

PLANNING OFFICE
FRONT DESK COPY
DO NOT REMOVE

THE GATEWAY

DENVER'S NEWEST FRONTIER



GATEWAY/STAPLETON DEVELOPMENT OFFICE
PLANNING AND COMMUNITY DEVELOPMENT OFFICE
CITY AND COUNTY OF DENVER

THE GATEWAY CONCEPT PLAN
AUGUST 1990

*WHATEVER YOU CAN DO, OR DREAM
YOU CAN DO, BEGIN IT. BOLDNESS
HAS GENIUS, POWER, AND MAGIC IN IT.*

--GOETHE

GATEWAY CONCEPT PLAN
TABLE OF CONTENTS

	<u>PAGE</u>
GATEWAY CONCEPT PLAN HIGHLIGHTS	1
SECTION I: VISION AND BACKGROUND	5
A VISION OF DENVER'S AIRPORT GATEWAY IN THE YEAR 2020	5
THE GATEWAY TODAY	13
THE CHALLENGE OF GROWTH	13
MARKET STUDIES OF THE DENVER AIRPORT ENVIRONS	14
Lodging/Meeting Facilities	14
Office	15
Industrial	16
Residential	17
MEETING THE CHALLENGE OF GROWTH	19
SECTION II: THE GATEWAY CONCEPT PLAN	21
GATEWAY GOALS	21
THE CONCEPT PLAN	24
Urban Design And Community Framework	24
Activity Centers	24
Streets As Distinctive Places	25
Moderate-Scale Densities And Heights	27
Development Standards	30
Gateway Land Uses	30
The Neighborhoods And Town Squares	31
The Town Center	36
Business Areas	37
The Public Framework	42
Parks, Trails, And Open Space	42
Transportation	50
Other Public Buildings And Facilities	55
Environmental Protection	57
Noise	59
Water Quality	60
Water Use and Conservation	61
Air Quality	62
Wildlife	63
Historic Resources	64
Cooperation With Our Neighbors	64

SECTION III: IMPLEMENTING THE PLAN	67
WHERE DO WE GO FROM HERE?	67
BUILDING AND PAYING FOR INFRASTRUCTURE	68
Impact Fees and Land Dedications	72
Taxing Districts	72
Bootstrap Financing	72
PHASING THE INFRASTRUCTURE	73
The First Ten Years (1990-1999)	74
The Following Thirty Years (2000-2029)	75
ZONING TO ENCOURAGE HIGH-QUALITY DEVELOPMENT	76
The Comprehensive Rezoning Ordinance	78
The First (Development Review) Tier	79
The Second (Site Plan Review) Tier	81
APPENDICES	82
APPENDIX A THE GATEWAY TODAY	82
APPENDIX B BIBLIOGRAPHY OF AIRPORT MARKET STUDIES	87
APPENDIX C GROWTH PATTERNS AROUND OTHER AIRPORTS	88
APPENDIX D LAND AREA CALCULATION ASSUMPTIONS	92
APPENDIX E GATEWAY INFRASTRUCTURE NETWORK	94
APPENDIX F SUMMARY OF KEY FACTS AT FULL BUILDOUT	99
APPENDIX G MARKET STUDIES OF THE DENVER AIRPORT ENVIRONS	100
APPENDIX H ACKNOWLEDGEMENTS	102

If you would like more information than is contained in this report, you may contact the Gateway/Stapleton Development Office, 1445 Cleveland Place, Room 400, Denver, Colorado 80202; (303)640-2155.

TABLE OF ILLUSTRATIONS

<u>ILLUSTRATION</u>		<u>PAGE</u>
ILLUSTRATION 1	Gateway Vicinity Map	4
ILLUSTRATION 2	Gateway Plan Perspective	6
ILLUSTRATION 3	Illustrative Town Square	9
ILLUSTRATION 4	Second Illustrative Town Square	10
ILLUSTRATION 5	Alternative Responses to Growth	20
ILLUSTRATION 6	Implementing The Comprehensive Plan	23
ILLUSTRATION 7	Illustrative Business Green	26
ILLUSTRATION 8	Maximum Heights And Densities	29
ILLUSTRATION 9	Land Use Map	32
ILLUSTRATION 10	Anticipated Land Use Acreage	33
ILLUSTRATION 11	Residential And Residential Mixed Use Map	35
ILLUSTRATION 12	Illustrative Town Center	38
ILLUSTRATION 13	Business And Business Mixed Use Map	40
ILLUSTRATION 14	Illustrative Auto-Oriented Retail Approach	41
ILLUSTRATION 15	Park Standards And Acreage Requirements	45
ILLUSTRATION 16	Park And Off-Street Trail System Map	46
ILLUSTRATION 17	Transportation System Map	52
ILLUSTRATION 18	Street Hierarchy And Cross-Sections	53
ILLUSTRATION 19	Environmental Asset Photographs	58
ILLUSTRATION 20	Proposed Water And Sewer System	71
ILLUSTRATION 21	Proposed Development Approval Process	80
ILLUSTRATION 22	Conceptual Flood Control Improvements Map	96

ACKNOWLEDGMENTS

The Gateway Office owes a tremendous debt to the members of the Northeast Corridor Task Force for the many hours they spent with us reviewing our ideas, offering new ones, cajoling, and debating. They began as our sounding board and teachers and ended up as our colleagues and friends. Lee Andrews deserves special thanks for providing space for the Task Force meetings at the Embassy Suites Hotel.

As with every undertaking of this magnitude, many people made significant contributions. Other city agencies, particularly the Denver Planning Office, gave invaluable assistance. Former Planning Director William Lamont, Jr. gave unstinting support by supplying everything from paper clips to office space when we were starting up. He also authorized key members of the Planning Office and Zoning Administration staff--including Dick Farley, Ellen Crain-Jordan, Ken Barkema, David Becker, Jackie Blake, Frances Burg, Joy Gibson, Karl Haberman, Harriet Hogue, Merlin Logan, Dorothy Nepa, Bonnie Turner, Wayland Walker, Bob Werner, Doug Wheeler, and David Wicks--to work on the Gateway project. Most importantly, Bill lent his own keen insights and extensive experience to the project. Frank Gray provided valuable assistance to our effort both before and after his recent appointment as Planning Director.

Dick Deane, Jerry Nagel, Jim Swanson, and Martin Saiz of the Planning Board were very involved and helpful. Tom Gougeon of the Mayor's Office was always there when we needed him, as was Dick Brasher of the city's Transportation Planning Division. Don and Carolyn Etter, Paul Foster, and Neil Sperandeo of the Department of Parks and Recreation shared their expertise and cooperative spirit to help integrate our land use, park, and trail planning efforts. Ed Sullivan, City Council's airport liaison, shared his valuable development experience and insights with us. George Doughty, Director of Aviation, also provided timely support.

Nikki Gee, our Administrative Assistant, bore the brunt of our heavy meeting schedule and the actual production work for this document. Her patience and extreme good nature under pressure was much appreciated.

Finally, we are grateful to all the landowners and Denver citizens who have worked with us throughout the process. Our thanks to them all. We absolve them of any blame. A full list of the names of those city staff and others who assisted in the Gateway project can be found in Appendix H.

The Gateway/Stapleton Development Office

Chris Duerksen
Don Elliott
Margaret Emerich
Lisa Purdy

GATEWAY PLAN HIGHLIGHTS

In May, 1988, Denver annexed almost 2,000 acres of private land near the new airport site about 15 miles northeast of downtown. The purpose of this annexation was to take advantage of the economic spinoffs from that facility. Later in the year, Denver undertook an accelerated effort to create a comprehensive plan for that area and an adjacent 2,500 undeveloped acres previously in the city to ready them for development.

Securing economic benefits has not been, however, the only goal of this process. The city is intent on producing developments that are both aesthetically pleasing and environmentally sensitive as well. The Gateway area should and can be a model for managing growth along the Front Range, to demonstrate how to create livable, lively neighborhoods and places that are in harmony with the environment. It should help provide a striking entryway to the State of Colorado.

Many people played important roles in producing this plan: citizens, landowners, staff from other city agencies such as the planning office, city council, and officials from neighboring jurisdictions. Their continued participation and energy will be needed to ensure the plan becomes a reality over the next 50 years or so that it will take the area to fully build out.

Strong efforts have been made to integrate Gateway planning with the existing improvements in Montbello and Green Valley Ranch and with future plans for those areas. It is important to clarify, however, that this plan does not purport to be a plan for the Montbello area or for those areas of Green Valley Ranch south of 48th Avenue. Similarly, the Gateway Concept Plan attempts to knit the area into and around the design for Airport Boulevard, but it does not govern the final design or construction of that very important road.

Denver's Gateway area -- six times the size of the Denver Tech Center -- offers a host of great opportunities for the city and the region if it is dealt with thoughtfully and boldly. Here are some highlights of the Gateway Concept Plan, an important first step down that road:

QUALITY, ECONOMICALLY SUCCESSFUL DEVELOPMENTS

Market studies indicate that the best way for the Gateway to succeed in the long run is to emphasize quality. The plan encourages high quality, economically profitable developments in a number of ways:

- Highly flexible planning areas that apply to over half the Gateway allow a wide range of uses, including airport-related businesses, office/warehouse facilities, research and light industrial, hotel, office, and residential -- thus permitting quick response to changing market conditions.
- A streamlined development approval process that establishes key development standards at the outset and then relies on administrative reviews to finalize plan details.
- Strong urban design and development standards to ensure developers that their investments will be protected and the area will be attractive.

DISTINCTIVE, LIVABLE NEIGHBORHOODS

The Gateway will have neighborhoods and a sense of community. The typical suburban pattern of development -- where projects are planned on a parcel-by-parcel basis without a view of how the area fits together as a whole -- will be avoided by establishing an overall vision for the area prior to development.

- Trails and sidewalks as well as streets and transit will knit neighborhoods together.
- Employment centers will be integrated with a balanced mix of housing to accommodate up to 65,000 new residents.
- No housing will be located in or near airport noise zones.

ACTIVITY CENTERS

Each neighborhood and business area will have a focal point to create a sense of liveliness. These activity centers will also help encourage mass transit and reduce dependence on the automobile.

- A series of town squares will anchor residential neighborhoods. All neighborhood retail businesses and community scale public facilities like post offices will locate on these squares.
- A town center will be the focus of all large freestanding retail and major public institutions.
- Larger-scale hotel and office developments (no more than 150 feet high) will be clustered around interchanges and major intersections, not spread out along arterials.

ENVIRONMENTAL PROTECTION

Protecting the environment will be a watchword in the Gateway, helping to demonstrate that people can live harmoniously with nature.

- Wildlife habitats such as wetlands and streambeds will generally be off limits to development. A nature area will be established as part of the Gateway park system.
- Special steps will be taken to ensure that the quality of stormwater runoff does not adversely affect wildlife or the environment. Drainage areas will be maintained in a natural state whenever possible. A water recycling system is proposed.
- Strong urban design measures like the town squares and other development standards will reduce the use of automobiles and accompanying air pollution.
- Historic resources will be given special attention.

AMPLE PARKS AND TRAILS

The area will have a comprehensive park and trail network in the tradition of Denver's renowned park system. A large 90-acre urban park, a golf course, and neighborhood and community parks will all be available in the area, linked together with an extensive pathway system.

BALANCED TRANSPORTATION SYSTEM

The Gateway transportation system will be a balanced one, featuring streets set in a grid pattern, sidewalks, on- and off-street bicycle paths, hiking and riding trails, and mass transit.

COST-EFFECTIVE, QUALITY INFRASTRUCTURE

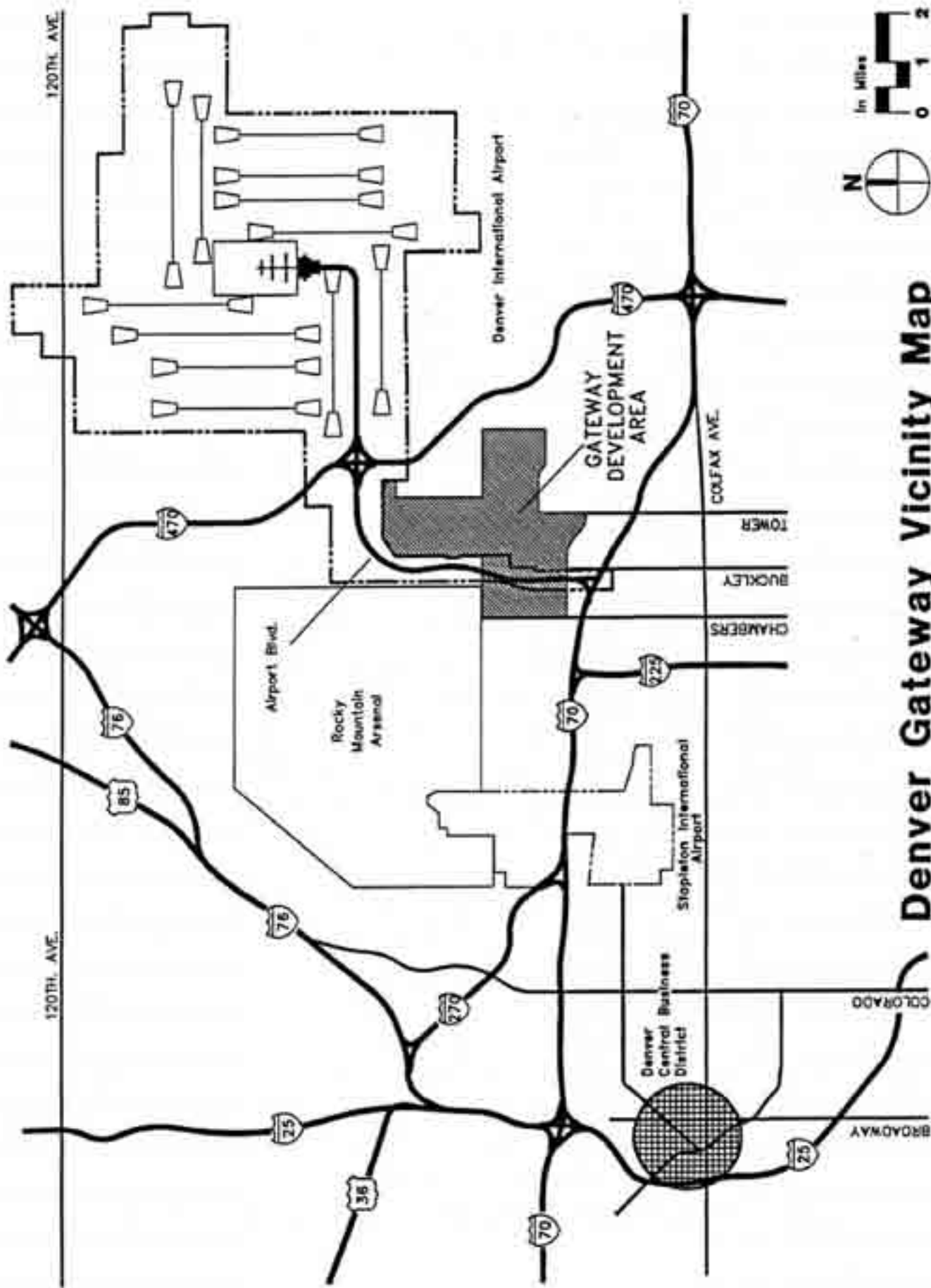
The Gateway area is already well-served by existing water and sanitary sewer lines that, along with the Airport Boulevard being built to the new airport, will be important incentives to development. Other infrastructure will have to be provided in a timely fashion that does not create a burden on citizens in other parts of the city or make development uneconomical. Steps such as phasing and creation of special developer-financed infrastructure districts are already being explored.

RELATIONSHIP TO OTHER AREAS OF THE CITY

The plan helps strengthen the nearby Montbello and Green Valley Ranch neighborhoods by encouraging a critical mass of people to attract needed retail services, by creating new employment centers to provide jobs, and by improving access to parks and trails. Additionally, the plan encourages a size and scale of development and uses that will complement downtown and other business areas of the city.

COOPERATION WITH OUR NEIGHBORS

Interjurisdictional cooperation has been and must continue to be an underpinning of the plan. Denver has worked closely with neighboring jurisdictions in planning for a joint park and trail system and in coordinating transportation issues, among others. While competition may be inevitable as the area grows, continued cooperation will be essential to make the area attractive and establish a basic quality of development that will benefit all.



Denver Gateway Vicinity Map

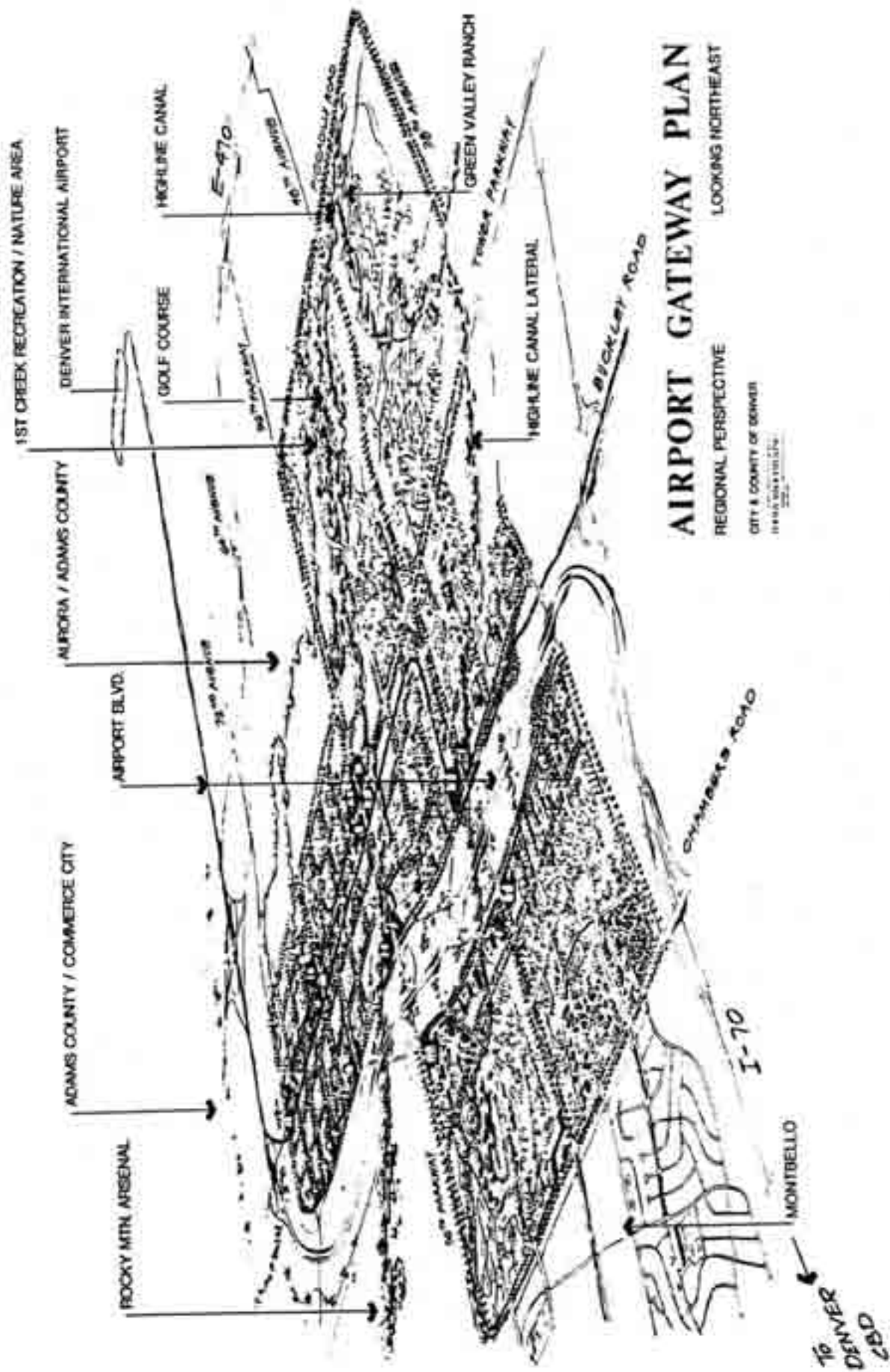
SECTION I: VISION AND BACKGROUND

A VISION OF DENVER'S AIRPORT GATEWAY IN THE YEAR 2020

What will Denver's Gateway area look like in the Year 2020? This 4500 acres of private land lying astride the wide access corridor connecting the new airport to Interstate 70 presents a great opportunity for the city. If the principles and goals set out in this Gateway Concept Plan are pursued and the expected market demand materializes, the Gateway will be an attractive, economically vital, and exciting place to live and do business. This blueprint is the result of research, meetings, and conversations with many people, including citizens from the area and landowners. It starts with a vision we can aspire to and work towards.

By the Year 2020, Denver International Airport is the second busiest airport in the world, handling 50 million passengers each year, a three-fold increase over 1990. It has also become one of the world's hubs for air cargo operations. Development around the airport is accelerating beyond the hotels and other airport-related uses that sprang up soon after the airport was opened. Much of the development is focused in Denver's Gateway area--because the city had the necessary water lines, sewers, and roads readily available from the start, and because the city spent a good deal of time preparing and implementing a plan that fostered high-quality, attractive development.

The Gateway is a scenic five-minute drive from the terminal. Striking mountain and prairie views greet visitors as they drive west towards the Gateway along Airport Boulevard. Turning south onto Tower Road into the Gateway, they are struck immediately by the fact that this airport environs is different from others around the country. It is not a jumbled collection of warehouses, motels, garish billboards, and strip retail developments. Nor is it an isolated collection of hotels and gas stations standing next to an interchange in the middle of nowhere, unrelated to the rest of the community. No jets scream over houses built too close to runways.



AIRPORT GATEWAY PLAN
 REGIONAL PERSPECTIVE
 CITY & COUNTY OF DENVER
 1980

LOOKING NORTHEAST

Instead, the first impression is one of quality development, of an area that is distinctively Denver. That impression is underscored by the hotel and business center at 72nd Avenue and Tower Road, one of several entrances to the Gateway. It exemplifies the care and thinking that went into all aspects of design. Here, thriving hotels, small meeting centers, and offices are clustered around a major intersection, not stripped out along the length of this arterial. Business people can fly in, conduct their work in a beautiful setting, enjoy neighborhood restaurants, and end the day with a round on the golf course near-at-hand or take a dusk wildlife tour on the nearby national wildlife refuge that was once the Rocky Mountain Arsenal.

The feeling at this business node is urban--buildings front onto the street, for example--but the scale is not overwhelming. The tallest hotel and office buildings rise to a maximum of 12 stories, although most are smaller. The developments are well-landscaped and sited to take advantage of the mountain views. Signs are discreet--they inform instead of overwhelm.

Just off this signature road to the east and west is a different kind of business community. Through innovative zoning designed to accommodate a wide range of activities--office/warehouse facilities, research centers, prototype production, light assembly, and other "clean" enterprises--this thriving mixed use area maintains a quality image through attractive plantings, buffering, and muted signage. Because of a deliberate decision not to extend heavy rail lines into the area, the Gateway does not house "heavy" manufacturing operations more suited to other areas of Denver. Small open spaces and squares provide lunch-time space for workers, who also have easy access to the Gateway's parks, ballfields, tennis courts, trails, and other facilities after the day is done.

