## 



## "IFe Lex-Plan 2013*"

Comprehensive Plan Participants

## CITY COUNCIL MEMBERS:

John Fagot, MAYOR
Linda Miller
Jeremy Roberts
John Salem
Dora Vivas

CITY OF LEXINGTON STAFF:
CITY MANAGER
Joe Pepplitsch
ASSISTANT CITY MANAGER
Dennis Burnside
CITY CLERK / PERSONNEL DIRECTOR
Pam Berke

CHIEF BUILDING INSPECTOR
Bill Breck

PLANNING COMMISSION
(3 YEAR TERMS, APPOINTED BY CITY COUNCIL)

Curt Bennett
Nancy Evans Cathy Fagot
Sir Keevin Hardiman
Doug Heineman
Seth McFarland
Steve Smith
Rusty Sutton
Elifonsa Vasquez

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\begin{gathered}
\text { Comprehensive Plan } \\
\text { Tableof Contents }
\end{gathered}
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| INTRODUCTION TO LEXINGTON | 2 |
| :---: | :---: |
| Location | 3 |
| Geography | 3 |
| Climate | 3 |
| Topography and Soils | 4 |
| History | 5 |
| COMPREHENSIVE PLANNING | 6 |
| The Purpose | 6 |
| The Process | 7 |
| The Components | 8 |
| GOVERNMENTAL and |  |
| JURISDICTIONAL ORGANIZATION | 9 |
| Profile |  |
| INTRODUCTION TO PROFILE | 11 |
| DEMOGRAPHICS | 12 |
| Population | 13 |
| Age Structure | 14 |
| Race Characteristics | 18 |
| Population Projections | 20 |
| HOUSING | 23 |
| Age of Existing Housing Stock | 24 |
| Housing Trends | 25 |

ECONOMIC and EMPLOYMENT 30
Income Statistics ..... 31
Industry Employment ..... 34
Commuter Trends ..... 36
Sales and Fiscal Profile ..... 38
PUBLIC FACILITIES and UTILITIES ..... 40
Community Facilities ..... 41
Parks and Recreational ..... 43
Educational ..... 45
Fire and Police Protection ..... 47
City Buildings ..... 49
Communication ..... 50
Health Facilities ..... 51
Public Utilities ..... 53
Energy Component ..... 55
NATURAL and ENVIRONMENTAL CONDITIONS ..... 63
Soils ..... 64
Floodplain ..... 69
Wellhead Protection ..... 70
EXISTING LAND USE ..... 72
Land Use Categories ..... 73
Land Use Analysis ..... 74
AIRPORT OVERLAY ..... 77

## Achieve

| INTRODUCTION TO ACHIEVE | $\mathbf{8 0}$ |
| :--- | :--- |
| POPULATION PROJECTIONS | 81 |
| FUTURE LAND USE | 82 |
| Land Use Designations | 84 |
|  |  |
| URBAN DESIGN | 90 |
| Corridor Enhancment | 90 |
| Greenfield Development | 93 |
| Infill Development | 96 |
| PARK AND RECREATION PLAN | $\mathbf{1 0 0}$ |
| Existing Conditions | 102 |
| Park System Analysis |  |
| Recommendations | 123 |
| Park Land Dedication | 151 |
| TRANSPORTATION SYSTEM PLAN | 155 |
| Existing Transportation Profile | 165 |
| Future Transporation Plan |  |


| TABLE LISTING | PAGE |
| :---: | :---: |
| PROFILE |  |
| Table 1: Population Trends, Lexington | 12 |
| Table 2: Population Comparison, Dawson County cities | 13 |
| Table 3: Cohort Analysis, Lexington, \|2000-2010 | 5 |
| Table 4: Age Cohort Comparison, Lexington | 6 |
| Table 5: Age Distribution, Lexington | 6 |
| Table 6: Racial Composition Trends, 1990 to 2010 | 18 |
| Table 7: Projection Cohort Survival | 1 |
| Table 8: Lexington Historical Growth | 22 |
| Table 9: Low Population Projection | 22 |
| Table 10: Medium Population Projection | 22 |
| Table 11: High Population Projection | 22 |
| Table 12: Housing Trends, Lexington, \|1990-2010 | 25 |
| Table 13: Persons per Household, Lexington, 2010 | 27 |
| Table 14: Lexington Housing Need Projections for 2020 | 28 |
| Table 15: lexington Housing Need Projections for 2030 | 29 |
| Table 16: Median Household Income, Lexington 2011 | 31 |
| Table 17: Household Incomes, Lexington and State of Nebraska, 2010 | 31 |
| Table 18: Household Income Trends, Lexington and Nebraska, 1990 to 2010 | 2 |
| Table 19: Per Capita Income Comparison, Lexington | 33 |

LEXINGTON TABLES

| Table 20: Employment by Industry, <br> Lexington, 2010 | 34 |
| :--- | ---: |
| Table 21: Travel Time to Work, Lexington |  |$\quad 36$ (Table 22: Means of Travel Trend, | Lexington, 2000, 2011 |
| ---: |
| Table 23: Sales Tax Collected and Pull <br> Factor, Dawson County communities |
| Table 24: Comparison of Sales Tax Trend <br> and Pull Factor, Lexington, Dawson <br> County, State of Nebraska |
| Table 25: Parks Information, <br> City of Lexington |
| Table 26: Golf Courses near Lexington |
| Table 27: 2012 -2013 School Year <br> Enorollment, Lexington |
| Table 28: Colleges and Universities in the <br> Lexington Area |
| Table 29: Private Service Providers, <br> Lexington Nebraska |
| Table 30: Lexington Television Stations |


| ACHIEVE |  |
| :---: | :---: |
| Table: 37: Population Projections, Lexington, 2020, 2030 | 82 |
| Table: 38: Parks and Recreation Facility Classifications | 102 |
| Table: 39: Centennial Park, Lexington | 103 |
| Table: 40: Water Tower Park, Lexington | 105 |
| Table: 41: Arbor Park, Lexington | 107 |
| Table: 42: Oak Park, Lexington | 109 |
| Table: 43: Pioneer Park | 111 |
| Table: 44: Kirkpatrick Memorial Park, Lexington | 113 |
| Table: 45: Plum Creek Park, Lexington | 114 |
| Table: 46: Bryan Elementary School Park, Lexington | 115 |
| Table: 47: Pershing Elementary Park, Lexington | 116 |
| Table: 48: Morton Elementary Park, Lexington | 117 |
| Table: 49: Sandoz Elementary Park, Lexington | 118 |
| Table: 50: Lexington Middle School Facilities | 119 |
| Table: 51: Lexington Senior High School Facilities | 120 |
| Table: 52: Aquatic Center, Lexington | 121 |
| Table: 53: Optimist Recreation Complex, Lexington | 122 |
| Table: 54: Required and Optional Facilities and Services. | 127 |


| FIGURE LISTING | PAGE |
| :--- | :--- |
| PROFILE |  |
| Figure 1: Historical Population <br> Trends, Lexington | 12 |
| Figure 2: Population <br> Comparison with Dawson <br> County cities | 13 |
| Figure 3: 2010 Age Cohort <br> Chart, Lexington | 14 |
| Figure 5: 1990 Racial <br> Composition, Lexington, NE | 19 |
| Figure 6: 2000 Racial <br> Composition, Lexington, NE | 19 |
| Figure 4: Lexington Population <br> change | 19 |
| Figure 7: 2010 Racial <br> Composition, Lexington, NE | 19 |
| Figure 8: Low Population <br> Projection | 22 |
| Figure 9: Medium Population <br> Projection | 22 |
| Figure 10: High Population <br> Projection | 22 |
| Figure 11: Age of Housing <br> Stock, Lexington, 2010 | 24 |
| Figure 12: Tenure Trend, |  |
| Lexington 2000 - 2010 |  |

LEXINGTON FIGURES

| Figure 17: Public Facilities, Lexington | 42 | Figure: 34: Flex House, Urban Design, Lexington | 98 |
| :---: | :---: | :---: | :---: |
| Figure 18: School Districts, Lexington area | 46 | Figure: 35: Typical City Block Redevelopment Options, Lexington | 99 |
| Figure 19: Fire and Rescue Districts, Lexington area | 48 |  |  |
|  |  | Figure: 36: Centennial Park, Lexington | 103 |
| Figure 20: Utility Service, Lexington | 54 | Figure: 37: Water Tower Park, Lexington | 105 |
| Figure 21: Generalized Soils Association, Lexington | 66 | Figure: 38: Arbor Park, Lexington | 107 |
| Figure 22: Detailed Legend for for Individual Soil Unit Map | 67 | Figure: 39: Oak Park, Lexington | 109 |
| Figure 23: Individual Soil Unit, Lexington | 68 | Figure: 40: Pioneer Park, Lexington | 111 |
| Figure 24: Environmental Constraints, Lexington | 71 | Figure: 41: Kirkpatrick Memorial Park, Lexington | 112 |
| Figure 25: Existing Land Use, Lexington | 76 | Figure: 42: Plum Creek Park, Lexington | 113 |
| Figure 26: Jim Kelly Field Airport Overlay | 79 | Figure: 43: Optimist Recreational Complex, Lexington | 121 |
| ACHIEVE |  | Figure: 44: Existing Bicycle and Pedestrian Facilities | 122 |
| Figure: 27: Future Land Use |  |  |  |
| Map, Lexing | 83 | Figure: 45: Park Service Area Map, Lexington | 124 |
| Figure: 28: Plum Creek Parkway |  |  |  |
| Entrance, Lexington | 91 | Figure: 46: Sandoz Park Proposed Master Plan, Lexington | 132 |
| Figure: 29: Highway 30 Diet, Lexington | 92 |  |  |
| Figure: 30: Downtown Gateway, Lexington | 93 | Figure: 47: Sandoz Park Proposed Master Plan, Lexington | 133 |
| Figure: 31: "Aging in Place" Neighborhood Design, Lexington | 94 | Figure: 48: Kirkpatrick Memorial Park proposed Master Plan, Lexington | 138 |
| Figure: 32: Southwest Neigborhood Design, Lexington | 95 | Figure: 49: Kirkpatrick Memorial Park proposed Master Plan Lexington | 139 |
| Figure: 33: Adams Street Redevelopment, Lexington | 96 |  |  |


| Figure: 50: Plum Creek <br> proposed Master Plan, <br> Lexington |  |
| :--- | :--- |
| Figure: 51: Plum Creek <br> proposed Master Plan, <br> Lexington | 141 |
| Figure: 52: Trails Concept Map | 149 |
| Figure: 53: Neighborhood <br> Green Street Section (Typical) | 150 |
| Figure: 54: Secondary Green <br> Street Section (Typical) |  |
| Figure: 55: Primary Green <br> Street Section | 150 |
| Figure: 56: Roadways within |  |
| the study and the existing |  |
| federal functional classification | 157 |
| Figure: 57: Average Daily Traffic |  |
| Volumes | 159 |
| Figure: 58: Adams Street |  |
| Viaduct, Lexington | 160 |
| Figure: 59: Bicycle and |  |
| Pedestrian Facilities | 161 |
| Figure: 60: Future Housing | 168 |
| Figure: 61: Job Growth | 169 |
| Figure: 62: Existing and Future | 170 |
| Volumes |  |
| Figure: 63: Wayfinding |  |
| Examples |  |
| Figure: 64: Potential Wayfing |  |
| Map, Lexington | 178 |
| Figure: 65: Possible Truck |  |
| Routes through Lexington | 180 |
| Figure: 66: Railroad Crossings | 183 |
|  |  |
| Pedestrian map, Lexington | 185 |
| Figure: 68: Future Bicycle and |  |
| Pedestrian System, Lexington | 194 |

## INTRODUCTION

## INTRODUCTION TO LEXINGTON

Location
Geography
Climate
Topography and Soils
History
COMPREHENSIVE PLANNING
The Purpose
The Process
The Components
GOVERNMENTAL and
JURISDICTIONAL ORGANIZATION


## Introduction

Lexington, one of the more diverse communities in the State of Nebraska, has shown a pattern of growth, and was Nebraska's sixth fastest growing city in the 2000 Census. While growth is necessary and a sign of prosperity for a city, it is also a challenge to manage that growth.

Cities that take the time to plan for and manage growth typically see a longer growth period and maintain their status as a desirable place to live.

With the development of this new Comprehensive Plan, referred to as "The Lex-Plan 2013," the City of Lexington continues to enhance their status as one of the best cities to live and work in Nebraska.

## Location

Lexington is located in south central Nebraska on Interstate 80 about 40 miles west of Kearney, Nebraska, situated next to the Platte River. Residents have easy access to some of the Nebraska's best outdoor recreation, such as Johnson Lake about 10 miles south.

Lexington is the county seat of Dawson County and is located in the south central part of the county. The community is connected with the major transportation corridors of the region, including U.S. Highways 283 and 30 and Nebraska State Highway 21. The Interchange of 283 and I-80 provides a direct link to major trading centers in the Midwest and points beyond. Omaha is located 222 miles to the northeast and Denver is 313 miles southwest of Lexington.

## Geography

Lexington is located at $40^{\circ} 46^{\prime} 46^{\prime \prime} \mathrm{N}$ $99^{\circ} 44^{\prime} 38^{\prime \prime} \mathrm{W} 40.77944^{\circ} \mathrm{N} 99.74389^{\circ} \mathrm{W}$
(40.779434, -99.743854). According to the United States Census Bureau, the city has a total area of 4.51 square miles ( $11.69 \mathrm{~km}^{2}$ ), of which, 4.5 square miles $\left(11.65 \mathrm{~km}^{2}\right)$ of it is land and 0.01 square miles $\left(0.03 \mathrm{~km}^{2}\right)$ is water.

## Climate

The temperature for Lexington and Dawson County is varied, ranging from an average low of 12.2 degrees during the month of January to an average high of 88 during the month of July. The average annual precipitation is 22 inches.
The average snowfall in a year is 19 inches. The number of days with any measurable precipitation is 58 days and there is an average of 227 sunny days in Lexington.


Source: Nebraska Department of Roads, 2007

## "The Lex-Plan <br> INTRODUCTION

## Topography and Soils

The terrain in the current corporate limits is mostly flat lying in close proximity to the Platte River with the city's average elevation of 2,404 feet. The land to the north becomes level to gently rolling outside the corporate limits. Throughout Dawson County the terrain is quite diverse, ranging from level to hilly.


The soils in and around the area of Lexington are classified into four soil groups. The U.S. Department of Agriculture, Natural Resources Conservation Service, has identified the four soil groups, or associations, as Coxad-Hord Association, Gosper-Cozad-Silver Creek Association, Lex-Lawet-Gibbon Association, and the Go-thenburg-Platte Association. Nearly the entire area within the Lexington city limits, as well as the central third of the two-mile planning jurisdiction, is included in the Gosper-Cozad-Silver Creek Association in which soils are described as "deep, nearly level, somewhat poorly drained to well drained, silty and loamy soils on stream terraces."

[INTRODUCTION] Comprehensive Plan - Lexington, Nebraska


Sources: GIS Workshop and the City of Lexington website; Geological Survey for Department of Interior, Revised 1983

## History

The location of Lexington is directly related to the Platte River where original settlers were attracted to and found potable water and strategic transportation corridors. The Union Pacific Railroad arrived in the area in 1866, but it was not until 1871 that Dawson County was formed.

Called Plum Creek by the original settlers, Lexington has a colorful and lively history. Lexington began as an early frontier trading post in 1860 when the Daniel Freeman family settled along the Oregon Trail near the Platte River. The trading post was prosperous, but not without

problems. The Plum Creek Massacre took place August 7, 1864, in the bluffs near town. These bluffs were regarded as one of the most dangerous areas on the way west. The Freemans were forced to flee to Fort Kearny and the trading post was destroyed. Fort Plum Creek was established near the ruins of the trading post later that same year. A cemetery is all that remains near the historic site today.

It is estimated that during those early years, more than half a million Americans followed the nearby Oregon Trail until the completion of the Union Pacific Railroad. When the tracks had been laid, the Freemans moved north of the river and named the town Plum Creek, which was incorporated in 1874 and designated the county
seat of Dawson County. With the railroad established, many new settlers arrived in the area -- including railroad workers and homesteaders who came to farm the free land. Many large ranches were established along the Platte River and thousands of cattle roamed the free range.

A population boom between 1880 and 1885 increased by more than a thousand people. Some of the residents decided that a new name might help shake the town's rough-and-tumble reputation, and enhance community development. The town's name was changed to Lexington in 1889. It's not clear why, but it may be partly in commemoration of the Battle of Lexington dữring the Revolutionary War. The Union Pacific Railroad, the arrival of a group of settlers known as the Pennsylvania Colony, and construction of a bridge across the Platte River, stimulated more growth and made Lexington the center of activ-ity inf the area.


## THE PURPOSE OF COMPREHENSIVE PLANNING

The Lexington Comprehensive Development Plan is designed to promote orderly growth and development for the City, provide policy guidelines, and enable citizens and elected officials to make informed decisions about the future of the City. The Plan acts as a tool to "Develop a road map or blueprint that guides the community through change as it occurs tomorrow and ten to twenty years from now."

The Comprehensive Development Plan will provide a guideline for the location of any future developments within the planning jurisdiction of Lexington. The Lexington Comprehensive Plan is intended to encourage a strong economic base so the goals of the city are achieved.
"The Lex-Plan 2013" will assist the community in evaluating the impacts of development, including economic, social, fiscal, and service, and encourage appropriate land uses throughout the jurisdictional area of Lexington. The Plan assists the city in balancing the physical, social, economic, and aesthetic features as it responds to private sector interests. Planned growth will make Lexington more effective in serving residents, more efficient in using resources, and able to meet the standard of living and quality of life every individual desires.

## MISSION STATEMENT

The mission statement for Lexington is based upon various meetings and interactions throughout the planning process of updating the Comprehensive Plan. Such mission statement and a series of guiding principles lays the framework for the goals, objectives, and polices; and the development of the Future Land Use Plan.
> "Lexington is a diverse and family oriented community bound together by shared values and a commitment to excellence where citizens, businesses and civic leaders are partners in building a quality environment to live, learn, and work."


## The Comprehensive Planning Process

Comprehensive planning begins with the data collection phase including demographic information from the 2010 Census, information obtained from city staff, public input, and field data collection. Data are collected that provide a snapshot of the past and present conditions of Lexington. Analysis of data provides the basis for developing forecasts for future land-use demands in the city.

The second phase of the planning process is the development of general goals and objectives or policies, based upon the issues facing the City, and prioritized by the community though public input. These are practical guidelines for improving existing conditions and guiding future growth. The Comprehensive Plan is a vision presented in text, graphics, and tables that represent the desires of the city for the future.
"The Lex-Plan 2013" represents a blueprint designed to identify, assess, and develop actions and policies in the areas of population, land use, transportation, housing, economic development, community facilities, and utilities. The Comprehensive Plan contains recommendations that, when implemented, will be of value to the City of Lexington and its residents.

Implementation is the final phase of the process. A broad range of development policies and programs are required to implement the Comprehensive Plan. "The Lex-Plan 2013" identifies the tools, programs, and methods necessary to fulfill the recommendations. Nevertheless, the implementation of the development policies contained within the Comprehensive Plan is dependent upon the adoption of the plan by the governing body, and the leadership exercised by the present and future elected and appointed officials of the city.
"The Lex-Plan 2013" was prepared under the direction of the Comprehensive Plan Steering Committee. The steering committee was composed of members of City staff and the Planning Commission. Review and recommendations by the Lexington Planning Commission were completed prior to adoption of "The Lex-Plan 2013" by the Lexington City Council. The planning time period for achieving goals, objectives, programs, and developments identified in the Lexington Comprehensive Plan is up to 20 years. However, the city should review the plan annually or bi-annually and update the document completely every ten to fifteen years, or when a pressing need is identified. Updating the Comprehensive Plan will allow the city to incorporate ideas and developments that were not known at the time of the present comprehensive planning process.

## "The Lex-Plan, 20113;"

## COMPONENTS

## Profile

Previous trends and current status

Envision

Community input and future plans

## Achieve

Goals of what to achieve

Implement
Plans and policies

## Comprehensive Plan Components

Nebraska State Statutes require the inclusion of certain elements in a Comprehensive Plan.
A "Comprehensive Development Plan," as defined in Neb. Rev. Stat. § 19-903 (Reissue 1997), "shall consist of both graphic and textual material and shall be designed to accommodate anticipated long-range future growth."
"The Lex-Plan 2013" provides an emphasis on land use and transportation and is comprised of the following components:

Profile Lexington
Envision Lexington
Achieve Lexington
Implement Lexington
Analyzing past and existing demographic, housing, economic, and social trends permits the projection of likely conditions in the future. Projections and forecasts are useful tools in planning for the future; however, these tools are not always accurate and may change due to unforeseen factors. Past trends may also be skewed or inaccurate, creating a distorted picture of past conditions. Therefore, it is important for Lexington to closely monitor population, housing and economic conditions that may impact the city. Through periodic monitoring, the city can adapt and adjust to changes at the local level. Having the ability to adapt to socioeconomic change allows the city to maintain an effective Comprehensive Plan for the future, to enhance the quality of life, and to raise the standard of living for all residents in Lexington and its jurisdiction.
"The Lex-Plan 2013" records where Lexington has been, where it is now, and where it will likely be in the future. This is an information and management tool for city leaders to use in their decision-making process when considering future developments. The Comprehensive Plan is not a static document; it should evolve as changes in the land-use, population, or local economy occur during the planning period. This information is the basis for Lexington's evolution as it achieves its physical, social, and economic goals.

## Governmental and Jurisdictional

 OrganizationThe planning jurisdiction of the City of Lexington includes the area within two miles of the corporate limits as authorized under the authority of Section 17-001, Nebraska Revised Statutes, 1943 (amended). The City may enforce zoning and subdivision regulations including building, electrical, plumbing, and property maintenance codes within its planning jurisdiction.

The Lexington City Council, which is a board of elected officials including the Mayor, performs the governmental functions for the city. The planning and zoning jurisdiction of Lexington, pursuant to Neb. Rev. Stat. § 19-901 through 19-933 (Reissue 1997), includes all of the incorporated portions of the city, including an established extraterritorial jurisdiction of two miles.


## PROFILE

"The Lex-PIan 20113"

## INTRODUCTION TO PROFILE

## DEMOGRAPHICS

Population
Age Structure
Migration Analysis
Race Characteristics
Population Projections

## HOUSING

Age of Existing Housing Stock
Housing Trends

## ECONOMIC and EMPLOYMENT

Income Statistics
Industry Employment
Commuter Trends
Sales and Fiscal Profile

PUBLIC FACILITIES and UTILITIES
Community Facilities
Parks and Recreational Facilities Educational
Fire and Police Protection
City Buildings
Communication Facilities
Health Facilities
Public Utilities
Energy Component
NATURAL and ENVIRONMENTAL CONDITIONS

Soils
Slope
Floodplain

## EXISTING LAND USE

Existing Land Use Categories Land Use Analysis

## Airport Overlay



## INTRODUCTION

In order to foster robust communities, cities must continually evaluate both its past trends and existing facilities. The Profile Section of the "The Lex-Plan 2013" focuses on characteristics that create Lexington. Current demographics, economic climate, housing stock, and public facilities play a vital role in the future of a community. The following data will help derive solutions to future issues that may hinder Lexington's growth and economic development. The City of Lexington and its two-mile jurisdiction will remain pivotal to the surrounding economies and job creation in Dawson County. Officials, private citizens, and businesses can use this comprehensive plan update as a reference to its future needs. These needs can be achieved through long term planning and budgeting. Lexington's commitment to its residents and the park system can greatly improve the lives and well-being of the entire community. Promoting Lexington and its diverse community can be achieved with both private and public methods. For example, the estimated population may desire more diversity of housing options and job opportunities. Promotion of such diversity allows the city to become more stable while providing services and education.


The Profile Section gives findings in the following sections:
Demographics, Housing, Economic and Employment, Public Facilities and Utilities, Natural Environment, and Existing Land Use.

## DEMOGRAPHICS

Population is the driving force behind housing, local employment, economic, and the fiscal stability of the community. It is important for the community to understand where it has been, where it is, and where it appears to be going. Population statistics aid decision-makers by painting a picture of the community. Historic population conditions assist in developing demographic projections, which in turn assist in determining future housing, retail, medical, employment and educational needs within the community. Projections provide an estimate for the community, from which to base future land-use and development decisions. However, population projections are only an educated calculation for the future, and unforeseen factors can significantly affect those projections.

## Population Trends and Analysis

Table 1 and Figure 1 show the historical population trend of Lexington from 1930 to the present. Lexington's largest growth periods took place in the decades of 1940, 1970, and 1990. Lexington has sustained this growth to remain the largest community in Dawson County.


| Historical Population Trends Lexington, Nebraska 1930-2010 |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Population | Change | Percentage |
| 1930 | 2,962 | na | na |
| 1940 | 3,688 | 726 | 20\% |
| 1950 | 5,068 | 1,380 | 27\% |
| 1960 | 5,572 | 504 | 9\% |
| 1970 | 5,654 | 82 | 1\% |
| 1980 | 7,040 | 1,386 | 20\% |
| 1990 | 6,601 | (439) | -7\% |
| 2000 | 10,011 | 3,410 | 34\% |
| 2010 | 10,230 | 219 | 2\% |

Source: US Census
Table 1: Population Trends, Lexington

Figure 1: Historical Population Trends, Lexington

## Population Trends and Analysis (con't)



Figure 2: Population Comparison with Dawson County cities
Figure 2 shows a visual representation of the historical population of the previous 50 years within Dawson County. It can be seen that Lexington's growth had increased the 1970 s with a brief dip in the 1980s. However, Lexington responded to this loss of population by having its

Table 2 compares its population growth of Lexington to Dawson County and the larger cities of Cozad and Gothenburg over the past forty years. This information provides an understanding of the county's long term population trends. The decade of 1970 showed an increase for Dawson County while the 1980s revealed an overall decrease for both the cities and the county. Lexington's population in 2010 was 10,230 persons, which was an increase of 3,629 persons, or $55 \%$, since 1990. The large population growth in the 1990s has elevated Lexington to remain above its contemporaries in 2010. Within the same time period, Dawson County's population increased by $22.0 \%$; with all communities and incorporated areas increasing their population by 4,386 . The table also shows that Cozad lost $4.5 \%$ of its population between 2000 and 2010.

| Community | 1970 | 1980 | $\begin{gathered} \text { \% Change } \\ 1970 \text { to } \\ 1980 \end{gathered}$ | 1990 | $\begin{aligned} & \text { \% } \\ & \text { Change } \\ & 1980 \text { to } \\ & 1990 \end{aligned}$ | 2000 | $\begin{aligned} & \text { \% Change } \\ & 1990 \text { to } \\ & 2000 \end{aligned}$ | 2010 | $\begin{gathered} \text { \% Change } \\ 2000 \text { to } \\ 2010 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lexington | 5,654 | 7,040 | 24.5\% | 6,601 | -6.2\% | 10,011 | 51.7\% | 10,230 | 2.2\% |
| Cozad | 4,225 | 4,453 | 5.4\% | 3,823 | -14.1\% | 4,163 | 8.9\% | 3,977 | -4.5\% |
| Gothenburg | 3,158 | 3,479 | 10.2\% | 3,232 | -7.1\% | 3,619 | 12.0\% | 3,574 | -1.2\% |
| Dawson County | 19,467 | 22,304 | 14.6\% | 19,940 | -10.6\% | 24,365 | 22.2\% | 24,326 | -0.2\% |

Source: U.S. Census and American Factfinder
Table 2: Population Comparison, Dawson County cities

## PROFILE

## Age Structure Analysis

Age Structure analysis will interpret what a city is experiencing within its age groups. It is necessary to research this information to effectively plan. An age cohort breaks down the overall population into five year spans which a community can evaluate its development. The past or present growth of particular age cohorts must be taken into consideration. The child-bearing age cohorts are typically an important factor because they supply the natural growth of a community's population. When evaluating the age cohorts of 20 to 44 , the growth of the community may be naturally higher. On the other hand, if the large, younger cohorts maintain their relative size, but do not increase the population as expected, they will, as a group, tend to strain the resources of an area as they age. Communities must also take into account the population that is growing in place. If a community has a large retired population, it may need to invest and supply adequate assistance and available care. Budgeting and future investment can be altered to correct for deficiencies and avoid overspending.

