

Comprehensive Plan

City of Highland, Illinois

**Adopted March 20, 2006
Ordinance No. 2200**

2005 Comprehensive Plan City of Highland

Mayor and City Council

Joseph Michaelis, Mayor
Mike Riffel, Councilman
Wayne Sinnock, Councilman
Mike Gould, Councilman
Ruth Zobrist, Councilwomen

City Staff

Mark Latham, City Manager
Sharon Rusteberg, Finance Director
Judy Schmitt, Personnel Director
Kevin Limestall, Building Official
Joe Gillespie, Public Works Director
Sam Sivewright, Electric Director
Terry Baney, Police Chief
Mike Kilgore, Fire Chief
Mark Rosen, Park and Recreation Director

Plan Commission

Suzanne Butler (Chairperson)	Rick Frey
Matt Powers	Robert Vance
Jeff D. Foehner	Tim Weiss

Zoning Board of Appeals

Jim Gallatin (Chairperson)	Brian Reutiman
William Koehnemann	Rick Acuncius
Vicky Rankin	Shirley Lodes
Brad Korte	

TABLE OF CONTENTS

COMPREHENSIVE PLAN CHAPTERS

CHAPTER 1: INTRODUCTION	4
CHAPTER 2: COMMUNITY HISTORY	7
CHAPTER 3: FRAMEWORK PLAN	8
CHAPTER 4: DEVELOPMENT POLICIES-GOALS AND OBJECTIVES	13
CHAPTER 5: FUTURE LAND USE CLASSIFICATIONS AND REQUIREMENTS	19
CHAPTER 6: DESIGN AND DEVELOPMENT GUIDELINES	23
CHAPTER 7: TRANSPORTATION PLAN	43
CHAPTER 8: COMMUNITY UTILITIES	54
CHAPTER 9: COMMUNITY SERVICES	57
CHAPTER 10: ECONOMIC DEVELOPMENT	64
CHAPTER 11: PLAN IMPLEMENTATION	65
APPENDIX	67
DEMOGRAPHIC AND ECONOMIC TRENDS A-1	

CHAPTER I: INTRODUCTION

Scope of the Comprehensive Plan

The City of Highland's commitment to sound growth and development through planning was initiated in 1977 with the adoption of the City's first Comprehensive Plan that was revised in 1991. In 2001, the City Council authorized the update to the 1991 Comprehensive Plan. Due to recent changes in demographic and economic factors, housing and regional growth trends, annexations, improvements to the transportation system, and the expansion of community facilities and utility services over the last 10 years, the City determined that 1991 Comprehensive Plan required an update. This 2005 Plan update represents a comprehensive approach to the overall development of the City of Highland, drawing on and updating existing plans and policies, as well as creating new ones, that will help guide the City and its residents towards the desired image and character of the community.

Managing the location, type and quality of growth in Highland is a major concern of both citizens and municipal officials. The impact of new development will require that the capacity of community facilities and utilities will have to be expanded. The City must plan now for the public investment needed to build and support new growth.

The purpose of the Plan is to guide the quality, timing, and intensity of growth in a manner consistent with the goals of the City. The intent of this Plan is to serve as a source of civic inspiration and reference in effecting desirable public and private improvements throughout the community.

The Comprehensive Plan is the "blueprint" for future development. It is a "policy" document and "vision" statement that defines the City's future economic, natural and social environment desired by its citizens. It is "comprehensive" in and facilities are integrated into a unified scheme. This Plan does not advocate a rigid, legalistic approach to the long term development of Highland. Rather, the approach to planning commonly used in modern business -- where ' targets ' are set and used to establish standards and to monitor performance, but which are capable of modification as circumstances change, is preferred. The intention, therefore, is to have a Plan which sets out a vision for the future, but which is flexible enough to be able to take advantage of opportunities as they arise.

The Comprehensive Plan is a long-range guide for growth affecting land use and investment decisions of both public and private interests. The Plan is long-range because it states a vision of what the City should be like by 2025, and how to achieve that vision. Planning beyond the 2025 horizon lowers the level of accuracy and increases the risk that the Plan does not reflect current trends and community preferences. A shorter planning horizon requires the City to re-evaluate and comprehensively update the Plan more often.

Purpose of the Comprehensive Plan

The primary purpose of the Comprehensive Plan is to advance the welfare of people by creating an increasingly better, sustainable environment composed of three interrelated parts - social, economic, and physical. The purpose of this Plan is not to stop growth, but rather it is a guide to the quality, timing, and intensity of future growth. The Comprehensive Plan, as stated in the State Statutes, is an advisory document "... and itself shall not be construed to regulate or control the use of private property in any way, except as...has been implemented by ordinances duly enacted..." As such, the development of various regulations and codes is necessary to implement the plan. Though Illinois State Statutes do not specifically require that a plan be prepared to support zoning controls, case law reveals that land development regulations can not be arbitrary. Hence, it is always in the best interest of a community to ensure that there is consistency between recommendations of the comprehensive plan and the regulations of the zoning ordinance. The process of establishing consistency between the Comprehensive Plan and regulatory documents meant to implement the Plan, should be the focus of the next phase in Highland's planning process.

This Plan update is intended to provide an overall policy framework against which individual proposals can be evaluated by the Planning/Zoning Commissions and the City Council. As such it is not synonymous with a zoning ordinance which gives specific regulations regarding the type of uses allowed within each land use district, their density, and other development standards. This Plan is intended to provide the substantive and legal framework for zoning and other day to day land use decisions required of the City.

The Comprehensive Plan must also be distinguished from "zoning." Zoning, however, should be based on a sound and rational plan. Zoning is the "legal" tool the City uses to carry out the recommendations of the Comprehensive Plan. The City is granted this regulatory authority by the State under Chapter 65 of the Illinois Municipal Code. Specifically, a zoning ordinance regulates items relative to the use of land (i.e. height and size of buildings, size of lots, building setbacks and parking). It establishes definitions, standards and procedures for the City's governing body to review and approve specific land developments. There are other development control ordinances that supplement the zoning ordinance, such as subdivision regulations and sign controls.

In many instances the recommendations of the plan can only be achieved through cooperation of property owners and through the development review process on a site by site basis. This is true for many areas designated "conservation," consisting of floodplains and woodlands along creek corridors. Many of these "conservation" areas, if acquired by the public and connected as recommended on the plan, could be an extension of the regional "greenway" plan. These corridors would provide additional opportunities for pedestrian/bike paths and protect high quality environmental habitats. Each of these actions will enhance the image and quality of life in Highland, which is a key objective of the plan. Other recommendations can only be implemented by other governmental jurisdictions, over which the City has no control. For instance, recommendations for

additional park land and school sites can only be carried out in cooperation with the park and school districts.

CHAPTER 2: HISTORY

Founded in 1831 on the Looking Glass Prairie by Swiss settlers, the City served as a center for the surrounding agricultural areas, and began to emerge as a manufacturing center before the turn of the Twentieth Century. Highland maintained a strong industrial base, at one point, and is moving towards a more retail base. There is a reason that individuals started their businesses here and those businesses grew here. The town was platted in 1836, and the first City map was drawn in 1837. Within a few years of founding Highland already boasted a mill, stores, and other businesses founded by the Swiss and German immigrant settlers. When the National Turnpike was extended to St. Louis volunteers from Highland built the segment from Pocahontas to St. Jacob, and a hotel emerged as a station for the new stage line that operated along the new road. A bank was founded in 1854 and the Pet Milk Company was founded in Highland in 1855 which today remains as a major diversified U.S. Corporation. Commerce and development have continued ever since in the vibrant prairie community.

CHAPTER 3: FRAMEWORK PLAN

Introduction

Highland is located in a rapidly changing region, and is experiencing pressures associated with its evolution from rural to suburban community. The City of Highland has a significant capacity for new growth, with a projected population increase that could likely reach over 15,000 by the year 2025. The impact of regional changes and influences will require a proactive approach in defining what the community desires to be and the character it wants to maintain and create. City officials and residents have expressed the desire to maintain the character and quality of the community through the provision of services and recreational opportunities, preservation of open spaces, and development of high quality residential areas that retain the countryside, and small town character of the community.

The other significant condition that will affect Highland's future is that of competition for economic growth from the surrounding communities east of St. Louis. Most of these communities have either a substantial existing commercial and industrial tax base, or have established policies that encourage economic development. However, Highland's location along the I-70 growth corridor and its close proximity to I-55 offer significant advantages to capitalize on economic opportunities that are emerging as the St. Louis region expands.

The growth of Highland and adjacent communities will strengthen its commercial market potential stimulated by an increasing number of younger households and retirees that have high spending per capita and whom tend to occupying new homes. Furthermore, Highland supports a diverse age group and housing products. These issues, combined with the inherent constraints and opportunities created by Highland's regional location and road network, form the basis on which the following Framework Plan principles have been developed.

Purpose of the Framework Plan and Land Use Plan

The Framework and Land Use Plans are planning tools and statements of general land use policy to be used to guide development within and near the City of Highland. The Framework Plan is a description of general planning principles that have been used in the creation of the Land Use Plan. The Framework Plan establishes the fundamental development guidelines from which more specific land use recommendations have been made and an expression of the essential planning principles that have been employed to create the "framework" for more detailed land use and design guidelines for sub- areas of the community that will follow.

These "principles" are the basic organizational elements that must be in place in order for the City to be successful, and achieve the goals and objectives contained in this report.

While the particulars of the land use plan may change over time, the principles illustrated on the Framework Plan map, shall continue to provide the foundation of which subsequent changes will be evaluated. The essential elements of the Framework Plan are grouped according to the following functional categories:

- Business Development Centers
- Business Development Corridors
- Industrial/Office Opportunities
- Residential Growth Opportunities
- Focal Point Gateway Identity
- Transportation Road Network
- Open Space Corridors

Business Development Centers

Business development centers offer prime locations for commercial development within the City. Generally located at major intersections, and along major road corridors, these areas have the greatest potential to support the types of future commercial development that were viewed as desirable by city residents and officials, offering opportunities to increase Highland's commercial tax base and provide convenient shopping opportunities within the community.

Business development centers have been identified on the Framework Plan Map and are categorized in the following hierarchy:

- Neighborhood Business District
- Central Business District
- Highway Business District

The “**Neighborhood Business District**” category is directed towards the provision of neighborhood services, satisfying the needs of the immediate neighborhood in which it is located. The market/service radius is inside 2 miles. Permitted uses under C1 Zoning regulations.

The “**Central Business District**” category has a larger market than the neighborhood level. The location surrounds the downtown square. The types of development that would locate here support the community population as a whole, often through the development of larger-scale stores, supported with small-scale retailers and a residential mix.

The “**Highway Business District**” supports larger developments that draw customers from a larger regional population. The market/service radius extends beyond a 5 mile radius, typically attracting two (2) or more large-scale anchor stores and supporting small-scale retailers.

To create a balanced tax base, it is important to provide opportunities for the three types of commercial centers. Numerous factors, including market demand and supply, proximity to roads, availability of land, and surrounding and proposed types of land uses all help to dictate the locations of each of the identified commercial center levels. Edwardsville and Fairview Heights have developed commercially at a much faster rate than Highland, and have established themselves as major commercial destinations within the region, attracting the large better known national retailers. Market studies indicate that most of those retailers will not locate within a 20-minute drive of an existing store, which may limit the viability of Highland to attract many of the desired major retailers needed to increase the overall tax base.

Increasing competition from the surrounding communities will require the City to evaluate its opportunities to attract and maintain commercial development. The cultivation of Highway Business District corridors can offer opportunities for cohesive development along major roadways. Recognizing the City's desire to minimize commercial strip development, the number of commercial development corridors is not as numerous as those for commercial development centers. As with the commercial development centers, proper attention should be given, and importance should be placed on the enforcement of development standards.

Business Development Corridors

A Business Development Corridor defines key growth areas within the Framework Plan. It is a strategic approach in promoting the City of Highland as an investment destination. It comprises Highland key investment areas for tourism, industry and commercial.

Identified commercial development corridors may offer support for limited commercial strip development. Particular care should be taken when establishing a unified design theme for each corridor, which shall serve to create a stronger "sense of place" and identity for Highland, distinguishing it from corridor developments found in adjacent communities. A number of factors contribute to the appearance of such corridors, including land use, density, and open space, landscape, parking lot layouts, architecture, and infrastructure, and access, pedestrian and vehicular circulation. Furthermore, the use and character of signage has a considerable roll in the overall success of these types of developments.

Industrial/Office Development

Highland is located in a strategic part of the United States that is experiencing a continuing expansion of industrial and office developments. The I-70 corridor continues as a desirable area for industrial and office developments and the City should take the advantage of available land, market draw, employment base, and high visibility that other municipalities can not offer; to attract these types of developments.

Residential Growth Opportunities

The greatest concentration of larger-scale residential growth opportunities exist to the north and east of the community. With opportunities for higher density housing and infill identified in areas around industrial sites and adjacent to highway commercial developments, which should serve as a suburban/rural transition boundary line, whereby efforts should be made to maintain a “rural“ residential character, and viewed as favorable by the public. In comparison to previous existing development patterns; increased setbacks from major roads should occur as well as requiring increased landscaping and buffering regulations.

Within close proximity to the Downtown Square location, an increase in local population would help support the revitalization efforts that are currently occurring in the downtown, offering the needed boost to help assure future success of such endeavors. Through efforts existing, the revitalization of commercial in this area could support small office development efforts, creating a live-work environment where neighborhood services are provided within walking distance from residential developments.

Focal Point/Gateway Identity

Several focal point/gateway identities are indicated along the major corridors where they define entrances to Highland.. A range of design and appearance improvements should be undertaken at each focal point/gateway location. The design of primary gateways should be distinctive and be of a larger scale than secondary gateways. The following is a general description of the key elements which may be used to define each type of gateway: Landscaping - distinctive accent plantings should be provided at each gateway location; Medians - where feasible, new landscaped medians could be provided within existing rights-of-way for a minimum of one block length; Entry Signage - distinctive identity signs/banners announcing entrance to the community and special sub-areas of the community. Special lighting or unique lighting fixtures could be provided to highlight and accent each gateway feature.

Transportation/Road Network

As indicated on the Framework Plan Map, Highland has a healthy primary transportation network that offers many unique advantages to the City. Access to I-70 and close proximity to I-55, both highly traversed interstate, makes Highland a desirable location for attracting increased residential, commercial, and industrial development. The Transportation Plan outlines the procedure for accomplishing this.