Public improvements in the Gateway reflect the same care and commitment to quality as the private developments. Tower Road and 56th Avenue set the tone for the area with wide medians and ample landscaping. Other major streets also share in the tradition of Denver's grand parkway system and incorporate plantings with water-

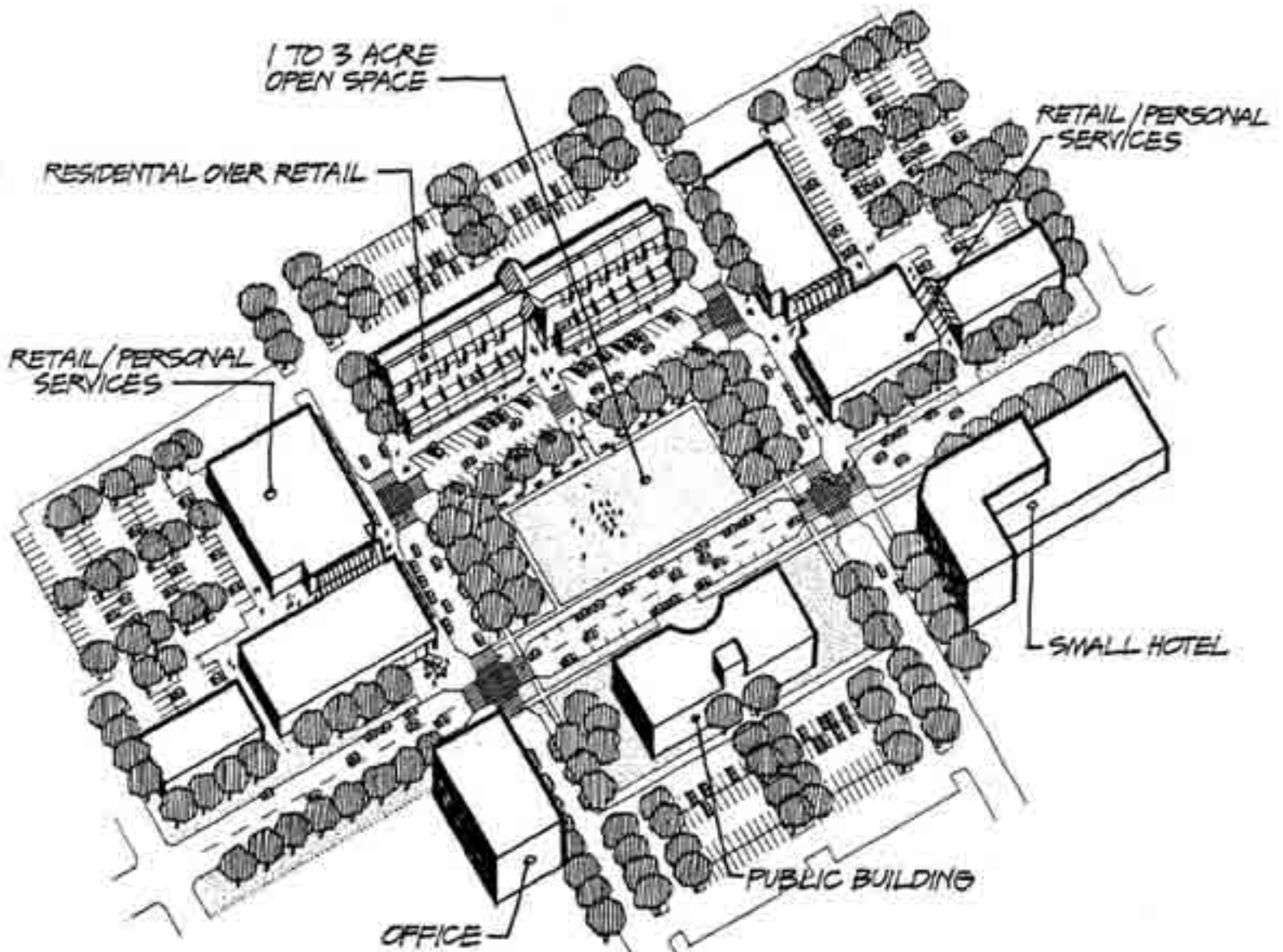
conserving trees and materials.

But perhaps as much as the physical design, the visitor notices that people are walking and riding bikes as well as driving cars. Trails and sidewalks connect the commercial centers to the neighborhoods that are built around town squares, miles away from airport noise impact zones. Several of these town squares--beautifully planted public spaces--provide an alluring setting for neighborhood retail shops like dry cleaners, grocery stores, bakeries, and hardware stores. And when people shop at the town squares, they can also mail their letters, visit a government office or a community center, see the doctor if need be, and even pick up their children from day care or school. The town squares, with benches, fountains, and small playgrounds, provide a place to relax and enjoy the Colorado sun or sit in the shade. On Saturdays and Sundays, the squares are also active with church-goers. Parking is on-street or sited unobtrusively behind or beside the buildings. Each neighborhood has a focal point--a heart.

In addition, a larger Town Center is situated strategically in the middle of the Gateway community to serve the major shopping needs of residents. During the day, the Town Center is alive with shoppers and workers from nearby offices. At night, the activity continues as people arrive for their community college classes or the latest movie, have a leisurely drink at a sidewalk cafe, or take in a concert at the community park next door, set among the beautiful old cottonwoods along First Creek. The Town Center is truly a lively place for people.

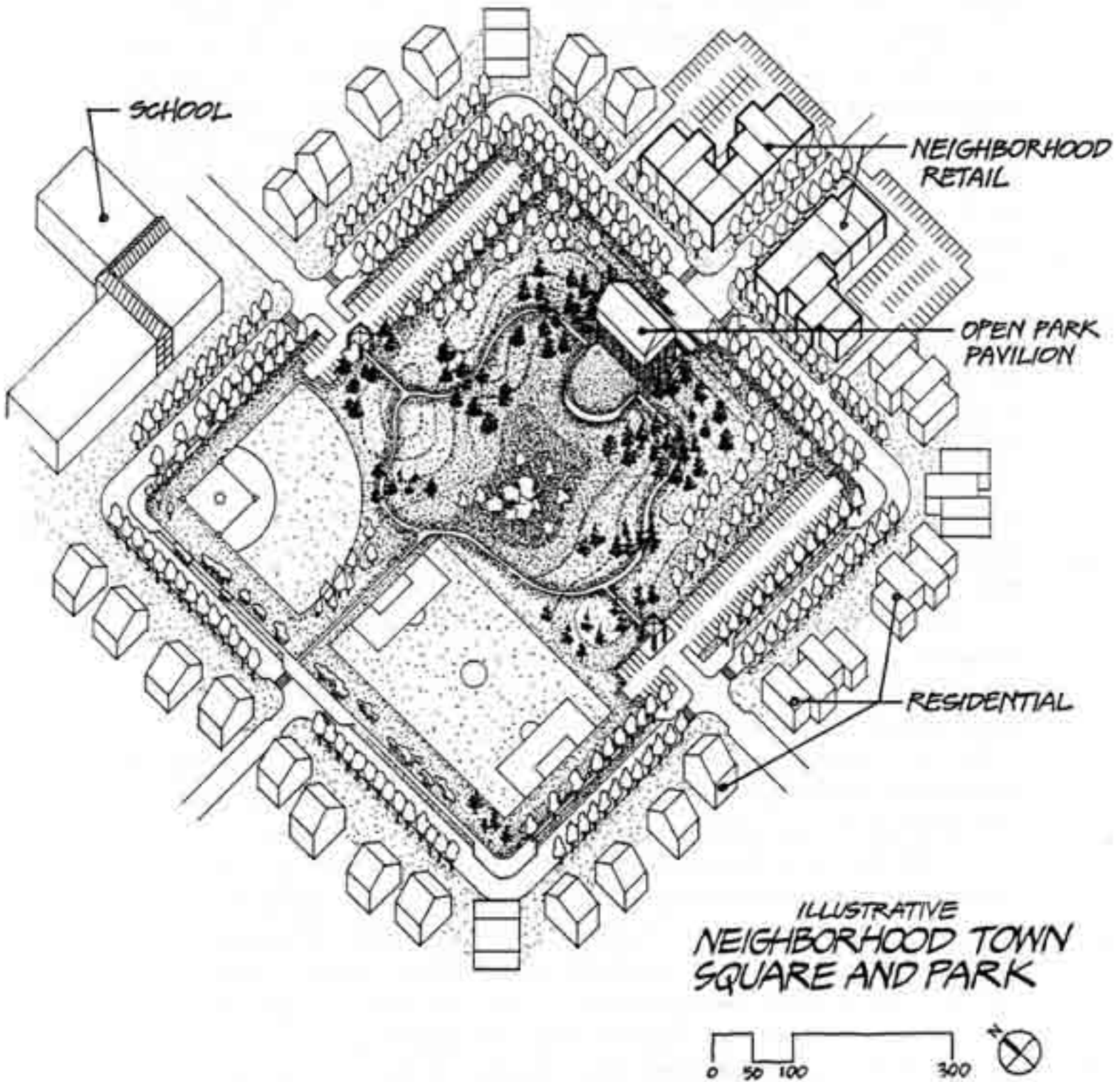
On weekends, the large urban park on the west side of the Gateway rings with the delighted shouts of kids as they pull a bass or sunfish from the community lake. Joggers from the close-by hotels enjoy the sight as they run on one of the many trails that loop through the Gateway along small creeks and historic irrigation canals. Horse riders fan out from an equestrian center in the community park near the Town Center along specially designated trails that extend northwest into the national urban wildlife refuge and southeast into Aurora.

ILLUSTRATION 3



ILLUSTRATIVE
TOWN SQUARE
0 10 50 100 200 400

ILLUSTRATION 4



*ILLUSTRATIVE
NEIGHBORHOOD TOWN
SQUARE AND PARK*

Because of all of these amenities, the Gateway neighborhoods --and nearby Montbello and Green Valley Ranch--have come to be known as some of the best in the city. They have a broad mix of housing, and people of all races and religions live together harmoniously. The character of the neighborhoods is distinctively Denver because of the parkways, the park and trail network, and the convenient neighborhood centers. They are linked to each other and the rest of the city by hike and bike trails via the Highline Canal and the Platte River Greenway. A light rail transit line speeds people between the new airport, the redeveloped Stapleton site, and downtown, complementing a systems of streets set out in Denver's traditional grid pattern.

This grid system has helped the Gateway avoid that bane of many suburban areas--the traffic jam. And people do not get lost in a maze of curved streets and cul-de-sacs. The streets are punctuated in residential areas with town squares to reduce speeding traffic. Most importantly, the streets are places to be, to use, and to enjoy, rather than simply means to get from one place to another. Most buildings face the streets in the traditional fashion, encouraging people to stroll along them and meet and talk with their neighbors.

The Gateway is lively and livable for people, but it also exemplifies the possibilities of man living in harmony with the environment. The park and trail system is both a great recreational asset and an important way to preserve open space and wildlife habitat. Floodways remain undeveloped, and the groves of cottonwoods stand protected. Trails skirt a designated nature area along First Creek, thus avoiding disruption to wildlife.

A golf course is laid out around wetlands, keeping them intact and unimpaired. Bald eagles can be seen soaring through the sky and feeding in the area. Deer graze in the tall grasses of the floodplains at dusk, and at night Great Horned Owls patrol in the woods. The creeks run clear and clean because of special steps taken to control runoff from streets and parking lots.

When the visitors leave the Gateway to head downtown or back to the airport, they leave with a strong, positive impression of

Denver, the Front Range, and Colorado. They have seen a vibrant, economically strong community offering the best that both city and country have to offer.

* * * * *

This is only a vision of what can be. It will take much work and cooperation by many people--public officials, landowners, developers, and residents. It will also take more than a little luck and economic good fortune. But it is worth striving towards. This concept plan is an important first step down that road.

THE GATEWAY TODAY

Denver's Airport Gateway area encompasses over 4500 acres of land. It lies between the established Denver neighborhoods of Montbello and Green Valley Ranch along the transportation corridor that connects Interstate 70 with the new airport, about 20 miles from downtown. Most of the property is in private ownership and is now devoted to dryland wheat farming. This is an enormous amount of land for a city that has been virtually landlocked by enactment of the Poundstone Amendment in 1974.

For comparison, the Gateway is almost six times as large as the Denver Tech Center and eight times the size of the Central Platte Valley. However, the Gateway contains only a small portion of the total land theoretically available for development around the new airport--there is another 150,000 acres of land in Adams County, Aurora, Brighton, and Commerce City. Appendix A contains a more detailed description of the Gateway today--its natural features, roads, existing developments, and other characteristics.

THE CHALLENGE OF GROWTH

Although there is an enormous amount of land available for development around the new Denver International Airport, the Gateway is particularly well-situated. It has good access and municipal services readily available, so that it should prove very attractive to hotels and businesses wanting to locate in the vicinity of the new airport. Indications are that it will begin to develop much earlier than most of the other property in the airport environs.

Given these attributes, Denver can expect a variety of different kinds of growth in the Gateway over the next 10, 25, and 50 years. Several good market studies completed between 1985 and 1990 provide detailed analyses of the most likely patterns of economic activity. The market studies reviewed for this plan are listed in Appendix B. We also visited the airport environs around the Dallas/Ft. Worth (DFW), Atlanta, and Kansas City (KC) airports as well as others to get a feeling for what might happen in Denver. The key points from those case studies are set out in Appendix C.

In a nutshell, the general sequence of nonresidential development (of parcels less than 1000 acres) around DFW, Atlanta, and KC airports can be summarized as follows:

1. Lodging;
2. Single user, owner-financed industrial, office/warehouse or office/distribution buildings;
3. Small speculative industrial, office/distribution buildings;
4. Larger speculative industrial, office/warehouse or office/distribution buildings;
5. Multistory office buildings; and
6. Franchise and specialty restaurants.

Interestingly, no regional shopping malls have been built near any airport opened in the last 20 years.

MARKET STUDIES OF THE DENVER AIRPORT ENVIRONS

Studies performed by landowners, the New Denver Airport Office, the Denver Planning Office, and surrounding jurisdictions are fairly consistent in their predictions about future growth patterns around the Denver International Airport. Generally, they foresee that there will be an initial flurry of airport-related development like hotels prior to the airport opening, but that substantial additional development will not occur in the next 5 to 10 years. Subsequently, the pace of development will depend significantly on whether the area is marketed aggressively and has established a "quality" image. Here is a summary of those studies:

Lodging/Meeting Facilities

Lodging will be among the earliest types of development to proceed in the Gateway. Predictions range from 500 to 3000 new rooms around the airport by opening day in 1993 (2-12 new hotels). The numbers increase to up to 20 new hotels with 6,600 rooms by the Year 2010. The total number of lodging units will be affected by several factors, including the volume of destination passengers at the new airport, the pace of nonresidential construction in the Gateway, and whether existing hotels near the Stapleton site

continue to operate. One study emphasized that if a trade/meeting center were built in the Gateway to cater to smaller regional trade shows and short regional corporate meetings, hotel development could be significantly accelerated.

Office

No recently built or expanded major airport has witnessed any substantial nearby office construction in the first 10 years after opening. This has been true even in growing areas like Dallas/Ft. Worth and Orlando.

Some early, limited office development may take place in the Gateway to accommodate firms that are closely related to the air transportation sector (e.g., airline offices and custom houses) or service airport businesses (e.g., personnel service firms and accountants). However, the square footage will be relatively minor in a regional context. As one market study concluded, "The Airport is a strong magnet to the Denver metropolitan area, but the Airport Environs will not be an automatic choice for most businesses seeking office space."

In addition to the experience of other airports, there are many other compelling factors that support this forecast. First, the Denver region already has a well-publicized glut of office space with full services in place at very low rates. In contrast, significant infrastructure remains to be put in place in the Gateway, and the costs of that infrastructure will have to be reflected in higher rental rates. Second, the northeast quadrant of the metropolitan area is not an established office "address." To the contrary, the area is known more for industrial space--it contains only 3% of the metropolitan area's office square footage. The area around Stapleton Airport has attracted very little Class A space. It will take significant time and effort to change northeast Denver's business image.

One forecast is that the airport environs will capture only 2% to 4% of the metropolitan office market by the Year 2010. That study estimates that until the Year 2000 the airport environs should not expect to see more than 167,000 square feet of office

construction annually. To put that number in context, over the past five years the metro area has averaged about 2 million square feet of office construction annually.

The world economy has changed dramatically since the early days of development around the DFW and Atlanta airports, however, and it will continue to change. The globalization of markets has increased, and a strong preference of major firms to locate in regions that offer an educated population, natural beauty, and a high quality of life has emerged. If expected international flights to Europe and the Pacific Rim materialize, Denver may well experience rates of office and hotel development and international business opportunities that outpace the past experiences at other major new airports.

After the Year 2000, the Gateway area will probably become more attractive to national and international firms seeking to build regional and national headquarters if there is a strong marketing effort, if early commercial development sets a quality image for the area, if high-end executive housing is available, and if attractive public amenities--parks, libraries, and schools--are in place. Also, as housing is built in the Gateway, the demand for community scale offices for insurance agents, doctors, and the like will increase. Under one predicted scenario, after the Year 2000 the Gateway might see annual office construction in the 300,000 square foot range.

Industrial

Experience at other airports shows that the Gateway area may prove to be quite attractive to firms requiring research and light industrial space. These businesses can be broken down into several broad categories:

- o Freight forwarders, custom houses, and other businesses that must be in close proximity to the airport.
- o Spin-off business activity from the airport, including equipment repair and distribution.
- o Firms such as national computer operations, check-clearing facilities, and international exhibitors that

construction annually. To put that number in context, over the past five years the metro area has averaged about 2 million square feet of office construction annually.

The world economy has changed dramatically since the early days of development around the DFW and Atlanta airports, however, and it will continue to change. The globalization of markets has increased, and a strong preference of major firms to locate in regions that offer an educated population, natural beauty, and a high quality of life has emerged. If expected international flights to Europe and the Pacific Rim materialize, Denver may well experience rates of office and hotel development and international business opportunities that outpace the past experiences at other major new airports.

After the Year 2000, the Gateway area will probably become more attractive to national and international firms seeking to build regional and national headquarters if there is a strong marketing effort, if early commercial development sets a quality image for the area, if high-end executive housing is available, and if attractive public amenities--parks, libraries, and schools--are in place. Also, as housing is built in the Gateway, the demand for community scale offices for insurance agents, doctors, and the like will increase. Under one predicted scenario, after the Year 2000 the Gateway might see annual office construction in the 300,000 square foot range.

Industrial

Experience at other airports shows that the Gateway area may prove to be quite attractive to firms requiring research and light industrial space. These businesses can be broken down into several broad categories:

- o Freight forwarders, custom houses, and other businesses that must be in close proximity to the airport.
- o Spin-off business activity from the airport, including equipment repair and distribution.
- o Firms such as national computer operations, check-clearing facilities, and international exhibitors that

prefer an airport-area location but are not locked into one.

- o Businesses that can locate anywhere within a given metropolitan area--such as manufacturing, assembly, research and development firms.

One market study predicts that the new airport environs might attract almost 500,000 square feet of industrial space annually until the Year 2000 and perhaps twice that much each year after that. If experience in Atlanta and Dallas/Fort Worth holds true, about 40% of the industrial firms around the airport will fall into three categories: manufacturing, transportation/communications/utilities, and wholesale trade. Importantly, DFW has attracted a higher proportion of quality, high-image industrial users--research and development and national headquarters facilities--because of greater emphasis on the overall quality of development in the area, particularly Las Colinas. If direct international air connections are enhanced at the new airport, the prospects of attracting foreign firms that assemble parts and distribute products, national firms that import foreign parts, and other internationally-related industrial users are substantial.

However, there are several factors that could reduce demand. First, there is ample space on the new airport site itself for firms that are closely airport-related. They will have services readily available and will not need to look elsewhere because of cramped quarters (as is true at other major airports). Moreover, there is a significant amount of industrial space already available in northeast Denver, particularly in the nearby Montbello Industrial Park and along I-70 east of Stapleton. Firms located there now may decide to stay, and new firms may select those locations because of reasonable lease rates and availability of municipal services and rail lines.

Residential

There have been widely varying experiences with residential construction around recently built airports. Virtually no new residential construction has occurred around Atlanta's airport, and

development near KC and Orlando has languished. In contrast, the DFW airport environs have averaged 5,000 to 7,000 units annually since 1979.

It is difficult to predict how much residential demand there will be in the Gateway area because all such predictions rely on numerous assumptions about how many jobs will be created at the new airport, how many indirect jobs will be created nearby, how many of those new employees will decide to live in the area, and how many people will move to the area even though they do not work nearby. Market studies vary widely in their estimates. One predicts only 6,000 units (15,000 people) in the entire airport environs by the year 2010. Another says there may be 24,000 units by 2005 (65,000 people). In any case, because of infrastructure availability and a high level of amenities like parks, we believe the Gateway could attract up to 40% of this residential growth.

Of course, there are many factors that might increase or decrease this number and affect the character of any residential development. If there are substantial amenities like parks, recreational facilities, libraries, and good schools in the area, the Gateway will be more attractive for high-quality residential growth. On the other hand, speculation resulting from unrealistically high land values and development expectations could retard residential development as it did in the early years around DFW and still does at KC. This area of Denver now has a preponderance of middle- and low-end housing. If the city is serious in its desire to attract high-image, signature businesses, it will be critical to create a more balanced housing stock by adding upper-end executive housing where middle and upper management personnel will want to live.

MEETING THE CHALLENGE OF GROWTH

Growth in the Gateway is likely to be steady, but not spectacular, for the first 10 to 20 years after the new facility opens in 1993. After all, it has taken the Denver Tech Center 20 years to get where it is today--and over 400 of its 800 acres are still available for growth. Given the size of the Gateway, it may be 50 years or longer before the area is fully built out. This means that the city will have the time to ensure that the early growth is carefully managed and of a quality that encourages later high-image developments and complements existing neighborhoods.

Indeed, market studies suggest that the only way the airport environs will be able to establish a significant niche in the region is if quality development is a hallmark. The competition both regionally and nationally will be stiff. Experience at other airports and conclusions of the various market studies indicate that the real competition for office space, for example, will not be downtown Denver. Rather, the Gateway will have to compete with other established suburban interstate-oriented office parks such as Inverness and Meridian in the southern reaches of the region, the Thornton business center, and the business parks along the U.S. 36 corridor between Denver and Boulder. National competition will come from the attractive environments at Las Colinas and the classy Atlanta beltway developments, among others. New business parks in Kansas City, Orlando, Washington, D.C., and Los Angeles are also working to attract the same pool of national and international firms that Denver would like to attract--firms that want to locate with quick access to a world-class airport.

There will be other important challenges. Financing roads and other critical pieces of infrastructure in a timely fashion without overextending landowner resources will be crucial. Continuing a close working relationship with multiple landowners in the Gateway and with the surrounding jurisdictions will be essential if this plan is to be implemented. Energetic, sophisticated marketing of the entire airport environs will be another important step in realizing the Gateway's full potential.

ILLUSTRATION 5

SOME AIRPORT ENVIRONS LOOK LIKE THIS.
IS THIS WHAT WE WANT?



