS MANUFACTURING	39	20.7	20.8	20.2	19.3	20.9	21.1	23.0	22.5	20.3	21.0	21.3	20.9	21.1
TOYS & SPORTING GOODS	394	9.0	8.9	8.4	8.3	9.1	8.9	9.3	9.0	8.2	8.5	9.3	8.5	8.4
OTHR MISC MANUFACT INDUSTY	39 OTHER	11.7	11.9	11.8	11.0	11.8	12.1	13.8	13.5	12.1	12.5	12.1	12.5	12.7
TRANSPORT & PUBLIC UTILITIES	40-49	171.4	177.3	177.2	170.7	173.5	177.4	187.8	198.3	200.8	201.4	197.2	195.1	197.6
TRANSPORTATION	40-47	100.8	105.1	106.1	100.2	103.8	107.3	115.1	121.6	121.1	117.4	111.5	111.3	116.9
COMMUNICATION SERVICES	48	53.4	53.9	53.0	52.8	52.7	52.8	55.3	58.8	61.2	64.9	66.2	63.4	59.7
ELECTRIC SERVICES	49	17.4	18.3	18.1	17.8	17.2	17.3	17.5	18.2	18.4	19.1	19.5	20.4	20.9
WHOLESALE & RETAIL TRADE	50-59	648.8	680.9	692.5	690.7	713.6	742.7	787.9	814.1	816.9	820.7	803.7	812.6	866.3
WHOLESALE TRADE	50-51	195.5	209.3	218.8	216.5	225.6	236.1	253.4	264.9	267.6	267.1	261.5	264.3	282.2
RETAIL TRADE	52-59	453.3	471.7	473.7	474.2	487.9	506.7	534.4	549.2	549.4	553.6	542.2	548.3	584.1
FINANCE, INS AND REAL ESTATE	60-67	177.9	184.1	186.6	184.3	188.4	198.0	212.0	224.2	234.6	239.3	234.1	238.3	251.0
FINANCE	60-62	81.0	84.2	86.7	85.8	88.0	93.0	101.0	108.4	115.1	119.5	118.6	122.9	128.1
INSURANCE CARRIER, AGT & BRKS	63-64	63.2	64.1	63.9	62.6	63.7	65.6	67.8	69.0	70.8	71.3	68.3	65.7	67.3
REAL ESTATE	65	30.6	32.3	32.3	31.9	32.5	35.5	39.0	42.2	43.4	42.7	41.2	43.1	48.3
COMB, HOLDING & OTHR INVEST	66-67	3.1	3.8	3.8	4.1	4.1	4.0	4.2	4.6	5.3	5.8	6.0	6.6	7.3
SERVICES	70-89	571.1	610.1	624.9	633.9	662.2	706.2	761.1	811.7	831.0	855.0	853.0	882.3	934.2

ESTIMATED NUMBER OF WAGE AND SALARY WORKERS BY INDUSTRY (A)
LOS ANGELES-LONG BEACH METROPOLITAN STATISTICAL AREA
(LOS ANGELES COUNTY)
ANNUAL AVERAGE 1972-1984
(AMOUNT IN THOUSANDS)(B)

INDUSTRY	SIC CODE	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GOVERNMENT (F)		436.5	442.1	458.0	478.1	480.2	483.1	487.9	482.8	482.9	475.3	468.5	464.9	467.7
FEDERAL		67.3	67.1	70.2	69.7	67.6	66.8	67.6	68.1	71.2	67.8	68.0	68.2	69.1
STATE & LOCAL		369.2	375.0	387.9	408.4	412.6	416.2	420.3	414.7	411.7	407.6	400.5	396.7	398.6
COUNTY		76.0	78.4	80.3	84.5	82.9	78.9	80.7	79.2	81.1	77.6	72.7	71.7	73.1
CITY		74.3	74.5	74.6	78.3	76.8	76.3	76.1	70.5	70.0	70.7	70.5	70.8	71.8
EDUCATION		183.7	186.7	197.7	207.2	213.9	220.6	222.2	224.2	218.7	216.9	214.9	210.1	208.7
OTHER STATE & LOCAL		35.3	35.3	35.3	38.5	39.1	40.4	41.2	40.8	42.0	42.4	42.3	44.1	45.0

Appendix G

GENERALIZED SUMMARY OF ZONING REGULATIONS

CITY OF LOS ANGELES

NOTE: THIS SUMMARY IS ONLY INTENDED TO BE A GUIDE; DEFINITIVE INFORMATION SHOULD OBTAINED FROM THE DEPARTMENT OF BUILDING AND SAFETY.

