City of Box Elder Comprehensive Plan

DRAFT

2025

Box Elder

Innovative Community - Opportunities for All

ACKNOWLEDGMENTS

Thanks to the City of Box Elder!

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This report is also available in electronic format from the author.
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WELCOME

TABLE OF CONTENTS

01

01 - INTRODUCTION

WHAT IS A COMPREHENSIVE PLAN? 4
COMMUNITY PROFILE 5
ENGAGEMENT 8
PROGRESS REPORT 10
VISION STATEMENT 12
FOUNDATIONAL THEMES 15
GUIDING PRINCIPLES 17
HISTORY OF BOX ELDER 20

02

02 - LAND USE & PLACEMAKING: CELEBRATE COMMUNITY CHARACTER AND QUALITY OF LIFE

CURRENT LAND USE..... 25
FUTURE LAND USE..... 33
FUTURE LAND USE PLAN AND TABLES..... 34
FUTURE LAND USE GOALS..... 39
LU2.1A BOX ELDER TOWN CENTER.....43
LU2.1B NEIGHBORHOOD COMMERCIAL..... 49
LU2.1C OPPORTUNITY CORRIDOR..... 50

03

03 - ECONOMIC DEVELOPMENT: CULTIVATE A RESILIENT ECONOMY

ECONOMIC SNAPSHOT.....54
ECONOMIC DEVELOPMENT MODELS..... 55
REGIONAL ECONOMIC DEVELOPMENT..... 56
BOX ELDER ECONOMIC DEVELOPMENT.....57
ECONOMIC INDICATORS..... 58
WHAT DOES THE COMMUNITY WANT?..... 61
THE BOX ELDER ADVANTAGE..... 62
ECONOMIC DEVELOPMENT GOALS..... 67

04

04 - HOUSING: STIMULATE A HEALTHY HOUSING SUPPLY AND MARKET

2022 HOUSING STUDY RECOMMENDATIONS.....71
HOUSING SNAPSHOT.....74
2024 UPDATE..... 75
HOUSING GOALS.....79

05

05 - TRANSPORTATION: DEVELOP STRONG MULTIMODAL COMMUNITY CONNECTIONS

EXISTING CONDITIONS.....85
PAST TRANSPORTATION PLANNING..... 86
MULTIMODAL TRANSPORTATION..... 88
COMPLETE STREETS..... 90
MAJOR STREET PLAN..... 91
TRUCK ROUTES..... 95
TRANSPORTATION PLAN..... 97
TRANSPORTATION CAPITOL IMPROVEMENT PLAN..... 99
COMMUNITY ENGAGEMENT..... 101
TRANSPORTATION GOALS..... 103

TABLE OF CONTENTS

06

06 - PUBLIC UTILITY INFRASTRUCTURE: ACCURATELY PLAN FOR CURRENT AND FUTURE NEEDS

DRINKING WATER SYSTEMS..... 109
WASTE WATER SYSTEMS..... 113
STORM WATER SYSTEMS..... 115
OTHER UTILITIES..... 117
PUBLIC UTILITY INFRASTRUCTURE GOALS..... 119

07

07 - PARKS & OPEN SPACE: CELEBRATE COMMUNITY IDENTITY THROUGH SHARED PUBLIC SPACES

2022 PARKS & OPEN SPACE MASTER PLAN..... 125
BOX ELDER CHARACTER: HERITAGE, MISSION, & COMMUNITY 126
PARKS MASTER PLAN..... 129
TRAILS MASTER PLAN..... 133
PARKS & OPEN SPACE GOALS..... 135

08

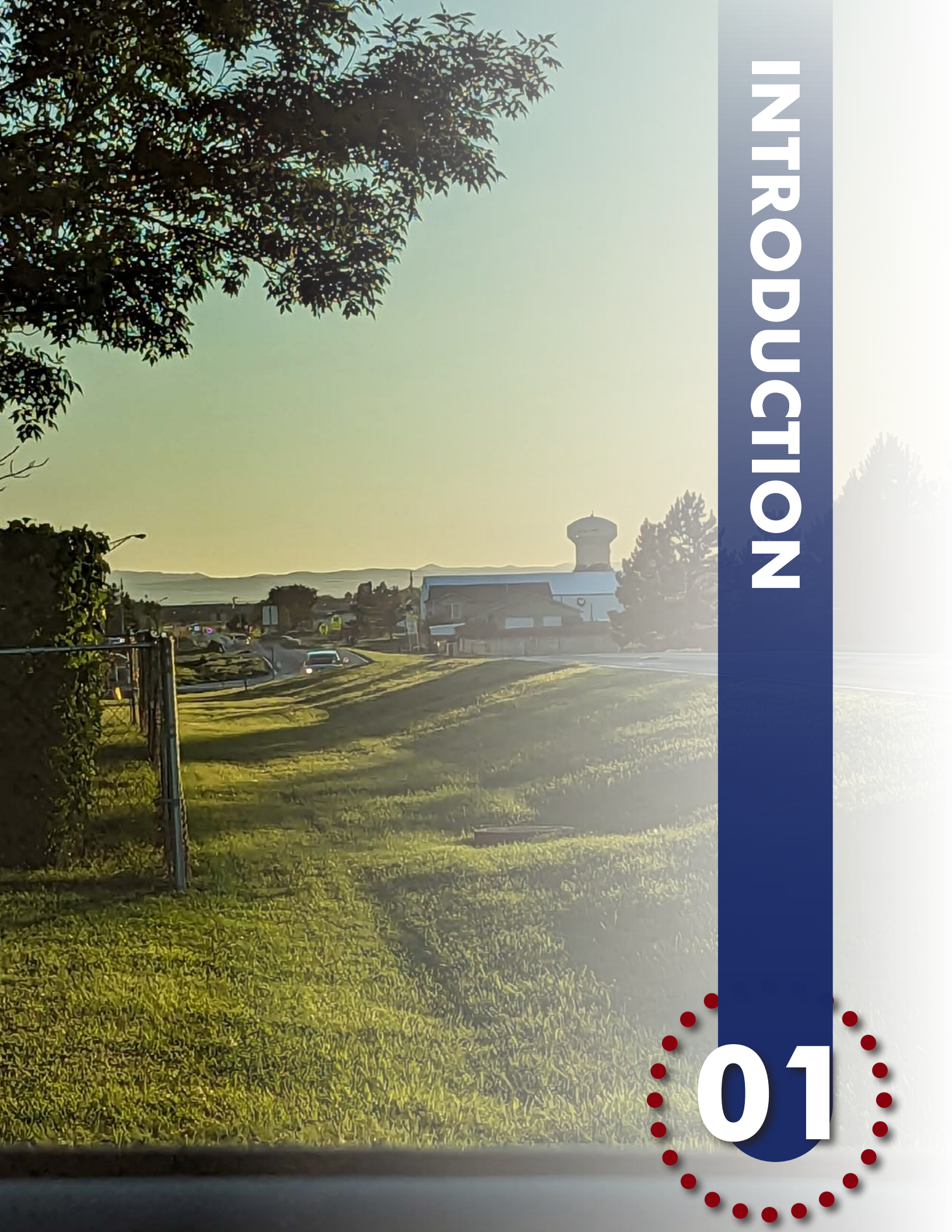
08 - PUBLIC HEALTHY & SAFETY: PROTECT AND IMPROVE COMMUNITY WELL-BEING

PUBLIC HEALTH..... 141
BOX ELDER POLICE DEPARTMENT..... 143
BOX ELDER VOLUNTEER FIRE DEPARTMENT..... 142
PUBLIC HEALTH AND SAFETY GOALS..... 146

09

09 - IMPLEMENTATION: THE COMPREHENSIVE PLAN WORK BOOK

A GUIDE TO IMPLEMENTING THIS PLAN..... 152
POLICY IMPLEMENTATION..... 154
COLLABORATION IMPLEMENTATION..... 157
OPERATIONS IMPLEMENTATION..... 160
PROJECTS IMPLEMENTATION..... 163



INTRODUCTION

01

This Comprehensive Plan Update builds strongly on the community's vision of what they want Box Elder to become and covers a wide range of topics including land use, housing, economic development, transportation, and infrastructure.

This framework is built upon celebrating shared community values, enhancing the City's strengths and assets, and focusing on clear areas the community wants to strengthen.

INTRODUCTION 01.

THE CITY OF BOX ELDER: A GROWING COMMUNITY

The City of Box Elder is one of the fastest growing cities in South Dakota, consistently ranking #3 after the states largest cities, Sioux Falls and Rapid City. The community has grown from a small agricultural population of 607 in 1970 to an estimated population of 13,075 in 2024.

The City of Box Elder abuts Rapid City's eastern boundary and the Pennington County - Meade County line runs through the north side of the city. The City is almost evenly bisected by a wide transportation and natural corridor that includes Interstate 90, Highway 1416, the Rapid City, Pierre & Eastern Railroad (RCPE), and Box Elder Creek and its floodplain. The Ellsworth Air Force Base military installation is located in the NW quadrant of the community.

The community is growing almost faster than can be documented with whole neighborhoods and commercial developments springing up over the course of months. The growth is in part fueled by the coming expansion of the Ellsworth Air Force Base B-21 Raider mission which is anticipated to permanently add 3,000 to 5,000 people to the community. According to the 2024 State of the Base presentation (February 12, 2024) "the population of the base including active military, spouses, children and civilian contractors will expand to nearly 12,000 people by 2041." Current EAFB population is 3,063 military members and 733 civilian employees. Although Box Elder had been growing between 8-10% per year in the five years before the new mission was announced, it has only accelerated in the years since.

WHAT IS A COMPREHENSIVE PLAN?

A Comprehensive Plan is a framework and guide for accomplishing the community's future aspirations. It guides government officials, developers, and residents in decision-making about current and future growth and development in the community. This is an update to the 2014 Comprehensive Plan.

Why do we have a comprehensive plan?
The Comprehensive Plan is used to prioritize budget decisions and helps to evaluate whether proposed development is aligned with the community vision. Residents, developers, and business owners can use the plan to understand and stay informed about anticipated growth and community planning.

This Comprehensive Plan is intended to be a flexible long-range plan to direct growth in the City which can respond to changing conditions through amendments. It references a multitude of other planning documents, both within the City of Box Elder and adjacent entities. Referenced planning documents include:

- 2008 Ellsworth Air Force Base Air Installation Compatible Use Zone (AICUZ) Study
- 2014 Box Elder Revision to the Comprehensive Plan
- 2014 BEST Transportation Plan
- 2015 Rapid City Regional Airport Master Plan
- 2021 Box Elder Parks and Open Space Master Plan
- 2022 Box Elder Zoning Plan
- 2020 Pennington County Comprehensive Plan; View to 2040
- Meade County Comprehensive Plan
- Disaster Mitigation Plans

Comprehensive planning is required by South Dakota State Statute 11-6-2. South Dakota Statute 11-6-17 includes provisions for changes to the plan, requirement for advertisement and adoption by the municipality.

Why is the comprehensive being updated?
The City of Box Elder and community have made significant progress on the goals of the 2014 Comprehensive Plan, see pages 6-7. The work of the 2014 plan was to help the city develop the internal staff, procedures, and regulations of a municipality that can support a population of 12,000+ and growing.

The 2024 Comprehensive Plan Update will help guide decision making in an era of unprecedented growth.

The Plan builds strongly on the community's vision of what they want Box Elder to become in the future and covers a wide range of topics including land use, housing, economic development, transportation, and infrastructure. The community vision was developed from a year-long public engagement process and is built upon celebrating shared community values, enhancing the City's strengths and assets, and focusing on clear areas the community wants to strengthen.

Following the adoption of the Comprehensive Plan, a focused and concerted effort will be necessary to begin implementation of the plan. The Implementation Plan is organized into:

1. **Policy**
2. **Collaboration**
3. **Operations**
4. **Policy**

Policy includes changes to policy, ordinances, or zoning that are necessary to fulfill all of the tasks of this master plan.
Collaboration includes tasks that require particular collaboration between city departments or the city and outside entities.
Operations are the day-to-day management of the municipality and include recommendations for systems, tracking, adoption of guidelines and standards, staffing, and other items to keep the City functioning.
Projects are physical or technological improvements to the City and may be infrastructure, streets, parks, and open space, and other components of a thriving community.

COMMUNITY PROFILE

Population Demographics

Box Elder's population is rapidly growing, expanding from less than 3,000 people to over 13,000 people in less than 30 years. The current population has already exceeded the 2023-27 projects population estimate of 13,006. Boundary changes likely contributed to population increases between 2000 and the early 2010's.

Box Elder is younger than the surrounding communities, with nearly 50% of its population between the ages of 20 and 50. The median age of 27.5 is slightly older than in past years but has generally remained constant, likely due to the effect of the Air Force Base. It is ten years younger than Rapid City median age and significantly younger than the median age in the Black Hills of over 40 years.

Box Elder median household income is $71,532 a significant increase over 2020 median income of $56,429 and nearly double the 2010 median income. According to the US Census Bureau, the median income in Box Elder has surpassed that of Rapid City ($62,784) in just two years.

Education

93.7% of the population is a high school graduate or higher and 28.7% has a bachelor's degree or higher. Douglas School District serves the community and includes a special services school, two K-3rd grade schools, one 4-5th grade school, a grades 6-8 middle school and 9-12 high school. The Black Hills State University satellite campus is located in Rapid City near the western city limits of Box Elder. South Dakota School of Mines & Technology and Western Dakota Technical Institute are also located in Rapid City.

Employment

From 2021 to 2022, employment in Box Elder, SD grew at a rate of 1.36%, from 5.6k employees to 5.68k employees.

The largest The largest industries in Box Elder are Health Care & Social Assistance, Construction, and Public Administration. The most common job groups are Office & Administrative Support Occupations, Construction & Extraction Occupations and Sales & Related Occupations. *(Data USA*) The highest paying industries are Professional, Scientific, & Technical Services ($73,063), Construction ($65,206), and Information ($60,685). The largest employers in Box Elder are Ellsworth Air Force Base with 4,252 employees and Liv Hospitality with 733 employees in Box Elder, Rapid City, and Deadwood.

Ellsworth Air Force Base

The United States military is the largest employer in western South Dakota and second largest employer in the State. Ellsworth Air Force Base, directly adjacent to the City of Box Elder, currently serves 3,300 military members, 3,720 family members, 8,100 retirees and 720 civilians - a total service population of 15,840.

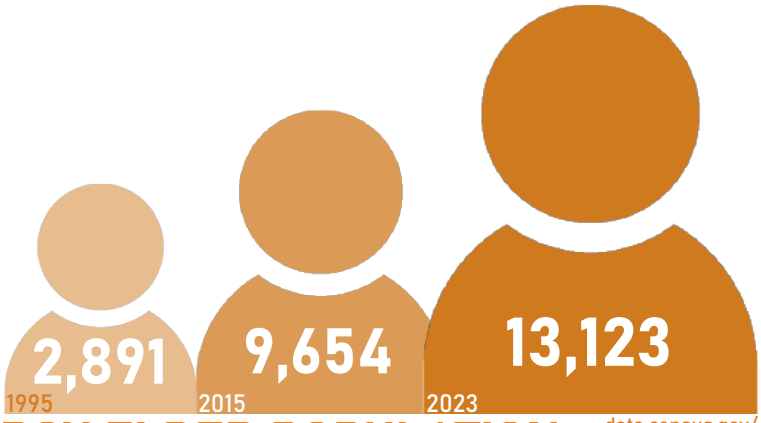
Because of the City of Box Elder's special relationship with Ellsworth Air Force Base, the "Five and Thrive" key quality-of-life indicators figure prominently in this document. (fiveandthrive.org)

Five & Thrive addresses the top five challenges that military families face: childcare, education, healthcare, housing, and spouse employment. These issues directly affect military recruitment, readiness, resilience, and retention, which in turn impacts mission execution.

Although the threat of closure for EAFB in the 2005 BRAC (Base Realignment and Closure List) is starting to fade in memory, inclusion of Five and Thrive priorities in the comprehensive plan is part of the City's commitment to supporting Ellsworth AFB, its mission, its service members, and their families.

The City of Box Elder is also the first contact with the Black Hills region for military members and their families. This presents a local and regional opportunity to retain highly valued employees and community members after retirement from the military. Ellsworth Air Force Base currently serves 8,100 retirees. The Rapid City metro area is home to a higher concentration of military veterans than the average across the country. There are an estimated 13,283 civilians living in the metro area with a background of military service, or 12.5% of the local adult population. Nationwide, just 7.1% of the civilian adult population are veterans.

COMMUNITY SNAPSHOT



BOX ELDER POPULATION

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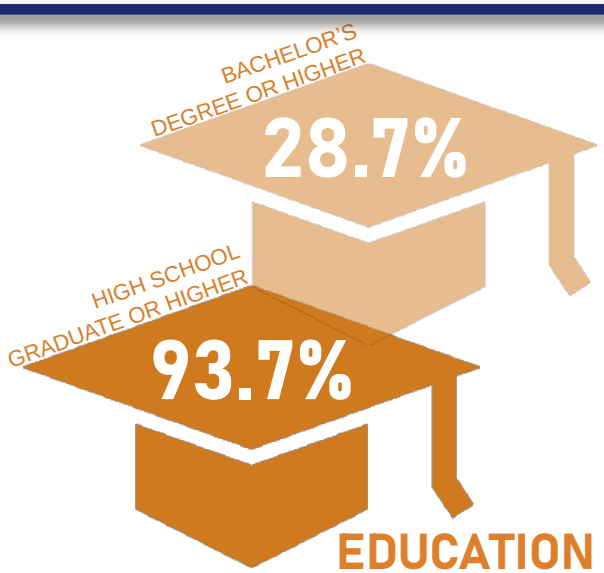
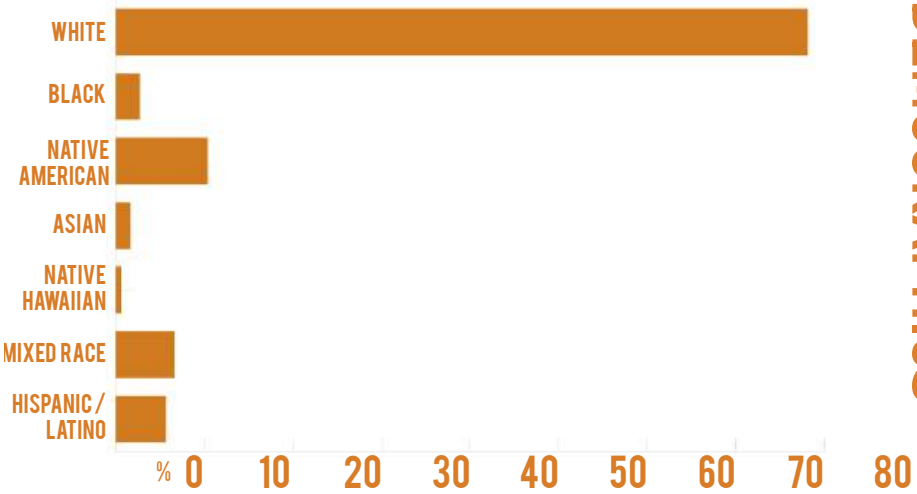


EDUCATION

DEMOGRAPHICS



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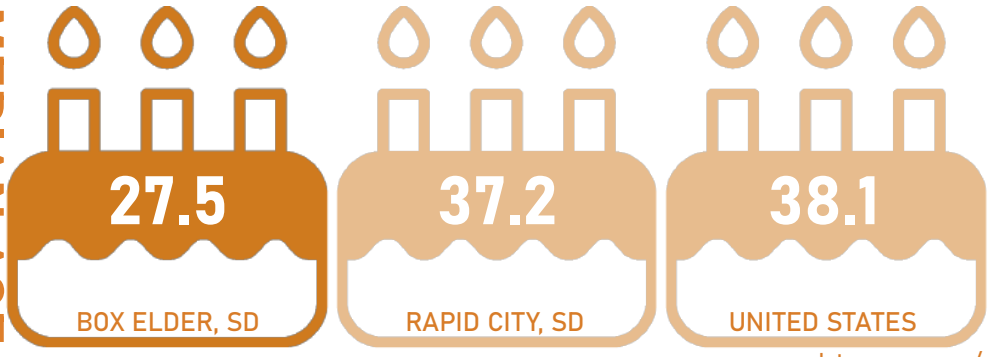
MEDIAN AGE



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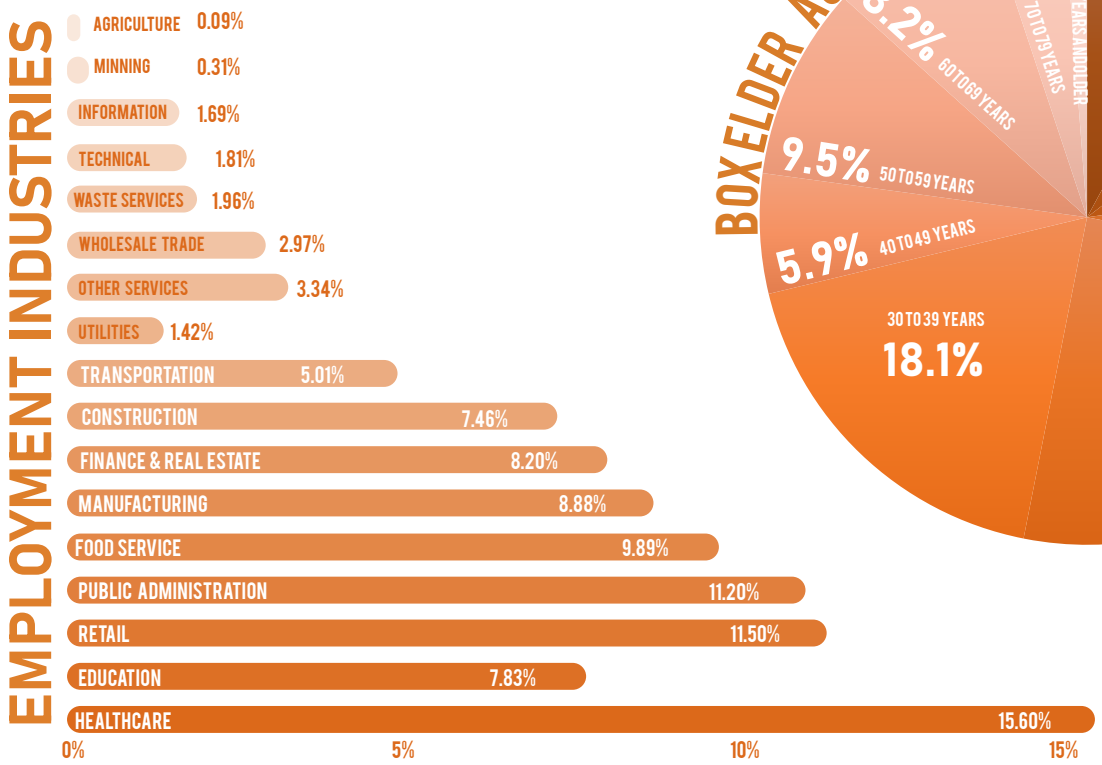
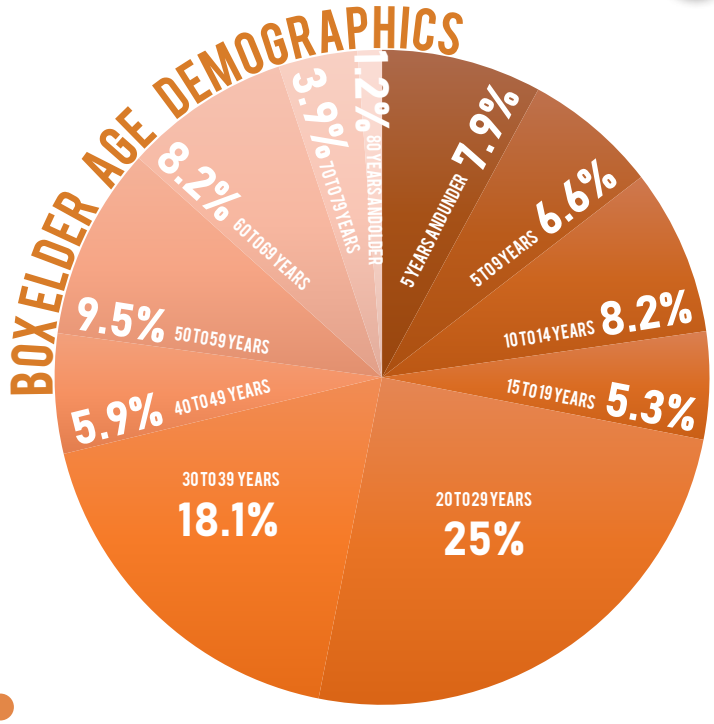
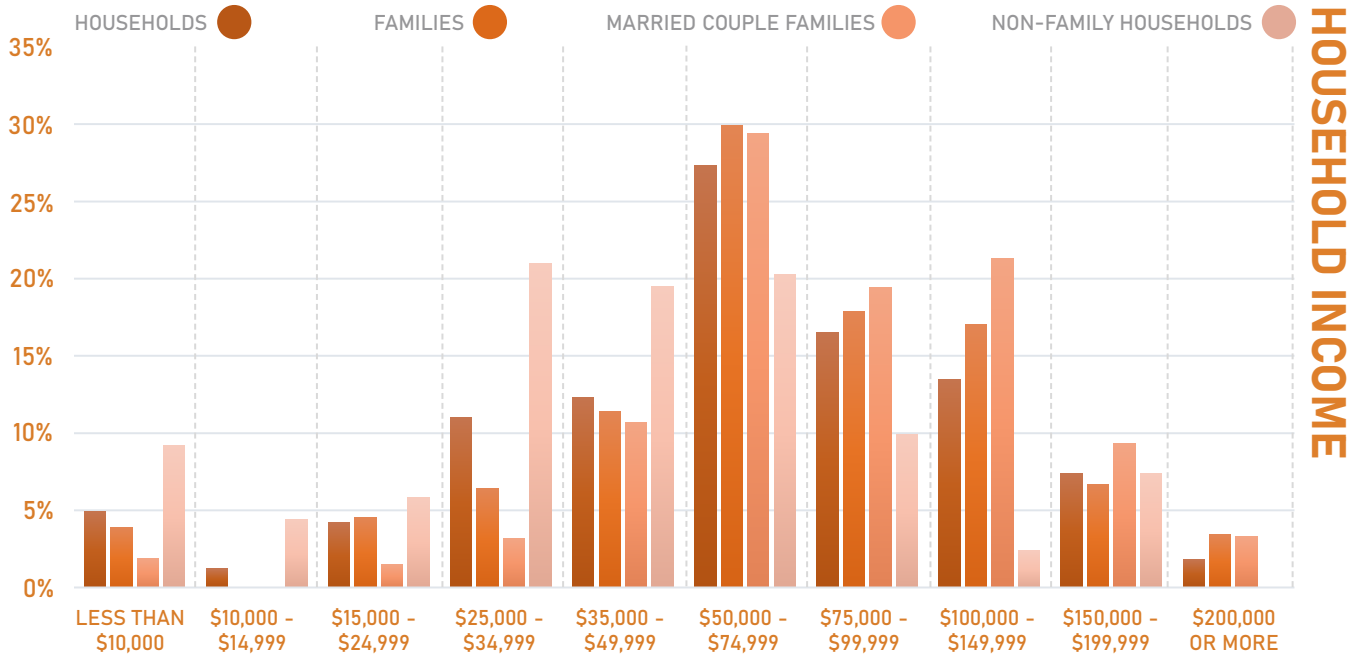
COMMUNITY SNAPSHOT







data.census.gov/table?q=BOX+ELDER+SD&t=Income+(Households,+Families,+Individuals)&tid=ACSST5Y2021.S1901&moe=false

STAFF ENGAGEMENT

Box Elder City staff are knowledgeable, dedicated, care deeply about the community, and are committed to a strong vision for the future of Box Elder.