OR THIS?
LAS COLINAS NEAR DALLAS/PT. WORTH



SECTION II: THE GATEWAY CONCEPT PLAN

GATEWAY GOALS

The goals and vision of this plan are based on the ideas and work of many people. The well-thought-out citywide goals set out in Denver's recently adopted comprehensive plan were an important influence in establishing the initial directions for this effort. The key comprehensive plan goals incorporated into this Gateway Concept Plan are shown in Illustration 6. The previous work of the Northeast Corridor Task Force was also influential. This thinking was augmented by comments and advice from citizens, landowners, city agencies, and many others. Visits to exemplary developments like Columbia, Maryland, showed us the possibilities of superior planning and strengthened our resolve to make the Gateway Concept Plan a model for managing growth in the Front Range. Once adopted, these goals should guide review of all development proposals that come forward, urging and encouraging them towards excellence:

- o The Gateway area should provide A STRIKING ENTRYWAY for Denver and for Colorado. It should celebrate the best of the Rocky Mountain West in terms of panoramas and urban design.
- o The Gateway should be an ECONOMIC ASSET TO THE CITY. It should help strengthen the city's revenue base without creating new net tax burdens on the citizens of Denver. It should encourage a wide range of business uses that are broadly defined to enable developers to accommodate changing market demands without time-consuming zoning amendments.
- o The Gateway should STRENGTHEN EXISTING DENVER NEIGHBORHOODS. It should enhance and invigorate the living environments and commercial areas of Green Valley Ranch and Montbello.
- o The Gateway should COMPLEMENT OTHER COMMERCIAL AREAS OF DENVER. Its scale and size should create densities and images that complement Downtown. Because of the nearby residential areas, the availability of industrial land elsewhere, the absence of rail access in the Gateway, and the likelihood that new businesses in the Gateway will rely on air cargo to handle shipments, heavier industrial manufacturing uses should not be permitted.

- o Gateway area development should be of VERY HIGH QUALITY. Both public and private development should live up to the challenge of a world-class airport, the state's capital city, and the grandeur of the Rocky Mountain backdrop. The area should have a high level of amenities such as parks and trails that will provide future residents with recreational opportunities.
- o The Gateway should exemplify HARMONY BETWEEN MANKIND AND THE ENVIRONMENT. Public and private development should respect and enhance natural resources such as creeks, trees, and wildlife, protect historic structures, help minimize auto traffic and air pollution, conserve water, and protect water quality.
- o The Gateway should be a COHESIVE, LIVELY COMMUNITY. It should include a retail center, cultural and entertainment areas, recreational facilities, and a range of housing and employment opportunities. It must include a balance of residential types--including executive housing. Public streets and trails should permeate all residential developments, and tall fences that wall off developments from public view should be discouraged. Strong design standards should protect residential uses from potential adverse impacts associated with commercial and light industrial developments.
- o The Gateway should encourage CLUSTERING OF COMMERCIAL USES. It should ensure that commercial and public uses and activities are concentrated within neighborhoods or at major intersections rather than spread out along arterial roads as is so often the case today in suburban development.
- o The Gateway neighborhoods should combine the BEST OF CITY AND SUBURBAN LIVING. People will live in the Gateway to enjoy the open space, wildlife, mountain views and other attractions of suburban areas without giving up the convenient shopping, cultural facilities, walkable neighborhoods, and access to jobs that a large city has to offer.
- o The Gateway area should be a QUIET place to live. Residential development should only be allowed outside and away from airport noise impact areas.
- o The Gateway should be WALKABLE AND BIKEABLE. Its activity centers should concentrate commercial and public uses to reduce automobile dependence and encourage mass transit.

ILLUSTRATION 6

Implementing The Comprehensive Plan

The following core goals from Denver's 1988 Comprehensive Plan are embodied in the vision, goals, and details of the Gateway Concept Plan:

- o Stimulate the Economy
- o Beautify the City and Preserve its History
- o Protect, Enhance, and Integrate a City of Neighborhoods
- o Educate all of Denver's Residents with Excellence
- o Clear the Air, Now
- o Meet Expanding Transportation Needs Efficiently, Cleanly, Economically, and Innovatively
- o Revise Land Use Controls and Streamline Procedures
- o Celebrate the City's Arts, Culture, and Ethnic Diversity
- o Share Resources and Responsibilities Regionally

THE CONCEPT PLAN

Urban Design And Community Framework

Perhaps as important as the various functional systems in the Gateway--like transportation, parks, and utilities--are the basic community framework and urban design elements. Distinctive communities are typically organized and built in distinctive patterns. Denver and cities as diverse as Washington, D.C., Riverside, Illinois, and Paris are all well-known for the unique way they were laid out.

Good urban design is often the key to whether a community is attractive and livable, but the term can be an elusive one. In the context of this Gateway Concept Plan, urban design means more than how well buildings are designed or parking lots landscaped. It is far broader, going to the very heart of how the various parts of the community are structured and their interplay--how streets are designed and how and where activity centers are created, for example.

As a starting point in working on a distinctive community framework, we asked citizens what features they like most about Denver neighborhoods. Among other things, residents cited the convenient neighborhood shopping within a few blocks of their homes as preferable to strip shopping centers. They applauded the good access they had to parks and trails and a stellar parkway system.

We then worked closely with the Denver Planning Office to prepare a series of community framework/urban design proposals for the Gateway. We also worked closely with the Transportation Planning Division to ensure the street network being proposed was not only sound from an engineering and capacity perspective, but attractive for drivers and appealing to pedestrians. The key concepts are summarized below

Activity Centers

A linchpin Gateway urban design concept is the creation of community activity centers where retail activity and public functions will be focused rather than strung out along arterials.

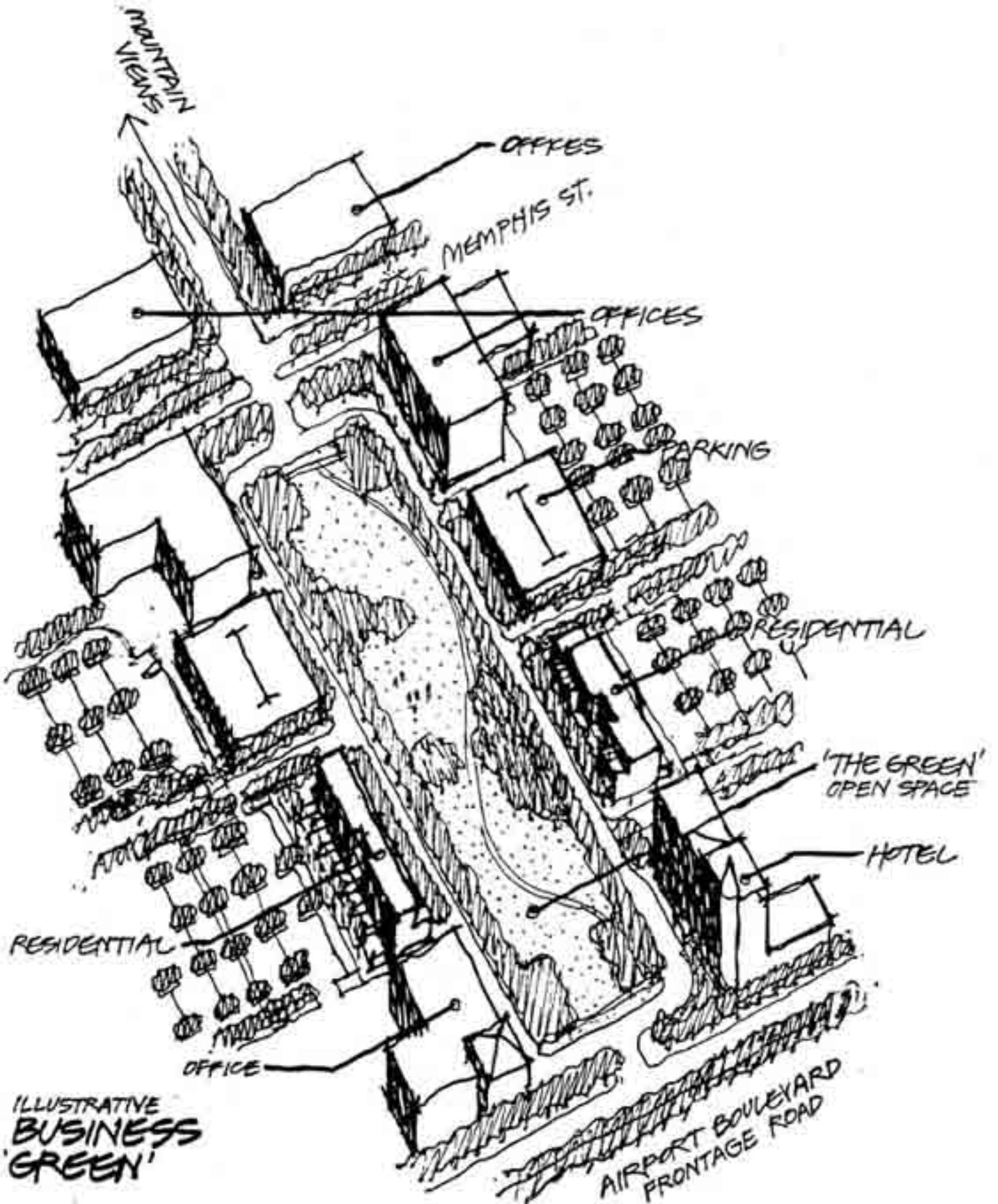
The town squares and the Town Center are the vehicles being proposed to create places in the Gateway where people can come together to shop, conduct public business, attend public functions, and see their neighbors. The goal is to create those lively places sometimes absent in suburban developments and to avoid the unattractive retail and commercial strips that often plague outlying areas.

The town squares should not only be attractive places to shop and stroll in, they should also be safe and attractive to walk to and from. They should not be located on arterials or isolated from surrounding housing by large parking lots. In residential areas, a neighborhood park can provide the open space for a town square with retail and public buildings along one or two sides. Or, a smaller 1- or 2-acre town square open space might be created linked by pathways to a larger neighborhood park nearby. Two possible configurations for town squares are shown in Illustrations 3 and 4.

Other nonresidential uses, particularly larger hotels and offices, should orient around major intersections and interchanges in the Gateway. Along Airport Boulevard hotels and office buildings could orient either to the Boulevard itself or to one of several "business greens" that serve both as mountain view protection areas and focal points. An illustrative business green is shown in Illustration 7. By providing an alternative to direct freeway orientation, the business greens can help break up what might otherwise become a monotonous wall of development along Airport Boulevard. By aggregating the activity created by each hotel or office, the business greens can become lively places that contrast favorably to the isolation and sterility of some suburban office parks. Concentrating such uses will also support early development of mass transit in the area.

Streets As Distinctive Places

Streets should help establish a positive image for the Gateway and serve as distinctive places upon which buildings front and



people walk. To accomplish these goals, the Gateway Concept Plan proposes several measures:

- o The basic street layout will be Denver's distinctive grid system, which moves traffic efficiently and sets the street system apart from the usual curvilinear systems of most suburban communities. The basic grid north of 56th Avenue will be based on a quarter-mile alignments, so as to be more defined than many current suburban areas, but not so fine grained as the city block pattern found in older parts of Denver.
- o To the maximum extent possible, all public and commercial buildings will orient themselves towards the street, with front setbacks reduced as much as possible except on selected streets where necessary to preserve mountain views. Parking areas between building fronts and streets will normally be discouraged, since they separate pedestrians from the businesses they want to visit and isolate buildings from the activity corridors they serve.
- o The Gateway streets will be designed with detached sidewalks, except in neighborhood commercial areas, where paving of the entire area between building fronts and the curb for pedestrians may be allowed. Streets will incorporate water-conserving landscaping so that they are as attractive to walkers and bicyclers as they are to drivers. On-street parking on many collector streets will provide another buffer for walkers.

Moderate-Scale Densities And Heights

The Gateway should be a community whose heights and densities do not compete with the high-rise image of Downtown. Not only would this scale be inappropriate in view of the existing residential development in Montbello and Green Valley Ranch, but market studies and developments around other airports show that it is highly unlikely that market forces would generate demand for dense, high-rise projects.

The basic measure of development density in residential areas

will be the number of housing units per gross acre of land.¹ In non-residential areas, the basic measure of development intensity will be the Floor Area Ratio (FAR).² In addition to FAR measurements, other measures (such as traffic generation levels and site coverage parameters) may be used to govern densities, particularly for larger parcels and developments. The use of such additional measures will be addressed during the drafting of zoning regulations for the Gateway district.

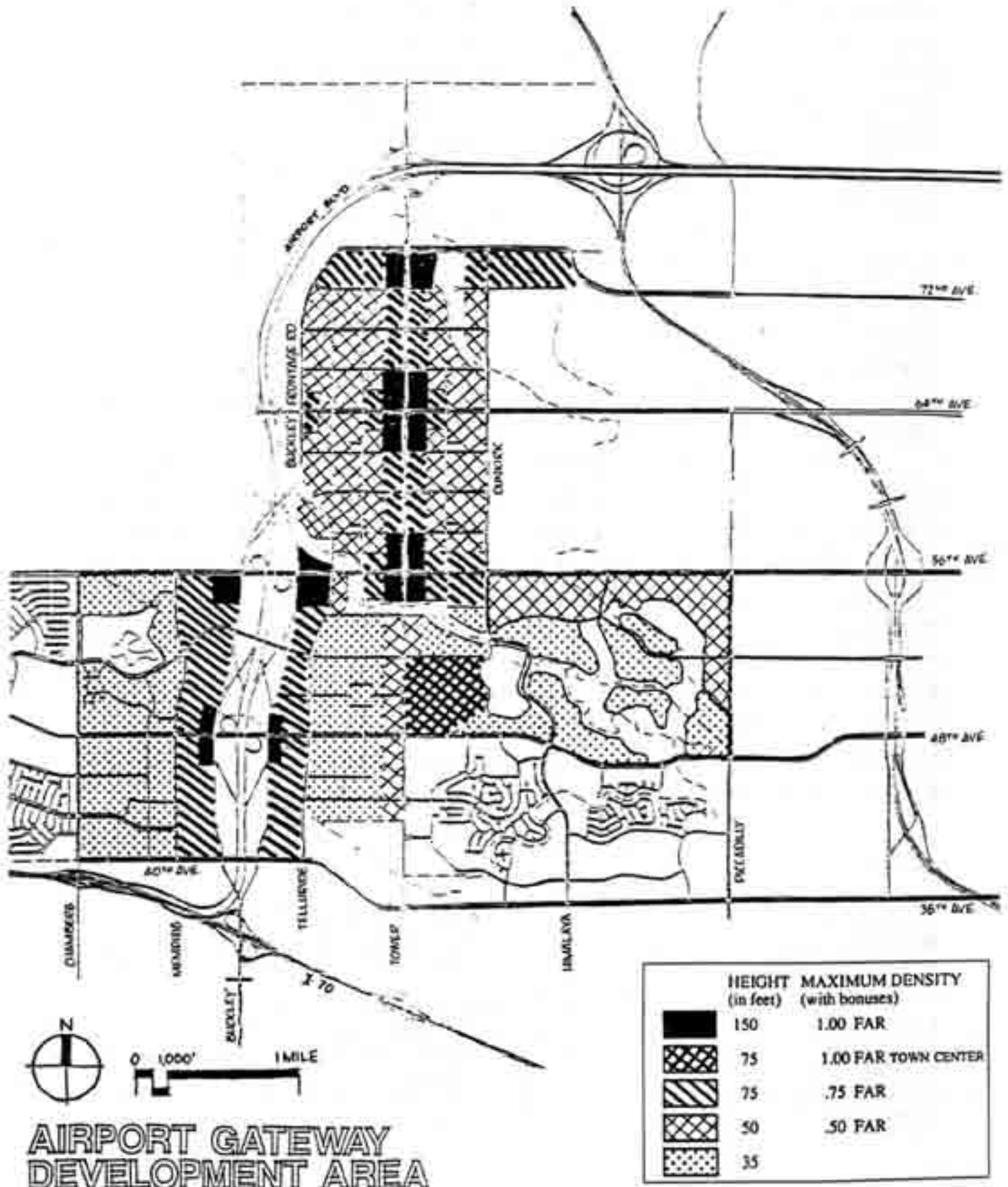
Based on an examination of suburban business park developments in Colorado and around the United States, the Plan proposes a base Gateway density in nonresidential areas at .5 FAR and a maximum building height of 150 feet in a few selected areas. Most commercial buildings will be only 50 to 75 feet high, and housing will generally not exceed 35 feet (or 50 feet in some mixed use areas).

By providing certain community-oriented amenities such as a community center or a day care facility, a developer could achieve a maximum FAR of .75 in a limited number of areas. In addition, by providing structured parking, a developer could push the maximum density from .75 to 1.0 in a more limited number of places. Proposed maximum heights and densities are summarized for each area of the Gateway on Illustration 8. The maximum height and density figures discussed in this section and shown on Illustration 8 include all bonuses. They represent maximum figures that may be achieved if conditions for bonuses are met and other traffic, site planning, and open space conditions permit.

¹ In this plan, "gross" acre is defined as land area including those areas dedicated for local, collector, and arterial streets and parkways, but excluding areas in floodplains and areas designated for parks, trails, and school sites.

² In its simplest terms, FAR compares the total of all building floor areas (except parking structures) to the total land area of the site. In theory, a one-story building covering 50% of a site has a FAR of .5; a two-story building covering 50% of the site has a FAR of 1.0. In practice, these measures may be more complex due to other site and zoning constraints.

MAP OF PROPOSED HEIGHTS AND DENSITIES (At Full Buildout)



**AIRPORT GATEWAY
DEVELOPMENT AREA**

The full list of community amenities to be provided by developers in order to exceed the .5 FAR base density is not specified in this plan, but will instead be discussed with citizens and landowners and presented as part of the proposed comprehensive Gateway rezoning ordinance. Issues like transfers of densities within parcels and surface parking criteria will also be part of those discussions.

Development Standards

In drafting new zone district regulations that will apply in the Gateway, city staff will work with citizens and landowners to write development standards to ensure that individual projects meet a minimum level of design quality and environmental protection. Thus standards will be developed for important aspects of site design such as landscaping, signage, buffering, pedestrian access, and the like. Some uses like billboards will be prohibited. Water conservation measures like mandatory use of low-flush toilets may also be included after consultation with the Denver Water Board. We will also be discussing possible review mechanisms to ensure that developments comply with such standards and to encourage them to attain higher levels of design where possible. Two possibilities that have been suggested would be to create a design review advisory committee made up of area landowners, citizens, and city officials, or a self-administering design review committee made up primarily of developers (such as that used in the Denver Tech Center).

Gateway Land Uses

The Gateway will be comprised of five large residential/mixed use "neighborhoods" organized around town squares, with a larger Town Center serving as the focal point for the entire community. Each neighborhood will be distinctive, with differing blends of housing, parks, public facilities, shops, and businesses. A major nonresidential business center is proposed in the northern part of the Gateway. Illustration 9 is a map of the proposed land uses. Illustration 10 summarizes the land uses proposed, the amount of

land devoted to each, and their locations. The assumptions upon which Illustration 10 is based are set forth in Appendix D.

The Neighborhoods And Town Squares

Each of the five Gateway residential neighborhoods will eventually be home to from 7,000 to 12,000 people--a total of 35,000 to 65,000 new Denver residents at full build out. Those five neighborhood areas are outlined on Illustration 11. The focal point of each will be a small town square located on collector streets in the middle of the area or a public park. The town squares will be the public activity hubs, providing convenient shopping and other services. Neighborhood retail businesses--dry cleaners, shoe repair shops, and the like--will be permitted only around town squares, not stripped out along major roads.

These park-like squares, ranging from a square city block up to 10 acres depending on location, will also be flanked by community centers, government offices, and other public buildings. Elementary schools will be important fixtures on some of the squares that will be within walking distance for many school children. A 35- to 50-foot height limit will help ensure that all these buildings will be in scale with the surrounding residential areas. Where planned town squares would not be within convenient walking distance of substantial housing areas, a retail store may be allowed within the heart of those areas to provide for day-to-day convenience needs of residents, but such convenience stores will generally not be allowed on arterials.

While the Gateway neighborhoods will all share these common features, they will not be cookie-cutter copies. South of 56th Avenue, the non-mixed use areas will feature low- and moderate-density single family homes complementing the existing residential areas in Montbello and Green Valley Ranch. To the north of 56th Avenue, where there are no existing developments, there will be more opportunities to create larger mixed use developments and commercial nodes without adversely affecting existing residents.

ILLUSTRATION 10

Anticipated Gateway Land Uses
At Full Buildout
(All Figures Are Approximate)

<u>LAND USE</u>	<u>DENSITY & ACREAGE</u>	<u>INCLUDES</u>
Single-Family Detached Residential	610 acres at up to 6 units per gross acre	3,660 houses
Moderate Density Detached/Attached Residential	580 acres at up to 15 units per gross acre	8,700 houses or townhouses
Multi-Family Residential	550 acres at up to 30 units per gross acre	16,500 apartments or condos
<u>TOTAL RESIDENTIAL</u>	<u>1,740 acres</u> (39% of land)	<u>28,860</u> <u>Dwelling Units</u>
<u>TOTAL COMMERCIAL</u>	<u>1,900 acres</u> of hotels, offices, retail, and flex-space uses at .5, .75, and 1.0 FAR (42% of land)	<u>54,000,000</u> <u>Square Feet of</u> <u>Commercial</u>
<u>TOTAL PARKS AND IMPROVED OPEN SPACES</u>	<u>570 ACRES</u> (12.5% of land)	Large Urban Park, Community Park, Second Creek Park Neighborhood Parks, Nature Area, Golf Course, Town Squares, Business Greens, and Trails
<u>TOTAL FLOODPLAINS AND DRAINAGEWAYS</u>	<u>180 ACRES</u> (4% of land)	Drainage Detention Areas, Wetlands, Floodplains
<u>TOTAL SCHOOL SITES</u>	<u>115 ACRES</u> (2.5% of land)	6 Elementary 1 Middle School 1 High School
<u>TOTAL PUBLIC BUILDING SITES</u>	<u>12 ACRES</u>	1 Police Station Site 2 Fire Station Sites 1 Library Site 1 Existing Fire/Police Site
<u>TOTAL LAND AREA</u>	<u>4505 ACRES</u> (100% of land)	

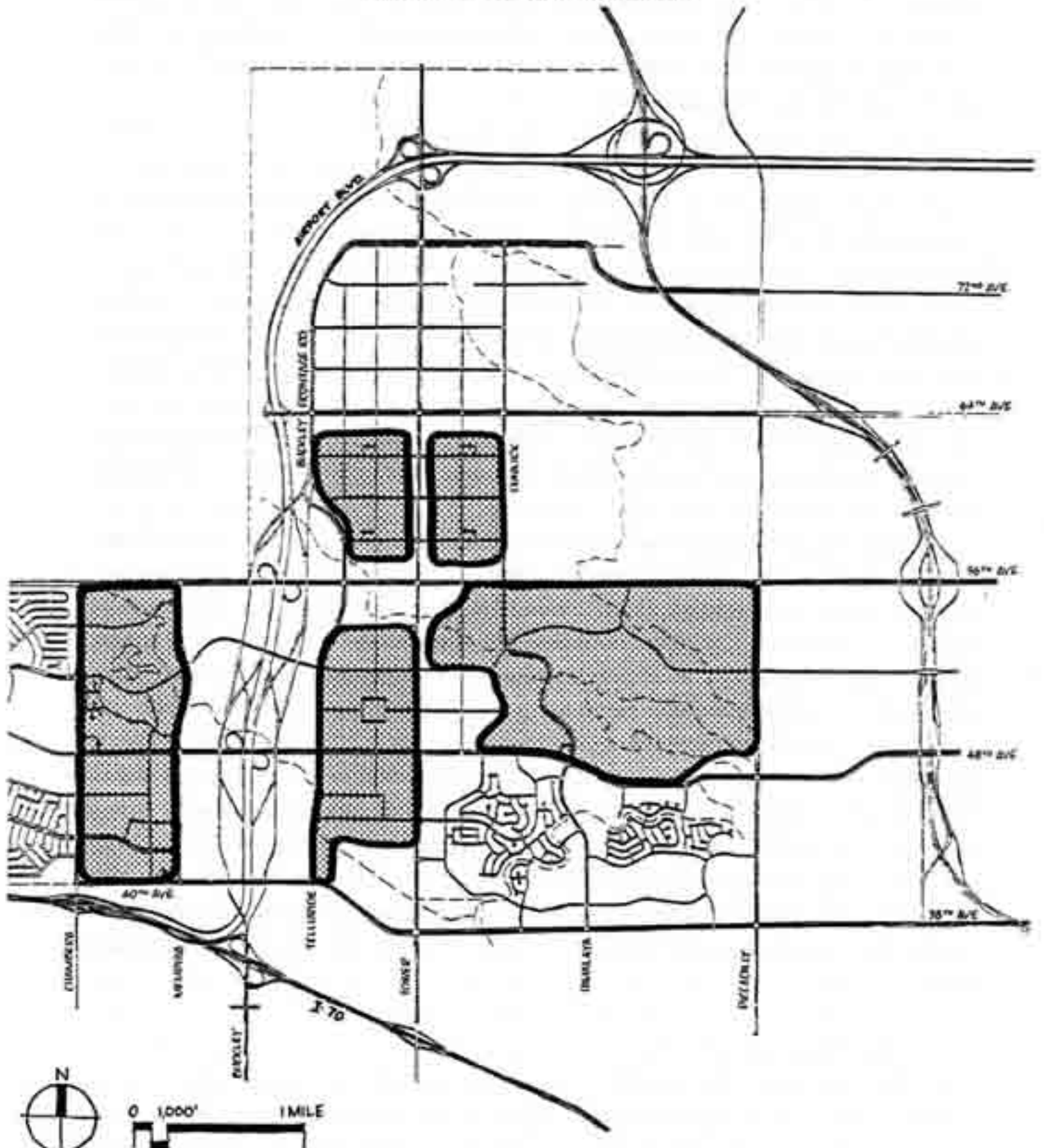
West of Airport Boulevard, the residentially-oriented neighborhood will share an existing retail center at 48th Avenue and Chambers Road with Montbello. At the existing residents' request this square may be expanded to include some land west of Chambers Road and reconfigured to enhance retail and pedestrian activities. Another major attraction in this area will be a large 90-acre urban park with a beautiful lake. The lake will also be a strong selling point for the hotels and commercial enterprises along Airport Boulevard that will offer jobs for the area as well as providing entertainment opportunities and restaurants. It should also help attract urban, high-quality residential complexes catering to pilots, flight attendants, and other airport personnel.

