



February 19, 2008

# Highland City General Plan Update



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This plan was adopted by the Highland City Council on February 19, 2008

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## Vision Statement

Highland City is a “bedroom community” with large residential lots, single-family homes, natural areas, and open space. This pattern is the result of conscious decision-making. To a large degree the original pattern of the community has been set, and the opportunity for significant change is limited. This is particularly true as the community rapidly approaches build out. As the General Plan is updated, the original vision for the community needs to be confirmed to ensure the ideal is met as the community matures.

Highland City is envisioned to be a community that is in harmony with its natural setting. It is a place grounded in its rural heritage, and should continue to foster a positive community spirit and a sense of neighborliness.

Highland City is also envisioned to be a place of enduring character that is integrated with its rural open spaces and natural surroundings, where opportunities for enjoying the outdoors are abundant and supported, and where participating in work and community activities can be experienced by all of its citizens.

The interface between residential neighborhoods, open space, roads and other features is of particular importance, and should be given special scrutiny as the City continues to evolve. In particular, adjustments should be considered that ensure adequate opportunities exist to meet the diverse housing and land use requirements of the community.

The vision for Highland City transcends the boundaries of the community, incorporating and embracing its neighboring communities. Cooperation is a cornerstone of the City, a characteristic that is on par with its scenic setting, which is highly valued. It is the responsibility of Highland City’s citizens to preserve and protect the qualities that make the community special, and to reach out to its neighbors to ensure that shared resources and values are preserved for all.

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## GLOSSARY OF TERMS

The following are definitions of key terms contained in the plan. Some terms reflect standard descriptions, while others address situations and conditions particular for Highland City.

### **ADT – Average Daily Traffic**

The average number of vehicles on a given road or road segment in one 24-hour period.

### **Affordable Housing**

An Affordable Housing element is a required component of a comprehensive general plan as outlined by Utah State Code Section 10-9a-403 with the intent of “facilitat(ing) reasonable opportunities for a variety of housing, including moderate-income housing.” Within this context, affordable housing addresses the demographic forces shaping needs and the current stock and cost of housing, as well as possible solutions for filling the demand for moderate-income housing in Highland City.

### **AHPSD**

Alpine Highland Public Safety District

### **Bedroom community**

A community that is primarily residential in nature, from which most of the workforce commute out of the community to earn their livelihood.

### **Build-out**

The stage at which a community has been fully-developed.

### **Buying Power Analysis**

An economic analysis tool for evaluating the magnitude of spending power expected to be captured at a proposed location.

### **Capacity**

The volume of vehicles a road is able to accommodate.

### **Community design**

The processes by which the physical and aesthetic characteristics of a community are evaluated and corresponding actions are established. Community design actions can help enhance and preserve the livability and visual qualities of a community.

### **Community destination**

Places where residents carry out their day-to-day needs and activities, or where visitors are encouraged to visit. In Highland City, special design treatments are encouraged at such places to promote a sense of place and visual unity in order to become attractive places.

### **Community Parks**

Facilities that serve the park needs of a broad spectrum of city residents, typically within a service area of one-mile.

### **Corridor treatment**

In Highland City, these are special design treatments along key roadways that provide an attractive travel experience and indicate that one has entered a unique community.

## Critical Runoff Area

In Highland City, these are areas with steep slopes and clay soils where water is not absorbed quickly enough during significant storm events, resulting in high runoff, erosion and pollution potential.

## Fair Share Housing Analysis

An affordable housing analysis tool that assumes each municipality in a given county in the State of Utah should have the same percentage of the affordable housing units as their percentage of total households.

## Floodplain

Flat or nearly flat land adjacent to a stream or river that experiences occasional or periodic flooding. These areas typically include the floodway, which consists of the stream channel and the adjacent areas that carry flood flows, and the flood fringe, which are areas covered by the flood, but which do not experience a strong current.

The Federal Emergency Management Agency (FEMA) determines floodplains in each community. Data is provided to local jurisdictions as Flood Insurance Rate Maps (FIRM's) for planning purposes to regulate development in the affected areas.

## Focused view corridor

Major roads, street corridors and stream corridors where views are focused on terminus views of landscapes beyond. In Highland City, views are focused along streets and stream corridors toward Traverse Ridge, the Wasatch Mountains and American Fork Canyon.

## Functional classification system

The process by which public streets and highways are grouped according to the character of service they are intended to provide. Generally, there are four broad functional categories: freeway, arterial, collector, and local roads.

## Gateway

Also known as entry nodes, these are locations along major roads that signal that one is entering a distinct area or community. In Highland City, special landscape, lighting and signage treatments are encouraged at such locations to help provide sense of visual order, and to clearly indicate that one is entering a unique community.

## General Plan

Also known as a Comprehensive Plan, the General Plan is a policy document that guides all land use and development regulations of a given community or jurisdiction. A General Plan encapsulates the vision of the community, and defines specific actions to be taken to ensure the vision is achieved.

## HUD

Department of Housing and Urban Development, the federal government department that is responsible for establishing and implementing national housing policy.

## Low density residential

In Highland City, low density residential encompass single family uses located on lots that range from one-half to one-acre in size. Low density residential uses are the dominant land use in the community, reflecting the community vision since its inception.

## High density residential

In Highland City, this encompasses single-family residential uses located on lots less than one-half acre. Definitions for this type of land use vary widely from community to community, but generally incorporate much higher densities than those utilized in Highland City.

## LPPSD

Lone Peak Public Safety District

## MAG

Mountainland Association of Governments

## Microclimate

A localized climatic condition which is not typical of the general climate zone where it is located. Microclimates can vary greatly in extent and conditions.

## Mini-Park

Small parks that primarily serve the needs of subdivisions and are not able to meet the definition for a Neighborhood Park either because they are too small, or because they do not and cannot accommodate the required facilities

## Mixed-Use

Development including residential, commercial, office, and institutional land uses in a single building or within the same area. Such uses may be permitted, for example, with apartments developed over retail space, or office uses within the same project containing residential uses.

## Mode Choice

How people get to and from their destinations, whether by car, bus, train, walking, or bicycle.

## MSA

Metropolitan Statistical Area

## Neighborhood Park

Facilities that serve the parks needs of residential neighborhoods within a one-half mile radius. The parks should be located within one-eighth mile from an existing or proposed trail and be 4-5 acres in size.

## Open space

Undeveloped natural land areas, often surrounding and encompassing drainage corridors, foothills, canals, hillsides and other natural features. The Highland City open space system provides visual and/or physical benefits, but is generally not considered part of the formal parks and recreation system.

## Open space subdivision

Also known as Clustered Development, this is a land use implementation tool that allows residential dwelling units to be arranged in various configurations around contiguous open space, with the intent of providing open space that is an integral part of the resulting neighborhood. Such models have been utilized on a limited basis in Highland City as an attempt to avoid "cookie cutter" large lot configurations and to provide an open space configuration that better exudes desired rural characteristics for the community.

### Open views/ viewsheds

Broad landscape views or vistas. Examples of broad landscape views in Highland City are those that can be seen from the upper foothills in the north and east, toward lower-lying landscapes encompassing Utah Lake and the Oquirrh Mountains to the west.

### P.U.D.

Both a type of building development and a regulatory process, a P.U.D or Planned Unit Development is a designed grouping of varied and compatible land uses all within one contained development or subdivision.

### Park Strip

A strip of land located between a road and sidewalk within a road right-of-way. Park strips vary in size according to the function of each road, but are typically wide enough to accommodate a tree and subsidiary planting, and to physically separate pedestrian and vehicular traffic. The provision and treatment of parks strips in Highland City are addressed as both transportation and community design policy.

### Parks and recreation standards

The type and level of park and recreation facilities to be provided by a given community. In Highland City, the amount of land dedicated to parks and recreation, and the types of parks and recreation facilities to be provided, are functions of both the established community vision, and the existing and projected population.

### Park and Ride Lots

Areas where transit riders leave their cars and ride busses or trains to their destinations.

### Planning vision

A process that defines where a community wants to be in the future. This process is often encapsulated as an optimistic statement.

### Retail Gravity Model Methodology

A tool by which the buying power of a community is estimated by evaluating the amount a typical Utah consumer spends on a range of retail goods and services and applying these spending rates to the population located within reasonable proximity to a specific site. \

### Right-of-way

A corridor within which all elements of a street are normally contained. In addition to basic elements such as the paved road, curb and gutter and drainage facilities, the road right-of-way often includes center medians, park strips, parking and sidewalks.

### RTP – Regional Transportation Plan

A 30-year transportation plan that identifies needed transportation improvements over that timeframe, including road, transit, and trail projects. RTPs are done by the Metropolitan Planning Organizations (MPO) for each region and are updated every four years.

### Scenic mountain backdrop

The mountains, canyons, ridges and ridgetops which surround and define Highland City to the east and north.

### Sense of arrival

The feeling or acknowledgement that one has reached a distinct place or area. In Highland City, special community design tools are suggested to enhance this feeling, particularly along key roadways leading to and through the community.

### Sense of place

Characteristics unique to a place make it special, unique and authentic. In Highland City key factors include the natural surroundings as well as its open spaces and built-environment.

### TIP – Transportation Improvement Program

A 5-year schedule of specific transportation improvements and funding sources. TIPs are updated annually.

### TIS – Traffic Impact Study

A document generally required by cities before approval of a new residential or commercial development. They estimate the traffic impacts that a proposed development will generate and typically offer ways to mitigate that impact.

### Traditional development pattern

A reference to the local landscape and traditions that recall the origins of the community and the local heritage. In Highland, this refers to a plethora of diverse open space encompassing old farmsteads, pastures, hollows, watercourses, woods and fields that together contribute to the rural and pastoral feel of the community.

### Trails

Pathway facilities that facilitate one's ability to travel, exercise, walk, cycle and rollerblade. Trails should connect neighborhoods, parks, schools, and other public areas, and provide an alternative to automobile travel. The types of trails envisioned for Highland City are interconnected and diverse, meeting both functional and recreational needs of the community.

### UTA – Utah Transit Authority

The transit district for the Wasatch Front region. It runs busses, TRAX light rail, and forthcoming FrontRunner commuter rail transit service as well as paratransit service for persons with disabilities.

### Wetlands

The environment at the interface between terrestrial ecosystems and aquatic systems, making each inherently different from each other yet highly dependent on both. Wetlands are host to considerable biodiversity, yet are highly endemic or unique to the particular area. These conditions make the preservation and conservation of wetlands a high priority.

### Xeric landscape/ xeriscape

Landscapes and landscaping methods that require little or no supplemental irrigation. Such methods are promoted in areas such as Highland City, where the supply of fresh water for landscaping purposes is limited. Xeriscape landscape techniques emphasize the use of plants whose natural requirements are appropriate to the local climate and setting, and the use of appropriate irrigation methods which avoid losing water to evaporation and runoff. The terms drought-tolerant and water-wise are often used in similar contexts.

### Zoning/ zoning ordinance

Zoning is the system of land use regulation commonly used throughout the United States and other countries which separate one set of land uses from another. A zoning ordinance is a set of regulations that determine the power of a community to allow particular land uses.



# Executive Summary

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## 1.0 Introduction and Background

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The Highland City General Plan (2007) is a guiding document adopted by the community to help identify future land uses, transportation and traffic ideas, and other elements that make up the community. The General Plan generally has a life of 5 to 10 years. When the Highland City General Plan (2007) is adopted, zoning ordinances, development guidelines, and other implementation tools should be revised and updated accordingly.

The Highland City General Plan (2007) documents existing conditions, analyzes important community issues, and proposes future visions and growth directions. Understanding key demographic trends is critical for preparing the plan. Some of the key demographic profiles of the community follow:

- ♦ As of February 2007 Highland City's population was estimated at 14,600. It is estimated that by the year 2017 the population of Highland City will reach 22,833 and 24,304 by 2027.
- ♦ As of late 2006 the average household income in Highland City was \$94,510—much greater than the county average of \$50,553.
- ♦ Highland City is composed mainly of owner-occupied single-family dwellings.
- ♦ As of 2006 there were an estimated 2,123 jobs located within Highland City.

In order for the Highland City General Plan (2007) to remain a vital, living document, interim adjustments may be necessary. However, amendments should only be considered semi-annually, at special meetings devoted entirely to that process, and not within a year of adoption.

## 2.0 Land Use

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Over the years, Highland City has been transformed from a lightly populated agricultural settlement into a significant bedroom community. According to the policies and visions established at incorporation in 1977, agricultural and vacant land has converted into a community of single-family homes, parks and open spaces, and limited commercial and public uses. In most cases these decisions have resulted in a harmonious, large-lot dominated single-family residential community. Finding ways to best utilize the limited amount of vacant and agricultural land is paramount for securing Highland City's future form and growth direction. In particular, the accommodation of housing options is of critical concern.

The future land use concept maintains the existing residential pattern overall, with the location and encouragement of higher density residential at two mixed-use sites to help meet the need for moderate-income housing opportunities and for meeting the demand for housing options for younger and older residents. Future land uses are envisioned to account for nearly 60 percent of the total City land area.

To support the rural residential nature of Highland this plan encourages the continuation of traditional large-lot residential development by implementing wide lots with large front and side setbacks; promoting homes that do not maximize the allowed buildable area (mass and height); preserving mature trees; advocating gardens and orchards; allowing minimal and open fencing such as split rail, picket and wrought iron fences; and providing for family-friendly neighborhoods.

Alternative development options also include an open space overlay for encouraging more creative site design by concentrating homes around a public open space system. The open space overlay concept concentrates on density rather than lot size by allowing detached single family dwellings with smaller frontages, setbacks and lot sizes than typically permitted within the traditional residential zones. The development technique used in the open space overlay helps preserve Highland City's rural character through the requirement of a significant amount of deeded and visually prominent public open space. This development option should continue on the perimeter of Highland to provide for a residential alternative and to provide a buffer between municipalities.

Commercial development should be limited to the Highland Town Center, Highland Marketplace (the northwest corner of SR-92 (11000 North or Highland Highway) and SR-74 (Alpine Highway) - currently existing commercial retail (CR Zone)), and portions of the State School site.

New office uses should be encouraged at the Highland Town Center, existing city building, and State School site. Sites for additional public uses should be reserved to meet community needs. Major civic uses should be located at the Highland Town Center as originally envisioned.

One additional elementary school is planned at present (2008), no additional middle schools or high schools are anticipated. Religious and church uses should be provided as part of future residential developments. New public parks should be provided to meet the various needs of the community. Nearly ten-percent of the community will continue to be dedicated to open spaces, providing recreation opportunities and visual relief. Additional golf courses are not anticipated. Highland City Cemetery will continue to be the only cemetery in the City.

Once the gravel pit is fully mined and rehabilitated, no new industrial uses are envisioned. Existing utility corridors and easements will remain in the future. Where possible, these facilities should continue to serve and be developed as community open spaces and trail corridors. Vacant Land will eventually be developed. Agricultural land should be preserved as possible, although it is assumed that most of the remaining larger agricultural tracts will be developed in the future. Road rights-of-way will continue to occupy the second largest land use category in the future.

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## 3.0 Transportation

At the neighborhood public scoping meetings conducted early in the planning process, Highland City residents identified many issues related to traffic and transportation of which they were concerned. Issues ranged from the impacts of traffic generated by new residential development, the future character of larger roads within the City, and the need to provide transit connections to future commuter rail transit lines.

Highland City roads are organized according to the functional classification system. Characteristics of that system for the Highland City transportation network include moving traffic efficiently on arterial streets; carefully considering access issues on arterial streets; and prioritizing pedestrians on local streets, offering a safe environment to walk and bike. Traffic calming elements should be considered in all new street development in order to minimize fast-moving vehicles.

If the City has the opportunity to connect streets for the purpose of providing better traffic circulation, more efficient and prudent maintenance costs, and more efficient access for public safety purposes, then streets should be connected and cul-de-sacs should be avoided. If development is required to provide a future connection of a road, the corresponding streets should be stubbed to allow the future connection. When topographic conditions or existing development will not allow a street connection, cul-de-sac streets over 200 feet in length may be permitted.

Recommended improvements to the transportation system that would be classified as new capacity/widening projects include:

1. 4800 West (5-Lane Arterial) is planned to be a four-lane facility with a center turn lane, planted median, parkway detail and 106' of right-of-way.
2. 11000 North (SR-92) (5-Lane Arterial) Highland City is planning for a five-lane cross-section the length of the corridor, which is somewhat different than Mountainland Association of Governments' Regional Transportation Plan. The City's primary concerns are related to the side treatments of this corridor and that the City's "Parkway Detail" be maintained on SR-92 within the City limits.
3. 9600 North (3-Lane Minor Collector) Highland City plans for this road to continue to be a three-lane minor collector with 66' feet of right-of-way.
4. 6800 West (3-Lane Major Collector) Highland City plans for this road to be a three-lane major collector with 74' feet of right-of-way.
5. Canal Boulevard/9850 North (3-Lane Major Collector) provides an east-west connection between the 4800 West and 6800 West.

Road Improvement recommended projects include:

1. 6000 West (3-Lane Major/Minor Collector) It is the intent of Highland City that the road be built as a hybrid residential collector with pavement widths between 44' and 50' within a 66' to 74' right-of-way including sidewalks and parkstrips on each side.
2. 10400 North (3-Lane Residential Collector) It is the intent of the City that the road be built to be consistent with the City's standard cross-section for this type, which includes shoulders, curb, gutter, sidewalk, and the Parkway Detail on both sides..
3. 6400 West (2-Lane Residential Collector) It is the intent of Highland City that the road be built to the specifications of a residential collector with a 44' pavement within a 66' right-of-way including sidewalks on each side.

For maximum safety of pedestrians, sidewalks of adequate width (5 feet at a minimum) should be provided on both sides of all Highland City residential streets and in the vicinity of schools, churches, shopping areas, and other pedestrian destinations unless otherwise approved by the City Council.

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## 4.0 Environmental and Natural Systems

Highland City is nestled against the beautiful Wasatch Mountains just south of the Traverse Ridge, providing its residents and visitors with a spectacular scenic backdrop. Residents enjoy easy access to mountain, foothill, and canyon recreation, and appreciate the scenic views and natural corridors that support their quality of life, provide wildlife habitat, and help enhance water quality. Careful planning and involvement should be taken to preserve the natural and geological treasures located within the City such as Dry Creek, Mitchell Hollow, American Fork River and the mouth American Fork Canyon.

These positive natural features also can be the cause of serious problems, particularly in the absence of careful planning. Some of the key elements that are examined in this plan are Urban Runoff, Flooding/Water Quality, Soil Related Hazards and Constraints, Earthquakes, Wetlands and Wildlife Habitat.

As a community approaching build-out, Highland City has, to a large degree, dealt with its environmental setting and natural hazards. The City will continue to monitor soil types through the use of professional geologic studies and recommended geologic standards to protect against unstable soil conditions.

Development and redevelopment activities should include site design and engineering controls for any of the natural site constraints or hazards. In particular, any development or redevelopment activities should include site design and engineering controls to reduce water quality impacts to the natural environment to the maximum extent possible, and to encourage water conservation and water-wise landscapes on public and private land.

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## 5.0 Economics

The Economic Element addresses the need and desire for additional retail for shopping convenience and the fiscal health of the City. The goals of Highland City's economic element are to enhance shopping opportunities for residents in the community, integrate commercial land uses such that the City's rural-residential community character is maintained, as well as fiscal health and stability.

There are currently 120,000 square feet of retail space in Highland City, with a capacity for approximately 696,000 square feet more at build-out. The buying power analysis for 2010 takes into account the large amount of retail currently planned for in the area, including the future impact of developments at Traverse Mountain and Sundance Commons.

At the time of the survey (before the rezone of Highland Marketplace) the majority of residents (53 percent) supported expansion of commercial zoning in the City; however, they also feel that businesses should remain closed on Sunday even though it may deter some businesses from entry into the Highland City market. In addition residents agreed that business should not operate on a 24-hour basis. Highland City residents preferred the locations for the expansion of retail centered at the general location of Highland Town Center, and to a lesser degree, SR-92.

Recommendations are based on existing retail conditions in the area, residents' opinions, and Highland City's goals. These recommendations include:

- ◆ Cluster commercial development in discrete locations or nodes, rather than allowing for "strip commercial";
- ◆ Maintain Highland City's rural-residential community character by adopting design guidelines applicable to new commercial areas; and
- ◆ Allow for a moderate amount of office uses in the downtown commercial area enhancing sales by increasing the daytime population.
- ◆ Where feasible, promote the health and well being for current and future businesses.
- ◆ Attract revenue generating business for the fiscal health and financial stability of Highland.

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## 6.0 Affordable Housing Element

Utah State Code section 10-9a-403 requires that an affordable housing element be included in every General Plan. This plan addresses the requirements outlined in Utah State Code section 10-9a-403 to create a housing plan that “facilitate[s] reasonable opportunities for a variety of housing, including moderate income housing.” In order to meet these requirements, the demographic forces shaping housing needs, the current stock and cost of housing found in Highland City, as well as possible solutions for filling the demand for moderate-income housing, are analyzed in greater detail in Chapter 6 of this plan.

The following policy options are recommended to facilitate Highland City’s ability to provide reasonable opportunity for a variety of housing, including moderate income, while still maintaining the existing character of the City:

- ♦ Allow for the creation of neighborhood enhancing accessory dwelling units.
- ♦ Permit additional open space housing development that considers a variety of single family configurations.
- ♦ Permit senior housing facilities in a selected area or areas.
- ♦ Adopt reasonable design guidelines for medium/high density housing based on neighborhood community character.
- ♦ A mixed-use zone should be created within the Town Center and on the state school site in the southeast corner of Highland City to accommodate a mix of commercial uses and several types of housing, including affordable housing.
- ♦ Second- and third-story housing should be allowed in the Town Center with street level retail.

Highland should be proactive in promoting affordable housing in areas such as the Town Center and the State School Site.

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## 7.0 Community Design

Highland City is an attractive community. This is due as much to its beautiful setting as it is to the pattern of development and the care and maintenance of properties. As Highland City has matured, it has continued to retain a strong “sense of place “ and still shares a strong connection with its beautiful surroundings.

Development in recent years has been rapid, challenging the community to retain qualities that make it unique and attractive. The City can maintain its strong aesthetic appeal as it continues to mature, although it must be vigilant to ensure that the precious backdrop of mountains and ridges is preserved and protected. These efforts should be reinforced with actions that preserve the human setting, supporting efforts to retain the sense of openness and enhance the aesthetic appeal Highland City’s streets, civic places, and points of entry into the community.

The Community Design Concept builds upon established efforts to recognize, preserve, and enhance the unique visual qualities that make the City a special place. The following seven ideas summarize these ideas, which are detailed in the Element:

- ♦ Maintain and enhance the Scenic Backdrop to the north and east (Foothills/Mountains/Canyon);
- ♦ Maintain and enhance focused view corridors through the community and beyond;
- ♦ Improve the sense of entry into the community;
- ♦ Create appropriate corridor treatments along key roadways (SR-92, Alpine Highway and 4800 West);

- ♦ Maintain and enhance traditional development patterns and local heritage images;
- ♦ Ensure that Highland Town Center evolves into the main community destination and “heart of the community”; and
- ♦ Encourage special design treatments at key community destinations.

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## 8.0 Parks, Recreation Facilities and Trails

This Element of the Plan is an update of previous planning efforts – Highland City Parks, Recreation, and Trails Element of the General Plan (1997 and 2003 map only), and Highland City Park Master Plan (2001), which was updated in 2003 as part of the Parks, Recreation and Trails Capital Facilities Plan.

As part of those processes, specific goals, objectives, and standards were identified and adopted (2001, 2003), and are carried forward and integrated into the plan update with some clarifications and minor revisions to the adopted park classifications and definitions.

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### Park and Recreation Plan

#### Parks and Recreation Lands

- ♦ Highland City has 69.38 acres of parkland.
- ♦ In addition, there are many other park and recreation facilities that are available for the enjoyment of City residents – about 296 acres.
- ♦ Highland City includes approximately 60 acres of land set aside for future Neighborhood Parks, Community Parks, and Athletic Complexes.
- ♦ Additionally, a potential future neighborhood park is shown in the annexation area on the north adjacent to Draper; and three community parks/athletic complexes are identified as potentially occurring in the larger undeveloped parcels in the City including the gravel pit and the State Developmental School campus.
- ♦ The current level of service of 4.75 acres per 1000 population; the standard of 4.78 acres per 1000 population.
- ♦ By 2017 Highland City will need to add an additional 37 acres of park land, and ten years later by 2027, it will need to add about 4 acres of developed park land to maintain the current standard

#### Trails

- ♦ Highland City has approximately 25 miles of existing trails.
- ♦ Highland City has identified approximately 16 miles of future trails to serve the community.
- ♦ The current level of service of 17 miles per 10,000 populations, which exceeds the current standard of 9.8.
- ♦ By 2017 the City still maintains it's standard. By 2027 the City will need to add less than one mile of trail to maintain the current standard.
- ♦ Prioritize trail development that links schools, neighborhoods, and other destinations.

#### Goals and Policies

- ♦ Assure that Highland City residents have access to parks and park facilities
- ♦ Assure that Highland City residents have access to multi-use, off-street, paved trails.
- ♦ To provide adequate park acreage in new development areas.
- ♦ To provide adequate park acreage in developing areas currently underserved by public parks.
- ♦ Improve maintenance in parks, park restrooms, and along trails.

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## 9.0 Senior Housing

This Element of the Plan is a new Chapter of the Highland City General Plan. After several years of consideration for the aging population in Highland it became apparent that a need to provide places for those who are unable to care for large properties and large homes was needed. Many of the founding residents have moved from Highland due to these same concerns which is one of the main purposes behind the consideration for the addition of this use in the City. Utah's senior population as a share of total population will not increase as rapidly as that expected nationally; however, there will still be a marked increase over the next 20 years. From 2006 to 2030 the percentage of seniors in Utah will increase from nine percent to 13 percent according to the Governor's Office of Planning and Budget 2005 Baseline Projections.

The City recognizes the importance of providing housing to accommodate the complete life-cycle of its residents as they age. There are five different alternative housing types that accommodate the various phases seniors go through as they age. These include:

- ♦ Age-restricted adult housing;
- ♦ Independent living;
- ♦ Continuing care retirement communities;
- ♦ Assisted living facilities; and
- ♦ Nursing facilities.

### Senior Population Projections

Projections were made for 2010, 2020 and 2030 using the 1990 Census and the 2000 Census as a baseline for understanding the age structure of Highland. The population projections completed in the Community Profile and Demographics section of this plan show the majority of growth within Highland happening between 2000 and 2010. Following this period of dramatic growth within the community, population will grow much more slowly in the following two decades.

### Affordability

Even for seniors with stable incomes, finding affordable housing is always a concern because high housing costs mean less money is available for recreation, health care, or unforeseen expenses. It is therefore important to provide affordable options for seniors both those who relocate from within Highland and those (perhaps related to Highland residents) who move in from outside the community.

### Goals and Policies

Highland should be a place where residents can live in comfort as they age and their housing needs change. The city should consider senior developments and facilities (including age-restricted and independent living developments, as well as assisted living and nursing facilities) to be located in carefully selected areas throughout the city. Recommendations are as follows:

- ♦ Provide diverse housing types for seniors to accommodate all aging stages.
- ♦ Consider the incorporation of affordable units into senior housing developments.
- ♦ Ensure that new senior developments are seamlessly integrated into the existing form and pattern of the community. Each senior development should be designed such that it is consistent in form, scale, and architectural style with adjacent structures and with the immediate neighborhood.
- ♦ Provide high quality services for seniors. Implementation Measure: Construct a senior center either as part of a community center or as a stand-alone facility.
- ♦ Encourage the use of universal design principles in all housing to increase the livability of senior housing and to encourage seniors to remain independent as long as possible.
- ♦ Encourage cooperative opportunity and symbiotic relationships between senior developments and facilities (both public and private) within Highland.



# Introduction

# 1



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## Purpose of the Highland City General Plan

A general plan is a guiding document adopted by the community to help decision-makers evaluate development proposals and implement the desired future for the community. Typically, the General Plan identifies future land uses (residential, commercial, public, parks, etc.), transportation and traffic options (highways and trails), and other elements that make up a community.

Developing a General Plan provides an opportunity to take a look at the community today, determine what is good and what requires improvement, and look into the future and “plan” for anticipated changes. The General Plan generally has a life of 5 to 10 years, and often looks 20 years into the future to anticipate how the community might change. Every 5 to 10 years the General Plan needs to be revisited and changed to reflect new developments and changing community priorities.

The Highland City General Plan Update (2007) was developed with the participation and input of the public at key stages. A Plan Development Review Group composed primarily of City staff provided additional input and guidance. Detailed public input and information concerning the public process is located in Appendix A.

When the Highland City General Plan Update (2007) is adopted, zoning ordinances, development guidelines, and other means of implementing the plan should be revised and updated as necessary. Specific recommendations are provided as a series of Goals, Policies and Implementation Measures at the conclusion of each Element.

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## Public Involvement

Verifying the community vision is a critical step to ensure the Highland City General Plan Update (2007) accurately represents the expected future.

A comprehensive public involvement program was utilized throughout the planning process, providing multiple opportunities to provide input as the General Plan was updated. The following is a summary of the opportunities provided.

## Neighborhood Meetings and Workshops

Five public meetings were held in the neighborhoods of Highland City to help define community needs, issues, concerns, and preferences. Each workshop/meeting was held in a local school during November 2006. The meetings were scheduled close together in order to create a sense of momentum and a stronger, more vibrant planning process. Turnout varied widely, ranging from a handful of participants to over 25. In each case, participants were invited to discuss their concerns and issues, and to identify potential constraints and opportunities. Visual aids including maps and image boards were used to help participants describe their needs and desires. Comments were recorded on flip-charts during the meeting or recorded on comment sheets, and provided via email. The results are documented in Appendix A.

## Community Survey

In August 2006 a survey was distributed to approximately 3,200 households in Highland City through the public utilities billing cycle. A total of 892 households responded, for a very high response rate of 28 percent. The survey was used to collect data on public opinion to guide the development of goals and objectives for the General Plan. The survey asked questions to establish baseline attitudes concerning land use patterns, economic development, transportation infrastructure, housing development, open space development, and public service needs. Results of this survey are incorporated into the appropriate sections of the General Plan. A copy of the survey questions and a summary of the results are provided in Appendix B.

## Consolidated Neighborhood Touchstone Meeting

As the planning process continued and ideas were explored, the Planning Team reconnected with the community to review planning ideas and to provide further input prior to generating the Draft General Plan. This meeting was held at City Hall in early February, 2007. Twelve members of the public attended, providing limited comments and direction. Only one written comment was received, expressing a desire for more opportunity to develop elderly housing in the community, particularly along major roads leading in and out of Highland City.

## Public Open House Meeting - Draft Final Plan Review

An informal Open House was held in March 2007 in order to allow the public an opportunity to review the Draft Final Plan. The Open House format provided an additional opportunity for the public to review the plan, to speak one-on-one with the Planning Team and City Staff, and to address specific issues and concerns. Comment forms were provided for on-site comments. The Draft Final Plan was also posted on the project website, providing opportunity for public input via e-mail. Fifteen members of the public attended, providing comments and limited direction.

## Project Website

In order to distribute planning information and receive broad involvement and advice for the General Plan, the Highland City General Plan Update Website was established. The website provided an electronic venue for noticing important meetings and events, and for providing digital copies of planning ideas and drafts as they were developed.

## Plan Development Review Group

A plan advisory body was established at the early stages of the project, consisting primarily of City Staff, Administrators and elected and appointed officials. This group provided leadership and guidance as the plan was developed.

## Transportation Open House

A Transportation Open House was held at Ridgeline Elementary School on October 31, 2007 to allow further discussion for the public regarding the transportation issues facing Highland City. Maps and plans were presented and comment forms were provided for on-site comments.

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## Planning Vision

The Planning vision encapsulates the values of the City and its residents, serving as a reminder of what is desired for the future. The vision also identifies how to get there, outlining the physical and social direction necessary to assist day-to-day decision-making.

The following vision statement was developed through several avenues, including discussions with City staff and leadership, public meetings, and a review of previous plans and documents.

### Vision Statement

Highland City is a “bedroom community” with large residential lots, single-family homes, natural areas, and open space. This pattern is the result of conscious decision-making. To a large degree the original pattern of the community has been set, and the opportunity for significant change is limited. This is particularly true as the community rapidly approaches build out. As the General Plan is updated, the original vision for the community needs to be confirmed to ensure the ideal is met as the community matures.

Highland City is envisioned to be a community that is in harmony with its natural setting. It is a place grounded in its rural heritage, and should continue to foster a positive community spirit and a sense of neighborliness.



*Common Residential Neighborhood in Highland*

Highland City is also envisioned to be a place of enduring character that is integrated with its rural open spaces and natural surroundings, where opportunities for enjoying the outdoors are abundant and supported, and where participating in work and community activities can be experienced by all of its citizens.

The interface between residential neighborhoods, open space, roads and other features is of particular importance, and should be given special scrutiny as the City continues to evolve. In particular, adjustments should be considered that ensure adequate opportunities exist to meet the diverse housing and land use requirements of the community.

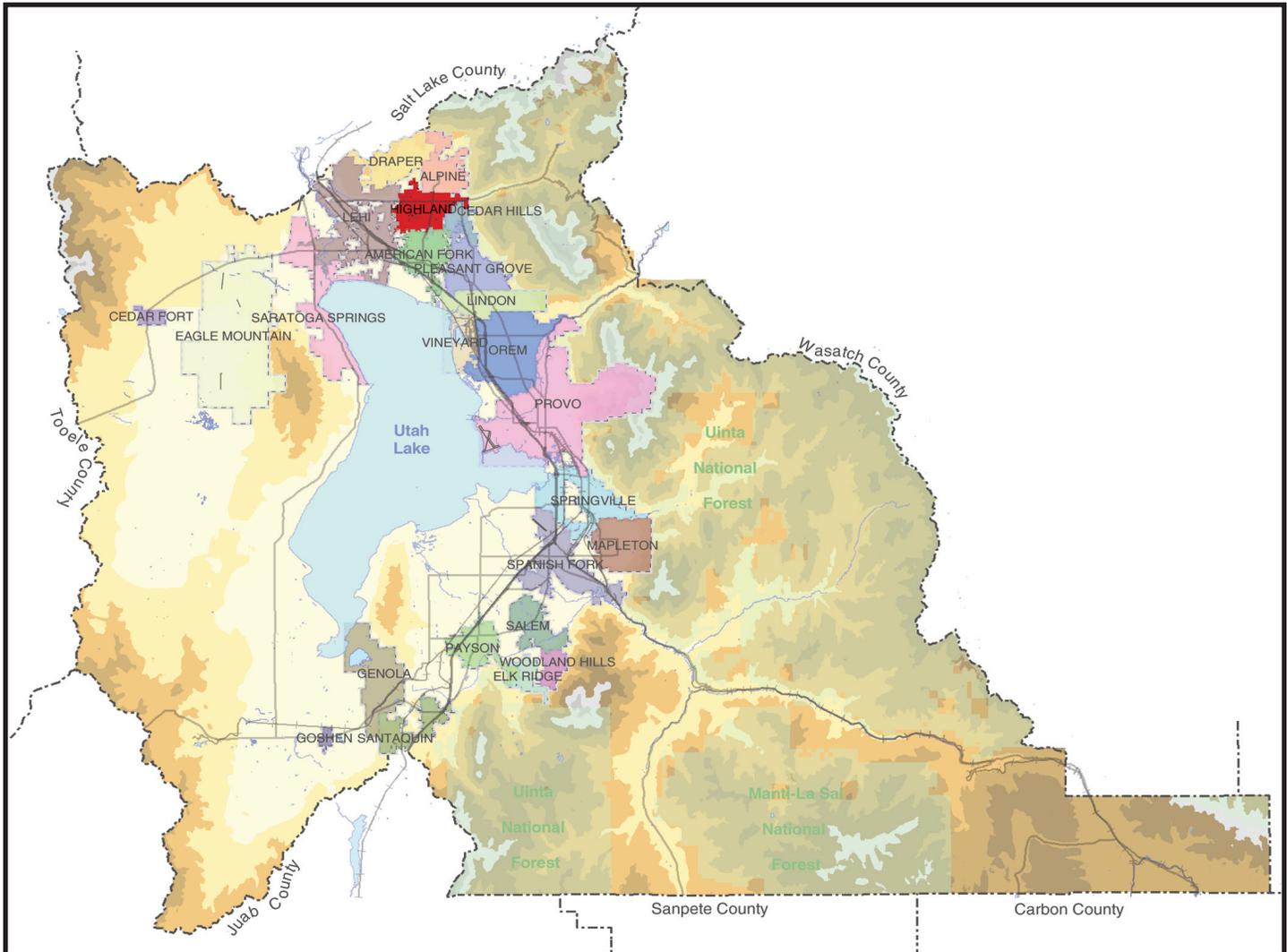
The vision for Highland City transcends the boundaries of the community, incorporating and embracing its neighboring communities. Cooperation is a cornerstone of the City, a characteristic that is on par with its scenic setting, which is highly valued. It is the responsibility of Highland City's citizens to preserve and protect the qualities that make the community special, and to reach out to its neighbors to ensure that shared resources and values are preserved for all.

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## History of Highland City

Highland City is a small and relatively new community. Centered on State Highway 74 (Alpine Highway) and 11000 North (SR 92), the community is located near the mouth of American Fork Canyon in the northeastern reaches of the South Wasatch Range east of Utah Valley. Highland City was incorporated on July 13, 1977.

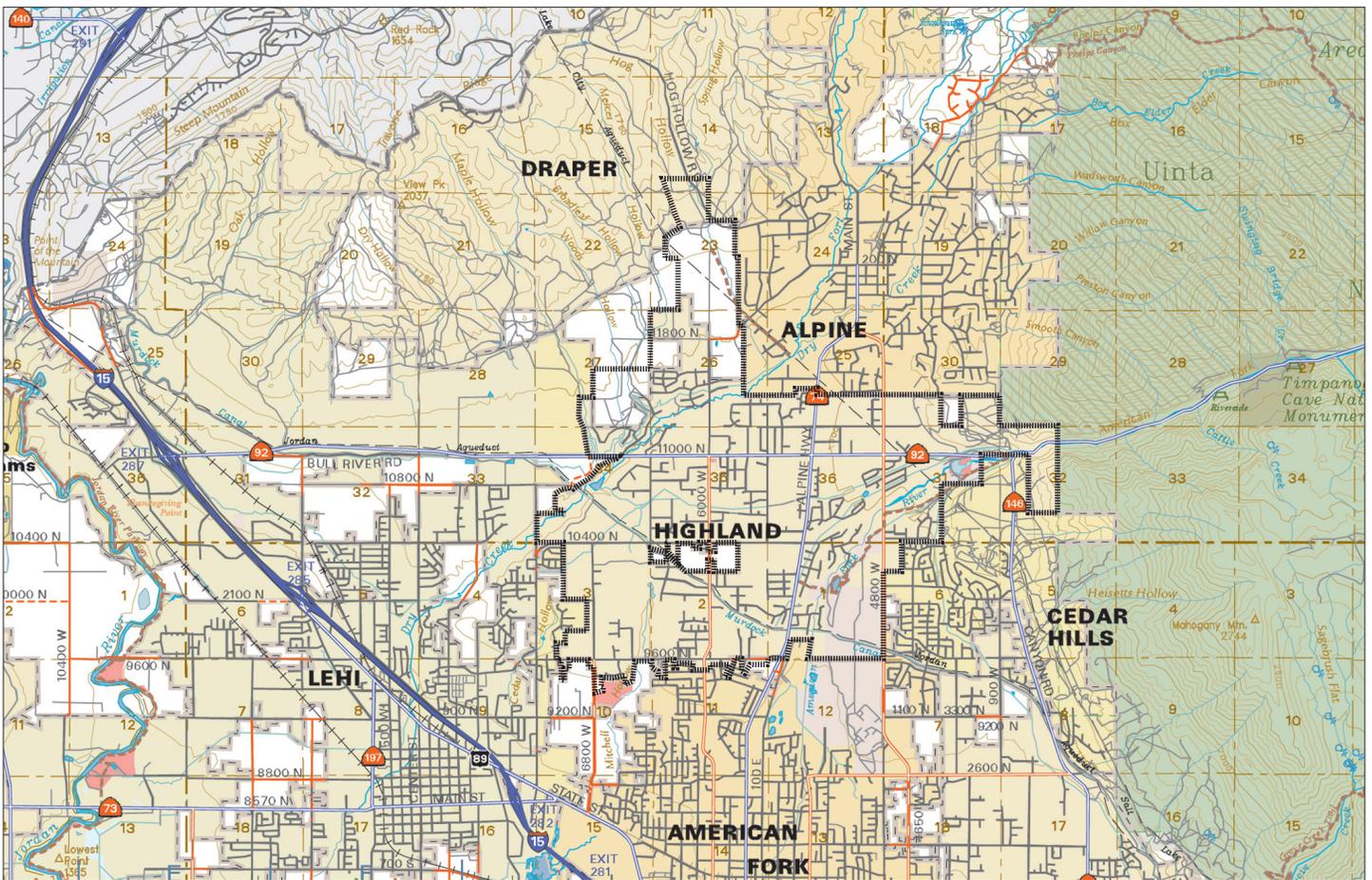
Although incorporated relatively recently, settlers began moving to the Highland City area in the mid-1870s. In 1853, men from Lehi turned the first shovels in Highland City's rocky soil as they hand dug a ditch from the canyon to Lehi - a distance of seven miles. John Poole built the first home in Highland City in 1875, and by 1890 several families had settled the area, building a church and a one-room schoolhouse. Alexander Adamson, an immigrant Scottish farmer, bestowed the name "Highland" on the mountainous setting because it reminded him of the highlands of his birth.



In 1957, sixty families in the community organized a culinary water system. With the assistance from the State Board of Water Resources they drilled a deep well, which assured sure and steady growth. In recent years Highland City has experienced rapid and steady population growth, with a current population near 14,600. It has a quiet, bedroom-community feel that has attracted many residents since its incorporation, and its large lot sizes lend a modern yet comfortable feel to the community.

Highland City's commercial zone is small and its residents enjoy one of the lowest property tax rates in Utah Valley. A Mayor and five City Council members govern the City.

As with other northern Utah Valley communities, Highland City is very accessible to both Salt Lake City and Provo. The Highland City Fling is the City's answer to summer festivals, including sporting competitions, a parade, and children's activities.



## Organization of the Plan Document

The Highland City General Plan Update (2007) documents existing conditions, analyzes important community issues, and proposes future visions and growth directions within a series of Elements or chapters. Although each Element is specific in its focus, there is an integrated relationship between them. The Elements contained in this plan include the following:

- ◆ Background and Introduction
- ◆ Land Use
- ◆ Transportation and Traffic
- ◆ Environmental and Natural Systems
- ◆ Economics
- ◆ Affordable Housing
- ◆ Community Design
- ◆ Parks, Recreation Facilities, and Trails

The results of a community survey conducted as part of this Plan are located in Appendix B.

## Community Profile and Demographics

The following is a review of key demographic conditions in Highland City. These provide a snapshot of how the community is structured, how it has changed over the years, and what can be anticipated in the future.

### Population

While transitioning out of an agricultural community, Highland City's rural legacy has influenced the physical and demographic composition of the City. In 2000, families in Highland City continued to be some of the largest in the state and also the youngest. Highland City's median age was 20.9 years old - far younger than the state median of 27.1. The average household size was 4.53 in 2000 compared to the statewide average of 3.13. As of February 2007 Highland City's population was estimated at 14,600. It is estimated that by the year 2017 the population of Highland City will reach 22,833 and 24,304 by 2027. As of the 2000 Census Highland City's population was 97.5 percent white.



Annual Highland City Fling



Oldest Home in Highland City

### Socioeconomic

As of late 2006 the average household income in Highland City was \$94,510—much greater than the county average of \$50,553. This is due in part to higher educational attainment in Highland City. As of the 2000 census, 98 percent of the population age 25 and older had completed high school and 46 percent had a bachelor's degree or higher. In comparison, only 91 percent of the Utah County population age 25 and older had completed high school and only 32 percent had achieved a bachelor's degree or higher.

### Housing Units

Highland City was home to 1,864 housing units in 2000. As of January 2007 there were 3,150 occupied units. Highland City is composed mainly of owner-occupied single-family dwellings. Ninety-five percent of Highland City's housing is owner occupied. According to Wasatch Front Multiple Listing Service data, the median sale price for single-family homes between January 2003 and March 2006 was \$310,000. Only one percent of the housing in Highland City is attached.

## Employment

As of 2006 there were an estimated 2,123 jobs located within Highland City. The industries providing the largest share of employment in Highland City are construction (23 percent); educational services (19 percent); retail trade (11 percent); and administration, support, waste management, and remediation services (11 percent).

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## Amending the General Plan

It is envisioned that this General Plan will be a vital, living document that will serve the community for up to ten years. In order to stay current and extend the life of the plan to the fullest, interim adjustments may be necessary.

It is recommended that no General Plan amendments be considered for a period of one year following the date of adoption, providing an adequate period for the Planning Commission and the City Council to work with the adopted plan without pressure for immediate change.

Amending the Highland City General Plan should not be taken lightly. A great deal of effort, time, commitment, and consideration has gone into the development of this General Plan, and in order to be a trusted document, all amendment proposals should be carefully reviewed and evaluated from the perspective of how it affects the greater community.

It is therefore recommended that General Plan amendments only be considered semi-annually, at special meetings devoted entirely to that process. In this way, the necessary time needed to fully understand and evaluate the amendment proposals is assured, and the General Plan is not compromised due to haste or inadequate information.

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## Goals and Policies

**Goal:** To ensure that the General Plan reflects a comprehensive vision of the community.

**Policy:** Create a plan that addresses immediate community needs in the next 5 to 10 years, while considering longer-term implications up to 20-years into the future.

**Implementation Measure:** Update the General Plan every 5 to 10 years to ensure it remains current and reflects new developments and changing community priorities.

**Goal:** To ensure that the comprehensive vision of the community is supported by future actions.

**Policy:** Revise existing policy to match the vision of the General Plan.

**Implementation Measure:** Modify existing zoning ordinances, development guidelines, and other implementation tools to reflect the vision contained in the Highland City General Plan Update.

**Goal:** To maintain the objectives and goals of the Highland City General Plan Update as part of a defined framework for possible future modification.

**Policy:** Carefully consider amendments to the General Plan only within the context of comprehensive, community-wide impacts.

**Implementation Measure:** Do not allow any amendments to be made to the Highland City General Plan for a period of one year following the date of adoption.

**Implementation Measure:** Consider potential amendments to the General Plan only during special meetings devoted solely to that process.

**Implementation Measure:** Hold special meetings to consider potential General Plan amendments only on a semi-annual basis.

# Land Use

# 2

## Introduction

This element provides land use policy direction for Highland City. Beginning with documentation of existing land use conditions and ownership patterns and followed by an analysis of existing conditions, this element identifies key land use issues and concludes with the Preferred Land Use Concept and corresponding Future Land Use direction.

## Background

Over the years, Highland City has been transformed from a lightly populated agricultural settlement into a significant bedroom community. According to the policies and visions established at incorporation in 1977, agricultural and vacant land has converted into a community of single-family homes, parks and open spaces, and limited commercial and public uses. In most cases these decisions have resulted in a harmonious, large-lot dominated single-family residential community.



*Historic 1 acre (or larger) Highland Residential Lot.*

One of the main issues to emerge from the public input received is a polarization of opinion regarding the current pattern of development. Some residents expressed a desire for a wider range of residential uses, particularly to meet the needs of elderly residents currently living in the community, or elderly residents who may want to remain in the community but who no longer wish to maintain a single-family home. Similar concern was raised for the lack of housing options available for younger citizens.

Other participants stated their satisfaction with existing patterns and densities, and expressed a desire to maintain the community as it is. This attitude was generally supported by the community survey carried out in the early stages of this study, which indicate strong support for low-density, large lot developments, and little support for uses smaller than 1/2 -acre single family sites.

Finding ways to best utilize the limited amount of vacant and agricultural land is paramount for securing Highland City's future form and growth direction. In particular, the accommodation of housing options is of critical concern.



*Highland Residential Lot utilizing the Open Space Bonus Density allowance.*

## Existing Land Use

The existing land use pattern in Highland City is the result of traditional patterns established long ago, and recent development patterns that have appeared since incorporation in 1977.

Highland City is a “bedroom community” with a distinct low-density residential pattern, some commercial services, a generous open space system, and limited public services. The City encompasses 8.65 square miles, including all roads, infrastructure reserves, canals and utility corridors. A small island of Utah County land is located in the southern reaches of the community, although this area is likely to be incorporated into Highland City in the coming years.



*Typical R-1-40 Subdivision; representing historically, the predominant development pattern in Highland*

The Open Space Residential land use concept maintains the goal of large lot residential development, while encouraging more creative site design and the concentration or clustering of homes around public open space areas. This concept focuses on density rather than lot size, allowing an alternative housing product and resulting in the preservation of unique natural areas and the open rural character of Highland.

### Verification of Existing Land Use

In an effort to verify existing land uses and identify areas of potential development in the City, a limited “windshield” survey was conducted. Key parcels were visually inspected, crosschecked with aerial photographs and other mapped data, designated on field maps, and updated with the input of City Staff.

Table 2-1 provides a breakdown of the various land uses and the approximate number of acres allocated to each. Map 2-1 illustrates the distribution of existing land uses. A general description of each land use category follows.

**Table 2-1. Existing Land Use**

LAND USE	ACRES	%
Residential > 1 acre lots	940.1 acres	17.1
Residential 1/2 - 1 acre lots	874.1 acres	15.9
Residential 1/3 - 1/2 acre lots <sup>1</sup>	400.9 acres	7.3
Residential 1/4 - 1/3 acre lots <sup>1</sup>	209.8 acres	3.8
Residential < 1/4 acre lots <sup>1</sup>	71.6 acres	1.3
Commercial	12.7 acres	0.2
Office	6.5 acres	0.1
Institutional (Public)	12.5 acres	0.2
Schools	101.1 acres	1.7

<sup>1</sup> Most of these uses are located within Open Space Subdivisions where the overall density is 1.3 to 1.4 units per acre.

Religious	52.8 acres	0.9
Public Parks	220.0 acres	4.0
Private Parks <sup>2</sup>	182.2 acres	3.3
Open Space	516.9 acres	9.4
Golf Course <sup>3</sup>	216.9 acres	3.8
Cemetery	16.5 acres	0.3
Industrial (gravel pit)	86.3 acres	1.5
Utility Corridors (pipelines, canals, etc.)	30.6 acres	0.5
Agricultural/Vacant	927.5 acres	16.9
Transportation Corridors	653.4 acres	11.8
Total	5482 acres	100.0
Town Center Total	<91.2 Acres>	-
Town Center Ag/Vacant Land	<43.4 Acres>	-

**Residential**

Residential uses are the primary land use, representing nearly 50% percent of all land. The bulk of residential uses are large homes located on large lots. Homes range in style and age, encompassing a few older units and numerous contemporary structures. As described in more detail below, residential land uses encompass a limited range of densities, and a mix of single-family forms, neighborhood patterns, and conditions.

**Residential Single Family > 1 acre lots**

Single-family homes on lots one acre in size or larger account for approximately 17% of all land in the City. The style and location of these uses varies, encompassing a range of newer custom and subdivision homes, as well as various homes, farms, and estates from earlier eras. The majority of these homes are relatively new, with older homes spread throughout the City.



Highland Residential Property located within an R-1-20 Zone.

**Residential Single Family – 1/2 to 1 acre lots**

Accounting for approximately 16% of the total land area, this residential category is the most prevalent in Highland City. These homes are typically part of larger planned subdivisions and smaller-scale developments, with individual lots scattered throughout the City.

**Residential Single Family - 1/3 to 1/2 acre lots**

Accounting for approximately 7% of the total land in Highland City, this category encompasses units located on lots between one-third and one-half acre in size. The older examples were “grand fathered” into the community at incorporation. Some of the newer homes have been developed primarily as part of Open Space Subdivision Overlay neighborhoods.

<sup>2</sup> Private parks were developed within Utah County prior to Highland City's incorporation or annexation into Highland. Private parks are currently not permitted in Highland. This does not refer to park or open space within subdivisions that were developed under the open space subdivision provision of which the open space is not private but entirely public owned and publicly accessible.

<sup>3</sup> Golf courses in Highland City's boundary are not publicly owned. New golf courses are not anticipated in the future.

### Residential Single Family - 1/4 to 1/3 acre lots

Accounting for nearly 4% of the total land in Highland City, this category encompasses units located on lots between one-quarter and one-third acre in size. The older examples were also “grand fathered” into the community at incorporation. As with the previous example, some of the newer homes have been developed primarily as part of a previous Open Space Subdivision Overlay ordinance.

### Residential Single Family < 1/4 acre lots

Accounting for over 1% of the total land in Highland City, this category encompasses units located on lots less than one-quarter acre in size. The older examples were “grand fathered” into the community at incorporation. As with the previous examples, some of the newer homes have been developed primarily as part of founding Open Space Subdivision Overlay neighborhoods and the first open space bonus overlay subdivision ordinance.

### Senior Housing

Senior housing uses are currently limited to the Town Center located south of SR-92 (also referred to as 11000 N, or Canyon Road) and west of Alpine Highway (known as SR-74). There are two separate but similar architectural designs within similar development pattern however the scale is distinctly different. These projects were considered with the intent to provide affordable and well designed housing for the aging population in Highland City.



Highland City Town Center

### Commercial

Existing commercial uses are limited to (1) a neighborhood commercial center located on the southwest corner of SR-92 (also referred to as 11000 N, or Canyon Road) and the Alpine Highway (known as SR-74), the Town Center, and (2) a convenience store/gas station located on the northeast corner of the same intersection.

A third commercial site known as Highland Marketplace was recently approved on the north side of SR-92, across from the Town Center. The site is earmarked as a moderate size commercial center with a variety of retail and limited offices uses.

The roughly 91-acre Highland Town Center has been slow to develop. The site is only half-built, with approximately 43 acres of undeveloped land earmarked and/or approved for a variety of commercial/residential and mixed-use projects.

A detailed set of guidelines has been developed for both the Town Center and Highland Marketplace. These and other implementation tools are discussed in greater detail in Element 7 - Community Design.

### Office

There are several office buildings existing, under construction, or approved in two general areas of Highland. Office buildings are located in the city center near the intersection of SR-92 and SR-74 (Town Center, Lone Peak Shopping Center, Highland Marketplace, and Residential Professional Zone) and the southern end of Highland Boulevard (Professional Office Zone) as follows:

- 1) Westfield Office Building (northwest corner of Lone Peak Shopping Center).
- 2) Wells Fargo; Intermountain Health Care (IHC); new Office Building east of Wells Fargo north of IHC southeast corner SR-92, SR-74 (Residential Professional (RP) Zone).



Recently completed Patterson Office Building

3) Utah Community Credit Union (UCCU) southeast corner Town Center; Timpanogos Tire Mixed Use Office building north central Town Center; previously approved Office Mixed Use building west of UCCU southeast corner Town Center; previously approved Office Mixed Use building south of Wendy's, north central Town Center (Town Center Zone).

4) Two New approved Office/Retail Mixed Use buildings, northeast corner of Highland Marketplace (CR Zone).

5) Patterson Construction Office building, Storage Unit Office building, and four additional previously master planned, approved office buildings southern end of Highland Boulevard (Professional Office (P.O.) Zone).

### Institutional

Existing public uses include Highland City Hall, which is located on the northwest corner of Alpine Highway (SR-74) and 10400 North; the Public Works Building, which is located on the north side of SR-92 (also referred to as 11000 N, or Canyon Road) near the eastern city limits and provide municipal office and service space; the Highland Public Utility Building, located at approximately 5550 North SR-92 (also referred to as 11000 N, or Canyon Road); the Highland Pump Station Building, located at 6000 West 11800 North; several water tanks, pressurized irrigation ponds, water booster pumps and pump houses; several parks, park pavilions and park structures or improvements typically associated with parks, trails and open space.

The largest institutional use is the State School site, which is located on the southeast edge of the community, adjacent to Lone Peak High School. This site is currently agricultural use.

### City Hall

The existing City Hall will be replaced. A new City Hall located in the Town Center is under construction. This new 18,000 square foot building will house the City Administration, Finance, Utilities, Community Development and Engineering Departments, and include space for a library. How the old facility will be used is under discussion.

### Courts and Public Safety

The Public Safety Building is also under construction. It will generally follow the same construction schedule and is approximately 16,000 square feet in size. The Public Safety Building will house the Justice Court and Police Department, and will also be located in the Highland Town Center Site facing City Hall.



City Hall (a new building will be completed soon in the Town Center).

### Police Services

When Highland City was incorporated, it contracted with the Utah County Sheriff's Department for police services, and later contracted with Alpine City. That relationship eventually evolved into the Alpine Highland Public Safety District (AHPSD), which provided fire, police, and emergency medical services. The AHPSD was formed on July 1, 1996 and provided service until 1999 when Cedar Hills opted to join, and the Lone Peak Public Safety District (LPPSD) was formed.

The LPPSD provides emergency medical service, police services, and fire services to Alpine and Highland Cities, and emergency medical and fire services to Cedar Hills. The District is managed by a five-member board of elected officials from the involved cities and an Executive Committee made up of City administrators from the three cities.

The Alpine/Highland City Police Department currently employs 20 sworn officers and additional support staff. The Department recently received funding for an additional three sworn officers. These 23 officers provide police services and protection for approximately 25,000 individuals. As the City grows and experiences the challenges and changes associated with growth, it will be necessary to add police services and personnel to maintain an adequate level of service.



Ground breaking Ceremony for the new Fire Station, 2007.

### Fire Protection

The Lone Peak Public Safety District also provides fire protection to the City. The LPPSD currently employs several fire and emergency services personnel, and recently received a Homeland Security grant to hire an additional nine employees. A new fire station has nearly completed construction in the Town Center. This building will provide more space for personnel and better access to Highland City.

### Schools

There are several schools in Highland City. Table 2-2 identifies existing schools, their locations, contact information, and enrollment as of October 1, 2006. The schools shown on Map 2-1 are operated by the Alpine School District. Some Highland City students attend school outside of Highland City but closer to their neighborhoods; these include Legacy Elementary School and American Fork High School in American Fork.

**Table 2-2. Highland City Schools**

	Address	Phone	Enrollment (2005)
<i>Elementary School</i>			
Freedom Elementary <b>K-6</b>	10326 N. 6800 S.	766-5270	968 students
Highland Elementary <b>K-6</b>	10865 N. 6000 W.	756-8537	787 students
Ridgeline Elementary <b>K-6</b>	6250 W. 11800 N.		606 students

*Middle School*

Mountain Ridge Junior High 5525 W. 10400 N. 763-7010 1226 students  
**Grades 7-9**

*High School*

Lone Peak High 10189 N. 4800 West 763-7050 1970 students  
**Grades 10-12**

*Source: Alpine School District, Rob Smith, and Business Services*

In addition to the existing schools, the District has identified a future elementary school site in the southwestern part of the City at approximately 9600 North and 6800 West, on land that the District already owns. The School District also owns a smaller site slightly to the east. Additional middle schools and high schools are not anticipated by the School District at this time. According to the District, existing middle and high schools can accommodate additional students.

**Religious Facilities**

Fourteen church sites are currently spread throughout the community within the various neighborhoods.

**Public Parks**

Approximately 220 acres of public parkland is located in Highland City. These uses range from small local parks to a large regional park. Public park uses are discussed in greater detail in Element 8 - Parks, Recreation Facilities and Trails.

**Private Parks**

Approximately 182 acres of private parkland is located in Highland City. These uses are typically smaller parks located behind private property with private access. These parks were typically approved with planned unit developments in Utah County prior to incorporation in Highland. Additional private parks are not anticipated by Highland in the future.

**Open Space/ Waterways**

Nearly 10 percent of Highland City is composed of open spaces. In addition to providing recreation opportunities and visual relief, these uses are also important habitat areas. Natural open spaces include the steep, undevelopable foothill slopes near the mouth of American Fork Canyon, sites and corridors near and adjacent to natural water bodies, perennial streams and rivers, and intermittent streams. Natural open spaces are also located within power and other utility corridors, and within existing trail and greenway corridors. Natural open spaces are discussed in greater detail in Element 8 - Parks, Recreation Facilities and Trails.



*Highland Glen Park, Pond and Trail is the largest public park in Highland*



Highland City Cemetery

### Golf Courses

One private course (Alpine Country Club) and portions of two public courses (Cedar Hills Golf Course and Tri-City Golf Course) are located in Highland City. Together, these uses encompass approximately 217 acres of land, accounting for four percent of the total land area in the City. Golf courses are discussed in greater detail in Element 8 - Parks, Recreation Facilities and Trails.

### Cemeteries

The 16.5 acre Highland City Cemetery is located on the south side of SR-92, west of 6000 West and east of 6400 West.

### Industrial

A 123 acre gravel pit is located on the north side of SR-92 (also referred to as 11000 N, or Canyon Road) near the eastern City limits and north of the Highland City Public Works building. Informal conversations with the operators indicate that full extraction may be reached within ten years, although this ultimately depends on market conditions. Once fully extracted, the site will be mitigated and prepared for other uses.

### Utility Corridors

Nearly 30 acres of utility corridors criss-cross the community. These include pipelines, aqueducts, canals, and similar conveyances. Some of these facilities serve as community trail corridors.

### Vacant Land and Agriculture

Nearly 1,000 acres, one-fifth of the total land area, is currently vacant or used for agricultural purposes. Agricultural parcels are scattered throughout the City. Many of the larger sites are remnants from earlier times, which are slowly disappearing. Typical uses include pasture and fields. Nearly all uses include a home or homes located on each site, which typically range from less than one-half acre to greater than 25 acres.

Although the current Highland City General Plan supports the continuation of agricultural uses within the City limits, it is generally assumed that most of these uses will eventually be developed with residential and associated uses as build out takes place and land becomes less readily available.

### Transportation Corridors

Road rights-of-way occupy approximately 18 percent of the total land area in Highland City. This figure is relatively high in comparison to other communities, a result of the low-density development pattern. Key transportation corridors include SR-92 (also referred to as 11000 N, or Canyon Road), the Alpine Highway (SR-74) and 4800 West. Transportation corridors and uses are discussed in greater detail in Element 3 - Transportation.

## Existing Ownership

As illustrated in Map 2-2 and detailed below, there are four categories of land ownership in Highland City:

**Table 2-3. Acreage by Ownership**

Ownership	Acres
Private	3744 acres
Public - Other	882 acres
Public - Highland City	509 acres
Unknown <sup>4</sup>	347 acres
Total Acres	5482 acres

<sup>4</sup> This is often land that is not taxed.