To create this comprehensive plan, the consultants worked closely with City of Box Elder staff, in particular the Planning and Zoning Department. Other departments who contributed to the Comprehensive Plan include City Administration, the Public Works Department, the Police Department, Engineering, Grant Writing, the Police Department, and Economic and Community Development.

City staff helped organize and assisted with all public engagement opportunities, provided mapping and technical assistance, and reviewed the direction of the planning document throughout the process. Box Elder city staff are highly engaged in interfacing with the public - they plan, organize, staff and manage most of the community-related events in Box Elder. One of the City staff's primary goals is to develop a strong identity and sense of place in Box Elder.

City staff will, in large part, be responsible for carrying out the implementation of the Comprehensive Plan, so each department reviewed and commented on the plan multiple times in order to craft a Comprehensive Plan that captures the culture and vision of the community.

Back to School Event 2024

ENGAGEMENT

COMMUNITY ENGAGEMENT SUMMARY

The year-long public engagement process was undertaken to understand community values, needs, and priorities as well as built environment strengths and weaknesses from the perspective of the residents.

A series of online surveys were conducted to gain Box Elder resident input on how they view their town and what they would like to see as the community grows.

In-person public outreach was designed to “meet people where they are” - at well-attended community events throughout the year, intentionally avoiding single-issue workshop style engagement that typically attracts residents who are already engaged in community decision-making. The most widely popular community events were selected. Events included 2023 Back to School Night, 2023 Patriot Days, (list all of the events) and had a wide range of engaging activities designed to understand the community’s wants and needs.

At these events both staff and consultants were able to have one-on-one conversations with many Box Elder residents about their community; their needs, concerns, and hopes for the future of the community. These conversations enriched the quality of the engagement and provided insight into a wide range of thoughts and opinions of residents who are often less engaged in community decision-making. As the edges of Box Elder blur into other communities it was important to stakeholders to clearly describe what makes Box Elder unique and to convey the pride they have in their community.

The community identified challenges that face Box Elder. Many of the challenges are similar to what other communities in the region are experiencing and some are unique to this community. Some of these challenges are:

- *The need for affordable housing was one of the primary issues identified by residents. Affordable housing is in conflict with the increasing value of land and cost of development.*
- *Influx of population, both due to regional growth and Ellsworth Air Force Base mission growth, adds increased pressure on an already stressed housing market.*
- *The expectation of services and amenities are outpacing the City’s ability to provide them at a pace that keeps up with rapid development.*
- *Economic interdependence with the military base and a transient population associated with the base poses unique challenges and opportunities to the community.*

Interview Station - Back to School Event 2024

Community Engagement- Back to School Event 2024

BIG WINS!

COMMUNITY BUILDING

Box Elder has invested in community-building!

The Box, Liberty Plaza, and the Black Hills Children's Museum (currently in development), and Box Elder Parks and Open Space Master Plan all meet a variety of Land Use and Economic Development goals from the 2014 Comprehensive Plan. In addition to these projects the City has also developed and implemented a robust annual schedule of community activities from Patriot Days to Back to School Night. Through these activities, the City is developing the social cohesiveness that is the foundation for community success.

ECONOMIC DEVELOPMENT

Box Elder has supported strong Economic Development and backs that up with policy.

Timmons Market renovation, Freedom Park, and Hairy Cow projects all met 2014 Comprehensive Plan goals to work collaboratively through tax incentives, grants, and other economic development measures to help support new and growing businesses in the community.

PLANNING FOR GROWTH

Box Elder has been planning infrastructure for growth.

The City of Box Elder has regularly updated utility infrastructure mapping and monitoring meeting the 2014 Comprehensive Plan Goal CPF2-10 "Develop a City-wide sanitary sewer map that includes piping, sizing, valves, etc." In addition to sanitary sewer mapping the City monitors both water and sanitary sewer systems regularly including; water quality, pressures, flow rates, average daily consumption, regularly schedules facility maintenance, and routine evaluation of power consumption at facilities. Sanitary sewer improvements have been either designed or are in planning and are being implemented in phases to accommodate current growth. The City also adopted a Transportation Plan in 2014 which is recommended for update in 2024-25.

PROGRESS REPORT

The City of Box Elder has been extremely successful keeping its “eye on the prize” and making significant progress on the goals of the 2014 Comprehensive Plan.

The 2014 Comprehensive Plan was instrumental in the City’s transition from a small town operated by limited staff and few standard operating procedures to a professionally operated municipality that is the 11th largest City in South Dakota and one of the fastest growing towns in the state. It is clear - the City has a strong vision for the future of Box Elder and is actively working to achieve that vision.

An astonishing 83% of the 2014 Comprehensive Plan goals have been fully or mostly established in procedure, ordinance, or regulation. Many of the Goals from the 2014 Plan were related to internal City procedures and policies, such as intergovernmental communications and planning efforts and standardizing procedures within City departments. Other common themes were ensuring adequate utilities, enacting ordinances, and contending with land uses that are incompatible with the AICUZ recommendations.

A handful of 2014 goals are not applicable to the current conditions in Box Elder. Some were not applicable because the language has been updated in the 2024 Comprehensive plan and some because they were a poor fit for the current and future conditions of the community at this point in time.

WHO WE ARE

Box Elder grew from rural, military, and transportation roots.

We are a community that has always had something for everyone; space for rural living with access to adjacent agricultural lands; quiet suburban neighborhoods; opportunities for military service and employment at Ellsworth Air Force Base; great locations close to transportation corridors to build businesses; and easy access to the amenities of our neighboring city but with space to live free from the burdens of city living.
We tend to be practical and conservative but we also believe in strong public investment when it aligns with our core identity and values.

OUR CORE IDENTITY & VALUES

The core identity of Box Elder is a strong sense of personal and shared freedom.

- We believe that freedom requires service and we cultivate a strong tradition of and respect for military and community service.
- We believe that a community and country that values freedom is well educated and because of this we support excellence in our school district.
- We believe in strong individual rights and carefully balance those rights with the rights of our neighbors and the community.
- We cultivate a strong sense of care for each other and we express this in special support of our military service people and their families and by creating many opportunities to gather together and form strong community bonds.

VISION STATEMENT

The citizens of Box Elder want to build a thriving family-oriented community with a unique sense of place that builds on strong shared values, identity and goals.

This unique community identity is the inspiration for meaningful decision making, placemaking, and branding.

WHAT WE WANT TO ACHIEVE

We recognize some areas that we want to strengthen.
Looking into the future, our community wants to make Box Elder an even better place to live. We envision:

- Our children safely walking and biking to school, having easy access to neighborhood playgrounds, and a strong selection of positive activities for children of all ages.
- Well-maintained parks and community spaces that can host a variety of sports and events.
- A variety of successful, well-supported restaurants and shops that are a local social hub and attract people from throughout our region.
- A comprehensive trail system that connects all of our neighborhoods to our unique open spaces and to dining, retail, and other places where our community gathers together.
- A variety of housing options that meet our housing deficiencies and encourage a healthy housing market

HOW WE WILL ACHIEVE IT

We believe that supporting this future vision requires conscientious planning and investing in things that make our community more attractive and livable AND we want to balance this investment with taking care of current needs and obligations.

GISTER HERE
DINING
COMMUNITY ACTIVITIES
PARKS 4 REC
HOW WOULD YOU PRIORITIZE SPENDING?

FOUNDATIONAL THEMES

Five themes emerged from the public engagement process which lay the foundation for the Box Elder Comprehensive Plan. These themes are embedded in the guiding principles, Comprehensive Plan chapters, and in the Implementation Plan.

1. AFFORDABLE HOUSING IS IMPORTANT

Affordable housing stands out as the foremost concern voiced by the community during public engagement sessions and surveys. Residents identified the need for accessible and reasonably priced housing as the primary issue facing the City. This Comprehensive Plan will focus on implementing strategies that address this pressing concern, ensuring that affordable housing options are developed and improved within the municipality.

2. FOSTER DIVERSE ECONOMIC VITALITY

Foster a dynamic and inclusive economic landscape by attracting diverse businesses, including retailers and restaurants, while nurturing a supporting environment for the growth of local small businesses. Prioritize initiatives that contribute to economic resilience and shared prosperity.

3. CULTIVATE COMMUNITY WELL-BEING AND ENGAGEMENT

Cultivate community well-being by investing in youth and community events. Promote a sense of belonging, social cohesion, and active community participation by enhancing recreational spaces, upgrading parks and playgrounds, and establishing an outdoor community event center.

4. PROMOTE NATURE-INTEGRATED RECREATION

Promote outdoor recreation by prioritizing the development of a city-wide trail system and sidewalks to ensure connectivity and accessibility for all residents, including adequate pathways to schools. Emphasize the integration of nature into urban planning to create inviting green spaces and scenic routes, encouraging healthy lifestyles and fostering a deeper connection with the natural environment. Additionally, the outdoor community events center will provide a dedicated space for diverse recreational and cultural activities, further enriching the fabric of our community.

5. PRIORITIZE SUSTAINABLE INFRASTRUCTURE DEVELOPMENT

Prioritize sustainable growth by managing utilities in areas of expansion and implementing effective road maintenance strategies. Ensure that infrastructure development aligns with the city's growth trajectory, emphasizing resilience, fiscal and environmental sustainability, environmental responsibility, and long-term planning.

GUIDING PRINCIPLES

Guiding principles underly all comprehensive plan goals. They describe all of the qualities desired by Box Elder residents - a vibrant, active, resilient community with a high quality of life and strong sense of place.

ECONOMIC PROSPERITY AND RESILIENCE

- Foster a diverse and resilient economy that supports long-term prosperity and enhances the city's competitiveness.
- Attract and retain businesses across various sectors, fostering innovation and job creation.
- Invest in workforce development programs to ensure a skilled and adaptable labor force.
- Diversify the economic base to reduce vulnerability to market fluctuations and external shocks.

QUALITY OF LIFE & COMMUNITY WELL-BEING

- Enhance the overall quality of life for residents by investing in community assets, services, and amenities.
- Improve access to recreational opportunities, parks, and cultural amenities to promote health and well-being.
- Foster social cohesion and civic engagement through community events, programs, and initiatives.
- Address social equity concerns by ensuring equitable access to essential services and opportunities for all residents.
- Incorporate the USAF Five & Thrive quality of life goals into planning efforts.

RESPONSIBLE RESOURCE MANAGEMENT

- Manage natural and fiscal resources responsibly, ensuring their long-term sustainability and stewardship.
- Adopt sustainable practices for water and energy conservation, waste management, and land use planning.
- Implement fiscal policies that prioritize prudent budgeting, revenue diversification, and long-term financial sustainability.
- Promote transparency and accountability in resource management decisions, engaging stakeholders in the planning process.

INFRASTRUCTURE INVESTMENT & MAINTENANCE

- Maintain and enhance essential infrastructure to support current and future needs, ensuring reliability and efficiency.
- Prioritize infrastructure investments in utilities, transportation, and public facilities to accommodate growth and improve quality of life.
- Implement proactive maintenance programs to extend the lifespan of existing infrastructure and minimize disruptions.
- Explore innovative financing mechanisms to fund infrastructure projects and address deferred maintenance backlog.

SUSTAINABLE GROWTH & DEVELOPMENT

- Ensure that the city's growth and development are sustainable, both economically and environmentally.
- Implement land use policies that promote balanced growth, affordable housing, and prevent urban sprawl.
- Encourage mixed-use development to enhance walkability and reduce reliance on automobiles.
- Integrate green infrastructure practices to mitigate environmental impact and enhance resilience to climate change.

PLACEMAKING

- Reflect Box Elder character and identity throughout the built environment in new public spaces, branding, and signage.
- Focus on encouraging development that reflects community identity in materials and site design and that meets the social and recreational needs of the community.
- Invest in multi-use public places that build community including streetscapes, parks, trails, and shared community spaces that help make Box Elder not just livable, but lovable.
- Adopt place-based urban design principles and strategies that capitalize on community assets and contribute to the community's health, happiness, and well-being.

History of Box Elder

1800s:
Present day Box Elder was only a fertile valley.

1907:
Box Elder was first established as a whistle stop town when the Chicago and Northwestern Railroad built a track from Wasta to Rapid City.

1937:
Rapid City built a modernized airport at Box Elder, and at the same time U.S. Highway 14, though still a dirt road, was moving cars through town toward Mount Rushmore.

1942:
During World War II, South Dakota's congressional delegation, and Rapid City's business and civic leaders, were successful in winning Rapid City Army Air Base where the airport had taken form five years earlier.

1949:
Runway improvements made Rapid City AAB capable of accommodating the B-36 Peacemaker, a massive bomber with nuclear capabilities.

1950:
The base was reassigned from the 15th Air Force to the 8th Air Force.

March 18, 1953:
Base commander Brigadier General Richard Ellsworth and 22 other airmen died when their B-36 crashed in Newfoundland. Three months later, President Dwight Eisenhower flew to South Dakota to rename the base in Ellsworth's honor.

1960s:
Coughlin and Schulz were part of a new Ellsworth mission: Titan and Minuteman nuclear missiles were installed in underground silos across the upper Great Plains, aimed at enemy targets around the globe.

1964:
Box Elder was officially incorporated as a City during the Cold War expansion of Box Elder Airforce base.

Mid 1980s:
The B-52s were retired and the Air Force transitioned to the B-1B Lancer bomber.

1991:
The base shifted from a strategic bombardment mission to a worldwide conventional munition delivery mission, with a new focus on tactical training. The missile silo system was also deactivated and the missiles removed.

May 2005:
The future of Ellsworth AFB fell into jeopardy when the Department of Defense added it to their list of recommended base closures as part of their Base Realignment and Closure process (BRAC).

August 2005:
South Dakota Senator John Thune fought against the closure, the South Dakota Ellsworth Development Authority was created, and the BRAC commission voted 8-1 to spare Ellsworth.

March 2019:
Ellsworth was chosen as the preferred location for housing the first operational B-21 Raider stealth bomber unit, as well as the first formal training unit.

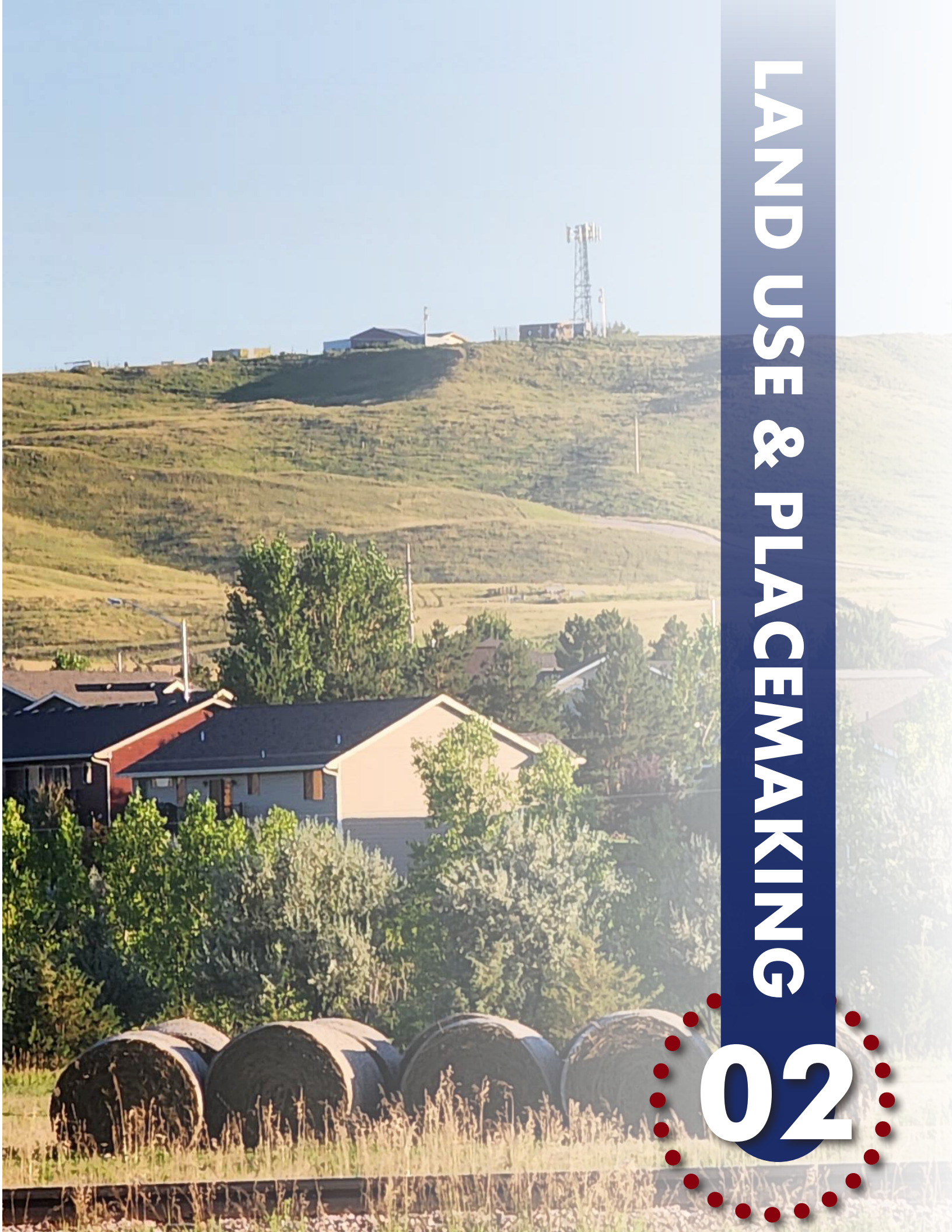
2020:
Plans for Liberty Plaza in Box Elder take shape to create a downtown district that will connect the city and the airforce base.

June 2022:
Box Elder Parks Master Plan completed

November 2022:
Liberty Center opens in Box Elder.

Mid-2020s:
The first B-21s are expected to arrive at Ellsworth and promise to provide a strong boost to the local economy.

History of Box Elder



LAND USE & PLACEMAKING

02

CURRENT LAND USE 02.

The Comprehensive Plan provides updated direction, goals, and policies to the 2014 Comprehensive Plan. It synthesizes Community VISION with current land uses, special challenges, development in the planning horizon, and development which is far in the future but generally seen to be the next step for Box Elder. The Comprehensive Plan prioritizes development types and locations taking all of these factors into account.

One of the guiding themes for the Future Land Use Plan is "Placemaking". Placemaking is a community development tool that builds on the cultural, social and physical identity of a place to strengthen the connection between people and the community they share. Placemaking builds on community identity to overcome challenges and guide future development. In Box Elder, the Community Vision Statement underlies all Placemaking goals.

This chapter:

- Describes current land uses and trends
- Identifies land use challenges
- Provides a Future Land Use Plan
- Provides Goals and Policies for guiding Future Land Use

THE CITY OF BOX ELDER: A GROWING COMMUNITY

The City of Box Elder is one of the fastest growing cities in South Dakota, consistently ranking #3 after the states largest cities, Sioux Falls and Rapid City.

Box Elder grew by 3,488 people between 2013 and 2022, with an average growth rate of about 2.2% per year and a spike of 17% in 2020. Following that spike the growth rate has increased slightly to between 3%-4%. That trend, along with the expansion of the EAFB B-21 Raider mission, may indicate a higher than average growth rate in the coming years. According to the Environmental Impact Statement for the new mission, a 30% increase in personnel is expected between 2024-2026.

Over the past ten years increases in population appear to follow the construction of new housing. The 2020 population spike followed an increase in both single family and multifamily building permits in 2019. 2020 had the highest number of new single family building permits in Box Elder since 2014.

2022 had the largest increase of multifamily housing building permits in Box Elder history with six new apartment buildings permitted in response to the growing community and anticipation of the B-21 Mission. Of those building permits, some were occupiable in late 2023 with the remaining available in 2024. According to the 2022 Box Elder Housing Study, the vacancy rate in Box Elder is very low at 1% compared to "healthy" vacancy rates of 3%-5%. In the ten-year period between 2013 and 2023, 683 new single family homes and 997 multifamily units were permitted in Box Elder.

Over that same period 66 new commercial building permits were approved. Of those new commercial permits, the majority were industrial use, storage units, or warehouses with the remainder being hotels, gas stations / travel stops, The Box Event Center, Liberty Center (recreation), Vandenberg Elementary School, a day care, a veterinarian office, a church, a strip mall, some office / service, a bank, and one restaurant.