Open Space Corridors The conservation and protection of principal open space corridors and the environments that they support are also a major element of the Framework Plan Map. The numerous stream and wetland corridors that constitute a large

percentage of the open space corridors provide the City with opportunities for further expansion of the existing trail and pathway network, which was viewed as a highly valuable resource by the community. Silver Lake Park offers unique recreation opportunities for the residents, and further access could be provided through such path extensions. Efforts should be made to link future trails so that the City can capitalize on the recreational amenities already provided by this trail. A Bikeway and Park System Network draws on the importance of interconnected bike paths and trails that link residential neighborhoods with other uses throughout the City. Open space corridors shall serve as ideal location for pathways and trails and high priority attention should be placed on identifying future parks, green space, and pathways.

CHAPTER 4: DEVELOPMENT POLICIES - GOALS AND OBJECTIVES

The planning process is based on a continuum of personal and collective decision making reflected in a shared vision of the community. The identification of goals and the formulation of objectives in support of these goals is the first part in the process to establish a common vision. Goal and objective statements provide the policy framework upon which all land use decisions, both now and in the future, must be supported. The Comprehensive Plan is a declaration of intent. It is advisory and does not itself constitute a regulation. When the Plan is adopted by the City Council – via an ordinance - all goals, objectives, principles, and standards therein become policy. The following goals and objective statements are based on the established goals for growth and development identified in the 1991 Comprehensive Plan for the City of Highland. These updated goals and objectives incorporate new information, ideas, and direction obtained from citizens, property owners, business persons and public officials from the City. Under each subject heading, identified by the symbol, is a goal statement which is followed by a list of objectives established to achieve the associated goal.

Vision -The overall idea of the future which sets the tone for all activities.

Goal -The stated ends which form the vision.

Objective -A specific target established to achieve a goal.

Policy -A definite course of action selected from among alternatives to guide and determine present and future decisions.

Housing and Residential Development Goal:

To encourage a variety of attractive and safe housing and neighborhoods within the City of Highland.

Objectives:

- 1) Encourage well-designed, walkable residential developments which are accessible to open space and recreation facilities, commercial and employment centers, and basic community services.
- 2) Encourage a variety of housing types to be maintained and constructed within the City of Highland to meet current ratio of residential structures in order to maintain the existing quality of life.
- 3) Establish standards of excellence for the design, construction, and maintenance of all residential structures, to minimize monotonous development.

- 4) Provide buffering to separate residential areas from incompatible uses in order to ensure environment friendly and safe neighborhoods.
- 5) Locate multiple-family residential development in distinct neighborhoods that minimize impacts on residential quality and quantity in the community and special attention that does not affect the property values of single residents.
- 6) Ensure that development and redevelopment processes incorporate planning for sidewalks, bike trails and lanes, and greenway areas through the City.
- 7) Establish a neighborhood beautification program that encourages the citizens/owners to maintain and enhance their property.

Community Form and Character Goal:

To create a positive community identity that is built upon the unique qualities of a rural, safe, family-oriented community that distinguishes itself from other area communities and provides Highland residents with a high quality of life.

Objectives:

- 1) Define priority growth areas to guide future extensions of infrastructure.
- 2) Promote downtown development which offers a broad range of shopping, service, and employment opportunities.
- 3) Identify and encourage the preservation of areas having scenic, architectural, or historic significance.
- 4) Provide industrial sites which are sensitive to the space, access, and utility needs of a wide range of industrial establishments.
- 5) Upgrade, aid in the relocation, or phase out existing businesses/industries which influence blighting or environmental conditions upon surrounding land uses.
- 6) Diversify land uses and provide appropriate transitions between uses to maintain a high standard of quality.
- 7) Prevent randomly scattered and strip commercial development; keep commercial development uniform.
- 8) Utilize small-scale professional office development as infill and transition between intense uses and less intense uses.
- 9) Concentrate community enhancements in areas of highest traffic and major City focal points and entryways which have the highest potential to convey a positive

visual image.

9) Establish standards of excellence in site planning, architecture, and the design of landscaping, lighting, and signage in all commercial, industrial and residential areas.

10) Immediately develop an Annexation Plan.

Economic Development Goal:

Create an economically diverse tax base for the City which expands the employment base and commercial opportunities, through careful land planning that provides appropriate locations and distribution of revenue- generating business uses.

Objectives:

1) Actively recruit a variety of new businesses and industry by establishing programs that will attract private-owned businesses.

2) Invest in the downtown to show potential future businesses that citizens will support.

3) Create an economic strategy that provides an attractive environment for expansion of existing and future business developments.

4) Develop a formal program for encouraging the retention and expansion of existing business and industry.

4) Diversify the economic base by reducing the reliance on residential tax base.

5) To coordinate and/or consolidate government services to provide optimum efficiency.

6) Develop strong partnerships between public and private sectors to create new financing opportunities for economic development.

7) Expound a cooperative policy for offering economic incentives to lure desired business/industry to the area , of which will benefit multiple taxing agencies.

8) Encourage redevelopment and expansion of historical buildings to compliment the architectural style and period of the structure.

Transportation Goal:

Develop a balanced, efficient, safe, and attractive transportation system that allows for the movement of motor vehicles, pedestrians, and bicyclists through, around, and into the community.

Objectives :

- 1) Develop a transportation capital improvement plan with recommendations for safety and capacity-related traffic improvements to accommodate future traffic demands and safe travel in older neighborhoods.
- 2) Implement traffic improvements for key roads and intersections to improve traffic flow and to encourage traffic to remain on the major routes.
- 3) Develop traffic strategies for implementation, as appropriate, to help preserve neighborhoods.
- 4) Use of landscaping and gateways to integrate the road system and traffic within the community to enhance and preserve the scenic character of the streets, without sacrificing safety.
- 5) Improve pedestrian circulation by continuing sidewalk improvement efforts and establish a new sidewalk program as well as implementing trail and bicycle facilities.
- 6) Encourage the use and expansion of public transportation.

Environmental/ Natural Resources Goal:

To create a balanced relationship between human activities and the environment that minimizes the adverse impacts of development on natural resources.

Objectives :

- 1) Identify and reserve sufficient land resources in the community to meet current and future recreation needs.
- 2) Design all new developments to create a minimum disturbance to natural drainage patterns, natural landscape, vegetation, and the ability of land to absorb rainfall and prevent erosion.
- 3) Use regional or planned development techniques to reduce floodplain development by transferring density to non-flood areas.
- 4) Encourage land use patterns which preserve the integrity of existing environmental corridors as a means of natural erosion control and protecting the environmental quality of the community.
- 5) Establish minimum setback and buffer areas along creeks, streams, and wetlands to reduce the impacts of development on water quality.
- 6) Ensure that all new developments provide storm water retention capacity equal to

the capacity displaced by that development and whenever possible, safe, and practical, retention areas should be set aside for recreational uses. To establish regional storm water detention program.

r

7) Preserve existing trees and vegetation, and provide additional trees and vegetation where necessary.

Public Facilities and Services Goal:

Ensure existing and future facilities and services meet the needs of the citizens and business community and promote new economic development.

Objectives:

1) Establish intergovernmental agreements with adjacent municipalities and special districts regarding municipal boundaries, land uses, and public services.

2) Link park, recreation, and open space with residential neighborhoods via safe pedestrian and bicycle routes.

3) Allow new development only where the provision of municipal facilities and services are economically feasible.

4) Work cooperatively with the school districts to establish an adequate number and location for new schools to serve Highland's students.

5) Where possible, maintain municipal administrative services in the downtown area to serve as a major activity generator (anchor) to enhance the business climate.

6) Bury utility lines wherever possible and encourage the use of attractive poles to mitigate the appearance of above-grade utility lines.

7) Locate large active recreation complex (ballfields, game courts, etc.) near visible traffic corridors and promote the interrelationship of passive recreation sites and open space environmental corridors.

8) Require local neighborhood parks, such as smaller tot lots, in residential development.

9) Develop 20-year utility master plans for all utilities.

10) Identify areas that will provide Public Safety facilities to allow an adequate response within 1 to 3 minutes.

Historic Preservation Goal:

To preserve and enhance all local historic and cultural resources that contributes to the unique character of Highland.

Objectives:

- 1) To protect and maintain those resources that contributes to the unique physical character and attractiveness of the City of Highland and provide a sense of identity to the community at large.
- 2) To coordinate historic preservation issues facing the City with local historic Preservation commission.
- 3) To coordinate local preservation efforts with state and federal agencies and organizations.
- 4) To encourage economic development and desirable property values through historic preservation and restoration.
- 5) To provide educational opportunities regarding the value of the community's historical and architectural resources.

CHAPTER 5: FUTURE LAND USE CLASSIFICATIONS AND REQUIREMENTS

The City of Highland Future Land Use Plan maps provide the framework to assist the City in planning and regulating development. Both depict future land use generally consistent with existing development patterns, suggesting areas for future growth and development. The purpose of the following land use categories on the Future Land Use Plan maps are to provide for a rational and gradual transition between different areas of the community, while allowing a variety of land uses necessary to ensure the development of a balanced community. The timing of development of any given parcel will to a large extent, depend upon the availability of municipal infrastructure services. All recommended residential densities described below are based upon the “gross buildable acreage,” or “net” acreage of a site. The gross buildable part of land is determined by subtracting those portions of the property which can not or should not be developed due to the presence of such features as floodplains, wetlands, poor soils, endangered wildlife and natural areas, and prime woodland areas.

The land use categories described below are illustrated on the Future Land Use Plan maps.

Low Density Single-Family Residential

The intent of this category is for large lot single-family residential which fosters a rural character; densities are equal to 1-2 dwelling units per net acre or less (R-1A). To preserve areas where high quality environmental features are present, consideration should be given to a RE (residential estate lots) which are described as 1 dwelling per 2 acre.

Medium Density Single-Family Residential

This land use category promotes a residential character of low to medium density residences on lots where adequate public sewer and water systems exist or can be made available. While anticipated to contain primarily single-family detached housing. Compatible governmental, educational, religious, and recreational uses are also appropriate in these areas. The intent is to provide a range of single-family residential subdivisions on fully improved lots that respect the natural topography and vegetation, and offer amenities to foster quality neighborhoods; net densities are 2-4 dwelling units per acre (R-1B). Greater than 4 dwellings per acre.

Multiple-Family Residential

This land use category allows for single-family attached residences such as duplexes, triplexes, quadplexes, villas, town-home buildings, and low rise multiple-family residences. This category allows for a higher density design than the single-family residential category, permitting opportunities for people whose lifestyles benefit from common exterior maintenance and a more affordable housing alternative. This category may act as a transition between lower density residential categories and non-residential uses. The intent is to provide attached single-family and multiple-family residential (maximum of 4 units per building) with a net density less than or equal to 7.5 dwelling units per acre. Individual unit ownership is preferred. (R2A, R2B, and R3)

Central Business Commercial

This land use category is intended to encourage commercial uses, small-scale retail shopping, entertainment uses, convenience stores, office, and personal and business service uses. Residences may be located on upper floors of commercial buildings (will be incorporated into the Downtown Square plan)

Neighborhood Commercial

This land use category is intended to promote the establishment of local commercial centers which provide goods and services primarily for the convenience of the residents of the surrounding neighborhood. It is not intended to permit major commercial or service establishments that would attract substantial amounts of trade from outside the neighborhood.

Highway Business Commercial

This land use category is intended to provide for retail establishments that offer a wide range of goods and services in locations which abut or front, and have access to, either directly or via frontage roads, heavily traveled major arterial roads. The purpose is to provide for commercial uses that are oriented to the automobile, and which do not depend upon adjoining uses for reasons of comparison shopping and pedestrian trade. Included in this category are large-scale retail developments, defined as a retail establishment or any combination of retail establishments in a single building, occupying more than 25,000 gross square feet of lot area.

Office

This land use category provides opportunities for employment and provision of services in locations with good accessibility. This land use should provide a good transition

between more intensely developed commercial areas and adjacent neighborhoods. Building scale and architectural design should help to accentuate this transition, as should careful site planning with landscape buffers where appropriate. The intent of this category is for office uses that act as transitions from arterials, collectors or relatively intense land uses to less intensive or residential uses with related commercial service.

Office Research / Business Park

This land use category is intended to provide for manufacturing, warehousing, distribution, office, research facilities, and related uses. The limited intent of this category is to require a master plan site approach to the development of large parcels incorporating high quality design standards for building, landscaping, and signs.

Limited Industrial

This category includes non-agricultural manufacturing, warehousing, and distribution facilities that provide jobs and products for Highland residents and the region as a whole. The intent is for industrial uses of a “clean” and quiet nature and supporting retail or service uses, in well-planned industrial parks; may include establishments serving commercial, industrial or business.

Institutional / Public

This category includes uses owned and operated by a federal, state, or local government including schools, maintenance facilities, and public cemeteries. Institutional uses are private uses that generally serve the public, including churches and private schools. The intent of this category is for public or quasi-public uses which provide educational, religious, medical, cultural, or social services.

Parks / Recreation

Land that has been permanently dedicated for open space uses falls into this land use category. Private recreational space such as golf courses or private parks located in residential developments would also be included in this category. The intent is for permanent private or public open space used for active and passive recreational purposes.

Open Space / Conservation

This category identifies lands that are sensitive to development, and which contain unique environmental characteristics that should be preserved. These characteristics include: wetlands, floodplains, woodlands, and prairies. In addition to their sensitive

nature, these areas provide the City with such natural functions as flood storage and conveyance, pollution control, and wildlife habitat areas. It should be noted that the precise boundaries of the floodplains, wetlands, and soils which might limit development are imprecise. A trained wetlands conservationist or soil specialist needs to be consulted to determine the particular constraints for specific sites. The intent of this land use category is to conserve and maintain public and/or private permanent open space used for passive recreational purposes.

Open Space Community

The purpose of this classification is to encourage single-family residential development that integrates existing open space and conserves natural corridors. Common elements of design include the clustering of homes, minimized road widths, innovative subdivision layouts, and pathway and trail connections. Under the Open Space Community classification, the same number of homes that would be constructed under a conventional development plan (typically as single-family-detached units) is grouped more closely together on down-sized house lots, with the remaining area of the parcel left as permanently preserved open space. This undeveloped land, often 50% or more of the original parcel, is then either managed by a homeowner's association, deeded to the municipality or a land trust, or retained by the original owner who has surrendered (sold) all of the development rights.

CHAPTER 6: DESIGN AND DEVELOPMENT GUIDELINES

The following Design and Development Guidelines have been established to assist the City of Highland, its business owners and potential developers in maintaining a preferred character of the community as they plan for new development. The purpose of such guidelines is not to dictate a specific development style for the City, but rather establish a set of design and development standards that should be encouraged.

The Design and Development Guidelines described herein are intended as tools for communicating the design intent for future development, redevelopment, and renovation; they also serve as a tool for evaluating proposals presented to the City. The overall goal is to ensure quality development that employs sound planning design principles. The successful implementation of these guidelines will reinforce the unique image of Highland as a community and inviting place to live, work, shop, and gather.

