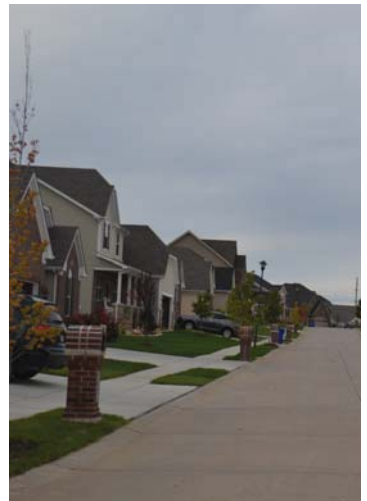


CITY OF DARDENNE PRAIRIE
MISSOURI



Dardenne Prairie Comprehensive Plan

MARCH 12, 2014



KEC

Kehoe Engineering Company, Inc.

(This page intentionally left blank)

Comprehensive Plan

TABLE OF CONTENTS

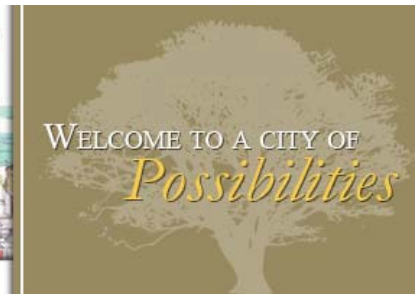
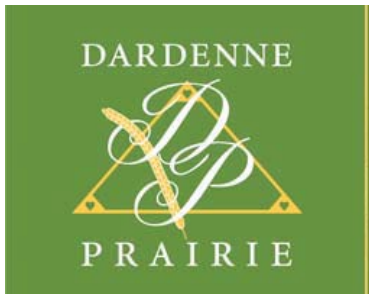
SECTION.....	PAGE
--------------	------

Executive Summary	i
I. Introduction	1
II. Natural Environment Element.....	7
III. Environmental Development Plan	11
IV. Socioeconomic Element.....	15
V. Land Use.....	19
VI. Transportation Plan	23
VII. Utility Infrastructure Plan.....	27
VIII. Parks, Recreation, and Trail Plan.....	33
IX. Implementation and Conclusion	41
X. Amendments and Updates.....	45
XI. Monitoring Plan	49

APPENDIX

City Limits	Figure 1
Current Zoning Map	Figure 2
Ward Map	Figure 3
Flood Prone Areas Map	Figure 4
Fire Protection District Areas Map	Figure 5
School Districts Map	Figure 6
Public Parks and Green Spaces Map	Figure 7
Planned Transportation Improvement Projects Map	Figure 8
Potable Water Service Area Map	Figure 9
Possible Sanitary Sewer Project Map	Figure 10
Major Watershed Basins in and Around the City of Dardenne Prairie	Figure 11
Neighborhoods and Facilities Map	Figure 12
Possible Future Land Development Areas Map	Figure 13
Future Land Use Guidance Map	Figure 14
Dardenne Prairie Uptown City Plan	Appendix A

(This page intentionally left blank)



Executive Summary

DARDENNE PRAIRIE COMPREHENSIVE PLAN - 2013

A comprehensive plan serves as a guide for making the community a better place in which to live and work over a 15- to 20-year timeframe. It communicates to residents, developers, and others what land use pattern is desired by the community in particular areas of the City.

access Missouri State Highway 364 project.

Because planning is a vital role in maintaining and improving the quality of life for all Dardenne Prairie residents, the City's Planning and Zoning Commission has undertaken the process of reviewing and revising its comprehensive

Working together, elected officials, City staff, residents, business owners and all community stakeholders can ensure that Dardenne Prairie continues to be a "City of Possibilities."

The original "Comprehensive Plan of the City of Dardenne Prairie" was adopted in 2002. The City has undergone significant changes since this date as a result of annexations, residential and commercial development, environmental legislation, regional planning projects, adoption of the Dardenne Prairie Uptown Zoning District and the implementation of the limited

plan and the creating a 2013 Update to the City of Dardenne Prairie Comprehensive Plan. The process to update the City's comprehensive plan was designed to be inclusive. All planning meetings of the Planning and Zoning Commission were public meetings, which offered stakeholders the opportunity to share their thoughts and visions for the City.

How to Use this Plan

• • •

The intention of this comprehensive plan is to guide the City's future development and redevelopment. This comprehensive plan is a living document, and as such, should have periodic review to ensure that the City's vision is aligned with the changing conditions and our evolving community desires.

This comprehensive plan does not complete the City's planning of the development of our community, but continues the planning process. Working together, elected officials, City staff, residents, business owners and all community stakeholders can ensure that Dardenne Prairie continues to be a "City of Possibilities."

(This page intentionally left blank)

I. INTRODUCTION

Planning for the Future

In this update, many of the ideas, principles, and policies from the previous City of Dardenne Prairie Comprehensive Plan are carried forward, but enhanced to reflect current conditions, new trends, community input, and innovations since the previous plan was approved. Many of the key trends that are anticipated to influence the community are identified in this Plan. The plan, although general in nature, is primarily concerned with the allocation of future land uses within the defined planning area. This update of the Comprehensive Plan reflects other recent planning efforts such as the creation of numerous park lands in the City and the Planning and Zoning Commission's adoption of the City's Uptown City Plan, which is incorporated by reference and made a part of this Comprehensive Plan. A copy of the Dardenne Prairie City Plan for the Uptown Zoning District is included in Appendix A.

It is the City of Dardenne Prairie's primary responsibility to provide public services and facilities, develop policies, and adopt regulations that ensure the public health, safety, and welfare of its citizens. The City government is also charged with directing the growth of the City so that quality of life of the community and opportunities for its citizens remain high. The guide for

Dardenne Prairie's growth and development is the Comprehensive Plan.

The City of Dardenne Prairie Comprehensive Plan is in compliance with the state law. Chapter 89 of the Missouri Revised Statutes requires the City's Planning and Zoning Commission to make and adopt a city plan for the physical development of the municipality. The city plan, with the accompanying maps, plats, charts and descriptive and explanatory matter, shall show the commission's recommendations for the physical development and uses of land, and may include, among other things, the general location, character and extent of streets and other public ways, grounds, places and spaces; the general location and extent of public utilities and terminals, whether publicly or privately owned, the acceptance, widening, removal, extension, relocation, narrowing, vacation, abandonment or change of use of any of the foregoing; the general character, extent and layout of the re-planning of areas that may become blighted.

The City's goals include provisions that discourage urban sprawl, support affordable housing, protect the environment, and support provision of adequate urban services. In addition to these requirements, plans must be designed

to accommodate future growth of the City and surrounding areas.

“Urban centers” are locations where concentrations of people and uses are desirable. Cities and counties have worked cooperatively to identify where the provision of urban services may be appropriate (the Urban Growth Areas), and where rural levels of service, agriculture and low-density population and low intensity uses will be situated (Rural Areas). Regional policy provides for “urban separators” between and within urban areas to define and shape communities, to protect significant environmentally constrained lands, and provide urban open space.

This Comprehensive Plan is a broad statement of community goals, objectives, and policies that directs the orderly and coordinated physical development of the City. Dardenne Prairie’s Comprehensive Plan anticipates change and provides specific guidance for future legislative and administrative actions. It is the result of citizen involvement, technical analysis, and the creativity and experience of decision-makers in City government.

The vision, goals, objectives, policies, and maps of the Plan provide the foundation for the regulations, programs, and services that implement the Plan. The Plan serves as a guide for designating land uses, infrastructure development, and community services. The Plan is designed to be a functional document that guides Dardenne Prairie's future development and

fulfills the City's regional responsibilities toward state-mandated growth management.

The Comprehensive Plan summarizes a vision for Dardenne Prairie that has been endorsed by the community. The Comprehensive Plan contains goals, objectives, and policies that further the evolution of the City toward attaining its vision.

The basic principles of sustainability serve to form the City’s vision and support all components of the Comprehensive Plan. These principals include looking to the future with a long-term perspective, accepting the natural environmental boundaries of the community and recognizing the interdependent economic, human, and environmental implications of policies and decisions.

Being a “connected community” extends beyond the physical connections of our City streets and trails system. It encompasses a community that is connected by a sense of belonging. Our vision embraces a City that connects its residents through safe and efficient travel, encourages community interactions and fosters communication between residents, businesses, institutions, and local government. Finally, our vision promotes social connectivity through ongoing support of community organizations and volunteerism and by encouraging development patterns and creating gathering places that attract people and promote social interaction.

Within the next several years it is anticipated that major national retailers will locate in Dardenne Prairie providing additional economic development for the City, and a wide range of goods and services within Dardenne Prairie. This development may occur one of the planned mixed use areas of the City such as the Uptown Zoning District, or in the undeveloped tracts designated for mixed-use that are located in various areas of the City discussed in more detail throughout this plan.

As this change continues to occur, it is anticipated that these developments will provide employment, retail, residential and entertainment sectors.

Planning Policies

This Comprehensive Plan by the Planning and Zoning Commission includes policy direction for land use, housing, capital facilities, parks and trails, flood prone areas, utilities, and transportation. All parts of the Plan must be consistent with each other and with adopted statewide, regional, and countywide planning goals.

One of the aspects of this plan will be to address the needs of a growing community, including the appropriate development of land, the maintenance of transportation and infrastructure systems, the construction of municipal buildings and parks, provisions for municipal services, and the financing of capital improvements. The Comprehensive Plan will stress environmental

responsibility and will strive above all to provide a structure under which to maintain and to preserve this community through its continuous growth.

A comprehensive plan is developed by a study of the trends in changes of the demographics for the City population and land uses in and around the City. Future needs of the City are identified and a plan is developed to provide for those needs in the future. It is essential to first identify the current situation in many areas for the City including land use, population demographics, recreational facilities, administration facilities, transportation facilities and utilities. Historical trends in the changes of these elements are identified and then projected into the future. Future needs are identified based on these projections. Finally, a plan to provide for those future needs is prepared. A comprehensive plan is a living document that should be updated at least each decade. The optimum time for such update is immediately after the publishing of census data. This provides for revisions as soon as base data for trend analysis is available.

Geographic Location

The City of Dardenne Prairie, is approximately twenty miles southwest of historic downtown St. Charles, lies in what is referred to as the Golden Triangle, an area bounded by Interstate Highway 70, Interstate 64/U.S. Highway 40/61, Missouri Route 364 bisects the City east-to-west,

Interstate 64/U.S. Highway 40/61 extends along the western boundary, and Missouri Highway K is located to the east. The City, which is also served by several county roads, is bordered by the city of O'Fallon and the city of Lake St. Louis with several unincorporated St. Charles County tracts of land throughout the City's corporate limits. A map of the City limits is provided in Figure 1 of the Appendix. A copy of the City's current Zoning Map is provided in Figure 2 of the Appendix.

Early History

In 1808, William Clark established an encampment in the Dardenne region, on his first night out of the St. Charles trading post that was the starting point for his and Meriwether Lewis' exploration of the land acquired in the Louisiana Purchase. In his diary that day, Clark described what he saw as "beautiful [sic], gently rolling prairie land."¹ About a century later, the area evoked the praise of noteworthy early resident Onward Bates, who, in his 1912 volume *Of Virginia and Missouri*, writes, "the picture of this prairie land which lingers with me shows one of the most desirable places for living that I have seen in any country."²

Bates goes on to commend the area's farming potential and to conclude that he "cannot be expected to refrain from offering [his] tribute . . . to such a favored portion of the earth's surfaces."² The explorations of Lewis and Clark fueled the westward migration that had begun with Spanish land

grants in the late eighteenth century. In those early years, settlers came from Virginia, Kentucky, and the Carolinas to establish homes along the frontier, the western-most area of which fell within the purview of Pond Fort. The earliest settlers were primarily families of Presbyterian affiliation, and they built the first church in the area in 1819 (the present Presbyterian church, located on Highway N near Bates Road, was established in 1869). In the 1840s and 1850s, predominantly Catholic Irish settlers arrived, some having come to the United States to escape the famines in Ireland. About the same time, German Catholic immigrants leaving behind their unstable homeland immigrated to the area. The first Catholic church was built in 1870, near what are now Feise and Stump Roads, and construction began at the site of the present church at Hanley Road and Highway N in 1880.

At that time, the Griesenauer Blacksmith shop across the street from the church was the primary gathering place for locals and strangers, while the Dickherber-Meyers General Store and Post Office, about one-quarter mile west, served the community's commodity needs. The agricultural community revolved around the Dickherber Mill, which was located at the present site of Caregiver's Inn. And, sometime later, residents of the Dardenne area could find employment at the munitions plant in the Howell-Hamburg area. In the late 1970s, the communities of Lake St. Louis and O'Fallon began extending their boundaries

southward and the residents of the unincorporated area, commonly referred to as Dardenne, were concerned that one of these communities might annex the area and undermine its rural character. Until that time, residential development in the area, excepting the area immediately adjacent to Immaculate Conception Catholic Church, had been limited to the occasional development of relatively few acres of farmland. With the general population boom in St. Charles County and the steadily approaching boundaries of O'Fallon and Lake St. Louis, the residents of the Dardenne area realized that large tracts of land no longer being worked as farms would likely be subdivided and developed quite rapidly. The homeowners and landowners in the area therefore filed for incorporation and adopted the county's R1-A zoning. These steps were taken not to halt the growth of the area but to control the growth in order to preserve the area of Dardenne's rural character. After diligent work, local residents established the Town of Dardenne Prairie on October 20, 1981, as St. Charles County's newest incorporated municipality. The new Town was originally comprised of 17 properties along Bates Road and St. Theresa Lane.

From Town to City

By voluntary annexation, the old Dardenne area was incorporated into the Town of

Dardenne Prairie. Since that time, the area has grown more quickly than originally planned.

In April of 2001, the voters of the Town of Dardenne Prairie voted to incorporate the Town as a Fourth Class City. This was accomplished by passage of an ordinance to that effect on April 19, 2001. At that time, three wards were established, Board of Trustee members were sworn in as Aldermen and the Chairman of the Board of Trustees, Marilyn Field, was sworn in as the City's first Mayor. In November 2002, the City of Dardenne Prairie began leasing 240 square feet of office space at 96 Hubble Drive. There are currently still three wards in the City with two (2) aldermen elected from each ward. A copy of the City's ward map is provided in Figure 3 of the Appendix.

In April 2004, the City of Dardenne Prairie began using offices and holding meetings at 2032 Hanley Road in a temporary modular building. This temporary City Hall was used by the City until August 2009, when the City began using the permanent City Hall building at 2032 Hanley Road.

¹Kate Gregg, *Westward with Dragoons*, np, 1927. p. 21, excerpting Clark's travel diary.

²Onward Bates, et al., *Of Virginia and Missouri*, np, 1912, p. 20-21.

(This page intentionally left blank)

II. NATURAL ENVIRONMENT ELEMENT

This element of the Comprehensive Plan describes the environmental features that constrain development in the City of Dardenne Prairie. Additionally, it considers the possible environmental effects of development in the City.

Climate

The climate of central eastern Missouri is classified as modified continental, signifying the region: four distinct seasons, ranging from warm, humid summers to cold winters. Summer weather can produce violent thunderstorms and heavy rain, which may cause flash flooding. The Dardenne Creek drainage basin, including Schote Creek, poses significant danger of flash flooding. The winter season sometimes brings very heavy snowstorms. In the fall and spring, tornadoes do occasionally occur.

Dardenne Prairie is located near the geographical center of the U.S. Its position in the middle latitudes allows the area to be affected by warm moist air that originates in the Gulf of Mexico, as well as cold air masses that originate in Canada. The alternate invasion of these air masses produces a wide variety of weather conditions, and allows the region to enjoy a true four-season climate.

During the summer months, air originating from the Gulf of Mexico tends to dominate

the area, producing warm and humid conditions. Since 1870, records indicate that temperatures of 90 degrees or higher occur on about 35-40 days per year. Extremely hot days (100 degrees or more) are expected on no more than five days per year.

Winters are brisk and stimulating, but prolonged periods of extremely cold weather are rare. Records show that temperatures drop to zero or below an average of 2 or 3 days per year, and temperatures as cold as 32 degrees or lower occur less than 25 days in most years. Snowfall has averaged a little over 18 inches per winter season, and snowfall of an inch or less is received on 5 to 10 days in most years.

Normal annual precipitation for Dardenne Prairie is about 38 inches. The three winter months are the driest, with an average total of about 6 inches of precipitation. The spring months of March through May are normally the wettest with normal total rainfall of just under 10.5 inches. It is not unusual to have extended dry periods of one to two weeks during the growing season.

Thunderstorms normally occur on between 40 and 50 days per year. During any year, there are usually a few of these

thunderstorms that are severe, and produce large hail and damaging winds.

Weather Statistics, Dardenne Prairie Region

Annual rainfall: 38"

Annual snowfall: 19"

Average yearly # clear days: 105

Average # partly cloudy days: 101

Average # cloudy days: 159

Average # days with precipitation: 108

Average # storm days: 45

Record high temperature: 115° F, recorded July 14, 1954

Record low temperature: -22° F, recorded January 5, 1884

Table 1. Average Temperature by Month

Month	Average Temperature ° F	Average Maximum Temperature ° F	Average Minimum Temperature ° F	Average Relative Humidity %
January	31	47	15	74
February	35	45	21	73
March	45	61	30	70
April	56	65	47	66
May	66	73	58	69
June	75	83	69	69
July	80	88	75	71
August	78	85	70	72
September	70	77	62	74
October	59	67	50	70
November	45	54	33	73
December	35	50	21	76

Topography/Geology

The Dardenne Prairie area is composed primarily of gently rolling land. The elevation of the area varies from approximately 450 to approximately 650 feet. The area features the watercourse of Dardenne Creek and its smaller tributaries, many of which run dry in the summer months. The soil of the region is mostly silty loam with low organic content. This soil is susceptible to erosion. The area including the City of Dardenne Prairie falls within the zone of the New Madrid fault. It is therefore subject to the possibility of earthquakes.

Vegetation and Wildlife

The Dardenne Prairie area was originally comprised of both hardwood forests and meadows covered with tall grasses. The region's deciduous trees are largely oak, hickory, and walnut, although only relatively small, scattered areas of the original deciduous forests remain. The dwindling deciduous forests provided the habitat for a number of mammals (including white-tail deer, fox, coyote, and brown bats) and game birds (including turkey, quail, Canada geese, and numerous species of duck).

(This page intentionally left blank)

III. ENVIRONMENTAL DEVELOPMENT PLAN

Resource Limitations

While St. Charles County as a whole and the City of Dardenne Prairie are projected to continue to grow significantly over the next several decades, questions remain about the ability of natural resources to support such growth without serious consequences. Meeting growing demands for development in a sustainable manner, conserving the natural environment, and many other important considerations will need to be addressed.

Goals and Objectives

Goal: To provide for the continued growth of the City of Dardenne Prairie in a manner that will preserve the rural environment and natural resources while ensuring the quality of life and maintaining environmental responsibility.

Objective 1: Maintain high air quality in the area, focusing on regulating the removal and replacement of trees and shrubs throughout the City on public and private property.

Objective 2: Preserve natural vegetation and soil as well as historical sites.

Trees and Shrubs

This plan recognizes that the existence of trees and shrubs is the best means of

maintaining or improving air quality. Regulations have been developed to preserve the City's existing trees and shrubs as well as increase the total number of trees and shrubs in the City. The cutting of large trees during development is restricted, and developers are encouraged to plant indigenous, deciduous trees, as part of the required, environmentally responsible landscaping plan.

It is nearly impossible to overstate the value of trees and landscaping in our urban areas. Properly placed trees and landscape plantings reduce energy consumption, filter pollutants, and slow flooding. They stabilize soil, enhance the ecological environment, and increase property values. Urban plantings also provide an invaluable psychological relief from the concrete and asphalt of the city. The value of these benefits is immeasurable.

Trees reduce the demand for energy consumption by casting shade and blocking winds. By shading concrete and asphalt, trees reduce the absorbed and radiated heat that turns our cities into urban heat islands. Trees shade cars and houses, keeping them cooler in the summer months. And they block cold winter winds, allowing buildings and homes to remain warmer in the winter. These things reduce the demand for air conditioning or heating, which results in less energy being spent. Less energy

expenditures mean fewer fossil fuels are burned and less carbon dioxide goes into the atmosphere, reducing the potential for global warming. Less global warming results in more stable temperatures and decreased demand for fossil fuel consumption. This cycle of energy conservation is perpetuated as trees and other urban plantings naturally reduce the demand for heating and cooling. The cycle is enhanced by carbon sequestering, because in addition to reducing the carbon emissions from energy consumption, trees sequester tremendous amounts of carbon from the atmosphere to carry out their process of photosynthesis.

Trees and shrubs are beneficial as air filters. Their leaves remove dust and pollutants from the air we breathe. In addition, many plants help to filter toxins and chemicals from groundwater as it works its way toward our lakes, rivers, and streams. We count on plants to provide these invaluable services and clean our environment. A cleaner environment, composed of cleaner air and water, is healthier for all the animals that live on earth, including humans. And it's not just the physical health trees contribute to. Reduced pollution and the presence of trees have been found to reduce stress and increase feelings of peace and well-being in people.

Urban plantings significantly reduce flooding and soil erosion by slowing water runoff and holding on to soil. When raindrops are intercepted by a tree's canopy,

the rate at which the rainwater hits the ground is significantly reduced. The slowed rainwater absorbs into the soil as it filters across vegetation and roots; reducing the amount of water that reaches the creeks and storm sewers. In addition, soil movement is reduced as a result of plant roots holding on to the soil. Without plant roots, soil has no ability to resist the erosive effect of rushing water.

Trees and landscaping enhance the ecological environment and increase property values. Planting allow people to interact with and observe nature because they signal the changing seasons and add different colors and forms at each time of the year. Trees provide food and shelter for small urban dwelling animals, allowing for the enjoyment of watching squirrels scamper up the side of an oak, or listening to birds sing from a nest in a maple.

They define areas in the landscape by framing, emphasizing and screening. Studies have shown most people prefer to live in an area that has trees and is landscaped attractively. In addition, according to studies done at the University of Illinois at Champaign-Urbana crimes are less prevalent, youth are less violent, ADHD symptoms in youth are reduced and women and young girls score higher on tests for concentration when they live near areas that have more greenery.