ZONE	USE	MAXIMUM HEIGHT STORIES	MAXIMUM HEIGHT FEET	REQUIRED YARDS FRONT	REQUIRED YARDS SIDE	REQUIRED YARDS REAR	MINIMUM AREA PER LOT	MINIMUM AREA PER DWELLING UNIT	MINIMUM LOT WIDTH	PARKING REQUIRED
AGRICULTURAL										
A1	AGRICULTURAL One-Family Dwellings-Parks Playgrounds Community Centers Golf Courses-Truck Gardening-Extensive Agricultural Uses	3	45 Ft.	20% lot depth 25 Ft. max.	25 Ft. Maximum 10% Lot Width 3 Ft. minimum	25% lot depth 25 Ft. max.	5 Acres	2½ Acres	300 Ft.	Two Spaces Per Dwelling Unit
A2	AGRICULTURAL A1 Uses						2 Acres	1 Acre	150 Ft.	
RA	SUBURBAN Limited Agricultural Uses One-family Dwellings				10 Ft.- plus 1 Ft.- 3 Stories- less then 70 Ft. width 10% lot width 3 Ft. min.		17,500 Sq. Ft. (1)	17,500 Sq. Ft. (1)	70 Ft. (1)	Two Covered Spaces Per Dwelling Unit
ONE FAMILY RESIDENTIAL										
RE40	RESIDENTIAL ESTATE One-Family Dwellings Parks Playgrounds Community Centers Truck Gardening	3	45 Ft.	20% lot depth 25 Ft. Max.	10 Ft. min. plus 1 Ft.- 3 stories 10 Ft. max. 10% Lot Width 5 Ft. min.- plus 1 Ft. 3 stories 5 Ft., less then 50 Ft. width 3 Ft. Min.	25% lot depth 25 Ft. Max.	40,000 Sq. Ft (1)	40,000 Sq. Ft. (1)	80 Ft. (1)	Two Covered Spaces Per Dwelling Unit
RE20							20,000 Sq. Ft. (1)	20,000 Sq. Ft. (1)	80 Ft. (1)	
RE15							15,000 Sq. Ft. (1)	15,000 Sq. Ft. (1)	80 Ft. (1)	
RE11							11,000 Sq.Ft. (1)	11,000 Sq.Ft. (1)	70 Ft. (1)	
RE9							9,000 Sq.Ft. (1)	9,000 Sq.Ft. (1)	65 Ft. (1)	
RS	SUBURBAN One-Family Dwellings- Parks- Playgrounds- Truck Gardening	3	45	20% lot depth 25 Ft. Max.	5 Ft., less then 50 Ft. 10% Lot Width 3 Ft. Minimum	20 Ft. Min.	7,500 Sq. Ft.	7,500 Sq. Ft.	60 Ft.	Two covered spaces per dwelling unit
R1	ONE-FAMILY DWELLING RS Uses			20% lot depth 20 Ft. Max.	Plus 1 Ft. 3 stories	15 Ft. Min.	5,000 Sq. Ft.	5,000 Sq. Ft.	50 Ft.	
RZ 2.5	RESIDENTIAL ZERO SIDE YARD			10 Ft. Min.	None(3) or 3 Ft. plus 1 Ft.- 3 stories	None(3) or 15 Ft.	2,500 Sq. Ft.	2,500 Sq. Ft.	30 Ft. with driveway, 25 Ft. w/o driveway	
RZ 3	Dwelling across not more then Five lots (2)						3,000 Sq. Ft.	3,000 Sq. Ft.	20 Ft.- Flag curved or cul-de-sac	
RZ 4	Parks- Playgrounds						4,000 Sq. Ft.	4,000 Sq. Ft.		
RZ 5							5,000 Sq. Ft.	5,000 Sq. Ft.		
RW1	ONE-FAMILY RESIDENTIAL WATERWAYS ZONE	2	30 Ft.	10 Ft. min.	10% width 3 Ft. Minimum	15 Ft. Min.	2,300 Sq. Ft.	2,300 Sq. Ft.	28 Ft.	

(1) "H" Hillside or Mountainous Area designation may alter these requirements in the RA-H or RE-H Zones, subdivisions may be approved with smaller lots, providing larger lots are also included. Each lot may be used for only one single-family dwelling. See minimum width and area requirements below.

