

ORDINANCE NO. 3473

AN ORDINANCE to amend and reordain the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended, by adopting and incorporating therein the King Street/Eisenhower Avenue Metro Station Small Area Plan and to repeal all provisions of the said 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as may be inconsistent with said small area plan.

WHEREAS, the City Council of Alexandria finds and determines that:

1. In April 1987, city council directed that the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, be updated and revised.

2. Pursuant to this directive, the Department of Planning and Community Development has held a series of meetings with residents and property owners within the area which comprises the King Street/Eisenhower Avenue Metro Station Small Area Plan for the purposes of identifying land use and other master plan issues within such area and soliciting public comment and suggestion as to such issues.

3. At the conclusion of these meetings, the Department of Planning and Community Development has prepared, and has submitted to the Planning Commission of the City of Alexandria, the aforesaid small area plan.

4. After full opportunity for comment and public hearing, the planning commission revised the said small area plan, and by resolution adopted and certified such revised small area plan to city council for adoption as an amendment to the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended.

5. City council has heretofore conducted an informational public hearing on such small area plan, as certified by the planning commission, and, for the reasons sated in the record of such public hearing, has revised the small area plan in conformity with the form and language in Exhibit A, attached hereto.

6. No credible evidence contrary to the findings and conclusions of the planning commission expressed in its resolutions adopting the said small area plan has been presented to the city council.

7. Based upon the foregoing findings and all other facts and circumstances of which city council may properly take notice in its capacity as the legislative body of the City of

Alexandria, adoption of this ordinance is necessary and desirable to protect the public health, safety and general welfare of the residents of the City of Alexandria; now, therefore,

THE COUNCIL OF THE CITY OF ALEXANDRIA HEREBY ORDAINS:

Section 1. That the findings and conclusions expressed by the planning commission in its resolution adopting as an amendment to the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended, the King Street/Eisenhower Avenue Metro Station Small Area Plan, which resolution is attached hereto as Appendix 1 and incorporated fully herein by reference, are ratified, confirmed and adopted by the Council of the City of Alexandria.

Section 2. That the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended, be and the same hereby is amended and reordained by incorporating fully therein all text, descriptive matter, plats, maps, charts, tables and other materials comprising the King Street/Eisenhower Avenue Metro Station Small Area Plan, as set forth in Exhibit A, which exhibit is attached hereto and incorporated fully herein by reference.

Section 3. That the hereinabove approved and adopted amendment to the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended, shall, and the same hereby does, supercede all text, descriptive matter, plats, maps, charts, tables and other materials heretofore comprising the 1974 Adopted Consolidated Master Plan of the City of Alexandria, Virginia, as amended, which are in conflict with such hereinabove approved and adopted amendment.

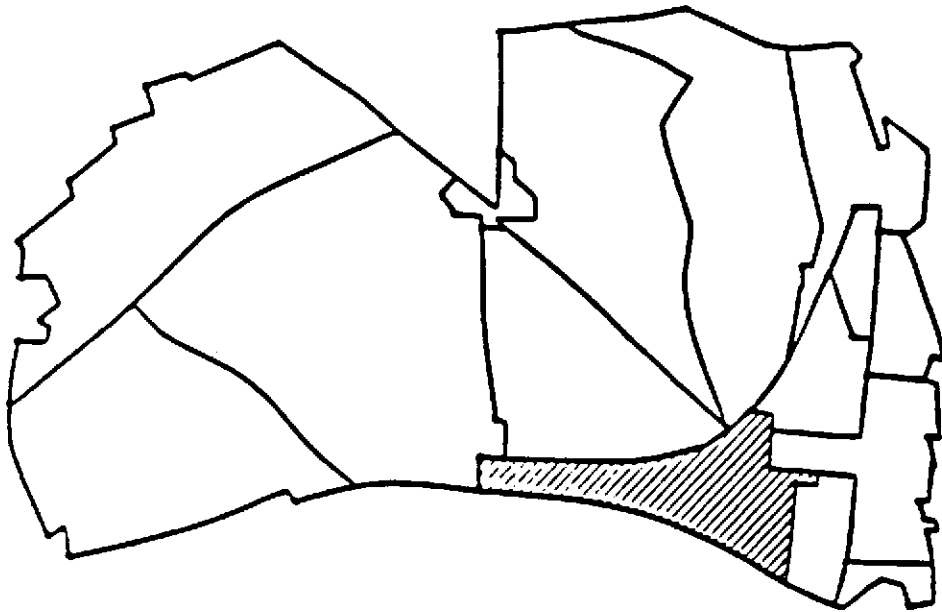
Section 4. That the city clerk shall transmit a duly certified copy of this ordinance to the Clerk of the Circuit Court of the City of Alexandria, Virginia, and the said Clerk of the Circuit Court shall file same among the court records.

Section 5. That this ordinance shall become effective upon the date and at the time of its final passage.

JAMES P. MORAN, JR.
Mayor

Final Passage: October 13, 1990

**KING STREET /
EISENHOWER AVENUE METRO STATION
SMALL AREA PLAN**



**FEBRUARY 1990
REVISED APRIL 1990**

**AMENDED BY THE PLANNING
COMMISSION 5/8/90 AND 5/9/90**

**AMENDED BY CITY COUNCIL 6/4/90
Department of Planning and Community Development**

City of Alexandria, Virginia

EXHIBIT A

**KING STREET /
EISENHOWER AVENUE METRO STATION
SMALL AREA PLAN**

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PURPOSE OF THE PLAN

The purpose of this document is to update the adopted 1974 Consolidated Master Plan as amended by the 1978 King Street Metro Station Area Plan for the King Street/Eisenhower Avenue Area and to adopt a 1989 King Street/Eisenhower Avenue Area Plan as part of the City's new Master Plan. The 1989 Plan, once adopted, will serve as the basis for future City Council policy initiatives and actions affecting land use, zoning, capital improvements and programs in the King Street/Eisenhower Area.

ORGANIZATION AND CONTENTS

The King Street/Eisenhower Avenue Area Plan is organized into two sections: Background and Issues and Plan Recommendations. The first section reviews and analyzes existing conditions and trends in the study area including physical conditions, demographics, land use, zoning, economic development activities and trends, transportation and urban design. This section also retraces past City policies including adopted plans, rezonings, resolutions and capital improvement programs. Based on this analysis this section identifies issues which need to be addressed in the plan for the area.

The second section lists the goals, objectives and specific recommendations on land use, zoning, transportation and urban design as derived from the analysis.

PLANNING PROCESS

The final draft of this plan will be sent to the Master Plan Task Force, the King Street Metro Station Area Task Force and the Eisenhower Avenue Metro Station Area Task Force for review and to the Planning Commission and City Council for review and adoption. Once approved, the plan will be referred to the Zoning Task Force for input into the City wide zoning code revision effort. Based on the approved plan and revised zoning code, the City will proceed with implementing appropriate rezonings in the area.

**BACKGROUND AND
ISSUES**

DESCRIPTION OF AREA

The King Street/Eisenhower Avenue Area is located in the southern section of the City. The area is bounded generally by Bluestone Road on the west, ~~US Route 95 (Capital Beltway)~~ ^{Interstate} on the south and West Street and Hooff's Run on the east. The northern boundary is composed of the RF&P Railroad tracks, Callahan Drive and Cameron Street (Map 1.)

The King Street/Eisenhower Avenue Area is composed of two major potential development areas, each containing a transit station.

King Street Subarea

The King Street Metro Station subarea consists of approximately 41 acres excluding streets located between Callahan Drive, Cameron Street, West Street and north of Duke Street. The subarea is predominantly composed of commercial office buildings located along Diagonal Road, King Street, Duke Street and Daingerfield Road. Residential development within the defined subarea is limited to a 96 unit midrise apartment building on Prince Street, older townhouse residential along Harvard and Peyton Streets and a mix of old and new townhouses along West and Prince Streets.

The area is mostly ^{Alexandria} surrounded by established, built up residential and commercial areas. To the east are the Old and Historic District and the Central Business District which extend into the subarea as far as Peyton Street. To the north is the Parker Gray ~~Historic residential~~ district and the Braddock Road Metro Station Area. D

The RF&P railroad tracks, Amtrak Station and Callahan Drive define the western boundary. Abutting the railroad tracks to the west is the single family community of Rosemont. The only King Street Station subarea border which does not contain residential uses is to the south along Duke Street.

The King Street Metro area was once a location for low scaled warehousing, auto dealerships, grocery stores and freestanding retail shops. Much of the land was used for surface parking lots.

The absence of development in the King Street area was probably due to the periodic flooding of Hooff's Run and to the high water table. Its remote location at the western edge of the downtown area and its proximity to railroad tracks may have also contributed to the lack of interest in this area for more intense development.

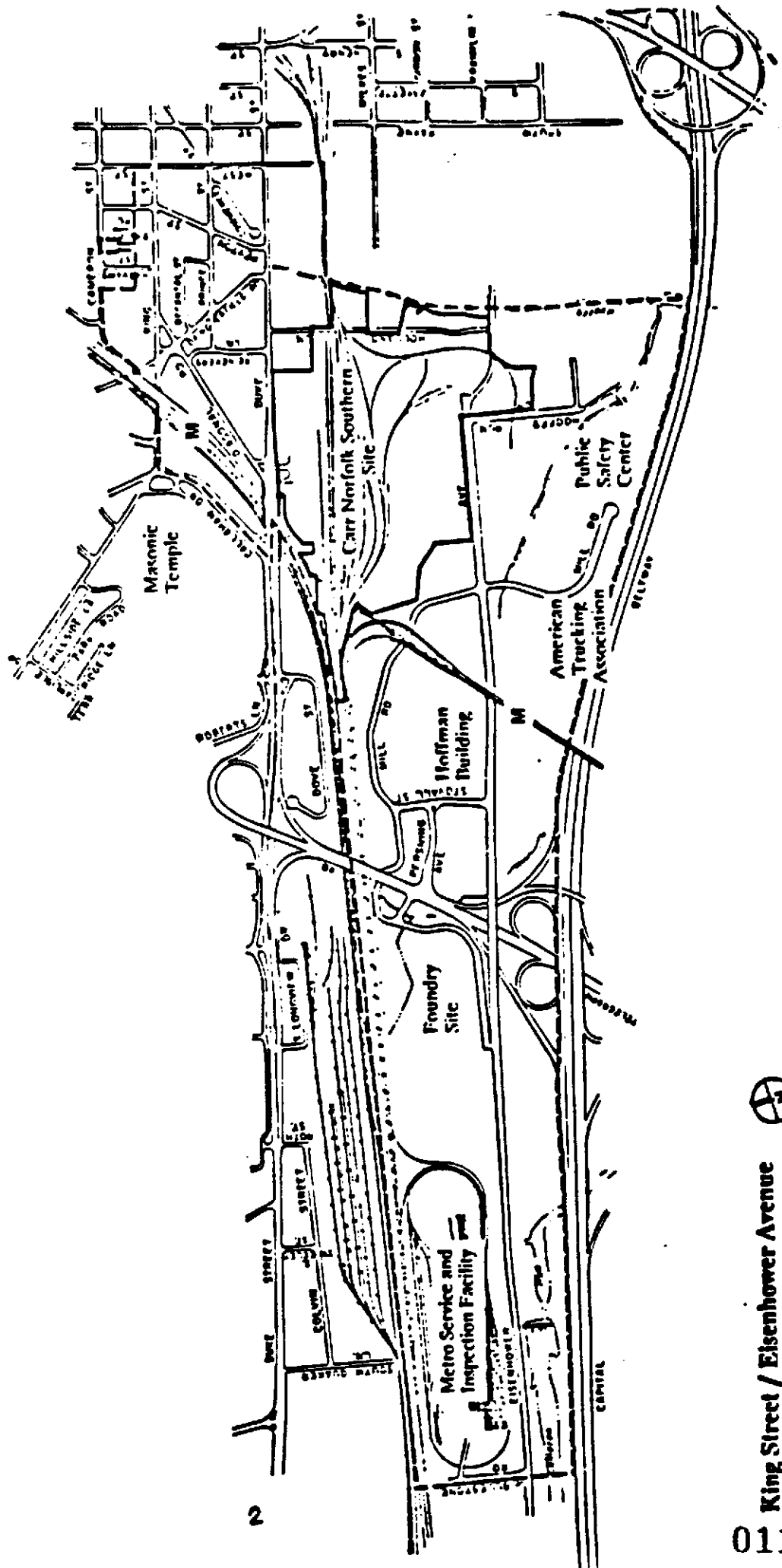
However, the channelization of Hooff's Run under what is now Daingerfield Road and the advent of Metrorail service in 1983 greatly accelerated investment in the area. Since King Street Station Building I opened in 1983, there has been a steady stream of construction activity; the King Street Metro Station area is developing into a dense office/retail and hotel center focused on the Metro Station.

Eisenhower Avenue Subarea

The Eisenhower Avenue Metro Station subarea is located south of Duke Street and is bound by West Street to the east, the Capital Beltway to the south and Bluestone Road to the west. The Eisenhower Avenue subarea contains 316 acres excluding streets and is therefore eight times larger than the King Street area. It is also more diverse; containing a mix of commercial office, light and heavy industrial and institutional uses plus large vacant parcels.

For most of its recent history, the Eisenhower Avenue area was in the Cameron Run flood plain and therefore subject to periodic flooding. As recently as the 1940's part of this marsh area could be navigated by small boats. Through the 1960's and the 1970's the marsh areas were used as a landfill bringing elevations up to 15 to 20 feet above sea level.

Map 1
1988 Study Area



The subarea was considered a swamp, a land fill site and an area suitable only for light or heavy industry. Indeed, industrial uses such as the Alexandria Scrap Yard, a steel foundry, the Norfolk Southern Rail yard, and the Virginia Concrete plant found their homes in the area.

However, with the Cameron Run flood control and channelization project completed during the late 1960's and early 1970's, the area became suitable for commercial development. The Hoffman Center, consisting of 1 million square feet of office space, was built between 1968 and 1972. Other commercial development, consisting of the American Trucking Association building and lower scale multi-building commercial projects such as the Alexandria Tech Center and GT Metro Center, were to follow during the late 1970's and 1980's.

Public agencies also found the Eisenhower Avenue area suitable for development. The City chose to locate a metro station on Eisenhower Avenue next to the Hoffman Complex and built its Public Safety Complex along Mill Road. The Washington Metropolitan Area Transit Authority built a metrorail service and inspection yard and a facility for its revenue collection operations south of S. Quaker Lane and east of Bluestone ~~Boulevard~~ Road.

Proximity and exposure to the Beltway, the availability of large vacant sites, buildings with ample parking and less expensive rents compared to downtown Alexandria locations, are all factors which have attracted relatively low density, back office space, flex space, government office users and warehousing to the Eisenhower Avenue area.

What has not as yet been attracted to the area, however, is a mix of uses. There are no residential or retail uses near the station and few, if any Class A office buildings. In fact, so far, the metro station has generated little if any development that takes advantage of the Eisenhower Avenue station.

What has deterred metro related development in the Eisenhower station area is its physical isolation from the rest of the City. Most of this subarea is located in the Cameron Run Valley which slopes down from Duke Street and is far removed from the nearest residential areas. This isolation is compounded by limited north/south vehicular access, by the presence of railroad trackage and by unattractive if not noxious industrial uses such as the Alexandria Scrap Yard.

Yet conditions are changing which may reduce Eisenhower Avenue's isolation from nearby developed areas and create opportunities for metro related, mixed use and higher quality development.

The Oliver T. Carr Company, a large, Washington DC based developer, who has been actively involved in the development of the King Street Metro Station area, has formed a joint venture with the Norfolk/Southern Corporation to develop a 76.5 acre site located between the King and Eisenhower Metro stations and containing the Alexandria Scrap yard and Norfolk Southern's railroad trackage and yard.

The CNS proposal, ~~which has been submitted to the City for approval,~~ includes the construction of 6.8 million square feet of mixed use, office, retail, residential and hotel development oriented along a grid system of new streets. It is projected that the project will be built over the next twenty years. The proposed CNS development can effectively remove the one physical barrier which historically has separated the two potential growth areas, namely, the railroad tracks.

DEMOGRAPHICS

Population

There are few people who live in the study area. The 1989 permanent, full time residential population of the King Street/Eisenhower Area is estimated to be approximately 209 persons (Table 1). This area has experienced very little residential growth in the past ten years except for a 96 unit mid rise structure on Prince Street and some infill townhouses on Prince and West Streets.

The only real population growth has been the direct result of the construction of institutional uses in the area. It is estimated that there are approximately 667 persons living in institutional facilities in the area, which include residents of the City's jail and the City's shelter on Mill Road.

Table 1

ESTIMATED POPULATION
King Street/Eisenhower Avenue Area

		<u>1970</u> ²	<u>1980</u> ²	<u>1989</u>
Population	Residential	315	195	207 ³
	Institutional	-	-	667 ¹
Housing Units		126	102	125 ⁴

¹ Average number of residents in City institutional facilities: Public Safety = 469, Christ House (131 S. West Street) = 16; City Shelter = 66; Carpenters House = 88; and the Alcohol and Substance Abuse Center = 28.

² Source: U.S. Census

³ Source: Planning Department based on COG Round IV Forecast.

⁴ Source: Department of Planning and Community Development

Employment

There are an estimated 12,980 persons that are employed within the King Street/Eisenhower Avenue Area in 1990-1989, not including self employed persons (Table 2). This represents approximately 14% of a total estimated 92,000 jobs in the City. Almost 9,600 persons, representing 74 percent of the work force in the study area, are employed in the Eisenhower Avenue Metro Station subarea. Some 5630 Department of Defense employees work in the Hoffman Buildings constructed in the late 1960's and early 1970's.

As shown in the table, employment in the planning area has markedly increased reflecting substantial commercial development activity in the study area over the past 15 years.

Table 2

ESTIMATED EMPLOYMENT¹
King Street/Eisenhower Avenue Area

Area	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
King/Duke Street	18	59	1413	3403
Eisenhower Avenue	<u>5764</u>	<u>6085</u>	<u>8518</u>	<u>9578</u>
Total Employment	5782	6144	9931	12980

¹ Source: Department of Planning and Community Development

EXISTING LAND USE (Map 2)

The King Street/Eisenhower Avenue Area consists of approximately 424 acres. About 15 percent (66.9 acres) is in street and alley right-of-ways, leaving 357.4 acres of land subject to development.

Residential Land Use

Less than one percent of the study area or 2.44 acres is used for residential purposes. Of 125 dwelling units located in the area in 1989, 96 are within a midrise condominium development on Prince street which was built in 1982. The remaining units are older rowhouses and townhouses.

Table 3
EXISTING LAND USE¹
King Street/Eisenhower Avenue Area

<u>Land Use</u>	<u>Square Feet</u>	<u>Acres</u>	<u>Percent</u>
Residential	106,147	2.44	0.68
Commercial	4,282,043	98.30	27.51
Industrial	1,963,155	45.07	12.61
Park or Open Space	325,533	7.47	2.09
Institutional	617,435	14.17	3.97
Utilities	4,478,468	102.81	28.77
Vacant	<u>3,794,227</u>	<u>87.11</u>	<u>24.37</u>
Totals	15,567,008 ²	357.37	100.00

¹ The King Street/Eisenhower Avenue Area consists of 18,479,499 square feet or 424.23 acres including public streets, alleys and other right-of-ways.

² The total amount of land area not in right of way that is subject to land use and zoning controls.

Commercial Land Use

Commercial land uses comprise 98.3 acres or approximately 27.5% of the study area. Commercial uses near the King Street Metro Station are heavily concentrated across from the station on Diagonal Road and along King Street and Duke Street.