The 2010 Age Cohort Chart visualizes the population within Lexington. The two youngest cohorts are shown to be the largest. The $0-4$ age range has 546 boys and 447 girls while the second largest cohort of 5-9 has 479 boys and 461 girls for a total of 940 children. As the chart shows, the school system may become
the focus of the community. Difficulties may arise with a continued growth of the school aged population and possibly create a strain on public funds if not planned properly. This figure is for visual purposes and a more detailed table follows.


Figure 3: 2010 Age Cohort Chart, Lexington

## Age Structure Analysis (con't)

Table 3 compares Lexington's Age Cohorts from 2000 and 2010. One method of analyzing cohort movement in a population involves comparing the same age cohort ten years later. For this example, the 0-4 Age Cohort in the year 2000 becomes the 2010s 10-14 Age Cohort. This helps reveal trends within a community as they age. The analysis of the Child Bearing Age Cohort shows this age cohort decreased slightly from 2000 to 2010 by $4 \%$. A positive change in the age cohort would suggest that a particular cohort experienced an in-migration. If an age cohort has a decrease within an age cohort, it would suggest out-migration. In this analysis of Lexington's age cohort between 2000 and 2010, each age cohort had varying degrees of out-migration. The largest cohorts that lost the most population were the 35 to 39 and 40 to 44 with 146 and 148 respectfully.

| 2000 Age Cohort | $2000$ <br> Male and Female | 2000's \% of Total | 2010 Age Cohort | 2010 <br> Male and Female | $\begin{gathered} \text { 2010's \% of } \\ \text { Total } \end{gathered}$ | 2000-2010 Cohort Change | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0-4 | 993 | 9.7\% |  |  |
|  |  |  | 5-9 | 940 | 9.2\% |  |  |
| 0-4 | 1,021 | 10.2\% | 10-14(0-4 in 2000) | 870 | 8.5\% | -151 | -14.8\% |
| 5-9 | 915 | 9.1\% | 15-19 | 866 | 8.5\% | -49 | -5.4\% |
| 10-14 | 859 | 8.6\% | 20-24 | 742 | 7.3\% | -117 | -13.6\% |
| 15-19 | 791 | 7.9\% | 25-29 | 785 | 7.7\% | -6 | -0.8\% |
| 20-24 | 694 | 6.9\% | 30-34 | 603 | 5.9\% | -91 | -13.1\% |
| 25-29 | 790 | 7.9\% | 35-39 | 644 | 6.3\% | -146 | -18.5\% |
| 30-34 | 811 | 8.1\% | 40-44 | 663 | 6.5\% | -148 | -18.2\% |
| 35-39 | 747 | 7.5\% | 45-49 | 661 | 6.5\% | -86 | -11.5\% |
| 40-44 | 722 | 7.2\% | 50-54 | 618 | 6.0\% | -104 | -14.4\% |
| 45-49 | 582 | 5.8\% | 55-59 | 495 | 4.8\% | -87 | -14.9\% |
| 50-54 | 473 | 4.7\% | 60-64 | 401 | 3.9\% | -72 | -15.2\% |
| 55-59 | 304 | 3.0\% | 65-69 | 270 | 2.6\% | -34 | -11.2\% |
| 60-64 | 256 | 2.6\% | 70-74 | 203 | 2.0\% | -53 | -20.7\% |
| 65-69 | 234 | 2.3\% | 75-79 | 166 | 1.6\% | -68 | -29.1\% |
| 70-74 | 233 | 2.3\% | 80-84 | 141 | 1.4\% | -92 | -39.5\% |
| 75-79 | 204 | 2.0\% | 85+ | 169 | 1.7\% | -35 | -17.2\% |
| 80-84 | 176 | 1.8\% |  | 10,230 |  |  |  |
| 85+ | 199 | 2.0\% |  |  |  |  |  |
|  | 10,011 |  |  |  |  |  |  |

Table 3: Cohort Analysis, Lexington, 2000-2010

## Age Cohort Comparison

Table 4 uses the same information as Table 3, however this comparison does not track the age cohorts as they age but evaluates each decade's age cohort to one another. The shift in Lexington's population percentages can found in this table. As collective groups, the older population and school-aged population experienced different migrations. In 2000, the 0-19 Age Cohorts had a total of 3,586 people and the same corresponding cohort decreased to 3,469 people. However, the numbers can be deceiving. With a large $0-9$ cohort from 2000 and the continued births within that ten year period, the school aged children gained $35.8 \%$ to $38.9 \%$ of Lexington's 2010 population. The combined cohorts of over 70 years of age were 812 people and $8.1 \%$ of the 2000 population. In 2010, this age cohort decreased in size to 679 people as well as decreasing its percentage to $6.7 \%$. A surprising in-migration of 481 people can be found between 50 to 64 age cohorts who each gained at least 145 people.

## Age Distribution

Table 5 for Age Distribution simplifies the change in demographics and the composition of Lexington's population over the past decade. The age ranges combine different age cohorts together. The age cohort for 20 to 29 totaled 1,527 or $15 \%$ of the 2010 population. Combined with the $0-19$ age cohort, Lexington had $50.8 \%$ of its population under the age of 30 . This helps to create a vibrant community and a steady labor force. Focusing education costs and providing training can help Lexington grow in the future.

| Age Groups | 2000 | 2010 | Change | \% Change |
| :--- | ---: | ---: | ---: | :---: |
| Under 19 | 3,586 | 3,669 | 83 | $\mathbf{2 . 3 \%}$ |
| $\mathbf{2 0 - 2 9}$ | 1,484 | 1,527 | 43 | $\mathbf{2 . 9 \%}$ |
| $\mathbf{3 0 - 3 9}$ | 1,558 | 1,247 | -311 | $\mathbf{- 2 0 . 0 \%}$ |
| $\mathbf{4 0 - 5 4}$ | 1,777 | 1,942 | 165 | $\mathbf{9 . 3 \%}$ |
| $\mathbf{5 5 - 6 4}$ | 560 | 896 | 336 | $\mathbf{6 0 . 0 \%}$ |
| $65+$ | 1,046 | 949 | -97 | $\mathbf{- 9 . 3 \%}$ |
| U.S. Census 2010 |  |  |  |  |


| Age <br> Cohort | 2000 | 2010 | Cohort <br> Change |
| :--- | ---: | ---: | :---: |
| $0-4$ | 1,021 | 993 | -28 |
| $5-9$ | 915 | 940 | 25 |
| $10-14$ | 859 | 870 | 11 |
| $15-19$ | 791 | 866 | 75 |
| $20-24$ | 694 | 742 | 48 |
| $25-29$ | 790 | 785 | -5 |
| $30-34$ | 811 | 603 | -208 |
| $35-39$ | 747 | 644 | -103 |
| $40-44$ | 722 | 663 | -59 |
| $45-49$ | 582 | 661 | 79 |
| $50-54$ | 473 | 618 | 145 |
| $55-59$ | 304 | 495 | 191 |
| $60-64$ | 256 | 401 | 145 |
| $65-69$ | 234 | 270 | 36 |
| $70-74$ | 233 | 203 | -30 |
| $75-79$ | 204 | 166 | -38 |
| $80-84$ | 176 | 141 | -35 |
| $85+$ | 199 | 169 | -30 |

Table 4: Age Cohort Comparison, Lexington

There are a number of reasons why people migrate in or out of a city. Communities sometimes experience loss to the age cohorts between 20 to 24 age cohort due to secondary education or in search of employment if jobs are unavailable. Other possibilities can be family related decisions to move in or out of a community. In this age distribution table, the 30 to 39 age groups lost the most relative population in 2010 at 20\%. Similar to the $50-64$ age cohort


## PROFILE

## Race Characteristics

Another important factor in Lexington's population is the racial composition of the overall population. The following table shows the changes in Lexington's racial composition from 1990 to 2010.

| Race | 1990 |  | 2000 |  | 2010 |  | 1990-2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | \% of Total | Number | \% of Total | Number | \% of Total | \% Change |
| White, not Hispanic | 6,231 | 94.39\% | 4,635 | 46.30\% | 3,174 | 31.03\% | -63.37\% |
| White, Hispanic origin | 221 | 3.35\% | 1,795 | (17.93\%) | 2,745 | (26.83\%) |  |
| Black | 3 | 0.05\% | 32 | 0.32\% | 649 | 6.34\% | 6.30\% |
| American Indian and Alaskan Native | 27 | 0.41\% | 76 | 0.76\% | 34 | 0.33\% | -0.08\% |
| Asian and Pacific Islander | 10 | 0.15\% | 103 | 1.03\% | 130 | 1.27\% | 1.12\% |
| Other, not Hispanic | 1 | 0.02\% | 5 | 0.05\% | 14 | 0.14\% | 0.12\% |
| Two or more races |  |  | 39 | 0.39\% | 46 | 0.45\% | 0.45\% |
| Hispanic or Latino Origin | 108 | 1.64\% | 5,121 | 51.15\% | 6,183 | 60.44\% | 55.46\% |
| Total Population | 6,601 | 100\% | 10,011 | 100\% | 10,230 | 100\% | 0\% |

Table 6: Racial Composition Trends, 1990 to 2010

Table 6 illustrates Lexington's changing demographics within the community. As Lexington continues to grow and change, its population and the needs of its citizens will be met.


Figure 4: Lexington Population change

If Lexington experiences another large population growth, that growing demographic will drive the housing markets with its own particular needs. In the following the projections, the current population will continue to increase and the racial composition will change. The job and housing markets must be available to keep this growing population in Lexington.

2010 Racial Composition

- White, not Hispanic - Black - American Indian and Alaskan Native - Asian and Pacific Islander - Other, not Hispanic - Two or more races - Hispanic or Latino Origin

Figure 5: 1990 Racial Composition, Lexington, NE

Figure 6: 2000 Racial Composition, Lexington, NE

Figure 7: 2010 Racial Composition, Lexington, NE

## Population Projections

Projecting populations is the important factor in future decision. The complex process includes many variables and trends within a community. Future populations are projected with the assumption that a stable local economy as well as social structure trends. Due to the nature of projections, it will be very important to update with continual adjustments and reevaluation to ensure the population's immediate needs are being met.

## Age Cohort Survival Projection

The Age Cohort Survival projection uses a mixture of mortality rate and birth rate of each population. This graph shows the five changes of how the city of Lexington may look in the future, beginning with the 2010 Age Cohorts. The child-bearing age cohorts are used to tabulate the estimated number of birth through five year periods as well. When these statistics are factored, a trend appears from the age cohorts of 2010s 0 to 19 cohorts. As this group ages, it can be shown that an additional population for each cohort is found in the following 5 year period. It can become very important for the city of Lexington as this cohort ages through the school system, into the workforce, and of child bearing age. As shown in the 2035 cohort survival projection, each cohort from 0-34 has over one thousand residents in it. As stated above, Lexington can experience unforeseen economic and social changes that can affect the varying amounts of migration over the next twenty years. Housing preferences as well as demand can also change with any changing population. If Lexington is successful in keeping its population, the following cohort survival graph shows Lexington's growth into 2035. It will be unlikely to reach this population.

## Age Cohort Survival Projection

| Age Cohort | 2,010 | *2015 | Population Change | *2020 | Population Change | *2025 | Population Change | *2030 | Population Change | *2035 | Population Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-4 | 1,021 | 989 | -32 | 949 | -39 | 1,033 | 84 | - 1,279 | 246 | 1,705 | 426 |
| 5-9 | 915 | 1,322 | 407 | 1,102 | -220 | 1,058 | -44 | 1,151 | 93 | 1,425 | 273 |
| 10-14 | 859 | 1,152 | 293 | 1,607 | 455 | 1,337 | -271 | 1,283 | -53 | 1,397 | 113 |
| 15-19 | 791 | 876 | 85 | 1,351 | 475 | 1,884 | 533 | 1,566 | -318 | 1,504 | -62 |
| 20-24 | 694 | 928 | 234 | 1,049 | 120 | 1,623 | 574 | 2,257 | 634 | 1,870 | -387 |
| 25-29 | 790 | 430 | -360 | 679 | 248 | 766 | 87 | 1,187 | 421 | 1,649 | 462 |
| 30-34 | 811 | 834 | 23 | 374 | -460 | 589 | 215 | 665 | 76 | 1,030 | 365 |
| 35-39 | 747 | 704 | -43 | 1,158 | 454 | 516 | -641 | 807 | 291 | 915 | 108 |
| 40-44 | 722 | 915 | 193 | 899 | -16 | 1,460 | 561 | 654 | -806 | 1,030 | 376 |
| 45-49 | 582 | 660 | 78 | 997 | 338 | 976 | -21 | 1,597 | 621 | 714 | -883 |
| 50-54 | 473 | 655 | 182 | 680 | 25 | 1,028 | 348 | 1,007 | -22 | 1,646 | 640 |
| 55-59 | 304 | 509 | 205 | 667 | 158 | 691 | 24 | 1,043 | 353 | 1,032 | -11 |
| 60-64 | 256 | 425 | 169 | 446 | 21 | 585 | 139 | 606 | 21 | 916 | 310 |
| 65-69 | 234 | 314 | 80 | 446 | 132 | 469 | 23 | 614 | 146 | 636 | 22 |
| 70-74 | 233 | 336 | 103 | 353 | 17 | 501 | 148 | 526 | 25 | 689 | 163 |
| 75-79 | 204 | 397 | 193 | 321 | -77 | 335 | 14 | 473 | 138 | 495 | 22 |
| 80-84 | 176 | 199 | 23 | 425 | 226 | 344 | -81 | 361 | 17 | 512 | 151 |
| 85+ | 199 | 95 | -104 | 157 | 61 | 333 | 176 | 269 | -64 | 283 | 14 |
| Totals | 10,011 | 11,742 | 1,731 | 13,660 | 1,918 | 15,527 | 1,867 | 17,346 | 1,819 | 19,447 | 2,102 |
| Source: JEO Consulting, 2013 |  |  |  |  |  |  |  |  |  |  |  |

Table 7: Projection Age Cohort Survival

## PROFILE

## Population: Linear Projections

With the exception of the 1980s, Lexington has continued to see growth within the past 80 years. Lexington's population projections of a low, medium, and high determine how the community allocates its funds. This also gives the community a population range to prepare for the next twenty years. The following Tables with visual graphs were created by JEO Consulting Group.

## LEXINGTON, NEBRASKA

| Lexington, Nebraska |  |  |  |
| :---: | :---: | :---: | :---: |
| 1930-2030 |  |  |  |
| Year | Population | Change | Percentage |
| 1930 | 2,962 | na | na |
| 1940 | 3,688 | 726 | $20 \%$ |
| 1950 | 5,068 | 1,380 | $27 \%$ |
| 1960 | 5,572 | 504 | $9 \%$ |
| 1970 | 5,654 | 82 | $1 \%$ |
| 1980 | 7,040 | 1,386 | $20 \%$ |
| 1990 | 6,601 | $(439)$ | $-7 \%$ |
| 2000 | 10,011 | 3,410 | $34 \%$ |

Table 8: Lexington Historical Growth


Figure 8: Low Population Projection

| Lexington, Nebraska |  |  |  |
| :---: | :---: | :---: | :---: |
| 1930-2030 |  |  |  |
| Year | Population | Change | Percentage |
| 2010 | 10,230 | 219 | $2 \%$ |
| 2020 | 10,537 | 307 | $3.0 \%$ |
| 2030 | 11,064 | 527 | $5.0 \%$ |

Source: US Census, JEO Consulting Group, Inc.
Table 9: Low Population Projection


Figure 9: Medium Population Projection

| Lexington, Nebraska |  |  |  |
| :---: | :---: | :---: | :---: |
| 1930-2030 |  |  |  |
| Year | Population | Change | Percentage |
| 2010 | 10,230 | 219 | $2 \%$ |
| 2020 | 11,253 | 1,023 | $10.0 \%$ |
| 2030 | 12,378 | 1,125 | $10.0 \%$ |

Source: US Census, JEO Consulting Group, Inc.
Table 10: Medium Population Projection


Figure 10: High Population Projection

| Lexington, Nebraska |  |  |  |
| :---: | :---: | :---: | :---: |
| 1930-2030 |  |  |  |
| Year | Population | Change | Percentage |
| 2010 | 10,230 | 219 | $2 \%$ |
| 2020 | 11,458 | 1,228 | $12.0 \%$ |
| 2030 | 12,833 | 1,375 | $12.0 \%$ |

Source: US Census, JEO Consulting Group
Table 11: High Population Projection

## HOUSING PROFILE

This section of the Lexington's statistics turns its attention to housing. The current housing stock and housing options available play an important role in the lives of its residents. Analyzing the following data will help evaluate the future needs of the community. When examining the current housing, it will clarify any deficiencies that exist for the safety and well being of its residents and helping to provide affordable housing options in the future. The composition of the current housing units will be helpful to determine the necessary supply of future housing types. The City of Lexington will continue to plan into the future and meet its residents' need.

Many factors come to play in assessing housing stock. Growth within communities creates an imbalance of supply and demand in housing options. The population, employment, and housing needs of a city are consistently changing. However, patterns do exist. The following analyzed information will demonstrate Lexington's past trends and changes. The future projections will be drawn from this analysis and information. Employment does play an important factor in determining the amount and type of housing stock. Location of one's workplace and salary can drive the local real estate market. Finally, Lexington's housing options will ultimately be determined by the combination of land use policies and the residents' choices of housing types. The following tables and figures are intended to assist with determining future housing needs and develop policies designed to accomplish the housing goals of Lexington.

## Age of Existing Housing Stock

An analysis of the age of Lexington's housing stock reveals a number of things about the population and economic conditions of the past. It can tell the history of a city and the pride of its residents for its culture and traditions. The age of the existing housing stock can show how much rehabilitation efforts are necessary while determining the need for new construction. Examining the housing stock is important in order to understand the overall quality of housing and the quality of life in Lexington.


25
Figure 11: Age of Housing Stock, Lexington, 2010


The most recent information shows that 604 existing houses or $17.8 \%$ of the housing stock were built before 1939. The houses built in 1959 or earlier represent $41.9 \%$ of Lexington's existing housing stock. These properties may need to be reevaluated for safety purposes and remodeling needs. Through other agencies there may also be a possibility of energy efficiency programs.

The largest decade represented in Figure 11 shows that there are currently 757 buildings were built in the 1970's. Combined with the 1980 to 1989 housing stock, it represents $34.5 \%$ of the Lexington housing. This portion of the housing stock should continue to provide safe housing in the near future. After 1990, the building of new construction within Lexington's housing stock declined even while experiencing its most recent growth period. This time period will be examined in the following section of housing trends.

| Selected Characteristics | 1990 | 2000 | 2010 |
| :---: | :---: | :---: | :---: |
| Population | 6,601 | 10,111 | 10,230 |
| Persons in Households | 6,573 | 9,733 | 10,093 |
| Persons in Group Quarters | 28 | 278 | 137 |
| Persons per Household - Owner |  | 3.20 | 3.32 |
| Persons per Household - Renter |  | 3.04 | 2.93 |
| Persons per Household | 2.52 | 3.14 | 3.17 |
| Total Housing Units | 2,838 | 3,222 | 3,403 |
| Occupied Housing Units | 2,610 | 3,095 | 3,180 |
| Owner-occupied units | 1,726 | 1,978 | 1,991 |
| Renter -occupied units | 884 | 1,117 | 1,189 |
| Vacant Housing units | 228 | 227 | 223 |
| Owner-occupied vacancy rate |  | 1.40 | 1.60 |
| Renter -occupied vacancy rate |  | 10.80 | 8.50 |
| Single Family units | 1,830 | 2,237 | 2,320 |
| Duplex/Multiple-family units | 183 | NA | NA |
| Mobile Homes, trailer, other | 1,647 | 275 | NA |
| Median Contract Rent |  |  |  |
| Lexington | 296 | 358 | 586 |
| Dawson County | 288 | 331 | 582 |
| State of Nebraska | 348 | 412 | 534 |
| Median Value of Owner-Occupied Units |  |  |  |
| Lexington |  | \$61,900 | \$84,700 |
| Dawson County |  | \$64,100 | \$85,400 |
| State of Nebraska |  | \$88,000 | \$125,400 |

Source: U.S. Census, Census of Population and Housing , 1990, 2000, and 2010; 2011 American Community Survey 5 Year Estimates

Table 12: Housing Trends, Lexington, 1990-2010

## Housing Trends

Housing trends can reveal a great deal of information about the different population groups within Lexington. The following housing trends table gives vital information on how Lexington has grown, is currently comprised, and direction(s) the community may anticipate in the future. By evaluating the following table, the housing trends table will give vital information that indicates how Lexington has grown and currently comprised and in what direction the community may experience in the future.


Ownership and Rental Properties


Figure 12: Tenure Trend, Lexington 2000-2010
As noted in Table 12, the average household size is enlarging for owner-occupied housing and decreasing slightly for rental properties. The following Figures 12 and 13 illustrate the Tenure difference in owner-occupied housing and renter-occupied housing within the previous decade.

The ownership has declined since 1990 from $66.1 \%$ to $62.6 \%$. while the rental population has increased from $33.9 \%$ to $37.4 \%$. If the rental population continues to rise, new housing stock may need to constructed. More detailed information may be needed if it becomes apparent that there is an issue with the costs of owning a house and wages within the community. This may also mean that the preferred housing stock is becoming rental as well.


Figure 13: Percentage Tenure Trend of Owner and Renter, Lexington 1990-2010
[HOUSING] Comprehensive Plan - Lexington, Nebraska


## Future Housing Projections

2020 Total Population Projection

| Lexington Housing Projections for 2020 | LOW | HIGH |  |
| :---: | :---: | :---: | :---: |
| Additional Population | $\mathbf{2 0 1 0}$ to 2020 | $\mathbf{7 1 6}$ | $\mathbf{1 , 2 2 8}$ |
| Additional Households Needed | Owner | 216 | 370 |
|  | Renter | 244 | 419 |

Source: JEO Consulting Group, 2013
Table 14: Lexington Housing Need Projections for 2020


Figure 14: 2020 Projections, Populations of owners and renters

As shown here, the current housing stock will need addition units. However, the demands of the preferred housing type may continue to change if demographics continue to shift for more rental properties. In addition to the resident's preferred housing type, Lexington may begin to experience the loss of their older housing stock within the next twenty years. This would increase the amount of new construction needed. This projected housing data did not take into account the need to replace dilapidated or dangerous housing.

The expected housing needs were achieved with recent housing trend changes. Along with prior population projections from the Demographic section, it is possible to estimate the amount of housing stock needed to match Lexington's growth for the next ten and twenty years.

By using the 2010 U.S. Census per household ratios for Lexington, it allowed projection of estimates for the possible number of households with the most current change in Lexington's market demand. To supply a growing community, Lexington would be expected to prepare for roughly an additional 600 housing units per decade. This argument can be made by looking at the low or modest projection of growth along with the possibility of replacing part of the $41.9 \%$ of housing that was constructed before 1960. To further the housing projections, the previous table broke into the estimated new owner-occupied and renter-occupied units needed. By looking back at the increasing average size of family households, it would make sense to build a portion of the new housing stock, whether to sell or rent, for a family of 4 . Keep in mind, the rental population had increase slightly but with fewer renters per unit. Housing trends will have to be continually monitored for the demands of renters as well as buyers.
[HOUSING] Comprehensive Plan - Lexington, Nebraska

Future Housing Projections

| Lexington Housing Projections for 2030 |  |  | LOW |
| :---: | :---: | :---: | :---: |
| HIGH |  |  |  |
| Additional Population | $\mathbf{2 0 2 0}$ to 2030 | $\mathbf{7 6 6}$ | $\mathbf{1 , 3 7 5}$ |
| Additional Households Needed | Owner | 231 | 414 |
|  | Renter | 261 | 469 |

Source: JEO Consulting Group, 2013
Table 15: lexington Housing Need Projections for 2030
gures 14 and 15 show the Owner versus Renter composition of the projected populations of 2020 and 2030. These graphs show the proportion of renters to owners. The lower and modest projection does not seem to make a dramatic change. However, Lexington has experienced a large population growth in recent years. If that does occur, the high population and housing projection will be handled with the proper future land use policies established within this comprehensive plan. The City of Lexington will be able to manage and enhance the quality of living for its residents as well as the extraterritorial jurisdiction.

## 2030 Total Population Projection

$\square$ Ownership $\square$ Rental



## lerointington

## ECONOMIC AND EMPLOYMENT

Economic data is collected to understand area markets, activity, and the needs and opportunities of Lexington. The four major components represented in Lexington's economic analysis are: income statistics, industry employment, commuter trends, and sales and fiscal profile. In each analysis, Lexington will be compared to Gothenburg, Cozad, Dawson County or the State of Nebraska. The following data will help derive solutions to any future issues that may stunt Lexington's growth and economic development.

## Income Statistics

| Median Household Income <br> 2011 American Community Survey <br> Location |  |
| :--- | :---: |
| 2011 Estimate |  |$|$| Dawson County | $\$ 44,038$ |
| :--- | :---: |
| Cozad | $\$ 46,250$ |
| Gothenburg | $\$ 42,540$ |
| Lexington |  |

Table 16: Median Household Income, Lexington 2011

Income statistics for households are important for determining the earning power of households in a community. The most recent statistics available is in the form of estimates generated by the American Community Survey. Table 16 is based on the 2007-2011 American Community Survey which generates their numbers as estimates from sampling the population. This table represents the five year estimates which can provide a more accurate number. Later in this economics section, there is more detailed sales tax information that also compares these three cities and Dawson County. Table 16 shows Lexington in comparison to median household incomes of the surrounding urban clusters of Gothenburg and Cozad.

| Household Income Lexington, NE 2010 |  |  | Household Income State of Nebraska 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Household Income Range | Households | Percentage | Households | Percentage |
| Total households | 3,030 |  | 711,771 |  |
| Less than \$10,000 | 173 | 6\% | 453,121 | 64\% |
| \$10,000 to \$14,999 | 277 | 9\% | 41,617 | 6\% |
| \$15,000 to \$24,999 | 511 | 17\% | 81,800 | 11\% |
| \$25,000 to \$34,999 | 325 | 11\% | 83,307 | 12\% |
| \$35,000 to \$49,999 | 566 | 19\% | 108,311 | 15\% |
| \$50,000 to \$74,999 | 658 | 22\% | 146,702 | 21\% |
| \$75,000 to \$99,999 | 317 | 10\% | 90,871 | 13\% |
| \$100,000 to \$149,999 | 187 | 6\% | 76,556 | 11\% |
| \$150,000 to \$199,999 | 16 | 1\% | 19,998 | 3\% |
| \$200,000 or more | 0 | 0\% | 17,288 | 2\% |
| Median household income (dollars) | \$40,216 |  | \$49,342 |  |
|  | \$46,724 |  | \$62,707 |  |

Table 17: Household Incomes, Lexington and State of Nebraska, 2010
Table 17 shows that $40 \%$ of the Lexington's incomes or 1,324 jobs received an income between $\$ 35,000$ and $\$ 74,999$ in spite of trailing Nebraska's 2010 ACS Estimates of $\$ 49,342$ per household income, the percentage of $\$ 35,000$ to $\$ 75,000$ slightly favors Lexington. The State of Nebraska recaptured this deficiency with a higher percentage of top earners despite having a large number of households with incomes less than $\$ 10,000$.

Table 18 will shows household income levels for Lexington with decennial census in comparison to the State of Nebraska. This data is reviewed to determine whether households experienced income increases at a rate comparable to that of the State of Nebraska. The following chart breaks down the household income in price ranges for further review.