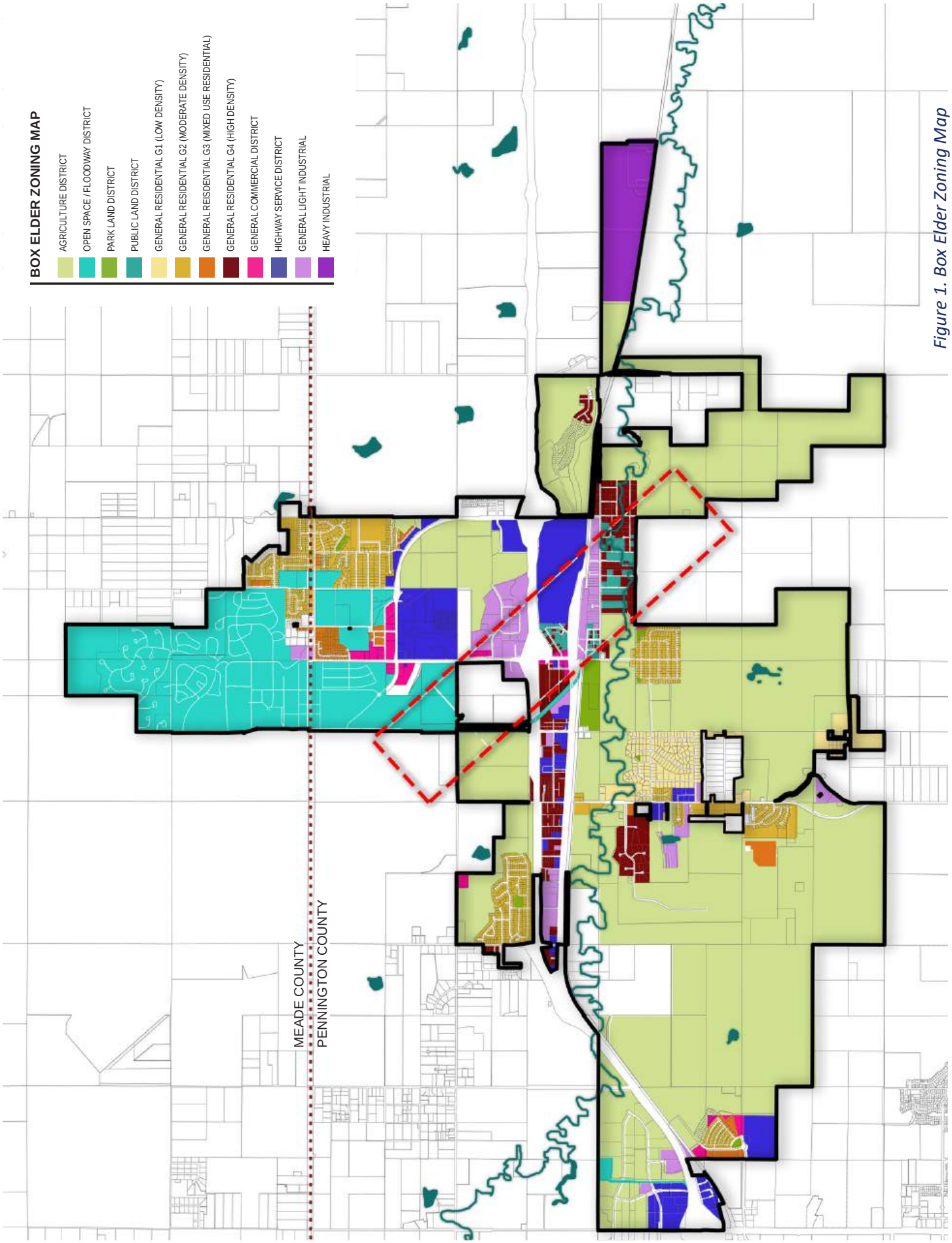


Figure 1. Box Elder Zoning Map

There are currently eight restaurants in Box Elder, four of which are fast food / pizza. That is approximately 1 restaurant for every 1,640 people. In comparison other South Dakota towns of approximately the same size have significantly more restaurants; Spearfish has 40 restaurants (1 per 322 people), Vermillion has 28 restaurants (1 per 425 people), and Pierre has about 26 restaurants (1 per 537 people). However, a scan of smaller communities adjacent to larger population centers tend to have fewer restaurants per capita trending closer to one restaurant to every 700-900 people.

2024: CURRENT LAND USE

Box Elder city limits encompass approximately 8,620 acres or 13.5 square miles. Area within the city limits is zoned as follows:

Land Use Type	Acres	%
Park land	57	1%
General commercial	74.5	1%
Open space/ flood	83.5	1%
Heavy industrial	216.5	3%
Hwy service	426	5%
General light industrial	511	6%
General Residential (all)	1203.5	14%
Public Land	1267.5	15%
Agricultural	4780	55%

"Public Land" includes Ellsworth Air Force Base and its adjoining housing which was previously included in the residential zoning category. *See Figure 1. Box Elder Zoning Map.*

Interstate-90 divides the community into two districts, north and south Box Elder, with the majority of its land mass being south of the interstate. Ellsworth Air Force Base (EAFB) occupies the northwest quadrant of the community; north of I-90 and west of the north district of the town.

Box Elder's platting jurisdiction extends to a three mile extra territorial boundary beyond city limits (SDCL 11-6-26), primarily in northern and easterly directions. In other directions the planning boundary meets the adjacent jurisdictions of Rapid City, Rapid Valley, and Rapid City Regional Airport. Box Elder city limits

and three-mile extra territorial boundary fall in two counties - Meade and Pennington Counties.

North Box Elder

North Box Elder is a mix of land uses and Ellsworth Air Force Base. It is the location of nearly all of the civic and institutional land in the community, including City of Box Elder offices and Douglas School District's schools, administration offices, and athletic facilities.

Housing in North Box Elder includes a full range of housing types, but is primarily single family housing with some multi-family and one mobile home park. There is an isolated neighborhood (broadly called the Thunderbird Subdivision) in north Box Elder landlocked by EAFB to the north, I-90 to the south, and Box Elder Creek flood plain to the west. New housing is quickly being developed throughout this district as both infill development and development to the north and east that had either been recently annexed or is anticipated to be annexed at some point in the future.

Ellsworth Air Force Base includes the military installation, support facilities, recreation facilities, and housing for military personnel and their families. The base impacts adjacent land uses in the Buffer Zone, Clear Zone (CZ) and Accident Potential Zones(APZ) some of which is within city limits and in the 3-mile platting jurisdiction.

Generally, commercial uses follow Liberty Boulevard from I-90 to the Ellsworth AFB Main Gate with increasing commercial development clustered near the I-90-Liberty Boulevard intersection and the North Ellsworth

Road-Liberty Boulevard intersection. Liberty Plaza, a new 100-acre mixed use development southeast of this intersection, is intended to be "Box Elder's new downtown". This development is under construction and currently includes Liberty Center, a recreation center, several large apartment complexes, and single family residential development. Future uses in this Planned Development include a children's museum, mixed commercial / office / residential development, hotels, and a possible new location for some civic institutions. Adjacent new commercial development is starting to cluster around the perimeter of Liberty Plaza.

There are three parks in north Box Elder; Veteran's Park, Greenway Park, and Boykin Park. The school district also owns an arboretum which is connected to Veteran's Park between subdivisions by a trail.

Several natural drainage channels with floodway and flood plain impacts run through north Box Elder northwest to southeast and are tributaries to Box Elder Creek.

Land uses outside the north Box Elder city limits are primarily rural residential, agricultural, occasional industrial, and few municipal uses like city well sites.

South Box Elder

South Box Elder is the location of Highway 1416, an active rail road, and Box Elder Creek; all in a linear east-west corridor close to I-90, making it a distinctive and challenging characteristic of the community.

Development in this corridor is seriously impacted by Interstate, highway, and railroad rights-of-way, and by the Box Elder Creek floodway and flood plain. In addition the Ellsworth AFB Accident Potential Zones (APZs) impacts land use in this district. The South Dakota Ellsworth Development Authority and City of Box Elder have been steadily procuring properties that have incompatible land uses in the APZs and floodway. Highway 1416 is currently being redesigned for better connectivity and will include a Letter of Map Revision (LOMR) to take some properties out of the flood plain.

Current land use in the I-90 / Box Elder Creek corridor is a mix of highway-commercial, light industrial, park, open space, agricultural land, and residential areas including the majority of the city's mobile home parks. It is the location of the original whistlestop town of Box Elder and several farms in this corridor are still active with livestock, hay production, and equestrian uses.

Land uses south of Box Elder Creek are primarily subdivision residential, rural residential, agricultural, and some light industrial uses. A dense commercial-hotel district is located at the far western edge of south Box Elder city limits along a complicated boundary between Box Elder and Rapid City. The Northern Lights subdivision is adjacent to this district and both are isolated from the rest of the city, currently accessible only via I-90. Cheyenne Boulevard is planned to eventually connect from Northern Lights to Liberty Boulevard.

New housing development is primarily occurring in the southwest quadrant of City Limits near the Northern Lights subdivision and West Sunnydale Road, generally taking place adjacent to existing infrastructure. Full development of the southwest quadrant depends on sanitary sewer infrastructure improvements which are currently being designed. When that infrastructure is complete, a 1,400 acre subdivision is planned with housing, commercial, mixed use, and the extension of Cheyenne Boulevard which will provide a direct connection between south Box Elder and Elk Vale Road.

Most of the community's parks are in south Box Elder. Additional expanded parks are planned there, in part to give a public use purpose to the undevelopable properties in the floodway. A new elementary school is planned between Creekside and Prairie View Estates subdivisions.

The southeast quadrant of south Box Elder includes south Liberty Boulevard but is also severely limited by floodplain. A new concrete batch plant is located near the Liberty Blvd / Hwy 1416 intersection and a new housing development is currently under construction just to the east of that intersection. A new high school is planned east of the batch plant near I-90 and 151st Avenue.

SPECIAL LAND USE CHALLENGES

The city has several physical and regulatory impacts that are challenging for community-centered planning;

- *The I-90 to Box Elder Creek Corridor between North and South Box Elder*
- *Box Elder Creek Flood Hazard Zones*
- *Ellsworth Air Force Base impacts*
- *Rapid City Regional Airport impacts*
- *The shale foothills steep slopes and poor soils*

See Figure 2 Box Elder Restriction Zones Map

I-90 to Box Elder Creek Corridor

One of the city's most challenging land use characteristics is that the north and south parts of the city are bisected by Interstate-90, State Highway 1416, an operating railroad, and Box Elder Creek; all clustered in a east-west corridor that varies from 1/4 mile wide to nearly 1 mile wide including the flood plain. Portions of this corridor are also in the Ellsworth AFB APZ I & II zones, which restrict certain types of incompatible uses. The Box Elder Creek floodway and flood plain have impacts throughout this corridor. These physical and regulatory barriers pose a significant challenge to both physical and social connectivity between North and South Box Elder, impacting the cohesiveness of the community.

Box Elder Creek Flood Hazard Zones

Box Elder has extensive flood plain areas and participates in the National Flood Insurance Program (NFIP).

Two tributary watercourses flow southeasterly through the community, Box Elder Creek and Box Elder Creek tributary. The watercourses are crossed by several highways, city streets, and railroad tracks. Several mobile home parks are located in the Special Flood Hazard Area. Flooding has impacted existing neighborhoods in the past. South Ellsworth Road, which serves Prairie View Estates, has been flooded due to over topping of the Box Elder Creek culvert requiring a temporary emergency access road to be constructed. The City now requires all new subdivisions to have secondary access. According to the Meade County Natural Hazard Mitigation Plan "The Flood Factor model estimates that there are 20% of properties in Box Elder at risk for flooding with a prediction that over the next 30 years there will be an increase of 1.6%."

Thunderbird Subdivision has consistently had issues with flooding and inadequate stormwater drainage. A drainage study was done in 2017. The redesign of Highway 1416 is intended to mitigate some of the flooding issues in this neighborhood and in the Highway 1416 corridor.

Increased impermeable surfaces that inevitably come with increased development can be expected to exacerbate flooding, especially peak flows during storms. High drought risk also has stormwater and flood implications due to hydrophobic soils.

Ellsworth Air Force Base Impacts

The Ellsworth Air Force Base (EAFB) Accident Potential Zones (APZ) impact the I-90 / South Ellsworth Road area and bisect South Box Elder diagonally. The Air Installation Compatible Use Study (AICUZ) for Ellsworth Air Force Base was completed in 2008 and includes a supporting report which provides land use compatibility guidelines in four categories: CZ, APZ I, APZ II, and noise zones.

The Study provides compatible use guidelines for land areas surrounding the base. The AICUZ Study is provided to local communities as a tool for future planning and zoning activities.

Based on the AICUZ, the South Dakota Ellsworth Development Authority (SDEDA) has been actively purchasing properties in the Clear Zone (CZ) and Accident Potential Zones (APZ) I & II. Additionally, the City of Box Elder has been purchasing properties in the Box Elder Creek floodway and floodplain to better protect community health, safety, and welfare and bring land uses in these zones into compatibility with allowed uses.

Rapid City Regional Airport Impacts

The Rapid City Regional Airport Master Plan, Land Use Compatibility Plan (October 2010, KLJ Engineering) was developed "to identify existing and potential hazards

and incompatible uses of lands surrounding Rapid City Regional Airport and to recommend reasonable actions to eliminate, mitigate, or prevent hazards and incompatible land uses." The plan details five safety compatibility zones that may impact development in Box Elder:

Zone 1: Runway Protection Zone
Zone 2: Inner Approach / Departure
Zone 3: Circling Traffic Patterns
Zone 4: Precision Flight Corridor
Zone 5: Aviation Hazards

Box Elder's 3-mile platting jurisdiction abuts these compatibility zones but is primarily impacted by Zones 3, 4, and 5. The impact to planning is primarily height restrictions.

Shale Foothills

The shale foothills south of city limits run east-west separating the Box Elder Creek drainage basin from the Rapid Creek drainage basin. The foothills were identified as a location of geological hazard in the Meade County Hazard Mitigation Plan due to poor soils and steep slope. The hazard mitigation plan recommends relocation of the Radar Hill Road water tower due to soil instability

Adjacent Planning and Pre-Disaster Mitigation Plans

Multiple planning jurisdictions have a relationship with and impact on Box Elder's planning, including the City of Rapid City, Pennington County, Meade County and the census-designated but unincorporated community of Rapid Valley.

City of Box Elder staff participated in both the 2024 update to the Pennington County Natural Hazard Mitigation Plan and the Meade County Natural Hazard Mitigation Plan (adopted in 2021). These plans identified 540 structures at risk in flooding and flash flooding hazard areas with a value of $22.4 million in 2021. It is notable that 60% of the City's industrial structures are located in a flood hazard area, though the property value is just under $2.2 million.

In these plans, specific goals and action items for the City of Box Elder are identified. Several of the goals are underway, such as the acquisition of flood prone properties and repetitive loss properties located in the flood plain and planning for permanent secondary access / egress from the Prairie View Estates subdivision.

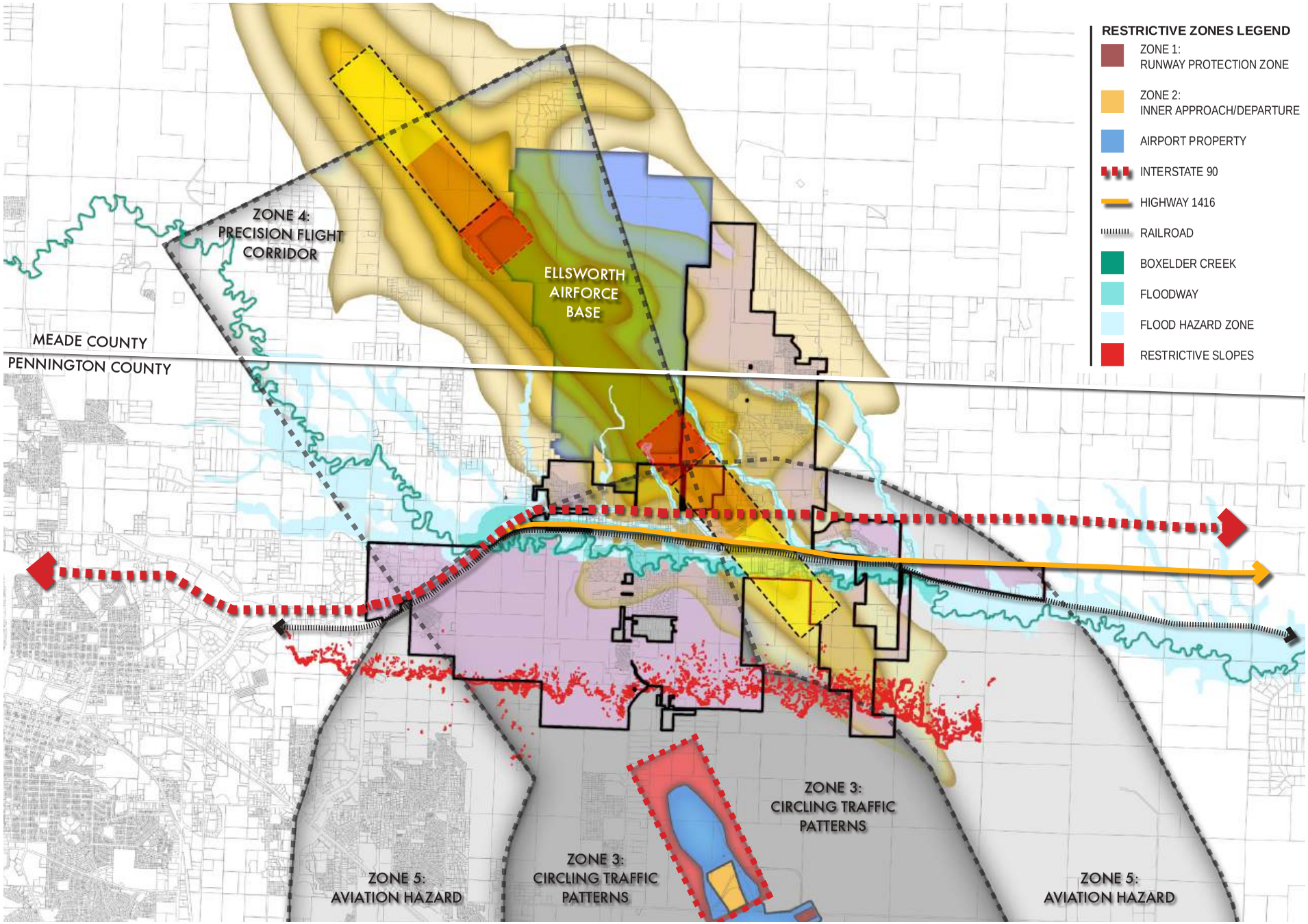


Figure 2. Box Elder Restriction Zones Map

GOLDEN

FUTURE LAND USE

The Future Land Use Plan synthesizes the community vision with current land uses, addresses special challenges, and anticipates both development in the planning horizon and development which is far in the future but is projected to be the next step for Box Elder.

The theme for the Future Land Use Plan is "Placemaking". Placemaking is a community development tool that builds on the cultural, social and physical identity of a place to strengthen the connection between people and the community they share. Placemaking builds on community identity to overcome challenges and guide future development. In Box Elder, the Community Vision Statement underlies all Placemaking goals.

Some of the most important Placemaking goals in the Future Land Use Plan are to:

- Incorporate Ellsworth Air Force Base needs and planning throughout the comprehensive plan. Ellsworth Air Force Base is a unique and important community relationship that contributes strongly to Box Elder culture and identity.

- Provide for a variety of affordable housing types in neighborhoods that have strong multimodal connections to important community locations such as parks, schools, government centers, EAFB, and commercial areas.

- Protect and preserve Box Elder's natural resources, cultural environments, and unique landscape character. Box Elder has a unique opportunity to preserve these landscapes by creating a system of connected open spaces which meet a variety of community goals including: preserving agricultural heritage landscapes; protecting drainages, creeks, and floodplains; accommodating Ellsworth AFB AICUZ needs particularly in Accident Potential Zones and buffers; preserving space for utility corridors; and providing trail and community connections between north and south Box Elder.

- Promote and celebrate Box Elder's unique community identity. Continue to build the strong commercial core or ***Town Center*** of Box Elder while also providing for ***Neighborhood Commercial Zones*** that serve more dispersed neighborhoods. Neighborhood Commercial Zones will help reinforce the desired small town "walk to the corner store" identity of the community and make it more convenient to keep economic activity local.

- Reinforce social cohesiveness by promoting community connectivity. Overcome the I-90 / Box Elder Creek barrier by creating stronger multi-modal transportation connections between the residential areas of north and south Box Elder. This includes streets, sidewalks, and trails and anticipates Cheyenne Boulevard eventually connecting to Spruce Drive (becomes Liberty Blvd north of Hwy 1416).

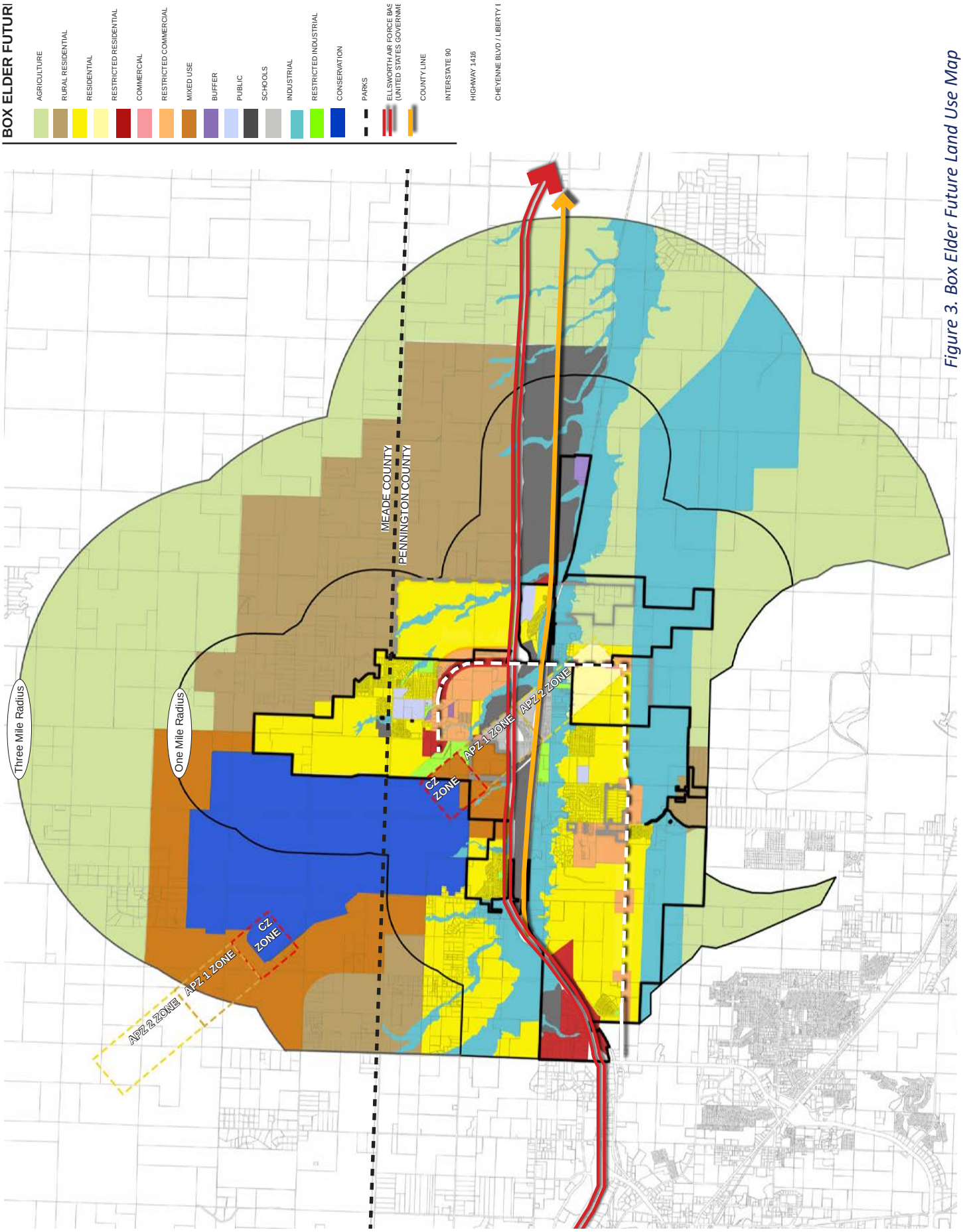


Figure 3. Box Elder Future Land Use Map

Density	Use	Purpose/Goal	Location	Zoning
Agriculture				
Typically 10+ acres	Primary: Ranching and farming operations Secondary: Low Density Residential	Not served by city utilities, unless location allows. This land use category is intended to protect agricultural lands where overlayed by conservation areas	Rural settings	Agricultural District
Rural Residential				
Roughly 2-10 acres	Primary: Single family housing, ranchettes Secondary: Ranching and farming operations with accessory structures	Not served by city utilities unless location allows	Rural Settings and urban edges	Agricultural District or GR1
Residential				
1 to 21 dwelling units per acre	Primary: Single-family and two-family dwellings. Secondary: Public Facilities	Intended for family housing that is in a neighborhood setting: Single-family and multi-family residential, manufactured homes	Established neighborhoods and future growth	GR1 GR2 GR3 GR4
Restricted Residential				
1-2 dwelling units per acre with possible increase under PUD with max. coverage > 20%	Primary: single family with AICUZ restrictions	Intended for very low density housing in accordance with AICUZ compatible uses	APZ II	GR1
Commercial				
Varies	Primary: Variety of retail, civic, financial institutions, restaurants, cultural, lodging, and professional offices.	• To provide services that provide daily needs to the residents of Box Elder • Varies in size and character • Provide specialty retail and recreation • Provide services to residents and travelers	Located along transportation corridors and activity centers	GC HS MU PD