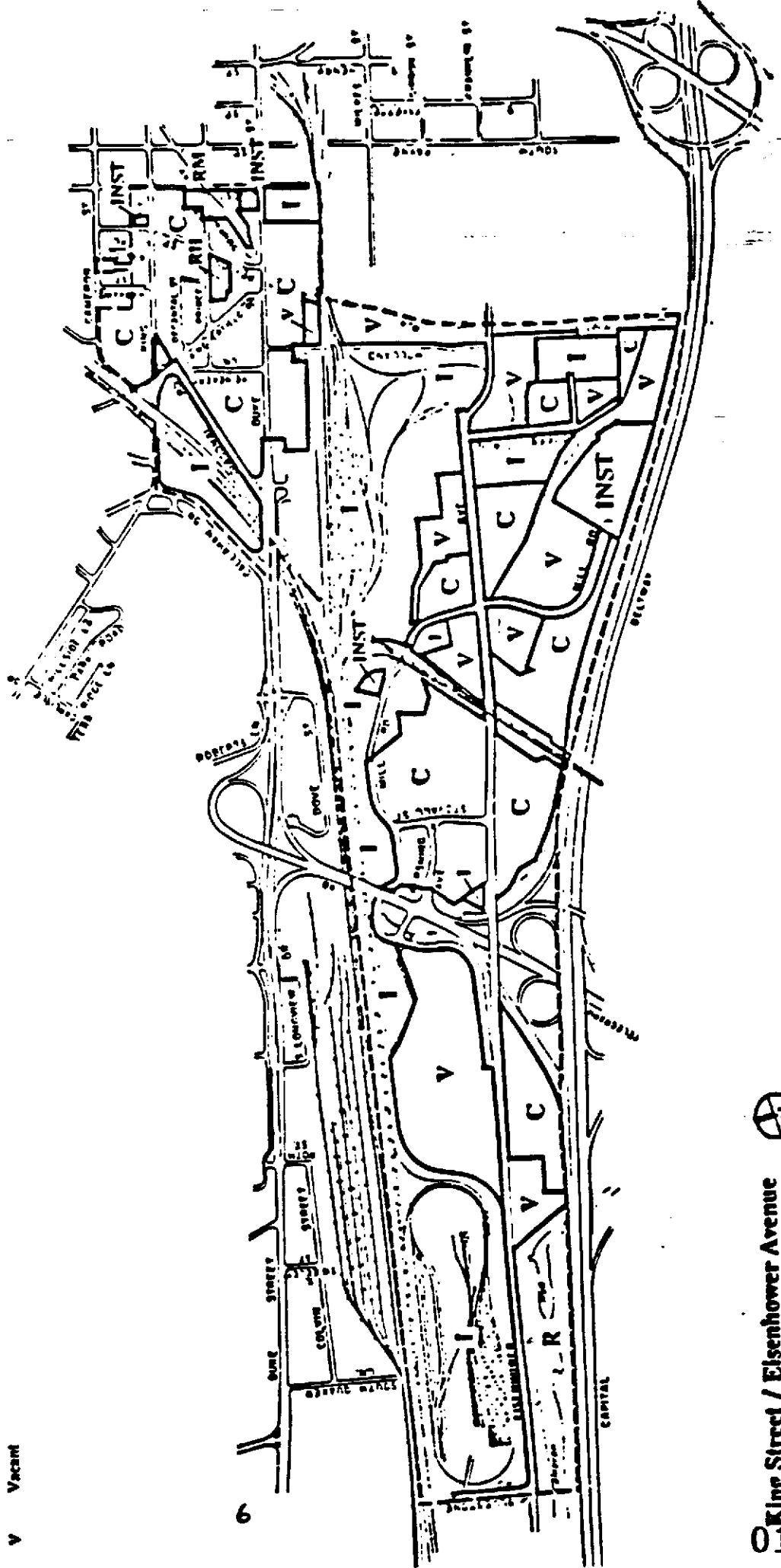
There are two types of commercial developments in the King Street Metro Station subarea. The first type consists of major building complexes, such as the King Street Station and King Street MetroPlace developments. These projects are designed for large, single or multi-tenant users, are approximately 77 feet in height and have densities ranging from 2.5 to 3.0 Floor Area Ratios (FAR) with structured or underground parking. These projects are part of multi-use developments which include hotel and first floor retail uses.

The second type is infill commercial developments designed for small to medium sized single tenants and national associations. These buildings are located further from the transit station and represent smaller scaled single or multi-building projects from 3 to 5 stories in height.

Map 2

Existing Land Use

- RM Residential Medium
- RII Residential High
- INST Institutional
- C Commercial
- I Industrial
- R Recreation And Open Space
- V Vacant



There are approximately 1.2 million square feet of commercial/office development in the King Street Metro Station subarea which are completed or are under construction.

Commercial development near the Eisenhower Avenue Station is more dispersed and less physically oriented to the Metro Station. The most prominent buildings are the Hoffman complex. These buildings are located on Eisenhower Avenue and on Stovall Street just northwest of the Metro station and consist of two buildings which total 935,841 net square feet and range in height from 120 to 150 feet. These buildings are surrounded by 3400 surface parking spaces accommodated on some 27 acres of land. Part of the Hoffman Complex includes an eleven story, 101,000 square foot hotel.

The other prominent commercial structure in this subarea is the American Trucking Association Building on Mill Road near the Capital Beltway. This 7 story building contains a net 171,000 square feet and is served by above grade structured parking.

The remaining commercial/office development is comprised of low scale office complexes such as the Alexandria Tech Center and the GT Metro Center. The ATC consists of four, three story office buildings with 265,000 square feet of space and a hotel containing a total of 95,242 square feet. The GT Metro Center is a combination of office and warehousing/commercial space consisting of 145,000 square feet of commercial/office space and 107,000 square feet of warehouse/commercial space.

There are approximately 2 million square feet of office development built in the Eisenhower Avenue subarea.

Utilities and Transportation Land Uses

Transportation land use constitutes the largest amount of land area within the King Street/Eisenhower Avenue Area, covering 102.8 acres or 26.8 percent of the total land area. Most of this land area contains the property and right-of-ways for the Metro service and inspection yard at Eisenhower Avenue and Bluestone Road and the Metro stations at King Street and Eisenhower Avenue. Other properties that are used for transportation purposes are the Amtrak's Union Station on King Street and Callahan Drive and the Norfolk Southern Railroad yard.

Industrial Land Uses

Approximately 45.1 acres or 12.6 percent of the land area in the King Street/Eisenhower Avenue area is used for industrial purposes. These industrial uses are concentrated on Eisenhower Avenue between Telegraph Road and Hooff's Run and include the Alexandria Scrap Yard, whose lease expires in 1992, and the Curtis Lumber and Plywood Company, whose lease expires in 1995. Other smaller industrial uses include the Virginia Concrete operation, a mini-storage facility and a warehouse/retail/office complex on Hooff's Run Drive.

Institutional Land Uses

Institutional uses account for almost four (4) percent (14.2 acres) of the land area in the King Street/Eisenhower Avenue Area. The major institutional uses are the 182,200 square foot Public Safety Center, constructed in 1987; and the 25,000 square foot Substance Abuse Center, constructed in 1988. Other institutional uses in the area are the Black Baptist Cemetery located on Holland Lane and two churches located on King at Peyton Street and Duke at West Street.

Recreation Land Use and Open Space

Only about 2.1 percent (7.5 acres) of the land area is used as open space. The study area does not contain parks, fields or active recreational facilities. Most of the open space consists of grassed or treed areas along the Cameron Run and Hooff's Run embankments. The embankment along Cameron Run has been designated as the Cameron Run Greenway and is a part of the City's open space inventory.

Vacant Land

The King Street/Eisenhower Avenue Area contains approximately 87.1 acres of vacant land. This represents 24.4 percent of the developable land area. Almost all of the vacant land in this area is located within the Eisenhower Avenue corridor.

EXISTING ZONING (Map 3)

Industrial Zoning

Excluding right-of-ways for streets and alleys, 203.3 acres or 56.9 percent of the King Street/Eisenhower Avenue Area is zoned for industrial use. Most of this industrially zoned property consisting of 56.6 percent (181.56 acres) of the area is zoned I-2. The I-2 zone allows the heavy industrial uses such as railroad yards, warehouses and truck terminals, but also allows high density commercial development at a 3.0 FAR. All of the I-2 zoned land in this area is located in the Eisenhower Avenue subarea.

An additional 21.7 acres, 6.1 percent of the area, is zoned I-1. The I-1 zone permits light industrial uses and professional office buildings at a 2.5 FAR.

Commercial Zoning

Commercial zoning, predominately C-3, covers 28.7 acres (8.1 percent of the total land area). The C-3 zone generally permits professional office buildings and commercial retail at a 3.0 FAR and residential development at 54.45 dwelling units per acre. All of the new construction that has occurred around the King Street Metro Station was done on sites with C-3 zoning. All of the C-3 zoned properties are located north of Duke Street between West Street and Diagonal Road.

Mixed Use Zoning

Approximately 91.7 acres or 24.7 percent of the area is zoned M-1 or M-3. The M-1 zone was designed to encourage mixed commercial and residential development near the King Street Metro Station. The zone allows a 3.0 Floor Area Ratio for commercial development and up to 85 dwelling units per acre.

Only one 4.4 acre site on the south side of Duke Street is zoned M-1. Since developers have been primarily interested in commercial development of the King Street area and since the C-3 zone allowed the same 3.0 FAR as the M-1 zone, there has been little incentive to apply for M-1 rezoning to take advantage of its residential density bonus.

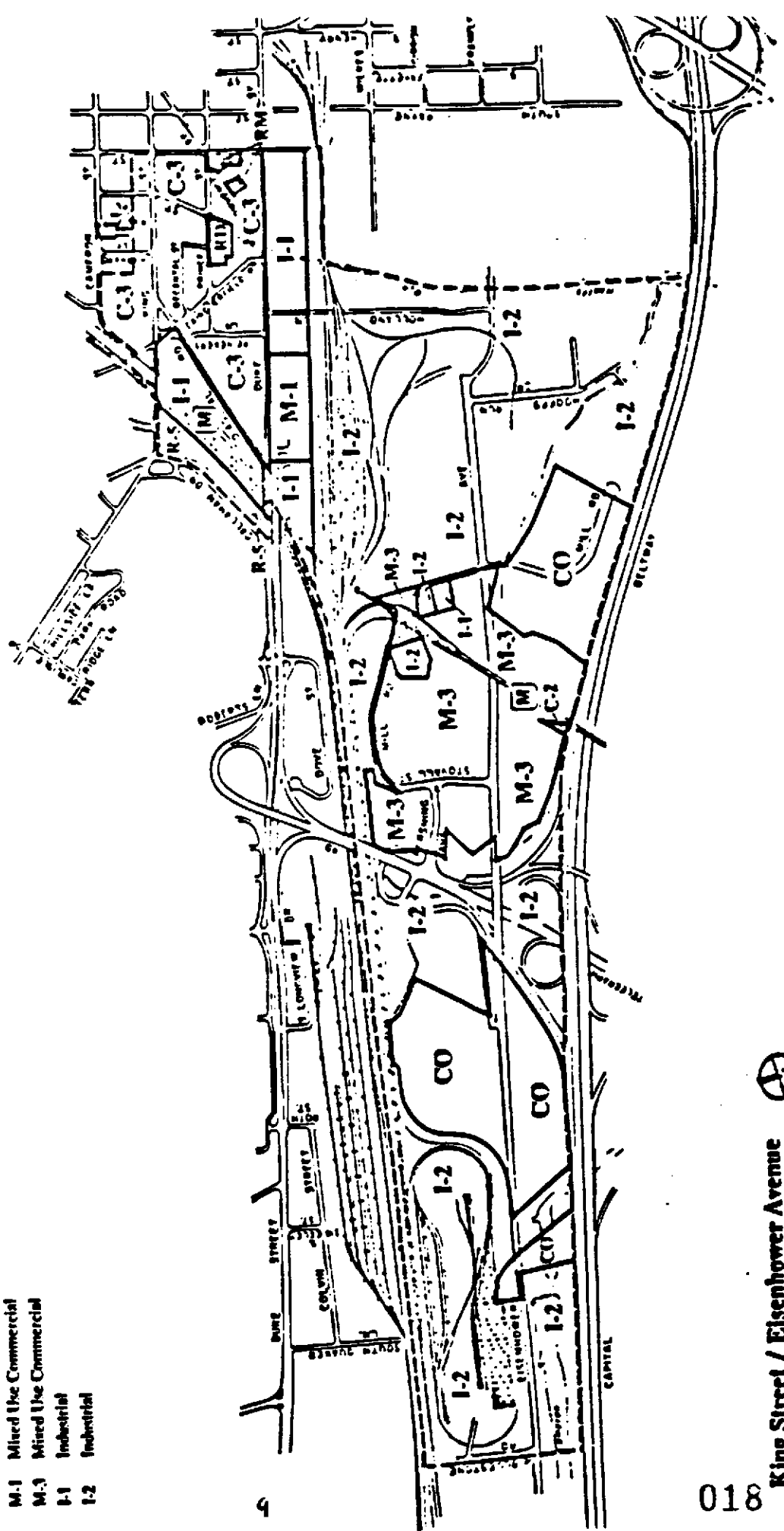
The M-3 zone was developed for sites around the Eisenhower Metro station and has been applied to 87.3 acres of land along Eisenhower Avenue between Telegraph and Mill Roads. The M-3 zone was also designed to encourage mixed use commercial and residential development. The zone allows a 3.5 FAR for office development and up to a 6.0 FAR provided that a portion of the development is residential. The zone also allows up to a 345 foot building height with the provision of residential uses. Although developable sites have been rezoned to M-3, no development has occurred on these sites based on the M-3 zoning.

The CO mixed use zone covers 25.5 acres (7.1 percent of the total land area). Like the metro zones, the CO zone was developed to encourage a mix of uses at higher densities. All of the CO zoned properties in this area are located in two clusters on Eisenhower Avenue.

Map 3

Existing Zoning

- R-1 Residential Single Family
- RM Residential Multi-Family
- RTD Residential Multi-Family
- C-2 Commercial
- C-3 Commercial
- CO Mixed Use Commercial
- M-1 Mixed Use Commercial
- M-3 Mixed Use Commercial
- I-1 Industrial
- I-2 Industrial



The CO zone allows a 2.0 FAR by right and additional FAR under the CO special use permit provisions to encourage mixed use development. None of the sites zoned CO has developed under the SUP mixed use provisions of the zoning code. The Alexandria Tech Center site is being developed under the by right provisions of the CO zone for office development.

Table 4
EXISTING ZONING¹
King Street/Eisenhower Avenue Area

<u>Zone</u>		<u>Square Feet</u>	<u>Acres</u>	<u>Percent</u>
Residential	R-5	277,034	6.36	1.76
	RM	30,141	0.69	0.19
	RD	39,152	0.90	0.25
Commercial	C-2	13,482	0.31	0.09
	C-3	1,248,234	28.66	8.02
Industrial	I-1	945,958	21.72	6.08
	I-2	7,909,065	181.56	50.80
Mixed Use	CO	1,109,597	25.47	7.13
Metro	M-1	190,687	4.38	1.23
	M-2	<u>3,803,658</u>	<u>87.32</u>	<u>24.43</u>
Total		15,567,007 ²	357.37	100.00

¹ The King Street/Eisenhower Avenue Area consists of 18,479,499 square feet or 424.23 acres including public streets, alleys and other right-of-ways.

² The total amount of land area that is subject to land use and zoning controls.

Residential Zoning

Only 8 acres (2.2 percent) of land within the King Street Eisenhower Avenue area have residential zoning, and only 1.6 of these acres are actually used residentially. The largest residentially zoned site, with R-5 single family zoning, is the Amtrak Union Station. Properties zoned for residential and developed for residential are located in three clusters, on Prince Street, Commerce Street and South West Street. The property on Prince Street is zoned RD and contains a 96 unit mid rise residential building. The properties on Commerce Street and South West Street are zoned RM and contain rowhouses or townhouses.

HEIGHT LIMITS (Map 4)

In the City, heights are regulated by both zoning and height districts. There are three height districts within the King Street/Eisenhower Avenue area which supplement the height restrictions of zoning in the area. Both the Cameron Street height district and the Old and Historic District restrict development to 50 feet. Together, these two height districts cover most of the parcels north of Duke Street as far west as Peyton Street on the south side of King Street and Harvard Street on the north side of King Street.

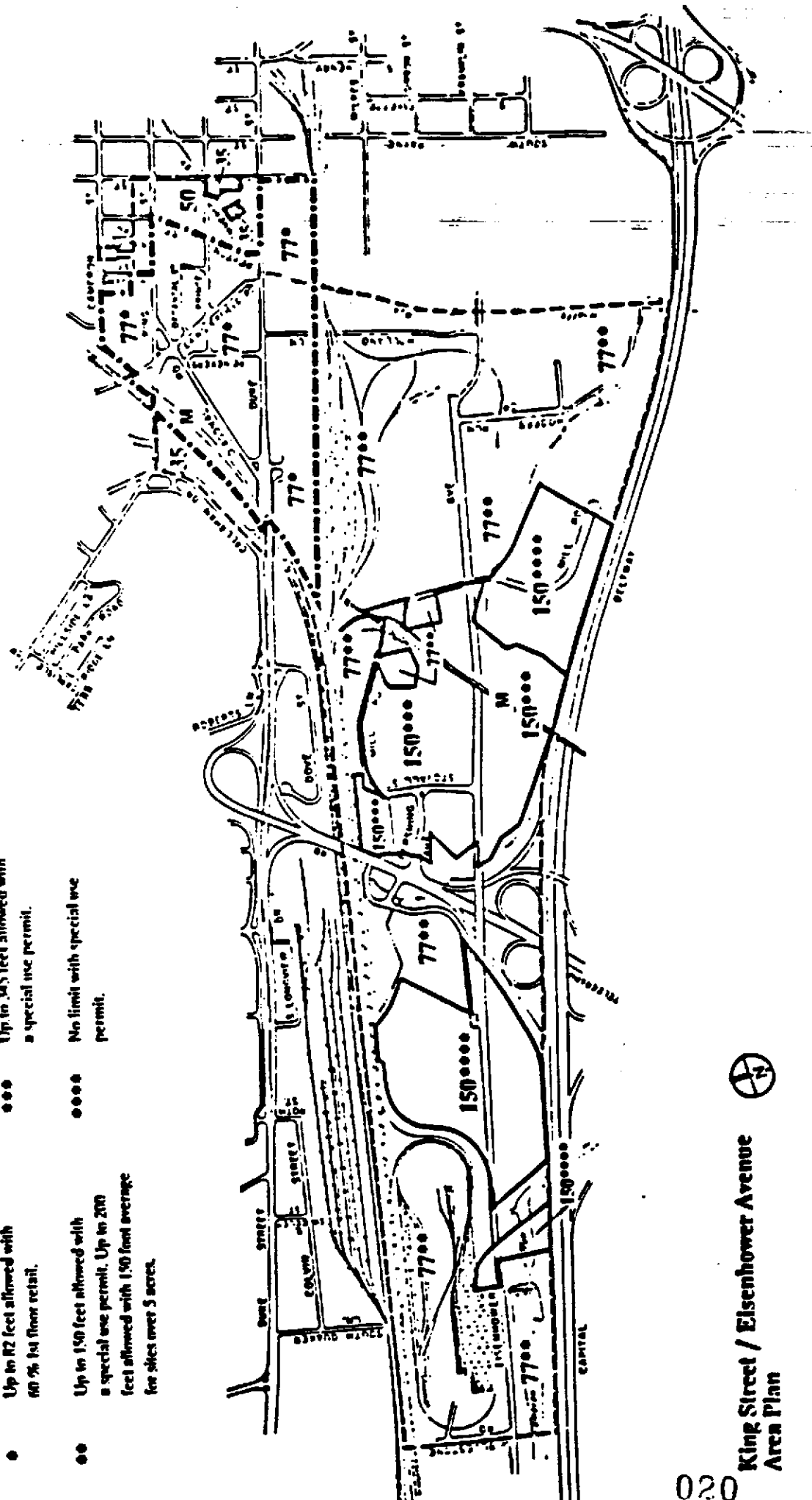
└ Alexandria

Map 4
Existing Height Allowances

———— Zone Line

○○○○○○○ Height District Line

- Up to 82 feet allowed with 60% lot floor retail.
- Up to 150 feet allowed with a special use permit. Up to 200 feet allowed with 150 foot average lot area over 5 acres.
- Up to 345 feet allowed with a special use permit.
- No limit with special use permit.