## "The Lex-Plan 2013"



Figure 16: Household Incomes, Lexington, 2010

## Income Statistics

Table 17 show Lexington had a median income of $\$ 40,216$ in 2010. The earning brackets of Lexington's 2010 Household Incomes is found in Figure 16.

Table 18 shows a historical trend from 1990 to 2010 to show the relative increase that the state experienced. Due to inflation and the inevitable rise in cost, it is expected to have an increase in the household income. When using the inflation formula, the buying power of $\$ 22,988$ salary in 1990 is equal to $\$ 38,352$ in 2010.

| Household Income Trend <br> Lexington, NE <br> 1990 to 2010 |  |  | Household Income Trend <br> State of Nebraska <br> 1990 to 2010 |
| :---: | :---: | :---: | :---: |
| Year | Households | Median Household <br> Income | Nebraska |
| 1990 | 2,610 | $\$ 22,988$ | $\$ 26,016$ |
| 2000 | 3,101 | $\$ 38,098$ | $\$ 39,250$ |
| 2010 | 3,030 | $\$ 40,216$ | $\$ 49,342$ |
| $\mathbf{2 0 0 0}$ to $\mathbf{2 0 1 0}$ | $\mathbf{- 2 . 3 4 \%}$ | $\mathbf{5 . 2 7 \%}$ | $\mathbf{2 0 . 4 5 \%}$ |
| $\mathbf{1 9 9 0}$ to $\mathbf{2 0 1 0}$ | $\mathbf{1 3 . 8 6 \%}$ | $\mathbf{4 2 . 8 4 \%}$ | $\mathbf{4 7 . 2 7 \%}$ |

Table 18: Household Income Trends, Lexington and Nebraska, 1990 to 2010

## Per Capita Personal Income

A more recent increase of economic activity for Dawson County as well as the State of Nebraska can be observed with an increase toward the national average for Per Capita Income. Since the national recession began in 2008, the years of 2009 to 2011 have seen an increase for Dawson County from $75 \%$ in 2009 to more than $80 \%$ in 2011. The state of Nebraska has fared better than national average in 2011 with over $100 \%$ of the nation's average. To look at the more recent statistics, Table 19 shows 2010 and 2011.

| Per Capita Personal Income (PCPI) |  |  |  |
| :---: | :---: | :---: | :---: |
| Comparison |  |  |  |
| Location | 2010 PCPI | 2011 PCPI | 2011 Increase |
| Dawson <br> County | $\$ 30,554$ | $\$ 33,320$ | $8.30 \%$ |
| Nebraska | $\$ 39,224$ | $\$ 42,450$ | $7.60 \%$ |
| U.S. | $\$ 39,731$ | $\$ 41,560$ | $4.40 \%$ |
| Source: Bureau of Economic Activity |  |  |  |

Table 19: Per Capita Income Comparison, Lexington


Table 19 is reiterates the previous decade of economic growth for Dawson County and Nebraska. Between 2010 and 2011, they both surpassed the nation's compound annual growth rate. Dawson County had a compound annual growth rate of Per Capita Personal Income at 3.4 percent. Nebraska's compound annual growth rate of Per Capita Personal Income was 3.6 percent over the same time period which exceeded the national rate of $2.9 \%$.

## PROFILE

| Employment by Industry Lexington, NE 2010 |  |
| :---: | :---: |
| INDUSTRY | People |
| Civilian employed population 16 years and over | 4,835 |
| Agriculture, forestry, fishing and hunting, and mining | 211 |
| Construction | 287 |
| Manufacturing | 2,052 |
| Wholesale trade | 215 |
| Retail trade | 473 |
| Transportation and warehousing, and utilities | 99 |
| Information | 43 |
| Finance and insurance, and real estate and rental and leasing | 164 |
| Professional, scientific, and management, and administrative and waste management services | 161 |
| Educational services, and health care and social assistance | 400 |
| Arts, entertainment, and recreation, and accommodation and food services | 403 |
| Other services, except public administration | 279 |
| Public administration | 48 |

## Industry Employment

Breaking down the employment by industry determines the key components of their labor force. This section indicates the type of industry comprising the local economy, as well as identifying particular occupations that employs Lexington's residents. Table 20 shows employment sectors and the size of each industry for Lexington.

Of the 4,835 people over the age of 16 , the largest industry was manufacturing with 2,052 people, and the next largest work force is found in the Retail Trade industry with 473 people.

## Top Employment

 ComparisonFor comparison, the following lists by rank compares Lexington's 2010 employment per industry to Dawson County as well as the State in the 5-year American Community Survey from 2007 to 2011.

The top five employment sectors for Lexington in 2010 were:

| Manufacturing | $42.4 \%$ |
| :--- | :--- |
| Retail | $9.8 \%$ |
| Education services, etc | $8.3 \%$ |
| Arts, entertainment, etc. | $8.3 \%$ |
| Construction | $5.9 \%$ |

## LEXINGTON

Manufacturing
Education services, etc.
Retail
Agriculture, forestry, etc.
Construction
DAWSON COUNTY
Education services, etc.
Retail
Manufacturing
Professional, scientific, etc.
Arts, entertainment, etc.

| Lexington, NE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| TRAVEL TIME TO WORK | 2000 | Percent | *2011 ACS | Percent |
| Workers that did not work at home | 3,968 | 100.0\% | 4,440 | 100\% |
| Less than 10 minutes | 1,929 | 48.6\% | 1,834 | 41.3\% |
| 10 to 14 minutes | 1,094 | 27.6\% | 1,563 | 35.2\% |
| 15 to 19 minutes | 324 | 8.2\% | 346 | 7.8\% |
| 20 to 24 minutes | 290 | 7.3\% | 151 | 3.4\% |
| 25 to 29 minutes | 37 | 0.9\% | 75 | 1.7\% |
| 30 to 34 minutes | 107 | 2.7\% | 178 | 4.0\% |
| 35 to 44 minutes | 45 | 1.1\% | 67 | 1.5\% |
| 45 to 59 minutes | 80 | 2.0\% | 102 | 2.3\% |
| 60 to 89 minutes *(60 minutes or more 2011 ACS) | 38 | 1.0\% | 124 | 2.8\% |
| 90 or more minutes | 24 | 0.6\% | 0 | 0.0\% |
| TIME LEAVING HOME TO GO TO WORK | 2000 | Percent | *2011 ACS | Percent |
| Workers who did not work at home | 3,968 |  | 4,440 |  |
| 12 AM to 4:59 AM *(2011 ACS) |  |  | 186 | 4.2\% |
| 5:00 to 5:59 AM | 642 | 16.2\% | 755 | 17.0\% |
| 6:00 to 6:29 AM | 286 | 7.2\% | 422 | 9.5\% |
| 6:30 to 6:59 AM | 227 | 5.7\% | 258 | 5.8\% |
| 7:00 to 7:29 AM | 420 | 10.6\% | 453 | 10.2\% |
| 7:30 to 7:59 AM | 406 | 10.2\% | 524 | 11.8\% |
| 8:00 to 8:29 AM | 322 | 8.1\% | 404 | 9.1\% |
| 8:30 to 8:59 AM | 131 | 3.3\% | 53 | 1.2\% |
| 9:00 to 11:59 AM *(9:00 AM-11:59 PM 2011 ACS) | 215 | 5.4\% | 1,394 | 31.4\% |
| 12 PM to 3:59 PM | 781 | 19.7\% |  |  |
| All other times | 538 | 13.6\% |  |  |

Source: U.S. Census 2000 and American Community Survey 2011

## Commuter Trends

The means of transportation and carpooling will continue to be an important factor as Lexington continues to grow and expand its two-mile jurisdiction. Large cities must pay attention to their population and needs. There were 961 people or $32 \%$ of the 2010 total population making less than $\$ 25,000$ a year. The City of Lexington understands the importance of carpooling and alternative transportation options with the park system and bike lanes that will help the residents of Lexington save money, give the entire community an alternative transportation option, and also help the overall health of the community.

| Lexington, NE |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| MEANS OF TRANSPORTATION |  |  |  |  |
| AND CARPOOLING |  |  |  |  |

Table 22: Means of Travel Trend, Lexington, 2000, 2011


Travel time to work is a factor to determine where the people of Lexington are employed. Travel time can be affected to congestion in traffic and families with school children. Depending on how residents answer the American Community Survey, that may or may not be added to the actual miles traveled in non-peak traffic hours.

## Sales and Fiscal Profile

Retail trade is an important part of a local economy. Examining this allows Lexington to analyze the level of retail activity occurring within the city's corporate limits. Some of the most important economic activities for communities are transactions of goods and services, which take place between consumers and local businesses. Table 23 shows Lexington's amount of sales tax collected by the city as well as the city's pull factor. The pull factor represents its ability to attract outside sales within the city boundaries. A Pull Factor of " 1.0 " would represent the money spent outside of the jurisdiction is equal to the money brought into the city. If the pull factor is greater than " 1.0 ", this means that Lexington is attracting additional outside money. Larger communities tend to create this pull factor due to offering different goods and services that may not be sustainable in smaller communities. A pull factor near " 1.0 " is a good sign of the community supporting the local businesses and community.

| Gothenburg |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Sales Tax <br> Collected | Population <br> estimates | Sales <br> tax per <br> capita | Pull <br> Factor |
| 2012 | $\$ 2,590,228.45$ | 3,574 | $\$ 724.74$ | 0.94 |
| 2011 | $\$ 2,379,740.12$ | 3,574 | $\$ 665.85$ | 0.88 |


| Cozad |  |  |  |  |
| ---: | :---: | ---: | ---: | ---: |
| Year | Sales Tax <br> Collected | Population <br> estimates | Sales tax <br> per capita | Pull <br> Factor |
| 2012 | $\$ 2,665,747.79$ | 3,977 | $\$ 670.29$ | 0.87 |
| 2011 | $\$ 2,672,741.37$ | 3,977 | $\$ 672.05$ | 0.89 |
| 2010 | $\$ 2,526,915.81$ | 3,977 | $\$ 635.38$ | 0.89 |

## DAWSON COUNTY

Sales Tax Collected
2012: \$13,819,908.55
2011: $\$ 13,618,787.16$

| Lexington |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Sales Tax Collected | Population estimates | Sales tax per capita | Pull Factor |
| $\mathbf{2 0 1 2}$ | $\$ 8,038,541.05$ | 10,257 | $\$ 783.71$ | 1.02 |
| 2011 | $\$ 8,158,018.75$ | 10,257 | $\$ 795.36$ | 1.04 |
| 2010 | $\$ 7,733,274.59$ | 10,230 | $\$ 755.94$ | 1.12 |

## Sales and Fiscal Profile

When Lexington is compared to Cozad and Gothenburg, it shows that Lexington has a greater pull for sales than its contemporaries. When Dawson County as a whole is compared to Nebraska, this pull rate lowers to roughly 0.74 compared to other counties.

In early 2013, the Nebraska Department of Revenue's monthly report stated Nebraska had increased its net taxable sales from the previous year by $4.60 \%$ at the end of November 2012.

Dawson County improved its net taxable sales from the 2011 with a $7.03 \%$ increase. Lexington and Cozad were slightly behind their correlating 2011 figures with $-0.63 \%$ and $-0.12 \%$ respectfully. Lexington's $5.5 \%$ Sales Tax Collection is slightly behind with $\$ 47,033.39$ below the previous year's monthly reports. Gothenburg helped Dawson County's net taxable sales with a $28.00 \%$ increase. In 2011, Gothenburg generated $\$ 33,055,858$ in net taxable sales and increased to $\$ 42,310,079$ by November 2012 which at $5.5 \%$ Sales tax equals \$2,327,057.

| Lexington |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Sales Tax Collected | Population estimates | Sales tax per capita | Pull Factor |
| 2012 | $8,038,541.05$ | 10,257 | $\$ 783.71$ | 1.02 |
| 2011 | $8,158,018.75$ | 10,257 | $\$ 795.36$ | 1.05 |
| 2010 | $7,733,274.59$ | 10,230 | $\$ 755.94$ | 1.06 |
| 2009 | $7,471,545.25$ | 10,164 | $\$ 735.10$ | 1.03 |
| 2008 | $7,256,381.67$ | 10,164 | $\$ 713.93$ | 0.96 |
| Dawson County |  |  |  |  |
|  |  |  |  |  |
| Year | Sales Tax Collected | Population estimates | Sales tax per capita | Pull Factor |
| 2012 | $13,819,908.55$ | 24,220 | $\$ 570.60$ | 0.74 |
| 2011 | $13,618,787.16$ | 24,326 | $\$ 559.84$ | 0.74 |
| 2010 | $12,732,282.19$ | 24,326 | $\$ 523.40$ | 0.74 |
| 2009 | $12,395,489.36$ | 24,789 | $\$ 500.04$ | 0.70 |
| 2008 | $12,340,999.02$ | 24,789 | $\$ 497.84$ | 0.67 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Year | Sales Tax Collected | Sopulation estimates | Sales tax per capita |  |
| 2012 | $1,429,337,007.80$ | $1,855,525$ | $\$ 770.31$ |  |
| 2011 | $1,377,466,873.71$ | $1,826,341$ | $\$ 754.22$ |  |
| 2010 | $1,299,184,126.20$ | $1,826,341$ | $\$ 711.36$ |  |
| 2009 | $1,261,908,510.78$ | $1,772,124$ | $\$ 712.09$ |  |
| 2008 | $1,314,944,634.76$ | $1,772,124$ | $\$ 742.02$ |  |

2010 Census and 2011 ACS 5 year estimates for population
Table 24: Comparison of Sales Tax Trend and Pull Factor, Lexington, Dawson County, State of Nebraska


## INTRODUCTION

The Community Facilities for Lexington are divided into the following categories:

Parks and Recreational Facilities

## Educational Facilities

Police, Fire and Rescue

City Buildings

Communication Facilities

Health Facilities

Public Utilities

"TheLex-Plan $2013 "$
[PUBLIC FACILITIES AND UTILITIES] Comprehensive Plan - Lexington, Nebraska


## City of Lexington

 Dawson County, Nebraska
## Parks and Recreational Facilities

The Profile Section of "The Lex-Plan 2013" lists a short inventory of existing park and recreation facilities within Lexington and its two-mile jurisdiction. The Achieve Section of this plan contains a Parks and Recreation component that will serve as Lexington's Park and Recreation Master Plan for further parks, recreation and open space. This portion of the plan will evaluate the existing facilities and make recommendations for all future facilities.

## Parks within Lexington and Extraterritorial Jurisdiction

There are nine parks and outdoor recreational areas in or adjacent to the City of Lexington. These facilities are maintained by the City. The following table lists the parks and the amenities they contain:


| Lexington Parks |  |  |  |
| :--- | :--- | :---: | :--- |
| Name | Location | Acres | Amenities |
| Arbor Park | Hwy 283 and Maple | 4 | Skate park, picnic tables, shade, playground. |
| Centennial Park | US 30 and Washington | 1.5 | Walking trail, benches, memorial wall. |
| Kirkpatrick Memorial <br> Park | 11th and Taft | 29.1 | Aquatic Center (water slide, zero-depth, Olympic pool, splash <br> pad), park shelter building, one ball field, tennis, playground, sand <br> volleyball, picnic areas |
| Oak Park | Oak and Madison | 3.2 | One ball field, paved basketball court, playground, picnic areas |
| Optimist Recreation <br> Complex | 13 th and Airport Road | 35.9 | Soccer, softball, legion ball, indoor hitting complex, concessions. |
| Pioneer Park | 15th and Lincoln | 2.1 | Playground, picnic shelter. |
| Plum Creek Park | 13th and Adams | 23 | Picnic shelter, tennis, playground, sand volleyball, ball field, disc golf, <br> fishing, bocce ball, horseshoes, walking trail. |
| Sandoz Park | TBD- 19th and Erie |  | TBD |
| Water Tower Park | US 30 and Madison | 0.3 | Shaded picnic area, scenic flower garden. |

## Golf Courses

Lexington has hour golf courses within 20 miles of the city.

| Golf Courses | Location | Number of Holes |
| :---: | :---: | :---: |
| Overton Golf Course | Overton, NE | 9 Holes |
| Lakeside Country Club | Johnson Lake, NE | 18 holes |
| Cozad Country Club | Cozad, NE | 18 holes |
| Hi-Line Golf Course | Bertrand, NE | 18 holes |

Source: www.golflink.com
Table 26: Golf Courses near Lexington
The Wild Horse Golf Club in Gothenburg is 30 miles west and rated as a top-10 course in the United States.
"The Lex-Plan 2013""

## PROFILE

## Educational Facilities

## Public Schools

The Lexington School District currently has one pre-school, four elementary schools, one middle school and one high school.


## Post Secondary Education

There are numerous educational opportunities in Nebraska for post-secondary education in just about any field of study. Table28 lists a few of the larger enrollment institutions in close proximity of Lexington offering a wide variety of disciplines for their students.

| School Name | Location | Enrollment Capacity |  |
| :--- | :--- | :---: | :---: |
| Lexington High School | 705 West 13th | 820 | 950 |
| Lexington Middle School | 1100 North Washington St. | 595 | 750 |
| Sandoz Elementary School | 1711 Erie St. | 315 | 300 |
| Pershing Elementary School | 1104 North Tyler St. | 273 | 350 |
| Morton Elementary School | 505 South Lincoln St. | 358 | 500 |
| Bryan Elementary School | 1003 North Harrison St. | 320 | 450 |
| Early Learning Academy(pre-school) | 1501 Plum Creek Parkway | 230 | 275 |
| Total |  | 2,911 | 3,575 |

Table 27: 2012-2013 School Year Enorollment, Lexington

| Facility | Location | Enrollment | Miles from <br> Lexington |
| :--- | :---: | :---: | :---: |
| Central Community College (Learning Center) | Lexington, NE | 82 | 0 |
| University of Nebraska - Kearney | Kearney, NE | 7,100 | 35 |
| Mid-Plains Community College | North Platte, NE | 1,911 | 60 |
| Central Community College (Branch Campus) | Grand Island, NE | 302 | 82 |
| Doane College (Branch Campus) | Grand Island, NE | 192 | 83 |
| Hastings College | Hastings, NE | 1,112 | 94 |
| Central Community College (Branch Campus) | Hastings, NE | 934 | 98 |
| University of Nebraska - Lincoln | Lincoln, NE | 24,207 | 166 |

Table 28: Colleges and Universities in the Lexington Area


# lex1ngton 

## Fire and Police Protection

## Fire and Rescue

The Lexington Fire Hall is located at 606 North Tyler Street. This facility is the home for the Lexington Volunteer Fire Department, and is shared with the Lexington Rural Fire District.

The LVFD currently has 40 volunteers, and operates 11 fire and rescue vehicles. The services offered include fire suppression and medical rescue operations to both city and rural calls for service. Along with the LRFD, the service area currently is 455 square miles.


## Law Enforcement

The Lexington Police Department is located at City Hall at 406 East 7th Street. Office hours are Monday through Friday, 8:00 a.m. to 5:00 p.m., and officers are on call 24 hours a day, seven days a week. The Lexington Police Department is currently budgeted to fund 18 sworn officers.

Officers are actively deployed among the city to ensure citizens are aware of their presence. Officers often drop by area schools throughout the day and attend after school functions such as sporting events in the evening to ensure the safety of all participants.

Officers leverage their numbers along with technology to better serve the citizens of Lexington. The department recently purchased iPads to better serve the public as these devices allow officers the opportunity to communicate with citizens whose primary language is not English. Aside from this, the iPads allow officers better flexibility while interacting with the public and conducting training.




## City Buildings

## Public Library

The library is located at 907 N . Washington Street. This 18,500 sq. ft. facility was built in 2005 and comprises stacks, study rooms, and two large conference rooms. The library is open daily for a total of 68 hours each week. The library provides service to the residents of Lexington and by contract to nonresident borrowers from rural Dawson County for a $\$ 5$ membership fee. The library staff includes five full-time employees and four part-time employees.

In the 2010-2011 statistical report, the Library's collections included 36,647 books, 107 periodical subscriptions, and many media items. The library has twenty-four public access computers for public use. These computers were provided
in part through a grant provided by the Nebraska Library Commission. Digital services include on-line catalog access, internet access, general application software such as word processing, and a number of on-line databases/resources.

The Lexington Public Library provides a number of services directed toward special popula tions and interests. Children's services include two story time groups; one designed specifically for home-schooled students. Teens are offered a distinctive collection of reading materials targeted to their interests. One very unique offering is its collection of cake pans. These variously shaped cake pans are made available for patrons to check out and return when finished. Their collection is both extensive and varied. Several other programs offered by the library include
a monthly book club, tax forms and help through the Volunteer Income Tax Assistance (VITA) program, book delivery for the homebound, and the use of the national Interlibrary Loan program. The library is also the meeting place for the Lexington Genealogical Society.

The Lexington Public Library is operated and supported by tax funds as well as private contributions with the mission to "extend quality service to area residents." There is a five member Library Board of Directors that provides oversight for the operations of the Library. The library works with the "Friends of the Library" group, which provides volunteer time and fundraising assistance. Donations are managed by the Lexington Community Foundation and are used to enhance the collection and other specialized programs.

## City Hall

Lexington City Hall is located at 406 E 7th Street and was originally constructed in 1969. There was recently an addition to the building completed in 2010. In addition to the Police Department, offices located at City Hall include the City Manager's Office, City Clerk, Building and Zoning Department, and the Utilities Department.

## City Maintenance Facilities

The Lexington Community Services Building is located at 801 West Vine Street. This facility houses the Public Works department for the city which manages the installation, repair and maintenance of the City's 170 lane miles of streets, water and sewer systems, eight parks and two cemeteries. This site is also where citizens of Lexington can obtain free dirt, wood chips, and compost.

## Communication Facilities

## Service Providers

| Service Providers | Cable/Satellite <br> Television | Telephone | Internet |
| :--- | :---: | :---: | :---: |
| Charter | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Direct TV | $\mathbf{X}$ |  |  |
| Dish Network | $\mathbf{X}$ |  |  |
| Century Link |  | $\mathbf{X}$ | $\mathbf{X}$ |

Table 29: Private Service Providers, Lexington Nebraska

## Newspaper

Listed below are the various newspapers serving the residents of Lexington:

```
Lexington Clipper-Herald (bi-weekly)
Kearney Hub
North Platte Telegraph
Tri-City Tribune (weekly)
Que Pasa (monthly)
```


## Television

| KNOP - NBC Station (Channel 2) | KGIN - CBS Station (Channel 11) |
| :--- | :--- |
| KLNE - PBS Station (Channel 3) | KHGI - ABC Station (Channel 13) |
| KHAS - NBC Station (Channel 5) | KTVG - FOX Station (Channel 17) |
| KWNB - ABC Station (Channel 6) |  |
| Source: www.dtv.gov |  |

Table 30: Lexington Television Stations
Radio

| KLNE 88.7 FM | KSYZ 107.7 FM | KCNI 1280 AM |
| :--- | :--- | :--- |
| KRVN 93.1 FM | KFRM 550 AM | KBRL 1300 AM |
| KLIQ 94.5 FM | KXSP 590 AM | KGFW 1340 AM |
| KBBN 95.3 FM | KMMJ 750 AM | KNGN 1360 AM |
| KMTY 97.7 FM | KXXX 790 AM | KUVR 1380 AM |
| KKPR 98.9 FM | KRVN 880 AM | KOOQ 1410 AM |
| KHZY 99.3 FM | KOGA 930 AM | KRGI 1430 AM |
| KROR 101.5 FM | KJLT 970 AM | KXPN 1460 AM |
| KRNY 102.3 FM | KMMQ 1020 AM | KKAN 1490 AM |
| KKJK 103.1 FM | KNLV 1060 AM | KQNK 1530 AM |
| KCVN 104.5 FM | KHAS 1230 AM | KAMI 1580 AM |
| KQKY 105.9 FM | KODY 1240 AM |  |

Source: www.radio-locator.com
Table 31: Lexington Radio Stations

## Health Facilities

## Hospital

## Lexington Regional Health Center

This facility, serving the community since 1976, has continued to expand and grow since its beginnings. It now holds the state trauma designation and is considered a Critical Access Hospital by the state of Nebraska. This hospital serves the city of Lexington and the region around it through its many specialty departments and services. The varied types of services include; obstetrics, radiology, physical rehabilitation services, occupational and speech therapy, and emergency services. Another specialty service offered by the hospital is its visiting physicians program. Physicians from area cities visit the hospital on a weekly, bi-weekly, or monthly schedule. The specialties represented include; cardiology, endocrinology, general surgery, neurology, oncology, and orthopedics.


## Urgent Care

This urgent care clinic is owned and operated by the Lexington Regional Health Center. It was built adjacent to the hospital and provides a lower cost alternative to emergency room visits. This facility treats common conditions including; cuts, burns, common colds and infections, and physicals.

## Plum Creek Medical Group

This family clinic is located near the Lexington Regional Health Center at 1103 Buffalo Bend. Within this facility, they also provide outpatient behavioral health services to children and adolescents with a variety of behavioral health concerns.



## Park Avenue Estates

This Assisted and Independent living facility offers 53 assisted and 23 independent living apartments. One and two bedroom apartments are available along with restaurant style dining. This facility has been in operation for 20 years and has become a part of the local community by providing avenues where residents interact with members of the community. This facility accepts Medicaid and private pay.

PROFILE


## Public Utilities

The City of Lexington currently provides the following public utilities services to its residents:

## Water System

The City of Lexington's water system consists of more than 48 miles of 2 " to 12 " diameter water mains, one 400,000 gallon and one $1,000,000$ gallon elevated water storage tanks, and twelve municipal wells. The combined production from the 15 wells is $9,000 \mathrm{gpm}$. The water distribution system is comprised primarily of cast iron and ductile iron mains with a small quantity of PVC mains. There are approximately 12.6 miles of $10^{\prime \prime}, 12^{\prime \prime}$, and $16^{\prime \prime}$ diameter ductile iron mains that provide the distribution network for the smaller 4 ", 6 ", and 8 " diameter interior mains. The system presently serves approximately 3,700 customers both inside and outside the corporate limits.

## Wastewater Collection and Treatment

The City of Lexington's sanitary sewer collection consists of 6 " diameter pipe all the way up to 42 " diameter sewer pipes. There are presently five sewage pumping stations within the collection system that lead to a trickling filter sewage treatment system. Planned improvements are to upgrade the current system to an activated sludge system.

## Solid Waste Collection

Trash service is coordinated by the city and is billed to customers along with electric services. The city then outsources this service out to Dan's Sanitation, a private sector contractor.

## Electric Power

The City of Lexington operates its distribution system, sells electricity at retail, and purchases wholesale from Nebraska Public Power District.


2-Mile Extraterrtorial Jurisdiction
Sanitary Manhole

| Sanitary Sewer Gravity Main |  |
| :--- | :--- |
| $\square$ | Sanitary Sewer Force Main* <br> *Not offset for sanitary sewer service area <br> analysis due tod dificulty to tap into <br> pressurized system |
| 300 foot Offset - Sanitary |  |
| Sewer Service Area |  |
| $\square$ | Water Main |
| 300 foot Offset - Water System |  |
| Service Area |  |

Figure 20: Utility Service, Lexington

## City of Lexington Dawson County, Nebraska Utility Service Area Map

Created By: SMS

PROFIUE
City of Lexington

## ENERGY ELEMENT

## Introduction

The purpose of an energy component within comprehensive plans allows the opportunity to prepare Lexington for future energy needs. Nebraska Legislation LB997 states that public jurisdictions are required to include an energy component into their comprehensive plans by January 2015. It allows residents to be informed of its energy use, costs, and consequences. This document will be added as the Energy Element for Lexington's obligation for its completed Comprehensive Plan.

## Legislation

## Nebraska Legislation LB997

According to LB997, there are three main components. These three components include the following:

1. Energy infrastructure and energy use by sector, including residential, commercial, and industrial sectors.

Energy infrastructure and energy use by sector for Lexington is found in the statistics section of the Energy Element document.