The largest buildings in this area--limited to 150 feet in height--will be concentrated at the 56th and 48th Avenue interchanges with Airport Boulevard. This neighborhood will be joined with others to the east by a major trail along the Highline Canal Lateral as well as a system of new streets crossing Airport Boulevard, particularly 56th Avenue, 40th Avenue, 48th Avenues (which has been assigned a high priority for construction of at least two lanes), and 52nd Avenue if traffic warrants it.

Across Airport Boulevard, another neighborhood will be organized around two town squares. The square to the north of 48th Avenue will be designated for neighborhood retail activity and could serve as a neighborhood park. Again, low and moderate-density single family homes will predominate, complementing Green Valley Ranch across Tower Road. Hotels, offices, and other commercial buildings will create an attractive business community facing Airport Boulevard, and low-rise community scale offices no more than 50 feet in height will provide a buffer for the neighborhood along Tower Road north of 48th Avenue.

North of Green Valley Ranch, around the community golf course and First Creek park complex, a secluded residential neighborhood will be created. Nestled into the reaches of the golf course and along First Creek, it will be marked by large-lot single family homes. This executive housing will help balance the array of

Residential Neighborhoods and Residential Mixed Use Areas



AIRPORT GATEWAY
DEVELOPMENT AREA

housing in the area and will be an important factor in attracting regional and national headquarters to the Gateway in the future. It would share a town square at 48th Avenue and Himalaya Road with existing residences south of 48th Avenue, an area currently zoned for neighborhood businesses.

In the northern portions of this neighborhood near 56th Avenue, this area will transition into a mixed commercial-residential district with higher density residential developments interspersed sensitively among "clean" businesses such as office and research facilities or combination hotel/meeting centers.

The two neighborhoods north of 56th Avenue will be more urban in character and will integrate a greater variety of uses centered on two smaller town squares. Higher-density residential communities featuring a balance of townhouses, garden apartments, and small elevator buildings with up to 30 dwelling units per acre will be encouraged in addition to single family homes and a variety of commercial uses.

Special review procedures will be put in place for these last three mixed use neighborhoods to ensure that the allowable residential, commercial, and industrial developments are compatible with one another and that a sense of community is created through pedestrian and bicycle links between developments and to the town squares. The special review procedures are not intended to preclude residential or commercial uses, only to ensure compatibility and community. Importantly, no residential development will be permitted north of 65th Avenue, except in a narrow band along the eastern edge of Airport Boulevard. This area is generally not appropriate for residential development because it will be open to a broader array of businesses (including many with high truck usage), and because it may be subject to noise from the new airport.

The Town Center

At the heart of the Gateway, located at the northeast corner of 48th Avenue and Tower Road, will be the Town Center. This will be the main shopping area, central to the entire area. All

community scale retail (as opposed to neighborhood retail) will be concentrated here--larger shops, large supermarkets and drug stores, major retailers, auto care facilities, and the like. Adult education facilities as well as cultural attractions and major public buildings will also be encouraged to locate here. On the periphery will be community-oriented offices and medical care facilities; townhouses and apartments will add an urban flavor to the Town Center.

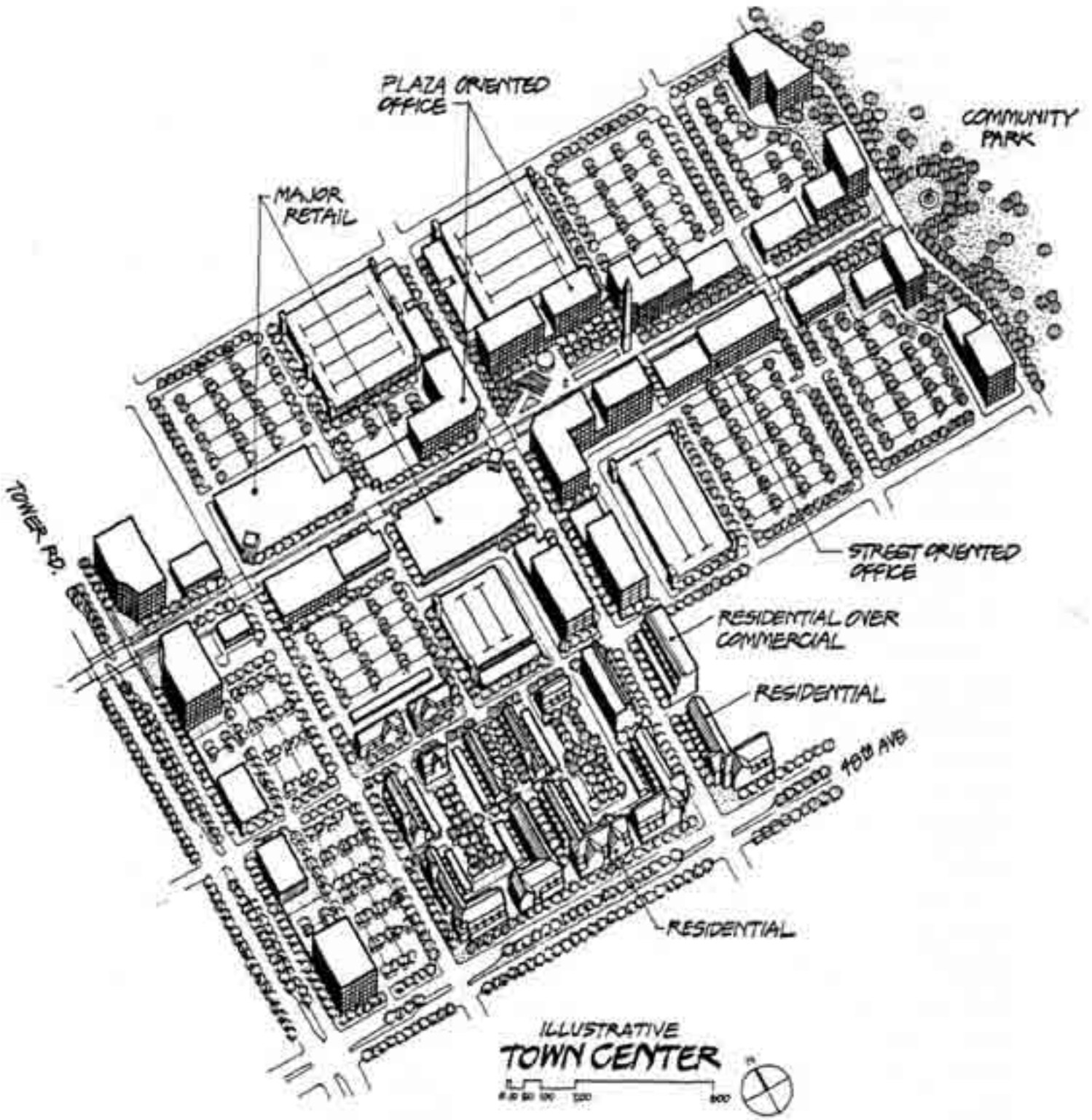
Just to the northeast, linking the Town Center to the beautiful reaches of First Creek, will be the community park. This striking site will complement the Town Center and serve many different purposes. Concerts in the park will be a great attraction during the summer as residents listen to music and watch the sun set behind Mount Evans. The park's soccer and ballfields will help meet the athletic needs of the Gateway. And for those seeking a quieter respite, pathways will lead down to a 40-acre nature preserve among the groves of cottonwoods and will link into the Gateway's extensive trail system so that people can walk and bike as well as drive to and from the Center.

Business Areas

The Gateway will also be a good place to work and do business. One of the primary reasons why Denver annexed land along the airport access corridor was to capitalize on the predicted economic spinoffs from the new airport. The Gateway Concept Plan provides ample space and advantageous locations for a wide variety of businesses that will develop over time after the new airport opens (See Illustration 13).

Lodging and meeting facilities will be some of the earliest developments in the Gateway. They will probably concentrate around several Airport Boulevard interchanges (at 48th and 56th Avenues and at Tower Road and 72nd Avenue), with the possibility of a hotel/meeting complex adjacent to the golf course south of 56th Avenue and some significant development near 64th Avenue and Tower Road. Signature office complexes and headquarter facilities will

ILLUSTRATION 12



come later; they will be directed to major intersections in the Gateway along Tower Road and Airport Boulevard.

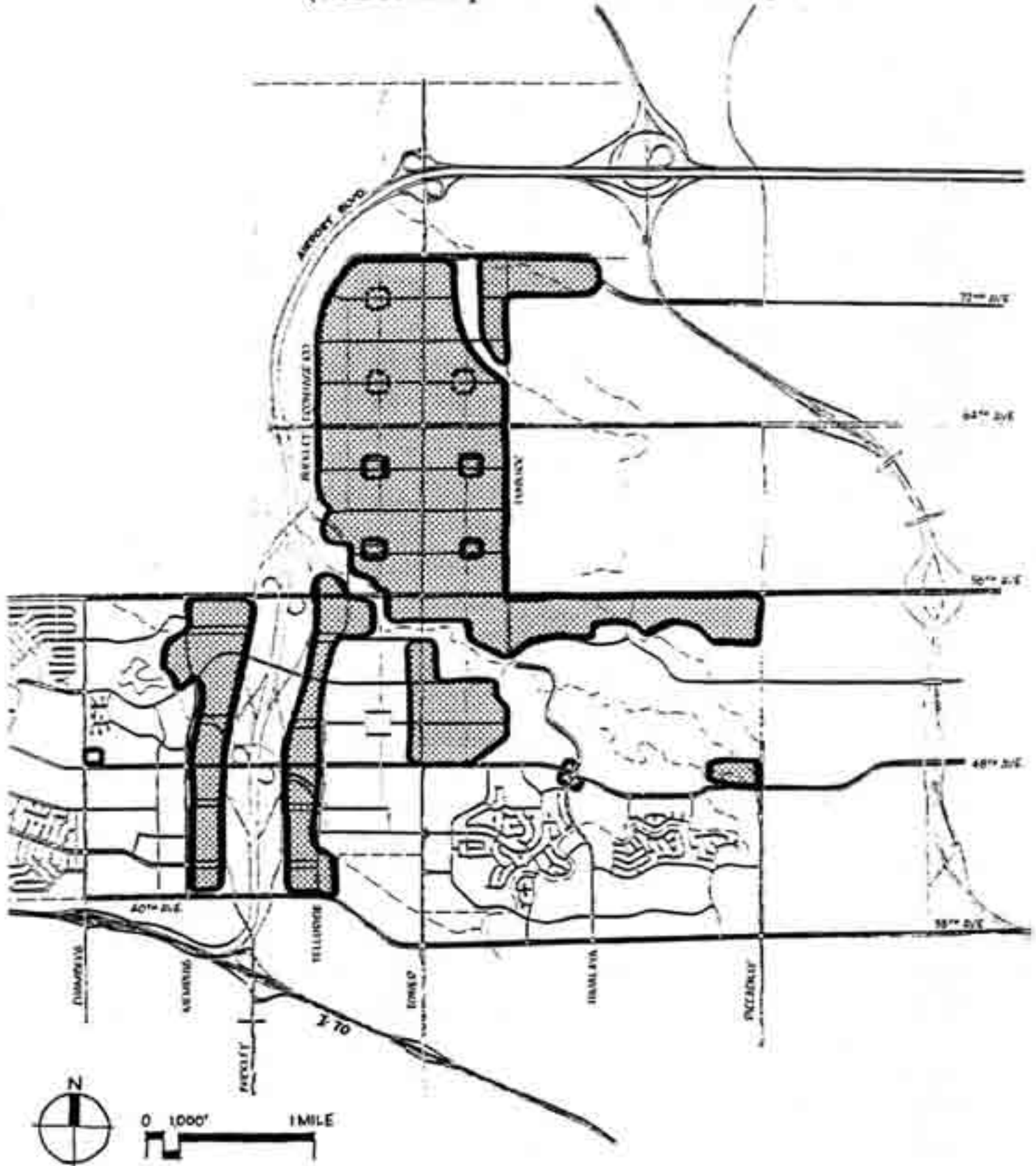
More general purpose business activity will be concentrated in a flexible mixed use area north of 56th Avenue and north of the community golf course in the southeastern reaches of the Gateway. In the early years, we can expect a wide variety of airport-oriented uses to locate here, particularly north of 64th Avenue where access to the airport will be excellent. Freight forwarders, custom houses, airlines, and businesses servicing the airport can build combination office/warehouse/distribution facilities here. However, car rental operations, will only be permitted north of 65th Avenue and will be subject to specific standards addressing landscaping and similar urban design considerations that will mitigate potential adverse impacts. Heavy industry and pure warehousing activities will also not be allowed, since ample land is available for such facilities on the airport site and in other locations closer to downtown Denver.

In subsequent years, Denver can expect a wide variety of uses that are not directly tied to the airport--including office/research firms, employee training centers, assembly and distribution facilities, research and development firms, prototype production, and light assembly.

Retail uses will be concentrated in the town squares and Town Center. Convenience retail stores will be limited to existing commercial centers or to the town squares unless that would make them beyond walking distance from significant residential neighborhoods.

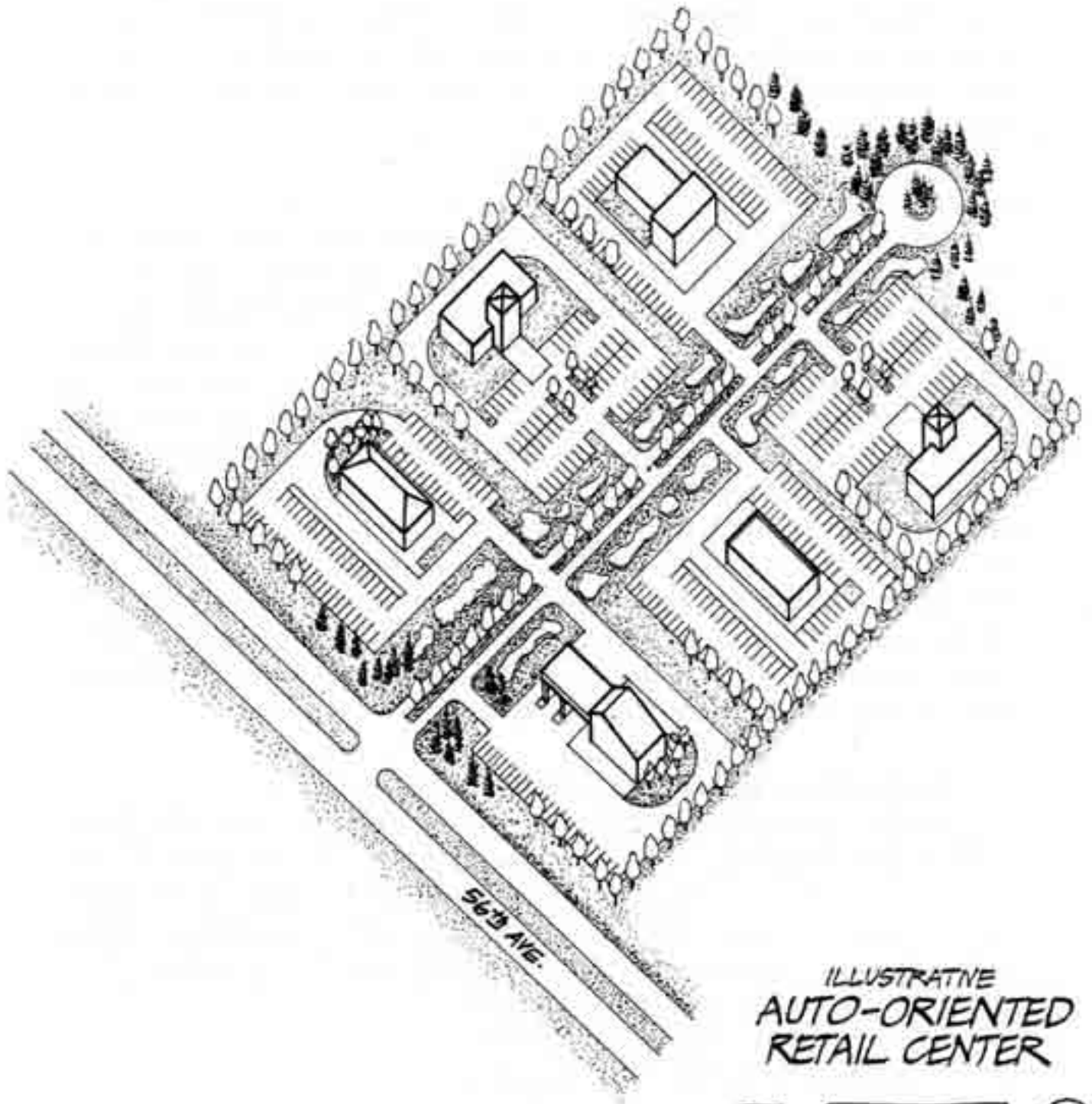
Free-standing convenience restaurants and gas stations will be encouraged at existing commercial centers at 48th Avenue/ Chambers Road and At 48th Avenue and Himalaya Road, at the town squares, and on a limited basis in the MU-1 areas along 56th Avenue (subject to restrictions on curb cuts to maintain traffic flows and a quality appearance). Possible design alternatives for such auto-oriented uses along 56th Avenue are shown in Illustration 14. Focusing such uses along 56th Avenue ensures that they will be centrally located for both Gateway residents and through traffic

Business and Mixed Use Districts (With Town Squares and Business Greens)



**AIRPORT GATEWAY
DEVELOPMENT AREA**

ILLUSTRATION 14



ILLUSTRATIVE
AUTO-ORIENTED
RETAIL CENTER



on or near the two largest streets, but will prevent them from dispersing throughout the area.

In all cases, firms will be assured that the quality environment they have bought into will be maintained by strong standards for design elements such as landscaping and screening. These development standards will be particularly exacting where firms locate near residential developments, to ensure that they are good neighbors, and along the Tower Road and 56th Avenue "signature" parkways.

The Public Framework

One of the most effective ways the public can shape and encourage development is through the framework of public improvements that must be made in any newly developing area--streets, parks, libraries, schools, and police, fire, and other public safety and health facilities. Indeed, the most detailed airport-area market study to date stressed in strong terms the value of public amenities to the success of overall development in the airport environs by stating that "it is critical to upgrade the perceived quality of public amenities...in the northeast quadrant, including schools, parks, recreation, open space, and roads." The quality of Airport Boulevard design and landscaping will also be an important factor in helping the area to achieve an image of quality public facilities, and a number of city agencies are cooperating to help ensure that final design quality.

Parks, Trails, And Open Space

Denver has a strong tradition of spacious parks--like City, Washington, Cheesman, and Overland Parks. It is graced with attractive and extensive trails systems--the Platte River Greenway and the Highline Canal Trail are standouts. These parks and trails have done much to make Denver the livable city it is today.

These same features will be tremendously important in making the Gateway a successful, attractive part of the city. We have worked closely with the Department of Parks and Recreation to incorporate those key principles and practices most appropriate to

this area. For example, citizens in Montbello and Green Valley Ranch point to the lack of a comprehensive park and trail system in their neighborhoods as a shortcoming that must be avoided in the Gateway, and the Parks Department agrees.

Parks and trails also play an important economic development role. For example, the proposed golf course can help attract executive housing that can in turn help the Gateway lure new upscale commercial and office development. Finally, careful design of these parks and trails will be a critical element in Denver's plans to use water more wisely in the future, and the Parks and Water Departments will be involved in drafting the Gateway zoning regulations to make sure important conservation measures are included up front.

The proposed Gateway park and trail system resulted from an extensive study of local and national park development standards.³ The resulting Gateway park and trail standards are shown on Illustration 15. Based on those standards and a study of the natural and physical resources of the area, 570 acres of park and trail sites were identified to meet the park and trail needs of the Gateway, including sites with attractive natural features like lakes and high points for viewing the mountains.

Drainageways and other areas subject to flooding or wet soils were avoided as not being suitable for more active recreation (although in some cases drainageways will be appropriate for improved trails). Both Parks Department staff and neighborhood

³ In brief, those standards calculate how much open space should be provided in an area based on the number of future residents and workers. Working from the standards described in Illustration 15 and the estimated amount of residential and commercial development that could be built under the Gateway Concept Plan, the Gateway Office computed a range of needs for neighborhood, community, and urban parks. The land use assumptions on which Illustration 15 is based are set forth in Appendix D. This approach represents a significant and deliberate departure from the past Denver practice of requiring a flat 12% of all residential lands for parks, trails, school sites and public building sites. This 12% figure has proved to be inadequate, as shown by the increases reflected in the recent Denver Parks Master Plan standards.

residents are resolute in their position that Denver's past practice of accepting flood prone or detention areas as usable park land should not be continued.