### Private Ownership

The bulk of land in Highland City is privately owned by residents, commercial interests, and other owners, such as religious institutions. The ownership pattern has a strong correspondence to existing patterns, reflecting the low-density, large-lot pattern of the community. Undeveloped private sites are likely to develop at some stage in the future.

### Public Ownership

This category includes land owned by the U.S. Government, State of Utah, Utah County, Water Districts, School District, and other Public Entities.

Land owned by the U.S. Government encompasses a portion of the steep slopes above the mouth of American Fork Canyon. These areas are part of large Forest Service land holdings and designated wilderness area, and are not likely to be sold or developed in a significant manner. Other federal land includes a nearby site located on the south side of SR-92 (also referred to as 11000 N, or Canyon Road), which is currently being designed as the new Timpanogos Cave Visitor Center.

A key property owned by the State of Utah is the State School site, which is located on the west side of 4800 West near the south City limits. The bulk of this site is currently undeveloped.

Other publicly owned land includes canals and pipelines owned by water districts which criss-cross the community. The Alpine School District owns several developed school sites and at least two undeveloped sites in Highland City. The latter may be developed to accommodate future school needs, or may be sold to finance the purchase and development of other sites in the City or elsewhere in the district.

### Public Ownership (Highland City)

Highland City owns numerous sites throughout the City. The bulk of these holdings are occupied by existing and future parks and community open spaces. Other sites owned by Highland City include roads and rights-of-way and sites for existing and proposed City buildings.

### Unknown Ownership

There are several sites in this category, most of which appear to be private in nature, both developed and undeveloped. One of the most significant sites in this category is the Alpine Country Club.

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## Land Use Issues

Early in the planning process, Highland City residents identified several issues related to land use. This input was provided both through a community survey and a series of Public Scoping Meetings. Members of the Highland General Plan Update Development Review Group provided additional input. Further insight was ascertained by reviewing existing plans and reports, and through on-site field investigations.

Some of the key land use issues in Highland City include the following:

- ◆ Highland City has been consciously developed as a low-density, large-lot community;
- ◆ Current and past planning has allowed relatively limited residential options, focusing on large-lot, one-acre single family uses;
- ◆ Some development of half-acre lots has been allowed, together with some development on smaller lots in Open Space Bonus Density Overlay Residential neighborhoods has also been allowed;
- ◆ Access to moderate-income housing opportunities is limited;
- ◆ Preserving the traditional form of the City is important to many residents;
- ◆ There is a general desire to preserve, protect, and enhance established residential neighborhoods;
- ◆ There is limited desire to provide a wider range of housing options for older and younger residents. For example; senior housing development in the Town Center and PO Zone have recently been approved, and consideration in the Town Center and property south of the Lone Peak High School for mixed use opportunities has been discussed;
- ◆ Maintaining a low-density profile is a concern to some residents;
- ◆ The provision of parks in exchange for residential density is somewhat controversial, particularly for residents near envisioned projects;
- ◆ There is desire for enhanced community services (library, community center, meeting places, etc.).
- ◆ Maintenance of animal rights is supported;
- ◆ There is some concern that some public services are limited at present;
- ◆ There is strong desire for connected trails and trail access points in the City;
- ◆ There is a general desire for sports fields and parks;
- ◆ There is some concern for the preservation of agricultural land;
- ◆ There is some support for a balance between various uses, residential and commercial in particular;
- ◆ Some residents would like to see zoning changes implemented which support a comprehensive land use vision for Highland City;
- ◆ The limited development opportunities of a community fast approaching build-out should be carefully implemented;
- ◆ There is a general desire to preserve open space, support pedestrian connections, and provide a better mix of uses;
- ◆ Land use decisions should be integrated with transportation needs in order to create a more functional and better-balanced community; and
- ◆ There is a desire to maintain traditional agricultural uses on large-lot sites including animals and animal rights.

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## Land Use Analysis

The land use pattern in Highland City is well established, focusing on large-lot, single-family residential uses. Despite the call for a wider range of uses and densities, the wholesale modification of existing land use patterns is likely to cause more harm than good. That said, there is an obvious need to provide a wider-range of housing types and a reasonable opportunity for moderate-income households in the community (see Element 6 - Moderate Income Housing for greater detail).

**Open Space Bonus Density Residential** development has had some success in Highland City in recent years, providing much-appreciated park and open space amenities for residents, and to a lesser degree, the general public. This type of residential development also accommodates a wider range of residential needs, although still mainly low-density, single family in nature.

**Commercial** uses are relatively limited at present. The approval of Highland Marketplace will provide greater access to shopping and services. Together, Highland Town Center and Highland Marketplace will provide a more balanced commercial profile, and correspondingly, a stronger tax base.

**Senior Housing** uses are also limited at this time however, recent discussions have considered alternatives and opportunities to include these uses in Highland. Two projects that have been implemented in Highland include twin homes and mansion homes (3 unit dwellings appearing as one large home) within the Town Center. It is perceived that rising costs and market constraints have limited the success of these projects as intended for seniors only.

Highland City could easily accommodate additional commercial uses in the future, although the size and location should be carefully considered. In general, commercial uses should be located in areas where they will best serve the populace. In all cases, commercial development should be implemented according to strict design guidelines to help define the imagined result. Office uses and higher-density residential uses should be encouraged as part of larger, mixed-use commercial projects. One potential **mixed-use** site to provide a range of commercial and residential options, including moderate income housing opportunities, may be the State School site located on southeast edge of the community however this has not been decided at this time.

### Public and Quasi-Public Use

**A library** was frequently mentioned by the public as a desired service, and is generally considered an asset to the community. Some members of the public mentioned that they use the library in American Fork and find that convenient, close, and inexpensive. Others consider a shared library developed with surrounding communities to be a reasonable option. Many were concerned that Highland City cannot support a library, and that inter-library loan programs can meet most of the community's needs. A Library Board has been appointed by the Mayor to plan the development of a library that would have the potential to become part of a cooperative effort with other libraries in northern Utah County.

People attending the neighborhood meetings generally desired a **recreation/community center** that includes a swimming pool, fitness center, and other indoor recreation opportunities. They believed that such a facility can become a community gathering place for children and families, and could be combined with a library, senior center, or other civic uses. Two locations were suggested for such a facility – adjacent to the high school, and in The Highland Town Center, where the City already owns land.

Some residents do not believe a recreation/community center could be supported without cooperation from adjacent communities such as Alpine, Cedar Hills, and American Fork, and many do not mind using existing facilities in other communities or private recreation facilities. Some are concerned about the impact to City budgets, and believe that associated costs will not be offset by future commercial tax roles or increased property taxes.

Land for religious uses and churches should be reserved as needed within residential neighborhoods and elsewhere. Parks and open spaces should be reserved to meet the needs of the future residents. It is assumed that the existing cemetery and off-site cemeteries are adequate for the future needs.

There appears to be little need or desire for industrial uses in the City. As the existing gravel pit is mined, the excavated site should be renovated to meet environmental standards and re-developed. Considering the low-density residential profile of the surroundings, an Open Space Residential development with clustered open space is encouraged.

Despite the general desire to maintain significant agricultural uses in the community in the long run, high property values and a decreasing supply of developable land make this scenario unlikely. Large agricultural uses should be encouraged to develop as Open Space Residential subdivisions, preserving significant portions of the sites as open space, and possibly maintaining limited agricultural functions.

The large amount of land dedicated to roads is unlikely to decrease in the future, particularly when one considers the low-density, large lot residential profile of the community. The reality of this situation makes the stated desire for a more walkable community difficult to achieve, due to the long walking distances and general lack of places to walk to. However, walkable design should be encouraged in areas near the Highland Town Center, within Open Space Residential developments, and in higher-density, mixed use places. Distant neighborhoods and nearby communities should be linked with an extensive system of trails.

Since the bulk of vacant and agricultural land is in private ownership, future public uses should be reserved in undeveloped areas of the City.

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## Land Use Vision

As illustrated on Map 2-3 and described below, future land uses should build upon the established residential pattern of the community, with subtle shifts to help meet the demand for a wider range of housing options. Concept highlights follow:

- ♦ Continuation of the well-established low-density, single-family development pattern;
- ♦ Consider Open Space Bonus Density Subdivision development as transitions between existing low-density and higher-density uses and as buffers between municipal boundaries;
- ♦ Development of infill properties according to the scale and use of surrounding areas;
- ♦ Completion of the Highland Town Center as a mixed-use place, with commercial uses located at ground level and residential uses above. This will provide a wider range of housing options and improve access to moderate-income housing;
- ♦ Public uses (community buildings, for example) should be located at Highland Town Center and larger infill sites as available;
- ♦ Parks, Recreation, Open Space and Trails facilities should be provided to meet future needs; and
- ♦ Higher density, mixed-use residential/commercial uses are encouraged in the Town Center and may be considered for the State School site near the south/southeast edge of the community.

## Future Land Use

Highland City's Future Land Use is illustrated in Map 2-3. The plan represents an idealized "snapshot" of the future City, illustrating the location and extent of future land uses. Table 2-4 summarizes future land use acreage, which is described in greater detail below.

**Table 2-4. Future Land Use**

LAND USE	ACREAGE	%
Residential	3931.0	60.9
Commercial	123.0	4.5
Mixed Use Development	19.0	0.3
Office	27.0	0.6
Institutional	27.0	0.6
Schools	127.0	2.3
Religious	57.0	1
Open Space (Public unimproved)	398.0	5
Highland City Parks	394.0	7.2
Private Recreation & Mini Park	182.2	5.9
Cemetery	16.0	0.2
Utility	26.0	0.6
Road	699.8	10.8
Total	6027.0	100.0
* Town Center Total	91.2	-
* State School Site	157.0	-

### Low Density Residential

Future residential uses are envisioned to account for nearly 60 percent of the total land area, representing by far the largest land use in the community. New uses should be developed on existing vacant and agricultural land according to established low-density, large-lot land patterns and densities.

Open Space Residential development is encouraged where possible, and in particular as a buffer between different uses and densities. Once fully extracted, the existing gravel pit should be developed in this manner.

Future residential uses should encourage a wider variety of housing styles and types, and if deemed appropriate, housing options suitable for younger and older residents. Since high property values and housing costs tend to preclude moderate-income housing as part of traditional single-family developments, higher density housing alternatives are encouraged as part of mixed use developments at predetermined locations such as the Town Center. Although other areas should also be considered so as to not relegate older citizens to areas where only they should live.

### Senior Housing

Senior housing is currently located within the Town Center and the northwest boundary of Highland. It is not certain at this time if the consideration for twin homes or mansion homes is the best option for this land use. Access to public events, public facilities, and uses that are similar in providing care should be studied when considering projects.

### Commercial

Commercial development should be limited to Highland Town Center, Highland Marketplace, and portions of the State School site. Spot zoning of commercial uses, strip commercial uses, and similar projects should be specifically discouraged.

### Mixed-Use

Highland Town Center and the State School Site should be developed into mixed-use projects. Mixed-use development including residential, commercial, office, and institutional land uses in a single building or within the same area. Such uses may, for example, encompass residential dwellings over retail space, or office uses within the same area as residential uses.

Highland Town Center should be developed as the mixed-use place originally envisioned, with modifications that reflect the effect of the new commercial site to the north. The Town Center should be centered on a central open space or "commons". If considered, similar guidelines and a specific master plan should be developed for the State School site, helping to ensure that the vision matches reality.

### Office

New office uses should be limited to the Town Center, Highland Marketplace, existing city building, Sunset properties (north of Bull River PUD and IM Flash), southeast corner of SR-92 and SR-74 (RP Zone), and the State School site. Adequate office space should be provided to strengthen the local job market and economy.

### Institutional

Sites for additional institutional uses should be reserved in appropriate areas to meet specific needs and requirements. Civic uses should be located in the Town Center as originally envisioned.

### Schools

One additional elementary school is planned and should be located in an appropriate location, no middle schools or high schools are currently anticipated.

### Public Parks

New public parks should be provided to meet the various needs of the community. Specific requirements are provided in Element 8 – Parks, Recreation Facilities, and Trails.

### Private Parks

Approximately 85 acres of private parkland is located in Highland City, primarily as part of P.U.D.s approved by Utah County prior to incorporation. No additional private park facilities are envisioned for the future. Private and public park uses are discussed in greater detail in Element 8 - Parks, Recreation Facilities and Trails.

### Open Space

Open spaces will continue to account for over 10 percent of Highland City's land area. In addition to providing recreation opportunities and visual relief, these uses are also important habitat areas.

### Golf Courses

Existing golf courses are likely to remain, with no additional facilities envisioned.

### Cemeteries

The 16.5-acre Highland City Cemetery will continue to be the only cemetery in the City.

### Industrial

The existing gravel pit is envisioned to be fully extracted and redeveloped within the next decade. Once gone, no new industrial uses are envisioned.

### Utilities

Existing utility corridors, including pipelines, aqueducts, canals, and similar conveyances will remain in the future. Where possible, these facilities should continue to serve and be developed as community open spaces and trail corridors.

### Vacant Land and Agriculture

Although the preservation of agricultural land is encouraged and supported, high land prices and diminishing land resources make this a difficult goal to achieve. In the long-term it is assumed that all agricultural land will be developed. The preferred land use for large tracts of existing agricultural land is Open Space Residential, which provides open space in exchange for additional density.

### Roads and Transportation

Road rights-of-way will continue to occupy approximately 18 percent of the total land area in Highland City.

### Future Annexation Areas

All new annexation areas should be carefully master planned to ensure they are compatible with the land use pattern of the community, and that adequate public facilities including schools, parks, and trails are accommodated. Religious and church uses should be provided as part of future residential developments.

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## Goals and Policies

**Goal:** To maintain the established pattern of development in Highland City.

**Policy:** Continue to allow low-density residential development that respects existing land use patterns.

**Implementation Measure:** Follow established residential land use concepts and patterns to ensure compatibility and harmony with existing uses.

**Goal:** To promote a wider range of housing options to meet Highland City's fair share of moderate-income housing.

**Policy:** Revise existing policy to allow higher density housing in diverse areas of the City.

**Implementation Measure:** Allow basement apartments to be occupied by no more than two (2) people per bedroom.

**Implementation Measure:** Allow mixed use development in the Highland Town Center, with commercial uses on the ground floor and higher density housing above.

**Implementation Measure:** Consider higher density alternatives, such as an integrated mixed use development, in master planned predetermined locations.

**Implementation Measure:** Consider Open Space Bonus Density Subdivision development as transitions between existing low-density and higher-density uses and as buffers between municipal boundaries.

**Goal:** To ensure that all necessary community services and uses are provided.

**Policy:** Encourage commercial development at designated sites in the City.

**Implementation Measure:** Ensure that the Town Center and Highland Marketplace are fully developed with a range of viable commercial uses.

**Policy:** Ensure that all necessary public services and uses are provided to meet future needs.

**Implementation Measure:** Locate and acquire specific sites for designated community uses.

**Implementation Measure:** Locate reserve and acquire specific sites for all future parks, open spaces, and trail corridors.

**Goal:** To ensure that commercial and mixed use developments are well designed and fit in with the existing community.

**Policy:** Ensure that all commercial and mixed-use projects are developed according to detailed master plans and specific design guidelines for each site.

**Implementation Measure:** Develop and utilize master plans and design guidelines for the Highland Town Center and Highland Marketplace.

**Implementation Measure:** Create a specific master plan and design guidelines for the State School mixed-use site.

**Goal:** To encourage the preservation of agricultural land.

**Policy:** Identify financial and other incentives that will encourage the preservation of agricultural land remaining in the city.

**Implementation Measure:** Provide financial and other incentives to maintain agricultural sites and/or uses.

**Goal:** To promote walking and biking.

**Policy:** Encourage pedestrian-friendly development and design within and near community destinations.

**Implementation Measure:** Develop the Town Center, Highland Marketplace, and the State School site with pedestrian friendly design concepts.

**Implementation Measure:** Provide safe routes to school in all residential areas, utilizing a mix of sidewalks, trails and other design features as appropriate.

**Implementation Measure:** Link Highland City's neighborhoods and destinations as part of a comprehensive system of trails and pathways.

**Goal:** To preserve critical open spaces and trail corridors.

**Policy:** Encourage the preservation of critical open space and trail corridors where possible.

**Implementation Measure:** Acquire critical lands and/or negotiate easements to ensure the preservation of critical open spaces and corridors.

**Implementation Measure:** Identify and acquire missing connections and gaps in the community trail and open space system, where possible.

**Implementation Measure:** Support and encourage implementation of the Provo Murdoch Canal Trail.

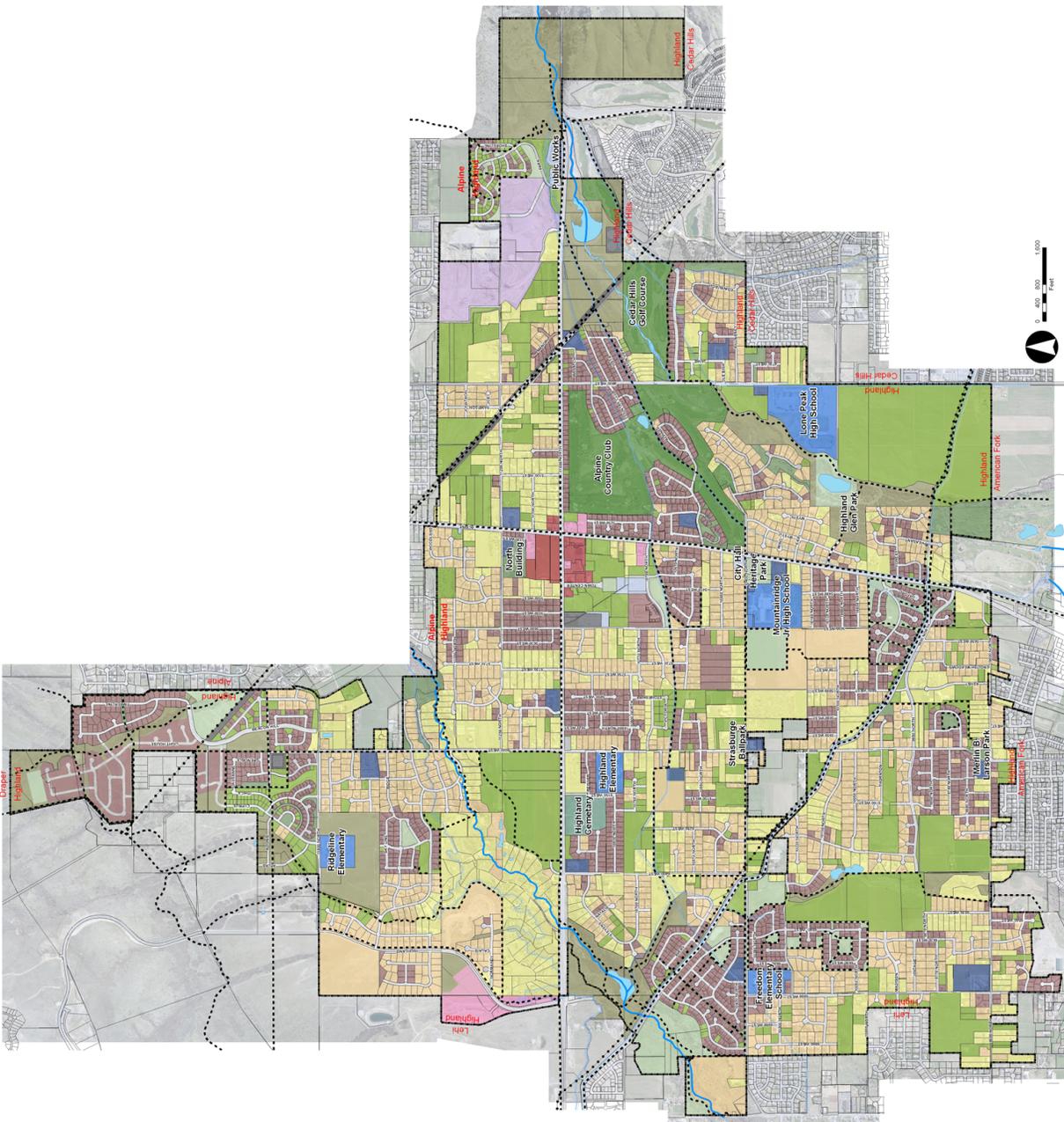
**Goal:** To ensure new annexations are consistent with and compliment the established land use pattern in Highland City.

**Policy:** Require all proposed future annexation proposals to receive adequate consideration, including appropriate review by a third party as necessary or desired, prior to being formalized.

**Implementation Measure:** Require the preparation of a specific plan for each annexation for review and approval.

# MAP 2-1 EXISTING LAND USE

- Land Use**
- Residential 1+ acres
  - Residential 0.5 to 1 acres
  - Residential 0 to 0.5 acres
  - Commercial
  - Office
  - Public
  - School
  - Religious
  - Agriculture/Vacant
  - Public Park
  - Private Park
  - Open Space/Undeveloped
  - Golf Course
  - Industrial
  - Cemetary
  - Utility
  - Parcels**
  - Waterbody
  - Trails
  - City Boundary
  - Stream or River
  - Canal or Ditch
  - Pipeline or Aquaduct



## Highland City General Plan Update

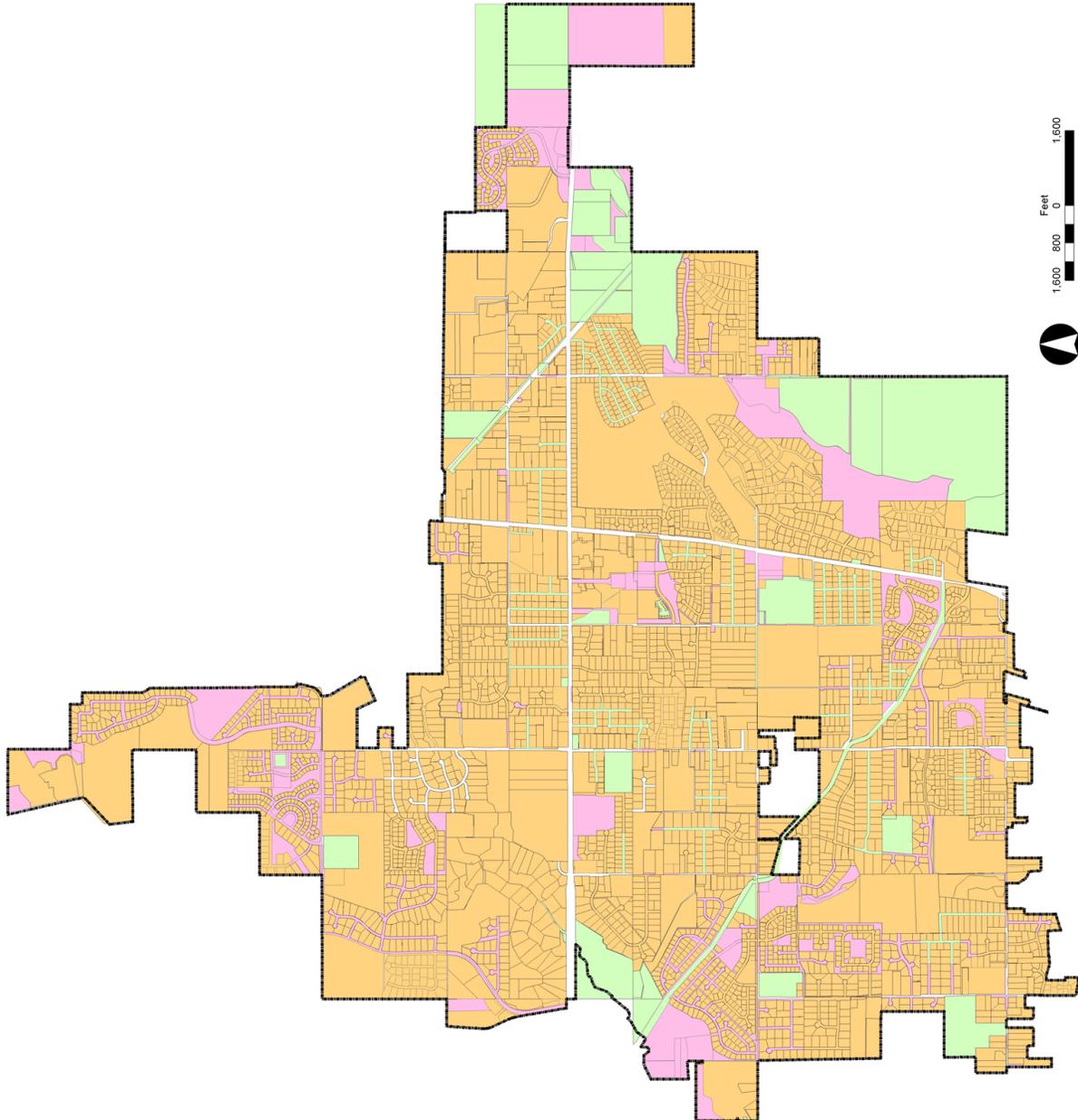


Adopted

# MAP 2-2 LAND OWNERSHIP MAP

## OWNERSHIP

- City Boundary
- Private
- Public
- Public/Highland City



Highland City  
General Plan Update

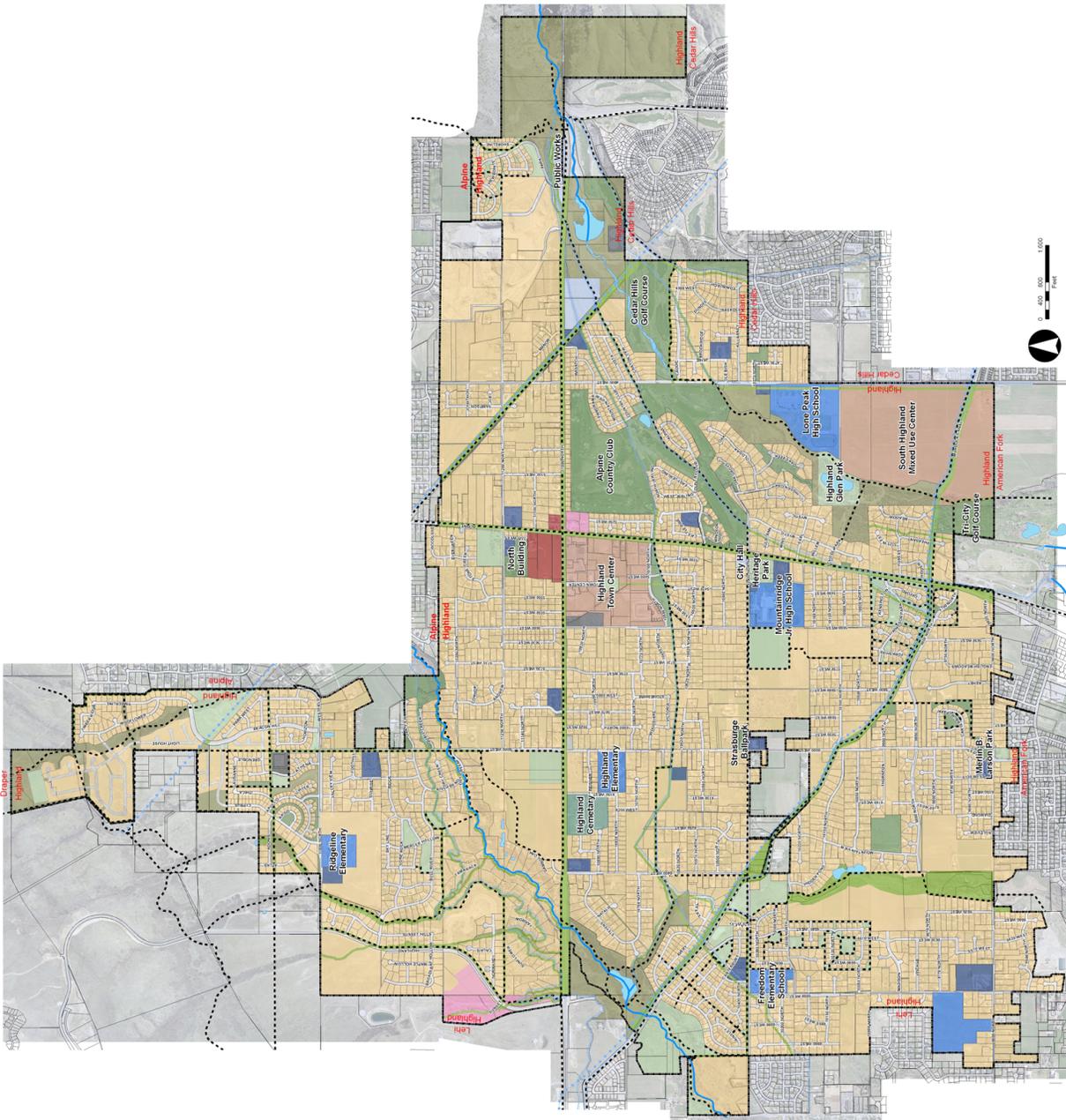


Adopted

# MAP 2-3 FUTURE LAND USE

## Land Use

-  Low-Density Residential
-  Mixed Use Development
-  Commercial
-  Office
-  Institutional
-  School
-  Religious
-  Open Space
-  Highland City Public Park
-  Trail Corridor & Greenway
-  Private Recreation & Mini Park
-  Cemetery
-  Utility
-  Waterbody
-  Parcels
-  Stream or River
-  Canal or Ditch
-  Pipeline or Aquaduct
-  Trails
-  City Boundary



# Highland City General Plan Update



Adopted



# Transportation Element

# 3

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## Introduction and Background

The Transportation Element of the Highland City General Plan addresses issues related to traffic and transportation, including existing transportation conditions, projected future traffic volumes, and transit service. This chapter will explore transportation-related issues that were identified by Highland City residents, the City's transportation objectives, historic and existing traffic volumes, and other factors such as mode choice and transit service. Also, future traffic volumes are given for major roads in Highland City as well as volume and capacity information for the City's standard street cross-sections. Finally, goals, policies, and implementation measures that reinforce the concepts explored in this chapter are presented.

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## Identified Transportation Issues

At the neighborhood public scoping meetings conducted early in the planning process, Highland City residents identified many issues related to traffic and transportation. These ranged from the impacts of traffic generated by new residential development, the future character of larger roads within the City, and the need to provide transit connections to future commuter rail transit lines.

Comments and concerns related to traffic and transportation centered on five key areas. First, many participants expressed concern regarding the traffic impacts of new developments whether residential or commercial. Concern centered on the ability of existing streets to accommodate the traffic generated by these developments and the spill-over effect of neighborhood cut-through traffic.

Second, residents regularly cited the lack of sidewalks as a major concern, especially as it relates to getting children to and from school. Residents believe that all residential areas should include sidewalks and all streets surrounding schools should have sidewalks too.

Third, 11000 North (SR-92) was a source of concern among attendees although there was disagreement related to what the future character of the facility should be. Many residents believed that the road divides the City and that due to its current traffic volume, it is difficult to cross on foot, bicycle, or in a car. Other concerns included the ability of SR-92 to accommodate increased future traffic volumes and the need for wider shoulders for bicyclists and pedestrians.

Fourth, many Highland City residents voiced concerns about the lack of a comprehensive traffic calming program within the City and believed that cut-through traffic on residential streets had increased due to higher traffic volumes on main roads.

Finally, the opportunity for future transit service on 11000 North that serves the planned commuter rail transit line near I-15 was identified by many residents as an important objective for Highland City to pursue with the Utah Transit Authority (UTA).

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## Objectives

Highland City recognizes the importance of planning for a transportation system that meets the needs of its residents. The following objectives provide the framework from which priorities are determined for the City.

1. To facilitate the movement of people and vehicles within and through Highland City with maximum safety, convenience, economy, and efficiency. Included within the scope of this objective are cars, pedestrians, bicyclists, equestrians, and any other appropriate mode of travel;
2. To encourage land development policies that will protect the function and integrity of the major street system, minimize negative transportation impacts on residential areas, and generally enhance the well-being of the City in keeping with the expressed desires of the citizens of Highland City; and
3. To assist City officials in making the wisest use of public resources, monetary and otherwise.

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## Existing Transportation Conditions

The existing road network in Highland City is shown in Map 3-1. Most of the roads in Highland City are local streets due to its primarily residential nature. The major roads in the community that serve both intra-city and inter-city trips and that comprise the major north/south and east/west routes include:

- ◆ 11000 North (SR-92)
- ◆ Alpine Highway (SR-74)
- ◆ 4800 West
- ◆ 6000 West
- ◆ 10400 North
- ◆ 9600 North
- ◆ Highland Boulevard
- ◆ Canal Boulevard/9850 North
- ◆ 6800 West
- ◆ 11800 North

### Traffic Volumes

Traffic volumes on major Highland City roads for 2005 are also shown in Map 3-1.

Given the increase in population in the City in recent years, rising traffic volumes on City streets are not unexpected. Traffic growth on the two major highways, 11000 North (SR-92) and the Alpine Highway (SR-74), are discussed in detail below.

### 11000 North (SR-92)

Traffic on 11000 North has increased considerably in the last fifteen years as shown in Figure 3-1 below. Of even greater significance is growth in traffic volume in the last five years, owing to increased residential development experienced in the City. In addition, increased commercial development in a City with few other retail establishments also contributes to greater traffic volumes on key facilities such as 11000 North.

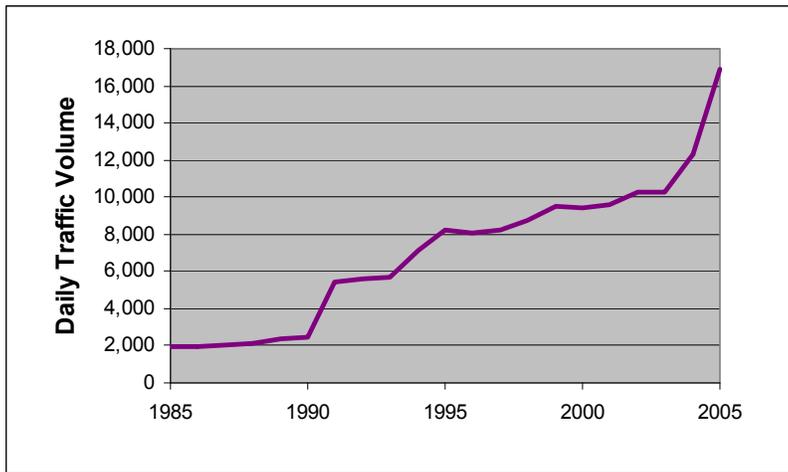


Figure 3-1. Historic Traffic Volumes, 11000 North (SR-92) at Alpine Highway

### Alpine Highway (SR-74)

Generally, traffic on the Alpine Highway has increased over the last twenty years, although it has leveled off in recent years as compared to volumes on 11000 North. The greatest increases in traffic volumes were seen in the early to mid 1990's, and since 2000, levels have even decreased somewhat. The Alpine Highway is one of the main north-south facilities in Highland City and provides direct connections to American Fork and commercial resources located there. Figure 3-2 shows traffic volume increases on the Alpine Highway between 1985 and 2005.

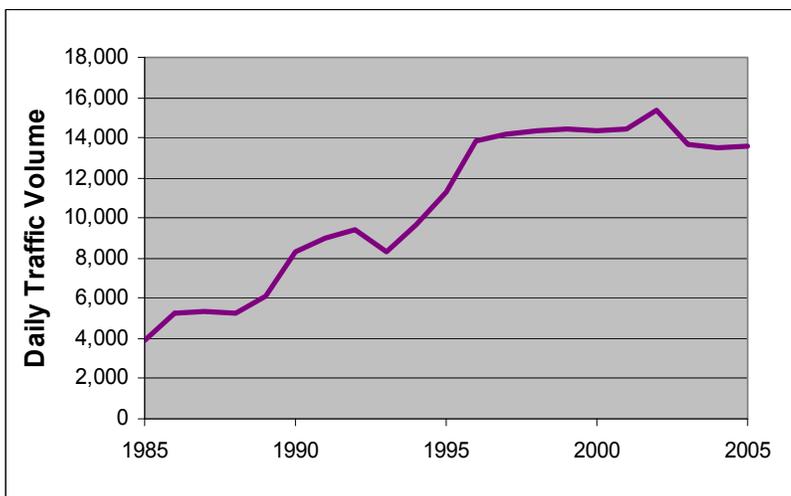


Figure 3-2. Historic Traffic Volumes, Alpine Highway (SR-74) at 10400 North

### Transit

Currently, there are no transit facilities within Highland City. The Utah Transit Authority (UTA) serves neighboring cities such as Lehi and American Fork as shown in Figure 3-3.

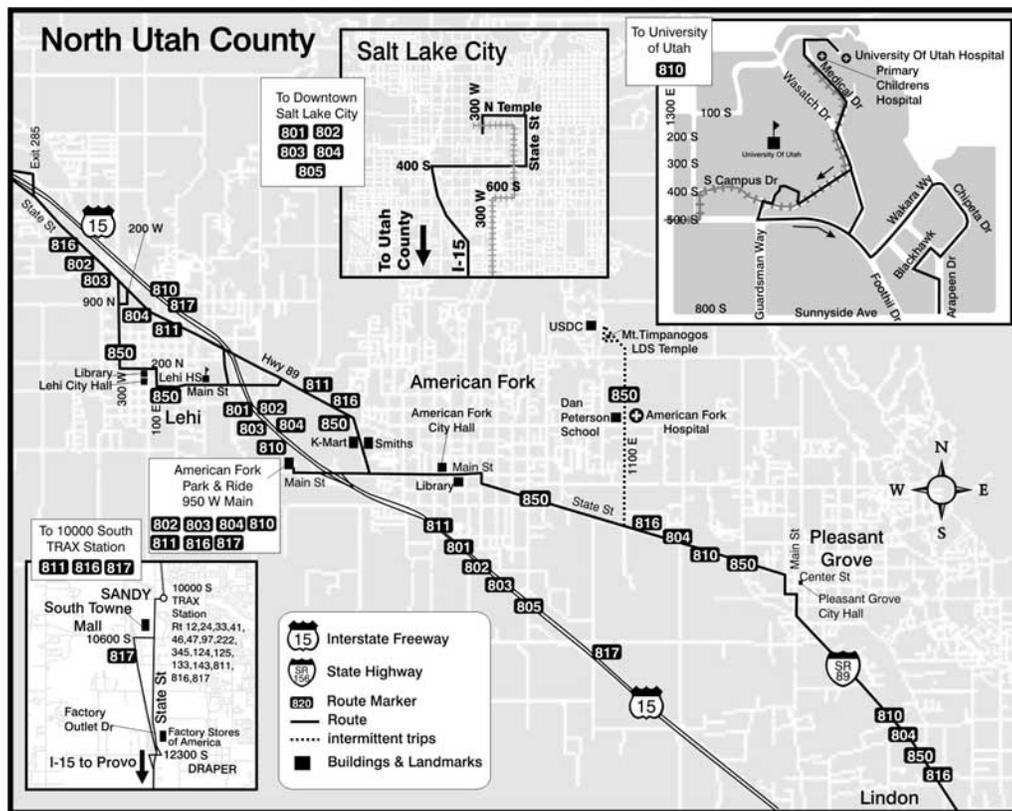


Figure 3-3. North Utah County Transit Routes (source: Utah Transit Authority)

Highland City currently is served by one bus route and three park and ride lots. In addition, several park and ride lots have been provided adjacent to I-15, primarily intended to provide service to commuters traveling to and from Salt Lake County and Provo. Table 3-1 provides a list of park and ride lots in and near Highland City, the number of parking spaces, and the routes available at each location. Park and ride lots are intended to encourage ride sharing and to reduce traffic volume on highways.

Table 3-1. Park and Ride Lots Near Highland City

Location	Number of Parking Spaces	Bus Routes Serving this Location
11000 North (SR-92) & 6400 West LDS Church	180	807
4679 W Wasatch Dr. LDS Church	180	807
Avonmore (5900 W) & SR-92 LDS Church	150	807
I-15 & SR92, Lehi	47	Carpool Only
Main Street & I-15, American Fork	125	802, 803, 804, 810, 811, 816, 817
110 W Main, American Fork	227	850, 810, 804
1149 N 300 W, Lehi	190	811, 802, 803, 804, 810

## Mode Choice

Mode choice refers to how people get to and from their destinations, whether by car, bus, train, walking, or bicycle. To better understand mode choice, census data provides the best source of information. However, data is available only for work trips. Table 3-2 below shows mode choice information for Highland City for 1990 and 2000.

**Table 3-2. Mode Choice to Work, 1990 and 2000**

Mode	1990		2000	
	Number	%	Number	%
Drove Alone	1,201	74.8	2,315	84.4
Carpooled	358	22.3	343	12.5
Bus	14	0.9	38	1.4
Train	0	0.0	0	0.0
Bicycle	0	0.0	0	0.0
Motorcycle	7	0.4	0	0.0
Walked	17	1.1	16	0.6
Other	8	0.5	30	1.1

*Source: US Census Bureau.*

As shown in Table 3-2 above, most work trips made by residents of Highland City are in a vehicle by themselves. This is not atypical of Utah cities, especially those that are primarily suburban residential communities such as Highland City, where work trips tend to be longer than those in areas located near central business districts. Between 1990 and 2000, the number of people who drove alone to work increased while most other forms of “alternative” transportation decreased with the exception of those riding the bus.

Previous studies have shown that transit use in Wasatch Front cities typically ranges from three to four percent. Comparatively, transit use in Highland City is significantly less as shown above. One reason is that the City does not currently have any transit infrastructure besides the park and ride lots located in neighboring cities. Also, the overwhelming majority of land use in the City is single-family residential on relatively large lots. Typically, higher transit use is found in areas of greater population density and with major employment centers.

## Future Transportation Conditions

### Future Traffic Volumes

Future traffic volumes on Highland City's major streets are shown in Table 3-3 below. Traffic volumes on all of these roads are expected to increase in the next few decades, consistent with the City's population projections as well as continued growth in the surrounding area. The exception, as shown in Table 3-3, is on 4800 West where traffic volumes are expected to decrease somewhat when I-15 reopens after reconstruction and vehicles switch from using this alternative route back to the interstate. The timing of population growth as well as I-15 reconstruction will affect specific traffic volumes, although relative volumes are likely to remain consistent.

Table 3-3. Existing and Future Traffic Volumes

Street Limits	From	To	2005	2015	2030
			ADT	ADT	ADT
SR-92	1200 East	Canyon Rd	14,200	27,500	30,200
4800 West	SR-92	1480 North	14,200	21,000	17,200
Alpine Hwy	SR-92	9600 North	10,900	11,700	16,600
10400 North	1200 East	Alpine Hwy	2,200	2,600	5,200
9600 North	1200 East	Alpine Hwy	3,200	4,700	8,200
1200 East	SR-92	9600 North	7,000	10,400	19,400
6000 West	West Field Rd	9600 North	4,700	8,300	10,500
Alpine Hwy	Canyon Crest Rd	SR-92	10,600	8,000	11,700
4800 West/	Canyon Crest Rd	Alpine Hwy, SR-74	9,100	8,400	12,300
6800 West	10400 North	South city limits	4,900	7,000	8,300

*Source: Mountainland Association of Governments travel demand model. Volumes shown here are average volumes across the length of the corridor.*

### Capacity

The volume of vehicles that a road is able to accommodate is its capacity. Capacity is subject to many variables such as the number of driveways, intersections, center turn lanes, lane width, etc. Determining when a road needs to be widened so that it can hold projected traffic volumes is an issue that local governments constantly try to balance. Below are several graphs showing projected traffic volumes and typical cross-section capacities for roads that Highland City plans to improve to arterials and major collectors. Capacities are given in ranges due to the variables cited above. Projected traffic volumes are from the Mountainland Association of Governments (MAG) travel demand model and are based on the segment of the road in Highland City with the greatest traffic volume.

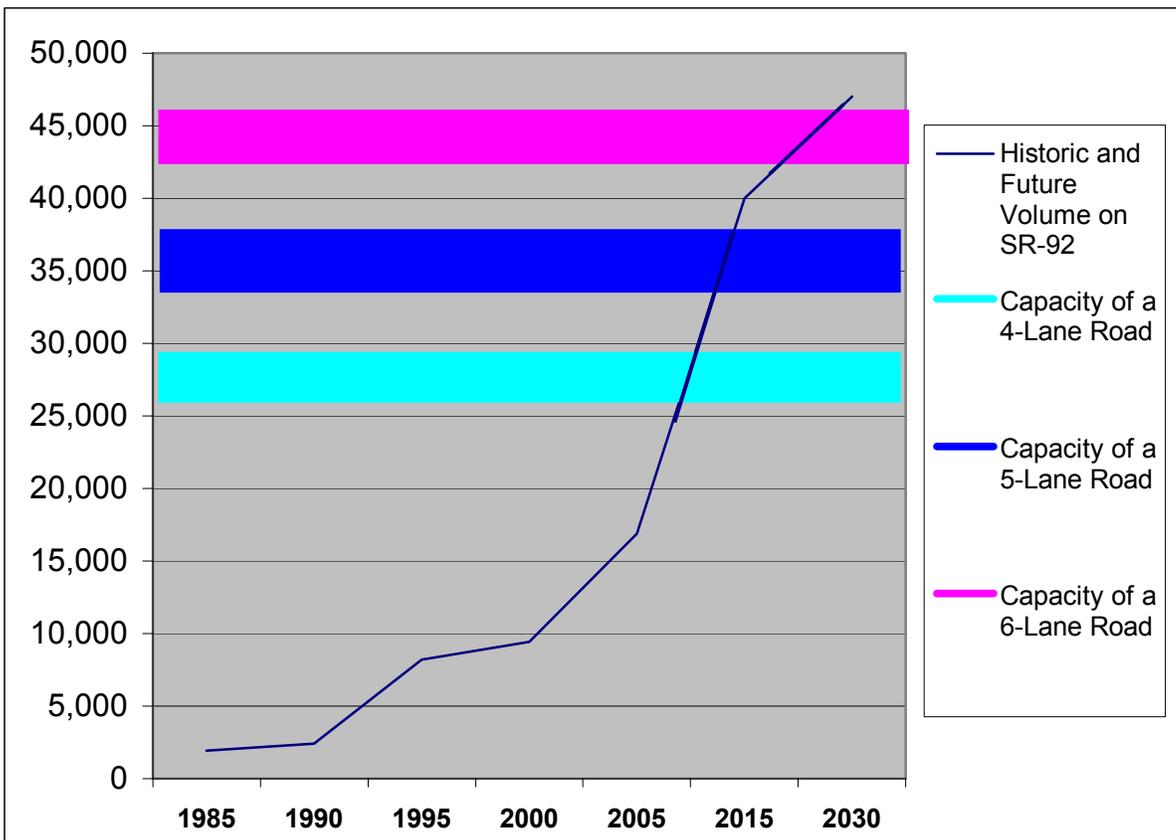


Figure 3-4. Historic and Future Traffic Volumes and Capacities on SR-92

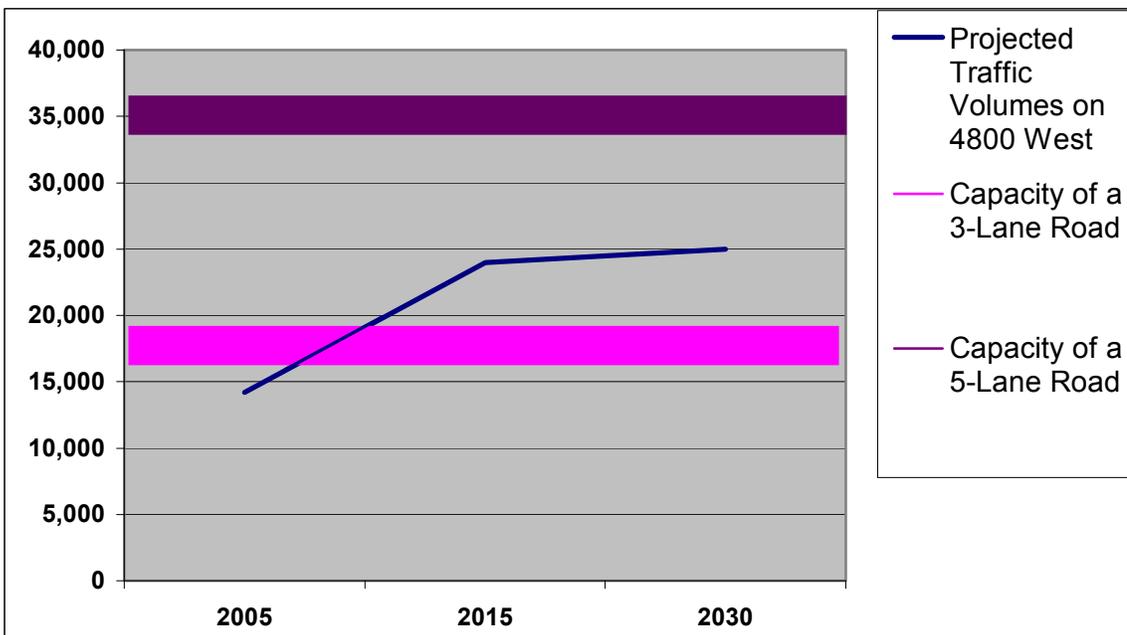


Figure 3-5. Existing and Future Traffic Volumes and Capacities on 4800 West

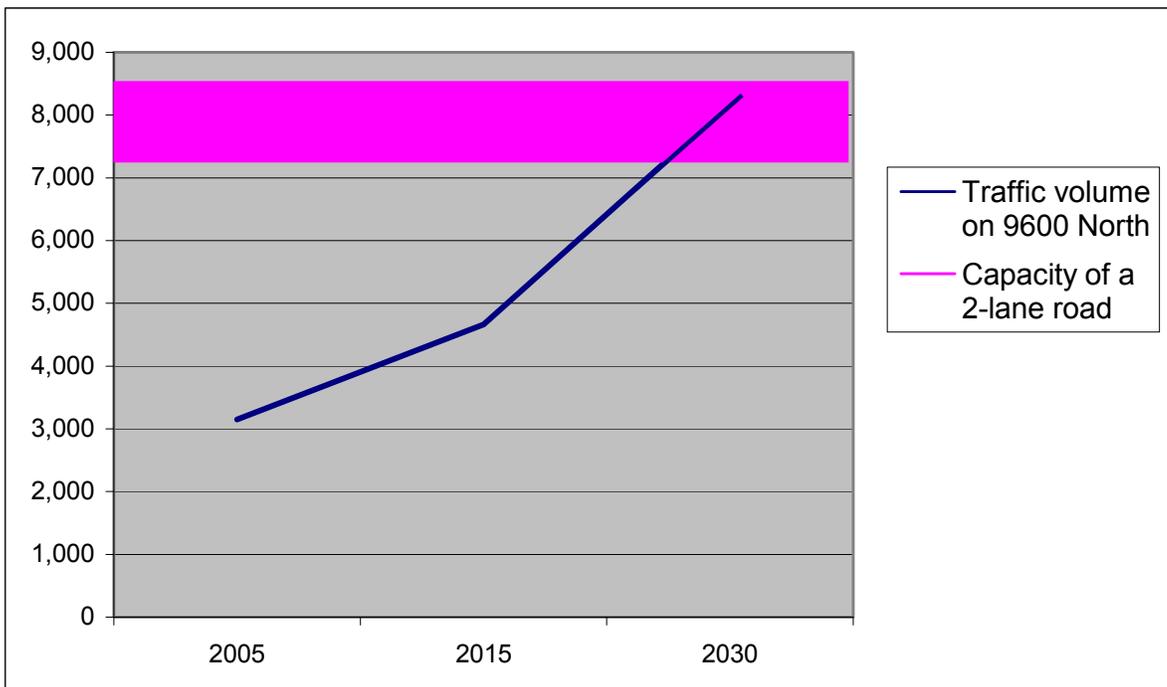


Figure 3-6. Existing and Future Traffic Volumes and Capacities on 9600 North

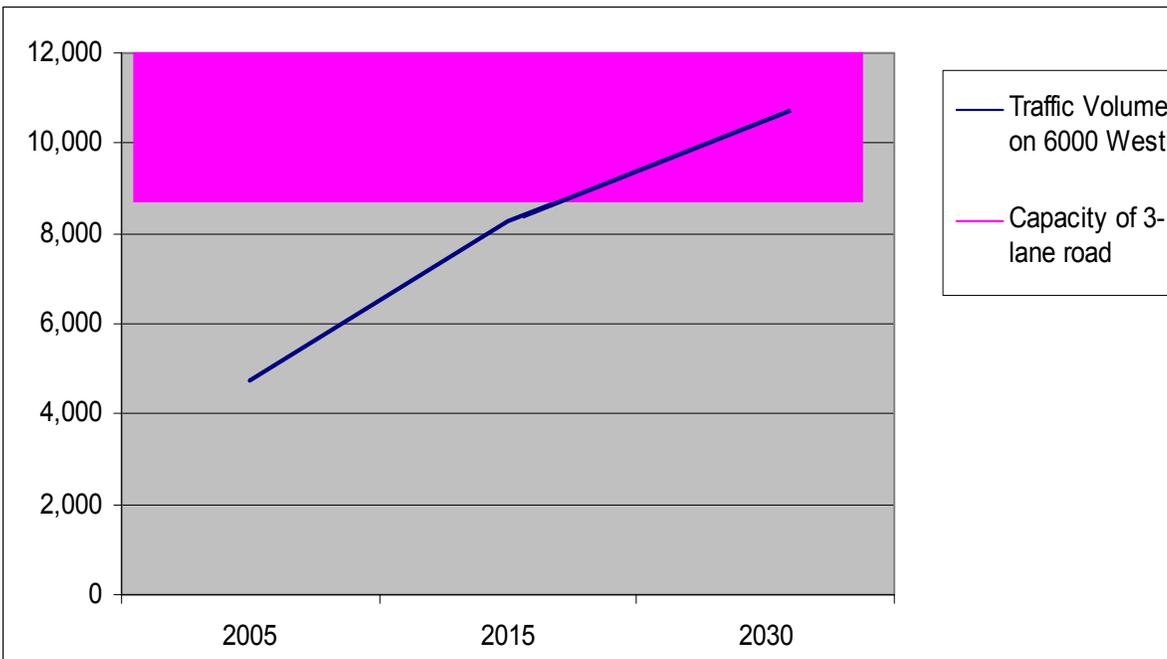


Figure 3-7. Existing and Future Traffic Volumes and Capacities on 6000 West

The intent of these graphs is to provide Highland City officials with projected traffic volumes on City roads in addition to general information related to the capacities of various cross-sections. The timing of planned improvements can be gauged based on how quickly a road's traffic volume is approaching or exceeding its capacity. In the above graphs, the traffic volume deserves more attention than the year as traffic volumes are reflective of growth in the area and development may exceed or fall short of current projections. Highland City should perform traffic counts periodically on major roads in order to determine more detailed timeframes of when improvements will be required.

## Regional Transportation Planning

### Mountainland Association of Governments Regional Transportation Plan

The Mountainland Association of Governments (MAG) is the regional transportation planning organization for Utah County, including Highland City. In their Regional Transportation Plan (RTP), MAG identifies transportation projects, including road, transit, and trail projects that are needed in order to accommodate projected traffic volumes to the year 2030. Projects identified in the existing RTP that are within and near Highland City are shown in Table 3-4 below.

**Table 3-4. RTP Projects in Highland City Area**

Project	From	To	Improvement	Phase*
American Fork 100 East/Alpine Hwy	American Fork Main St	Highland 11000 North	Widen to 4 lanes + bike lane	2
SR-92 (11000 North)	I-15	Canyon Road	Widen to 4 lanes + 10' trail	1
SR-92 (11000 North)	I-15	Alpine Highway	Widen to 6 lanes + 10' trail	3
American Fork 1100 East/Highland 4800 West	State Street	SR-92	Widen to 4 lanes + bike lane	1
Highland east/west connector at 9680 North	4800 West	Alpine Highway	New 2-lane road	1
Lehi 1200 East	State Street	SR-92	Widen to 4 lanes	2
Commuter Rail Transit	Provo	Salt Lake County line	New construction	2
American Fork River Trail	Lake Shore Trail	Art Dye Park	10' asphalt trail	
Bonneville Shoreline Trail	Lindon 800 North	Salt Lake County line	4' crushed stone trail	
Dry Creek Parkway Trail	Box Elder Creek	Lake Shore Trail	10' crushed stone trail	
Murdock Canal Trail	Lindon 200 South	SR-92	10' crushed stone trail	
Spring Creek Trail	Lake Shore Trail	Murdock Canal Trail	10' asphalt trail	

*\*Phase 1 = 2005-2014, Phase 2 = 2015-2024, Phase 3 = 2025-2030*

In addition to the above projects, the RTP specifically identifies 11000 North (SR-92) as one of the region's most congested corridors.

"This corridor is not a principal corridor but is an important two-lane connection between I-15 and the northeast cities of Alpine, Lehi, and Highland City. Growth has occurred in this area causing this road to become very congested. It is proposed to make this a four lane highway by adding two additional lanes between I-15 and Canyon Road/SR-146. Near the end of the plan, portions of this road will need to be widened to 6 lanes. Major residential and commercial developments are proposed along this corridor and access from the Suncrest development, located on the top of Traverse Mountain, has recently connected with HWY-92."

An Environmental Assessment on SR-92 is currently underway. Highland City will continue to be actively involved in this process.

### Mountainland Association of Governments Transportation Improvement Program

The Transportation Improvement Program (TIP) is a list of road, transit, and trail projects from the RTP that are targeted for construction between 2006 and 2010. The TIP is updated annually and specific funding sources for each project are usually identified. TIP projects in and near Highland City are shown in Table 3-5 below.

**Table 3-5. TIP Projects in Highland City Area**

<b>Project</b>	<b>From</b>	<b>To</b>	<b>Improvement</b>	<b>Funding</b>
American Fork 1100 East/ Highland 4800 West	State Street	SR-92	Widen to 4 lanes + bike lane	Not funded
Commuter Rail Transit	Provo	Salt Lake County line	New construction	Not funded
I-15	Salt Lake County line	SR-92	Additional lanes	Section 115
SR-92 (11000 North)	I-15	Canyon Road	Widen to 4 lanes + 10' trail	High Priority Projects
American Fork River Trail	Highland Glen Park	4800 West	Preliminary engineering and bike/ped crossing	Enhancement
Bonneville Shoreline Trail	SR-92 underpass		New trail construction	Federal Highway
Highland Spring Creek Trail	10400 North	9600 North	Preliminary engineering and new construction	CM/AQ
Provo Reservoir Canal Trail	Southeast City boundary	Northwest City boundary	New trail construction	High priority projects

## Functional Classification System

Highland City roads are organized according to the functional classification system. Functional classification is the process by which public streets and highways are grouped into classes according to the character of service they are intended to provide - land access versus mobility. Generally, there are four broad functional categories: freeway, arterial, collector, and local roads. Freeways have limited access and are intended to move vehicles more quickly over longer distances. Arterials provide longer through-travel between major trip generators (larger cities, recreational areas, etc.). Collector roads collect traffic from the local roads and also connect smaller cities and towns with each other and to the arterials. Local roads provide access to private property or low volume public facilities. This concept is illustrated in Figure 3-8.

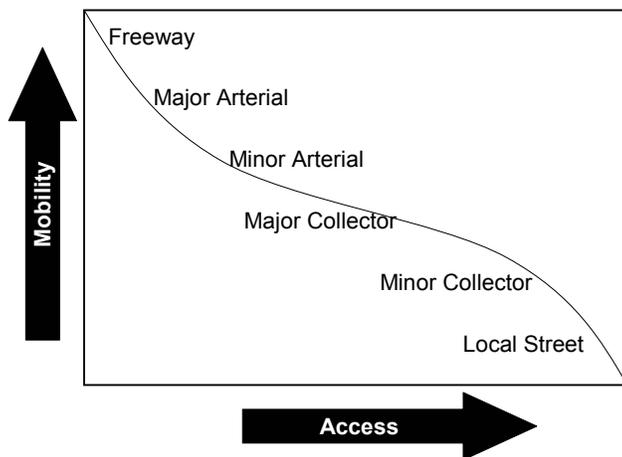


Figure 3-8. Access and Mobility by Functional Classification

### The Arterial Street System

Road alignments for arterial roads shown in the recommended network map (shown later in this chapter) are conceptual in nature and do not account for sensitive environmental conditions or other obstacles. The demand to develop land in the vicinity of the proposed rights-of-way will dictate when more specific and detailed plans and designs for these streets should be developed. It is important to plan for the general alignments of the major roads so that the City is in a position to preserve necessary corridors. As the arterial system is developed, the following principles will be considered:

1. The function of an arterial street is to move traffic efficiently. Access to development should be strictly controlled. Access to the arterial should be limited to relatively few, well-designed, high capacity, 4-legged intersections located where collectors or other arterials intersect the arterial. Although all arterial streets normally should be of a design standard sufficient to safely accommodate medium to high traffic volumes, the design of certain arterial streets may give special emphasis to land use access. The design for an arterial street that directly serves major land uses may include elements such as more turning bays and split signal phases than might otherwise be permitted.
2. Arterial streets can be a major determinant of land use patterns, and land use generates the traffic on arterial streets. A new or improved arterial street will not only improve access to adjacent land uses, but is also likely to stimulate new development. In fact, commercial development thrives on proximity to high-volume arterials making it necessary to provide access by fewer thoughtfully designed and well-spaced access points.

3. The arterial street system should respect the stability and integrity of residential neighborhoods and school areas. A poorly planned arterial system will not only increase the negative aspects of traffic (dirt, noise, air pollution, accident hazard, and energy consumption), but it also limits the positive use of an arterial street as an effective buffer in separating (both physically and psychologically) industrial, commercial, and residential areas. To the extent possible, schools should not be located on higher functioning roads such as arterials or major collectors.
4. In planning and designing the arterial system, consideration should be given to accommodating future bus service. Where most Highland City residents find employment in other communities in Utah and Salt Lake Counties and with the planned commuter rail transit service west of the City, Highland City will provide a valuable service to its residents by working with the Utah Transit Authority in developing of commuter transit service, park and ride lots, and other amenities served by the arterial system.

### The Collector and Local Street Systems

The development of the collector and local street systems should ensure that the major street system is preserved and protected and that the local and collector street system is designed in accordance with the concepts and recommendations described here. Most importantly, the local street system should prioritize pedestrians and offer a safe environment to walk and bike. Traffic calming elements should be considered in all new street development in order to minimize fast-moving vehicles. If the city has the opportunity to connect streets for the purpose of providing better traffic circulation, more efficient and prudent maintenance costs, and more efficient access for public safety purposes, then streets should be connected and cul-de-sacs should be avoided. Where undeveloped land prevents the connection of streets and there is potential for future development to complete those street connections, streets improved on adjacent properties should be stubbed to allow for that future connection. Where topographical or existing development will not allow street connections, cul-de-sacs longer than 200 feet should be avoided for purposes previously stated.