With all the benefits trees provide it is easy to see the need to protect and expand the

city's urban forest. The City of Dardenne Prairie recognizes the importance of green areas and is making direct efforts to insure the continued development of this invaluable resource. The City's plans include aggressive planting and maintenance programs on City property, providing educational opportunities for residents, and most importantly, enacting legislation which protects the existing urban forest and insures its continued expansion. This legislation allows Dardenne Prairie to move forward, knowing a better city environment will be left to all those who follow.

Vegetation and Soil

City regulations provide for the control of erosion during and after development by regulating the paving of large areas and the removal of vegetation and by requiring such improvements as detention or retaining basins for storm water runoff when necessary.

During the plan approval process for developments, best management practices for siltation and erosion control are required. Periodic field inspections of such measures are made after developments are under construction. Maintenance of these measures is also required.

Floodplains

Residential and commercial development in the 1% chance floodplain in the City shall only be performed in accordance with the Municipal Code, which is in compliance with the provisions of the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). The Municipal Code requires that the City Engineer issue a floodplain development permit for any development within the 1% annual chance floodplain. The 1% chance annual floodplain in the City of Dardenne Prairie is delineated in the NFIP Flood Insurance Study. A map that shows the 1% chance floodplain in the City is provided in Figure 4 of the Appendix.

The adopted regulatory floodway, a part of the 1% chance floodplain, is an extremely hazardous area due to the velocity of floodwaters that carry debris and potential projectiles. Any encroachments, including fill, new construction, substantial improvements and other development is prohibited within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment will not result in an increase in flood levels during the occurrence of the 1% chance flood discharge.

A large amount of the flood prone areas in the City of Dardenne Prairie are currently being used for recreational and agricultural

purposes. Encouragement and preference shall be given to the continuation of recreation and agriculture in the floodplain.

Earthquakes and Steep Slopes

Earthquake resistance measures are included in the building code, as the City of Dardenne Prairie does lie within the zone of the New Madrid fault. Requiring such measures protects against collateral damage and injury to residents should an earthquake occur.

Building codes also prohibit building on slopes of more than 10° to 12°. Such slopes constitute significant construction hazards and erosion problems, and are unsuitable for home construction.

Archaeological Sites

If during the course of development, archaeological artifacts are discovered, the developer or builder is required to inform the Department of Conservation of the State of Missouri. Efforts shall be taken to preserve sites or artifacts of historical or cultural significance.

IV. SOCIOECONOMIC ELEMENT

This element of the comprehensive plan reviews the socioeconomic data for the City of Dardenne Prairie between 1981 and 2011. The U.S. Census Bureau data demonstrates the growth of the population of City of Dardenne Prairie as well as the current social and economic characteristics of the City.

Population

The City of Dardenne Prairie has witnessed continuous population growth since its incorporation in 1981. This population growth was rapid up until mid-2008 when the growth of the population of Dardenne Prairie slowed significantly.

Table 2. City of Dardenne Prairie Population and Households.

Year	Population	Houses
1980	0	Not Incorporated
1990	1,769	593
2000	4,384	1,431
2010	11,494	3,768

Social Characteristics

In the year 2011, approximately 30% of Dardenne Prairie's residents were enrolled

in school. The numbers of persons at least three years old enrolled in school in the years 1990, 2000 and 2011 are listed below.

Table 3. School Enrollment.

School Type	1990	2000	2011
Pre-Primary School	37	190	329
Elementary/ Secondary School	327	878	2,351
College or University	112	206	527
Total	476	1,274	3,207

The number of Dardenne Prairie residents at least 25 years old that were high school graduates and college graduates has continually increased.

Table 4. Resident Graduation Rates.

	1990	2000	2011
High School Graduates	84.0%	95.4%	97%
College Graduates	17.5%	37.6%	45.6%

Economic Characteristics

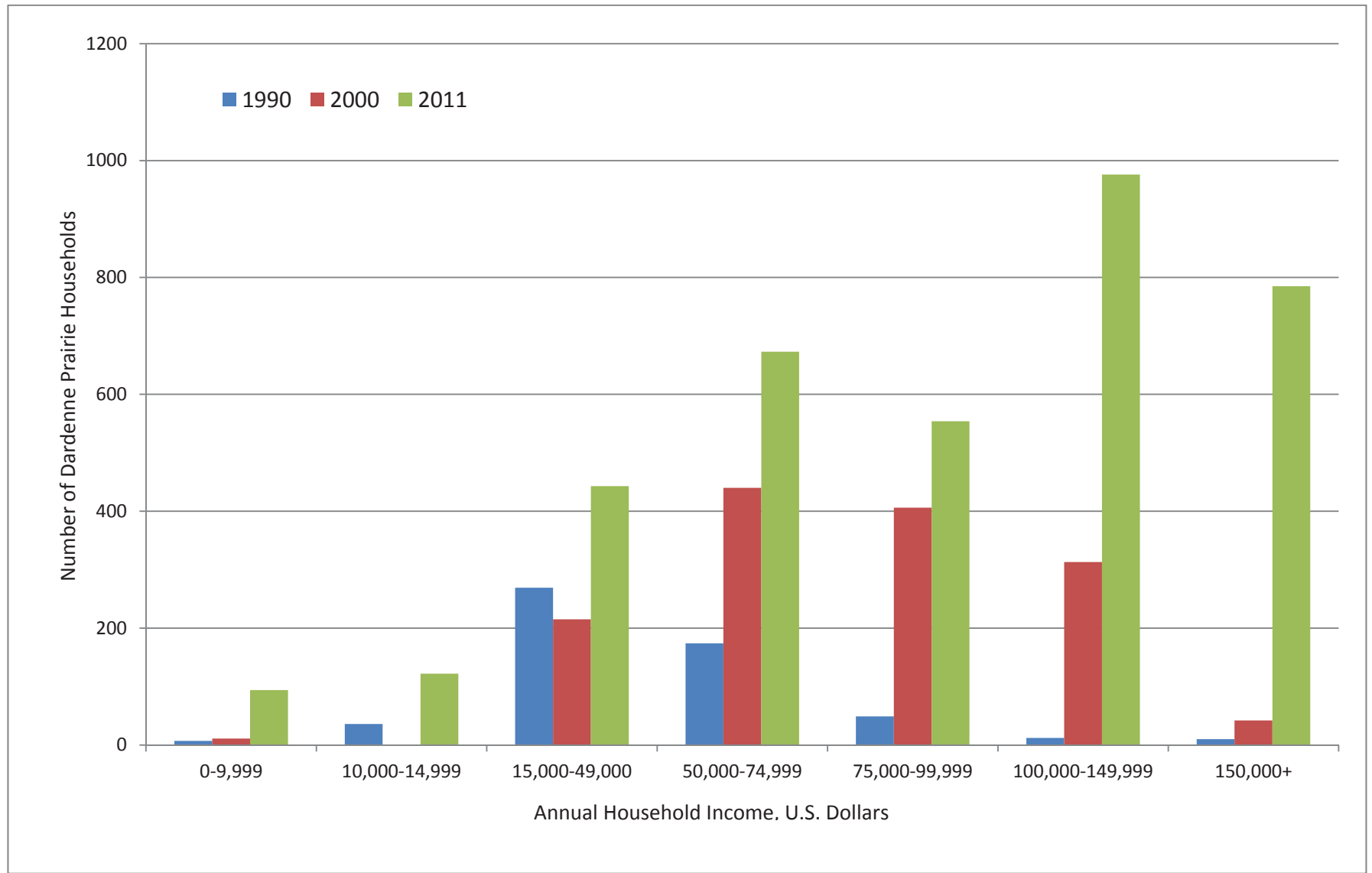
The following area table and graph of household incomes in the City of Dardenne Prairie over the past few decades. There has been a very significant shift in household incomes in the City in the past

ten years, especially in the in upper (\$100,000-\$149,000 and \$150, 000+) segments of the population. This U.S. Census Bureau data indicates that nearly half of all City household's annual incomes are greater than \$100,000.

Table 5. Resident Household Income.

Household Income, \$	1990	2000	2011
0-9,999	7	11	94
10,000-14,999	36	0	122
15,000-49,000	269	215	443
50,000-74,999	174	440	673
75,000-99,999	49	406	554
100,000-149,999	12	313	976
150,000+	10	42	785

Graph 1. Resident Household Income.



There are 950 cities in the State of Missouri. The City of Dardenne Prairie is the 65th largest city in the State (886th smallest). The most-recent population data from the U.S. Census Bureau is provided in Table 6 below.

Table 6. City of Dardenne Prairie and State of Missouri Population Data.

	Dardenne Prairie	Missouri
Population, 2012 estimate	12,017	6,021,988
Population, 2010 (April 1) estimates base	11,477	5,988,924
Population, percent change, April 1, 2010 to July 1, 2012	4.70%	0.60%
Population, 2010	11,494	5,988,927
Persons under 5 years, percent, 2010	6.80%	6.50%
Persons under 18 years, percent, 2010	33.30%	23.80%
Persons 65 years and over, percent, 2010	9.60%	14.00%
Female persons, percent, 2010	51.00%	51.00%
White alone, percent, 2010 (a)	90.70%	82.80%
Black or African American alone, percent, 2010 (a)	3.50%	11.60%
American Indian and Alaska Native alone, percent, 2010 (a)	0.10%	0.50%
Asian alone, percent, 2010 (a)	3.50%	1.60%
Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a)	0.6%	0.10%
Two or More Races, percent, 2010	1.60%	2.10%
Hispanic or Latino, percent, 2010 (b)	2.00%	3.50%
White alone, not Hispanic or Latino, percent, 2010	89.30%	81.00%
Living in same house 1 year & over, percent, 2007-2011	94.40%	83.50%
Foreign born persons, percent, 2007-2011	4.50%	3.80%
Language other than English spoken at home, persons age 5+, 2007-2011	5.40%	6.10%
High school graduate or higher, percent of persons age 25+, 2007-2011	97.00%	86.80%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	45.60%	25.40%
Veterans, 2007-2011	526	503,720
Mean travel time to work (minutes), workers age 16+, 2007-2011	28.9	23.3
Housing units, 2010	3,768	2,712,729
Homeownership rate, 2007-2011	98.30%	69.50%
Housing units in multi-unit structures, percent, 2007-2011	1.80%	19.60%
Median value of owner-occupied housing units, 2007-2011	\$265,500	\$138,900
Households, 2007-2011	3,600	2,354,104
Persons per household, 2007-2011	3.01	2.46
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$38,829	\$25,371
Median household income, 2007-2011	\$99,050	\$47,202
Persons below poverty level, percent, 2007-2011	4.10%	14.30%

V. LAND USE

Land use is an important consideration in the growth of the City of Dardenne Prairie. This element of the comprehensive plan considers the land use plan set forth by the City founders at the time of incorporation and looks at current land use in order to create a plan for future land use and development in the City.

Land Use Plan Established by the City Founders

In the late 1970s, as the city of Lake St. Louis and the city of O'Fallon began rapidly to extend their boundaries toward the Dardenne Prairie area, Dardenne residents realized that the only way to maintain the rural atmosphere of the area was to incorporate. The residents of the Dardenne area established the City of Dardenne Prairie and adopted the county's R-1A land use plan.

This plan effected the following restrictions: 1) residential units were to be developed on no less than one acre of land; 2) limited commercial development would be allowed in the area of Interstate 64/U.S. Highway 40/61 and Missouri Highway N; 3) a very limited amount of land would be set aside for industrial use.

Existing Land Use

Land development in the City of Dardenne Prairie between 1981 and 1992 consisted

mainly of large, single-family, ranch-style residential units on one to five acre tracts. Since 1992, however, residential development has been largely composed of single-family residential units on tracts of land subdivided into lots of 10,000 to 12,000 square feet.

The City has been unsuccessful in maintaining its goal of limiting residential units to lots of at least one acre. As land around the City began to develop and increase in value due to the readily available water and sanitary sewers, it became more difficult to inhibit the development of land.

The first development for which approval was sought from by the City was Dardenne Acres. This subdivision was developed as a P.U.D. with one (1) acre minimum size lots. The second development was Canvas Cove. It was developed as an R-1, P.U.D. with 10,000 square foot minimum size lots. The land has been rezoned R-1D from R-1A in September 1990. With the exception of Lauren's Ridge P.U.D., all residential developments since then have been P.U.D.'s with lots smaller than one (1) acre.

While lot sizes have decreased substantially, the average size of each unit has increased, while the average value has also increased, due to real market value increases. Table 1 shows the number of building permits issued by year in the City.

It can be seen that the number of permits peaked in 2002 and fell significantly in 2004 and again in 2008.

Table 7. Total Number of Building Permits Issued per Year.

Year	Building Permits
1996	197
1997	240
1998	220
1999	387
2000	358
2001	433
2002	428
2003	422
2004	251

Year	Building Permits
2005	152
2006	123
2007	118
2008	36
2009	37
2010	68
2011	59
2012	80
2013	50*

*projected

There is currently a small backlog of approximately 50 platted, vacant lots in the City.

Until recently, commercial development in Dardenne Prairie has remained fairly stagnant. To date, the most significant commercial development in the City has been the 45-acre Dardenne Town Square retail center in 2006.

A section of Dardenne Prairie located along Interstate 64/U.S. Highway 40/61 has been identified regionally as a High-Tech Corridor. This area can be controlled through the zoning process to ensure development as high-technology offices with some supporting commercial development. There are very specific aesthetic controls on the developments contained in the Zoning Regulations.

The 64 West Business Park located in the southwestern most portion of the City is the only area in the City zoned for industrial use. The 64 West Business Park was zoned straight I-1, with no planned unit development being proposed. The City did ask that the aesthetic provisions of the High Tech Corridor District be incorporated into the covenants. However, lenient enforcement of those provisions prompted the Board of Trustees to amend the provisions of Zoning Ordinance to make those provisions a part of the I-1 District requirements. There are nine (9) buildings existing in the development. Lots are not platted where buildings do not yet exist. As developments are proposed, the requisite land area is defined and a new lot added by means of a revised subdivision plat.

Public and semi-public facilities in the City of Dardenne Prairie currently include only

schools and churches. In 2002, the City began leasing a single room office in the 64 West Business Park development for use by the City's single employee (city clerk). In 2003, the City established a Municipal Court, appointed a municipal judge and treasurer and purchased a modular building for use as a temporary City Hall. A temporary City Hall was established in 2004, in this 1,440 square foot modular building on the 3.4-acre City-owned property located at 2032 Hanley Road. As the City added employees, including City Administrator, Court Clerk, Building Code Official and Parks Director, a second modular building was purchased by the City for use at 2032 Hanley Road for temporary City Hall use. In 2009, the City completed construction and began using the current 20,200-square foot City Hall building at the 2032 Hanley Road property.

Police services are provided in the City via a contract with St. Charles County. The City should study the possibility of starting its own police department to look at the feasibility and the benefits and costs associated with either starting its own police department or continuing contracting police services with St. Charles County. Ambulance services are provided in the City by the St. Charles County Ambulance District. Fire protection services are provided in the City via three fire protection districts (Cottleville Fire Protection District, O'Fallon Fire Protection District and Wentzville Fire Protection

District). A map that shows the boundaries of fire protection district areas within the City is provided in Figure 5 of the Appendix.

There are three public school districts located in the City; Fort Zumwalt R-II, Francis Howell R-III and Wentzville R-IV. Public schools in Dardenne Prairie at this time are: Cindy Ostmann Elementary, grades K-5, in the Fort Zumwalt School District; John Weldon Elementary, grades K-5, in the Francis Howell School District; and Prairie View Elementary, grades K-5, in the Wentzville School District. A map that shows the boundaries of these three public school districts is provided in Figure 6 of the Appendix. Also located in the City is Immaculate Conception Catholic Elementary School, grades K-8, a private school. Churches with established sites within the City include Immaculate Conception Dardenne Catholic Church, Dardenne Presbyterian Church, Morning Star Church, First Baptist Church, Apostles Lutheran Church, StoneBridge Community Church and the Church of Christ the Scientist. The 2 Rivers Church does not currently have a church building in the City, but holds services at an office building in the 64 West Business Park.

Future Land Use

The City's Conceptual Land Use Guidance Map is provided as Figure 14 of the Appendix. This map is based upon the current goals of the City fathers, the existing

land use pattern, and the anticipated growth of the area. This plan deals with land use within the planning area including within the City limits of the City of Dardenne Prairie as well as within unincorporated areas within the growth

area that may be annexed into the City in the future. This plan provides for reasonable, high quality, residential, public, commercial, industrial, and recreational developments while fulfilling the essential need for a diverse-housing character.

A significant amount of public parks and green spaces have been developed in the City since the original comprehensive plan

was prepared in 2002. These include the following:

Table 8. City of Dardenne Prairie Public Parks and Green Spaces Data.

Description	Size, ac.	Features
Georgetown Park (2006 - City Park)	0.5	Civil War Memorial
City Hall Park (2011 - City Park)	3.0	Amphitheater, shelter, swing set, playgrounds, concessions, fountain, spray ground, 44-space parking area
Dardenne Athletic Assoc. Gentemann Field (2007 - leased City Park)	4.6	3 softball fields, 52-space parking area
Dardenne Greenway - BaratHaven Park (2007 – leased City Park)	92.4	15-acre lake with 3 outlooks, 3.05 miles of trails, 22-space parking area
Dardenne Greenway - Bluebird Meadow Park (2013 – leased City Park)	75.0	1.3 miles of multi-use trail, 35-space parking area

Existing and planned parks areas and trails are provided in Figure 7 of the Appendix. A 1.70 mile multi-use trail was also constructed along Henning Road in 2003 (Phase I, outside of the Dardenne Creek floodplain limits) and in 2013 (Phase II, within the Dardenne Creek floodplain limits).

A significant amount of open spaced is planned in the Uptown Zoning District. A map showing the planned open space areas in the Uptown Zoning District is provided as Table 7 of the Dardenne Prairie City Plan for the Uptown Zoning District. A copy of the Dardenne Prairie City Plan for the Uptown Zoning District is included in Appendix A.

VI. TRANSPORTATION PLAN

Rapid growth in St. Charles County, Missouri, has created greater demands on public transportation facilities throughout much of the county. Many public facilities have undergone significant improvements to provide for the increasing demands from a growing population. The City of Dardenne Prairie's future road system will be no exception. Multiple residential developments have occurred within the City's boundaries already and many more are expected.

Additionally, it is expected that additional commercial and industrial land will develop in order to serve the City's growing population. The planning of additional roads and interchanges is necessary to meet future needs of both local and commuter traffic flows.

Existing Road System

The existing road system in Dardenne Prairie consists primarily of the following two-lane roads: Bates Road, Feise Road, Hanley Road, Henning Road, McCluer Road, Post Road, Stump Road, Weldon Spring Road, and Missouri Highway N. Portions of these roadways have been improved and upgraded in accordance with the City's Transportation Plan; however, significant deficiencies still exist. Highway N carries the bulk of the traffic through the City of Dardenne Prairie with considerable

traffic at the junction of Highway N and Interstate 64 (U.S. Highway 40/61).

The Missouri Department of Transportation (MoDOT) recently completed the upgrade of U.S. Highway 40/61 to a full controlled-access status as Interstate 64. Additionally, MoDOT is currently building Missouri Route 364, which will be a four-lane limited access highway from Interstate 270 in St. Louis County (known there as Page Avenue) to Interstate 64/U.S. Highway 40/61 in St. Charles County. The proposed route will take the highway through the northern portion of the City of Dardenne Prairie. The construction of Route 364 Phase 3 started in May 2013, and is expected to be completed by late November 2014.

Road Classification

The City's existing roads can be categorized by the volume and type of traffic each carries and the function each performs. The roads in the City of Dardenne Prairie can be classified as principal arterials, minor arterials, and collectors. Principal Arterials are roads that carry the majority of the trips entering and leaving the urban area.

The principal arterial road for moving traffic through Dardenne Prairie is Highway N. In the future, Highway 364 will fit this category.

Minor Arterials

Minor arterials are roads that provide direct interconnection to the principal arterial system. Within the City of Dardenne Prairie, the minor arterials are: Bates Road, Feise Road, Hanley Road, Henning Road, McCluer Road, Post Road, Stump Road, and Weldon Spring Road.

Collectors

The remaining roads and streets can be considered collectors. These channel traffic into the minor and principal arterials.

Transportation Improvement Plan

The City of Dardenne Prairie has previously developed a comprehensive plan for extension, improvement and maintenance of its roads and streets. That plan has been implemented effectively over the last several years through multiple projects including the following:

By the City of Dardenne Prairie:

- Bates Road Phase I & II,
- McCluer Road
- Henning Road Phase I & II,
- Feise Road Extension II
- Post Road Realignment

By St. Charles County:

- Hanley Road
- Feise Road

By the city of O'Fallon:

- Bryan Road Extension

Through Private Development:

- Feise Road Extension
- Highway N
- Merz Farm Lane
- West End Loop
- La Le Drive
- Technology Drive
- BaratHaven Boulevard

Most collector streets in the City have been upgraded from narrow two-lane streets to three-lane roadways. The City shall continue to revise and implement its transportation plan through identifying and preserving roadway corridors, utilizing available transportation funding sources for new improvement projects, working closely with MoDOT and St. Charles County Government Plans, evaluating traffic movement throughout the City, and generally seeking to enhance transportation for its citizens. New subdivisions shall be considered when planning new thoroughfares to ensure dedication of sufficient rights-of-way to provide for future street widening. Subdivision developers shall be required to provide a portion of the cost of improving affected roads and streets. The improvements shall include widening and subdivisions shall be planned in such a way as to avoid steep grades, which produce runoff, erosion, or flooding problems.

The City of Dardenne Prairie currently contracts with St. Charles County for street and storm sewer maintenance and snow removal services. The City should

investigate the benefits and costs of establishing its own public works department to provide these services. Under the current contract, the County Highway Department responds to City-identified maintenance needs on all City streets and storm sewer system and provides snow removal services as a part of

County roadway operations. Under this contract, the City is able to maintain City roadways using a 5-year maintenance plan that includes scheduled crack sealing, seal coating, culvert and ditch cleaning, slab and joint replacement, bridge maintenance and various unscheduled repair and maintenance items.

Goals and Objectives

Goal: Upgrade the roadway system to provide a safe and adequate system of thoroughfares for the City of Dardenne Prairie's citizens.