Density	Use	Purpose/Goal	Location	Zoning
Restricted Commercial				
Low intensity commercial uses	Primary: low density commercial uses in accordance with AICUZ compatible uses	Allow for commercial uses in APZ II	Along transportation corridors within APZ II	GC HS
Mixed-Use Commercial				
Varies	Primary: small specialty shops, hotels, restaurants, health services, entertainment venues, retail services. Secondary: higher density residential, live work facilities, parks, plazas, civic uses.	Allow for mixed uses Integrated into surrounding neighborhood	Along transportation corridors	MU PD
Buffer (B)				
Varies	Existing agriculture, residential and public use Other land uses to be considered on a case-by-case basis and in accordance with AICUZ compatible uses.	• Establishes a land buffer around EAFB • Existing land use to remain, coordinate with Meade County Comprehensive Plan and the Rapid City Comprehensive Plan	Ellsworth Air Force Base Rapid City Regional Airport	varies
Public (PU)				
Varies	Government offices, civic facilities, fire stations, utility infrastructure facilities	Public benefit	Equitably located throughout the community	PUB
Schools (S)				
Varies	Schools and school support facilities	Public benefit	Equitably located throughout the community	PUB

Density	Use	Purpose/Goal	Location	Zoning
Industrial (IN)				
Varies	Primary: manufacturing, processing, wholesaling, warehousing and distribution, storage facilities, auto salvage, and repair. Secondary: commercial uses	• Involves work that processes and does not depend on frequent clients or frequent customers • Sufficient water and sewer services, railroad and transportation connection should be planned	• Located in areas with direct access to I-90 and Hwy. 1416 • Access to railroad	GLID HID
Restricted Industrial (I-APZII)				
Low intensity light industrial uses	Primary: certain manufacturing, transportation, communication, wholesale trade in accordance with AICUZ compatible uses Excludes manufacturing for petroleum, chemicals, rubber, plastic, and certain professional and scientific equipment.	• Involves work that processes and does not depend on frequent clients or frequent customers • Sufficient water and sewer services, railroad and transportation connection should be planned	• Located in areas with direct access to I-90 and Hwy. 1416 • Access to railroad • APZ II	GLID
Conservation (C)				
Varies	Primary: open lands preserved by the City or other government or as part of a private development for parks and conservation in accordance with AICUZ compatible uses.	• Resource/asset protection, areas subject to steep slopes, unstable soils, flooding, recreational use, or for the protection of life, safety, and welfare. • Areas subject to steep slopes, unsuitable soils, and flooding. • Not served by utilities	Box Elder Creek flood-plain and floodway, areas of steep slopes and/or unstable soils, drainages feeding Box Elder Creek, APZ I and APZ II	OS PK
Park (P)				
Varies	Primary: open lands preserved and maintained by the City. Recreational and public use in accordance with AICUZ compatible uses. Trails system connecting multiple neighborhoods.	Recreational, public use	Located in public areas, neighborhoods, conservation areas, and trail corridors. Certain park uses may be located in floodplain.	OS PK PUB

FUTURE LAND USE GOALS

Land Use Goal: Celebrate Community Character and Quality of Life

Celebrate Box Elder's community character and identity by protecting unique relationships and resources, protecting and building on quality of life needs and amenities, and by promoting character and identity in the built environment.

Each Future Land Use Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

LU1 Ellsworth Air Force Base is a unique and important community relationship that contributes strongly to Box Elder culture and identity. Incorporate EAFB needs and planning into the future land use plan.

- **LU1.1** Continue to incorporate the guidelines in the AICUZ into City policy
- **LU1.2** Incorporate new designated land use categories in the Future Land Use Map to preserve AICUZ Guidelines in Policy
- **LU1.3** Update Policy as the AICUZ is updated
- **LU1.4** Create regular lines of communication with EAFB with the understanding that EAFB leadership experiences regular changes
  - **LU1.4a** Ensure the regular participation of the Ellsworth AFB Advisory representative on the Planning Commission
  - **LU1.4b** Continue to inform EAFB regarding planning and zoning actions that have the potential to affect existing ordinances and/or resolutions.
- **LU1.5** Maintain a land use buffer around EAFB and review any proposed development on a case-by-case basis

LU2 Identify priority locations and develop typologies and design standards for Box Elder commercial areas.

- **LU2.1** Develop strategies to encourage development in these zones:
  - **LU2.1a** The Town Center
  - **LU2.1b** Neighborhood Commercial Zones
  - **LU2.1c** The Opportunity Corridor

LU3 **Protect and preserve Box Elder's natural and cultural environments that are unique community resources and contribute strongly to Box Elder identity.**

LU3.1 Protect drainages, draws, and waterways

LU3.2 Develop a Stormwater Ordinance that addresses:

LU3.2a Stormwater management at each development location

LU3.2b Protect drainages, draws, and waterways through utilization for sanitary and water infrastructure, stormwater, trails, and other infrastructure purposes in ways that don't destroy the natural form or function.

LU3.2c Consider implementing green infrastructure incentives rather than standard curb and gutter street sections where possible to help to reduce long term street and stormwater infrastructure costs; reduce the flooding exacerbated by increased impermeable surfaces; and to help preserve connective multimodal transportation corridors throughout the community.

LU3.2d Complete a hydrological assessment of the community to determine the validity of this approach.

LU4 **Use SMART Growth and/or Strong Towns principles and approaches to determine what development to incentivize.**

LU4.1 Analyze proposed developments to understand how immediate growth impacts long term infrastructure costs and liabilities to the community and incentivize only development that has lower long-term municipal liabilities.

LU4.2 Require developers to include non-vehicular transportation routes connecting housing developments to important community locations in development plans to meet the connectivity goals of the Box Elder Parks Master Plan.

LU5 **Set maximum growth boundaries and annex or restrict developments that depend on City infrastructure outside of these boundaries.**

LU6 **As needs dictate, promote the annexation of "doughnut holes" in the municipal boundaries**.

LU7 Preserve Box Elder's unique landscape character

LU7.1 Develop a Landscape Ordinance that addresses:

LU7.1a Parks and Open Space requirements
LU7.1b Trails and non-vehicular connectivity
LU7.1c Landscaping requirements for all development types

LU7.2 Prepare a city-wide tree planting / landscape plan for streets, parks, and open space that draws from the City's unique "Gallery Forest" and Upland Prairie ecology

LU7.3 Develop Ordinances that identify and protect:

LU7.3a Heritage Landscapes, especially agricultural lands where no other development can occur due to flood plain and APZ restrictions.

LU7.3b Consider heritage uses for City-owned APZ and Flood Restricted landscapes if not in conflict with adjacent land uses.

LU7.3c Historic buildings

LU7.4 Develop Planning policies or ordinances that protect scenic views through the Planning and Zoning process.

LU7.5 Prepare Future Land Use Plans, Future Street Plans, Master Utility Plans, Parks Plans and other planning in conjunction with one another to ensure both community goals and land, transportation, and utilities needs are met as the community grows. These plans should be linked to surrounding jurisdictions.

LU8 Promote and celebrate Box Elder's unique community identity

LU8.1 Reference Box Elder Community VISION Statement and the "Community Character" section of the Box Elder Parks and Open Space Master Plan in the future branding, design standards, and other community aesthetics.

LU8.2 Review Comprehensive Plan annually to review accomplishments and plan budget needs for following year.

LU8.3 Include the Box Elder Economic Development Organization and Chamber of Commerce in Comprehensive Plan updates and other significant planning.

LIBERTY BOULEVARD
MAIN STREET

LU2.1 VISUALIZATIONS & PRECEDENTS

LU2.1A BOX ELDER TOWN CENTER

Developing a commercial core with shops and restaurants remains one of the highest priorities for the citizens of Box Elder. The community wants places to gather informally, grow connections, and have a place that feels like the center of Box Elder.

They want to shop, eat, and socialize within their community.

The development of Liberty Center and Liberty Plaza has stimulated some other commercial development near the intersection of North Ellsworth Road and Liberty Boulevard, both inside the Liberty Plaza development and to the north of Liberty Boulevard. Currently, this development has a highway commercial character due to the wide vehicle-oriented streets, high speed limits, and lack of pedestrian crossings.

The community of Box Elder imagines a more traditional downtown for their community. For development to feel more like a downtown area, streets are narrower, speed limits are lower, traffic calming is introduced, sidewalks and pedestrian crossings are frequent and in locations convenient for pedestrians (see illustrations).

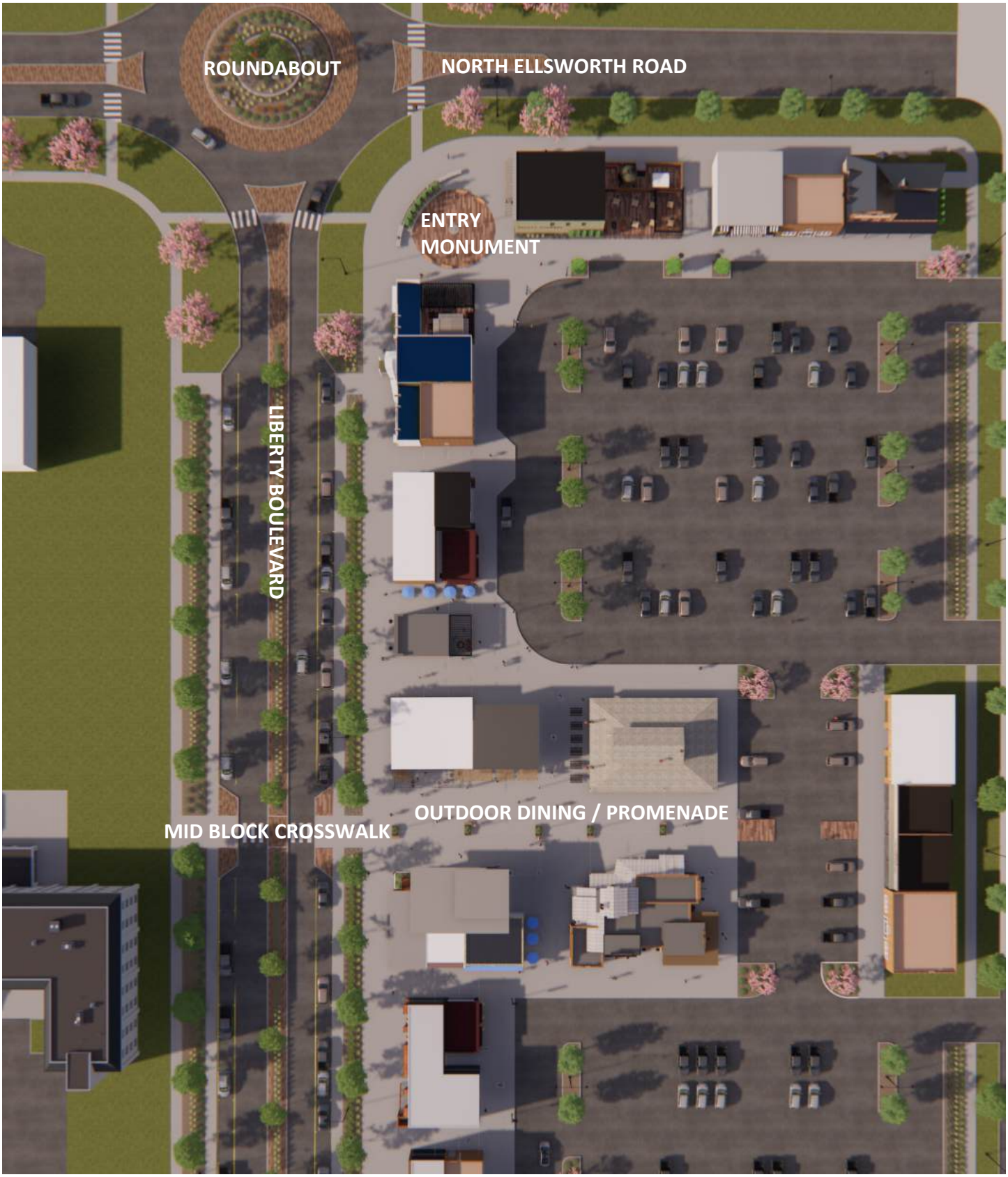
The illustrations show how the blocks around the Liberty Boulevard / North Ellsworth Road intersection might change if pedestrian-friendly downtown development took place. The concepts include:

- Using form-based code to encourage more pedestrian-oriented development with building frontages close to sidewalks and parking on the street, sides, or in the back of buildings. The code could include building materials and standards if desired.

- Utilizing a Complete Streets approach to road design in this area; planted medians in Liberty Boulevard helps with traffic calming and improved pedestrian safety by providing a place of refuge from vehicular traffic; on-street parking slows traffic and creates a sense of activity on the street which supports businesses; a roundabout at the Liberty Blvd / N. Ellsworth intersection provides greater security at the Ellsworth AFB Main Gate and becomes a gateway between downtown Box Elder and Ellsworth AFB.

- Encouraging higher density development in the desired “downtown” area by reducing parking requirements, allowing a single parking area to serve multiple buildings, and eliminating any additional driveway access to Liberty Boulevard.

- Encouraging development to be multi-faced - facing Liberty Boulevard, Villa Drive, and the interior of the developed site. Creating interior parking “courtyards” can be used as space for festivals, concerts, farmer’s markets, and other community-building activities.


ROUNDABOUT
NORTH ELLSWORTH ROAD
ENTRY
MONUMENT
LIBERTY BOULEVARD
OUTDOOR DINING / PROMENADE
MID BLOCK CROSSWALK

GRILL HUT

THE
FARMHOUSE

liquors

LU2.1B NEIGHBORHOOD COMMERCIAL ZONES

Neighborhood Commercial Zones serve the daily uses of adjacent neighborhoods and are small-scale commercial establishments located at collector street intersections or along collector streets at interrupted intervals. This type of development is focused on serving local neighborhoods and is walkable from residential areas. Development may include grocers, corner stores, hardware stores, food outlets, gas stations, and specialty retail and dining establishments.

In the Future Land Use map, in Neighborhood Commercial Zones solid strips of commercial development in a strip mall style should be avoided. Strip mall type developments tend to encourage high traffic speeds, unsafe pedestrian environments and prioritize vehicular traffic over any other form. These zones are intended to be friendly, low key, accessible commercial and retail which are interspersed with residential neighborhoods, parks, trails, and open space.

Primary locations for this type of land use are along the Cheyenne Boulevard extension east of the Northern Lights Subdivision. This is intended to draw these types of uses away from the Hwy 1416 Corridor, which is focused on industrial uses.

In Neighborhood Commercial Zones:

- Pedestrian comfort and access should be prioritized over vehicles. Make the pedestrian environment safer and more comfortable with lower traffic speeds, controlled intersections, data-driven crosswalk design (high-visibility crosswalks, lighting, signage, and pavement markings), and sidewalk access along streets and internal to the commercial locations. Commercial development in this area should be required to connect to the public sidewalk system and provide sidewalks from public streets to the doors of the commercial buildings.

- Ordinances should encourage building development closer to the street with a strong relationship to the street environment and parking on the sides or in back of the commercial establishment.

- These zones should be encouraged to tie into the community trail system if possible. This provides a unique experience that draws on the rural character of the community and is an opportunity for commercial enterprises to serve trail users.

LU2.1C THE OPPORTUNITY CORRIDOR

The Opportunity Corridor includes the area between Interstate 90 and the railroad corridor and includes Highway 1416. This area is currently a mix of mobile home parks in the process of being cleared due to AICUZ conflicts, residential properties, highway service, light manufacturing and industrial, restaurants and bars, and at least one church. It is the location of the commercial gate to EAFB.

A number of properties in this area have AICUZ incompatible uses and are in flood zones. Additionally, South Box Elder residents must cross Hwy 1416 to get to schools, city offices, EAFB, the grocery store, and Liberty Plaza area. Hwy 1416 intersections have the highest vehicle accident rate in the city at the most-used cross streets.

Inspired by the advanced technology companies already attracted to Box Elder by proximity to Ellsworth Air Force Base, this zone has many opportunities for technology, light industrial, and manufacturing companies such as high visibility from I-90, proximity to the EAFB commercial gate, and easy transportation access to the interstate highway and rail systems.

This Comprehensive Plan proposes re-imagining the I-90 to the railroad corridor as an economic development focus area that embraces the positive assets of the district and works to remove incompatible uses from the district. The proposal is influenced by the following factors:

1. While the proposed redesign of Highway 1416 aims to increase the safety of vehicular and pedestrian cross-traffic, land use in this area will likely remain highway commercial, manufacturing, and light industrial due to the incompatibility of other development types with the AICUZ and flood zones.

2. Cheyenne Boulevard will eventually extend to connect to Spruce Drive, which is the southern extension of Liberty Boulevard. This Cheyenne - Liberty Boulevard connection will replace at least a portion of Highway 1416 traffic volume (though it is envisioned as the primary resident and visitor route from South to North Box Elder). The reduced traffic pressure will open Highway 1416 up to be the preferred route for trucking and other traffic related to manufacturing and light industrial uses in the district. Ease of transportation access and reduced traffic conflicts are a competitive advantage to Box Elder from an Economic Development standpoint.

3. Housing and retail is the highest need and desire of the community but is mostly incompatible with the I-90 / Box Elder Creek corridor. Meanwhile, some highway commercial, industrial, and manufacturing uses which would be compatible in the corridor are located in prime housing and retail development areas. The comprehensive plan recommends attracting highway commercial, light industrial, and manufacturing uses into the Innovation Corridor and away from areas more compatible with residential and retail commercial uses.

The Opportunity Corridor is envisioned as a high quality environment will help attract modern, high-tech industries and skilled workers.

- Innovative and competitive industrial parks include thoughtfully designed, human-centric buildings and employee amenities that promote productivity, foster a healthy work environment, reduce burnout, minimize turnover rates, mitigate workplace stress and boost morale. Trees, sidewalks, and connections to nearby green space, parks, trail facilities would contribute to the competitive advantage of businesses in this district.

- Transportation in this district should be easily accessible for heavy-duty transportation needs but designed carefully to minimize conflicts with sidewalks, trails, employee parking, and outdoor amenities.

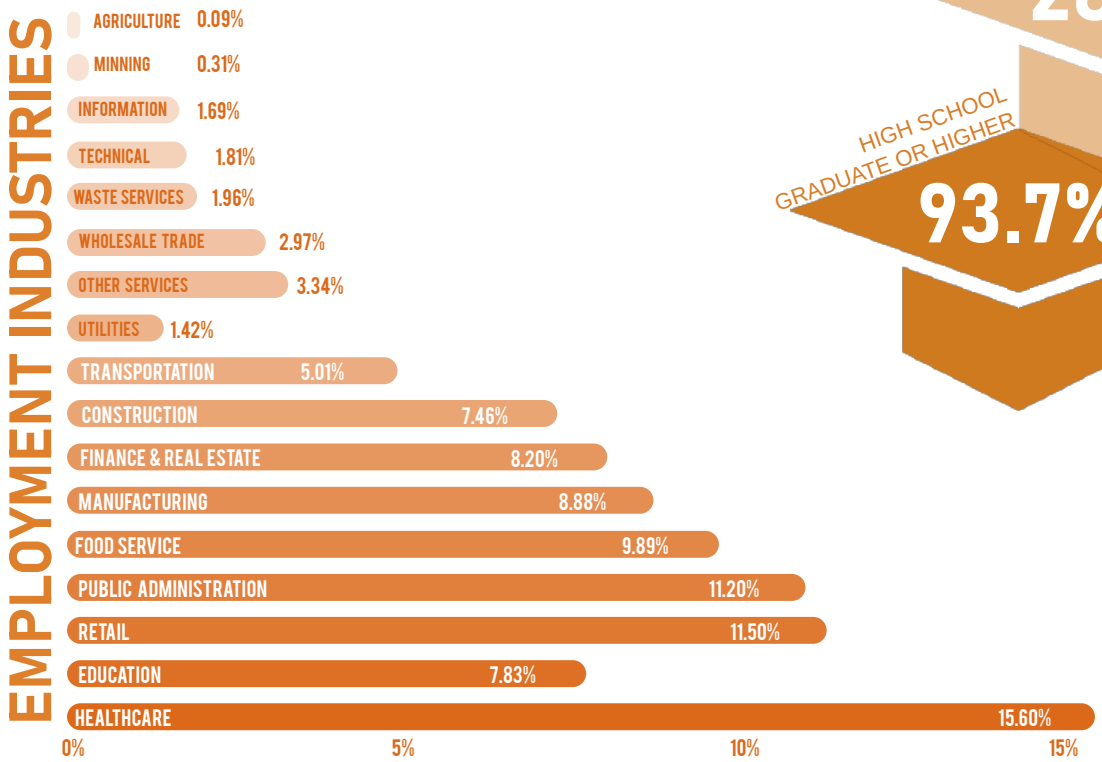
- Ordinances should encourage screening of manufacturing yards from the public right-of-way with vegetation or fencing. The appearance of the Innovation Corridor from I-90 should convey the intent of the district and has the potential to update the perception of Box Elder to residents, visitors, and passers through.

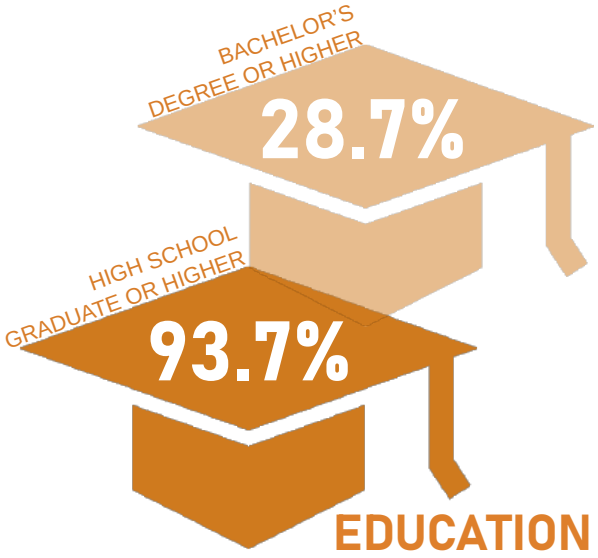
- On-site stormwater treatment can also be an amenity; stormwater treatment ponds, swales with natural prairie vegetation, and other functional aspects of site design can help businesses be more sustainable and provide a higher quality environment at the same time.