Finally, both citizens and Parks Department staff agree that adequate parking should be provided adjacent to park facilities, so that families who drive to the parks do not have to cross streets in order to use them.

Illustration 15 shows the resulting park and open space plan, which has several major elements:

Large Urban Park: A 90-acre park, on the scale of Cheesman Park, will be centered on an existing pond west of Airport Boulevard adjacent to Montbello. The exact boundaries of this park are still under study with the landowner and the Department of Parks and Recreation. With the pond, extensive trails, and picnic grounds, it will be oriented towards passive uses. While informal ball and play fields might be appropriate in a portion of the park, they will not be lighted for night play, nor would a recreation center be sited here. Montbello residents currently favor siting a recreational center at the existing Montbello Central Park.

Golf Course: An 18-hole, 180-acre golf course along First Creek has been part of the Green Valley Ranch development plan for many years, but has not yet been realized. The owner of this property has recently reconfirmed a commitment to donate the land for this golf course, and plans are now being studied for a 200-acre golf course that will include a clubhouse facility. The final acreage and layout of the golf course are currently under discussion with the landowner and the Department of Parks and Recreation and are subject to change. The citizens of Denver approved a 1989 bond issue that includes \$2.5 million to begin development of a golf course in the Gateway area.

Community Park/Nature Area Complex: Just west of the golf course, a 60-acre community park would be located adjacent to the First Creek floodplain and the Town Center. This park will cater to more active programs and will include an array of facilities

ILLUSTRATION 15
GATEWAY PARK STANDARDS AND ACREAGE REQUIREMENTS

Denver Park Master Plan Standards for Residential Areas

- Neighborhood Parks: 1.4 acres per 1,000 residents
Size: less than 10 acres each
- Community Parks: 1.6--2.4 acres per 1,000 residents
Size: 10-80 acres each
- Large Urban Parks: 5--10 acres per 1,000 residents
Size: more than 80 acres each

Proposed Additional Park Standard for Nonresidential Areas

2.0% of the land area in office, hotel, commercial, and flex-space uses, to be satisfied in town squares, business greens, and nearby parks.

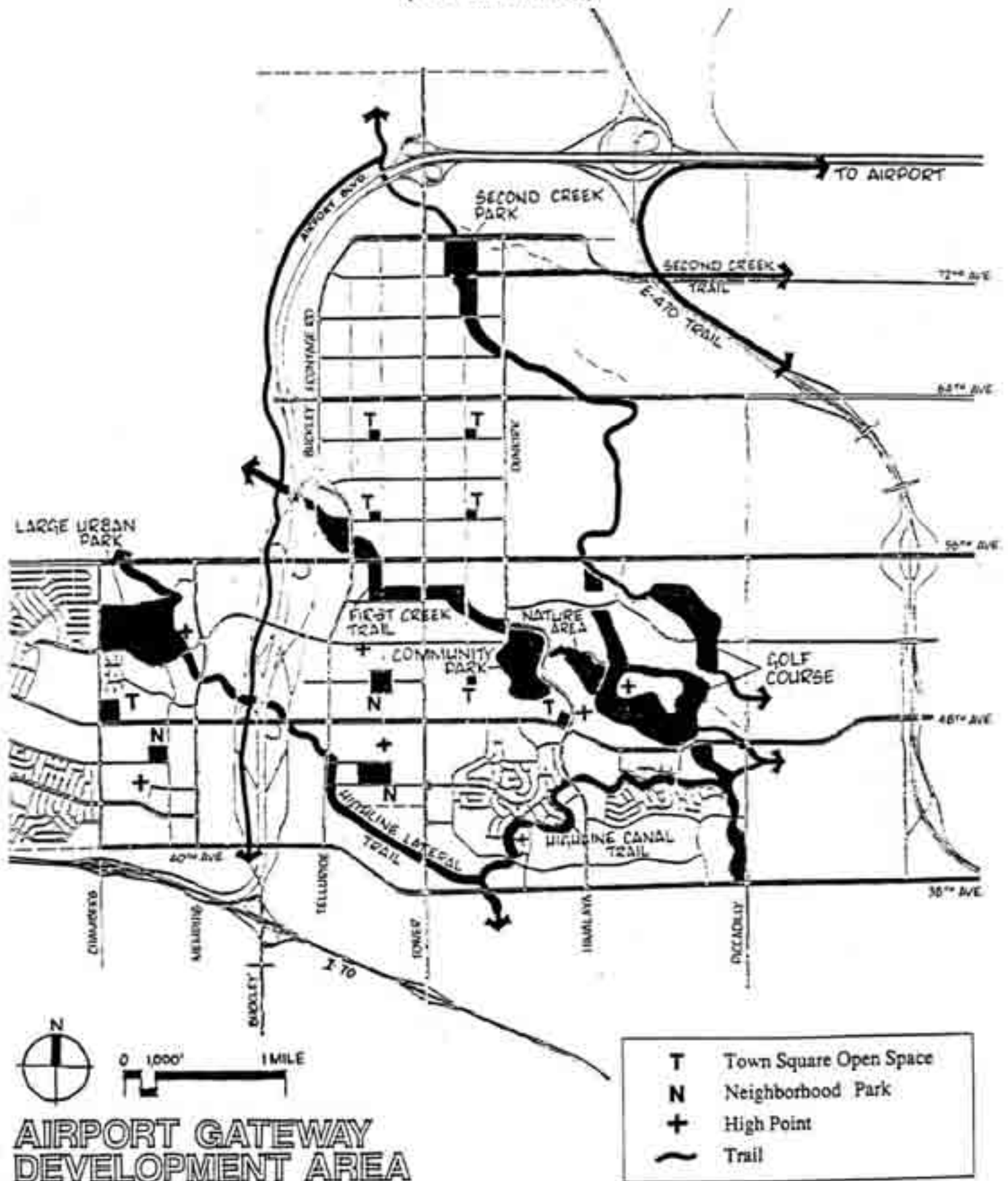
GATEWAY PARK AND TRAILS REQUIREMENTS AT FULL BUILDOUT
(Assuming a Gateway Area Population of 65,000 at Full Buildout)

<u>Type of Facility</u>	<u>Low End of Park Standards Range</u>	<u>High End of Park Standards Range</u>
Neighborhood Parks	90	90
Community Parks	105	160
Large Urban Park & Golf Course	330	660
Commercial Areas	35	35
Improved Trails	8.4 miles in between parks along major drainage corridors	
<u>TOTAL REQUIRED</u>	<u>560 acres</u>	<u>945 acres</u>
<u>TOTAL SHOWN ON GATEWAY CONCEPT PLAN MAP</u>	<u>570 acres*</u>	

* Assumes credit for 4.9 miles of 50-foot-wide developer-improved trails outside of designated park areas along trail corridors shown on Illustration 9, and no credit for remaining 3.5 miles of trail in the city owned Airport Boulevard right-of-way.

PROPOSED PARK AND OFF-STREET RECREATIONAL TRAIL SYSTEM (At Full Buildout)

(At Full Buildout)



AIRPORT GATEWAY
DEVELOPMENT AREA

such as ballfields and tennis courts. It could also be the site of any future recreational center for the eastern portion of the Gateway. No active part of the park will be located in the floodplain, although it will be linked by trails to a 40-acre nature area that will interpret and protect extensive wetland and wildlife habitat at the confluence of two branches of First Creek on land that is probably undevelopable under federal wetland regulations.

Second Creek Park: Immediately south of 72nd Avenue, a community-scaled park will be located adjacent to the floodplain for Second Creek. Because residential uses generate more demand for park acreage than commercial uses, and it is impossible to tell how the mixed use areas north of 56th Avenue will build out, the size of this park facility may not be finalized for some time. It is depicted on Illustration 16 at approximately 50 acres, which would be an appropriate size if about 20% of all mixed use areas build out in residential uses. This location also opens up the possibility of recreational use of a portion of the adjacent city owned Airport Boulevard lands.

Neighborhood Parks: Scattered strategically throughout the area south of 56th will be a series of small 5- to 10-acre neighborhood parks. They will cater mainly to nearby residential developments, providing playgrounds, benches, tennis courts and similar facilities.

High Points: While not all high points can be included in park areas or public building sites, efforts have been made to identify and protect those sites where possible. As development occurs, public access and viewing opportunities should be protected on all significant high points throughout the Gateway (as shown on Illustration 16).

Trails/Bike Paths: An extensive system of on-street and off-street paths for walkers, bicyclists, and equestrians will connect parks, neighborhoods, and the Town Center. The major network of off-street paths will follow the three primary drainageways in the Gateway--First Creek, Irondale Gulch/Highline Lateral, and Second Creek. First and Second Creeks will feature not only a wide

pathway for pedestrians and bicyclists, but also equestrian trails. The Irondale Gulch/Highline Lateral trail will be designed for pedestrians and bicyclists only. A major off-street trail will be built within the Airport Boulevard right-of-way running from Interstate 70 north and east around the E-470 interchange and into the new airport terminal. Along the way, it will cross and connect to all three of the main east/west trails. An important facet of the system is that its trails will connect to planned trails in the surrounding jurisdictions, including a proposed trail along E-470.

The off-street trail system will be complemented by on-street bicycle paths marked on a number of quieter, 2-lane streets throughout the Gateway. The on-street system will be designed to serve bicycle commuters and will be separated from trails for pedestrians and recreational cyclists. All Gateway streets will be flanked by detached sidewalks (except perhaps in neighborhood retail areas or the Town Center), thus providing additional pedestrian links in and between the neighborhoods. In neighborhood retail areas and the Town Center, pedestrian pavement of the entire area between the storefronts and the curb will be allowed to accommodate possible high volumes of foot traffic between those points.

Implementing Mechanism: The mechanism that will be put in place to achieve this system is important. If each individual developer is allowed to provide only those small parks that serve its project, the Gateway will build out without those larger parks that can handle a wide variety of community activities--the very kind of parks that will be crucial to the future of the Gateway. In order to avoid this result, Denver must require that each developer participate in a city administered system to aggregate and allocate parks needs and park contributions.

The system that will be incorporated in the future zoning regulations for the Gateway will work like this.

1. As developments are proposed, the park demands they generate will be calculated using the standards shown on Illustration 15, based on the number of housing units and the commercial square footage.

2. Each developer will be required to dedicate, and will be given credit for, those parks, town squares, business greens, and improved off-street trail corridors (up to 50-feet wide) that are located on its lands and shown on Illustration 16, up to the total calculated demand for park land their development generates. Developers will not be able to credit unimproved open space, wetlands, and parts of drainageways and floodplains (except for the 50-foot designated trail corridors shown on Illustration 16) towards satisfaction of the park needs generated by their developments.
3. If a developer's dedication of the park areas identified in this plan and located on its property does not fulfill all of the demand generated by the proposed development, then the developer will have to contribute cash-in-lieu of land for the remaining demand, and those fees will be accounted for in a Gateway park acquisition fund.
4. If the proposed development generates a need for less park land than the plan identifies on that developer's property, the developer will not be required to dedicate the excess acreage. Instead, the excess acreage will be reserved and purchased from that developer using fees that other developers have contributed into the Gateway park acquisition fund.
5. Developers will not be allowed to satisfy their park obligations by donating other land for major parks if their proposed dedication parcels are not designated in this plan as major park sites.

Transportation

A smoothly functioning transportation network is another critical aspect of the Gateway Concept Plan. While roads are obviously a crucial piece of this network, mass transit, pedestrian, and bicycle links are of equal concern. An important premise of this plan is that roads are more than just a utilitarian way to get from one spot to another; they can be attractive public places themselves, adding greatly to the community's success.

The continuity of east-west street systems in the Gateway is very important in light of the 2,000-foot wide Airport Boulevard corridor that bisects the area. While the ultimate configuration and design of that highway has not been finalized (and is not controlled by this plan), the 2,000-foot right-of-way for that corridor is embodied in an intergovernmental agreement between Denver and Adams County and is unlikely to change. Continuous street and trail systems across the Boulevard corridor will therefore be important to overcome the psychological separation it might otherwise create. Careful construction and design of Airport Boulevard is important both to help minimize that apparent separation and to support the high quality of other Gateway streets.

Thoughtful integration of the Gateway street pattern with those of Montbello, Green Valley Ranch, and Aurora will also be important. For example, preliminary traffic projections for the Gateway indicate that additional traffic capacity will eventually be needed from Chambers Road westward to and through the Stapleton site at about the 56th Avenue alignment. Whether that capacity is added through improvements to a relocated 56th Avenue or through construction of a separate Rocky Mountain Parkway on Arsenal lands will be the subject of future discussions with Montbello citizens and the Rocky Mountain Arsenal.

Streets: The basic street framework in the Gateway will be a modified form of the grid system, because it has several distinct advantages over more typical curvilinear suburban street patterns. First, the grid system has an inherent capacity to distribute traffic efficiently. Instead of concentrating it on a few

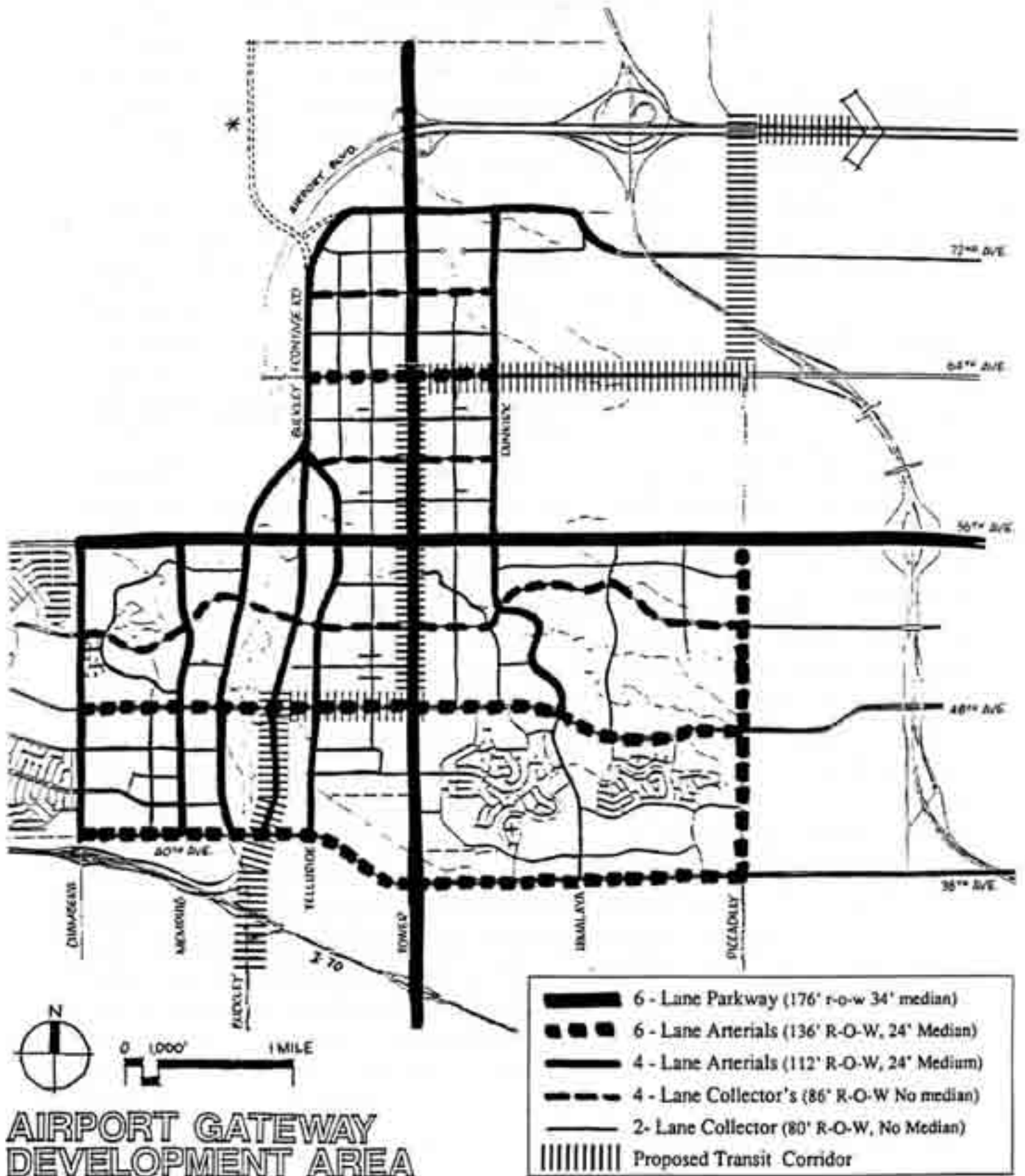
arterials that then become jammed and have to be widened, the grid system has the ability to spread traffic volumes among a number of important distribution roads. The grid system is also easier to navigate because streets do not dead end or turn back on themselves, confusing and delaying not only visitors but residents. Moreover, with proper setbacks along key east/west roads, the grid will help preserve spectacular mountain views.

A grid street pattern is particularly appropriate in the Gateway, where the land is generally flat or only gently rolling with relatively few sensitive natural or environmental areas to be avoided by curving or ending a road. Where there are sensitive features such as the First Creek nature area or floodplain, the grid has been altered to accommodate them. In addition, where developers have already platted and constructed streets, the plan does not require that those streets be changed.

The Gateway street system is organized into the simple hierarchy shown on Illustrations 17 and 18. At the top are "signature" streets like 56th Avenue and Tower Road that will ultimately be 6-lane parkways. The upper level of streets also includes main arterials such as 48th, 64th, Piccadilly, and Chambers Roads that will be 4- to 6-lane streets with landscaped medians. With their ample landscaping and broad medians, these are the streets that will help establish a quality image for the Gateway as they handle sizable volumes of traffic. A series of 2- and 4-lane collector streets will link to the parkways and arterials. Some will have on-street parking; some will be marked with on-street bikepaths.

The minimum building setbacks shown for each type of street on Illustration 18 are intended to protect view corridors and to allow a short space in which to transition from final street grades to final building site grades. Those minimum setbacks may be increased during the drafting of the Gateway zoning regulations if necessary.

PROPOSED TRANSPORTATION SYSTEM (At Full Buildout)



AIRPORT GATEWAY DEVELOPMENT AREA

* While it may be possible to build an extension of Buckley Road in the future subject to environmental, traffic engineering, and other conditions deemed necessary by the City of Denver, the cost for this improvement is not the responsibility of Denver.

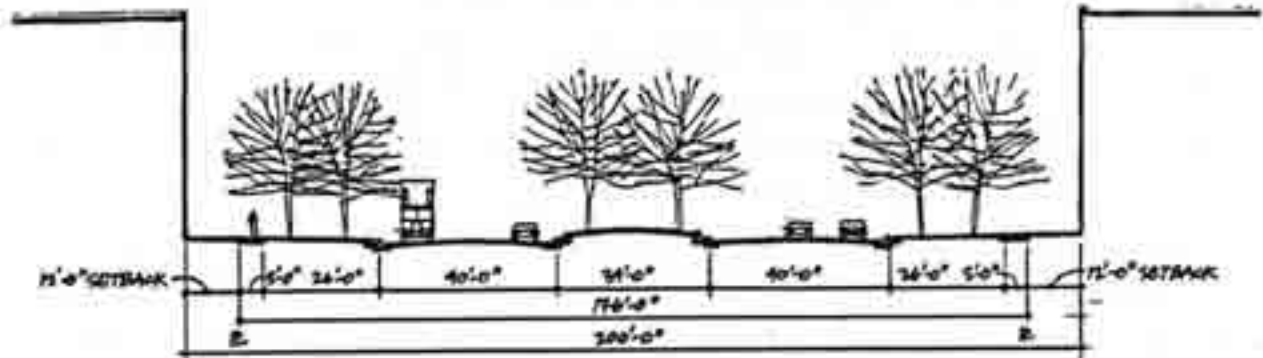
ILLUSTRATION 18

GATEWAY ROAD HIERARCHY

- A. 6-lane Parkways (176' r-o-w, 34' median, 12' minimum setbacks) on 56th Avenue & Tower Road

CROSS-SECTION

-12-	-5--	-26-	--40--	-34-	--40--	-26-	--5-	-12-
set-	side	tree	3	med	3	tree	side	set-
back	walk	lawn	lanes	lan	lanes	lawn	walk	back



- B. 6-lane Arterials (136' r-o-w, 24' median -- possibly expanding to 165' r-o-w at major intersections, 2' minimum setbacks) on 64th, 48th, 40th, 38th, Piccadilly

CROSS-SECTION

--2-	-5--	-11-	--40--	--24--	--40--	-11-	--5-	-2--
set-	side	tree	3	med	3	tree	side	set-
back	walk	lawn	lanes	lan	lanes	lawn	walk	back

- C. 4-lane Arterials (112' r-o-w, 24' median, 2' minimum setbacks) on 72nd, Chambers, Himalaya/Dunkirk, Memphis/Laredo, and Telluride

CROSS-SECTION

--2-	-5--	-11-	--28--	-24-	--28--	-11-	--5-	-2--
set-	side	tree	2	med	2	tree	side	set-
back	walk	lawn	lanes	lan	lanes	lawn	walk	back

- D. 4-lane Collectors (86' r-o-w, 2' minimum setbacks) on 68th, 60th, and 52nd

CROSS-SECTION

--2-	-5--	-11-	--27-	--27-	-11-	--5-	-2--
set-	side	tree	2	2	tree	side	set-
back	walk	lawn	lanes	lanes	lawn	walk	back

- E. 2-lane Collectors (80' r-o-w with on-street parking) on all remaining streets shown on the street hierarchy map, but excluding other on-site circulation streets.

--2-	--5-	-11-	-12.5	-12-	-12-	12.5-	-11-	-5--	-2--
set-	side	tree	park	1	1	park	tree	side	set-
back	walk	lawn	ing	lane	lane	ing	lawn	walk	back

Within the 40-acre modules that the basic street grid defines, a tertiary system of streets will be built by each developer to serve their internal traffic. Because their design and location will be finalized during the development review process, these streets are not shown on Illustration 17. There will be some flexibility in layout of these tertiary streets, and they will not need to follow the strict grid system. They will, however, have to meet the planned grid roads at fairly predictable access points in order to provide continuous north/south and east/west connections. These tertiary streets will also be landscaped to Gateway standards and flanked by detached sidewalks.

To the extent compatible with attractive design and function, streets and medians in the Gateway will be engineered to help "clean up" street runoff water of roadway pollutants before that water reaches the drainage system or the groundwater.

Mass Transit: Both bus and rapid transit will ultimately be important elements of the Gateway transportation system. Currently, Montbello and Green Valley Ranch receive only limited bus service by the Regional Transportation District (RTD), partially as a result of their detached location from the rest of Denver and the relatively small number of people to be served. As the Gateway grows, this situation must improve so that this area of Denver enjoys better transit links to Downtown and other major centers. RTD has committed to providing excellent bus service to the new airport. The city should work to ensure that the Gateway, Montbello, and Green Valley Ranch are part of this plan.

In addition to bus service, efforts to bring rapid transit to the area are underway. The Gateway Office has reached a tentative agreement with Aurora for the transit alignment shown on Illustration 17. In addition, the transit right-of-way in the median of Airport Boulevard will be preserved from 40th Avenue to the new airport in the event that it might be needed for future airport-to-downtown express service.