Objective 1: Review the present road network including current improvements to determine its adequacy for future development.

Objective 2: Continue to preserve identified corridors and require the dedication of right-of-way from developers.

Objective 3: Monitor and coordinate with MoDOT's regional plans to ensure compatibility with Dardenne Prairie's transportation plan.

Objective 4: Work with surrounding municipalities and government entities (e.g., East-West Gateway Coordinating Council) to identify various transportation needs, corridors and alternative modes.

Objective 5: Continue to seek alternative or innovative funding sources for needed road improvement projects.

Goal: Provide for the preservation and maintenance of the roadway system within Dardenne Prairie.

Objective 1: Review the City's public maintenance contract with St. Charles County through their Highway Department to coordinate with their plans, policies, and procedures and evaluate the possible development of an independent City public works department.

Planned Transportation Improvement Projects

The following table summarizes the planned transportation improvement projects. Funding for these projects will be requested from St. Charles County, private

development, MoDOT and East/West Gateway as warrants. Dardenne Prairie will participate in funding, as funds are available. The Board of Alderman will set priorities on a yearly basis. These planned transportation improvement projects are shown in Figure 8 of the Appendix.

Table 9. Planned Transportation Improvement Projects.

No	Project Name	Length (feet)	Location
1	Hanley Road	2,300	Feise Road to Pleasant Meadow Drive
2	Hanley Road On-Street Parking	2,700	Hanley Road (Highway N to Feise Road)
3	A.D.A. Compliant Facilities Upgrades	-	City-Wide
4	Feise Road Sidewalks	1,000	Stonewall Creek Drive to Dardenne Woods Drive
5	Stump Road	2,000	Highway N to Feise Road
6	Highway N Sidewalks	5,000	7400, 7700 & 7800 Block
7	Weldon Spring Road	7,200	Technology Drive to Fieldstone Farms Drive
8	Highway N	9,500	Stump Road to Highway K
9	North Outer 364 Extension	4,100	Hanley Road to Bryan Road
10	Highway N On-Street Parking	5,800	Highway N (Merz Farm Lane to Bryan Road)
11	Post Road	4,200	Technology Drive to Highway N

VII. UTILITY INFRASTRUCTURE PLAN

Electrical, Natural Gas and Telecommunications Private and public utility companies provide utility services to the City of Dardenne Prairie. Ameren and Cuivre River Electric Cooperative provide electricity, and Laclede Gas Company serves the City's natural gas needs. CenturyLink, Charter Communications and AT&T provide telecommunication services to various portions of the City.

AT&T generally provides service to the City south of Dardenne Creek and CenturyLink serves the City north of Dardenne Creek. Charter Communications provides cable television, telephone and Internet access services throughout the City.

Potable Water

Two (2) separate potable water districts service the Corporate Limits of the City of Dardenne Prairie. These districts are Public Water Supply District No. 2 of St. Charles County (PWSD#2) and Missouri-American Water Company. The service areas, within the corporate limits of the City of Dardenne Prairie, of these two (2) water entities is depicted in the enclosed Figure 9 based on boundary agreements between these two (2) districts.

Continued improvements to the water systems of these service providers has ensured the availability of potable water serving the future growth areas of the City.

Missouri-American Water Company constructed a large transmission line beneath the Missouri River about a decade ago and has connected this line to the city of St. Louis, Howard Bend Water Plant. This line has been sized to provide water for all areas of the City, including that served by PWSD#2.

As potable water infrastructure improvements are made, almost all new homes and many existing homes are connecting to one of these water suppliers' water mains.

Sanitary Sewers

Sanitary sewers from the Duckett Creek Sanitary District serve the Corporate Limits of the City of Dardenne Prairie. All large recent developments within the last twenty (20) years have been designed and constructed with sewers provided from this district. The Duckett Creek Sanitary District has constructed additional sanitary sewer interceptors through the southern portion of the City, as well as an additional treatment facility located in the Missouri Research Park and a lift station located at the intersection of Highway K and Dardenne Creek. The addition and expansion of sanitary sewers has been spurred by the significant increase in new development of areas within the City. As these areas are developed, sewer service is extended closer

to developments in the City that are currently not serviced by sanitary sewers. As the newer developments bring sanitary sewer service near or through existing developments, property owners of these older developments can often connect to the sanitary sewer system at a reasonable expense.

Another method that residents or groups of residents can connect to the sanitary sewer system is through line extensions of the existing system. This method requires the resident(s) to have plans developed and the sewer line constructed per the Duckett Creek Sanitary District's Standards. Due to the cost of these extensions, most residents or groups of residents are required to have

these projects financed. An optional financing mechanism available to property owners is to develop a "Neighborhood Improvement District". This allows the property owners to obtain low interest loans for the design and construction of the sanitary sewer project. The City has developed an enclosed Possible Sanitary Sewer Projects map (shown in Figure 10) that identifies groups of properties within the Corporate Limits of the City that currently are not provided with sanitary sewer service. The Sanitary Sewer Map identifies ten (10) potential sanitary sewer extension projects that would provide sanitary sewers to these areas. The projects are shown below in Table 10.

Table 10. Possible Sanitary Sewer Projects.

	Project Location	Est. Project Length
1	Stoney Brook Subdivision	4,900 L.F.
2	Les Petite Chateaux Subdivision	3,000 L.F.
3	Longview Subdivision	2,700 L.F.
4	Feise Road Parcels (Gentemann)	2,200 L.F.
5	Oak View Estates	2,600 L.F.
6	Brookside Acres Subdivision	1,900 L.F.
7	Hanley Road Parcels (North)	1,500 L.F.
8	Hanley Road Parcels (South)	2,200 L.F.

The estimated project lengths are based on the future development constructing sewers to the limits of these areas. No line extensions beyond the limits of these areas have been considered.

Storm Sewer Pollution Prevention Plan

The City of Dardenne has adopted a Storm Water Management Program (SWMP), which provides a comprehensive approach to storm water pollution management within the City. Specifically, the Program is designed to oversee the implementation of the National Pollutant Discharge Elimination System (NPDES) Phase II requirements within the City. The City is currently operating under MDNR NPDES Phase II Permit No. MOR040024, which was originally approved in April 2003, and renewed in both April 2008 and April 2013.

Five Year Plan

The Program has established a five-year action plan that will direct Dardenne Prairie's storm water management. The primary means of improving storm water runoff quality is through the use of best management practices (BMPs). This report outlines the one year update to the approved Program and the current status of BMPs under the six program areas. These six program areas are:

1. Public education and outreach on storm water impacts.
2. Public involvement/participation.
3. Illicit discharge detection and elimination.
4. Construction site storm water runoff control.

5. Post-construction storm water management in new/re-development.
6. Pollution prevention/good housekeeping for municipal operations.

Apart from temporary sediment control measures during construction, water quality concerns in developing areas focus on the polluting substances washed from paved surfaces and carried on to adjacent properties and/or into streams and other bodies of water during storm events. Pollutants carried in runoff include sediments, nutrients, chemicals, disease-carrying organisms and heavy metals. Sources of these pollutants include grass clippings, eroded soil, fertilizer particles, oil and gasoline drippings, animal droppings, and heavy metals from vehicles. Retention ponds remove most of these suspended substances from runoff by retaining storm water long enough to allow chemical-laden particles to settle out.

Storm Water Detention

The adverse effects of storm water management in traditional developments mainly occur because of changes made to the character of the land surface. Developments introduce roofs and large areas of pavement, referred to as impervious surfaces, which substantially reduce the amount of rainfall soaking into the soil and substantially increase the amount of runoff. In addition, front yard

setbacks necessitate more pavement areas to connect garages and front doors to streets.

Because pavements and roofs have less surface area to wet in a rainstorm compared to plant-covered lands, more water is also free to run off these impervious smooth surfaces. Because they are smoother, water also runs off them faster. Instead of flowing off slowly over a long period of time, a larger volume of water arrives downstream more quickly. More storm water running more quickly may cause downstream flooding.

Development under conventional zoning does little to minimize, much less prevent, these ill effects. Curbs hold water in the roadway, requiring storm sewers to carry storm water away. The pipes used for storm sewers move storm water very efficiently. Instead of moving runoff slowly over natural surfaces allowing absorption, runoff moves rapidly inside storm sewers, with no opportunity to infiltrate into the ground. The higher speed of storm water flow allows pollutants to remain suspended in the runoff. Since storm sewers are designed to flow by gravity, storm water basins are designed for construction in the lower elevations of the development in natural drainage-ways. Streets then follow this drainage pattern. Thus, when storm sewers overflow, the street's smooth, uninterrupted, impervious surfaces become the paths that flood flows follow.

Developers are required to provide emergency relief swales at low areas of the street systems that safely carry away larger storm flows overland between buildings. Three considerations largely shape the design of storm water management systems in Dardenne Prairie: flooding, convenience, and water quality. Developers must address these three considerations with both major and minor storm water management systems in their projects.

Detention and retention basins, swales, streets, and storm sewers are all part of the major storm water management systems. These systems should be designed specifically to avoid flooding that could cause injury and/or property damage. Where the effects of large storms are not specifically considered or planned for in developing areas, flood damage can be substantial. Swales, streets, and storm sewers are all part of the minor storm water management systems. Minor systems should be designed with convenience in mind. Minor systems should quickly remove runoff water from areas such as streets, yards, and sidewalks to prevent long-term ponding of water. Minor systems are typically designed to handle smaller storms. The City of Dardenne Prairie has ordinances in place to address storm water management, but continually reviews these ordinances with the intent to improve them as needed to protect persons and properties downstream of developing areas.

Storm Water Master Plan

The City of Dardenne Prairie is in the process of developing a city-wide storm water master plan to identify and prioritize needed storm water projects. This storm water master plan is being prepared so that prioritized projects comply with state and federal sources of funding such as Missouri's Storm Water Grant and Loan Program (10 CSR 20-4.061). The storm water plan elements will address the Grant Programs' specific requirements that include: an introduction that defines terms and discusses the purpose, scope, hydrology, and alternatives considered; A discussion of the data and methodology used in plan development; A description of the existing system (as applicable); A list of proposed storm water projects; A description of the methodology used to evaluate and establish project priority ranking; Estimates of cost for full implementation of the plan; A description

of the maintenance plan for existing and new systems; A geomorphological assessment of the plan area; A description of the rainfall/runoff modeling data for the plan area; Modeling data, structure data and photographs, public survey response forms; and Watershed map, public response map, flood plain map, maps showing project areas. The root causes of flooding, bed and bank erosion, and sediment deposition will also be addressed. A map that shows major watersheds within the City is provided as Figure 11 of the Appendix.

After a storm water master plan is developed, the City will be able to apply for grants and low-interest loans to make necessary improvements. With proper planning, the City may be able to incorporate storm water management construction projects with planned unit development and transportation improvement projects to lessen the City's economic responsibility.

(This page intentionally left blank)

VIII. PARKS, RECREATION AND TRAIL PLAN

Parks

Through public participation, innovation, and planning the City of Dardenne Prairie can preserve and enhance the environment and the quality of life of its citizens with park areas. The City of Dardenne Prairie plans to work with such organizations as Greenway Network, Inc. and Great Rivers Greenway (Metropolitan Park and Recreation District) in securing and planning park areas. Also, the City will look at proposed development plans with the intention that park areas could be incorporated as a condition of approval. This type of cooperative effort with private investors can decrease the City's cost of developing park areas. In exchange for the right to construct a large development, the City will consider requiring the developer to provide public park areas. Local residents should be involved in the process through community consultation.

The City should set qualitative recommendations for the functional, environmental, cultural and aesthetic character of the park areas as an integral part of forging the City's identity. The unification of residential and commercial areas and their functional and aesthetic links to park areas will create a public space of high value. Citizen participation is a determining force for the preservation of the City's heritage and identity. Future

citizens will not be looked upon as only recipients of, but as participants in these processes. Existing and planned parks areas and trails are provided in Figure 7 of the Appendix.

Recreation

Planning for recreational areas for citizens should be considered a vital part of the continued development of the City of Dardenne Prairie. These planned recreation areas include public and private park areas, and public and private trail systems. The City should plan to protect and enhance areas of recreation, the character and appearance of parts of the environment that are of special interest including wooded areas, prairies, and streams.

Areas of land immediately adjacent to streams, known as riparian zones are essential to the health of a stream system. Riparian zones provide a buffer from development. The City of Dardenne Prairie's storm water ordinances currently require residential lot lines, commercial or industrial improvements, parking areas or driveways be set back a minimum of fifty (50) feet from the top of the existing stream bank. Permanent vegetation and existing ground elevation and grades within the fifty (50) foot setback must be left intact and undisturbed. The City should continually review these ordinances with the intent to

improve them as needed to protect these areas.

Trail Plan

Multi-use trails are not only an environmentally friendly investment, but also an economic and aesthetic investment in a community. The City of Dardenne Prairie was founded with the goal of creating a community that preserved the natural beauty and rural character of the area.

Recognizing early on that the area would develop, the City has worked diligently to ensure that developments provided green space and amenities to this end. A comprehensive trail network through the City is a desirable adjunct to such a concept.

Surrounding communities and St. Charles County have recognized the value of trails as well. The Dardenne Prairie Trail system attempts to link the systems planned by other agencies with these in existence within development at this time. Evolution of the system may be slow due to funding constraints. The primary means for funding the system will be to request that developers construct portions of the system as part of their improvements. To expedite system implementation, grants for Transportation Enhancement Fund Program Projects should also be sought.

There are a number of potential projects for which the City could assume responsibility. The most important projects will require a

cooperative effort with the County and/or the city of O'Fallon.

In an effort to conserve financial resources of the City, responsibility for projects should be relinquished to other entities whenever possible. Further, whenever development occurs adjacent to a planned trail route, the developer should be required to include that portion of the trail system in the development.

Timing of project construction and prioritization of projects will be dependent on the timing of trail construction by other agencies. As trails in adjacent areas are constructed, links through Dardenne Prairie will be needed. In any case, whenever development occurs, the developer should provide trails which link to planned, future trails regardless of the timing for those future trails.

Existing Bicycle Facilities Plans – Gateway Bike Plan

Several trail plans are already in existence in the City and surrounding areas. Existing and possible bicycle facilities are detailed in the Gateway Bike Plan. The Gateway Bike Plan is a result of a collaborative effort between the Great Rivers Greenway District, Missouri Department of Transportation, East-West Gateway Council of Governments, Metro, numerous municipalities, St. Louis and St. Charles counties, City of St. Louis and Trailnet. The Gateway Bike Plan provides a long-term vision for providing a connected system of on road bicycle routes between communities, transit, greenways and trails. The Gateway Bike Plan was completed in August 2011 and covers St. Louis County, City of St. Louis, and the urbanized communities of St. Charles County.

During the 16 month planning process, the development of the Gateway Bike Plan included wide-reaching public engagement and involvement, as well as consultation with numerous stakeholders and agencies in the greater St. Louis region. A variety of interests from citizens, elected officials and their staff to local, County and State transportation agencies were consulted.

The Gateway Bike Plan provides both a coordinated vision for accommodating and encouraging bicycling as a viable transportation mode, and practical action

strategies for how to achieve this vision over the next 20 years. The Gateway Bike Plan, which is available at <http://stlbikeplan.com>, provides priority areas and identifies near (2011-2017), medium (2018-2023) and long-term (2023-2031) priorities.

Existing Trail and Bicycle Facilities Plans – St. Charles County

Several subdivisions/developments have trail plans as well. Private residential subdivision trails in the City of Dardenne Prairie include McCluer Village, Westfield Woods and Aberdeen. The Wingham and Twin Chimneys subdivisions in the city of O'Fallon have trails and on-street bicycle facilities.

The city of O'Fallon Multi-use Trail System provides for numerous projects in the Dardenne Prairie area. A trail is planned along Highway K, which will extend from Highway 79 over Interstate 70 to Interstate 64/U.S. Highway 40/61. A trail is planned along Interstate 64/U.S. Highway 40/61, which will link to the County's Motherhead Road Trail via O'Fallon's Highway 94 Trail. It will extend up Interstate 64/U.S. Highway 40/61 to the proposed Henke Road Trail and continue past Interstate 70. A trail is planned along Highway N from Interstate 64/U.S. Highway 40/61 past Highway K to a proposed Creek Trail. There is a plan to connect the existing trails along Dardenne

Creek to the existing trail along Highway K to the east and to Interstate 64/U.S. Highway 40/61 to the west.

The trail networks within developments provide some assistance in linking the previously mentioned arterial trails. The network in Campbell Village is located within dedicated residential street rights-of-way and is available for public use. It makes a connection to both McCluer Road and Henning Road. However, it does not provide a trail or sidewalk alongside of either of these roads. The Aberdeen subdivision trail runs alongside of McCluer Road eastward from Bates Road to a point approximately 1,000 feet south of Highway N. The trail is located on a public access easement. This trail provides a cross-road connection into Campbell Village. Further south along Henning Road, the Westfield Woods trail runs a short way along Henning Road. It is not located on a public easement. Such an easement should be requested from the homeowners association of that development once the connection to a public trail is planned.

The final subdivision trail network in the Dardenne Prairie area is located in the city of O'Fallon, Winghaven development. Plans for this development provide for trails located on public right-of-way. Much of the system is in the form of single sidewalk along streets. It does make several key connections by linking Highway N southward to Highway 40/61 along an arterial street named Winghaven Drive and

also links that connection to Post Road at Interstate 64/U.S. Highway 40/61. It connects Red Hawk Parkway southeastward to Post Road and continues further southward, again connecting to Interstate 64/U.S. Highway 40/61. These links will preclude the need for a trail along the north-south leg of Post Road and will create a portion of the Interstate 64/U.S. Highway 40/61 trail and the Highway N trail.

Specific Trail Projects

Weldon Spring Road. A trail along Weldon Spring Road could be constructed in two segments. The western segment would connect Interstate 64/U.S. Highway 40/61 to Henning Road. This trail, if constructed on the north side of the road to serve the Carriage Hills subdivision, would lie mostly in the city of O'Fallon. It would link the Henning Road trail to Interstate 64/U.S. Highway 40/61. The eastern segment would connect Henning Road to Highway K. It would also serve the new Fieldstone Farms subdivision in O'Fallon. Since a major portion of this trail would lie in O'Fallon and the city of O'Fallon has, by agreement, assumed responsibility for Weldon Spring Road, some form of cooperative effort would be needed for its completion. It would serve as another link to the Highway K and Technology Drive trails.

Highway N. A trail along Highway N from Interstate 64/U.S. Highway 40/61 to Highway K would be a vital link for the

City of Dardenne Prairie network as it connects the Bryan Road trail to the Winghaven Development. It will also eventually bridge over Missouri Highway 364. This is a major trail, which should be two-way, having a minimum width of eight feet.

Although the St. Charles County Bikeway Plan does not include a trail along Interstate 64/U.S. Highway 40/61, the O'Fallon Master Plan does. This trail will link the City of Dardenne Prairie system southward to Highway 94 and to the trails within the Missouri Research Park. To the north, this trail will link, by the Henke Road Trail, to the Railroad Trail, north of Interstate 70.

There are two small portions of this trail that lie in Dardenne Prairie. The most northern portion extends southeastward

from Highway N to Post Road. The southern portion extends southeastward from Weldon Spring Road to Schote Creek. An area identified by agreement to be in the city of O'Fallon growth area, which contains the Winghaven Development, separates them.

Dardenne Creek Trail The trail along the Dardenne Creek channel could be extended to connect to the proposed Interstate 64/U.S. Highway 40/61 trail and existing Highway K trail. These connections would link the Dardenne Prairie trail system with Highway N and Motherhead Road to eventually connect northward to Mexico Road and on to I-70. Such a trail could lie within the 25' setback from all open channels as provided for in the "2008 St. Charles County Design Criteria for the Preparation of Improvement Plans".

The following are recommended standards for Dardenne Prairie Trails.

1. Minimum 8' wide asphaltic concrete, 2" thick with 4" compacted aggregate base.
2. Separate trail from roadway/shoulder by at least a 2' green space (where right-of-way width permits).
3. Use sidewalks only where low-volume traffic is present on adjacent, residential street. (Direct bicycles onto street.)
4. Require ADA ramps at curbed roadways.
5. Use standard signs directing trail traffic through developments.
6. Construct network map signs at major intersections and development network signs within developments.
7. Provide bicycle safe inlet gratings in bikeway path.
8. Design according to AASHTO guidelines.
9. Separate equestrian trails from paved trails where appropriate.

Trail Project Funding

Funding of the trail projects undertaken by Dardenne Prairie can be provided from a number of sources, including:

1. General Funds
2. Donations of Property
3. Construction as a Part of a Development
4. Cost sharing with St. Charles County and/or the city of O'Fallon
5. Metropolitan Park and Recreation District (Great Rivers Greenway) Lease Agreement
6. Missouri Transportation Enhancement Fund Program

General Funds - Although very limited for the City of Dardenne Prairie, use of monies from the General Fund is certainly permissible for design and construction of trails. This is not perceived to be a major source of funding for the trail network. These funds should only be used as participative seed money for grants or to fill in minor connections between developments to finish a trail system.

Donations of Property - Wherever trails are planned that require easements or right-of-way in addition to existing easements and rights-of-way, an attempt should be made to get the needed property donated. Especially in the case of equestrian trails and other trails along watercourses, the owner may be willing to make a donation. Particularly in cases of proposed development, after adoption of this plan,

these easements shall be required as part of the approval process. Another incentive would be to have the value of the donation assessed and a letter provided to the owner for tax deduction purposes. In these cases, the trails could be located within the standard 25' open channel setback. This would be at essentially no loss of developable land to the owner. Further, owners may be agreeable to donating such easements to ensure preservation of the scenic watercourse and adjacent foliage. Responsibility for maintenance of such property donations may be able to be transferred, by agreement, to the St. Charles County Parks and Recreation Department. Further, insurance covering landowner liability for accidents on the donated easements may be furnished by agreement with the County.

Construction as Part of a Development - During the development planning process, developers have generally been willing to provide trails as an amenity for their residents. Further, they have been willing to plat widening strips of land adjacent to existing roadways. This should continue to be a source of property for trails and for the actual construction of trails.