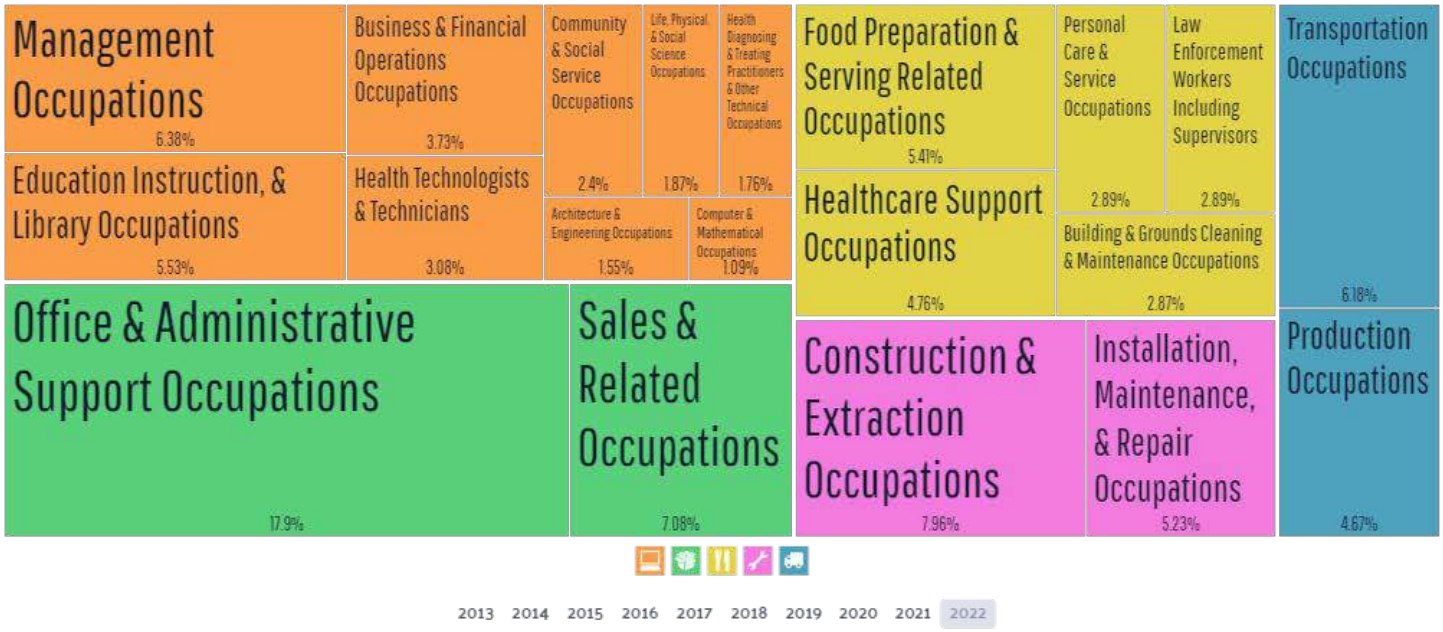
ECONOMIC DEVELOPMENT

03

ECONOMIC SNAPSHOT



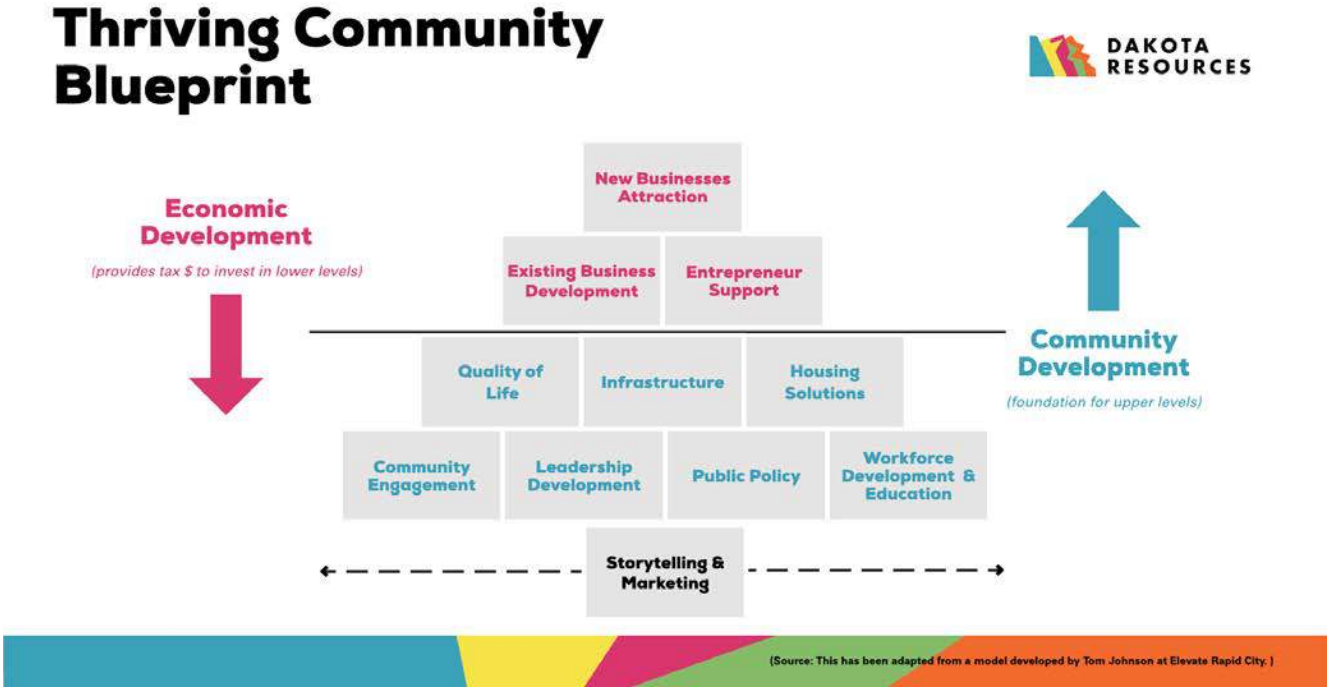




ECONOMIC DEVELOPMENT MODELS

Economic Development as a practice and industry has been growing and changing in recent years. It has become more holistic in its approach in effort to build more resiliency and sustainability into economic systems, understanding that many factors impact the long term well-being of communities. Economic Development professionals and academics alike have been striving toward creating a model or framework to better understand the complex interactions between people, place, environment, and economics.

The *Community and Economic Development Blueprint* is a model developed by Elevate Rapid City's executive director Tom Johnson to describe the relationship between economic and community development and the community development "building blocks" needed to support traditional economic development activities. This model was developed to help elected officials and decision makers understand how investment in community development supports economic development. This model is widely adopted by Economic Development Organizations (EDOs) throughout South Dakota and other organizations like Dakota Resources because it is a helpful framework for cooperative efforts toward thriving communities.



Another model, the *Community Capitals Framework*, quantifies all of the interconnected economic, social, and environmental necessary for a resilient economy and community.

"One of the challenges that local leaders and citizens constantly face is finding a coherent way to address the variety of challenges facing their communities – be they urban, suburban, or rural in nature. In many respects, the intent of most community and economic development initiatives is to advance an area's "quality of life." But what does "quality of life" mean and how is it measured? Is it the presence of a strong local economy, sound local leadership, quality government services, top-notch public supported schools, great health care services, or other indicators? The simple answer is yes. In many respects, all of these represent traits that would be associated with a community deemed to have a high quality of life." - from PROMOTING COMMUNITY VITALITY & SUSTAINABILITY The Community Capitals Framework Lionel J. "Bo" Beaulieu, Purdue University, 2014

While traditional economic development works to attract new businesses, develop existing businesses, and provide entrepreneur support to invest in future business development, the Community Capitols Framework is a dynamic approach to understanding the interconnected parts of economic and community development:

- the built environment (housing and infrastructure)
- the social environment (community bonding and engagement)
- the political environment (policy / decision making structures)
- the human environment (education, workforce development, access to health care, leadership development)
- the financial environment (financial resources and assets)
- the natural environment (healthy and functioning natural environment)
- the cultural environment (shared values and goals)

A key factor in the success of either model is effective marketing and storytelling. This is the ability of a community to tell its story to visitors and community members alike. Storytelling can fall under the scope of traditional marketing, but can include the built environment as well - it can be embedded in the designed environment from road signs to building styles and materials - often referred to as branding. Storytelling is part of developing the cultural environment - the "tool kit of symbols, stories, rituals, even the world-view that shapes individuals" It includes the values and symbols reflected in clothing, music, industry, art, language, and customs. It also encompasses events, materials (paintings, books), festivals, museums, and other activities occurring in communities (Beaulieu, 2014)

REGIONAL ECONOMIC DEVELOPMENT

Since the 2014 Comprehensive Plan the Economic Development environment in South Dakota and the Black Hills region has become more coordinated and sophisticated between state, regional, and local organizations:

- The Governor's Office of Economic Development (GOED), created by the SD legislature in 2011, increased economic development programs, outreach, and support for local communities and economic development organizations
- Rushmore Region Alliance formed (2014)
- Rapid City Chamber of Commerce and Rapid City Economic Development merged into Elevate Rapid City (2019)
- Economic Development Professionals Association formed (2020)
- Fuel the Growth Annual Conference formed (2022) hosted by Black Hills State University
- South Dakota State University Extension annual Energize! Conference
- multiple other state, regional, and local economic development programs and efforts

In 2014, the primary organizations referred to in the Comprehensive Plan for Economic Development were Rapid City Economic Development Partnership (RCEDP) and Black Hills Vision (BHV) both of which have since either been absorbed by other organizations or no longer exist. All of these efforts build on earlier planning and economic development by Black Hills Council of Local Governments (1973) and Black Hills Community Economic Development (1981). These two organizations formed a strategic partnership in 2010 to realize efficiencies in sharing resources.

New workforce development programs from the State of South Dakota include the Build Dakota Scholarship Program, the Registered Apprentice Program, the GOED Workforce Development Program, Dakota Seeds, and

other programs through the SD Department of Labor, SD Board of Regents, SD Department of Education, and higher education institutions.

The U.S. Economic Development Administration's Comprehensive Economic Development Strategy (CEDS) Guidelines provides recommendations for creating an impactful CEDS. The Black Hills Council of Local Governments (BHCLG) is designated as one of six Economic Development Districts in South Dakota and is responsible for developing and implementing the CEDS for a 9-county region in western South Dakota.
One of the cornerstones of these strategies is economic resilience - the ability of an area to prevent, withstand, and recover from major disruptions. Growing economic resilience requires the ability to anticipate risk, evaluate how risk can impact key economic assets, and build responsive capacity. The updated Black Hills CEDS 2024-2028 incorporates regional resilience in the CEDS Action Plan that capitalizes on local strengths and opportunties and addresses weaknesses and potential threats to the economy. The 2024-2028 goals are to work to ensure community vitality and resilience; support efforts to grow and diversity the economy; and foster a regional approach to economic development.

BOX ELDER ECONOMIC DEVELOPMENT

Since the 2014 Comprehensive Plan, Box Elder's Business environment has experienced substantial growth. Although the former economic development organization dissolved after the plan's creation, the City continued to advance many of the plan's economic development objectives. In addition, the City has been intuitively advancing many of the economic development building blocks through collaborative efforts to develop infrastructure for housing and business development, invest in quality of life amenities, engage on a regular basis with the community, and systematic review and update of policies and ordinances.

Box Elder is poised for growth, with housing developments planned to utilize much of the remaining land as utility infrastructure expands. Liberty Plaza, currently featuring the Liberty Center YMCA, two large apartment buildings, and single-family homes, is expected to include the Black Hills Children's Museum, banks, and mixed-use developments. In the past year alone, new developments have included several gas stations, banks, and fast-food restaurants. Future initiatives include developing industries where Box Elder has a competitive edge and fostering entrepreneurship to drive innovation.

To continue this momentum, fostering further economic expansion, and diversify its business landscape the City of Box Elder is restructuring the inactive economic development organization, now called the Box Elder Development Association (BEDA), under the City's oversight. The new EDO will focus on developing the organization under the guidance of a professional economic development director.

Since 2020, South Dakota has experienced unprecedented growth due, in part, to a combination of federal and state pandemic policies and the co-occuring economic conditions of that time. In 2020 South Dakota was #4 in the United States for inbound migration and Box Elder reflected the state trend, growing by over 21.5% between 2022-2024, making the city the third fastest growing in the state. According to the Federal Reserve Bank of Minneapolis, South Dakota was the first of the ninth district states to recover to pre-pandemic levels, bouncing back by the third quarter of 2020 and GDP growth of nearly 5% in subsequent years. An influx of federal funding provided in the American Rescue Plan (ARP) Act along with historic low interest rates fueled development of all types.

SOUTH DAKOTA

GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT

JUNE | 24

ECONOMIC INDICATORS

WORKFORCE

		SOUTH DAKOTA		UNITED STATES	
POPULATION	POP GROWTH	8.8%	1.0%	5.9%	0.5%
Population (2023 Estimate)		2013-23	2022-23	2013-23	2022-23
SD 919,318 **US** 334,914,895		IMPROVED		IMPROVED	
LABOR	UNEMP RATES	1.9%	2.0%	3.4%	3.9%
Labor Force (Apr 2024, Seasonally Adj.)		APR 2023	APR 2024	APR 2023	APR 2024
SD 481,485 **US** 167,982,000		DECLINED		DECLINED	

7TH HIGHEST In-Migration United Van Lines

11TH HIGHEST Population Growth Rate IN THE U.S.

3RD HARDEST WORKING STATE WALLETHUB

PERSONAL ECONOMICS

		SOUTH DAKOTA		UNITED STATES	
INCOME	WAGE GROWTH	4.2%	5.5%	5.6%	3.5%
Average Weekly Wage (2022)		2020-21	2021-22	2020-21	2021-22
SD $1,053 **US** $1,353		IMPROVED		IMPROVED	
PCPI - Per Capita Personal Income (2023)					
SD $70,353 **US** $68,531					
COST OF LIVING	COL INDEX	90.1	88.0	100.0	100.0
Value of $100		2021	2022	2021	2022
SD $113.65 **US** $100.00		IMPROVED		SAME	
HOUSING	YTD GROWTH	-23.4%	-24.9%	-21.3%	6.1%
Permits (2023)		APR 22-23	APR 23-24	APR 22-23	APR 23-24
SD 7,072 **US** 1,511,102		DECLINED		IMPROVED	
Permits (Apr 2024 YTD)					
SD 1,672 **US** 493,200					

8TH HIGHEST PCPI GROWTH 2021-2022

4TH LOWEST COST OF LIVING Bureau of Economic Analysis

10TH HIGHEST HOUSING PERMIT GROWTH FEB 2023-2024

source: South Dakota Governor's Office of Economic Development, June 2024

SOUTH DAKOTA

GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT

JUNE | 24

ECONOMIC INDICATORS

ECONOMY

		SOUTH DAKOTA		UNITED STATES	
MID-AMERICA BUSINESS CONDITIONS INDEX	INDEX	60.8	61.4	50.3	49.2
		MAR 2024	APR 2024	MAR 2024	APR 2024
		IMPROVED		DECLINED	
GROSS DOMESTIC PRODUCT	GROWTH	62.1%	4.6%	65.1%	5.9%
Gross Domestic Product (Current $)		2013-23	Q4 2022-23	2013-23	Q4 2022-23
SD $72.4 billion **US** $27.4 trillion		IMPROVED		IMPROVED	

5TH BEST ECONOMIC HEALTH
WalletHub

5TH HIGHEST GDP Growth
Q4 2022-Q1 2023

2ND BEST BUSINESS TAX CLIMATE
Tax Foundation

STATE FISCAL PERFORMANCE

GENERAL FUND RECEIPTS (FY)	GROWTH	$4.4 M	2.0%	$114.6 M	5.9%
April 2024		APR 2023-24	APR 2023-24	FYTD 2023-24	FYTD 2023-24
Month $220.8 million **FYTD** $2.1 billion		IMPROVED		IMPROVED	

SALES TAX GROSS RECEIPTS BY INDUSTRY (APR 2024)		APR 2023-24 GROWTH
Agriculture, Forestry, & Fishing	$93,197,660	-6.2%
Mining	$28,274,448	-9.3%
Construction	$5,679,398	23.6%
Manufacturing	$1,208,870,649	-5.2%
Transportation & Public Utilities	$350,169,218	0.5%
Wholesale Trade	$1,818,290,921	-1.6%
Retail Trade	$3,094,543,849	0.5%
Finance, Insurance, & Real Estate	$903,846,235	1,412.7%
Services	$1,697,872,416	0.5%
Public Administration	$463,019	33.3%
Total	**$9,201,207,813**	**9.1%**

MOST PRUDENT GOVERNMENT
The Camelot Index

3RD BEST FISCAL STABILITY
U.S. News & World Report

1 OF 2 STATES WITH A FULLY FUNDED PENSION FUND

The economic powerhouse of Box Elder, and in fact, the entire Black Hills Region is Ellsworth Air Force Base. The military is the largest employer in western South Dakota and the second largest employer in the state. EAFB's total impact on the South Dakota economy is estimated at $489 million, including $20.9 million in local contract expenditures, $193.3 million in active duty military pay, $50.2 million in civilian pay, $211.1 million in indirect output from payroll, and $13 million in indirect output from expenditures (*Ellsworth AFB Economic Impact Statement 2022*). In Fiscal Year 2022, the state of South Dakota received $1.1 billion in Defense spending, which provides direct funding for the Department of Defense personnel salaries, defense contracts, and construction of military facilities in the state. This includes Ellsworth AFB, Camp Rapid, Joe Foss Field (SD Air National Guard), and a number of armories and readiness centers throughout the state. EAFB includes approximately 3,063 military members and 733 civilian employees and their family members.

The Ellsworth Economic Impact Statement has not yet accounted for the ripple effect of EAFB hosting the first operational B-21 unit and training unit. This expansion is expected to contribute to Box Elder's growth in housing, education, and industries that support the base's operations. In 2024 alone, Box Elder will add a Monument Health Urgent Care facility, Sentinel Federal Credit Union, O'Reilly Auto Parts, Napa Auto, two Starbuck's Coffee locations, Homewood Suites, and a new nursing program expansion at Black Hills State University, on the campus located immediately adjacent to Box Elder. In partnership with the City and a Local Infrastructure Improvement Program (LIIP) Grant, Freedom Park was developed. Freedom Park provides "shop condos" or light industrial rentals with office, storage, and shop space. Liberty Plaza currently includes Liberty Center YMCA, two large multi family apartment buildings, and single family housing, and is planned to include the Black Hills Children's Museum, banks, and office-retail-housing mixed use development.

WHAT DOES THE COMMUNITY WANT?

In 2023 several community surveys were completed to engage the community in the comprehensive planning process. The community was asked to review the 2014 Community Vision Statement and provide comments about what would need to happen for that vision to be realized. The word cloud (previous page) generated from those comments mirrors other surveys and community conversations - to meet the community's goals, they need strong business development supported by amenities and infrastructure. In particular, the comments show a strong unmet need for restaurant and retail commercial development.

In multiple community surveys, the community identified the need for Dining Commercial (89%) as the type of development they would most like to see followed closely by Retail Commercial (72%). Box Elder has significantly fewer restaurants per capital than other South Dakota communities of the same size at 1 restaurant for every 1,640 people. In comparison Spearfish, population 12,914, has 40 restaurants (1 per 322 people), Vermilion, population 11,915, has 28 restaurants (1 per 425 people), and Pierre, population 13,969, has about 26 restaurants (1 per 537 people). However bedroom communities near Sioux Falls tend to have fewer restaurants per capita trending closer to one restaurant to every 700-900 people; still twice the number of restaurants per person than in Box Elder. A gap analysis would provide better data to identify the "gap" in spending in the community vs out of the community.

The community views economic development holistically, believing that community amenities have a strong correlation to healthy economic development. The majority of the community believes that providing adequate amenities (parks, education, medical care) and attainable housing options for average wage positions were the greatest challenges for economic growth. Community members indicate that they prioritize promoting business and industrial sustainability and a compact, vibrant downtown over other economic development strategies.

THE BOX ELDER ADVANTAGE

Box Elder has a unique economic ecosystem that is the confluence of:

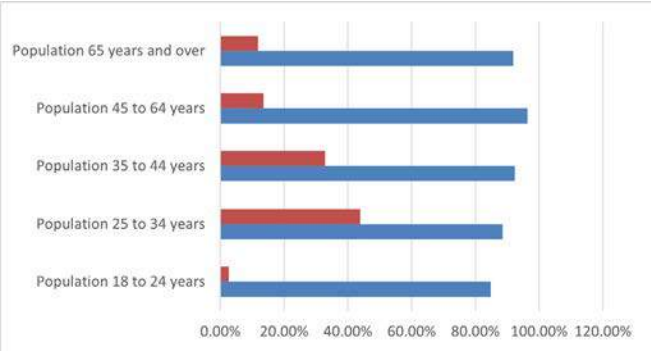
- Labor pool and Entrepreneurship
- Educational Opportunities
- Land
- Infrastructure
- Proximity to Ellsworth Air Force Base
- Transportation Options

Labor Pool and Entrepreneurship

Box Elder boasts a dynamic and growing workforce that reflects its recent economic development. The City's labor force is characterized by its diversity and adaptability, with a notable increase in employment opportunities across various sectors, including retail, services, and hospitality. The area benefits from a steady supply of skilled workers due to its proximity to educational institutions and training programs. The workforce is supported by a strong work ethic and a commitment to professional growth, which contributes to its overall strength. As Box Elder continues to develop, it is well-positioned to leverage its labor force for future economic expansion and industry diversification.

With unemployment in South Dakota the lowest in the nation at 2% and seventh in the nation for labor

participation, 67.5%, (*July 2024, US Senate Joint Economic Committee*) finding and retaining employees is highly competitive in the region. Complicating this picture more is that aside from an outlier in the District of Columbia, labor participation is also highest in the nation in the states surrounding South Dakota; North Dakota, Nebraska, Minnesota, Iowa and nearby Utah and Colorado. This is likely due to a combination of policy, culture, cost of living, and quality of life influences. The labor force participation rate is an important labor market measure because it represents the relative amount of labor resources available for the production of goods and services. With Box Elder competing against larger regional markets for workforce it will be critical to take advantage of any workforce recruitment advantages the community may have.



One workforce and entrepreneur recruitment opportunity in Box Elder may be among military veterans and military spouses. Due to EAFB, Box Elder's potential workforce is nearly 10 years younger than Rapid City's. Box Elder's younger residents are more educated than previous generations, with educational attainment on par with or slightly higher for some age groups than Rapid City.

According to the U.S. Small Business Administration (SBA), veterans are 45% more likely to be self-employed than non-veterans. In 2021, veterans owned 305,000 businesses that employed 3.3 million people and contributed $180 million in annual wages. The U.S. Census Bureau's most recently published Annual Business Survey, with data from 2019, found veteran-owned businesses represent 5.7% of all businesses and employ 4 million people. According to JP Morgan "Former military members are driven, calm under pressure and expert problem-solvers." While veteran unemployment matches historically low civilian unemployment, nearly one third of veterans are underemployed according to the National Veteran Training Institute. Additionally, military spouses have higher underemployment (31.6% *United States Department of Labor*) rates than the general population and a lower labor participation rate than the general population despite educational attainment levels and employment tenure being similar to the general population. Military spouse employment is one of the United States Armed Forces Five and Thrive top quality of life issues, which is a focus area of this document.

The US Armed Forces have multiple programs to assist spouses and transitioning veterans with moving into the workforce. Developing an active Economic Development Program focused on military spouses and veterans that supports existing programs and connects them to local opportunities could form the foundation of Box Elder's entrepreneurial community, could contribute to keeping more veterans in the community after retirement reducing high geographic mobility, and would reinforce ties between the community and Ellsworth Air Force Base.

This analysis presents a snapshot of potential workforce opportunities. More data-driven analysis is needed to fully understand Box Elder's current and potential workforce.

Educational Opportunities

Veteran and military spouse education is another of the Five and Thrive quality of life focus areas. Whether in the trades or careers requiring Doctoral education, availability of post secondary education options are critical to the healthy economy of a region. A variety of post secondary educational options are available in the region.

- **Career Learning Center of the Black Hills** provides job specific training, GED® preparation classes, adult basic

education, English-as-a-Second Language instruction, and computer and keyboarding classes. Additional services include National Career Readiness Certification, career counseling, and tests for professional certification and licensure at the CLC's Professional Assessment Center.

- **Western Dakota Technical College** is the only technical college that serves the western South Dakota region. The college offers 40 degree programs ranging from certificates to associates degrees in a wide variety of fields from accounting to welding fabrication and other specialty training.
- **Black Hills State University (BHSU)** - Rapid City is an accredited university with a campus located at the western border of Box Elder. BHSU offers 55 bachelor's degrees, 5 associate's degrees, 8 master's degree programs, and 26 undergraduate certificates. An addition to the Rapid City Campus will house the West River Health Science Center (WRHSC), a collaborative effort between BHSU, South Dakota State University (SDSU), Monument Health, and the West River Area Health Education Center, which aims to address the critical need for nurses in the region.
- **South Dakota Mines (SDM)** is a top university for science, technology, engineering, and math located near downtown Rapid City with over 100 programs, minors, and certificates in science and engineering fields. Ranked in the top 1% of small colleges in America the school boasts a 98% job placement or graduate school placement rate. Mines is one of the top ranked universities for veterans.
- **University of South Dakota Rapid City Medical Campus, Sanford School of Medicine** is a satellite campus that supports their Longitudinal Integrated Clerkship program from Pillar 2 through graduation.
- **South Dakota State University - Rapid City** is one of four satellite campuses in the SDSU Nursing Program. Those looking to earn a bachelor's, master's or doctoral degree in nursing can work with Monument Health area hospitals during their education. This SDSU Nursing location also houses the Native American Nursing Education Center.
- **Other Occupational Education Programs** in the region include four cosmetology schools and various online programs offered by both state and national providers.