King Street / Eisenhower Avenue
 Area Plan



The King Street Metro Area height district restricts heights to 77-82 feet and covers most of the remaining land in the King Street area; it generally extends from King Street to the north to the rear property lines of Duke Street on the south, between S. Peyton Street to the east and Callahan Drive on the west.

While height districts generally limit development heights in the King Street portion of the study area to 50 and 77 feet, there are no height districts in the Eisenhower Avenue section of the study area.

The zoning in the Eisenhower area generally allows heights up to 150 feet. Under certain conditions, properties that are located outside of specific height districts can be approved to allow heights that are greater than what the zoning would normally allow by right. With a Special Use Permit and approval by City Council the CO zone would allow structures greater than 150 feet.

A Special Use Permit would also permit properties zoned I-1 and I-2 to allow heights up to 150 feet if the property is less than 5 acres in size and up to 200 feet if the property is larger than 5 acres. The M-3 zone would allow structures up to 345 feet in height with a Special Use Permit provided that residential uses are included in the project.

ECONOMIC ACTIVITY AND DEVELOPMENT TRENDS

Overall, the King Street/Eisenhower Avenue Area has undergone a dramatic transformation brought about by the onset of Metrorail service in 1983 and by substantial redevelopment activity over the past 8 years. As shown in the table below, prior to the opening of the King and Eisenhower Avenue metro stations in Alexandria, there was only 1.5 million square feet of office development, mostly in the Hoffman Complex. Since 1983 there has been 1.83 million square feet of additional office construction activity or 260,000 square feet constructed per year.

Table 5

OFFICE DEVELOPMENT 1975-1990
(Cumulative Square Feet)
King Street/Eisenhower Avenue Area

<u>Subarea</u>	<u>1975</u>	<u>1980</u>	<u>1983</u>	<u>1985</u>	<u>1990</u>
King Street	5,020	16,546	32,946	392,708	1,232,152
Eisenhower	<u>976,185</u>	<u>1,065,546</u>	<u>1,324,779</u>	<u>1,738,047</u>	<u>2,031,890</u>
Total	981,185	1,082,092	1,076,571	2,270,854	3,264,042

Most of the Metro related development activity has been concentrated around the King Street Metro Station area. Since 1983, some 1.1 million square feet of office development either has been completed or is under construction. Over the next five to ten years it is projected that the King Street station subarea will add another 950,000 square feet of office space at which point the King Street area will have achieved buildout. Almost all of this projected space is either under construction or has approved site plans.

The largest development in the area is the Oliver T. Carr Company King Street Station project located on Diagonal Road and Duke Street. When completed, the project will contain 536,000 net square feet of office space, 67,000 net square feet of retail space, 25,000 square feet of restaurant space and a 155,000 square foot hotel on a six acre site across from the Metro Station.

Another prominent development parcel near the King Street station is the old Reed Theatre site located between Commonwealth Avenue, King Street and Cameron Street. Owned by the Dominion Companies, the plan for this 4.30 acre parcel includes a 178 room hotel and up to 400,000 square feet of office and commercial retail space. Phase I of this project, including 80,000 square feet of office space in four buildings, is nearing completion.

There has been less Metro related development activity around the Eisenhower Avenue Metro Station subarea. Since the construction of the Hoffman Buildings, the area has experienced an additional 707,000 square feet of office development including the Eisenhower Center, Tech Center and GT Metro Center projects and the American Trucking Association building.

The type of development activity in the Eisenhower Avenue area, however, has not been limited to office uses. The Metro Service & Inspection Yard was constructed on a 15.7 acre site at Bluestone Road and Eisenhower Avenue. This facility includes six buildings with 268,000 square feet of space.

The 182,000 square foot Public Safety facility was constructed on Mill Road on a 8.8 acre site to house the City jail and police headquarters. The City's Homeless Shelter and Substance Abuse Center was constructed further north along Mill Road.

In addition, there has been 54,000 square feet of warehouse mini-storage space and 107,000 square feet of warehouse/commercial space constructed.

Future Development Potential

As the King Street Station area approaches buildout the Eisenhower Avenue area becomes the focus for examining future development potentials and their impacts. Development which has occurred over the past 15 years may be only a short prelude to substantial potential development which could occur over the next 20 years.

This analysis examines future development potential from several perspectives. First, known projects are identified as an indicator of development interest and intentions in the area. These projects have approval, are pending review or have been announced as active developments planned for the near future. Second, the analysis looks at the supply of land and existing zoning to determine the theoretical remaining development potential of the area. Third, the analysis examines development potential in terms of market constraints.

Pending Development Proposals

Map 5 shows development proposals which have been recently approved, are pending approval or have been announced. As indicated, the largest of these proposals is the CNS project.

Carr/Norfolk Southern Project (CNS)

The CNS project is located on 76.5 acres of land used for railroad trackage, the Curtis Lumber Yard, the Alexandria Scrap Yard, the Duke Street Shopping Center, warehousing and the Carpenter's Homeless Shelter Center on Duke Street.

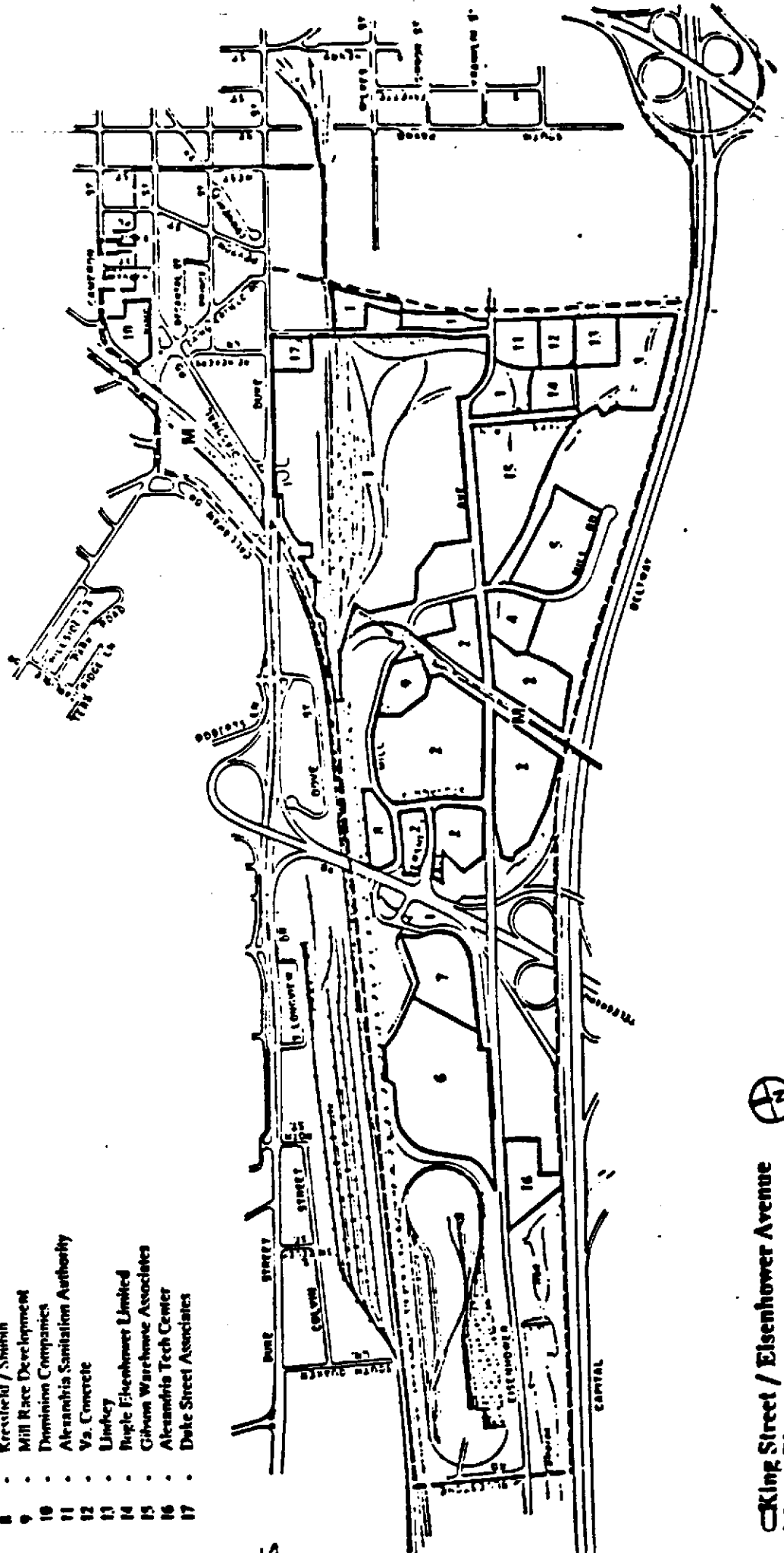
When completed over the next 20 years, the Plan envisions 4,225,000 net square feet of office space, 1,884,000 net square feet of residential space, 300,000 net square feet of hotel space, 378,000 square feet of retail space and a 4,500 square foot day care center.

To serve this project the Plan calls for 11,900 parking spaces located in underground and above ground parking structures throughout the project site area. The Plan also contains 25.4 acres of open space which include sidewalks, courtyards, plazas, gardens, active recreation facilities and a major park along Hooff's Run.

Map 5

Major Vacant and Developable Sites

- 1 Carr Norfolk Southern
- 2 Hubert Hoffman
- 3 Deansard Fagelson
- 4 Gateway South Associates
- 5 O.T. Carr
- 6 Lehigh / Portland
- 7 Alexandria Research Center
- 8 Keresfield / Shubin
- 9 Mill Race Development
- 10 Dominion Companies
- 11 Alexandria Sanitation Authority
- 12 Va. Concrete
- 13 Limkey
- 14 Ruple Eisenhower Limited
- 15 Gibson Warehouse Associates
- 16 Alexandria Tech Center
- 17 Duke Street Associates



King Street / Eisenhower Avenue

Area Plan

The project is formed around a grid pattern of streets which will serve to provide additional road connections between Eisenhower Avenue and Duke Street. Holland Lane will be widened to four lanes as part of phase 1 of this project.

Access to the site will be from Telegraph Road, Eisenhower Avenue and Duke Street. The CNS team is proposing a Connector Distributor Road from the Capital Beltway to provide more direct Beltway access to the project and as an alternative to Telegraph Road which is already congested.

The focus for commercial retail and entertainment activities will be the Retail Square to be located on Duke Street opposite the King Street Station Retail Court. The developer is proposing cinemas, a performing arts facility and a 230,000 square foot specialty shopping center.

The overall density of the project, excluding the 25.4 acres of rights of way, is a 2.62 FAR.

Hoffman Center

This is a 40.7 acre site located between the Beltway, Telegraph Road and Mill Road. The owner has submitted a Plan to include four, 345 foot (26 story) towers consisting of 3.25 million square feet of office space to house the Navy and a 16 story, 375,000 square foot office building to house a GSA tenant. In addition, the owner has submitted plans for an 800 room expansion of the existing 200 room hotel plus 560 residential units to be housed in two 27 story towers.

The owner has also identified in concept a future phase for two sites on either side of the Eisenhower Avenue Metro Station. This "Phase C" plan includes 1,170 residential units, an additional hotel with 900,000 square feet, 130,000 square feet of retail and restaurant and 3.0 million square feet of office space.

Cameron Center

The Cameron Center site is 22.19 acres, zoned CO commercial, located on Eisenhower Avenue just west of Telegraph Road. The Simpson Development Co. is planning ultimately to construct 1.7 million square feet of office space, 150,000 square feet of retail space and a 300 room hotel. The site has approval for a 120,000 square foot office building.

Alexandria Tech Center

This is an 11.56 acre site located on the south side of Eisenhower Avenue opposite the Cameron Center site. The ATC has over 373,000 square feet of office space approved and 263,000 square feet of office space built.

Mill Race Apartments

This proposed project is located on a 3.3 acre parcel on the south side of Mill Road opposite the City's Substance Abuse Center. The proposal includes 520 units of residential, 22,000 square feet of retail, a 7,000 square foot health facility and 1,100 parking spaces. The heights of the buildings are 185 feet; the proposed density is 3.38 FAR or 157 units per acre. Homeless Shelter on

Foundry Tract

This is a 7.2 acre former steel foundry site located between the Cameron Center property and Telegraph Road. Previous plans submitted by the Walt Robbins Company in 1985 included 585,000 square feet of office space housed in four buildings and a 300 room hotel.

Pending development proposals would add at least 13.4 million square feet of office space to the 3.2 million square feet of commercial development in the King Street/Eisenhower Avenue area completed or under construction.

Table 6

**PENDING DEVELOPMENT
King Street/Eisenhower Avenue Study Area**

<u>Project</u>	<u>Land Area (acres)</u>	<u>Office (millions of sq ft)</u>	<u>Residential (number of units)</u>	<u>Retail (thousands of sq ft)</u>	<u>Hotel (no. of rooms)</u>
CNS	76.5	4.2	1886	375	400
Hoffman	40.7	6.6	1730	162	1280
Cameron Center	22.2	1.7	0	150	300
Mill Race	3.1	0	510	22	0
Tech Center	11.6	0.1	0	0	0
Eisenhower Plaza	2.4	0.3	0	31	0
Foundry	2.2	0.6	0	0	300
Total	152.1	13.4	2396	740	1880

Other Potential Development Sites

The list of pending development by no means exhausts the development potential of the study area. Other potential development sites include the following:

Hooff/Epelson Property

This is a 15.6 acre tract of land located adjacent to the Beltway, the City's sewerage treatment plant and Hooff's Run. The site is mostly vacant and contains a Go-Cart track. This site is to be leased over the next 10 years to a car rental agency for car storage.

Perpetual American/Gibson Warehouse

This is a 13.29 acre site located on the south side of Eisenhower Avenue and immediately south of the proposed CNS development property. The site contains 253,000 square feet of office and warehouse space in one to three story buildings. Because of its proximity to the CNS property and to the Eisenhower Avenue Metro Station it is likely that this site would be ripe for redevelopment in 10 years.

O.T. Carr Site

In addition to the CNS property, the Oliver T. Carr Company owns a 7.72 acre site next to the Public Safety Complex along Mill Road. The owner has indicated plans to construct 800,000 square feet of development on this site. This property would be adjacent to the proposed Connector/Distributor Road proposed by the Carr Company as part of the CNS project.

Zoning Potential

The amount of commercial development which has been built, approved, considered or announced in the study area is 13.6 million square feet. The amount of commercial development theoretically allowed by the current zoning on sites in Valley portion of the study area plus the CNS site is 26,000,000 square feet. There is,

therefore, a marked disparity between what developers have built and have announced they wish to build and what the current zoning allows. Even greater is the gap between current zoning allowances and reasonable market expectations over the next 20 years.

Market Forecasts

In July, 1988 the City commissioned a report prepared by Hammer, Siler George and Associates to forecast future office development over the next 17 years (1988 - 2005). The report concluded that office demand in the City would range from 900,000 - 1,000,000 square feet per year up to 1995 but would taper to 600,000 - 750,000 square feet per year between 1995 - 2005.

Overall, the report states that projected office construction is likely to range from 12 - 14 million square feet of space over the 17 year period or from 700,000 to 800,000 square feet of space per year. This projection predicts a slowdown in the pace of office construction which the City had experienced within the last five years when the City absorbed 5.7 million square feet of commercial office space or 1.1 million square feet per year.

The market analysis has several implications relative to the King Street/Eisenhower Avenue study area. First, it is evident that the study area, especially the large underdeveloped sites, is overzoned relative to the amount of commercial development which can reasonably be captured, not just for the area, but for the entire City.

The largely undeveloped eastern portion of the Valley is zoned for 26 million square feet of office development whereas the entire City is projected to absorb only 13.6 million square feet over the next twenty years.

Moreover, pending development plans include some 13.4 million square feet of office development whereas the allocation projects only 6.0 million square feet of additional office development for the study area over the next 20 years.

TRANSPORTATION

The King Street/Eisenhower Avenue Area is accessible to the Beltway (I-95) and is served by several major arterials including Telegraph Road, Eisenhower Avenue, Duke Street and King Street. The study area is also accessible by bus and rail transit, is served by the Huntington Metroline via the King Street and Eisenhower Avenue Metro stations, and will be served by the Springfield Metroline and possibly by commuter rail.

Nevertheless, access to the study area is severely constrained. North-south street movement within the eastern Valley is limited to Holland Lane and to Telegraph Road. Importantly, Telegraph Road provides the only connection within the study area to the Beltway.

East - west movement is limited to Eisenhower Avenue and to Duke Street. There are only two connections between these arterials within the study area, at Holland Lane and at Telegraph Road. King Street, Commonwealth Avenue and Russell Road are all major streets which funnel into narrow, constricted railroad underpasses which become points of congestion.

Compounding these limitations, is heavy, peak period regionally oriented traffic which is part of the traffic watershed flowing north/south through the eastern portion of the City destined to Washington, D.C. and to Arlington County employment centers. Increasingly, traffic is also destined to Alexandria work places.

The result of a limited street system trying to accommodate regional and local traffic demands has been increased congestion affecting the arterial street system and Alexandria neighborhoods

It is against this background that the prospect of development within the Cameron Run Valley has been discussed, evaluated and debated over the past 20 years

How much development can the eastern portion of the Cameron Valley absorb and how much traffic can the street system accommodate? What improvements are needed to make the street system work and how will all of this affect neighborhoods?

This Plan addresses these questions and issues using a computerized traffic model. The model, using City and Council of Governments (COG) data, provides a comprehensive tool to analyze the impacts of local and regional traffic on the City's street system.

The City has also retained the transportation consulting firm of Frederic R. Harris and Assoc. to assist staff in this effort. This section will refer to the Harris Report which provides the basic transportation analysis contained in the Plan.

The transportation analysis section describes the 1974 Major Thoroughfare Plan for the area, the existing street system, the transit facilities serving the King study area and the major findings of previous Cameron Valley transportation studies. The section then explains the methodology and findings of the Harris report.

1974 Major Thoroughfare Plan

The 1974 Major Thoroughfare Plan for the King Street/Eisenhower Avenue area is shown on Map 6 and described below.

King Street Subarea

The only streets designated as arterials in the 1974 Major Thoroughfare Plan in the King Street area were Duke Street and the small section of King Street between Cameron Street and Diagonal Road. The rest of King Street was designated as a primary collector, while Prince and Cameron Streets were designated as residential collectors. Both the Duke street overpass and King Street underpass at the RF&P railroad tracks were designated for study.

Eisenhower Avenue Subarea

Within the Eisenhower Avenue subarea, two roadways were shown as expressways: the Capital beltway along the southern edge of the study area, and Telegraph Road. Duke Street was the only existing arterial, the planned Eisenhower Avenue extension through the Valley and over Telegraph Road was shown as a proposed arterial. The only other roadways in the 1974 Plan were the Mill Road/ Pershing Avenue/Stovall Street connections between Eisenhower Avenue and Telegraph Road, which were shown as primary collectors. The Plan also called for a study to determine the best locations for a Duke Street/Eisenhower Avenue connector to the Valley west of Telegraph Road.