Cost Sharing - Since many of the trails planned within the City of Dardenne Prairie will be partially constructed in the unincorporated County and city of O'Fallon, joint funding of these projects should be possible. This is especially true considering that many of the planned trails

were included in the O'Fallon Master Plan. It would be reasonable to assume that, at a minimum, O'Fallon would finance those portions of the trails within their municipal boundaries. Considering the City's limited resources, O'Fallon may also be willing to fund portions in Dardenne Prairie and the County, and might even fund their planned trails entirely. Missouri Transportation Enhancement Fund Program - Funds are available for trails through this State program. Projects compete for available funds annually. One requirement for these funds is that there must be a minimum of 20% local cost match. Dedicated easements acquired from developments can be included in this match. All of the preceding funding sources can be utilized for the local match. Another limitation is that a municipality may submit only one project application each year. The city of O'Fallon may be willing to finance the local share of trails included in their plan if Dardenne Prairie is willing to act as the applicant and sponsor for the project.

Trail Plan Implementation - Dardenne Prairie Plan Trails

Weldon Spring Road Trail In order to keep the number of road crossings to a minimum and serve the existing developments best, this trail should be constructed on the north and east side of the road. Also, this trail should be divided into two projects.

Transportation Enhancement Funds can be sought, if available, and a joint effort with the city of O'Fallon negotiated. Starting at the northern end of Weldon Spring Road, the Technology Drive to Henning Road section has 2650 feet all in Dardenne Prairie. The Henning Road to the southern end of Technology Drive has 4,350 feet (58%) in Dardenne Prairie and 3,175 feet (42%) in O'Fallon.

Highway N. A trail along Highway N from Interstate 64/U.S. Highway 40/61 to Highway K should be a part of the planned improvements to this section of this State highway. Funding for this trail will likely be through the City of Dardenne Prairie by way of a Transportation Improvement Project grant specifically for this trail or as a part of the overall improvements of this roadway.

Dardenne Creek Trail This trail along the Dardenne Creek channel that currently exists in the Dardenne Greenway – BaratHaven Park and the Dardenne Greenway Bluebird Meadow Park should be connected to the trail along Highway K via the O'Fallon Sport Park just to the east of the point where Dardenne Creek leaves the Dardenne Prairie corporate limits. Funding for this trail connection will like come from Great Rivers Greenway.

(This page intentionally left blank)

IX. IMPLEMENTATION AND CONCLUSION

Future Development

A Neighborhoods and Facilities map is provided as Figure 12 of the Appendix. As depicted on this map, the City of Dardenne Prairie will not grow significantly in land size due to annexations made by the city of O'Fallon and the city of Lake St. Louis. A majority of the area within the City has been developed. However, there are still thousands of acres of undeveloped and re-developable land with the City of Dardenne Prairie's growth area. A map depicting Possible Future Land Development Areas is provided as Figure 13 of the Appendix.

Future Land Use

The City's Conceptual Land Use Guidance Map is provided as Figure 14 of the Appendix. This map is based upon the current goals of the City fathers, the existing land use pattern, and the anticipated growth of the area. This plan deals with land use within the planning area including within the City limits of the City of Dardenne Prairie as well as within unincorporated areas within the growth area that may be annexed into the City in the future. This plan emphasizes providing reasonable residential, public, commercial, industrial, and recreational development while maintaining the City's high quality, diverse-housing character.

As a matter of policy, all development in the City has, and should continue to be, controlled through the use of the Planned Unit Development (P.U.D.) process. This process, contained in the Zoning Regulations, provides for a contractual arrangement between the developer and the City. The developer prepared an Area Plan, which depicts the proposed development in detail as part of the approval process. Public hearings are held to obtain input and identify the concerns of the owners of nearby properties. The Board of Trustees and the developer can engage in dialogue to resolve the issues. Deviations from City regulations can be incorporated into the P.U.D. in accordance with City Code. The approved Area Plan documents the detailed plan for the development so that the City and the developer know the terms of their mutual agreement.

This plan will be to provide for an optimum quality of life for the residents. Residential development shall remain the primary land use in the City of Dardenne Prairie. The primary goal of churches, schools, parks, open spaces, and public buildings shall be allowed in areas designated as residential. All areas planned for residential development are shown on the Future Land Use Guidance Map, which is provided as Figure 14 of the Appendix. Exact land use will be determined as a prospective developer works through the P.U.D. process discussed earlier. Generally, intense

developments such as villas (single family attached housing), apartments and condominiums should be clustered and located along arterial streets to minimize traffic impact and impact on single-family detached housing.

It is planned that future commercial land uses will be restricted to the areas in the Uptown Zoning District and along Missouri Highway 364, Post Road, Henke Road, La Le Lane, Feise Road, Bryan Road, Missouri Highway N, Technology Drive and Interstate 64/U.S. Highway 40/61, as indicated on the Future Land Use Guidance Map, Figure 14. These areas are along the City's major arterial roadways and are the most suitable for commercial development. These areas are along the roadways that carry the most traffic, a plus for businesses desiring visibility. A copy of the Dardenne Prairie City Plan for the Uptown Zoning District is included in Appendix A.

This concept will keep the larger traffic volumes associated with commercial enterprises off of the smaller, residential and minor streets. This grouping of commercial uses will also protect the residential areas from the intrusive noise and aesthetic problems associated with business operations while encouraging patronage of other nearby businesses.

The areas shown for commercial use on the Future Land Use Guidance Map, Figure 14 along Feise Road are envisioned to be C-1, Local Commercial District uses. These will provide local residents the goods and

services needed on a daily basis. With the close proximity of the Bryan Road-Missouri Highway 364 interchange, the tract at the northwest corner of Bryan Road and Feise Road has potential for a shopping center, mall or other commercial and mixed use center.

The area shown in the Future Land Use Guidance Map, Figure 14, for commercial use around the Missouri Highway 364-Bryan Road interchange have potential as a C-2, General Commercial District. This is a good location for mixed uses such as residential, open space, fast food and larger retail sales outlets.

The area shown in the Future Land Use Guidance Map, Figure 14, for commercial is along Highway N west of Post Road is typically suited for C-1, Local Commercial District similarly to the area along Feise Road, previously discussed.

The area shown for commercial use in the Future Land Use Guidance Map, Figure 14, along Highway 40-61 west of Post Road is in the Uptown Zoning District and a part of the regionally-designated High-Technology corridor. As a High Technology Corridor, there should be close controls on what types of residential and business uses are located in this area. The intent is to attract high technology office and research facilities and associated uses. The appearance of structures and the surrounding grounds are also closely controlled and held to a high standard. This area is complementary to the adjacent HTCD district of adjacent cities

and St. Charles County. In addition to the one existing development zoned for industrial use (64 West Business Park), industrial development shall consist of high-technology research and development firms and similar developments and shall be restricted to the High-Tech Corridor, as indicated on the the Future Land Use Guidance Map, Figure 14.

As is the intent of the High Tech Corridor initiative, the City should emphasize use of

the HTCD land for office/research facilities. Use of land in the HTCD designated area should be minimized for support facilities such as restaurants and cleaners, etc.

Public and semi-public lands currently consist of churches and schools, as discussed in the Existing Land Use section of this plan.

GOALS AND OBJECTIVE

Goal: To provide a high-quality, diverse-housing environment for City residents.

Objective 1: Control the density of residential developments by encouraging developments with lots larger than the minimum size and limiting overall development densities through the zoning process.

Objective 2: Closely control development amenities such as trails, common ground, vegetative buffers, boulevards, mini-parks and waterway preservation through the use of Planned Unit Development procedures.

Objective 3: Actively pursue the preservation of wooded area and flood plains as passive park areas, common ground and easements by working with neighboring communities, the County and the State to secure funding.

Goal: To provide high quality municipal services to City residents without additional property taxation.

Objective 1: Continue to contract for law enforcement and road maintenance with St. Charles County.

Goal: To provide residents with convenient shopping opportunities while deriving sources of funding for City services.

Objective 1: Orchestrate a coordinated effort to locate a shopping mall in the City.

Objective 2: Entice needed commercial endeavors to locate in the City.

Goal: To annex all unincorporated areas within the City growth boundaries through voluntary or involuntary annexation within the next five (5) years.

Annexations

The existence of the City of Dardenne Prairie was made possible by voluntary annexations. As a result, some pockets of land within the City's boundaries are still

unincorporated. The remaining unincorporated land should be annexed into the City through the following steps:

Goal: Develop an annexation plan.

Objective: Pursue voluntary and involuntary annexations of all unincorporated property that are in the City's growth area within the next five (5) years.

X. AMENDMENTS AND UPDATES

PLAN UPDATES AND REVISIONS

The City's Comprehensive Plan shall be used to guide decision-making in Dardenne Prairie and its Future Growth Area. In order for the City's planning efforts to function and serve the community well over time, they must be reviewed, revised, and updated periodically.

Revisions to City's Comprehensive Plan and elements thereof shall be conducted according to two distinct procedures: Comprehensive Plan Update and Minor Amendments to the Comprehensive Plan.

Updates to City's Comprehensive Plan will take place every ten (10) years, ideally in a concurrent process with a capital improvements plan. Updates to the City's Comprehensive Plan should be aligned with the City's budgeting process. Comprehensive Updates to existing related elements including transportation improvement plans, storm water master plan, capital improvement plans, and the Uptown Plan generally occur approximately every 10 years, as directed by the City Administrator, budget and work programs, and as directed by the Board of Aldermen. City Staff should perform annually reviews and updates of the status of existing plan implementation.

The purpose of the Comprehensive Plan Update is to thoroughly re-evaluate and update the vision, principles, and policies contained within the plans, develop new principles and policies if necessary, and make sure that the plans align, are headed in the right direction, and are being effective. Comprehensive Updates also ensure that decision-makers are current and aware of the directives contained within the City's Comprehensive Plan.

A separate process shall be used to make Minor Amendments to City's Comprehensive Plan and other related elements. Minor Amendments may include revisions to one or a few sections of the plan as a result of a specific issue, policy, or directive from the Planning and Zoning Commission. Minor amendments may include changes to related elements such as the transportation improvement plans, storm water master plan, capital improvement plans, and the Uptown Plan as well as corrections to text or map errors.

The following sections outline the process and procedures for revising City's Comprehensive Plan and elements thereof.

COMPREHENSIVE UPDATE PROCEDURES

A Comprehensive Update of City's Comprehensive Plan will take place every ten (10) years unless otherwise directed by the Board of Aldermen. In making a determination of when a Comprehensive Update should be initiated, a prime consideration should include what changes have occurred since the plan was last updated. These changes may be in the economy or the environment, housing affordability, traffic congestion, local priorities or issues, projected growth, other unforeseen opportunities, etc. The results of City's Comprehensive Plan monitoring will provide a good indication of these changes.

A Comprehensive Update will include a thorough reevaluation of the vision, goals, principles, policies, and information contained within the Comprehensive Plan, noting those that should be changed and those that should be removed, and develop new policies if necessary, to make sure that the plan is aligned with the City's vision, goals, principles and policies, and is being effective.

A Comprehensive Update of City's Comprehensive Plan will be led by the City Administrator and will include extensive opportunities for involvement by the public, Planning and Zoning Commission, Board of Aldermen, City staff and other affected interests.

The Planning and Zoning Commission will then approve, approve with conditions, or deny the update based on its consideration of the recommendations from City staff, and evidence from public hearing(s).

MINOR AMENDMENTS

Minor Amendments will be considered by the Planning and Zoning Commission based on recommendations from City staff. The Planning and Zoning Commission will then approve, approve with conditions, or deny the amendment based on its consideration of the recommendations from the City staff and evidence from the public hearing(s). Approval of the amendments will be by a majority vote of the Planning and Zoning Commission.

Citizen requests for a Minor Amendment will be reviewed by the City Administrator for possible consideration by the Planning and Zoning Commission no more frequently than twice per calendar year unless directed by a recommendation from the Board of Aldermen. Amendment requests based on proposed development projects that involve re-zonings may also be processed concurrently with re-zoning applications.

Amendments initiated by the Board of Aldermen, City staff and annexations/initial zoning, may be processed at any time.

Requests shall be submitted to the City Administrator at least 90 days prior to the

hearing date for the Planning and Zoning Commission public hearing. The 90-day submittal requirement is necessary in order to allow adequate time to complete the background work for considering a plan amendment and for adequate public notice. A plan amendment will be approved if the Planning and Zoning Commission makes specific findings that:

- The existing City's Comprehensive Plan and/or any related element thereof is in need of the proposed amendment, and

- The proposed amendment will promote the public welfare and will be consistent with the vision, goals, principles and policies of City's Comprehensive Plan and the elements thereof.

If approved by the Planning and Zoning Commission, the City's Comprehensive Plan will be revised to include the changes resulting from the amendment.

(This page intentionally left blank)

XI. MONITORING PLAN

INTRODUCTION

The concept of monitoring progress towards the desired future is integral to the planning process. The City's Comprehensive Plan must be monitored regularly to determine whether implementation of the plan is occurring and whether it is achieving desired results. This monitoring approach will provide feedback to residents and policymakers on whether the policies in the plan are helping to achieve our vision for our community.

In order to be effective, planning must not be static but rather always dynamic, incorporating a process of planning, taking action, checking progress, and acting to change course where needed. This monitoring of the City's Comprehensive Plan establishes a more effective mechanism for decision-making and continuous improvement by creating stronger links between indicators, ongoing plan refinements, policy adjustments and implementation whereby the City monitors and adjusts its actions over time to move toward its desired vision.

A well-designed performance measurement program can help staff, Board of Aldermen, and the public understand both progress and setbacks in achieving the Comprehensive Plan's principles.

More importantly, the program can direct staff and decision makers towards revisions

for more effective strategies. Eventually, it will become the tool that will assess the progress being made by the City toward the goals of Comprehensive Plan and other related elements. A monitoring program measures progress, but also engages community members in a dialogue about the future, identifies areas that need attention, and provides an avenue to alter community outcomes.

Evaluation will be accomplished by a City Staff evaluation of the progress of the City in its implementation efforts. By monitoring its progress, the City can make adjustments to the Comprehensive Plan as necessary.

Monitoring changes in chosen indicators will provide a clear understanding of where progress is being made as well as highlight areas where changes need to occur to policies and/or actions in order to achieve desired results.

It is important to note that by adopting a monitoring program, which is not required by Missouri statutes to be included in a comprehensive plan, the intent is not to establish an additional policy or regulatory layer. Rather, it is to establish a feedback loop that will help to monitor progress in meeting the various goals and policies of the Comprehensive Plan and will need to be periodically reviewed and updated.

A monitoring plan has two major components: implementation monitoring, and performance monitoring. Tracking implementation activities is a critical aspect of the monitoring plan. Implementation monitoring will provide information on the specific steps that the City and its partners are taking to implement the plan. The City, other public agencies, developers, and private sector groups all play an important role in implementing City's Comprehensive Plan.

IMPLEMENTATION MONITORING

The cause (for example, the adoption of new or revised regulations, or the investment in specified types of transportation programs) must occur before the effect can be measured (such as changes in land use, transportation system performance, the economy, or quality of life). This also includes actions needed to implement the City's many other plans and policies, such as its subarea plans, economic health strategy, and other plan and policy documents. This section therefore is devoted to ensuring that the steps are being taken to adopt and carry out policies rather than tracking actual outcomes.

Implementation monitoring will be accomplished through a periodic Comprehensive Plan review process, review of significant public and private development projects, and review of infrastructure projects for inclusion in the

City's Capital Improvement Plan that is in alignment with the region's Transportation Improvement Program. Implementation monitoring is a qualitative exercise, tracking public policy and investment actions.

PERFORMANCE MONITORING

Performance monitoring is intended to show whether the actions taken by the public and private sectors in the City of Dardenne Prairie are achieving the desired results. This will be accomplished by establishing and tracking progress over time by using a set of indicators.

An indicator is a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement over time. It is a measurement that can be used as a reference or as a standard for comparison. The program should include appropriate indicators that address each of the Comprehensive Plan sections as appropriate. Generally speaking, monitoring programs with a few key indicators of high quality are more effective than those that include dozens of indicators of variable quality. Therefore the proposed indicators should be designed to be manageable but of excellent quality. The monitoring program for the City's Comprehensive Plan should initially focus on a few key indicators and expand over time as others are identified. Each indicator should have the following characteristics:

- Be linked to data that is easy to obtain from a reliable and consistent source and not be based on abstractions or model assumptions but instead include real, quantifiable data.
- Be measurable over time.
- Provide meaningful information relating to the Plan's principles and policies.
- Be sensitive to change.
- Be easily understood and interpreted.

(This page intentionally left blank)

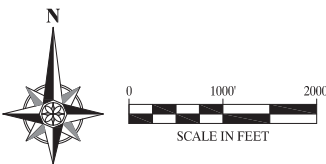
Appendix

(This page intentionally left blank)



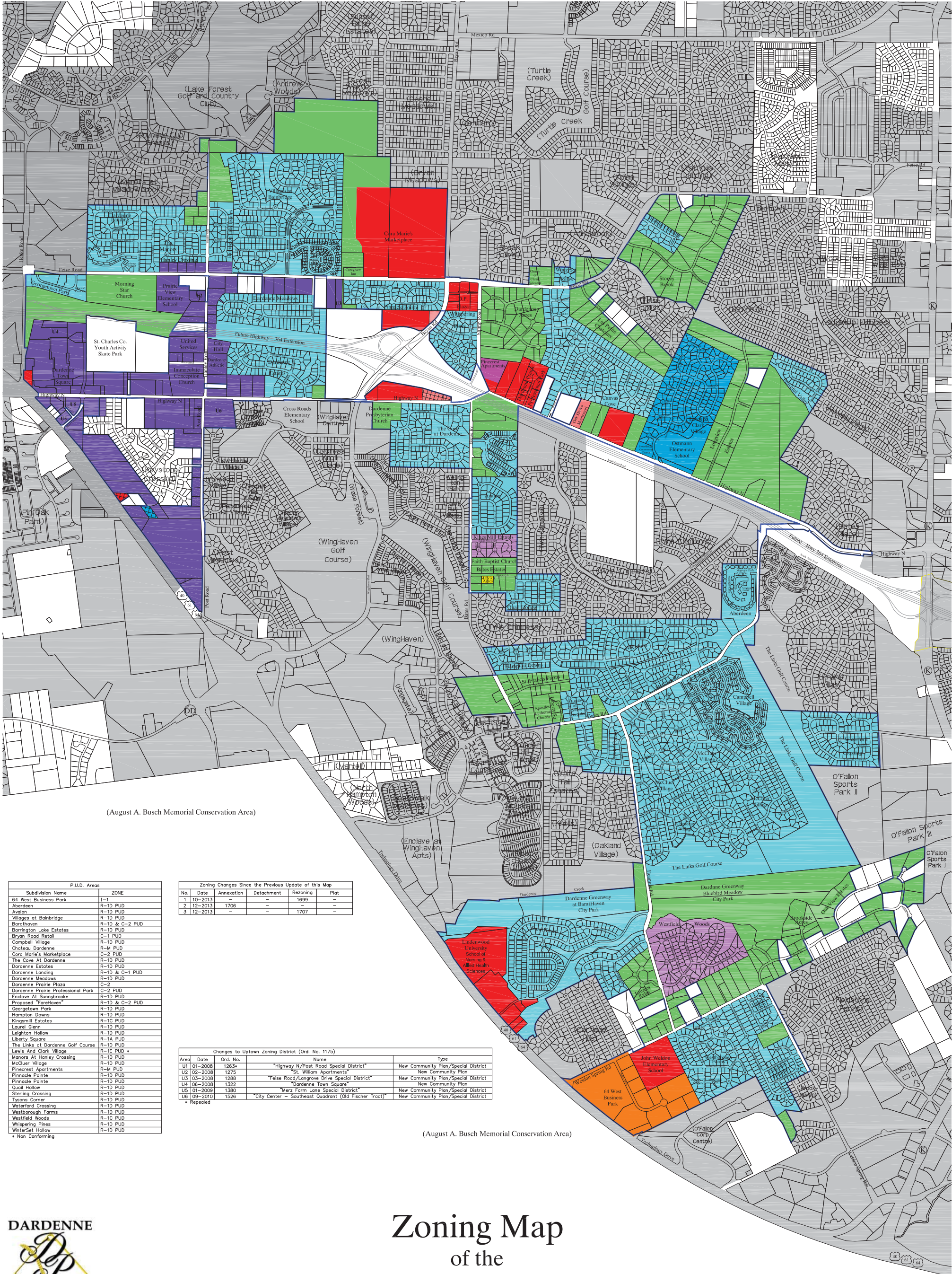
City Limits of the City of Dardenne Prairie, Missouri

Legend
Dardenne Prairie City Limits
Dardenne Prairie Future Growth Limits



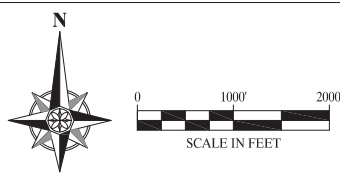
City Limits Map
City of Dardenne Prairie, Missouri
As adopted by Ordinance No. 1607 on April 18, 2012, and modified by subsequent amendments up to and including Ordinance No. 1679 of April 17, 2013. The city limit lines are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of city limits.
This map was prepared by Kehoe Engineering Company, Inc. on February 12, 2014.