In order to review subdivision street networks in a systematic way, Highland City has developed the following checklist. Each of the following elements needs to be considered in subdivision street plans.

1. Traffic Impact Studies (TIS) will be required on all new commercial developments and on all new residential developments of 10 units or more.
2. Adequate vehicle and pedestrian access should be provided to all parcels.
3. Local streets should be designed to maximize access and through-traffic movements.
4. Street patterns should minimize the need for out-of-the-way travel.
5. The local street system should be designed for a relatively uniform low traffic volume (approximately 1,000 vehicles per day).
6. Local streets should be designed to discourage excessive speeds.
7. Pedestrian and vehicular conflict points should be minimized.
8. The minimum angle for any intersection should be as close to 90 degrees as possible and never less than 80 degrees.
9. Local circulation systems and land development patterns should not detract from the efficiency of bordering arterial streets.
10. Elements in the local circulation system should not rely on extensive traffic regulations in order to function efficiently and safely.
11. Local street configurations should be logical and identified by street names and house numbers that are simple, consistent, and understandable.
12. Traffic generators within residential areas should be considered in planning the local circulation pattern.

13. Planning and construction of local streets should clearly indicate their local function.
14. Local street arrangement should permit economical and practical patterns, shapes, and sizes of development parcels.
15. Local streets should be related to topography from the standpoint of economics, aesthetics, and amenities.
16. A minimum amount of the total subdivision space should be devoted to street uses, usually about 20 percent.
17. If necessary and appropriate, provisions for transit services within residential areas should be established.
18. Construction specifications for road design for materials such as concrete, asphalt, road base, compaction, workmanship, etc., should follow guidelines provided by the Utah State Department of Transportation.
19. In local street design, for the purposes of better traffic circulation, more efficient maintenance, and more efficient access for public safety, streets should be connected and cul-de-sacs should be avoided except where necessary.
20. If it is determined by City staff to be necessary to build a cul-de-sac for reasons such as topography or existing development, the cul-de-sac should not exceed 200 feet in length.
21. Sidewalks will be required on all residential streets and on any other street that is in the vicinity of schools, churches, and other pedestrian destinations unless otherwise approved by the Highland City Council.

## Recommended Transportation Network

### Cross-Sections

The recommended major street plan for Highland City by functional classification is summarized in Map 3-2. Typical cross-sections for these street classifications are shown in Figures 3-9 through 3-15.

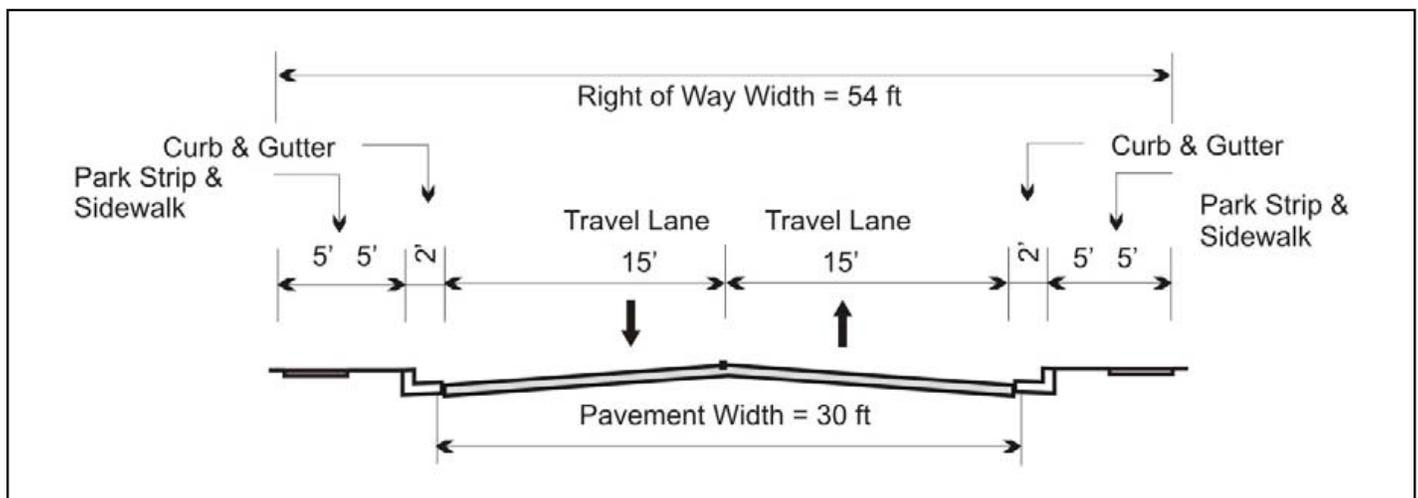


Figure 3-9. Local Subdivision Street Cross-section

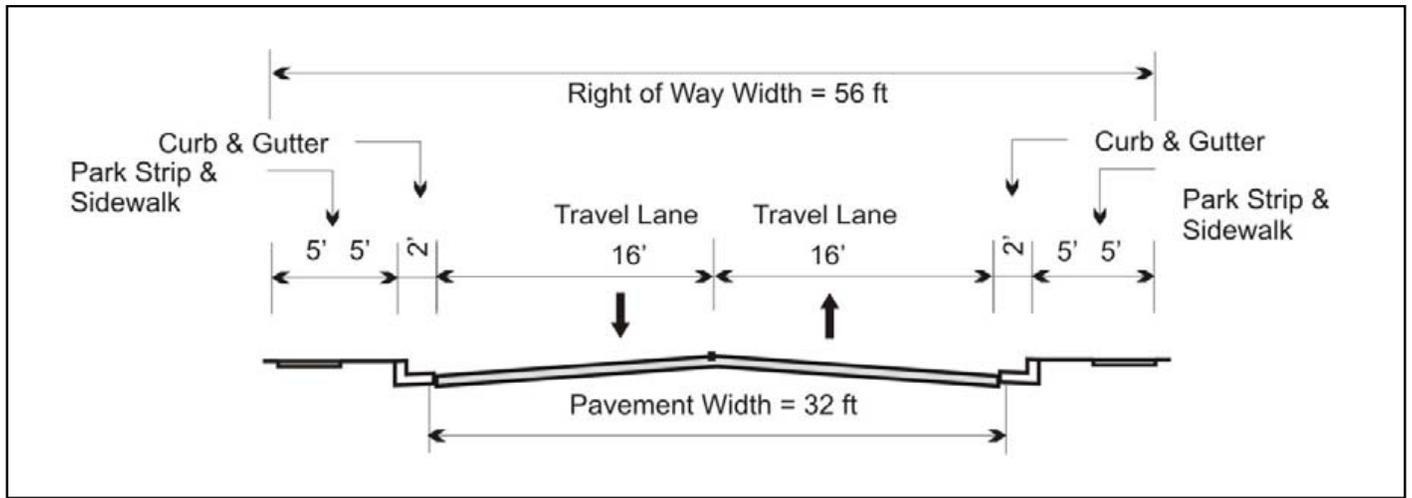


Figure 3-10. Subdivision Connector Street Cross-section

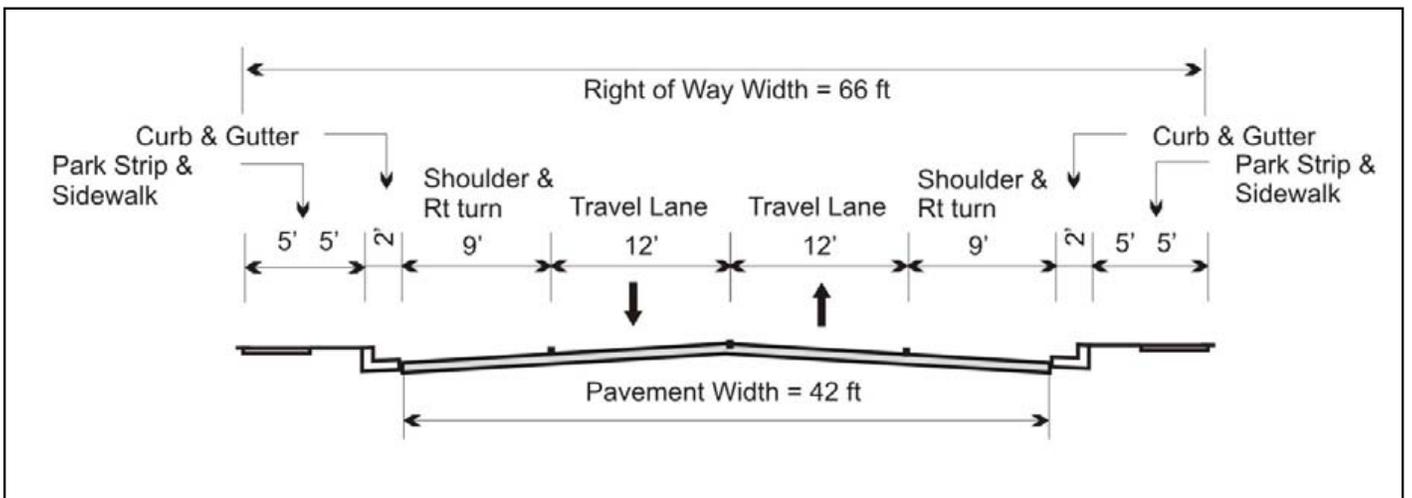


Figure 3-11. Two-lane Residential Collector Street Cross-section

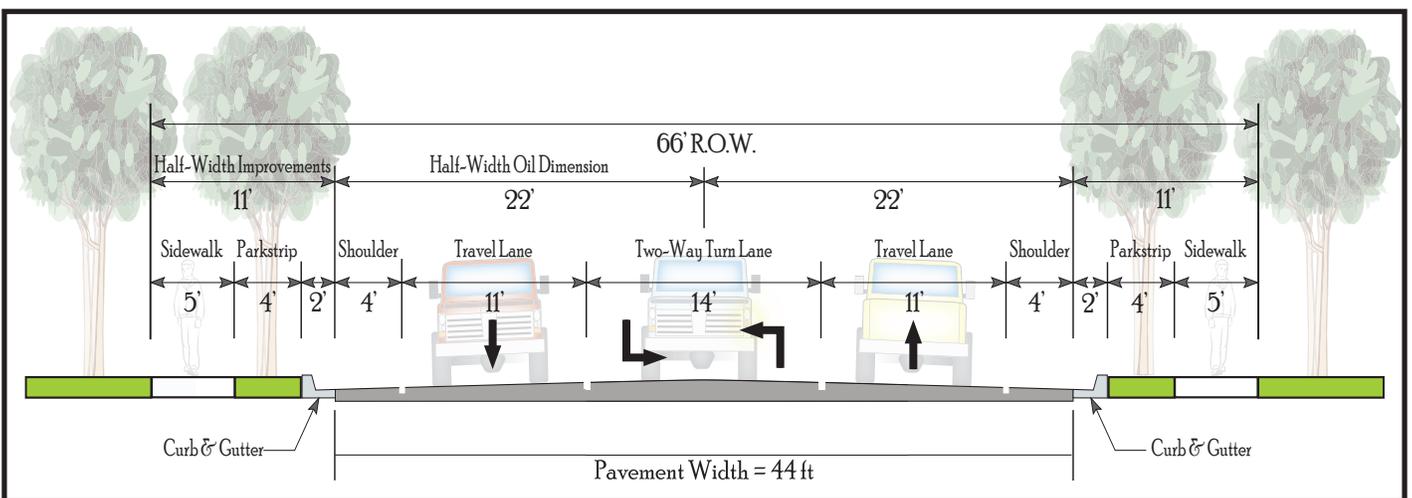


Figure 3-12. Three-lane Minor Residential Collector Street Cross-section

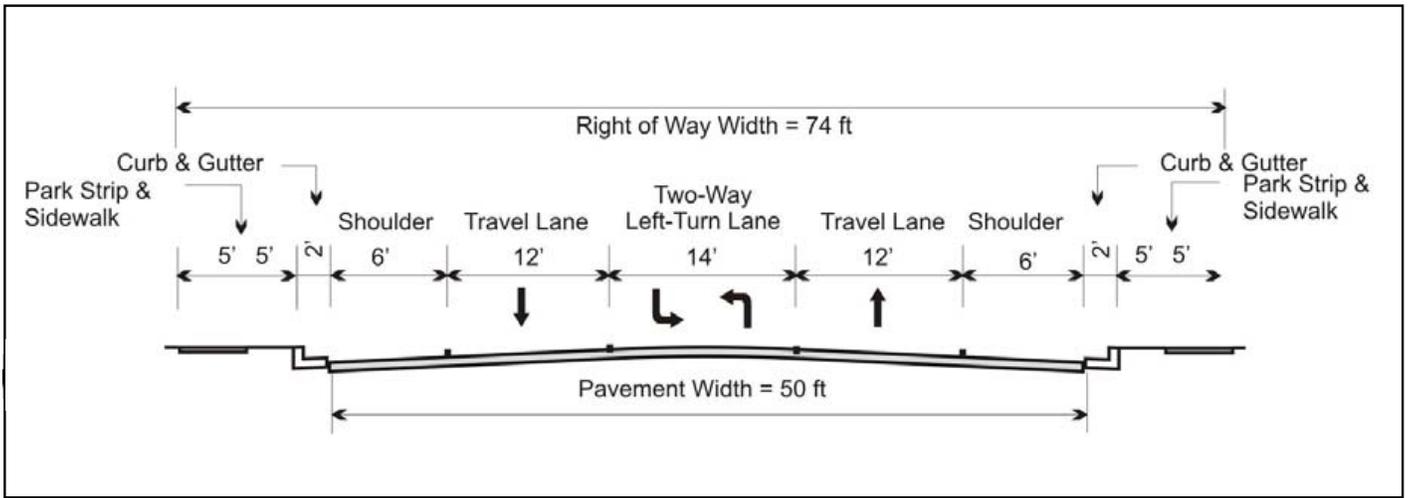


Figure 3-13. Three-lane Major Collector Street Cross-section, Between Intersections

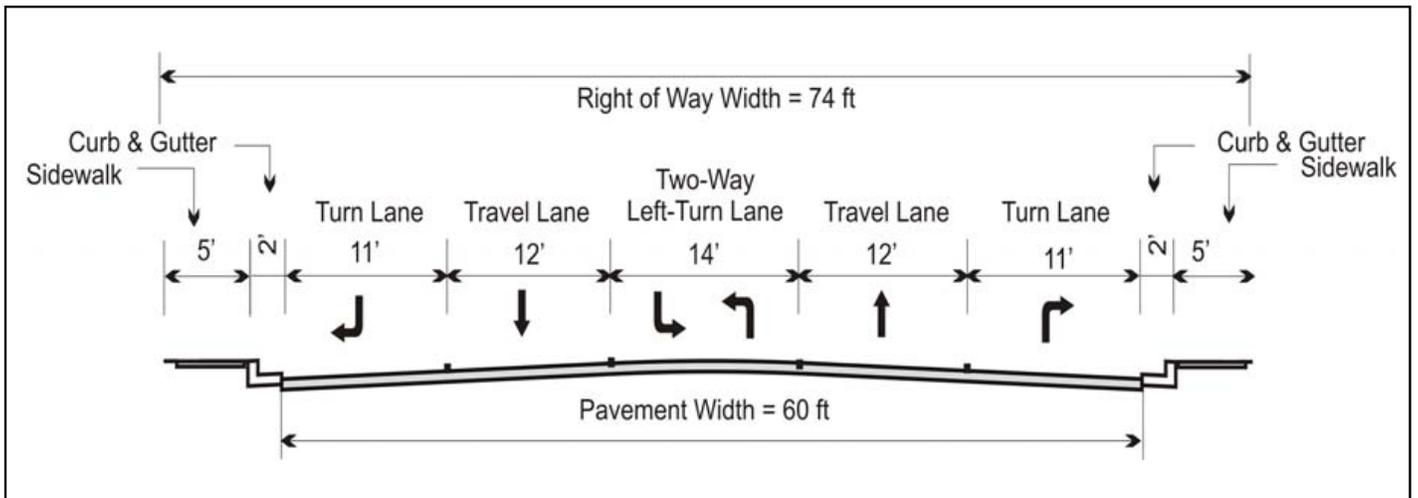


Figure 3-14. Three-lane Major Collector Street Cross-section, At Intersections

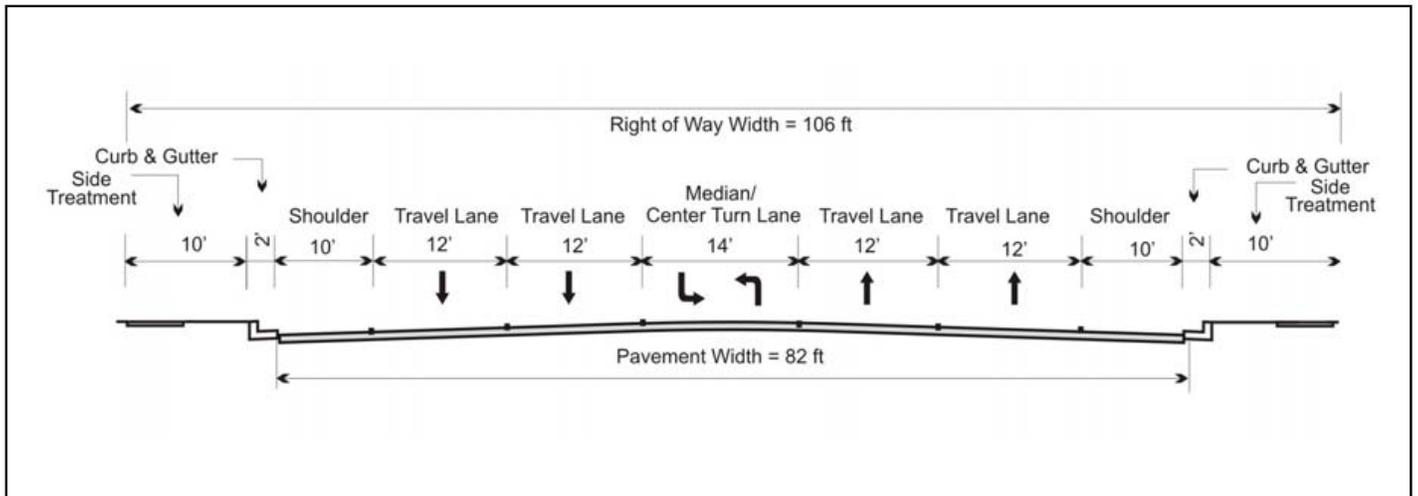


Figure 3-15. Five-lane Arterial Cross-section, Between Intersections

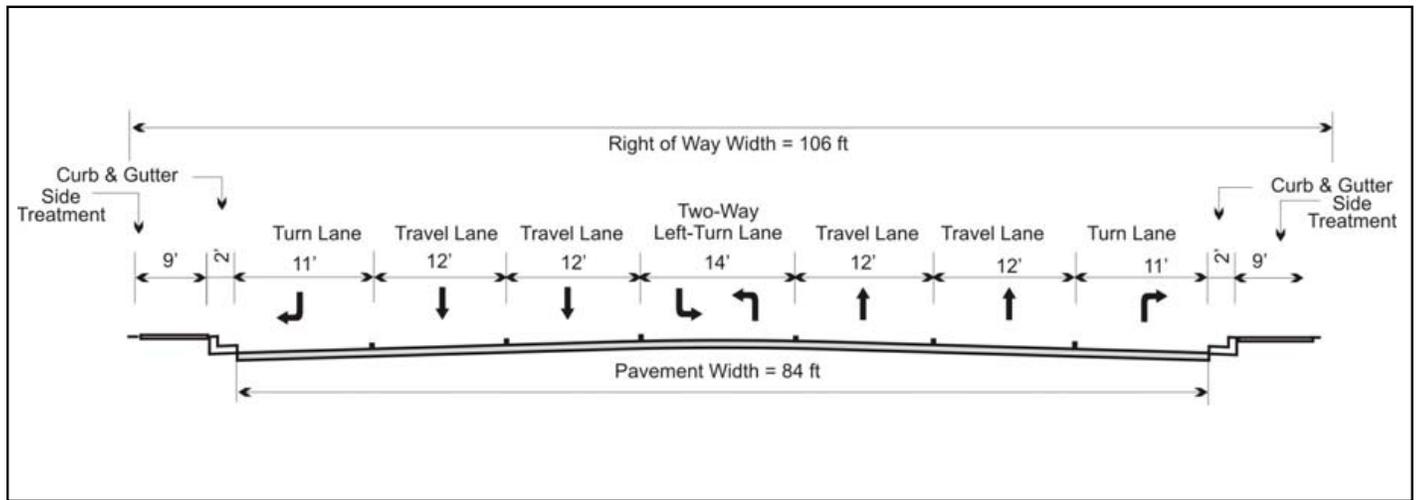


Figure 3-16. Five-lane Arterial Cross-section, At Intersections

### Parkway Detail

Highland City has developed a Parkway Landscape Detail that is intended to provide major roads in Highland City with a side treatment that is attractive and functional for pedestrians and other roadway users. Roads on which Highland City has implemented or is planning to implement the Parkway Landscape Detail include:

- ◆ SR-92\*
- ◆ SR-74\*
- ◆ 11800 North
- ◆ 10400 North
- ◆ 4800 West\*
- ◆ Highland Boulevard
- ◆ Beacon Hill Boulevard

*\*Except where the Streetscape Enhancement is recommended.*

*See Element 7 – Community Design, for more details.*

The specifics of the Parkway Landscape Detail easement are shown in Figure 3-17.



The Parkway Detail along the Alpine Highway (SR-74)

# HIGHLAND CITY Parkway Detail Specification

The parkway detail is designed as a 30 foot wide strip with a 5 foot sidewalk, landscaping and fence.

The length of the parkway will be sodded or planted in grass. The trees will be spaced on average of 30 feet apart and no closer than 7.5 feet from the curb or the fence. Each tree must have a 24" cement mow ring for maintenance.

All trees will be at least 2 inch caliper and be properly staked. Trees will be guaranteed by the developer for two years after planting. Tree types are to be approved by the city forester.

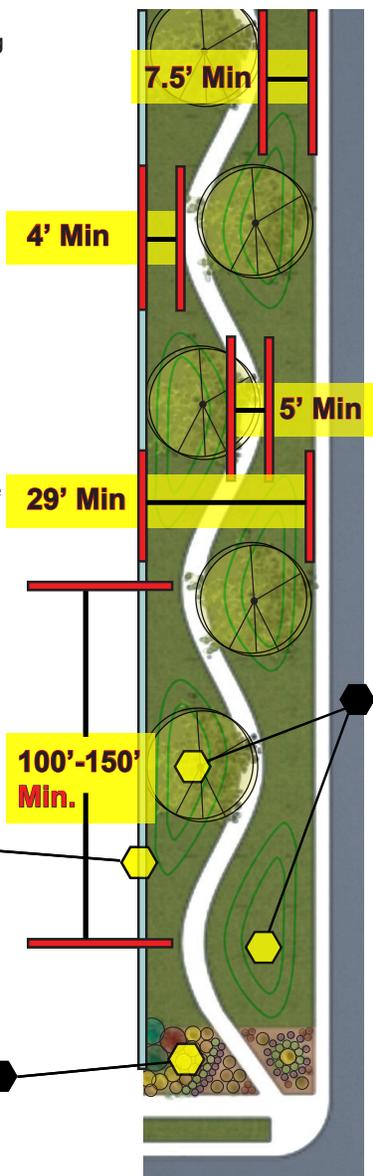
The back side of the parkway

An encroachment permit is required from the Region 3 UDOT office before landscaping work can begin if adjacent to a state road.

6' decorative privacy fence to be approved by the city. Fence shall not exceed 3' in height from 14' to 30' setback on local street.

The entrance ways to the subdivision will be bordered by a 20'x15' planter area with shrubs, flowers, rocks and ground cover. The landscaping shall conform to the clear sight requirements with the vegetation in the clear sight area not exceeding 3 feet in height.

6' decorative privacy fence to be approved by the city. Fence shall not exceed 3' in height from 14' to 30' setback on local street.



## PARKWAY LANDSCAPING DETAIL PLAN

This plan will be submitted by the developer with the construction drawings following Council approval and include the following information:

1. The location of the trees
2. Fence design and material
3. Sidewalk design
4. Irrigation design
5. Topography of parkway
6. Planter area design

## SPRINKLING SYSTEM

The parkway detail shall be watered with a HUNTER I-20 POP-UP HEAD spaced at 20 foot intervals. Each head will cover a 30 foot arc. All valve boxes shall be installed on the back side of the sidewalk.

## GENERAL LANDSCAPE DESIGN

All grass areas shall be SODDED or HYDRO-SEEDED. If hydro-seeding the grass will be seeded first and after the seed is established. Trees will be planted after the grass has been established.

All grassed areas shall be bermed to 2 feet high within the widest portion of each bulb

## PLANTER AREAS

Decorative Planters are planned at all Entrances to the Subdivision.

The basic size of the Planters will be approximately 20ft x 15ft and each will be decorated with a variety of trees, shrubs, rocks and ground cover. Vegetation may not infringe on required clear area.

Ground Cover within the Planter will be the Shredded Bark approximately 2 inches in depth.

Planters must have a cement mow edge for maintenance.

The suggested design of the Planter is indicated in the outline specified ABOVE.

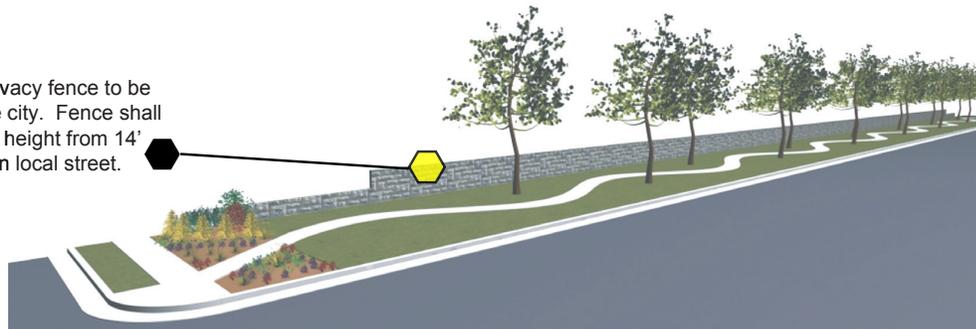


Figure 3-17. Parkway Detail Specifications

## Recommended Transportation Network Improvements

Based on the information contained within the Future Conditions section of this chapter, transportation network improvements are recommended as shown in Map 3-2. It should be noted that not all road improvements indicated within these recommendations have sufficient right-of-way or potential right-of-way to accommodate needed future traffic capacity.

The street network recommended here would be required at the point of build out, with a projected population of about 25,000 residents. It also assumes that Highland City will continue to be a low-density residential (single-family homes on primarily 1/3 acre to 1 acre lots) suburban community as outlined in current public policy. If public policy relating to land development changes appreciably to significantly more dense uses, then modifications to the plan will need to be considered and evaluated. It is important that these recommendations be reviewed and updated on a continuing basis to reflect changing conditions and public policy. Sweeping changes in either the transportation or the land use elements of this plan should not be made without considering their impacts on each other.

The essential elements of the proposed improvements to the street network are described below. While the timing and priority of these recommendations will be determined by many variables such as timing and location of growth, the higher priority is identification of the corridors so that sufficient right-of-way can be preserved for long-term capacity needs.

### New capacity/widening projects include:

- 1. 4800 West (5-Lane Arterial)** is planned to be a four-lane facility with a continuous center turn lane to maximize access to adjacent land uses. This corridor and its connection to SR-92 have been identified as an alternative traffic route when I-15 is under construction, which is expected to begin in approximately 2012. 4800 West will be aligned with 1100 East in American Fork and ultimately connect with I-15 at a new interchange in Pleasant Grove. Highland City is planning for a right-of-way width of 106 feet for this facility with additional right-of-way that may be acquired during this process to be used as landscaping corridor. Access could be controlled to achieve the desirable goals of traffic movement and exclusion of through traffic from residential areas. Implementation requires the cooperation of adjacent cities, MAG, and UDOT.
- 2. 11000 North (SR-92) (5-Lane Arterial)** will continue to function as the main east/west facility in Highland City and as the primary connection to I-15 for northeast Utah County, including Highland City, Alpine, Cedar Hills, and eastern Lehi. Projected traffic volumes call for a cross-section of six lanes from I-15 to the Alpine Highway intersection and four lanes east from there. This is consistent with MAG's RTP, which calls for widening of the road to four lanes in Phase 1 and widening from the west to the Alpine Highway intersection to six lanes in Phase 3 with 84 foot and 110-foot rights-of-way, respectively.



State Road 92 (11000 North)

Transportation

While Highland City is planning for a five-lane cross-section the length of the corridor, which is somewhat different than MAG's RTP, the City's primary concerns are related to the side treatments of this corridor and that the City's "Parkway Detail" be maintained on SR-92 within the City limits. Ideally, a ten-foot paved pedestrian and bicycle path would be provided on both the north and south sides of the road with an additional one-lane bicycle lane for faster moving bicycle traffic. At-grade crossings should be provided only at intersections and access should be strictly controlled to maintain its function of carrying high traffic volumes most efficiently.

**3. 9600 North (3-Lane Minor Collector)** serves as the southern most route providing access from the west boundary of Highland to Alpine Highway (SR-74). Highland City plans for 66 feet of right-of-way, a modified cross-section created for a 3-lane minor collector street.

**4. 6800 West (3-Lane Major Collector)** serves as an important north/south route in western Highland City connecting 10400 North and 9600 North as well as to State Street (US-89) to the south through American Fork. This cross-section is consistent with that of American Fork, which also identifies the road as a 3-lane major collector. The City is planning a 74-foot cross-section for this road.

**5. Canal Boulevard/9850 North (3-Lane Major Collector Street)** provides an east-west connection between the Alpine Highway and 1200 East through residential areas. Near the west end of this corridor, the road is not complete. Upon completion 9850 North will tie into 6800 West near Madison Avenue (9950 North).

### Road Improvement projects include:

**1. 6000 West (3-Lane Major/Minor Collector)** is one of the few north/south routes that connects Alpine, Highland City, and American Fork. Because of this, it will continue to carry traffic volumes consistent with a collector street. Similar to other residential collectors in Highland City, improvements on the road are not consistent and have been implemented with new residential development. It is the intent of Highland City that the road be built as a hybrid residential major and minor collector street with a pavement changing between 50' and 44' (parking lane or no parking) within a 74' to 66' right-of-way including sidewalks on each side. Because this is a major pedestrian route with both churches and schools in the corridor, a minimum of five-foot sidewalks should be provided on both sides of the road with four-foot park strips as indicated in the City's standard cross-section. Differences in pavement widths will create a natural setting for traffic calming. Street lighting, turn lanes and unobstructed sight distance should be provided at all intersections with arterials.

**2. 10400 North (2-Lane Residential Collector)** is currently a two-lane road that serves east/west travel through the central portion of Highland City and provides access to Highland City offices and to Mountain Ridge Junior High. From the western City boundary to approximately 6500 West, the road has been improved with curb, gutter, and sidewalks on both sides. These improvements have occurred with residential development in the area. Between 6500 West and the Alpine Highway, improvements are inconsistent. It is the intent of the City that the road be built to be consistent with the City's standard cross-section for this type that includes shoulders, curb, gutter, park strips, and sidewalks and the parkway detail on both sides. This is most likely to occur when development and/or redevelopment of existing land uses occur. Where necessary, widening at intersections to provide for left-turn lanes would be highly desirable for both capacity and safety.



*10400 North looking west*

**3. 6400 West (2-Lane Residential Collector)** connects 11000 North and 10400 North.

Improvements on the road are not consistent and have been implemented with new residential development. It is the intent of Highland City that the road be built to the specifications of a residential collector with a 42' pavement within a 66' right-of-way including sidewalks on each side.

**Sidewalks**

When planning the City's transportation network, pedestrians, especially children walking to and from school, must be given high priority. For maximum safety of pedestrians, sidewalks of adequate width (5 feet at a minimum) should be provided on both sides of all Highland City residential streets and in the vicinity of schools, churches, shopping areas, and other pedestrian destinations. This will allow pedestrians to walk outside of the road pavement. In addition, sidewalks should be separated from the road with a landscaped park strip (5 foot minimum) whenever right-of-way permits.

On-street parking should be allowed where it will not inhibit traffic flow. On-street parking provides two benefits to pedestrians. First, it serves as a buffer between vehicles and pedestrians. Second, it also acts to narrow the perceived roadway from the perspective of the driver so that they are likely to drive more slowly and provide greater safety to the pedestrian.

Criteria for the design and location of sidewalks and curbs along local, collector, and arterial streets are presented in the City's design standards document.

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## Goals and Policies

The goals, policies, and implementation measures presented here come directly from the transportation information and recommendations presented in this chapter. As growth in Highland City continues, it is important for City officials to reassess the goals and policies identified here to ensure that they continue to reflect the transportation and traffic-related priorities of the City.

**Goal:** To provide an arterial and major collector road system that is safe, functions efficiently, and accommodates peak hour traffic volumes.

**Policy:** Highland City will work to preserve the character and function of arterials and major collector roads by maintaining standards for elements such as sight distance and access management and collecting current traffic volume data.

**Implementation Measure:** Highland City will work to assure adequate sight distances at intersections, particularly on arterial roads. The City should take care to control vegetative growth to maximize sight distance.

**Implementation Measure:** The City will periodically conduct traffic counts on arterial and major collector roads to determine if capacity issues should be expected in the near future.

**Implementation Measure:** City officials will continue to be involved in the SR-92 Environmental Assessment that is currently being conducted by the Utah Department of Transportation. This will help to ensure that the City's residents' needs are met when widening/reconstruction of the road is done.

**Implementation Measure:** To the extent possible, Highland City discourages locating elementary and middle school buildings on arterials or major collectors in the City. School traffic and related school crossing zones on roads with fast-moving vehicles tend to increase the opportunities for pedestrian/vehicle conflicts and worsen the function of the road.

**Implementation Measure:** Highland City officials will maintain access management standards on arterials and major collectors in order to maintain the vehicle-movement function of these roads.

**Goal:** To fully acknowledge, understand, and plan for the traffic impacts of new residential and commercial development within the City.

**Policy:** To require that all commercial developments and all residential developments of greater than 10 units provide Traffic Impact Studies of the development.

**Implementation Measure:** Prior to development approval, the City will require a Traffic Impact Study from the developer that identifies all traffic generated by the proposed development and proposes mitigation strategies where required.

**Goal:** To provide transit as a viable travel mode alternative for Highland City residents.

**Policy:** To consider the future viability of transit service and its impacts on design when planning new roads, road reconstruction projects, or new developments.

**Implementation Measure:** Highland City officials will work with the Utah Transit Authority to determine if a bus route on SR-92 that links to the nearest planned commuter rail station is a viable transit option.

**Implementation Measure:** In SR-92 widening and/or reconstruction, Highland City will work with UDOT to attempt to prevent cross-sections that preclude efficient bus service and functional transit stops on the corridor.

**Goal:** To provide a safe and pedestrian-friendly local street system.

**Policy:** To plan for and construct Highland City streets so that they accommodate all users including vehicles, pedestrians, and bicyclists and provide maximum safety for all.

**Implementation Measure:** Highland City will explore implementing a City-wide traffic calming program for City streets that prioritizes problem areas and identifies a range of possible solutions.

**Implementation Measure:** Highland City will require sidewalks on all residential streets and on streets that provide pedestrian access to schools, churches, and shopping areas unless otherwise approved by the City Council.

**Goal:** To realize the full potential of 11000 North (SR-92) as the primary east/west arterial in the community.

**Policy:** To plan for a facility which considers all types of users including bicyclists, pedestrians, and vehicles.

**Implementation Measure:** Highland City will consider entering into a Corridor Preservation Agreement with the Utah Department of Transportation concerning SR-92 that recognizes Highland City's needs related to commercial access, streetscape enhancements and cross-sections, and accommodating alternative forms of transportation.

**Goal:** To preserve major Highland corridors and enhance city gateways.

**Policy:** To plan for the protection of view corridors and gateways into Highland on all arterial and major collector streets.

**Implementation Measure:** Highland City will consider entering into a Corridor Preservation Agreement with the Utah Department of Transportation concerning SR-92 that recognizes Highland City's needs related to commercial access, streetscape enhancements and cross-sections, and accommodating alternative forms of transportation.

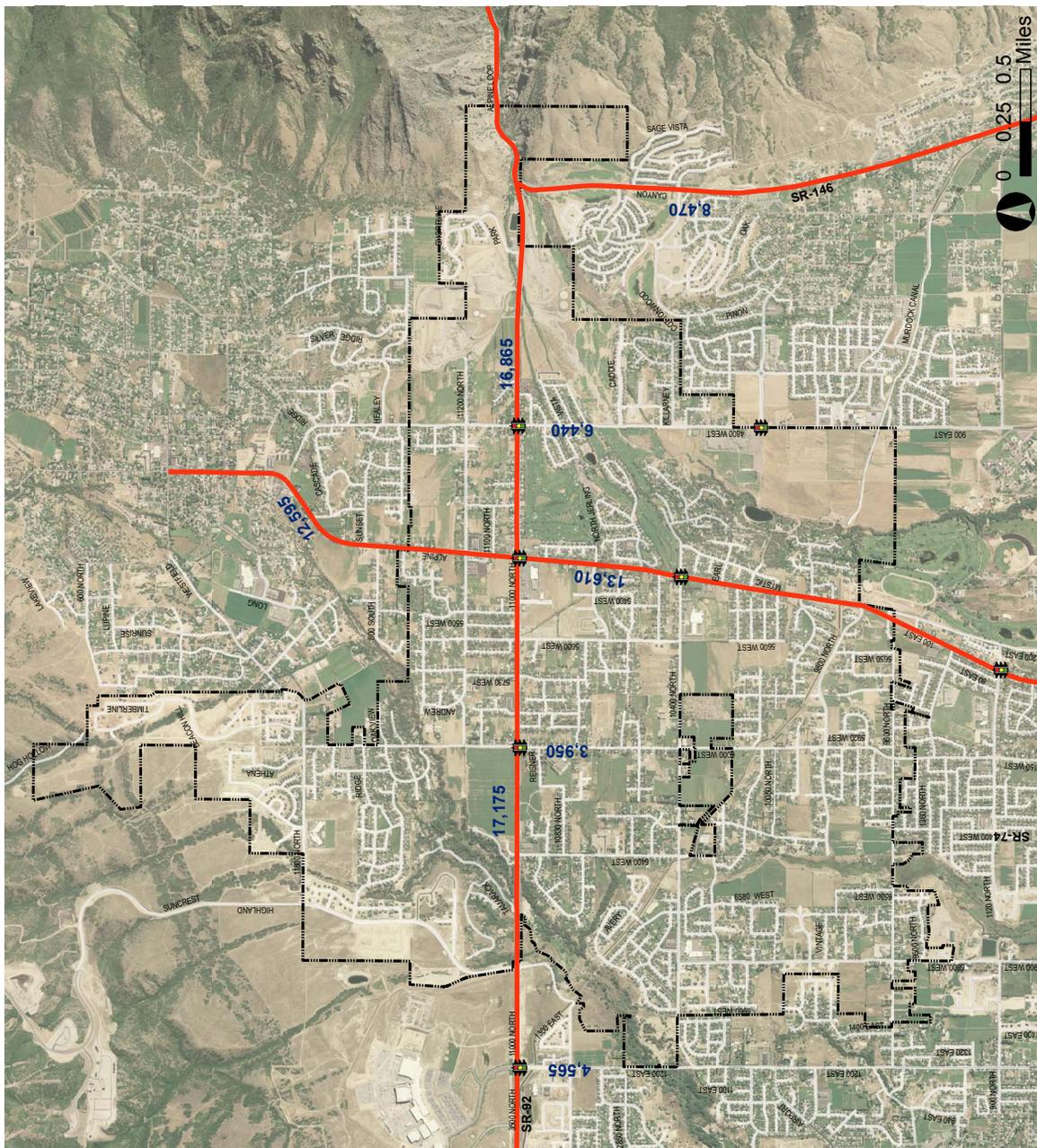
**Implementation Measure:** Highland City will consider a gateway enhancement fund in order to provide more improved, attractive, and inviting gateways welcoming residents as they enter their city and provide a lasting impression to those who pass through.

**Implementation Measure:** Highland City will research and explore possible corridor preservation funds and mechanisms and work with local, county and state entities to protect these aesthetic amenities.

**Implementation Measure:** Highland City will consider ordinances that may restrict certain uses along arterials and major collectors that will assist in enhancing and protecting historically significant vistas.

**MAP 3-1  
EXISTING  
TRANSPORTATION  
CONDITIONS**

-  Highland City  
1234 AADT (2005)
-  State Highways
-  Local Streets
-  Traffic Signals



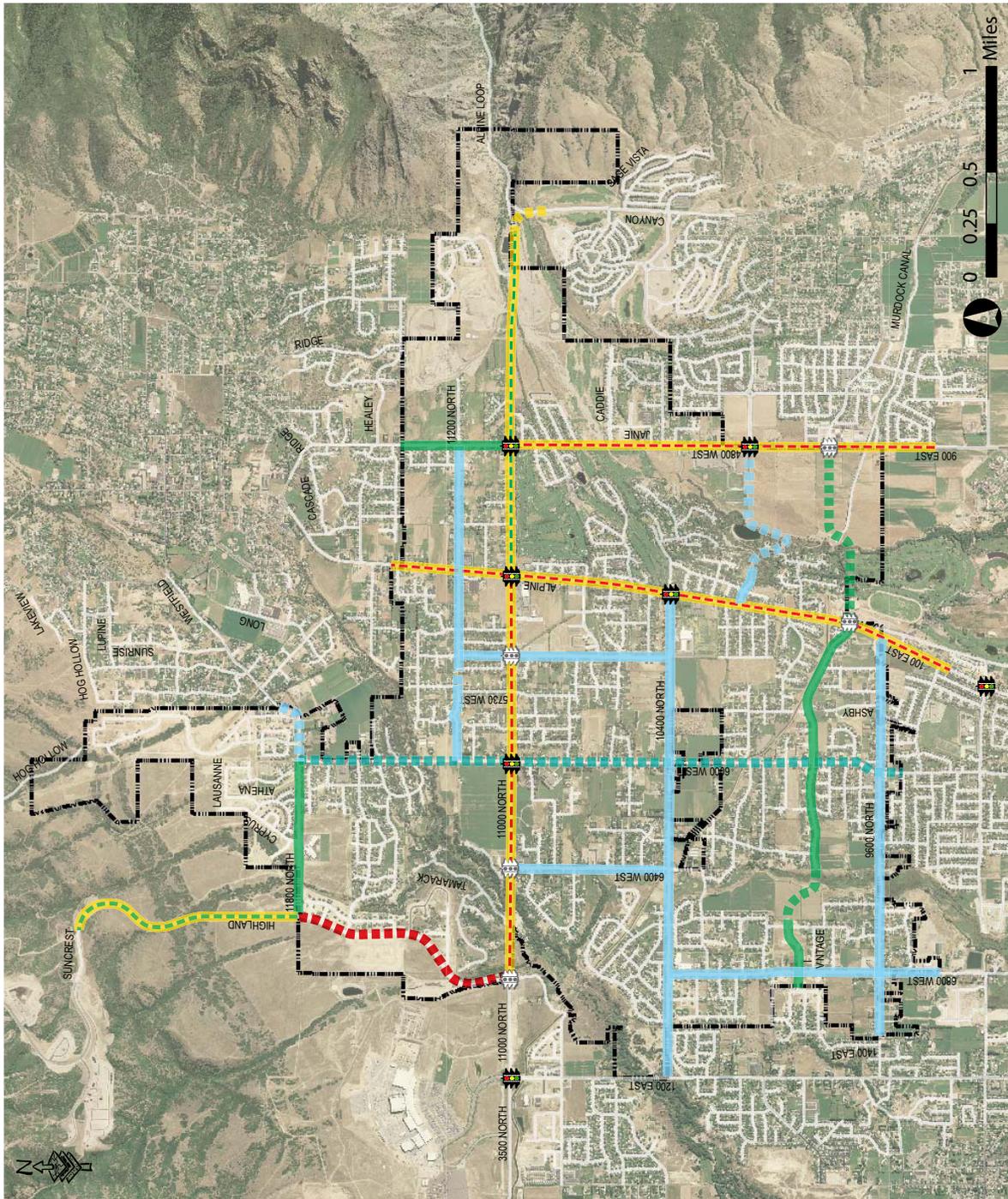
**Highland City  
General Plan Update**



Adopted February 19, 2008

# MAP 3-2 RECOMMENDED TRANSPORTATION NETWORK

- 5-Lane Arterial - Constructed
- - - 5-Lane Arterial - Proposed
- 3-Lane Major Collector - Constructed
- - - 3-Lane Major Collector - Proposed
- 3-Lane Minor Collector - Proposed
- 2-Lane Residential Collector - Constructed
- - - 2-Lane Residential Collector - Proposed
- Other Jurisdiction (State, County, Municipal)
- Highland City
-  Existing Signals
-  Planned Signals



Highland City  
General Plan Update



Adopted February 19, 2008



# Environmental and Natural Systems

# 4

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## Introduction

Highland City is nestled against the beautiful Wasatch Mountains just south of the Traverse Ridge, providing its residents and visitors with a spectacular scenic backdrop. Residents enjoy easy access to mountain, foothill, and canyon recreation, and appreciate the scenic views and natural corridors which support their quality of life, provide wildlife habitat, and help enhance water quality.

These positive natural features also can be the cause of serious problems, particularly in the absence of careful planning. Some of the key natural hazards that may impact Highland City include earthquakes, flooding, and soil related hazards such as expandable/collapsible soils, debris flow, rock fall, and landslides.

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## Existing Conditions

### Setting and Topography

Highland City is located in the northeast portion of the Utah Valley at the mouth of American Fork Canyon. The topography is generally gentle, sloping westward from the Wasatch Mountain foothills toward Utah Lake and the Jordan River, which flows north into the Great Salt Lake. Hog Hollow and Fort Creek join Dry Creek just north of the City boundary, which along with the American Fork River and several other streams and canals, wind through Highland City, following routes between properties, along streets, and through parks and open spaces.



*A view of Highland from the North*

### Urban Runoff

The conveyance of storm water from developed areas has become an increasing concern due to adverse impacts to downstream natural waterways and receiving waters. Highland City has several natural waterways crossing its boundaries. As these waterways convey storm water runoff, they undergo physical alterations that can increase frequency of bankfill flows and increase the potential for property damage as a result of flooding. In general such problems increase following the flow of water from east to west. Highland City has implemented its Storm Water Master Plan, which addresses many of these important issues.

## Flooding/Water Resources

Flooding has become a more serious problem as growth and development have encroached upon natural waterways. The natural beauty of waterways increases the desirability of development near these riparian areas, and as growth continues in the community, the availability of suitable land decreases, often pushing development into areas that are more fragile and less suitable for development. This not only degrades the natural environment but also increases the potential for property damage as a result of flooding and erosion. The potential for flooding in Highland City exists primarily as a result of the American Fork River and Dry Creek running directly through portions of the City.



*High water during 2005 spring runoff*

## Critical Runoff Area

Clay soils, expandable and collapsible soils, and steep slopes contribute to high runoff potential, a characteristic of the portion of the Highland City located north of Dry Creek, extending to the City boundaries, identified as the Critical Runoff Area on Map 4-1. This high runoff potential means that water is not absorbed quickly enough during significant storm events, and the runoff makes its way directly into natural waterways, including Dry Creek, increasing the potential for pollution.

## Floodplains

The Federal Emergency Management Agency (FEMA) determines floodplains. Data is provided to local jurisdictions as Flood Insurance Rate Maps (FIRM's) for planning purposes. Highland City uses the FIRM's to regulate development in the "area of special flood hazard" zone. This zone, as defined by FEMA, includes the "floodway" which is the channel of the waterway and the adjacent floodplain that must be preserved in an unobstructed condition in order to discharge the base flood (100 year) without increasing flood levels by more than one foot (see Map 4-1).

## Wetlands

Several wetlands designated by the National Wetlands Inventory (NWI), conducted by the U.S. Fish and Wildlife Service (USFWS), are located within Highland City (see Map 4-1). Wetlands are important for many reasons. They provide sanctuary for many forms of plant and animal life; serve as catchments to flood waters during flooding; improve water quality by trapping, using, or breaking down pollutants and wastes; help recharge groundwater supplies; and provide opportunities for recreation such as wildlife observation and photography.

Federal laws require that there be no net loss of wetlands. This means that if a designated wetland is eliminated, another wetland site must be restored, established, enhanced, or preserved to replace the site that is lost. Wetlands are under the jurisdiction of the U.S. Army Corps of Engineers, and proposed development near and in wetland areas are required to obtain a permit prior to proceeding, helping ensure that these important sites will not be compromised by development.

## Water

As Highland City continues to develop, the City's need for a clean, safe water supply will continue to be a necessity, and the increasing pressures of growth will require the City to take the proper steps to ensure the availability of this precious resource. The City currently has ordinances in place to protect the quality of groundwater by regulating land uses and development practices. These policies need to be enforced and updated as needed to maintain a high level of protection.

Highland City is in the process of developing its Water Conservation Plan, and it is critical that the City address both the quantity and the quality of ground water, and ensure that proper planning review processes are in place. The establishment of well protection zones and the enforcement of land use and development standards help ensure that the water supply will be available for future generations of Highland residents. Conservation efforts, including support for xeriscape and low-water landscapes, are important to the City.

## Soil Related Hazards and Constraints

Areas with slopes exceeding 30 percent are shown on Map 4-1. Many of these areas have been acknowledged by Highland City and designated as Natural Open Space, which will remain undeveloped.

Slope related hazards and constraints include areas of debris flow, landslide, and rock fall. Map 4-1 shows the extent of these hazards, in various combinations. Again, Highland City has identified these areas and been able to protect much of the land from development.

Each of these constraints can increase development costs and increase the possibility of property damage. Many of these constraints often increase the potential damage that may be caused by other hazards such as earthquakes and floods. These constraints will not usually make property unsuitable for development but they will add expense and at times may limit the type of development on a property. It is important that these issues are considered in the planning process and policies are in place to regulate development so that potential hazards can be minimized.

Limestone (karst) deposits are found along the eastern edge of Highland City at the mouth of American Fork Canyon and represent an engineering hazard. According to the American Society of Civil Engineers, "The most frequent technical difficulties are: the presence of caverns along tunnel routes or at dam sites, leakage from reservoirs, groundwater intrusion during underground excavations, and natural or induced subsidence in reservoir bottoms and urban areas". Significant geotechnical engineering techniques are required to counter these difficulties.

## Earthquakes

Geologic fault lines occur along the eastern edge of Highland City at the edge of the Wasatch Mountains in the Wasatch Fault Zone. A single earthquake epicenter is located in the southwest portion of the City. The most dangerous zone is immediately on top of the fault; however, a fault rupture zone shown on Map 4-1 shows a buffer of approximately 250 feet on either side of existing known faults.

Earthquakes can cause injury, death, and property damage. Much of the death, injuries, and loss of property are a result of building failure during the course of an earthquake and the following aftershocks. Earthquake conditions that cause building failure include surface rupture, ground shaking, landslides, earth settlement, and liquefaction. Liquefaction potential maps from the Utah Geological Survey show that all of Highland City is in a Very Low Liquefaction Potential Zone.

## Wildlife Habitat

The Utah Division of Wildlife Resources has mapped the extent of important habitat for rare native wildlife species and high-interest species in the state of Utah. Within Highland City, the habitats for eight different species have been mapped. These include the band-tailed pigeon, California quail, chukar partridge, mule deer, rocky mountain bighorn sheep, rocky mountain elk, ring-necked pheasant, and the ruffed grouse. The habitat for the California quail and the ring-necked pheasant extends throughout most of Highland City, but the habitat for the remaining species is focused mainly in the foothill portions of the City near Traverse Ridge and the mouth of American Fork Canyon (see Map 4-1).



*Rocky Mountain Elk (Photo by Toni Draper)*

The Utah Division of Wildlife Resources has indicated that key drainages, such as river and stream corridors and wetland areas, are also important to migratory songbirds and wetland birds. As development continues in the community, steps should be taken to ensure that this growth does not encroach upon key areas of wildlife habitat or diminish natural systems vital to wildlife survival to the maximum extent possible. Important natural corridors to be protected as resources for wildlife habitat (including plant species), water quality management, and recreation include Dry Creek, American Fork River, Mitchell Hollow, and Murdoch Canal.

The Utah Division of Wildlife Resources has provided information on threatened, endangered, or sensitive plant and animal species within the USGS quadrants encompassing Highland City. These species include the northern goshawk, short-eared owl, burrowing owl, western toad, ferruginous hawk, greater sage grouse, yellow-billed cuckoo, Townsend's big-eared bat, black swift, bobolink, bald eagle, Lewis's woodpecker, fringed myotis, long-billed curlew, Bonneville cutthroat trout, Ute ladies' tresses, and the kit fox. Exact locations were not provided to help protect these valuable species.



*Native wildflowers, American Fork Canyon*

## Vegetation

The nearby Wasatch Mountain foothills provide a unique plant community in Highland City which serves as habitat for many of the area wildlife species as well as a welcome change from the cultivated urban landscape of nearby cities. Both manmade and natural changes can impact this resource, causing it to deteriorate over time. Protecting this sensitive resource is important to the City. The destruction of natural grasses and other natural ground covers by encroaching noxious non-native plants contribute erosion and contribute to the loss of food and habitat for wildlife.

## Microclimate

Strong canyon winds and occasional “microburst” events have caused considerable damage in the City, particularly to power infrastructure along US-92. Likewise, snow storms and harsh winter weather are endemic, particularly considering the unique setting of the City. As new development takes place, difficult climate conditions should be considered as part of the design and review process.

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## Recommendations

As a community approaching build-out, Highland City has, to a large degree, dealt with its environmental setting and natural hazards. Continued diligence in monitoring and identifying problem areas, responding to new and refined information, and incorporating new technologies are recommended as a general approach to avoid future problems.

Development and redevelopment activities should include site design and engineering controls for any of the natural site constraints or hazards. In particular, any development or redevelopment activities should include site design and engineering controls to reduce water quality impacts to the natural environment to the maximum extent possible.

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## Goals and Policies

**Goal:** To evaluate and update as needed, current regulations and guidelines pertaining to development within the Critical Runoff Area.

**Policy:** Regulate impacts to natural waterways due to development in the Critical Runoff Area by adopting guidelines and regulations that will reduce water quality impacts to the maximum extent possible.

**Implementation Measure:** As part of the development regulations and guidelines, require a planning review process that addresses site design and engineering controls to reduce water quality impacts in the Critical Runoff Area.

**Goal:** To evaluate and update as needed, current regulations and guidelines pertaining to development within floodplains.

**Policy:** Regulate future development in floodplains by following the guidelines of the Federal Emergency Management Agency and the "Flood Insurance Rate Maps."

**Implementation Measure:** Incorporate special review into the development review process to assure that adequate protections are known and identified prior to development.

**Goal:** To evaluate and update as needed, current regulations and guidelines pertaining to development within wetland areas.

**Policy:** Regulate future development in wetlands by following the guidelines of the U.S. Army Corps of Engineers.

**Implementation Measure:** Incorporate special review into the development review process to assure that adequate protections are known and identified prior to development.

**Goal:** To protect areas from development that are unsuitable or less suitable for development.

**Policy:** Recognize the hazards of development on unsuitable and less suitable lands to people and property by adopting guidelines and regulations that will prevent development in areas that cannot be effectively mitigated and insure proper mitigation of site hazards and constraints where feasible.

**Implementation Measure:** Incorporate special review into the development review process to assure that adequate protections are known and identified prior to development.

**Goal:** To utilize unsuitable or less suitable lands for open space and trail corridors throughout the City.

**Policy:** Incorporate unsuitable and less suitable lands into the Parks, Recreation, and Trails Element of the General Plan.

**Implementation Measure:** Identify areas of unsuitable or less suitable lands that will be key areas for Parks, Recreation, and Trails corridor development.

**Goal:** To minimize the impacts of growth and development on water resources.

**Policy:** Regulate the impacts on water quality by adopting guidelines and regulations that will reduce water quality impacts to the maximum extent possible.

**Implementation Measure:** As part of the water quality regulations and guidelines, require a planning review process that addresses site design and engineering controls to reduce water quality impacts.

**Implementation Measure:** Ensure all potable wells are protected from land use modifications that may negatively affect their use and integrity.

**Implementation Measure:** As the Highland City Water Conservation Plan is prepared, address the quantity and quality of ground water as a key issue so that it is documented and can be referenced when negotiating or responding to water rights issues.

**Goal:** To increase use of water-wise landscapes within the City on public and private property where appropriate.

**Policy:** Educate municipal representatives and City residents on the value and beauty of water-saving landscapes and implement xeric landscape techniques within Highland City.

**Implementation Measure:** Install xeric landscapes on publicly owned properties within the City where appropriate to provide demonstration gardens to City residents.

**Implementation Measure:** Encourage xeric landscaping on private properties.

**Implementation Measure:** Provide classes and workshops to municipal representatives and City residents on water-wise landscape practices, including xeriscape methods.

**Implementation Measure:** Provide statistical information and develop a campaign for residents identifying the negative impacts of overusing fertilizers, chemical sprays, and over watering on the city's water resources.

**Goal:** To evaluate and update as needed, current regulations and guidelines pertaining to development and building in areas with earthquake potential.

**Policy:** Regulate future development by following Uniform Building Code seismic provisions.

**Implementation Measure:** Incorporate special review into the development review process to assure that adequate protections are known and identified prior to development.

**Goal:** Minimize the impacts of growth and development on wildlife habitat.

**Policy:** Regulate the impacts on wildlife by adopting guidelines and regulations that will reduce impacts to the maximum extent possible.

**Implementation Measure:** Establish a preservation zoning district for unprotected wildlife habitat as identified by the Utah Division of Wildlife Resources and natural corridors including Dry Creek, American Fork River, Mitchell Hollow, and Murdoch Canal, with Dry Creek as the top priority.

**Implementation Measure:** Promote the involvement of Highland City for the purpose of eradicating thistles and other non-native destructive vegetation each year.

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# MAP 4-1 ENVIRONMENTAL & NATURAL CONDITIONS

## Flooding/Water Quality

-  Wetland
-  Floodplain
-  Groundwater within 30'
-  Critical Runoff Area

## Soil Related Hazards & Constraints

-  Limestone (Karst)
-  Slope Exceeding 30%
-  Debris Flow
-  Debris Flow and Landslide
-  Debris Flow and Rock Fall
-  Landslide
-  Debris Flow, Rock Fall, and Landslide
-  Rock Fall
-  Rock Fall and Landslide

## Earthquakes

-  Earthquake
-  Fault Line
-  Fault Rupture Zone

## Wildlife

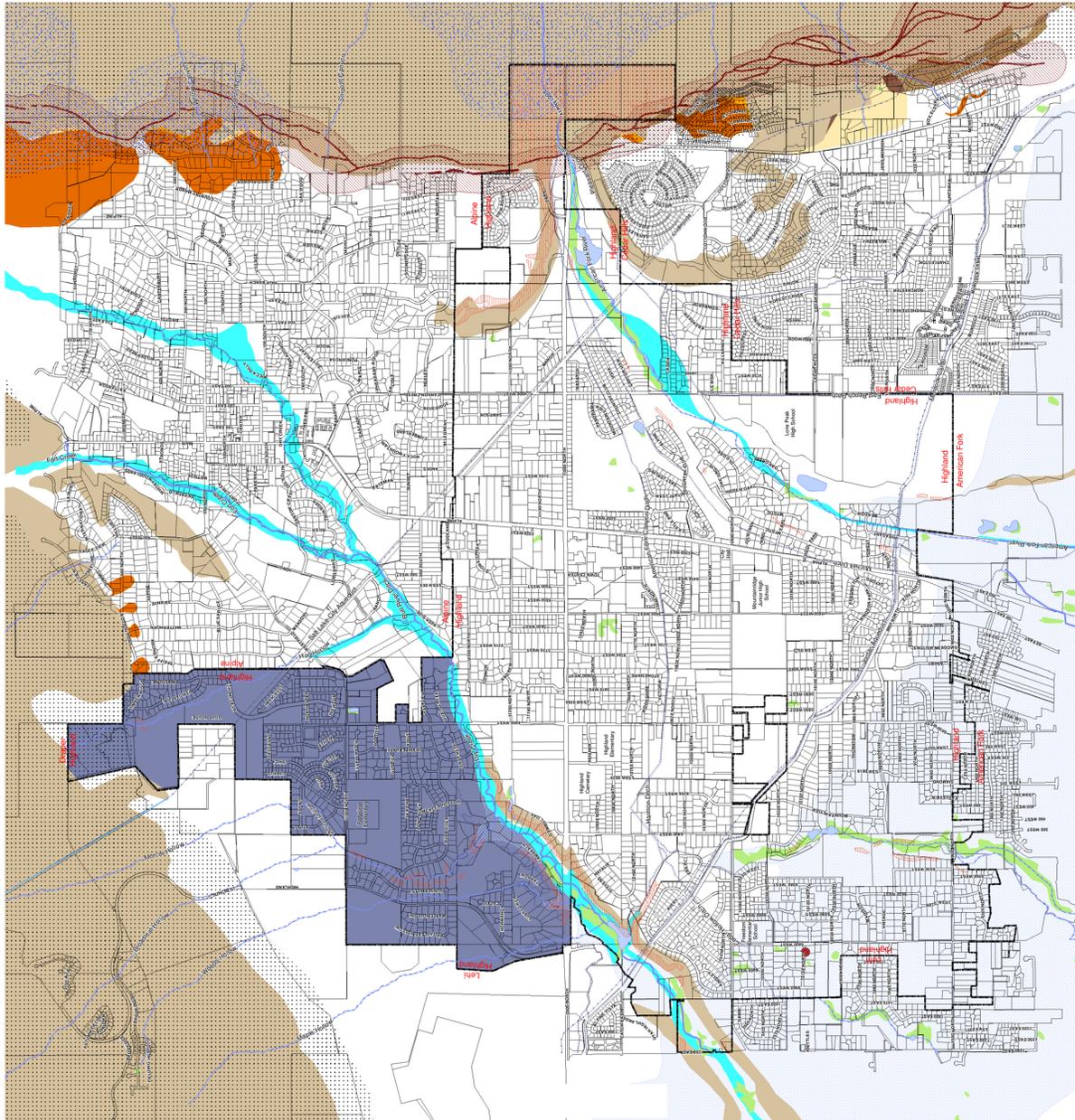
-  Wildlife Habitat
-  Perennial Stream or River
-  Canal or Ditch
-  Intermittent Stream
-  Pipeline or Aquaduct
-  Culvert or Tunnel
-  Waterbody
-  City Boundary

For planning and general identification purposes only. Specific site development will require detailed analysis and review. Actual site conditions may differ from those shown on plan.