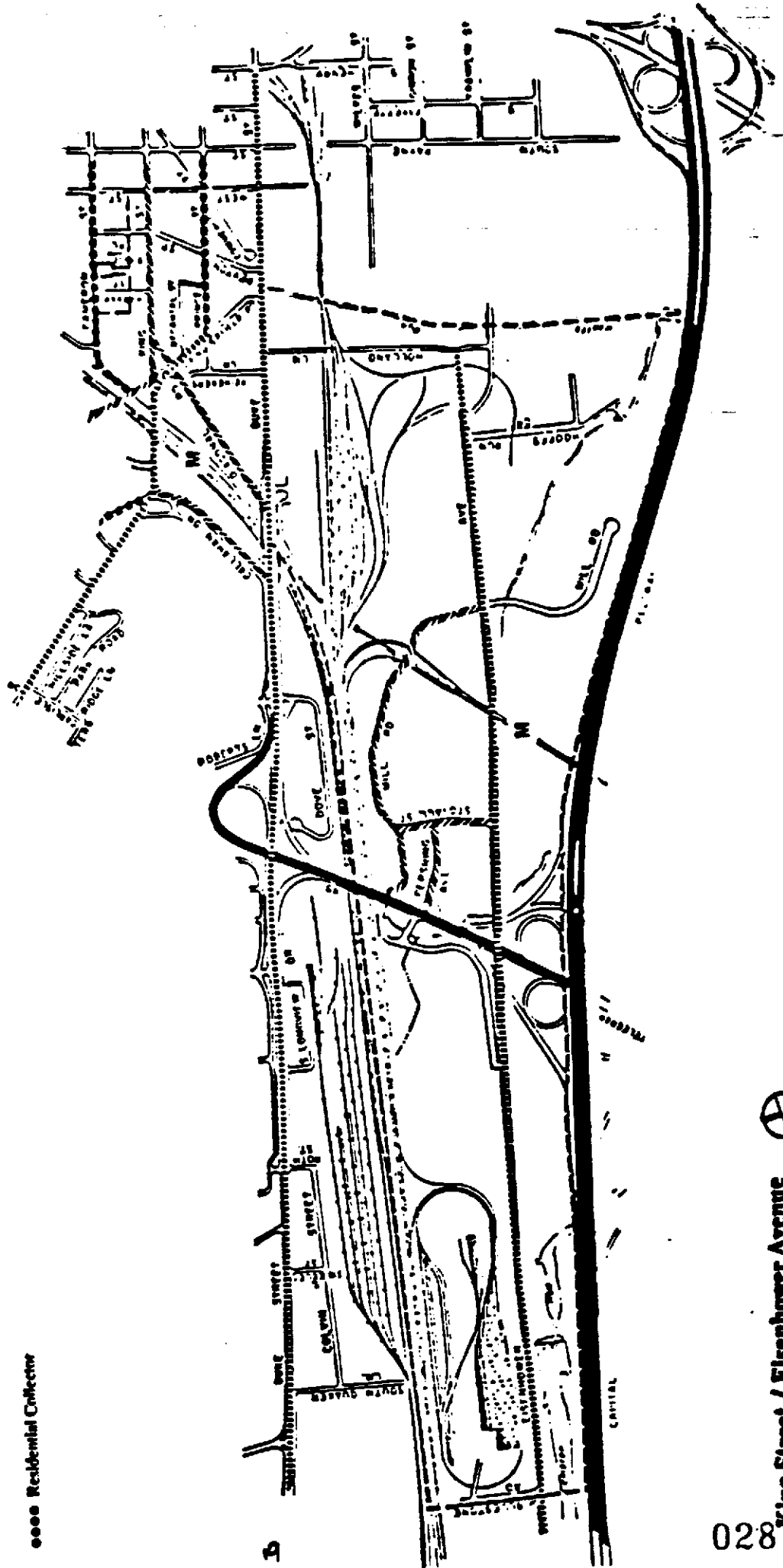
Intersection Levels of Service

One primary measure of existing traffic conditions is the level of service achieved at specific intersections. "Level of Service" is a concept used by traffic engineers to convey different levels of congestion and delay as arranged on a scale of A to F. In an urban area, level of service E at an intersection during the peak hour (the hour of greatest traffic demand during the morning or afternoon) reflects a condition where all of the traffic demand desiring to cross an intersection during an hour is accommodated. In this sense, the intersection is at capacity, demand fills the intersection during the entire one hour.

Level of Service F is a condition where an intersection cannot accommodate all of the demand during a one hour period. The result of Level of Service F conditions (LOS F) is delays, congestion and extension of the peak hour for longer periods during the morning or afternoon. LOS ~~E~~_F describes a condition where demand exceeds the one hour capacity of the intersection.

Map 6
1974 Major Thoroughfare Plan

- Expressways
- Arterial
- Primary Collector
- Residential Collector



Using counts contained in the 1988 CNS Traffic Impact Study, the following were calculated to be the existing levels of service at intersections providing access into or located within the area.

As shown, two critical intersections are already operating beyond their capacities during one or both peak hours: Duke/Diagonal and Van Dorn/Eisenhower. Telegraph/Pershing-northbound is at the minimum acceptable level of service. Otherwise, these intersections were operating below their capacity in 1987.

Table 7

**INTERSECTION LEVELS OF SERVICE
King Street/Eisenhower Avenue Area**

<u>Intersection</u>	<u>Level of Service</u>	
	<u>A.M.</u>	<u>P.M.</u>
Duke/Quaker	A	C
Duke/Callahan	B	C
Duke/Diagonal	F	F
Duke/Reinekers	B	A
Duke/Daingerfield	A	A
Duke/Henry	A	D
Duke/Patrick	B	A
Duke/Washington	C	C
King/Russell	C	C
King/Commonwealth	A	A
Van Dorn/Eisenhower	F	F
Telegraph/Pershing-north	E	E
Telegraph/Pershing-south	D	D

Source: CNS Project TIS submitted to Oliver Carr Company by Gorove/Slade Assoc., July 1989.

Street Capacity

Even though most intersections in the King Street/Eisenhower Avenue study area were operating, overall, below capacity in 1987, many of the key streets providing access into and out of the area were over capacity in the peak direction. Duke Street, Route 1 northbound and Telegraph Road, three of the four access points from the south and west, are over capacity today and traffic often experiences delays on these streets in the peak direction. Those streets with the most unused capacity generally provide access from the north, i.e. Route 1 southbound from the north. The existing regional land use pattern generates this demand for access from the south and west. Although forecasts (COG Round IV) indicate more suburban to suburban travel, there will also be increased traffic from the south and west which will continue to impact the City.

Existing Transit Systems

Metrorail

As shown on Map 7, there are two metro station located within the King Street/Eisenhower Avenue Area, only one-half mile apart: the King Street Station and the Eisenhower Avenue Station. Both the King Street and Eisenhower stations are currently served by the Huntington line. Upon completion of the Van Dorn metro station, service will be extended south to Van Dorn via the King Street station and eventually will extend to Springfield.

Map 7

Transit Service

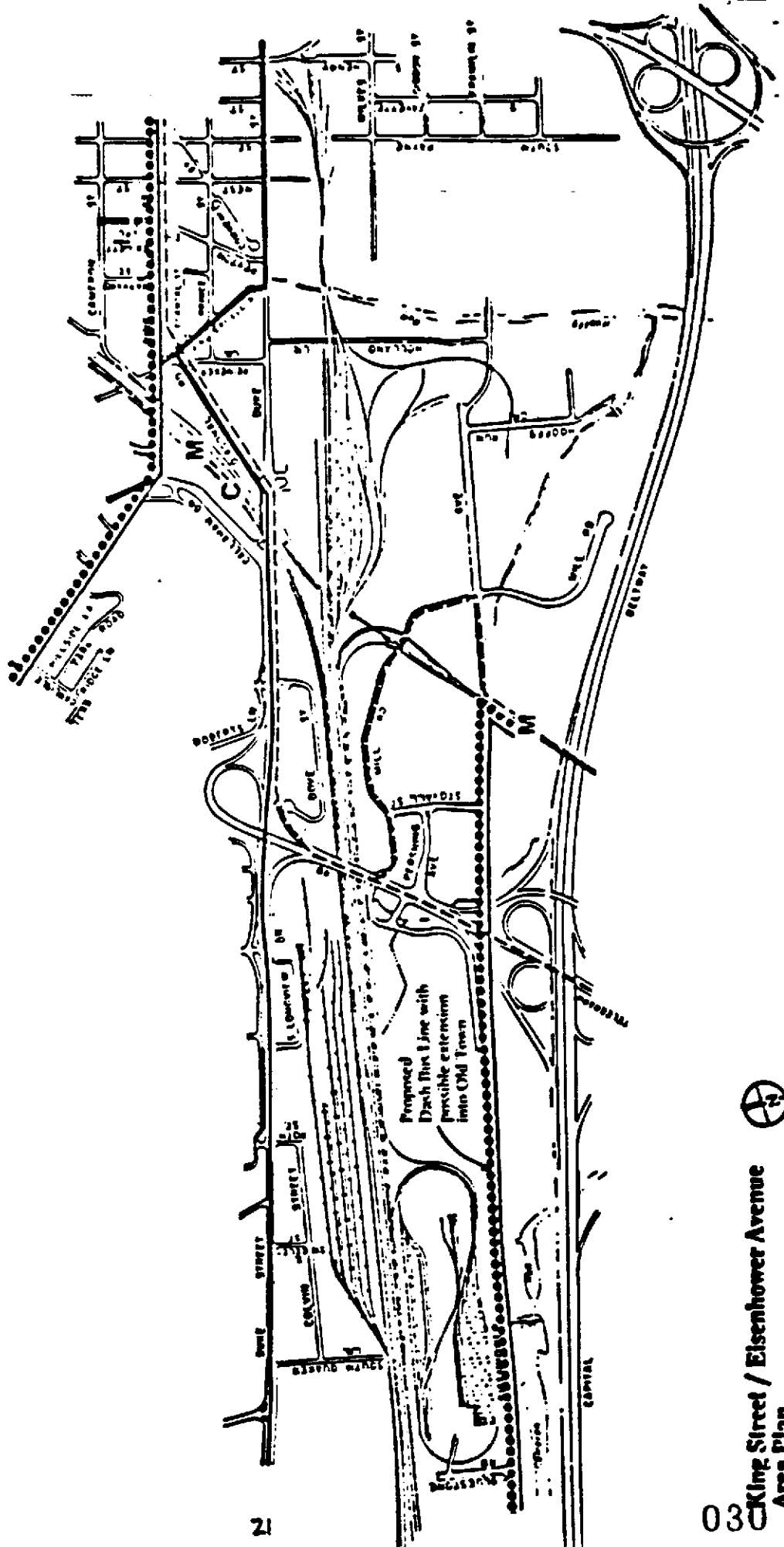
o-o-o-o Dash Bus Lines

— Metrobus Lines

- - - - Fairfax Connector

M Metro Stations

C Commuter Rail Station (Planned)



Pedestrian Access to the Metro Stations

A 1987 study of Metro ridership conducted by JHK and Associates showed that there is a strong relationship between the location of development and Metro usage; offices located closer to the metro station have a higher percent of transit users than those buildings located further away. While other factors certainly help determine transit usage, distance between the office and the metro station was one of the most important factors.

Map 6 shows distances around the two Metro stations and shows that over half of the area is located within a reasonable walking distance of a Metro station. Only two areas: the sites west of Telegraph Road, and the sites east of Hooff's Run Drive, are located more than 2000 feet from a metro station. In the JHK study, for suburban locations, transit usage at office developments located more than 2000 feet from the metro had dropped to less than half of what it was at offices located nearer the metro station.

Commuter Rail

The proposed Northern Virginia Commuter Rail is expected to link Fredericksburg, Manassas and points north to Alexandria, Arlington and D.C.. One of the transfer points for commuter rail is planned to be at Union Station, on Callahan Drive just west of the railroad tracks. Union Station will be connected via an underground tunnel to the King Street Metro Station, providing a convenient transfer point and also providing convenient access into the King Street area for commuter rail users.

Bus

Bus service within the Valley is limited. Currently, two Metrobus lines provide service on Eisenhower Avenue: the #14A bus connects the S&I yards on Eisenhower Avenue to the Eisenhower Avenue Metro Station, and the #7 bus provides service between the Eisenhower Metro Station and the western end of the City. Metrobus line #29 runs along Duke Street, connecting to the Pentagon, Old Town and Annandale via Duke Street. Within the King Street area, one additional metrobus line, #28, provides service between Old Town and Tyson's Corner, via King Street.

In addition to Metrobus, three of the four Alexandria DASH lines provide service between the King Street Metro station and most parts of the City. DASH expects to extend its service to the Eisenhower Avenue corridor in the latter half of 1990. Initially, this line is expected to provide service between the Eisenhower Avenue Metro Station, the new Van Dorn Metro Station and the west end of the City.

The Fairfax County Fairfax Connector bus service, linking Springfield and Old Town Alexandria, also provides bus service into the area, stopping at both metro stations.

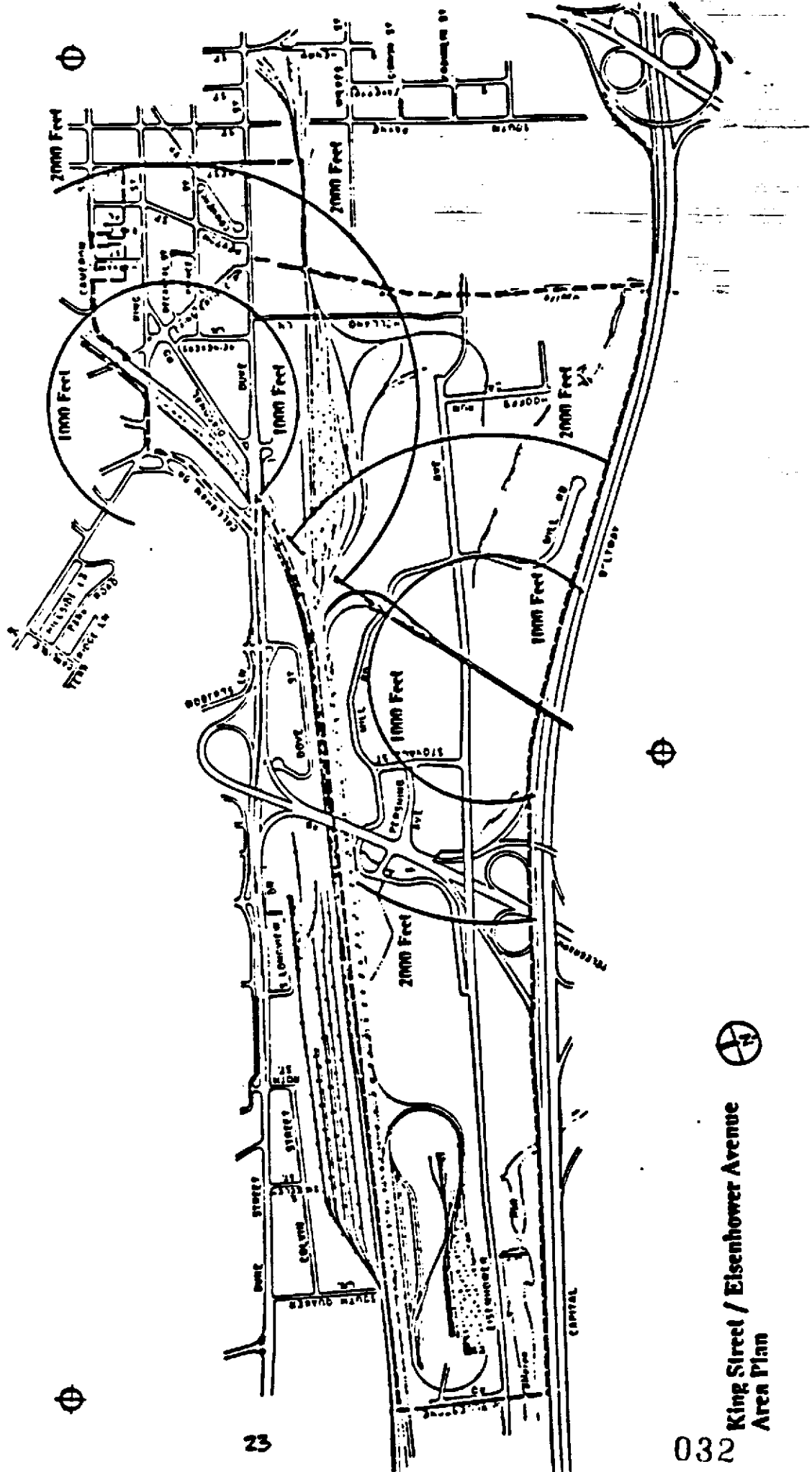
Improved bus service will be a critical element to be included in all transportation management plans within the study area.

Cameron Run Valley Transportation Studies

Over the years, either the City or private developers have conducted studies of the Cameron Run Valley to assess the impact of future development on the existing road network and to identify what road improvements would be needed to accommodate what levels of development.

Although the focus and methodology of each of these studies may have differed, they consistently show that the Cameron Run Valley can only accommodate modest growth without major improvements to the road system.

Map 8
Walking Distances To Metro Stations



JHK Cameron Valley Study

The 1981 JHK study found that 4.27 million square feet of office space could be built in the Valley while maintaining a level of service D on the street system. The study found that this level of service could be accommodated only if the Clermont connector and interchange and the Bluestone connection to Wheeler Avenue were built.

TAMS Study of the Clermont Interchange

The 1983 TAMS study of the Clermont interchange provided no quantification of the traffic levels supportable in the Valley. However, the study did find that constructing the Clermont interchange would improve conditions on Duke Street and Telegraph Road while worsening Eisenhower Avenue conditions. Since Duke Street and Telegraph Road were and are already highly congested, this study, like the 1981 JHK study, essentially found that the Clermont interchange was necessary to support additional development and to maintain or create acceptable levels of service on the nearby streets.

Barton Aschman's Buchanan Radnor Study

The 1987 Barton-Aschman study was focused on a proposed 900,000 square foot office project on the 20 acre Buchanan Radnor site near Bluestone ^{Road} ~~Boulevard~~. The study concluded that this level of development could be accommodated. However, even this modest level of development would require construction of the Clermont interchange.

Frederic R. Harris Traffic Study of Eisenhower/King Street Area

In 1989, the City hired Frederic R. Harris to prepare a transportation study of the King Street/Eisenhower Avenue study area in conjunction with the development of this small area plan. Harris used output from the City's traffic model to analyze the A.M. peak traffic impacts of four different development scenarios for the Valley.

Table 8

LAND USE ASSUMPTIONS (1990-2010)
 FREDERIC R. HARRIS STUDY SCENARIOS
 King Street/Eisenhower Avenue Traffic Analysis

	Eisenhower Avenue Area		King Street Area		Remainder of the City	
	Office	Res.	Office	Res.	Office	Res.
Scenario One	0	0	0	0	0	0
Scenario Two	0.9	0	1.0	0	7.4	8,000
Scenario Three	6.0	1,885	1.0	0	7.4	8,000
Scenario Four	9.3	10,785	1.0	0	7.4	8,000

Office = Millions of Square Feet
 Res. = Residential = Number of Dwelling Units

The four land use scenarios tested were based on Washington Metropolitan Council of Governments Round IV Cooperative Forecasts and Planning Department forecasts for the year 2010. As shown in Table 10, each scenario assumed the same level of City growth over the next 20 years; the scenarios differ as to how much growth occurs in the study area.

The first land use scenario essentially tests a hypothetical condition where no growth occurs in the City but regional growth outside of Alexandria continues over the next 20 years. This scenario tries to isolate and to identify the impact of regional traffic on the City's future traffic problems.