ZONE COMBINATION	MINIMUM TO WHICH NET AREA MAY BE REDUCED	MINIMUM TO WHICH LOT WIDTH MAY BE REDUCED
RA-H	14,000 Sq. Ft.	63 Ft.
RE9-H	7,200 Sq. Ft.	60 Ft.
RE11-H	8,800 Sq. Ft.	63 Ft.
RE15-H	12,000 Sq. Ft.	72 Ft.
RE20-H	16,000 Sq. Ft.	72 Ft.
RE40-H	32,000 Sq. Ft.	no Reduction

(2) See Section 12.08 B 1 of the Zone Code.
(3) See Section 12.08 C4 of the Zone Code.

CP-7150 (5/86)

INDUSTRIAL

ZONE	USE	MAXIMUM HEIGHT STORIES	MAXIMUM HEIGHT FEET	REQUIRED YARDS FRONT	REQUIRED YARDS SIDE	REQUIRED YARDS REAR	MINIMUM AREA PER LOT/UNIT	MINIMUM LOT WIDTH	LOADING SPACE	PARKING REQUIRED
	INDUSTRIAL									
MR1	RESTRICTED INDUSTRIAL Uses First permitted in CM Zone-Limited Commercial and Manufacturing Uses. Clincs, Limited Machine Shops, Animal Hospitals and Kennels	Unlimited (6)		5 Ft. for lots 100 Ft. in depth or less, 15 Ft. for lots over 100 Ft. in depth	None for indus-trial or commer-cial build-ings Resi-dential Use-Same as in R4 Zone (5)	None for indus-trial or commer-cial build-ings Resi-dential Uses-Same as in R4 Zone Yards provided as lowest residential story (5)	Same as R4 for watchman or caretaker dwellings (5)		Insti-tutions, and with every building where lot abuts an alley Minimum Loading Space 400 Sq. Ft. Addi-tional space required for buildings containing more than 50,000 Sq. Ft. of Floor Area	One space for each 500 Sq. Ft. of floor Area in all buildings on any lot. Must be located within 750 Ft. of building.
MR2	RESTRICTED LIGHT INDUSTRIAL MR1 Uses-Addition Industrial Uses, Mortuaries, Agriculture									
M1	LIMITED INDUSTRIAL CM Uses-Limited Industrial and Manufacturing Uses-No "R" Zone Uses, No Hospitals Schools or Church-es any enclosed C2 Uses									
M2	LIGHT INDUSTRIAL M1 and MR2 Uses-Additional Industrial Uses, Storage Yards of All Kinds, Animal Keeping - No "R" Zone Uses			None	Resi-dential Uses-Same as in R5 Zone (5)		Same as R5 (5)		None Required for apartment buildings 30 Units or Less	
M3	HEAVY INDUSTRIAL M2 Uses-Any Industrial Uses - Nuisance Type - 500 Ft. From any Other Zone - No "R" Zone Uses				None	None	None			

PARKING

ZONE	USE	MAXIMUM HEIGHT	REQUIRED YARDS FRONT	REQUIRED YARDS SIDE	REQUIRED YARDS REAR	MINIMUM AREA PER LOT/UNIT	MINIMUM LOT WIDTH	LOADING SPACE	PARKING REQUIRED
P	AUTOMOBILE PARKING-SURFACE AND UNDERGROUND Land in a "P" Zone may also be classified in "A" or "R" Zone Parking Permitted in lieu of Agricultural or Residential Uses		10 Ft. Front where any combination of an 'A' or 'R' Zone with 'P' Zone			None Unless also in an "A" or "R" Zone			
PB	PARKING BUILDING Automobile Parking within without A Building "P" Zone Uses	MAXIMUM PB ZONE HEIGHTS No. 1 2 Stories and Roof No. 2 6 Stories No. 3 10 Stories No. 4 13 Stories	0 Ft., 5 Ft. or 10 Ft. depen-ding on zoning front-age and zoning across street	5 Ft. plus 1 Ft. each story above 2nd if abut-ting or across street and frontage in "A" or "R" Zone	5 Ft. plus 1 Ft. each story above 2nd if abut-ting an "A" or "R" Zone	None	None		

SPECIAL

TENTATIVE CLASSIFICATION
(T) used in Combination with Zone Change Only-Delays issuance of Building Permits until Subdivision or Parcel Map Recorded or other conditions met as required by City Council.