# Highland City General Plan Update



Adopted





# Economic Element

# 5

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## Introduction and Background

The Economic Element of the Highland General Plan addresses the needs and desires for additional retail for shopping and for the fiscal health of the City. Other specific commercial uses such as offices and restaurants are addressed as well.

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## Identified Commercial Issues

Important issues facing the City during the general plan process were:

- ♦ Whether or not to add more retail development to the City and;
- ♦ If so, how much should be added and where should it be located?

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## Commercial Analysis

Highland City has zoned approximately 118 acres for commercial development, which represent 1.8 percent of Highland City's total area. There are currently approximately 120,000 square feet of commercial space within Highland City's commercial zone with a capacity for approximately 690,000 more square feet at build-out. (The construction of new City buildings may reduce this total.) Highland City's commercially-zoned property is well-positioned on all four corners at the intersection of two major traffic corridors and provides an excellent opportunity to take advantage of traffic flowing through town on SR-92 (11000 North or Highland Highway) and the Alpine Highway (SR-74).

The following sections detail the results of an assessment of the potential for additional commercial zoning in the City. This study was instrumental in the decision to rezone property on the northwest corner of the intersection of SR-92 (11000 North or Highland Highway) and the Alpine Highway (SR-74) in late 2006 during the process of updating the General Plan.

Capacity for additional commercial areas depends on several factors including excess buying power within the market area, appropriate potential locations, and community willingness to accept additional retail areas. The market analysis and summary of public opinion presented here have been, and will continue to be, resources for the consideration of commercial land use decisions.

### Buying Power Analysis

Buying power analysis evaluates the magnitude of spending power which can be expected to be captured at a proposed location. In this analysis, the intersection of SR-92 (11000 North or Highland Highway) and the Alpine Highway (SR-74) was modeled as the most logical location of future retail. The object of this analysis is to determine the feasibility of retail expansion at Highland's Town Center both in the present and in 2010. The market area for this analysis is defined as the communities of Pleasant Grove, Cedar Hills, American Fork, Lehi, Highland City, Alpine, and Draper (the portion in Utah County). The approach taken in this study combines a buying power analysis with a gravity model used to estimate the relative capture rates between competing retail centers. Buying power is a function of the population near a potential retail site. Competing retail centers were taken into account using a gravity model. (See Appendix D for a description of the gravity model methodology.) Two scenarios were developed for

this analysis. The first evaluates current retail potential and the second projects retail potential for 2010. The present-day scenario includes all built retail outlets within the market area. The 2010 scenario adds 200,000 square feet to the Highland Town Center and all proposed major commercial developments expected to be operational in 2010. (The additional 200,000 square feet will result from the approved rezone of the northwest corner of the commercial intersection.) For the time periods under consideration the market area has adequate estimated buying power to support additional retail beyond that currently in existence or proposed.

## Analysis Results

As of late 2006, approximately 2.36 million square feet of retail space exist in the market area. When factoring in all competing retail, a total of \$96.4 million in annual buying power could potentially be captured at the intersection of SR-92 (11000 North or Highland Highway) and the Alpine Highway (SR-74) currently. This buying power supports up to 370,000 square feet in Gross Leaseable Area ("GLA")—far more than the existing 120,000 square-foot retail center. Overall, an additional 250,000 square feet of retail could be supported at the location over and above the existing 120,000 square feet as of late 2006.

To project supportable retail GLA for 2010, an additional 200,000 square feet of retail was assumed at the existing center and a total of an additional 1.2 million SF of GLA at Traverse Mountain and Sundance Commons in Pleasant Grove (500,000 at Traverse Mountain and 700,000 at Sundance Commons). The model estimates that approximately \$163.5 million in annual buying power could be captured at the Highland Town Center in 2010, supporting 626,000 square feet of GLA. In other words, an additional 506,000 square feet of retail could be supported at the location in 2010 over and above the 120,000 square feet of existing retail.

Given the results of the buying power analysis and the substantial traffic volume (13,600 cars pass the site each day on the Alpine Highway and 17,200 cars on SR-92), it is clear that a large amount of additional retail space at the Highland Town Center is feasible—even with the impact of development at Traverse Mountain and Sundance Commons in 2010. Since the site is strategically located in close proximity to some of the highest income areas of Utah County (a weighted average median income is 125 percent of the state median for the cities in the immediate area), the feasibility of additional community retail development is promising.

## Commercial Survey Results

A survey was developed and distributed to Highland City residents. Approximately 3,200 surveys were mailed with utility bills in July 2006. A total of 892 surveys were returned for a response rate of 28 percent. The survey included questions on several topics including commercial development. The responses to questions concerning commercial development are summarized and analyzed below.

## Expansion of Commercial Zoning

Question 12 on the survey (conducted well before the rezone of the northwest corner of the commercial intersection) asked, "Should retail development be allowed to expand beyond the zoning?" Overall, 53 percent of respondents answered "Yes," indicating that a majority of residents would, in all likelihood, have supported expansion of commercial zoning in the City. The northwest corner was subsequently rezoned to allow commercial uses.

As a follow up to Question 12, residents were asked to indicate the preferred location of new commercial areas within the boundaries of Highland City. Figure 5-1 represents the responses of area residents. (Respondents were allowed to mark many locations.) The most popular location for expanded commercial area is the vacant land north of the Kohlers shopping center (The northwest corner of the commercial intersection).

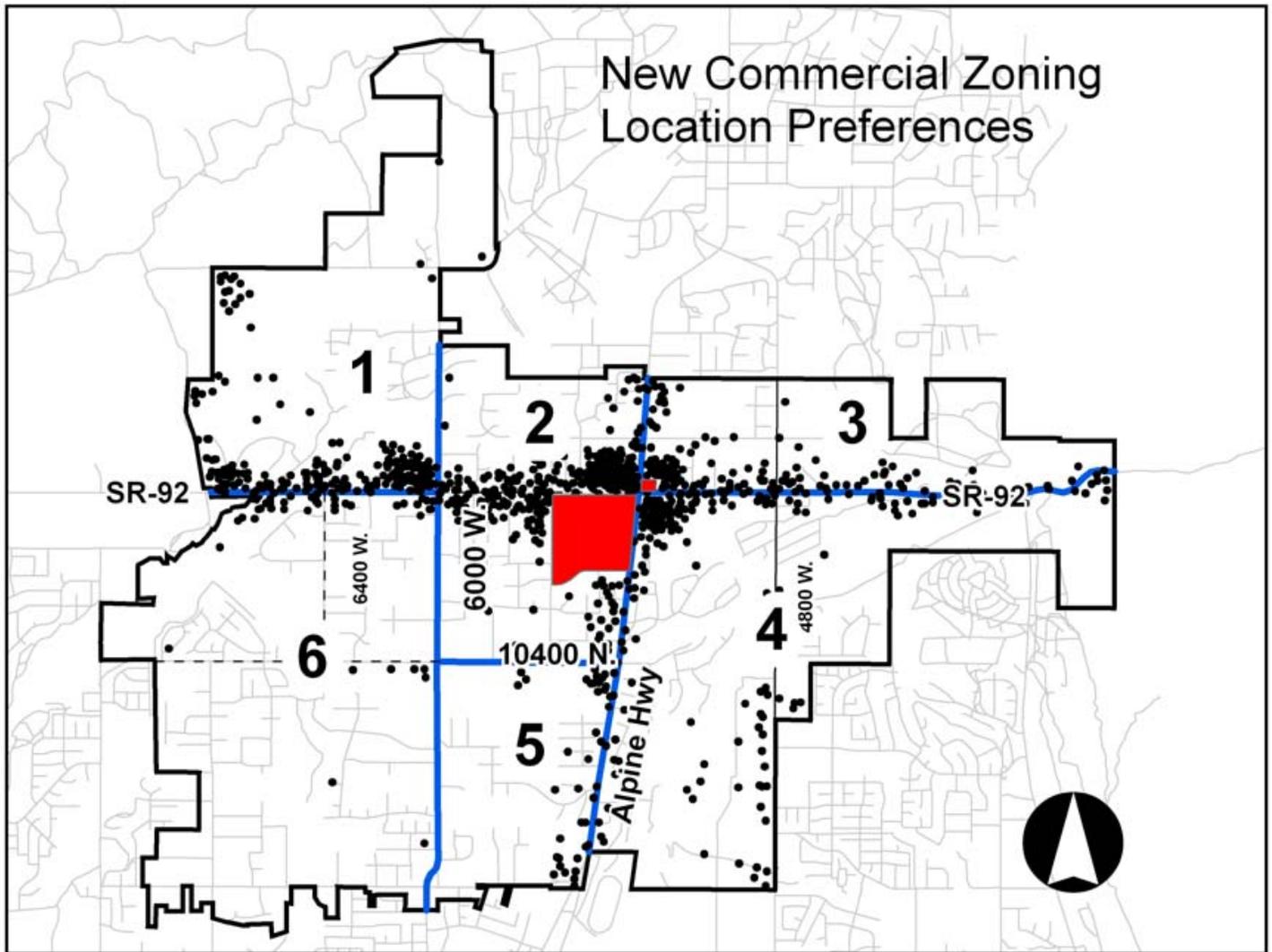


Figure 5-1. Importance/Performance Questions

The survey was structured around a series of “paired” questions. Questions 2 and 3 were the pair of questions which focused on community attitudes toward commercial development. The scale used on the survey rates the relative importance of services using a range from one through five representing “not important”, “somewhat important”, “important”, “more important” and “very important.” Performance of services is similarly scaled in five ordinal categories of “very poor”, “poor”, “average”, “good”, and “very good”.

Figure 5-2 shows the results of questions 2 and 3 on the survey. Question 2, “How important is it to you to have the following goods and services available in Highland City?” measures the importance of different goods and services categories to Highland City residents. Question 3, “How well is Highland City performing in providing the goods and services listed below?” measures the desires of residents for certain goods or services in the City. The figure plots the responses on horizontal and vertical axes. The more important a good or service is the farther to the right it will be in the chart. If the City is performing well in providing the good or service it will be closer to the top of the chart. The chart is therefore divided into four quadrants: the upper left quadrant represents high performance/low importance, upper right quadrant represents high performance/high importance; lower left quadrant represents low performance/low importance; and lower right quadrant represents low performance/high importance.

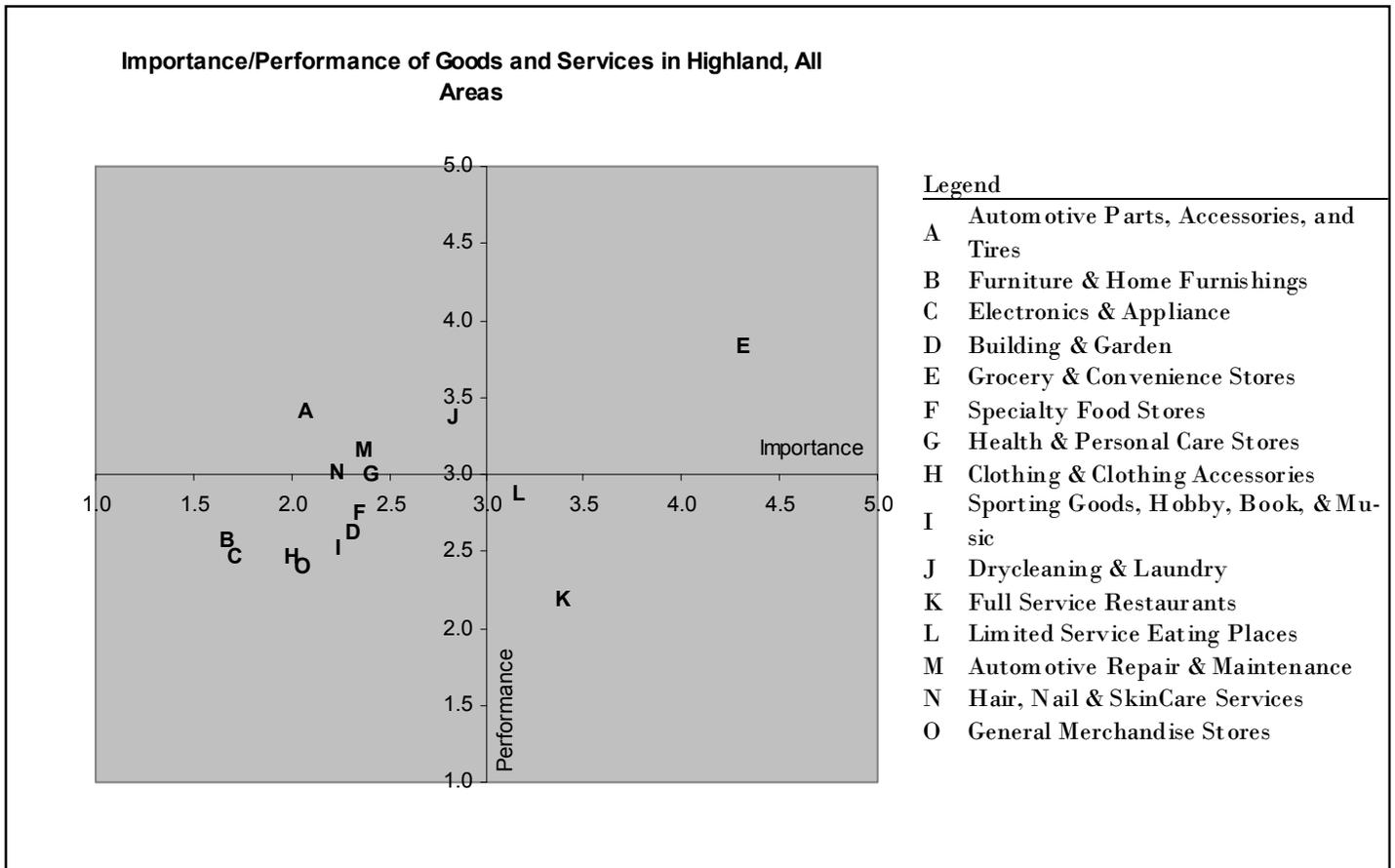


Figure 5-2. Importance/Performance of Goods and Services in Highland, All Areas

Importance/performance questions are useful for determining areas of focus for future activities. Those factors located in the lower right quadrant should garner the most attention. In the case of Highland City, the most notable item that falls within this category is full-service restaurants. The “limited service eating places” category behaves similarly, though not as pronounced.

Other categories should not be discounted simply because they are lower on the scale of importance, since all but the lowest option are considered to have some degree of importance. Other sectors are less important, but still worthy of attention. General Merchandise stores for example, are somewhat important to residents, but perform second lowest next to full service restaurants. Dry cleaning services are considered important and have average performance.

The concentration of categories below the 2.5 mark on the importance scale may be an expression of the City’s identity as a “bedroom community.” Indeed, the survey results reinforce the perception by residents that Highland City is a rural residential town. This is consistent with the wording of the survey question dealing with the importance of goods and services available within the City. Having access to all of these categories is very important to Highland City residents, although they might prefer to travel outside the community so that the rural feel of the community is preserved.

The importance/performance results would be most useful to a developer in determining the mix of goods and services to be offered in the City based on the relative importance of each category as compared to the others. While it may not be important to Highland City residents to have furniture and home furnishing within the City boundaries, residents would certainly patronize a furniture store in town rather than one farther away, if the goods and services offered were of equal or better quality than the competition.

If a business does locate in Highland City, it is likely that it will do well based on its competitive position within the northern Utah County market, despite the fact that Highland City residents rank it as only somewhat important. The buying power analysis evaluates the competitiveness of new retail at this location irrespective of policy decisions.

### Retail Operations

Question 6 asked respondents to rank their feelings concerning a variety of issues including Sunday closing, 24 hour business operation, size of stores, office opportunities and outdoor sidewalk sales. The community agrees that businesses should remain closed on Sunday even though it may deter some businesses from entry into the Highland City market. There appears to be relative agreement that outdoor sidewalk sales should be allowed. There is also a preference for smaller stores and an indication of support for consideration of office opportunities in the area.

### Community Character

The first question in the survey asked respondents to explain why they chose to live in Highland City. In analyzing the responses to this question, key words were identified that appeared in a significant number of the hand written responses. The word "open" appeared in 19 percent of the responses, and the word "rural" occurred in 17 percent of responses. In addition, 18 percent of respondents indicated lot characteristics were an important factor in their decision to live in Highland City. The responses indicated an overwhelming desire for low density, open community character.

The character of the community (in Highland City's case a "rural feel") needs to be balanced with the need for adequate availability of goods and services for residents and visitors as well as sufficient City revenue. The integration of commercial need not be a choice between preserving a rural feel and degrading the quality of the community through commercialization. Commercial development can and should enhance the quality of a community—even a rural community such as Highland City. This can be done in many ways including clustering commercial development into discrete locations or "nodes", rather than allowing for strip commercial, and adopting design guidelines.

Another consideration is the importance of this community as the gateway to American Fork Canyon—a popular recreation area. The City would do well to accommodate needs of travelers who spend money in the City. The opportunity for providing a quality gateway to the canyon should be weighted highly in decisions related to design and community character.

### Design

It is highly recommended that the City adopt design guidelines applicable to new commercial areas if commercial zoning is increased. Good design is a critical component of the success of any area, especially corridors of such importance and high visibility. Design guidelines have been proven in many communities, including Highland City, to be very effective in ensuring that new development reflects the values of the community.

If new commercial zoning is added, the implementation of design guidelines at this point in time is of particular importance since new commercial areas would essentially be a blank slate. Many communities are placed in the unfortunate position of guiding development retroactively. New guidelines should be consistent with existing guidelines for the Town Center and give specific attention to the gateway aspect of the area.

### Commercial Development Planning

A planning perspective should focus on the overall availability of goods and services within the City. This, coupled with the buying power analysis, gives the City important decision-making information helpful in determining the commercial future of the City. Below is a list of considerations for encouraging additional commercial establishments:

- ♦ The buying power analysis reveals that there is enough demand for additional commercial zoning.
- ♦ The majority of the population feels that the City should increase commercial zoning (although 53 percent is certainly not a mandate).
- ♦ By keeping shopping close to home, shopping is more convenient and tax base is increased.

On the other hand, as mentioned above, most commercial categories are clustered on the lower end of the importance scale, indicating that many residents are not overly anxious for additional commercial establishments to locate in Highland City. The desire for a rural community feel may be the reason for this viewpoint.

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## Goals and Policies

**Goal:** To enhance shopping opportunities for residents in the community.

**Policy:** Encourage additional retail development within commercially zoned areas by adopting “business friendly” processes and rules.

**Implementation Measure:** Streamline the development approval process as much as possible to counteract the inherent difficulties and delays created by the usage of design guidelines.

**Goal:** To integrate commercial land uses such that Highland City’s rural-residential community character is maintained.

**Policy:** Cluster commercial development into discrete locations or “nodes”, rather than allowing for “strip commercial”.

**Policy:** Provide design criteria for commercial areas which provide for a distinctive “place-making” character for Highland City and enhance the natural and residential environment.

**Implementation Measure:** Include significant open space requirements within commercial zones to provide for distinctive visual character.

**Implementation Measure:** Require pedestrian connections between stores within retail or mixed-use developments

**Implementation Measure:** Require pedestrian connections between retail stores and housing clusters within mixed-use areas.

**Implementation Measure:** Hide parking lots from view whenever possible through such means as requiring parking behind or to the side of structure and requiring landscape buffers between buildings and streets.

**Goal:** To maintain fiscal health and stability.

**Policy:** Maintain a healthy balance of sales and property tax revenue.

**Implementation Measure:** Encourage the development of new retail in selected locations through appropriate zoning.

**Implementation Measure:** Allow for a moderate amount of office uses in the downtown commercial area. This will enhance sales by increasing the daytime population in Highland City.



# Affordable Housing Element

# 6

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## Introduction and Background

The Affordable Housing Element is one of the required components of a general plan as outlined by Utah State Code Section 10-9a-403. The community is required to create a plan to “facilitate reasonable opportunities for a variety of housing, including moderate-income housing.” This plan addresses the demographic forces shaping housing needs and the current stock and cost of housing found in Highland City, as well as possible solutions for filling the demand for moderate-income housing in Highland City.

Highland City was home to 3,150 occupied housing units as of January 2007. The City's housing stock is relatively new. Forty-five percent of the current housing stock was built between 2000 and June 2006. The majority of Highland City's housing stock is composed of owner-occupied single family housing units. Single family detached structures account for 97 percent of Highland City's housing stock. In addition, 95 percent of households own their housing unit while only five percent of households rent.

The cost of housing in Highland City is high. From 2003 through March 2006 the average price for a house sold in Highland City was \$310,000. This was the second highest average for all of Utah County and was surpassed only by Alpine.

For housing to be considered affordable, no more than 30 percent of a household's income should go towards paying for housing. As of 2000, 21 percent of Highland City's homeowners were paying more than 30 percent of their income towards their housing. According to current affordability standards set by the U.S. Department of Housing and Urban Development for the Provo-Orem Metropolitan Statistical Area, only 1.2 percent of Highland City's housing stock would be considered affordable to a moderate income household making 80 percent of the area median income, or \$45,100 per year. Based on an ideal scenario, in order for Highland City to provide reasonable opportunity for moderate-income households approximately 17 percent of the City's housing stock should be affordable.

A survey was administered to determine residents' opinions about affordable housing options in Highland City. Currently residents disagree with the statement that first-time homebuyers should be able to afford a house in Highland City. (The average answer was 2.2 on a scale of 1 to 5 with 1 meaning “strongly disagree”, 3 meaning “no opinion” and 5 meaning “strongly agree”). Residents were indifferent as to whether or not seniors should have housing options in the City (2.9). Opinion was divided between disagreement and indifference (2.5) when residents were asked how they felt about the statement, “my neighbor should be allowed to divide his one acre lot”; however, 80 percent of respondents agreed that ½ acre lots should be allowed in the City. Residents were also indifferent as to whether or not accessory apartments should be allowed (2.7).

In terms of housing developments in general, three quarters of respondents indicated they would support additional open space housing developments. In addition, when residents were asked what lot sizes they would support out of one-, three quarter-, half, and quarter-acre lots, the highest level of support was for half-acre lots (80 percent). In comparison, 70 percent of respondents supported allowing one-acre lots, while 65 percent would allow three quarter acre lots. Thirty percent of respondents would allow quarter-acre lots. (On this question residents were allowed to select all that applied.)

## Affordable Housing Requirements

The Utah State Code requires all municipalities to propose a plan for moderate-income housing as part of a General Plan. "Moderate-income housing" is defined as "housing occupied or reserved for occupancy by households with a gross household income equal to or less than 80 percent of the median gross income or "area median income (AMI)" for households of the same size in the county in which the City is located. The area median income for the Provo-Orem Metropolitan Statistical Area (MSA) was estimated by the Department of Housing and Urban Development (HUD) to be \$56,000 for the 2006 fiscal year. Moderate-income households are then defined as any family of four with a gross household income of \$45,100 or less.

The intent of the statute is to ensure that moderate-income households have the ability to live in any city of their choice within the MSA. Cities should provide reasonable opportunities for moderate income households to obtain housing in their municipality. Cities should also ensure that moderate-income households be able to benefit from and fully enjoy all aspects of neighborhood and community life. In this analysis, "reasonable opportunity" will be analyzed under two criteria: in comparison to surrounding communities and to Utah County as a whole.

To better understand who moderate-income households are Table 6-1 has been included as a sampling of professions that qualify as moderate-income. This table includes the median income for the Provo-Orem MSA as well as the monthly cost of housing that would be considered affordable for each household assuming 30 percent of gross monthly income goes to housing costs.

**Table 6-1. Affordable Housing Costs for Workers in Selected Occupations - 2006, Provo-Orem MSA**

Job Title	Average (Median) Annual Wages	(% of AMI)	Affordable Housing Costs per Month*
Elementary School Teachers, Except Special Education	\$34,710	62%	\$ 868
Hairdressers, Hairstylists, and Cosmetologists	\$23,690	42%	\$ 592
Locksmiths and Safe Repairers	\$26,370	47%	\$ 659
Chiropractors	\$46,920	84%	\$ 1,173
Executive Secretaries and Administrative Assistants	\$31,960	57%	\$ 799
Machinists	\$33,050	59%	\$ 826
Postal Service Mail Carriers	\$45,460	81%	\$ 1,137
Registered Nurses	\$51,740	92%	\$ 1,294

<sup>1</sup> *Ninety-five percent of total housing units are owner-occupied. All owner-occupied housing is affordable only to families earning above 80 percent of AMI and are not considered affordable to a moderate-income family. Renter-occupied units are five percent of total housing units in Highland City. Of those 24 percent are affordable to a moderate-income family. This means that 1.2 percent of the total housing stock in Highland City is considered affordable.*

Police and Sheriffs Patrol Officers	\$37,270	67%	\$	932
Fire Fighters	\$36,700	65%	\$	917

Source: Department of Workforce Services; Wikstrom; HUD 2006 FY

*\*Note: Assumes one wage earner per household, affordable housing cost is calculated as 30% of gross monthly income.*

## Summary of Findings

Approximately 1.2 percent of Highland City's housing stock is considered affordable to a moderate-income household.<sup>1</sup> The State of Utah requires communities to provide a reasonable opportunity for moderate-income households to locate within the jurisdiction. Unfortunately there has been little progress toward this goal to date.

The following points outline the obstacles to affordable housing in Highland City.

- ◆ As of 2000 only five percent of Highland City's housing stock was rental units.
- ◆ Highland City's entire rental stock is composed of detached single-family homes, which generally have higher rents than attached units.
- ◆ As of June 2006 one percent of Highland City's housing stock was attached.
- ◆ Highland City ranks second in Utah County for the highest median price of housing units sold since January 2003.
- ◆ Seventy-three percent of the City's housing stock has been constructed since 1990 and 45 percent has been built since 2000.
- ◆ The cost of land in Highland City makes high density zoning necessary in order to provide affordable housing.
- ◆ High-density housing is currently not allowed in any zone.

Several housing related questions were asked of residents to determine prevailing opinions and the level of support for affordable housing solutions. The results are:

- ◆ Highland City residents disagreed with the statement that first-time homebuyers should be able to afford a house in Highland City. (The average answer was marginal, a 2.2 on a scale of 1 to 5 with 1 meaning "strongly disagree", 3 meaning "no opinion" and 5 meaning "strongly agree").
- ◆ Highland City residents were indifferent as to whether or not seniors should have housing options in Highland City (2.9).
- ◆ Opinion was divided between disagreement and indifference (2.5) when residents were asked how they felt about the statement, "My neighbor should be allowed to divide his one acre lot"; however, 80 percent of respondents agreed that half-acre lots should be allowed in the City.
- ◆ Residents were indifferent as to whether or not accessory apartments should be allowed (2.7)
- ◆ When given choices regarding what additional housing types should be allowed in Highland City, 70 percent of residents agreed that large single-family homes on standard lot sizes should be allowed within the City. Nine percent agreed that large twin homes or "mansion homes" should be allowed. Eleven percent preferred no additional housing types.
- ◆ Three quarters of respondents indicated they would support additional open space housing developments.

- ♦ Curiously, when residents were asked what lot sizes they would support out of 1 acre, 3/4 acre, 1/2 acre, and 1/4 acre lots, the highest level of support was for half-acre lots (80 percent). In comparison, 70 percent of respondents supported allowing one-acre lots, while 65 percent would allow three quarter-acre lots. 30 percent of respondents would allow quarter-acre lots.

In summary, the level of support for affordable housing in Highland City is low considering the fact that residents do not look favorably on housing types that would accommodate moderate-income households. Nevertheless, state law requires communities to plan for affordable housing, which inevitably leads to diverse housing types and/or substantial public subsidy in the form of land trusts or other similar measures.

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## Methodology

### Data

The analysis and recommendations are based on both demographic data and current market conditions. The majority of the data used in the analysis comes from public sources. For example, base population data from the 2000 U.S. Census was updated with building permit data from the University of Utah's Bureau of Economic and Business Research.

Information for current market conditions is based upon data provided by public and private sources. The Utah County Assessor's Office provided the assessed property values and tax rate. The Wasatch Front Multiple Listing Service provided housing values for residential properties sold from January 1, 2003 to March 31, 2006. Information for the rental market is compiled from two sources: EquiMark Properties provided rental information specific to rental units in Utah County and the 2000 U.S. Census.

### Layout of the Housing Element

As noted above, this section addresses the requirements of Section 10-9a-403 of the Utah Code regarding the need for communities to provide moderate-income housing. The section first analyzes the demographics and income levels for the area, and determines what level of housing costs would be affordable to Highland City residents at various income levels. It then discusses the existing supply of housing in the City, and analyzes the cost of and demand for various housing types. Finally, goals and strategies for improving affordability are listed and discussed.

### Barriers to affordable housing

The high price of land is a major barrier to affordable housing in Highland. A partial solution that may assist in reducing land costs could be to allow for higher density housing to offset the land cost per unit, however, this does not guarantee affordable housing. The city may still have to require a developer to sell at affordable pricing despite market conditions.

The zoning ordinance does allow for accessory dwelling units<sup>2</sup> for two or less unrelated persons, which provide a partial solution to the affordable housing deficit. Consideration for increasing the number of renters that may reside within accessory dwelling units may provide a greater opportunity for affordable housing.

<sup>2</sup> *Definition: A separate smaller living unit on a single-family lot. Typically requires the space to include both a kitchen and a private bathroom. These units are often also referred to as mother-in-law suites or basement apartments.*

<sup>3</sup> *Source: Wikstrom projections. This assumes that 17 percent of new total housing units at build-out would be high density. For comparison, a 10 percent assumption would yield populations of 21,837 in 2017 and 22,721 in 2027.*

## Existing Housing and Demographic Conditions

### Population

According to the 2000 Census, Highland City had a total population of 8,172 people. The estimated population in 2005 was 13,303. Based on the average household size of 4.53 and building permit data in conjunction with the population count collected during the 2000 Census the current population estimate is roughly 14,600. It is projected that Highland City will grow to a population of 22,833 by 2017 and 24,304 by 2027<sup>3</sup>.

### Age

The median age in Highland City was 20.9 according to the 2000 Census, younger than both the medians for Utah County and Utah, with 23.3 and 27.1, respectively. By comparison, the surrounding areas of Alpine, American Fork and Lehi also had higher median ages with 21.0, 24.9, and 23.6 respectively. The only city near Highland City that had a lower median age was Cedar Hills with a median age of 18.5.

While the median age is younger than the state, the age of the householders is older. Figure 6-1 shows a comparison between Utah and Highland City in regards to the age of the householder. Highland City's householders are clearly concentrated in the 35 to 54 year old age ranges, far surpassing the state norms.

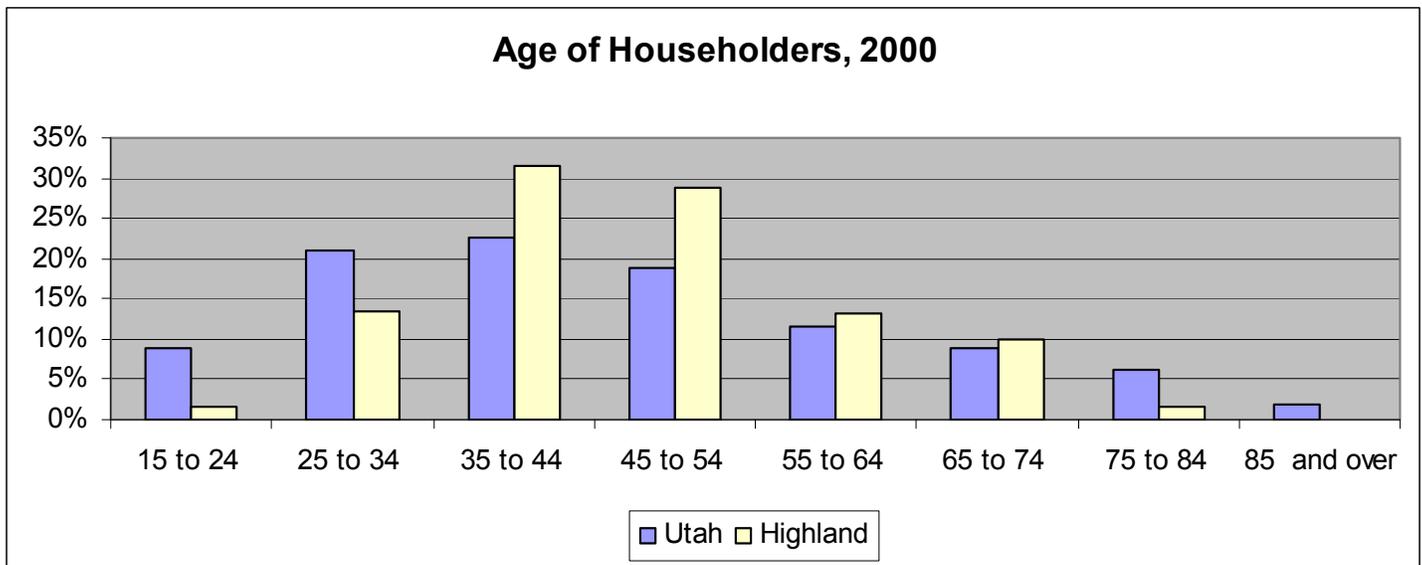


Figure 6-1. Age of Householders

Highland City's young median age can be attributed to a larger than average number of children in households as seen in the distribution of population shown in Figure 6-2. The average household size in Highland City was 4.53, shown in Table 6-2, as of the 2000 Census compared to the Utah County average of 3.59. The large percentage of children in Highland City significantly reduces the median age for the City, even though householders tend to be older than average.

### Table 6-2. Average Household Size

Utah	Utah County	Alpine	American Fork	Cedar Hills	Highland City	Lehi
3.1	3.6	4.3	3.6	4.4	4.5	3.7

Source: Census 2000

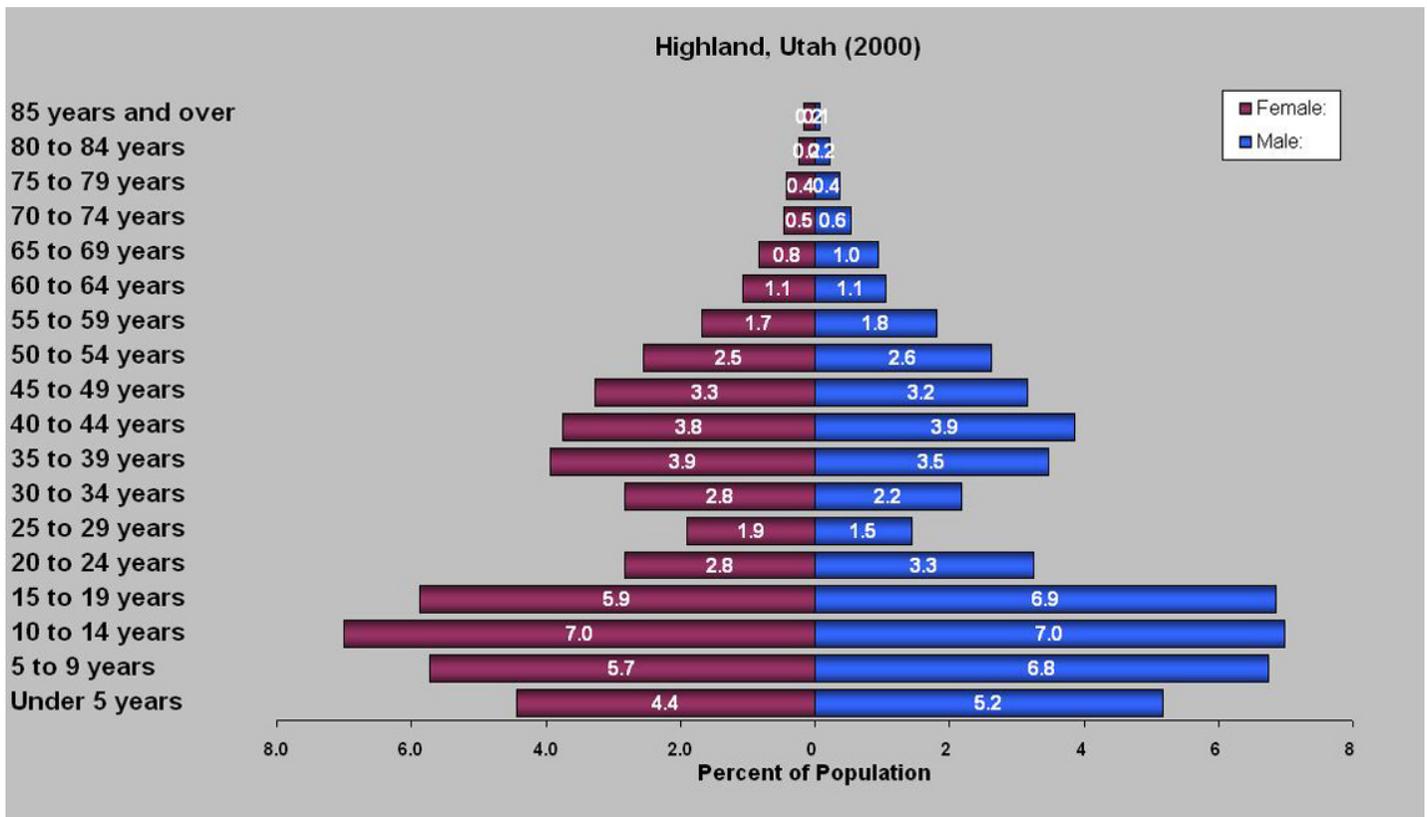


Figure 6-2. Highland City Age Structure

### Income

The median income in Highland City has been growing faster than inflation. According to the 1990 census the median income in 1989 was \$43,080. Adjusting this figure for inflation to 2006 dollars yields a median income of \$70,651. The 2000 Census shows Highland City had a median income of \$80,053 in 1999. After adjusting for inflation this median income is roughly equal to \$97,665 in 2006 dollars, showing that household incomes in Highland City have grown at an average annual growth rate of 3.3 percent. This is higher than both Utah County and Utah average annual growth rate of incomes above inflation of 2.2 and 1.4 percent respectively.

Table 6-3. Historical Inflation-Adjusted Income Growth

	Utah	Utah County	Highland City
1989 Median Income in 2006 Dollars	\$48,331	\$44,988	\$70,651
1999 Median Income in 2006 Dollars	\$55,786	\$55,916	\$97,665
Average Growth Rate Above Inflation	1.4%	2.2%	3.3%

Source: Census 2000; Wikstrom

Part of this increase in real income is attributed to the changing structure of the income distribution. Figure 6-3 shows the distribution of income not adjusted for inflation. In 2000, numbers are clearly concentrated above \$60,000. In 1990, numbers are clearly concentrated above \$60,000. In 1990 only 23 percent of residents made \$60,000 or more, whereas in the year 2000 71 percent of residents were located in the same income category. During the same time period households with incomes over \$100,000 have grown from three percent of total households in 1990 to 31 percent in 2000. Consequently, only 22 percent of households in 2000 made less than \$50,000 per year.

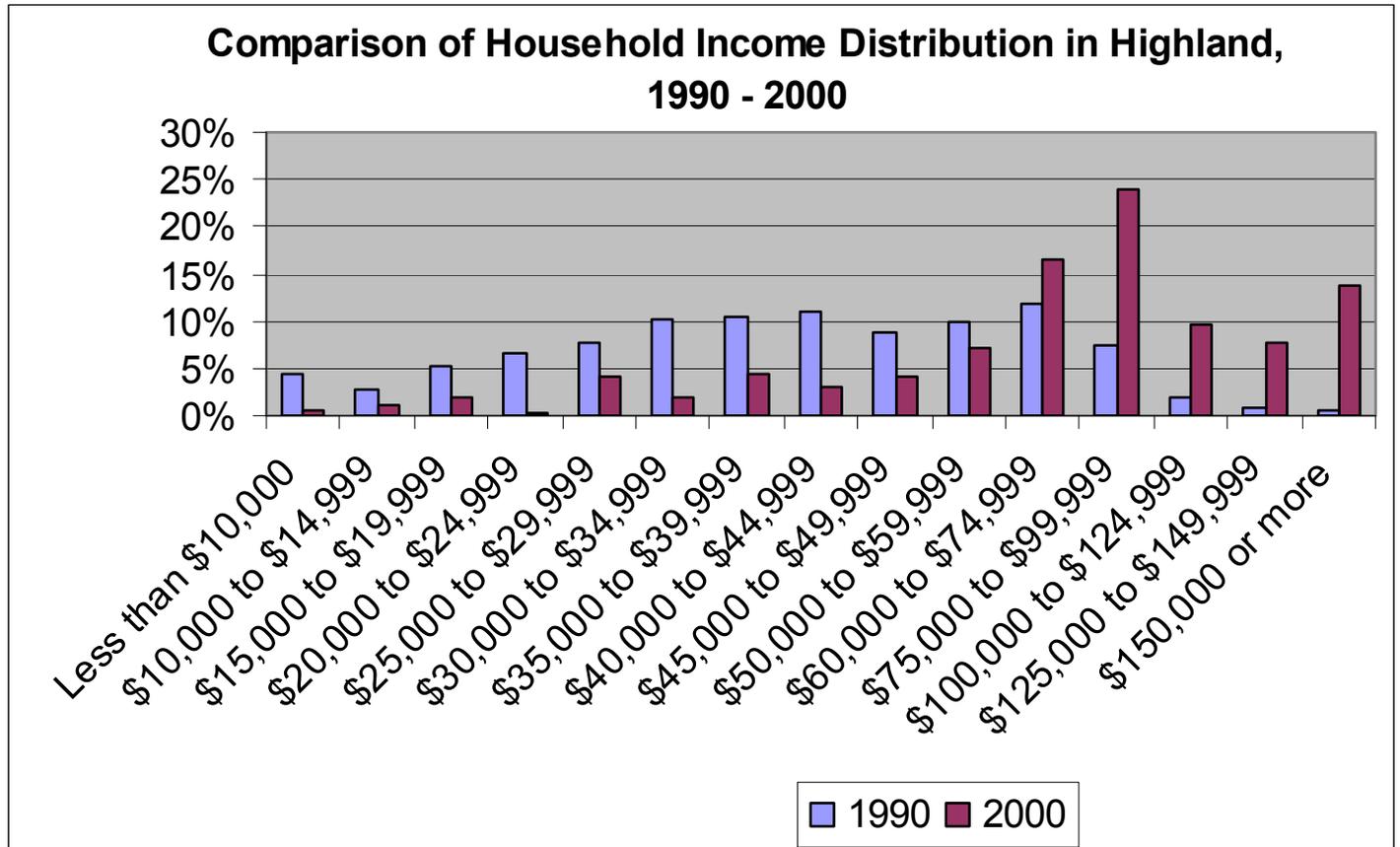


Figure 6-3. Comparison of Household Income

### Moderate Income Households

Moderate income households compose a much smaller percentage of the total population in Highland City than can be found throughout the rest of Utah County. Based on income information collected as part of the 2000 Census and adjusted for inflation, it is possible to look at which households have an income that is below 80 percent of the area median income (AMI). The AMI for Utah County is \$44,629 in 2006 dollars.<sup>4</sup> In Utah County, 38 percent of all households fall below 80 percent of the AMI. By comparison, only 11 percent (Table 6-4) of all households in Highland City fall below 80 percent of the AMI. It should be noted that while this calculation gives a good comparison of income levels in the area, it does not account for household size.

<sup>4</sup> Based on inflation of the median income on the 2000 Census.

Table 6-4. Households by Percent of Utah County Median Income, 2006\*

Area	30% or Less	60%	<80%	>80%
	\$16,736 or Less	\$33,471 or Less	Less than \$44,629	Greater than \$44,629
Highland City	1%	6%	11%	89%
Utah County	9%	25%	38%	62%

Source: 2000 Census; Bureau of Labor Statistics CPI Index; Wikstrom

**\*Notes:**

1. The Utah County Median Income is based off the 2000 Census figure and adjusted for inflation
2. Assumes an equal distribution across income categories

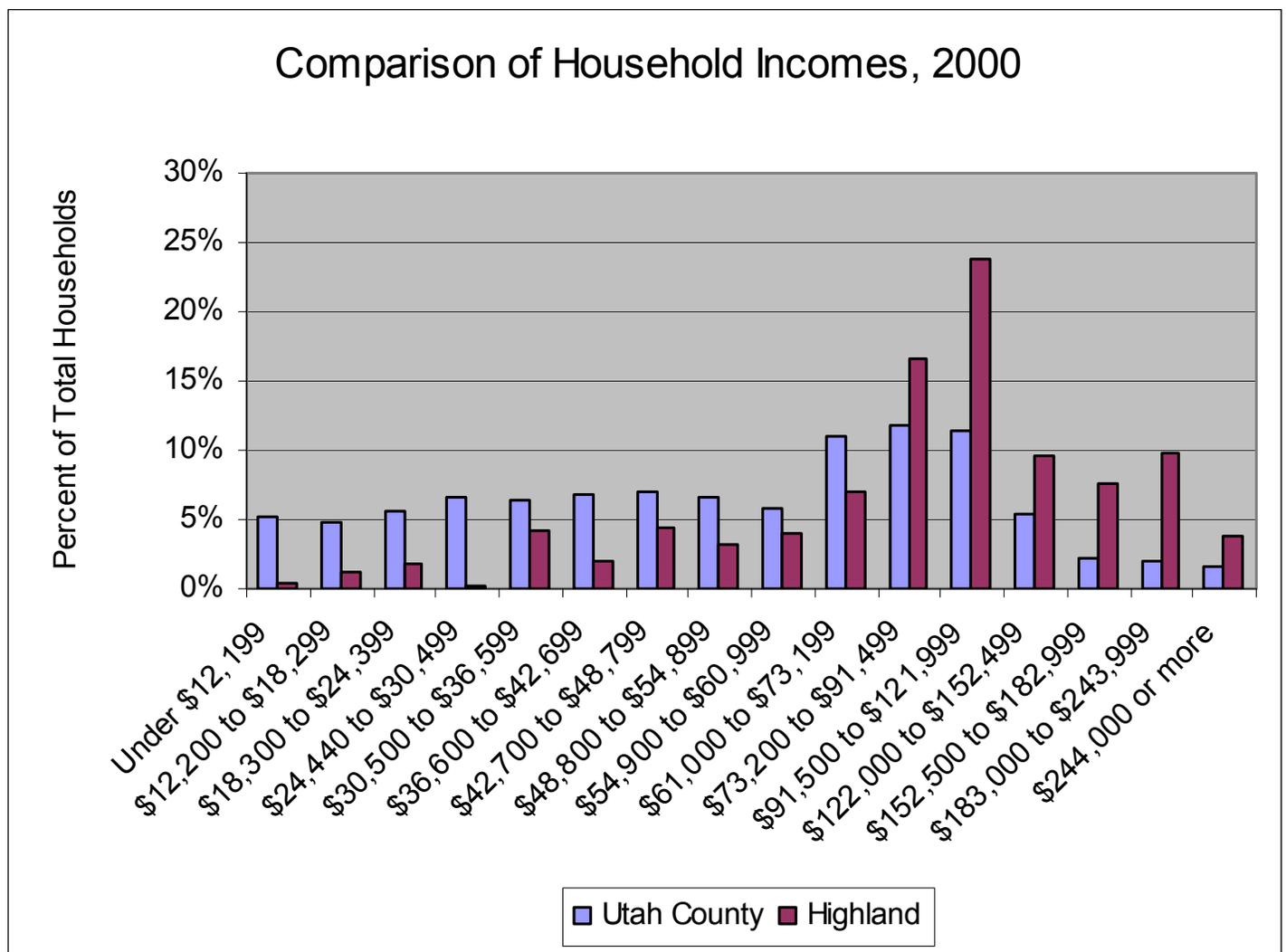


Figure 6-4. Comparison of Household Incomes

## Affordable Housing Analysis

In the Provo-Orem MSA a household of four making 80 percent the AMI (\$45,100) can afford monthly housing costs of \$983 to be within the federal affordability standards of 30 percent of gross monthly income going towards housing costs.<sup>5</sup> With this income a household of four would be able to purchase a home priced at approximately \$136,000.<sup>6</sup> Households making 60 percent of the AMI could afford a much smaller housing cost of \$701 per month, allowing the purchase of a home priced at no more than \$97,000.

**Table 6-5. Income Limits and Affordable Housing Payments by Household Size, FY2006, Provo-Orem MSA**

Household Size	Affordable Payment at Income Level	80% of AMI	60% of AMI	50% of AMI	30% of AMI
1	Income Levels	\$ 31,600	\$ 23,640	\$ 19,700	\$ 11,850
	Affordable Payment	\$ 645	\$ 446	\$ 348	\$ 151
2	Income Levels	\$ 36,100	\$ 27,060	\$ 22,550	\$ 13,550
	Affordable Payment	\$ 758	\$ 532	\$ 419	\$ 194
3	Income Levels	\$ 40,600	\$ 33,840	\$ 28,200	\$ 15,250
	Affordable Payment	\$ 870	\$ 701	\$ 560	\$ 236
4	Income Levels	\$ 45,100	\$ 33,840	\$ 28,200	\$ 16,900
	Affordable Payment	\$ 983	\$ 701	\$ 560	\$ 278
5	Income Levels	\$ 48,750	\$ 36,540	\$ 30,450	\$ 18,250
	Affordable Payment	\$ 1,074	\$ 769	\$ 616	\$ 311
6	Income Levels	\$ 52,350	\$ 39,240	\$ 32,700	\$ 19,650
	Affordable Payment	\$ 1,164	\$ 836	\$ 673	\$ 346
7	Income Levels	\$ 55,950	\$ 41,940	\$ 34,950	\$ 21,000
	Affordable Payment	\$ 1,254	\$ 904	\$ 729	\$ 380
8	Income Levels	\$ 59,550	\$ 44,640	\$ 37,200	\$ 22,350
	Affordable Payment	\$ 1,344	\$ 971	\$ 785	\$ 414

Source: HUD; Wikstrom Economic & Planning Consultants, Inc.

*Note: Affordable housing costs are calculated at 30 percent of gross monthly income less \$145 for utility expenses.*

<sup>5</sup> Source: HUD

<sup>6</sup> Mortgage calculations assumed a 30-year conventional mortgage with a five percent down payment and a 6.68 percent interest rate [source: Board of Governors of the Federal Reserve, 06/01/2006]. Assumes 30 percent of monthly gross income will be spent on housing costs. With this basic guideline, a maximum monthly housing cost for a moderate-income family of four making \$45,100 per year is \$1,128 including utility payments. Based on average monthly utility payments of \$75 for gas and \$70 for electric, an expected utility bill of \$145 is subtracted from the maximum monthly housing costs. This gives a maximum monthly housing cost of \$983 without utilities. Included in the monthly payment of \$983 are mortgage insurance premiums (\$57), hazard insurance premiums (\$24) and property tax escrow payments (\$70).

## Supply of Housing in Highland City

### Housing Units and Occupancy

As of the 2000 Census there were 1,832 housing units in Highland City. Of these, 1,759 reported what type of structure the housing unit was. The vast majority (98 percent) was single-family. The entire renter occupied housing stock was composed of single-family dwellings. The two percent of the housing stock that was attached was low density with only two to four units combined in any one building.

Based on building permit data available, it is estimated that Highland City was home to 3,251 housing units as of June 2006. The majority of the housing construction permitted in Highland City since 1999 has been for single-family housing units. Due to the large amount of single-family construction it is estimated that single-family dwellings now account for 97 percent of the total housing stock.

**Table 6-6. Breakdown of Housing Stock in Highland City by Type and Tenure, 2000**

Type	Owner Occupied		Renter Occupied		Total	
	Number of Units	% of Units	Number of Units	% of Units	Number of Units	% of Units
Single Family	1,622	98%	101	100%	1,723	98%
2 to 4 Units	36	2%	0	0%	36	2%
5 or more units	0	0%	0	0%	0	0%
Mobile Home or Other	0	0%	0	0%	0	0%
All Units	1,658	100%	101	100%	1,759	100%
<b>Percent of all Units*</b>	<b>94%</b>		<b>6%</b>		<b>100%</b>	

Source: Census 2000; Wikstrom

*\*Note: Due to sampling differences between the long form and the short form used for the 2000 Census the tenure on this table does is slightly different than other tables in the report.*

The percentage of single-family homes in Highland City is much greater than is found in Utah County as a whole (98 percent vs. 65 percent). Highland City also has the highest percentage of single-family homes out of the surrounding cities (Table 6-7).

The percentage of renter occupied housing is much lower than the levels found in Utah County as a whole (five percent vs. 33 percent). All the cities surrounding Highland City, with the exception of Cedar Hills, also have higher percentages of renter occupied housing (Table 6-7).

Table 6-7. Type and Occupancy Comparisons, 2000

	Highland City	Utah County	Alpine	American Fork	Cedar Hills	Lehi
Single Family Units, % of Total	98%	65%	97%	80%	97%	84%
Multi-Family, % of Total	2%	32%	3%	17%	3%	14%
Mobile Home, Other, % of Total	0%	3%	0%	3%	0%	2%
Owner Occupied, % of Total	95%	67%	89%	78%	95%	81%
Renter Occupied, % of Total	5%	33%	11%	22%	5%	19%
<b>Vacant Units, % of Total</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>5%</b>	<b>3%</b>

Source: Census 2000; Wikstrom

### Age of Housing Units

The vast majority (72 percent) of housing in Highland City has been built from 1990 onward, (Figure 6-5). Building permits show the number of units allowed has consistently increased over recent years. This corresponds with Table 6-8 with homes built since 2000 composing 45 percent of the current housing stock. All but 67 of the building permits issued since 1997 in Highland City have been for single-family homes.

### Age of Housing Stock in Highland

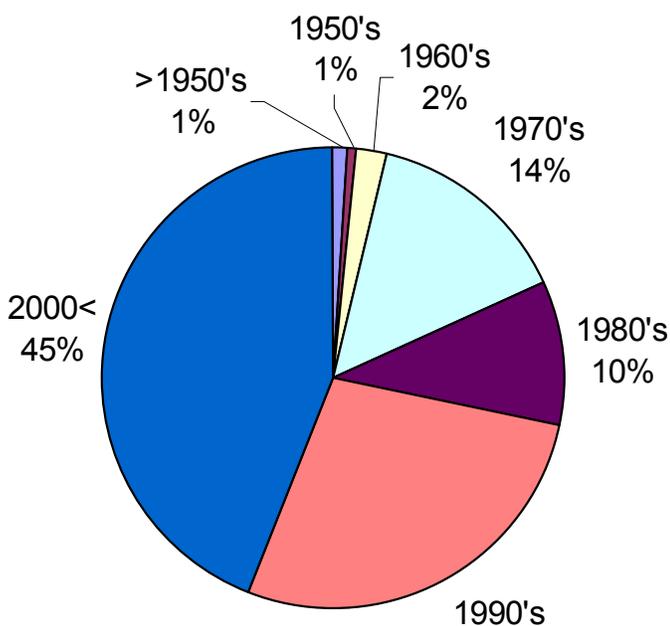


Figure 6-5. Age of Housing Stock

**Table –6-8. Single Family Building Permits Issued Since 1997**

<b>Year</b>	<b>Number</b>	<b>Percent of Total</b>
1997	86	5%
1998	132	7%
1999	137	8%
2000	119	7%
2001	267	15%
2002	217	12%
2003	253	14%
2004	244	14%
2005	248	14%
2006	275	5%
<b>Total</b>	<b>1,978</b>	<b>100%</b>

Source: BEBR; Wikstrom

## Recent Trends in Affordability

Data released in the 2005 American Community Survey shows that the housing burden<sup>7</sup> in Utah County is increasing. An estimated 34 percent (+/-7%) of all Utah County households with a mortgage are paying 30 percent or more of their monthly income towards housing. This is a substantial change from the data reported as part of the 2000 Census which recorded that only 25 percent of homeowners with a mortgage were paying more than 30 percent of their monthly income towards housing costs.

<sup>7</sup> Definition: The measure of percent of income used for housing.

## Cost of Housing in Highland City

### Single-Family Housing

Single-family housing dominates the Highland City housing market with 97 percent of the market share.<sup>8</sup> Highland City is one of the most expensive communities in Utah County, according to the Wasatch Front Multiple Listing Service sales information,<sup>9</sup> with a median home price of \$310,000.<sup>10</sup> Table 6-9 shows the median home price for single-family homes in other communities in Utah County. From April 2005 to April 2006 the median home price sold in Highland City was \$372,500,<sup>11</sup> well above the affordability limit for a family of four making 80 percent of AML. During the same time period no homes in Highland City were sold with a price of \$136,000 or below which could meet the affordability limits of such a household.

**Table 6-9. Median Single Family Home Price Sold From January 1, 2003 to March 23, 2006, Utah County by City**

Rank	City	Total
1	Alpine	\$405,000
2	Highland City	\$310,000
3	Woodland Hills	\$307,250
4	Draper (Ut County)	\$267,895
5	Lindon	\$255,000
6	Cedar Hills	\$249,995
7	Mapleton	\$229,000
8	Elk Ridge	\$217,750
9	Genola	\$199,500
10	Salem	\$197,450
11	Saratoga Springs	\$185,678
12	Pleasant Grove	\$177,250
13	Lehi	\$175,623
14	American Fork	\$169,900
15	Orem	\$160,000
16	Provo	\$150,231
17	Eagle Mountain	\$149,620
18	Springville	\$149,000
19	Spanish Fork	\$147,000
20	Payson	\$143,900
21	Santaquin	\$137,743
22	Cedar Fort	\$121,700
23	Goshen	\$107,000
<b>Utah County Total</b>		<b>\$165,000</b>

Source: Wasatch Front Multiple Listing Service; Wikstrom

<sup>8</sup> Source: Census 2000; Wikstrom

<sup>9</sup> Wasatch Front Multiple Listing Service ("MLS") is one of the best sources for tracking the price and volume of homes along the Wasatch Front since it is utilized by most licensed realtors. However, the MLS data should not be viewed as an absolute count of homes sales since homes sold by owners are not listed on this service. In light of this limitation the MLS data should be viewed as a strong representational cross section of home sale trends instead of the total record of sales in any given geography.

<sup>10</sup> Based on sold price of homes sold from January 1, 2003 to March 23, 2006 on the Wasatch Front Multiple Listing Service.

<sup>11</sup> Source: Wasatch Front Multiple Listing Service

The distributions of sales prices for single-family units can be seen in Figure 6-6. The price category with the greatest amount of sales activity was homes priced between \$250,000 to \$274,999 and \$325,000 to \$349,999. Both of these price categories account for nine percent of total sales reported by the Multiple Listing Service.

In many jurisdictions affordable housing is provided by older housing stock. Table 6-10 shows the median price for homes based on the year built in Highland City. While all the homes built prior to 2000 have lower median prices than the most recent construction, even the homes built from 1960 to 1969 have a median price of \$216,000. This shows that even older housing stock is also well above the affordable housing limit for a moderate-income family.

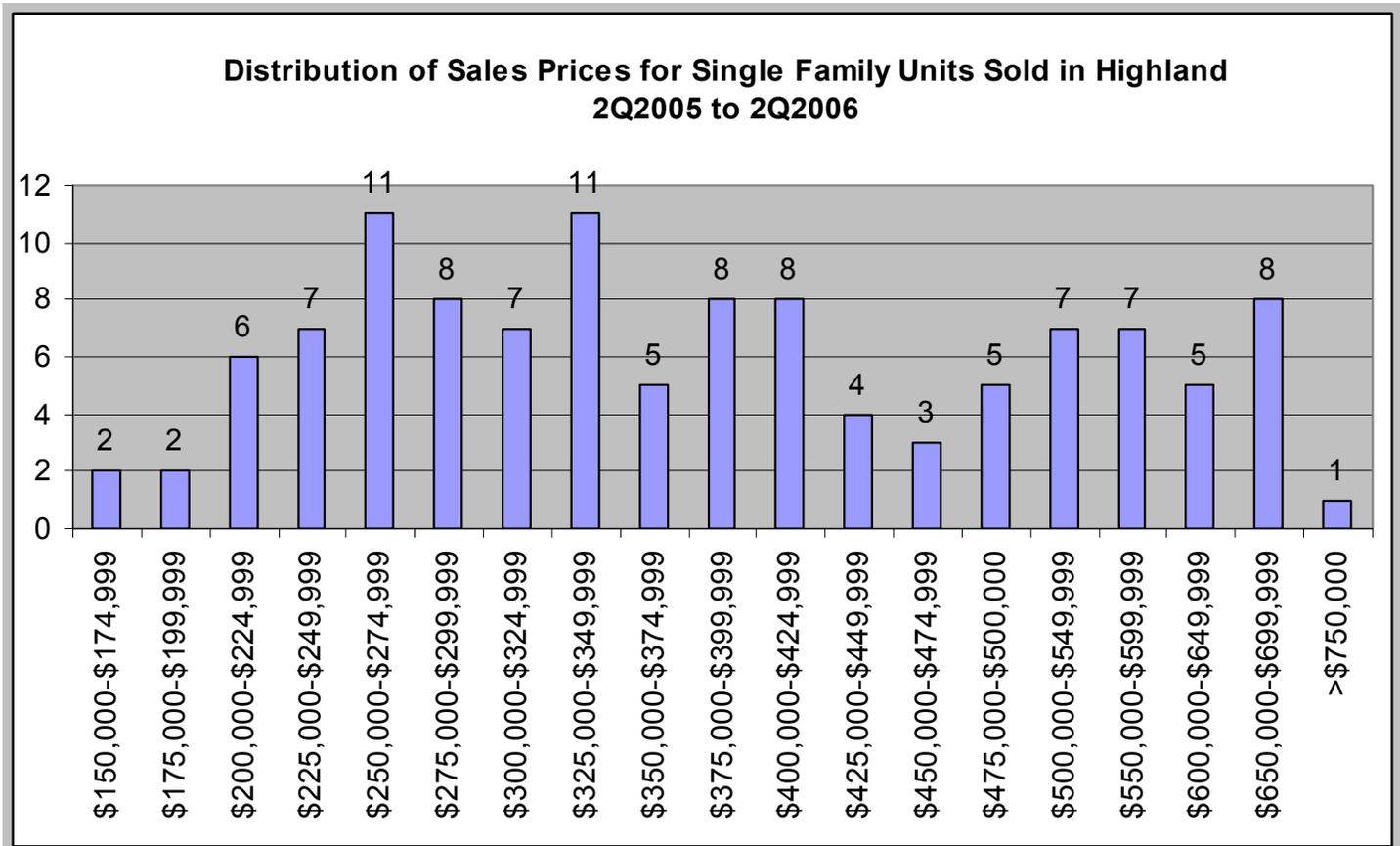


Figure 6-6. Distribution of Sales Prices

Table 6-10. Single Family Units Sold 4/05 to 4/06 in Highland City

Year Built	Median Sold Price	Average Total Square Feet	Number
<1950	\$307,500	2,669	2
1950-1959	\$415,400	1,624	1
1960-1969	\$216,000	4,095	3
1970-1979	\$268,500	3,370	18
1980-1989	\$257,000	3,813	9
1990-1999	\$321,500	3,762	22
2000-2006	\$437,500	4,582	60
<b>All Years</b>	<b>\$372,500</b>	<b>4,103</b>	<b>115</b>

Source: Wasatch Front Multiple Listing Service; Wikstrom

## Multi-Family Housing

Multi-family housing accounted for only two percent of the total housing units as of the Census 2000. This percentage has increased over time to three percent as of June 2006 due to the 67 twin homes that have been built since the last Census.