FIGURE 1



Zoning Map of the City of Dardenne Prairie, Missouri

C-1	HTCD	R-1A	R-1C	R-1E*
C-2	I-1	R-1B	R-1D	City Limits
R-M	St. Charles County's R-1E	Unincorp. St. Charles Co.	City of O'Fallon	City of Lake St. Louis
Uptown	St. Charles County's C-1			
*Non-Conforming	St. Charles County's C-2			

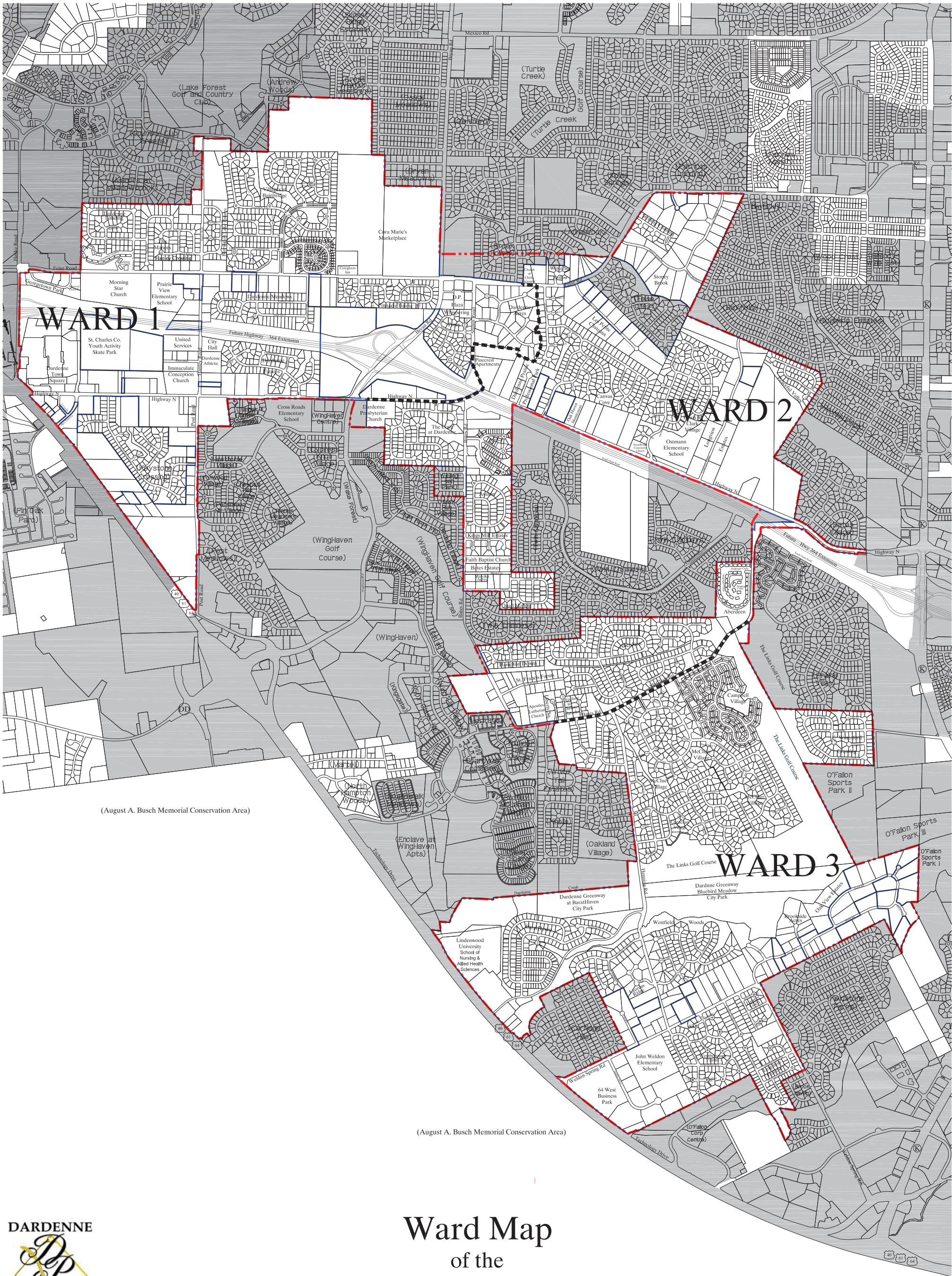


Zoning Map
City of Dardenne Prairie, Missouri

As adopted by Ordinance No. 1607 on April 18, 2012, and modified by subsequent amendments up to and including Ordinance No. 1708 of December 4, 2013. The zoning lines are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant zoning information.

This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 2



Ward Map of the City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)



Dardenne Prairie Future Growth Limits

Dardenne Prairie City Limits

Dardenne Prairie Ward Boundaries

City of O'Fallon

City of Lake St. Louis



Ward Map
City of Dardenne Prairie, Missouri

Property lines are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant zoning information.

This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 3

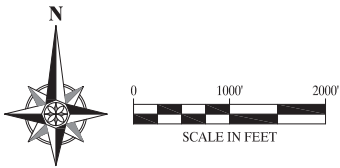


Flood Prone Areas in and around the City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)

Legend

- Floodway Fringe of the Special Flood Hazard Area
- "No Encroachment" Floodway of the Special Flood Hazard Area
- Dardenne Prairie City Limits

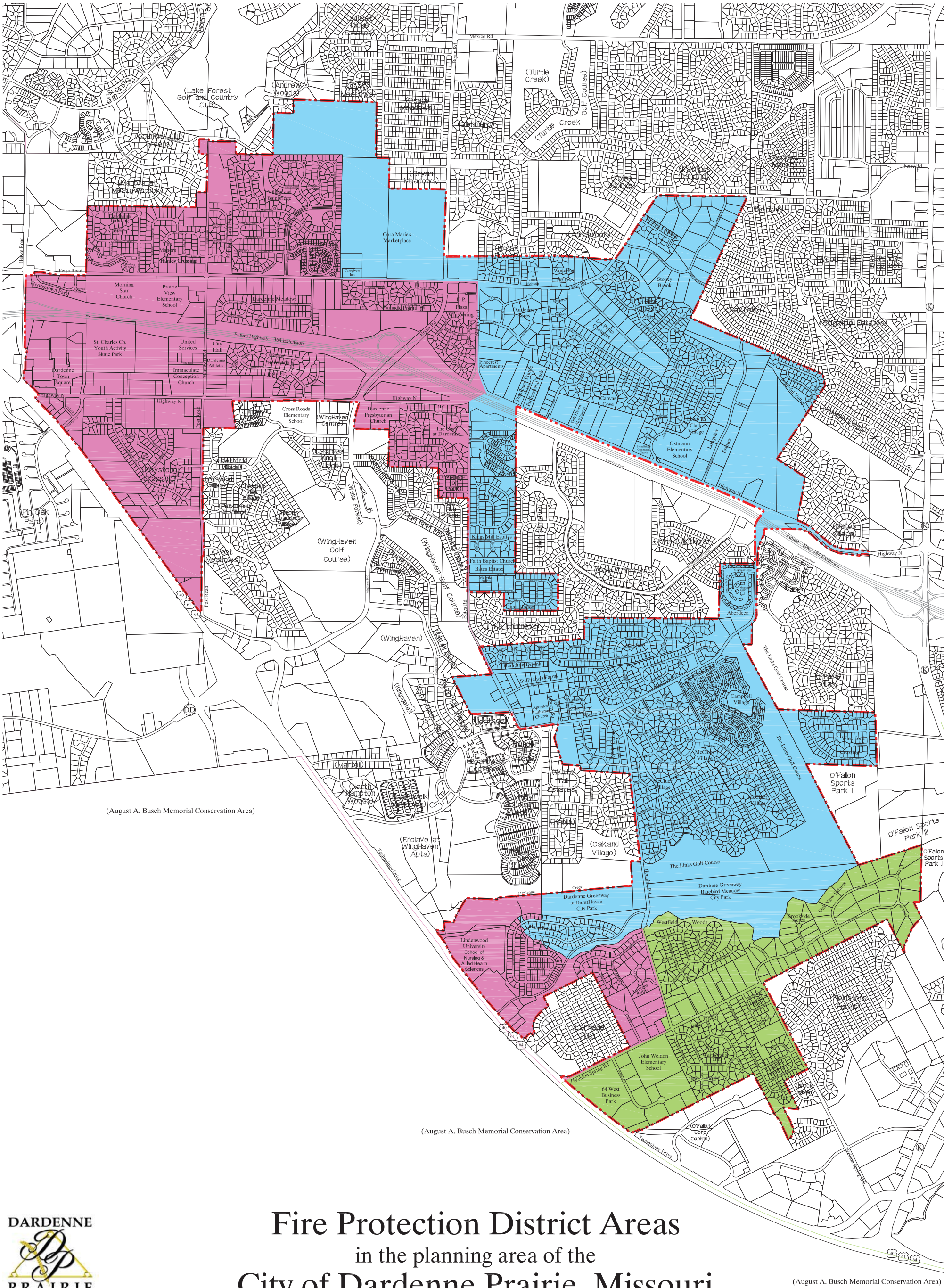


Flood Prone Areas Map
City of Dardenne Prairie, Missouri

The flood prone boundaries shown on this map are approximate. Please refer to the current National Flood Insurance Program Flood Insurance Rate Maps for more exact location of flood prone boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant information.

This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 4



Fire Protection District Areas

in the planning area of the

City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)

<p>Legend</p> <ul style="list-style-type: none">O'Fallon Fire Protection District ServiceWentzville Fire Protection District ServiceCottleville Fire Protection District ServiceCity Growth Limits	<p>North Arrow</p> <p>Scale Bar</p> <p>0 1000 2000 SCALE IN FEET</p>	<p>Potable Water Service Areas Map City of Dardenne Prairie, Missouri</p> <p>The property boundary lines and water service areas shown are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office and the appropriate water service suppliers for the exact location of boundaries.</p> <p>This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.</p>
--	--	---

FIGURE 5

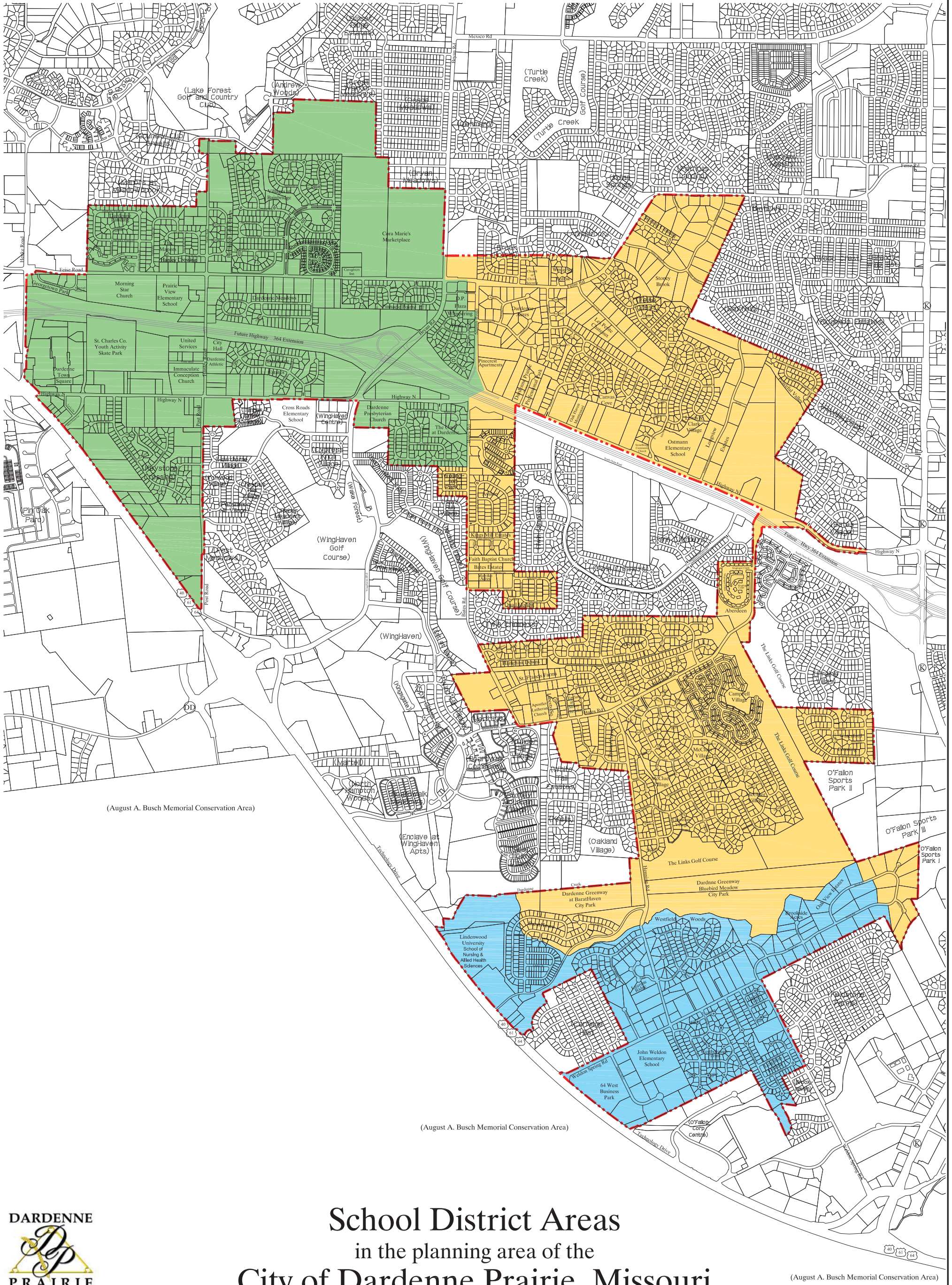


FIGURE 6



Public Parks and Green Spaces of the City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)

City Parks
City Limits

Legend



0 1000 2000
SCALE IN FEET

Parks and Green Spaces Map
City of Dardenne Prairie, Missouri

The property boundary lines shown are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries.

This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 7



PLANNED TRANSPORTATION IMPROVEMENT PROJECTS		
No.	Project Name	Length (feet)
1	Hanley Road	2,300
2	Hanley Road On-Street Parking	2,700
3	A.D.A. Compliant Facilities	City Wide
4	Feise Road Sidewalks	1,000
5	Stump Road	2,000
6	Highway N Sidewalks	5,000
7	Weldon Spring Road	7,200
8	Highway N	9,500
9	North Outer 364 Extension	4,100
10	Highway N On-Street Parking	5,800
11	Post Road	4,200



Planned Transportation Improvement Projects of the City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)

Planned Projects

City Limits

Legend

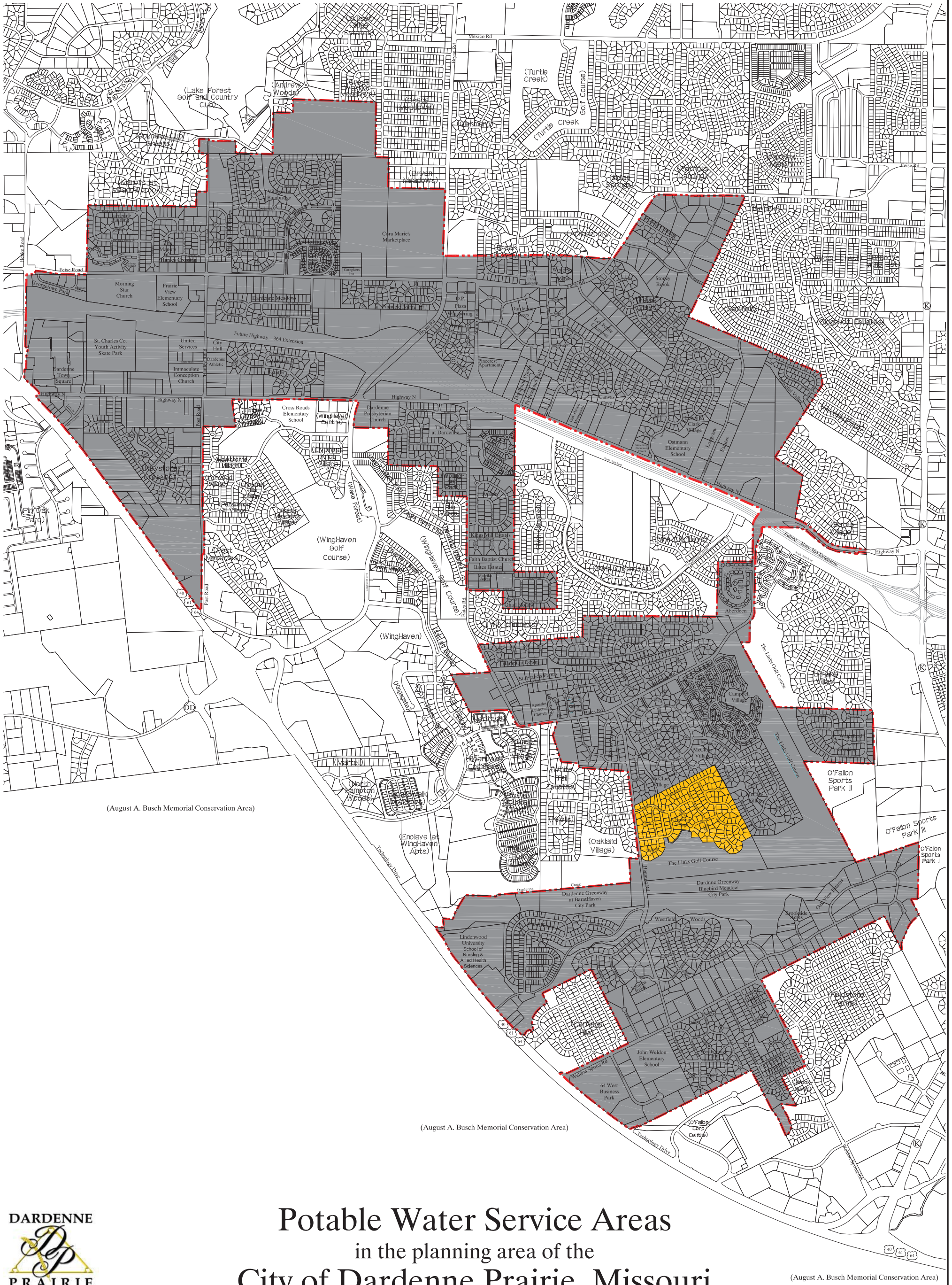
0 1000 2000
SCALE IN FEET

Planned Transportation Improvement Projects Map
City of Dardenne Prairie, Missouri

The property boundary lines shown are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries.

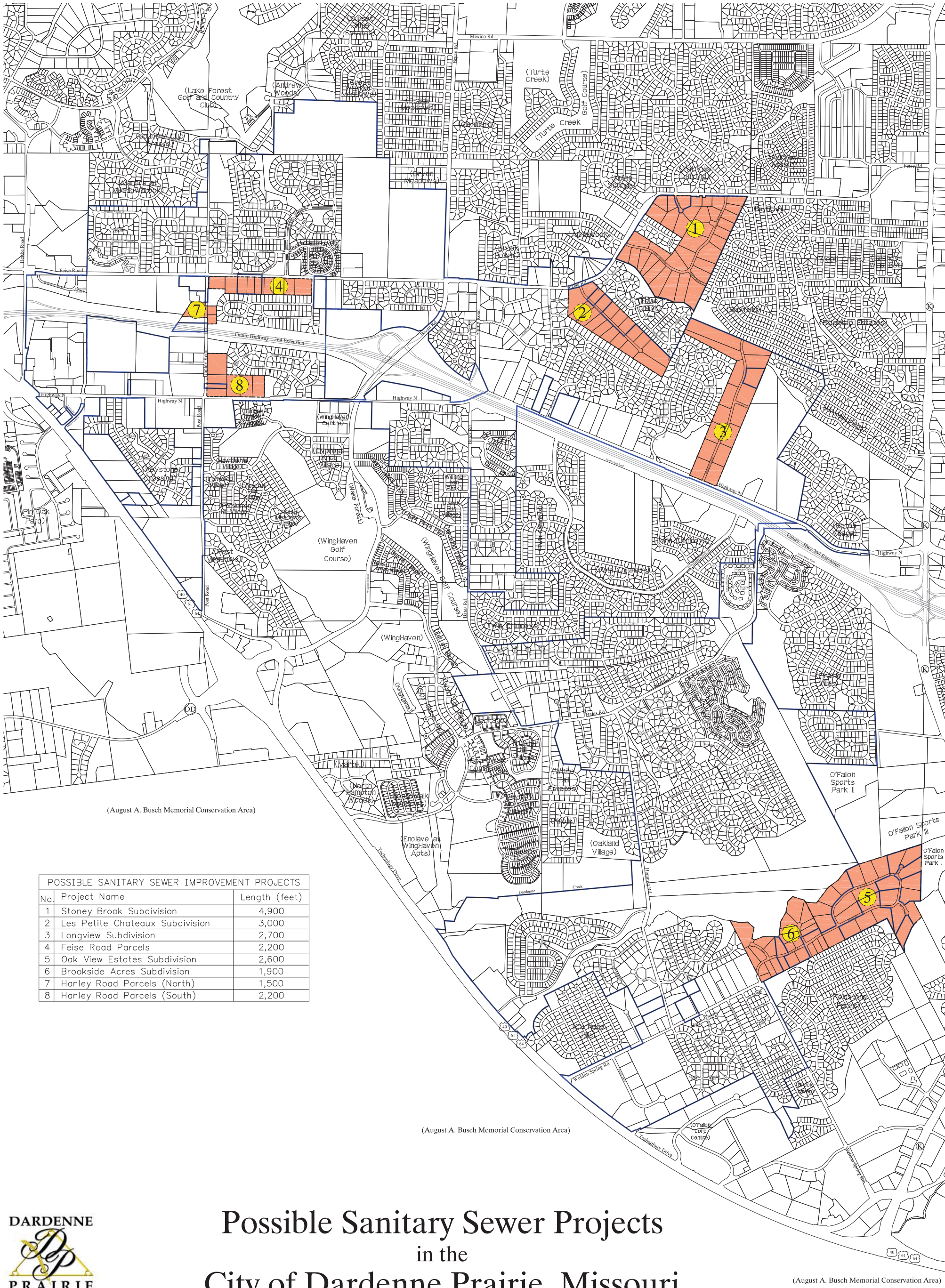
This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 8



<p>Legend</p> <ul style="list-style-type: none"> Public Water Supply District No. 2 of St. Charles County Water Service Area Missouri American Water Service Area City Growth Limits 	<p>N</p> <p>0 1000 2000</p> <p>SCALE IN FEET</p>	<p>Potable Water Service Areas Map City of Dardenne Prairie, Missouri</p> <p>The property boundary lines and water service areas shown are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office and the appropriate water service suppliers for the exact location of boundaries.</p> <p>This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.</p>
--	--	---

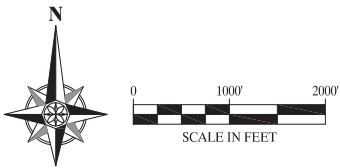
FIGURE 9



Possible Sanitary Sewer Projects in the City of Dardenne Prairie, Missouri

(August A. Busch Memorial Conservation Area)