## 2. Utilization of renewable energy sources.

Energy source statistics are not available for Lexington, however there is a list found in the Renewable Energy Sources section of this document that shows what is possible in Nebraska.


Source: www.nppd.com Canaday Station
3. Energy conservation measures that benefit the community.

Energy Codes - Under $\$ \$ 81-1608$ to 81-1616, the State of Nebraska has adopted the International Energy Conservation Code as the Nebraska Energy Code. Any community or county may adopt and enforce the Nebraska Energy Code or an equivalent energy code. If a community or county does not adopt an energy code, the Nebraska Energy Office will enforce the Nebraska Energy Code in the jurisdiction.

The purpose of the Code, under $\$ 81-1608$, is to ensure that newly built houses or buildings meet uniform energy efficiency standards. The statute finds:
that there is a need to adopt the . . . International Energy Conservation Code in order (1) to ensure that a minimum energy efficiency standard is maintained throughout the state, (2) to harmonize and clarify energy building code statutory references, (3) to ensure compliance with the National Energy Policy Act of 1992, (4) to increase energy savings for all Nebraska consumers, especially low-income Nebraskans, (5) to reduce the cost of state programs that provide assistance to low-income Nebraskans, (6) to reduce the amount of money expended to import energy, (7) to reduce the growth of energy consumption, (8) to lessen the need for new power plants, and (9) to provide training for local code officials and residential and commercial builders who implement the . . . International Energy Conservation Code.

The Code applies to all new buildings, or renovations of or additions to any existing buildings. Only those renovations that will cost more than 50 percent of the replacement cost of the building must comply with the Code. As of early 2013, Lexington has not adopted an energy code.

## Nebraska Legislation LB436-Net Metering

The Nebraska Legislature passed LB436 which allows for net metering and gives citizens the opportunity to generate their own energy. It is found to be in the public interest because it encourages customer-owned renewable energy resources. It also can simulate economic growth, encourage diversification of energy resources, and maintain low-cost, reliable electric service for the State of Nebraska. By supplementing electric bills through "credits" for energy purchased back from the utility company, the citizens of Lexington can save money and reduce pressure on the utility grid.

According to their website, NPPD has offered net metering since 2008. As of December 31, 2011, NPPD had 16 net metering qualified facilities with total generating capacity of 66.9 kilowatts. The total estimated amount of energy produced by these customer generators in 2011 was 82,151 kilowatt-hours, and the net kWh received from them was 2,015 kilowatt-hours. As of October 12, 2012, NPPD has 27 net meter installations for a total installed capacity of 117.7 kWh .

The City of Lexington is willing to work with residents who are looking to take advantage of this opportunity.

## Energy Usage Statistics

## Consumption by Source

In the Electric Power Sector, Nebraska’s Energy Consumption in 2009 consisted of mainly two sources. $68.61 \%$ ( 242.326 trillion Btu ) of consumption came from coal while the second highest use was $27.94 \%$ (3.326 TBtu) generated by Nuclear Electric Power.

According to the 2009 EIA State-Level Energy Consumption statistics, Nebraska was ranked 34th in total consumption with 759.1 trillion Btu. This consumption per person in Nebraska is 9th highest with 422.9 Million Btu. The upper Midwest Region is represented poorly for consumption per person with Wyoming, North Dakota, Iowa, South Dakota, Nebraska, and Montana in the top ten. This is due to the rural and agricultural nature of these states. Most of these states are found in the top ten of lowest prices for Dollars spent per Million Btu.

The agricultural economies and cheap prices lead to high energy consumption per person as well as less urgency to conserve these resources. It becomes a way of life and hard to change course with both isolated farmers as well as urban citizens who have low and affordable public prices. For example, the average monthly bill in Nebraska in 2007 was roughly $\$ 78$. In 2010 it rose to $\$ 94$. Nebraska's energy consumption by source as it compares to the United States in 2010 is shown in Table 30.

ENERGY CONSUMPTION BY SOURCE

| COAL | 254.6 TBtu (31st) | $20,869 \mathrm{TBtu}$ |
| :--- | :---: | :---: |
| NATURAL GAS | 169.6 TBtu (38th) | $24,314 \mathrm{TBtu}$ |
| PETROLEUM | 222.1 TBtu (36th) | $37,081 \mathrm{TBtu}$ |
| RETAIL ELECTRICITY SALES | 101.8 TBtu (36th) | $12,810 \mathrm{TBtu}$ |
|  | NEBRASKA |  |
|  |  |  |

## CONSUMPTION PER CAPITA

### 461.1 MBtu (8th)

## NEBRASKA

Table 32: Energy Consumption By Source and Per Capita
The consumption by source for Lexington is difficult to determine. Typically, this information is not at the city scale but on system-wide scales. Purchasing outside energy from third parties also compounds this task for verifying information and therefore left at the state level.

## Consumption by End User

## 2007 Residential Sector

1) Natural Gas: $47.5 \%$

In 2007, the Nebraska Energy Office compiled statewide statistics on energy consumption in the sectors of Residential, Commercial and Industrial.
2) Electricity: $40.2 \%$
3) Petroleum: 7.7\%
4) Renewable Energy: 4.64\%
(wood 4.38; geothermal 0.22; solar 0.04)
5) Coal: less than $1 \%$

Nebraska's energy consumption by end-user sector as it compares to the United States in 2010 is shown in Table 33. This information was compiled by the United States Energy Information Administration (EIA).

## Energy Consumption by End-Use Sector

$$
\text { Nebraska } 2010
$$

1) Electricity: $48.06 \%$
2) Natural Gas: $45.88 \%$
3) Petroleum: 4.1\%
(diesel fuel 1.65; propane 1.58;motor gasoline 0.88; kerosene 0.01)
4) Renewable Energy: 1.79\%
5) geothermal 0.92; wood 0.85; ethanol 0.02
6) Coal: Less than $1 \%$

2007 Industrial Sector (including the transportation sector)

1) Natural Gas: $38.13 \%$
2) (Petroleum) Diesel Fuel: 22.66\%
3) Electricity: $19.77 \%$
4) Petroleum: $10.88 \%$
(asphalt and road oil 3.82; propane 3.51; motor gasoline 2.33; residual fuel 0.19;
lubricants 0.14; kerosene 0.01; other petroleum 0.88)
5) Coal: $5.13 \%$
6) Renewable Energy: 3.44\% (wood/wood waste 3.38; ethanol 0.06)

| SECTOR | TRILLION BTU TRILLION BTU |
| :--- | :---: |
| Residential | $165.4(\# 36)$ |
| Commercial | $143.8(\# 35)$ |
| Industrial | $352.4(\# 27)$ |
| Transportation | $182.2(\# 38)$ |
| Total Consumption | $843.8(\# 33)$ |

Table 33: Energy Consumption by End-Use Sector, 2010

## Local Utility Provider

The City of Lexington serves its citizens affordable utilities by purchasing wholesale energy from Nebraska Public Power District (NPPD). The Electric Rebate Incentive program is available for Lexington residents and commercial customers for high efficiency heat pump purchases. It relates to new, conversion, or upgrade installations with electric back-up heating only.

The first step of the Electric Rebate Incentive is for the citizen or the hired contractor to fill out two applications. One is the City of Lexington Electric Rebate Program Application with basic information. The High Efficiency Heat Pump Program application form is the second form that has more detailed questions. The second step of the rebate program is for the contractor to provide a Certificate of Product Rating Form from AHRI Certified. The final step is to bring these required forms to the City Inspection Department to schedule an inspection for verification of properly installed equipment.

Both Lexington and NPPD contribute to the rebate incentives. It is a good investment to improve the efficiency of heat pumps but research must be done to verify that the upfront cost with the benefit of rebates will pay off in the long term. There are also incentives for improving efficiency in lighting, insulation, cooling systems, irrigation and industrial motors. For more information and the various incentives, visit the City of Lexington's or NPPD's websites or contact the city inspection or utilities department.

The City of Lexington's utilities department works on a fiscal year from October to September. The following table represents the electricity used per year and is measured in kilowatt hours. Also note, Commercial-Large includes downtown, churches, parks, and schools.

| City of Lexington Utilities | $2006-2007$ | $2007-2008$ | $2008-2009$ | $2009-2010$ | $2010-2011$ | $2011-2012$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Units in $k W h$ |  |  |  |  |  |  |
| Basic Residential | $25,014,318$ | $24,381,972$ | $24,156,847$ | $26,101,893$ | $26,221,017$ | $24,021,853$ |
| Commercial - Small | $12,628,440$ | $12,891,876$ | $12,117,482$ | $12,847,381$ | $12,351,211$ | $11,895,223$ |
| Commercial - Large | $17,041,780$ | $17,089,608$ | $17,517,144$ | $17,642,229$ | $17,003,078$ | $18,555,386$ |
| Industrial | $118,049,933$ | $112,902,831$ | $116,836,278$ | $124,924,181$ | $124,869,734$ | $119,737,332$ |

Table 34: Energy Usage Trend, City of Lexington, 2006-2012

## Renewable Energy Sources

According to the U.S. Energy Information Administration, The nation as a whole used a higher percentage of renewable energy than Nebraska. In 2008, $7 \%$ of the energy consumption in the United States was from renewable sources. That year the sources of energy for the nation were petroleum ( $37 \%$ ), natural gas ( $24 \%$ ), coal ( $23 \%$ ), nuclear electric power ( $8 \%$ ), and renewable energy ( $7 \%$ ). The sources of renewable energy were solar ( $0.07 \%$ ), geothermal ( $0.35 \%$ ), wind ( $0.49 \%$ ), hydropower ( $2.38 \%$ ), and biomass ( $3.71 \%$ ).

According to the Nebraska Energy Office, it is reported that in 2007, three percent of Nebraska's energy consumption was from renewable energy sources. The sources of energy for Nebraska in 2007 were petroleum ( $33 \%$ ), coal ( $31 \%$ ), natural gas ( $21 \%$ ), nuclear power ( $17 \%$ ) and renewable energy (3\%). The renewable sources were biomass (1.48\%), conventional hydroelectric power ( $0.496 \%$ ), ethanol ( $0.379 \%$ ), wind ( $0.309 \%$ ), geothermal energy ( $0.115 \%$ ), and solar ( $0.005 \%$ ).

Most renewable energy systems are used as a supplemental energy source. Even on a small scale, it can help alleviate pressure on the local energy grid during the peak hours of demand. Technology continues to advance in creating more available options to the typical household consumer. Not all renewable energy sources will be a perfect match for Lexington, but some energy options will make sense to investigate in a cost analysis for the homes, businesses, or public investment. Renewable energy systems in Nebraska include wind power, hydro power, biofuels, and solar power.

## Wind Power

In the Environmental Information Administration's (EIA) 2011 Profile for the State of Nebraska, the National Renewable Energy Laboratory estimates that 92 percent of Nebraska has suitable conditions for wind-powered electricity. Community-scale wind projects of 50 meters high are a popular height and size.

The Nebraska Power Association reported that 195 MW of wind projects are committed resources and projected to be on line by the end of 2012 as well as available for the 2013 summer peak. The only downside to wind power is the effectiveness of systems during daytime peak hours since higher winds are recorded at nighttime when there is less demand.

## Biofuels

Biomass is from plants or animals, and can be converted in biofuels for energy production. Examples of this fuel include algae, fly ash (a byproduct of coal and concrete products), manure, crop residue on the surface of fields, and the burning of woody mass in pellet form.

Waste-to-energy, also known as energy from garbage municipal solid waste (MSW) include items such as paper, cardboard, food scraps, grass clippings, leaves, wood, leather products, and other non-biomass combustible material plastics made from petroleum.

Biogas includes methane gas collection and natural gas production from landfills. This seems to be the more practical approach to renewable energy as a collective county-wide decision. The Nebraska Power Association concluded their Statewide Coordinated Long Range Power Supply Study in July 2012.

## Solar Power

Solar Power (photovoltaic and other options) can benefit individual households as well as businesses. There should a concerted effort to increase interest in what solar systems can do for a business's bottom line. The front-up cost may seem daunting but the rate of return may surprise people. There are ways to help finance the initial amount of investment, and incentives may be available. Nebraska Energy Office is a great resource to look for funding options such as low interest loans. Communities and their business leaders should consider their options when it purchasing new units.

From a commercial standpoint, the top five businesses that would benefit from solar energy would be laundromats (heating the water), breweries (nonstop operation, heating and cooling ingredients), data storage facilities (non-stop running of computers in the "server farm"), restaurants (air-conditioning and lighting), and manufacturing facilities (typically large machines that need high amount of energy). Solar Power would usually be available during peak hours.

On a much larger scale, the CSP or Concentrated Solar Power could be helpful to support or supplement the local utility grid for isolated communities and farmers. They could use the energy source for supplementing energy consumption of a community, irrigation purposes, and other farming needs.

Biogas Example: Lincoln Electric System (LES) has a committed landfill gas generator project for the 2013 summer peak period. This generator will add 4 MW of capacity and will bring the total amount to roughly 10 MW of landfill gas. The advantage is that Biogas is usually part of the system that is already in place.

## Hydro Power

There are a number of hydro plants throughout Nebraska, including water and waste water treatment for treatment for various communities and subdivisions. The proposed national renewable portfolio standards do not allow for existing hydro units to count toward renewable energy goals.

Nebraska is divided into various watersheds and corresponding Natural Resource Districts (NRDs) that deal with ground and surface water. Through the assistance of the NRDs and other state agencies, and because of Nebraska many rivers and streams, it makes sense to plan for and invest in new hydro plants.

Awareness of the area's watershed(s) can help a community make appropriate water-related environmental decisions. There are a number of practices residents can employ to help prevent runoff. A great beginning -to-intermediate source for citizens interested in preventing or reusing stormwater runoff is the City of Lincoln's Alternative Stormwater "Best Management Practices Guidelines" for watershed management. As for public treatment of water and wastewater, cost-saving efforts include co-locating anaerobic digesters. Algae-wheel systems can be harvested and used as a renewable feedstock for biofuels.

## Additional Energy Information and Documentation

## Recycling

Recycling in Lexington is promoted through local service organizations, youth organizations, and Keep Lexington Beautiful. Citizens are encouraged to support these efforts and recycle whatever consumables they can.

```
Nebraska's Energy Plan
In 2011, the Nebraska Energy Office released the Nebraska Energy Plan which provides strategies for the state to consider in meeting
their three objectives:
- Ensure access to affordable and reliable energy for Nebraskans to use responsibly
- Advance implementation and innovation of renewable energy in the state
- Reduce petroleum consumption in Nebraska's transportation sector
```

This short and information-packed document is full of examples and future plans of how the State of Nebraska is advancing our diversity of energy sources while maintaining low-cost and reliable energy to its citizens. http://www.neo.ne.gov/Energyplan2011.pdf

## Energy Saving Tips

The Nebraska Energy Office has listed ways to save money on energy bills for the home, farm, business, and vehicles. Options for energy savings can be found on the Office's web site at http://www.neo.ne.gov/tips/tips.htm. Lexington residents and businesses are encouraged to learn more and take advantage of these conservation measures.

On their homepage, www.nppd.com , Nebraska Public Power District has a "Save Energy Section" which has more informational energy tips and incentives for your home and business. There is also information on renewable energy and net metering. NPPD operates in almost every county in Nebraska and is a great resource to use.

## City of Lexingto ${ }^{\text {PPROFLLE }}$

## NATURAL AND ENVIRONMENTAL CONDITIONS

## Introduction

This chapter of the Profile Lexington section is intended to provide the City of Lexington with underlying environmental data and any potential concerns for future planning and decision-making. The information contained in this section is important because it develops key concepts and policies with "The Lex-Plan 2013" and especially the Achieve Lexington section.

This chapter will review the different natural and environmental issues that provide opportunities and constraints upon future development for Lexington. The following constraints are reviewed in this section:

Soil Associations<br>Floodplain<br>Wellhead Protection Program

Each of these issues has some impact on potential future development for Lexington. Most of the issues are related directly to soils found within the extraterritorial jurisdiction. These issues, as well as others, are reviewed and analyzed to determine the best possible types and locations for future development.

## Soil Associations

The soils in and around Lexington are classified into five soil groups, or associations, each with a broad range of characteristics. The Generalized Soils Association Map (see Figure 21) displays this simplified version of what soils exist within Lexington's extraterritorial jurisdiction. The U.S. Department of Agriculture, Natural Resources Conservation Service conducted the field soils survey and developed the boundaries of the soil types found on Figure 17. The five soil associations found in the Lexington area are the Cozad-Hord, Wood River-Rusco-Cozad, Gosper-Cozad-Silver Creek, Lex-LawetGibbon, and Gothenburg-Platte. The report that describes and explains soil limitations was published by the United States Department of Agriculture, Soil Conservation Service, in cooperation with the University of Nebraska Conservation Survey Division.

## SILTY SOILS ON STREAM TERRACES AND FOOT SLOPES

## COZAD-HORD ASSOCIATION <br> (Lime Green in Figure 21)

Along the northern most portion of Lexington's Corporate Limits, as well as the northern third of the extraterritorial jurisdiction are comprised of the Cozad-Hord Association. Individual soils are generally described as, "deep, nearly level to gently sloping, well drained, silty soils on stream terraces and foot slopes." Farms in this association are some of the most intensively farmed throughout Dawson County.

Development limitations for Cozad soils are primarily related to slopes when greater than seven percent. Bearing capacity for foundations has moderate limitations when slopes are less than 15 percent. Hord Soils contain slight limitations for septic tanks, moderate permeability rates for sewage lagoons and moderate bearing capacity for foundations due to frost actions.

## WOOD RIVER-RUSCO-COZAD ASSOCIATION <br> (Combined into Lime Green area in Figure 21)

The soils of Wood River-Rusco-Cozad intermingle with CozadHord Association on the northern third of the extraterritorial jurisdiction of Lexington. Therefore, Figure 17 shows one solid lime green section that represents both associations. Wood River-Rusco-Cozad Association are described as "deep, nearly level, moderately well drained, silty soils on stream terraces." <br> \title{
LOAMY AND SILTY SOILS ON STREAM TERRACES
} <br> \title{
LOAMY AND SILTY SOILS ON STREAM TERRACES
}

## GOSPER-COZAD-SILVER CREEK ASSOCIATION

(Teal area in Figure 21)
Nearly the entire area within Lexington's corporate limits, as well as the central third of the two-mile planning jurisdiction, is included in the Gosper-Cozad-Silver Creek Association. Soils of this Association are described as "deep, nearly level, somewhat poorly drained to well drained, silty and loamy soils on the stream terraces."

Limitations for dwellings with or without basements are stated as moderate due to shrink-swell potential and seasonal high water table at a depth of four to five feet for Gosper soils. The soil composition comprises the majority of Lexington's developed residential neighborhoods. Dwelling limitations for Cozad Soils are moderate for slightly sloping lands and severe where slopes are greater than 15 percent. Silver Creek Soils are concentrated south of the Highway 30 corridor and have severe limitations for dwellings due to high shrink-swell potential, frost action and seasonal high water table at a depth of two to five feet.

Sewage lagoons are impacted by severe limitations for seasonal high water table at two to five feet depths in Silver Creek soil. Gosper soil also has severe limitations for sewage lagoons due to seepage below four feet depths and water table depths of four to five feet. Cozad soil is rated severe due to moderate permeability and water table depths of three to four feet on seasonal basis.

## LOAMY, SILTY, AND SANDY SOILS ON BOTTOM LAND

## LEX-LAWET-GIBBON ASSOCIATION

(Darker Blue surrounding Platte River in Figure 21)
Lands within the extraterritorial jurisdiction, along either side of the Platte River, are comprised the Lex-Lawet-Gibbon Association. This Association is generally described as "deep and moderately deep over sand and gravel, nearly level, somewhat poorly drained and poorly drained, loamy and silty soils on bottom land."

All of these Associations of Lex, Lawet, and Gibbon are severely limited for development of dwellings, septic tanks, and absorption fields and sewage lagoons.

## GOTHENBURG-PLATTE ASSOCIATION

(Light Blue within Platte River in Figure 21)
The bottom lands of the Platte River, along the southern portion of Lexington's planning jurisdiction, are associated with the Gothenburg-Platte Association. Ground water is from six inches to five feet below the surface. River bottom soils, such as these, understandably have severe limitations for development.

Sewer lagoons, septic tanks and absorption fields and foundations of buildings are severely impacted by soils conditions in this Association.


Figure 21: Generalized Soils Association, Lexington

## City of Lexington

 Dawson County, Nebraska Generalized Soils AssociationFor more detailed information can be found on individual parcels of land. The previous map, Figure 21, is meant to give a broad understanding of the general soil capabilities. Contacting an expert to test the soil is highly recommended. As shown in Figure 23, it displays that the extraterritorial jurisdiction may have very different soil types near one another. Again, it is recommended to contact United States Department of Agriculture's (USDA's) National Resources Conservation Service (NRCS) for more details and limitations on acquiring land and land uses for. The decisions made on behalf of Lexington should be made with the most current and accurate information available. Figure 22 details the large legend of Lexington soils.

| T 2 Mile Ext steritorial Juris diction | Rus cos silt loam, 0 to 1 percent s lopes | Gosper loam |
| :---: | :---: | :---: |
| C,J Corporate Limits | Platte=Alda complex, occas ionsilly flooded | Gosper fine sandy loam, 0 to 1 percent siopes |
| Wood River-Gayville complex 0 to 1 per cent slopes | Platte loam, occasionally flooded | Gibbon loam, rarely flooded |
| Wood River silt loam, 0 to 1 per cent slopes | Ovina fine sandy loam | Fillmore silt loam |
| Wh Water | Miscellaneous water, sewage lagcon | Elsmere loany fine sand, loamy substratum, 0 to $3 p$ |
| Wann loam, rarely flooded | Lex loam, salineaksli, rarely flooded | Dundsy loamy fine sand, 0 to 3 percents slopes |
| Wann fine sandy loam, saline-alkali, carely flooded | Lex loam, rarely flooded | Cozad s ity clay loam, 0 to 1 percent slopes |
| Valentine loamy fine sand | Lawet silt loam, salinesksli, rarely flooded | Cozsd s ilt loam |
| Valentine fine sand, rolling | Lawet s ilt Icam, drained, rarely flooded | Cozard fine sandy loam |
| Ustorthents, 17 to 80 peroent slopes | Lawet loam, ponded, rerely flooded | Coly-Uly-Hobls silt loams, 3 to 80 per cent sloces |
| Uty-Holdrege=Coly silt loams, 8 to 11 percent sloges, eroded | Hord silty clay loam | Cohy-Hobbs silt loams |
| Uhy-Holdrege silt \|cams, 8 to 11 percents lopes | Hord silt loam | Coly, Uly and Hobbs soils, 3 to 30 percentslopes |
| Uly-Coly silt loams | Hord fine sandy loam, 1 to 3 percent slopes | Coly silt loam |
| Uly silt loam, 11 to 17 percents slopes, eroded | Holdrege-Uly silt loams, 3 to 7 percents lopes, eroded | Coly and Uly silt loams. 11 to 30 percent s lopes |
| Uty and Coly silt loams | Holdrege silty day loam, 3 to 7 percent slopes, ercoed | Arents, earthen dam |
| Spoil banks | Holdrege silt loam | Aquolls |
| Silver Creek s ilty day loam, rarely flooded | Hobos silt loam | Ans el mo loam, 0 to 1 percent slopes |
| Silver Creek silt loam, rarely flooded | Hall silt loam | Arselmo fine sandy loam |
| Silver Creek complex, rarely flooded | Gravel pit | Alda loam, rerely flooded |
| Selia loamy fine sand, 0 to 3 percent slopes | Gothenburg soils, fequently flooded | Not rated or not available |

Figure 22: Detailed Legend for for Individual Soil Unit Map


## Floodplain

The topography and terrain of Lexington and the two mile extraterritorial jurisdiction are varied. The natural landscape has been formed by wind and water erosion and deposits creating areas of nearly level lands on stream terraces. The slope within Lexington's corporate limits is generally nearly level and rests just above the Platte River bottom lands. Lands slope from developed areas of Lexington south easterly carrying stormwater runoff to Spring Creek and other drainage ways prior to converging with the Platte River.

In May of 1984, the U.S. Department of Housing and Urban Development, Federal Insurance Administration commissioned the "Flood Insurance Study" for the City of Lexington "to investigate the existence and severity of flood hazards." The study consists of detailed engineering graphics, tables and text. The City of Lexington should refer to this study for official hydraulic analysis.

The study outlined the floodplain management applications to guide future land uses and floodplain ordinance, which regulates building in areas declared as the 100 -Year Flood Hazard Zone. Floodway, 100 year flood event, and 500 year flood event are shown in Environmental Constraints (Figure 24). No flood protection structures exist or are
planned. As Lexington continues to grow, future development within the floodway and floodplain should be discouraged and only allowed through strict adherence to the local flood plain regulations.

The citizen's protection against natural hazards is the responsibility of the local government and its officials. The effect of high water or flooding can be lessened by planning open space within the designated flood plain, continued maintenance of the floodway, and through the application of design standards to reduce water runoff.

Surface drainage and streams account for a small percentage of the water resources in the Lexington extraterritorial jurisdiction. The City of Lexington relies upon the Platte River to recharge the underground aquifer which supplies water to 14 municipal wells located throughout the community.

The underground water supply for Lexington is part of an abundant aquifer which flows across the majority of Nebraska. Since World War II, a large increase in irrigation practices throughout the Nebraska has drastically lowered the water table; however the depth to the water table in Dawson County and the City of
average depth of Lexington municipal wells vary from 60 to 350 feet. Private agricultural and domestic wells average from 140 to 160 feet in depth in the uplands and from 15 to 30 feet deep in the Platte River Valley. The surface water in drainage ways and depression seeps into the aquifer to recharge it. Thus, the surface and ground water are part of one interactive system which cannot be separated.

Securing the quality of drinking water from private wells in the rural areas of Lexington's extraterritorial jurisdiction is very important. A minimum lot size of three acres is recommended for residences in agriculturally zoned areas. This standard generally ensures that adjacent households do not contaminate each other's drinking water. Lot sizes less than three acres would locate rural residences close to one another. Rural dwellings typically have septic tanks and possibly leach fields. If located too close to each other, contamination might occur.

Wellhead Protection Program

The Wellhead Protection (WHP) Program provides the
following in accordance with federal laws:

1. Duties of the governmental entities and utility districts
2. Determines protection area
3. Identifies contamination sources
4. Develop a contaminant source man
agement program
5. Develop an alternative drinking water plan
6. Review contaminated sources in future wellhead areas
7. Involve the public

The Nebraska Department of Environmental Quality (NDEQ) regulates groundwater quality and quantity. To assist local municipalities with protecting their drinking water supply, the NDEQ developed the Nebraska Wellhead Protection (WHP) Program. The Nebraska Wellhead Protection Areas are shown on Figure 24.

The approaches of Nebraska's Wellhead Protection (WHP) Program are to:
Prevent the location of new contamination sources in wellhead protection areas through planning.

Minimize the hazard of existing sources through management.
Provide early warning of existing contamination through ground water monitoring.

The Wellhead Protection Area is a region with restrictive land use regulations to prevent potential contaminants from locating in the sensitive area. The boundaries are delineated by a time of travel cylindrical displacement calculation. The boundary is mapped by the Nebraska Department of Environmental Quality (NEDQ) so communities can apply zoning regulations to the district. The City of Lexington plans to regulate the wellhead districts with a specific wellhead protection zone.



## EXISTING LAND USE

In order for a community to plan for future land uses and land use changes, knowledge of existing land uses must be established. The purpose of this section of the Plan is to establish an inventory and evaluation of the existing land uses found within the Lexington planning area. This does not take into account future land use or land ownership.