The Design and Development Guidelines are arranged to address the following land uses:

- Neighborhood Commercial
- Large-Scale Retail (as permitted under Highway Commercial)
- Office and Limited Industrial
- Office Research / Business Park
- Multiple-Family / Attached Residential
- Open Space / Preservation

Neighborhood Commercial

The majority of the City's current commercial opportunities lies outside of the downtown core, and are located in corridors along major thoroughfares. The type of development that occurs within such corridors is typically auto-oriented in nature. While this auto-oriented style of development is generally less desirable than that which characterizes the downtown core, it is no less significant to the overall economic welfare of the community. Therefore, it is important to strike a balance by ensuring a place for this type of development while establishing standards that make it possible for such development to contribute to, rather than diminish, the overall character of and identity of the community.

In order to assure this, the following guidelines have been developed and apply to uses classified as Neighborhood Commercial. Such uses are smaller in scale to those associated with large-scale or "big- box" developments and are typically freestanding, single use structures.

The guidelines are arranged to address the following:

- Site Planning Principles
- Parking and Circulation
- Landscaping
- Walls and Fences
- Screening
- Architectural Design
- Signage
- Lighting

Site Planning Principles

- Structures shall be sited in a manner that will compliment adjacent buildings. Sites should be developed in a coordinated manner to provide order and diversity.
- Structures and on-site circulation systems should be located to minimize pedestrian/vehicle conflicts and provide cross-access to adjacent properties.
- Freestanding singular commercial and service oriented structures should be oriented with their major entry toward the street where access is provided, as well as having their major facade parallel to the street.
- Loading and unloading is not allowed in the front of buildings.
- Open space areas should be clustered into larger, landscaped areas rather than equally distributing them into areas of low impact such as at building peripheries, behind a structure or areas of little impact to the public view that are not required as a land use buffer or as a required yard setback.

Parking and Circulation

- When feasible, separate vehicular and pedestrian circulation systems should be provided. Pedestrian linkages between uses in commercial developments should be emphasized.
- Parking aisles should be separated from vehicle circulation routes whenever possible.
- Common driveways which provide vehicular access to more than one site are encouraged.
- Whenever practical, shared parking between adjacent businesses and/or developments is encouraged; to minimize the amount of paved areas.
- Parking areas should be separated from structures by either a raised concrete walkway or landscaped strip, preferably both. Situations where parking spaces directly abut structures should be avoided.
- Parking areas must be landscaped, within the interior as well as perimeter areas of the site.
- Where parking areas are connected, direction of travel and parking bays should be similar to reduce conflict at points of connection.

- Parking access points, whether located on front or side streets must be located as far as possible from street intersections so that adequate stacking room is provided. The number of access points should be limited to the minimum amount necessary to provide adequate circulation.
- Parking areas which accommodate a significant number of vehicles should be divided into a series of connected smaller lots, separated by open space medians, islands, and pedestrian walkways.
- First aisle parking stalls should be set back a sufficient distance from the curb to avoid traffic obstruction. Drive aisle “throats” should be sufficient depth to avoid vehicle stacking into the street.
- Utilize an opaque wall or landscaping to screen any parking at the entry periphery. A combination of walls, berms, and landscaping material is recommended. Changing the grade of the parking lot from existing street elevations may aid in obscuring views of automobiles while promoting views of architectural elements of the structures beyond.

Landscaping

- Landscaping should define entrances to buildings and parking lots, define the edges of various land uses, provide transition between neighboring properties (buffering), and provide screening for loading and equipment areas.
- Landscaping should be in scale with adjacent structures and be of appropriate size at maturity to accomplish its intended purpose.
- Landscaping around the entire base of buildings is recommended to soften the edge between the parking lot and the structure. This should be accented at entrances to provide focus.
- Trees should be located throughout the parking lot and not simply at the ends of parking aisles.
- Landscaping should be protected from vehicular and pedestrian encroachment by raised planting surfaces, depressed walks, or the use of curbs.
- Landscaping should not obstruct visibility at drive aisle intersections.

Walls and Fences

- If not required for a specific screening, security or separation of incompatible land uses, walls should not be utilized within commercial areas.
- When used, walls should be designed to blend with the site’s architecture. Both sides of all perimeter walls or fences should be architecturally treated. Landscaping should be used in combination with all walls.

Screening

- When allowed, exterior storage should be confined to portions of the site least visible to public view. Where screening is required, a combination of elements should be used including solid masonry walls, berms, and landscaping.
- Any equipment, whether on the roof, side of building, or ground, should be screened. The method of screening should be architecturally integrated with the building design in terms of materials, color, shape, and size. Where individual equipment is provided, a continuous screen is desirable.

Architectural Design

- Heights of structures should relate to adjacent open spaces to allow maximum natural light and ventilation, protection from prevailing winds, enhance public views and minimize obstruction of view from adjoining structures.
- The height and scale of new development should be compatible with that of surrounding development. The development should “transition” from the height of adjacent development to the maximum height of the proposed structure.
- Scale is the relationship between the size of a new structure, and the size of adjoining permanent structures. Large scale building elements will appear imposing if they are situated in a visual environment which is predominantly smaller in scale.
- Building scale can be reduced through the proper use of window patterns, structural bays, roof overhangs, siding, awnings, moldings, fixtures, and other details.
- The scale of buildings should be carefully related to adjacent pedestrian areas and other structures.
- Large dominating structures should be broken up by creating horizontal emphasis through the use of trim; adding awnings, eaves, windows, architectural ornamentation; use of complementary colors; and landscape materials.
- The color palette chosen for new structures should be compatible with the colors of adjacent structures and those established in the area.
- Primary colors should be used to accent elements, such as door and window frames and architectural details. Hip or gable roof design of appropriate pitch and scale with no exposed utilities or HVAC units is encouraged.
- The use of quality siding or masonry construction of stone or brick on all exterior walls is encouraged.

Signage

- All developments should be designed with a precise concept for adequate signage. Provisions for sign placement, sign scale in relationship with the building, and sign readability should be considered in developing the signing concept. All signage should be highly compatible with the building and site design relative to color, material, and placement and should comply with the City’s sign laws. Low monument signs are encouraged as well as integration with landscaping.

Lighting

- Lighting should be used to provide illumination for the security and safety of on-site areas such as parking, loading, shipping and receiving, pathways, and work areas.
- The design of the light fixtures and their structural support should be architecturally compatible with the main buildings on-site.
- Illuminators should be integrated within the architectural design for the buildings.
- All building entrances should be well lighted.
- All lighting should be shielded to confine light spread within the site boundaries.
- All lighting must comply with the City's lighting codes and regulations.

Large-Scale Retail (Highway Business)

The guidelines to follow apply to new "large-scale" retail establishments defined to mean a retail establishment or any combination of retail establishments in a single building, occupying more than 25,000 gross square feet of lot area. The guidelines prescribed for large-scale retail developments are arranged to address the following:

- Architectural Character
- Color and Materials
- Relationship to the Surrounding Community
- Pedestrian Circulation
- Parking

Architectural Character

Large-scale retail developments are typically characterized by blank, windowless facades, flat roofs, a lack of architectural detail, with undefined entries. To go beyond the prototypical designs and encourage better architectural design large-scale developments should adhere to the following guidelines:

- Uninterrupted facade lengths in excess of 100 horizontal feet are not permitted. Faces greater than 100 feet in length must incorporate recesses and projections along at least 20 percent of the length of the facade. Windows, awnings, and arcades, must total at least 60 percent of the facade length abutting a public street.
- Smaller retail stores that are part of a larger principle building are required to have display windows and separate outside entrances. Such smaller stores are encouraged by the City.
- Greater architectural interest in the principle structure is encouraged. This can be accomplished by directing the use of a repeating pattern of change in color, texture, and material modules. At least one of these elements shall repeat horizontally. All elements shall repeat at intervals of no more than 30 feet, either horizontally or vertically.

- Variations in roof lines are required as a means to reduce the massive scale of these structures and add visual interest. Roofs must have at least two of the following features: parapets concealing flat roofs and rooftop equipment, overhanging eaves, sloped roofs, and three or more roof slope planes.
- Each principle building is required to have a clearly defined, highly visible customer entrance with features such as awnings, canopies or porticos, arcades, wing walls, and integral planters.
- The use of divided windows with decorative window frames and thin profile mullions is encouraged. Window glazing should be non-reflective and make up 75% of small retail store fronts. Window signs should occupy no more than 10% of window openings.
- The use of decorative trim around all windows, doors, roof profile and wall corners is also encouraged.

Color and Materials

Building colors and materials are important elements that dictate the aesthetic and physical quality of the development. In order to assure overall quality in any development, the following requirements must be adhered to:

- Predominant exterior building materials must be of high quality. These include brick, wood, limestone, other native stone, and tinted/textured concrete masonry units. Smooth-faced concrete block, tilt-up concrete panels, or pre-fabricated steel panels are prohibited as the predominant exterior building materials. EFIS should be used principally for building accents or for sign bands.
- False windows and awnings of cloth/canvas material are permitted as long as their use relates to the proposed architectural style. False windows must be consistent with and of the same quality and materials as the other windows.
- Facade colors must be of low reflectance, subtle, neutral, or earth tone colors. The use of high intensity colors, metallic colors, and black or fluorescent colors is prohibited.
- Building trim may feature brighter colors, but neon tubing is not allowed as an accent material.

Relationship to the Surrounding Community

In order to assure that all large-scale developments relate and interact with the surrounding community and public streets, the following requirements must be met:

- All facades of a building that are visible from adjoining properties and/or public streets should encourage community integration by featuring characteristics similar to a front facade. This policy is implemented by requiring architectural treatments as discussed above.

- All sides of a principle building that directly face an abutting public street should feature at least one customer entrance. Where a principle building directly faces more than two abutting public streets, this requirement should apply only to two sides of the building.
- Where the facade faces adjacent residential uses, an earth berm of at least four (4) feet in height and planted with evergreen trees at intervals of 15 feet on center, or in clusters is required. Loading docks, trash collection, outdoor storage and similar facilities and functions shall be incorporated into the overall design of the building and the landscaping so that the visual and acoustic impacts of these functions are fully contained and out of view from adjacent properties and public streets. Use of screening materials that are different from or inferior to the principle materials of the building and landscape is prohibited.
- Each retail establishment must contribute to the establishment or enhancement of the community and public spaces by providing community amenities such as a patio/seating area, water feature, clock tower, and pedestrian plaza with benches.

Pedestrian Circulation

With most large-scale retail developments, pedestrians are often overlooked until they enter the establishment. In order to minimize potential conflicts between pedestrian and automobile traffic, making the development more attractive and safer for the pedestrian, the following requirements apply:

- Sidewalks at least 5 feet in width shall be provided along all sides of the total lot that abut a public street, and a continuous internal pedestrian walkway must be provided from the perimeter public sidewalk to the principle customer entrance. This internal walkway must feature landscaping, benches, and other such materials/features for no less than 50 percent of its length.
- Sidewalks must be provided along the length of any facade abutting public parking areas. Such sidewalks shall be located at least four feet from the facade of the building to provide planting beds for foundation landscaping.
- Internal pedestrian walkways must provide a weather protection feature such as an awning within 30 feet of all customer entrances.
- The internal pedestrian walkways must be distinguished from driving surfaces through the use of special pavers, bricks, or scored concrete to enhance pedestrian safety and the attractiveness of the walkways.

Parking

In order to minimize large expanses of pavement, parking areas are encouraged to be broken up into modules separated by landscaping and other features.

In order to encourage natural drainage measures, parking lot designs and construction should incorporate the use of drainage swales, vegetated filter strips, and other natural

drainage approaches - in contrast to storm sewers, lined channels, and curbs and gutters. Such measures will help to reduce runoff volumes and greatly enhance the removal of damaging pollutants from runoff water. Highland should strive to maintain the natural drainage system, including natural stream channels, wetlands, and floodplains.

Office and limited industrial facilities

Office and limited industrial facilities can serve as significant employment centers and tax generators for local economies. Given its proximity to major expressways, the City of Highland is well positioned to attract and maintain development of this nature.

The following guidelines have been created to ensure that such development only increases the attractiveness of Highland as a place to live and work. In order to assure that attractive development occurs at the sites delineated for such uses, the following development standards have been devised. As written, they apply to proposed Office and Limited Industrial uses and are arranged to address the following main elements of sound site design:

- Site Planning
- Principles Parking and Circulation
- Loading Facilities Landscaping
- Walls and Fences Screening
- Architectural Design
- Lighting

Site Planning Principles

- A variety of building and parking setbacks should be provided in order to avoid long monotonous building facades and to create diversity.
- Structures should be located on “landscaped islands,” where the office portion of the building does not directly abut paved parking areas. If applicable, a minimum 5 to 7 foot landscape strip should be provided between parking areas and the office portion of a structure.
- Building setbacks should be provided proportionate to the scale of the structure and in consideration of existing development adjacent to it. Larger structures require more setback area for a balance of scale.
- Where proposed uses are adjacent to dissimilar or incompatible uses, appropriate buffering techniques such as setbacks, screening and landscaping need to be provided to mitigate any negative effects of such operations.

Parking and Circulation

- The parking lot and cars should not be the dominant visual element of the site. Large expansive paved areas located between the street and the buildings are to be avoided in favor of smaller multiple lots separated by landscaping and buildings.
- Site access and internal circulation should be designed in a straight forward manner which emphasizes safety and efficiency. The circulation system should be designed to reduce conflicts between vehicular and pedestrian traffic, combine circulation and access areas where possible, provide adequate maneuvering and stacking areas and consideration for emergency vehicle access. Circulation routes and parking areas should be separated.
- Entrances and exits to and from parking and loading facilities should be clearly marked with appropriate directional signage where multiple access points are provided.
- Vehicles should not be required to enter the street in order to move from one area to another on the same site.
- Parking lots adjacent to and visible from public streets should be adequately screened from view through the use of rolling earth berms, low screen walls, changes in elevation, landscaping or combinations thereof whenever possible.
- Industrial sites should be self-contained developments capable of accommodating their own parking needs. The use of the public street for parking and staging of trucks should not be permitted.
- Where feasible, all parking spaces should be visible from the interior of the structures, especially entrances.

Loading Facilities

- To alleviate the unsightly appearance of loading facilities for industrial uses, these areas should not be located at the front of buildings where it is difficult to adequately screen them from view. Such facilities are more appropriate at the rear of the site where special screening may not be required.
- When it is not possible to locate loading facilities at the rear of the building, loading docks and doors should not dominate the frontage and should be screened from the street. Furthermore, loading facilities should be offset from driveway openings.
- Backing from the public street onto the site for loading into front end docks causes unsafe truck maneuvering and should not be utilized.