## Rental Market

The rental market in Highland City is extremely narrow with only five percent of total households renting according to the Census 2000. Median rental rates in Highland City are much higher than other surrounding areas (Table 6-11). Much of these higher rental rates can be attributed to the composition of the rental market by type of structure. Unlike the common perception of rental units as multi-family housing, all of the rental housing units in Highland City were detached single family homes as of the Census 2000. Analysis of building permits issued since the Census show 67 twin homes have been built through June of 2006 slightly decreasing the percent of single-family homes since the Census.

**Table 6-11. 2000 Median Rents (Multi-family & Single-Family)**

City	Median Rent
Alpine	\$ 627
American Fork	\$ 590
Cedar Hills	\$ 1,042
Highland City	\$ 978
Lehi	\$ 581
<b>Utah County</b>	<b>\$ 523</b>

Source: Census 2000; Wikstrom

Even with a limited option of rental units available in the Highland City market, not all of them are affordable. Using calculations to account for inflation, only 24 percent (or approximately 39 housing units) of Highland City's rental units would currently be considered affordable for a family of four earning 80 percent of the AMI.

## Analysis of Affordability Targets for Ownership Options

In Highland City, 21 percent of homeowners were paying more than 30 percent of their income towards their mortgage in 2000. This is lower than the county average of 25 percent of homeowners paying more than 30 percent of their income towards their mortgage during the same time. Many homeowners in Highland City have incomes greater than the county median, which increases the probability for a homeowner to find housing that is affordable for their income bracket. Of homeowners in Utah County with incomes less than or equal to \$42,699, 53 percent were paying more than 30 percent of their income toward a mortgage (Figure 6-8). In contrast, 79 percent of homeowners in Highland City with incomes less than or equal to \$42,699 were paying more than thirty percent of their incomes towards a mortgage (Figure 7). The fact that the percentage of lower income households paying unaffordable housing cost is much higher in Highland City than Utah County, as a whole, leads to the conclusion that there may be some unrealized demand for moderate-income housing.

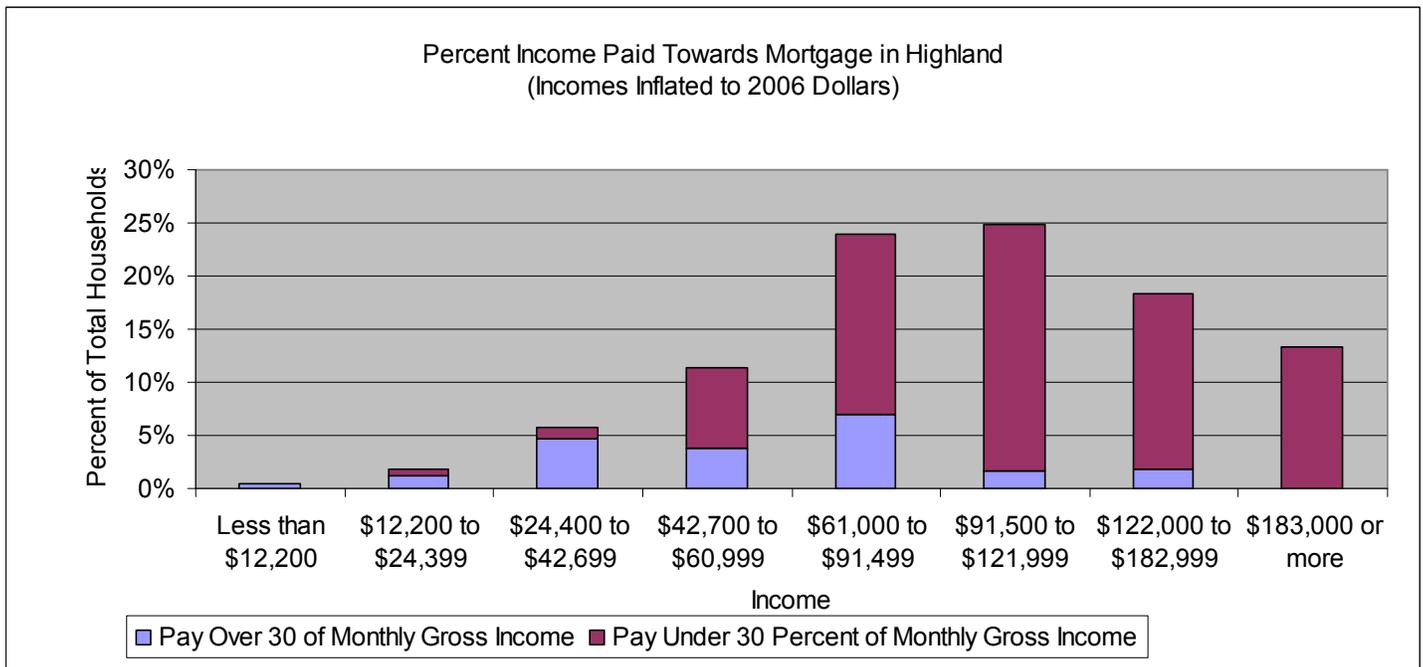


Figure 6-7. Percent Income Paid to Mortgage in Highland City

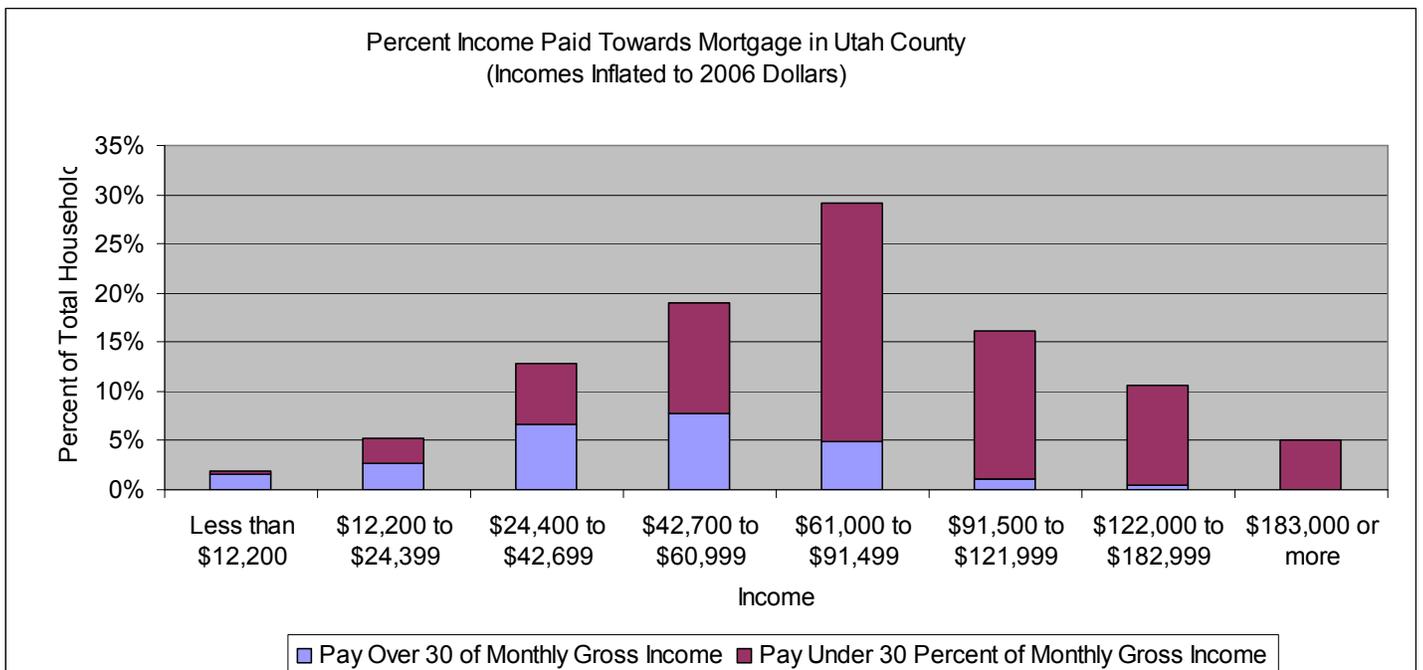


Figure 6-8. Percent Paid to Mortgage in Utah County

Highland City has not been successful in providing adequate opportunities for moderate-income housing. Since 2003 the median price for a home sold in Highland City has been \$310,000—the second highest in the county. Table 6-13 shows that from January 2003 to March 2006 no affordable housing units were sold in Highland City.

**Table 6-12. Median Home Price (Both Multi-Family and Single Family) Sold From January 1, 2003 to March 23, 2006, Utah County by City**

Rank	City	Total
1	Alpine	\$ 405,000
2	Highland City	\$ 310,000
3	Woodland Hills	\$ 307,250
4	Draper (Utah County)	\$ 267,895
5	Lindon	\$ 254,950
6	Mapleton	\$ 229,000
7	Cedar Hills	\$ 227,093
8	Elk Ridge	\$ 217,750
9	Genola	\$ 199,500
10	Salem	\$ 196,500
11	Saratoga Springs	\$ 179,092
12	Pleasant Grove	\$ 169,700
13	American Fork	\$ 162,500
14	Lehi	\$ 162,000
15	Orem	\$ 149,900
16	Provo	\$ 146,000
17	Eagle Mountain	\$ 145,000
18	Spanish Fork	\$ 142,000
19	Springville	\$ 141,675
20	Payson	\$ 137,700
21	Santaquin	\$ 137,000
22	Cedar Fort	\$ 121,700
23	Goshen	\$ 107,000
<b>Utah County Total</b>		<b>\$ 155,950</b>

Source: Wasatch Front Multiple Listing Service; Wikstrom

**Table 6-13. Affordable Homes Sold from January 2003 - March 2006**

	Single Family	Attached	Total Sales
Alpine	1%	0%	1%
American Fork	17%	43%	22%
Cedar Hills	0%	0%	0%
Highland City	0%	0%	0%
Lehi	6%	47%	17%
Lindon	2%	0%	2%
Orem	16%	70%	28%
Pleasant Grove	15%	51%	19%
Provo	26%	41%	32%
Spanish Fork	28%	82%	35%
Springville	25%	71%	32%
<b>Utah County</b>	<b>17%</b>	<b>49%</b>	<b>25%</b>

Source: Wasatch Front Multiple Listing Service; Wikstrom

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## Existing Status for Affordable Housing

To determine the affordability of housing in each municipality, the housing stock was analyzed according to whether it was owner- or renter-occupied. The percentage of housing considered to be affordable for both rental and owned housing was found. These percentages were multiplied by the appropriate tenure proportions and added together to find overall affordability. Using this methodology, 1.2 percent of Highland City's housing stock would be considered affordable to a moderate-income household in the Provo-Orem MSA. By the same standards 37.0 percent of Utah County's total housing stock is considered affordable. These calculations are discussed in further detail below.

### Highland City

Of the total housing units in Highland City, 95 percent are owner-occupied and five percent are renter occupied using 2000 Census information. Of the owner occupied housing stock, each has a market value higher than what would be considered affordable for a family of four in the Provo-Orem MSA with 80 percent the area median income. Of the renter occupied housing units only 24 percent have rents affordable to a moderate-income family. This calculation therefore estimates that only this portion of the rental stock is affordable in Highland City, or 24 percent of five percent of the total housing stock is affordable. This results in the estimation that 1.2 percent of the total housing stock is affordable.

### Utah County

Of the total housing units in Utah County, 67 percent are owner occupied and 33 percent are renter occupied. Of the owner occupied housing stock, 13 percent has a market value higher that would be considered affordable for a family of four in the Provo-Orem MSA with 80 percent the area median income. Of the renter occupied housing units, 85 percent have rents affordable to a moderate-income family. This calculation therefore estimates that 13 percent of 66 percent plus 85 percent of 33 percent be affordable. This results in the estimation of 37.0 percent of the total housing stock is affordable.

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## Planning for "Reasonable Opportunity"

The community is required by state law to create a plan to "facilitate reasonable opportunities for... ..moderate income housing." The law does not explicitly define "Reasonable opportunity". There is, therefore, a certain amount of flexibility as to what constitutes "reasonable opportunity." The following discussion seeks to provide a credible measure of reasonable opportunity that can be worked towards.

Since Highland City has a unique character in comparison to Utah County as a whole it is unreasonable to assume the City will be home to the same percentage of affordable housing as is found in the overall county. To find a more accurate measure for affordable housing opportunity in Highland City, the Utah County percentage of affordable housing will be adjusted along the basis of owner- and renter-occupied housing rates found in the City. This methodology assumes that Highland City should reasonably provide the same opportunity for affordable housing by percent for both owned and rental housing stock as is observed in the county as a whole.

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## Goals and Policies

Notwithstanding the weak community support for alternative housing types, the City can still find creative ways to make a reasonable allowance for affordable housing types that would be acceptable and even welcomed by residents. The City may choose to focus on solutions, such as basement accessory dwelling units, senior housing (some of which may include deed restrictions to maintain affordability) and multi-family housing mixed-use developments such as the area south of Lone Peak High School. The community did not have strong adverse opinions to these options. The goals, policies, and implementation measures below build on these ideas.

**Goal:** Increase the percentage of affordable housing units at build-out.

**Policy:** Proactively encourage the development of affordable and senior housing as follows:

**Implementation Measure:** Require a substantial percentage of multi-family and mixed-use developments to be affordable units by:

1. Completing and adopting a housing implementation plan; and
2. Adopting ordinances recommended by the plan to include a density bonus ordinance, and other related tools such as those listed in Appendix E, in appropriate mixed-use areas.

**Implementation Measure:** Provide opportunities for properly regulated basement apartments that are safe, attractive, low-impact, and improved for the continued enhancement of the character and identity of each neighborhood they are located in.

**Implementation Measure:** Permit senior housing facilities in a selected area or areas.

**Implementation Measure:** Permit and encourage housing units over commercial uses in selected areas including the town center and the state school site.

**Implementation Measure:** Permit senior housing facilities in a selected area, or areas, with possible deed restrictions to maintain affordability.

**Policy:** Maintain quality housing stock and the current aesthetic style of Highland City.

**Implementation Measure:** Adopt design guidelines for medium and higher density housing based on residents' opinions and perceptions of the community character. The guidelines should not be cost prohibitive to affordable housing.

**Policy:** Assist city employees who desire to live within the city boundaries to obtain affordable housing.



# Community Design

# 7



This Element deals with the processes that give physical direction and distinction to a community. Community design addresses the physical characteristics of the community, evaluates the physical implications of future development, and suggests actions for enhancing the livability and visual quality of the community. When community design decisions are successful, the result is often a unique “sense of place” and corresponding qualities and experiences that are pleasant and satisfying.

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## Public Input Regarding Community Design Issues

As listed below, Highland City residents identified numerous issues concerning community design:

- ◆ The desire to maintain a rural community feeling;
- ◆ The desire to maintain surrounding views and a sense of openness;
- ◆ The desire to protect surrounding views of mountains, canyons, foothills, ridgetops and ridgelines which define the east and north viewsheds of the community;
- ◆ The desire for pedestrian friendly streets;
- ◆ The desire for places where people are encouraged to walk, and nearby places to walk to;
- ◆ The desire for an interconnected trail, bikeway, and sidewalk system;
- ◆ The desire to preserve, protect, and connect Highland City's parks and open spaces along a fully-connected open space and trail system;
- ◆ The desire for attractive streets and gateways into the community;
- ◆ The desire for special streetscape treatments in the Town Center area;
- ◆ The need for better maintenance of large-lot properties;
- ◆ The need to protect established residential neighborhoods and improve connections with surrounding open spaces;
- ◆ The desire to limit commercial development to the Town Center centered on the corner of SR-92 and Alpine Highway;
- ◆ The desire for infill development to relate to the established form of the City;
- ◆ The encouragement of clustered residential development; and
- ◆ The desire for enhanced community services (library, community center, etc.).

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## Community Design Analysis

The issues and ideas identified through the public input process were documented and analyzed. Past ideas contained in previous plans were also reviewed to better understand historic community design ideas. On-site investigations were undertaken to help determine the current visual appeal and setting of the city.

To summarize, Highland City is an attractive community with a unique “sense of place”. This is due as much to the traditional pattern of large lots and open space, as it is to the beautiful setting and mountain backdrop. As the city has matured and evolved over the years, it has retained a strong identity and connection with the beautiful surroundings.

In order to maintain its attractiveness, Highland City must be diligent to ensure the qualities that make it unique and attractive are retained. In particular, the community must make sure that the precious backdrop of mountains, canyons, ridges and ridgetops are preserved in their natural form. Likewise, efforts should be undertaken to encourage the sense of openness in the city itself. These efforts should be reinforced by the development of beautiful streets, attractive civic places, and unique points of entry along main roads.

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## Community Design Concept

The Community Design Concept for Highland City builds upon established planning efforts that recognize, preserve and enhance the unique visual qualities that make Highland City a special place. As detailed below and illustrated in Map 7-1, the concept embraces seven key design ideas.

### DESIGN IDEA 1:

#### Maintain and enhance the Scenic Backdrop to the north and east (Foothills/Mountains/Canyon)

Maintaining a clear visual relationship with the surrounding landscape is the most critical community design action to be undertaken. Highland City's primary views focus on Traverse Ridge to the north and American Fork Canyon/Wasatch Mountains to the east. The Wasatch Mountain views are particularly good from lower-lying properties, and along east/west roadways. Of primary concern is the protection of ridgelines and ridgetops. Protecting Highland City's Scenic Backdrop is a primary community design concern.





*Protecting Highland City's Scenic Backdrop is a primary community design concern*

The insensitive siting of buildings, overhead utilities, and other manmade features in Highland City and adjacent communities can mar and block scenic views. All actions that may potentially impact these views should be carefully reviewed and controlled.

With the exception of portions of Traverse Ridge, most of the foothills, mountains and canyons that compose the scenic backdrop are located beyond the borders of Highland City. Since the protection of these features is not directly influenced by City policy, efforts should be undertaken that convey to adjacent communities and other resource partners such as the Forest Service, the importance of these features to the citizens of Highland City. Preservation and protection efforts should focus on maintaining the pristine, undeveloped condition of these features, and the critical importance of preventing any development along or adjacent to ridgelines and ridgetops.

## **DESIGN IDEA 2:**

### **Maintain and enhance focused view corridors through the community and beyond**

Localized viewing opportunities help maintain the rural feel of the community. In some cases they also provide a direct connection with nearby natural areas. Major roads, street corridors and stream corridors focus views on landscapes beyond, which in Highland include Traverse Ridge, the Wasatch Mountains and American Fork Canyon.

In order to ensure that the magnificent focused views in Highland are maintained, special treatments are required to maintain the characteristics of the following corridors:

- ◆ The natural, open feeling of the Dry Creek Corridor should be maintained, reinforcing the strong visual and physical connection with nearby foothills, mountains and canyons to the south and north.
- ◆ The rural feeling and focused views as one travels north along 4800 West, the Alpine Highway and 6000 West should be maintained.
- ◆ The change from rural-to-urban-to-natural, and the stunning views of American Fork Canyon and the Wasatch Mountains as one proceeds east along SR-92 should be acknowledged and preserved.

- ♦ Implementation of the Parkway Detail along major corridors such as SR-92, SR-74, 11800 North, 10400 North, 4800 West, 6000 West, 6800 West, Highland Boulevard, and Beacon Hill Boulevard should be continued to enhance and preserve existing view corridors and the historically significant visual experience of the surrounding mountains. Special attention should be considered for the protection of views directed toward American Fork Canyon and the Lone Peak Wilderness Area.

Each of these corridors serve as “open space gateways” and are preeminent community image builders. They are all highly sensitive to visual and physical damage and disruption, particularly from careless development. For example, the mining operation located on the edge of SR-92 near the mouth of American Fork Canyon significantly reduces the visual appeal of the area, impacting the entry experience of the travelling public and greatly reducing the scenic surroundings.

### DESIGN IDEA 3:

#### Improve the sense of arrival into the community

Special gateway treatments and entry nodes should be developed along key roadway corridors where one enters the community. These nodes should be located near the city limits as one enters Highland from adjacent communities. The nodes may incorporate a range of special treatments, including enhanced streetscape treatments and landscaping, special entry signage, and unique street lighting. Regardless of the final design selected, it is important that the treatment of each node is unified with the other nodes. This will provide a sense of visual order, and present a clear message that one is entering a special community.



*Gateway Treatment in Boise, Idaho*

Gateway Treatments and Entry Nodes should be created near the following intersections:

1. West Entry – SR-92 at Dry Creek crossing
2. South Entry 1 – 6000 West at 9600 North
3. South Entry 2 – Alpine Highway at 9600 North
4. South Entry 3 – 4800 West at 9600 North
5. East Entry – SR-92 near the mouth of American Fork Canyon

In addition to these five gateways/ arrival nodes, the area surrounding the intersection of SR-92/Alpine Highway should receive special design treatments that acknowledge one has arrived at Highland Town Center. This node should be slightly more elaborate and pedestrian-oriented than the entry nodes, indicating through special paving materials, artwork, signage, landscaping, and furnishings that one has arrived in the heart of the city.

**DESIGN IDEA 4:**

**Create appropriate corridor treatments along key roadways (SR-92, Alpine Highway and 4800 West)**

SR-92, Alpine Highway and 4800 West are important roadways to the driving public. Each of these streets should be developed with a special streetscape, helping to provide an attractive travel experience. As illustrated in Figure 7-1 (at end of chapter), special streetscape treatments are suggested for each of these streets, subtly changing as one moves from the outskirts of the community to the Town Center area.

In addition to the main roads, Highland City also contains a range of smaller collector streets and local roads. The condition and the level of streetscape amenity varies greatly on these streets. As the community has grown, attention has focused on the efficient movement of vehicles along these roadways, often at the expense of a more complete street environment. In the future, attention should be placed on transforming these utilitarian roads into attractive streets, with a full range of pedestrian amenities including park strips, trees, landscaping and lighting. As described below, the design and layout of these features should be implemented according to a unified design for each street, including a corresponding section for each street.

**Collector Streets**

Highland's collector streets tend to be wide and open, providing little pedestrian comfort or visual appeal. Sidewalks are not consistently dispersed along the edges, resulting in frequent gaps. Street trees are not evenly distributed, and the species utilized are often too small. The distribution and width of park strips varies considerably along these streets, with street furnishings or pedestrian-oriented streetlights lacking.



Example Roadway Corridor Treatments

In order to create better and more consistent character along these streets, greater attention should be placed on the development of a continuous sidewalk system and the consistent placement of trees in parking strips. Street lighting should be provided to meet the safety needs of the community, utilizing high quality, attractive, pedestrian-oriented fixtures and luminaries.

Highland City's residential streets have been developed according to growth demand. These undeveloped spaces and the activities they serve (farming, pasture, etc.) are encouraged to remain as integral community features. Care should be taken to ensure that future changes

in these areas acknowledge the special character of these sites, help to maintain a rural feel, even if the original natural or agricultural function is diminished or changed.

## Local Roads

Sidewalks, trees, and parking strips are provided in some locations, and missing in others. The inconsistency is most apparent in newer neighborhoods and subdivisions. The lack of a connected sidewalk system is of particular concern for the safety of children and other pedestrians.

In order to improve these conditions, all existing streets should be retrofitted with sidewalks as a primary goal. The provision of street trees in park strips should be considered as a more expansive goal.

## DESIGN IDEA 5:

### Maintain and enhance traditional development patterns and local heritage images

A range of farmsteads, pastures, hollows, watercourses and open spaces are dispersed throughout Highland City, contributing greatly to the overall feel of the community. Many of these places are also important sites for recreation activities, wildlife habitats and trails.

Four key areas have been identified as being key contributors to the sense of rural openness and a reminder of the past. These include:

- Dry Creek
- American Fork River
- Mitchell Hollow
- Murdoch Canal

Public comment indicates there is a desire to maintain these spaces for trail and recreational uses, and as reminders of the natural beauty of the area. There is also a desire to further connect and link these spaces with Highland City's neighborhoods, parks, and destinations along a system of trails and pathways.



*Residential Property Along Mitchell Hollow*

**DESIGN IDEA 6:****Ensure that Highland Town Center evolves into a community destination and “Heart of the Community”**

The development of the Highland Town Center is on-going. The pace of development, as expected, has provided time for consideration of mixed-use residential to be included within the Town Center Master Plan.

An additional commercial site has been recently incorporated and is known as Highland Marketplace. This development is a departure from the original idea for the area, which envisioned the Town Center as the sole commercial/civic destination of the community. The original concept was internally-oriented, encouraging the development of businesses and civic uses around a “Village Green” or small park for community gatherings.

The Highland Town Center should also be implemented with an understanding that an even larger mixed-use site may be considered for the community, located on a portion of the State School Site just south of Lone Peak High School. Although the proposed function of this site is much different than Town Center, each area should be designed and implemented in a manner that acknowledges the other. These changes will broaden the range of commercial services and housing options available in Highland City.



In order to ensure that Highland Town Center continues to be developed into the primary community destination, the master plan and design guidelines should be modified as appropriate to meet the current situation. Similarly, the design guidelines for Highland Marketplace should be implemented consistently in order to ensure that the site fits with the overall patterns and vision for the community. Finally, if considered viable, a detailed master plan and corresponding design guidelines should be prepared for the State School site preceding any application, to ensure community expectations are met. This site would be the largest of Highland City's commercial/mixed-use opportunities and has the potential to contain the bulk of the City's higher-density housing. The master plan and design guidelines should address the desire for a true mixed-use neighborhood, encompassing residential uses above ground-floor office and low impact commercial uses. A range of traditional architecture and residential development patterns and configurations should be planned. Residential patterns and densities consistent with Highland should be incorporated as one comes closer to the high school.

**DESIGN IDEA 7:**

**Encourage special design treatments at key community destinations**



As Highland continues to grow and evolve, a mix of large and small public destinations are developed to meet the needs of the community. Existing key destinations include Highland Town Center and Lone Peak High School. A range of smaller, more subtle locations are evolving, where the day-to-day needs and activities of the local community will take place. Examples include Highland City Hall, elementary and junior high schools, churches and places of worship, small parks, and local recreational facilities. These smaller destinations in particular bring fine-grain richness to the community, and should be designed and developed accordingly.

As the City continues to evolve and mature, special design requirements should be established to ensure that new community destinations exude a sense of public investment, unity and attraction to local residents and visitors alike.

## Goals and Policies

**Goal:** To maintain and enhance the Scenic Backdrop to the north and east.

**Policy:** Ensure that all development policies, codes, and regulations address the need to preserve the scenic backdrop where feasible.

**Goal:** To maintain and enhance focused view corridors through the community and beyond.

**Policy:** Formalize the protection and special treatment of identified view corridors

**Implementation Measure:** Maintain the natural feel and sense of openness of Dry Creek on both sides of SR-92.

**Implementation Measure:** Maintain and enhance the rural feel of 4800 West, Alpine Highway and 6000 West.

**Implementation Measure:** Maintain and enhance the rural feel of SR-92.

**Implementation Measure:** Embrace the transition from rural-to urban-to natural as one proceeds east through Highland along SR-92. Incorporate a select range of design treatments to signal these transitions.

**Goal:** To improve the sense of entry into the community.

**Policy:** Develop entry nodes as one enters the community along the major road corridors.

**Implementation Measure:** Create a system of unified and subtle entry nodes at the following intersections:

1. West Entry – SR-92 at Dry Creek crossing
2. South Entry 1 – 6000 West at 9600 North
3. South Entry 2 – Alpine Highway at 9600 North
4. South Entry 3– 4800 West at 9600 North
5. East Entry – SR-92 near the mouth of American Fork Canyon

**Goal:** To provide a clear sense of arrival in the heart of the community.

**Policy:** Create a single community destination node.

**Implementation Measure:** Develop the intersection of SR-92/Alpine Highway into a special destination node for the Highland Town Center area.

**Goal:** To create appropriate corridor treatments along major roadways leading into the community.

**Policy:** Create a system of unified streetscape treatments along SR-92, the Alpine Highway, and 4800 West.

**Implementation Measure:** Utilize a rural streetscape on the outskirts of the community for each of the identified roads.

**Implementation Measure:** Implementation of the Parkway Detail along major corridors such as SR-92, SR-74, 11800 North, 10400 North, 4800 West, Highland Boulevard, and Beacon Hill Boulevard should be continued to enhance and preserve existing view corridors and the historically significant visual experience of the surrounding mountains. Special attention should be considered for the protection of views directed toward American Fork Canyon and the Lone Peak Wilderness.

**Policy:** Develop enhanced streetscape treatments for all collector streets and local roads.

**Implementation Measure:** Provide a unified system of sidewalks along all local and collector streets.

**Implementation Measure:** Locate street trees in parking strips and street lighting along all collector streets according to revised City standards as a first priority.

**Implementation Measure:** Remedy a corner point zone in the Development Code.

**Implementation Measure:** Provide park strips planted with trees as a priority.

**Goal:** To maintain and enhance traditional development patterns and local heritage images.

**Policy:** Ensure community policies, codes, and ordinances encourage agricultural uses to remain and thrive.

**Policy:** Ensure that important rural areas are maintained as indicators of past history and rural openness.

**Implementation Measure:** Formalize the preservation of Dry Creek, American Fork River, Mitchell Hollow and Murdoch Canal as key open spaces and reminders of the community's original history and natural beauty.

**Implementation Measure:** Preserve the sense of history and connection with the past by preserving large "heritage" trees throughout the community.

**Implementation Measure:** Encourage the maintenance of traditional properties and yards of reminders as Highland's heritage and history.

**Goal:** To ensure that Highland Town Center evolves in a manner that allows it to become the main community destination and “Heart of the community”.

**Policy:** Ensure that the existing master plan and design guidelines for Highland Town Center continue to reflect the qualities necessary for it to emerge as the primary City meeting place.

**Implementation Measure:** Review the existing Town Center Master Plan and Design Guidelines and update as necessary.

**Policy:** Ensure that the Design Guidelines for the North Commercial Area are followed as development occurs.

**Policy:** Ensure that the design and operations of the proposed mixed-use development at the State School site fits in with the vision for Highland City as a whole.

**Implementation Measure:** Develop a detailed Master Plan and corresponding Design Guidelines for the State School site to ensure that community design and development expectations are met.

**Goal:** To encourage the formation of small local nodes and destinations.

**Policy:** Develop a range of local nodes and destinations that enhance the pedestrian qualities of the community.

**Implementation Measure:** Encourage the development of a wide range of local nodes for the use and benefit of the community.

# HIGHLAND HIGHWAY STREETSCAPE ENHANCEMENTS

## IMPROVE KEY ENTRY CORRIDORS INTO THE COMMUNITY

Highland City  
General Plan Update

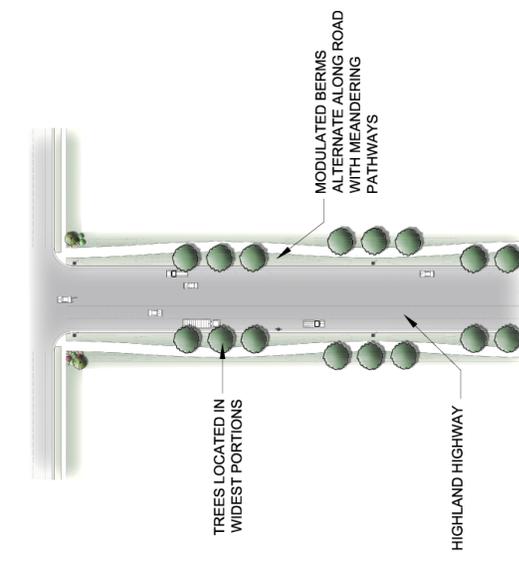


Figure - 7.1

3 - 4800 WEST AND 6000 WEST  
ENHANCE RURAL URBAN TRANSITION

2 - TOWN CENTER  
ENHANCE URBAN FEEL AND CONNECTIONS

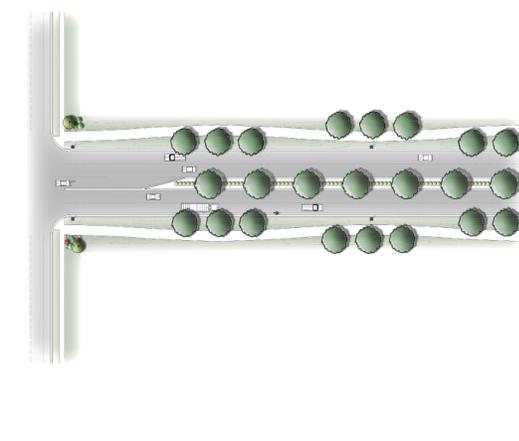
1 - HIGHLAND HIGHWAY AND ALPINE HIGHWAY  
ENHANCE RURAL FEEL AND CONNECTIONS



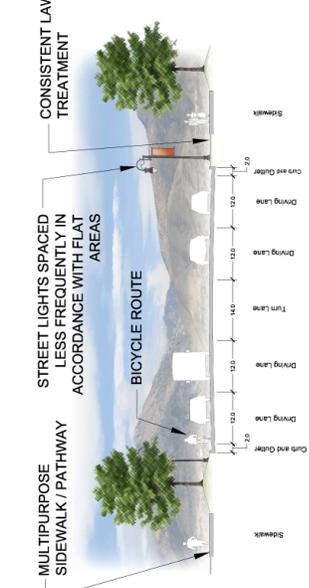
Plan View



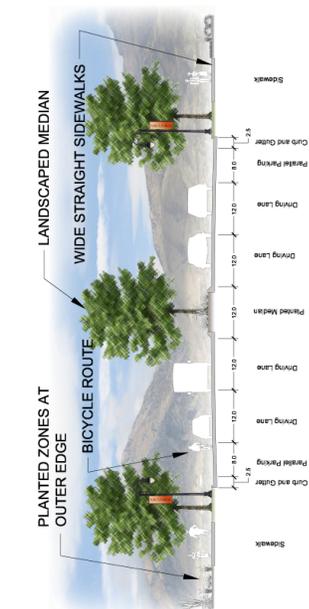
Plan View



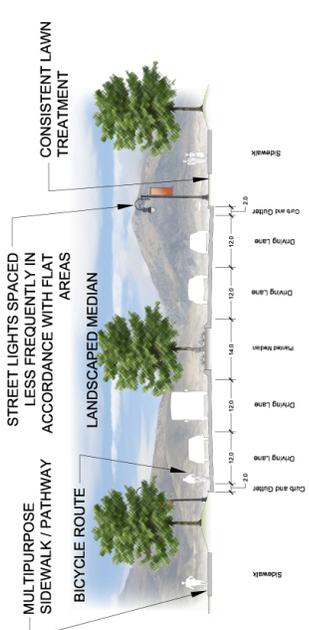
Plan View



Section View



Section View



Section View

Adopted





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## Introduction

This Element of the Plan is an update of previous planning efforts – Highland City Parks, Recreation, and Trails Element of the General Plan (1997 and 2003 map only), and Highland City Park Master Plan (2001), which was updated in 2003 as part of the Parks, Recreation and Trails Capital Facilities Plan.

As part of those processes, specific goals, objectives, and standards were identified and adopted (2001, 2003). These carry forward and have been integrated into this plan update with some clarifications and minor revisions to the adopted park classifications and definitions.

- ♦ The Highland City **standard for park development** is currently 2.62 acres per 1000 population with a goal of 4.87 acres per 1000 population (2009) at build-out. This is made up of developed park lands that are categorized as Neighborhood Parks, Community Parks, and Athletic Complexes.
- ♦ **Neighborhood Parks** should be located to serve residential neighborhoods within a one-half mile radius; should be located within one-eighth mile from an existing or proposed trail; and should be 4-5 acres in size.

A system of Neighborhood Parks is needed to serve residents, including families with children. These parks should provide for multiple facilities and activities, and incorporate ADA and other health, safety and welfare requirements deemed necessary

The minimum park facilities should include open play fields, picnic areas, tot lots, paved surface trails and trail head with benches, covered seating, and trees. Additionally, neighborhood parks should include at least two other amenities such as basketball court, volleyball court, tennis court, or additional covered seating areas, trees and rest rooms.

The minimum park facilities should include open play fields, picnic areas, tot lots, paved surface trails and trail heads with benches, covered seating, trees and parking spaces. Additionally, neighborhood parks should include at least two other amenities such as a basketball court, volleyball court, tennis court, or additional cover seating areas, trees, rest rooms and additional parking spaces.

Neighborhood parks accepted, as municipal park land through dedications should meet the size, amenity, and location criteria. Those that do not should not be accepted as City-owned or managed parks.

The feasibility of expanding Heritage Park through an agreement with Mountain Ridge Junior High School should be investigated.

- ♦ **Community Parks** should be centrally located or in special locations where they serve a specific recreation opportunity. Current Community Parks include Town Center Community Park (proposed), and the portion of Highland Glen Park that is developed.

Community Parks serve a broader spectrum of City residents and previously were considered to have a service area of one-half mile. **This Plan recommends that the service area for Community Parks be expanded to one-mile.**

The minimum park facilities should include open play fields, picnic areas, tot lots, paved surface trails and trailhead with benches, covered seating, restrooms and trees.

Additionally, community parks should include at least four other amenities such as a basketball court, volleyball court, tennis court, additional covered seating areas, trees, and restrooms.

- ◆ **Athletic Complexes** should be located along major roads to avoid impact to neighborhoods, should be adjacent to middle schools and high schools to share facilities, should provide for a variety of sports activities, and should be 10-20 acres in size.

A 10-acre sports park, a larger regional 20-acre sports park, and a 10-20 acre community park should be implemented which may include additional facilities such as a recreation center, swimming pool, sports complex, lighted fields, or other desired community recreational opportunity.

The minimum park facilities should include open play fields, picnic areas, tot lots, paved surface trails and trailhead with benches, covered seating, and trees. Additionally, athletic complexes should include at least four other amenities such as a basketball court, volleyball court, tennis court, additional covered seating areas, trees, and restrooms

- ◆ Highland Glen Park should be developed as a **Special Use Park**, providing for a large variety of activities and opportunities, i.e. large wooded natural areas for family and group picnics, a pond feature, an active recreational activity area, and natural wooded areas for interpretive walks and educational opportunities.
- ◆ **Trails** should be developed to provide for the community's need for exercise and allow for jogging, walking, bicycle riding, rollerblading, and pedestrian access to the Town Center and throughout Highland. All trail facilities should be designed to meet ADA and other public health, safety and welfare requirements. Trails should connect neighborhoods, parks, schools, and other public areas, and provide an alternative to automobile travel.
- ◆ Trails are defined as paved, separated multi-purpose trails primarily intended for recreational purposes. The current Highland City level of service for trail development is 4.48 miles per 10,000 population with a goal of 10.6 miles per 10,000 City residents (2009) at build-out.

As roadway improvements are made, trails should be included. Canals and natural drainages should also be considered as good trail alignments.

Complete, revised definitions of the Highland City Park and Trail facilities will be addressed later in the text of this document. It is recommended that these new definitions be adopted as part of this plan. The above discussion simply iterates where recommended changes will occur.

- ◆ An impact fee for parks, recreation, and trails as defined by Utah Code shall be required upon subdivision development or upon building a new home on any lot. All developers/owners of land of new subdivisions within Highland City shall pay to the City as a condition of recording, or upon application for building a new home, a fee for each newly developed lot or built home for the purpose of planning/design, purchasing, or constructing any parks, recreation facilities, or trails. The service area for this impact fee shall be the entire area of Highland City.

## Summary of Public Comment on Parks, Recreation, and Trails

Residents of the City provided comment during the Plan's development. Comments were received from the mail-back survey and from the neighborhood meetings described in Element 1 – Introduction and Background.

### Mail-back Survey Comments – Parks, Open Spaces, and Trails

Residents responding to the mail-back survey rated parks, open spaces, and trails as important to the community (between 3.2 and 4.2 where 3 is “good” importance and 5 is “very good”), and indicated that the City is performing fairly well (between 3.0 and 3.5).

The specific questions asked were:

- ♦ “How important is having the following recreational opportunities in Highland? – Regional parks (20+ acres), City parks, neighborhood parks, small parks/tot lots, ball/sports fields, natural open space (undeveloped), and trails”.
- ♦ “How well is Highland performing in providing these recreational Opportunities? – Regional parks (20+ acres), City parks, neighborhood parks, small parks/tot lots, ball/sports fields, natural open space (undeveloped), and trails”.

City Parks ranked the highest in importance and Small Parks/Tot Lots as least important, although as mentioned previously all park categories rated above average in importance.

City Parks and Neighborhood Parks ranked the highest in performance, meaning people are generally comfortable with the amount of City Parks and Neighborhood Parks; Regional Parks were ranked lowest in performance, indicating that there may be a desire for more regional parks.

Similar results occurred with questions asking more generalized information about public services provided in Highland City. Parks acquisition, trails acquisition, recreation programs, parks maintenance, and trails maintenance all ranked between good and very good with regard to importance and performance. Only restroom facilities ranked as poor, but it is not known if respondents were referring to public restrooms in general or public restrooms in parks, how they are maintained, the quantity of public restrooms available, or some other unknown issue.

On the question related to transportation, bicycle and pedestrian safety and sidewalks and trails again ranked highly in importance and performance. Equestrian trails ranked low in importance, but good in performance.

### Neighborhood Meeting Comments – Parks and Recreation

Respondents are most concerned about safety in Highland Glen Park reporting that it is overgrown and has poor access and visibility, but they also acknowledge that it has great potential to provide recreational opportunities. Others report unsafe conditions where unfenced canals are adjacent to children's play areas.

Many report a need for playing fields for soccer and other field sports that are located in Highland City, and suggest cooperative agreements with the school district for the use of school fields. Park maintenance was also a concern, especially maintenance in restrooms and making repairs after vandalism occurs. Some use American Fork parks often, and others suggest that parks are not offering a broad enough spectrum of activities, especially for older individuals.

### Neighborhood Meeting Comments – Trails

Comments specific to trails relate to concerns about the need for bicycle and pedestrian trails and sidewalks near schools so that children can safely make their way between school and home. Many wanted to be sure that trails are linked and connected so there are continuous routes and loops, and that trails are linked to parks, schools, and neighboring communities. Many suggested trail locations along canals and roadways, and would like to see trail improvements (separated and on-street) included in road improvement projects whenever possible.

City policies on canals and trail alignments were suggested, specifically related to the feasibility of trails on canals, steep slopes, along waterways, and private property, as well as how exactions and easements are handled.

Maintenance and the general condition of trails were a concern to some, and others wanted money budgeted to construct trails on easements already obtained by the City or under City control. Signage on trails and a trails map were also desired.

### Neighborhood Meeting Comments – Community Center/Recreation Center

People attending the neighborhood meetings generally desired a recreation center/community center that includes a pool, fitness center, and other indoor recreation opportunities. They viewed the center as a community gathering place for children and families that could be combined with a library, senior center, or other civic functions.

Two locations were suggested for such a facility – adjacent to the high school and in conjunction with the Alpine School District, and in Town Center where the City already owns land.

An equal number of people do not believe a recreation center/community center could be supported without cooperation with adjacent communities such as Alpine, Cedar Hills, and American Fork, and many do not have a problem using existing facilities in other communities. They are concerned about the impact to City budgets that probably cannot be offset with increased commercial development, and property tax increases.

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## Existing Park and Recreation Lands

### Highland City Parks

Highland City has within its boundary a variety of park and recreation lands that total approximately 516.47 (309.47 are private parks and facilities). Of those, 207 acres are considered Highland City Parks however only 40.99 acres are currently developed. These existing park lands along with the future parks (Table 8-3) are used in applying the standard of 4.87 acres per 1000 City residents (population). They include Community Parks, Neighborhood Parks, and Athletic Complexes. Table 8-1 identifies Existing Highland City Parks.

Table 8-1; Existing Highland City Parks

PARKS	TOTAL ACRES	ACRES DEVELOPED	ACRES TO BE DEVELOPED	OPEN PLAY FIELDS	PICNIC AREA	TOT LOTS	PAVED TRAILS AND TRAIL HEADS	BENCHES	TREES	BASKETBALL	VOLLEYBALL	TENNIS COURT	RESTROOMS	OTHER	COMMENTS
<b>Mini Parks (Subdivisions, etc.)</b>															
Apple Blossom	1.7	1.7	0	0	0	1	1	0	1	0	0	0	0	0	
Canterbury Park Circle	2.68	2.68	0	0	1	1	1	0	1	1	0	1	0	0	
Dry Creek Bench West	3.5	3.5	0	1	0	0	1	0	1	0	0	0	0	0	
Merlin Larsen Park	1.89	1.89	0	0	1	0	0	0	1	0	0	0	0	0	
Wimbleton Park	4.2	4.2	0	1	1	1	1	1	1	0	1	0	1	0	
<b>Total Community Parks</b>	<b>13.97</b>	<b>13.97</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	
<b>Neighborhood Parks</b>															
Canterbury North Park	4.12	4.12	0	1	1	1	1	1	1	0	0	0	0	0	
Dry Creek - North East	2.75	0	2.75	1	1	1	1	1	1	1	0	0	0	0	owned, not developed
Highland Heritage Park	6.3	6.3	0	1	1	1	1	1	1	0	0	0	1	0	
Windsor Park	5	5	0	1	1	1	1	1	1	0	0	0	0	0	
<b>Total Neighborhood Parks</b>	<b>18.17</b>	<b>15.42</b>	<b>2.75</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	
<b>Community Parks</b>															
Highland Glen Park	76	0	17	1	1	1	1	1	1	0	0	0	1	0	Pond, partially developed
Town Center Plaza	3.5	0	3.5	0	0	1	0	1	1	0	0	0	1	0	under construction
Dry Creek Hollow Park	44	0	10	1	1	1	1	1	1	0	1	0	1	0	owned, not developed
<b>Total Community Parks</b>	<b>123.5</b>	<b>0</b>	<b>30.5</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	
<b>Athletic Complexes</b>															
Mitchell Hollow	11.6	8	0	1	1	1	1	1	1	0	1	0	0	0	native area to remain
Beacon Hills	10	0	10	1	1	1	1	1	1	0	0	0	1	0	owned, not developed
Spring Creek	12	0	12	1	1	1	1	1	1	0	0	0	1	0	owned, not developed
Mountain Ridge	17.6	0	17.6	1	1	0	1	1	1	1	0	0	0	0	owned, not developed
<b>Total Athletic Complexes</b>	<b>51.2</b>	<b>8</b>	<b>39.6</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	
<b>TOTAL HIGHLAND CITY PARKS</b>	<b>206.8</b>	<b>37.39</b>	<b>72.85</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>16</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>0</b>	



Maps 8-1, 8-2, and 8-3 show the location and service area of Existing and Future Highland City Neighborhood Parks, Existing Highland City Community Parks, and Existing and Future Highland City Athletic Complexes.

Highland Glen Park includes about 17 acres of developed land that is defined as a Highland City Community Park; the remainder of the land is slated for future recreational improvements.

## Other Park/Recreation Facilities

In addition to Highland City Parks, there are many other park and recreation facilities that are available for the enjoyment of City residents. These include Mini-Parks (13.97 acres) that primarily serve subdivisions and are not able to meet the definition for a Neighborhood Park either because they are too small, or because they do not and cannot accommodate the required facilities; 7.27 acres are other types of facilities available to most residents for recreational purposes; 51-acres are school fields and facilities; and 251.2 acres are included in private developments and are not generally available to all City residents.

Table 8-2 identifies Other Park/Recreation Facilities. These park lands are considered Highland City Parks but were not considered in the development of the Highland City Park Standard, because they fill a requirement for open space bonus density subdivision and do not meet the minimum requirements for a neighborhood park as defined in the Park and Recreation Facilities Plan, nor are they used in determining current or future park needs. These facilities are shown on the Maps 9-1, but they are not shown with a service area.

**Table 8-2; Other Park/Recreation Facilities**

OTHER PARKS/RECREATION FACILITIES	Acres	OPEN PLAY FIELDS	PICNIC AREA	TOT LOTS	PAVED TRAILS AND TRAIL HEADS	BENCHES	TREES	BASKETBALL	VOLLEYBALL	TENNIS COURT	RESTROOMS	OTHER	COMMENTS
<b>Quasi-Public Parks</b>													
11200 N LDS Church Park	3.85	1	0	0	0	0	0	0	0	0	0	0	Little League Field
LDS Strasburg Park	3.42	1	0	0	0	0	0	0	0	0	0	0	Baseball Field
<b>Total Quasi-Public Parks</b>	<b>7.27</b>												
<b>School Facilities</b>													
Highland Elementary	7	0	0	1	2	0	0	0	0	1	0	0	
Freedom Elementary	7	0	0	1	0	0	0	0	0	1	0	0	
Ridgeline Elementary	7	0	0	1	0	0	0	0	0	1	0	0	
Mountainridge Elementary	10	0	0	1	1	3	1	1	0	0	0	0	
Lone Peak High School	20	0	0	0	1	4	0	0	0	1	0	0	
<b>Total School Facilities</b>	<b>51</b>												
<b>Other Private Park Facilities</b>													
Bull River	1.9	0	0	0	0	0	1	0	0	0	0	0	
Cottages on the Green	3.5	0	0	0	0	0	1	0	0	0	0	0	
Hidden Oaks	10	0	1	0	0	1	1	0	0	1	0	0	
Oakview	0.9	0	0	0	0	0	1	0	0	0	0	0	
Pheasant Hollow	5.9	0	1	0	0	1	1	0	0	1	0	0	
The Highlands	7	0	1	0	0	1	0	0	0	0	0	0	
Briarwood Ranches	2	0	0	0	0	0	0	0	0	0	0	0	
Cedar Hills Golf Course	59	0	1	0	0	1	1	0	0	0	0	0	Public Golf Course
Fox Hollow Golf Course	16	0	0	0	0	0	1	0	0	0	0	0	Public Golf Course
Alpine Country Club	145	0	0	0	0	0	1	0	0	0	0	0	Private Golf Course
<b>Total Private Park Facilities</b>	<b>251.2</b>												
<b>TOTAL HIGHLAND CITY PRIVATE PARKS</b>	<b>309.47</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>11</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	

## Future Parks

Highland City includes approximately 60 acres of land set aside for future Neighborhood Parks and Athletic Complexes/Community Parks. Table 8-3 indicates future parks identified by number which corresponds to the number shown on Maps 8-1, 8-2, 8-3. Their service areas are also indicated depending on their park classification.

**Table 8-3; Future and Proposed Parks**

Future Park	Acres	Comment
N.P. #5	5.0	Proposed Neighborhood Park
N.P. #6	5.0	Proposed Neighborhood Park
N.P. #7	5.0	Proposed Neighborhood Park
C.P. #8	5.0	Proposed Neighborhood Park
A.P. #3	10.0	Proposed Neighborhood Park
A.P. #4	10.0	Proposed Neighborhood Park
A.P. #5	20.0	Proposed Neighborhood Park

**Total Future Park Lands 60**

A potential future neighborhood park is shown in the annexation area on the north adjacent to Draper; and athletic complexes are identified as potentially occurring in the larger undeveloped parcels in the City including the gravel pit, and in the more distant future, at the State Developmental School campus (not included on Table 8-3). Additionally, the area east of Mountain View Dr. and north of 9680 North has been purchased by the city and will be developed as Spring Creek Park in the near future satisfying A.P. #3 above.

Some neighborhoods are also served by private parks and recreation facilities which offset any apparent gaps in service. However, in order to achieve its goal to have public park facilities within one-half mile or one-mile of residential neighborhoods, the City may need to locate additional neighborhood parks in the future, if land is available and park development is feasible.

## Park Needs Analysis

Highland City Parks are used in the calculation of level of service and need, which totals 40.99 acres and a current population of 15,621 (May 2009). This results in a current level of service of 2.62 acres per 1000 population with a goal 4.87 acres per 1000 population at build-out. Highland City is currently about one half of its standard. The maps also show that there are few gaps in service area once the planned future parks are developed.

Looking to the future, by 2017 the city will need to add an additional 65.4 acres of park land, and ten years later by 2027, it will need to add about 7.6 acres of additional developed park land to reach its goal. Table 8-4, indicates the current and projected populations, the existing park acres and level of service that results if no additional park acreage is added. It calculates the park need based on the current standard of 4.87 acres per 1000 population, and identifies an overage or deficit as the City moves into the future.



*Mitchell Hollow Park*

As mentioned previously, Highland City has 60 acres of identified future park lands, which more than meets the need identified to the year 2027, and should maintain the standard of 4.87 acres per 1000 population into the future when the City is built out. These 60 acres do not include the potential parks located on the gravel pit property, the State Developmental Center site, or in the annexation area to the northwest. If developed, these properties could add a minimum of 15-25 acres of new park land.

**Table 8-4; Park Needs Analysis – Existing and Projected.**

Population		Existing Park Acreage Developed	Level of Service Existing Park Acres/1000	Park Developed Acres needed to meet current Standard of 4.87 ac/1000	LOS Overage or Deficit (acres)	
2009	15,621	40.99	2.624031752	35.08427	-2.246	per 1000
2017	21,837	40.99	1.877089344	65.35619	-2.993	per 1000
2027	22,721	40.99	1.80405792	69.66127	-3.066	per 1000
2036	23,403	40.99	1.751484852	72.98261	-3.119	per 1000

## Existing Trails

Highland City has approximately 25 miles of existing trails. These trails are considered a part of the city-wide system of off-street, multi-purpose trails. All of these trails have been developed and are used primarily by recreational walkers, joggers, and bicyclists. Existing and Future Trails are shown on Map 8-4. These trails are used in determining the Highland City Trails Standard.

There are also a number of trails that occur within subdivisions. These are identified as Existing Neighborhood Trails. Table 8-5 to the right identifies Existing Neighborhood Trails.

**Table 8-5; Existing Highland City Trails**

Existing Highland City Trails	Major Trails Length (Mi.)	Other Trails Length (Mi.)	Totals Length (Mi.)
AMERICAN FORK RIVER MAJOR TRAIL	0.933		
APPLE BLOSSOM MAJOR TRAIL	0.703		
ART DYE MAJOR TRAIL	0.127		
BONNEVILLE SHORELINE EAST MAJOR TRAIL	0.198		
BULL RIVER MAJOR TRAIL	1.268		
CIVIC CENTER MAJOR TRAIL	0.147		
DRY CREEK MAJOR TRAIL	0.136		
FISH POND MAJOR TRAIL	0.117		
HIGHLAND HILLS MAJOR TRAIL	0.341		
LONE PEAK MAJOR TRAIL	0.888		
MOUNTAIN VIEW MAJOR TRAIL	0.155		
SPRING CREEK MAJOR TRAIL	0.569		
TOWN CENTER MAJOR TRAIL	1.021		
WIMBLETON MAJOR TRAIL	0.395		
<i>SUB-TOTAL</i>	<b>6.998</b>		
<b>MAJOR ROAD TRAILS</b>			
10400 N		1.141	
11800 N		1.397	
6000 W		0.594	
HIGHLAND BOULEVARD		0.918	
SR-74		2.418	
SR-92		1.231	
<i>SUB-TOTAL</i>		<b>7.699</b>	
<b>SUBDIVISION CONNECTOR TRAILS</b>			
APPLE BLOSSOM SUBDIVISION		0.189	
BEACON HILLS SUBDIVISION		1.468	
CANTERBURY CIRCLE		0.236	
CANTERBURY NORTH SUBDIVISION		1.217	
CANTERBURY SOUTH SUBDIVISION		0.501	
DRY CREEK SUBDIVISION		0.136	
HIGHLAND HILLS/ MERCER HOLLOW		0.578	
TC MEADOWS		0.601	
VIEWPOINTE		0.833	
WILD ROSE		0.396	
WIMBLETON SUBDIVISION TRAIL		1.158	
WINDSOR		1.042	
<i>SUB-TOTAL</i>		<b>8.355</b>	
<b>Total Existing Highland City Trails</b>	<b>6.998</b>	<b>16.054</b>	<b>23.052</b>

## Future Trails

Highland City has identified approximately 25 miles of Future Highland City Major Trails and approximately 7 miles of other trails to serve the community. Many of these trails occur on easements or land that is under City control, therefore there is no cost associated with acquiring land for these trails; there is however cost associated with trails development and acquisition of trails not currently controlled by the city. Table 8-6 identifies Future Highland City Trails, which are illustrated on Map 8-4.

**Table 8-6; Future Highland City Trails**

Future Highland City Trails	Major Trails Length (Mi.)	Other Trails Length (Mi.)	Totals Length (Mi.)
APPLE BLOSSOM MAJOR TRAIL	0.994		
ART DYE MAJOR TRAIL	0.555		
BONNEVILLE SHORELINE EAST MAJOR TRAIL	0.508		
BONNEVILLE SHORELINE NORTH MAJOR TRAIL	0.545		
BULL RIVER MAJOR TRAIL	0.218		
CIVIC CENTER MAJOR TRAIL	0.258		
COUNTRY FRENCH MAJOR TRAIL	0.814		
DRY CREEK HOLLOW MAJOR TRAIL	2.376		
FISH POND MAJOR TRAIL	1.383		
HIGHLAND HILLS MAJOR TRAIL	0.33		
LARSON MAJOR TRAIL	1.111		
LEHI DITCH MAJOR TRAIL	1.591		
LONE PEAK MAJOR TRAIL	0.228		
MOUNTAIN VIEW MAJOR TRAIL	0.516		
MURDOCK CANAL MAJOR TRAIL	3.212		
POWERLINE MAJOR TRAIL EAST	0.95		
POWERLINE MAJOR TRAIL NORTH	0.341		
SPRING CREEK MAJOR TRAIL	0.367		
TOWN CENTER MAJOR TRAIL	0.456		
WIMBLETON MAJOR TRAIL	0.931		
<b>SUB-TOTAL</b>	<b>17.684</b>		
<b>MAJOR ROAD TRAILS</b>			
10400 N		1.389	
11800 N		0.377	
4800 WEST		1.761	
6000 W		2.189	
6400 W		0.375	
HIGHLAND BOULEVARD		0.187	
SR-74		1.994	
SR-92		4.083	
<b>SUB-TOTAL</b>		<b>12.355</b>	
<b>SUBDIVISION CONNECTOR TRAILS</b>			
BEACON HILLS SUBDIVISION		1.343	
CANTERBURY NORTH SUBDIVISION		0.186	
HIGHLAND HILLS/ MERCER HOLLOW SUBDIVISIONS		0.276	
SPORTS PARK TRAIL		0.189	
TOWN CENTER MEADOWS		0.105	
<b>SUB-TOTAL</b>		<b>2.099</b>	
<b>Total Future Highland City Trails</b>	<b>17.684</b>	<b>14.454</b>	<b>32.138</b>

When future trails are developed, Highland City Trails will include approximately 55 miles of off-street, multi-purpose trails. These trails do not include any on-street bike lanes that may be included in the transportation section of the plan update.

## Trail Needs Analysis

Highland City Trails are used in the calculation of level of service and need, which totals 6.998 miles of Major Trails with a current population of 15,621 (May 2009). This results in a current level of service of 4.48 miles per 10,000 population does not meet the City standard and indicates a need to add approximately 9.56 miles of new trail to meet the City's standard of 10.6 miles per 10,000 population.

Looking to the future, in 2017 the City will need to add an additional 16.15 miles of trail to meet the City standard, and ten years later in 2027 it will need to add an additional 1.5 miles of trail to maintain the standard. Table 8-7, indicates the current and projected populations, the existing trail miles, and level of service that results if no additional trails are added. It calculates the trails needed based on the current standard of 10.6 miles per 10,000 population and identifies an overage or deficit as the City moves into the future.

**Table 8-7 Trail Need Analysis – Existing and Projected**

Population		Existing Major Trail Miles Developed	Major Trail Miles Planned	Level of Service Existing Trails Miles/10000	Major Trail Miles Needed to meet Goal of 10.6 mi./10000	LOS Overage or Deficit
<b>2009</b>	<b>15,621</b>	6.998	24.682	4.479866846	9.56026	-6.120133154
<b>2017</b>	<b>21,837</b>	6.998	24.682	3.204652654	16.14922	-7.395347346
<b>2027</b>	<b>22,721</b>	6.998	24.682	3.079970072	17.08626	-7.520029928
<b>2036</b>	<b>23,403</b>	6.998	24.682	2.99021493	17.80918	-7.60978507

## Recreation Programs and Facilities

### Recreation Center/Community Center

Since completion of the 2001 Parks Plan, the City has located a potential site for a community center in Town Center. No date for its planning and construction has been determined.

The program for facilities and functions of a recreation center complex should include those that are desired by the community. Typically, a recreation center/community center includes a leisure swimming pool, water play area, classrooms and meeting rooms, weight and exercise rooms, gymnasiums, tracks, court games, and other amenities desired by the community. They may also be located on property large enough to accommodate outdoor pools and activities, including sports fields, picnicking, and trails.

A community center often includes meeting rooms, a theater or performance hall, and other facilities to accommodate a wide range of cultural, arts and community meeting needs.

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## Goals and Policies

**Goal:** Assure that Highland City residents have access to parks and park facilities.

**Policy:** Maintain the following standards and guidelines for Neighborhood Park development.

1. Park land per 1000 city residents is 4.87 acres: The standard shall be based on total acres of Highland City Parks, and shall not include other mini-parks, park facilities, school facilities, undeveloped open space or private park facilities.
2. Neighborhood Parks shall be located within one-half mile radius of residential neighborhoods, within one-eighth mile from an existing or proposed trail; and should be 4-5 acres in size.
3. Minimum park facilities should include a restroom.
4. Only Neighborhood Parks which meet the standards and the adopted definition shall qualify as neighborhood parks.

**Implementation Measure:** Acquire and develop additional park land to meet the standard as the community grows into the future.

**Implementation Measure:** Revise the adopted definition of Neighborhood Parks to include a requirement that one of the minimum facilities required for park development include restroom facilities. The new definition shall be:

“Minimum Neighborhood Park facilities shall include the following: a restroom, open play fields, picnic areas, tot lots, paved surface trails and trailheads with lighting, benches, covered seating, and trees. Neighborhood Parks shall also include at least two other amenities such as a basketball court, volleyball court, tennis court, restroom, or additional covered seating areas, trees, and lighting.”