Scenario Two tests a minimum level of growth within the Study and reflects mostly projects which are underway.

Scenario Three tests the impact of the CNS project which would add over 6 million square feet of development.

Scenario Four, which includes substantial growth within the study area, tests maximum development rights under a possible formula for mixed use zoning which would allow up to a 3.0 FAR, split between office and residential uses, within the Valley portion of the study area.

These four land use scenarios were tested against a street network which included 4 major Alexandria improvements:

- A Beltway connector road located between the Telegraph and Route 1 interchanges.
- A flyover ramp from Telegraph Road northbound and the outer loop of the Beltway into the Cameron Run Valley at Eisenhower Avenue and Stovall
- The Clermont interchange connecting to Eisenhower Avenue.
- The Duke Street widening between Diagonal Road and Henry Street.

Figure 1 shows the 4 major Alexandria road improvements in the 2010 street network. The street network also included all regional improvements in the WMCOG 2010 model and other improvements included in the 2010 Northern Virginia Subregional Plan

The Harris study identified congested street segments for each of the scenarios and analyzed the effect of each of the development levels on 23 selected intersections within and around the King Street/Eisenhower Avenue study area. The study then tested various recommended street improvements to determine their affect on projected congestion.

Findings

Scenario One - Impact of Regional Growth (No City Growth)

The Harris study found that by the year 2010, 8 of the 23 intersections studied would be handling more traffic than could be accommodated (LOS E or worse), even if no growth beyond 1985 levels occurred in the City. All but one of these over-capacity intersections were located on Duke Street and Eisenhower Avenue, which would be the two most congested streets in this Scenario. Traffic would increase notably on Holland Lane, and Commonwealth Avenue and Russell Road would also experience an increase in congestion under Scenario One. Van Dorn Street would become extremely congested in the northbound direction, between the Beltway interchange and Stevenson Road (Figure 2).

Figure 1
 Patrick R. Harris Alexandria Transportation Analysis
Planned Road Improvements Included In Scenarios 1, 2, 3 and 4

■■■■ New Road

○○○○ Road To Be Widened

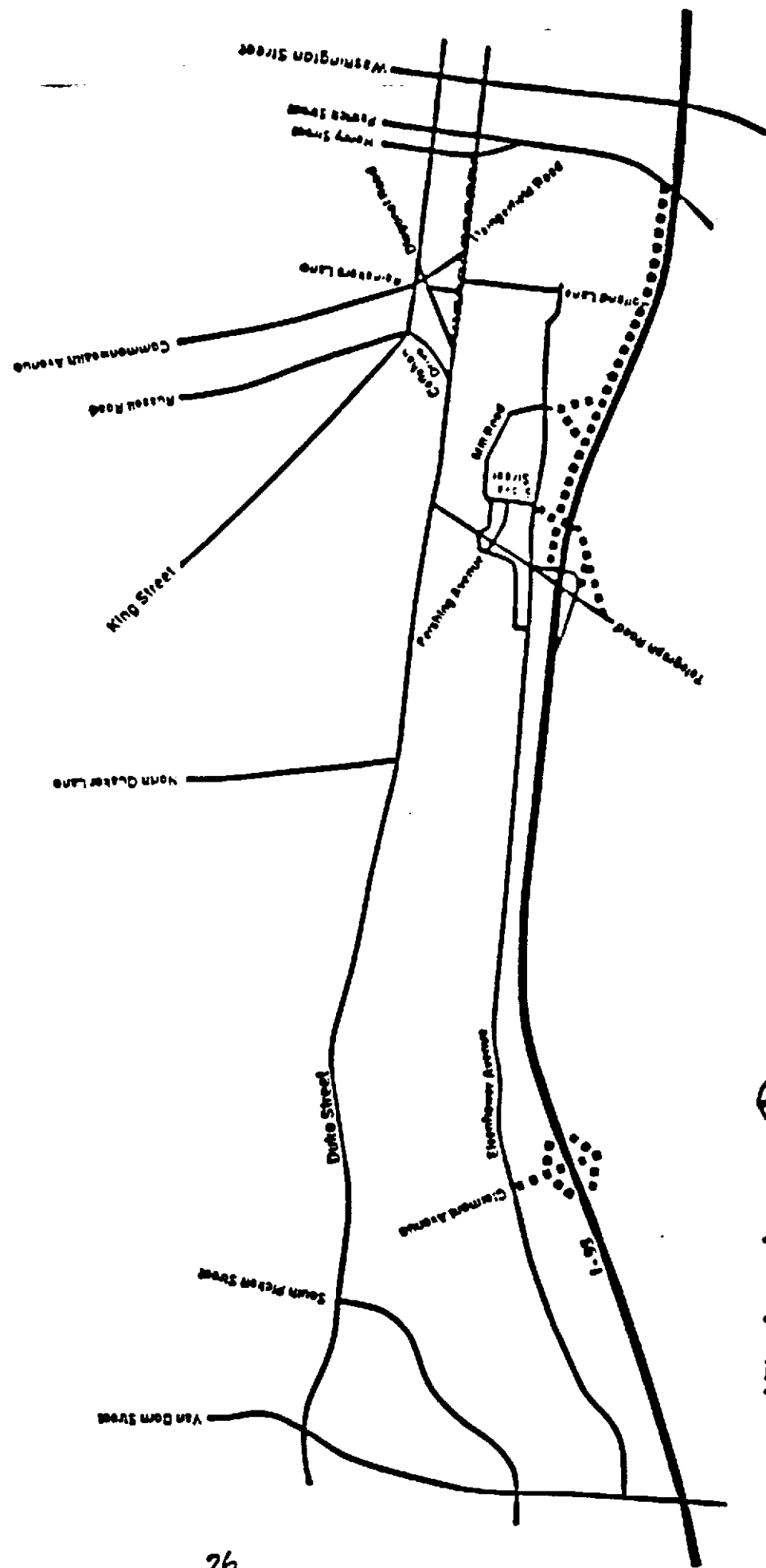


Figure 2
 Fredrick W. Harris's Alexandria Transportation Analysis
 Scenario 1: No Growth in City/2010 Growth in Region

- Problem Street Segments
- Problem Intersections (Level of Service F)

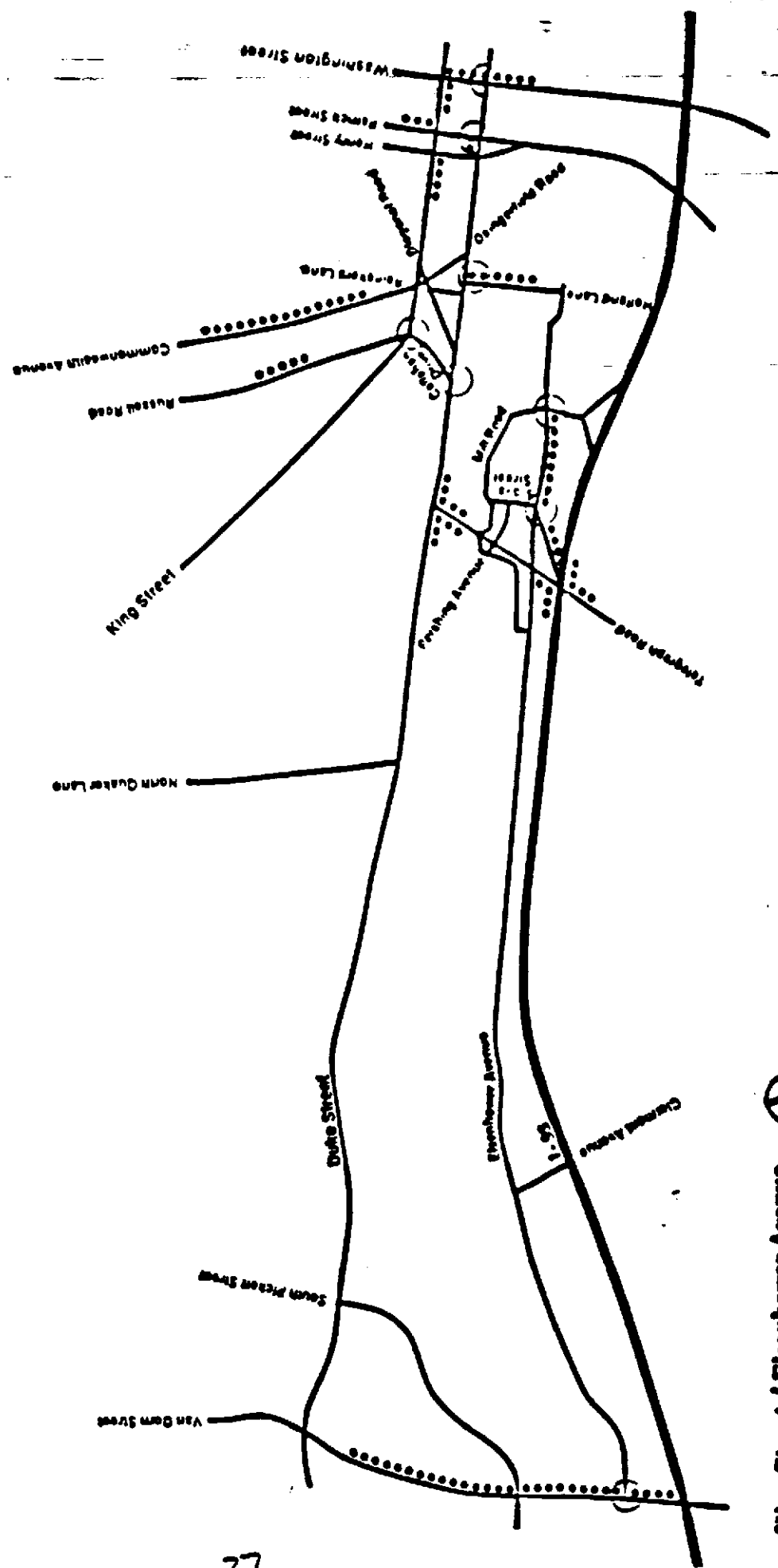


Table 9

LEVEL OF SERVICE AT SELECTED INTERSECTIONS FOR MODEL SCENARIOS
 King Street/Eisenhower Avenue Traffic Analysis

	--- Scenario ---					
	1	2	3	4	2X*	4X*
Duke/Elizabeth	A	A	F	F	F	F
Duke/Holland	F	F	F	F	A	C
Duke/Diagonal	B	E	E	F	D	F
Mill/Pershing	A	A	A	A	A	A
Eisenhower/Holland	C	C	C	C	A	A
Duke/Reinekers	D	F	D	F	C	C
Eisenhower/Mill	A	A	A	B	B	C
Eisenhower/E. Mill	F	F	F	F	F	F
Duke/Washington	F	E	D	D	E	E
Duke/Patrick	F	F	F	F	F	F
Mill/Stovall	A	A	A	A	A	A
Eisenhower/Stovall	F	F	F	F	F	F
Duke/Henry	A	B	A	B	A	A
Pershing/Stovall	A	A	A	A	A	A
Duke/Callahan	F	F	F	F	F	F
King/Callahan	F	F	F	F	F	F
Telegraph/Pershing	E	E	D	F	D	E
Duke/N. Quaker	C	D	F	F	E	F
Eisenhower/Clermont	A	B	E	F	D	E
Van Dorn/Eisenhower	F	F	F	F	F	F
King/Commonwealth	C	D	F	F	D	F
Duke/Taylor Run	E	F	F	F	E	F
N. Quaker/Trinity	B	C	B	E	C	E

* Additional road improvements added to network

Source: Frederic R. Harris analysis of King Street/Eisenhower Avenue Traffic based on City of Alexandria Traffic Model outputs

Scenario Two - Impact of Minimum Growth in the Study Area

This scenario adds 1.9 million square feet of commercial development in the study area and 7.4 million square feet of commercial development in the remainder of the City. Relative to the No City Growth scenario, the addition of 9.3 million square feet of development Citywide would cause only one more intersection to operate above capacity. Only Van Dorn Street southbound between Edsall Road and Pickett Street and part of Eisenhower Avenue east of Telegraph Road would be markedly over capacity (Figure 3).

Scenario Three - Impact of Moderate Growth within the Study Area

This scenario adds 5.1 million square feet of commercial office development and 1885 residential units within the study area. All of this incremental development reflects the CNS project and the development of a Oliver T. Carr owned site on Mill Road. This additional development results in two more intersections operate at level of service "F". The most significant increases in congestion occur within the eastern end of Cameron Run

Valley on Eisenhower Avenue, Mill Road, Pershing Avenue and the Beltway connector-distributor road. Congestion also increases on some streets in the King Street Metro area on the southbound segment of Quaker Lane just north of Duke Street (Figure 4).

Scenario Four - Impact of Intense Development in the Study Area

This scenario adds 33 million square feet of office development and 8,904 residential units above Scenario Three. Scenario Four results in significant congestion throughout the study area. Five more intersections are operating at level of service "F" than in the previous scenario; in total, 15 of the 23 intersections would be operating above capacity. Congestion increases markedly within the King Street area and also increases west of the railroad tracks on Russell Road, Commonwealth Avenue and Callahan Drive (Figure 5).

After analyzing the impacts of the four different land use scenarios on a base 2010 street network, the Harris study tested the impacts of additional roadway improvements on congestion in the City. Five major improvements, shown on Figure 6, were tested for Scenarios Three and Four:

- Construction of the Clermont Connector
- Construction of the Bluestone Connector
- Widening of Van Dorn Street between the Beltway and Eisenhower Avenue
- Construction of the Daingerfield Road/Wolfe Street extension
- Widening of Eisenhower Avenue between Telegraph Road and Holland Lane

The effect of these street improvements on traffic conditions in Scenario 3 are dramatic. (Figure 7 and Figure 8). Of the 23 intersections analyzed in this study, 15 improved when these road improvements were added, including four intersections which improved from level of service F. Three intersections did get worse, but none deteriorated to level of service F. The addition of these improvements relieves almost all of the congestion within the Eisenhower Valley on Eisenhower Avenue, Mill Road, Pershing Avenue and Holland Lane. Congestion along Duke Street between Callahan Drive and Quaker Lane is alleviated by these improvements. Traffic does increase on one segment of northbound Quaker Lane, but operating conditions do not deteriorate below level of service "E." These improvements will impact Jordan Street which will experience substantially more traffic. However, Jordan Street will not operate below level of service "D" except for one short segment. The Bluestone connector becomes congested, attracting more traffic than its capacity; the Clermont connector introduces congestion on Clermont only south of Eisenhower Avenue.

For Scenario Four, the effects of the 5 improvements are also marked, although substantial congestion still remains because of the high development levels in this scenario (Figure 9 and Figure 10). Of the 23 intersections studied, 17 get better with the improvements, including 4 that improve from level of service F. Two intersections get worse, but they do not exceed capacity. Improvement occurs within the Eisenhower Valley on Eisenhower Avenue, Mill Road and Holland Lane. Congestion also decreases west of the railroad tracks on Russell Road and Commonwealth Avenue. Bluestone becomes congested, as does a section of Quaker Lane in the southbound direction.

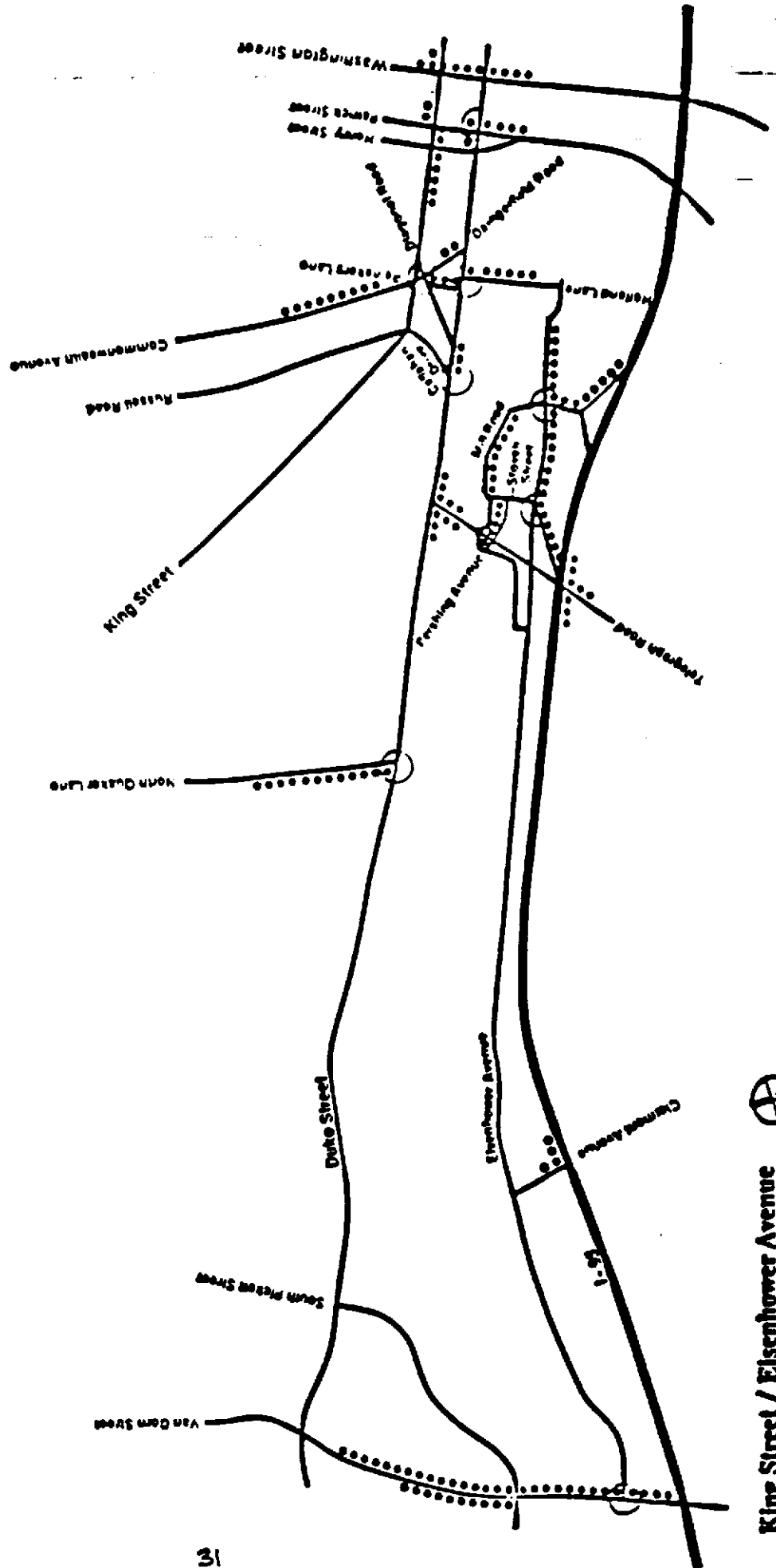
Several important conclusions can be made from the Harris traffic analysis. These are described below.

- At a minimum, three basic road improvements are needed in the valley:
 - the Clermont interchange,
 - the Beltway Connector Road
 - and the Telegraph Road flyover ramp.

Even with these improvements, congestion will occur and additional improvements will be needed.