Land use categories that will be used to plan for future development areas are general statements about how the underlying property is being used. These are generally described with broad labels such as residential, commercial, and industrial, as well as an identification of vacant or open spaces being used for cropland, recreational areas, and any under- or non-developed land. In order to fully explain the variety of uses currently found, the description used in this section will include more detailed statements.

Land uses and properties do not have to be arranged in a 1:1 ratio with one land use per parcel. Uses are often mingled within a development, and can be stacked on each other, such as in a Downtown building that is used for residential uses on upper floors and commercial uses on the ground floor. The number and type of land uses found in a vibrant community is constantly changing to meet the needs and desires of residents, which can produce a number of impacts that either benefit or detract from the overall sense of community and quality of life. Because of this, the success and sustainability of a community is directly influenced by the manner in which available resources are utilized given the constraints the city faces during the course of the planning period.

Typically, older Midwest communities exhibit a fixed pattern of land use that is fairly consistent with a rural setting's relaxed pace. Lexington, however, is experiencing increasing levels of growth and development pressures, and has seen its surroundings transform from the more common rural setting found throughout Nebraska to an urbanizing extension. The proximity to I-80 and Highway 30, as well as its location along Highway 21, provide Lexington with many more opportunities than would be found in a typical town of the same size. The opportunities that result from such external forces create impacts upon the community and its residents, which can drastically affect the land use in and around the Lexington area and will significantly impact how and where Lexington grows in the future.

## Existing Land Use Categories

Land uses are generally best described in terms of specific categories that provide broad descriptions into which numerous businesses, institutions, and structures are grouped. Lexington's existing land use categories are more specific to allow for a more detailed evaluation of each use. For the purposes of "The Lex-Plan 2013," the following land use classifications are used:

Agriculture / Open Space - A parcel of land that is not intended for development and is currently used for low intensity agriculture uses, such as pasturing, or contains open spaces such as woodlands or flood plain.

Developing Residential - A parcel of land that is currently undeveloped and not proposed for development. This may be subdivided and undergo preparations for residential development. This land is generally found to be open and minimally maintained.

Single-Family Residential - A parcel of land where each residential structure is occupied by one family, such as a traditional home on its own lot, surrounded by yards on all sides.

Multi-Family Residential - A parcel of land containing a structure being utilized by two or more families within a same structure.

Residential Mobile Home - A parcel of land containing a factory-built, single-family structure. These uses are Single-Family Residential in nature, but identified separately.

Commercial - A parcel of land containing a commercial use which may sell a good, but mostly provides a service, such as automotive repair, hair salon, and includes the Downtown.

Industrial - A parcel of land containing a commercial use involved in manufacturing or packing, storage, or assembly of products, which does not have a major external effect on surrounding properties or uses.

Parks and Recreation - A parcel of land containing public or private land available for recreational, educational, cultural, or aesthetic use.

Public/Quasi-Public - A parcel of land owned or maintained by a federal, state, or a local governmental entity and open for enjoyment by public, or a parcel of land containing a use that is generally under the control of a private, religious, or non-profit entity, that provides social benefit to the community as a whole.

## Existing Land Use Analysis

Lexington's existing land uses were evaluated and tabulated, showing the quantity of uses found within the corporate limits as well as within the entire planning jurisdiction. The data was arranged using total acres of each type of Land Use displayed in Table 35.

Not surprisingly, the majority of developed land within Lexington is used for single family residential purposes. In 2013, nearly one-half of all developed property in Lexington was used for single-family dwellings. In terms of total acres, single-family uses in 2013 accounted for 598.87 acres. The remaining components of residential uses represented much smaller portions of the land use picture. Residential uses with two or more units accounted for 2.6 percent of all developed land within Lexington in 2013. There are a number of contiguous residential developments surrounding Lexington which give the community the potential to alter the residential land use figures if these areas were to be annexed in the future.

| Type of Land Use | Land Use Counts | Acres |
| :--- | ---: | ---: |
| Agriculture / Open Space | 48 | 537.82 |
| Commercial | 318 | 195.86 |
| Developing Residential | 147 | 143.88 |
| Industrial | 101 | 171.04 |
| Multi-Family Residential | 42 | 46.41 |
| Parks and Recreation | 18 | 99.08 |
| Public / Quasi Public | 73 | 532.65 |
| Residential Mobile Home | 52 | 50.65 |
| Single Family Residential | 2563 | 598.87 |
| Total | 2376.25 |  |
| Streets/Railroads | 540.75 |  |
| Corp Limits Acres |  |  |
| Source: 2013 Comprehensive Development Plan, JEO Consulting Group, Inc |  |  |
| Table 35: Land Use within Corporate Limits, Lexington, 2013 |  |  |

Overall, commercial uses in 2013 covered just over 195.86 acres, or nearly 12 percent of all developed land. Total acres put to industrial uses nearly equaled those put to commercial use, and accounted for approximately 10 percent of all developed land in 2012.

Public and quasi-public land uses accounted for nearly 30 percent of all developed land in 2013, second only to single-family residential. Parks and recreation acres accounted for the third smallest acreage, covering just over 99 acres in 2013.

Transportation uses, which include rights-of-way, railroads, and roadway systems, accounted for 18.6 acres of undeveloped land and 0.8 percent of total acreage in 2013. Undeveloped land, including transportation, agricultural uses, open space, and developing residential property accounted for 30 percent of all land within Lexington, compared to 70 percent for developed land.

| Land Use Type | Land Use Count | Acres Of <br> Extraterritorial <br> Jurisdiction |
| :--- | ---: | ---: |
| Agricultural/Industrial | $\mathbf{5}$ | $\mathbf{3 4 4 . 5 5}$ |
| Commercial | 11 | $\mathbf{7 8 . 1 1}$ |
| Developing Residential | $\mathbf{5}$ | $\mathbf{9 1 . 2 4}$ |
| Industrial | 16 | $\mathbf{8 3 8 . 3 1}$ |
| Parks and Recreation | $\mathbf{5}$ | $\mathbf{1 0 0 . 0 4}$ |
| Public/Quasi Public | $\mathbf{9}$ | $\mathbf{1 4 7 . 7}$ |
| Residential | 127 | $\mathbf{5 0 0 . 2 6}$ |
| Single Family | 112 | 438.04 |
| Multifamily | 1 | 3.25 |
| Mobile Home | 14 | 58.97 |
| Agriculture/Open Space |  | $\mathbf{2 4 , 1 8 0 . 7 2}$ |
| Source: 2013 Comprehensive Development Plan, JEO Consulting Group, Inc. |  |  |

Lexington currently exercises its statutory authority to enforce planning jurisdiction within two miles of the corporate boundary. An evaluation of land uses within this extraterritorial jurisdiction (ETJ) is important for future development and planning activities. The land uses found outside of the corporate limits are mostly agriculture, agricultural residential, and single-family residential, especially to the east of the community. Due to external and internal development pressures, as well as the proximity of major transportation routes, the percentage of residential uses found within the Lexington ETJ is higher than would be typical for a Midwestern community of this size.

In addition, all land uses that are found within Lexington are also found within the ETJ. This pattern is also influenced by the urban nature of the area, as well as the land use policies Lexington has held over time. The presence of all the same land use types in the ETJ will encourage greater development activity, which in turn can influence Lexington's ability to annex and grow at an increased rate over communities located in more rural settings.


## "The Lex-Plan, 20113""

## Airport Overlay



Lexington's Jim Kelly Field Airport (KLXN) is a regional airport that began in 1946 and currently covers 275 acres two miles northwest of Lexington. The facility is open to the public and services the Lexington residents and surrounding community. It is owned by the Lexington Airport Authority. As for its yearly functions, statistics show that between June 2008 and June 2009, Jim Kelly Field Airport had 4,000 Air Taxi Operations, 2,100 Itinerant Operations, 8,100 Local Operations and 40 Military Operations. That averages to more than 38 operations per day.

According to the Federal Aviation Administration glossary, Local Operations are those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and the operations to or from the airport and a designated practice area within a 20 -mile radius of the tower. Itinerant Operations are performed by an aircraft that lands at an airport, arriving from outside the airport area, or departs an airport and leaves the airport area. This is important because the historical traffic at the Jim Kelly Field Airport has reverted back to operations similar to operations prior to 1996. From 1996 to 2007, the Jim Kelly Airport increased its yearly Itinerant Operations from 2,400 in 1995 to remain steady at about 3,800 yearly. These Itinerant Operations then declined to a yearly average of 2,100 in 2008 and 2009. The Local Operations have shared the opposite effect. After experiencing high yearly Local Operations of 8,100 from 1990 to 1995, it decreased to around 2,300 in 1996. This continued until 2008 when the Local Operations increased to its prior yearly average of 8,100 in 2008 and 2009.

The safety of the Lexington residents and passengers on aircraft are of the utmost importance to the City. Construction height limits would be most restrictive in the Inner Area. This affects the southwestern edge of Lexington.

## Nebraska Airport Act

The Nebraska Airport Act is a combination of three Acts. These Acts are:
State Aeronautics Department Act: 3-101 to 3-154
Revised Airports Act: 3-201 to 3-238 and 18-1502
Extraterritorial Airports Act: 3-240 to 3-244
The Nebraska Airport Act is in Nebraska Revised Statute 3-301 to 3-333. For example, if Lexington would like to expand its airport, Nebraska Revised Statute 3-203 states property needed for an airport or restricted landing area may be purchased if all parties involved agree on the terms of the acquisition. The Act further states that municipalities have eminent domain options to ensure the safety and well-being of local residents.

For further aeronautics information, Nebraska Revised Statutes 3-401 to 3-806 contain a wider range of topics such as Airport authority, property and structures, bonds, and legal matters. Lexington's decision makers should continue to refer to the above statutes and search for updated data when approving building permits in the future.

The following map, Figure 26, illustrates Lexington and the surrounding region. The largest area on the Airport Zoning Map is the Approach Zone and Turning Zone. These zones illustrate a critical distance to the airport and the angle of approach. The Lexington Airport has increased its Local Operations which include low passes at the airport. An aircraft will depart and turn for its flight path which is outlined and labeled Turning Zone. The checked paths represent the aircraft approaching the ground for a landing at the airport northwest of Lexington. It is critical and a safety requirement to restrict construction heights within these boundaries of Lexington, its extraterritorial jurisdiction, and the outlying property outside of Lexington's jurisdiction. Depending upon the location, Lexington and surrounding Dawson County landowners may be affected. The Approach Zone may restrict the height for construction of communication towers or wind turbines.


Figure 26: Jim Kelly Field Airport Overlay
City of Lexington Dawson County, Nebraska Airport Zoning

## "The Lex-Plan 20113""

## ACHIEVE LEXINGTON

The Achieve Section of "The Lex-Plan 2013" builds upon the previous chapters by describing the various plan elements that will be used to manage future growth and development. Using the vision, goals, objectives and policies previously established, this section will help readers understand how and where Lexington will grow as the result of the community's future vision. Managing and guiding future change can be accomplished in many ways, with varying degrees of public and private influence. This chapter aims to develop an understanding that provides appropriate public guidance that encourages and facilitates intelligent and sustainable growth patterns with enough flexibility to allow the market to fluctuate and respond to its changing demands and influences.

The process of achieving the shared vision for the community depends upon the realization of several components. Each component, by itself, represents and identifies improvements or changes that will differentiate Lexington in twenty years. The various components can be separated based upon the following ideas:

## INTRODUCTION

## POPULATION PROJECTIONS

## FUTURE LAND USE

Future Land Use Analysis and Needs Land Use Designations

## URBAN DESIGN

## PARK AND RECREATION PLAN

Inventory and Existing Conditions
Park System Analysis and Service Areas
Recommendations
Park Land Dedication
TRANSPORTATION SYSTEM PLAN
Existing Transportation Profile
Future Transporation Plan

## Population Projections

For a complete analysis of population projections please refer back to the Profile Section of this plan. The following projections show a realistic population growth from the modest growth of the past decade to the more robust growth spurt experienced in the 1990's.

Due to the uncertainty of economics and the unknown future, these indicate different scenarios that may be encountered in Lexington through the year 2030.

The population projections for Lexington are as follows:


LOW
Table: 37: Population Projections, Lexington, 2020, 2030


HIGH


MEDIUM
HIGH

## "The Lex-Plan, 2:0113;"

## FUTURE LAND USE

The component focuses on the development of Lexington as it expands and redevelops within the corporate limit as well as its extraterritorial jurisdiction. The existing land use conditions and analysis were covered in the previous Profile Section of "The Lex-Plan 2013".



Figure: 27: Future Land Use Map, Lexington

## Land Use Designations

## A. Transitional Agriculture (TA)

The Transitional Agriculture land use area is intended to accommodate continued agriculture uses, while allowing for residential development. These areas are located outside the corporate limits where transition is appropriate between existing agriculture uses and more dense development. Characteristics of the TA category include:

Location in areas outside the corporate limits where City services (water and sanitary sewer) will be difficult and/or costly to provide.

Location in areas outside the corporate limits determined to have unique or sensitive natural areas, including stream corridors, tree stands, floodplain, wetlands, and natural habitat areas.

Accessory buildings are at a scale between typical suburban development and farm buildings.

Uses within this area include agricultural uses (except livestock feeding operations), wineries, single-family residential, churches, parks/recreation/open space, and associated accessory uses.

## B. Low Density Residential (LDR)

The Low Density Residential land use area is intended for typical suburban scale residential development densities. This category represents one of the most common residential land use types, and is located throughout town and in the one-mile zoning jurisdiction. Characteristics of the LDR category include:

Locations throughout town to provide convenient access to transportation routes, commercial areas, jobs, schools, parks and recreation areas, and public services.

Accessory structures should be limited in size to reinforce the pedestrian scale of neighborhoods.

Pedestrian connectivity will be important; the public sidewalk and trail system should provide adequate opportunities for residents to walk to destinations or for enjoyment.

The area will include densities ranging from one to four dwelling units per acre.

Uses within this area include single- and two-family residential dwellings, public and quasi-public uses, parks, group homes, and home occupations.

## Land Use Designations

## C. Medium Density Residential (MDR)

The Medium Density Residential land use area is intended to provide higher residential densities than LDR, but still commonly found within urban neighborhoods. This area will also have a significant role as a transitional use between most commercial areas and lower density residential development. Characteristics of the MDR category include:

Locations throughout town where uses can serve as transitions that buffer and/or screen lower density residential uses from commercial uses and major streets.

All areas should provide a mixture of housing styles, types, and occupancy levels in order to meet the housing needs and socio-economic abilities of all residents.

Neighborhood parks and open spaces should be included in all new developments and provided with access to the City's Trail System.

Pedestrian connectivity will be important; the public sidewalk system should provide adequate opportunities for residents to walk to destinations or for enjoyment.

The area will include densities ranging from three to 10 dwelling units per acre.

Uses within this area include single- and two-family residential dwellings, public and quasi-public uses, group homes, and home occupations.

## D. High Density Residential (HDR)

The High Density Residential land use area is intended to accommodate denser residential development. This area would support apartment complex-types development, or a mixture of townhomes and apartments. The location of this area is intended to act as a buffer between more intensive commercial uses and lower density residential uses. Characteristics of the HDR category include:

Location where uses can serve as a transition between lower density residential areas and commercial uses.

Location in areas adequately served by transportation facilities, and near abundant employment opportunities.

Opportunities for outdoor recreation and open space will be an important design element.

Pedestrian connectivity with and between developments shall be required through use of the public sidewalk and trail systems, such pedestrian opportunities will compensate for the density of development.

The area will include densities ranging from nine to 15 dwelling units per acre.

Residential alternatives should be allowed, including units with varying numbers of bedrooms, and live/work units.

Uses within the area include single-, two-, and multi-family dwellings, with a focus on group homes, multiple-family and multiple-story structures.

## "The Lex-Plan, 20113""

## E. Commercial (COM)

The Commercial land use includes the community's downtown and other areas that encompass all retail, office and service uses. Commercial uses may vary widely in their intensity of use and impact, varying from low intensity offices, specialty shops, and indoor storage to more intensive uses such as gas stations, restaurants, grocery stores, sales and service, or automobile repair. The lots in the downtown area are usually small and the area offers higher pedestrian access. Parking in the downtown area is handled by onstreet parking while other commercial areas have parking lots that are often shared by adjacent uses.

Each area designated as commercial in the land use plan may not be appropriate for every commercial zoning district. The appropriateness of a commercial district for a particular piece of property will depend on a review of all the elements of the Comprehensive Plan. The Commercial land use includes the Central Business District, General Commercial, and Highway Commercial. Characteristics of the COM category include:

## Central Business District

Located in original downtown, the intensity of particular uses suited to the character of the surrounding area.

Neighborhood should be served by small-scale commercial developments, providing uses that serve the convenience and
daily needs of nearby residents, while offering a destination cultural flare.
Pedestrian scale and orientation will be an important design consideration for commercial businesses of all types. Pedestrian linkage of this area to other neighborhoods shall be incorporated through sidewalk and trail connections.

The design and exterior surface treatments should reinforce existing development patterns consistent with the character of the area and of Lexington.

Landscaping, fences, and walkways should be used to screen and buffer commercial uses from residential uses; the scale of which should be appropriate to the relationship between the uses.

Uses within this area do not include those generally associated with big box stores, large open parking lots, or industrial uses, such as warehousing/distribution, manufacturing and production, etc.

## E. Commercial (COM)

## General Commercial

Located throughout town, the intensity of particular uses suited to the character of the surrounding area.

Larger, more intense commercial developments located nearer to major streets.

Neighborhoods should be served by small-scale commercial developments, providing uses that serve the convenience and daily needs of nearby residents.

Pedestrian scale and orientation will be an important design consideration for commercial projects of all sizes. Commercial areas shall be connected by residential neighborhoods through sidewalks and/or community trails.

The design and exterior surface treatments should reinforce existing development patterns; in newly developing areas design themes should strengthen the overall image of the development consistent with the character of Lexington.

Landscaping, berms, fences, and setbacks should be used to screen and buffer commercial uses from residential uses; the scale of which should be appropriate to the relationship between the uses.

Uses within this area do not include those generally associated with big box commercial uses or industrial uses, such as storage, warehousing/distribution, manufacturing and production, etc.

## Highway Commercial

Located throughout town along major corridors, the intensity of particular uses suited to the character of the surrounding area.

Larger, more intense commercial developments located nearer to major streets.

Neighborhoods should be served by small-scale commercial developments where appropriate, providing uses that serve the convenience and daily needs of nearby residents.

Pedestrian scale and orientation will be an important design consideration for commercial projects of all sizes. Commercial areas should be connected to other neighborhoods where possible through sidewalks and/or community trails.

The design and exterior surface treatments should reinforce existing development patterns; in newly developing areas design themes should strengthen the overall image of the development consistent with the character of Lexington.

Landscaping, berms, fences, and setbacks should be used to screen and buffer commercial uses from residential uses; the scale of which should be appropriate to the relationship between the uses.

Uses within this area do not include those generally associated with industrial uses, such as warehousing/distribution, manufacturing and production, etc.

## ACHIEVE

## F. Industrial (IND)

The Industrial land use area includes both light and heavy industrial designations. Location is important, as proximity to major streets and railroad can help ensure heavy traffic avoids residential areas and prominent pedestrian activity centers. Careful consideration shall be given before designation of any industrial uses so as not to encroach upon or conflict with less intrusive uses or destroy important new corridors. The light land use area is intended to accommodate smaller, less intensive industrial uses, compared to those that are larger and have more intensive industrial activity. Characteristics of the IND category include:

## Light Industrial

Locations that cater to the specific needs of the user, providing a level of water, sewer, and electrical capacity, closeness to major transportation routes, and lot sizes necessary to accommodate initial development and potential future expansions.

Uses shall emit a minimal amount of noise, odor, waste, and other operational by-products.

Significant landscaping and buffering should be used to screen Light Industrial uses from view of nearby residential areas, other conflicting land uses and important view corridors.


The design and exterior surface treatments should reinforce existing development patterns; in newly developing areas design themes should strengthen the overall image of the development consistent with the character of Lexington.

Uses within this area include warehousing, distribution, light manufacturing, production companies, and employment centers.

## Heavy Industrial

Locations that cater to the specific needs of the user, providing a level of water, sewer, and electrical capacity, closeness to major transportation routes, and lot sizes necessary to accommodate initial development and potential future expansions.

Uses shall emit a minimal amount of noise, odor, waste, and other operational by-products or take measures to contain such impacts in-site.

Significant landscaping and buffering should be used to screen Heavy Industrial uses from view of nearby residential areas, other conflicting land uses, important view corridors, major streets, and pedestrian activity centers; certain use components should be screened from view off-site, such as delivery and pick-up areas, outdoor storage, and trash receptacles; fences should not be used alone to provide screening.

The design and exterior surface treatments should reinforce existing development patterns; in newly developing areas design themes should strengthen the overall image of the development consistent with the character of Lexington.

Uses within this area include warehousing, distribution, manufacturing, and production companies.

## G. Public/Quasi-Public (P/QP)

The Public/Quasi-Public land use areas are intended to provide easy, convenient access for residents the common activities of daily life. However, the areas identified on the map tend to be already developed with uses specific to this category. The reason for this is that speculation with respect to future public and quasi-public uses can artificially inflate the underlying land value to the detriment of the city finances and community residents. In addition, not all existing or proposed public and/or quasi-public land uses are identified by way of Public/Quasi-Public Land Use designation since these uses are typically allowed outright or by conditional use in varying residential and commercial zoning districts. Characteristics of the P/QP category include:

Locations dispersed throughout town, near activity centers and major streets.
Locations that provide an opportunity to share facilities between uses, such as library, park, community center, or post office.

Uses within this area include public facilities, municipal properties, and schools.
Structures should model appropriate architectural design elements, high quality construction techniques, and appropriate materials and finishes.

## I. Transportation Corridor

The Transportation Corridor use area is an overlay intended to follow Highway 30 and Highway 283 through Lexington's Corporate Limits and Extraterritorial Jurisdiction. Uses in this corridor would be allowed through the underlying land use designation but building orientation, increased landscaping, design guidelines, and use of frontage roads are encouraged.

## H. Parks / Recreation (P/R)

The Parks and Recreation land use area accommodates those undeveloped properties that are intended to benefit the public by remaining undeveloped as open space or parks. However, many of the areas identified tend to be already developed with uses specific to this category. The reason for this is that speculation with respect to future public and quasi-public uses can artificially inflate the underlying land value to the detriment of the city finances and community residents. In addition, not all existing or proposed parks, recreation, and open space land uses are identified by way of Parks and Recreation Land Use designation since these uses are typically allowed outright or by conditional use in varying residential and commercial zoning districts. Characteristics of the $\mathrm{P} / \mathrm{R}$ category include:

Locations that are dispersed throughout the community for easy access, or are important and appropriate to the function served.

Uses within this area include parks, passive and active recreation areas, ball fields, trails, and natural areas, as well as drainage and flood control structures such as detention or retention facilities, drainage swales, and floodplain areas.

## URBAN DESIGN

## Corridor Enhancement

As the front door to a community, a corridor's first impression on visitors is crucial, as it will either draw them into a town, or encourage them to continue on their way. Usually utilitarian in appearance, these access routes are an opportunity for small towns and can be significantly improved by modest aesthetic improvements such as trees and shrub plantings, attractive lighting, and trails and sidewalks. Interstate 80 is lined with small towns similar to Lexington, but by implementing these simple improvements along key corridors, such as Plum Creek Parkway and Highway 30, Lexington can enhance its reputation for being a destination and draw travelers off the beaten path and further into the community.

## Plum Creek Parkway Entrance Streetscaping

As the primary gateway into the City of Lexington, the I-80 exit for Plum Creek Parkway should provide an enjoyable experience and draw people toward the heart of the town. The first crucial step in this process will be enhancing the initial view from Interstate 80. Landscaping along the Interstate 80 corridor will help draw attention to the exit as a destination, and a sculpted and landscaped berm will provide an appealing buffer to the sand and gravel pits located just north of the interstate on the east side of the exit.

With their prominent location on Plum Creek Parkway, Walmart, NDOR, and the Military Museum will benefit from additional landscaping, dramatically increasing the 'curb' appeal to visitors and providing a sense of place and community pride. A new trail will connect the existing trail along Plum Creek Parkway to a proposed recreation area on the current site of the gravel and sand pits.

As can be seen in the image of proposed improvements to Plum Creek Parkway, the experience for pedestrians and bikers utilizing the trail could be greatly enhanced by implementing some of these modest improvements. Similar streetscape elements such as landscaping, lighting, and wayfinding will further beautify Lexington's 'front door' as visitors travel north along the corridor.

## Corridor Enhancements: Plum Creek Parkway Streetscape

Native plantings, fencing, and a meandering trail along the Plum Creek Parkway create an attractive community entrance.


Existing Conditions along Plum Creek Parkway


Proposed Improvements to Plum Creek Parkway

## Corridor Enhancements:' Plum Creek Parkway Entrance Streetscaping

(1) Existing Trail
(2) New Trail
(3) Enhanced Streetscape
(4) I-80 ROW Landscaping
(5) Landscaped Grounds
(6) Sculptured and Landscaped Berm
(7) Future Recreation Area Phase 1 \& 2


LOCATION MAP
Figure: 28: Plum Creek Parkway Entrance, Lexington

$" T h e$ Lex-Prlan 2 OPICH""
creating a saferand more beautiful front door into downtown Lexington


Existing Conditions along Highway 30


## Highway 30 Road Diet

The Highway 30 Corridor is another ideal gateway to implement streetscape enhancements in order to create a more appealing experience for visitors coming from the east and west. By implementing a 'road diet,' whereby the number of lanes is reduced, which allows for enhanced landscaping, sidewalks, and lighting along the highway, the corridor can become appealing to pedestrians and bicyclists, as well as vehicular traffic.

## Downtown Gateway

The viaduct over the railroad lines is a major landmark for the community. Sculptural elements, such as colored LED lights on the grain elevators and Jackson Street Bridge help establish a sense of place and could be incorporated to create an iconic gateway into Downtown Lexington.

## Corridor Enhancements:' Downtown Gateway

Colored LED lights on the Jackson Street bridge and grain elevators create an iconic entrance to downtown Lexington

## GREENFIELD DEVELOPMENT

Lexington has two areas outside of town that are ideal for new development. These developments will fit in with the existing urban fabric of the town, connecting the new growth seamlessly with the existing neighborhoods. While building on the residential character of Lexington's existing neighborhoods, they will provide new centers for their respective neighborhoods. Mixed uses, such as apartments built above retail and office space, are encouraged, as well as a diversity of housing types. The sites are also no larger than a $1 / 4$ mile across, making everything in the neighborhood within a comfortable 5 minute walk.

## Greenfield Development:: "Aging in Place" Neighborhood Design Concept

Medical Office Buildings
(2) Townhomes
(3) Cottages
(4) Apartments
(5) Independent Living
(6) Assisted Living


LOCATION MAP
Figure: 31: "Aging in Place" Neighborhood Design, Lexington

## "Aging in Place" Neighborhood Design Concept

Strategically located to the west of the hospital, the northwest greenfield site provides senior residents with an entire spectrum of living options, including cottages, townhomes, apartments, independent living, and assisted living care facilities. This combination of living options allows residents to age in place, transitioning to new residential typologies as they require additional care, without having to leave their neighborhood. Medical offices on site and the new hospital facilities in close proximity provide convenient, quick access for residents' healthcare needs. The creation of a central plaza allows the residents to interact and gather, strengthening the sense of community for the entire neighborhood as they transition from one stage of life to another.

## Greenfield Development: Southwest Neighborhood Design Concept

## (1) Neighborhood Square

2) Mixed Use Buildings
(3) Apartments
3) Townhomes
(5) Single Family Houses
4) Estate Homes
(7) Greenway


## LOCATIONMAP

Figure: 32: Southwest Neigborhood Design, Lexington


Southwest Neighborhood Design Concept
A Traditional Neighborhood Development (TND) that implements the ideas of connectivity and walkability is proposed for an undeveloped tract of land in southwest Lexington. Framed by mixed use and apartment buildings, a public neighborhood square anchors the northeast portion of the site. The neighborhood boasts a wealth of housing typologies including townhomes, single family cottages, and larger estate lots, which are connected by a grand boulevard running north to south. The development provides access with streets to the north and east, connecting to the existing urban fabric of Lexington. A small drainage ditch runs adjacent to the southern border of the site, best suited for siting walking trails and open space for the neighborhood.