**Policy:** Maintain the following standards and guidelines for Community Park development.

1. Community Parks also serve as Neighborhood Parks and shall be used in calculations applying the standard of 4.87 acres of park land for every 1000 residents in the City, and shall provide a service area of a one mile radius.
2. Community Parks shall be centrally located or in special locations to serve a specific recreation opportunity or adjacent natural open space.
3. Minimum park facilities shall include restrooms.
4. Parking space should be provided.
5. Bicycle racks shall be provided.
6. Only Community Parks which meet the standards and the adopted definition shall qualify as community parks.

**Implementation Measure:** Acquire and develop additional park land to meet the standard as the community grows into the future.

**Implementation Measure:** Revise the adopted definition of Community Parks to include a requirement that one of the minimum facilities required for park development include restroom facilities. The new definition shall be:

“Minimum Community Park facilities shall include the following: open play fields, picnic areas, tot lots, paved surface trails and trailheads with lighting, benches, covered seating, and trees. Community Parks shall also include at least four other amenities such as a basketball court, volleyball court, tennis court, restroom, or additional covered seating areas, trees, and lighting, or other community-desired amenity. Community Parks may also be combined with other facilities such as a recreation center or sports complex.”

**Policy:** Maintain the following standards and guidelines for Athletic Complexes development.

1. Athletic Complexes also serve as Neighborhood Parks and/or Community and shall be used in calculations applying the standard of 4.87 acres of park land for every 1000 residents in the City, and shall provide a service area of one mile.
2. Locate Athletic Complexes along major roads, and adjacent to middle school and high schools whenever possible.
3. Athletic Complexes should be between 10 and 20 acres in size.
4. Provide for a variety of sporting activities.
5. Minimum park facilities shall include restrooms.
6. Parking Spaces and Bike racks.
7. Only Athletic Complexes which meet the standards and the adopted definition shall qualify as Athletic Complexes.

**Implementation Measure:** Revise and adopt the definition of Athletic Complexes as:

“Athletic Complexes should include specialty sports facilities (soccer, baseball/softball, or others) or recreation centers. They may also include the following amenities found in Neighborhood and Community Parks, when possible: restroom facilities, open play fields, picnic areas, tot lots, paved surface trails and trailheads with lighting, benches, covered seating, and trees and numerous bicycle racks and parking spaces to accommodate league games.

**Goal:** Assure that Highland City residents have access to multi-use, off-street, paved trails.

**Policy:** Maintain the following standard for Highland City Trails development.

1. The Highland City Trails standard shall be 10.6 miles of trails for each 10,000 residents of the City.
2. Highland City Trails shall be ten feet wide, paved, and separated from roadways, suitable for use by pedestrians, bicycles, roller blades, and other non-motorized methods of personal transportation.
3. Highland City Trails shall connect neighborhoods, parks, schools, and other public areas, and provide an alternative to the use of automobiles.

**Implementation Measure:** Acquire and develop existing Highland City Trails to accommodate needs into the future.

**Implementation Measure:** Prioritize trail development on city-owned or controlled easements and rights-of-way.

**Implementation Measure:** As roadways are improved or new roads are developed, include trails adjacent to but separated from the roadways. Consider placing trails in front of houses with a deeper setback.

**Implementation Measure:** Canals, natural drainages, and other natural open spaces not suited for development shall also be considered appropriate locations for trails.

**Implementation Measure:** Highland City Trails shall strive to connect to trail systems in adjacent municipalities and to regional trail systems.

**Implementation Measure:** Prioritize trail development that links schools, neighborhoods, and other destinations.

**Implementation Measure:** Provide benches, trails maps and garbage / recycle cans at reasonable intervals.

**Goal:** To provide adequate park acreage in new development areas.

**Policy:** Require new development projects of large size (20 acres and larger), particularly those containing the gravel pit and the State Development Center, to be fully master planned to include the location of neighborhood or athletic parks, at a minimum.

**Implementation Measure:** Require as a condition of development approval the location of park land in the site development master plan.

**Implementation Measure:** Enact, as part of the zoning ordinance assigned to these two parcels in particular and any others that are designed for multiple use, the provision for inclusion of park land.

**Implementation Measure:** Whenever possible, require the donation of the Neighborhood Park land as a condition of development approval.

**Implementation Measure:** Develop city-owned or controlled park land in new development areas.

**Goal:** To provide adequate park acreage in developing areas currently underserved by public parks.

**Policy:** Acquire property in developed areas of the community that are underserved by public parks, and/or develop city owned park land.

**Implementation Measure:** Actively pursue the identification of undeveloped property in the appropriate areas, determine ownership, and pursue acquisition.

**Implementation Measure:** Develop city-owned or controlled park land in new development areas.

**Goal:** Improve maintenance and operations in parks and along trails.

**Policy:** Allocate adequate funding and resources to improve maintenance in park restrooms and along trails.

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## Funding Opportunities

Funding parks, recreation, and trails projects is the most challenging aspect of the plan. A great deal of the feasibility of funding is the willingness of taxpayers to influence the allocation of tax monies toward that kind of priority, or their willingness to pay additional taxes in one form or another.

Aside from raising taxes or some sort of special assessment, there are various funding options and opportunities to be explored. Public funding is much more difficult to obtain in 2007, and many programs are either not being funded or have been substantially reduced by either Federal or State agencies. Money from foundations and other philanthropic organizations and groups is also difficult to acquire, in part because available funds are highly sought-after and very competitive. Nevertheless, there are sources and they should be explored to the fullest.

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## Private Funds

### Private and Public Partnerships

The Parks and Recreation Department and a private developer or other government or quasi-government agency may often cooperate on a facility that services the public, yet is also attractive to an entrepreneur or another partner. These partnerships can be effective funding methods for special use sports facilities like baseball complexes or soccer complexes; however, they generally are not feasible when the objective is to develop neighborhood and community parks that provide facilities such as playgrounds, informal playing fields, and other recreational opportunities that are generally available to the public free of charge. A recreation center, community center, or swimming/water park is also potentially attractive as a private or public partnership.

### Private Fundraising

While not addressed as a specific strategy for individual recreation facilities, it is not uncommon that public monies be leveraged with private donations. Private funds will most likely be attracted to high-profile facilities such as a swimming complex or sports complex, and generally require aggressive promotion and management on behalf of the park and recreation department or city administration.

### Service Organization Partners

Many service organizations and corporations have funds available for park and recreation facilities. Local Rotary Clubs, Kiwanis Clubs, and other service organization often combine resources to develop park and recreation facilities. Other for-profit organizations or businesses are often willing to partner with local communities in the development of playground and other park and recreation equipment and facilities. Again, the key is a motivated individual or group who can garner the support and funding desired.

### Joint Development Partnerships

Joint development opportunities may also occur between municipalities and among agencies or departments within a municipality. Cooperative relationships between cities and counties are not uncommon, nor are partnerships between cities and school districts, such as those that currently exist between Highland City and the school district. There may be other opportunities as well which should be explored whenever possible in order to maximize recreation opportunities and minimize costs. In order to make these kinds of opportunities happen, there must be on-going and constant communication between people, governments, business interests, and others.

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## Local Funding Sources

### ZAP or RAP Taxes

Many communities have initiated Zoo, Arts, and Parks or Recreation, Arts, and Parks taxes which have been very effective in raising funds to complete parks, recreation, trails, and arts projects. They are generally administered by a municipality or county.

### Park and Recreation Impact Fees

Highland City has an impact fee program for park and recreation projects. In 2007, that impact fee program was reviewed and modified. Impact fees can be used by communities to offset the cost of public parks and facilities needed to serve future residents and new development.

Impact fees are especially useful in areas of rapid growth, such as Utah County and Highland City. They help the community to maintain a specified level of service as new development puts strain on existing facilities. It assures that new development pays its fair share to maintain quality of life expectations for its residents.

### Dedications

The dedication of land for parks has long been an accepted development requirement and is another valuable tool for implementing parks. The City can require the dedication of park land and/or park development. Highland City has received park dedications and trails easements in the past and should continue the practice.

### City Funding - General Fund or Bonding

The City can fund parks directly from its general fund or can bond for park development and spread the cost over many years. Bonding is a very common approach, where repayment of the bonds comes from general City revenue sources such as property and sales tax, or other earmarked tax revenue. Bonding associated with plan implementation should be kept as low as possible; however, for large developments such as sports complexes, swimming/water park complexes, or large land acquisition priorities, bonding is likely to be the best option.

### Special Taxes

Tax revenue collected for special purposes may be earmarked for park development. In Sandy City, for instance, the room tax applied to hotel and motel rooms in the city is earmarked for parks, recreation, and trails development.

### Community Development Block Grants

Community Development Block Grants (CDBG) can be used for park development in areas of the City that qualify as low and moderate income areas. CDBG funds may be used to upgrade parks, purchase new park equipment, and improve accessibility (Americans With Disabilities Act). Additionally, CDBG funds may be used for projects that remove barriers to access for the elderly and for persons with severe disabilities.

### User Fees

User fees may be charged for reserved rental on park pavilions and for recreation programs. These fees should be evaluated to determine whether or not they are appropriate, and some consideration should be made to changing the fee structure to address non-residents and residents separately. A feasibility study may be needed to acquire the appropriate information before making decisions and changes.

## Redevelopment Agency Funds

Generally, Redevelopment Agency (RDA) Funds are available for use in redevelopment areas. As new RDA areas are identified and developed, tax increment funds generated can, at the discretion of the city, be used to fund park acquisition and development.

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## State And Federal Programs

The availability of these funds may change annually depending on budget allocations at the state or federal level. It is important to check with local representatives and administering agencies to find out the current status of funding. Many of these programs are funded by the Federal government and administered by local State agencies.

### Urban Parks and Recreation Recovery Program (UPARR)

This program, administered by the National Park Service, provides grants for the rehabilitation and enhancement of existing parks and recreation areas in communities. The program provides matching funds and technical assistance to economically distressed urban communities for the rehabilitation of critically needed recreation facilities. It also encourages local funding and commitment to the operations and maintenance of recreation programs, sites, and facilities. Three types of programs are available. Rehabilitation Grants are used for remodeling, rebuilding, or expanding existing outdoor or indoor recreation areas. Innovation Grants are for projects that demonstrate innovative and cost-effective ways to enhance park and recreation opportunities. Planning Grants provide funds for the development of a Recovery Action Plan, which must be on file with the National Park Service in order to receive funds.

Although Highland City is not listed as an eligible jurisdiction – only Ogden and Provo are eligible in Utah, the program does allocate up to 15 percent of program funds annually to local governments that do not meet eligibility criteria. Salt Lake City for instance, which is not an eligible jurisdiction, has received \$435,000 in federal funds (not including city match) for park improvements.

### Land and Water Conservation Fund

This Federal money is made available to States, and in Utah is administered by the Utah State Division of Parks and Recreation. Funds are matched with local funds for acquisition of park and recreation lands, redevelopment of older recreation facilities, trails, improvements to accessibility, and other recreation programs and facilities that provide close-to-home recreation opportunities for youth, adults, senior citizens, and persons with physical and mental disabilities.

### SAFETEA-LU

In 2005, Congress passed and the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU establishes federal transportation policy and funding for the next five years. It continues programs, including transportation enhancements and recreation trails, and creates new ones, such as Safe Routes to Schools.

- ♦ Recreation Trails were funded at \$70 million in 2006, rising to \$85 million in 2009.
- ♦ Transportation Enhancements are funded at 3.5 billion over five years beginning in 2005. Three eligible activities include bicycle, pedestrian or shared use physical facilities; conversion of abandoned railroad corridors for trails; and safety and education programs for pedestrians and bicyclists. A local match is required to use Utah's TE funds

- ◆ Safe Routes To School is funded at \$100 million in 2006, rising to \$183 million in 2009. These funds are available for planning, design, and construction of infrastructure related to projects that improve bicycle and pedestrian safety. Funds may also be used for public education programs, bicycle safety classes, and other programs that encourage bicycling and walking to middle and elementary schools.

### Federal Recreational Trails Program

The Utah Department of Natural Resources, Parks and Recreation Division administers these Federal funds. The funds are available for motorized and non-motorized trail development and maintenance projects, educational programs to promote trail safety, and trail related environmental protection projects. The match is 50 percent, and grants may range from \$10,000 to \$200,000. Projects are awarded in August.

### Utah Trails and Pathways / Non-Motorized Trails Program

Funds are available for planning, acquisition, and development of recreational trails. The program is administered by the Board of Utah State Parks and Recreation, who awards grants at their fall meeting based on recommendations of the Recreation Trails Advisory Council and Utah State Parks and Recreation. The match is 50 percent, and grants may range from \$5,000 to \$100,000.

### LeRay McAllister Critical Land Conservation Fund

The fund is administered by the Utah Quality Growth Commission and provides funds each year to preserve or restore critical open or agricultural lands in Utah, and targets lands deemed important to the community such as agricultural lands, wildlife habitat, watershed protection, and other culturally or historically unique landscapes. Money from the fund must be used to preserve or restore agricultural lands. Applicants must provide matching funds equal to or greater than the amount of money received from the fund. Funds must be spent within one year from the date of the grant award. The size of parcels for a purchase is limited to 20 acres or less. Purchases of conservation easements or restoration projects are exempt from this restriction. Funds are available for 2007.

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## In-kind And Donated Services Or Funds

Several options for local initiatives are possible to further the implementation of the parks, recreation, and trails plan. These kinds of programs would require the City to implement a proactive recruiting initiative to generate interest and sponsorship, and may include:

- ◆ Adopt a park or trail, whereby a service organization or group either raises funds or constructs a given facility with in-kind services;
- ◆ Corporate sponsorships, whereby businesses or large corporations provide funding for a particular facility, similar to adopt-a-trail or adopt-a-park;
- ◆ Public trail and park facility construction programs, in which local citizens donate their time and effort to trail and park

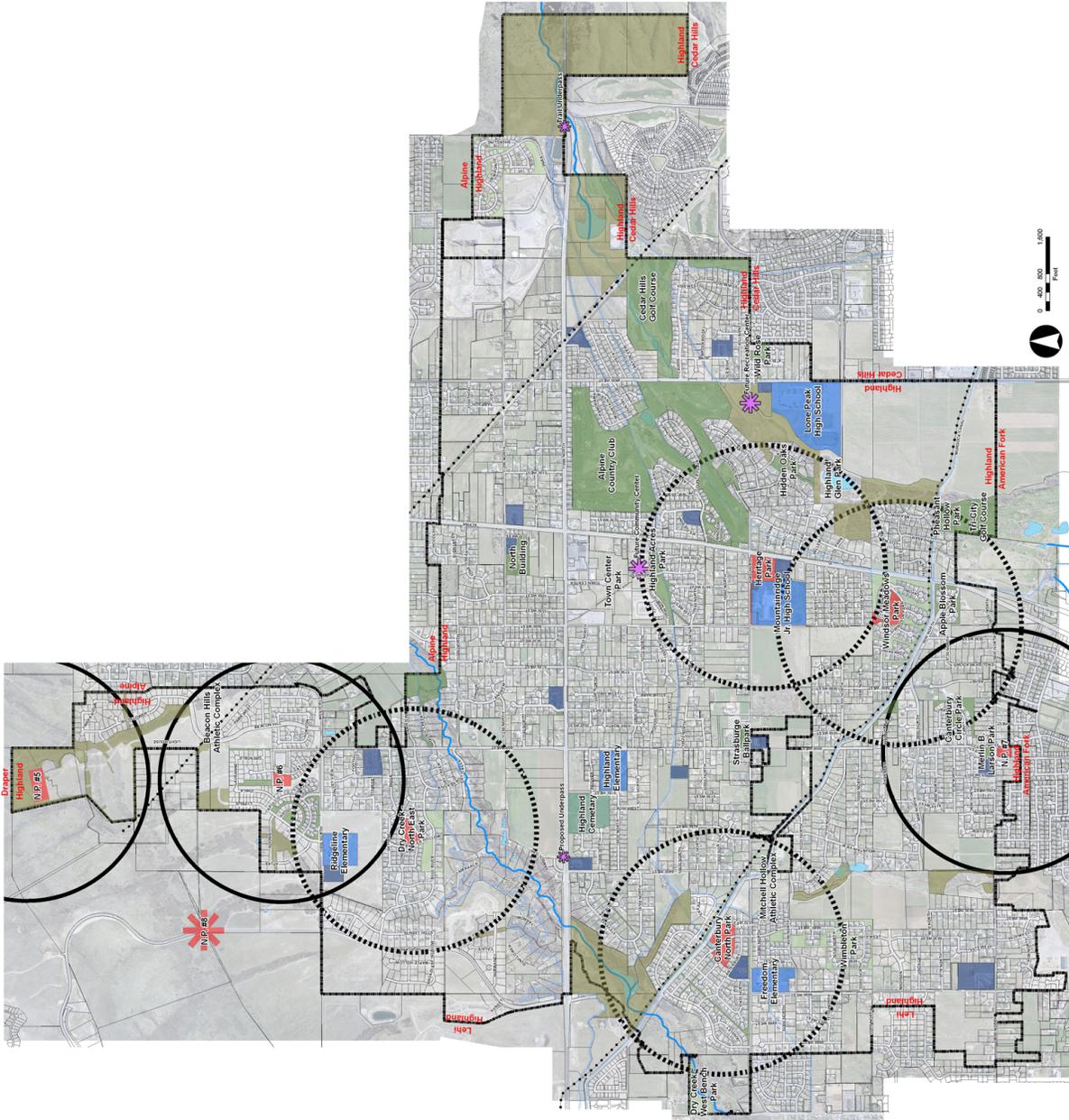
# MAP 8-1 EXISTING AND FUTURE HIGHLAND CITY NEIGHBORHOOD PARKS

- Land Use**
- Religious
  - School
  - Cemetary
  - Private Recreation & Mini Park
  - Open Space
  - Highland City Park
  - Highland City Neighborhood Park
  - Waterbody
  - Parcels
  - Stream or River
  - Canal or Ditch
  - Pipeline or Aquaduct
  - City Boundary
  - Existing Park Service Area
  - Future Park Service Area
- Note: 1/2 mile radius for neighborhood parks.
- Future Neighborhood Park. Location not yet determined.

## Highland City General Plan Update

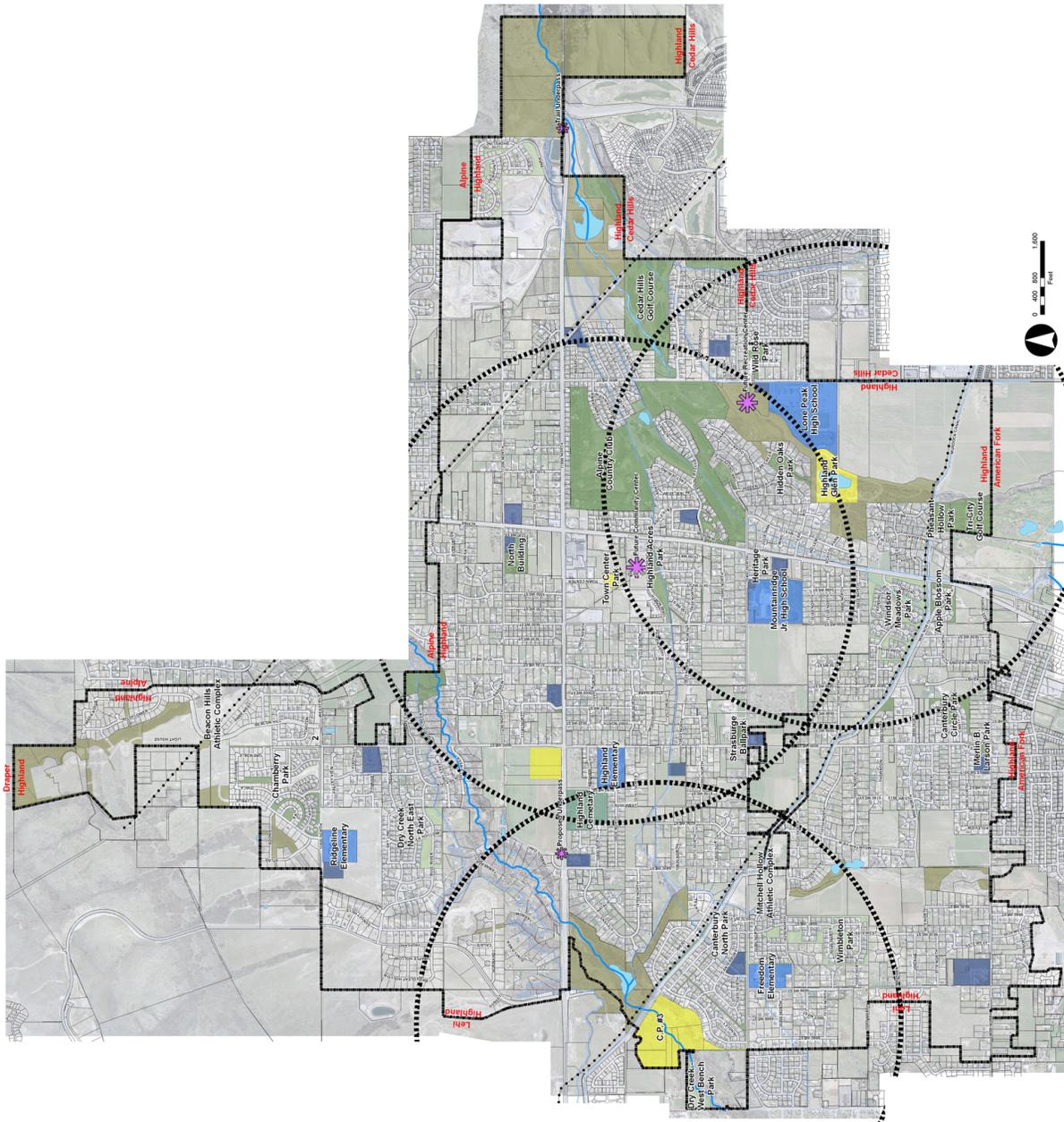


Adopted



# MAP 8-2 EXISTING HIGHLAND CITY COMMUNITY PARKS

- Land Use**
- Religious
  - School
  - Cemetery
  - Private Recreation & Mini Park
  - Open Space
  - Highland City Park
  - Highland City Community Park
  - Waterbody
  - Parcels
  - Stream or River
  - Canal or Ditch
  - Pipeline or Aquaduct
  - City Boundary
  - Existing Park Service Area
- Note: 1 mile radius for community parks.



## Highland City General Plan Update



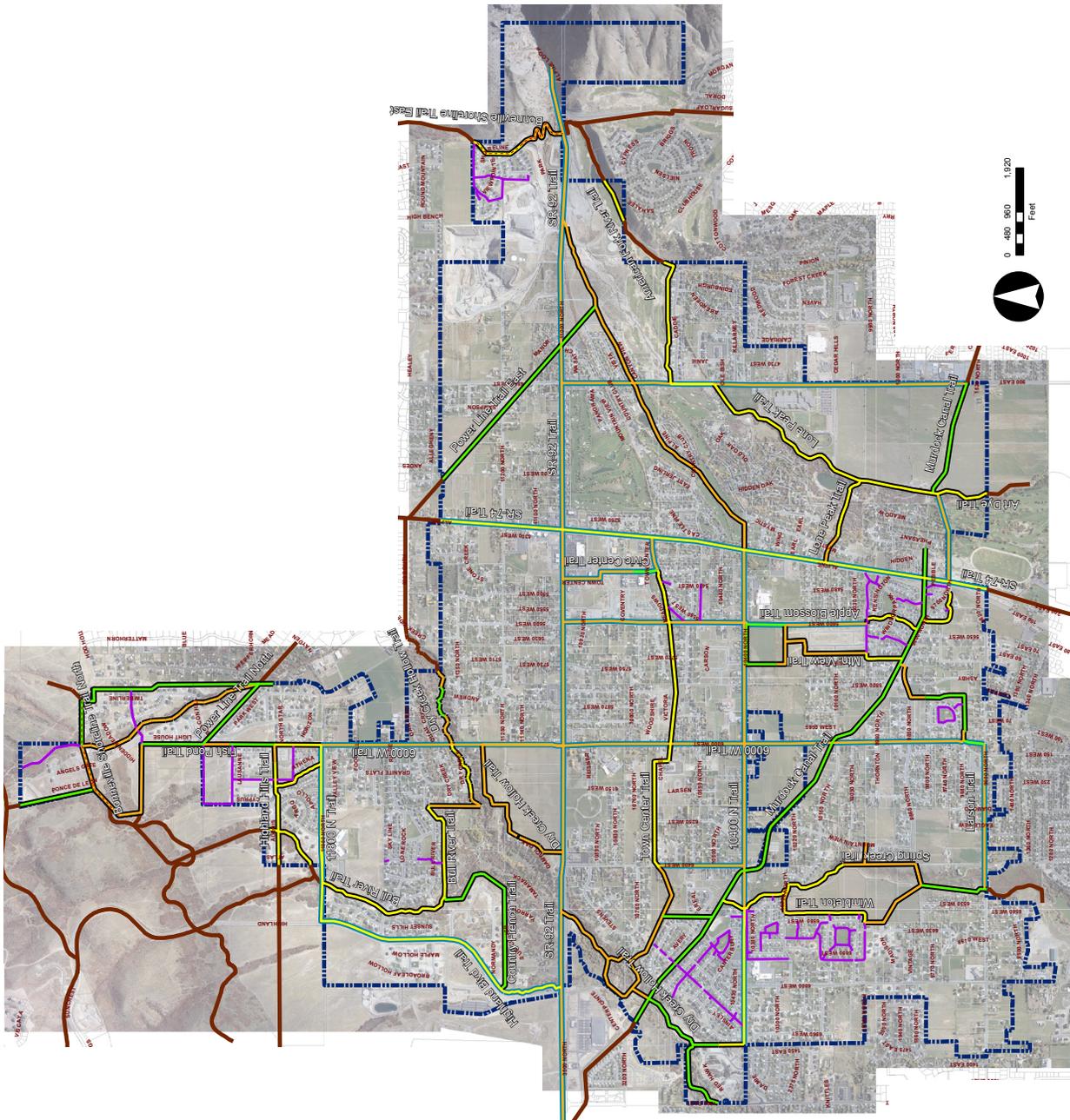
Adopted



# MAP 8-4 EXISTING AND FUTURE TRAILS PLAN

## Trails

- Bonneville Shoreline Trail
- Existing Trails
- Future Trails City Secured
- Future Trails Unsecured
- Neighborhood Trails
- Major Trails
- Roadside Major Trails
- Major Trails Not in Highland
- City Boundary
- City Lots/Parcels
- Lakes and Ponds
- Streams, Canals, Ditches



## Highland City General Plan Update



Adopted : July 21, 2009

# Senior Housing Element

# 9

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## Introduction and Background

The country is about to enter a unique time in its history. As the baby boomers enter retirement age, the ranks of seniors will begin to swell quickly. It is estimated that the amount of seniors (age 65 and over) will increase as a percentage of the national population from 12 percent in 2006 (2006 American Community Survey) to 20 percent in 2030.<sup>1</sup> Utah's senior population as a share of total population will not increase as rapidly as that expected nationally; however, there will still be a marked increase over the next 20 years. From 2006 to 2030 the percentage of seniors in Utah will increase from nine percent to 13 percent according to the Governor's Office of Planning and Budget 2005 Baseline Projections. These same projections indicate Utah County will see an increase from six to nine percent. Finally, as a result of Highland's recent net in-migration and the resulting unique age structure (discussed later) the proportion of seniors in Highland will increase tremendously from only five percent now to 12 percent in 2030.

These numbers underscore the importance of planning now to accommodate Highland's future senior population—a large portion of which are residing in Highland now. These current residents will likely wish to stay in Highland as they age and many will desire alternative housing types as, for example, their children leave home and they no longer need a large home.

The City recognizes the importance of providing housing to accommodate the complete life-cycle of its residents as they age. There are five different alternative housing types that accommodate the various phases seniors go through as they age. These include:

- ◆ Age-restricted adult housing;
- ◆ Independent living;
- ◆ Continuing care retirement communities;
- ◆ Assisted living facilities; and
- ◆ Nursing facilities.

Each of these development types performs an important function and is important in filling the variety of needs and preferences of seniors. While they are separated here into five types, quite often a senior development will accommodate two or three types of housing or care levels. For example, numerous facilities offer both assisted living and nursing services, so that the residents do not need to relocate if their care needs change. On the other end of the spectrum, several age-restricted developments also offer limited services to residents as they age to allow them to receive some assistance as they age. The following paragraphs describe the characteristics of each development or facility type and the needs each development serves.

### Age-Restricted Housing

Age-restricted housing developments are typically reserved for people age 55 and older and are often termed "active adult communities". These restrictions are usually enforced by Covenants, Conditions and Restrictions ("CC&R's"). "Empty nesters" are attracted to these types of communities because they allow them to downsize from their existing homes, which are often larger and have larger lots. Downsizing can free up cash and drastically reduce the amount of maintenance a homeowner has to do. In addition, 55+ developments often are amenity-rich, and include on-site clubhouses, exercise facilities, trails, various senior-related recreation programs and other senior-related services. Finally, 55+ homes usually incorporate universal design principles, which allow residents to remain independently in their home longer

<sup>1</sup> Joint Center for Housing Studies of Harvard University. *Housing America's Seniors*. Cambridge, MA. Joint Center for Housing Studies, 2000.

by providing extra safety and convenience features such as stabilizing bars, wider doorways, stepless entry ways, open floor plans and non-slip floors. Other possible features include adjustable height shelves in wall cabinets, full extension pull-out drawers, remote controls for heating and cooling, and well-lit stairs and entrances. Universally designed homes are generally single-story—relieving worries about difficulties with stairs as residents age.

Usually residents of 55+ developments own the structure in which they live and the land occupied by the structure, but the rest of the land area is maintained in common by the homeowners' association. Residents in these communities are typically healthy and active, with a stable income.

### Independent Living

Independent living communities are typically geared to those who choose not to live in their own home, but are not in need of personal medical care and wish to maintain their independence. These communities are typically apartment or condominium complexes that have built in safety features designed to help seniors have a secure environment. Most often seniors pay rent, rather than own their homes but both options are sometimes available. Independent living facilities are commonly referred to as retirement communities and often provide additional amenities, such as a clubhouse, exercise related facilities, and group activities. The government will sometimes subsidize the cost of independent living centers or help poor seniors pay rent. Independent living centers are flexible in cost, ranging from government subsidized housing complexes to resort style retirement communities. They offer a wide range of amenities and location. Residents are typically active and healthy, desiring to free themselves from home maintenance, laundry, and other chores and be with others of similar age and interests.

### Continuing Care Retirement Communities

Continuing care retirement communities are attractive because they offer many of the benefits of all types of senior housing while allowing seniors to stay in the same home. Typically, residents sign a continuing care contract and pay a down payment along with a monthly payment to guarantee housing and medical care for their lifetime. Residents of these communities want security and stability and enter soon after retirement while still very active. Because one pays the same amount regardless of the level of care received, seniors look at these facilities as a form of health insurance, allowing them to feel secure about their future.

Centers are often located near medical facilities and qualified on-site nurses are available to help with most problems. Because of their long-term concept, depending on the health level of the seniors in question, a community care retirement community can resemble independent living or assisted living facilities, even providing some of the twenty-four hour care normally associated with nursing facilities. Those who enter earlier (while healthier) pay less. The comprehensive care offered by continuing care facilities make them among the most costly, with monthly fees from \$400-\$2,500 and an entrance fee of \$40,000 to \$250,000+ depending on services, location, and health. The size of continuing care campuses (from 20 to 100 acres or more) may make them difficult to accommodate in Highland, but perhaps a smaller campus could find a place in the city.

Continuing care communities are accredited by the Continuing Care Accreditation Commission on a voluntary basis. Currently there are no accredited facilities in Utah.

### Assisted Living

Assisted living centers are designed for those who need assistance with daily activities, but would still like to maintain their independence as much as possible. Assisted living centers vary widely in cost and services provided, but there are a few general defining characteristics. These centers generally have on-site medical attention and the capability to help residents with basic needs such as cooking, laundry, eating, dressing, and general housekeeping. Often they are located in or near independent living complexes in order to minimize moving and create more efficiency for the medical care. Others are located near nursing homes for similar reasons. Assisted living centers cost less than nursing homes, but because of the additional medical attention they cost more than most independent living facilities. Typical costs range from \$800-\$4,000 dollars a month nationally, depending on location and amenities; near Highland most centers range from \$1,500-\$2,500.

Residents of assisted living centers typically do not require constant medical monitoring, but the additional services and medical capabilities make those who live there feel much more secure. On average they are older (in their seventies or eighties) than residents in independent living centers.

### Nursing Facilities

Nursing facilities are for those who require constant medical assistance or observation and need assistance with almost all aspects of life. They are often for people who do not need to be in a hospital, but cannot be cared for at home. Nursing facilities typically have excellent on site health care and are best equipped to deal with those with chronic health problems, including late-onset mental illness such as Alzheimer's disease. Some facilities specialize in these types of mental health care, but many are universal. This is the most traditional form of senior care, but is also viewed as the least desirable by many elderly and their families because of the lack of independence and a hospital like feel. Recently some nursing homes have attempted to move toward an atmosphere more similar to assisted living to help residents feel more comfortable. Nursing care can be expensive, averaging nationally \$192 dollars a day and roughly \$70,000 a year for an individual room. Shared rooms are cheaper but still reach roughly \$60,000 a year. Local nursing care facilities charge an average of \$130-\$170 a day—much lower than the national average. Residents of these communities are usually in the very late stages of their life and have often suffered a severe medical trauma (heart attack, stroke, cancer, etc.) or having reached extreme age.

## Housing Types Comparison

Table 9-1 compares characteristics of the various types of senior housing.

**Table 9-1. Senior Housing Types Comparison**

Housing Type	Assistance with Activities of Daily Living (dressing, personal care)	Community Activities (social events, outings, golf, etc.)	Community Services (laundry, cleaning, etc.)	Overall Health (physical, mental, emotional)	Health Services (medications, nursing care)	Environment (degree of personal freedom)
Age-restricted Housing	none	some to many	few	good	non	independent
Independent Housing	none to some	some	some	good	none to some	independent
Assisted Living	comprehensive	some	many	average	some skilled nursing	some freedom
Community Care Retirement	comprehensive	many	many	good to poor	skilled nursing	independent to limited
Nursing Facilities	comprehensive	few	comprehensive	poor	skilled nursing	limited

## Home Care

Most seniors prefer to stay in conventional homes as they age. This means that many of those who stay in their homes will need some specialized in-home care. This care is provided by agencies that provide home visits and help from nurses or other qualified individuals. Home care offers an attractive option to those who wish to remain in their homes. It can be quite expensive depending on the situation, especially if the individual has health problems that require specific equipment that must be bought or rented. However, home care is often provided for by insurance or Medicare if given under doctor's orders. Around Highland help with daily activities and personal care (bathing, cleaning, washing, etc.) is roughly twenty dollars an hour. Typically, seniors receive visits or help two or three times a week. Rates increase with more specialized help. Some home care providers offer additional services that can be very beneficial including speech, occupational, and physical therapy. Some home care providers even provide full-time or live-in assistance.

<sup>1</sup> Projections by definition are a best guess at future growth based on a set controlled set of previous trends and growth assumptions. These projections provide a plausible range within which the future age structure of Highland may fall given available information and data resources.

## Senior Population Projections<sup>2</sup>

In order to plan appropriately for senior needs it is imperative that we estimate as accurately as possible the number of seniors by age group both now and in the future. In order to do this, a cohort-component model has been employed. This model projects population by age groups using birth, survival, and migration rates. These rates have been tailored to the unique characteristics of Highland and are controlled to the total population projections, given in the Community Profile and Demographics section of this plan<sup>3</sup>, using the migration ratio coefficient. Demographic trends since 1990 have been analyzed in order to project long term population structure at decade intervals through the planning horizon of 2030. Assumptions of the cohort model are as follows:

- (1) Survival rates follow statewide trends obtained from the Utah Department of Vital Records and Research;
- (2) Birth rates are calculated as a ratio of births to number of women in child bearing ages observed in the previous decade;
- (3) Migration rates are set though a mathematical expression comparing the observed number<sup>4</sup> of persons per age cohort and the expected number<sup>5</sup> of persons in that age cohort.
- (4) All adjustments to migration trends follow the premise that trends showing the in-migration of families with householders age 35 to 54 which have fueled growth in Highland will continue to do so. As a corollary children of these householders will in-migrate with the same rates<sup>6</sup> as their parents. Out-migration of young adults in their 20's and early 30's will remain constant. Slow in-migration of seniors age 55 and up will also remain constant.

For the purposes of this section, the word "senior" will be defined as any person aged 55 and older. For any person who has not yet reached the age of 55 will be defined as a "non-senior."

### Historical Population

The cohort model employed 1990 Census and 2000 Census data to set a baseline for analysis. In 1990 there were 5,008 persons in Highland. By 2000 this number had increased to 8,172 persons. As of late 2007 the population of Highland was approximately 15,000. In 1990 seven percent of the total population was age 55 and older. This figure had increased to 10 percent by 2000. As the population ages in place the percentage of the population aged 55 and older will continue to grow in the future.

### Projected Population

Projections were made for 2010, 2020 and 2030 using the 1990 Census and the 2000 Census as a baseline for understanding the age structure of Highland. The population projections completed in the Community Profile and Demographics section of this plan show the majority of growth within Highland happening between 2000 and 2010. Following this period of dramatic growth

<sup>2</sup> Projections by definition are a best guess at future growth based on a set controlled set of previous trends and growth assumptions. These projections provide a plausible range within which the future age structure of Highland may fall given available information and data resources.

<sup>3</sup> The control totals were produced using a logistic growth model constrained by an analysis of future build-out. Please refer to that section of the plan for more information concerning these projections.

<sup>4</sup> This is the actual number of persons in the second decade of baseline data.

<sup>5</sup> This is the number of persons expected based birth and survival rates. If this number is greater than the observed number of persons the model assumes out migration. If this number is less than the observed number of persons the model assumes in migration.

<sup>6</sup> "Rates" here refers to the coefficient multiplier. This rate amplifies or moderates migration trends observed between the two baseline trends. For more information on migration please see the last section in the Senior Population Projections section of this plan.

within the community, population will grow much more slowly in the following two decades. The majority of the population living in Highland from 2010 onward will remain in place as they age. As the population ages and seniors account for an increasing percentage of the total population special planning will need to take place to ensure all the services needed for an aging population will be available in or near Highland. This will make options available so that long time citizens will not be forced to move away from their community as their health and lifestyle needs change over time.

Projections show seniors will account for an increasing percentage of the population over time, (Figure 9-1). By 2030 roughly one out of every four citizens will be over the age of 55.<sup>7</sup>

After 2020 the proportion of those less than 55 will decline, even though the total population will still be rising.

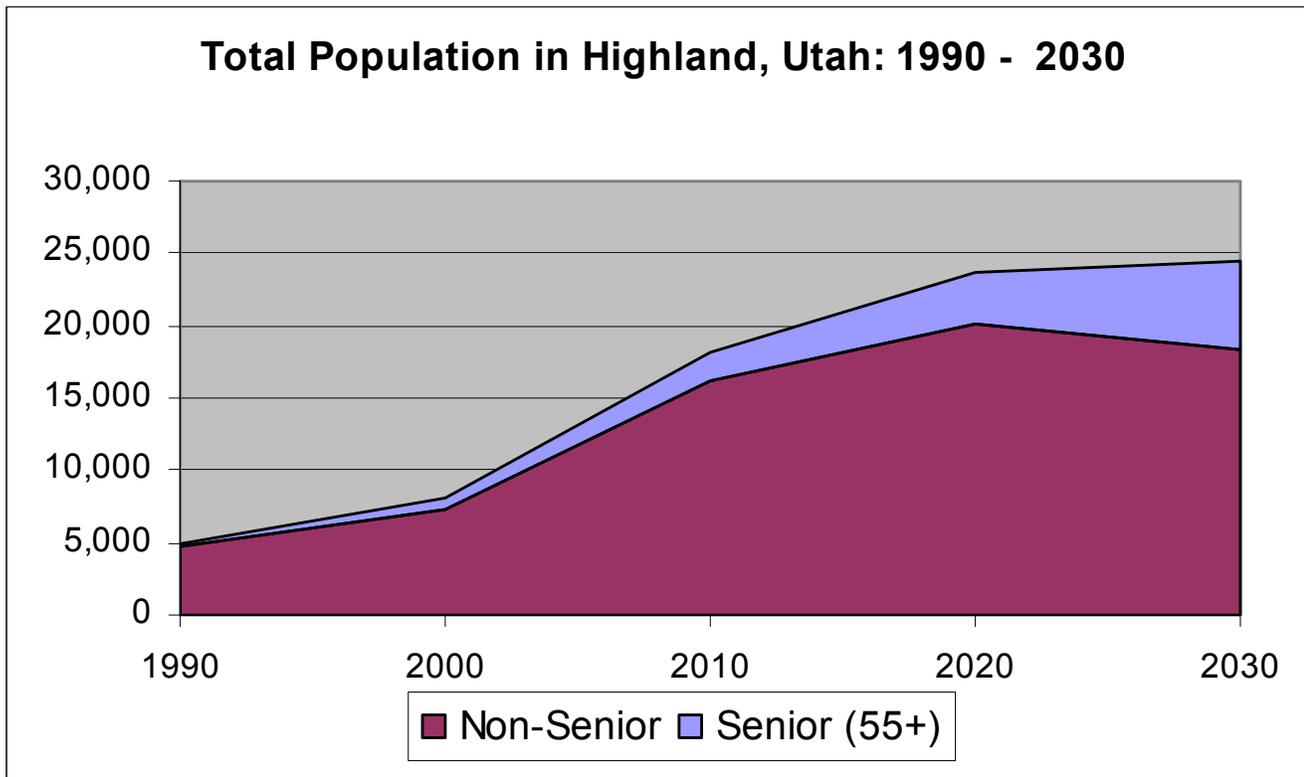


Figure 9-1

<sup>7</sup> Note: Three different projection methodologies (1. Cohort; 2. Cohort – no migration in the 55+; 3. Shift Share) were run with the outcome of seniors ranging from 24 to 26 percent of the total population. In these different projections the number of seniors in 2020 ranged from 14 to 15 percent. For 2010 the percent of the population over age 55 ranged from 10 to 11 percent. The cohort component model assumes that each age cohort (split out by sex and five year age group) will progress through time. Changes to the population in any age cohort will be based on survival and migration rates. In the second iteration of the cohort model all migration was eliminated after the age of 55. This assumes that once a resident of Highland reaches 55 they will stay in the community. In addition this model assumes that no new seniors will move into the community after they have passed the age of 55. The third methodology is a shift share model. This model does not produce age or sex specific data but served as a check from the total number of seniors produced in the previous two models. The shift share model was a moving proportion comparison between the number of 55+ seniors in Highland to the number found in Utah County as a whole. Both Highland and Utah County used the census numbers to set a baseline. Future projections were based off the GOPB's age and sex specific projections for Utah County.

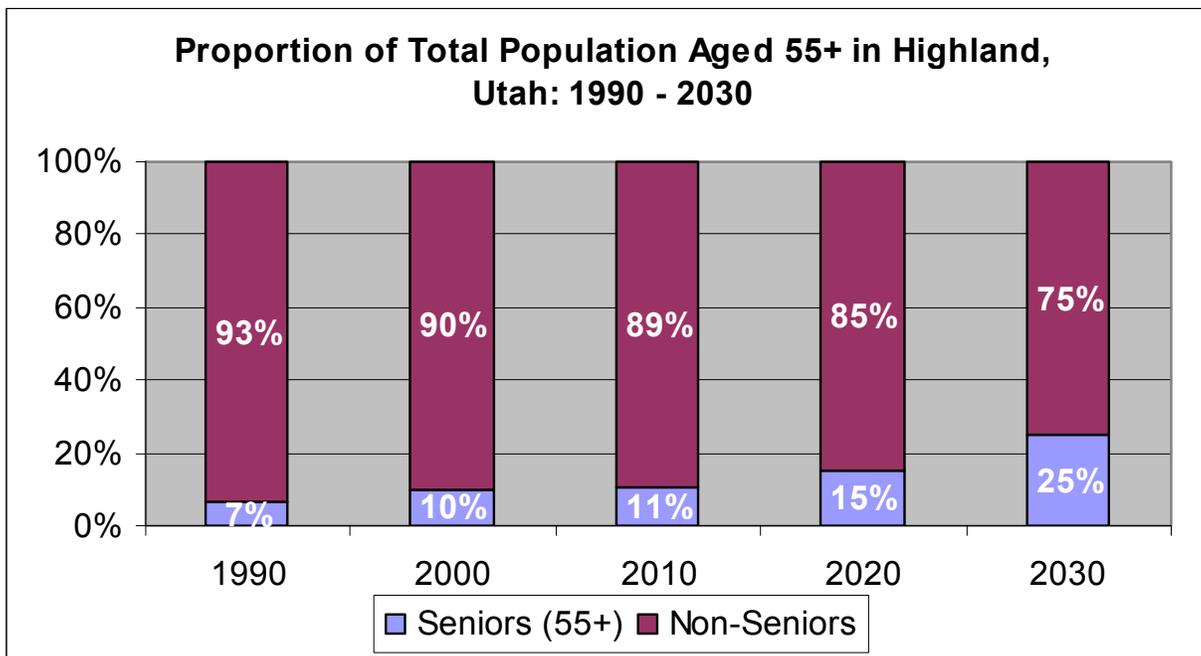


Figure 9-2

These trends are quite different from the projected population in Utah County as a whole during the same time as projected by the Governor's Office of Planning and Budget. Seniors will account for an increasing share of the total population over time in the county and in Highland, however the proportion of seniors in Utah County will be much less than those in Highland. In 2030, 17 percent of the Utah County population will be aged over 55. This is approximately eight percent less of the total population than will be observed in Highland.

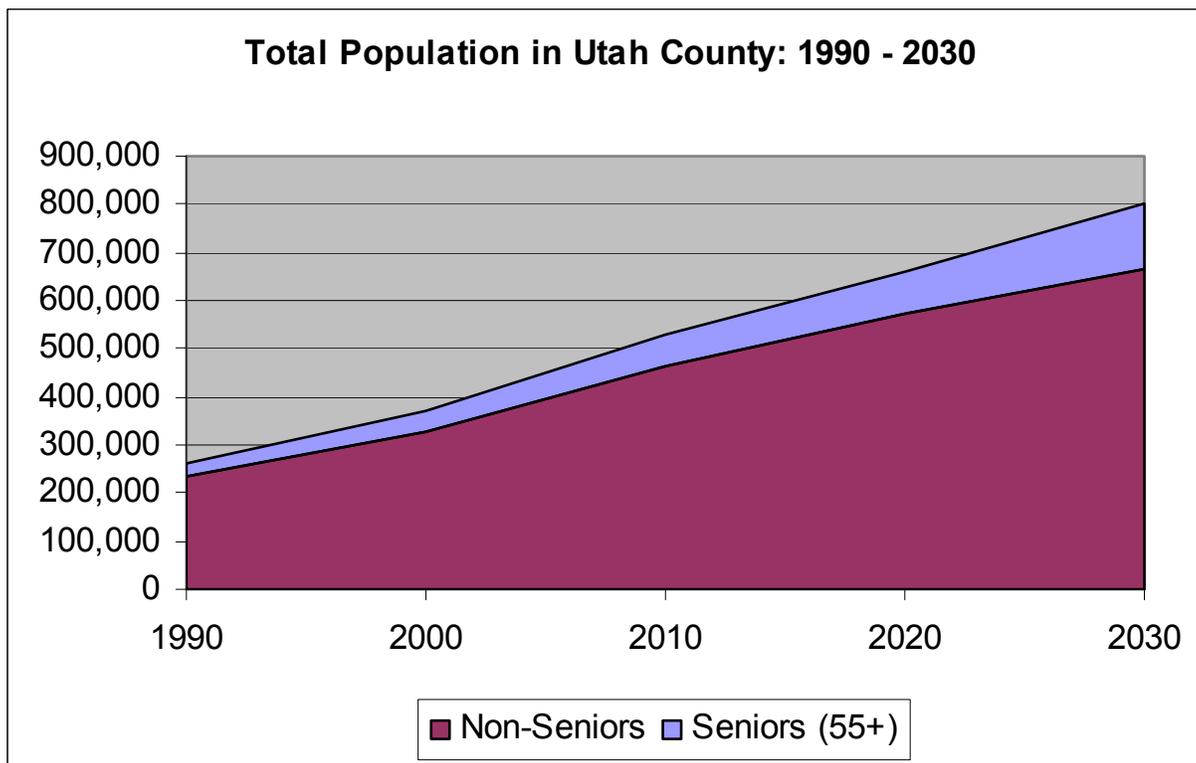


Figure 9-3

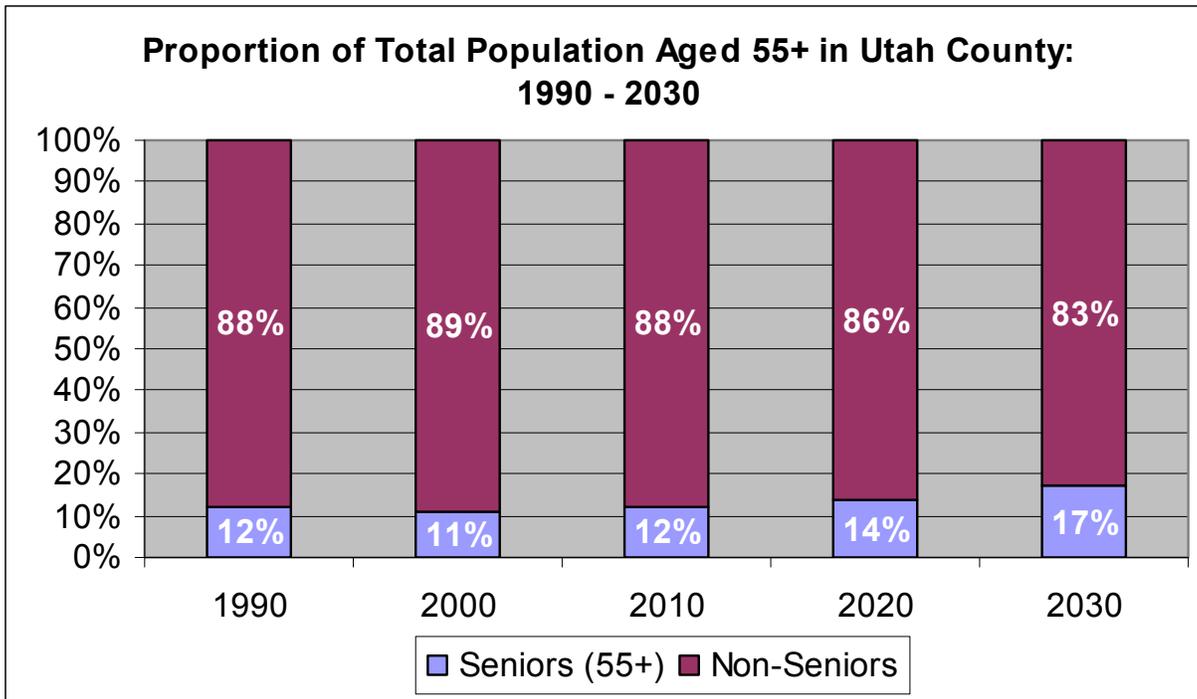


Figure 9-4

The total number of seniors is projected to grow by 648 percent from roughly 800 in 2000 to approximately 6,100 by the year 2030, an average annual rate of 6.9 percent. The average annual growth rate drops slightly from 2010 to 2030 to 5.9 percent for the remainder of the planning horizon. Figure 9-5 shows how the population will grow based on age. The most notable increase will be in the 55 to 64 years olds during the planning horizon. From 2030 forward the cohort of 55 to 64 year olds will continue to age through the senior population. Table 9-2 shows the senior population for the next two decades by age group.

Table 9-2. Senior Population Projections by Age Group

	2000	2010	2020	2030
<b>55-64</b>	461	1,102	1,921	3,283
<b>65-74</b>	229	504	1,019	1,719
<b>75-84</b>	105	250	418	797
<b>85+</b>	20	71	158	298
<b>Total</b>	<b>815</b>	<b>1,926</b>	<b>3,516</b>	<b>6,098</b>

Source: Wikstrom

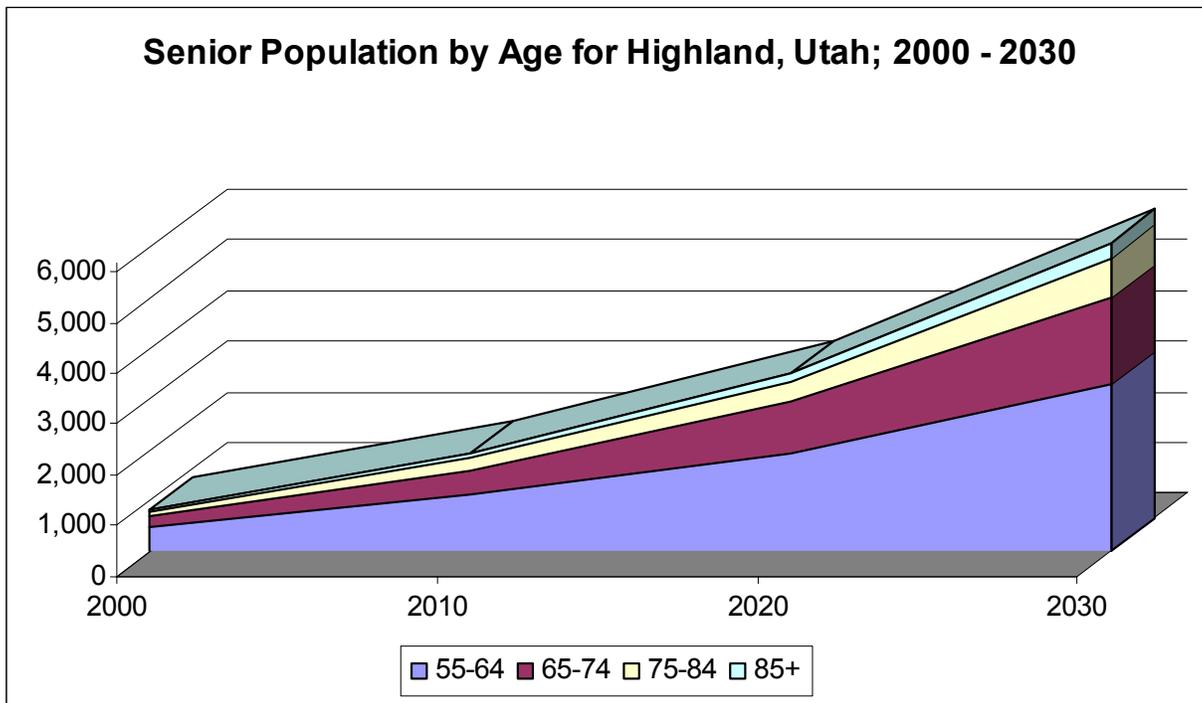


Figure 9-5

### Migration

Migration has had a huge impact on the age structure of Highland in the recent past as young families have moved in. At the same time, however, trends show only minimal in-migration in persons over age 55. As mentioned previously, the majority of in-migrants have been aged 10 to 19 and 35 to 54—indicative of families with children. The two different iterations of the cohort model (with and without migration of seniors) show a difference in the senior population of only 135 persons over the age of 55 by 2030. In other words, Highland's future senior population will result from those who moved into Highland when they were younger.

In such a small, suburban area such as Highland migratory patterns will largely determine growth or decline. These patterns can change very quickly depending on economic conditions. This is particularly true over longer planning horizons, thus the 2020 and 2030 numbers are tentative and will be influenced by the city policies, especially those related to the quality of senior services and availability of land for senior housing.

If Highland does make senior-friendly policy changes and substantial investments in senior services and amenities it is likely that some seniors from outside the city will move into the city's new senior developments. With the development of a large number of new senior housing units in Highland it is likely that some of the new residents will not be from Highland, rather, new residents could migrate in from other surrounding communities. In order to accurately provide enough senior housing units for all of Highland's citizens the city may need to "over-plan" somewhat the amount of senior housing needed. In other words, although demand for senior housing such as age-restricted housing may increase gradually, construction is bound to be "lumpy." If a large age-restricted community is built it is unlikely that all of its new residents will come from Highland, therefore, the city should expect some in-migration. However, retirees tend to stay very close to home if they move.<sup>8</sup> So, although there will be some in-migrants in the early phases of development, turnover will provide a source of gradual housing supply for existing Highland residents.

<sup>8</sup> Joint Center for Housing Studies of Harvard University. *Housing America's Seniors*. Cambridge, MA. Joint Center for Housing Studies, 2000.

## Estimate of Need

It is difficult to say exactly how many of Highland's seniors will desire to live in each of the various housing types described in this document because market conditions and preferences can change so much over time. However, we can roughly estimate the need for assisted living and nursing facilities based on current, publicly available statistics. Table 9-3 indicates approximately 126 seniors in Highland will be in need of specialized facilities by 2030 based on national statistics. This means that two or three assisted living/nursing facilities will need to be located in Highland according to data in Table 9-4, which shows typical development characteristics for various senior development types.

**Table 9-3. Number Likely in Need of Nursing/High Level Assisted Living**

	2000	2010	2020	2030
<b>55-64</b>				
<b>65-74</b>	3	6	12	21
<b>75-84</b>	6	13	23	43
<b>85+</b>	4	15	33	63
<b>Total</b>	<b>13</b>	<b>34</b>	<b>68</b>	<b>126</b>

Source: Wikstrom & U.S. Census Bureau. 65+ in the United States: 2005

As shown in Table 9-4 below, some senior development types can be quite dense—accommodating approximately 30 beds on a single acre. Conversely, some age-restricted developments have low gross densities of approximately one quarter acre per unit. Although the housing units themselves may be attached in these developments, they are usually accompanied by significant shared open space, which brings the gross density of the development down to typical single-family detached levels.

**Table 9-4 Senior Developments Characteristics**

	Average Beds	Average Units	Acres Needed
Assisted Living	33	na	1.2
Nursing Homes	78	na	2.2
Age restricted	na	109	26.0
Independent living	na	104	3.4

Source: Wikstrom

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## Affordability

Those who do not have savings are dependent on Medicaid and social security to pay, and these programs limit them to nursing homes. However, these government programs have recently begun to assist seniors in assisted living facilities. This cuts costs because assisted living centers tend to be cheaper, while allowing seniors a more pleasant environment. Those with higher incomes due to pensions and retirement savings are more likely to choose assisted or independent living facilities which they consider more attractive. Additionally, seniors often use money that they receive from selling old homes to purchase new homes or condos in age-restricted communities. Home care is an attractive option to those with money to pay for it, and often can be covered by insurance because it is administered under a doctor's care. This often occurs because seniors are reluctant to leave their traditional homes.

Even for seniors with stable incomes, finding affordable housing is always a concern because high housing costs mean less money is available for recreation, health care, or unforeseen expenses. It is therefore important to provide affordable options for seniors both those who relocate from within Highland and those (perhaps related to Highland residents) who move in from outside the community.

Although costs for senior housing and aid are expensive, there are ways to make housing more affordable for most seniors. Appendix E describes tools to encourage affordable housing. Two of these that could be useful for senior affordability would be accessory apartments and density bonuses. Density bonuses could be given to developers who incorporate affordable units into their developments. These would benefit seniors by providing affordable units in quality, amenity-rich communities.

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## Goals and Policies

**Goal:** Make Highland a place where residents can live in comfort as they age and their housing needs change.

**Policy:** Provide diverse housing types for seniors to accommodate all aging stages.

**Implementation Measure:** Allow senior developments and facilities (including age-restricted and independent living developments, as well as assisted living and nursing facilities) to be located in carefully selected areas throughout the city through the conditional use permitting process. When considering a conditional use permit for such a use, the following questions should be addressed:

- ♦ Is the development (especially if it is a higher density than nearby existing structures) consistent with the surrounding neighborhood in relation to the site plan, building design and scale?
- ♦ Is the proposed development near trails and sidewalks?
- ♦ Are city services and facilities, such as a future community center, easily accessible to residents of the development?
- ♦ If the development is an assisted living or nursing facility, is it located near major transportation arterials (for easy access to health care facilities and services)?
- ♦ Is the development located near future transit corridors?

**Policy:** Consider the incorporation of affordable units into senior housing developments.

**Implementation Measure:** Allow some combination of impact fee waivers and/or building permit fee waivers to promote the availability of perpetually affordable units.

**Policy:** Ensure that new senior developments are seamlessly integrated into the existing form and pattern of the community. Each senior development should be designed such that it is consistent in form, scale, and architectural style with adjacent structures and with the immediate neighborhood.

**Implementation Measure:** Prepare and implement design guidelines covering senior developments with attached units and/or densities higher than the base zone.

**Implementation Measure:** Waive or reduce recreation impact fees for developments which incorporate significant open space and amenities.

**Policy:** Provide high quality services for seniors. **Implementation Measure:** Construct a senior center either as part of a community center or as a stand-alone facility.

**Implementation Measure:** Provide a Highland City contact to assist seniors in identifying special resources and opportunities.

**Policy:** Encourage the use of universal design principles in all housing to increase the livability of senior housing and to encourage seniors to remain independent as long as possible.

**Implementation Measure:** Require the use of universal design principles by ordinance in senior-oriented housing.

**Implementation Measure:** Create a comprehensive information source for developers covering all aspects of universal design.

**Policy:** Encourage cooperative opportunity and symbiotic relationships between senior developments and facilities (both public and private) within Highland.

**Implementation Measure:** Enter into agreements with developers to provide common access to facilities, programs, services and recreational opportunities.

**Implementation Measure:** Encourage mutual agreement between developers for shared access to facilities, programs, services and recreational opportunities.