Figure 4
 Fredrick W. Harris Alexandria Transportation Analysis
 Scenario 3: Market "Plus" Growth in E. Valley/2010 Growth in Region

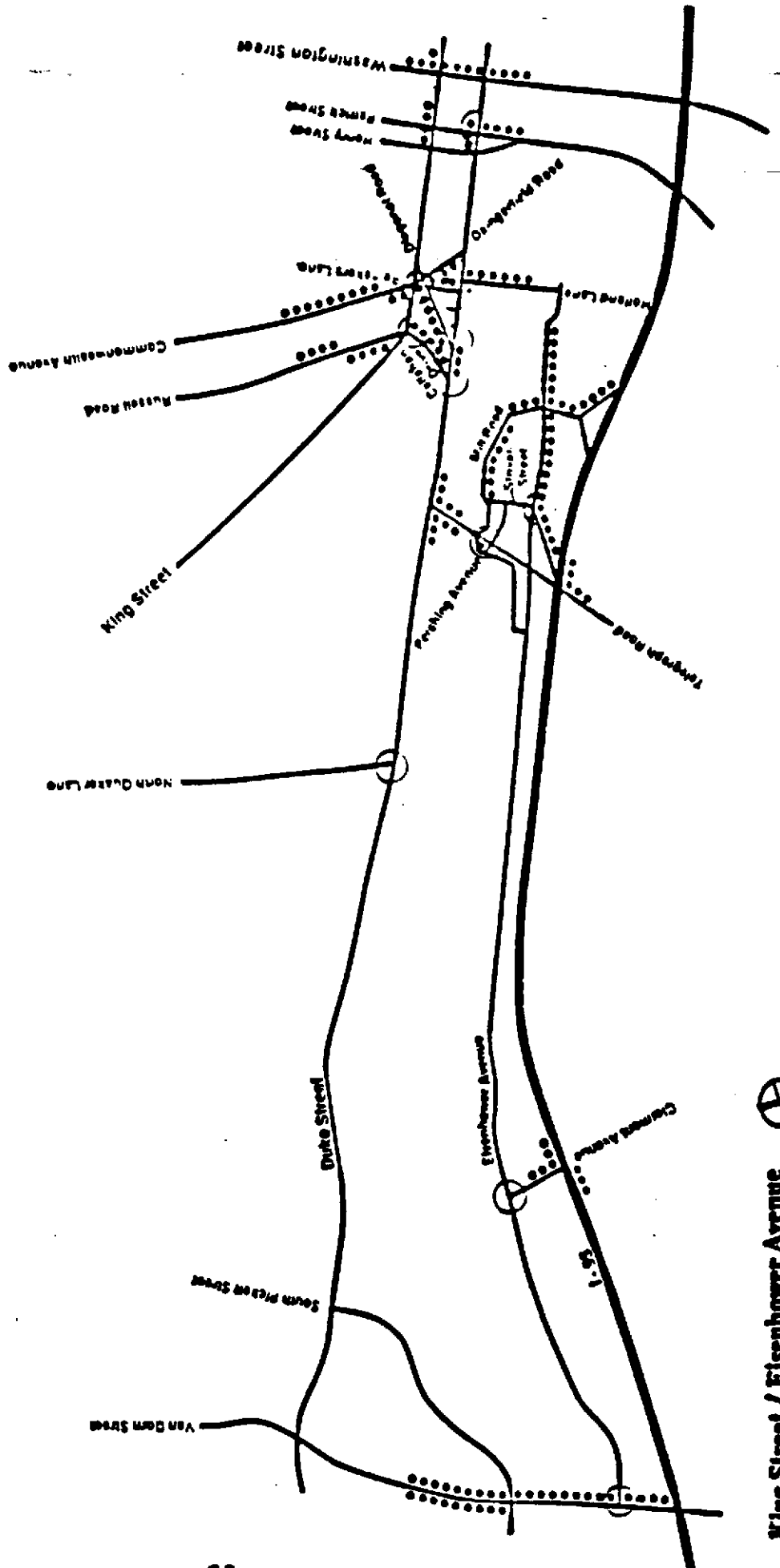
●●●● Problem Street Segments
 ○ Problem Intersections (Level of Service F)



King Street / Eisenhower Avenue
 Area Plan

Figure 5
 Frederic R. Harris Alexandria Transportation Analysis
Scenario 4: Extensive Mixed Use Growth in Region

- Problem Street Segments
- Problem Intersections (Level of Service F)

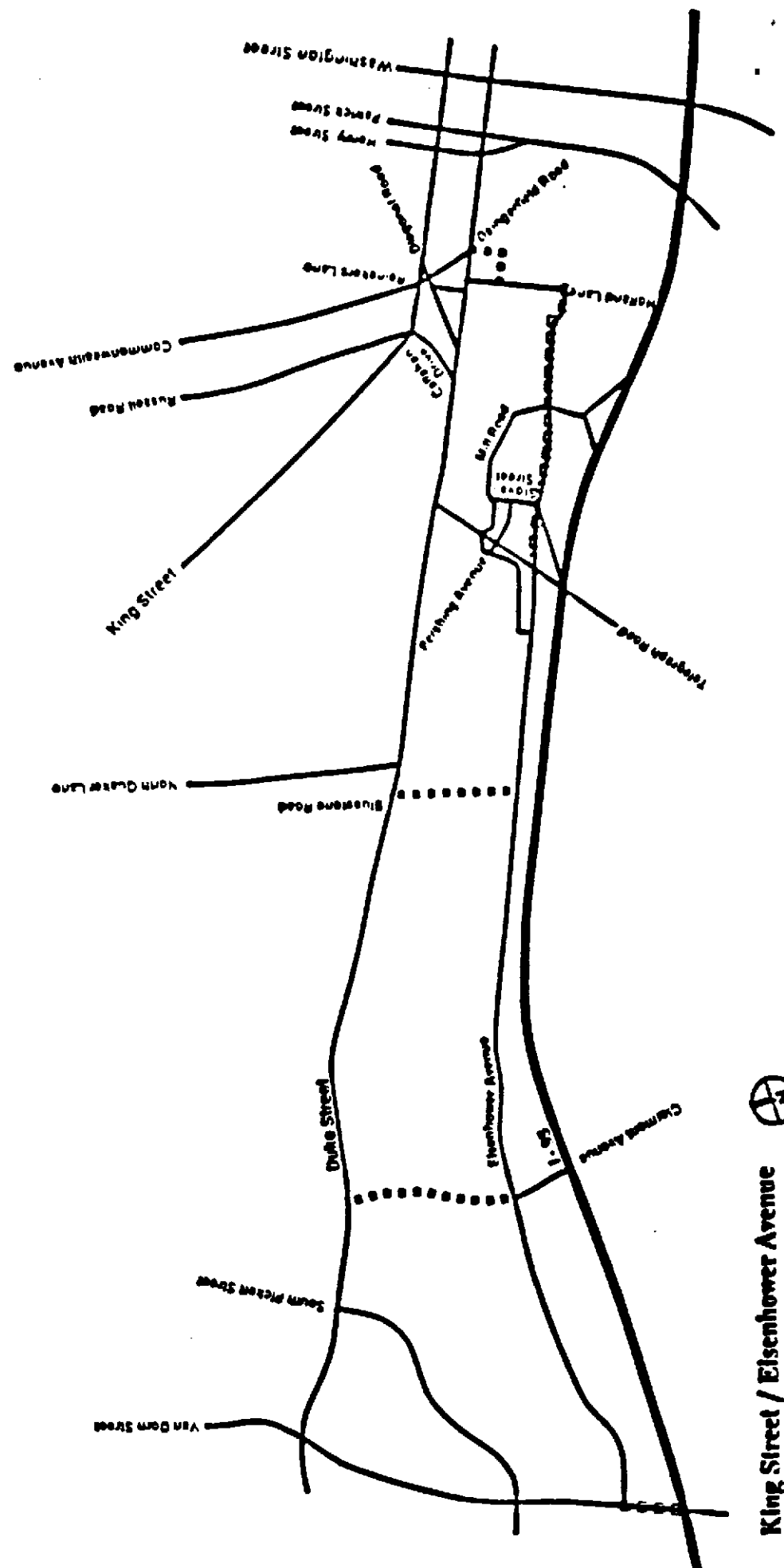


King Street / Eisenhower Avenue
 Area Plan

Figure 6
 Frederick R. Harris Alexandria Transportation Analysis
 Proposed Road Improvements Included In Scenarios 3 and 4

●●●● New Road

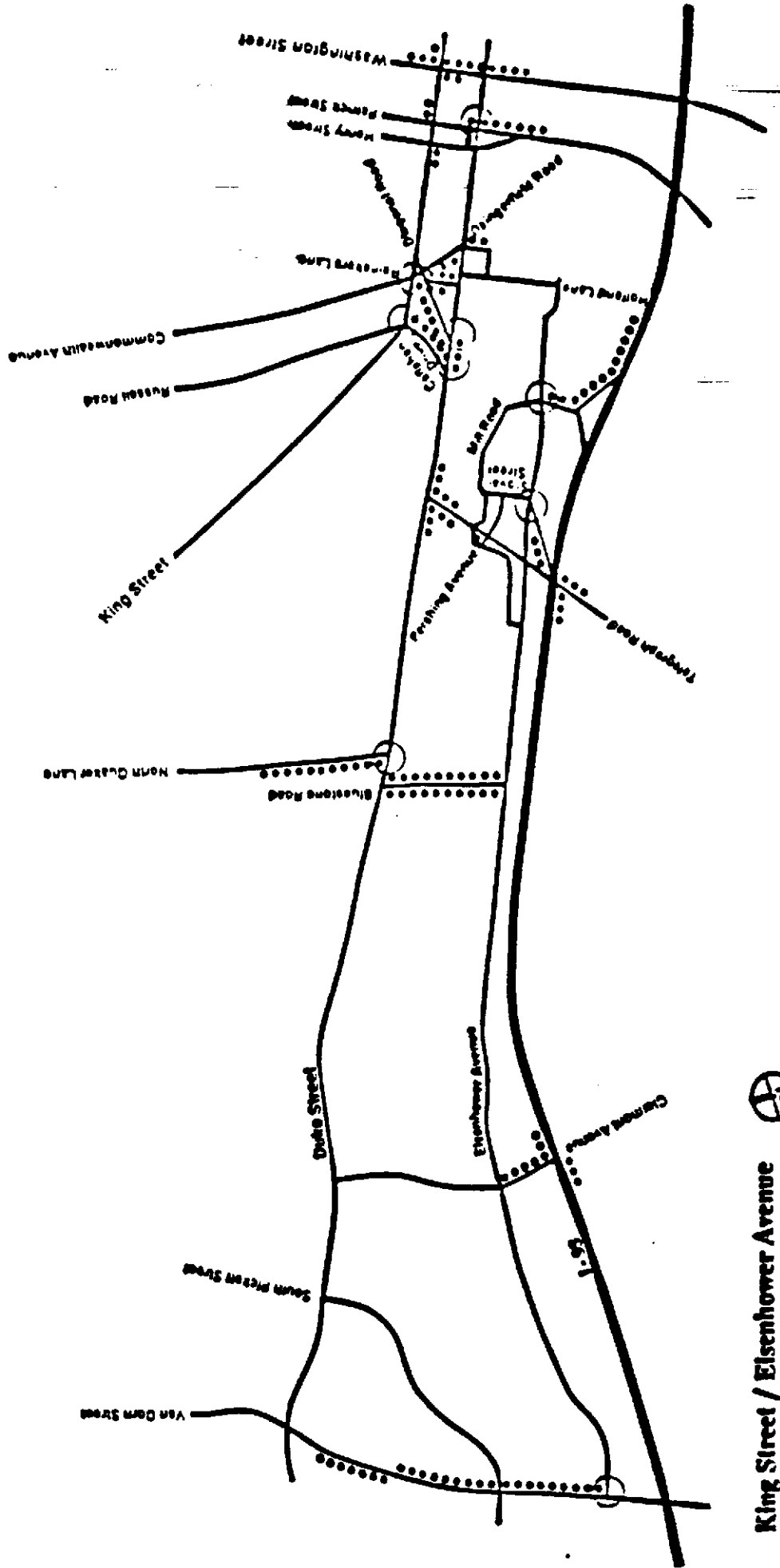
□□□□ Road To Be Widened



King Street / Eisenhower Avenue
 Area Plan

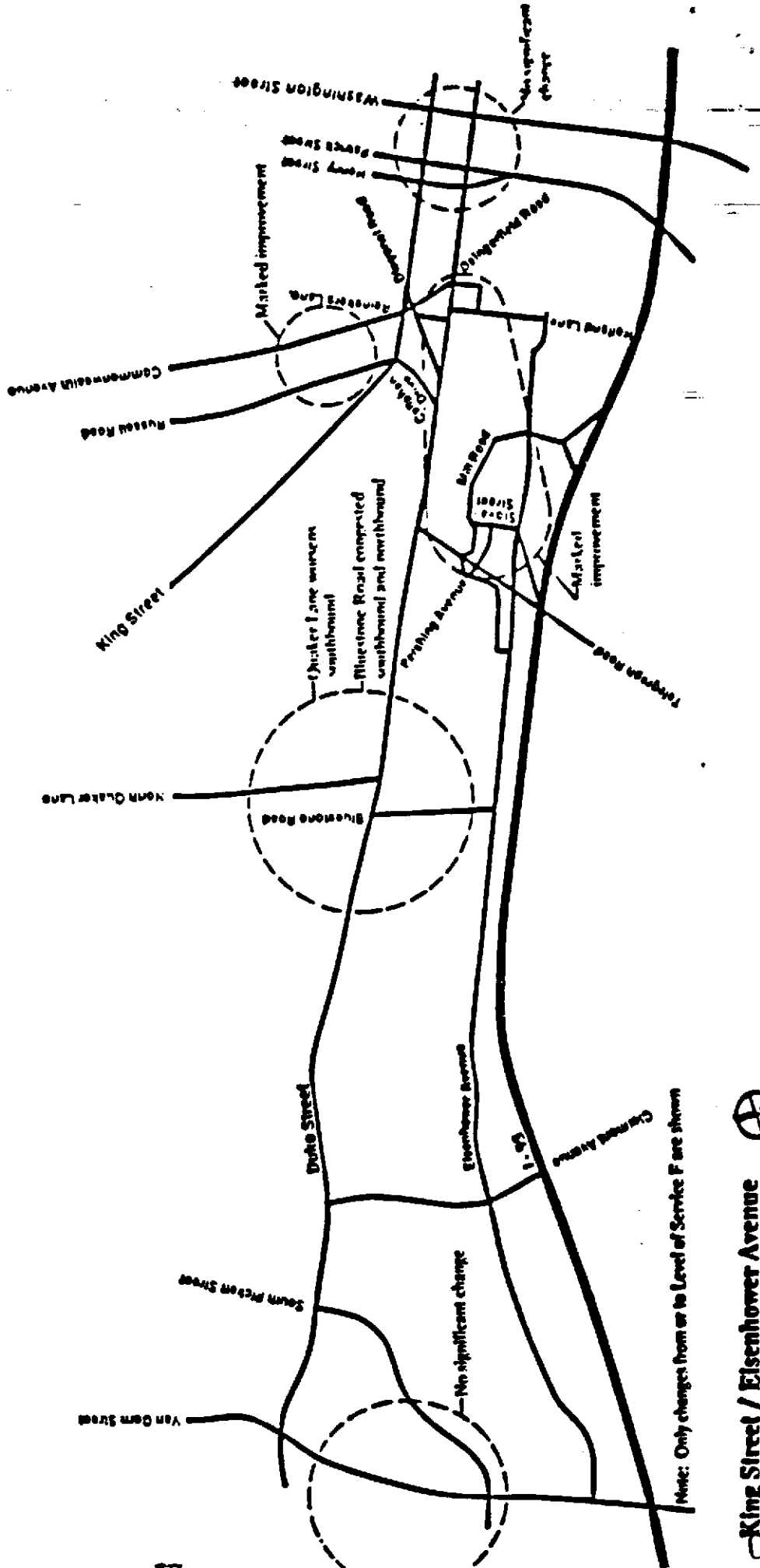
Figure 9
 Pacific R. Harris Alexandria Transportation Analysis
Scenario 4 With Proposed Improvements

- Problem Street Segments
- Problem Intersections (Level of Service F)



King Street / Eisenhower Avenue
 Area Plan

Figure 10
 Impact of Proposed Road Improvements on Scenario 4



Note: Only changes from or to Level of Service F are shown



A second level of improvements including

- connectors between Eisenhower Avenue and Duke Street.
- widening of the eastern end of Eisenhower Avenue.
- widening of Van Dorn Street south of Eisenhower Avenue
- and the Wolfe Street/Daingerfield Road extension.

would help to accommodate development in the Valley with limited impacts on other parts of the City.

With these additional improvements a modest level of development, 6 million square feet of office development and 1885 dwelling units, could be accommodated. Even with these improvements, there would be congestion on the street system, but almost all of the worst intersections and street segments would be located either within the Valley, on Duke Street between Telegraph Road and Holland Lane, or at locations which even today are highly congested.

- The development of 6.0 million square feet of office in the study area begins to push the limits of tolerable road conditions, even with all possible road improvements in place.

Unless other major road improvements can be identified, no additional traffic can be accommodated on the City's streets without major impacts given current travel behavior.

- However, additional levels of development could be accommodated if development generated fewer than expected vehicles; that is, if vigorous transportation demand management programs reduced single occupant vehicles and increased carpool, vanpool and transit use, a proportionate amount of additional development could be accommodated.

Conclusions

To realize additional development in the King Street/Eisenhower Avenue area without unduly impacting residential areas, the City needs to consider, as a package, the following approaches:

1. Coordinate the provision of additional roadway improvements with the phasing of development. This will ensure that development proceeds in concert with added traffic capacity.
2. Require a Transportation Management Association (TMA) within the study area. This can provide a comprehensive and effective approach towards planning and administering TMPs within the area.
3. Create a Transportation Improvement District to finance road and transit improvements in the area and to finance the TMA.

Street Improvements




Based on the Harris Report findings the following road improvements have been identified as needed to accommodate growth within the study area (see Map 9).

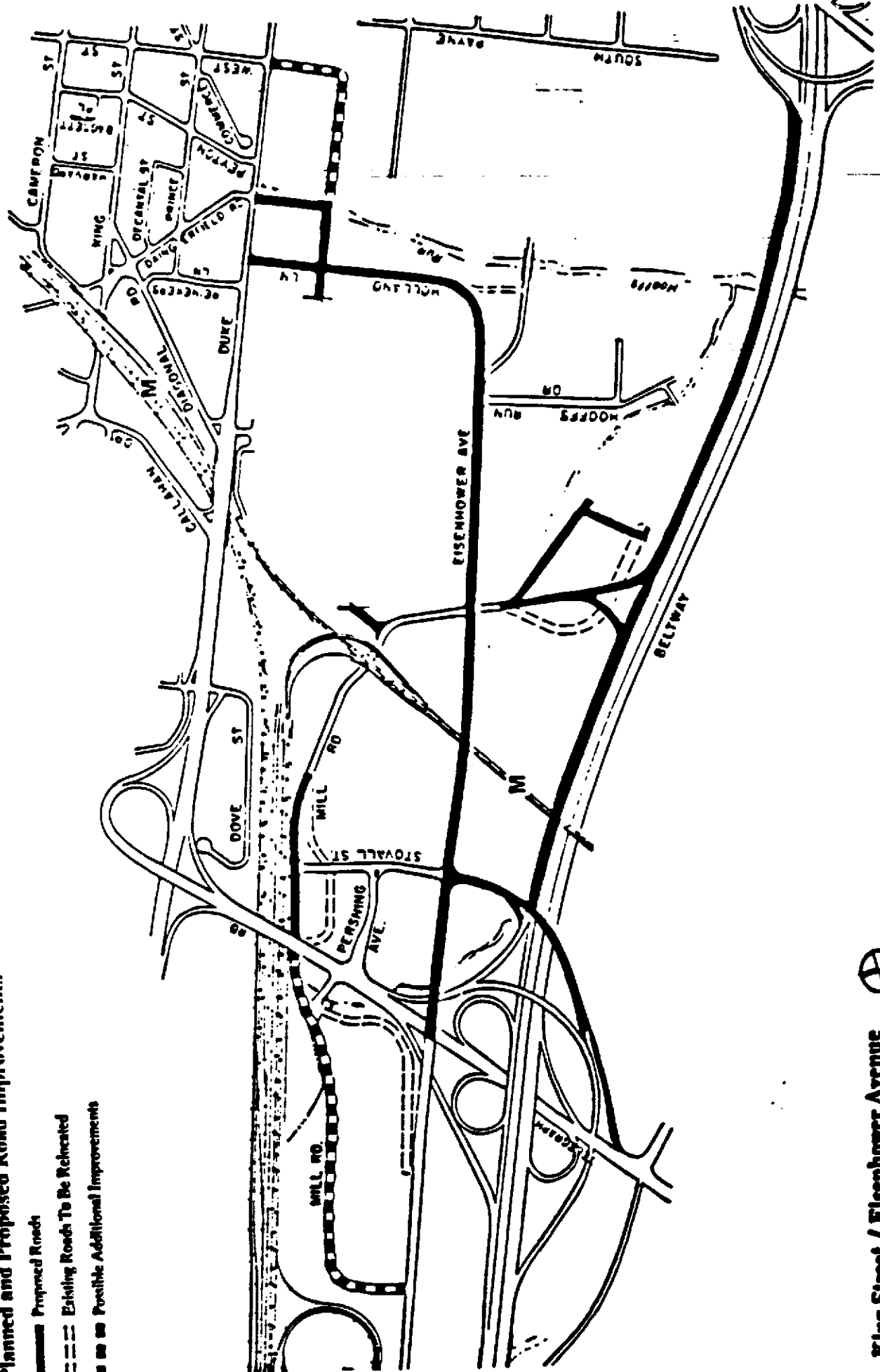
It should be noted that City Council has specifically rejected the Bluestone and Clermont connections between Eisenhower Avenue and Duke Street and any further consideration of road improvements shall not include these two roads.