Lexington contains many opportunities to develop within the existing boundaries of the town. Redeveloping these areas creates an opportunity for more activity and community growth in the heart of Lexington. Additionally, infill development will occur within existing neighborhoods as the housing stock ages and homes need to be rebuilt. As infill occurs, guidance should be provided to ensure that new development is contextual with the existing neighborhood fabric.

## Infill Development:' Adams Street Redevelopment

## Redevelopment Area

(1) Proposed Market Plaza
(2) New Park/Playground
(3) School Additions


## LOCATIONMAP

Figure: 33: Adams Street Redevelopment, Lexington


## Adams Street Redevelopment

One area of opportunity is the Adams Street Redevelopment Area, which is bounded by 13th Street on the north, 10th Street on the south, Adams Street on the west, and Harrison Street on the east. The redevelopment area includes an expansion of Bryan Elementary School, a new joint use park, and a new plaza on 11th Street between Johnson Street and Adams Street. Eleventh Street will continue to function as a vehicular street; bollards will separate vehicular traffic from pedestrian while a different paving texture will delineate the plaza. The space will function as a 'parking plaza,' where a grid pattern on the ground plane demarcates drive aisles and parking stalls. The space can also be closed off to vehicles, allowing for street vendors, food trucks, farmers market and other programmed activities to take place on the plaza. Arcades on the buildings fronting the plaza could provide a place for temporary stores and other 'pop up' shops to set up, creating an incubator space for small businesses. A new mixed use building is proposed on the south side of the plaza, helping to define the space while fulfilling the need for more high quality apartment type housing in Lexington. Neighborhood residents will provide a critical mass of people, helping to make the plaza a vibrant, active space.

Iexington

## Flex House Concept

A Flex House is a single-family housing typology that provides a manageable introduction to home ownership. At initial construction, the finished living area starts at only 900 square feet, but is expandable through a series of phases to include additional living space totaling over 2000 square feet. The first stage is a typical single family dwelling consisting of two bedrooms and one bathroom. An unfinished basement and attic with plumbing, electrical , and heating and air conditioning systems roughed in provides the opportunity for easy expansion into the basement and second story during stage two. This allows for the total square footage of the house to be more than doubled as homeowner needs increase and resources become available. The final stage allows for the addition of a two car garage and two additional bedrooms.

The Flex House concept addresses several housing needs in Lexington. First and foremost, it provides affordable, owner-occupied housing. Another benefit is that they can be built on a single infill lot to replace a single dilapidated home in a stable neighborhood, or several could act as a catalyst to revitalize a troubled area, providing a versatile option for the City of Lexington.


Lexington Infill Flex House


## Lexington Infill Flex House



Lexington Infill Flex House

Figure: 34: Flex House, Urban Design, Lexington

[URBAN DESIGN] Comprehensive Plan - Lexington, Nebraska

## Typical City Block Redevelopment Concept

The two block area directly north of City Hall provides a 'typical' opportunity for more dense family housing. Two options serve as prototypes that could be utilized throughout the community when the opportunity for redevelopment presents itself.

Block option 1 shows multifamily housing opportunities including a courtyard apartment and an apartment building fronting onto a public park. The community green space creates a public amenity, providing a place for neighborhood activity and resident interaction.

Over time, the properties within the area will redevelop to create more activity in the community, as well as give visitors a reason to make Lexington a destination along Interstate 80. The continued change and energy will not only encourage visitors to come back, but will also help Lexington develop a sense of place and community pride.

Block option 2 focuses on single family development, ranging from higher density townhomes to flex houses and cottages fronting a pocket park. This option allows the existing church on the northeast corner to remain an active element of the community. Flex homes are an appropriate typology for these blocks because they can replace houses individually, neither displacing current residents nor requiring a major redevelopment. This model allows for incremental growth as both family size and income allow. The central pocket park provides a great central gathering space for not only cottage residents, but for the entire surrounding neighborhood.

## Infill Development: Typical City Block Redevelopment Concept

## BLOCK OPTION 1

(1) Apartments fronting open space
(2) Courtyard Apartments

## BLOCK OPTION 2

(3) Flex Homes
(4) Cottages facing pocket park
(5)

Townhomes
(6) Existing Church


LOCATIONMAP
Figure: 35: Typical City Block Redevelopment Options, Lexington


## ACHIEVE

ACHIEVE

## PARK AND RECREATION PLAN

The Lexington Parks and Recreation portion of "The Lex-Plan 2013" will create a tool for the City for developing priorities regarding the improvement of existing facilities and the expansion of the overall parks system.

An estimated 100 acres of land in the City of Lexington are currently used for parks and recreational complexes. This acreage does not include school parks described herein but represents only 1.02 acres of park land per 100 people in the community currently. Based on the 2010 census population of 10,230 , the current park land is about 50 percent less than the planning standard of two acres per 100 people. The City maintains a wide range of park types from natural reserves to dedicated parks with
 playground equipment and ball fields, however, an increased effort to expand park and recreation land area needs to remain a continued focus during the next 20-30 year planning period.

Throughout the planning period of this Comprehensive Plan, the City of Lexington must develop additional park and recreation facilities in conjunction with population increases and, at the same time, upgrade existing facilities. Planning Standards indicate that the City will need to develop at least 100 more acres of park and recreational land by 2030. Such parks and recreational land should be linked to each other and the various public facilities in the community by linear trails.

During the discussions about an updated Lexington Comprehensive Plan, a desire was expressed to go into greater detail regarding the park and recreation system and the City's Parks and Trails Plan. This plan was developed under the direction of the Comprehensive Development Plan Steering Committee, with the assistance of a special focus group made up of local athletic and recreation organizations, as well as the ideas and comments that came out of the Town Hall meetings, a charrette process and other various focus groups.

Based upon public input, current conditions, notable deficiencies, and future growth projections of Lexington, a Park Service Area Map (Figure 45) and Trails Concept Map (Figure 52) have been created, along with a list of recommendations for each existing and proposed park and recreational facility.

## Existing Park and Facility Conditions

The City of Lexington manages eight park facilities, including the skate park and family aquatic center, which are located within two of the City parks. This section has a listing of the condition and capacity of all these facilities along with photos of the facilities. Table 38 lists the nationally accepted standard criteria for how the various types of parks and recreation facilities in Lexington were classified. In addition to the park facilities, the City maintains a trail system, currently in a relatively early stage of development.

| Classification | General Description | Location Criteria/ Service Area | Size Criteria |
| :---: | :---: | :---: | :---: |
| Mini-Park | Used to address limited, isolated or unique recreational needs. | Less than a $1 / 4$ mile distance in residential setting. | Between 2500 sq. ft. and one acre in size. |
| Neighborhood Park | Basic unit of the park system and serves as the recreational and social focus of the neighborhood. Focus is on informal active and passive recreation. | $1 / 4$ to $1 / 2$ mile distance and uninterrupted by non-residential roads and other physical barriers. | 5 acres is considered minimum size. 5 to 10 acres is optimal. |
| School-Park | Depending on circumstances, combining parks with school sites can fulfill the space requirements for other classes of parks, such as neighborhood, community, sports complex, and special use. | Determined by location of school district property. | Variable - depends on function. |
| Community Park | Serves broader purpose than neighborhood park. Focus is on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces. | Determined by the quality and suitability of the site. Usually serves two or more neighborhood and $1 / 2$ to 3 mile distance. | As needed to accommodate desired uses. Usually between 30 and 50 acres. |
| Large Urban Park | Serve a broader purpose than community parks and are used when community and neighborhood parks are not adequate to serve the needs of the community. Focus is on meeting community-based recreational needs, as well as preserving unique landscapes and open spaces. | Determined by the quality and suitability of the site. Usually serves the entire community. | As needed to accommodate desired uses. Usually a minimum of 50 acres, with 75 or more acres being optimal. |
| Natural Resource Areas | Lands set aside for preservation of significant natural resources, remnant landscapes, open space, and visual aesthetics/buffering. | Resource availability and opportunity. | Variable. |
| Greenways | Effectively tie park system components together to form a continuous park environment. | Resource availability and opportunity. | Variable. |
| Sports Complex | Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites strategically located throughout the community. | Strategically located communitywide facilities. | Determined by projected demand. Usually a minimum of 25 acres, with 40 to 80 acres being optimal. |
| Special Use | Covers a broad range of parks and recreation facilities oriented toward single-purpose use. | Variable - dependent on specific use. | Variable. |
| Private Park/ Recreation Facility | Parks and recreation facilities that are privately owned yet contribute to the public park and recreation system. | Variable - dependent on specific use. | Variable. |

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Source: JEO Consulting Group, Inc., 2013
Table: 39: Centennial Park, Lexington

## ACHIEVE

## Centennial Park



LEGEND
(1) Memorial
(2) Trail w/Benches

Figure: 36: Centennial Park, Lexington

## MINI PARKS

# texingtion 

| Park Component | Condition <br> Poor/Fair/Good |  | Capacity <br> Under/At/Over |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  | X | X |  | Turf dry (non-irrigated); Medium trees; well maintained; trees identified |
| Play Areas | X |  |  | X | Small green space for simple games |
| Sports Fields |  |  |  |  | None at location |
| Sports Courts |  |  |  |  | None at location |
| Walks/Trails |  |  |  |  | None at location |
| Play Equipment |  |  |  |  | None at location |
| Structures |  | X | X |  | Picnic shelter |
| Picnic Facilities | X |  | X |  | Picnic tables at park, does have trash cans |
| Drinking Water |  |  |  |  | None at location |
| Restrooms |  |  |  |  | None at location |
| Parking |  |  |  |  | On Street parking in commercial district, specific facilities are not needed |
| Lighting |  |  |  |  | No lights other than street lights |
| Benches |  | X | X |  | Bench in the park |
| Signage |  |  |  |  | No park sign but does have City welcome sign |

Source: JEO Consulting Group, Inc., 2013
Table: 40: Water Tower Park, Lexington

## Water Tower Park



## LEGEND

(1) Picnic Shelter

## "The Lex-Plan 2013 " NEIGHBORHOOD PARKS

Park System Analysis and Service Area
ARBOR PARK
Maple Street and Washington Street
4.0 acres

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capacity <br> Under/At/Over |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  | X |  |  | X |  | Turf dry, lots of large old growth trees |
| Play Areas |  |  | X |  | X |  | Open green space |
| Sports Fields |  |  |  |  |  |  | None at this location |
| Sports Courts |  |  | X |  | X |  | Basketball Court and skate park |
| Walks/Trails |  | X |  | X |  |  | Sidewalk runs the perimeter |
| Play Equipment |  | X |  |  | X |  | 1 Play structure, 2 swing sets, 2 climbing structures |
| Structures |  | X |  |  | X |  | 1 Picnic shelter |
| Picnic Facilities |  | X |  |  | X |  | Numerous Picnic tables, grills and trash cans |
| Drinking Water | X |  |  |  |  | X | Hydrant only |
| Restrooms |  | X |  |  |  | X | One portable toilet |
| Parking |  | X |  |  |  | X | Small off street parking in southeast corner of park |
| Lighting |  | X |  | X |  |  | Pole lights at skate park |
| Benches |  |  | X |  | X |  | At various locations around the park |
| Signage |  | X |  |  | X |  | Sign located in park |

Source: JEO Consulting Group, Inc., 2013
Table: 41: Arbor Park, Lexington

## Arbor Park



LEGEND
(1) Skate Park
(2) Basketball Court
(3) Parking
(4) swing Set
(5) Play Structure

ACHIEVE

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capac <br> Under/At/ |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  |  | X | X |  | Turf dry, mature trees planted near play structure and picnic areas |
| Play Areas |  |  | X | X |  | Large open greenspace |
| Sports Fields |  | X |  | X |  | 1 softball/baseball field (unlighted and no dugouts), 2 portable soccer goals |
| Sports Courts |  | X |  | X |  | 2 basketball courts |
| Walks/Trails |  | X |  | X |  | Sidewalk around park |
| Play Equipment |  |  | X | X |  | Large play structure, 2 swing sets, merry-go-around and jungle gym |
| Structures |  | X |  |  | X | 1 picnic shelter |
| Picnic Facilities |  | X |  | X |  | picnic tables, 1 grill and trash cans |
| Drinking Water | X |  |  |  | X | Hydrant only |
| Restrooms | X |  |  | X |  | 1 permanent restroom and 1 portable toilet |
| Parking |  | X |  | X |  | On-street parking only, does have bike rack |
| Lighting |  |  |  |  |  | None at location |
| Benches |  | X |  | X |  | Benches near play structure |
| Signage |  |  | X | X |  | Park sign on north side |

Source: JEO Consulting Group, Inc., 2013
Table: 42: Oak Park, Lexington

Oak Park


## LEGEND

(1) Restrooms
(2) Basketball Courts
(3) Play Structure
(4) Ballfield
(5) Picnic Shelter

## Park System Analysis and Service Area

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capacity <br> Under/At/Over |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  |  | X | X |  | Turf dry, mature trees throughout park |
| Play Areas |  |  | X | X |  | Large open green space |
| Sports Fields |  |  |  |  |  | None at location |
| Sports Courts |  | X |  | X |  | 1 basketball court |
| Walks/Trails |  |  |  |  |  | Perimeter sidewalk |
| Play Equipment |  | X |  | X |  | Large play structure, 2 swing sets |
| Structures |  | X |  | X |  | 1 picnic shelter |
| Picnic Facilities |  | X |  | X |  | Picnic tables, 2 grills, trash cans |
| Drinking Water | X |  |  |  | X | Hydrant only |
| Restrooms | X |  |  | X |  | 1 permanent restroom and 1 portable toilet |
| Parking |  |  |  |  |  | On-street parking |
| Lighting |  |  |  |  |  | None at location |
| Benches |  |  | X | X |  | Benches at edge of the play structure |
| Signage |  |  | X | X |  | Located in southeast corner |
| Miscellaneous |  |  | X | X |  | Memorial |

Source: JEO Consulting Group, Inc., 2013
Table: 43: Pioneer Park

Pioneer Park


LEGEND
(1) Restrooms
(2) Basketball Court
(3) Picnic Shelter



## LEGEND

(1) Lexington Aquatic Complex
(2) Sand Volleyball
(3) Play Equipment
(4) Picnic Shelter w/Restrooms
(5) Gazebo
(6) Small Pienic Shelter
(7) Maintenance
(8) Tennis Courts
(9) Picnic Shelter
(10) Concessions
(11) Bathouse
(12) Concession Stand and Restrooms


| Park Component | Condition <br> Poor/Fair/Good |  |  | Capacity <br> Under/At/Over |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  | X |  |  | X |  | Turf dry, lots of large old trees, some new trees |
| Play Areas |  | X |  |  | X |  | Several areas of open green space |
| Sports Fields | X |  |  |  | X |  | 1 lighted softball/baseball field without dugouts |
| Sports Courts |  | X |  |  | X |  | 6 lighted tennis courts (3 lighted), 1 sand volleyball in Aquatic Center compound |
| Walks/Trails | X |  |  | X |  |  | Gravel roadway, concrete walkways, perimeter sidewalks |
| Play Equipment |  | X |  |  | X |  | 1 play structure, 1 swing set |
| Structures |  |  | X |  | X |  | Maintenance building, picnic shelter with restrooms, concession stand with restrooms (Tennis Assoc. building), 1 smaller picnic shelter, 1 gazebo |
| Picnic Facilities |  |  | X |  | X |  | Picnic tables, trash cans, and 1 barbeque grill |
| Drinking Water | X |  |  |  |  |  | Hydrants only |
| Restrooms |  | X |  |  | X |  | 2 permanent restrooms, 3 portable toilets |
| Parking |  |  | X |  |  |  | 1 large off-street parking lot |
| Lighting |  | X |  |  | X |  | Lighted parking lot, the courts and the field |
| Benches |  |  | X |  | X |  | Throughout park |
| Signage |  | X |  |  | X |  | Sign in park on east side by driveway |
| Miscellaneous |  |  | X |  | X |  | Family Aquatic Center is located in the park, County museum and lake are adjacent to park |

[^1]Table: 44: Kirkpatrick Memorial Park, Lexington
KIRKPATRICK MEMORIAL PARK

## Plum Creek Park



LEGEND

| (1) Well House | (7) Play Structure |
| :--- | :--- |
| (2) Tennis Courts | (8) Picnic Shelter w/Restrooms |
| (3) Parking | (9) Horseshoe Pits |
| (4) Lake | (10) Small Picnic Shelter |
| (5) Basketball | (11) Ballfields |
| (6) Sand Volleyball | (12) Restrooms |

Figure: 42: Plum Creek Park, Lexington

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capacity <br> Under/At/Over |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) |  | X |  |  | x |  | Turf dry, lots of large old trees, some new trees |
| Play Areas |  | x |  |  | x |  | Several areas of open green space |
| Sports Fields | x |  |  |  | x |  | 1 lighted soffball/baseball field without dugouts |
| Sports Courts |  | X |  |  | X |  | 6 lighted tennis courts (3 lighted), 1 sand volleyball in Aquatic Center compound |
| Walks/Trails | x |  |  | x |  |  | Gravel roadway, concrete walkways, perimeter sidewalks |
| Play Equipment |  | x |  |  | x |  | 1 play structure, 1 swing set |
| Structures |  |  | X |  | x |  | Maintenance building, picnic shelter with restrooms, concession stand with restrooms (Tennis Assoc. building), 1 smaller picnic shelter, 1 gazebo |
| Picnic Facilities |  |  | x |  | x |  | Picnic tables, trash cans, and 1 barbeque grill |
| Drinking Water | x |  |  |  |  | X | Hydrants only |
| Restrooms |  | x |  |  | x |  | 2 permanent restrooms, 3 portable toilets |
| Parking |  |  | x |  |  | X | 1 large off-street parking lot |
| Lighting |  | x |  |  | x |  | Lighted parking lot, the courts and the field |
| Benches |  |  | x |  | x |  | Throughout park |
| Signage |  | x |  |  | x |  | Sign in park on east side by driveway |
| Miscellaneous |  |  | x |  | x |  | Family Aquatic Center is located in the park, County museum and lake are adjacent to park |



Source: JEO Consulting Group, Inc., 2013
Table: 45: Plum Creek Park, Lexington
PLUM CREEK PARK
13th Street and Adams Street 23 acres
ACHIEVE

## SCHOOL FACILITIES

## Lexing ofory

## Park System Analysis and Service Area

Elementary schools are considered neighborhood parks. The middle school and high school do not have playground equipment like the elementary schools but could be considered mini parks or sports complexes. For purposes of this plan the middle and high school will be given a condition and capacity report, however only the middle school park will be considered an existing minipark.


Bryan Elementary
11th Street and Harrison Street

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capac <br> Under/At | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation |  | X |  | X | Turf dry |
| (Trees, shrubs, turf) |  |  |  |  |  |
| Play Areas | X |  |  | X | Going through remodel |
| Sports Fields |  |  |  |  | None at this location |
| Sports Courts |  |  |  |  | No outdoor court |
| Walks/Trails |  |  |  |  | None at this location |
| Play Equipment |  |  | X | X | 1 large play structure |
| Structures |  |  |  |  | None at this location |
| Picnic Facilities |  |  |  |  | None at this location |
| Drinking Water |  |  |  |  | None at this location |
| Restrooms |  |  |  |  | None at this location |
| Parking |  |  | X | X | Paved parking lot |
| Lighting |  |  |  |  | None at this location |
| Benches |  |  |  |  | None at this location |
| Signage |  | X |  | X | School sign |

[^2][^3]
## Park System Analysis and Service Area



Source: JEO Consulting Group, Inc., 2013
Table: 47: Pershing Elementary Park, Lexington

PERSHING ELEMENTARY<br>1104 North Tyler Street

"The Lex-Plan 2013 "

## Morton Elementary <br> 506 Morton Street



Source: JEO Consulting Group, Inc., 2013
Table: 48: Morton Elementary Park, Lexington

| Park Component | Condition <br> Poor/Fair/Good |  |  | Capacity <br> Under/At/Over |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation |  | X |  | X |  | Turf dry |
| (Trees, shrubs, turf) |  |  |  |  |  |  |
| Play Areas |  | X |  | X |  | Large open green space |
| Sports Fields | X |  |  | X |  | 1 soccer field, 1 backstop in poor condition |
| Sports Courts |  | X |  | X |  | 2 basketball courts |
| Walks/Trails | X |  |  | X |  | Dirt track |
| Play Equipment |  |  | X | X |  | 2 play structures, tires and other playground equipment |
| Structures |  |  |  |  |  | None at this location |
| Picnic Facilities |  |  |  |  |  | None at this location |
| Drinking Water |  |  |  |  |  | None at this location |
| Restrooms |  |  |  |  |  | None at this location |
| Parking |  | X |  |  | X | Paved parking lot out front |
| Lighting |  |  |  |  |  | None at this location |
| Benches |  |  |  |  |  | None at this location |
| Signage |  | X |  | X |  | School sign |

Source: JEO Consulting Group, Inc., 2013
Table: 49: Sandoz Elementary Park, Lexington

| Park Component | Condition <br> Poor/Fair/Good |  | Capacity <br> Under/At/Over |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetation (Trees, shrubs, turf) | X |  | X |  | Turf dry, irrigated sports fields |
| Play Areas | X |  |  | X | None other than sports fields |
| Sports Fields |  | X | X |  | Track, 1 football field (lighted) |
| Sports Courts |  | X | X |  | 4 outside basketball courts |
| Walks/Trails |  |  |  |  | None at this location |
| Play Equipment |  |  |  |  | None at this location |
| Structures |  |  |  |  | None at this location |
| Picnic Facilities |  |  |  |  | None at this location |
| Drinking Water |  |  |  |  | None at this location |
| Restrooms |  |  |  |  | None at this location |
| Parking |  | X | X |  | Paved parking lot |
| Lighting |  | X | X |  | Field lighting and street lighting |
| Benches |  |  |  |  | None at this location |
| Signage |  | X | X |  | School sign |

Source: JEO Consulting Group, Inc., 2013
Table: 50: Lexington Middle School Facilities


Source: JEO Consulting Group, Inc., 2013
Table: 51: Lexington Senior High School Facilities

Park System Analysis and Service Area


Source: JEO Consulting Group, Inc., 2013
Table: 52: Aquatic Center, Lexington

Aquatic Center
10th Street and Monroe Street

Optimist Rec Complex


## LEGEND

Concessions and Restrooms
Competition SoccerSoccer/Football Fields
4) Parking
5) Indoor Hitting Facility
(6) Ballfields
(7) Maintenance Building

Figure: 43: Optimist Recreational Complex, Lexington



Source: JEO Consulting Group, Inc., 2013
Table: 53: Optimist Recreation Complex, Lexington
Optimist Recreation Complex
13th Street and Airport Road 35.9 acres

## TRAILS

There are a number of bicycle and pedestrian trails in and around the City of Lexington including sidewalks, on-road bicycle facilities and offroad paths. Existing on-street bicycle lanes connect to the north-south, off-road bicycle and pedestrian path just south of U.S. 30 and continue over the highway by means of a grade-separated pedestrian and bicycle path. Figure 44 shows existing on-road and off-road bicycle and pedestrian facilities in the City of Lexington. Additional information on trails in Lexington is found in the Transportation Plan.

ACHIEVE

## RECOMMENDATIONS

Recommendation for Lexington's park and recreation system are based upon a nummber of factors, including:

## National standards

## Recreational opportunities and plans

## Identified needs and desires of the City of Lexington

Community input has shown that Lexington residents who attended the focus group workshops and town hall meetings are somewhat satisfied with the amount and quality of the existing facilities, programs, and activities available, but there is room for improvement and expansion. Recommendations are provided for existing and proposed parks, and additional recreation opportunities such as improvements to the lakes, expanded trails, and adding an indoor recreational facility.

These recommendations may change over time, but will provide a basis for developing individual park master plans/layouts and developing the City's Parks Action Plan. Implementing such recommendations will improve and expand park and recreation facilities and activities for all residents of the City of Lexington and the surrounding area.

Figure 45: Park Service Area Map shows existing and proposed parks, along with the service areas for mini-parks, neighborhood parks, community parks, and urban/regional parks. Park locations are centralized inside the service areas. Locations of the proposed parks as shown on the maps are approximate. Parks are shown in the general area where the facilities may be located. These proposed locations may shift or be altered when the planning and development of subdivisions or roadways becomes more detailed. Likewise, the type of a park may change based upon changing situations.
"The Lex-Plan 2013"

ACHIEVE


| City of Lexington Dawson County, Nebraska | $\Delta_{N}$ |  |
| :---: | :---: | :---: |
| Park Service Area Map |  |  |

## Required and Optional Facilities, Amenities, and Services

When new development occurs and there is to be a park incorporated within the new development, this table will serve as a guide for the City as to what should be put in the park based on the type of park that is being built. These required and optional choices are displayed in the following table and are divided into three categories, including:

Park and Recreation Facilities, such as play structures and basketball courts
Park and Recreation Amentities, such as security lighting and drinking fountains
Park and Recreation Services, such as reservation requirements and maintence
Required and optional facilities, amenities, and services are to serve as a guide for the City of Lexington. It is the responsibility of the City to determine which facilities, amenities, and services are or are not feasible in existing and proposed parks. The required facilities are recommended for existing parks, but due to physical limitations and space constraints they may not be added. In proposed parks, future demand for certain facilities, amenities, and services and the recreational preferences of users may change over time. Therefore, these guidelines may change or be revised to respond to the future demand of Lexington residents. Each park will be looked at individually to determine the physical capacity of providing basic requirements and to determine needs and wants of residents served by that park. Each park is different and these differences will be considered when determining which facilities will be included in each park. The City shall strive to provide the basic requirements in all of its parks and careful consideration shall be given to each proposed park and trail through the City's approval of such facility.

Even though the list of facilities, amenities, and services is extensive, it is likely other items not listed will be requested to be included in the park and recreation system. Each new facility and service requested shall be analyzed according to public demand, site/location criteria, operating implications, and other relevant criteria.


Table: 54: Required and Optional Facilities and Services.

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## Park and Trail Recommendations


#### Abstract

Mini-Parks

It is the goal of Lexington to provide the required facilities and services where possible in existing and proposed parks. There are two small parks within Lexington's jurisdiction and the Lexington Middle School that are classified as mini-parks. Additional mini-parks are not recommended because many new single-family homes end up offering their own play equipment and facilities that act in a similar manner as mini-parks. The following recommendations pertain to the existing mini-park.


As general guidelines, mini-parks should strive to include the following:
a site between 2,500 square feet to one acre
a service area of a maximum $1 / 4$ mile radius
a site with a less than $4 \%$ slope
a site that takes advantage of vegetation and other natural resources of the area
a site that is located in residential areas

## Existing Mini-Parks

## Centennial Park

Maintain agreement with Railroad to allow park on right-of-way.

Develop park master plan/layout through public input.

Provide additional aesthetic and identification amenities where feasible.

Provide ADA accessibility and ADA facilities where feasible.

Connect park to adjacent commercial businesses and downtown with trails.

Provide basic requirements that are feasible and optional additions that are desired
(See Table 54).

## Water Tower Park

Develop park master plan/layout and/or planting plan through public input.

Provide additional aesthetic and identification amenities where feasible.

Provide ADA accessibility and ADA facilities where feasible.

Continue to provide basic requirements that are feasible and optional additions that are desired (See Table 54).


Park and Trail Recommendations

## Neighborhood Parks

It is the goal of the City of Lexington to provide the required facilities and services where possible in existing and proposed neighborhood parks. There are nine proposed neighborhood parks and these are to be built as they are needed due to the expansion of the City. Neighborhood parks should be the backbone for the City's park and recreation system comprising the vast majority of park space within the City.