Landscaping

- Landscaping should be used to define areas by helping to focus on entrances of buildings; parking lots; defining the edges of various land uses; providing transition between neighboring properties (buffering); and providing screening for outdoor storage, loading, and equipment areas.

- Landscaping should be in scale with adjacent buildings and be of appropriate size at maturity to accomplish its intended goals.
- Landscaping around the entire base of buildings is recommended to soften the edge between the parking lot and the structure. This should be accented at entrances to provide focus.
- Trees should be located throughout the parking lot and not simply at the ends of parking aisles.
- Landscaping should be protected from vehicular and pedestrian encroachment by raised planting surfaces, depressed walks, or the use of curbs.

Walls and Fences

- Walls serve as a major function in the industrial landscape and should be used to screen automobiles, loading and storage areas, and utility structures. However, if not required for a specific screening or security purposes, they should not be utilized. The intent is to keep the walls as low as possible while performing their screening and security functions.
- Where walls are used at property frontages, or screen-walls are used to conceal storage and equipment areas, they should be designed to blend with the sites' architecture. Both sides of all perimeter walls should be architecturally treated. Plant materials should be used in combination with such walls.
- When security fencing is required, it should be a combination of solid pillars or short solid wall segments and wrought iron grill work.
- Long expanses of fence or wall surfaces should be offset and architecturally designed to prevent monotony.

Screening

- Screening for outdoor storage should be determined by the height of the material being screened. Exterior storage should be confined to portions of the site least visible to public view.
- Where screening is required, a combination of elements should be used including solid masonry walls, berms, and landscaping.
- Any equipment, whether on the roof, side of building, or ground, should be screened. The method of screening should be architecturally integrated with the building design in terms of materials, color, shape, and size. Where individual equipment is provided, a continuous screen is desirable.

Architectural Design

Office and industrial structures often present unattractive and monotonous facades. There are a variety of design techniques which can be utilized to help overcome this situation.

- Avoid long, “unarticulated” facades. Facades with varied front setbacks are strongly encouraged. Wall planes should not run in continuous direction for more than 50 feet without an offset.
- Avoid blank front and side wall elevations on street frontages.
- Building entries should be clearly defined within the architecture of the building.
- Architectural elements used in the front of the building should be incorporated into all rear and side elevations.
- Windows and doors are key elements of any structures form, and should relate to the scale of the elevation on which they appear. Windows and doors can establish character by their rhythm and variety. Recessed openings help to provide depth and contrast in elevation planes.
- The use of the following design elements should be avoided: highly reflective surfaces at the ground level; large blank, unarticulated wall surfaces; exposed, untreated block walls; chain link fence and barbed wire; “stuck on” mansard roofs on small portions of the roofline; materials with high maintenance such as stained wood, shingles, or metal siding.
- Wall materials should be able to withstand abuse or accidental damage from machinery and vehicles.
- For all uses, no more than 25% of the front facade should be permitted to have metal facing.
- Berming in conjunction with landscaping should be used at the building edge to reduce structure mass and height along facades.

Signage

All developments should be designed with a precise concept for adequate signage. Provisions for sign placement, sign scale in relationship with the building, and sign readability should be considered in developing the signing concept. All signage should be highly compatible with the building and site design relative to color, material, and placement and should comply to the City’s sign regulations. The internal illumination of signs should be prohibited. Low monument signs are encouraged as well as integration with landscaping.

Lighting

- Lighting should be used to provide illumination for the security and safety of on-site areas such as parking, loading, shipping and receiving, pathways, and work areas.
- The design of the light fixtures and their structural support should be architecturally compatible with the main buildings on-site. Illuminators should be integrated within the architectural design for the buildings.
- As a security device, lighting should be adequate but not overly bright. All building entrances should be well lighted.
- All lighting should be shielded to confine light spread within the site boundaries.

- All lighting must comply with the City's adopted ordinances, codes, and regulations as they relate to lighting.

Business Park

The following design guidelines are intended to direct the overall development in the areas delineated for office research/business park uses. This section contains the specific site guidelines that will implement the design philosophy on individual sites, ensuring that incremental development will result in a coherent whole. The section is arranged to address the following, and is designed to be complimentary to the aforementioned guidelines for office and limited industrial uses:

- Pedestrian and Auto Circulation
- Landscaping and Screening
- Architectural Design
- Parking
- Lighting
- Signage

Pedestrian Circulation

Pedestrian circulation should be facilitated throughout all business park developments and to off-site trails and open space areas. As part of a coordinated circulation system, an accessible pedestrian network with attractive views should be provided on individual lots. Each lot should be connected to open space amenities and the trail system by walkways of minimum width of five feet. Circulation patterns should be easy for the user to interpret, with primary linkages among the individual lots provided in the required setback areas. Access points from building areas and parking areas should be easily identifiable.

Vehicular Circulation

The vehicular circulation system provides for the coordinated development and access of individual parcels in a safe and efficient manner. The following circulation and access measures are encouraged:

- Wherever practical, primary access to individual lots should be from minor roads, to ensure that major or collector roads are retained as safe and efficient thoroughfares.
- Entry courts are encouraged, to provide a transition from the entrance drive to the building entry and parking and loading areas.
- Landscaped medians in the entry drive are recommended for developments greater than ten acres, and are encouraged for smaller office developments. The

- length of the median should equal the depth of the required setback yard. Special paving within the entry drive is encouraged to differentiate entrances.
- Loading areas should be located to the rear or side of the building. Parking areas are encouraged at the rear or side of the building.
 - Landscaped islands should be provided in parking areas to define circulation routes, screen parking, and provide relief from large vistas of pavement.

Landscape and Screening

A consistent standard of landscaping maintained throughout all proposed developments will establish an attractive visual identity for the development as well as for individual lots. In combination with common open space, well landscaped areas on each lot will create an aesthetically pleasing environment for visitors, consumers

- Planting is required for all landscape areas within lots, including utility and drainage easements and setbacks.
- Wherever possible, existing vegetation such as hedge rows and wetland plantings should be preserved and incorporated into the landscape design.
- Parking lots should be planted to minimize their presence and enhance their appearance. Parking lot screening from public rights-of-way and pedestrian walkways is required when existing site characteristics do not adequately screen parking areas. Parking areas in the rear and side of lots require less screening and are therefore encouraged. Landscaped islands within parking lots improve both appearance and circulation patterns.
- Trash enclosures, utility boxes, meters, pedestals, and loading/service areas must also be screened from adjacent properties, public rights-of-way, parking areas and pedestrian walkways. Screening for trash enclosures should consist of a solid wall of the same material as the principle building; roof equipment screening should consist of a parapet wall; and all other utility equipment and service areas should be screened with landscape material, equal in height or taller than the material being screened.

Architectural Criteria

Common architectural standards applied throughout a office research/business park will establish an attractive, unified visual image. While the following guidelines apply to every building in the development, architectural innovation is encouraged within the given framework.

- Buildings should be in scale with adjacent developments and with the ultimate character planned for each park. Building components, such as windows, doors, eaves, roof spans, etc., should be appropriately proportioned to one another.

- Facade articulation and visual interest can be increased by the introduction of windows, mullions, doors, and vertical or horizontal elements. Building length may be visually decreased by breaking up the facade with architectural elements.
- Awnings are encouraged as a means of adding visual interest and character to buildings. If used, awnings must be of cloth/canvas material and must be appropriate for and related to the proposed architectural style.
- When possible, building and building components should be of varied height to add variety and interest. Business/office entrances should be emphasized with peaked roof details, porches, columns, archways, or other unique features.
- All cooling towers, mechanical equipment or appurtenances, vents, intakes or stacks, or other rooftop structures shall be screened from view on all sides of the building by a parapet wall. Screens shall be constructed of materials that are compatible with the primary facades.
- All accessory structures on a lot shall share a common architectural theme with the primary structure. Architectural expression shall be consistent in color, materials, and design.
- All structures within an office research/business park are encouraged to be constructed with masonry construction of stone or brick on 90% of all exterior walls. Pained siding may be used in lieu of masonry materials for smaller office structures.
- Complete or partial pitched roofs are encouraged to enhance building appearance, with no exposed utilities or HVAC units.
- The use of divided windows with decorative window frames and thin profile mullions is encouraged. Decorative trim around all windows, doors, roof profile and wall corners is also encouraged.

Parking

Safe, well-designed and landscaped parking areas on individual lots will help to maintain the functionality and appearance of an office business park.

- Parking shall be provided on the same lot as the main buildings which require the parking.
- Parking areas are encouraged to be located to the side or rear of buildings on each lot. Limited visitor or short term parking may be located in front of the building if necessary, provided such parking is well screened from the right-of-way.
- The design of parking areas shall minimize conflicts between pedestrian and vehicular circulation.
- Landscaped parking islands shall be provided at both ends of rows of parking. A minimum of two trees is required per landscaped island. One island is required for every 25 parking spaces.
- A 25' wide fire lane should be provided within parking lots to provide adequate access for emergency vehicles.

Lighting

Lighting has a significant influence on the appearance, sense of safety, and image of a development. The following guidelines will enhance the sense of site continuity and contribute to a pleasant, orderly environment.

- All lighting types within a business park should be similar. Finishes of fixtures should be durable and easily maintained, in neutral colors.
- Excessive glare contributes to difficult and uncomfortable visual conditions and light spillage. All lighting shall be designed to minimize glare.
- Off-site light spillage is bothersome to adjacent users. All building or pole mounted lights should be aimed directly downward, and floodlights intended to light signage, landscape features, and facades should be aimed only at those features. Any light spillage should be limited to within a 100 foot band extending beyond the property line and should not exceed the following:
 - one tenth (0.1) footcandle horizontal maintained on grade at the 60 foot mark; and
 - one-one hundredth (0.01) footcandle horizontal maintained on grade at the 100 foot mark.
- All lighting standards within the proposed development sites must meet all relevant Ordinance and Code requirements adopted by the City

Signage

Guidelines for sign treatments ensure visual compatibility throughout a development site, while allowing for creative expression on individual lots.

- All signs are subject to the regulations of the City of Highland Sign Code.
- Freestanding signs should be ground or monument signs. Pole and pylon signs are discouraged.
- All signs are encouraged to have a base and frame of masonry material complementary to the materials on the primary building with which the sign is associated. Signs should incorporate a minimum number of harmonious colors.
- All signs should be externally illuminated.

Multiple-Family/Attached Residential

More and more communities are recognizing the benefits of encouraging a wide variety of housing options. Multiple-family and attached residential structures not only serve as a means by which to provide such a diversity of housing types. The following guidelines should be used to ensure that new multiple-family and attached residential developments fit well within the City's planning strategies. The guidelines are arranged to address the following:

- Site Planning Principles

- Landscaping
- Architectural Design Standards

Site Planning

- Integrate the site plan of the multi-family residential development with the surrounding neighborhood.
 - 1) Multi-family developments should provide pedestrian connections with the community.
 - 2) Avoid separating the development from the neighborhood with high fences, walls, or parking lots.
 - 3) Consider the established street, lot, and building patterns of the surrounding neighborhood, where they exist, in the new site design.
- Design the project in response to specific site conditions, including trees, streams, and other significant natural features.
 - 1) Protect stream corridors that cross the site.
- * Provide a network of open space to accommodate a variety of activities.
 - 1) The site plan should include usable open spaces that are easily accessible by residents and visually removed from parking lots.
 - 2) Plan for pedestrian circulation that conveniently links residential units with common open space, recreation, and parking.
 - 3) The open space network should be well lit at night without intruding into residential units.
- Setback buildings in conformance with the City zoning requirements.
 - 1) Setbacks provide the traditional residential neighborhood separation between dwelling and street. Use the setbacks to create a sense of entry and amenities for ground-floor residents.
- * Maintain residential character in the height, bulk, and scale of the multi-family development.
 - 1) Projects adjacent to single-family homes should be sited and designed to provide a transition to the smaller scale of the neighborhood.
 - 2) Employ techniques such as facade and roof modulation, landscaping, or setbacks to achieve a reduction in the visual mass of the buildings.
- Orient residential developments to the street and make primary building entrances visible from the street.
 - 1) Buildings in a multi-family development should visually relate to the neighborhood around them.
 - 2) Provide street-facing entries to the individual units whenever possible, to strengthen the residential streetscape and create a sense of neighborhood among residents.
- Locate parking lots to the side or rear of buildings to minimize their visual impact on the site.
 - 1) Locate garages and carports along non-street facing elevations.
 - 2) Provide safe pedestrian pathways from parking areas to unit entrances.
 - 3) Vehicle circulation should not conflict with pedestrian circulation or with children's play areas.

- 4) Consider incorporating several smaller lots as opposed to one larger lot into the site plan.
- * Locate dumpsters and mechanical equipment away from the street front, or screen them from view.
 - 1) Trash areas should not be generally visible from the sidewalk.
 - 2) Place mechanical equipment in an unobtrusive location.

Landscaping

- Use landscaping to integrate the multi-family development with the surrounding community along public rights-of-way.
 - 1) Sidewalks, planting strips, and street trees should be incorporated into the landscape plan for all new multi-family developments.
 - 2) The size and scale of proposed buildings should be considered when selecting plant species.
- Provide landscaping of appropriate scale in the area of required setbacks in conformance with City Code.
 - 1) Use landscaping in front and side yards to reinforce the neighborhood character of multi-family housing.
 - 2) Use landscaping to emphasize entries to residential units and create a sense of individual front yards.
 - 3) Choose plant materials which add color and form and which will complement the scale of the building at maturity.
- Enhance the site's interior network of open space with landscaping.
 - 1) Focus landscaping to create attractive smaller spaces to view, move through, and use.
 - 2) Define and separate public and private open space with landscaping.
- * Provide the enhancement of parking and utility areas with landscaping.
 - 1) Screen the view of parking lots within 20 feet of single-family residential uses, and parking lots visible from public rights-of-way, using shrubs, trees, low walls, berms, or a combination thereof.
 - 2) Locate landscaping to soften the view of parking from dwelling units.
 - 3) Reduce the scale and effect of large paved areas by visually breaking up the parking lot with landscaped islands.
 - 4) Separate rows of more than 8 parking spaces with a landscaped island or node equal in size to one parking space, and 16 double row parking spaces with 2 nodes equal to 2 parking spaces.
- Select plant materials that are suitable for Highland's climate zone and provide them with a viable irrigation system.
 - 1) Consider selecting a variety of plant materials, some native and others from similar climatic zones.
 - 2) Install a stationary irrigation system that provides full coverage of the landscaped area.