# Appendix A

## Summary of Public Involvement

### Highland Neighborhood Meetings - November 2006

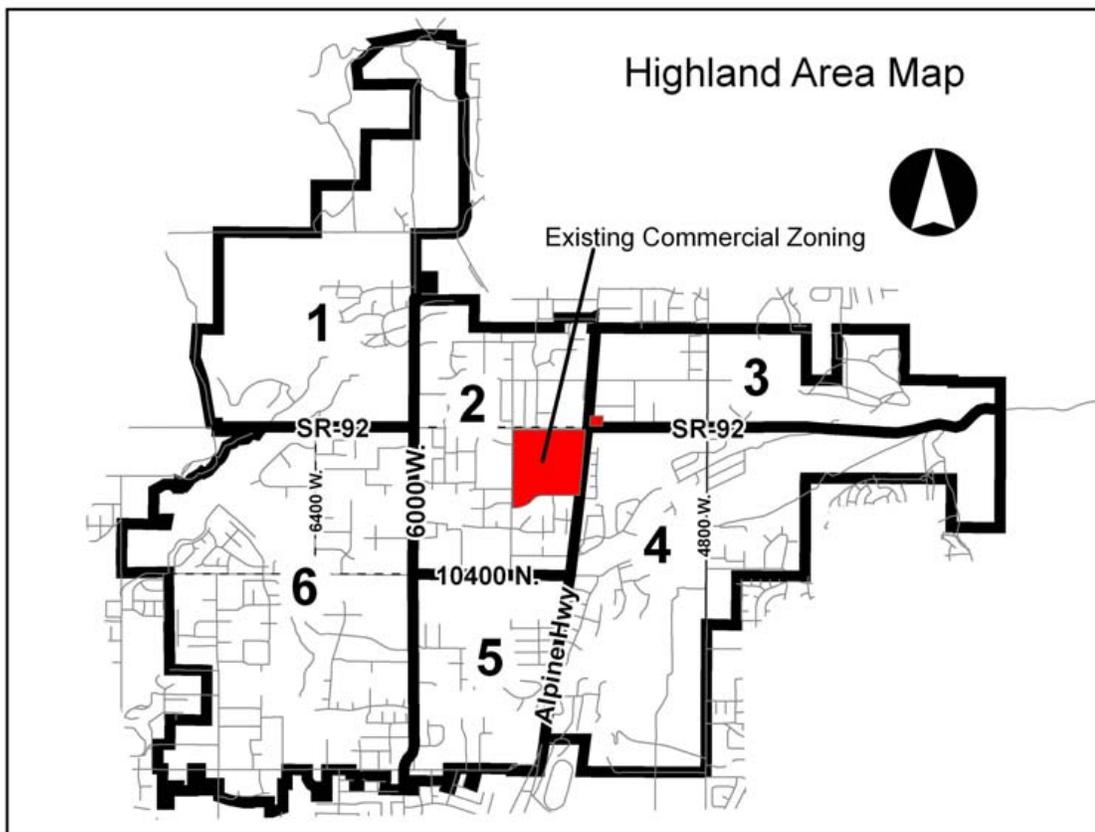
The following is a brief summary of comments received as part of the five neighborhood meetings held in November 2006 as part of the Highland General Plan Update.

As illustrated below, total attendance at the meetings was 57, with attendance at individual meetings attendance ranging from 6 to 14.

### Highland General Plan Update - Neighborhood Meetings

	Attendance
Meeting 1	14
Meeting 2	6
Meeting 3	15
Meeting 4	11
Meeting 5	11
<b>Total Attendance</b>	<b>57</b>

Meetings were held at four community schools on five different nights in November 2006. The meetings were organized and advertised for the neighborhoods illustrated below, with the exception of areas 3 and 4, which were combined as a joint meeting.



Comments and discussion were focused on a relatively narrow range of topics. Key areas of interest and concern regarded the following:

- ◆ Preservation of large lots
- ◆ Preservation of traditional city form
- ◆ Need/desire for more housing options
- ◆ Residential density
- ◆ Clustered residential
- ◆ Commercial services
- ◆ Status of recently rezoned commercial property
- ◆ Desire for community services (library, community center, etc.)
- ◆ Desire for connected trails and trail access
- ◆ Desire for sports fields and parks
- ◆ Park maintenance
- ◆ Parks in exchange for density
- ◆ Traffic on major roads
- ◆ Local road concerns (specific facilities)
- ◆ Desire for bus connections to west in particular
- ◆ Housing for elderly
- ◆ Housing for younger families
- ◆ Realities of land costs -excludes segments of population
- ◆ Safe routes to school/ need for sidewalks
- ◆ Future of agricultural land
- ◆ High taxes
- ◆ Paying for enhanced services
- ◆ Shared services with surrounding communities and others
- ◆ Community meeting places
- ◆ Town Center - status

Following is a breakdown of comments, organized by the relevant plan Element or Chapter addressed. Numbers in bold (1) indicate issues that were made multiple times.

Each chapter or element concludes with a list of Discussion Items, preliminary Recommendations for Consideration, and questions posed by the Landmark Design Team.

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## Background and Introduction

- 1) Concerned that the population of Highland is outgrowing its boundaries, and the city might need to become denser.
- 2) Came here for the rural feel, but concerned that Highland is changing - what will its future image and identity be?
- 3) Concerned that the rural feel will be lost if large lots are not maintained. Starting to see Highland turning into Southern California - a sea of rooftops. However, others are concerned that large lots does not necessarily result in an open feel.
- 4) Some are concerned that large lots and lack of local commercial uses requires residents to drive outside of the community....concerned about the ethics of always needing to drive outside of the community to get services.

## Land Use

### General

- (1) Need to know ownership.
- (2) More options for alternative uses instead of just residential and commercial.
- (3) Need to adapt to meet changing needs.

### Residential

- (1) Need to maintain Highland as a community with larger lots – ½ acre to 1 acre in size. **9**
  - (a) There are maintenance concerns with larger lots, especially for empty-nesters. **2**
  - (b) No lots under 1-acre in size.
  - (c) No clustered open space with smaller lots.
  - (d) Paid more to live here for the rural.
  - (e) Large lots provided adequate distance between houses.
- (2) Larger lots don't necessarily equal higher quality community.
- (3) Locate ½ acre lots by other ½ acre lots.
- (4) Need to accommodate a larger variety of residential neighbors, to make housing more affordable, and to provide a wider range of housing options.
- (5) Some desire higher density in limited locations, although the density depends on the specific location. Don't scatter everywhere. **5**
- (6) Too expensive for most people; high taxes forcing older people to sell.
  - (a) Locate smaller lots by open spaces as part of overlay parkland bonus design. **2**
  - (b) Allowing larger homes on smaller lots may help to meet need.
  - (c) Windsor Meadows: clustered development approach is nice, successful and in demand.
  - (d) Not impressed with clustered development on hill in North Highland above gravel pit. Not as good as Alpine Hill Development to the East. Lots are too small – not what Highland is about. **2**
  - (e) Lives on 1/3 acre with open space, used by non-area residents mostly.
  - (f) Proposal for park with higher density.
  - (g) Other communities also use open space parks (shared cost).
  - (h) Allow clustered homes to have a fence around their property.
  - (i) Clustered development preserves open space better than large lots.
  - (j) Large lots are less relevant today. Animal rights are being lost, hard to maintain.
  - (k) Higher density such as 8 units per acre if properly maintained may be good.
- (7) Best location for higher density is along major roads (Alpine Hwy. and Hwy.) **3**
- (8) Density – Image is of lots of apartments and crime.
  - (a) Near the town center is high density +/- 6 units per acre is proposed. House type is "Mansion Homes".
    - (i) Higher Density should be walkable near the town center.
- (9) Assisted living and other ideas should be explored (open to other options).
- (10) Minimum lot size doesn't necessarily = open feel and maintenance of traditional feeling.
- (11) There is a higher density proposal for a 60-acre site in the southern edge of the community. In exchange for approximately 1/3-acre lots, the developer will provide a 20-acre sports park.
  - (a) Some residents like this idea, while others (neighbors in particular) are concerned that it does not fit in, is too dense and will increase traffic problems.
- (12) Just west of the development above is an island of Utah County land currently used as a salvage yard, which is likely to be incorporated into Highland and developed (Buehler Property). Site was apparently bought by Highland City -needs to be cleaned up before it can be developed.

- (13) Highland City may be annexing 300 acres from Draper in the NW area of the City, and will be mainly residential.
- (14) Housing alternatives for senior citizens.
  - (a) Single family residential in clusters.
    - (i) Small lots with lower maintenance needs.
    - (ii) Affordable \$250-300,000.
    - (iii) Feel comfortable/safe leaving for long periods of time, so you don't have to get someone to watch the house.
  - (b) Good places to locate:
    - (i) Alpine Hwy.
    - (ii) SR 92.
    - (iii) Clustered somewhere near the commercial center
- (15) Ivory Homes west of city – do not want this type of housing!
- (16) No flag lots.
- (17) People want to have properties maintained, less transient population, more long-term residents
- (18) Can't add more rooftops than the infrastructure can support

### Commercial

- (1) Recent rezone is preferred by a slight majority of community. Design of the project is critical, similar to Town Center across the street. Should accommodate wide range of uses, including office, etc.
- (2) Big-box commercial at the newly zoned property and existing Town Center is liked by some, disliked by others.
- (3) No strip commercial along major roads – concentrate it at the four corners where it is or will soon be instead. **2**
- (4) No more commercial areas in Highland. Develop the plan for the Town Center and don't ruin the country feel of Highland with commercialization. **2**
- (5) More commercial – provides missing services, great for revenue **2**
- (6) Need to save the Town Center.
- (7) Town Center
  - (a) “A place where people come” – a gathering point.
  - (b) Needs more than just a grocery store
  - (c) Some disagree; it would bring more traffic problems.
  - (d) We have all that we need just down the road

### Agricultural

- (1) Maintaining farming potential in the future is not likely - it can't survive in the community due to high land prices.
- (2) Animal rights – would like more “rural” farm/animal acres. Maintain these rights, and grandfather them (they are protected). **3**
- (3) People moving in are not using animal rights (or they get lost in transfer of land ownership).
- (4) Keep rights as sold
- (5) Leave/ allow agricultural fields to stay.
- (6) Would like to maintain/re-establish animal rights. Now lot-size based. No covenants.
- (7) Farmers shouldn't be run off of their own land.

## Parks, Open Space, Buffers and Transitions

- (1) Provide buffers/transitions between densities and uses. Open spaces and parks are good for this purpose.
- (2) Parks - there is a disagreement whether the number and amount is adequate. Concern that when city allows density increases in exchange for providing and developing open space and parks, traditional patterns will be jeopardized, traffic impacts will increase, and other negatives will result.

## Library

- (1) Would like a public library in Highland. **5**
- (2) Can Highland support its own library? County/city/shared, American Fork library is close; it is easy and inexpensive to utilize this resource.
- (3) Library is county issue; (small library, not stand alone), county system not necessarily in county; American Fork has city library.
- (4) Should create a library committee.
- (5) Inter-library loan may be appropriate system for a small community like Highland.
- (6) A library would be an asset to the community and would be supported (fund raising)
- (7) There is no library or recreation system in Utah County like that provided in SL County.
- (8) Share development of library amenities with other communities. **3**

## Community Center/ Recreation Center

- (1) Share development of Recreation Center with other communities. **3**
- (2) Land south of high school - look at possible community center shared with school district. **4**
- (3) Need a recreation fitness center and pool (like Lehi's Legacy Center). **3**
- (4) Recreation Center at site north of Lone Peak High School – not in favor due to costs & lack of interest. Already one in Lehi and one in American Fork; consider regional context.
- (5) Alpine School District bond approved - \$1 million has been committed to recreation facilities/parking for site north of high school.
- (6) Community/recreation center – parks/fields. Provide adequate outdoor amenities before looking at indoor facilities.
- (7) Winter (indoor) recreation facilities – adjoining communities have such amenities.
- (8) Cooperate with Alpine, Cedar Hills etc. for amenities none are able to provide on their own.
- (9) Use other facilities in American Fork, etc.
- (10) Does not support having local amenities.
- (11) Highland City owns land in Town Center. Could include a library, community center or senior center in design, for example.
- (12) Community center with a library could be incorporated into it.
- (13) Need gym/workout facility
- (14) Community center with pool – would be a gathering place for kids and families.
  - (a) Desire for enhanced facilities and amenities will overwhelm municipal budget without corresponding increase in commercial (tax-generating) uses.
- (15) Would love such amenities, but not higher property taxes.
- (16) A recreation center could become a community center, gathering place.
- (17) City should provide community/recreation/health center as a public good.

## Sidewalks

- (1) Sidewalks, fill in gaps
- (2) Sidewalks lacking around schools, especially winter concerns
- (3) Some don't like sidewalks - "not rural"
- (4) Lack of sidewalks to Mt. Ridge.

## Garbage Collection

- (1) Landfill is in Lindon.
- (2) Recycling is pay system.

## Street Lights

- (1) Wants streetlights, too many dark areas.
- (2) Want streetlights in residential areas.
- (3) Would love a library

## Schools

- (1) Schools are good.
- (2) Need for additional high school in 10 years?

## Public Safety and Fire

- (1) Consistent Street numbering between cities (turf wars)
- (2) Snow plow service not wonderful – in residential it can be scary for kids outside
- (3) Ambulance services currently inadequate & getting worse. 1 vehicle, 2 teams
- (4) City just got a Homeland Security Grant
  - (a) Hiring 9 new fire and medical.

## Other Uses

- (1) Salt Lake Regional hospital is coming south of Highland

---

## Transportation and Traffic Element

### General Traffic

- (1) Consider impact of traffic, schools.
- (2) 4800 W. and 92 will be detour for I-15 construction.
- (3) Coordinate road and land use planning with other cities (roads etc)
- (4) Need to more carefully consider the traffic impacts of new development approvals.
- (5) There are significant traffic impacts from park west of Junior High school.
- (6) Lack of sidewalks/traffic conditions adjacent to schools is a problem.
- (7) Consider impact of traffic, schools
- (8) Difficult to get to "The Meadows" Commercial Development in American Fork by vehicle.

### Major Roads

- (1) Will SR-92 become large collector? - Avoid making it a large traffic carrier (canyon road).  
– Alternative to I-15 (belt route like I-215)? Don't want in their community.
- (2) Widen 92 and Alpine Hwy, part of the way.
- (3) Are there plans to widen any roads?
  - (a) SR 92 will be widened, 4 lanes into 5 lanes near I-15.
- (4) SR 92 – it can't hold all the travelers.
- (5) 92 has a lack of consistency (goes from one lane into two etc), just keep it consistent 4 lanes
- (6) Road Size – ruins rural feel. 92 and Alpine disconnects the town
- (7) Kohlers to freeway- wants fewer lights, traffic should flow better - avoid long commute times.
- (8) Alpine Highway- concern about future volume, city worked with U-DOT.
- (9) Would prefer smaller volume on major roads

- (10) SR-92 - widen shoulders and emergency lanes – buffer for pedestrians and road cyclists.
- (11) Park Strips along roads – small 4-5' open space strips – Open space overlay natural vegetation, not as planned. Make those spaces bigger do something else with them
- (12) Micron is a growing traffic issue. **1**
- (13) Access to the freeway will be big issue in future (soon).
- (14) Traffic to canyon isn't too bad.
- (15) UDOT should make State highways a consistent speed limit thru Highland
- (16) Crossing SR 92 (on foot and in car) is an issue

### Local Roads

- (1) Biggest traffic problem on residential streets is cut through traffic.
- (2) Improvements on 10400 N. 6000 W.: not necessarily widening, but make sure can handle traffic.
  - a) Sidewalks, i.e. 6000 W.
- (3) Area 2, worried about cut through traffic around potential rezone area (commercial)
- (4) Residential roads – needs improvement, consistency of curb and gutter
- (5) City doesn't have \$ to improve roads
- (6) Traffic on Canal Blvd. (9850 N.)
  - (a) Posted at 45 mph
  - (b) Dangerous
  - (c) Need traffic calming devices to make it a neighborhood
    - (i) Roundabouts
    - (ii) Road pinches etc
  - d) Need all over community

### Intersections and Traffic Lights

- 1) Albertsons intersection, concerns with safety and gridlock.
- 2) 6400 W. & 92 intersection – need light for turning left onto 92
- 3) Need stoplight at Highland Blvd. and 92.

### Trails, Bike Lanes, Pedestrian Safety

- (1) Bike lanes - on street or separated. Safety concerns about current situation
- (2) Children don't feel safe riding bikes to school and around town
- (3) Existing trails not usable, too many gaps.
- (4) Bike/pedestrian lanes are important in neighborhoods
- (5) Kids enjoy biking to school (it is allowed)
- (6) Crossing 92 – not safe for pedestrians - is there a plan for a safe overpass.
- (7) Need bike lanes or separate trails for safety
  - (a) On both 6900 W. and SR 92
  - (b) A barrier between bikes and cars would be nice but not necessary
  - (c) Safe crossings – stoplights?
- (8) 6000 W. needs sidewalks

### Transit

- (1) No bus service at present – Should be minimal service along 11000 north/Alpine Hwy.
- (2) Need for transit – UTA use to come; poor hours – handicapped services more. Frequently – smaller buses, accommodate work hours, college students – need E/W transit to connect to train – park and ride lots.
- (3) Not enough room at park n ride lots (no buses connect @ 92/I-15; intersection issues)
- (4) Bus service would be nice for regional rail users. Better than park and ride lots.

- (5) Buses – just in and out from Town Center, not all over community.
- (6) Road damage in Dry Creek Bench needs to be addressed.
- (7) Commercial Development could attract bus users.
- (8) There are individuals who would use transit if it were more convenient.
- (9) Transit links to regional system – not local circulator system.
- (10) 92 should be 4 lanes @ Micron.

---

## Environmental and Natural Systems

- (1) Concerns with water supply, restrictions during droughts.
- (2) Storm drainage is inadequate, being dumped into ravines.
- (3) Erosion is an issue
  - (i) Shouldn't permit development until storm drainage and erosion has been resolved
- (4) There should be a higher priority on preserving natural features.

---

## Economic Element

### General

- (1) Commercial locations- supports rezone of new commercial area, survey shows slight preference for more commercial at that site in particular. **2**
- (2) Prefer large combined commercial areas, rather than spread out.
- (3) Commercial development will help local tax base. **3**
- (4) More commercial is desired, particularly along main roads.
- (5) Don't mind traveling outside of Highland for services.
- (6) Wants higher-end clothing stores etc. Commercial in Highland should reflect the power of residents.
- (7) Commercial developments need to be limited, able to be supported.
- (8) Would rather have fewer services and less commercial, smaller commercial.
- (9) Cares less about having local amenities.
- (10) Want more commercial businesses – not overdone, but some would be good.
- (11) \$ should stay in Highland to support own community.
- (12) Tax \$ only goes so far.
- (13) Follow through on condensed commercial development rather than strip development.
- (14) More commercial conveniences rather than higher property taxes.
- (15) "Wish list" vs. cost of services –commercial needs to be based in reality.
- (16) Highland may as well collect tax \$ from people that have to go through the city, i.e. Alpine
- (17) Would like to see a list of businesses that the city could support.
- (18) Would rather have fewer services and less commercial, smaller commercial.
- (19) Would rather pay a little extra property tax rather than get commercial.

### Desired Uses and Forms

- (1) People seemed to be happy with existing commercial but want more sit down restaurants. **4**
- (2) If restaurants going in @ Traverse Mountain, then wouldn't necessarily need more here.
- (3) Want a hardware store. **2**
- (4) Need entertainment uses – old fashion like ice skating
- (5) No big box commercial. **3**
- (6) More commercial – including big box.

- (7) Clustered commercial, smaller-scale. **3**
- (8) Increase selective commercial activities to provide services for the people that live here.
- (9) No additional commercial areas in Highland. Develop Town Center as planned and don't ruin the country feel of Highland with commercialization.
- (10) Towne Center
  - (a) "A place where people come", a gathering point.
  - (b) Needs more than just a grocery store
  - (c) Some disagree, it would bring more traffic problems.
  - (d) "charming" with small town feel, commercial development with public amenities such as skating rink.
  - (e) Make conveniences fit small town scale
  - (f) Don't want commercial areas to look like State St. in Orem
- (11) Commercial around Kohlers not stable; poorly designed.
- (12) We have all that we need just down the road in nearby communities.
- (13) Town Center – balance commercial with adjacent condo areas, high density, common areas, all single family.
- (14) Likes character and businesses already in Highland.
- (15) Need to save the Town Center.
- (16) Need more than just Kohlers
  - (a) Bigger range of uses (Town Center)
  - (b) Make it a destination (Towne Center)

---

## Moderate-Income Housing Element

- (1) General preferences for larger lot sizes, although this is not a mandate.
- (2) General preference for single-family, despite density.
- (3) Assisted living, and other ideas should be explored (open to other options)
- (4) Need to adapt to changing conditions, including rising land/development costs.
- (5) Need to allow lower priced housing for young families; avoid stagnation.
- (6) Older citizens - no housing for those who would love to stay in Highland.
- (7) Highland needs to think about the community rather than just focusing on narrow topics such as lot size and density. Highland should be a place of "community", where elderly can stay despite changing needs, multiple-generations of extended families are encouraged, maintenance on larger homes is good.
  - (a) Some families accommodate elders in their own homes.
  - (b) Careful placement of high-density, assisted living.
  - (c) Duplexes/triplexes for elderly housing.
  - (d) Along main corridors – walkable if in town center.
  - (e) Single level housing.
  - (f) Town Center could implement age restrictions to encourage elderly (if P.U.D.)
- (8) Younger families out-priced already (affordable housing in Highland is non-existent and probably not possible)
- (9) Use mother-in-law apartments to meet legal housing requirements
- (10) Housing should reflect the "large lot community" tradition.
- (11) Housing alternatives for senior citizens
  - (a) Single family residential in clusters.
  - (b) Higher-density uses as transitional housing.

---

## Community Design

- (1) What is the identity and image of Highland? Is it the same today as before?
- (2) Buffers/transitions between densities and uses is desired.
- (3) Consider context in planning – look to neighboring communities, views and landscapes.
- (4) Cluster development vs. large lot – cluster may better preserve “traditional” form, sense of place, sense of rural and open feeling.
- (5) Kohlers is an important community-gathering place - what is the future of this place if more commercial uses are allowed in.
- (6) Community needs to be integrated – pockets of development – connected parks.
- (7) Signage - zoning needs to be changed to better address. Coordinated wayfinding, location signs, business locations, etc.
- (8) Gathering places – need to be integrated.
- (9) Bring community together, don't separate through planning and design.
- (10) Likes appearance of Kohlers area - lighting isn't overwhelming.
- (11) Wants smaller-scale commercial.
- (12) Likes character and businesses at Town Center.
- (13) City Image = beautiful bedroom community.
- (14) Keep it simple.
- (15) Need to save the Town Center –bring the road access across the street to connect with the new commercial area currently being approved by the City.
- (16) Look contextually – each sub-neighborhood or area should have its own approach.
- (17) People take pride in living in Highland.
- (18) City should insist on landscaped median and side treatments on 92.
- (19) Green space (common) in town center should not be compromised.
- (20) Plan should include landscaping suggestions.
- (21) Plan should address aesthetics around county retention pond and Dry Creek.

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## Parks, Recreation, Trails and Open Space

### General

- (1) Charges \$2500 per lot impact fees for parks and trails (not keeping up; funding and issue with lot prices)
- (2) Recreation Department? Funding?
- (3) Currently go to American Fork for many park uses.
- (4) There are other park users besides kids – focus is on young users at the expense of older users.
- (5) Charges \$2500 per lot impact fees for parks and trails (not keeping up; funding and issue with lot prices)

### Parks and Recreation

- (1) Would like a nice large park to accommodate bigger events, especially soccer fields (only one existing field in town to play on).
- (2) The park along the canal on 10680 N. between 5600 W. and 5400 W. poses a safety hazard for small children. There is a tot lot near the canal. Kids could drown.
- (3) Safety concerns with Highland Glen Park: overgrown, poor (access?) visibility. Has great potential. **6**
- (4) Dry Creek Park improvements have not been implemented (gazebo, picnic tables etc)
- (5) Vandalism problems in parks.

- (6) Active recreation – would be nice to have local fields (ball fields).
- (7) Have many areas for parks in plan - Highland owns much of land already. Highland Glen Park construction documents almost done; capital cost issue.
- (8) Open Space – do it right. It is very desirable
- (9) Restroom maintenance, etc. @ Discovery Park is poor.
- (10) No grass for play areas at Discovery park
- (11) Ball fields – dirt isn't adequate for playing
  - (a) Restrooms aren't clean (Burgess park in Alpine is great!)
- (12) Using Alpine facilities through school activities
- (13) Park Maintenance needs to be improved
- (14) School policy on sharing park and recreation facilities – City and School District should cooperate.

## Trails

- (1) Need bike paths near schools and sidewalks
- (2) Alpine and \surrounding communities have good trails – need to connect into them
- (3) Trail maintenance is an issue
- (4) Any plans for Murdock Canal? Covered? Appearance?
  - a) Lots use it for biking and walking
  - b) It could connect to Provo Canyon
  - c) The plan is to pipe and cap it.
  - d) People would rather keep this as a trail than create a new one.
- (5) Trails along streams, canals and waterways – is it feasible?
  - a) Preserve waterways, just from a flood control point of view.
  - b) Security issues of homes along public waterway
  - c) How realistic is it to indicate trails along waterways that are presently in private ownership?
- (6) Trails @ Discovery (Highland Glen) Park are in poor condition.
- (7) Should be able to landscape all the way to trail instead of providing 15' buffer (can do that with permit)
- (8) Trail are not well connected.
- (9) Would like more trail connections
- (10) City should provide a trails map and signage
- (11) Budget \$ for construction of trails where city has easements
- (12) Master plan should reflect viable alignments – current plan does not realistically reflect steep and unbuildable slopes, etc. - trail alignments need to be more specific. Legal aspects should also be addressed, i.e. trails on private land, easements, etc.
- (13) Locate a separated bike trail on SR92 – in addition to on-street bike lanes. Future road widening projects should reflect; plan should include typical sections of this road and others that illustrate future trail concepts.
- (14) Trail system should be linked to parks
- (15) Drainage on existing trail needs to be addressed
- (16) Trail system – should have loops, be continuous and linked.
- (17) Park/canal- safety issues with small children requires a fence or other solutions.
- (18) City policy on canals is required – can be assets - trails, or liabilities - adjacent uses.

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## Mapped issues

- (1) Area between 5890 W. – 5800 W. and 10400 N. - 10200 N.
- (2) R1-40 Proposal for 20 homes
- (3) Parcel west and southwest of Mountain Ridge Jr. High (currently Ag./Vacant)
- (4) Proposal for parkland bonus overlay
- (5) Development north of Mountain Ridge Junior High (same block as city hall.)
- (6) Traffic concerns from this development
- (7) Along Windsor Park Road Between 5800 W. – Alpine Hwy.
- (8) Trails not maintained.
- (9) Ag. Land N.W. of 92 and 6000 W. – Possible commercial?
- (10) Ag. Land north of High School
- (11) Proposal- Joint Alpine School Dist. Joint Gymnasium
- (12) Also UB/ Govt. Center
- (13) Natural Open Spacer, just south of 92, on city western border (body of water)
- (14) City-owned
- (15) Possible areas for an Assisted Living Center
- (16) Along 92 corridor
- (17) Along Alpine Hwy Corridor
- (18) West of the northern tip of Highland (in Draper City)
- (19) 300 Acre residential
- (20) In Draper – Re-annexing process.
- (21) Circle around Agricultural Land just west and southwest of Mountain Ridge Jr. High – owner wants ½ acre lot rezone.

# Appendix B

## Community Survey

### HIGHLAND CITY SURVEY

Dear Resident, This survey has been sent to every household in Highland City to learn more about your views of Highland’s future. The results will be analyzed as part of the update to the City’s General Plan. Thank you for taking the time to invest in our City’s future. *(Survey is double sided.)*

**Please return this survey with your utility payment. Thank You!**

**ALL INFORMATION WILL BE KEPT ANONYMOUS**

1. What attracted you to live in Highland?

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2. **Part 1:** How important is it to you to have the following goods and services available in Highland? (Please rate on a scale of 1 to 5, with 1 meaning *Not Important* and 5 meaning *Very Important*.)

**Part 2:** How well is Highland performing in providing the goods and services listed below? (Please rate on a scale of 1 to 5, with 1 meaning *Very Poor* and 5 meaning *Very Good*.)

**Part 1. Importance**

**Part 2: Performance**

<i>Not Important</i>					<i>Very Important</i>					<i>Very Poor</i>					<i>Very Good</i>					
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	2	3	4	5						a) Automotive Parts, Accessories, and Tires	1	2	3	4	5					
1	2	3	4	5						b) Furniture and Home Furnishings	1	2	3	4	5					
1	2	3	4	5						c) Electronics and Appliance	1	2	3	4	5					
1	2	3	4	5						d) Building and Garden	1	2	3	4	5					
1	2	3	4	5						e) Grocery and Convenience Stores	1	2	3	4	5					
1	2	3	4	5						f) Specialty Food Stores	1	2	3	4	5					
1	2	3	4	5						g) Health and Personal Care Stores	1	2	3	4	5					
1	2	3	4	5						h) Clothing and Clothing Accessories	1	2	3	4	5					
1	2	3	4	5						i) Sporting Goods, Hobby, Book, and Music	1	2	3	4	5					
1	2	3	4	5						j) Drycleaning and Laundry Services	1	2	3	4	5					
1	2	3	4	5						k) Full-Service Restaurants	1	2	3	4	5					
1	2	3	4	5						l) Limited-Service Eating Places	1	2	3	4	5					
1	2	3	4	5						m) Automotive Repair and Maintenance	1	2	3	4	5					
1	2	3	4	5						n) Hair, Nail, and Skin Care Services	1	2	3	4	5					
1	2	3	4	5						o) General Merchandise Stores (department, super-centers, warehouse membership stores, etc.)	1	2	3	4	5					

3. **Part 1:** How important is having the following recreational opportunities available in Highland? (Please rate on a scale of 1 to 5, with 1 meaning *Not Important* and 5 meaning *Very Important*.)

**Part 2:** How well is Highland performing in providing these recreational opportunities? (Please rate on a scale of 1 to 5, with 1 meaning *Very Poor* and 5 meaning *Very Good*.)

**Part I: Importance**

**Part II: Performance**

<i>Not Important</i>					<i>Very Important</i>					<i>Very Poor</i>					<i>Very Good</i>					
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
1	2	3	4	5						a) Regional Parks	1	2	3	4	5					
1	2	3	4	5						b) Neighborhood Parks	1	2	3	4	5					
1	2	3	4	5						c) Small parks/Tot lots	1	2	3	4	5					
1	2	3	4	5						d) Ball/sports fields	1	2	3	4	5					
1	2	3	4	5						e) Natural (undeveloped) open space	1	2	3	4	5					
1	2	3	4	5						f) Trails	1	2	3	4	5					

4. Where do you buy most of your groceries? (Please select only ONE)

- a) Albertons in American Fork
- b) Albertons in Lehi
- c) Kohler's in Highland
- d) Kohler's in Lehi
- e) Macey's in Pleasant Grove
- f) Smith's in American Fork
- g) Target in American Fork
- h) Wal-Mart in American Fork
- i) Costco in Orem
- j) Other \_\_\_\_\_

5. Please rank how you feel about each of the following statements:

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
a) Businesses should remain closed on Sunday even though it may be a deter some businesses from locating in Highland.	1	2	3	4	5
b) Businesses should not be allowed to operate 24 hours a day even though it could deter some businesses from locating in Highland.	1	2	3	4	5
c) First-time homebuyers should be able to purchase a house in Highland	1	2	3	4	5
d) Seniors should have housing options in Highland.	1	2	3	4	5
e) The Highland Fling is beneficial to Highland	1	2	3	4	5
f) Retail should be allowed to expand beyond the current town center	1	2	3	4	5
g) There are adequate opportunities for children's recreation in Highland.	1	2	3	4	5
h) Smaller stores are preferable to larger stores.	1	2	3	4	5
i) My neighbor should be allowed to subdivide his/her one-acre residential lot.	1	2	3	4	5
j) Office opportunities should be expanded in Highland.	1	2	3	4	5
k) Outdoor/ sidewalk sales should be allowed in Highland.	1	2	3	4	5

6. **Part I:** How important is it to you to have the following public services in Highland? (Please rate on a scale of 1 to 5, with 1 meaning *Not Important* and 5 meaning *Very Important*.)

**Part 2:** How well is Highland performing in providing these services? (Please rate on a scale of 1 to 5, with 1 meaning *Very Poor* and 5 meaning *Very Good*.)

Part I: Importance					Part II: Performance					
<i>Not Important</i>		<i>Very Important</i>				<i>Very Poor</i>			<i>Very Good</i>	
1	2	3	4	5		1	2	3	4	5
1	2	3	4	5	a) Parks	1	2	3	4	5
1	2	3	4	5	b) Trails	1	2	3	4	5
1	2	3	4	5	c) Snow Removal	1	2	3	4	5
1	2	3	4	5	d) Street Lighting	1	2	3	4	5
1	2	3	4	5	e) Garbage Collection	1	2	3	4	5
1	2	3	4	5	f) Recreation	1	2	3	4	5
1	2	3	4	5	g) Library	1	2	3	4	5
1	2	3	4	5	h) Code Enforcement	1	2	3	4	5
1	2	3	4	5	i) Recycling	1	2	3	4	5
1	2	3	4	5	j) Police	1	2	3	4	5
1	2	3	4	5	k) Fire	1	2	3	4	5
1	2	3	4	5	l) Traffic Enforcement	1	2	3	4	5
1	2	3	4	5	m) Emergency Response Time	1	2	3	4	5

7. What is the single most important change that could be made to improve Highland?

\_\_\_\_\_

8. How important are the following transportation related items to you? (Please rate on a scale of 1 to 5, with 1 meaning Not Important and 5 meaning Very Important.)

	Not important				Very important
a) Traffic congestion	1	2	3	4	5
b) Visual appeal of streets	1	2	3	4	5
c) Safety to bicycles and pedestrians	1	2	3	4	5
d) Residential street speeds and traffic noise	1	2	3	4	5
e) Sidewalks and trails	1	2	3	4	5
f) Ease of access	1	2	3	4	5

9. Please mark which single picture best represents additional housing types that should be allowed in Highland?

a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_ f) \_\_\_\_\_ g) None of the above \_\_\_\_\_



10. What lot sizes do you support allowing in Highland?  
(Please mark ALL that apply.)

- a) One Acre
- b) 3/4 Acre
- c) 1/2 Acre
- d) 1/4 Acre
- e) Smaller than 1/4 Acre

11. Are you familiar with open space housing developments similar to the picture below?

- a) Yes
- b) No

12. If YES, would you support additional open space housing developments similar to the photo below?

- a) Yes
- b) No



Finally, just a few demographics questions. *All answers on this survey will be completely anonymous. The answers are used to normalize the response using community demographics.*

13. Are you male or female?

- a. Male
- b. Female

14. How old are you?

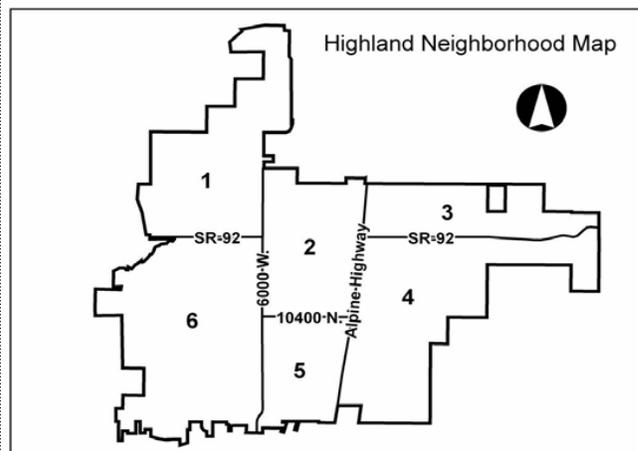
- a) 18 to 24 years old
- b) 25 to 34 years old
- c) 35 to 54 years old
- d) 55 to 64 years old
- e) 65 and older

15. What is your total gross income?

- a. Less than \$15,000
- b. \$15,000 to \$34,999
- c. \$35,000 to \$49,999
- d. \$50,000 to \$74,999
- e. \$75,000 to \$99,999
- f. \$100,000 to \$149,999
- g. \$150,000 to \$199,999
- h. \$200,000 to \$299,999
- i. \$300,000 or greater
- j. Don't know/Decline

16. How many children do you have living at home under the age of 18? \_\_\_\_\_

17. What neighborhood do you live in (see map)? \_\_\_\_\_



Thank You!

Please return this survey with your utility payment.

# Appendix C: Community Survey Results

In August 2006 a survey was distributed to approximately 3,200 households in Highland through the public utilities billing cycle. A total of 892 households responded, for a very high response rate of 28 percent. The survey was used to collect data on public opinion to guide the development of goals and objectives for the general plan. The survey asked questions to establish baseline attitudes concerning land use patterns, economic development, transportation infrastructure, housing development, open space development and public service needs. Discussions of the survey results are incorporated into the appropriate elements of the General Plan.

## Importance/Performance Interpretation

Figure 1 is an example of how the following importance and performance results should be interpreted. A figure like this will plot the importance and performance of various factors residents will be asked to rate on horizontal and vertical axes. An upward sloping trend from left to right indicates the factors that are most important to residents are also those factors that show the best performance. Conversely, a downward sloping line would indicate that the most important factors need the most attention.

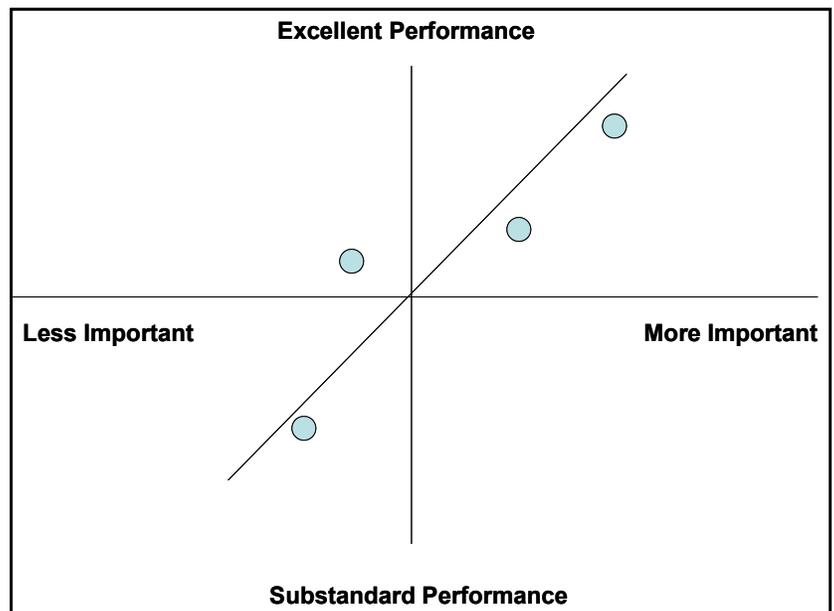
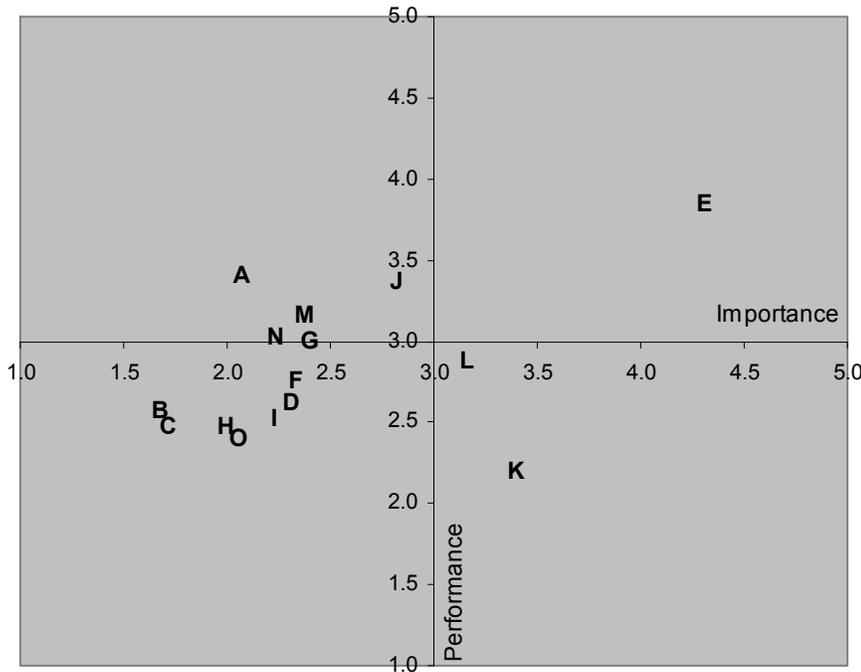


Figure 1

## Important/Performance Analysis

The following figures plot the importance and performance of various factors Highland residents were asked to rate. In general they indicate that Highland is doing well at providing the services desired by residents. Only four amenities/services were rated with high importance but low performance. In the goods and services category both full-service restaurants and limited service restaurants had above average importance and below average performance (Figure 2). The other two desired amenities/services—a library and restroom facilities—were found in the public service category (Figure 4). Seventy-three percent of respondents rated the importance of a library as “important” or “very important.”

### Importance/Performance of Goods and Services in Highland, All Areas

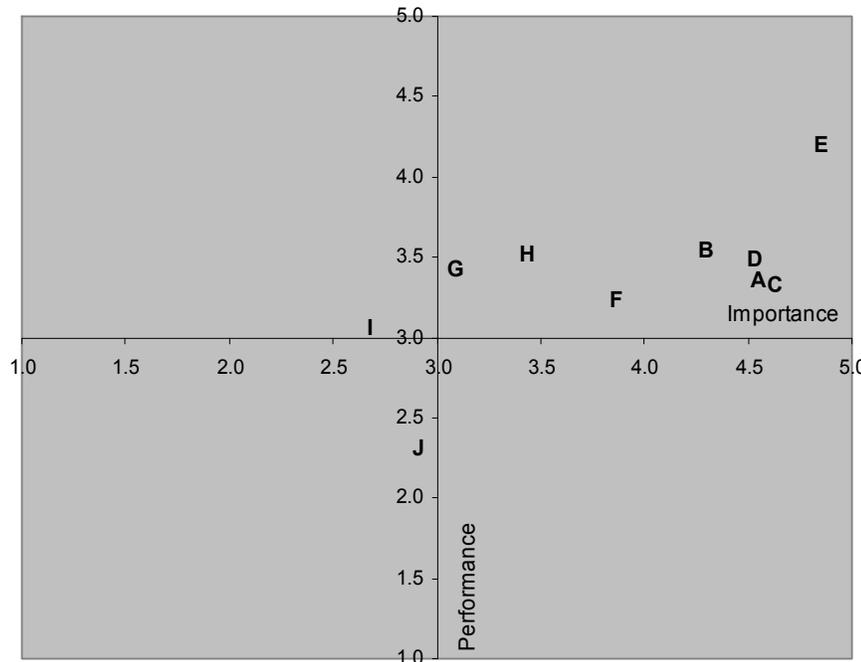


Legend

- A Automotive Parts, Accessories, and Tires
- B Furniture & Home Furnishings
- C Electronics & Appliances
- D Building & Garden
- E Grocery & Convenience Stores
- F Specialty Food Stores
- G Health & Personal Care Stores
- H Clothing & Clothing Accessories
- I Sporting Goods, Hobby, Book, & Music
- J Dry Cleaning & Laundry
- K Full Service Restaurants
- L Limited Service Eating Places
- M Automotive Repair & Maintenance
- N Hair, Nail & Skin Care Services
- O General Merchandise Stores

Figure 2

### Importance/Performance of Transportation Related Items in Highland, All Areas



Legend

- A Traffic Flow
- B Visual Appeal of Streets
- C Safety to Bicycles & Pedestrians
- D Residential Street Speeds & Low Traffic Noise
- E Sidewalks and Trails
- F Ease of Access
- G Medians
- H Cul-de-sacs
- I Equestrian Trails
- J Public Transit

Figure 3

Table: Results of the Highland General Plan Survey, 2006 (Cont.)

	Highland	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
<b>Where do you buy most of your groceries?</b>							
A Albertsons in American Fork	7%	4%	7%	6%	7%	11%	4%
B Albertsons in Lehi	1%	0%	0%	0%	1%	0%	3%
C Kohler's in Highland	51%	48%	61%	66%	62%	52%	37%
D Kohler's in Lehi	0%	0%	0%	0%	0%	0%	0%
E Macey's in Pleasant Grove	7%	5%	7%	10%	5%	8%	9%
F Smiths in American Fork	2%	0%	1%	0%	1%	2%	4%
G Wal-Mart in Pleasant Grove	0%	1%	0%	2%	1%	0%	0%
H Wal-Mart in American Fork	22%	24%	15%	8%	14%	20%	34%
I Costco in Orem	3%	2%	2%	6%	3%	2%	2%
J Costco in Lehi	2%	3%	2%	0%	1%	0%	2%
K Costco in Sandy	4%	7%	4%	3%	3%	3%	4%
L Other	1%	6%	0%	0%	1%	2%	1%

**Rank how you feel about the following statements:**

A Businesses should remain closed on Sunday.	4.1	4.0	4.3	3.9	4.3	4.2	3.9
B Businesses should not be allowed to operate 24 hrs a day.	3.6	3.5	3.9	3.4	3.8	3.6	3.3
C First time homebuyers should be able to afford a house in Highland.	2.2	2.0	2.1	2.2	2.2	2.2	2.2
D Seniors should have housing options in Highland.	2.9	2.6	2.8	3.1	2.9	2.8	2.9
E Views should be protected by City ordinance.	3.6	3.9	3.7	3.6	3.6	3.4	3.6
F Smaller stores are preferable to larger ones.	3.6	3.5	3.6	3.4	3.6	3.5	3.6
G My neighbor should be allowed to divide his one acre lot.	2.5	2.2	2.5	2.5	2.3	2.7	2.5
H Office opportunities should be expanded in Highland.	3.0	3.1	3.0	2.7	3.0	2.8	3.2
I Outdoor sidewalk sales should be allowed in Highland.	3.4	3.4	3.3	3.4	3.2	3.6	3.5
J The 2 large animals per 1 acre parcel ordinance should be maintained.	4.0	3.9	4.1	4.2	3.9	4.0	4.1
K The City should more actively enforce temporary sign restrictions.	3.0	3.0	2.9	2.9	3.1	2.9	2.9
L Accessory apartments should be allowed in Highland.	2.7	2.4	2.8	2.8	2.6	2.8	2.6

Note: Based on a scale of 1 to 5, with 1 being "Strongly Disagree" and 5 being "Strongly Agree."

**How important is it to you to have the following public services in Highland?**

A Parks acquisition	3.8	3.8	3.8	3.6	3.8	3.7	3.8
B Trails acquisition	3.7	3.5	3.7	3.6	3.8	3.5	3.7
C Snow removal	4.6	4.7	4.6	4.5	4.5	4.5	4.7
D Street lighting	4.2	4.2	4.0	3.8	4.1	4.3	4.4
E Garbage collection	4.8	4.8	4.8	4.8	4.7	4.8	4.9
F Recreational programs	3.9	3.8	3.7	3.5	4.0	3.9	4.0
G Library	4.1	4.0	4.1	3.8	4.1	4.0	4.1
H Code enforcement	3.9	3.9	3.9	3.7	4.0	3.9	3.9
I Recycling	3.7	3.6	3.6	3.3	3.7	3.7	3.9
J Police	4.7	4.5	4.7	4.6	4.7	4.7	4.7
K Fire	4.7	4.6	4.8	4.7	4.7	4.8	4.7
L Traffic enforcement	4.2	4.0	4.3	4.1	4.2	4.2	4.1
M Emergency response time	4.6	4.6	4.6	4.6	4.6	4.6	4.7
N Parks Maintenance	4.2	4.2	4.1	4.0	4.3	4.3	4.3
O Trails maintenance	4.0	4.0	3.9	3.7	4.2	4.0	4.1
P Restroom facilities	3.8	3.5	3.6	3.7	3.9	3.9	3.9

Note: Based on a scale of 1 to 5, with 1 being "Not Important" and 5 being "Very Important."

Cont.

Table: Results of the Highland General Plan Survey, 2006 (Cont.)

	Highland	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
<b>How well is Highland performing in providing these public services?</b>							
A Parks acquisition	3.5	3.4	3.4	3.2	3.5	3.5	3.5
B Trails acquisition	3.4	3.4	3.3	2.9	3.4	3.5	3.4
C Snow removal	3.6	3.7	3.6	3.8	3.8	3.6	3.5
D Street lighting	3.1	3.1	3.4	3.1	3.3	3.1	2.9
E Garbage collection	4.2	3.9	4.4	4.5	4.2	4.3	4.0
F Recreational programs	3.2	2.9	3.1	3.2	3.1	3.5	3.2
G Library	1.9	1.8	1.9	2.0	1.8	2.0	1.9
H Code enforcement	3.2	3.2	3.1	3.3	3.2	3.4	3.1
I Recycling	3.5	3.2	3.7	3.4	3.3	3.6	3.5
J Police	4.1	3.9	4.3	4.0	4.1	4.1	4.0
K Fire	4.0	3.7	4.3	4.0	4.1	4.1	3.9
L Traffic enforcement	3.9	3.7	4.0	3.8	3.9	3.9	3.8
M Emergency response time	3.8	3.4	4.0	3.9	3.9	3.9	3.7
N Parks Maintenance	3.4	3.2	3.6	3.6	3.1	3.5	3.3
O Trails maintenance	3.1	3.0	3.2	3.3	3.2	3.3	3.0
P Restroom facilities	2.8	2.9	2.9	3.0	2.7	2.8	2.8

Note: Based on a scale of 1 to 5, with 1 being "Very Poor" and 5 being "Very Good."

**How important are the following transportation related items in Highland?**

A Traffic flow	4.5	4.4	4.5	4.6	4.6	4.5	4.4
B Visual appeal of streets	4.3	4.6	4.1	4.0	4.3	4.1	4.3
C Safety to bicycles & pedestrians	4.6	4.6	4.6	4.7	4.6	4.5	4.6
D Residential street speeds & low traffic noise	4.5	4.5	4.5	4.4	4.4	4.4	4.5
E Sidewalks & trails	4.8	4.8	4.8	4.8	4.7	4.8	4.9
F Ease of access	3.8	4.0	3.9	3.5	3.7	3.8	3.8
G Medians	3.0	3.2	2.9	2.5	3.1	3.2	3.1
H Cul-de-sacs	3.4	3.3	3.2	3.4	3.3	3.5	3.6
I Equestrian trails	2.6	2.6	2.6	2.8	2.3	2.8	2.7
J Public transit	2.9	2.5	3.1	2.6	2.9	2.9	2.9

Note: Based on a scale of 1 to 5, with 1 being "Not Important" and 5 being "Very Important."

**How well is Highland performing in the following transportation related items?**

A Traffic flow	3.3	3.4	3.3	3.1	3.0	3.6	3.5
B Visual appeal of streets	3.5	3.4	3.6	3.4	3.7	3.7	3.4
C Safety to bicycles & pedestrians	3.3	3.2	3.4	3.5	3.6	3.6	2.9
D Residential street speeds & low traffic noise	3.5	3.4	3.5	3.3	3.5	3.6	3.4
E Sidewalks & trails	4.2	3.9	4.4	4.5	4.2	4.3	4.0
F Ease of access	3.2	3.1	3.2	3.3	3.2	3.3	3.2
G Medians	3.4	3.2	3.4	3.4	3.6	3.6	3.3
H Cul-de-sacs	3.5	3.4	3.5	3.5	3.6	3.6	3.5
I Equestrian trails	3.0	3.0	2.9	2.8	3.1	3.1	3.2
J Public transit	2.3	2.5	2.3	2.3	2.3	2.3	2.3

Note: Based on a scale of 1 to 5, with 1 being "Very Poor" and 5 being "Very Good."

**Which single picture best represents additional housing types that should be allowed in Highland?**

A	9%	7%	6%	9%	16%	8%	8%
B	2%	1%	1%	3%	3%	8%	2%
C	70%	75%	69%	51%	63%	71%	74%
D	4%	4%	4%	6%	4%	3%	3%
E	4%	3%	4%	9%	3%	1%	3%
F	1%	0%	2%	3%	2%	0%	1%
G None of the options	11%	10%	13%	20%	9%	9%	9%

**Do you support additional open space housing developments?**

A Yes	74%	74%	72%	64%	84%	70%	73%
B No	26%	26%	28%	36%	16%	30%	27%

Cont.

Table: Results of the Highland General Plan Survey, 2006 (Cont.)

	Highland	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
<b>What lot sizes do you support allowing in Highland?*</b>							
A One Acre	70%	77%	74%	63%	65%	67%	74%
B 3/4 Acre	65%	77%	66%	32%	61%	66%	70%
C 1/2 Acre	80%	82%	84%	57%	78%	79%	81%
D 1/4 Acre	30%	32%	22%	25%	41%	31%	31%
E Smaller than 1/4 Acre	4%	4%	5%	2%	9%	2%	2%
<i>*Note: Respondents were allowed to select all that apply.</i>							
<b>Should retail development be allowed to expand beyond the zoning?</b>							
A Yes	53%	56%	47%	51%	52%	62%	52%
B No	47%	44%	53%	49%	48%	38%	48%
<b>Average number of children living at home under age 18.</b>							
All households	2.0	2.2	2.1	1.3	1.7	2.0	2.2
Only households WITH children	3.1	3.0	3.3	2.4	3.0	2.8	3.3
<b>How many years have you lived in Highland?</b>							
>1	2%	2%	2%	4%	2%	0%	3%
1 to 5	43%	69%	36%	25%	21%	58%	53%
5.1 to 10	19%	14%	21%	15%	29%	8%	17%
10.1 to 15	13%	6%	14%	18%	22%	8%	10%
15.1 to 20	9%	5%	6%	7%	12%	17%	6%
<20	14%	3%	21%	31%	14%	9%	12%
Average	10.2	5.6	11.7	16.9	11.7	8.9	9.0
<b>What area do you live in?</b>							
1	10%						
2	21%						
3	5%						
4	21%						
5	14%						
6	29%						

Source: Wikstrom



# Appendix D

## Retail Gravity Model Methodology

Buying power is estimated by evaluating the amount a typical Utah consumer spends on a range of retail goods and services and applying these spending rates to the population located within reasonable proximity to a specific site. Retail sales by type are tracked by the Utah State Tax Commission. The state's per capita retail expenditures are calculated by dividing gross sales for relevant spending categories by the state's population.

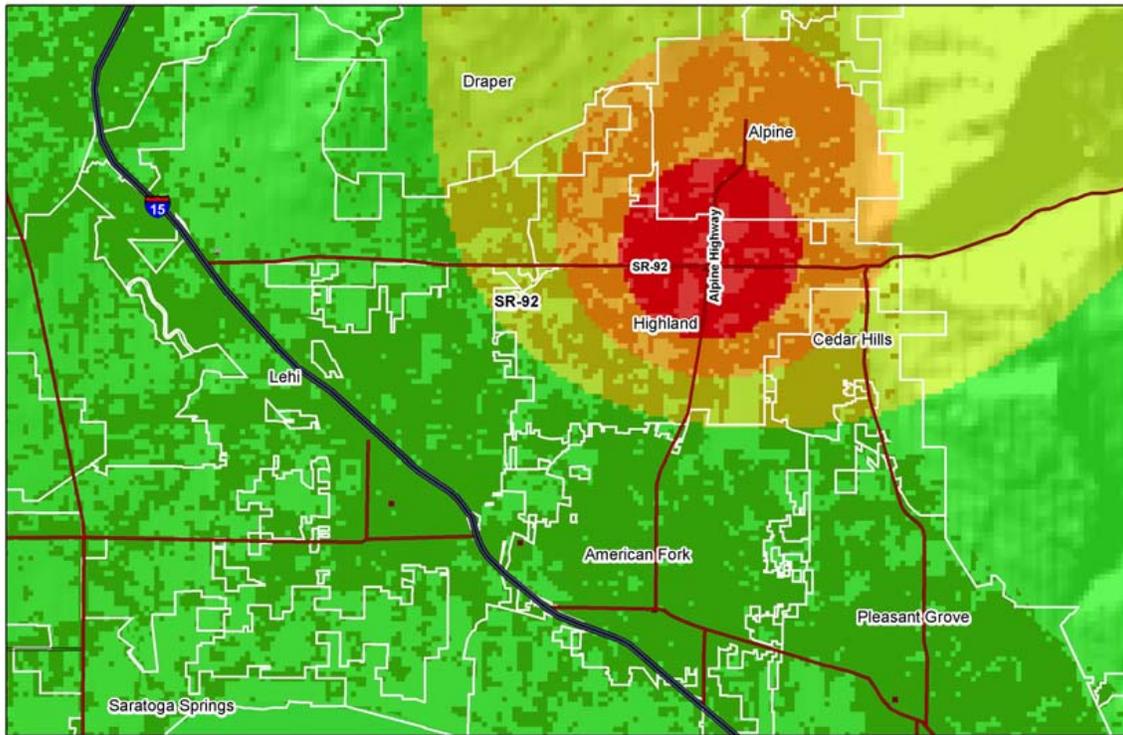
To determine total buying power, total population in the market area is multiplied by spending per capita. The 2005 population estimate and 2010 population projection for Transportation Analysis Zones (TAZ) developed by the Mountainlands Association of Governments were used as the basis for population density in this analysis.

For this report, a gravity model was employed to take into account existing and future retail competition. The model estimates the attractiveness of existing and proposed retail centers as a function of their size (in terms of gross leasable area or GLA) and distance from potential customers. The size of retail centers were estimated using data provided by the Division of Workforce Services and the National Research Bureau. By aggregating the relative attractiveness of individual centers to all potential consumer residences within the market area in a geographic information system (GIS), an overall "gravity" surface for retail attraction can be estimated for the market area. This gravity surface is used as the basis for estimating the consumer capture rates of individual retail centers throughout the market area.

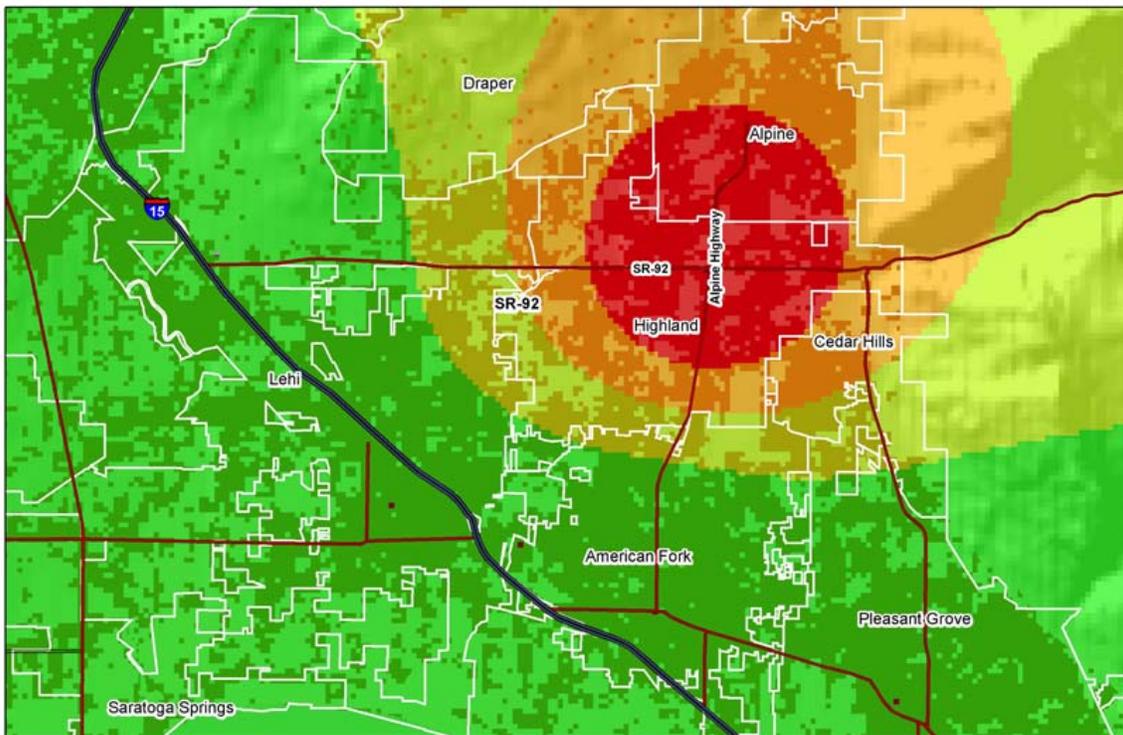
The specific gravities of individual retail sites can be divided by the overall estimate of retail attraction to estimate the probability that any one customer in a given location will choose to patronize the center in question. The probability that a given customer will choose one center over another is predicated on the size of the center and the friction of distance. Obviously this does not provide a causal account of why a customer may choose one store over another, but it does give an indication of the overall potential to attract customers. The usefulness of this tool is in determining the likelihood that a suitable mix of well-managed retail services could attract an adequate number of customers. The resulting probability surface for a given retail site in the market area is simply multiplied by the population density model of that area to arrive at a head count of potential customers. This provides a simple proforma estimation of whether enough demand exists to support the magnitude of the proposed center. The formula to express this relationship is:

$$P_{ij} = S_j / D_{ij}^b / \sum S_j / D_{ij}^b$$

where  $P_{ij}$  is the probability that a customer will travel from place  $i$  to supermarket  $j$ ,  $S_j$  is the size of the supermarket,  $D_{ij}$  is the distance between the consumer and retail site, and  $b$  is the friction of distance. In the model used in this report the friction of distance was assumed to be inverse distance squared ( $b = 2$ ).



**Capture Rate of Retail Expenditures in 2005**  
**Assuming 120,300 Square Feet of Retail on Site**  
 Sources: National Research Bureau,  
 Division of Workforce Services,  
 Mountainlands Association of Governments and Wikstrom  
 Wikstrom Economic and Planning Consultants, Inc.



**Capture Rate of Retail Expenditures in 2010**  
**Assuming 320,300 Square Feet of Retail on Site**  
 Sources: National Research Bureau,  
 Division of Workforce Services,  
 Mountainlands Association of Governments and Wikstrom  
 Wikstrom Economic and Planning Consultants, Inc.

## Appendix E: Tools and Implementation Strategies

If the city wishes to improve availability of senior housing and owner-occupied, entry-level housing, steps will need to be taken to provide a regulatory environment where this can take place. The following paragraphs describe some strategies that can be used to accomplish this objective.

### Zoning for higher density

Higher density brings down the cost of units by reducing the cost of land per unit. Zoning for higher density in appropriate areas can make feasible the development of new affordable (and market rate) units in appropriate areas. Accessory housing units, duplexes, town homes, condominiums, and apartments are all examples of varying degrees of density. With careful design guidelines in place, many of these options will easily blend into the existing fabric of the community.

### Density bonuses

Density bonuses are one of the more effective ways of creating affordable housing. They provide incentives to developers to construct affordable housing as part of a larger development that would include a mix of market rate and moderate-income units. A density bonus allows a developer to build more units than the base zone allows if the developer commits to build a certain percentage of affordable units.