## As general guidelines, neighborhood parks should strive to have the following:

a site of approximately five to ten acres
a service area with a maximum $1 / 2$ mile radius
not more than $50 \%$ of the site should have a slope greater than $4 \%$
a site that takes advantage of vegetation and other natural resources of the area
a site located in primarily residential areas

## Existing Neighborhood Parks

## Arbor Park

Develop park master plan/layout through public input.
Provide aesthetic and identification amenities.

Provide ADA accessibility and ADA facilities where feasible.

Connect park to adjacent commercial businesses and residential neighborhoods with trails. $\qquad$

Provide basic feasible requirements and desired optional additions (See Table 54).

## Pioneer Park

Develop park master plan/layout through public input.
Replace or make improvements to existing restrooms.
Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park to adjacent residential neighborhoods with trails.

Provide basic feasible requirements and desired optional additions (See Table 54).

## Oak Park

Develop park master plan/layout through public input.

Replace or make improvements to existing restrooms.

Provide aesthetic and identification amenities.

Provide ADA accessibility and ADA facilities where feasible.

Connect park to adjacent residential neighborhoods with trails.

Provide basic feasible requirements and desired optional additions (See Table 54).


Park and Trail Recommendations

## Neighborhood Parks

## Bryan Elementary School-Park

(See also School-Parks)
Develop joint use agreements between the school district and City that would establish rules and criteria.

Work with the school district to develop park master plan/layout with public input.

Provide aesthetic and identification amenities and rules of play.
Provide ADA accessibility and ADA facilities where feasible.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

Morton Elementary School-Park
(See also School-Parks)
Develop joint use agreements between the school district and City that would establish rules and criteria.

Work with the school district to develop park master plan/layout with public input.

Provide aesthetic and identification amenities and rules of play.
Provide ADA accessibility and ADA facilities where feasible.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## Park and Trail Recommendations

## Existing Neighborhood Parks

## Pershing Elementary School-Park

(See also School-Parks)
Develop joint use agreements between the school district and City that would establish rules and criteria.

Work with the school district to develop park master plan/layout with public input.

Provide aesthetic and identification amenities and rules of play.
Provide ADA accessibility and ADA facilities where feasible.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

Sandoz Elementary School-Park (See also School-Parks)

Develop joint use agreements between the school district and City that would establish rules and criteria for equipment and facilities on school grounds.

Work with the school district to develop park master plan/layout with public input.

Provide aesthetic and identification amenities and rules of play.
Provide ADA accessibility and ADA facilities where feasible.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## ACHIEVE

## PROPOSED NEIGHBORHOOD PARKS

To be located within Lexington's Corporate limits and Extraterritorial Jurisdiction
The following proposed Neighborhood
Parks will be labeled starting with N .
The fitting name for the first Neighborhood
Park is $\mathrm{N}-1$.

## N-1 (Sandoz Park)

Park to be located next to Sandoz Elementary School.
Approve proposed master plan shown in Figures 46 and 47 and includes the following amenities and changes:

Construct an outdoor classroom
Incorporate trails throughout park
Build a climbing hill
Establish areas of native grasses and trees for education, screening and windbreak purposes. Construct a gazebo for shade and shelter and locate benches

Develop a planting/tree plan for the park.
Provide additional aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

## Proposed

Connect park with adjacent residential development with trails.
[PARK SYSTEM ANALYSIS] Comprehensive Plan - Lexington, Nebraska

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).
ande


Figure: 46: Sandoz Park Proposed Master Plan, Lexington


Figure: 47: Sandoz Park Proposed Master Plan, Lexington

## N-2

## 

The following proposed neighborhood parks are labeled on the Park Service Area Map (See Figure 45).
|achievel

Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## N-3

Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

N-4
Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## N-5

Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

N-6
Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## N-7

Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## N-8

Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

N-9
Develop park master plan/layout through public input.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.

Connect park with adjacent residential development with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## Community Parks

As previously stated it is the goal of the City of Lexington to provide the required facilities and services where possible in existing and proposed parks. Plum Creek Park and Kirkpatrick Memorial Park are the only existing community parks and there is only one additional park of this size recommended at this time.

As general guidelines, community parks should strive to have the following:
a site of approximately 30 to 50 acres
a service area with a maximum 3 mile radius, typically a one to two mile radius
surrounding land uses are primarily residential
located adjacent to arterial or collector street(s)


## Kirkpatrick Memorial Park

Approve proposed master plan shown in Figures 48 and 49 and includes the following amenities and changes:

```
Increase the size of the main parking lot, locate a second parking lot off of East 7th Street, and
    provide for on-street parking.
Change loop road to a wide trail for walking and function deliveries and eliminate vehicular
access from street.
Eliminate east/west service road and access relocated maintenance facility through parking lot.
Locate large and small dog parks.
Provide access to the adjacent lake with pier and paddle boat dock amenities.
Locate a basketball court east of the large parking lot.
Remove the ball field.
Construct a climbing hill that will be large enough and accessible for a sledding hill.
Provide areas for native grass and plant interpretation or arboretum.
Provide area for a disc golf course (relocate from Plum Creek Park).
Construct trails throughout park to connect amenities.
Provide a play structure for children 2-5 years old and complement the existing play
equipment and those found at the neighboring elementary school.
Locate additional picnic shelters and more shade trees throughout park.
```

Develop a planting/tree plan for the park.
Provide additional aesthetic and identification amenities where feasible.

Provide ADA accessibility and ADA facilities where feasible.

Connect park to adjacent residential neighborhoods with trails.

Make improvements to tennis courts as needed.
Consider utilizing water reuse from pool to irrigate park ground and supplement water to lake.

Develop joint use agreements between the County Historical Society and City that would establish rules and criteria for the use of the lake.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).


Figure: 48: Kirkpatrick Memorial Park proposed Master Plan, Lexington


Kirkpatrick Memorial Park
Lexington, Nebraska

Project No. 090822.00

Figure: 49: Kirkpatrick Memorial Park proposed Master Plan Lexington
$\mid$ ACHIEVE $\mid$

## Plum Creek Park

Approve proposed master plan shown in Figures 50 and 51 and includes the following amenities and changes:

```
Eliminate horseshoe pits and RV parking.
Increase size of main parking area.
Remove disc golf (relocated to Kirkpatrick Memorial Park).
Increase size of play structure and include a separate structure for children 2-5
years of age with poured rubber for surfacing.
Make improvements to the lake, including bank stabilization, angler access pads,
opening two north areas up through use of a bridge or culvert, beach, and ADA
access. Also look at small dock for paddle boat use.
Locate an outdoor classroom on the island to be utilized by the school district
and residents.
Construct an interactive water feature in the park.
Remove the two ball fields and locate multi-play areas for baseball, softball,
soccer, football, and other activities or functions.
Locate an indoor multi-use recreational structure for activities and events.
Provide 10-foot trails throughout park that are marked.
Utilize existing buildings in park for maintenance structures where possible.
Locate on-street parking along Park Street.
Locate additional picnic shelters and more shade trees throughout park
```

Develop a planting/tree plan for the park.
Replace or make improvements to existing restrooms on west end of the park.

Provide additional aesthetic and identification amenities where feasible. Park identification signs should be located in the northeast and southwest corners of the park.

Provide ADA accessibility and ADA facilities where feasible.
Connect park to adjacent residential neighborhoods, commercial businesses and schools with trails.

Replace fencing on west tennis courts
Make improvements to restrooms.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

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Figure: 50: Plum Creek proposed Master Plan, Lexington
[PARK SYSTEM ANALYSIS] Comprehensive Plan - Lexington, Nebraska

## $\square$ <br> MASTER PLAN

Plum Creek Park

Figure: 51: Plum Creek proposed Master Plan, Lexington ACHIEVE

Develop park master plan/layout with public input and locate a community park northeast of Lexington in the floodplain area west to southwest of the cemetery to provide such park amenities to this area as it develops into single-family residential uses.

Work with the NRD to provide possible flood control in park.
Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.
Connect park to adjacent developments with trails.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## ACHIEVE

## Special Use Facilities

It is the goal of the City of Lexington to provide the required facilities and services where possible in existing facilities. There is one proposed special use facility, an indoor recreation center. The facility is shown on Figure 45 in a specific location however could be placed anywhere the City deems to be feasible.

## As general guidelines, special use facilities should strive to have the following:

size of the site is variable
a service area that is community-wide
surrounding land uses are variable

## Family Aquatic Center

Provide aesthetic and identification amenities.
Remove drop slide from lap pool and replace with diving board.
Provide ADA accessibility and ADA facilities where feasible.
Connect with adjacent residential neighborhoods and park amenities with trails.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## Indoor Multi-Purpose Facility

Proposed

Develop a plan/layout through public input for such facility.
Suggested amenities include athletic field with turf, walking track, fitness space and restrooms.

Provide aesthetic and identification amenities around the facility.
Provide ADA accessibility and ADA facilities where feasible.
Locate facility within Plum Creek Park to take advantage of infrastructure, central location, and relationship to high school.

Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## Large Urban/Regional Parks

The existing Sports Complex serves the community as the only regional park (See existing Sports Complexes). In striving to provide recreational opportunities to Lexington's entire jurisdiction, the City has an opportunity to develop a regional park with the existing sand pit lake southeast of Lexington once the sand and gravel operation has ceased. This location is shown in Figure 45.

As general guidelines, regional parks should strive to have the following:
a site of approximately 50 to $100+$ acres
a service area of the entire community and surrounding rural areas
surrounding land uses are primarily agricultural/open space
located adjacent to arterial or collector street(s)

## Proposed Large Urban/Regional Park

## R-1

Develop park master plan/layout with public input to transform the existing sand pit lake southeast of Lexington along the north side of Interstate 80 into a regional park.

Provide aesthetic and identification amenities.
Provide ADA accessibility and ADA facilities where feasible.
Connect park to adjacent developments with trails.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).
Proposed

ACHIEVE

The existing Sports Complex serves the community as the only regional park (See existing Sports Complexes). In striving to provide recreational opportunities to Lexington's entire jurisdiction, the City has an opportunity to develop a regional park with the existing sand pit lake southeast of Lexington once the sand and gravel operation has ceased. This location is shown in Figure 45.

```
As general guidelines, regional parks should strive to have the following:
a site of approximately 50 to \(100+\) acres
a service area of the entire community and surrounding rural areas
surrounding land uses are primarily agricultural/open space
```

located adjacent to arterial or collector street(s)

## Optimist Recreation Complex

Review and alter existing park master plan/layout with public input,
by expanding and making improvements.
Provide aesthetic and identification amenities.

Provide ADA accessibility and ADA facilities where feasible.
Connect park with adjacent residential development with trails.
Provide basic requirements that are feasible and optional additions that are desired (See Table 54).

## School-Parks

The guidelines for school-parks are listed in Table 54: Required and Optional Facilities and Services. For the proposed school-parks, it is the goal of the City to work with the school district to provide the required facilities and services where possible. Adjacent land to the proposed school sites may be required to supply required facilities and services to fulfill provisions of a neighborhood park without building an additional park. These needed provisions may include parking areas, play sets for toddlers, drinking fountains, and restrooms. The goal is not to duplicate facilities but make the recreational use of the land more efficient.

As general guidelines, school-parks should be constructed as neighborhood parks or in conjunction with neighborhood parks and should strive to have the following:
size of the site is variable (typically around five acres)
service area is variable (typically $1 / 2$ mile radius)
a site that takes advantage of the trees and other natural resources of the area
located primarily in residential zoned areas

Sites that include schools should be large enough to accommodate school needs and neighborhood park uses, where feasible. A committee of City personnel and representatives of the school district should be established to discuss joint use facilities, joint maintenance possibilities, and joint improvement possibilities to maximize community use of facilities. The committee should also establish a process whereby new schools that may fall under formal joint use agreements are planned and designed jointly by the school district and the City. Master plans for each school park should be developed through public input by such committee.

For Existing School-Parks (See Neighborhood Parks in Profile Section)

## Trails

Lexington shall consider linking its existing park and recreation areas with linear trails. Such trails should also connect to public facilities and residential developments throughout the community and within the two-mile extraterritorial jurisdiction. Connections by trails will provide safe pedestrian routes to schools, parks, public facilities, and shopping areas. As Lexington grows and expands its corporate limits, drainage ways and streams are recommended to be developed as both common areas and multi-purpose recreational trails. In addition, the City of Lexington should look at connecting to a regional trail system and connect the City to other communities, residential developments, and recreational developments such as Johnson Lake. Figure 52 identifies the Trails Concept Map for the City of Lexington. This map or plan illustrates both the existing and proposed trails and the connections made to existing public facilities and a possible regional trail. Although the map identifies a number of proposed trails there may be additional ones desired and their exact locations may vary depending upon developments, drainage improvements, etc.

As sidewalks need repairs or as streets and highways are improved, consideration shall be made to incorporate and construct the trails system as proposed on Lexington's Trail Map. In addition, as the City grows and subdivisions are platted, such developments shall incorporate trails that will benefit their development and connect to other community facilities as identified in the Trails Map. These trails can be a combination of concrete, asphalt, or crushed limestone, but shall be all ADA accessible and constructed to standards that allow for safe pedestrian and bicycle use.

Additional recommendations regarding trails (on-road and off-road facilities), sidewalks, and pedestrian ways are provided in the Transportation Plan.


Figure: 52: Trails Concept Map

## Green Streets

Green streets are streets designed to extend a park-like appearance through the community and serve to create an interconnected network of parks, recreation areas, schools, and other civic facilities. Green streets should be designed or redesigned when feasible to have one or more of the following elements:

## One or more rows of trees along both sides of the roadway (along City right-of-way or on private property)

One or more rows of trees down the center of the street/roadway located within islands.

Space for wide sidewalks or off-street trails on one or both sides of the roadway

No overhead utility wires that interfere with the growth of overstory trees

Green streets may include signage, benches, nodes, and landscaping. Existing street right-of-way widths would dictate specific design on a street-by-street basis. Figures 53, 54, and 55 show typical cross-sections of the three types of green streets. The hierarchy of green streets is neighborhood, secondary, and primary green streets. Neighborhood green streets are through streets within a neighborhood, secondary green streets are traffic collector routes, and primary green streets are major traffic arteries. Figure 55 shows an alternative crosssection with plant material in the center of the street.

All proposed street trees should have approval by City staff on species type and location regarding all existing and proposed infrastructure. Tree height near power lines and root systems near sewer and water lines shall be considered. All proposed green streets should be planned/designed accordingly with all existing or proposed utilities. With typical green street sections, the existing walk on both sides of the street should be widened to eight feet, extending it toward the street. If there is less than two feet remaining between the widened walk and the curb, it is recommended this strip also be paved, since an area less than two feet wide could likely not be maintained efficiently and effectively in grass or any other plant material. An additional fivefoot easement should be acquired from adjoining private property, if necessary, in which street trees should be planted. Trees should be located three feet from the edge of the walk, spaced at approximately forty-foot intervals. Allowances should be made for existing items in the R.O.W., such as driveways or fire hydrants. In summary, green streets that cannot follow the typical sections should include the following, starting from the street curb:


Figure: 53: Neighborhood Green Street Section (Typical)


Figure: 54: Secondary Green Street Section (Typical)


Figure: 55: Primary Green Street Section
Grass strip, if more than two feet between curb and walk (if less than two feet from street to walk, strip should be paved)

Eight-foot wide walk
Five-foot easement, in which street trees are planted three
feet from the walk

Implementation of designated green streets in Lexington would ensure that the tree-lined streets become part of the landscape throughout the City. It would also help create a pedestrian and bicycle movement network through the City that would link parks and public recreational areas together as a continuous, interconnected system. The City should consider implementation of such green streets where feasible.


PARK LAND DEDICATION/FEE

## New Development Dedication and/or Fee

As a way of assuring adequate land is available for new parks and facilities and that all existing and new recreational amenities are properly maintained, the City of Lexington should implement a policy for the dedication of land for such parks and facilities and a park fee in-lieu of such dedication.

When there is a new subdivision platted within Lexington's jurisdiction, the City shall require either a dedication of parkland (for parks, trails, open space, or other recreational facilities) and/or a park dedication fee. Such dedication policy should also be made part of the Lexington Subdivision Regulations. Logistics of the recreational facility type and its exact location should be determined through the pre-application meetings of the platting process. The parcel of ground to be dedicated or the amount of fee to be paid will be negotiated and written into the subdivision agreement. Master plans for such parks and facilities should be laid out at time of preliminary plat and approved at time of final platting and prior to execution/filing of final plat. Any required park development fees should be submitted to the City at the time of final platting and placed into the City's established park fund. Such funds should be used for the acquisition of land, development, and maintenance of Lexington's park system.

When deciding whether or not the developer should dedicate land, pay the fee, or both, the City and developer shall consult the Park Service Area Map and the Trails Concept Map within this Plan. If there is a future park, trail, open space, or other recreational facility located in whole or in part of the new subdivision, the City may require that the subdivider dedicate land for such improvements. Development and maintenance of each park, trail, etc. shall be determined in the individual subdivision agreements. Any land that is dedicated should be buildable land (non-floodplain or non-floodway designated ground or areas of less than $15 \%$ slope) and be of sufficient size for the type of park or recreational facility designated in this plan.

## New Development Dedication and/or Fee

Dedication of such parkland and fees described above may be determined by the size and type of subdivision development. Land dedication in subdivision developments should be as follows:

Residential developments shall dedicate $10 \%$ of buildable land.
Commercial developments shall dedicate $10 \%$ of buildable land.
Industrial developments shall dedicate $10 \%$ of buildable land.

As a minimum, developers should dedicate the maximum required parkland area for the type of park and/or recreational facility identified, unless negotiated to a smaller amount with the City Council through the platting process and subdivision agreement approval. The remaining acres of un-dedicated land falling within the required percentages listed above should be evaluated with a per acre park development fee set forth by the City of Lexington.

If the Parks and Trails Plan does not identify a proposed park or facility in the platted area and the subdivider is directed to provide the City with fee payment in lieu of parkland dedication, then such subdivider should pay a park development fee based upon a set multiplier determined by the City. Such fee should be based on gross total acres of development at time of platting and shall be paid prior to execution of the final plat.

Subdivisions of mixed use developments or planned unit developments should dedicate parkland or pay a park development fee based upon the amount individually zoned land. If land in the subdivision is utilized by multiple uses (residential, commercial, industrial) without different zoning, then the higher amount of parkland dedication or park development fee should be required for entire subdivision.

## Park Maintenance

The City should adopt a maintenance policy for each level of park and facility. A maintenance standards schedule could be developed that places each park and recreational facility into one of three levels for maintenance. Level 1 would be the most intense level of care, with Level 3 being the most natural and least maintenance intense areas. For example, mini-parks should be maintained higher than some greenways. The park department may not only create levels within the system but also may create levels of care with individual parks. For example, the park entry and sports fields may be Level 1 , the majority of the park may be Level 2, and the creek or wooded area may be Level 3. A maintenance policy and detailed scheduling may include the following areas of service within each park or recreational facility:

| - | Lawn care |
| :--- | :--- |
| - | Sports turf care |
| - | Litter control |
| - | Lighting |
| - | Hard/multi-purpose surfaces maintenance |
| - | Graffiti control |
| - | Repairs |
| - $\quad$ Inspections |  |
| - $\quad$ Tree and shrub care |  |
| - $\quad$ Native grass care and control |  |
| - $\quad$ Floral care (perennials and annuals) |  |
| - $\quad$ Restroom maintenance |  |
| - $\quad$ Ball field maintenance and preparation |  |

- Fence and gate construction and repairs
- Playground maintenance
- Trails
- Waterway management
- Drainage structures
- Pedestrian bridges
- Retaining walls
- Site amenities (picnic tables, goals, etc.)
- Picnic shelters (including reservations)
- Signage
- Unique/Special Features (historical, natural, etc.)
- Concessions

Policies should also be adopted to address signage and color schemes for parks and recreational facilities located within Lexington's jurisdiction. Signs are recommended to be of the same style and color for all Lexington parks so that they represent one park system. Suggested colors for park shelter, playground structure, benches, etc. should include greens, tans, browns, and maroon colors. Such colors are less obtrusive to the park environment. All park plans with proposed subdivisions shall be submitted for approval, including all proposed structures, materials, and colors.

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## EXISTING TRANSPORTATION PROFILE

## Existing Transportation Profile

## Overview

Lexington's current transportation system allows for a variety of modes and vehicular types, including automobiles, bicycles, air service, railroad and public transit. The following section offers a more detailed description of Lexington's existing transportation system.

## Primary Highways

There are currently four major highways in the study area. These four primary highways allow for higher traffic volumes and aim to increase mobility in and around the Lexington Area.

[^4]
## Major Intercity Routes

There are several major routes that permit traffic flow throughout Lexington by distributing traffic to smaller roads while also connecting to the larger roadways mentioned above (e.g. I-80).

There are five north-south routes and three east-west routes in the Lexington Area that are considered major intercity routes:


Adams Street: Adams Street is one of two primary links connecting north and south Lexington. Adams Street turns into NE-21 north of U.S. 30 and serves as a major passageway in and out of Lexington.

Jackson Street: Jackson Street is the second link which connects the north and south regions of Lexington. U.S. 283 turns into Jackson Street just north of U.S 30 and is a major distributer of I-80 traffic into the City of Lexington.

Taft Street: Taft Street runs along the eastern edge of Lexington's city limit and collects inbound traffic from U.S. 30 and distributes such traffic to smaller, local roads.

Erie Street: Erie Street collects traffic from U.S. 30 and allows access to local streets as well as access to the major east-west route, 13th Street, to move traffic throughout Lexington.

Airport Road, like Erie Street, collects traffic from U.S. 30 and allows access to local streets. While currently on the edge of the city, Airport Road is gaining relevance as residential and recreation amenities are expanding in the northwest.


Prospect Road. Prospect Road sits approximately halfway between I-80 and U.S. 30. It serves Adams Street which allows access across U.S. 30 into the center of Lexington.

Cattlemens Drive. Cattlemens Drive collects traffic from U.S. 283 (and subsequently I-80), and primarily serves Adams Street which, as previously mentioned, allows access to local roads in the northern and southern areas of Lexington.

13th Street. 13th Street serves as a major route for intercity traffic. It collects and distributes traffic to and from every major north-south route explained above, allowing traffic to move east-west throughout the study area. The airport, hospital, and several schools and parks abut 13th Street, or are within a block.

## Federal Functional Classifications

Functional classification is the process by which streets and highways are grouped into classes or systems, according to the character of service they are intended to provide. The brief explanations of the federal functional classifications and the corresponding map, Figure 56, which pertain to Lexington's current classifications:


Interstate (e.g. I-80): A divided, limited access facility with no direct land access and no at-grade crossings or intersections. Interstates are intended to provide the highest degree of mobility serving higher traffic volumes and longer trip lengths.

Other Principal Arterial (e.g., U.S. 30): Permit traffic flow through urban areas and between major destinations. Principal arterials carry a high proportion of the total urban travel, since movement and not necessarily access is the primary function.

Minor Arterial (e.g., Adams Street, Cattlemens Drive): Collect and distribute traffic from principal arterials and interstates to streets of lower classification, and, in some cases, allow traffic to directly access destinations. Access to land use activities is generally permitted, but is oftentimes consolidated, shared, or limited to larger-scale users.

Major Collector (e.g., 6th Street, Washington Street): Provide for land access and traffic circulation within and between residential neighborhoods and commercial and industry areas, as well as distribute traffic movements from these areas to arterial streets. Collectors do not typically accommodate long through trips and are not continuous for long distances.

Local Road: Offer the lowest level of mobility and highest level of local property access. Local streets typically make up the largest percentage of street mileage and provide direct access to adjacent land uses.

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## Traffic Volumes

Average daily traffic (ADT) volumes in the study area collected for existing conditions in 2009 by the Nebraska Department of Roads are shown in Figure 57.


## Major Bridges

There are two major bridges in the Lexington Area, both of which are used to cross over U.S. 30 as well as the Union Pacific Railroad tracks.

The easternmost bridge in Lexington is served by Jackson Street on the north, and U.S. 283 on the south, allowing direct access to and from I-80.

The bridge on the western side of Lexington is located on Adams Street, an arterial road, which turns into NE-21 just north of the bridge.


Figure: 58: Adams Street Viaduct, Lexington

Bicycle and Pedestrian Facilities

There are a number of bicycle and pedestrian facilities in and around the Lexington Area including sidewalks, on-road bicycle facilities and off-road paths.

Figure 59 shows existing on-road and offroad facilities in the Lexington Area

On-Road Facilities. On-Road facilities, such as paved shoulders or bicycle lanes exist in certain areas of Lexington in order to provide connectivity to off-road facilities. Altogether there is about one mile of on-road facilities.

[TRANSPORTATION SYSTEM PLAN] Comprehensive Plan - Lexington, Nebraska

## Bicycle and Pedestrian Facilities



Off-Road Facilities. Off-road facilities in Lexington are mostly comprised of shared-use paths for pedestrian and bicycle usage. Currently there are just under three miles of off-road paths in the area, most of which are adjacent to arterial roads. There are two main segments of off-road facilities. The longer of the two runs north-south, starting a quarter mile north of I-80, and stops just south of U.S. 30 . The second segment, which is approximately one mile in length, runs east-west (adjacent to 13th street) from Airport Road to Plum Creek Park.

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## "The Lex-Plan 2013" |ACHIEVE

## Air Service

## Railroad

## Public Transit

The Lexington Area is currently served by Jim Kelly Field for air-related transportation services. Jim Kelly Field is located at 13th Street and Airport Road and is directly accessible from U.S. 30. Most air-travel to and from Jim Kelly field occurs seasonally from June to August and remains within a 40 mile radius of the Lexington Area.

There are two existing runways at Jim Kelly Field. The larger runway, with dimensions of 5,497 feet long by 100 feet wide, is paved with concrete and is currently in excellent condition. The second runway is 3,200 feet long by 250 feet wide and remains unpaved. Because of limited space, these two runways do not provide room for any future improvements. However, there is space for a third runway $\left(4,600^{\circ} \times 75^{\circ}\right)$, in which future plans indicate construction within the next 20 years. cate construction within the next 20 years.
Source: Lexington, Nebraska Airport Layout

The study area is currently served by a single, major railroad, Union Pacific. The railroad tracks run east-west, adjacent to U.S. 30, bisecting Lexington into two sections, north and south. Currently, more than 100 freight trains run through Lexington daily.

There are two at-grade crossings anchoring the east and west borders of the study area. The at-grade crossing to the east is on County Road 435. The at-grade crossing to the west is on Airport Road. Both crossings allow northsouth access across the railroad tracks for vehicular traffic.

Lexington and surrounding areas are currently served by one public transportation company, The Dawson County Handi Bus (DCHB). The DCHB provides full-day service in Lexington on Monday and Friday, as well as morning service each Wednesday. Service is also provided one day a week in surrounding areas for inbound Lexington traffic from Eddyville, Sumner and Overton.

Currently, negotiations are underway between DCHB and Reach Your Designation Easily (RYDE). The Kearney-based transportation company may assume the responsibilities of Dawson County's services. If this happens, the schedules, services, and designations may change. Currently RYDE serves Buffalo County and their current schedules and designations are listed on their website
http://www.mnca.net/ryde.html.

## Future Transportation Plan

## Future Travel Changes

Demands on the future transportation system are forecast based on the future development patterns identified in the Comprehensive Plan's land use planning elements. Transportation systems not only move people and goods, but they also shape the natural and built environment, guide how communities develop, and influence quality of life. The planning process recognizes that transportation and land use development influence one another. The type, location and intensity of land development directly influences travel across a study area. Conversely, the type, location, and level of transportation system access and mobility impacts land use development patterns. Thus, the transportation element of this plan is intrinsically connected to the land development portions of the Lexington Comprehensive Plan.