Architectural Design Standards

- Design with building forms that reflect the residential scale and rhythm of the community's single-family neighborhoods.
 - 1) Use facade articulation to reduce the perception of bulk and to reflect the traditional rhythm of a residential streetscape.
- Use roof forms and detailing traditional to the residential character of the community.
 - 1) In residential neighborhoods, choose traditional pitched roof lines such as gabled, hipped, or multi-gabled.
 - 2) In commercial and transitional neighborhoods, use roof lines that reflect the surrounding architecture.
- Avoid blank walls facing the street - design street facades with entries, windows, and/or detailing.
 - 1) Street-facing elevations of multi-family housing should be considered as primary facades.
 - 2) Treat each street facade with the same level of formality afforded to single-family home design.
- Provide some form of usable exterior living space, such as courtyards, porches, patios, or balconies.
 - 1) Outdoor living areas offer residents expanded space and sense of relief from the density of multi-family living.
 - 2) Create common courtyards or patios conducive to outdoor socializing.
- * Design building entrances that offer attractive, convenient, and safe access to the interior.
 - 1) To reinforce neighborhood character, entrances should be highly visible from the public street, providing a visual transition.
 - 2) Give entrances fronting the street special architectural emphasis.
 - 3) Both front and rear entrances and access to them should be sufficiently lit for secure entry.
- Provide windows that allow maximum interior light, privacy, and exterior rhythm and interest.
 - 1) Consider window design as an opportunity to provide variation and definition along street facades.
 - 2) Choose window designs that reflect traditional residential styles in the community.
- Use exterior building materials that are typically residential in character.
- Use exterior color schemes that fall within a traditional range of basic colors and are respectful to the surrounding neighborhood.
- Install signage that meets minimum sign code requirements, is residential in scale and design, and uses materials consistent with the architectural fabric of the development.

Open Space/Preservation

High quality public and open spaces are essential in maintaining a community character and sense of place. The following standards should be employed with regard to the development of open and public spaces.

- Active and passive parks and other open spaces should be provided to serve the new and existing residents.
- Provide convenient sidewalks of adequate width to promote a safe and comfortable alternative to vehicular travel.
- Enhance and maintain a strong definition of the public street corridor with mature street trees, lighting, and continuity of building facades. In pedestrian areas incorporate amenities and site furnishings such as: water fountains, news racks, bike racks, and bike parking facilities.
- All residents should have safe and efficient access to usable open space, whether public or private, for recreation and social activities.
- Open spaces should provide a focal point for the community both visually and socially.
- Common open spaces should be conveniently located for the majority of units.
- For multifamily developments, private open spaces should be contiguous to the units they serve, have direct access from the unit and be screened from public view.

Central Business Center:

As described in the Future Land Use Plan, the Central Business commercial land use category represents the City's original downtown commercial core, which historically was the primary center for business and civic activity. With the increase of auto-oriented commercial development, such traditional downtown cores have in many instances become "out-model" and unviable. However, the traditional qualities of commercial and residential use often provide an opportunity to enhance and maintain a unique identity, which has numerous social and economic benefits. The following guidelines were developed to ensure that the traditional charm and pedestrian-oriented character of downtown Highland is preserved and enhanced

- In-fill development along downtown streets should maintain and reinforce the line of the storefront at the sidewalk edge, maintaining the existing height to width proportion of the street.
- Maximum building setbacks or "build-to" lines should be established in order to provide continuity and scale to the roadway.
- Maintain continuity and rhythm with building materials and architectural details.
- Encourage the location of off-street parking areas to the side or rear of buildings on each lot. Limited visitor or short term parking may be located in front of the building if necessary, provided such parking is well screened from the right-of-way.

- Create attractive street corridors by encouraging store front windows, covered walkways, and highlighted entrances.
- Encourage decorative roof elements and variations in roof height to add visual interest and variety to facades. Existing building or lot widths should be maintained and should be consistent with adjoining buildings. Proposed buildings that do not conform to this standard should implement designs that reflect the presence of this rhythm of width.
- New buildings should maintain the established horizontal and vertical lines on the facades of the block and the general alignment of building heights should be reinforced.
- The window heights of the new projects in the business center should be aligned with other windows heights along the street facade.

Chapter 7: Transportation and Circulation Plan

Introduction and Statement of Goals

The history and growth of Highland has been intimately tied to transportation as yesterday's state roads and have grown into today's major roadways. It is evident that the transportation and circulation network has played an important role in defining past and present development patterns within the community, and will continue to play a major role in the City of Highland's future. Since the City last completed its Comprehensive Plan, the transportation network of the City has not been significantly altered.

As residential, commercial, industrial, and virtually all other forms of activity have always been influenced by their proximity to major transportation corridors with the City, it is essential that City planning be sensitive to the relationship between land use and transportation to maintain efficient circulation patterns as this relationship will continue to be intertwined in the future. This Chapter provides an inventory and evaluation of the current transportation and circulation network in the City of Highland, which includes both an evaluation of vehicles facilities (roadways and intersections), multi-modal facilities (pedestrian and bicycle facilities), and recommendations to address the future needs of the City.

Goals

This Chapter focuses on the following set of Goals facing the City as it plans for the future and seeks to establish policies and planning design criteria for the future transportation and circulation plan. They are as follows:

- Develop a transportation capital improvement plan with recommendations for safety and capacity-related traffic improvements to accommodate future traffic demands and safe travel in older neighborhoods.
- Implement traffic improvements for key roads and intersections to improve traffic flow and to encourage traffic to remain on the major routes.
- Develop traffic strategies for implementation, as appropriate, to help preserve neighborhoods.
- Use of landscaping and gateways to integrate the road system and traffic within the community to enhance and preserve the scenic character of the streets, without sacrificing safety.
- Improve pedestrian circulation by continuing sidewalk improvements as well as implementing trail and bicycle facilities.

Road Network

Vehicular use constitutes the primary form of circulation and transportation in the City of Highland, which is common for many communities in the region. It is important to ensure that the roadways within the community operate safely and efficiently. Furthermore, it is important that the City of Highland plan accordingly to implement strategies and improvements necessary to accommodate existing and future traffic and, where feasible, to encourage more use of public transit, bicycling, and walking to reduce future traffic congestion.

Current Roadways

Currently, there are approximately 60 linear miles of roadway within the City, which includes state and local roadways. The primary roadways, which comprise important links through the City as well as some operating characteristics of each of these roadways, are summarized in Map 1.

Traffic Signals

There are several intersections of public roadways within the City, of which the majority are unsignalized intersections controlled by stop signs on the minor, side street approaches, or in some cases all-way stop control. The intersections of the most heavily traveled roadways within the City are either controlled by traffic signals or a concept of roundabouts to move traffic through these intersections safely and efficiently. The intersections in the City that are presently signalized are indicated in Table 1.1.

Table 1.1; Traffic Signal Inventory

TRAFFIC SIGNAL INVENTORY		
Signalized Intersection Location	Number of Signals	Ownership
Broadway Ave & Walnut St	4	State of IL
Broadway Ave & Laurel St	4	State of IL
Broadway Ave & Washington St	5	State of IL
Broadway Ave & Cypress St	4	State of IL
Broadway Ave & Poplar St	4	State of IL
US 40 & IL 143	4	State of IL
Troxler Ave & IL 160	4	State of IL
Koepfli Ln & IL 143	4	State of IL
IL 143 & Cally Ln	3	City of Highland
Troxler Ave @ High School	2	City of Highland

Roadway Inventory and Classification

The functional classification is an organization method by which roadways are categorized into a system based on the function they serve. These systems designate roadways according to average daily traffic (ADT) volumes, roadway design, relationship to other network roadways, and function (access vs. mobility). Furthermore, highway function classification is a means by which the federal, state, regional, county, and city planners describe the hierarchy of roadway importance based upon the level of service the roads are intended to provide.

The functional classification allows the prioritization of maintenance and improvements. The general classification of roadways in terms of capacity/mobility from the highest-order to lowest-order includes arterial roads, collector roads, and local/residential described below.

Arterial Roads provide service to trips of moderate length, usually provide a high degree of mobility, and have relatively controlled access points. Arterial roads provide greater access to the adjacent roadway networks and are intended to carry the highest traffic volumes.

Major Collector Roads in general, connect Minor Collector roadways and major traffic generators. These roads are the major contributors to arterial traffic and convey fairly heavy traffic volumes at moderate speeds. Access points are usually controlled on collector roads. It is not uncommon for a major collector road to span the entire length of a municipality.

Minor Collector Roads facilitate low volumes of traffic at low speeds. They gather traffic from local roads and direct it to the arterial and major collector road networks. Minor collectors often provide traffic circulation between and within large residential neighborhoods.

Local/Residential Roads provide the greatest access to adjacent land. They provide for short distances, low speed of travel, and constitute the majority of the city's owned roads.

Table 1.2 displays the existing functional classification. The growth that has occurred in Highland has contributed to the increase of traffic volumes within the community and may require some roads to be reclassified.

Design Standards

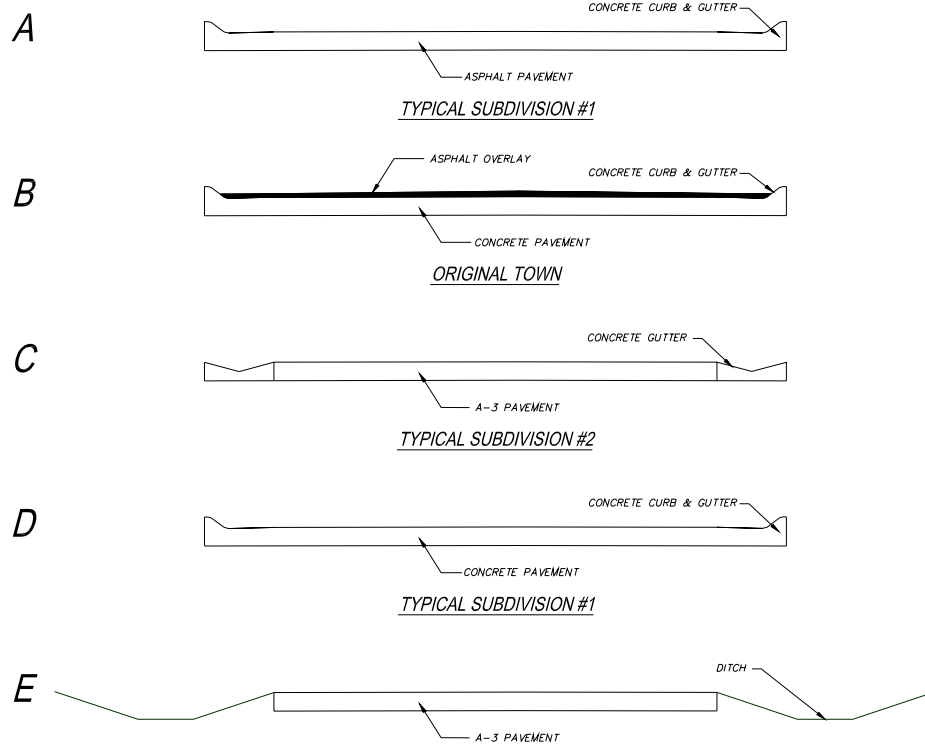
Street design standards promote traffic safety and continuity in street improvements and orderly development of the roadway system. Right-of-way widths accommodate travel lanes, adequate space between the curb and adjacent property lines, and allow for placement of pedestrian ways and utilities. The typical standards are presented in Table 1.3 and the following roadway cross sections. Marginal Access is a minor street which is parallel to and adjacent to arterial streets and highways, and which provides access to abutting properties and protection from through traffic.

Table 1.3; Street Design and Specification

Residential Street Classification	Average Daily Traffic	Permitted On-street Parking	Required R.O.W.- Min. (ft.)	Pavement Width (ft.)	Min/Max Cross Slope (%)
Marginal Access	0-100	None	40	10	2%-4%
Local Residential	100-1,000	One side	50	28 min. (see detail D-ST3, Appendix A)	1%-2%
Minor Collector	1,000-5,000	Both sides	80	36 min. (see detail D-ST2, Appendix A)	1%-2%
Major Collector	Over 5,000	None	100	36 min.-Rural; 44 min.-Urban (see detail D-ST1, Appendix A)	1%-2%
Arterial	To be determined by the Plan Commission and Director of Public Works.	None	100	To be determined by the Plan Commission and Director of Public Works.	1%-2%
Commercial & Industrial Streets		None	65	32	1%-2%

--	--	--	--	--	--

Typical Existing Roadway Cross Sections



Commercial and/or Industrial Streets to be determined by the Plan Commission and the Director of Public Works.

Additional Right-Of-Way

Right-of-Way width in excess of the standards set forth in the Table of Street Design Specifications (Table 1.3) shall be required where:

- A) Due to topography, additional width is necessary to provide adequate earth slopes; the maximum cut to fill slope resulting from street grading is four horizontal to one vertical.
- B) Due to the location of railroad tracks, additional width is needed to construct overpasses, underpasses, and approaches thereto.

Peripheral Route

The City has planned a peripheral route circling Highland designed to intercept collector streets and provide an alternate route. It is intended to help reduce congestion within the city and promote quicker access to various locations throughout the city.

Streets intersecting the City's peripheral route shall be a minor collector not less than eight (800) hundred feet apart. Residential driveway access shall not be permitted except existing driveways and platted lots with no other means of access.

Future Functional Classification of Roadways

The City of Highland's *Land Development Code* shall establish criteria for the classification of roadways based on daily traffic volumes. While actual current daily traffic volumes are often satisfactory criteria for evaluating the use and purpose of a roadway, it is important that the City also consider the design, location, and intended purpose of each roadway before reclassification.

Recommended Actions

The City of Highland shall annually monitor traffic volumes and patterns along local roadway network and take the following initiatives to maintain the adequacy of the roadway network.

- Identify all roadways within the City to reflect current traffic conditions and future needs.
- Continue to annually monitor future traffic conditions to determine if reclassification is needed.
- Upgrade roadways to satisfy the design criteria of newly reclassified roadways.
- Future developments should be monitored and regulated so that subsequent traffic generation does not alter the designated function of individual roads unless the design can be upgraded and is consistent with both the future land use and Master Street Plan. Developments should not cause restrictions on the ease of entering or exiting a roadway from adjacent properties, or increase traffic to encroach upon or exceed the capacity of the road.

Traffic Volumes and Operating Conditions

Traffic volumes provide valuable information when assessing a roadway network, as they indicate the level of usage of a particular roadway and are important for planning and design purposes. Traffic volumes are typically assessed for roadways on a daily basis while intersections are evaluated on a peak hour (the 60 minute period of the day that experiences the highest volume of traffic) basis, typically during weekday morning and afternoon commuter hours.

Recommended Actions

The City should consider the following to maintain efficient traffic operations along roads and at intersections within the community.