Pedestrian/Bicycle Access: Wherever possible, the Gateway Concept Plan seeks to encourage pedestrian and bicycle accessibility. There is no doubt that the automobile will be the

primary means of transportation in the short-term, but the automobile need not usurp and dominate a transportation system to the extent it often does. With forethought and careful planning, walking and bicycling can be attractive alternatives that supplement driving, and in some cases replace it.

To encourage pedestrians and bicyclists, the Gateway Concept Plan takes three approaches. First, urban design aspects such as the town squares and the Town Centers, with their central locations and concentration of uses, will make it easier for people to choose walking or biking. Development will not be sprawled out along arterials that are often unfriendly environments.

Second, streets will be designed with wide tree lawns and detached sidewalks to enhance their attractiveness for pedestrians. Selected 2-lane streets will contain marked bicycle lanes. In addition, standards will be written to encourage businesses to provide bicycle parking and address other items that can make bicycling more attractive.

Finally, the Gateway Concept Plan embraces an extensive off-street trail system that will accommodate walkers, bicyclists, and equestrians. This system will weave a network that connects all of the Gateway together.

Other Public Buildings And Facilities

The locational importance of public facilities such as schools, post offices, government offices, and medical facilities in shaping a community should not be overlooked. Just as careful siting and concentration of retail uses can create community activity centers, so the judicious location of public facilities can contribute to making a community a lively, livable place. Important public buildings should be found in important public places, not dispersed without relation to one another or relegated to sitting among commercial uses on arterials.

During the planning process, the Gateway Office undertook extensive discussions with a variety of agencies and institutions such as the Denver Public Schools, Denver General Hospital, the Police and Fire Departments, institutions of higher education, and

the Denver Public Library. Some of these agencies have very specific locational criteria that must be satisfied. Others have more flexibility in siting their facilities.

Public schools are of particular importance in establishing livable communities, and elementary schools are one of the most critical facilities in shaping a neighborhood. If the Gateway builds out as assumed in this plan, it will need at least six new elementary schools (possibly up to eight) plus one additional middle school and one high school.

The Gateway Office has worked closely with representatives of the Denver Public Schools (DPS) to establish a list of siting principles for these new schools that will satisfy DPS needs while helping to attain the goals of the Gateway Concept Plan. For example, we agreed that elementary schools, where at all possible, should be sited on town squares to help augment the other activity there. Similarly, we agreed that siting schools near parks or linking them with trails should be encouraged, so that school children can take advantage of large open spaces and potential educational resources such as the proposed 40-acre nature area.

The school sites shown on Illustration 9 are by way of example only. They show how the above criteria could be satisfied, but there may be alternate locations that work just as well. Even the number of schools required may vary (particularly north of 56th Avenue) depending on the final buildout of mixed use areas. Final siting of individual school facilities will require negotiations between the developer, the city, and DPS to apply these principles at the time specific development proposals are brought forward. Floodplains and wetland areas will not be acceptable school sites.

Other public facilities such as community centers, post offices, adult educational facilities, and other institutions without very specific locational needs should also be located on the town squares or within the Town Center. This may not always be possible due to special requirements applicable to a particular kind of facility (e.g., fire stations need to be located on or near arterials), but in many cases it will be.

The Police Department now anticipates needing one new 2-acre

police station site near 48th Avenue and Chambers Road in order to serve the Gateway area. The Fire Department confirms that it will need at least one 2-acre site for a new fire station near 48th Avenue and Memphis Road (and probably a second 2-acre site near 64th Avenue and Tower Road) in order to maintain the desired 3-minute fire response time. The Denver Public Library will eventually need one 2-acre site for a permanent facility to serve the Gateway and would prefer that site to be within the Town Center instead of in a park or a non-commercial area.

Environmental Protection

Coloradans pride themselves on the state's wonderful environment. Many of us are here in no small part because of the state's great natural resources--mountains, wildlife, and quiet wilderness. Denverites are no different, and they take particular pride in the way they have shaped their urban environment with attractive parks and parkways, well-designed buildings, and other features that make the city so livable.

These are some of the forces that have influenced the strong environmental element of the Gateway Concept Plan. Many outlying developments along the Front Range and throughout the nation have been criticized for being environmentally insensitive and poorly designed. But there are plenty of examples of good suburban development, and the Gateway Concept Plan attempts to echo the best of these as it strives to demonstrate that man and nature can coexist and that communities can be healthy as well as economically vibrant.

The significant natural features of the Gateway are not always obvious. No spectacular whitewater rivers course through this land. There are no large wilderness areas. But it does have some unique and attractive natural areas like the green ribbon of First Creek and its associated wetlands that provide shelter and

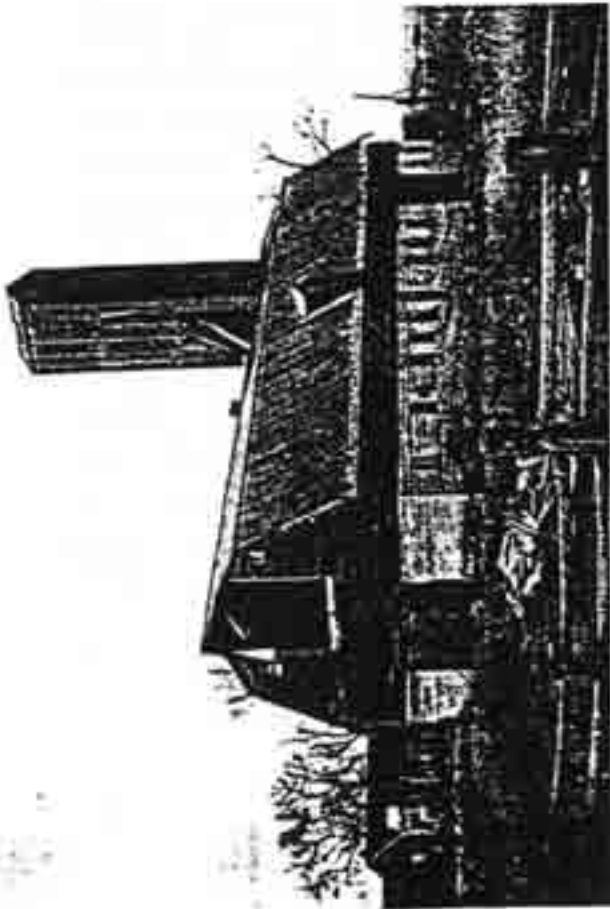


U.S. FISH & WILDLIFE, MIKE LOCKHART

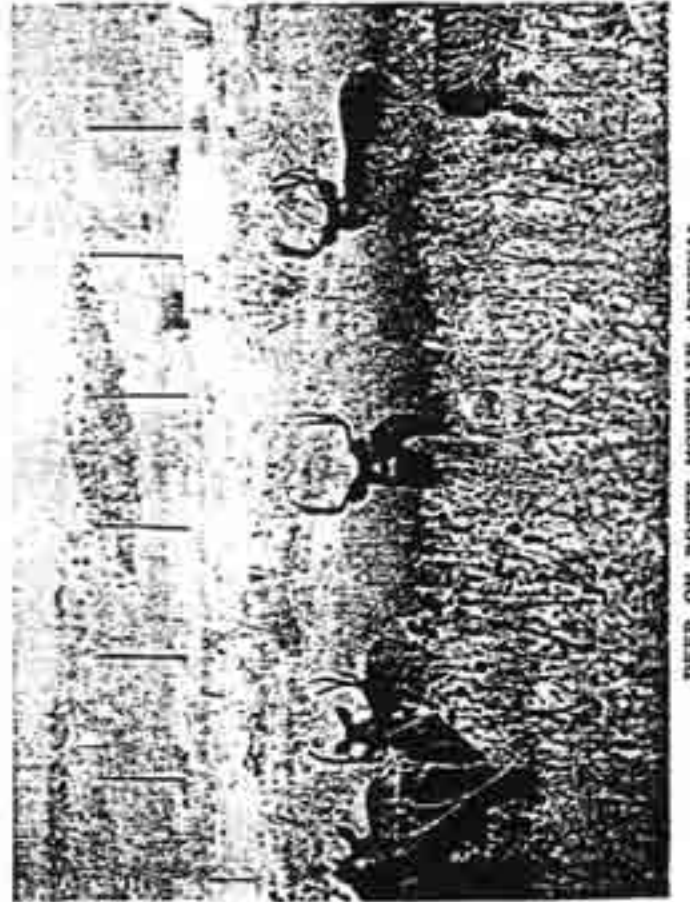
BALD EAGLE - A FREQUENT GATEWAY VISITOR



FIRST CREEK WETLAND



HISTORIC GATEWAY FARMSTEAD



DEER ON ROCKY MOUNTAIN ARSENAL

U.S. FISH & WILDLIFE, MIKE LOCKHART

habitat for deer, coyotes, birds, and other wild creatures. In Colorado, these riparian habitats make up only 3% of the total land area, but 90% of our wildlife species can be found there. The Gateway is also neighbor to one of the greatest urban wildlife concentrations in the nation--commonly known as the Rocky Mountain Arsenal. What the Gateway has should be conserved--the creeks, wildlife, trees, and wetlands--and Gateway development must be a good neighbor to the wildlife and habitats just across our border. In addition to protecting these resources, the Gateway also offers an important opportunity to demonstrate that growth can occur in the Front Range while minimizing environmental pollution and avoiding profligate use of resources, particularly water.

Noise

The Gateway Office is very cognizant of the serious problems caused in the past by noise at Stapleton International Airport, where complaints have been heard from people living in Montbello and other areas some distance away. To avoid such problems around the new airport, residential development will not be allowed near the 60 LDN noise contour line that passes just north of the Gateway area.⁴

It is important not to crowd the 60 LDN line with residential development for several reasons:

⁴ LDN is a sound measuring system developed by the Federal Aviation Administration to estimate an average sound level over a one year period of time. To account for the fact that people are more bothered by a given level of noise when there is little background noise (such as nighttime), the LDN system "penalizes" noises between 10 pm and 7 am by assuming that they are ten times as disturbing as the same noises during the daytime hours. Thus, under the LDN measuring system, the sound of one airplane during the night will "count" for as much noise as ten planes during the day. Average sound levels vary widely from place to place. 55 decibels is typical of single-family residential areas with large yards. A 60 decibel level produces almost four times as much noise as that.

- o This area is best suited, because of location and access, for airport-related business uses. Internally-generated truck and auto traffic will add to other noise in the area.
- o Airport flight patterns and airplane technology may change unexpectedly in the future.
- o The 60 LDN line does not take into account additional noise from major non-airport sources like freeways (such as Airport Boulevard) and major streets (such as 6-lane Tower Road) that will affect the area.
- o Sleep and speech interference are more dependent on maximum noise levels than average levels reflected in the LDN measure.

Measuring the possible impacts of noise is a complicated task that depends on noise levels, frequency, duration, time of day and year, and the person being affected. For the reasons noted above, the plan does not allow residential development north of 65th Avenue, except on the western-most edge of the Gateway along Airport Boulevard. The history of older airports often includes creeping encroachment by incompatible residential uses. That must be actively discouraged around the new airport, which has been carefully sited to avoid such problems.

Water Quality

Most of the streams in the Gateway area are now intermittent. Soil erosion and other farm runoff may cause some minor pollution, but those pollutants are not currently evident. As the Gateway develops, however, stormwater drainage will increase and urban pollutants from roads, parking lots, and suburban lawns will tend to run into the waterways. Steps therefore need to be taken to ensure that Denver's developments do not have an adverse effect on wildlife, either in the Gateway or on the Rocky Mountain Arsenal downstream.

During the new airport EIS process, the New Denver Airport Office agreed with the U.S. Army and the U.S. Fish and Wildlife Service to take important steps to ensure that runoff onto the

Arsenal does not threaten wildlife along First Creek, particularly the population of endangered bald eagles that winters in the area. The Gateway Office, working with the New Denver Airport Office, the Urban Drainage and Flood Control District, and the city's Wastewater Management Division, is also cooperating in a plan to create a series of regional detention ponds that will help temporarily capture runoff and let pollutants settle out. These actions anticipate nation-wide regulations being proposed by the U.S. Environmental Protection Agency to control non-point sources of pollution by requiring "best management practices" to deal with stormwater flows. Since the details of the forthcoming regulations are still unknown, such planning will need to remain flexible.

Work will continue with these agencies and landowners to put in place a system of enhanced drainageways that will help clean the water through natural forces as it flows down to the detention ponds below. It will be critical that the cities of Aurora and Denver cooperate in this activity since much of Aurora's proposed intense development areas lie upstream from the Gateway and may affect our water quality and the volume of flows.

Water Use and Conservation

The Gateway Concept Plan anticipates that at full buildout in 50 years or so, the area might have up to 65,000 new residents. A typical family of four uses one acre-foot of water per year. The Denver Water Board has confirmed that it is able to serve all anticipated development in the Gateway area on a par with other areas of Denver with existing supplies. However, the Gateway should be viewed as an opportunity to demonstrate that more can be done. The Gateway Office has been cooperating with the Denver Water Board, the Metro Wastewater Reclamation District, and the New Denver Airport Office to explore a water recycling system for the Gateway and new airport. In brief, the system would capture all sewage flows from the area and treat those flows so that they could be used for irrigation water and other non-drinking purposes on parks, medians, and other public lands (but not for private use). Such a large-scale system would be a first for the Front Range and

would reduce demands on the existing Metro sewage treatment plant on the South Platte River.

The feasibility study undertaken by the Water Board raises a number of issues that must be addressed and resolved before such a system could become reality. One important question is whether there will be enough treated effluent generated by the Gateway in the early years to provide for all public irrigation needs, or whether a dual pipe system might be necessary to supplement reused water with treated water. Another critical issue is whether the system can be made cost-competitive given the extra expense of building a small sewage treatment facility on the airport lands or running the necessary additional pipes for collecting and distributing flows if the existing regional treatment plant is utilized. These are tough issues, but the Gateway Office is committed to pursuing a resolution of each, because such a demonstration project could have profound and positive implications for water conservation in Colorado.

Air Quality

Because of its location on the edge of the Denver airshed and the flow of prevailing winds, the Gateway is fortunate in having relatively clean air. The best available data reveal no significant air pollution problems at present. However, as the area grows there is always the potential that air quality may be degraded. By smart land-use planning now, future pollution problems can be minimized. We hope that the Gateway can serve as a model for the coordinating future Front Range air pollution prevention efforts with land-use planning.

One of the most important aspects of the Gateway Concept Plan is the significant steps being proposed to encourage walking and bicycling and to cut down on driving. Making mass transit a more realistic option by proposing an alignment to serve more people is another.

In addition, the Gateway Office has been working with the Denver Planning Office and the Air Pollution Division of the Denver Department of Health and Hospitals to identify a comprehensive set

of development standards that will help reduce air pollution problems in the Gateway. These standards, which will be discussed with citizens and landowners during the drafting of the Gateway zoning ordinance, include such proposals as:

- o Prohibiting wood-burning fireplaces;
- o Limiting the number and location of drive-through facilities (which add to idling activity);
- o Encouraging landscaping and discouraging removal of mature, existing trees;
- o Discouraging overbuilding of parking spaces;
- o Avoiding creation of air pollution "hot spots" by careful design of parking structures; and
- o Requiring adoption of alternative transportation management strategies (such as carpooling and staggered work hours) if traffic levels-of-service fall below a certain point.

Wildlife

While it cannot match the extensive wildlife habitats of the Rocky Mountain Arsenal, the Gateway does have some significant wildlife areas and wetlands, particularly along First Creek. The Gateway Concept Plan proposes that most of this habitat be put off-limits to development. Because of its location in the floodplain and the presence of federally protected wetlands, this land is largely undevelopable in any case.

The First Creek nature area and the wide First Creek floodplain will be the backbone of the effort to conserve wildlife habitat. The floodplain is very broad in many parts of the Gateway--over 500 feet in some places. A study by The Urban Drainage and Flood Control District recommends that the creek area be maintained in a relatively natural state with some channel enhancements to slow and accommodate stormwater flows without the need to build an expensive series of on-site detention facilities. Near potential wildlife habitats, existing trees should be protected, and trails should be sited to skirt the most sensitive areas.

Historic Resources

There are a few historic structures in the Gateway. The most notable is a farmstead located in the planned right-of-way for Airport Boulevard north of 64th Avenue. The New Denver Airport Office has committed to preserving this structure. However, no comprehensive archeological or historic surveys have been conducted outside the Airport Boulevard corridor, and the Gateway Office will be proposing that as specific project plans are developed, applicants conduct necessary research and surveys to ensure that no important historic structures or archeological sites will be destroyed or damaged.

Cooperation With Our Neighbors

Denver's Gateway area covers only a small part of the land available for development near the entrance to the new airport. Adams County, Aurora, Brighton, and Commerce City are conducting land use planning for an "airport environs" area that is 36 times as large as the Gateway. To make the Gateway a quality area and a vibrant entrance to the region, Denver must not only work closely with its own citizens in Montbello and Green Valley Ranch and with Gateway landowners, but also with Adams County and its cities and with the Rocky Mountain Arsenal. Otherwise, the vision for the Gateway will be confused and clouded by conflicting patterns of land uses, roads, and open spaces, and by jarring differences in the quality of development across local government boundaries.

The Gateway Concept Plan reflects much good cooperative groundwork by planning staffs of the different governments. A staff-level Airport Technical Advisory Committee (ATAC) has been meeting at least monthly for over a year to address issues of common concern, but more work and a strong commitment to cooperation will be required in the future.

Through ATAC, Denver, Adams County, Aurora, Brighton, and Commerce City have already worked together to reach preliminary agreements about coordinating land uses, roads, and open spaces throughout the airport environs. Because adjacent areas immediately east and south of the Gateway will eventually be a part

of Aurora, we have been working particularly closely with that city on issues related to those boundaries.

For example, both cities have agreed that the areas north of 56th Avenue will be designated for mixed uses and that efforts will be made to include significant amounts of residential development in parts of that area. This plan recommends that the Gateway rezoning ordinance include special review provisions to ensure that developments near the Denver/Aurora boundary north of First Creek are compatible with adjacent developments in Aurora, provided that Aurora's regulations offer similar protection for Denver lands to the west and south of the boundary line. Aurora's staff has committed to proposing controls to buffer residential areas in southern portions of Green Valley Ranch from Aurora's proposed office and industrial developments along I-70 to the south.

Denver has also agreed with Adams County, Aurora, and Commerce City about the locations, sizes, and appearances of major roadways that cross city and county lines. While Aurora has chosen not to continue all elements of the street grid to the east, those east-west streets on the mile and half-mile alignments will be continued. The hierarchy of street widths contained in this plan conforms to the other jurisdictions' plans for those same streets. The Gateway's two "signature" parkways (Tower Road and 56th Avenue) will continue as attractive, landscaped parkways in Adams County, Aurora, and Commerce City.

In addition, through ATAC, the airport area communities have developed a regional parks, open space, and trails plan--called the Emerald Strands Plan--that, if carried out, will knit the area together and create those handsome amenities so critical to capturing quality development. ATAC has also produced proposals for uniform construction standards for those trails and bikepaths. As a result, hikers, bicyclists, and horse riders will be able to move from one city or county to the next without interruption and without noticing significant differences in the quality of the trails. The recreational connections shown in this Gateway Concept Plan match up with counterparts in each of the other jurisdictions, and Denver's proposed parks are complemented by open spaces such as

Barr Lake State Park and future parks in other jurisdictions.

In the future, Denver will have to work with its neighbors to agree on compatible standards for development quality--at least along major arterials and parkways. The staff of the five jurisdictions have already agreed to propose prohibiting the erection of billboards in their respective areas. Similar agreements on other development issues--landscaping, building heights, and the like--will ensure that visitors, residents, and prospective investors in the Gateway do not see the area as a patchwork of governments with conflicting goals.

Denver has also been working closely with its other neighbors involved with the Rocky Mountain Arsenal--the U.S. Army, the U.S. Fish and Wildlife Service, and the Colorado Division of Wildlife --on a variety of issues. Issues of mutual concern include the protection of wildlife habitat, providing for detention of Gateway storm drainage on the Arsenal, ensuring water quality, and working toward future public access and trails onto safe portions of the Arsenal. With careful work, Denver can enhance and protect the vistas and the wildlife opportunities of the Arsenal, and the Arsenal can become an important open space amenity on the doorstep of the Gateway.

SECTION III: IMPLEMENTING THE PLAN

WHERE DO WE GO FROM HERE?

The Gateway Plan has been adopted unanimously by both the Denver Planning Board and the City Council. It is now officially a part of the city's comprehensive plan specifically applicable to the Gateway area.

The primary initial function of the Gateway Concept Plan is to guide the drafting of future zoning and infrastructure financing regulations and their implementation by the city. A great deal of time and energy will have been wasted if the Gateway Concept Plan is not the guiding light for future rezoning and capital investment decisions by the city. We will therefore continue to work with area citizens and landowners to propose a comprehensive rezoning and an area-wide infrastructure financing policy based on the plan.

That is not to say that the plan is a straitjacket for the area. The lines on Illustration 9 depicting various land uses have not been drawn with mathematical precision. They are subject to adjustment in future phases of the Gateway development process. For example, as the city takes a closer look at the golf course shown on the plan and consults with citizens and landowners, its location and boundaries may change. Similarly, some time in the future a zoning district amendment or approval of a planned unit development may be necessary to permit an attractive project to proceed. However, those changes should be made prudently and then only if they are in accord with the overall vision and goals of the plan. If significant disparities exist, then the plan should first be amended before changes are made, with full consultation with area citizens and landowners.

In addition, as part of the comprehensive rezoning of the Gateway area, development standards need to be drafted and consideration given to a special design review process involving landowners and citizens. A significant amount of progress has already been made in several of these areas. The city's goal is to complete work on new zoning regulations, development standards, and an infrastructure financing plan by mid-1991 so that prospective

developers and users can begin working on plans and development applications.

In the longer term, once new zoning regulations and infrastructure financing plans are adopted, steps will need to be taken to ensure that city agencies incorporate Gateway policies and recommendations in their internal plans, programs, and budgets and submit capital funding requests that are in accord with the plan. The Administration and City Council will also have to ensure that the appropriate agencies have sufficient resources and staff to thoroughly and expeditiously review the major development plans that are certain to come forward.

BUILDING AND PAYING FOR INFRASTRUCTURE

Denver is fortunate in having adequate supplies of key utilities available to serve the Gateway. Perhaps most importantly, the Denver Water Board has made assurances that with existing supplies it will be able to serve development within the Gateway on a par with development in the rest of Denver, as required by the Denver City Charter. The Metropolitan Denver Sewage Disposal District (Metro) also confirms that it has more than enough capacity to serve the Gateway at its plant located on the South Platte River to the west.

In addition, Denver already has some of the key pieces of Gateway infrastructure close at hand or already in place.⁵ But much more infrastructure will be needed if the Gateway is to achieve its full potential.

Providing infrastructure for the Gateway involves new opportunities and challenges. The opportunities arise because thoughtful location of infrastructure will guide private investment, and because the quality of infrastructure can set the tone for an entire area of the city. For example, Baron Ferdinand

⁵ As used in this plan, the term "infrastructure" means the roads, parks, trails, water lines, sewer lines, drainage structures, police and fire stations, schools, and other improvements needed to make private development safe, liveable, and environmentally sound.

von Richthofen's decision to invest in the construction of a broad, green Monaco Boulevard parkway in the 1890s stimulated development of the Montclair neighborhood by making it both accessible and beautiful. More recently, the high quality of public roads, parks, landscaping, and trails in Highlands Ranch has enabled that area to capture a very large share of metro Denver's residential growth. Similar improvements in the Denver Tech Center have enabled it to attract more than its share of high-quality commercial businesses.