Land

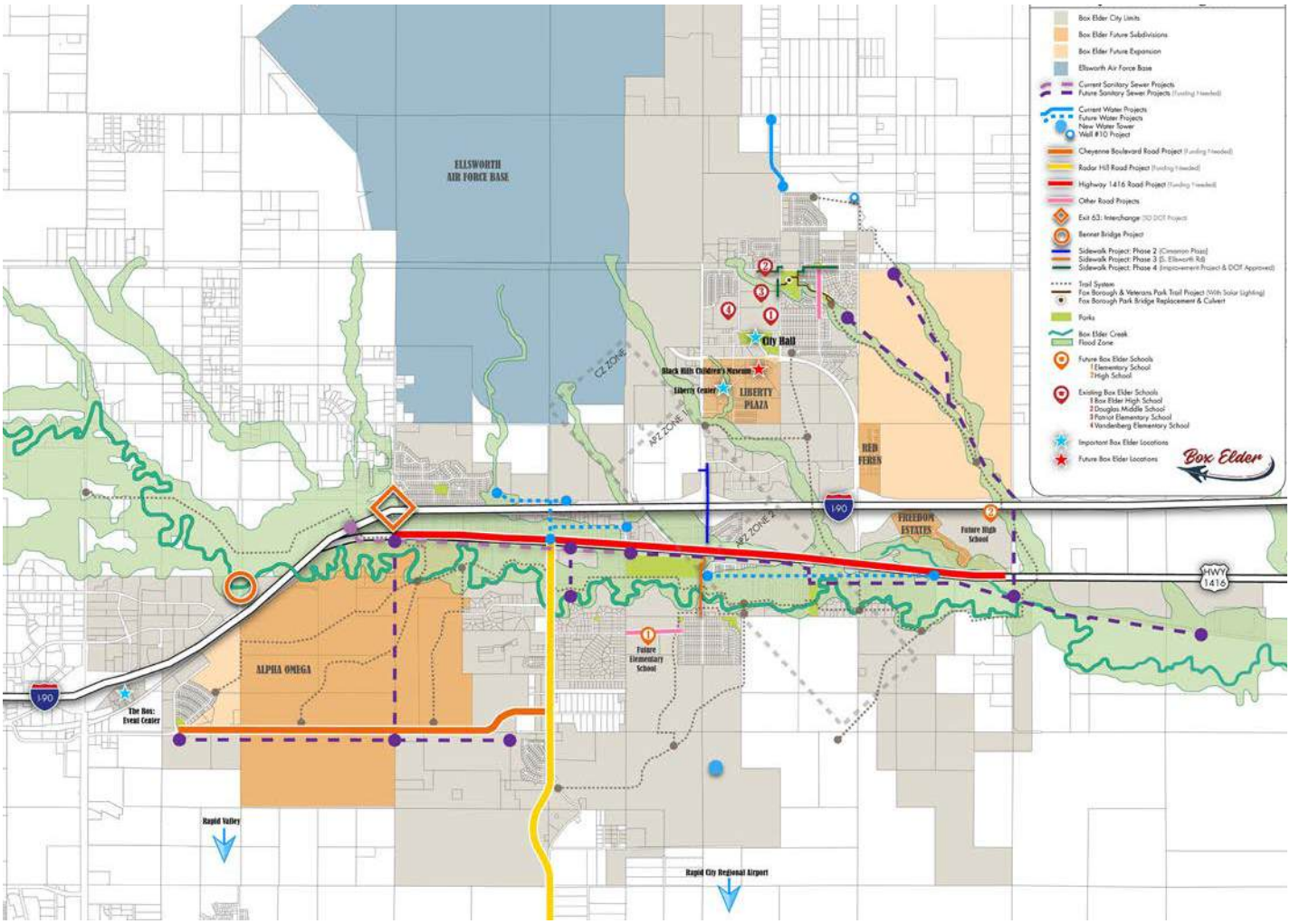
In the Land Use section of this document a light industrial Opportunity Corridor is proposed in areas incompatible for other uses. Inspired by the advanced technology companies already attracted to Box Elder by proximity to Ellsworth Air Force Base, this zone has many opportunities for technology, light industrial, and manufacturing companies such as high visibility from I-90, proximity to the EAFB commercial gate, and easy transportation access to the interstate highway and rail systems.

This Comprehensive Plan proposes re-imagining the I-90 to railroad corridor as an Economic Development Focus Area that embraces the positive assets of the district and works to remove incompatible uses from the district. The Opportunity Corridor is envisioned as a high quality environment will help attract modern, high-tech industries and skilled workers. This is described in greater detail in the Land Use chapter of this Comprehensive Plan.

Utility Infrastructure

Infrastructure availability impacts the amount of land available for development. Multiple planned infrastructure improvement projects will significantly increase developable land in Box Elder. Sanitary sewer and water infrastructure will expand to the Alpha Omega subdivision in southwest Box Elder and to likely future development currently outside city limits in northeast Box Elder. Alpha Omega subdivision is nearly a quarter of Box Elder's land area that was previously undevelopable.

The combined project map (below) shows utility and transportation infrastructure in pre-planning, design, or under construction in Box Elder.



Proximity to Ellsworth Air Force Base

About $500 million worth of projects are under construction currently on Ellsworth Air Force Base alone, including seven Military Construction Projects (MilCon) and one Facilities Sustainment Restoration Modernization (FSRM) project with more projects in planning phases. In addition, developments in housing, financial institutions, services, and other types of development needed to support the expanding mission are quickly developing throughout Box Elder. These developments represent the necessary pieces that need to be in place simply to accommodate the expanding mission of the base.

Looking toward future economic development, attention should be given to new opportunities afforded by proximity to EAFB from new technologies to places that support a thriving community around the base. Focus industries could be a mini-aerospace hub for out of state aeronautics manufacturers, cybersecurity, and technology that supports the EAFB mission or other aeronautics applications. In support of developing necessary support for the base, the Defense Studies Institute offers small business and contracting assistance about the types of products, equipment, and services routinely procured to support the 28th Bomb Wing and other tenant units located at Ellsworth AFB.

VRC Metal Systems is a promising example of the unique entrepreneurial ecosystem that can only be found in Box Elder that was inspired by the needs of EAFB. Grown from a partnership between an air force retiree, South Dakota Mines and the Army Research Laboratory, this company is leading in aerospace and industrial metal repair technology. The confluence of world class scientific and engineering education, veteran entrepreneurship, and proximity resulted in an advanced technology industry hub right in Box Elder.

Transportation Options

Box Elder has arguably the most transportation options of any Black Hills community, particularly for industrial and light industrial uses.

Industrial and light industrial lands are located just off of I-90 with two freeway exits to access them. Highway 1416 is a four-lane highway connecting between freeway entrances and connects to the commercial gate of EAFB at Commercial Gate Drive. A working railroad runs parallel to Highway 1416.
Radar Hill Road connects to Highway 44 and Rapid Valley and Rapid City Regional Airport.
Liberty Boulevard is currently a five lane major arterial road that connects I-90 exit 67 to the front gate of Ellsworth Air Force Base. Access to the industrial park at Elk Vale Road and Seger Drive is through Rapid City freeway exit 61.

Transportation projects in pre-planning or planning phases for Box Elder include the I-90 exit 63 at West Gate Road, a West Gate Road extension to Cheyenne Boulevard, Highway 1416, Radar Hill Road improvements, and the Cheyenne Boulevard extension.

ECONOMIC DEVELOPMENT GOALS

Economic Development Goal: Cultivate a Resilient Local Economy

Foster a diverse and sustainable local economic environment that can withstand shocks and adapt to changing conditions by supporting local businesses, promoting entrepreneurship, and investing in workforce development.

Each Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

ED1 Attract Businesses that serve the needs of the community

ED1.1 Attract businesses or encourage entrepreneurs to develop a variety of restaurants and shops to function as social hubs and attract people from throughout the region.

ED1.2 Identify and target other service industries necessary for a thriving community such as hospitality, professional services, vehicle service, dental services, etc.

ED2 Identify priority locations and develop typologies and design standards for Box Elder commercial areas.

ED2.1 Develop locations and strategies to encourage development in these development types: The Town Center, Neighborhood Commercial Zones, The Opportunity Corridor

ED3 Develop strategies to encourage and support development priorities

ED3.1 Create an Economic Development Organization (EDO)

ED3.2 Develop an economic development strategy that cultivates retail and restaurants to fill the underserved community need

ED3.3 Grow industries around Box Elder's competitive advantages

ED3.4 Grow workforce around Box Elder's competitive advantages and meet Five and Thrive support goals

ED3.5 Promote entrepreneurship to encourage an innovative economy.

ED3.6 Engage businesses and potential businesses with academia / research to encourage development in advanced technology to serve EAFB and the South Dakota Governor's Office of Economic Development Key Industries.

ED4 Understand barriers to development in priority areas and seek to minimize them, as appropriate.

ED4.1 Identify other economic development factors that impact the development of a more diversified local economy and create an action plan to address these factors.

ED4.2 Join regional and state economic development organizations to understand development priorities of adjacent communities and capitalize on regional strengths and goals.

ED5 Branding, Placemaking, Storytelling, and Marketing

ED5.1 Create an authentic community brand that conveys a strong sense of place and community identity and incorporate the brand into wayfinding and signage throughout the community.

ED5.2 Create compelling storytelling and marketing tailored toward target audiences, such as legislators, businesses, investors, new residents, etc.

ED5.3 Increase visibility and awareness utilizing various media channels to consistently share compelling narratives about the City's economic development achievements and future goals.

ED5.4 Attract and retain investment through targeted marking campaigns that highlight the city and region's unique strengths.

ED5.5 Enhance community engagement by developing community-centric stories that reflect the region's economic progress and its positive impact on residents and businesses.

ED5.6 Strengthen brand identity through a clear, consistent brand that conveys the City's economic development vision and values that also resonate with target audiences.

HOUSING

04

Prairie View Estates Subdivision

The Union Apartments in Liberty Plaza under construction

HOUSING 04

A Housing Study was completed in August 2022 by Community Partners Research, Inc. and was an assessment and analysis of the overall housing needs in Box Elder. This Comprehensive Plan references the housing study as well as new development that has occurred since the study was completed. It is important to note that the housing study used past census and ESRI data to determine growth projections in Box Elder and the region. Projected housing needs due to the new mission were not included in the projections.

The goals of the housing study were to:

- Provide updated demographic date including the 2020 Census
- Provide an analysis of the current housing stock and inventory
- Determine gaps or unmet housing needs
- Examine future housing trends that the area can expect to address in the coming years
- Provide a market analysis for housing development
- Provide housing recommendations and findings

2022 HOUSING STUDY RECOMMENDATIONS

Overall Recommendations

1. The City should take an active role in developing new affordable housing, including tax increment financing, tax abatement, land donations, etc.
2. Utilize and promote all programs that assist with home ownership including; first time home buyer assistance, down payment assistance, low interest loans, gap financing, and home ownership counseling and training programs.
3. Work with NeighborWorks, Dakota Home Resources, the SD Housing Development Authority, USDA Rural Development, and local financial institutions to utilize all available home ownership assistance programs.
4. Work with housing agencies to assure that Box Elder residents are receiving their share of resources available in the region.
5. The City should monitor lot sales and new home construction and plan to develop additional lots to maintain a 2-1/2 year supply of developable lots.

Rental Housing Recommendations

Fill an unmet need of 592-704 rental units plus assisted living units or beds. The unmet need is in addition to the 541 units under construction at the time of the study.

1. Develop 500 to 600 general occupancy conventional market rate rental housing units
2. Develop 46 to 50 tax credit/moderate rent housing units
3. Develop of 20 to 24 subsidized general occupancy rental housing units with three or more bedrooms
4. Preserve the existing supply of subsidized rental housing
5. Develop 26 to 30 senior independent/light services rental units
6. Consider the development of senior housing with services intensive (assisted living units)
7. Increase awareness of the Housing Choice Voucher Program (administered by Pennington County Housing and Redevelopment Commission) for Box Elder renter households

Neighborhoods of Box Elder

Box Elder has a variety of neighborhoods ranging from rural to suburban subdivisions to multifamily developments. Housing types include pre-development farmhouses, mobile homes, suburban single family homes, apartment complexes, and military housing. Below is a selection of different existing neighborhood and housing types.

Line Road mobile homes

West Wind Subdivision

Fox Run Apartments

Ballista Boulevard

Line Road

150th Avenue & Airway Court

Ellsworth AFB Housing

Prairie Road

Single Family Housing Recommendations

1. Continue the momentum! The city has a working formula for new home construction and the City should maintain its momentum. Strategies to encourage continued residential lot sales and new home construction include:
    - Support the conditions that promote competitive pricing
    - Look for ways to make lot purchase and home building user-friendly
    - Continue long-term planning to assure lots and infrastructure are available to meet demand
    - Promote spec home construction
    - Maintain multiple competing subdivisions to provide more buyer options
    - Encourage twin home / town home lot development
    - Encourage a wide range of home sizes and prices
    - Develop a comprehensive housing marketing strategy that is coordinated between developers, realtors, financial institutions, builders, employers, and Ellsworth Air Force Base.
    - Consider innovative housing developments (PUD, patio homes, etc.)
    - Look for opportunities to develop mixed use and mixed income neighborhoods
2. Work with developers, builders, and regional housing agencies to construct 100-120 single family homes per year between 2022-2027 in affordable, mid-priced, and higher value ranges. Annual demand is projected to be:
    - 30-36 affordable homes priced >$300,000
    - 44-50 mid-priced homes priced from $300,000-$450,000
    - 26-34 higher-value homes priced > $450,000
    - Of these, 20-25 new owner single family units per year should be twin homes or town homes
3. Consider whether a publicly owned subdivision would be a good fit for Box Elder to offer lower priced lots for affordable homes.

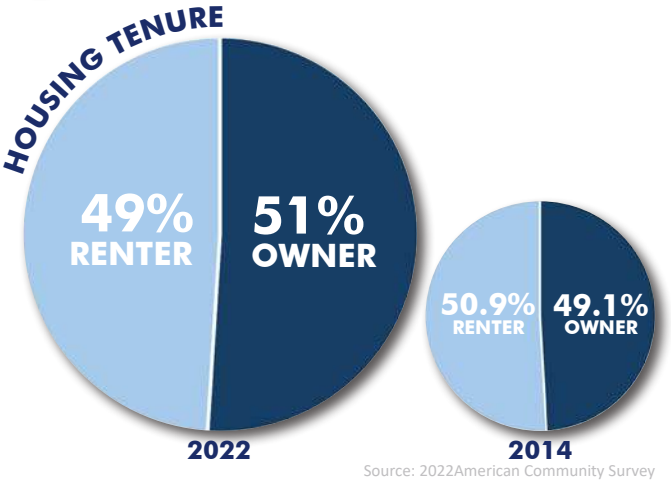
Housing Rehabilitation and Neighborhood Revitalization

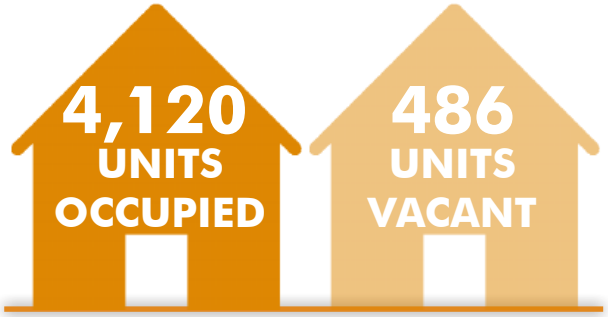
1. Work with housing agencies to seek funds for a rental rehabilitation program to assist property owners in rehabilitation while maintaining affordable rents.
2. Seek local, state, and federal funds to assist in financing owner-occupied housing rehabilitation. In particular, investigate NeighborWorks Dakota Home Resources rehab programs and Western South Dakota Community Action Agency weatherization funds.

Other Housing Initiatives

1. Involve employers as partners in addressing Box Elder's housing needs as well as community amenity needs that have a positive impact on housing.
2. Develop mobile home park improvement programs including:
    - Operation Safe Mobile Home Park
    - Time of Sale Inspection Program
    - Cooperative / Land Trust
    - Acquisition of the Mobile Home Park property
    - Regulate the age of mobile / manufactured homes
3. Create a Housing Plan that coordinates the City's efforts with the agencies detailed in the Housing Study.
4. Develop home ownership and new construction marketing programs and strategies

HOUSING SNAPSHOT



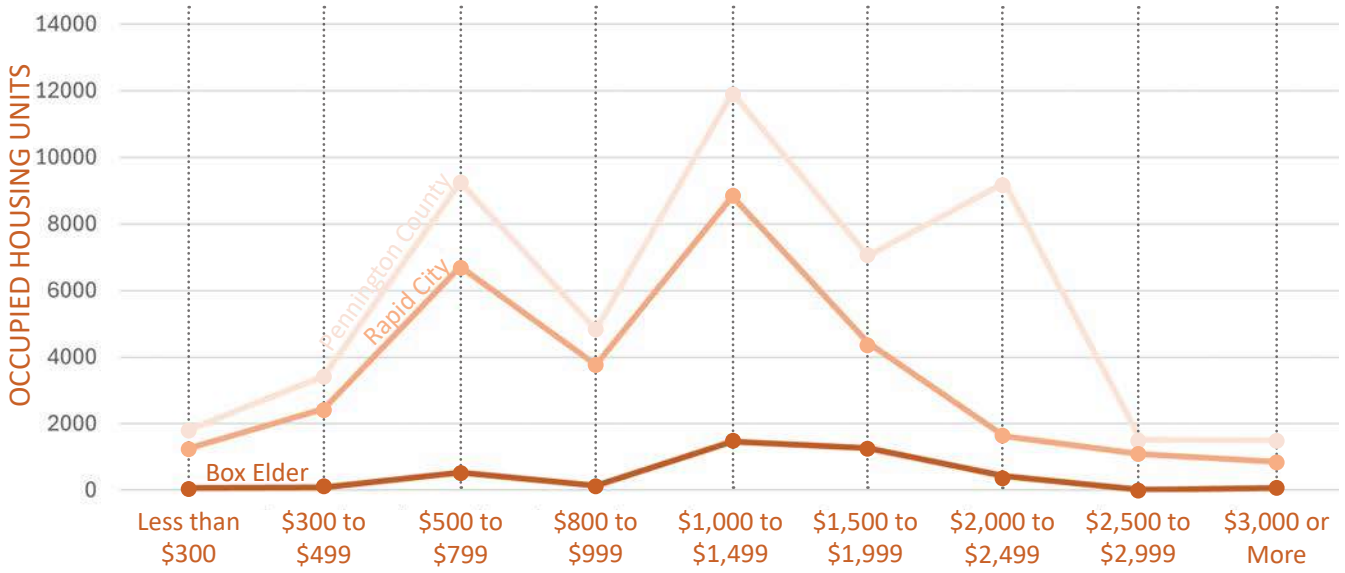


OCCUPANCY STATUS

Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

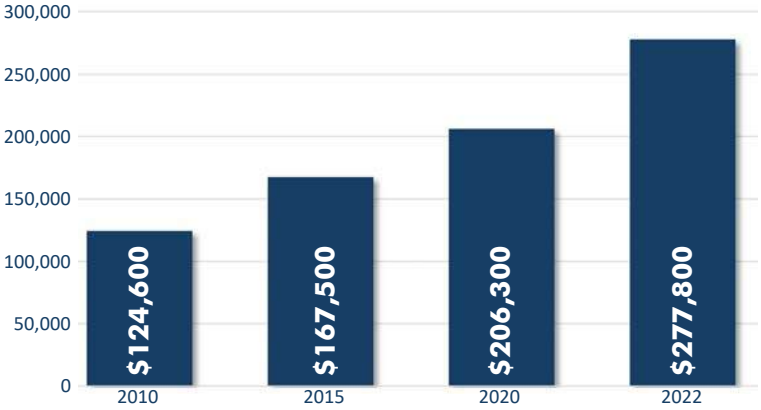
note: ACS estimates do not reflect actual findings of the 2022 Housing Study

MONTHLY HOUSING COSTS

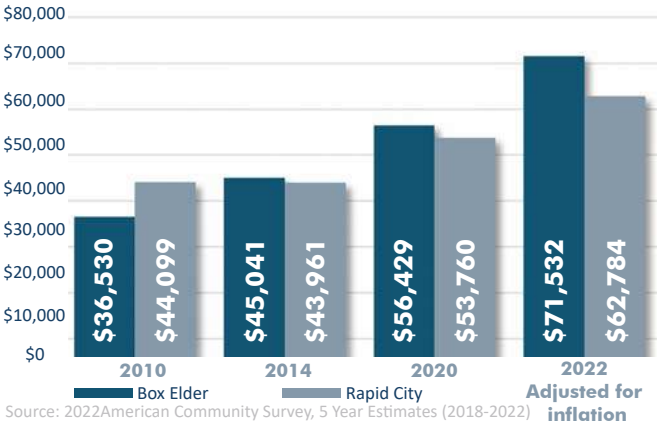


Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

MEDIAN MORTGAGE VALUE



MEDIAN INCOME



Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

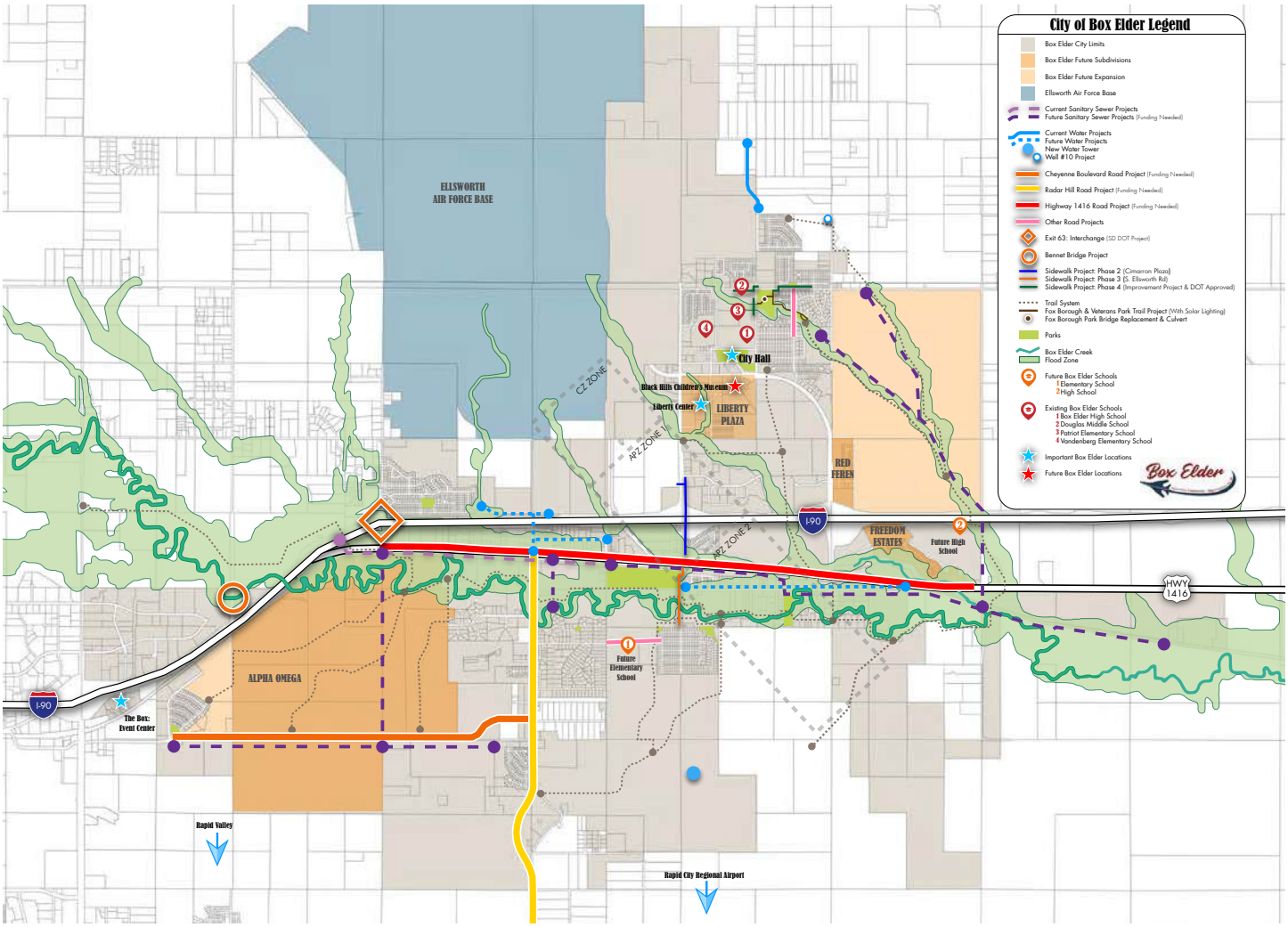
2024 UPDATE

By 2024 Box Elder had exceeded the population projections of the Housing Study two years earlier than anticipated with a population of 14,512, according to the most recent estimate by *World Population Review*.