QUALIFIED CLASSIFICATION
(Q) Further restrictions on Property; used in Combination with Zone Changes Only (Except with RA, RE, RS or R1 Zones) Restricts Uses of Property and Assures Development Compatible with the Surrounding Property

DEVELOPMENT LIMITATION CLASSIFICATION
(D) Restricts absolute building heights, floor area ratio, percent of lot coverage and building setbacks

SUBMERGED LAND ZONE
(SL) Commercial Shipping
Navigation
Fishing
Recreation

FUNDED IMPROVEMENT CLASSIFICATION
(F) An Alternative means of Effecting Zone Changes and Securing Improvements (When No Subdivision or Dedications are Involved)

SUPPLEMENTAL USE DISTRICTS

SUPPLEMENTAL USE DISTRICTS:
Established in Conjunction with Zone(s)

G- Surface Mining
O- Oil Drilling
RPD- Residential Planned Development
K- Equine Keeping
CA- Commercial and Artcraft

COMMERCIAL

ZONE	USE	MAXIMUM HEIGHT STORIES	MAXIMUM HEIGHT FEET	REQUIRED YARDS FRONT	REQUIRED YARDS SIDE	REQUIRED YARDS REAR	MINIMUM AREA PER LOT/UNIT	MINIMUM LOT WIDTH	LOADING SPACE	PARKING REQUIRED
CR	LIMITED COMMERCIAL Banks, Clubs, Hotels, Churches, Schools, Business and Professional, child care, parking areas, R4 uses	6	75 Ft.	10 Ft. min.	10 ft. 10 % lot width, 5-ft. min. for corner lots; same as R4 for residential uses or adjoining an "A" or "R" Zone	15 Ft. plus 1 Ft. each story above 3rd	Same as R4 for Residential purposes Otherwise None	40 Ft. Comm. Use; 50 Ft. Use; residential use	Hotels, institutions, and with every building where lot abuts an alley Minimum Loading Space 800 Sq. Ft.	One space per 500 Sq. Ft. of floor area within all buildings on any lot.
C1	LIMITED COMMERCIAL Local retail stores offices or Businesses, Hotels, Hospitals and/or Clinics, Parking Areas-CR Uses except churches, schools and museums R3 Uses	Unlimited (6)			Same as R3 for corner lots, or residential uses or adjoining an "A" "R" Zone	15 Ft. plus 1 Ft. each story above 3rd, 20 ft. max. Residential Use or abutting an "A" or "R" Zone.	Same as R3 for Residential purposes, except 5,000 Sq.Ft. per unit in C1-H Zones Otherwise None		Additional Space Required for Buildings Containing more than 30,000 Sq. Ft. of floor area. None required for apartment buildings 30 Units or Less.	One space per 200 Sq. Ft. of total floor area of medical service facilities.
C1.5	LIMITED COMMERCIAL C1 Uses-Department Stores, Theatres, Broadcasting Studios, Parking Buildings, Parks and Playgrounds R4 uses.					Yards provided at lowest residential story. Otherwise None	Same as R4 for Residential purposes Otherwise None			

ZONE	USE	MAXIMUM HEIGHT STORIES	MAXIMUM HEIGHT FEET	REQUIRED YARDS FRONT	REQUIRED YARDS SIDE	REQUIRED YARDS REAR	MINIMUM AREA PER LOT/UNIT	MINIMUM LOT WIDTH	LOADING SPACE	PARKING REQUIRED
C2	COMMERCIAL C1.5 Uses-Retail Businesses with Limited Manufacturing, Auto Services Station and Garage, Retail Contractors Businesses, Churches, Schools, R4 Uses.	Unlimited (6)			None for Commercial buildings Residential Uses-same as in R4 Zone Yards provided at lowest residential story.		Same as R4 for Residential purposes Otherwise None	40 Ft. Comm. Use; 50 Ft. residential use	Hospitals, Hotels, institutions, and with every building where lot abuts an alley Minimum Loading Space 800 Sq. Ft. Additional Space Required for Buildings containing more than 30,000 Sq. Ft. of floor area. None required for buildings 30 units or less.	One space per 500 sq. Ft. of floor area within all buildings on any lot. One space per 200 Sq. Ft. of total floor area of medical service facilities.
C4	COMMERCIAL C2 Uses-(With Exceptions, such as Auto Service Stations, Amusement Enterprises, Hospitals Second-Hand Businesses) R4 Uses									
C5	COMMERCIAL C2 Uses-Limited Floor Area for Light Manufacturing of the CM-Zone Type. R4 Uses									
CM	COMMERCIAL MANUFACTURING Wholesale Business, Storage Buildings, Clinics, Limited manufacturing, C2 Uses-Except Hospitals, Schools, Churches, R3 Uses				None for Industrial or Commercial buildings Residential Uses-same as in R4 Zone		Same as R3 for Residential purposes Otherwise None			