The challenge arises because infrastructure can be very expensive, even if the land itself is donated. During the 1960s and 1970s, the federal government provided large amounts of money to help Denver pay for the costs of infrastructure. But those days are gone. For example, the General Revenue Sharing program through which the federal government sent Denver a yearly check for up to \$14 million has been eliminated. The Environmental Protection Agency's grant programs to help cities implement the federal Clean Water Act have also been stopped. The result is what some have called a new "fend-for-yourself federalism". Because of its own financial constraints, Colorado's state government has not been able to fill the infrastructure gap. If infrastructure is to be built, then Denver and the Gateway landowners will have to find a way to do it.

One way is for the city to invest in itself--and Denver has done that. The airport currently plans to construct Airport Boulevard as a 4-lane limited access freeway from I-70 to the new airport with several major interchanges. That investment could cost as much as \$75 million. Direct access from I-70 will help make the Gateway area convenient and available for development. The city is also currently planning to extend 56th Avenue across the Stapleton site once the current airport is closed, dramatically improving access to the Gateway from the west.

The airport has already extended a large water main through the Gateway area to serve the airport, and landowners will benefit from economies of scale by being partners in that line. That \$10 million investment has been sized to serve all projected private development in the Gateway. As part of its water system, the

airport also plans to help construct a pump station and various loop water lines to complement the large existing main (See Illustration 20).

In addition, Denver has in place a large sanitary sewer interceptor line built to serve Montbello and Green Valley Ranch, with capacity to serve the airport and all private development in the Gateway area through at least the Year 2000 (and beyond that year with relatively minor improvements). Finally, the city plans to spend \$2.5 million towards the construction of a long-awaited golf course in northeast Denver that will dramatically enhance the attractiveness of the Gateway area to new residents and businesses.

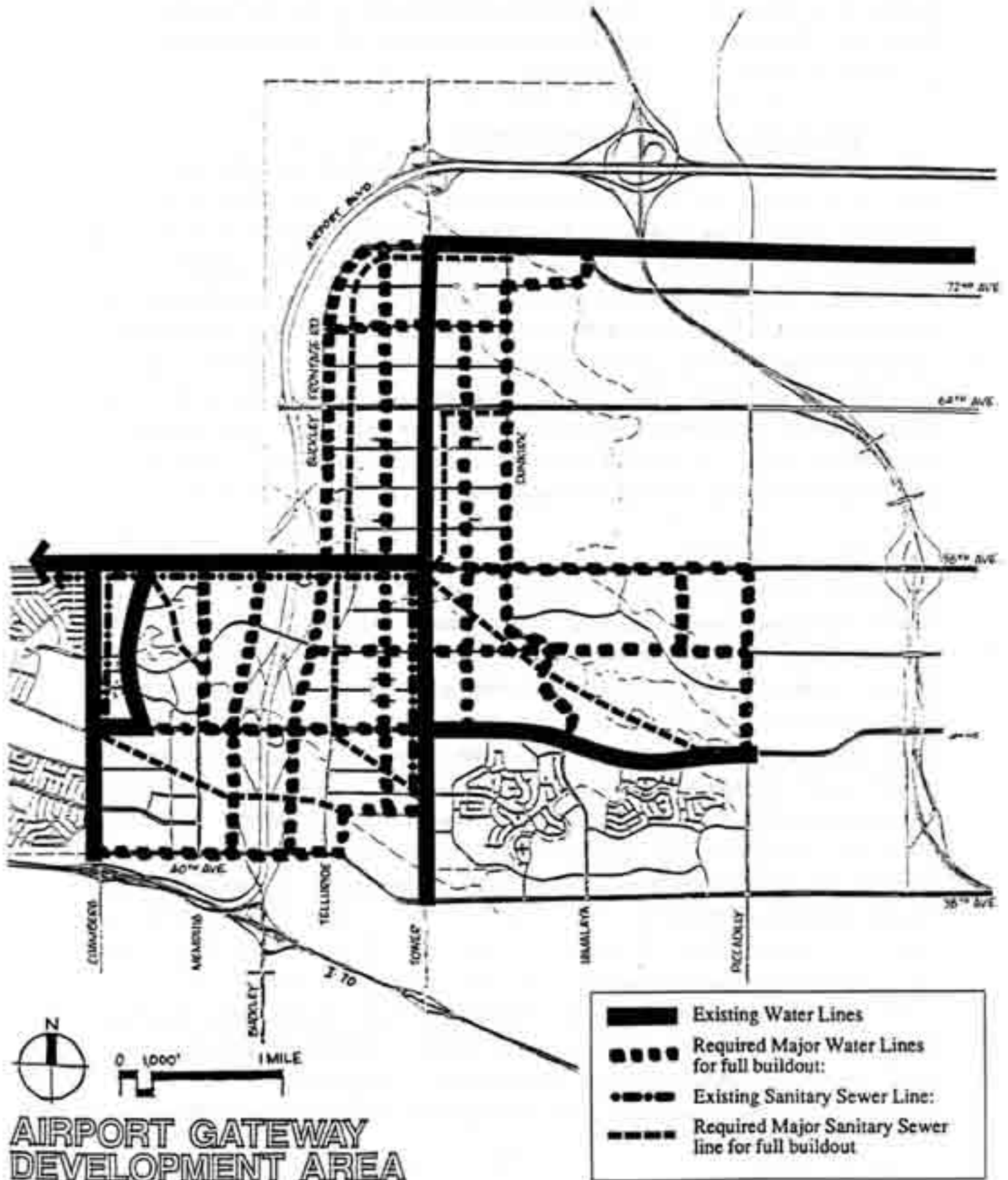
Finally, the Gateway has a full array of other necessary public services like gas, electricity, and telephone lines in place or readily available, all of which are detailed in Appendix E.

But this investment must be augmented if the Gateway is to realize its full economic potential. Private developers who will reap profits from Gateway developments must shoulder the costs of the additional infrastructure needed to serve their properties. This philosophy is often summarized in the requirement that "development pays its own way." The Mayor and City Council have strongly endorsed this concept, because it is fair to Denver's taxpayers and because it is necessary to avoid a public backlash against new development. Throughout the country, cities that have tried to finance expensive new infrastructure for major growth areas out of general taxes have found that their taxpayers respond with moratoriums, initiatives, and referendums against developments that need new infrastructure. Other cities have been left in severe financial difficulty by investments in infrastructure that were not promptly followed by development. Those negative responses drive off new businesses, residents, and developers.

In order to help private developers bear the costs of the infrastructure they need, at quality levels that will make the

WATER AND SANITARY SEWER SYSTEM

(Approximate Locations - Final Location to be Determined as Development Proceeds)



Gateway a desirable area, the Gateway Office is considering several techniques as part of a package to be considered by the Mayor, City Council, landowners, and citizens. Three of those methods are outlined below:

Impact Fees and Land Dedications

In some cases, the city might require each developer to pay its fair share of a specific infrastructure cost into a city revenue account earmarked for that specific new facility (a library, for example). As the impact fee funds accumulate, the city would spend the pooled funds to construct the needed public improvement so that it benefits the area from which the funds came. In other cases, the city would require that developers dedicate park land and other land for facilities necessary to serve their development. In still other situations (parks, for example), developers would be required to make both a fair-share impact fee payment and a fair-share land dedication.

Taxing Districts

The city may allow developers to create special taxing districts that would assess extra taxes on the developer's own lands to pay for the on-site infrastructure those lands require. The city would control which types of districts the developers could create, what types of extra taxes and fees they can impose, what the districts can finance, and how long the districts can exist. As a condition to approving individual taxing districts, developers will be strongly encouraged or required to join some form of Gateway-wide entity to finance and construct those facilities that benefit the entire area, such as major roads, interchanges, and parks.

Bootstrap Financing

Several landowners have suggested that to finance regional infrastructure (e.g., portions of major roadways that will serve traffic not generated in the Gateway) to the proposed standards of quality, the city should consider allocating a percentage of the

net new sales, use, head, or lodging taxes generated by private development in the Gateway area to help pay for these improvements--in effect, letting new development bootstrap itself. For example, one of the city's past policies has been to pay for the final 2 lanes and median improvements of major roads (such as Tower Road) that benefit the city as a whole, while requiring the developer to pay for the remainder. It has been suggested that the city might allocate up to 50% of the new sales and use taxes from the area to help pay for approximately the same share of such improvements as it has born in the past.

These suggestions will need to be carefully analyzed in the next phase of the planning process, and a more detailed analysis of the potential return to the city would have to be made before any such policy is adopted. Any city policy on the use of targeted taxes in the Gateway will have to recognize the area's unique infrastructure needs and will probably need to differ from policies applicable to single site development projects elsewhere in the city.

PHASING THE INFRASTRUCTURE

Because the Gateway covers over 4,500 acres, development will not take place all at once or evenly over the site. Some areas will see significant activity before the airport opens, and others will probably not even begin development for 10 or 20 years. If development is left completely uncontrolled, it will produce a fragmented "leapfrog" pattern that unnecessarily increases vehicle travel and air pollution and destroys the perception of the Gateway as a cohesive community. Scattered densities will also make it less likely that a viable rapid transit line can be built through the Gateway and out to the new airport. However, both the substantial cost of building and extending Gateway infrastructure and clustering of the most dense developments around interchanges and major intersections will help phase growth and will help ensure that uneconomic parcels are not developed too early.

The city can also exert a great influence on where the development actually occurs by controlling the construction of

essential new infrastructure. While some parcels already have water and sewer lines adjacent to their parcels, others will need to build off-site connector lines to gain access to those services. In addition, even though Airport Boulevard and the 48th Avenue and 56th Avenue interchanges will be in place, those two streets and many others will have to be completed through the area and then expanded as development proceeds, and the city will have a major say in the timing of those improvements.

In addition, phasing of infrastructure can help make development in the Gateway more affordable. The city currently plans to require that most infrastructure only be built as fast as it is needed by Gateway businesses and residents. Careful phasing reduces the up-front costs of private development and can avoid the need for facilities to be maintained for many years before they are actually used and before revenue from developments can help cover their costs.

The First Ten Years (1990-1999)

During the first ten years, development patterns will probably focus on land that is already fully serviced by utilities and land that is closest to Airport Boulevard. Early hotel construction around the 48th and 56th Avenue interchanges with Airport Boulevard and completion of 56th Avenue across the Stapleton site will create an immediate need to widen 56th Avenue and to complete 48th Avenue to the east and west. Completion of 48th Avenue will also help to begin knitting the Gateway area with its neighbors in Montbello and Green Valley Ranch.

In addition, Denver will only capture its share of airport-related office and industrial development if an interchange is built at Airport Boulevard and Tower Road and if Tower Road is improved some distance to the south. Since construction of executive housing is critical to the future attraction of major office users, it will also be important to complete the golf course and at least some of the major parks and trails to attract such housing.

During the first ten years, priority infrastructure will

probably include (in no set order of priority) the following items. Discussions with landowners, citizens, and city agencies in the next phase of the Gateway process will be necessary to refine this list and set priorities.

- o Tower Road/Airport Boulevard Interchange
- o 4 Lanes and Median on Portions of Tower Road
- o 4 Lanes and Median on Portions of 56th Avenue
- o Two Lanes of 48th Avenue
- o Completion of the Golf Course
- o Completion of Chambers Road
- o 2 Lanes of 64th Avenue
- o Development of the Urban Park and Trails
- o Completion of the Buckley Frontage Roads

The Following Thirty Years (2000-2029)

Development patterns during the first ten years will give us important clues to determine what the infrastructure priorities for later years should be. Without the benefit of the first ten year's experience, we can only predict that development will probably continue to spread out east and west along 48th and 56th Avenues and north and south along Tower Road, and that additional new development is likely around the First Creek golf course and park, along the prime mountain view locations overlooking the Buckley Frontage Road along Airport Boulevard, and near the 64th Avenue/Tower Road intersection.

Even without a precise schedule of how the parcels will develop, though, Denver can identify those pieces of infrastructure that will continue to have area-wide importance and will probably be effective tools in helping phase later development in the Gateway. That list includes (in no set order of priority):

- o Completion of Tower Road
- o Completion of 56th Avenue
- o Completion of 48th Avenue
- o Completion of the Community Park, Second Creek Park, the Nature Area, and the Trail System
- o 64th Avenue/Airport Boulevard Interchange

- o Completion of 64th Avenue

ZONING TO ENCOURAGE HIGH-QUALITY DEVELOPMENT

In order to fulfill its potential and to compete with other suburban developments in the Denver airport environs and nationwide, the Gateway area must be a very alluring area to live and work. Those businesses that will help augment the Denver economy through the 21st century want to settle in areas where they can be sure that their neighboring businesses will be held to superior design standards and there will be good housing, schools, parks, and trails available for their employees. One recent airport market study stated that "... a key ingredient in attracting corporate headquarter facilities and research and development facilities is the provision of high-end housing, and high-end housing will only be successful where the public facilities and services are of equal quality..." Ensuring the quality of private development in the Gateway over the next 40 to 50 years will require that the city try new and innovative approaches to regulating development.

The challenge of development regulation arises because of the distinctive nature of the Gateway area. But any development and zoning regulations must also recognize the long projected buildout period--40 to 50 years or more. The regulations must be flexible and responsive to market forces. No one can tell what new and desirable land uses will be common fifty years from now. The Gateway's location next to one of the world's premier international airports means that it will compete with other prime development areas throughout the world. In order to survive in that competitive environment, the development approval process must also be efficient. The fact that prime international businesses demand that their later neighbors not undermine the quality of the area or their investment in the area means that the regulatory process must be fairly predictable.

In addition, the zoning approach needs to include workable subdivision controls, so that the sale of land into smaller parcels does not undermine the city's ability to achieve the goals of the

Gateway Concept Plan. Strong subdivision controls will enable the city to confirm the location of major street, park, and open space dedications early in the process, and before a large number of landowners have bought land and developed inconsistent plans and expectations.

Finding the right balance between flexibility, efficiency, quality, and predictability requires a thoughtful and original approach. It will require the creation of a new zone district and promulgation of standards to cover diverse aspects of development design including landscaping, signage, and the like. Denver's current "Residential", "Business", "Industrial", and "Open Space" zone districts are geared primarily towards smaller-lot infill development where the uses and sizes of adjacent buildings are known in advance. Some of their specific development regulations are not readily applicable to the development of large tracts of open land like those in the Gateway. In addition, some of them are subject to overlay districts that could be better addressed through a single integrated district.

Because of limitations in these existing district rules and regulations, many new developments use the city's "Planned Unit Development" (PUD) district. The PUD district ordinance is extremely flexible, since it allows a developer to propose and negotiate almost all development parameters with the city and adjacent landowners, and potentially allows any use in any context. However, many do not view it as particularly predictable, efficient, or conducive to producing a well-designed project. It is also very time-consuming for the city to administer and for developers to navigate through the approval process. Other cities that have allowed large new areas to be rezoned on a piecemeal basis through PUDs have found that the result is a patchwork of individual projects that does not create a unified character or a real sense of community for the area.

Denver's Platte River Valley (PRV) zone district offers a third alternative. It is an attempt to create a set of coordinated, flexible development rules for a large undeveloped area with many landowners. By establishing a unified set of ground

rules for an entire area and then requiring more detailed standards for distinctive sub-areas before approval of individual projects, the PRV district attempts to balance the competing goals of flexibility and predictability. In its current form, however, the PRV district has posed some administrative difficulties, and improvements to the system are now being considered.

In order to fulfill Denver's vision of the Gateway, the city will work with both area landowners and citizens to draft a comprehensive new zoning ordinance for the area and then rezone the land in accord with this plan. The new district will contain specifically tailored development regulations that draw on past experience in Denver and in other cities that have applied high quality standards to their economic benefit.

The first step in implementing the new system will be a comprehensive rezoning of the Gateway area incorporating a two-tiered development plan review system. The proposed approach is outlined in Illustration 21. When this approach is finalized, it will need approval from the Planning Board and the City Council.

The Comprehensive Rezoning Ordinance

The first step will involve the adoption of a Gateway-wide zoning map (based on Illustration 9) and development standards by City Council as an ordinance. The adoption of this zoning ordinance will be a one-time event and will avoid the need for individual development proposals to be approved by City Council. The ordinance will apply to all private lands in the Gateway area, and will cover:

- o Allowable land uses;
- o Allowable intensities of development;
- o Mandatory land dedications and impact fees; and
- o Detailed physical development standards
(including heights, setbacks, bulk planes,
open spaces, landscaping, signs, and the like).

The adoption of an area-wide zoning map and standards should give most landowners the predictability they need to arrange development financing or market their land for sale.

The First (Development Review) Tier

The First Tier of development review will require the submittal of General Development Plans (GDPs) covering distinct areas of the Gateway for approval by the Planning Board on a case-by-case basis. GDPs will not need to be approved by City Council.

The landowners will be responsible for preparing and submitting a GDP for their areas before proceeding with development, but they need not do so until they are ready to move forward. GDPs will have a minimum size requirement (40 acres has been suggested) to ensure that the parcel is large enough to plan comprehensively and thus avoid small-parcel, piecemeal projects. In some cases, an owner of a single large parcel may have land in two distinct areas and would be required to submit a separate GDP for each area. In other cases, an owner of a small tract of land may have to cooperate with its adjoining landowners to bring forward a single GDP plan for their collection of parcels.

Each GDP will need to demonstrate compliance with the district-wide zoning map and standards and compatibility with any adjacent GDPs already approved. In addition, each GDP will need to provide an additional level of detail about proposed developments, including:

- o Allocation of different land uses on the parcel;
- o Allocation of heights and densities on the parcel;
- o Auto/pedestrian/bicycle circulation patterns;
- o Stormwater drainage plans and dedications; and
- o Location of land dedications for streets, parks, trails, and other public facilities.

General Development Plan approval will give the landowner much information about generally acceptable land use configurations before he needs to decide on a final building and site layout. As a continuation of the interjurisdictional planning that began with the ATAC group, The City of Denver will consider implementing a special use approval process for universal space and light industrial uses in the area north of 56th Avenue and west of Dunkirk Road that is adjacent to Aurora, subject to the creation of a reciprocal process being adopted by the City of Aurora.

The Second (Site Plan Review) Tier

Building permits will not be issued until building and site plans have been finalized, submitted to the Planning Office for administrative review, and approved by planning and zoning staff and other development review agencies. This review will include approval of the following types of items:

- o Building dimensions and design;
- o Building access and relation to other buildings;
- o Parking locations and amounts;
- o Signage location and amounts;
- o Utility locations and capacities; and
- o Landscaping location and amounts.

Each site plan will need to demonstrate compliance with the district-wide zoning map and standards and the GDP for the area, plus compatibility with any adjoining approved GDPs or site plans. Approval of the site plan is the last step in the zoning process and will not require approvals from either the Planning Board or City Council. If a developer knows its plans for a parcel in enough detail, it will be free to process both a GDP and a site plan at the same time. In that case, development review staff's approval of the site plan would be conditioned on the Planning Board's approval of the GDP.

APPENDICES

APPENDIX A THE GATEWAY TODAY

The Gateway area today is very rural. Most of the property is used for dryland farming. It changes in appearance from season to season from gentle flowing waves of wheat to freshly cropped fields to fallow. The views of the mountains are spectacular. From several high points you can see all the way from Pikes Peak in Colorado Springs to Longs Peak in Rocky Mountain National Park.

The land is gently rolling with very few trees except along the small creeks. Here, mature stands of cottonwoods and wetlands provide habitat for the abundant wildlife. A few historic farmsteads remain--some with outbuildings and split rail fencing--providing visitors a glimpse of how the settlers originally lived and worked the land in these rural areas.

This sparsely populated land feels isolated from the rest of Denver except for the nearby neighborhoods of Montbello to the west and Green Valley Ranch to the east. About 25,000 people live in these two Denver communities. There is a scattering of residential subdivisions in adjacent Aurora and Adams County and a light industrial park is under development near the interchange of Tower Road and I-70 just south of the Denver boundary.

The Rocky Mountain Arsenal to the northwest provides a 27-square mile vista of undeveloped land with many native grasses and natural land features--making it an ideal wildlife preserve both now and in the future. The Arsenal is home to large herds of deer, several dozen wintering bald eagles, and an abundance of other wildlife, all of which is being managed by the U.S. Army and U.S. Fish and Wildlife Service.

ROADS & TRANSPORTATION

The area is currently served by only a few paved roads. 56th Avenue is a 2-lane paved road that begins at Havana Street at the eastern boundary of Stapleton Airport and runs east to Tower Road. Tower Road is also a 2-lane paved road that is continuous from Aurora north to Adams County. Chambers Road is a paved 2-lane road

that narrows as it comes out of Aurora and heads north until it ends at the southern border of the Rocky Mountain Arsenal at 56th Avenue. Buckley Road is a gravel road that runs from 56th Avenue north into Adams County along the eastern edge of the Arsenal. 64th and 72nd Avenues are the only other roads serving the area, and they are also unpaved. 48th Avenue was paved from Tower Road east to near Piccadilly Road as part of the Green Valley Ranch development. I-70 parallels the southern boundary of the Gateway Area and has interchanges at Chambers and Tower Road.

ZONING

The Gateway is currently zoned primarily for residential and agricultural uses. Some commercial areas have been designated as part of previously approved PUD's. The area north of 56th Avenue, plus some 800 acres to the south, were brought into Denver in 1988 as part of the annexation for the new Denver International Airport. Prior to this, the land was in Adams County and the majority was zoned primarily for agricultural uses.

Most of the land in the Gateway south of 56th Avenue was annexed into Denver in 1973. It is currently zoned primarily for residential development with a limited amount of commercial. There is a small shopping center with a grocery store at 48th Avenue and Chambers Road, and a previous owner installed some streets, water and sewer lines, and drainage facilities on land just to the north.

North of 48th Avenue between Tower and Piccadilly Roads, along First Creek, the land is zoned for high-density residential, except for one node of high intensity commercial uses at the northeast corner of 48th Avenue and Tower Road.

NATURAL AND CULTURAL RESOURCES

Most of the property is cropland for winter wheat. The major stands of cottonwoods are clumped along First Creek, especially in the wetland area north of the intersection of 48th Avenue and Himalaya Road. Another significant stand lies north of 56th Avenue along First Creek east of Buckley Road within the Airport Boulevard right-of-way. There are other scatterings of trees throughout the

area.

The Colorado Division of Wildlife has mapped the overall distribution of 16 species of wildlife in the airport environs. Of those species, 7 are known to be prevalent in the Gateway area specifically.

There are many pheasants in the areas north of 56th Avenue. Ducks can be found on any small body of water or marsh, although there are no large concentrations in the Gateway. Whitetail and mule Deer are found throughout the area, but especially in the riparian habitat zone along First Creek where fox squirrels can be found as well. Coyote, rabbits, and prairie dogs are also native along with an occasional antelope along the northeastern edge of the area.

Golden eagles are also present throughout the area, although there are no known nesting sites. Bald eagles feed along First Creek and roost in the winter on the nearby Rocky Mountain Arsenal.

The Environmental Impact Statement (EIS) for the new airport identified a number of archeological and historic resources in the Airport Boulevard right-of-way. One of note is a historic farmstead on Buckley Road north of 64th Avenue. These structures have been determined "Eligible for Listing" in The National Register of Historic Places. The Gateway area outside of Airport Boulevard right-of-way has not been surveyed, but there are a few older buildings that may be eligible for designation as well.