- Immediately start a traffic monitoring program to plan for road up grades and intersection improvements.
- Pursue funding opportunities for identified roadway and intersection improvements.
- Improve interface between automobile traffic and pedestrian movement.
- Determine roadway and intersection operating deficiencies.

Future Level of Service

As traffic volumes increase along roadways, the delay experienced by motorist will also increase without a future transportation plan. To properly plan for the future and develop an efficient future transportation plan network, potential improvements to the roadway network must be considered, which include improvements such as traffic signals and roundabouts. The City must complete a 2025 traffic volume study to determine a capacity/level of service analysis to identify key intersections and long-term improvements to accommodate these future traffic volumes.

Recommended Actions

The City should consider the following improvements and issues in order to maintain efficient traffic operations along all roads and intersections with the community, making sure in all cases that proposed transportation movements are consistent and compatible with all Recommended Actions set forth in this Comprehensive Plan.

- A long-term intersection improvement plan must be developed and included in 20 year transportation plan.

- Plan for the potential long-term improvements by acquiring the necessary right-of-way for geometric road configuration improvements when available.
- Require all developments to dedicate necessary right-of-way for future road improvements.
- Pursue funding opportunities with Townships, County, and State for identified roadways and intersection improvements. In all of its roadway and intersection improvements, make sure that pedestrian movements is given high priority.

Multi-modal Facilities

Multi-modal forms of transportation include non-vehicular means of travel including walking and bicycling. Safe, well established non-vehicle networks serving these activities can enhance the transportation network of a community, and in some cases help relieve traffic congestion.

Sidewalks are provided along a significant amount of local roadways within the City of Highland, or at least on one side of a collector road. Sidewalks along some collector roads are provided sporadically, thus requiring pedestrians to walk within roadways with high traffic volumes or on shoulder area.

Recommended Actions

- The City should continue to annually evaluate the existing inventory of its sidewalk facilities to determine the adequacy of the current sidewalk inventory.
- The City should ensure to the extent feasible that all sidewalk facilities, namely curb cuts, are ADA complaint, provide an adequate buffer between pedestrians and vehicular traffic, and are continuous to promote safe pedestrian travel.
- The sidewalk network within the Square and Historical areas should be provide consistent standard design of sidewalks, which will help to encourage pedestrian traffic with the areas, and should be considered in the implementation/adoption of any roadway/intersection improvements, streetscape enhancements, access management initiatives, and redevelopment applications.
- Explore the feasibility of providing a signalized pedestrian crossing along Broadway and Poplar Streets.

- Improve pedestrian circulation by continuing sidewalk improvements as well as implementing trail and bicycle facilities..

Bicycle Facilities

Currently, the City of Highland is designing bicycle lanes along major roadways. A connective network of sidewalk, trails, and bicycle facilities should be designed to provide a highly desired multi-modal transportation and circulation network, encouraging pedestrian, bicycle and other non-vehicle travel with the community.

Recommended Action

- The City should continue providing on-road bicycle facilities along major roads to enhance bicycle mobility throughout the community and provide links between other bicycle facilities, schools, and businesses.
- The City should create an Official Trail Map to establish current and future bicycle, pedestrian, and multi-use trails.

Chapter 8: Community Utilities

Electric System

Introduction and Statement of Goals

The City, as a member of the Illinois Municipal Electric Agency, owns, operates, and maintains its own electric utility system. The Highland Electric system, with an annual operating revenue of over \$9 million, has been owned and operated by the City since 1899. The system presently serves 5159 residential, 578 commercial and 177 industrial users spread out across a geographic area of approximately 64 square miles. Total electrical load for 2004 was 125,020 megawatt-hours, with a peak load this past summer (2005) of 35.6 megawatts

A dedicated 138KV Transmission line and a new 138/34.5KV substation, which were placed in service in 1999, serve the City. This line, which is the main electric supply to the city, runs from Collinsville to the power plant yard. It consists of 176 poles spaced along a route that is 14.7 miles in length, connecting an Ameren-IP transmission line to the Highland 138 kV substation. Two 34.5KV sub-transmission lines serve as backup. A new substation is being added on the East side of town. This will allow for load growth and provide redundancy. A second service point will be provided that will permit the City's load to be split and served independently from each of the 34.5KV back lines further ensuring the reliability of the City's power delivery system from either Greenville or Collinsville. The distribution system consists of 6,672 poles, 1,780 pole mounted transformers, 627 pad mount transformers and 5 substations. The City has a firmly delineated service area, which stretches far outside the actual city limits (see Utility/Service Boundaries Map). The City of Highland has agreed to service boundaries with Southwest Electric Co-Op, Clinton County Co-Op, and Ameren-IP. There are 247 miles of overhead circuits and 77 miles of underground circuits. In addition, the City of Highland has 17 Megawatts of diesel backup generation (just under 50 percent of the 2005 peak summer load) to offset supply shortages and system problems. Redundancy of the system supply along with the City owned backup generation ensures maximum power reliability under all but the most catastrophic situations.

Vision

To be the most reliable and affordable municipal-owned electrical system in Southern Illinois.

Goals

- 1) To complete an overall electric system plan that meets growth demands for the next 20 years.
- 2) Install a second 138/34.5KV main substation transformer for system redundancy and future system growth.

- 3) Construct a new Eastside 34.5/13.2KV substation and supporting 34.5KV sub-transmission line to maintain system reliability and ensure capacity is available for the distribution system in the East and South part of the system.
- 4) Continue upgrade and modernization of the electrical and generating systems. Upgrading line capacity, converting the older 2.4KV distribution circuits to 13.2KV, replacing deteriorated poles, installing automation and monitoring capability, and maintaining generators at a high state of operational readiness are on-going and critical to maintaining the best service possible for the community.
- 5) To expand electric system whenever possible.

Objective

Strive to maintain, improve, and expand The City of Highland Electrical Distribution System to meet and exceed the electrical requirements of our customers.

Water and Sanitary Sewer Utilities

Introduction and Statement of Goals

The city of Highland operates its own water treatment plant and distribution mains. Water is drawn from Highland Silver Lake, a reservoir constructed in 1960 with its primary use as a source of drinking water. The plant was upgraded in 1993 to a capacity of 4.2 MGD. The average daily flow is 1.2 MGD with an average maximum of 2.2 MGD. The storage capacity consists of a 1 million gallon ground storage tank, 200,000 gallon elevated storage, and 150,000 and 100,000 gallon clear wells. Construction of a 1.5 million gallon standpipe is scheduled for completion in 2006.

The distribution mains are located primarily within the corporate limits; however, there are customers located outside the limits. The Highland water system supplies wholesale water to St. Jacob, Grantfork, Pierron, and Country Hills Subdivision. The distribution system serves a population of 12,825 with over 4,100 services.

The city of Highland operates its own water reclamation facility and collection system. The treatment process is an Orbal Process (oxidation ditch) that is an activated sludge process consisting of single sludge, continuous flow multi-reactor system. The plant was upgraded in 1998 to a design average flow of 1.6 MGD, with a peak flow capacity of 4.0 MGD. The current flow is 1.155 MGD with excess capacity of 445,000 GPD.

The collection system serves over 3,800 customers including 8 significant-user industrial customers in the pretreatment program.

As growth expands into outreaching areas, it is necessary to plan for a well-looped distribution system with adequate main sizes always planning towards the future. In

addition, it is necessary to plan for future trunk lines in strategic locations to assure adequate collection capabilities.

Goals

- Develop and maintain a water distribution model to assure sufficient pressure within the entire system.
- Develop a program to replace existing older undersized and problematic mains and loop dead ends.
- Upgrade system controls and equipment in the water treatment plant.
- Develop and implement measures to accurately track water losses.
- Reconstruct the Low Level Outlet Works and assure other features of the dam structures are maintained.
- Develop and implement measures to protect and maintain Highland Silver Lake as a quality water source.
- Implement the Facilities Plan as currently proposed to the Illinois Environmental Protection Agency in 2005.
- Purchase property for the water reclamation plant's expansion and buffer protection.
- Develop a plan to upsize, replace, or reline existing sanitary mains.
- Develop a plan to proactively eliminate sources of inflow and infiltration in the collection system.
- Implement a program to rehabilitate or replace bricked manholes.
- To expand both water and wastewater system within City limits.

Chapter 9: Community Services

INTRODUCTION

The Community Comprehensive Planning team is comprised of Highland Police Chief, Terry Baney, Hospital Administrator, Claudio Fort, Highland Fire Chief, Mike Kilgore, EMS Supervisor, Gary Crosby, Planning & Zoning members, Brad Korte and Dr. Rick Acuncius and Director of Parks & Recreation, Mark Rosen.

Taking into consideration that the committee is not versed in developing a professional comprehensive plan, our goals were to provide a plan that outlines where we are and where we anticipate being by 2025.

Planning and Zoning:

Past city officials knew that for Highland to grow and prosper it needs people and people deserve the best locations to reside. That is why our ordinances are written to state that any new land coming into the city will be residential and subsequent use will be determined by the citizens through planning, zoning and council hearings. These groups need a guide on which to base their decisions. This is where a good comprehensive plan comes in. The comprehensive plan can be used to determine future zoning and guide us in a direction which makes the best use of the land for all citizens. The future cannot be predicted, but present trends can be analyzed and evaluated to give an idea of direction of future development. There are many things which must be addressed before development. Some of them to be considered are:

1. Location of police and fire protection.
2. Buffer zones between different types of zoning.
3. Recreational areas.
4. Housing types, such as assisted living centers, multi-family housing, Uni-plex and villa type homes.
5. Infrastructure requirements as related to utilities.
6. Vacant or vacated property, due to age or change of use.
7. In-fill of established neighborhoods.
8. Location of schools.

In summary, there are many issues that we are aware of right now, that have the potential of affecting our safety, comfort and finances. We need to address them now as part of planning for the future so that the impact of growth and development will not burden us unduly.

Emergency Medical Services

Introduction and Statement of Goals

The City of Highland first rendered ambulance service in the 1920's with a vehicle that was used by the Red Cross in the First World War. Local funeral homes took over service until June 1974 when Federal and State regulations forced them to give up the service and the City of Highland again took over. Currently, Emergency Medical Services handles all calls for assistance for an area approximately 185 square miles which includes the Highland Fire District, Highland-Pierron Fire District, Saint Rose Fire District, Saint Jacob Fire District and the Grantfork Fire District.

Highland Fire-EMS maintains a fleet of three Advanced Life Support (Paramedic) ambulances from its location in Fire Station #1 at 1122 Broadway, staffing two units 24 hours a day, 7 days a week with the third in reserve.

Emergency Medical Services responds to Emergency scene calls (including first alarm structure fires), Emergency Inter-facility transfers, Non-emergency transfers to extended care facilities or private residences and standby at local events such as Schweitzerfest, Kirchenfest, races and football games.

Highland Fire-EMS is committed to providing the highest level of care to the communities of Highland, Pierron, St. Jacob, St. Rose and Grantfork.

Goals

- Construct new fire / EMS station on north side of City
- Maintain efficient ambulance response times
- Hire additional staff to meet the needs and expectations of our citizens
- Expand / Upgrade Fire Station #1
- Strengthen hospital / EMS relationship
- Expand community education programs
- Maintain relationships with contracted fire districts.

Fire Department

Chief Mike Kilgore indicated that the fire department sees little change needing to occur for a lengthy period of time as they budget for new trucks annually through the City Property and Replacement Fund.

The only major need over the next 5-10 years would be expansion of Fire Station #1 because of new designs being implemented in fire truck assembly and need to provide adequate 'housing' for EMS and, depending on the growth of Highland, full-time Fire Fighters. This expansion would require either additional frontage added to the building and/or purchase of property to the west of the existing fire station.

Police Department

Introduction and Statement of Goals

The Highland Police Department is a full service police department which currently consists of twenty-eight full time employees. This includes a Chief of Police, four sergeants, fifteen patrol officers, an administrative assistant, a community service officer, a records assistant and five Telecommunicators. Of the fifteen patrol officers, two serve as detectives and one serves as a school resource officer. The police department also employs a part-time Telecommunicator to supplement its communication's staff and five part-time school crossing Guards.

While the police department provides a wide range of services to the City of Highland in regards to law enforcement and related areas, the department also provides emergency EMS and Fire dispatch services for the Highland Fire Department as well as neighboring communities and unincorporated areas. The police department augments its ability to suppress and investigate crime through the department's cooperation with the Metropolitan Enforcement Group of Southern Illinois, the Metropolitan East - Major Case Squad and the Illinois Law Enforcement Alarm System. The police department will utilize these organizations as well as the Illinois State Police, Madison County Sheriff's Office and other law enforcement agencies as the need presents itself.

Along with its law enforcement obligation the Highland Police Department is tasked with emergency management responsibilities. This calls for coordination with Madison County Emergency Management, Illinois Emergency Management Agency, and the Federal Emergency Management Agency. The purpose of emergency management is to 1) mitigate loss of life, injuries, and damage to property; 2) respond too; and 3) recovery of natural, technological, human error, or terrorist created catastrophes.

The police facility is located at 820 Mulberry which is accessed by residential streets which feed off Broadway and Walnut. The facility was constructed in 1982 for a staff of approximately seventeen employees. There are four report writing stations throughout the community for which officer may elect to utilize to meet with residents and or

complete reports. The current police vehicle fleet consists of six marked patrol vehicles, two administrative vehicles, two detective vehicles and a command post vehicle.

Goals

- Continue to provide the highest level of police service and remain fiscally responsible.
- Continue to meet the ever growing unfunded mandates directed by the State and Federal Government as they relate to law enforcement, emergency management and homeland security.
- Address facility needs.
The current five year budget projection identifies the construction of a prisoner sally port attachment to the Northeast side of the police facility. The current Police Station can be sustained for the next 5-10 years, but consideration should be made to enlarge the building or relocate the facility to a larger space more easily accessed by the public and centrally located within the City, with consideration of the City's north side developments.. Expanding the current building south with a two story addition will allow the building additional administrative, investigative and patrol space.

The current police facility is handicap compliant on the ground level floor but not so on the lower level as it is not wheel chair accessible. Any future building expansion should include a handicap elevator to allow full use of the department's training room on the lower floor. It seems there is a trend for police and fire facilities to join as a complex in centrally located area visible from main thoroughfares.

- Maintain adequate personnel.

As of now the police department operates at times with a minimum staffing of two police officers on the street. The department is now looking at increasing minimum staffing to three officers for designated peak times. In order to continuously have a three officer minimum, and provide for leave time four additional officers will need to be added.

An addition of a Community Service Officer to be assigned to an afternoon shift would free up officers for other than CSO capable duties.

Over the next ten years the need for an additional sworn supervisor will become more evident; this supervisor would be placed in a command position over other supervisors and will be able to occasionally fill in for absent supervisors.