- Legend**
- Possible Sanitary Sewer Projects
 - City Limits

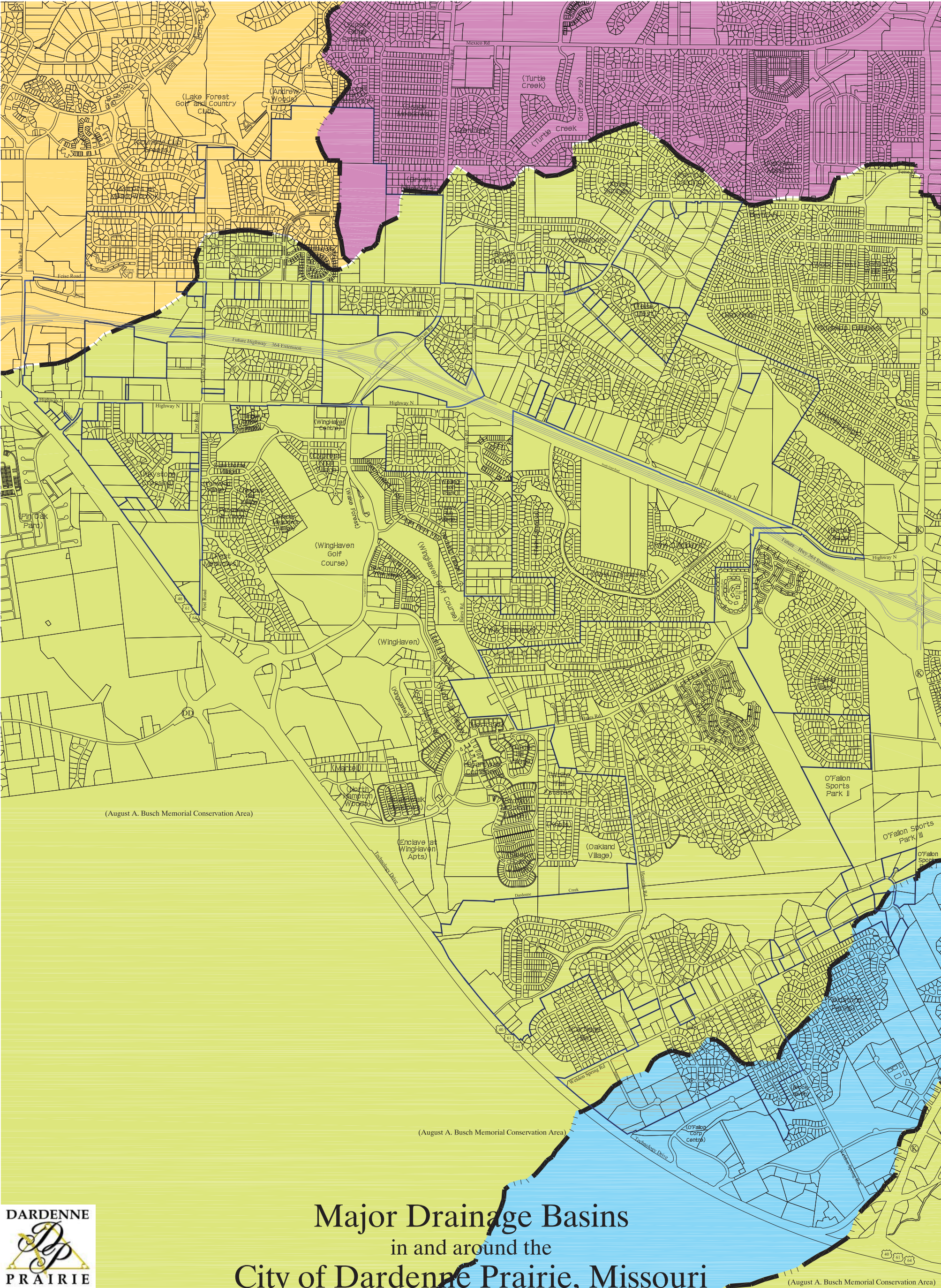


Possible Sanitary Sewer Projects Map
City of Dardenne Prairie, Missouri






The property boundary lines shown are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries.

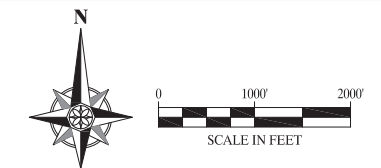
This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 10



Major Drainage Basins in and around the City of Dardenne Prairie, Missouri

Legend	
	DARDENNE CREEK DRAINAGE BASIN
	LAKE ST. LOUIS/PERUQUE CREEK DRAINAGE BASIN
	BELLEAU CREEK DRAINAGE BASIN
	SCHOTE CREEK DRAINAGE BASIN
	Dardenne Prairie City Limits

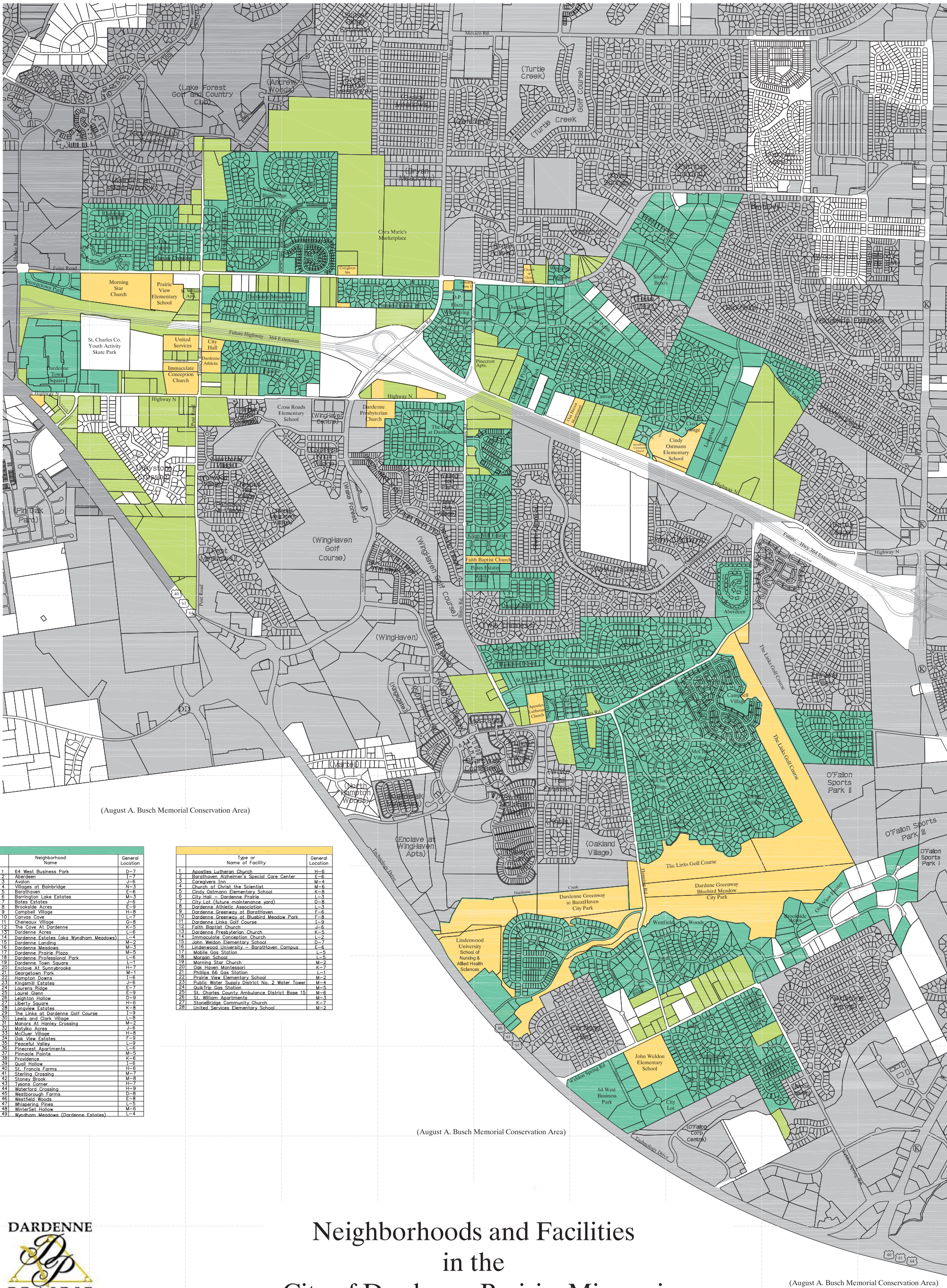


Major Drainage Basins Map
City of Dardenne Prairie, Missouri

The drainage lines shown on this map are approximate. Please refer to the documents on file in the St. Charles County Recorder of Deeds Office for the exact location of property boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant information.

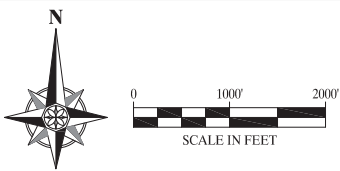
This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 11



Nearbors and Facilities in the City of Dardenne Prairie, Missouri

Legend			
Dardenne Prairie City Limits	<div></div>	Unincorp. St. Charles County	<div></div>
Platted Neighborhoods	<div></div>	City of Lake St. Louis	<div></div>
Other Parcels	<div></div>	City of O'Fallon	<div></div>
Facilities	<div></div>		

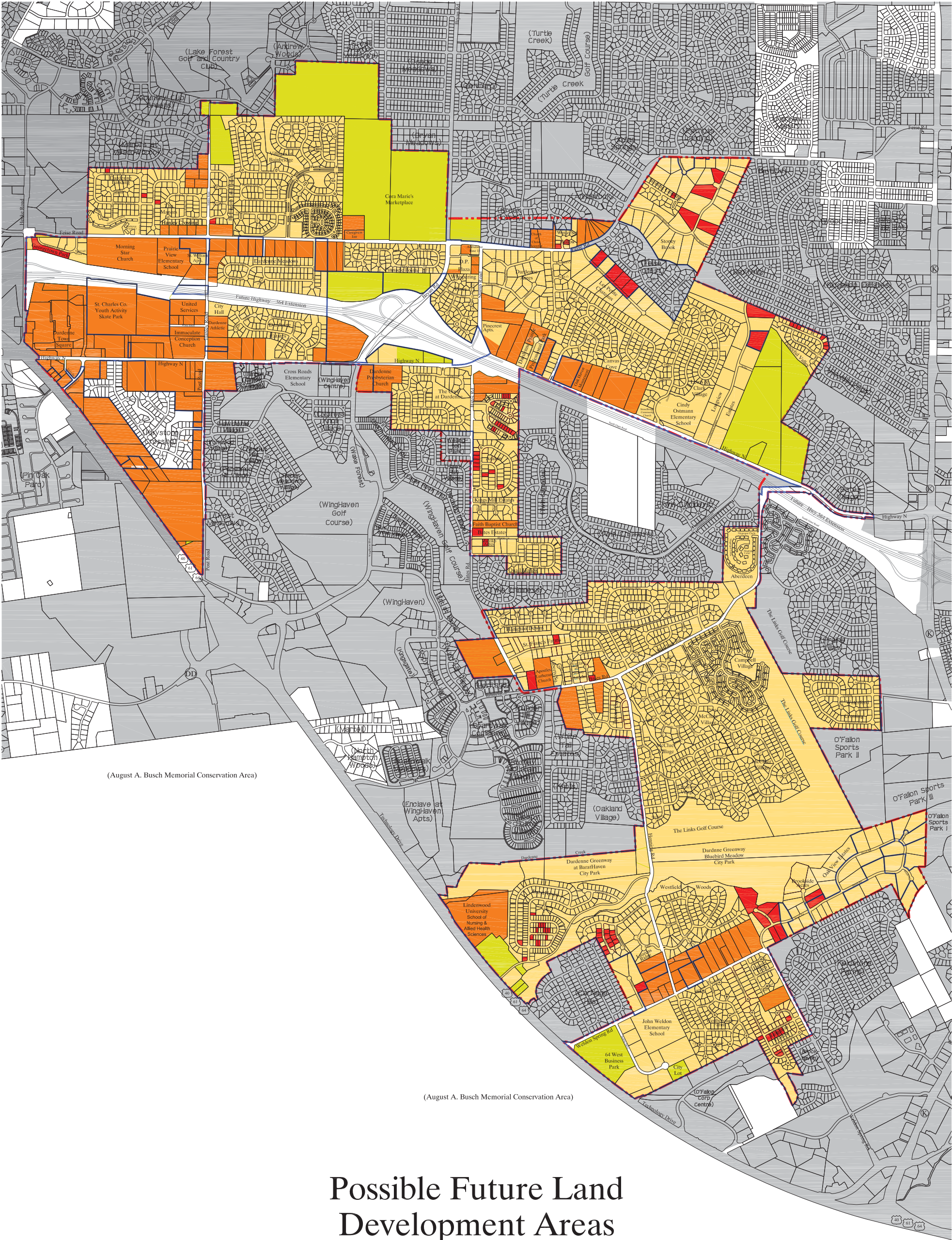


Neighborhoods and Facilities
in the
City of Dardenne Prairie, Missouri

Corporate limits shown on this map are approximate. Please refer to the documents on file in the Dardenne Prairie City Clerk's Office for the exact location of boundaries. Adjacent city limits shown on this map are approximate. Contact respective city for relevant city limit information.

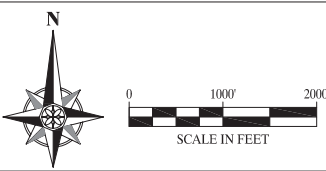
This map was prepared by Kehoe Engineering Company, Inc. to show neighborhoods and various facilities within the City of Dardenne Prairie on December 11, 2013.

FIGURE 12



Possible Future Land
Development Areas
in the
City of Dardenne Prairie, Missouri

Legend	
DARDENNE PRAIRIE VACANT LAND – HOMESITE	
DARDENNE PRAIRIE POSSIBLE FUTURE REDEVELOPMENT	
DARDENNE PRAIRIE POSSIBLE FUTURE DEVELOPMENT	
DARDENNE PRAIRIE EXISTING DEVELOPMENT	
Dardenne Prairie Growth Area	
Dardenne Prairie City Limits	

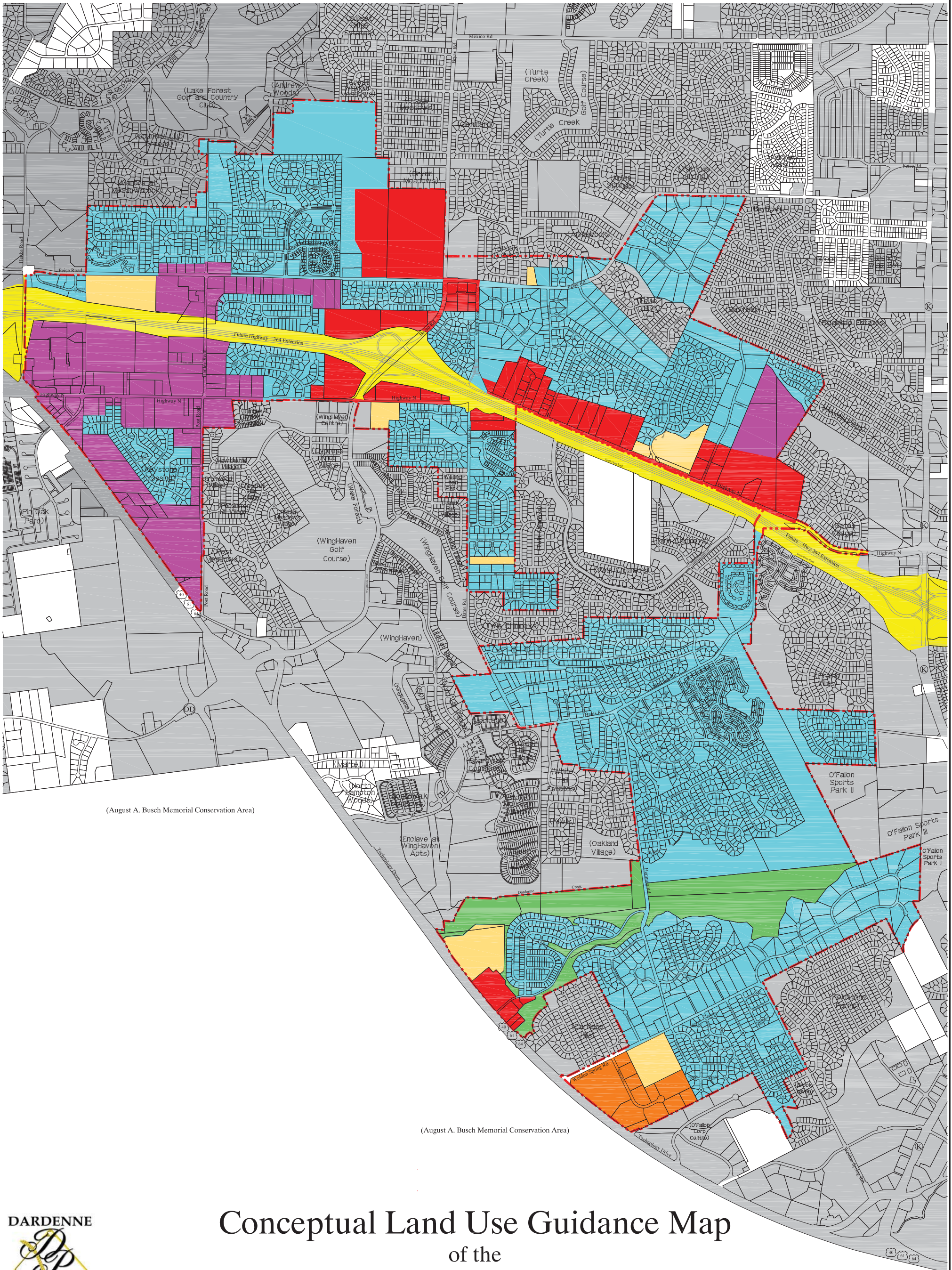


Possible Future Land Development Areas
City of Dardenne Prairie, Missouri

The property lines shown are approximate. Please refer to the documents on file in the St. Charles County Recorder of Deeds Office for the exact location of boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant land use and subdivision information.

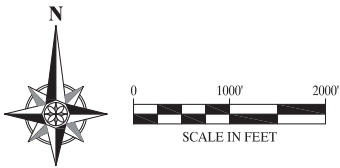
This map was prepared by Kchoe Engineering Company, Inc. on January 16, 2014.

FIGURE 13



Conceptual Land Use Guidance Map of the City of Dardenne Prairie, Missouri

Legend			
Residential		Park	
Commercial		Mixed Use	
Institutional		Industrial	
		City of O'Fallon	
		City of Lake St. Louis	
		Unincorp. St. Charles Co.	
		Future Mo. Hwy 364	
		Dardenne Prairie Growth Area	



Conceptual Land Use Guidance Map
City of Dardenne Prairie, Missouri

Boundary lines are approximate. Please refer to the documents on file in the St. Charles County Recorder of Deeds Office for the exact location of boundaries. Adjacent city annexations shown on this map are approximate. Contact respective city for relevant information.

This map was prepared by Kehoe Engineering Company, Inc. on December 11, 2013.

FIGURE 14

Appendix A

Dardenne Prairie Uptown City Plan

(This page intentionally left blank)



UPTOWN DARDENNE PRAIRIE MISSOURI

DARDENNE PRAIRIE CITY PLAN
(Uptown Sector)

(This page intentionally left blank)

SUBMITTAL DATE

JULY 14, 2007

CHARRETTE DATE

APRIL 17 - 26, 2007

DESIGN TEAM

DUANY PLATER-ZYBERK & COMPANY

Senen Antonio, Cory Babb,
Katharine Burgess, Francisco J. García,
Matthew Lambert, Maria Mercer,
Josh Rak, Galina Tahchieva

CONSULTANTS

ANDREWS UNIVERSITY

Kenneth Garcia, Andrew Von Maur

ALLISON RAMSEY ARCHITECTS

William Allison

CARRICO ILLUSTRATION

David Carrico

GIBBS PLANNING GROUP

Robert Gibbs

HALL PLANNING & ENGINEERING, INC.

Dewayne Carver

SHOOK KELLEY

Terry Shook

STUDIO ONE ARCHITECTURE

Tim Short

CLIENT

THE CITY OF DARDENNE PRAIRIE

Pamela Fogarty, Mayor

Robert Hussey, City Administrator

CLIENT TEAM

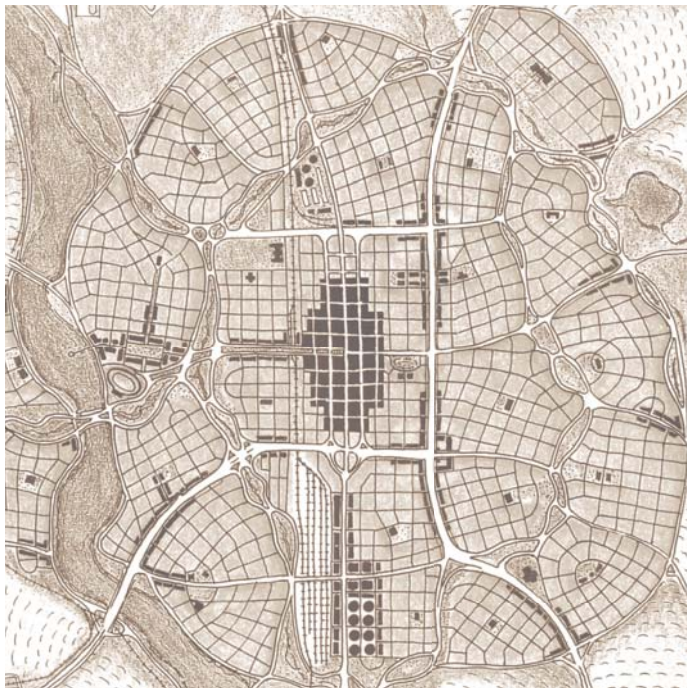
BOARD OF ALDERMEN

Dave Kampelman, Scott Kolbe,
Bob Menichino, Wendi Murray,
Mike Coyne, Sharon West

CLIENT CONSULTANT TEAM

John Greifzu, Jim Gremaud, David Hamilton,
Luke Kehoe, Jim Reisch,
Jeremy Roach, Greg Whittaker,
John A. Young

(This page intentionally left blank)



GENERAL

(This page intentionally left blank)

GENERALA

TABLE OF CONTENTS1

INTRODUCTION3

REGIONAL CONTEXTB

PROJECT SUMMARY1

GEOGRAPHIC CONTEXT2

LOCAL CONTEXT6

HISTORIC PRECEDENTS8

PRECEDENTS12

EXISTING CONDITIONSC

BASE INFORMATION1

SITE PHOTOS3

PLAND

MASTER PLAN1

DIAGRAMS4

SECTOR DETAILS10

ARCHITECTUREE

CIVIC BUILDINGS1

LIVE-WORK UNITS3

RESIDENTIAL UNITS4

TRANSPORTATIONF

EXECUTIVE SUMMARY1

CONNECTIVITY2

HIGHWAY 3643

HIGHWAY 40 PARKWAY CONVERSION4

THOROUGHFARE ASSIGNMENT PLAN7

THOROUGHFARE DESIGN8

THOROUGHFARE SUMMARY10

RETAIL ANALYSISG

EXECUTIVE SUMMARY1

TRADE AREA DEMOGRAPHICS2

RETAIL MARKET DEMAND3

PROPOSED DEVELOPMENT CLUSTERS4

RETAIL DEVELOPMENT FORECAST5

METHODOLOGY6

CODEH

DARDENNE PRAIRIE CODE1

LAND USE2

REGULATING PLAN4

THE TRANSECT5

SAMPLE CODING6

RESERVEDI

FEISE CORRIDOR REVISIONJ

UPTOWN MASTER PLAN1

FEISE CORRIDOR MASTER PLAN2

(This page intentionally left blank)



DARDENNE PRAIRIE MAYOR PAMELA FOGARTY DISCUSSES THE PLAN WITH THE CHARRETTE TEAM, INCLUDING CHARRETTE DIRECTOR GALINA TAHCHIEVA.