DRAINAGE

The area is divided into three drainage basins that all flow in a northwesterly direction. The southernmost basin is Irondale Gulch. In the middle is the First Creek drainage basin and to the north is the west branch of the Second Creek basin. First Creek is the major drainageway in the Gateway.

MINERAL RESOURCES

The airport environs contains many operating oil and gas wells, but none are in the Gateway area. The Gateway has no mining operations, but a dirt mine is being proposed just outside the Denver border near 72nd Avenue and Dunkirk Road to provide fill for area construction projects.

SOILS

According to information supplied by the U.S. Soil Conservation Service, the soils in the Gateway are generally sandy and loamy with low shrink-swell ratios. Soils along First Creek indicate the existence of significant wetland areas where development will be discouraged. Before construction begins, detailed site-specific soil studies will be required.

ROCKY MOUNTAIN ARSENAL

The Arsenal is owned by the U.S. Army. Its 27-square miles has been polluted for over a 30-year period by the Army and several chemical companies. Because the prevailing groundwater flow off the Arsenal is to the west and northwest (away from the Gateway), it is expected that any of the alleged contaminants that may be migrating off of the Arsenal are moving in that direction as well. There is no evidence that any contaminants have moved southeast towards the Gateway. The Gateway Office is currently represented on an advisory committee monitoring clean-up of the Arsenal.

The eastern quarter of the Arsenal adjacent to the Gateway is, according to information provided by the U.S. Army, the least polluted portion. Under the management of the U.S. Fish and Wildlife Service, animals and birds are being monitored for signs of contamination.

This eastern part of the Arsenal also has the greatest concentration of wildlife and potential for use as a wildlife preserve with passive recreational and open space opportunities for the public. The Army recently completed construction of an eagle observation site open to the public on Buckley Road near 64th Avenue (across the road from the historic farmstead mentioned

earlier).

The Army is currently working to clean-up contamination of the Arsenal. To achieve this objective, the Army is presently pursuing 13 interim response actions. Those interim actions will not affect the final clean up plans. A decision on a final clean-up program is scheduled to be made in late 1993. The clean-up effort is expected to last until the Year 2000.

WATER RESOURCES

There are four different bedrock aquifers that lie under the Gateway area--the Laramie-Foxhills, the Lower Arapahoe, the Upper Arapahoe, and the Denver Aquifer. Of those four, the Laramie-Foxhills is the deepest, requiring wells approximately 1750 feet deep and capable of supplying about 1234 acre-feet of water per year. The Denver Aquifer is the shallowest, requiring wells averaging 650 feet deep, and capable of supplying approximately 999 acre-feet of water per year. When combined, the four aquifers could supply an estimated 3814 acre feet of water annually. Of that total, 59% is non-tributary water, 20% is tributary water more than one mile from a stream, and 21% is tributary water less than one mile from a stream. Denver does not anticipate tapping these aquifers to supply the Gateway with potable water.

APPENDIX B**BIBLIOGRAPHY OF AIRPORT MARKET STUDIES**

The following is a list of some of the market studies the Gateway Office reviewed and utilized in developing its land-use recommendations.

1. Development Activity Near The New Airport, Kenneth D. Bleakly, Laventhol and Horwath (undated)
2. The Regional Economic Impact of Stapleton International Airport and Future Airport Development, Booz-Allen & Hamilton, Inc. (August, 1986)
3. A Land Use Analysis of the Environs of Stapleton International Airport, Browne, Bortz & Coddington, Inc. (July, 1986)
4. Ready For Takeoff, Coley/Forrest and Spensely and Associates (1989) for Colorado National Banks
5. Airport Market Study, Coley/Forrest, Inc. and WestPlan Partnership (May, 1989)
6. The Regional Economic Impact of Stapleton Airport and Future Airport Development, Colorado Forum Regional Task Force on the Economic Impact of Stapleton Airport (1987)
7. Exploring The Future: A White Paper on the Importance of Air Cargo to Development of the Denver International Airport, Hugh Gardner, Prudential-Bache Capital Funding (April, 1989)
8. Implications of the Construction of Major New Airport Facilities for Economic Development, Frank Gray and Gennifer Sussman (September, 1986)

Development patterns around major airports differ markedly. Many older airports in built-up areas offer few lessons for Denver, except to the extent they show the problems that can be created by lack of careful planning. Many of these older airports inflict serious noise problems on nearby residential communities built too close to their boundaries. Others are a confusing jumble of small hotels, fast-food restaurants, billboards, and other unattractive commercial uses. They lack any sense of community or place and provide very poor entryways for their cities and states.

The environs of three of the most recently constructed major airfields--Dallas/Ft. Worth, Atlanta, and Kansas City--do, however, present more relevant and interesting examples for Denver to scrutinize. Interestingly, all three airports were built and their environs first developed during slow-growth economic periods much like Denver is now experiencing.

Dallas/Ft. Worth (DFW): DFW airport, located about 17 miles from downtown Dallas, opened in 1974. Although a number of communities shared in the growth from the new airport, most of the nonresidential development was captured by Las Colinas. Las Colinas is a 12,000-acre planned community developed by a single property owner within the city of Irving, Texas. It is located off of the second exit from the airport freeway, about five miles from the airport terminal--approximately the same distance the Gateway lies from the Denver International Airport terminal. A confluence of several factors has allowed Las Colinas to garner almost 100% of the office development, most of the upper-end residential uses, and almost 50% of the industrial growth associated with DFW since 1974. It now has about 25,000 residents and 25,000 jobs. First, and probably foremost, Las Colinas lies within the boundaries of the City of Irving, which was practically the only local government near DFW with water and sewer service available in the early years. Second, the developer put in place a very attractive package of amenities--for example, over 30% of the land is dedicated to open space, including four major golf courses and an extensive

riverfront park. Finally, an aggressive regional marketing effort helped attract firms from other states and abroad.

Initially, development at Las Colinas was quite slow. Five years after Dallas/Ft. Worth opened, only 500,000 square feet of industrial space had been built in the entire DFW environs. Office construction also lagged--the first building was not completed until three years after the airport opened. Residential construction was very low, and retail development nonexistent.

Today, however, the picture for office, industrial, and residential development is far different. Las Colinas' urban center is home to over a dozen high-rise office buildings, some over 25 stories tall. Approximately 97% of the 13.3 million square feet of office space around DFW is in Las Colinas. Major headquarter firms include Exxon and GTE. Almost 5.5 million square feet of industrial space has been built, much of it for international firms such as Honda, Fiat-Allis, and Panasonic.

Las Colinas has also completely changed the residential market in the area. In the early days, only low- and moderate-income housing was available in Irving. Las Colinas bucked this trend by providing high-end executive housing. Today, a wide mix of quality housing is available. Interestingly, the largest number of airport-related workers reside in Dallas, not in airport communities like Las Colinas.

The DFW airport and environs have almost 5,000 hotel rooms, including a 1,390 room airport hotel. Las Colinas hosts a number of hotels and several growing meeting centers. It has also been successful in attracting training "villages" where employees are flown into the airport area by large corporations for intensive training on computers and other equipment.

Atlanta: Atlanta's airport environs have developed much differently than DFW's. Although the Atlanta airport is widely credited with attracting jobs and new firms--particularly international businesses--to the region, relatively little of this growth has taken place around the airport. The primary reason for this is that, like Stapleton, the Atlanta airport is located in the middle of a built-up area approximately eight miles from downtown.

In fact, the largest tract of land available for development--275 acres--resulted from the purchase and clearance of housing for airport noise abatement purposes.

Before the airport expanded in 1980, industrial uses predominated in the immediate area. In the first five years after expansion, there was little new industrial or office space built. However, since then industrial space has boomed. In 1986 and 1987 a total of over 2 million square feet was constructed.

Relatively little office space has been constructed in the Atlanta airport environs--only an average of 187,000 square feet per year. The only major headquarters firm is Delta Airlines. However, hotel construction has been much more intensive. Since 1980 over 4,000 rooms have been added, spurred in part by the presence of a medium-sized 136,000 square foot convention and trade center built just north of the airport by the City of College Park.

There has been little residential development around the Atlanta airport because a good deal of low- and moderate-income housing already existed, and because the predominance of industrial space has not created a demand for new, more expensive housing developments.

Kansas City: Kansas City's new airport was opened in 1972, 17 miles from downtown. Development in surrounding areas has been quite slow when compared to Atlanta and Dallas, although it has been intensifying in the last five years. Several factors have contributed to this slower buildout: Lower air traffic levels at the Kansas City (KC) airport and the lack of international air connections; land speculation in the airport environs; the psychological barrier of the Missouri River; and steep terrain that adds to development costs.

Like DFW, the KC airport was located in a rural farming area. Similarly, one large project--the 3700-acre Executive Hills North development--has dominated the environs market. A smaller project named Airworld has attracted a significant amount of industrial space. The total amounts of office and industrial space in the environs are 1.3 and 1.4 million square feet respectively. Much of the industrial space is occupied by airport-related firms, while

only a portion of office space is related to the airport.

There are nine hotels in the airport area, four of which were built soon after the airport was completed. They provide a total of 1,619 rooms. Only Executive Hills has any substantial, quality residential development, a fact that has hindered efforts to attract firms to the area.

APPENDIX D LAND AREA CALCULATION ASSUMPTIONS

In order to allow substantial flexibility to adjust to future market conditions, many parts of the Gateway are defined as mixed use districts. Planning for adequate amounts of parks and adequate street capacity, however, requires that some assumptions be made as to how the mixed use areas are likely to build out. For purposes of estimating infrastructure needs, we assumed that the mixed use areas will build out with a mix of uses roughly parallel to the mix of demands set forth in some of the more detailed market studies. In some cases, such as hotels and retail uses, we assumed that future growth in the Gateway could substantially exceed those market projections.

Our assumptions are set forth below:

1. Low-density residential areas will build out at 6 du/acre.
2. Mid-density residential areas will build out at 15 du/ acre.
3. Residential parts of mixed use areas will build out at 30 du/acre.
4. Mixed Use 1 areas south of 65th Avenue will build out with
 - 40% hotel uses,
 - 5% support retail uses,
 - 35% office uses, and
 - 20% residential uses.
5. Mixed Use 1 Areas north of 65th Avenue will build out with
 - 45% hotel uses
 - 10% support retail uses, and
 - 45% office uses.
6. Mixed Use 2 areas will build out with
 - 5% hotel uses,
 - 10% office uses,
 - 70% flex-space uses, and
 - 15% residential uses.
7. Mixed use 3 areas will build out with
 - 30% office uses, and
 - 70% flex-space uses.

8. Mixed use 4 areas south of 65th Avenue will build out with
35% office uses,
5% support retail uses, and
60% residential uses.
9. Mixed Use 4 areas north of 65th Avenue will build out with
90% office uses, and
10% support retail uses.
10. Mixed use 5 areas will build out with
10% hotel uses,
60% flex-space uses,
5% support retail uses, and
25% office uses.
11. The Town Center area will build out with
50% major retail uses,
25% office uses,
10% hotel uses, and
15% residential uses at 30 du/acre

APPENDIX E GATEWAY INFRASTRUCTURE NETWORK

WATER SERVICE

Ample water service is available for projected Gateway projects through a 42" water main that extends east on 56th Avenue to Tower road, then north on Tower to 72nd Avenue, and then east into the new airport. Gateway landowners will be required to pay for their fair shares of the capacity in this line and the related loop lines as they proceed with their developments. In addition, landowners will be responsible for extending smaller water distribution lines from the Tower Road main to serve their developments.

SANITARY SEWER

Denver currently has adequate sanitary sewer capacity to serve all projected development in the Gateway area and the new airport through at least the Year 2000. With relatively minor improvements, the city will have sanitary sewer capacity for all development far beyond that date. A sewage treatment facility owned by Metropolitan Denver Sewage Disposal District No. 1 ("Metro") is located on the South Platte River and is connected to the Gateway area through a 33" to 48" interceptor sewer line that extends east under 56th Avenue to Tower Road. The new airport will also tie into this line through a pump station at 64th and Piccadilly. Landowners will be required to construct sewer collection lines to connect their parcels to the 56th Avenue interceptor as their developments proceed.

If the water reuse program currently under study by the Water Department and the New Denver Airport Office is implemented, no sanitary sewage from the Gateway would be sent into the 56th Avenue interceptor line for treatment by Metro.

STORMWATER DRAINAGE

As development takes place over the next 40 to 50 years, the flows in the Irondale Gulch, First Creek, and Second Creek Basins could increase as much as 800% by full buildout. The Urban

Drainage and Flood Control District (UDPCD) is just now completing a Master Plan for all these basins that conceptually configures regional detention and drainageway improvements for Denver and the surrounding counties. This plan also includes water-quality protection elements. The drainage improvements shown in Illustration 22 depict natural conveyance channels that are designed to neutralize the potential adverse impacts (such as erosion) that full urbanization will have on stormwater flows. If proposed channel improvements are not constructed, the estimated 100-year floodplains will remain to accommodate stormwater flows. Development within floodplains will be prohibited.




The regional drainage system is favored because if each individual landowner were to detain its own stormwater, several hundred acres of prime Gateway land would become undevelopable due to numerous on-site detention ponds that would fragment Gateway development. With this in mind, the city has negotiated an agreement in principle with the Arsenal to allow a large collective detention facility for the First Creek drainage basin to be built on the Arsenal. This collective detention pond will serve all Denver landowners within the First Creek Basin and will be paid for by the benefitting landowners. It will also benefit the Arsenal in many ways by creating new wetland habitat for wildlife and by eliminating the need for some Arsenal channel improvements downstream.

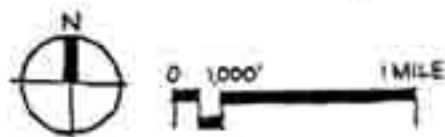
Smaller portions of the Gateway drain into Irondale Gulch to the south or the west branch of Second Creek to the north. In both cases, efforts are being made to create collective stormwater detention facilities either in the Airport Boulevard right-of-way or in existing detention facilities. As in the First Creek Basin, costs of the shared ponds will be paid for by the benefitting landowners.

As part of the new airport Environmental Impact Statement process, the Denver Department of Aviation made a commitment to control the volume and quality of water flowing into the Arsenal for the benefit of nearby wildlife.

FLOOD CONTROL IMPROVEMENTS



 Estimated 100 yr. Flood Plain if channel improvements are not made
 (Based on future developments)
 Drainage way improvements R.O.W.
 Detention ponds
 Derived from Wright Water Eng. 1st Creek & Irondale Master Plans; and Kiowa Engineering Corps. 2nd Creek Drainage Study
 NOTE: The drainage channel improvement shown on this map are subject to adjustments and refinements.



AIRPORT GATEWAY DEVELOPMENT AREA

COMMUNICATIONS SERVICES

Prompt availability of telephone communications is a must for new businesses and homebuilders considering the Gateway area. U.S. West currently has adequate telephone switching capacity to service all projected development in the Gateway area from its Montbello Office at 47th Avenue and Peoria Street. Their existing telephone lines extend east on 56th Avenue to Tower Road, and then north and south on Tower Road. In the future, they intend to extend fiber optic lines further east on 56th Avenue to serve the new airport and to install a parallel system of lines along 48th Avenue from Chambers Road to Powhatan Road. The city is already cooperating with U.S. West to identify road grades and utility easements so that installation of their facilities can proceed.

ELECTRIC SERVICE

Both the availability of adequate electric service and the aesthetics of electric lines and substations are critical to future investment in the Gateway. Public Service Company of Colorado (PSCO) currently has above-ground transmission lines extending east on 56th Avenue to Chambers Road and then south on Chambers Road along the east edge of Montbello. It also has above-ground transmission lines along the 48th Avenue right-of-way from Chambers Road to Tower Road and south on Tower Road to I-70. From this network, PSCO can supply electric power to any portion of the Gateway area on short notice.

The Gateway Office has made it clear that it wants all future electric distribution lines in the Gateway to be placed underground. PSCO currently plans to construct a substation to serve the area at 48th Avenue and Tower Road, but has indicated that it would consider relocating the station to the 38th Avenue/Tower Road intersection to fit in better with Gateway land uses. Several Gateway landowners have supported such a relocation of the substation site.

GAS SERVICE

PSCO also has adequate natural gas utilities in place to serve most Gateway developments on short notice. They currently operate a 24" gas line running east under 56th Avenue past Tower Road and anticipate that they could reach all portions of the Gateway area through connections to that line.

APPENDIX F SUMMARY OF KEY FACTS AT FULL BUILDOUT
 (50 years--All numbers are approximate)

Total Acreage of Gateway Area:		4,500 acres
Annexed in 1988:	2,000 acres	
Previously in Denver:	2,500 acres	
Residential Acreage:		1,740 acres
Potential Gateway Residents:		65,000
Potential Housing Units:		28,860 units
Single Family Detached/Attached Homes:	12,360	
Multi-Family Apartments or Condos:	16,500	
Commercial Acreage:		1,900 acres
Potential Commercial Square Footage:		54,000,000
(Includes Hotel, Office, Retail, Flex-Space)		
Base Commercial Intensity:		.5 FAR
Maximum Commercial Intensity (in Limited Areas):		1.0 FAR
Maximum Commercial Height (in Limited Areas):		150 Feet
Total Park and Trail Acreage:		570 acres
(Approximately 12.5% Of Total Acreage)		
Two Community Parks:	115 acres	
Two Urban Parks:	90 acres	
Golf Course:	200 acres	
Nature Area:	40 acres	
Neighborhood Parks:	46 acres	
Town Squares and Business Greens:	46 acres	
Trails:	8.4 miles	
Schools Needed:		8 to 10
Elementary Schools:	6 to 8	
Middle Schools:	1	
High Schools:	1	

All public improvements needed to serve developments in the Gateway will be paid for through dedications, fees, and taxes from Gateway landowners and developers and not through taxes paid by citizens and businesses in other parts of Denver.

Studies performed by landowners, the New Denver Airport Office, the Denver Planning Office, and surrounding jurisdictions are fairly consistent in their predictions about future growth patterns around the Denver International Airport. Generally, they foresee that there will be an initial flurry of airport-related development like hotels prior to the airport opening, but that substantial additional development will not occur in the next 5 to 10 years. Subsequently, the pace of development will depend significantly on whether the area is marketed aggressively and has established a "quality" image. Increased international air connections would also boost growth rates in the area.

Here is a summary of what these studies predict for the Denver airport environs (which includes Aurora, Adams County, Commerce City and Brighton):

Lodging/Meeting Facilities

- o Will be among the earliest types of development in the Gateway
- o 600-3000 new rooms by opening day (2 to 12 new hotels)
- o 6600 rooms (up to 20 hotels) by the year 2010
- o If small trade/meeting center is built in Gateway, hotel development could be significantly accelerated

Office

- o Limited airport-related office development may take place in the early years
- o Business/office development will occur relatively slowly due to high office vacancy rates in Denver and a well-established image for offices downtown. However, if expected international flights materialize at the new airport, the Gateway may experience significantly higher rates of office construction.

Industrial

- o Gateway area will be attractive for research and light industrial users such as:
 - * Businesses needing close proximity to the airport (freight forwarders and custom houses, etc.)
 - * Airport spin-off businesses (equipment repair and distribution)
 - * Businesses desiring an airport location but not necessarily locked into one (national computer operations, check-clearing facilities, etc.)
 - * Manufacturing, assembly, research and development firms
- o The airport environs may attract almost 500,000 square feet of industrial space annually until the year 2000 and twice that much each year after that.

- o Direct international air connections may increase prospects of attracting foreign firms dealing with product and parts distribution.
- o Demand could be reduced by current availability of industrial space on the new airport site, in industrial sections of Montbello, and a redeveloped Stapleton.

Residential

- o Market studies vary widely for the airport environs-- predictions range from 15,000 - 65,000 people by the year 2005.
- o Due to infrastructure availability and a high level of amenities, the Gateway could attract a significant share - up to 40% - of this market.
- o Gateway share is based on assumptions of high quality development and availability of a balanced mix of housing types--including upper-end executive housing.

APPENDIX H ACKNOWLEDGEMENTS

NORTHEAST CORRIDOR TASK FORCE MEMBERS

Former Councilman Bill Roberts		Lee Alpert
Councilwoman Happy Haines		Lee Andrews
John Andrews	Mae Cotton	Ron Eller
Mark Davidson	Sid Davidson	Sam Halliburton
Harry Gollob	Greg Gonzales	Chris Martinez
Aida Hoskins	Cyril Jones	Jim O'Neal
Thayne McKnight	Jerry Nagel	Emil Rothlesberger
John Prosser	Al Roettger	Gennifer Sussman
Anthony Sabatini	Bill Smith	Terry Ware
James Swanson	Michael Thomas	Neil Wiegert
Russ Watterson	Scott White	

KEY PERSONNEL FROM OTHER AGENCIES

City Attorneys Office

Steve Kaplan	Patti Wells	Bob Kelly
Vicki Braunagel	Cathy Gale	Karen Aviles

Department of Parks and Recreation

Don & Carolyn Etter		Paul Foster
Guenther Vogt	Neil Sperandeo	Jennifer Jones
Neil Bozeman	Jill Kotewicz	

Transportation Planning Division

Richard Brasher	Terry Rosapep	Dennis Royer
Gatechew Zewde		

Public Works

John Stamm	Richard Baur	Larry Fullerton
------------	--------------	-----------------

Wastewater Management Division

Nick Skifalides	Joe Barsoon	Bruce Leiser
Tom Nelson	John Gaines	Allen Cridlebaugh

Denver Water Board

William Miller	John Wilder	Rockey Wiley
Don Mott	Neil Price	

Denver Police Department

Denny Weller

Denver Fire Department

Chief Richard Gonzales

Thomas Montoya

Denver Public Libraries

Bill Meredith

Denver Department of Health and Hospitals

Dr. Peter Pons

Steve Foute

New Denver Airport Office

Charles Ansbacher

Jack Bruce

Rose Hernandez

Eleanor Mondragon

Hanna Rocek

Bill Smith

Dick Veazey

Max Anthis

Ginger Evans

Clarence Jackson

Edreatta Newton

Zeik Saidman

Don Smith

Loy Warren

Terry Baus

Brian Fennel

Carol Milliot

Reggie Norman

Lois Shaver

Gennifer Sussman

Denver Public Schools

Ed Garner

Pat Wisner

Thayne McKnight

Rocky Mountain Arsenal

Col. Daniel Voss

Brian Anderson

Don Campbell

John Fomous

Jim Green

Bill Thomas

Urban Drainage and Flood Control District

Ben Urbonas

Wright Water Engineers

Bill Ruzzo

Dennis Arbogast

Colorado Division of Wildlife

David Weber

David Lovell

U.S. Fish and Wildlife Service

Pete Gober

Mike Lockhardt

Airport Technical Advisory Committee

Adams County

Robert Coney

Nickole Stoner

Aurora

Peter Grosshuesch

Susan Richstone

Brighton

Jim Sayre

Commerce City

Steve House

Brad Schol

Gregg Clements

We also wish to acknowledge the valuable advice and urban design expertise offered by the following architects and designers: John Carney, George Hoover, Brian Klipp, Jennifer Moulton, Jerry Nagel, Candy Roberts, Rich Von Luhrte, Bill Wenk, Neil Wiegert, and David Wise.