Resident to Officer Ratio

Population 8500
19 sworn officers
Ratio 447/1 (prior to Sept. 05')

Population 8500
20 sworn officers
Ratio 425/1 (currently)

If the ideal ratio is between 425/1 and 450/1, the following will be the population indicators for additional officers;

Population 9300
21 sworn officers
Ratio 447/1

Population 9,850
22 sworn officers
Ratio 447/1

Possibility of increased daytime population with the increase of commercial business and or the opening of Route 70 entrance ramp would be cause for a ratio consideration on calls per officer rather than population per officer, which would result in a need for additional officers proportionately.

Calls to Officer Ratio
2004
19 sworn officers
Ratio 578/officer

2005
19 sworn officers (the twentieth sworn officer will not be in-service until Dec. 19, 2005)

As the patrol division grows so will the need for additional patrol vehicles and associated expenses, i.e. training etc.

- Continue to address communication / dispatch needs.

Highland Police Department currently houses a state of the art communications center capable addressing foreseeable issues.

Future police/fire dispatch needs are dependant upon the outcome of current County initiatives to centralize dispatch services. The City will choose to participate or not participate with a centralized dispatch based upon benefits and cost. As of this time it appears that some of the funds and equipment made available to local dispatch centers for E-911 may be reduced or eliminated if they

choose not to centralize. If the City chooses to join centralized dispatch, additional building space within the police facility will be made available.

- Maintain quality of equipment.

The Highland Police Department has been fortunate in that it has been provided many of the most current tools available to law enforcement especially in regards to officer safety. The department needs to continually assess the condition of current equipment and consider timely replacement with financial soundness, such as the replacement of police vehicles before major and timely repairs occur. There must also be consideration towards new innovative products that should be evaluated as to its related service to the police department.

- Continue to address City's ability to mitigate, respond to and recover from disasters. This calls for collaboration with City Departments, St. Joseph Hospital, community volunteers and County, State and federal Government.
- Continue to explore funding alternatives such as grants for equipment and programs.

Parks & Recreation

Introduction and Statement of Goals

The Highland Parks & Recreation Department can be traced back to the 1800's, but really came into its existence with the opening of the Weinheimer Community Center in 1954. The department maintains 12 parks and facilities and with the exception of the 700+ acres of timber surrounding the 550 acres of Silver Lake, approximately 182 acres of park land is maintained to protect our water supply.

The parks that are maintained can be classified as Neighborhood, Athletic, Regional, Historical, Recreational, and Native. Granted, some of our parks are considered to be multi-dimensional.

The ratio of citizens to park acres, using the anticipated new census data equals 51:1. As growth expands into areas that are on the fringes of the established boundaries, plans will need to be considered to provide recreational services, i.e. trails, playgrounds, greenspace, to these areas.

The department also provides both athletic and non-athletic programs for people of all ages. The majority of the programs offered accept those residing in not only the City of Highland limits, but also the Highland Community School District #5. There is a fee differential for most programs, except for the programs that utilize school district facilities where there is no differential.

Goals

- Develop a trail network linking neighborhoods to park facilities
- Develop recreational services on and around Silver Lake
- Continue upgrading of park amenities to meet ADA standards
- Replace or relocate an aquatics facility that can be multi-functional
- Purchase property surrounding Silver Lake to protect the City's water supply.
- Expand Korte Recreation Center
- Hire additional staff to meet the needs and expectations of our citizens
- Continue upgrades to the Weinheimer Community Center
- Coordinate development of the Highland Regional Arboretum

Chapter 10: Economic Development

(The Economic Development Commission is working on this plan.)

Chapter 11: Implementation Plan

The Comprehensive Plan is a policy, an expression of community intentions and aspirations. However, the plan is not an end unto itself; it also must be understood as part of a broader growth management process.

The growth management process describes the system necessary to assure effective management of development. It is a conscious program intended to influence the rate, amount, type, location and/or quality of future development within a local jurisdiction. Growth management brings together the comprehensive plan and the tools of implementation. In the implementation phase decisions are made about funding and regulatory controls.

Planning in Highland does not end with the adoption of this Comprehensive Plan, rather, it is the beginning of a process of continuing implementation whereby the Plan serves as a guide for public and private decisions affecting the future of the community. This requires that both City officials and residents be familiar with and generally support the major tenets of the Plan. It is important, therefore that the Plan be well publicized, understood and supported by the entire community. On the other hand, the Plan is not static, it must be re- examined periodically and updated as conditions and community aspirations change.

Plan implementation consists of a wide range of activities, some of which are pro-active while others are reactive, both of which are vital to implementing the Plan. Pro-active actions are those in which the City initiates actions through a proposal, plan, improvement or regulatory change. Reactive actions are those in which other parties approach the City with a proposal on which the City must act.

Plan implementation begins with the adoption of the Plan by the City Council, which upon adoption, the stated policies and recommendations must be carried out. Because the implementation phase will require time and effort on the part of City Staff, the City Council should establish a priority list for all activities to be undertaken. To implement the Comprehensive, the City should consider the following activities:

- 1) Update and revise the Zoning Ordinance to reflect issues and policies addressed in the Plan. This is currently underway.
- 2) Modify the Land Development Code.
- 3) Adopt an Official Map
- 4) Adopt a 3 to 5 year capital improvements program and mid-range budget.
- 5) Involvement of the Planning Commission in the City's capital improvements programming and budgeting process should be considered to assure that proposed

capital projects are consistent with the objectives and policies of the Comprehensive Plan, and that Plan recommendations involving capital projects are implemented. The Commission should not necessarily prepare the annual update of the capital improvements program, but should review and make recommendations to the Mayor and City Council on appropriate items in cooperation with those city agencies traditionally responsible for capital improvements program preparation.

6) Prepare and annually update an implementation program. Such program should identify and define each planning and community development activity to be carried out during a particular fiscal year, the individual responsibilities of staff in each activity, and the specific involvement of the Planning Commission where appropriate.

7) Prepare a fiscal impact analysis of key growth areas to determine the long term impact on City finances and services.

8) Develop a comprehensive appearance plan to address the appearance and image of the community.

Comprehensive Plan Monitoring and Update

This Comprehensive Plan is based on currently available information regarding community desires, development trends, and understanding of environmental issues. Over time, most if not all of these assumptions will change.

The Planning Commission, with staff assistance, should conduct an annual review of development activity in the City. This activity should be compared with the Comprehensive Plan for consistency. When development has been approved that is inconsistent with the Comprehensive Plan, then it is clear that the plan needs to be updated to reflect current community thoughts regarding growth management.

For a municipal Comprehensive Plan to remain an effective tool in guiding development, it must be kept current. Given the rate of development anticipated in the near future, it is recommended that the City review and update Future Land Use Plan and the transportation components of the plan as needed, but at least every two to three years. The entire Comprehensive Plan should be reviewed and updated every five years.

Appendix

Population Characteristics 1990

Subject	Number
Total population	7,525
SEX	
Male	3,500
Female	4,025
AGE	
Under 5 years	521
5 to 17 years	1,448
18 to 20 years	268
21 to 24 years	352
25 to 44 years	2,217
45 to 54 years	707
55 to 59 years	328
60 to 64 years	323
65 to 74 years	644
75 to 84 years	486
85 years and over	231
Under 18 years	1,969
65 years and over	1,361
HOUSEHOLDS BY TYPE	
Total households	2,893
Family households (families)	2,015
Married-couple families	1,746
Other family, male householder	60
Other family, female householder	209
Nonfamily households	878
Householder living alone	811
Householder 65 years and over	455
Persons living in households	7,297
Persons per household	2.52
GROUP QUARTERS	
Persons living in group quarters	228
Institutionalized persons	228
Other persons in group quarters	0
RACE AND HISPANIC ORIGIN	
White	7,478
Black	4
American Indian, Eskimo, or Aleut	5
Asian or Pacific Islander	28
Other race	10
Hispanic origin (of any race)	54
Total housing units	3,047

OCCUPANCY AND TENURE	
Occupied housing units	2,893
Owner occupied	2,005
Renter occupied	888
Vacant housing units	154
For seasonal, recreational, or occasional use	1
Homeowner vacancy rate	0.9
Rental vacancy rate	6.9
Persons per owner-occupied unit	2.77
Persons per renter-occupied unit	1.97
Units with over 1 person per room	43
UNITS IN STRUCTURE	
1-unit detached	2,116
1-unit attached	32
2 to 4 units	395
5 to 9 units	128
10 or more units	303
Mobile home, trailer, or other	73
VALUE	
Specified owner-occupied housing units	1,781
Less than \$50,000	538
\$50,000 to \$99,999	1,084
\$100,000 to \$149,999	110
\$150,000 to \$199,999	27
\$200,000 to \$299,999	18
\$300,000 or more	4
Median (dollars)	61,600
CONTRACT RENT	
Specified renter-occupied housing units paying cash rent	858
Less than \$250	347
\$250 to \$499	489
\$500 to \$749	22
\$750 to \$999	0
\$1,000 or more	0
Median (dollars)	281
RACE AND HISPANIC ORIGIN OF HOUSEHOLDER	
Occupied housing units	2,893
White	2,883
Black	0
American Indian, Eskimo, or Aleut	2
Asian or Pacific Islander	6
Other race	2
Hispanic origin (of any race)	19
Subject	Number

(X) Not applicable

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File 1 (100% Data)

Matrices P1, P3, P5, P6, P8, P11, P15, P16, P23, H1, H2, H3, H5, H8, H10, H18A, H21, H23, H23B, H32, H32B, H41.

Income - Poverty Characteristics 1989 -1990

Subject	Number
INCOME IN 1989	
Households	2,873
Less than \$5,000	104
\$5,000 to \$9,999	271
\$10,000 to \$14,999	246
\$15,000 to \$24,999	520
\$25,000 to \$34,999	474
\$35,000 to \$49,999	631
\$50,000 to \$74,999	464
\$75,000 to \$99,999	87
\$100,000 to \$149,999	61
\$150,000 or more	15
Median household income (dollars)	32,009
Family households	2,034
Less than \$5,000	20
\$5,000 to \$9,999	72
\$10,000 to \$14,999	68
\$15,000 to \$24,999	334
\$25,000 to \$34,999	409
\$35,000 to \$49,999	560
\$50,000 to \$74,999	415
\$75,000 to \$99,999	80
\$100,000 to \$149,999	61
\$150,000 or more	15
Median family income (dollars)	37,883
Nonfamily households	839
Less than \$5,000	94
\$5,000 to \$9,999	199
\$10,000 to \$14,999	176
\$15,000 to \$24,999	193
\$25,000 to \$34,999	58
\$35,000 to \$49,999	63
\$50,000 to \$74,999	49
\$75,000 to \$99,999	7
\$100,000 to \$149,999	0
\$150,000 or more	0
Median nonfamily household income (dollars)	12,750
Per capita income (dollars)	13,733
INCOME TYPE IN 1989	
Households	2,873
With wage and salary income	2,129
With nonfarm self-employment income	359
With farm self-employment income	48
With Interest, Dividend, or Net Rental Income	1,560
With Social Security income	965
With public assistance income	109
With retirement income	468

Subject	Number
POVERTY STATUS IN 1989	
Persons for whom poverty status is determined	7,302
Below poverty level	331
Persons 18 years and over	5,382
Below poverty level	247
Persons 65 years and over	1,154
Below poverty level	98
Related children under 18 years	1,910
Below poverty level	74
Related children under 5 years	521
Below poverty level	50
Related children 5 to 17 years	1,389
Below poverty level	24
Unrelated individuals	963
Below poverty level	165
Families	2,034
Below poverty level	65
With related children under 18 years	1,081
Below poverty level	65
With related children under 5 years	477
Below poverty level	49
Female householder, no husband present	169
Below poverty level	41
With related children under 18 years	104
Below poverty level	41
With related children under 5 years	41
Below poverty level	41
Subject	Number

(X) Not applicable

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File 3 (Sample Data)
 Matrices P4, P5, P19, P80, P80A, P90, P91, P92, P93, P94, P95, P96, P107, P107A, P110, P110A, P114A,
 P117, P122, P123, P126.

Housing Characteristics 1990

Subject	Number
Total housing units	3,047
YEAR STRUCTURE BUILT	
1989 to March 1990	52
1985 to 1988	89
1980 to 1984	284
1970 to 1979	754
1960 to 1969	472
1950 to 1959	466
1940 to 1949	261
1939 or earlier	669
BEDROOMS	
No bedroom	0
1 bedroom	407
2 bedrooms	988
3 bedrooms	1,143
4 bedrooms	375
5 or more bedrooms	134
SELECTED CHARACTERISTICS	
Lacking complete plumbing facilities	0
Lacking complete kitchen facilities	11
Condominium housing units	98
SOURCE OF WATER	
Public system or private company	3,034
Individual drilled well	13
Individual dug well	0
Some other source	0
SEWAGE DISPOSAL	
Public sewer	3,015
Septic tank or cesspool	32
Other means	0
Occupied housing units	2,893
HOUSE HEATING FUEL	
Utility gas	2,279
Bottled, tank, or LP gas	20
Electricity	388
Fuel oil, kerosene, etc.	198
Coal or coke	0
Wood	8
Solar energy	0
Other fuel	0
No fuel used	0
YEAR HOUSEHOLDER MOVED INTO UNIT	
1989 to March 1990	514
1985 to 1988	651
1980 to 1984	483
1970 to 1979	575
1960 to 1969	398
1959 or earlier	272

Subject	Number
TELEPHONE	
No telephone in unit	136
VEHICLES AVAILABLE	
None	272
1	943
2	1,192
3 or more	486
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS	
Specified owner-occupied housing units	1,738
With a mortgage	803
Less than \$300	23
\$300 to \$499	149
\$500 to \$699	304
\$700 to \$999	275
\$1,000 to \$1,499	52
\$1,500 to \$1,999	0
\$2,000 or more	0
Median (dollars)	654
Not mortgaged	935
Less than \$100	12
\$100 to \$199	366
\$200 to \$299	430
\$300 to \$399	97
\$400 or more	30
Median (dollars)	218
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989	
Specified owner-occupied housing units	1,738
Less than 20 percent	1,221
20 to 24 percent	244
25 to 29 percent	114
30 to 34 percent	84
35 percent or more	75
Not computed	0
GROSS RENT	
Specified renter-occupied housing units	888
Less than \$200	135
\$200 to \$299	140
\$300 to \$499	437
\$500 to \$749	146
\$750 to \$999	8
\$1,000 or more	0
No cash rent	22
Median (dollars)	364

Subject	Number
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1989	
Specified renter-occupied housing units	888
Less than 20 percent	305
20 to 24 percent	110
25 to 29 percent	189
30 to 34 percent	47
35 percent or more	215
Not computed	22
Subject	Number