Single Family Home construction is ongoing in multiple subdivisions in the community.

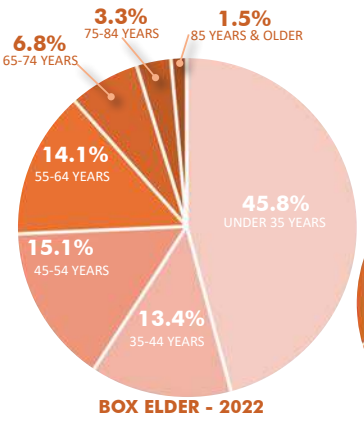
- Raider Pointe Subdivision is about 70% built out
- Fox Run Subdivision is 99% built out
- Liberty Park Subdivision is 55% built out
- Liberty Plaza Subdivision is 12% built out (of currently platted single family lots)
- Northern Lights Subdivision is 80% built out (of currently platted single family lots)
- Redferen Subdivision is 0% built out
- Alpha Omega is 0% built out (but 47 lots are currently platted)

Fox Run, Liberty Park, Liberty Plaza, and Northern Lights subdivisions all include multifamily housing of varying densities. The map below shows subdivision locations along with various transportation and infrastructure projects that will impact future housing in Box Elder.

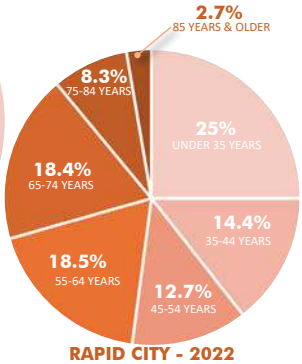


HOUSING SNAPSHOT

AGE OF HOUSEHOLDER



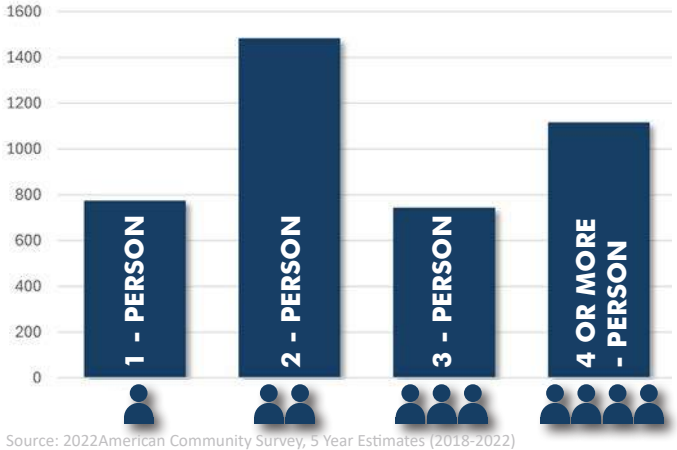
BOX ELDER - 2022



RAPID CITY - 2022

Source: American Community Survey

HOUSEHOLD SIZE

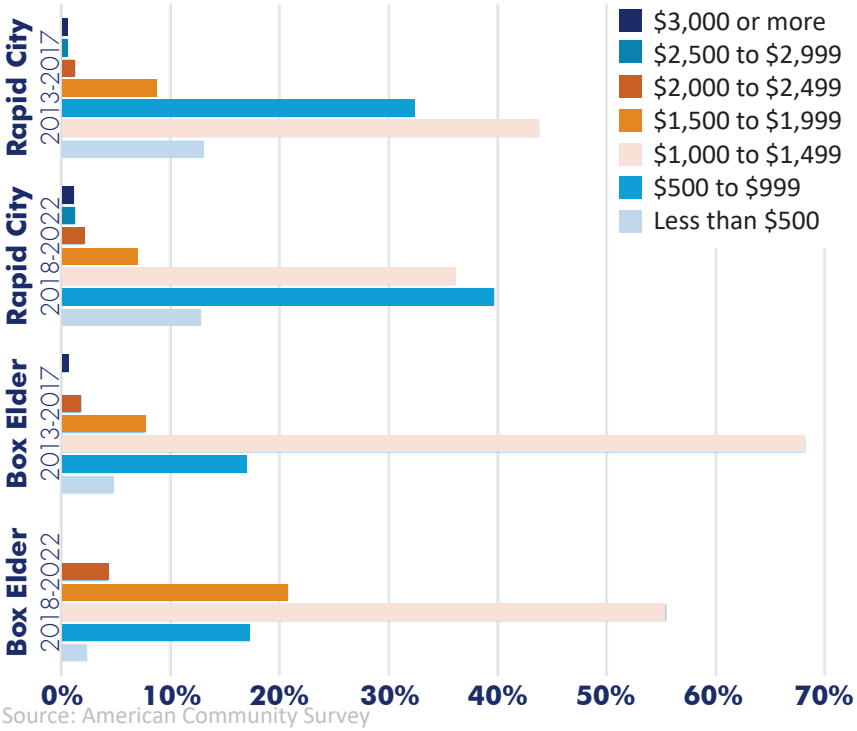


Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

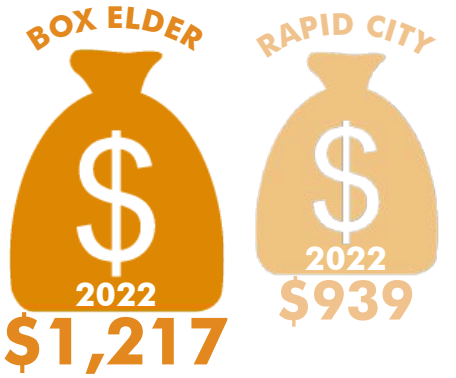
HOUSEHOLDS	City of Box Elder	City of Rapid City	Pennington County
	Estimate	Estimate	Estimate
Total Households	4,120	31,453	44,829
Average Household Size	2.82	2.29	2.38
HOUSEHOLD SIZE	City of Box Elder	City of Rapid City	Pennington County
	Estimate	Estimate	Estimate
1 - Person Household	775	11,452	14,213
2 - Person Household	1,485	11,392	17,328
3 - Person Household	744	3,476	5,341
4 or more - Person Household	1,116	5,133	7,947
VACANCY STATUS	City of Box Elder	City of Rapid City	Pennington County
	Estimate	Estimate	Estimate
For Rent	183	749	878
Rented, not Occupied	17	303	342
For Sale Only	86	115	283
Sold, not Occupied	0	49	56
Seasonal Use	0	336	1,389
Migrant Workers	0	72	108
Other	200	1,050	1,862

HOUSING SNAPSHOT

GROSS RENT



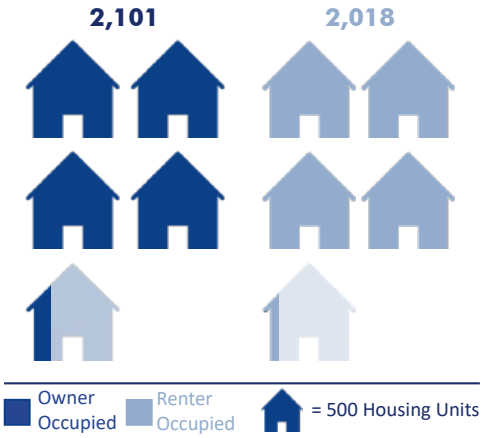
Source: American Community Survey



MEDIAN GROSS RENT COST

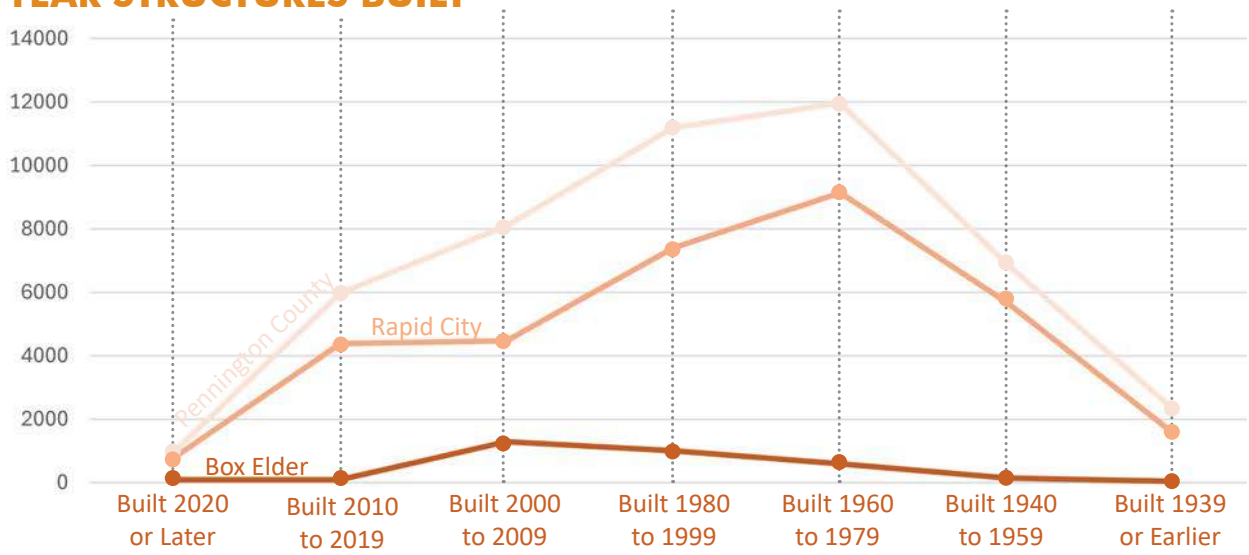
Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

OWNER & RENTER OCCUPIED UNITS



Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

YEAR STRUCTURES BUILT



Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

YEAR STRUCTURE BUILT	City of Box Elder		City of Rapid City		Pennington County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
Total Housing Units	4,120	4,606	33,411	33,411	47,370	47,370
Built 2020 or later	86	1.9%	778	2.3%	949	2%
Built 2010 to 2019	97	22.3%	4,382	13.1%	5,970	12.6%
Built 2000 to 2009	1,295	28.4%	4,473	13.4%	8,103	17.1%
Built 1980 to 1999	994	14.5%	7,392	22.1%	11,191	23.6%
Built 1960 to 1979	590	12.5%	9,135	27.3%	11,956	25.2%
Built 1940 to 1959	150	12.3%	5,693	17%	6,899	14.6%
Built 1939 or Earlier	34	4.1%	1,558	4.7%	2,302	4.9%

HOUSING TENURE	City of Box Elder	City of Rapid City	Pennington County
	Percent	Percent	Percent
Occupied Housing Units	4,120	33,411	47,370
Owner-Occupied Housing Units	51%	61.7%	69.2%
Renter-Occupied Housing Units	49%	38.3%	30.8%

MONTHLY HOUSING COSTS	City of Box Elder		City of Rapid City		Pennington County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
Less than $300	64	1.6%	1,252	4%	1,800	4%
$300 to $499	77	1.9%	2,441	7.8%	3,423	7.6%
$500 to $799	530	12.9%	6,724	21.4%	9,251	20.6%
$800 to $999	146	3.5%	3,776	12%	4,815	10.7%
$1,000 to $1,499	1,460	35.4%	8,830	28.1%	11,929	26.6%
$1,500 to $1,999	1,274	30.9%	4,428	14.1%	7,045	15.7%
$2,000 to $2,499	431	10.5%	1,627	5.2%	9,243	6.6%
$2,500 to $2,999	20	0.5%	1,092	3.5%	1,515	3.4%
$3,000 or More	60	1.5%	849	2.7%	1,504	3.4%

UNITS IN STRUCTURE	City of Box Elder	City of Rapid City	Pennington County
	Estimate	Estimate	Estimate
Occupied Units	4,120	31,453	44,829
1, Detached	1,948	18,479	28,182
1, Attached	798	1,952	2,453
2 Apartments	22	894	926
3 or 4 Apartments	198	1,423	1,457
5 to 9 Apartments	154	1,503	1,749
10 or More Apartments	310	5,536	5,767
Moblie Home or Other	690	1,666	4,295

Source: 2022American Community Survey, 5 Year Estimates (2018-2022)

HOUSING GOALS

Housing Goal: Stimulate a Healthy Housing Supply & Market

Encourage a diversity of housing options that correct housing deficiencies and create a healthy housing market while preserving existing community and neighborhood character.

Each goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

H1 **Form a Box Elder Housing Authority or task a City Department to lead efforts to meet the housing needs of the community**

H1.1 Create a Housing Plan that coordinates the City's efforts with multiple agencies and partners addressing the needs of both renters and home owners.

H1.2 Working with housing agencies to assure that Box Elder residents are receiving their share of resources available in the region.

H1.3 Taking an active role in developing new affordable housing, including tax increment financing, tax abatement, land donations, Housing Authority land ownership and development, etc.

H1.4 Utilizing and promoting programs that assist with home ownership.

H1.5 Monitoring the housing environment to maintain a 2-1/2 year supply of developable lots.

H1.6 Developing home ownership and new construction marketing programs and strategies.

H1.7 Assisting in the development of ordinances that support innovative housing solutions.

H1.8 Generally enact the directives of the Housing Study and respond to changing housing needs and conditions

H2 **Incentivize housing types and quantities identified in the Housing Study.**

H2.1 Encourage infill development / redevelopment / housing renovations/ ADU development where appropriate to meet housing deficiencies while maintaining existing character.

H2.2 Provide resources to connect low and moderate income households to federal and state programs for low interest home rehabilitation loans and grants to households of low and moderate income.

H2.3 Create a city-wide “healthy vacancy” goal and limit incentives for additional development that exceeds the healthy vacancy rate

H2.4 Create a plan for mobile home stock including addressing substandard mobile homes, mobile home park improvements, and displacement created by eliminating mobile homes for APZ and flood plain requirements.

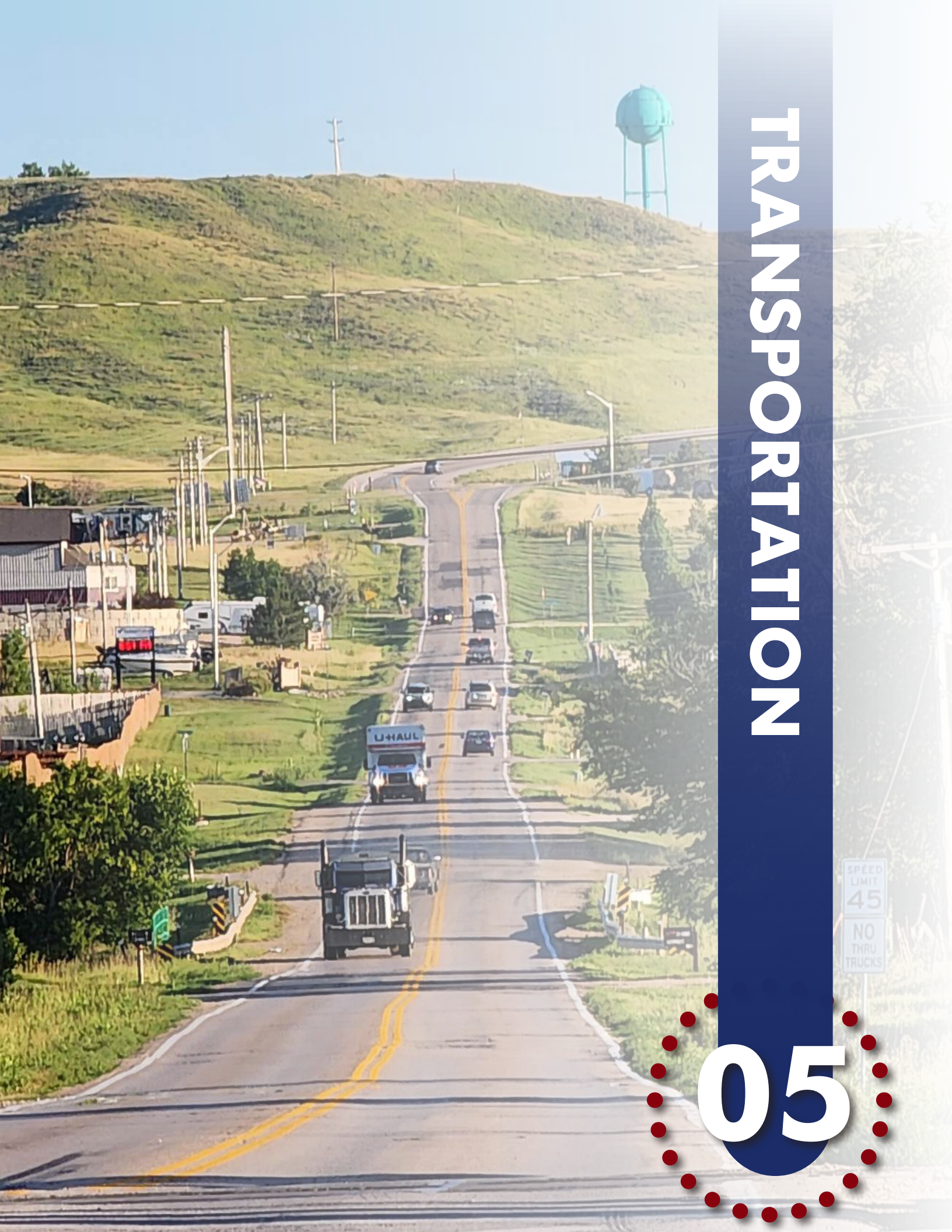
H2.4 Create and maintain an up to date inventory of housing unit types.

H3 **Enact Ordinances to address unsuitable soils for housing development.**

H3.1 Development of a geotechnical master plan to identify locations of hazardous or unstable soils

H3.2 Develop Ordinances that require mitigation of hazardous or unstable soils

H3.3 Develop resources for builders, individuals, and small developers, about soils issues and impacts in Box Elder with a focus on those who would not otherwise perform a geotechnical report.



TRANSPORTATION

05

TRANSPORTATION 05

As Box Elder grows from a small rural town into one of the larger cities in South Dakota, one of its biggest challenges is updating the infrastructure that is both necessary for economic development, community growth, and public safety. Transportation infrastructure is one of the most costly capital investments of a municipality. Growing communities depend on last year's tax base to both fund the infrastructure for future growth and maintain what is existing, a necessary but challenging cost burden for a small community.

The Transportation Chapter of the Comprehensive Plan addresses all modes of transportation in Box Elder, including vehicles, pedestrians, and bicycles. Transportation issues are closely connected to land use and economic development because of the higher development potential of lands adjacent to transportation corridors.

EXISTING CONDITIONS

Box Elder's transportation system could be described as a patchwork of street types ranging from paved rural roads with ditches to fully developed urban streets and everything in between. Streets in many of Box Elder's older neighborhoods were originally constructed under county subdivision ordinances prior to annexation of each specific area. Steets in these neighborhoods are typically two lane streets with stormwater ditches and no sidewalks. Streets are accidentally multi-modal providing safe places for all transportation types and include "green infrastructure" (ditches) that clean and slow storm water, reducing urban impacts on Box Elder Creek. Vehicle speeds are generally slow by design because the streets are narrow and shared with pedestrians, bicycles, and parked vehicles.

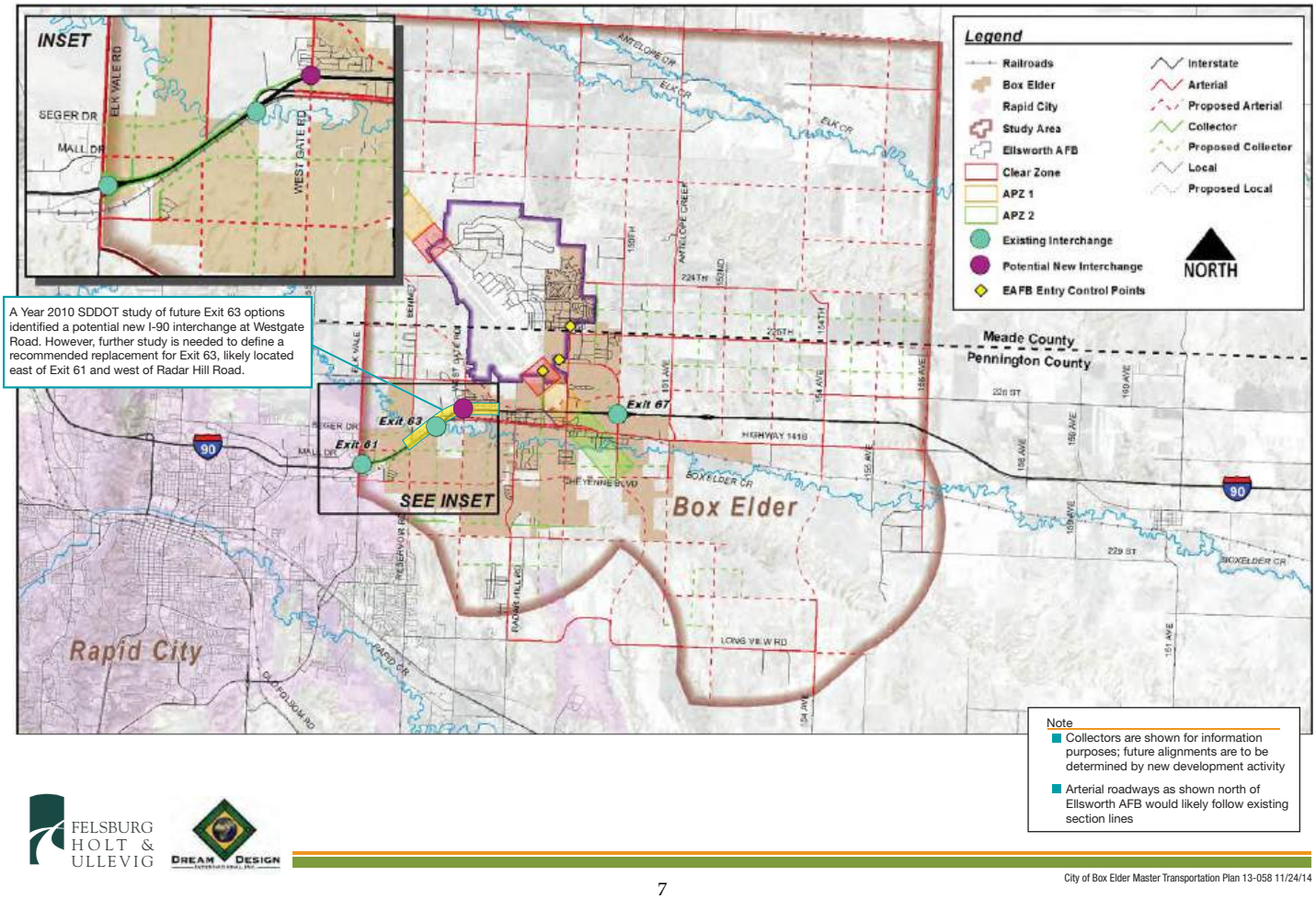
New developments constructed under updated Box Elder ordinances include a typical urban street section with streets wide enough for two driving lanes and on-street parking, curbs, and sidewalks within the development. Vehicles speeds are posted to be slow, but the design allows for faster traffic. Streets within the neighborhoods are still conduscive to some shared use. Storm water typically flows to the ditch system outside the subdivision or is managed internally with swales. Sidewalks in these subdivisions typically end at the edge of the subdivision with no community-wide sidewalk or trail system to connect to.

Most collector streets and some older arterial streets retain rural street characteristics - two lane roads with ditches - including Radar Hill Road, South Box Elder Road, some portions of North Box Elder Road, 225th Street, 151st Avenue and Tower Road.

PAST TRANSPORTATION PLANNING

Past transportation planning efforts include the 2014 Comprehensive Plan and the 2014 Box Elder Strategic Transportation (BEST) Plan. The Comprehensive Plan provides broad goals providing for safe, efficient, orderly transportation systems. The BEST plan is an in-depth transportation planning document that provides an inventory of existing conditions, growth forecasts, long range transportation planning, plan implementation goals, a Major Street Plan (*below*) and recommended transportation standards.