## The Lexington Travel Model

As a part of the Lexington Comprehensive Plan and Transportation Plan, the Lexington travel demand model has been updated. The travel demand model is a tool that is used to evaluate how people travel. The model, a computer application, estimates travel based on two main sets of input data:

## 1) Lexington land uses, specifically where people in live, work, go to school and shop. <br> 2) Lexington transportation infrastructure, specifically the street system.

The model is a set of parameters and equations that are adjusted to capture the relationships between these two input data sets in Lexington. When applied, the model evaluates the interaction of the provided land use and street system information. The model can be used to predict answers to these questions:

How does travel change under different land use scenarios? For instance, we have tested the future Lexington Comprehensive Plan land development scenario and forecast how traffic volumes change across the community.

How does travel change when different improvements or adjustments are made to
the roadway network? An example would be evaluating how traffic volumes change if a new street is added, or if an existing, congested street is widened.

Automobile travel is the primary mode of travel in Lexington. The travel demand model was set up to estimate motor vehicle travel on the roadway network. The model does not estimate bicycle, pedestrian or transit usage.

Applying the model to estimate future travel first requires that the model is validated to current, observed travel conditions. Model validation was completed by adjusting the model parameters so that it provided travel estimates that reasonably reflected observed traffic levels/patterns.

## Future Travel Patterns

The Lexington Travel Model was applied using the 2035 land development scenario from the Comprehensive Plan, in combination with the "existing-plus-committed" ( $\mathrm{E}+\mathrm{C}$ ) Lexington roadway network. The 2035 E+C roadway network assumes the current street / roadway system is not improved beyond those projects programmed in the current One \& Six Year Street Improvement Plan. The Street Improvement Plan is documented in the "Future Street and Roadway System" section of this Chapter.

The amount of growth anticipated for the Lexington Area by 2035 is:

$$
\text { An increase of 1,590 households or 40\% increase between } 2010 \text { and } 2035 .
$$

An increase of $\mathbf{1 , 7 5 8}$ jobs or $\mathbf{2 6 . 1} \%$ increase between 2010 and 2035.

The anticipated changes in households and employment between 2010 and 2035 are shown in Figures 60 and 61. The new housing and employment growth is illustrated by Traffic Analysis Zone (TAZ) boundaries, the basic geography unit of the travel demand model.

Figure 62 documents the existing and forecast 2035 E+C network trip volumes for Lexington. The 2035 traffic forecasts were developed by the travel model, based on the 2035 household and employment levels documented above and the E+C roadway network. For the Lexington area as a whole, the following travel changes are forecast:

- Trip Growth: The number daily number of trips that are made across the Lexington area (called "trip generation") is projected to increase by $36 \%$ between 2010 and 2035 .
- Vehicle-Miles Traveled (VMT) Growth: VMT is the total length of all trips made in Lexington, and is a simple calculation of the number of area trips multiplied by their trip length. VMT is projected to increase by $41 \%$ between 2010 and 2035. This increase in VMT is related to the average trip length





Dawson County, Nebraska



## Future Transportation System

Future Street System

## "The Lex-Plan 20113"

## Roadway System Issues

There are limited traffic operations issues in Lexington, from the perspective of excessive travel delays or congestion. There are, however, opportunities to improve connectivity or address stakeholder-identified transportation deficiencies through the transportation plan. Those issues raised by Stakeholders for the roadway system include:

## Identification of a truck route for regional trucking traffic into / through Lexington.

Truck routes should be identified for both the existing and future system. The near-term truck route should be an appropriate route based on the existing street and roadway system. A future long-term truck route should also be identified, to take advantage of planned improvements to the Lexington street network.

## Grade-Separated Crossings of the Union Pacific Mainline Railroad Tracks.

Lexington has grown on both sides of the UP mainline tracks. There are approximately 20,000 daily motor vehicle trips that cross the railroad in the study area. The main crossings through the heart of Lexington are grade separated structures over the tracks. A third roadway-rail grade separation, a County Road 435 bridge over the railroad tracks, is included in the current City of Lexington street improvement plan and is expected to be constructed in the next few years.

## Implementation of a Coordinated Wayfinding Signage System.

There was interest from stakeholders in providing a coordinated wayfinding system providing signage for the major civic uses and visitor attractions in the Lexington area.

## Traffic Safety on Streets around Schools.

Stakeholders have identified issues with traffic safety and signage on streets around schools. Safe Routes to School (SRTS) has been a traditional funding source to improve safety for children walking / biking to school, with $\$ 1$ million in annual funding for SRTS projects and programs in Nebraska. In 2007, Lexington implemented a SRTS program called the Street and Bicycle Safety Program that provided student and parent education and training of volunteer crossing guards around the four elementary schools. The program was run by the Lexington Community Fitness Initiative (CFI). The future of SRTS program in Nebraska is undecided under the recent MAP-21 Federal Transportation funding legislation. Under MAP-21, funding for SRTS eligible programs have been merged into a flexible funding program called "Transportation Alternatives". SRTS projects will compete against other projects for funding. Thus, although possible, funding sources for safety improvements around schools are slightly more unceratin.

## Downtown Brick Streets.

Lexington has several historical brick streets in the downtown area. Public opinion is mixed on the streets, with some motorists complaining about the uneven and noisy surface. Other stakeholders have pointed out that the brick streets provide effective traffic calming, forcing vehicles to drive at a slower speed improving vehicular and pedestrian safety, while adding character to the downtown area.

## lexington

## Lexington Street Improvement Plan

The City of Lexington maintains a One \& Six Year Street Improvement Plan that is updated on an annual basis. The Street Improvement Plan represents the programmed street and trail projects that have identified funding sources and are anticipated to be constructed / implemented; the list is broken down into a 1 -year list and a 6-year list. The draft 2013-2018 Lexington Street Improvement Plan includes several projects that maintain, reconstruct, or add new infrastructure to the street and roadway system.

The proposed projects programmed in the one-year plan include:

## Paving improvements to the following street segments:

Heartland Road from Frontier Road to Heartland Drive. Jackson Street from 8th Street to 13th Street.
Airport Road north of the corporate limits. Jeffery Road south of Prospect Road.

## Reconstruction of all or part of the following street segments:

6th Street and Jackson Street reconstructions, including new center left turn lanes and will allow for future 6th/Jackson traffic signal.

13th Street from Adams Street to Park St (includes Lighting Improvements). Grant Street from 7th Street to 8th Street to improve sight distance and storm sewer.

## New infrastructure projects include:

The grade separation of County Road 435, including a new bridge over the UP Railroad and US Highway 30. This project is listed in two phases; it is currently undergoing design and environmental documentation.

## Lexington Street Improvement Plan

The proposed projects programmed in the six-year plan include:

## Paving improvements to the following street segments:

Walnut Street near US Highway 283 to $1 / 2$ mile east.
Ontario Street from 9th Street to 10th Street.
6th Street from Lincoln Street to Taylor Street.
South Adams Street from Prospect Street to Frontier Street.
CED Addition residential street paving (includes sewer improvements)

## Reconstruction of all or part of the following street segments:

Taft Street from 6th Street to 13th Street.
Taylor Street storm sewers from US Highway 30 to 8th Street.
20th Street and Polk Street, including new lighting.
Monroe Street from 10th Street to 13th Street.

## New infrastructure projects include:

The extension of 18 th Street from Adams Street to Lake Street.
The extension of Frontier Road from Adams Street to Wal-Mart Development.
The extension of 20th Street from Erie Street to Airport Road.
The extension of Independence Street from north of 15th Street to 20th Street.

## Other projects, including:

Bridge replacement over city drainage ditch $1 / 2$ mile east of US Highway 30 and Taft Street.
Miscellaneous ADA Sidewalk Improvements.
Adams Street Lighting and Box Culvert Improvements.
Erie Street lighting improvements, US Highway 30 to 13th Street.
Miscellaneous Street Panel Replacement Projects.
Various Trail Paving Projects from Trail Master Plan.

## ACHIEVE

## Improved Wayfinding Opportunities

Stakeholders have identified the desire for an improved wayfinding signage system to direct travelers to civic and tourist destinations in Lexington. While the Transportation Plan is too broad in scope to provide a detailed Wayfinding Plan for Lexington, it does provide an opportunity to lay out a scope and planning process for a Lexington Wayfinding Plan. The various elements to the Wayfinding Plan approach could include:

Develop a wayfinding vision, including establishing the goals of the wayfinding system. In general, the wayfinding plan should provide:

A coordinated and comprehensive signage system.
Directions to key destinations from major gateways to Lexington.
Limited signage to key locations, to reinforce the importance of each sign.

Establish and define the destinations that the wayfinding system needs to support. Surveys, interviews with stakeholders, or other methods might be used as the means of establishing the destinations to include in the wayfinding system.

Organize the destinations into a hierarchy or groupings, with different signage classes for each grouping of destinations.

Work with stakeholders to develop a signage typology for Lexington. These varying sign types will relate back to the wayfinding goals, and will include the different functional groupings of signs. An example of a sign typology system is provided in Figure 63.

Document the current Lexington directional signage inventory. This establishes the current directional sign conditions in Lexington, providing a baseline for the types of signage additions / changes that need to be implemented.

Develop a consistent sign branding approach that meets the Lexington wayfinding vision. This includes identifying the appropriate signage graphics, lettering fonts, and directional symbology.

## Develop a Wayfinding Implementation Policy that covers:

> Sign placement location guidelines.
> Regulation of the types of destinations eligible for signage.
> Identification of program funding.
> Jurisdictional requirements for signage on City, County, State facilities.

Hold a system design workshop, where stakeholders identify the primary gateways into Lexington, and the likely routes by which travelers will access the various destinations. This task will lay the framework for potential signage locations and identify the implementation corridors.

Develop a detailed implementation plan for the wayfinding system. The wayfinding system will include the appropriate locations for sign placement by identifying:

Consistency of existing wayfinding signage. Make recommendations for removal, modification or maintenance of current signage.

Sign placement by corridor. Many variables will affect sign placement, including the presence of other regulatory signs, the presence of obstructions such as trees, street furniture, utilities, etc., and travel speeds in the corridor.

Cost estimates by element.
Funding plan to support implementation.

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## Source: City of Alexandria, VA Wayfinding Program Design Guidelines

Figure: 63: Wayfinding Examples
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## Future Freight System

The efficient movement of freight is an essential component of the Lexington transportation system, as the movement of goods within and through the study area affects several key industries, including manufacturing, retail, and agriculture. The Lexington Transportation Plan addresses Freight by identifying the critical elements of the transportation system that support freight movement, and minimize conflicts between freight movement, quality of life, and other modal systems.

## Truck Routes

Lexington stakeholders have identified the need for through truck routes in the city. To be effective, truck routes need to be continuous, direct, and have sufficient pavement and geometrics designed to meet truck travel requirements. Figure 65 identifies the draft truck route plan for Lexington, which provides direct through travel for traffic on US Highway 30 and US Highway 283. As noted in Figure 65, the truck routes are broken into two phases:

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long -term

## Short-term routes:

These are routes that can support truck traffic through Lexington with the current street and roadway system.

## Long-term routes:

These are routes that include planned, currently incomplete street and roadway corridors that could support truck travel oriented away from the core of Lexington. One key street and roadway network improvement that is required for the long-term route on the east side of Lexington to be implemented is the County Road 435 Bridge over the UP railroad tracks.


Conflicts and train noise related to the street-rail crossings have been identified as an issue by stakeholders. Lexington lies along one of the busiest segments of the Union Pacific (UP) Railroad mainline. This part of the UP carries more than 135 trains a day and is part of one of the longest sections of triple track in the United States. A focus area of the Transportation Plan relative to freight rail is the rail crossings. At grade rail crossings are of particular concern, as these are locations where there is the potential for conflicts between vehicle/pedestrian/bicyclist and train activities. Additionally, noise from train horns affects some residents of Lexington area, as trains must sound their horn when approaching a public road crossing of the rail tracks. Figure 66 illustrates the current at-grade and grade separated rail crossings of the UP mainline in the Lexington area.

Lexington has significantly reduced the number of at-grade rail crossing through the city over the years and currently has very few at-grade crossings of the UP Mainline through the core of the city. Arterial corridors that provide grade-separated bridges over the Union Pacific mainline are:

## Adams Street Bridge.

The Plum Creek Parkway / Jackson Street Bridge.
The Madison Street pedestrian bridge also provides a key non-motorized grade-separated crossing of the UP tracks.

The County Road 435 is currently an at-grade crossing of the UP tracks, but a grade separation is programmed near term improvement in City's Street Improvement Plan.

The remaining at-grade crossings of the Union Pacific mainline in the study area include:

County Road 429.
County Road 430.
County Road 431.
Airport Road.
County Road 436.
County Road 437.

## Railroad Crossings

Trains are required to sound their horns within 15 to 20 seconds of crossing a public roadway at-grade, but never more than $1 / 4$ mile away from the at-grade crossing. While this leaves over two miles of rail tracks through the heart of Lexington where train horns do not directly sound, train horns are currently required $t$ o sound as they approach crossings on the edges of Lexington. Noise from train horns was an issue identified by Lexington stakeholders.

Automated wayside horns can be a substitute for the locomotive horn at crossings equipped with flashing lights and gates. The automated horns are beneficial because they are acoustically targeted at the crossings to give the proper warning to approaching vehicles and pedestrians, but produce less ambient noise for adjacent neighborhoods.

Quiet Zones are railroad segments where trains are not required to sound the horn at railroad crossings. Quiet Zones are granted in locations where rail crossing(s) meet a certain level of safety. There are several requirements to qualify for a quiet zone, including that each crossing must have at least one Supplementary Safety Measures (SSMs). Potential SSMs that a community can consider include :

## Temporary (Time of Day) or Permanent Closure of a Public Highway-Rail Grade Crossing.

Four-Quadrant Gate System.
Gates with Roadway Medians or Channelization Devices.
One Way Street with Gate(s).

A detailed assessment of safety risk is required to qualify for a quiet zone. For a crossing or series of crossings to qualify, it must be demonstrated that the crossing, without a train horn sounding, has a lower crash risk than the national average. The types of crossings currently in place in Lexington are illustrated in Figure 66.
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## FUTURE TRANSIT SYSTEM

## Transit Issues

The Lexington area demand-response (also known as "dial-a-ride") transit service, the Dawson County Handi Bus, serves the Lexington area the following times each week:

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Monday: 8:30 AM and 4:00 PM.
Wednesday: 8:30 AM and 1:30 PM.
Friday: 8:30 AM and 4:00 PM.
```

In addition to these hours of community operation on Mondays, Wednesdays, and Fridays, Handi Bus provides lunch rides to/from Grand Generation Center between 11:00 AM and 1:30 PM on Tuesdays and Thursdays. The other weekday time slots are used in other towns around Dawson County. No communities receive Saturday, Sunday, or evening service. The fare for most trips is $\$ 1$, and trips are only made in and around the City limits.

Handi Bus operates two (2) minibuses with a capacity of 14 , two (2) of those seats configured for handicap accessibility. Ridership for the entire County system is currently approximately 1,500 boardings per month, with an estimated half of those trips (750) provided in and around Lexington. Handi Bus is available to all community members, but the majority of Handi Bus trips are provided to disabled and senior riders. Another large portion of the trips in the Lexington area are work trips to the Tyson plant.

The main issue raised regarding demand-response service in Lexington is that it is only offered certain days of the week.
Currently, negotiations are underway between DCHB and Reach Your Designation Easily (RYDE). The Kearney-based transportation company may assume the responsibilities of Dawson County's services. If this happens, the schedules, services, and designations may change. This can be a great opportunity to expand services to residents. Currently RYDE serves Buffalo County and their current schedules and designations are listed on their website. http://www.mnca.net/ryde.html.

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 Existing On-Street Bike Route
Lexington Parks and Schools
Legend
Trails


## $\mid$ ACHIEVE $\mid$ in $\quad 0$ t 0 ,

## Future Transit Options

The current transit service-type, demand-response transit, is likely appropriate for Lexington for the foreseeable future. However, in discussions with the current transit provider, it is believed that there is demand for additional service hours in Lexington. Handi Bus is limited in that a county-wide service with only two vehicles controls the level of service that they can offer. If additional vehicle capacity were available in the future, the expansion of Lexington demand-response service should be explored. The first potential step would be to evaluate the expansion of the hours of operation on Wednesdays, and consider offering Tuesday and Thursday service to the Lexington area.

## Future Complete Bicycle and Pedestrian Network

Too often in the past, many communities have considered mobility solely from the perspective of vehicular traffic, and how to increase speed and decrease travel time via automobile. This one-sided approach to mobility planning has historically pushed pedestrian and non-vehicular mobility to locations outside of the street environment, in turn limiting the viability of bicycle travel as a practical travel option within the community.

In discussions with Lexington public and stakeholders, a primary transportation system objective was to provide bicycle and pedestrian system connections between some key uses in the city, including trails, parks, schools, and civic institutions. The current trail and bicycle system is shown in Figure 67. Sidewalks are an essential part of the Lexington transportation system, because regardless of travel mode (car, bike, transit, walking) at some point during every trip we are a pedestrian. This need is supported by the extensive sidewalk system that connects most neighborhoods across Lexington.

In addition to the stakeholder-identified need for a more comprehensive bike and pedestrian system, specific issues identified by stakeholders include:

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Enhancing existing bike paths / trails by adding trees and benches.
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Adding bike racks downtown to provide amenities that encourage biking around town.

It is recognized that weather limits the year-round attractiveness of bicycle and pedestrian travel for some community members; rain, snow, and ice covered streets and trails will dissuade many commuters from walking or biking to destinations. However, offering a wide range of non-motorized travel options provides Lexington one means to enhance the quality of life and travel options for its citizens. A "complete streets" approach to the Lexington multimodal network provides an integrated, connected network with access for all modes of travel on the current and planned Lexington street and roadway system. This balanced approach acknowledges that corridors provide bicycle, pedestrian and transit accessibility to different levels; some roadways will continue to emphasize vehicular travel while others will provide on-street bicycle facilities, and accommodate safe pedestrian travel and crossings. The key is to provide a safe and connected network for all modes of travel.

To enhance the existing bike trail and robust sidewalk network, there are several tools available to the Lexington community as it plans for a complete bicycle network. This section describes the various options available to Lexington as different tools and strategies are considered to address the bike and pedestrian connectivity needs of the community.

## 

## Available Bicycle / Pedestrian Tools

There are several strategies that can be used to improve the bicycle and pedestrian network in Lexington. In general, these strategies can be placed into one of two categories:

Off-street strategies, such as shared-use paths (trails).
On-street strategies, as part of a shared lane, dedicated bicycle lane or paved shoulders.

## Off-Street Strategies

Off-street, shared-use paths (or trails as they are often called) are pedestrian and bikeways that are physically separated from motorized vehicle traffic by an open space, boulevard, or a barrier. Vehicular traffic cannot travel along shared use paths. Shared use paths provide a dedicated segment for recreation and travel for walkers, runners, bicyclists, skaters and other non-motorized users. Lexington has a shared use path that runs for approximately 1.5 miles along Plum Creek Parkway.

Often in an urban setting like Lexington, shared-use paths are provided adjacent to existing roadways within the public right-of-way. Shared-use paths can also be within their own exclusive right-of-way, where available. There are some limitations to implementing offstreet paths adjacent to roadways in an urban setting.

Right-of-way limitations: Shared-use paths are generally 10 to 14 feet wide. Add in the separation required between the street and path, and this often exceeds the available public right-of-way adjacent to streets.

Bicyclist safety: Shared-use paths adjacent to roadways with cross-streets and driveways increase the level of bicycle-vehicle conflicts, leading to increased safety concerns. Vehicles turning from / to cross-streets often do not notice or expect bicycle traffic on the sidepath, as they are often looking at the street for vehicular conflicts (not looking at the sidepath). There are multiple other safety concerns with sidepath bicycle travel that increase the average crash rates for bicycle travel on sidepaths compared to on-street travel.

Due to these limitations, it would be nearly impossible to provide a sufficiently comprehensive and connected travel network for the city entirely with shared use paths. In corridors where dedicated off-street path right-of-way cannot be provided, it is beneficial to consider supplementing off-street paths with a robust on-street bicycle network.

## Available Bicycle / Pedestrian Tools

## On-Street Bicycle Strategies

The majority of the community destinations which stakeholders wish to connect via bicycle and pedestrian facilities are located within already developed parts of Lexington. All of these key uses are adjacent to the street network. Streets and public right-of-ways account for approximately 30 percent of the land used in Lexington. Thus, the street network is an extensive, untapped resource that can provide enhanced bicycle and pedestrian connectivity across the community.

Bicycling is allowed and occurs on all types of streets and roadways, even if there are no special treatments to accommodate such as lanes, signage, striping, or designations to support bicycling. In many cases, streets in good repair can have limited conflicts for bicyclists and can provide a good bicycling environment without any bike-supportive facilities. In other cases, providing the needed bicycle facilities may make sense for the community. Thus, the appropriate type of on-street bicycle application can vary from corridor to corridor. The types of bicycle applications that can be used on-street include dedicated bicycle lanes and shared facilities, such as shared lanes, wide outside lanes, or wide paved shoulders.

## Bicycle Lanes

Bicycle lanes, commonly known as bike lanes, are a portion of a roadway cross-section that has been designated for bicycle use by striping, signing and pavement markings. They are one-way facilities that typically carry bicycle travel in the same direction as the adjacent vehicular travel lane.

Dedicated bike lanes are an appropriate consideration when preferential or exclusive bicycle right-of-way is required. Along many collector and arterial streets, conflicts arise between bicyclists and motor vehicles, whether they be traveling or parked. In these cases, it is often beneficial to provide bike lanes to facilitate safe bicycle travel. By placing bicyclists in dedicated parts of the roadway cross-section, bike lanes provide bicyclists a more visible position to motorists that are entering and leaving the roadway.

## On-Street Bicycle Strategies

Bicycle Lanes (con't)
The general characteristics of bike lanes are noted below:
Bike lane widths should generally be a minimum 4'-5' of dedicated width , depending on the presence of curb and gutter.

Bike lanes should be a wider 6 to 7 feet adjacent to a narrow parking lane to provide bikes more space outside of the "door zone" where parked vehicles doors may open.

In high-activity bike areas, wider bike lanes of 6 to 8 feet allow bikes of varying speeds to pass one another.

Along higher-speed and high-volume roadways, wider lanes also provide more lateral clearance for bicyclists.

Bike lanes are located to the right of vehicular travel lanes. If on-street parking is present, bike lanes are typically located between the travel lanes and the on-street parking area.

Bike lanes should not include raised pavement markings, rumble strips or rough utility covers for bicycle safety reasons.

Bike lanes are typically most-effectively marked by pavement markings, and some limited signs. The AASHTO guide notes that in cluttered urban settings, particularly with on-street parking, signage can be obstructed and go unnoticed by bicyclists and motorists. Typical signage might include a "Bike Lane Ahead" and a "Bike Lane Ends" to provide advanced warning to bicyclists.

## On-Street Bicycle Strategies

## Shared Lanes

Shared lanes are lanes that bicycles use with vehicular traffic, and can be marked or unmarked. Typically, on local streets with low traffic volumes and low travel speeds, no special design considerations are required for bicycle travel. On more major roadways, shared lanes are typically 14 to 15 feet wide to provide sufficient width for vehicles to pass bicycles traveling in the same direction. When sufficient width is present to provide dedicated bike lanes or paved shoulders, these are the preferred treatments for bicycle travel.

Shared lanes are typically signed with "Share the Road" or "Bicycles May Use Full Lane" signs. Shared lane markings, often called "sharrows," alert motorists to the presence of bicyclists, while providing the following benefits to bicyclists:

## Reinforces bicycle direction of travel.

Provides lateral guidance to bicyclists, discouraging riding within the "door zone," encouraging bicyclists to be out in traffic for visibility and encourages motorists to give bicyclists more space when passing.

Discourages sidewalk bicycling, which is typically more dangerous than riding in the street.

## On-Street Bicycle Strategies

## Bicycle Parking

## ACHIEVE

Like automobiles, bicycles require a place to be parked at their destination. Providing convenient and visible bike parking at large bike trip generators can be an essential element of a successful city-wide bicycle system. Policies for establishing a reasonable, unobstructed location for bike parking are common in bike-friendly towns and cities. Policies generally are in place to ensure reasonable parking availability, bike parking is actually usable and maintainable, and that bike parking does not conflict with pedestrian, vehicular and emergency access needs. Bicycle parking comes in a variety of forms and options, including the traditional bike rack, covered bike parking, and bike lockers. There are several resources available for planning and implementing bicycle parking, including the document Bicycle Parking Guidelines. A simplified planning process for implementing a Lexington bike parking system might include:

Identify current and planned bicycle routes and priority bike parking locations along those routes.
Determine the anticipated demand for bike parking at the priority parking locations, estimating the likely duration of parking demands, and identifying what type of bike parking that would address those needs.

Engage with property owners / stakeholders at priority locations and understanding their concerns, how pedestrian and vehicle access and circulation happens at the property, and discussing the potential benefits to their business.

Conduct a site evaluation of high-priority bike parking locations to identify visible, easily accessible locations that do not conflict with pedestrians, vehicular parking or emergency vehicle access.

Identify a bike parking configuration that fits within the site, while still meeting the design requirements for a range of bicycle types, while allowing the bike frame to be fully secured onto the bike rack via a range of lock mechanisms.

Estimate costs for bike parking.
Determine an appropriate cost sharing / funding arrangement to pay for bike parking.

## On-Street Bicycle Strategies

## Bike Sharing

Bike sharing is a transportation program that provides point-to-point bicycle "borrowing" between designated, self-service bike stations. Bike sharing is becoming more popular across the country as many communities are looking at cost-effective and innovative ways to increase mobility for their citizens. In some situations, a bike sharing program fits that need.

Most bike sharing programs include a fleet of bicycles and a network of bikeborrow stations. The station networks are set-up as a point-to-point system where users can rent / borrow a bike at one station and return it another station in the system. The system is typically set up with stations at high bicycle trip origins and destinations. The benefit of the system is that it allows residents and visitors access to bicycle trips in areas where those trips make sense. Bike share users do not need to buy, store, and maintain a bicycle; the bike share program does that for them.

Bike sharing programs are often organized at the local level by a non-profit organization, or are set up and run by private companies. The factors that limit the success of bike sharing programs are typically similar to those of biking in general. Locations that are not hospitable to biking are not good areas to locate bike sharing stations. Generally, in locations where there is little bicycling hap-


A bike sharing program might eventually be a good option in Lexington to augment a robust bicycle network, once established. As the community expands its network of off-street trails and on-street bike facilities, it should evaluate how much demand there is on the system, and where the highest concentrations of bike trips are being made. At that point, it might make sense to initiate a bike sharing program at that point in the future.
ACHIEVE




[^0]:    Source: Parks, Recreation, Open Space and Greenway Guidelines. A Project of the National Recreation and Park Association and the American Academy for Park and Recreation Administration. A Publication of the National Recreation and Park Association. James D. Mertes, Ph.D., CLP and James R. Hall, CLP

    Table: 38: Parks and Recreation Facility Classifications

[^1]:    Source: JEO Consulting Group, Inc., 2013

[^2]:    Source: JEO Consulting Group, Inc., 2013

[^3]:    Table: 46: Bryan Elementary School Park, Lexington

[^4]:    Interstate 80: I-80 is the only interstate highway in the study area. It runs east-west and abuts Lexington on its southern border. I-80 connects to the local roadway network via its intersection with north-south route U.S. 283.
    U.S. 30: Locally known as Pacific Street, U.S. 30 runs east-west through Lexington bisecting the study area into two smaller regions, north and south. Union Pacific Railroad runs parallel to the highway and limits access from U.S. 30 to the southern part of Lexington, with the exception of two at-grade crossings bordering the east and west edges of the study area. However, U.S. 30 does serve as a primary route to the northern part of the Lexington Area. U.S. 30 is pictured to the right.