Uptown Dardenne Prairie is proposed to be mixed-use community center for Dardenne Prairie, which is located thirty miles west of St. Louis. The development master plan, which comprises four distinct sectors, will offer the region an example of compact, mixed-use town planning and an alternative to the sparse, single-use, suburbanized development which is prevalent throughout the region. The new city core will also provide the existing community with a civic center and a gathering place, featuring a variety of amenities and services in close proximity to housing of many sizes and types.

The Uptown master plan was designed during a ten-day charrette, which is an interactive process during which designers, architects and planners collaborate and work with public officials, business owners and the general public. The Dardenne Prairie charrette was well-attended by the City residents and City officials. The Mayor, the City Administrator and the Board of Aldermen were a constant presence, offering continuous feedback as the plan evolved and reached its final iteration.

The final plan offers a development vision for three infill sites, as well as a retrofit plan for a nearby single-use shopping center. These four sectors, each of which will have its own specific character and specialized function, will be woven together to create a cohesive and well-connected urban core. This plan provides Dardenne Prairie with a concrete and viable vision for the future; however, designers also aimed to make it practical and easily-implemented. In this vein, the design team's final product includes a master plan as well as a code which will serve as a regulatory document, encouraging mixed-use development and effectively activating the plan.

Although there will certainly be challenges on the road to implementation, Dardenne Prairie also enjoys tremendous impetus on account of its well-positioned geographic location, effective leadership and relative prosperity. The town is located within St. Charles County, which is the fastest growing county in Missouri, and which has gained population swiftly in line with the expansion of the St. Louis metropolitan area. The median family income is far above the national average at \$80,000, and the area is fourth in the nation for percentage of owner-occupied housing. The County also has a relatively young population, with a County median age of 35. In addition, despite its enviable market segment, the City of Dardenne Prairie is currently an extremely underserved market for commer-



THE CHARRETTE TEAM PREPARES PLANS WHILE MEMBERS OF THE PUBLIC ATTEND A PRESENTATION IN THE FRONT PORTION OF THE STUDIO.

cial real estate development. Residents currently spend more than \$390 million annually outside the limits of their trade area, and there is a demand for 1.5 million square feet of retail space. The new Uptown's retail will meet a portion of this demand and will keep more tax dollars within Dardenne Prairie city limits.

Changing national trends also indicate that there is a growing market for traditional neighborhood development and pedestrian-oriented town center design. There is an increased demand for smaller housing types, particularly houses on lots less than 7,000 square feet, and mall development is reaching a saturation point. Dardenne Prairie's Uptown – which will feature residential offerings of many sizes and types, all in close proximity to civic space and retail – will provide this attractive alternative for those interested in relocating within St. Charles County.

The biggest challenge of implementation will involve breaking away from the region's current development pattern, which has generally followed the conventional suburban development model. Adjacent towns' agricultural land has been developed with ad hoc residential and commercial uses, all occurring without the context of a greater regional plan. Much of Dardenne Prairie's rural land was developed in this manner, and the City lacks neighborhood structure and a system of open space as a result. The town's suburban style residential development has also led to a disjointed road network, featuring a significant percentage of cul-de-sacs and dendritic patterns. This has resulted in a fragmented regional network and led to the overloading of arterials and collectors.

Ultimately, the citizens of Dardenne Prairie have two choices. They can allow growth to continue in the conventional, suburban pattern prevalent across the country and state; or, they can look to traditional neighborhood development as a change from business as usual. The Uptown Dardenne Prairie plan will provide the population with much-needed civic and community space and will offer residents an alternative to the single-use sprawl development which has overtaken most of the area's landscape. With strong leadership and perseverance, the town's population can carry out this vision, and the downtown will become both a community center for residents and a draw for visitors from the region at large.

The fundamental elements of a true urbanism are the neighborhood, the district, and the corridor. Neighborhoods are urbanized areas having a balanced range of human activity. Districts are urbanized areas organized around a predominant activity. Corridors are linear systems of transportation or green space which connect or isolate the neighborhoods and districts.

Neighborhoods, districts, and corridors are complex urban elements. Suburbia, in contrast, is the result of simplified “zoning” concepts that segregate activities into enclaves. It is composed of “residential subdivisions,” “shopping centers,” “office parks,” and “open space.”

THE NEIGHBORHOOD:

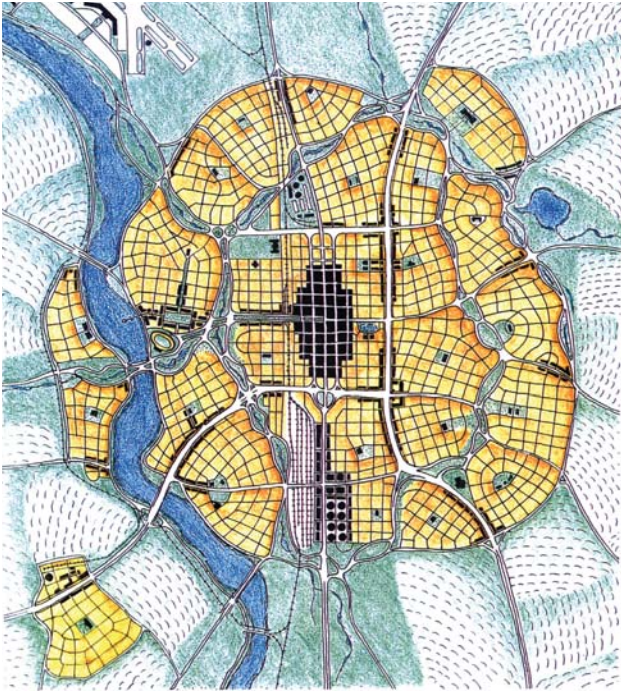
The neighborhood can aggregate with other neighborhoods to form cities and towns, while a single Neighborhood, isolated in the landscape, is a village. The nomenclature may vary, but there is a general agreement regarding the composition of the neighborhood. The Neighborhood Unit of the 1929 New York Regional Plan, the Quartier identified by Leon Krier, the Traditional Neighborhood Development (TND), and the Transit Orientated Development (TOD) all share similar attributes:

The neighborhood has a center and an edge. The combination of a focus and a limit contribute to the social identity of the community. Both are important, but the center is essential. It is usually a public space, which may be a square, a green, or an important street intersection. It is located near the geographic center of the urbanized area unless compelled by a geographic circumstance to be elsewhere. Eccentric locations may be justified by a shoreline, a transportation corridor, or a promontory creating a view.

The center is the locus of the civic buildings. Commercial buildings such as shops and workplaces are usually associated with the center of the village. However, in the aggregations of neighborhoods which create towns and cities, commercial buildings are often at the edge, where they can intensify by combining with those of other neighborhoods.

The edge of a neighborhood varies in character. In villages, the edge is usually defined by land reserved for cultivation or conservation in a natural state. In urban areas, the neighborhood edge is often defined by boulevards or parkways.

The neighborhood has a balanced mix of activities: shopping, work, schooling, recreation, and dwelling of all types. This arrangement is particularly useful for people, young and old, who cannot depend on the automobile for mobility. The housing stock of the neighborhood serves a range of incomes. Affordable housing types include backyard cottages, apartments above shops, and rowhouses. There should also be expensive houses to attract those most able to contribute time and wealth to civic causes.



THE CITY OF
NEIGHBORHOODS, DISTRICTS, AND CORRIDORS

The optimal size of a neighborhood is a quarter-mile from center to edge. This distance is the equivalent of a five-minute walk at an easy pace. The limited area gathers the residents within walking distance of many daily needs, including transit, which is ideally placed at a central node in conjunction with convenience retail.

The location of a transit stop within walking distance of a predictable population substantially increases the likelihood of its use. Transit-oriented neighborhoods create a regional network of villages, towns, and cities accessible to a population without singular reliance on cars. Such an aggregation can provide major cultural and social institutions, a variety of shopping, and the kind of broad job base that can only be supported by the substantial population of many neighborhoods.

Neighborhood streets of varying types are detailed to provide equitability for the pedestrian, the bicycle, and the automobile. The concurrent provision of sidewalks, street trees, and on-street parking slows the automobile and increases pedestrian activity, encouraging the casual meetings that form the bonds of community. Neighborhood streets are laid out to create efficient blocks for building sites and to shorten pedestrian routes. A fine network of streets and roads provides multiple routes that diffuse traffic. This pattern keeps the local traffic away from the long-range corridors.

The neighborhood gives priority to the creation of public space and to the appropriate location of civic buildings. Private buildings form a disciplined edge delineating the public spaces and the private block interior. Useful public spaces such as formal squares, informal parks, and small playgrounds provide places for gathering and recreation. Honorific sites are reserved for

public buildings which reinforce the civic spirit of the community and provide places of assembly for educational, social, cultural, and religious activities.

THE DISTRICT:

The district is an urbanized area that is functionally specialized. Typical examples are theater districts, capitol areas, and college and sports campuses. Other districts accommodate large scale transportation or manufacturing uses, such as airports, container terminals, and refineries. Although districts preclude the full range of activities of a neighborhood, they are not always the single-activity zones of suburbia. A district allows multiple activities to support its primary identity.

The structure of the district parallels that of its neighborhood: an identifiable focus encourages orientation and identity, and clear boundaries facilitate the formation of special taxing or management organizations. Like the neighborhood, attention to the character of the public space reinforces the community of recurrent users, which encourages the pedestrian, supports transit viability, and ensures security. Districts benefit from transit systems, and should be located within a regional network.

THE CORRIDOR:

The corridor is the connector or the isolator of neighborhoods and districts. Corridors are composed of natural and technical components ranging from wildlife trails to rail lines. The corridor is not the haphazard residual “open space” buffering the enclaves of suburbia, but a proactive civic element characterized by its continuity. It is defined by the boundaries of neighborhoods and districts and provides entry to them.

The trajectory of a transportation corridor is determined by its intensity. Highways and heavy rail corridors should remain tangent to towns and cities and enter only the industrial districts. Light rail corridors and buses may be incorporated into the boulevards at the edges of neighborhoods. As such, they are detailed for pedestrian use and accommodate building sites. Bus corridors may pass into neighborhood centers on small conventional streets.

Green corridors or greenways can be formed by the systematic accretion of recreational open spaces, such as parks, playing fields, schoolyards, and golf courses. These continuous natural spaces should gradually flow to the rural edges, connecting the regional ecosystem. The transportation lines may be located within continuous parkways, combining both types of corridor and providing long-distance walking and biking trails.

Green corridors or greenways can be formed by the systematic accretion of recreational open spaces, such as parks, playing fields, schoolyards, and golf courses. These continuous natural spaces should gradually flow to the rural edges, connecting the regional ecosystem. The transportation lines may be located within continuous parkways, combining both types of corridor and providing long-distance walking and biking trails.

TRADITIONAL NEIGHBORHOOD PRINCIPLES:

There are two patterns of urbanism in North America: the Traditional Neighborhood, which was the model from the first settlements to World War II, and Suburban Sprawl, which has been the model since then. They are similar in their initial capacity to accommodate people and their activities; the principal difference is that Suburban Sprawl contains environmental, social, and economic deficiencies which inevitably choke sustained growth. The Traditional Neighborhood has many physical, social and economic attributes that do not exist in suburbia.

The Neighborhood is a comprehensive planning increment: when clustered with others, it becomes a town; when standing free in the landscape, it becomes a village. The Neighborhood varies in population and density to accommodate localized conditions.

The Traditional Neighborhood has several positive consequences:

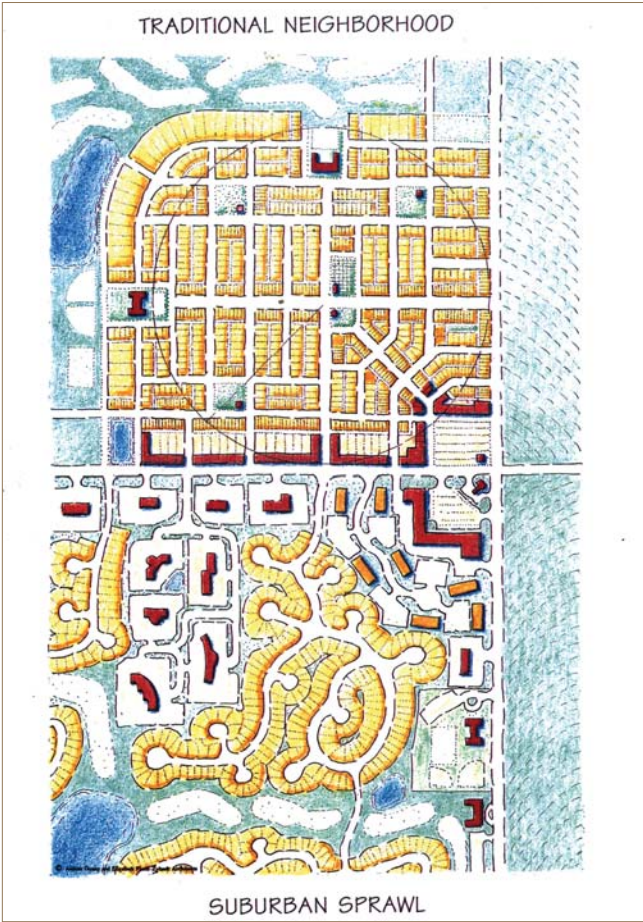
By bringing most of the activities of daily living into walking distance, everyone (especially the elderly and the young) gains independence of movement.

By reducing the number and length of automobile trips, traffic congestion is minimized, the expenses of road construction are limited, and air pollution is reduced.

By providing walkable streets and squares of comfortable scale with defined spatial quality, neighbors can come to know each other and to watch over their collective security.

By providing appropriate building concentrations at easy walking





distances from bus stops, public transit becomes a viable alternative to the automobile.

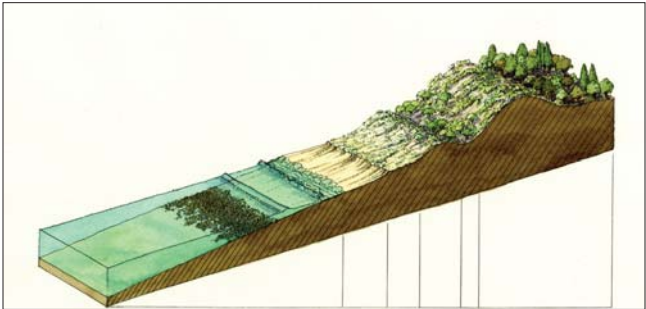
By providing a full range of housing types and work places, age and economic classes are integrated and the bonds of an authentic community are formed. Even affordable housing occurs naturally and in a highly integrated manner. The affordable housing looks like the market-rate housing, using similar exterior materials, windows, and building forms. Affordable housing is not segregated and is never clustered in large numbers. Housing can be provided above retail establishments. This type of dwelling can be provided for the cost of construction alone, because the cost of land can be assigned to the retail component of the building.

By providing suitable civic buildings and spaces, democratic initiatives are encouraged and the balanced evolution of society is facilitated.

The social and environmental benefits of a New Urbanist community, or Traditional Neighborhood Development (TND) results from certain physical and organizational characteristics. An authentic Neighborhood includes most of the following:

- 1 That development should preserve sensitive natural and cultural areas as permanent open space;
- 2 That the basic increment of development should be the walkable, diverse pedestrian shed, forming a neighborhood;
- 3 That each neighborhood should have a discernible center to serve as a community gathering place. This center would also contain a transit stop;
- 4 That the pedestrian shed be a five or ten-minute walk to the

- neighborhood center such that pedestrians may have access to transit. This distance averages one-quarter of a mile;
- 5 That there should be shops within, or in proximity to the neighborhood, sufficiently varied to satisfy ordinary daily household needs. A convenience store is the most important among them;
- 6 That the neighborhood should incorporate a variety of places to work, including those that enables work at the dwelling;
- 7 That each neighborhood should incorporate a variety of dwelling types, such that younger and older persons, single households and families may be housed;
- 8 That each dwelling should be permitted to have an ancillary unit for use as a rental apartment;
- 9 That an elementary school should be available, or a site reserved, within one mile of most dwellings;
- 10 That there are small playgrounds quite near every dwelling, not more that one-eighth of a mile;
- 11 That thoroughfares within the neighborhood be a network, connecting wherever possible to adjacent thoroughfares in order to provide a variety of itineraries and disperse traffic;
- 12 That thoroughfares should be designed to slow traffic, creating an environment appropriate for pedestrians and bicyclists as well as automobiles;
- 13 That building frontages should collectively support pedestrian streetscapes and mask most parking lot.
- 14 That certain prominent sites are reserved for civic buildings. Buildings for meeting, education, religion or culture are located at the termination of street vistas or at the Neighborhood center.



THE NATURAL TRANSECT FEATURES A RANGE OF NATURAL ENVIRONMENTS.

The Transect, in its origins (Von Humboldt 1790), is a geographical cross-section of a region used to reveal a sequence of environments. Originally, it was used to analyze natural ecologies, showing varying characteristics through different zones such as shores, wetlands, plains and uplands.

For human environments, this cross-section can be used to identify a set of habitats that vary by their level and intensity of urban character, a continuum that ranges from rural to urban. In Transect planning, this range of environments is the basis for organizing the components of the built world: building, lot, land use, street, and all other physical elements of the human habitat.

TRANSECT PLANNING

One of the key objectives of transect planning is creation of immersive environments. Successful immersive environments are based on the selection and arrangement of all the components that contribute to a particular type of environment. Each environment, or Transect Zone, is comprised of elements that support and intensify its locational character. Through the Transect, planners are able to specify different urban contexts that have the function and intensity appropriate to their locations. For instance, a farmhouse would not contribute to the immersive quality of an urban core, whereas a high-rise apartment building would. Wide streets and open swales find a place on the Transect in more rural areas while narrow streets and curbs are appropriate for urban areas. Based on local practices, most elements can be locally calibrated to contribute to the regional and vernacular character of a given environment.

The continuum of the Transect, when subdivided, lends itself to the creation of zoning categories. Six have been identified. These Transect zones (T-zones) display more-or-less fixed identifiable characteristics, from the most rural and natural environment (T-1) to the most urban environment (T-6). The standards specified by the zoning categories overlap, reflecting the successional ecozones of natural and human communities.

The Transect is evident in two ways: (1) it exists in place and (2) it evolves over time. Yet, the evolution of communities over time is the unforeseen element in urbanism. A hamlet may evolve into a village and then into a town; its T-zones increasing in density and intensity over a period of many years.

The Transect Zones impose the discipline of the distribution of densities and building types throughout the plan. They also create a high degree of flexibility as several building types can be applied in every Transect Zone. The Regulating Plan also shows the form and location of public open spaces.



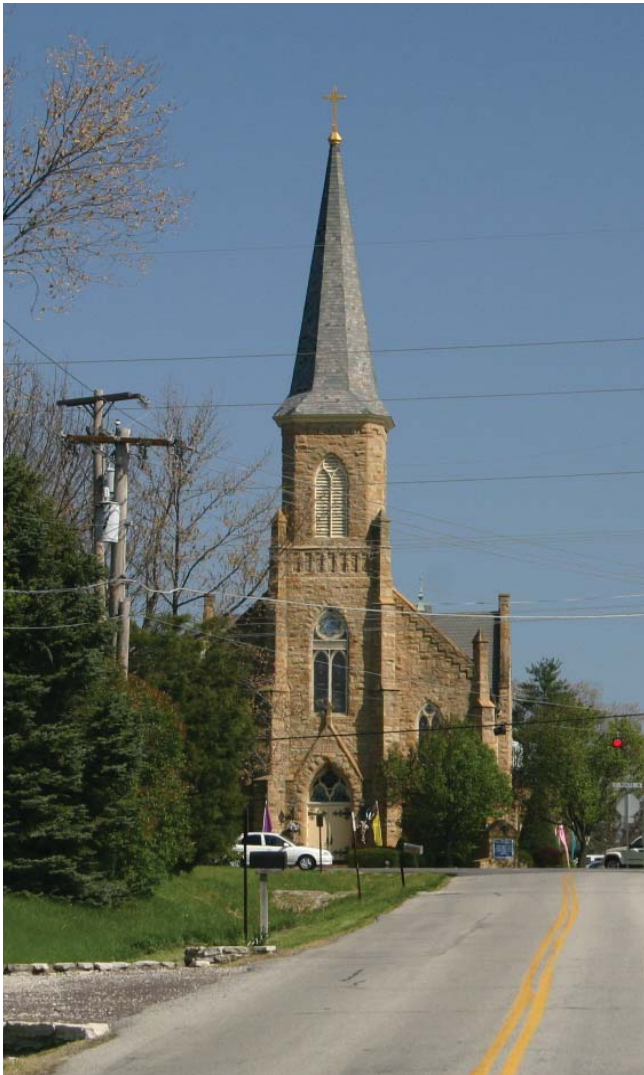
A TRANSECT OF STREETSCAPES, RANGING FROM RURAL (ABOVE) TO URBAN.