(X) Not applicable

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File 3 (Sample Data)

Matrices H1, H4, H6, H7, H23, H24, H25, H28, H30, H31, H35, H37, H42, H43, H43A, H51, H52, H52A, H58, H64

Labor Force and Employment Statistics 1990

LABOR FORCE STATUS	
Persons 16 years and over	5,758
In labor force	3,770
Civilian labor force	3,761
Employed	3,618
Unemployed	143
Armed Forces	9
Not in labor force	1,988
Males 16 years and over	2,587
In labor force	2,029
Civilian labor force	2,020
Employed	1,942
Unemployed	78
Armed Forces	9
Not in labor force	558
Females 16 years and over	3,171
In labor force	1,741
Civilian labor force	1,741
Employed	1,676
Unemployed	65
Armed Forces	0
Not in labor force	1,430
Females 16 years and over	3,171
With own children under 6 years	501
With own children 6 to 17 years only	500
Own children under 6 years in families and subfamilies	602
All parents present in household in labor force	394
Own children 6 to 17 years in families and subfamilies	1,308
All parents present in household in labor force	981
Persons 16 to 19 years	393
Not enrolled in school and not high school graduate	23
Employed or in Armed Forces	8
Unemployed	15
Not in labor force	0
COMMUTING TO WORK	
Workers 16 years and over	3,594
Drove alone	2,753
In carpools	591
Using public transportation	24
Using other means	16
Walked or worked at home	210
OCCUPATION	
Employed persons 16 years and over	3,618
Executive, administrative, and managerial occupations	465
Professional specialty occupations	424
Technicians and related support occupations	147
Sales occupations	448
Administrative support occupations, including clerical	588
Private household occupations	30
Protective service occupations	64
Service occupations, except protective and household	405

Farming, forestry, and fishing occupations	47
Precision production, craft, and repair occupations	410
Machine operators, assemblers, and inspectors	309
Transportation and material moving occupations	169
Handlers, equipment cleaners, helpers, and laborers	112
INDUSTRY	
Employed persons 16 years and over	3,618
Agriculture, forestry, and fisheries	45
Mining	7
Construction	143
Manufacturing, nondurable goods	274
Manufacturing, durable goods	577
Transportation	120
Communications and other public utilities	84
Wholesale trade	213
Retail trade	758
Finance, insurance, and real estate	160
Business and repair services	93
Personal services	108
Entertainment and recreation services	32
Health services	345
Educational services	302
Other professional and related services	207
Public administration	150
CLASS OF WORKER	
Employed persons 16 years and over	3,618
Private wage and salary workers	2,911
Government workers	427
Local government workers	208
State government workers	136
Federal government workers	83
Self-employed workers	248
Unpaid family workers	32
Subject	Number

(X) Not applicable

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, Summary Tape File 3 (Sample Data)
Matrices P49, P61, P70, P73, P74, P77, P78, P79.

Housing Characteristics 2000

Subject	Number	Percent
Occupied Housing Units	3,430	100.0
UNITS IN STRUCTURE		
1-unit, detached	2,328	67.9
1-unit, attached	58	1.7
2 units	236	6.9
3 or 4 units	215	6.3
5 to 9 units	223	6.5
10 to 19 units	147	4.3
20 or more units	136	4.0
Mobile home	78	2.3
Boat, RV, van, etc.	9	0.3
YEAR STRUCTURE BUILT		
1999 to March 2000	61	1.8
1995 to 1998	307	9.0
1990 to 1994	183	5.3
1980 to 1989	436	12.7
1970 to 1979	710	20.7
1960 to 1969	370	10.8
1940 to 1959	673	19.6
1939 or earlier	690	20.1
ROOMS		
1 room	0	0.0
2 rooms	144	4.2
3 rooms	188	5.5
4 rooms	769	22.4
5 rooms	811	23.6
6 rooms	641	18.7
7 rooms	367	10.7
8 rooms	227	6.6
9 or more rooms	283	8.3
Median (rooms)	5.3	(X)
YEAR HOUSEHOLDER MOVED INTO UNIT		
1999 to March 2000	645	18.8
1995 to 1998	1,013	29.5
1990 to 1994	565	16.5
1980 to 1989	445	13.0
1970 to 1979	376	11.0
1969 or earlier	386	11.3
VEHICLES AVAILABLE		
None	222	6.5
1	1,235	36.0
2	1,410	41.1
3 or more	563	16.4
HOUSE HEATING FUEL		
Utility gas	2,778	81.0
Bottled, tank, or LP gas	18	0.5
Electricity	523	15.2
Fuel oil, kerosene, etc.	102	3.0
Coal or coke	0	0.0
Wood	0	0.0
Solar energy	0	0.0
Other fuel	9	0.3

No fuel used	0	0.0
SELECTED CHARACTERISTICS		
Lacking complete plumbing facilities	17	0.5
Lacking complete kitchen facilities	9	0.3
No telephone service	34	1.0
OCCUPANTS PER ROOM		
Occupied housing units	3,430	100.0
1.00 or less	3,378	98.5
1.01 to 1.50	35	1.0
1.51 or more	17	0.5
Specified owner-occupied units	2,146	100.0
VALUE		
Less than \$50,000	113	5.3
\$50,000 to \$99,999	1,312	61.1
\$100,000 to \$149,999	465	21.7
\$150,000 to \$199,999	129	6.0
\$200,000 to \$299,999	109	5.1
\$300,000 to \$499,999	11	0.5
\$500,000 to \$999,999	7	0.3
\$1,000,000 or more	0	0.0
Median (dollars)	90,400	(X)
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS		
With a mortgage	1,330	62.0
Less than \$300	7	0.3
\$300 to \$499	15	0.7
\$500 to \$699	182	8.5
\$700 to \$999	602	28.1
\$1,000 to \$1,499	405	18.9
\$1,500 to \$1,999	81	3.8
\$2,000 or more	38	1.8
Median (dollars)	944	(X)
Not mortgaged	816	38.0
Median (dollars)	305	(X)
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999		
Less than 15 percent	961	44.8
15 to 19 percent	392	18.3
20 to 24 percent	286	13.3
25 to 29 percent	234	10.9
30 to 34 percent	72	3.4
35 percent or more	193	9.0
Not computed	8	0.4
Specified renter-occupied units	1,075	100.0
GROSS RENT		
Less than \$200	69	6.4
\$200 to \$299	112	10.4
\$300 to \$499	304	28.3
\$500 to \$749	450	41.9
\$750 to \$999	75	7.0
\$1,000 to \$1,499	10	0.9
\$1,500 or more	0	0.0
No cash rent	55	5.1
Median (dollars)	510	(X)

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999		
Less than 15 percent	220	20.5
15 to 19 percent	134	12.5
20 to 24 percent	192	17.9
25 to 29 percent	119	11.1
30 to 34 percent	89	8.3
35 percent or more	255	23.7
Not computed	66	6.1
Subject	Number	Percent

(X) Not applicable.

Source: U.S. Census Bureau, Census 2000 Summary File 4, Matrices HCT2, HCT11, HCT14, HCT15, HCT17, HCT21, HCT24, HCT29, HCT31, HCT32, HCT41, HCT43, HCT51, HCT52, HCT59, HCT64, HCT66, HCT75, HCT76, and HCT79.

Population Characteristics 2000

Subject	Number	Percent
Total population	8,372	100.0
SEX AND AGE		
Male	3,872	46.2
Female	4,500	53.8
Under 5 years	597	7.1
5 to 9 years	548	6.5
10 to 14 years	622	7.4
15 to 19 years	569	6.8
20 to 24 years	412	4.9
25 to 34 years	1,105	13.2
35 to 44 years	1,273	15.2
45 to 54 years	1,003	12.0
55 to 59 years	420	5.0
60 to 64 years	298	3.6
65 to 74 years	682	8.1
75 to 84 years	558	6.7
85 years and over	285	3.4
Median age (years)	37.4	(X)
18 years and over	6,240	74.5
Male	2,789	33.3
Female	3,451	41.2
21 years and over	5,955	71.1
62 years and over	1,734	20.7
65 years and over	1,525	18.2
Male	539	6.4
Female	986	11.8
RELATIONSHIP		
Population	8,372	100.0
In households	8,186	97.8
Householder	3,432	41.0
Spouse	1,822	21.8
Child	2,547	30.4
Own child under 18 years	2,052	24.5
Other relatives	156	1.9
Under 18 years	56	0.7
Nonrelatives	229	2.7
Unmarried partner	109	1.3
In group quarters	186	2.2
Institutionalized population	186	2.2
Noninstitutionalized population	0	0.0
HOUSEHOLDS BY TYPE		
Households	3,432	100.0
Family households (families)	2,235	65.1
With own children under 18 years	1,050	30.6
Married-couple family	1,874	54.6
With own children under 18 years	811	23.6
Female householder, no husband present	292	8.5
With own children under 18 years	187	5.4
Nonfamily households	1,197	34.9
Householder living alone	1,051	30.6
Householder 65 years and over	561	16.3

Households with individuals under 18 years	1,098	32.0
Households with individuals 65 years and over	1,359	39.6
Average household size	2.39	(X)
Average family size	3.02	(X)
HOUSING TENURE		
Occupied housing units	3,430	100.0
Owner-occupied housing units	2,355	68.7
Renter-occupied housing units	1,075	31.3
Average household size of owner-occupied unit	2.74	(X)
Average household size of renter-occupied unit	1.61	(X)
Subject	Number	Percent

(X) Not applicable.

When an ancestry group is selected, the data in this table refer to the ancestry of the person or householder.

Source: U.S. Census Bureau, Census 2000 Summary File 4, Matrices PCT1, PCT3, PCT4, PCT8, PCT9, PCT10, PCT11, PCT12, PCT14, PCT15, PCT23, PCT26, HCT2, and HCT7.

Labor Force and Employment Characteristics 2000

Subject	Number	Percent
EMPLOYMENT STATUS		
Population 16 years and over	6,447	100.0
In labor force	4,307	66.8
Civilian labor force	4,300	66.7
Employed	4,189	65.0
Unemployed	111	1.7
Percent of civilian labor force	2.6	(X)
Armed Forces	7	0.1
Not in labor force	2,140	33.2
Females 16 years and over		
Females 16 years and over	3,527	100.0
In labor force	2,069	58.7
Civilian labor force	2,062	58.5
Employed	2,025	57.4
Own children under 6 years		
Own children under 6 years	716	100.0
All parents in family in labor force	466	65.1
COMMUTING TO WORK		
Workers 16 years and over	4,128	100.0
Car, truck, or van -- drove alone	3,558	86.2
Car, truck, or van -- carpoled	326	7.9
Public transportation (including taxicab)	53	1.3
Walked	119	2.9
Other means	6	0.1
Worked at home	66	1.6
Mean travel time to work (minutes)	22.9	(X)
Employed civilian population 16 years and over		
Employed civilian population 16 years and over	4,189	100.0
OCCUPATION		
Management, professional, and related occupations	1,219	29.1
Service occupations	639	15.3
Sales and office occupations	1,295	30.9
Farming, fishing, and forestry occupations	0	0.0
Construction, extraction, and maintenance occupations	334	8.0
Production, transportation, and material moving occupations	702	16.8
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	13	0.3
Construction	245	5.8
Manufacturing	700	16.7
Wholesale trade	98	2.3
Retail trade	474	11.3
Transportation and warehousing, and utilities	277	6.6
Information	111	2.6
Finance, insurance, real estate, and rental and leasing	240	5.7
Professional, scientific, management, administrative, and waste management services	414	9.9
Educational, health and social services	951	22.7
Arts, entertainment, recreation, accommodation and food services	327	7.8
Other services (except public administration)	205	4.9
Public administration	134	3.2
CLASS OF WORKER		
Private wage and salary workers	3,479	83.1
Government workers	507	12.1

Subject	Number	Percent
Self-employed workers in own not incorporated business	194	4.6
Unpaid family workers	9	0.2

Income – Poverty Characteristics 1999 – 2000

Subject	Number	Percent
INCOME IN 1999		
Households	3,432	100.0
Less than \$10,000	282	8.2
\$10,000 to \$14,999	236	6.9
\$15,000 to \$24,999	433	12.6
\$25,000 to \$34,999	552	16.1
\$35,000 to \$49,999	536	15.6
\$50,000 to \$74,999	708	20.6
\$75,000 to \$99,999	390	11.4
\$100,000 to \$149,999	225	6.6
\$150,000 to \$199,999	30	0.9
\$200,000 or more	40	1.2
Median household income (dollars)	39,524	(X)
With earnings	2,693	78.5
Mean earnings (dollars)	49,952	(X)
With Social Security income	1,130	32.9
Mean Social Security income (dollars)	10,933	(X)
With Supplemental Security Income	70	2.0
Mean Supplemental Security Income (dollars)	4,470	(X)
With public assistance income	71	2.1
Mean public assistance income (dollars)	617	(X)
With retirement income	607	17.7
Mean retirement income (dollars)	18,822	(X)
Families	2,235	100.0
Less than \$10,000	42	1.9
\$10,000 to \$14,999	70	3.1
\$15,000 to \$24,999	226	10.1
\$25,000 to \$34,999	336	15.0
\$35,000 to \$49,999	353	15.8
\$50,000 to \$74,999	608	27.2
\$75,000 to \$99,999	384	17.2
\$100,000 to \$149,999	163	7.3
\$150,000 to \$199,999	21	0.9
\$200,000 or more	32	1.4
Median family income (dollars)	52,240	(X)
Per capita income (dollars)	21,101	(X)
Median earnings (dollars):		
Male full-time, year-round workers	36,536	(X)
Female full-time, year-round workers	25,620	(X)
POVERTY STATUS IN 1999 (below poverty level)		
Families	80	(X)
Percent below poverty level	(X)	3.6
With related children under 18 years	63	(X)
Percent below poverty level	(X)	5.8
With related children under 5 years	37	(X)
Percent below poverty level	(X)	7.9
Families with female householder, no husband present	30	(X)
Percent below poverty level	(X)	10.3
With related children under 18 years	21	(X)
Percent below poverty level	(X)	10.9
With related children under 5 years	14	(X)
Percent below poverty level	(X)	20.6

Individuals	559	(X)
Percent below poverty level	(X)	6.8
18 years and over	407	(X)
Percent below poverty level	(X)	6.7
65 years and over	113	(X)
Percent below poverty level	(X)	8.3
Related children under 18 years	146	(X)
Percent below poverty level	(X)	6.9
Related children 5 to 17 years	103	(X)
Percent below poverty level	(X)	6.8
Unrelated individuals 15 years and over	290	(X)
Percent below poverty level	(X)	20.6