DELETE

Map 9

Planned and Proposed Road Improvements

-  Proposed Roads
-  Existing Roads To Be Relocated
-  Possible Additional Improvements



King Street / Eisenhower Avenue
Area Plan

1. Telegraph Road Improvements plus Flyover Ramp

Telegraph Road serves as both a major traffic portal into the City and a major portal into the study area. By serving this dual role, it has become one of the most congested City streets. Traffic back-ups and long delays are common on Telegraph Road, particularly in the evening peak hours. Currently, most backups are a result of problems at the Woodrow Wilson bridge or in Fairfax County at the Telegraph/Huntington and Telegraph/King's Highway intersections. There are also major problems generated by the configuration of the intersection of Telegraph Road with Mill Road and Pershing Avenue, which provides a major point of access into the eastern portion of the Cameron Run Valley.

Two types of actions to improve Telegraph Road are needed. First, both the Clermont Interchange and the Beltway Connector/Distributor Road will need to be constructed to relieve the pressures on Telegraph Road. Second, the Telegraph Road interchange needs to be improved to provide easier access into the eastern portion of the Cameron Run Valley. The City should pursue a study to improve Telegraph Road in conjunction with the Woodrow Wilson Bridge Study.

One improvement to Telegraph Road which should be considered, is the construction of a ramp from northbound Telegraph road just south of the I-95 interchange which would connect to Stovall Street. This ramp would allow northbound Telegraph Road traffic destined to the Cameron Run Valley to use the ramp instead of Pershing Avenue to access valley development. This ramp would also be used by eastbound Beltway traffic to access the Valley.

The effect of this improvement is to allow traffic to access the eastern portion of the Cameron Run without being mired in congestion at Telegraph and Pershing Avenue. The Harris study showed that the Beltway flyover from the Telegraph Road ramp is one of three essential improvements needed in the Valley.

2. Beltway Connector Road

The traffic analysis shows that additional Beltway access into the study area is needed to relieve Telegraph Road. One of the major roadway improvements proposed in conjunction with the CNS project is construction of a connector road parallel to the Beltway which would connect to Mill Road and allow westbound traffic on the Beltway to enter the eastern Cameron Run Valley area. The Connector Road would also allow westbound traffic to exit from the Eisenhower Avenue area but only to go towards Fairfax County. Traffic originating from Maryland, therefore, would still have to use Telegraph to go eastbound and back across the Woodrow Wilson Bridge.

3. Clermont Interchange

Although located outside of the study area, the proposed Clermont interchange with the Beltway will greatly improve access into the entire valley. This project is in the State's Five Year Plan; an EIS is being prepared. The planned interchange, which connects into the valley via Eisenhower Avenue, was identified in almost all studies, including the Harris study, as an essential improvement.

4. Holland Lane/Daingerfield Road-Wolfe Street Extension

Another road improvement proposed by the CNS developers is the widening of Holland Lane to four lanes. The intersection of Holland Lane with Duke street is a problematic one, primarily because of the offset between Holland Lane and Reinekers Lane at Duke Street. This offset produces functional and operational problems. Although widening Holland Lane is needed, other road improvements will also be required to make the Duke Street/Holland Lane intersection work.

One possible improvement, tested in the Harris Study, is the extension of Daingerfield Road south of Duke Street to Wolfe Street which would be constructed to Holland Lane. Street. Right turns could be prohibited from Holland Lane to Duke Street. Instead, traffic going east or north from Holland would take the Wolfe

Street/Daingerfield Road extension. The City's traffic model shows that this improvement would help to relieve congestion along Holland Lane. Eventually, Wolfe Street could be extended to S. West Street or S. Payne Street.

5. Eisenhower Avenue Widening East of Telegraph Road

Eisenhower Avenue is currently two lanes in each direction. As development occurs in the Valley, the Harris study has shown that congestion will reach unacceptable levels on the eastern portion of the Avenue. Widening Eisenhower Avenue to three lanes in each direction between Mill Road and Telegraph Road would provide the capacity needed to avoid congestion.

6. 7. Mill Road Realignment and Extension

Mill Road's meandering alignment limits its traffic carrying capacity poorly serves potential development sites. Realigning Mill Road would remove its awkward curves and improve its traffic carrying capacity. Also, extending Mill Road westward through the two large parcels west of Telegraph Road would provide additional access to these sites, which are now served only by Eisenhower Avenue.

Transportation Management Association

A coordinated approach is needed to implement Transportation Management Plans. Additional development will be able to be accommodated in the Valley proportionate to increased transit usage and carpooling and by people living and working in the Valley. To the extent these shifts in transportation mode occur, there will be less need for additional road improvements beyond what has been identified and less political pressure to curtail development in the future.

A Transportation Management Association to include all development parcels in the study area is likely to result in better managed, better financed and more effective transportation management plan programs.

Transportation Improvement District

The local share of transportation improvements within the study area should be funded through a Transportation Improvement District (TID) which assesses developers the cost of improvements based on square footage of development. The State has adopted legislation, effective July 1, 1990, which will allow the City to establish a TID to finance Cameron Run Valley improvements. To create this district, the City must adopt a transportation improvement plan for the area and include this plan as part of the City's Capital Improvements Program.

URBAN DESIGN ANALYSIS

The urban design section examines the physical conditions of the King/Eisenhower Avenue area in terms of the opportunities and constraints for mixed use, transit oriented development. The analysis forms the basis for a land use concept and for possible development guidelines regarding the height, bulk and siting of buildings. Also, the analysis examines more specific urban design issues related to public improvements such as street, pedestrian and open space systems.

The focus of this analysis is the largely undeveloped Eisenhower Avenue Metro station area where there is a need to set development guidelines and to coordinate both private and public improvement activity. The King Street Metro area is not included in the general analysis since redevelopment is near completion and the character of development largely established.

Eisenhower Avenue Area

As stated earlier the Eisenhower Avenue area has not produced mixed use residential, retail, office and hotel development. This analysis explores the feasibility of encouraging coordinated mixed use development around the metro station and examines the various development sites in terms of their suitability for different uses, building heights and densities. The analysis also examines traffic, pedestrian and open space systems to determine how best to accommodate increased demands for access, circulation, open space and recreational needs created by new development and how to best link potential development sites into a coherent whole.

Constraints and Influences

Map 10 summarizes the major constraints and influences affecting prospective mixed use development in the Eisenhower Avenue area. These constraints include those physical factors, natural and man-made, which exert a negative influence on the suitability of mixed use development including residential uses.

Physical Barriers

The area is characterized by large scale public facilities, railroad trackage, major arterials, an interchange with its associated ramp system, a major freeway, Metrorail trackage serving two Metro lines and a Service/Inspection Yard and a drainage system which cuts through portions of the area. All of these factors tend to create physical barriers which isolate the area from the rest of the City, separate potential development sites, make pedestrian access difficult and make some sites unsuitable or less attractive for certain land uses such as residential.

Soils and Drainage

Another development constraint is drainage and soil conditions. Cameron Run, Hooff's Run, Mill Race and several other open channels flow near or through the area en route to Hunting Creek and eventually to the Potomac River.

The drainage area, with its high water table and periodic backup and flooding, combined with the fact that parts of this area have been used as landfill and contain poor soil, can adversely affect development, making construction unbuildable or very costly.

In other cases, the high water table and poor soil conditions may make underground parking unfeasible or limited to one level. As such, large developments are likely to include sizable above grade parking structures which can be dominant visual elements of any building design.

Image and Built Form

Another development constraint is the negative image associated with the Eisenhower Avenue area. It is this negative image which causes some to dismiss the possibility that this area could attract residential development.

This image reflects the isolation of this area from the rest of the City and the area's industrial character--its railroad facilities, scrap yard and concrete mixing plant. This image stems also from the area's lack of development, the presence of large tracts of bare, desolate looking land.

However, another factor which makes it difficult to envision the area as a location for quality development is that what has been built in the Eisenhower Avenue area to date does not convey a sense of coherent urban form, and certainly does not realize the great potential of a Metro station area.

Opportunities

Although the Eisenhower Avenue area is negatively affected by the constraints and influences discussed above the area also enjoys some considerable advantages and opportunities (Map 11) as a potential development area.

The area is well located near a major regional highway facility - I-95 and has great visibility to the Beltway. Improving accessibility to the Beltway would improve the attractiveness of the area for development.

The area is also located next to two Metro Stations which are only one-half mile apart. Metro stations provide an extra margin of accessibility which has attracted development around most transit stations in the Washington Metropolitan area.

In addition to Metrorail, there is the prospect that Commuter Rail can be initiated in two years and that bus service within the Valley can be greatly enhanced once the Van Dorn Station is in operation. The Eisenhower Avenue area also has the advantage of large sites under single ownership which increases the possibility of phased mixed use development.

The fact that the Cameron Run Valley is in a stream valley also presents an opportunity. A stream valley open space/ bicycle and pedestrian system can be developed in the area to link development, especially residential uses, to recreational facilities, to other developments, to the metro stations and to other parts of the city. It may even be possible to link this system via a bike trail to the Mt. Vernon Bikeway along the Potomac River.

There also may be opportunities to provide additional active recreation areas to serve new development. These areas may be appropriately located near the confluence of Hooff's Run and Mill Race and tied into the overall bikeway/pathway system.

Via the CNS project, there are also opportunities to lessen the Valley's isolation and to establish stronger connections between the Eisenhower Avenue area and the King Street Metro area, to make the Eisenhower Avenue area more a part of the fabric of the City.

Finally, because the Eisenhower Avenue area is located in a valley, removed from the established, low scale residential neighborhoods, there are opportunities to allow taller buildings without necessarily creating visual impacts to neighborhoods or City landmarks.

Allowing taller buildings in the Valley would provide views of the Potomac River and of the Old Town area which could in turn encourage quality development, especially, residential uses. Nevertheless, taller buildings need to be sensitively sited and carefully designed to avoid blocking views of landmarks such as the Masonic Temple.

Planning and Design Considerations for Development

Building upon the constraints and opportunities outlined above, this section examines a land use^e concept and possible design guidelines for development within the study area.

Land Use Concept

The land use concept shown in Map 12 reflects the desire to encourage a mix of office, retail, residential, and hotel development along with publicly oriented open space, recreational, entertainment and cultural facilities.

Map 11

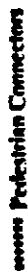
Opportunities



Landmark



Stream Valley Park



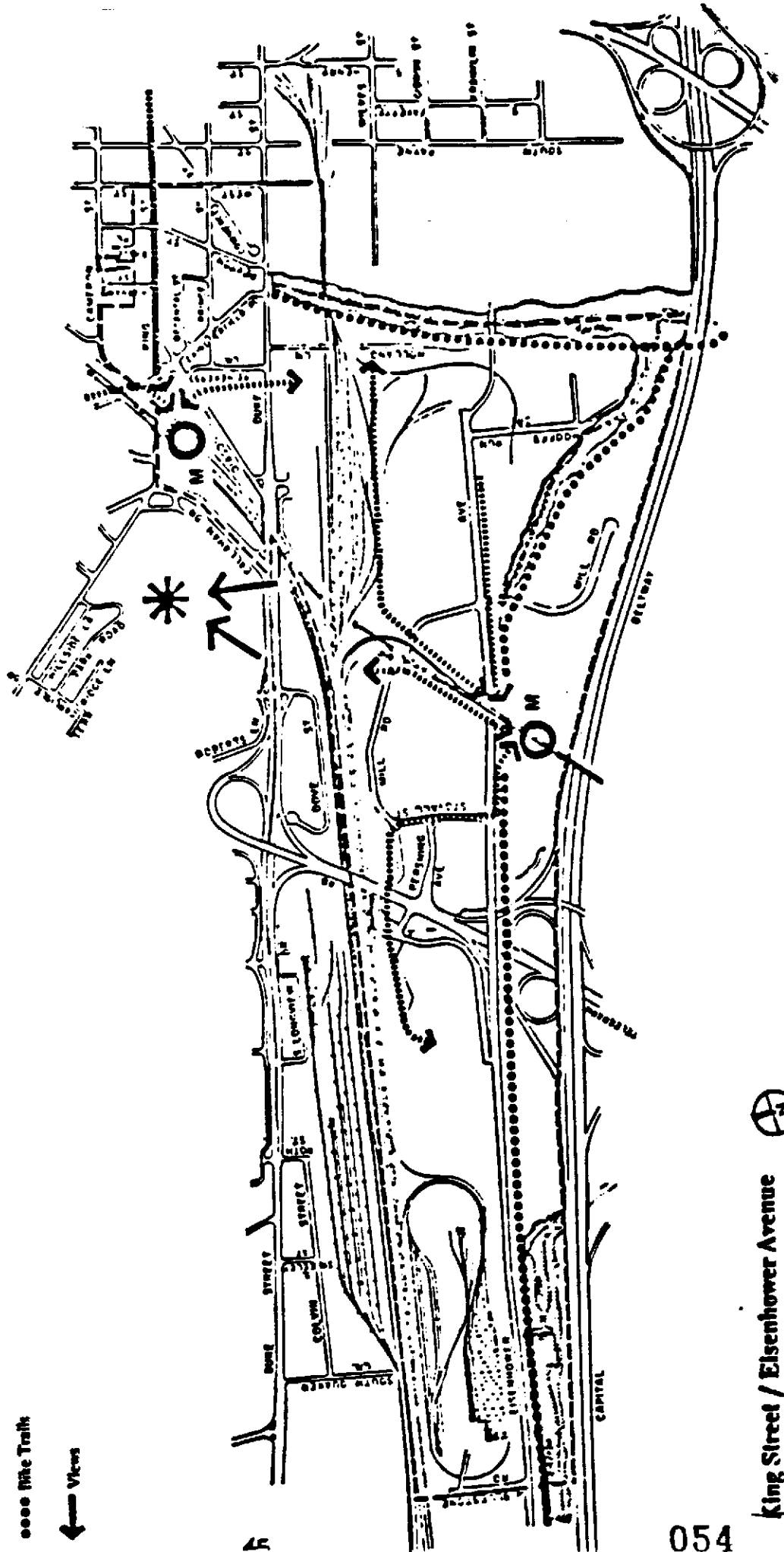
Pedestrian Connectors



Bike Trails



Views



King Street / Eisenhower Avenue
Area Plan



The Plan follows these principles;

- that mixed use development at relatively high densities should be encouraged near the two transit stations
- that development furthest from the stations and more likely to rely on travel by auto should be more at lower densities.
- that residential development is most suitable in locations which are within a convenient walking distance to a metro station and accessible to open space and recreational facilities.

For purposes of describing the land use concept the study area is divided into five subareas; King Street Metro, CNS site area, Hooff's Run, Eisenhower Avenue Metro and West of Telegraph Road.

King Street Metro Station

Considering that the King Street Metro Station area is mostly built up, the concept plan primarily reflects the current pattern of development. The Plan encourages a mix of office, retail, hotel and residential uses west of Peyton Street. Because of Metro proximity, residential uses should be allowed at higher densities than other, non-Metro, locations. Ground floor retail uses are desired along King Street and Duke Street west of Holland Lane.

CNS Site Area

The area south of Duke Street and between Hooff's Run, Eisenhower Avenue, Mill Road and the Metro tracks to the west provides an opportunity to encourage integrated mixed use development on a large tract of land located between two Metro Stations. Most of this area is the site of the proposed CNS project.

The concept plan calls for a residential district to be concentrated nearest Holland Lane and nearest a potential park area along Hooff's Run.

Office development would be concentrated toward the western portion of the site and along Eisenhower Avenue.

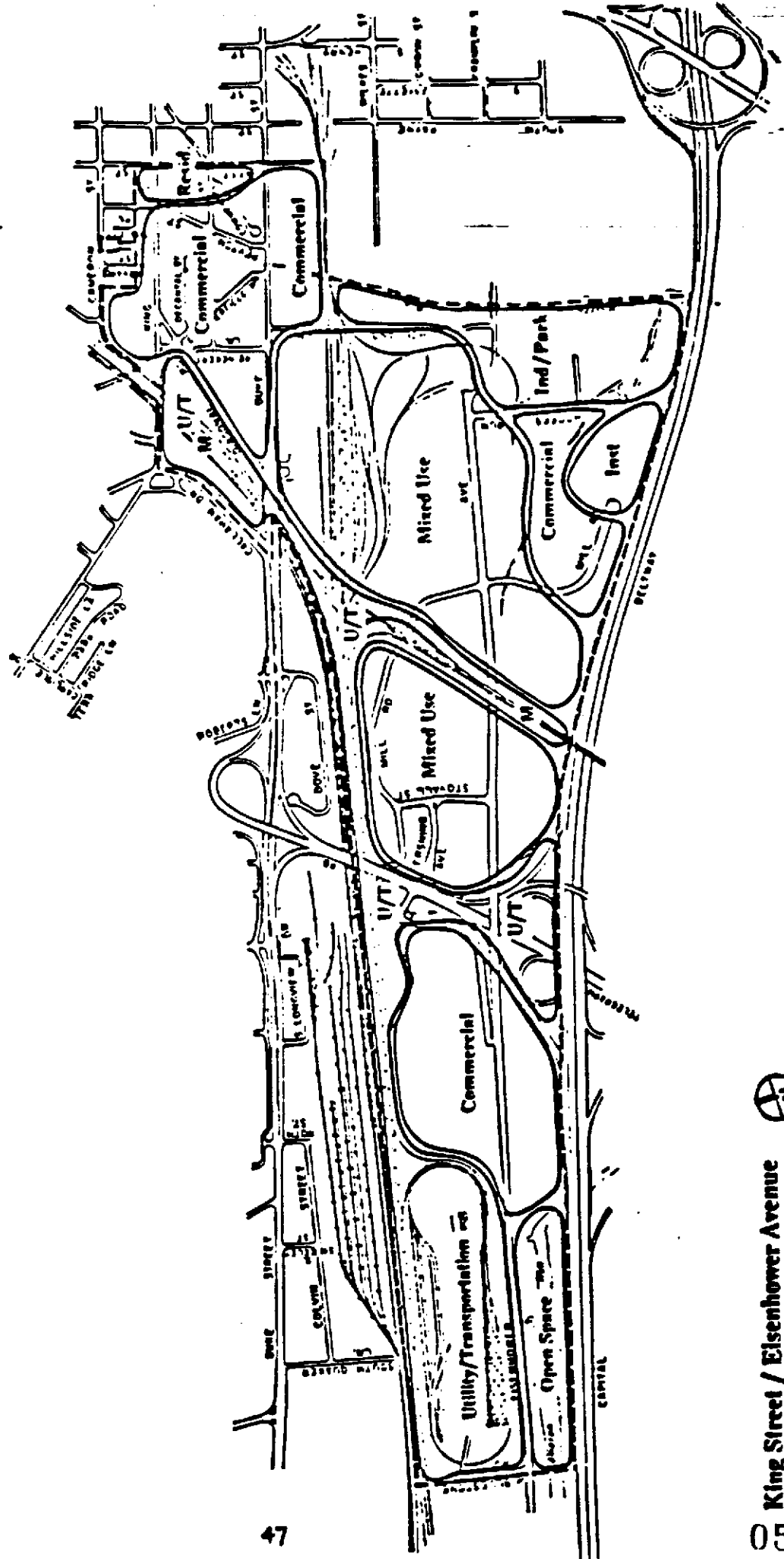
Retail uses would be concentrated along the south side of Duke Street to complement the retail shops under construction along the north side of Duke Street. Business service oriented retail uses would be concentrated within the office core area.