(This page intentionally left blank)



REGIONAL CONTEXT

(This page intentionally left blank)



THE IMMACULATE CONCEPTION CHURCH

Dardenne Prairie is a small town in St. Charles County, which is located about thirty five miles west of St. Louis. When first incorporated in 1981, the town was largely an aggregate of tracts of farm land, many of which were still in use. Nearby towns include O'Fallon and Lake St. Louis, both of which also have an agricultural heritage.

Dardenne Prairie's historic houses and civic buildings date to the 1800s, when the St. Charles County area was considered the "Gateway to the West." Settlers of this era included Daniel Boone, Meriwether Lewis and William Clark. The area officially became part of the United States through the Louisiana Purchase of 1803, and Lewis and Clark established posts in the area before embarking on an exploration of the land acquired in the Purchase.

Today, St. Charles County is the fastest-growing county in Missouri, and nearby towns of Lake St. Louis and O'Fallon are expanding quickly, as sprawl increases westward from the St. Louis metropolitan area. Most of the new development has been in the form of strip malls, big box centers, and single-use, low density subdivisions, all of which have increased traffic congestion while offering few public civic spaces.

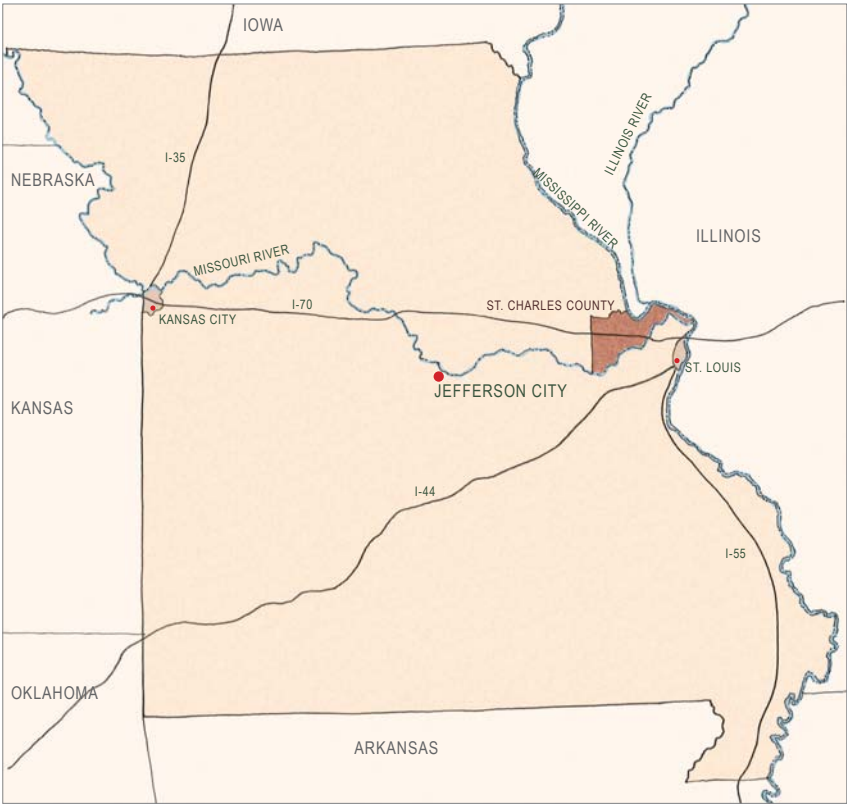
While Dardenne Prairie has largely retained its rural character, with low-density development and significant open space, the piecemeal development method has produced a disjointed set of bedroom communities without any common space and few civic amenities. Accordingly, Dardenne Prairie's residents are largely required to commute to nearby communities to work, shop, gather and socialize outside of their homes. Residents have also expressed concern that the town lacks a sense of identity and blends indistinctly with the larger, and better known municipalities around it.

The mixed-use downtown area designed during the Dardenne Prairie Charrette is intended to provide the town with a civic core and to offer an example of compact, mixed-use development, which will fulfill the city's need for a gathering place, as well as provide a variety of services, amenities and housing opportunities, within four sectors.



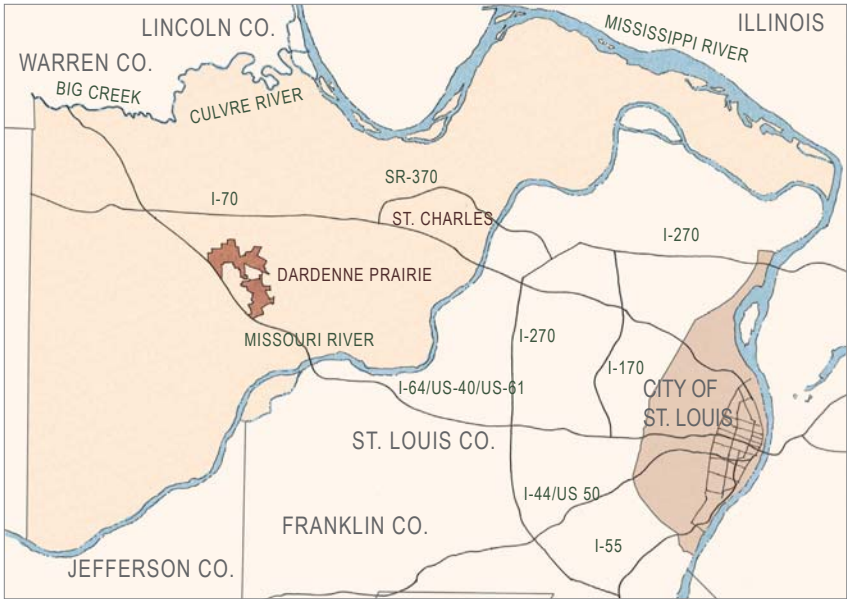
VIEW OF POST ROAD TOWARDS SOUTH

The State of Missouri borders eight states, including Iowa, Illinois, Kansas and Arkansas. The capital, Jefferson City, is located in the center of the state; other major cities include Kansas City on its western border and St. Louis on its eastern border.

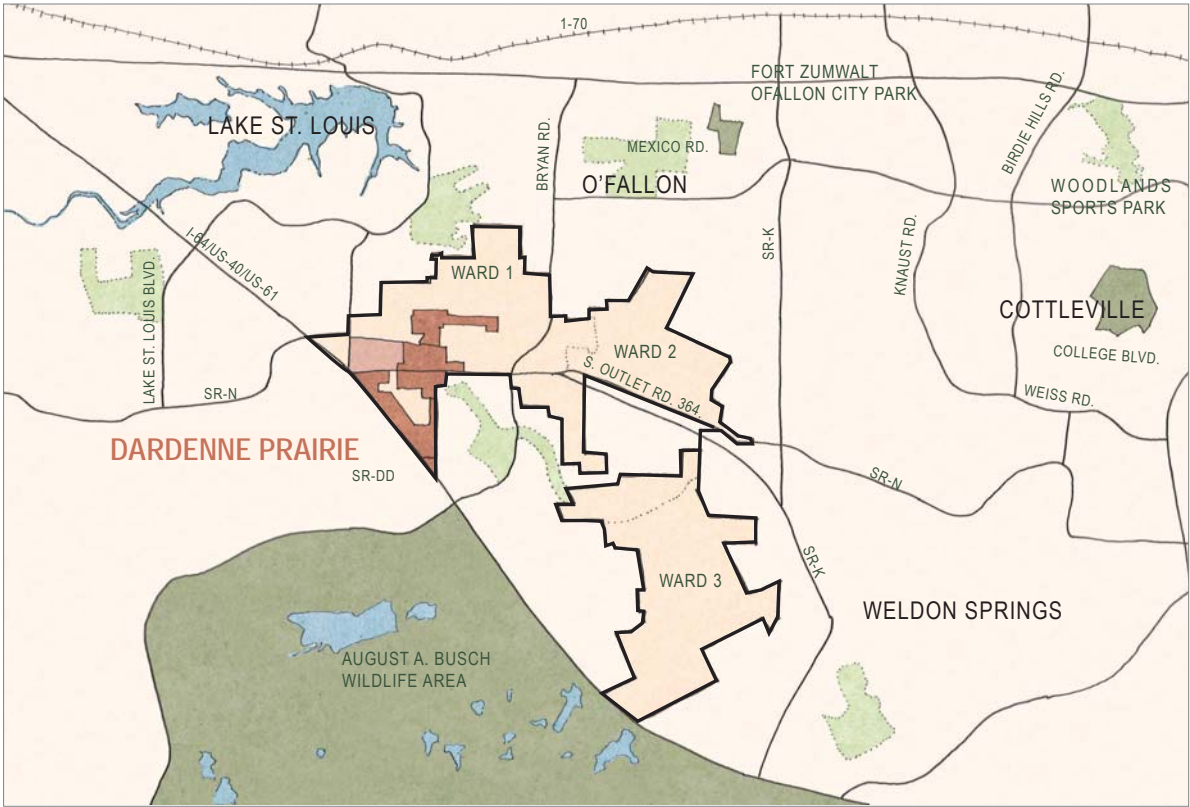


THE STATE OF MISSOURI

St. Charles County, which is currently the fastest-growing county in Missouri, is located west of the City of St. Louis and south of the Mississippi River. The county seat is St. Charles, which is located on the banks of the Missouri River, between Interstate 70 and State Route 370.



ST. CHARLES COUNTY



CITY OF DARDENNE PRAIRIE

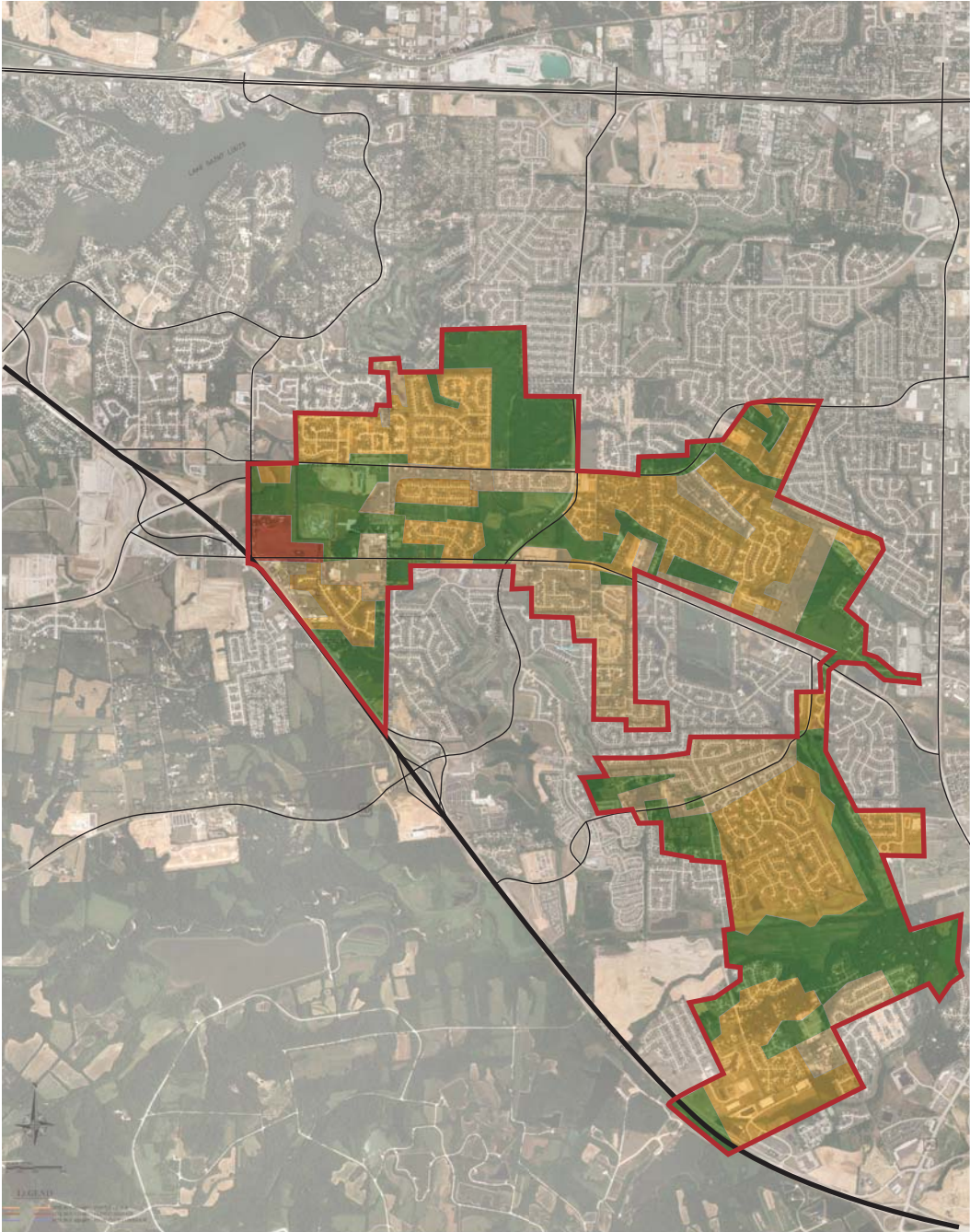
Dardenne Prairie is one of the smaller towns within the county, and borders Lake St. Louis, O'Fallon, Weldon Springs and the Augusta Busch Wildlife Area.

- DARDENNE PRAIRIE
- STUDY AREA
- ADDITIONAL STUDY AREA

CENSUS INFORMATION

	State of Missouri	County of St Charles	Town of Dardenne Prairie
Inhabitants:	5,631,910	326,152	**7,423
Median Age:	37	35	34
Percentage Under 18:	24%	26%	32%
Percentage Over 65:	12%	9%	7%
Average Household Size:	2.4	2.7	3
No. Housing Units:	2,592,809	127,309	1,516
Occupied Units:	88.5%	95.2%	94.4%
Owner-occupied:	70.6%	83.1%	98%
Renter-occupied:	29.4%	16.9%	2%
Median Household Income:	\$41,974	\$63,132	\$77,086
Median Family Income:	\$51,477	\$73,614	\$80,486
Per-capita Income:			
Median Value of owner-occupied homes:	\$23,026	\$27,848	\$29,325
Median travel time to work:	123,100 23 min	\$175,500 25 min	\$179,200 31 min

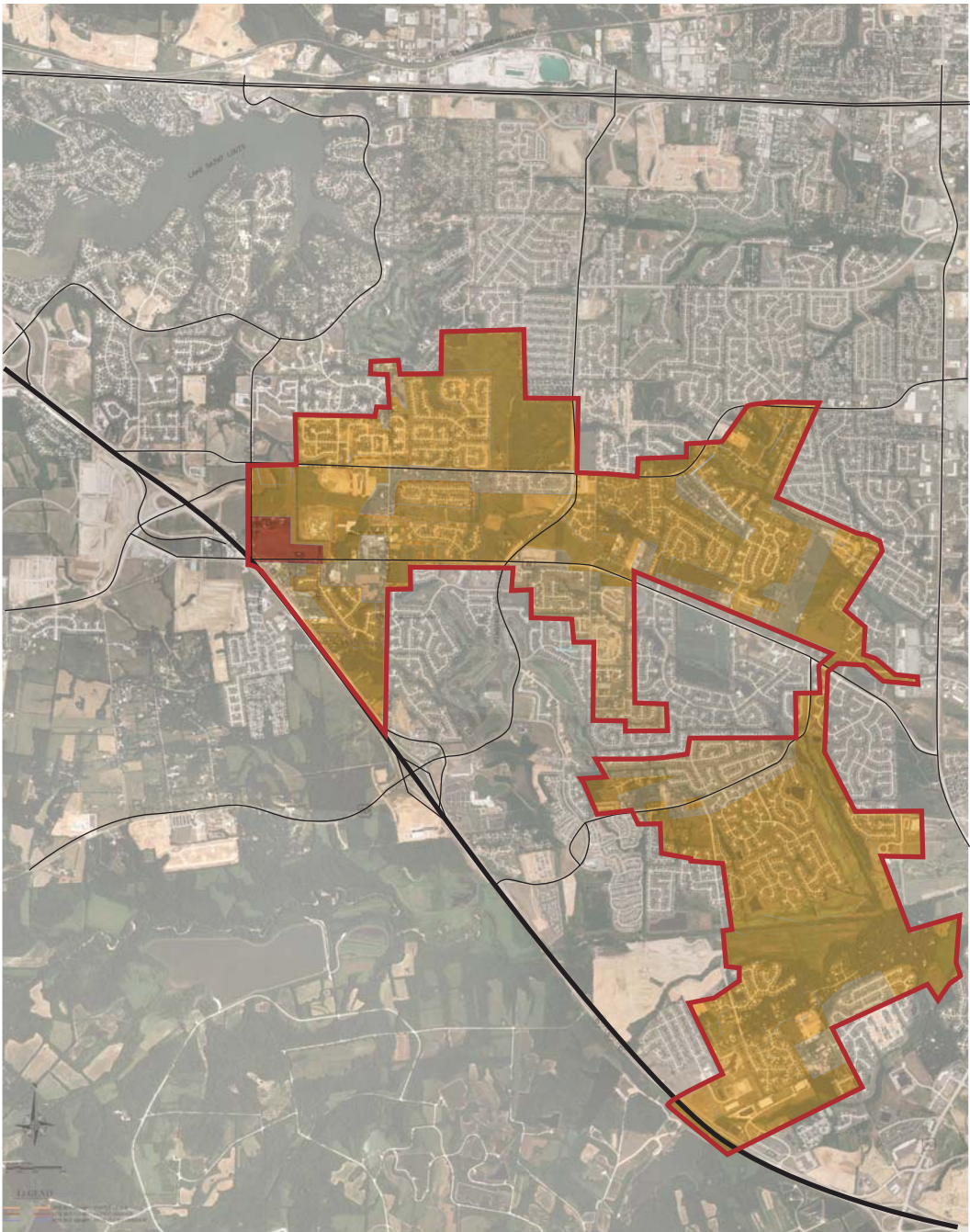
* Unless otherwise noted, all information is from the 2005 census.
** As of July 2006 - Data provided by City of Dardenne Prairie.



Above, a map depicts the current land uses within the City of Dardenne Prairie. Approximately fifty percent of the land is presently open space, most of which maintains its rural character. Developed parcels are primarily residential, with medium density development occurring in the suburban cul-de-sac pattern at the density of approxi-

mately four units/acre. A portion of the residential development is also low-density, accommodating approximately one house per acre. The sole commercial development occurs at the town's western edge, in the form of a suburban-style big-box center.

- UNDEVELOPED LAND
- MEDIUM-DENSITY DEVELOPED LAND
- LOW-DENSITY DEVELOPED LAND
- COMMERCIAL AREA
- STUDY AREA BOUNDARY



The U.S. Census has found St. Charles County to be the fastest-growing county in Missouri, with the population increasing at a current rate of 8.5% per year. If these growth rates continue, and if develop-

ment follows the low-density growth pattern, the City of Dardenne Prairie will lose all of its open space by 2017.

- MEDIUM-DENSITY DEVELOPED LAND
- LOW-DENSITY DEVELOPED LAND
- COMMERCIAL AREA
- STUDY AREA BOUNDARY

Although there is one bog-box style commercial area within City limits, Dardenne Prairie is primarily developed with single-use residential subdivisions. The houses, many of which have been built in the past ten years, sit on lots which average 15,000 sf. The average house is 2,000 sf, often accommodating up to 4-5 bedrooms.

At right, a row of houses lines one side of a street within a Dardenne Prairie subdivision. The houses, most of which are comparably sized, face an undeveloped green area.



Many of Dardenne Prairie's suburban houses open to large, elevated back porches. While the typical Dardenne Prairie house offers ample gathering space within the confines of its yard, there is little programmed communal social space for the neighborhood at large.



At left, a row of recently constructed suburban houses backs onto an undeveloped field. While many Dardenne Prairie residents enjoy the views afforded to them, much of the land is slated for imminent development.

Below: A residential street intersects with Highway N, which is one of the primary thoroughfares in Dardenne Prairie, and also, is featured prominently in the downtown. Although the street is heavily-trafficked, it currently offers little retail or mixed-use development. Moreover, few buildings face directly onto the street, and only rare stretches of the road include sidewalks.





The nearby City of O'Fallon has experienced a surge of growth similar to that in Dardenne Prairie, and much of its former agricultural land has been developed into single-use housing tracts and commercial centers. The town, which is much larger and more well-known regionally than Dardenne Prairie, is currently home to much of the county's larger shopping developments.

Left: A farm house offers a testimony to the area's history. Houses in more recent developments have been built en masse, with many constructed within the past ten to fifteen years. While the town includes houses of various sizes, ranging from townhouses to mansions, there is little housing diversity within each community itself, and mixed-use neighborhoods are rare.

Right: A row of townhouses and a mansion offer examples of typical residential conditions in O'Fallon.



Below: A sign welcomes residents and visitors to a residential neighborhood within the master-planned Winghaven development.



Located fifteen miles away from Dardenne Prairie within St. Charles County, St. Charles is the second-oldest city west of the Mississippi and features a well-preserved Old Town. Main Street serves as the town’s principal artery, and runs parallel to the Missouri River. Featuring shops, restaurants and live/work units of many different sizes and typologies, Old Town offers precedents for Dardenne’s future retail and mixed-use development.

Although Main Street is active with retail and mixed-use development for nearly a mile, the distance can seem much shorter on account of the street’s architectural variety and its pedestrian-oriented design. At right, flags, signage and sidewalk displays provide variety along a busy portion of Main Street. Parked cars also offer a buffer for wandering pedestrians.

At its densest, Main Street features three and four story buildings with shops on the ground floor and apartments above; at the end of the street, taller buildings transition to two-story rowhouses. At the end of the street, one and two-story cottages house small shops and restaurants.



Left: Attached buildings of differing materials and styles face each other across Main Street. The buildings, which feature residences, shops, and offices, front directly onto the well-trafficked sidewalk.



Left: Joggers enjoy the shading and scenery along the final portion of Main Street. On their left, a cottage live/work unit houses a shop; this flexible housing typology could also serve as an office or residence.