A development agreement between the city and the developer would set the number of units that could be constructed assuming a certain percentage of affordable units were sold to moderate income households. Developers may choose to construct affordable units themselves, or sell property at a discount to a developer who specialized in affordable housing construction.

Developers would certify through an agreed-upon means that they have sold a predetermined number of units to moderate income households. If interim moderate income sales goals are met, the developer could continue to build other phases. If sales goals are not met, the city may require the developer to pay into an affordable housing fund administered by an agency of the city's choosing. Possible agencies or funds dealing with moderate-income housing include the Utah Housing Corporation, the Utah Department of Community and Culture, the Utah County Housing Authority, and the Olene Walker Housing Loan Fund.

Density bonuses are complicated to administer. The city will need to carefully craft a density bonus ordinance and form alliances with affordable housing providers and agencies such as those listed above in order for this strategy to succeed.

### Accessory dwelling units

Accessory dwelling units (often termed "mother-in-law" apartments) have many benefits. In addition to providing affordable rental housing, they can allow first-time homeowners to gain access to homes that would otherwise be out of reach by renting out an additional unit. When a homeowner's income and/or need for more space increases, the accessory unit may no longer be needed as a rental. The homeowner can then expand into the space vacated by the former accessory unit.

Accessory units can easily be built to accommodate affordable housing needs. However, when creating zoning policies that allow for the creation of these types of units, it is important to make the process as simple as possible so that residents are not deterred from adding these units. The process to gain building permits for accessory units should be inexpensive and efficient. In addition, the city may want to consider a reduction in building and planning fees.

### **Mixed-Use**

Housing in commercial areas is seen by many as a way to increase vitality in those areas while providing additional housing for all income levels. One of the social benefits to this type of housing solution is that seniors and low- and moderate- income people who live in these types of areas will have easier access to shopping and transit opportunities. Commercial uses in mixed use areas benefit from the higher concentration of resident shoppers.

### **Neighborhood Acceptance**

One of the most successful and easily implemented strategies for encouraging acceptance of affordable housing is to create and implement design guidelines. Good design can play a huge role in the overall acceptance of any affordable housing project. Design guidelines can ensure a smooth blend of multi-family housing into a neighborhood. Guidelines can be used to guide materials, architectural features, landscaping, site layout, etc. Through design guidelines, the city can ensure that affordable housing is attractive and more likely to remain viable for a longer period of time.

The above strategies can all be used to some degree to support ownership of affordable housing in Highland.

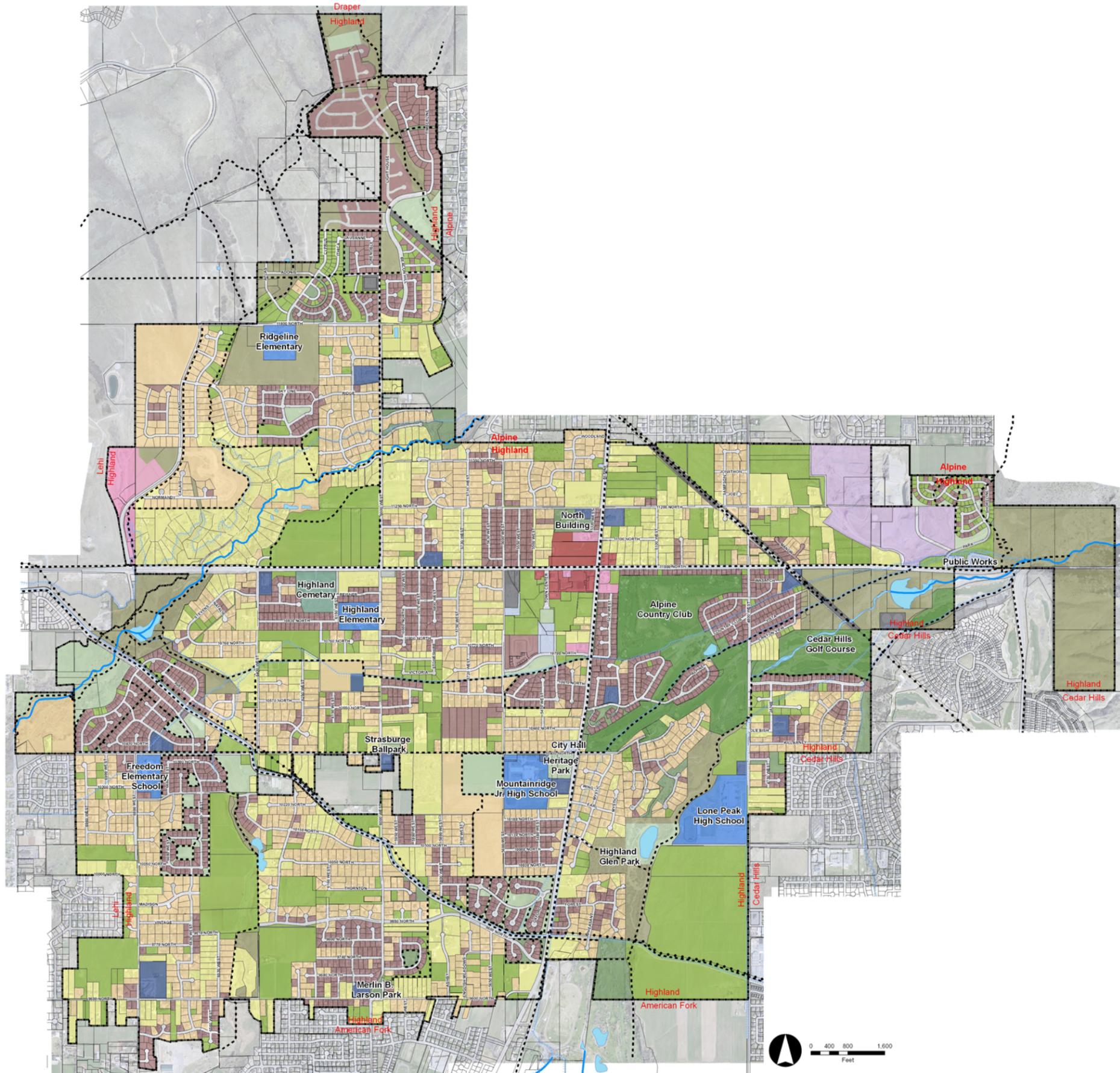
# Appendix F: Maps

## 11 x 17 Maps of Each Chapter

- 2-1 Existing Land Use
- 2-2 Existing Ownership
- 2-3 Future Land Use
- 3-1 Traffic volumes on major Highland City roads for 2005
- 3-2 Recommended Major Street Plan
- 4-1 Environmental and Natural Conditions
- 7-1 Community Design Concept
- 7-1 (Figure 7.1) Highland Highway Streetscape Enhancements
- 8-1 Existing and Future Highland City Neighborhood Parks
- 8-2 Existing and Future Highland City Community Parks
- 8-3 Existing and Future Highland City Athletic Complexes
- 8-4 Existing and Future Trails are shown on Map



# MAP 2-1 EXISTING LAND USE



### Land Use

- Residential 1+ acres
- Residential 0.5 to 1 acres
- Residential 0 to 0.5 acres
- Commercial
- Office
- Public
- School
- Religious
- Agriculture/Vacant
- Public Park
- Private Park
- Open Space/Undeveloped
- Golf Course
- Industrial
- Cemetary
- Utility
- Parcels**
- Waterbody
- Trails
- City Boundary
- Stream or River
- Canal or Ditch
- Pipeline or Aquaduct

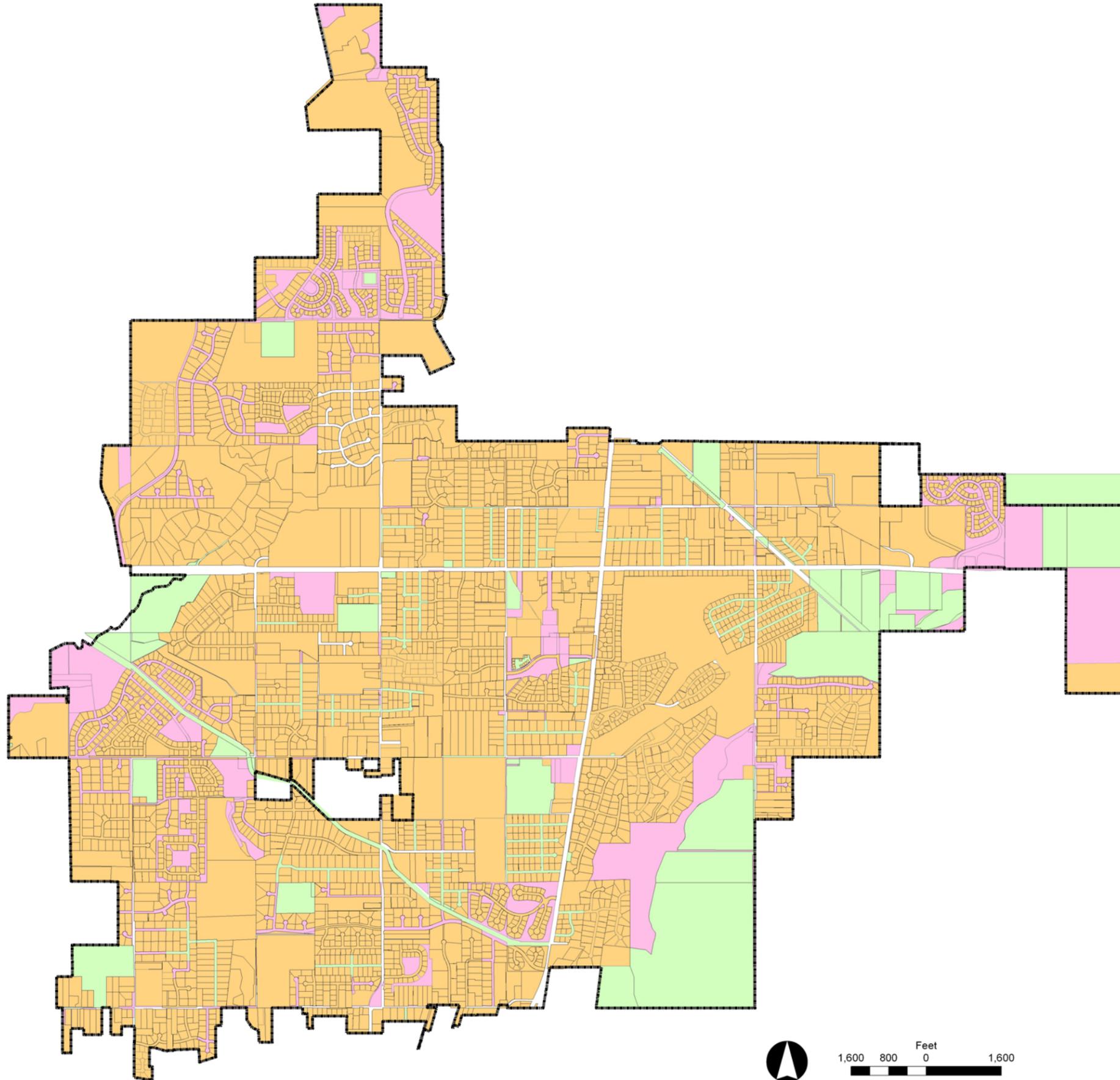
## Highland City General Plan Update



Adopted February 19, 2008



# MAP 2-2 LAND OWNERSHIP MAP



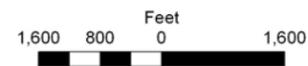
## OWNERSHIP

--- City Boundary

Orange Private

Light Green Public

Pink Public/Highland City



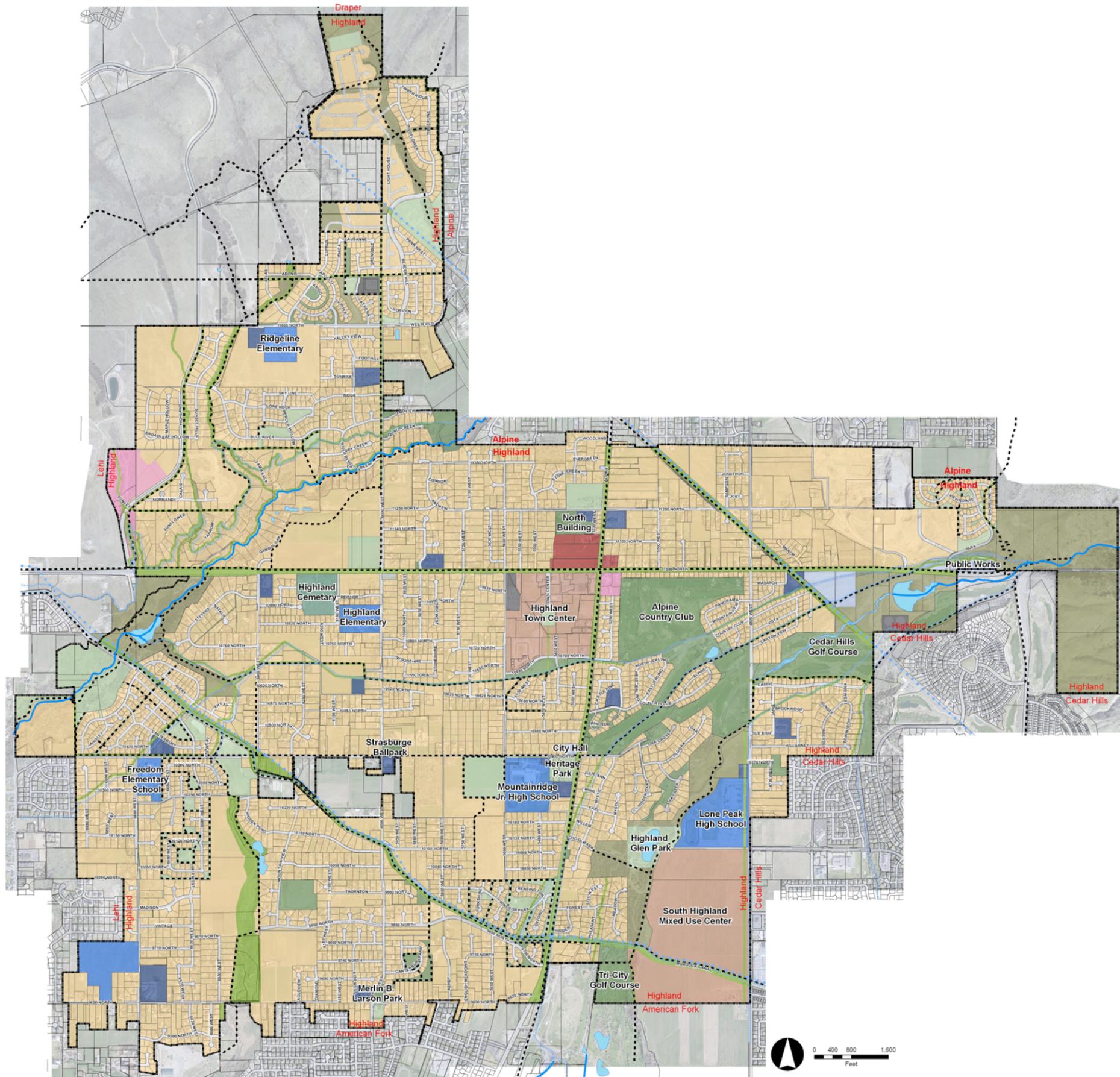
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# MAP 2-3 FUTURE LAND USE



## Land Use

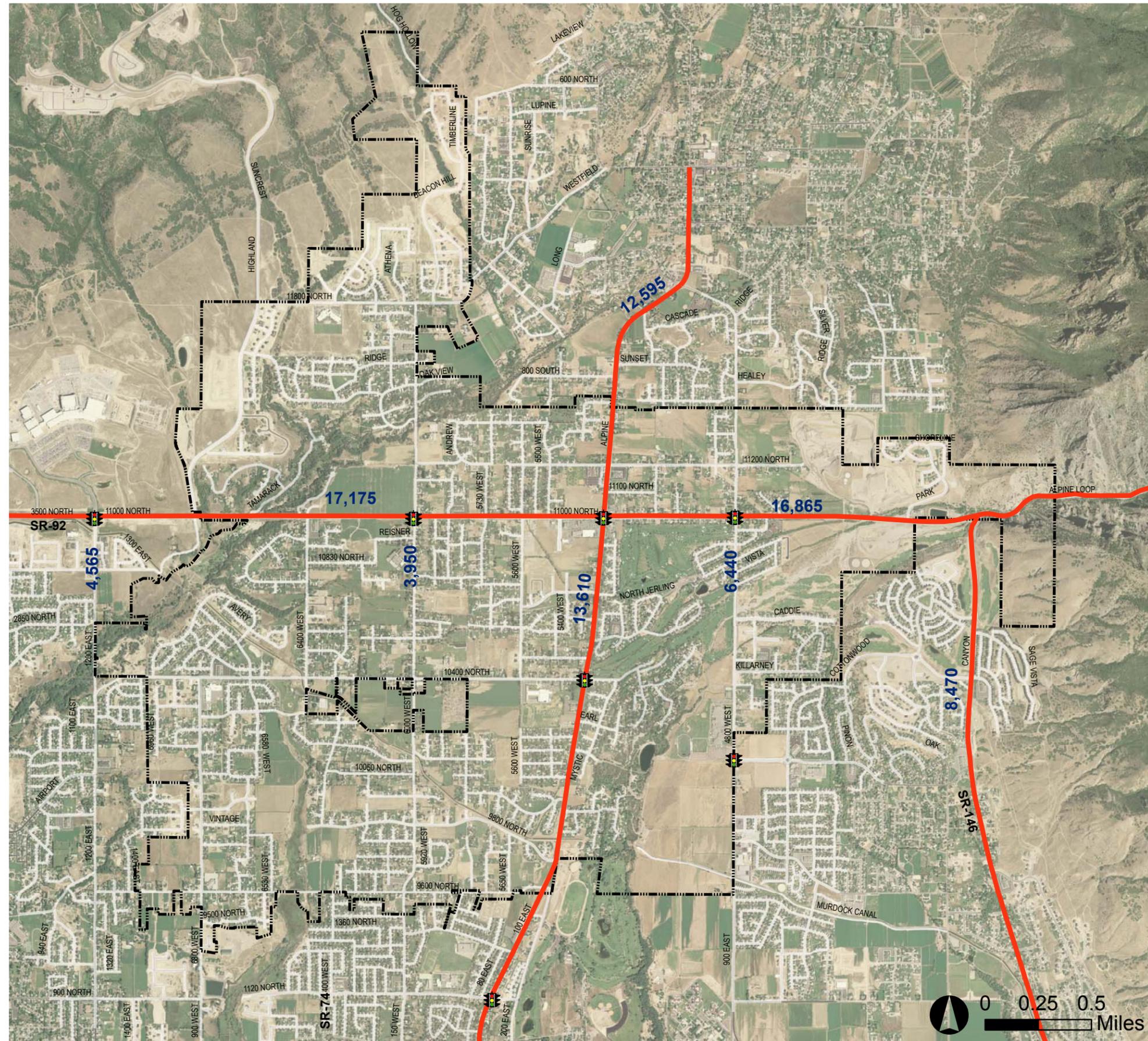
-  Low-Density Residential
-  Mixed Use Development
-  Commercial
-  Office
-  Institutional
-  School
-  Religious
-  Open Space
-  Highland City Public Park
-  Trail Corridor & Greenway
-  Private Recreation & Mini Park
-  Cemetery
-  Utility
-  Waterbody
-  Parcels
-  Stream or River
-  Canal or Ditch
-  Pipeline or Aquaduct
-  Trails
-  City Boundary

## Highland City General Plan Update



Adopted February 19, 2008





# MAP 3-1 EXISTING TRANSPORTATION CONDITIONS

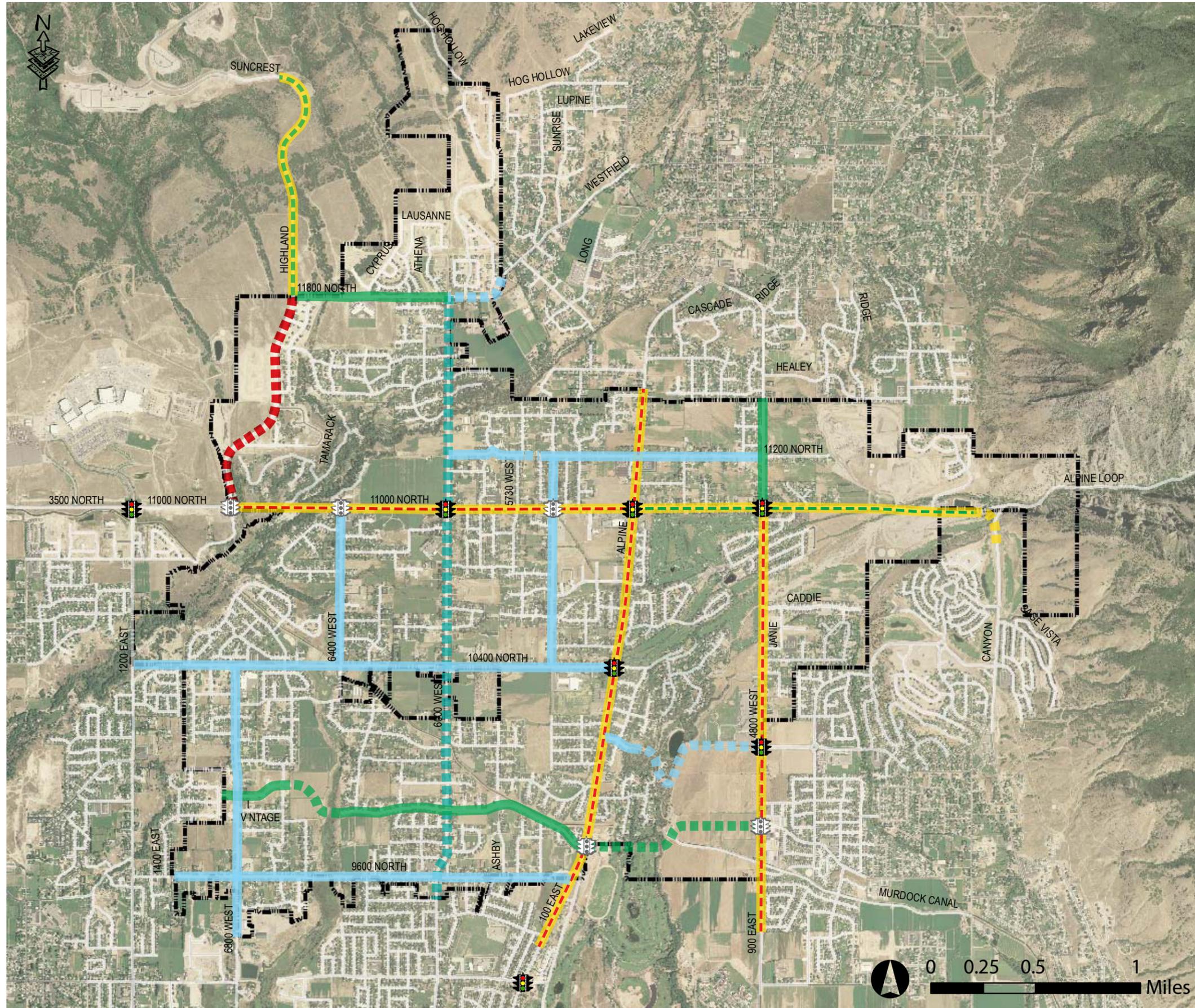
-  Highland City
- 1234** AADT (2005)
-  State Highways
-  Local Streets
-  Traffic Signals

## Highland City General Plan Update



Adopted February 19, 2008

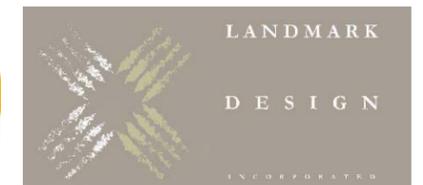




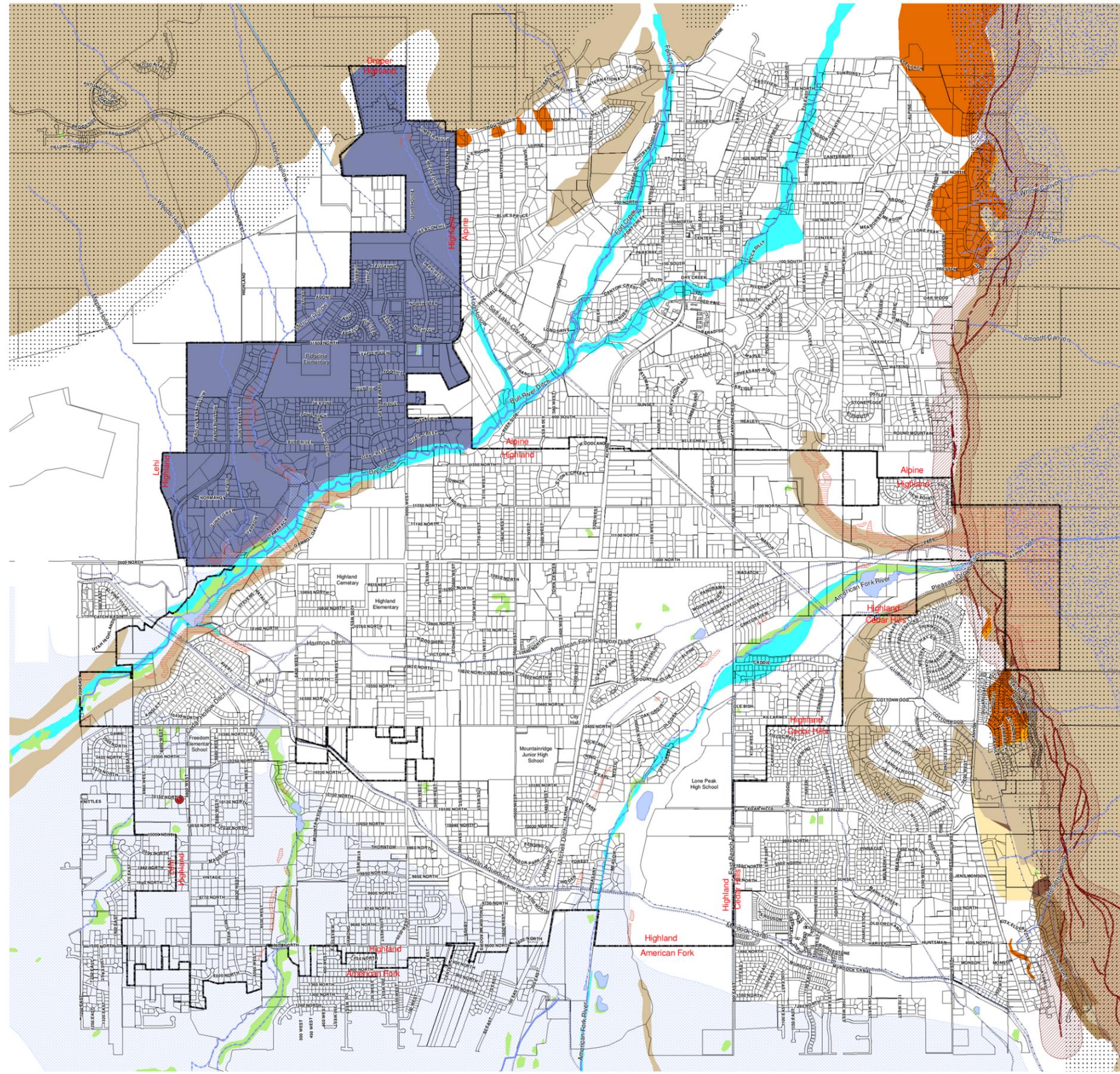
# MAP 3-2 RECOMMENDED TRANSPORTATION NETWORK

- 5-Lane Arterial - Constructed
- - - 5-Lane Arterial - Proposed
- 3-Lane Major Collector - Constructed
- - - 3-Lane Major Collector - Proposed
- - - 3-Lane Minor Collector - Proposed
- 2-Lane Residential Collector - Constructed
- - - 2-Lane Residential Collector - Proposed
- - - Other Jusidction (State, County, Municipal)
- Highland City
- Existing Signals
- Planned Signals

Highland City  
General Plan Update







# MAP 4-1 ENVIRONMENTAL & NATURAL CONDITIONS

## Flooding/Water Quality

- Wetland
- Floodplain
- Groundwater within 30'
- Critical Runoff Area

## Soil Related Hazards & Constraints

- Limestone (Karst)
- Slope Exceeding 30%
- Debris Flow
- Debris Flow and Landslide
- Debris Flow and Rock Fall
- Landslide
- Debris Flow, Rock Fall, and Landslide
- Rock Fall
- Rock Fall and Landslide

## Earthquakes

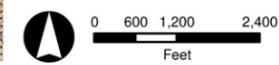
- Earthquake
- Fault Line
- Fault Rupture Zone

## Wildlife

- Wildlife Habitat
- Perennial Stream or River
- Canal or Ditch
- Intermittent Stream
- Pipeline or Aquaduct
- Culvert or Tunnel
- Waterbody
- City Boundary

For planning and general identification purposes only. Specific site development will require detailed analysis and review. Actual site conditions may differ from those shown on plan.

## Highland City General Plan Update





# HIGHLAND HIGHWAY STREETSCAPE ENHANCEMENTS

## IMPROVE KEY ENTRY CORRIDORS INTO THE COMMUNITY

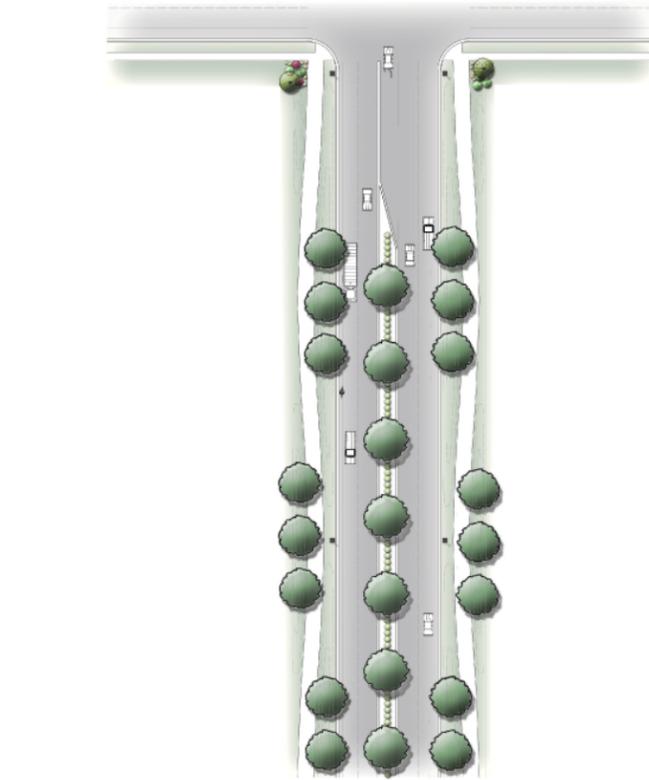
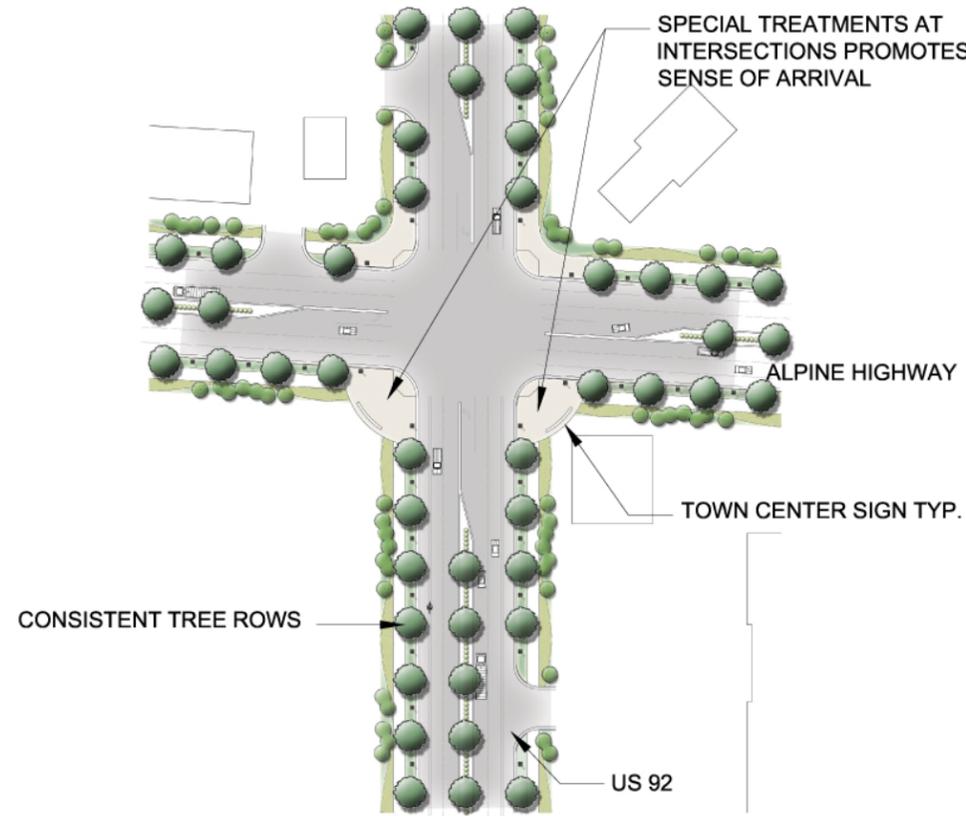
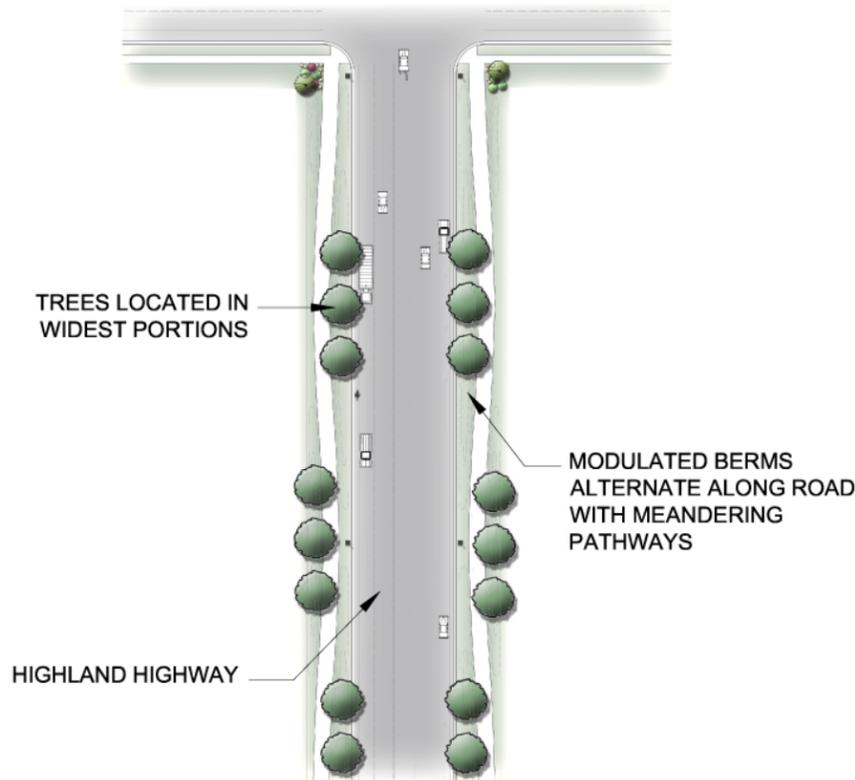


**1 - HIGHLAND HIGHWAY AND ALPINE HIGHWAY**  
ENHANCE RURAL FEEL AND CONNECTIONS

**2 - TOWN CENTER**  
ENHANCE URBAN FEEL AND CONNECTIONS

**3 - 4800 WEST AND 6000 WEST**  
ENHANCE RURAL URBAN TRANSITION

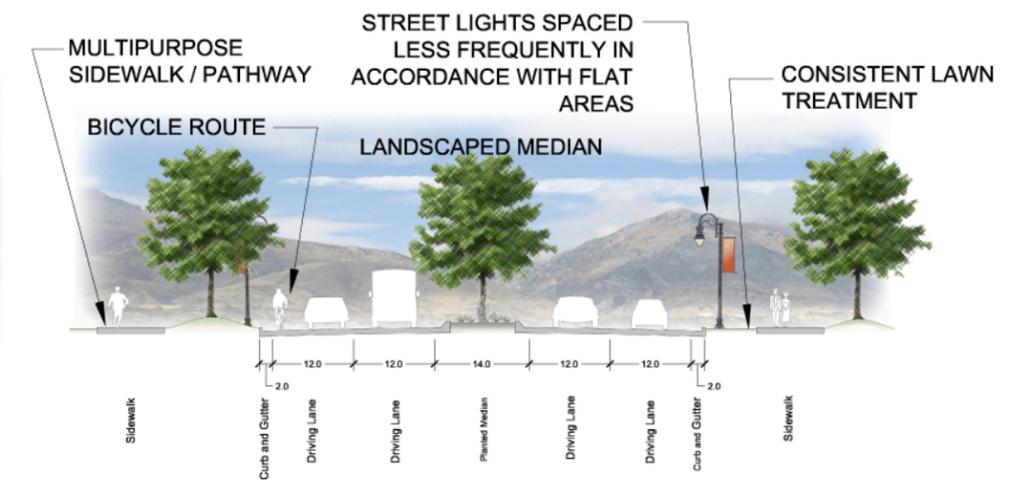
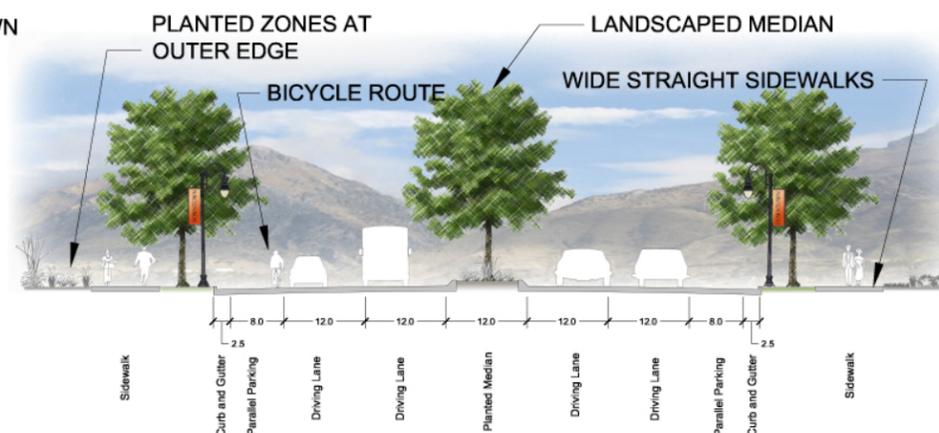
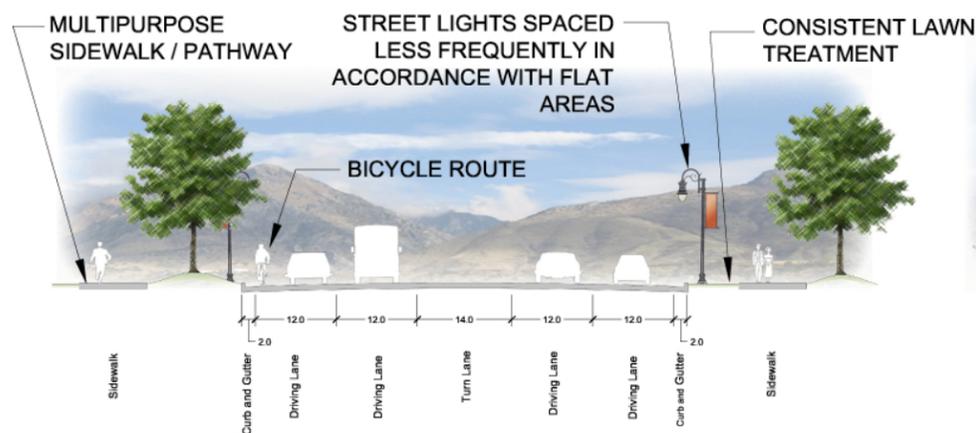
Figure - 7.1



0 30 60 90 *Plan View*

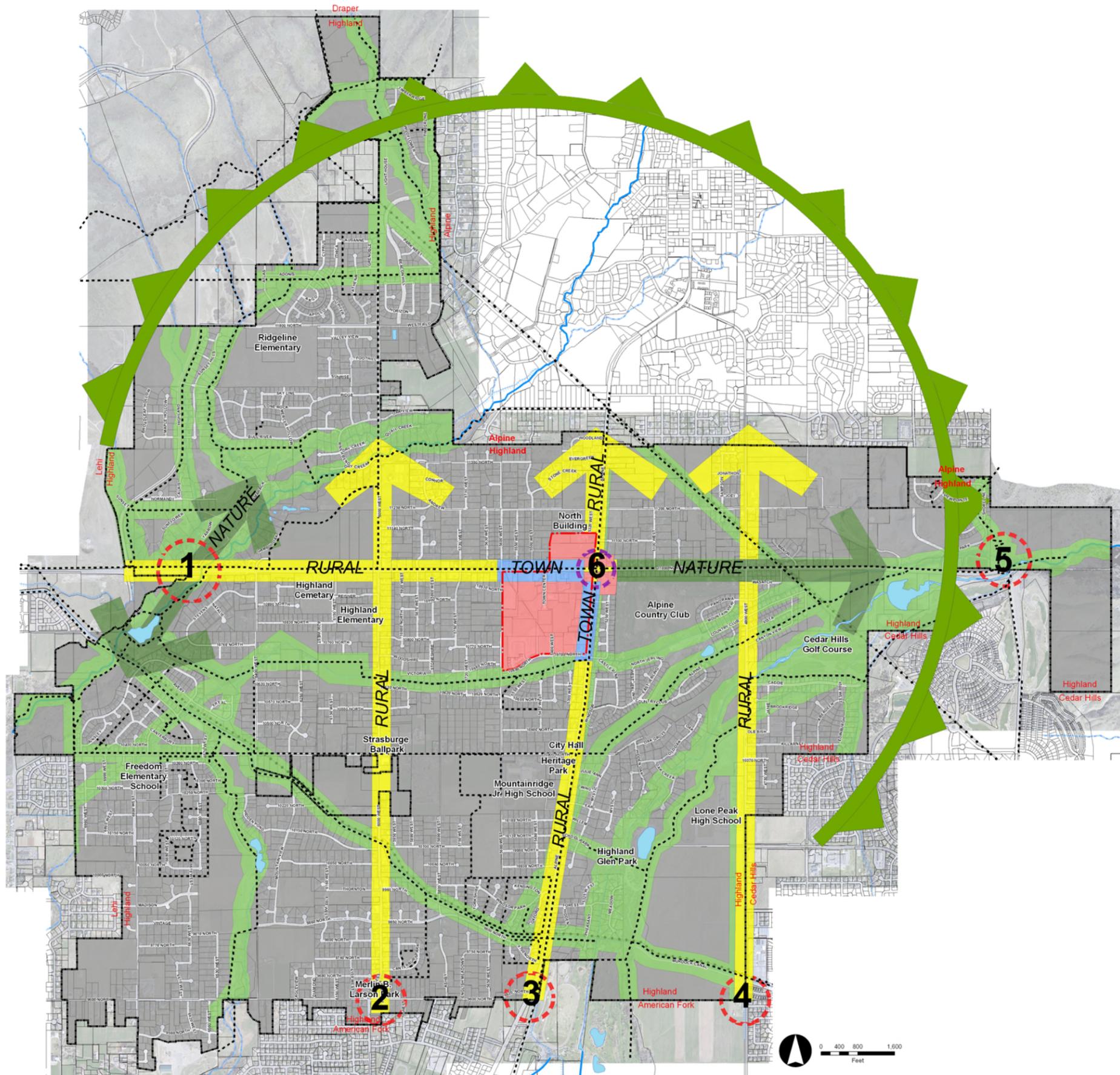
0 30 60 90 *Plan View*

0 30 60 90 *Plan View*





# MAP 7-1 COMMUNITY DESIGN CONCEPT



**Maintain and enhance the Scenic Backdrop:**

- Preserve views to the Foothills/Mountains/Canyon from north to east
- Cooperate with surrounding communities and jurisdictions
- Protect ridge tops.

**Maintain and enhance focused Scenic Corridors through the community and beyond:**

- Dry Creek Crossing at SR 92 - Reinforce Nature Connection
- Alpine Highway/4800 West/6000 West, looking north - Reinforce Rural Feel
- SR 92 east from Highland Town Center - Transition to Nature

**Improve the sense of arrival into the community:**

- Gateway and entry improvements
  1. West Entry
  2. South Entry 1
  3. South Entry 2
  4. South Entry 3
  5. East Entry
- Destination and arrival at Highland/Alpine Highway Intersection
  6. Highland Town Center

**Create appropriate corridor treatments along key roadways (SR 92 and Alpine Highway):**

- Rural Feeling - SR 92 west segment
- Rural Feeling - 6000 West/Alpine Highway/4800 West
- Nature Feeling - Town Center to American Fork Canyon along SR 92
- Urban Feeling - Town Center

**Maintain and enhance traditional development pattern and local heritage:**

- Preserve greenways and open space corridors
- Preserve sense of openness
- Develop Highland Town Center into the heart of the community

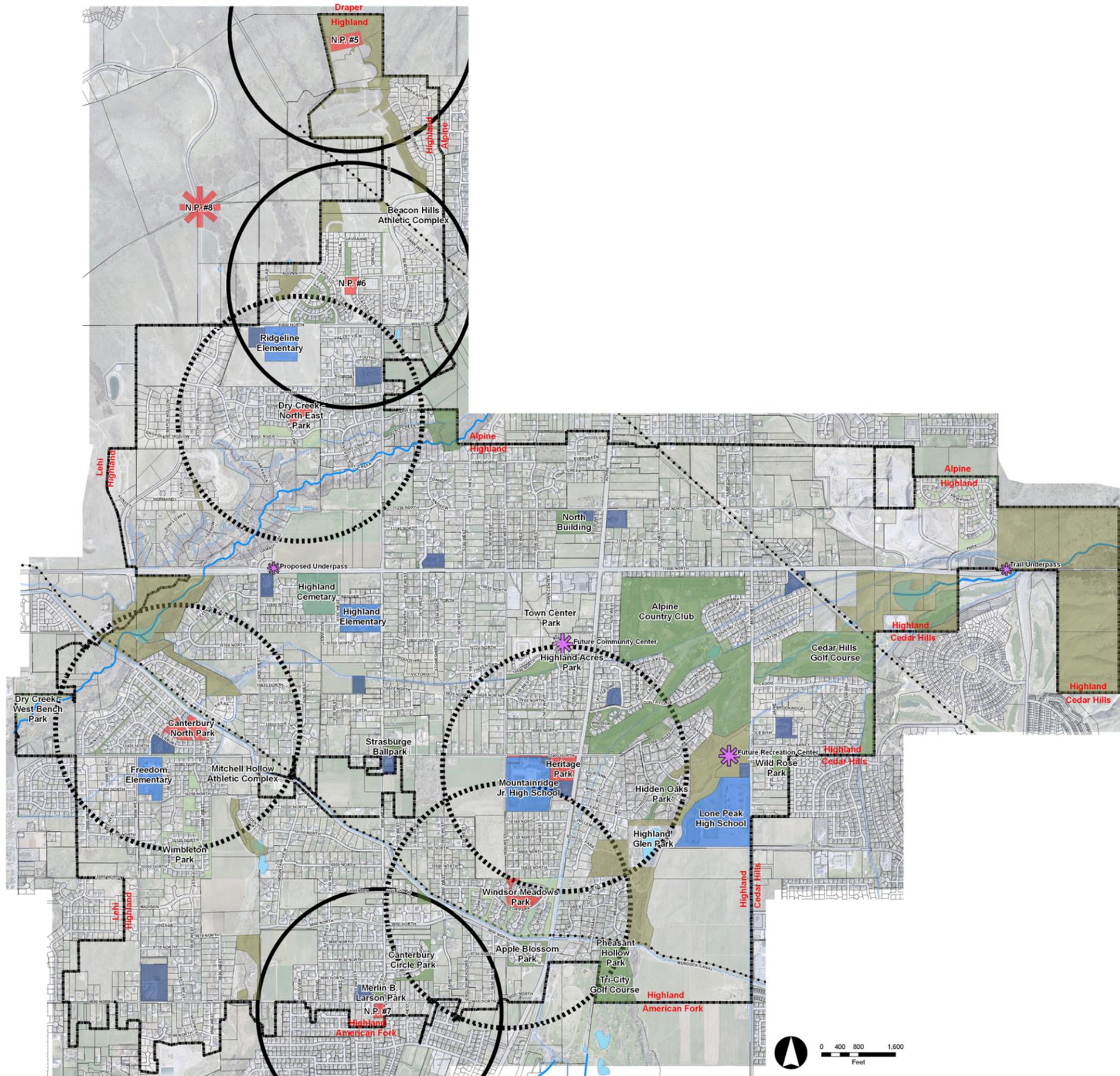
## Highland City General Plan Update



Adopted February 19, 2008



# MAP 8-1 EXISTING AND FUTURE HIGHLAND CITY NEIGHBORHOOD PARKS



- Land Use**
- Religious
  - School
  - Cemetery
  - Private Recreation & Mini Park
  - Open Space
  - Highland City Park
  - Highland City Neighborhood Park
  - Waterbody
  - Parcels
  - Stream or River
  - Canal or Ditch
  - Pipeline or Aquaduct
  - City Boundary
  - Existing Park Service Area
  - Future Park Service Area
- Note: 1/2 mile radius for neighborhood parks.
- ✱ Future Neighborhood Park. Location not yet determined.

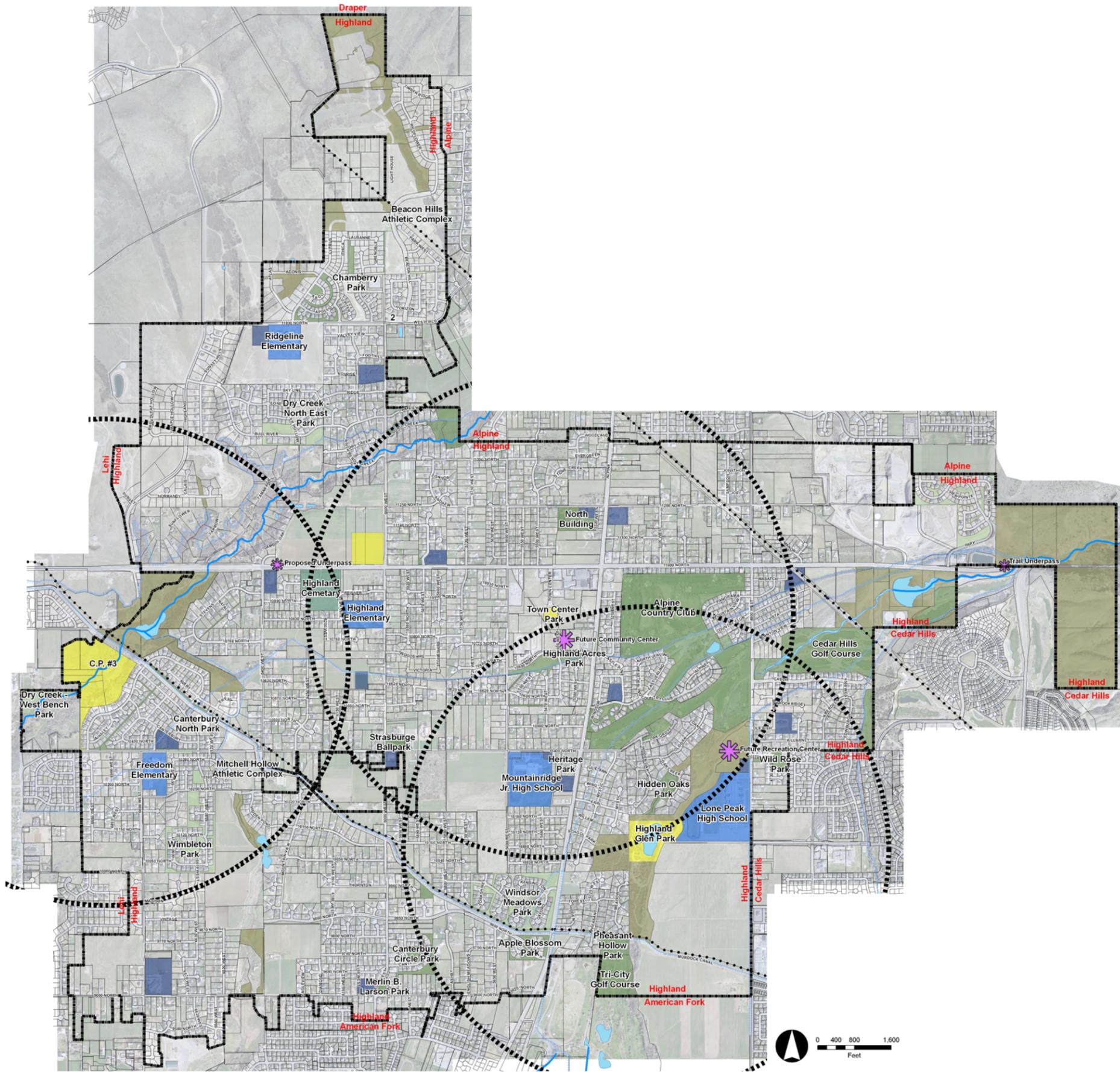
## Highland City General Plan Update



Adopted February 19, 2008



# MAP 8-2 EXISTING HIGHLAND CITY COMMUNITY PARKS



## Land Use

- Religious
  - School
  - Cemetery
  - Private Recreation & Mini Park
  - Open Space
  - Highland City Park
  - Highland City Community Park
  - Waterbody
  - Parcels
  - Stream or River
  - Canal or Ditch
  - Pipeline or Aquaduct
  - City Boundary
  - Existing Park Service Area
- Note: 1 mile radius for community parks.

## Highland City General Plan Update



Adopted February 19, 2008



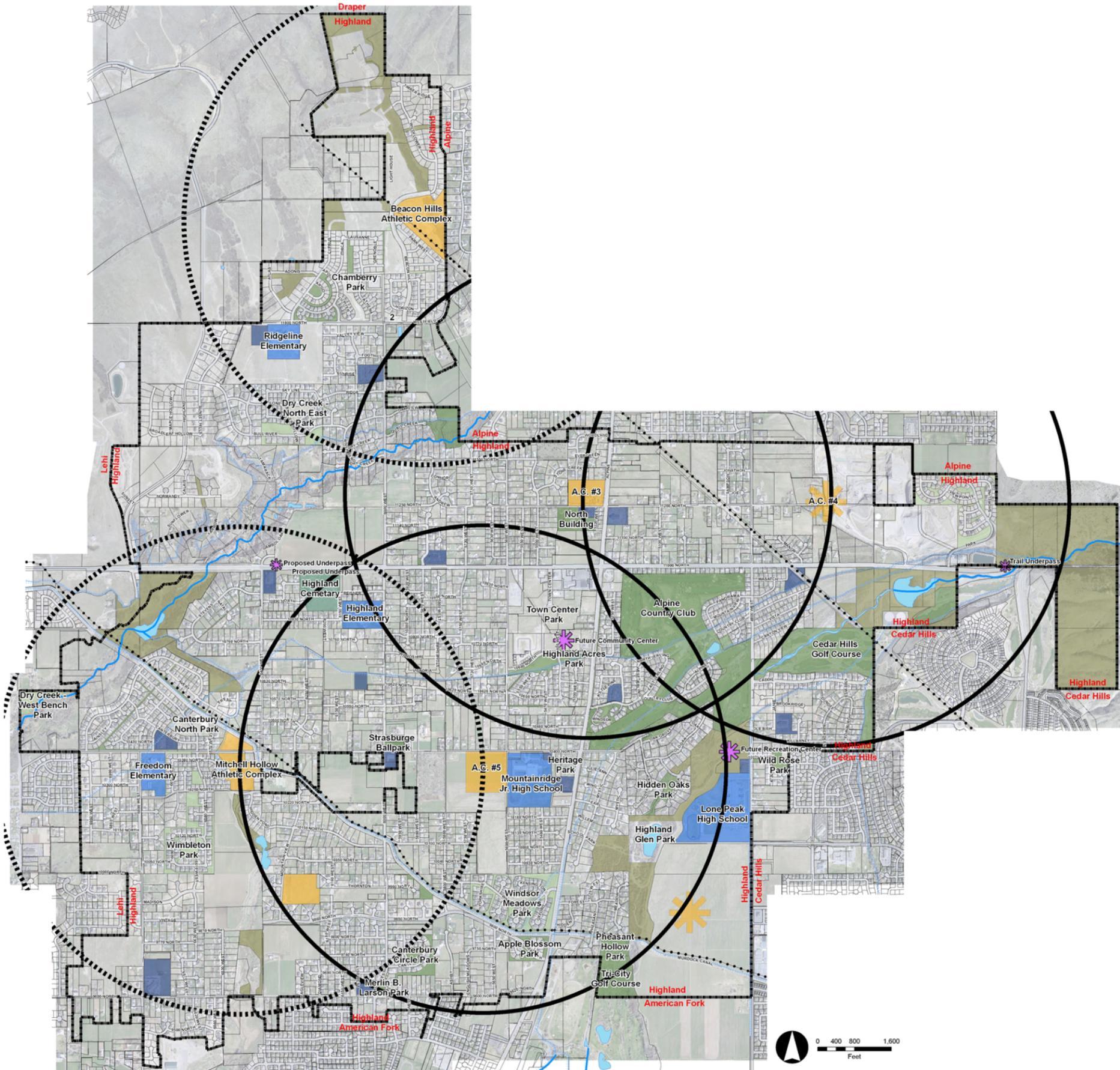
# MAP 8-3 EXISTING AND FUTURE HIGHLAND CITY ATHLETIC COMPLEXES

## Land Use

-  Religious
-  School
-  Cemetery
-  Private Recreation & Mini Parks
-  Open Space
-  Highland City Public Park
-  Highland City Athletic Complex
-  Waterbody
-  Parcels
-  Stream or River
-  Canal or Ditch
-  Pipeline or Aquaduct
-  City Boundary
-  Existing Park Service Area
-  Future Park Service Area

Note: 1 mile radius for athletic complexes.

 Potential Future Athletic Complex. Location not yet determined.

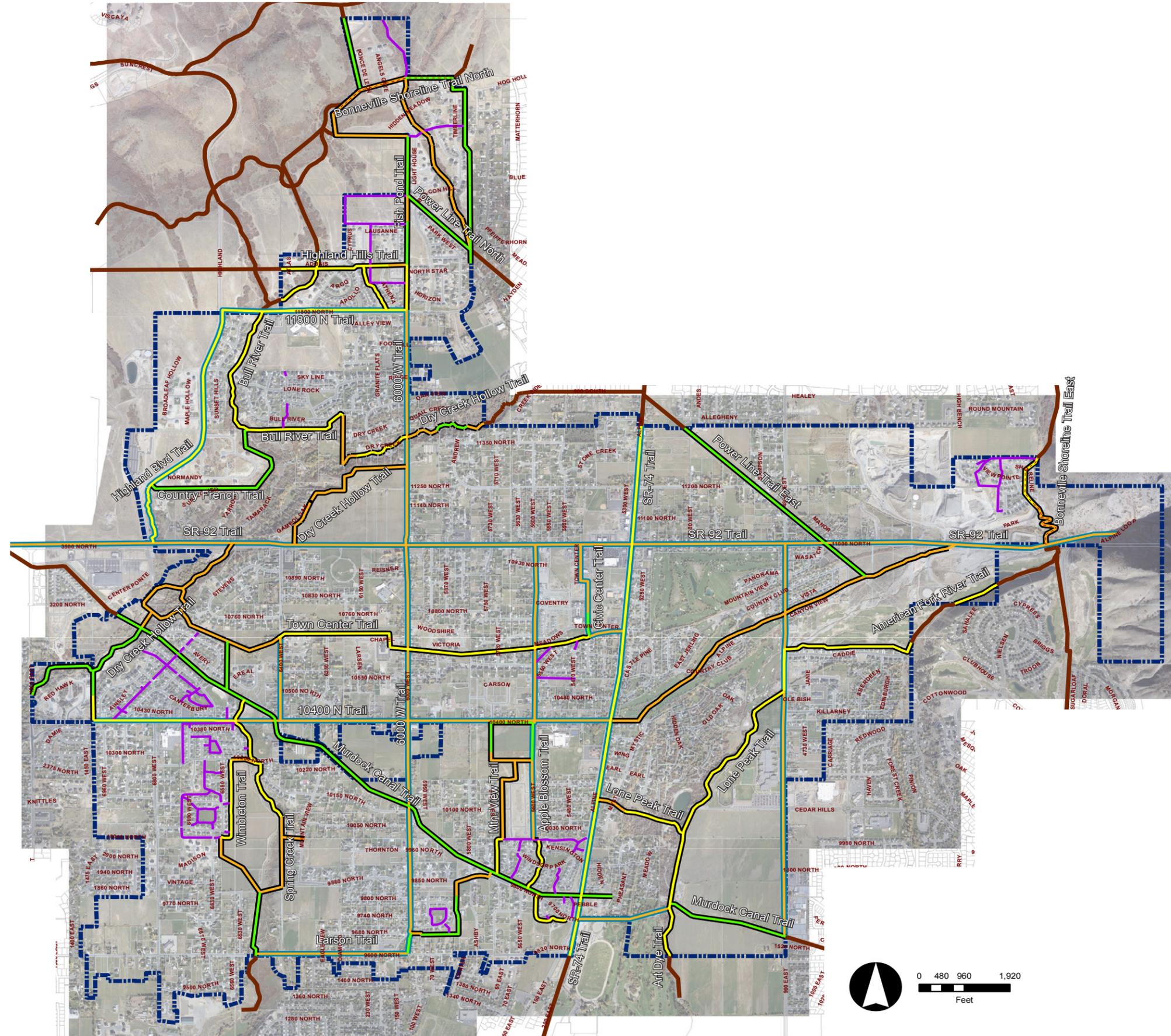


## Highland City General Plan Update



Adopted February 19, 2008





# MAP 8-4 EXISTING AND FUTURE TRAILS PLAN

## Trails

- Bonneville Shoreline Trail
- Existing Trails
- Future Trails City Secured
- Future Trails Unsecured
- Neighborhood Trails
- ABC**  
--- Major Trails
- Roadside Major Trails
- Major Trails Not in Highland
- City Boundary
- City Lots/Parcels
- Lakes and Ponds
- Streams, Canals, Ditches

## Highland City General Plan Update



Adopted : July 21, 2009

Adopted February 19, 2008