A pedestrian system should tie together the various land use elements within the area making all parts of the site convenient and accessible to pedestrians with minimum vehicular conflicts. There would also be strong pedestrian linkages to the King Street and Eisenhower Metro Stations.

Hooff's Run Area

This is an area bounded by the eastern end of Eisenhower Avenue, Mill Road, the Capital Beltway and Hooff's Run. The area includes industrial uses such as warehousing and a concrete mixing plant, the Public Safety Center, the American Trucking Association office building, vacant land and portions of Mill Race and Hooff's Run.

Map 12
 Land Use Concept



The concept plan calls for office uses along Mill Road and low density commercial uses east of Hooff's Run Drive and furthest from the Metro station and adjacent to the Sanitation Authority for the mid-term future; in 10-15 years the area may be suitable for redevelopment for mixed uses at moderate densities. A portion of this area, focused on the convergence of Mill Race, Hooff's Run and including the flood plain area should be maintained open as park as part of the stream valley system.

Eisenhower Avenue Metro Station Area

The concept plan indicates high density, mixed use development for the area nearest the Eisenhower Avenue Metro Station and located between Mill Road, Telegraph Road and the Beltway. generally, would be oriented

West of Telegraph Road

This area is furthest from the Metro Station and is located between two major barriers, the S&I Yard and Telegraph Road. The concept plan calls for moderate office development on the south side of Eisenhower Avenue and a mix of medium density commercial office, retail, residential and hotel uses on the Cameron Center and Foundry tracts located on the north side of Eisenhower Avenue.

Development Guidelines

The land use concept provides a generalized picture of where different land uses should be located within the study area. To further clarify this picture, however, guidelines need to be established to indicate how these land uses should be translated into three dimensional forms and how these forms should be related within the study area and to the City. These guidelines concern height, massing, building orientation, parking, open space and pedestrian movement.

Height

The setting for Valley development is a large, isolated, underdeveloped area located in a stream valley and affected by dominant, large scale elements such as railroad tracks, the Capital Beltway, Telegraph Road, the Metro aerial structure and some large office buildings. Given this setting, large scale buildings may be appropriate and can be accommodated in the area without necessarily negatively impacting other parts of the City.

To say that tall buildings may be acceptable does not mean that any tall building or complex would be appropriate. Building heights and scale need to be sensitive to three factors; the impact on the urban design of the City and the impact on proposed mixed use development in the Valley.

Shooter's Hill is the most prominent natural feature and the George Washington Masonic Temple is the most prominent landmark and important point of orientation in the eastern part of the City. The Temple, sited on Shooter's Hill at a 120 foot elevation, reaches a height of 450 feet and can be seen from almost anywhere within the downtown area and from within the Cameron Valley.

The Cameron Valley is generally at an elevation of 20 to 30 feet. The tallest buildings within the Valley, the Hoffman Buildings, are approximately 160 feet. From a distance, these buildings do not visually block any portion of the Masonic Temple or project beyond the horizon created by Shooter's Hill. In terms of height, buildings in the eastern Cameron Valley ranging up to perhaps 200 feet can be constructed without unduly blocking views of most of the Temple structure.

Very tall buildings, especially if massed together, can effect block views of the Temple and have such a dominant visual effect that they begin to compete with and detract from vistas of the Temple and Shooter's Hill. While a single tower may be fine, if taller buildings are also massive or if taller buildings are clustered together, the result might be more like Crystal City or Rosslyn. Alexandrians will need to determine whether that kind of development conveys an image of Alexandria they like.

The impact on Shooter's Hill is illustrated in Map 13 which is a section of the area looking east showing the relationship between the Masonic Temple, existing Hoffman Buildings, and possible 345 foot buildings located on the Hoffman property. As shown, the large buildings overwhelm the Temple in terms of scale and height and mass. One way to at least mitigate the visual impact of tall buildings on the Temple is to gradually reduce building mass on the upper portions of a building tower.

Not all tall buildings are necessarily inappropriate. Taller buildings can be located and designed to enhance or reinforce views of the Masonic Temple. Taller buildings may be needed to create a landmark and identity for a project. Nevertheless, the impact of tall buildings on the Masonic Temple should be a basic consideration for evaluating the appropriateness of buildings above 150 feet within the eastern portion of the Valley.

The King Street Metro Station Area Height District adopted the principle that there should be a height transition between established, lower scale neighborhoods and commercial development areas. This principle should be applied to the CNS site. Taller buildings should be oriented away from Duke Street, towards the interior and southern portion of the site.

Building heights need to be arranged to create variety; more importantly they need to create a hierarchy which emphasizes landmarks and vistas, provides transitions between buildings and their functions and which differentiates between areas of development.

Parking Location

The King Street Station Area Parking District requires that 75% of the parking in the area be structured unless a special use permit is obtained, and prohibits parking from fronting a street.

The principle that parking should be buried or screened should be generally applied to the entire study area. It is understood that due to soil conditions and expense not all parking can be placed underground. However, surface parking should be minimized; above grade parking should be located in block interiors screened from public view. Where possible, larger parking structures should abut physical barriers such as the Beltway, railroad tracks and Telegraph Road, locations which are removed from pedestrian activity.

Open Space / Streetscaping

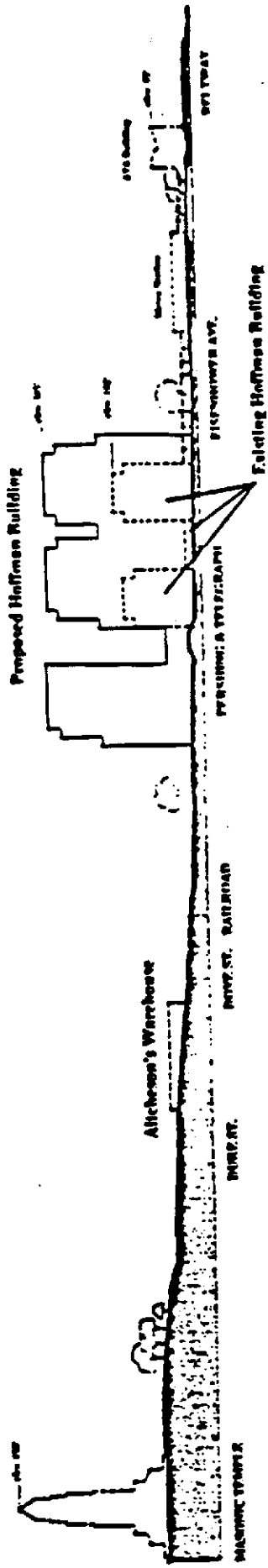
Development should use and improve the stream valley system found in the eastern portion of the Valley. Cameron and Hooff's Run provide a natural basis for a greenway system. At the western end of the study area, a portion of the land adjacent to Cameron Run should be used as a green way system to provide an upgraded connection to park facilities further west.

To the east, Mill Race should be preserved and improved to link to open space along Hooff's Run. The cemetery and open space along Hooff's Run in the area north of Eisenhower Avenue should be also be maintained as park.

In light of the potential impact of Valley development on the City's recreational facilities, the City should consider whether additional land within the Valley should be designated for acquisition. The anticipated level of development in the Eisenhower area will put tremendous demand on recreational facilities and there are limited opportunities for land acquisition elsewhere in the City.

Part of any open space system in an urban area is streets. To complement the stream valley concept, the eastern portion of the Valley needs a system of streets and a strong streetscaping program. The focal point for streetscaping should be Eisenhower Avenue. This Avenue should be developed as an urban boulevard with a treed median and planting areas. Streetscape standards and development controls should be developed regarding setbacks and building orientation to ensure consistent and continuous development pattern along the Eisenhower Avenue.

Map 13
Height Impacts



Valley Looking East

Pedestrian System

Development within the metro station areas should be pedestrian oriented and should allow a safe and convenient walk to each of the Metro Stations and to the various development projects within the study area.

Especially in the King Street Metro Area, which is near downtown, near existing neighborhoods and near transit, special care should be given to the needs of pedestrians. Intersections should be designed to prohibit continuous, unimpeded right turn movements at intersections. These free right turns make it difficult for pedestrians to safely cross streets in the area.

One way to redress the problem of continuous right turns is to signal or sign the intersections such as at King/Diagonal and Duke/Holland so that right turning traffic has to stop at the intersection with the traffic light to allow pedestrians to cross. Stop signs or red right turn signals could be used. This latter type of signal control will be employed for the Duke Street/Henry Street intersection and the Holland Lane/Duke Street intersection.

In addition to intersection redesign, other improvements are needed to make transit facilities more accessible to pedestrians with fewer conflicts with cars.

One improvement which should be implemented is to extend the pedestrian tunnel from the Amtrak Station to the King Street Metro Station mezzanine area (Map 14). This connection was recommended in the 1978 King Street Metro Station Area Plan and was planned as part of the Metro Station design. The tunnel would serve Commuter Rail passengers and Rosemont residents destined to Metro.

Another improvement which should be considered is to provide a second access point to the King Street Metro platform. The King Street Metro Station provides only a single point of access through the fare gates, up the escalators and onto the platform. This forces most transit patrons from Rosemont to have to cross King Street, and, sometimes Commonwealth Avenue to access the station.

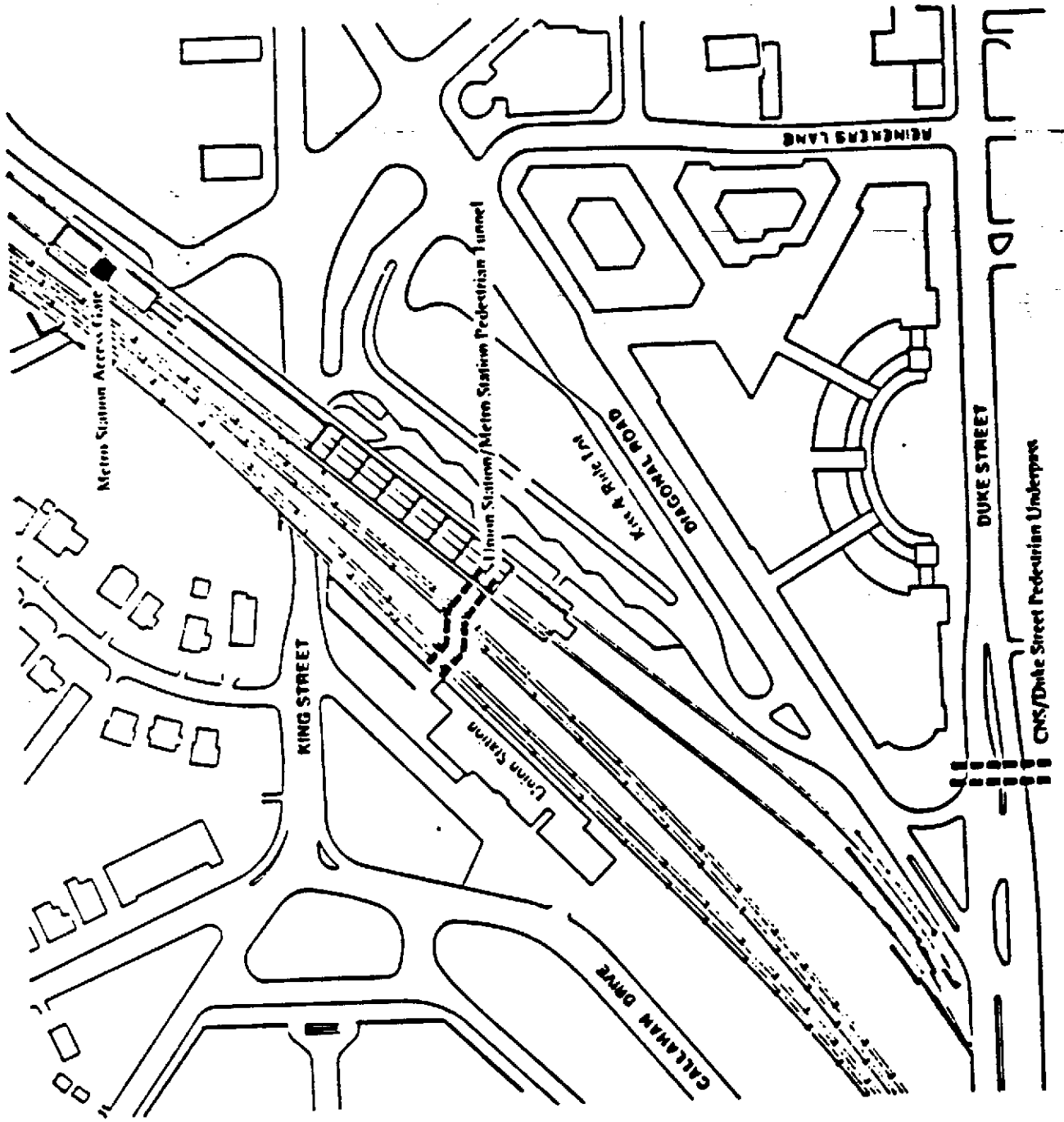
If the King Street Metro Station platform were extended over King Street and a second set of fare gates and escalators were installed near Commonwealth Avenue, many transit users could then access the station without crossing King Street.

A third pedestrian improvement may be necessitated by the development of the Carr/Norfolk Southern site. The proposed development envisions some 19,000 workers and some 4,000 residents. To access the King Street Metro Station, pedestrians will have to cross a five lane Duke Street. Because of the potential conflicts between heavy pedestrian and vehicular movements affecting Duke Street it may be necessary to construct a tunnel underneath Duke Street to provide access to the King Street Metro Station from the CNS project. The conditions of the CNS project require that such a tunnel be built if the Director of TES determines that the facility is needed.

All of these improvements are desirable; however they are all likely to be expensive. WMATA estimates that the tunnel connection could cost between \$.9 and \$1.7 million plus the possible cost of an elevator for handicapped accessibility. According to WMATA, each additional entrance to a transit station will require a mezzanine with farecard machines, turnstiles and a manned kiosk plus an elevator would be required for handicapped people. This may mean that providing an additional entrance to the King Street Station could cost \$3 to \$4 million. The pedestrian tunnel under Duke Street also will be costly, but CNS will be responsible for that improvement.

In comparison, pedestrian access to the Eisenhower Avenue Metro Station is relatively convenient requiring fewer streets to cross. The station can be easily accessed from both the east and west sides of the mezzanine.

Map 14
Proposed Pedestrian Connections



The accessibility of the station, the fact that private property directly abuts the station platform on both sides, creates opportunities to make the station accessible not only at grade level but also at the platform level. Through an air rights development arrangement it may be possible to envelop the platform area within a private building and to provide direct access to the station at the platform level. It may also be possible to extend the platform northward past Eisenhower Avenue and to provide above grade access to the platform from north of Eisenhower Avenue. This improvement would allow patrons to access the station without crossing Eisenhower Avenue.

In addition to expanding pedestrian access points at the station, consideration needs to be given towards insuring that there will be well-defined pedestrian pathways to the station from the various development sites. These pathways would include the street system, internal walkways, paths alongside the Metro rail structure and above grade connections between buildings and the Metro platform.

PUBLIC POLICY

City land use policy has consistently focused on the King/Eisenhower area as a potential growth area where development was anticipated and was to be encouraged. It was believed that the location of the metro stations would be the key factor stimulating this development. In fact, the Eisenhower metro station was originally to be located on the Springfield/Franconia line but was relocated to its present site to realize development sooner.

Although the two metro areas were slated for growth, Council was well aware of the locational differences between the two station areas.

King Street Metro

The King Street Metro Station area was located near single family residential areas and an historic district. Development was to be encouraged but also was to be contained to protect nearby residential neighborhoods.

The Plan reflected both objectives. The plan identified the area designated for redevelopment. These boundaries excluded the area west of the railroad tracks (Rosemont) and the residential areas along Harvard and N. Peyton Street.

The Plan established a preservation area which included the area between Peyton and West streets. These streets contained a mix of low scale residential and commercial uses, some in historic buildings. The intent was to further emphasize that this area was not to be slated for redevelopment.

Within the development area the Plan delineated a transitional area where heights and densities would be moderated in consideration of maintaining a development scale compatible with the preservation area. Finally, the Plan called for more intense development nearer the Metro station.

Although the King Street station area plan encouraged development around the Metro station, the Plan recommended downzoning the properties within the designated development area. The Plan called for heights to be reduced from 150 feet to 77 feet and for the FAR for commercial development to be reduced from 6.0 to 3.0. The recommended height reduction was directly related to consideration of the impact of 150 foot buildings on the Masonic Temple and on adjacent residential neighborhoods.

The zoning actions which were enacted after Plan adoption were intended to insure that the development area not overwhelm low scale development in the surrounding neighborhoods yet still allow sufficient densities to encourage development. In fact, to further encourage development and Metro ridership, the City recommended reductions in required parking which allowed several of the larger developments to reach a 3.0 FAR. This strategy was basically accepted by the development community and by the neighborhoods.

Eisenhower Avenue Metro

Public policy regarding development and zoning around the Eisenhower Avenue station was focused on encouraging mixed use development. Because of the area's relative isolation from nearby residential areas, there was little apparent reason to constrain development envelopes or heights. Development rights in the M-3 zone, a zone specially designed for the parcels around the Eisenhower Station, included a 3.5 FAR by right with up to a 6.0 FAR with a 25% residential component in the project. The height allowance was up to 345 feet with a Special Use Permit. The M-3 zoning was applicable to most of the land situated within 1500 feet of the metro station.

Although the M-3 zoning adopted by the City allowed generous densities, the City was aware that there were constraints to development; namely, the lack of roadway connections to Cameron Valley development sites limiting the area's accessibility.

City Council, whether intended or unintended, never tailored the zoning to traffic carrying capacity. Instead, the M-3 zone was created which allowed up to 6.0 FAR with a special use permit. The City also left intact the industrial zoning and the CO zone. The industrial zoning allowed up to a 5.75 FAR with a planned unit development special use permit; the CO zone allowed up to a 4.0 FAR with a special use permit. Although these higher densities were achievable only with public review, it is important to remember that the by-right zoning in the eastern portion of the Valley allowed 26 million square feet of office development without public review.

ISSUES

The issues addressed in the King/Eisenhower Small Area Plan involve three basic questions;

- to what extent does City Council wish to use zoning to control development so that it bears a more reasonable relation to the ability of the road system to accommodate it.
- to what extent is the City willing to improve the road system to accommodate development
- to what extent does the City wish to encourage mixed use development in the Valley.

**GOALS AND
RECOMMENDATIONS**