Recommended projects of the BEST plan were prioritized based on the values and goals of the community, including: neighborhood connectivity, economic development, congestion relief, safety, Liberty exchange usage, regional connectivity, and cost.



The most recent transportation planning effort impacting Box Elder is the Rapid City Area Transportation Improvement Program (TIP) for fiscal years 2024-2027. This was a collaborative effort between The Cities of Rapid City, Box Elder, Summerset and Piedmont, Meade County and Pennington County, Rapid City Regional Airport, Ellsworth Air Force Base, Rapid City Area School District, the Rapid City Long Range Planning Division, and the South Dakota Department of Transportation. The Program has been Adopted by the Executive Policy Committee of the Rapid City Area Metropolitan Planning Organization, which the Mayor of Box Elder serves on.

A Transportation Improvement Program (TIP) is a staged, multi-year program of transportation improvements including highway and transit projects. The TIP is a four (4) year priority list, including a financial plan. The Rapid City Area Metropolitan Planning Organization (MPO) and the State Department of Transportation (SDDOT) cooperate in project selection. All projects funded by the Fixing America's Surface Transportation Act (FAST Act) must be included in the TIP.

FAST Act projects in urbanized areas must be included in a TIP that is based on a continuing, comprehensive planning process carried on cooperatively by the state and local communities. The rationale for requiring a TIP can be summarized in three (3) key points.

1. *Transportation issues should be approached in a comprehensive fashion with participation from all affected parties;*
2. *A systematic, comprehensive approach to planning and initiating transportation improvements assists decision-makers in determining the location, timing and financing of needed improvements; and,*
3. *A cooperatively developed program of transportation improvements should facilitate the coordination of public and private improvements thereby eliminating duplication of effort and expense. The TIP development provides local officials and the general public the opportunity to identify, evaluate, and select short-range community transportation improvements.*

The Rapid City Area TIP includes all identifiable transportation related improvement projects that may be undertaken in the planning area over the next four (4) years. Emphasis has been on area needs stated in the MTP, called RapidTRIP 2045, the Box Elder Strategic Transportation Plan, the Pennington County Transportation Plan, and the Meade County Transportation Plan. The guiding principle used in developing the Rapid City Area TIP was that "the document should be a comprehensive transportation planning and fiscal management tool designed to assist state and local officials in the task of matching needed transportation improvements with available resources." [1]

The TIP provides guidelines for project selection and prioritization, funding sources, safety performance and other performance measures. Transportation projects identified in the TIP in Box Elder include:

Year	Location
2024	Prairie Road Phase 2 Reconstruction
2026	Tower Road Reconstruction
2027	Briggs Street Reconstruction
2027	Line Road Repaving
2027	West Gate Road Improvements

Other projects identified in the TIP that will impact Box Elder include:

- the planned reconstruction of Highway 1416 and Radar Hill Road (currently seeking funding for design)
- the Interchange Reconstruction at exit 63 / West Gate Road (SDDOT), and a project in development on I-90 from exit 63 to east of exit 67

Projects not included in the current TIP but which are either in planning or in design in Box Elder:

- Creekside Drive connection to Freude Lane
- Cheyenne Boulevard from Elkvale Road to Radar Hill Road
- Bennet Bridge Project and East Mall extension project
- Cimarron Drive extension between North Ellsworth and Liberty Boulevard

1 Rapid City Area Transportation Improvement Program (for fiscal years 2024-2027), 2023

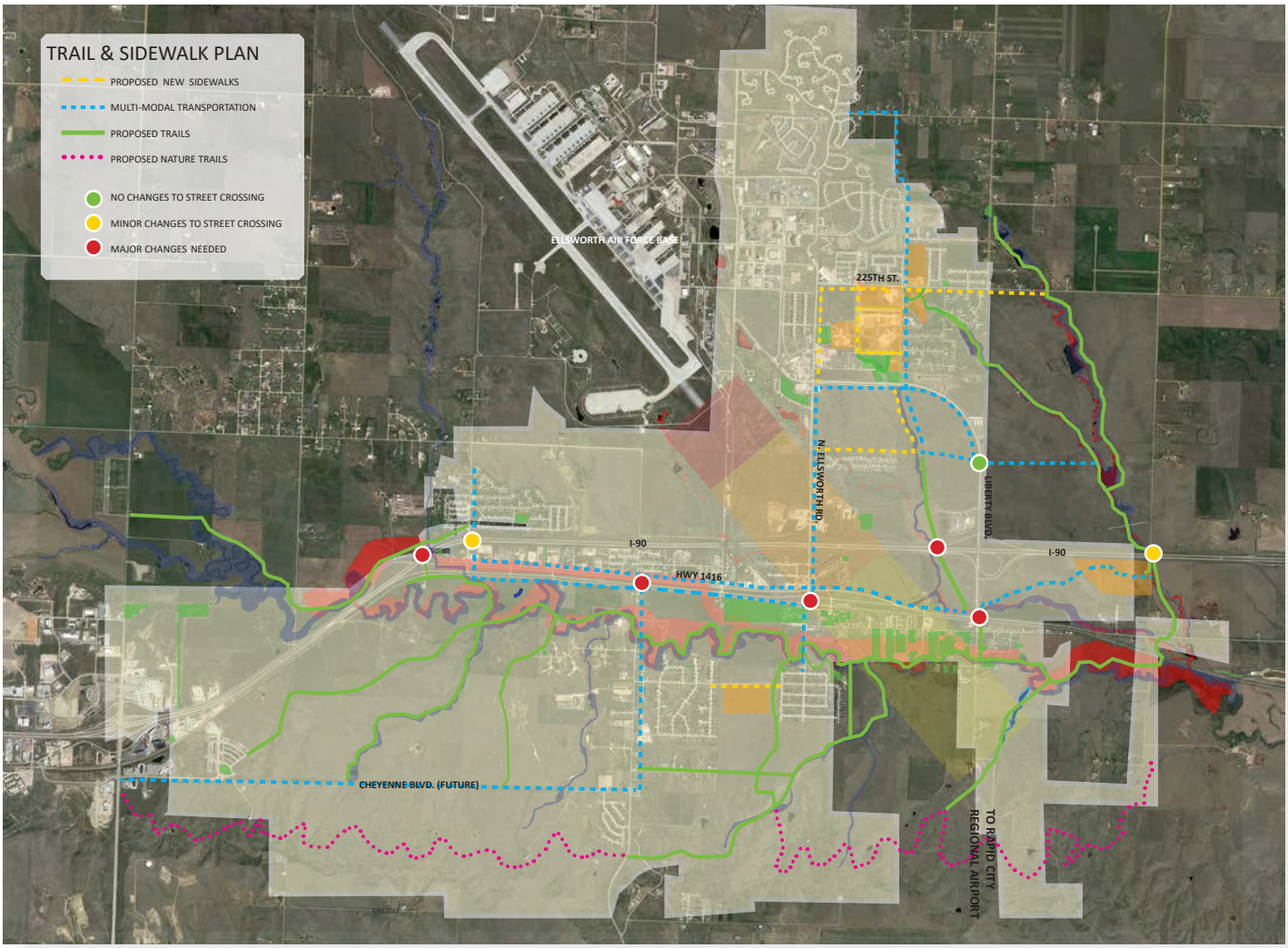
- Various Non-motorized trail and sidewalk projects as identified in the Box Elder Parks Master Plan.

The TIP serves as a tool to help state and local agencies match their needs with resources. TIP Projects are prioritized in part using FAST Act Planning Factors:

MULTI-MODAL TRANSPORTATION

In the 2021 Box Elder Parks Master Plan, sidewalk and trail connections for transportation, recreation, and connectivity throughout Box Elder were a prime directive from residents and city officials. Sidewalks and trails help provide better connectivity between north and south Box Elder, are more accessible for school children and those who are unable to drive, and promotes a healthier community by providing safe, comfortable facilities for physical activity. A continuous network of sidewalks, bicycle facilities, and trails are essential components of multimodal transportation systems.

Sidewalks are concrete walkways and generally are within neighborhoods and connect to multi modal trails. Sidewalks should be buffered from vehicle traffic, should be 6' wide to accommodate two-way pedestrian use, and provide clear access to building entrances from public rights-of-way. The most critical sidewalks and trails in Box Elder are those used by school children to get to and from school within 1/2 mile of the school campus.



MULTIMODAL TRANSPORTATION

The current hodgepodge of incomplete sidewalks leaves children walking in streets or in ditches. Completing these sidewalks to make safe walking routes, particularly along collector and arterial streets, should be the highest priority sidewalk or trail projects.

Multimodal Transportation routes are paved trails for both bicycles and pedestrians should be a minimum of 8' wide. They are the arterial streets of the non-motorized vehicle world and connect neighborhoods to important community sites, to other neighborhoods and to the community trail systems. Multimodal systems may also include dedicated bicycle lanes or, if roads are not wide enough, provide "Share the Road" signage indicating a shared street.

Trails are for multi modal use. They are typically gravel and should be a minimum of 12' wide. Trails are located along preserved natural drainageways and might be built on top of underground utilities so may serve a secondary use for utility maintenance access in addition to helping to preserve delicate prairie drainageways that help the community clean and manage stormwater. Layering these uses help to to protect important natural corridors and gets the most out of infrastructure spending while meeting community connectivity and transportation needs.

Nature Trails are narrow rustic single track hiking trails that are shown in the steep shale hills south of Box Elder in locations that are incompatible with other types of development but could provide a unique outdoor experience with wide-open views to the north.

Street Crossings are critical locations that need careful safety considerations. Critical trail street / road crossing locations are noted on the trail map and include I-90 underpasses and overpasses and Highway 1416 intersections. These intersections are the primary barriers for pedestrians and bicyclists between north and south Box Elder and must be addressed for trail system to provide the connectivity desired by the community. The Trail Plan proposes an underpass west of Liberty Boulevard where a culvert passes under I-90. SD DOT is redesigning exit 63 which may include a trail or sidewalk overpass. The highway 1416 redesign is intended to address multimodal use by incorporating roundabouts at major street intersections.

Adapted from the Parks and Open Space Master Plan (2022) new sidewalks and multi modal trails are indicated primarily in areas where most children are walking to school and are walking in or along busy streets to get to school. Priority areas include:

- Tower Road from Liberty Boulevard to the Antelope Ridge housing development (multi modal)
- Liberty Boulevard (multi modal)
- 225th Street
- North Ellsworth Road to 225th Street
- South Ellsworth Road from I-90 to the Prairie View Estates development (multi modal)
- Radar Hill Road to 228th Street (multi modal)

Multi-modal transportation should be included in future transportation planning as a critical part of the overall community transportation plan. Wherever possible, implementing projects that provide the multitude of benefits of non-vehicular transportation and recreational trails provide will improve the livability and connectivity of the community.

COMPLETE STREETS

Accoding to the U.S. Department of Transportation, *"Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Street policies are set at the state, regional, and local levels and are frequently supported by roadway design guidelines.*

Complete Streets approaches vary based on community context. They may address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle-related crashes and pedestrian risk, as well as bicyclist risk when well-designed bicycle-specific infrastructure is included (Reynolds, 2009). "

Traditional street design is generally the result of a process that fails to consider the needs of all people and utilizes outdated measures of what makes a street successful. The end product is a street that is uncomfortable at best and deadly at worst for non-vehicular users. Complete Streets is a process and approach that responds to community context instead of a 'one size fits all' transportation design approach. For example, the Town Center land use concept proposes a more friendly Liberty Boulevard that would serve a wide variety of users and meet the community's goals for creating a central downtown area (see image below).

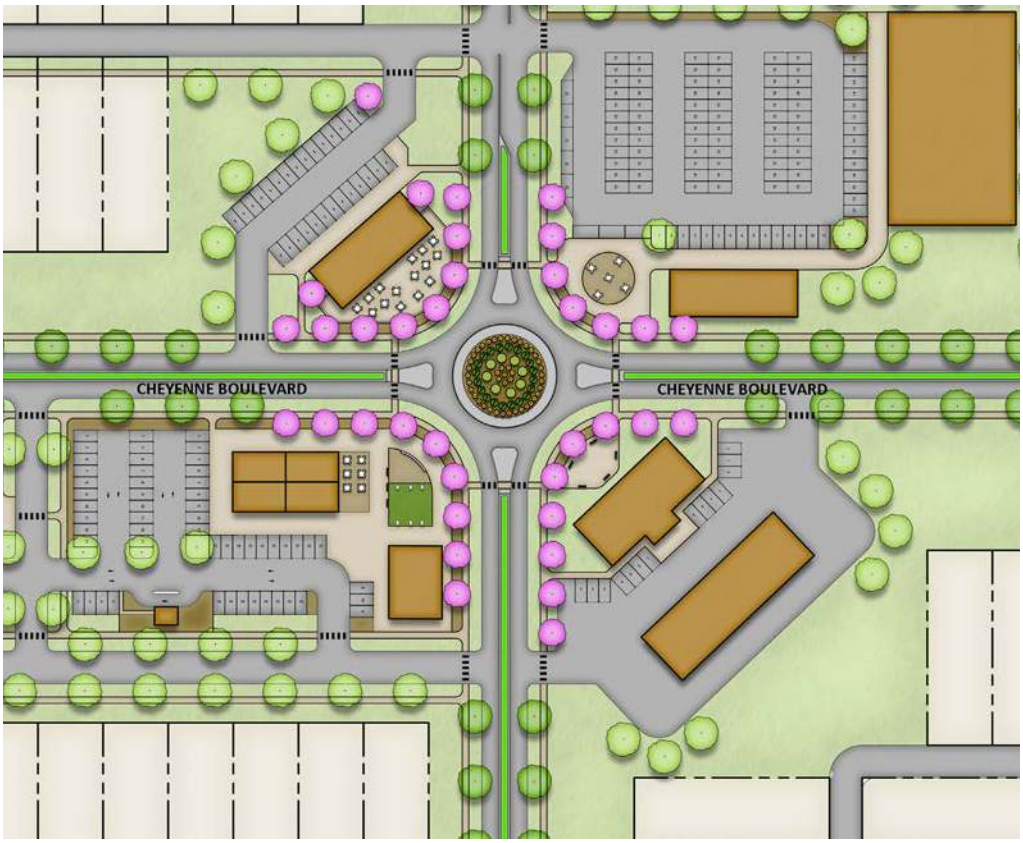
Complete Streets approaches should be discussed in future transportation planning to determine if adopting Complete Streets policies would be a good fit for Box Elder. More information about Complete Streets can be found at Smart Growth America (www.smartgrowthamerica.org).

MAJOR STREET PLAN

MAJOR STREET PLAN

The Major Street Plan in this Comprehensive Plan document is intended to inform future transportation planning efforts with the community's vision for safer, more pedestrian and bicycle-friendly roadways in Box Elder. It is a high-level overview of roadways connections anticipated in the next 20-30 years presented in broad roadway classifications.

The classifications indicated are not intended to direct roadway speeds or traffic volumes, but suggest that the character of the roadway is as important as the function of the roadway. For instance, the Cheyenne Boulevard extension in the Major Street Plan proposes roundabouts at intersections with North-South arterial streets.



The community's desire for a pedestrian and bike friendly community that preserves its quiet rural feel should impact the design of a major arterial like the Cheyenne Boulevard extension.

As described in Chapter 2 - Land Use & Placemaking the Cheyenne Boulevard intersection with a N-S arterial would be the location of a neighborhood commercial development. This intersection should feel safe for all transportation types, walkable from surrounding neighborhoods, and should fit with the character of the community.

In the example, above, Cheyenne Boulevard is shown as a five lane arterial street with roundabouts or turn lanes with planted medians. In this arrangement, bicycle lanes could either be in a dedicated bike lane as part of the street section or part of a wide multi-modal trail. It is anticipated that development abutting the street would be residential with Neighborhood Commercial development focused at intersections only. This configuration is a more pedestrian-friendly street with opportunity for refuge islands, bike lanes, on street parking, and transit stops; reduces traffic speeds; and is a more user-friendly environment that meets the needs of all road-users. It provides a strong placemaking opportunity and is a hub for economic development that fits the desired character of the community.

Roundabouts are preliminarily planned at Highway 1416 major intersections. A corridor study for Hwy 1416 is

complete and the City is seeking funding in 2025 for the design and environmental permitting for the roadway.

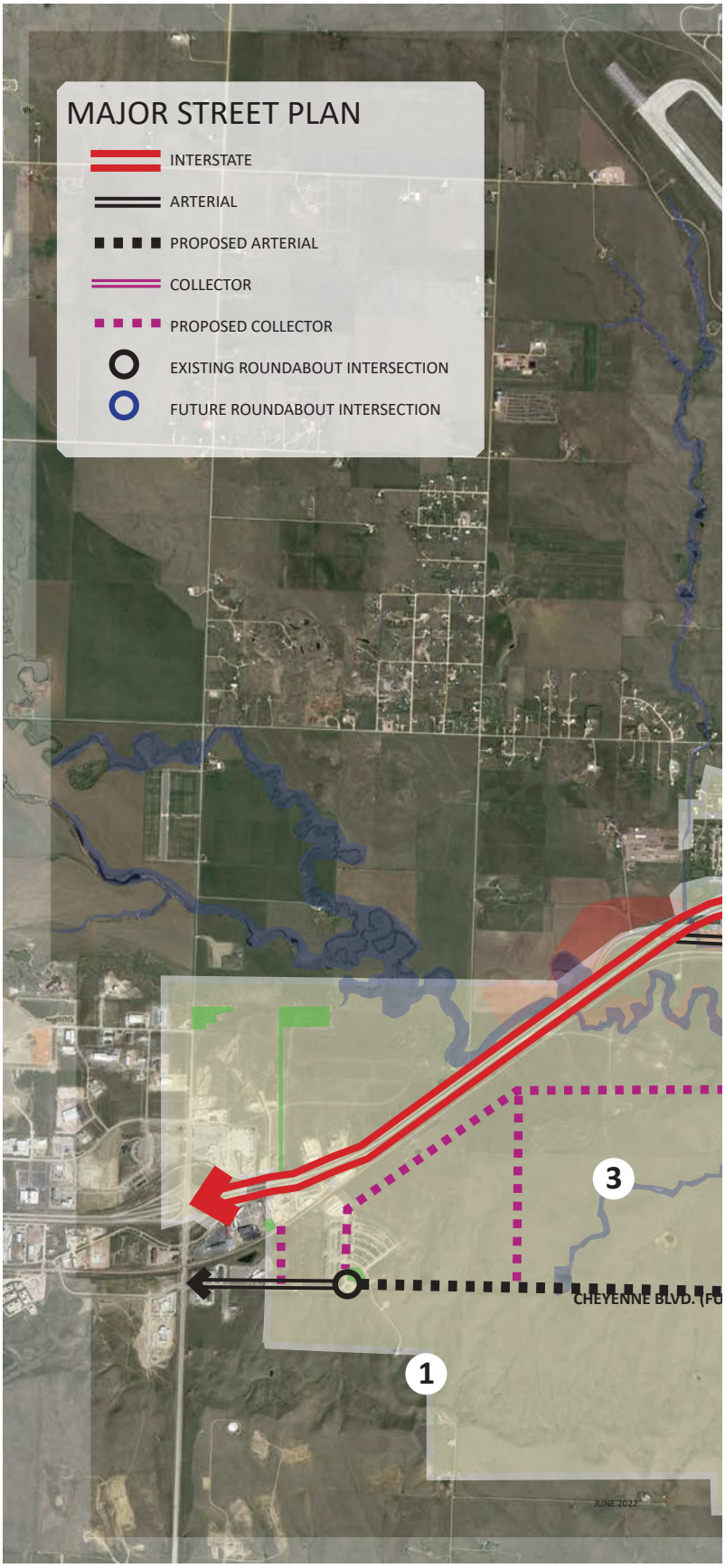
According to the Federal Highway Administration, “The modern roundabout is an intersection with a circular configuration that safely and efficiently moves traffic. Roundabouts feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points. The net result of lower speeds and reduced conflicts at roundabouts is an environment where crashes that cause injury or fatality are substantially reduced.”

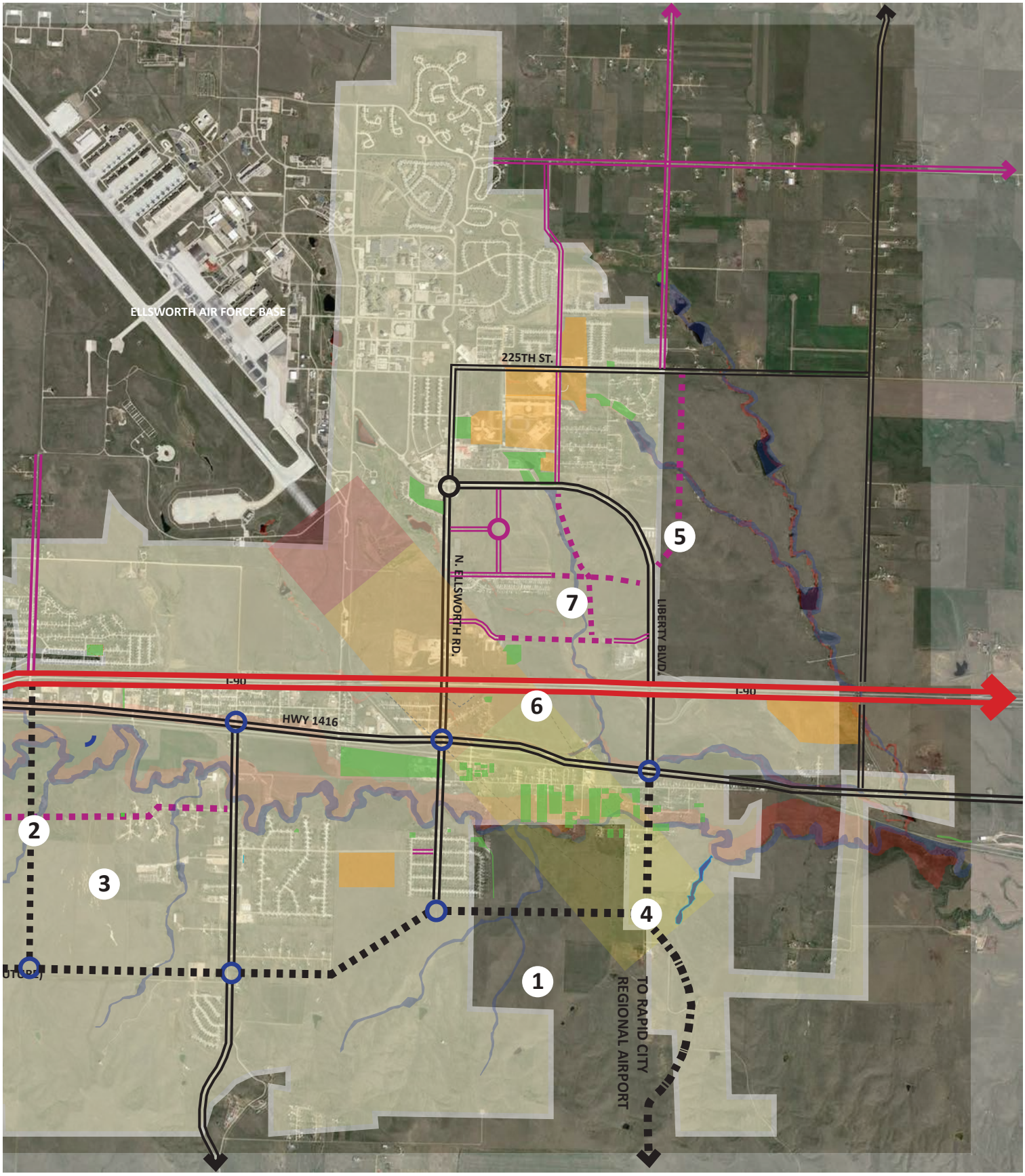
The Major Street Plan focuses on the primary transportation routes that will be needed to serve the future Box Elder city limits.

Future streets shown on this plan include:

1. Cheyenne Boulevard east extension
2. south West Gate Road to Cheyenne Boulevard extension
3. Northern Lights Boulevard (west Sunnyside Drive)
4. Spruce Drive / Liberty Boulevard south extension
5. Liberty Boulevard to 225th Street collector
6. Cimarron Drive extension
7. Tower Road extension

The Spruce Drive / Liberty Boulevard south extension could provide an important direct community and truck route connection from I-90 to Rapid City Regional Airport and Highway 44.

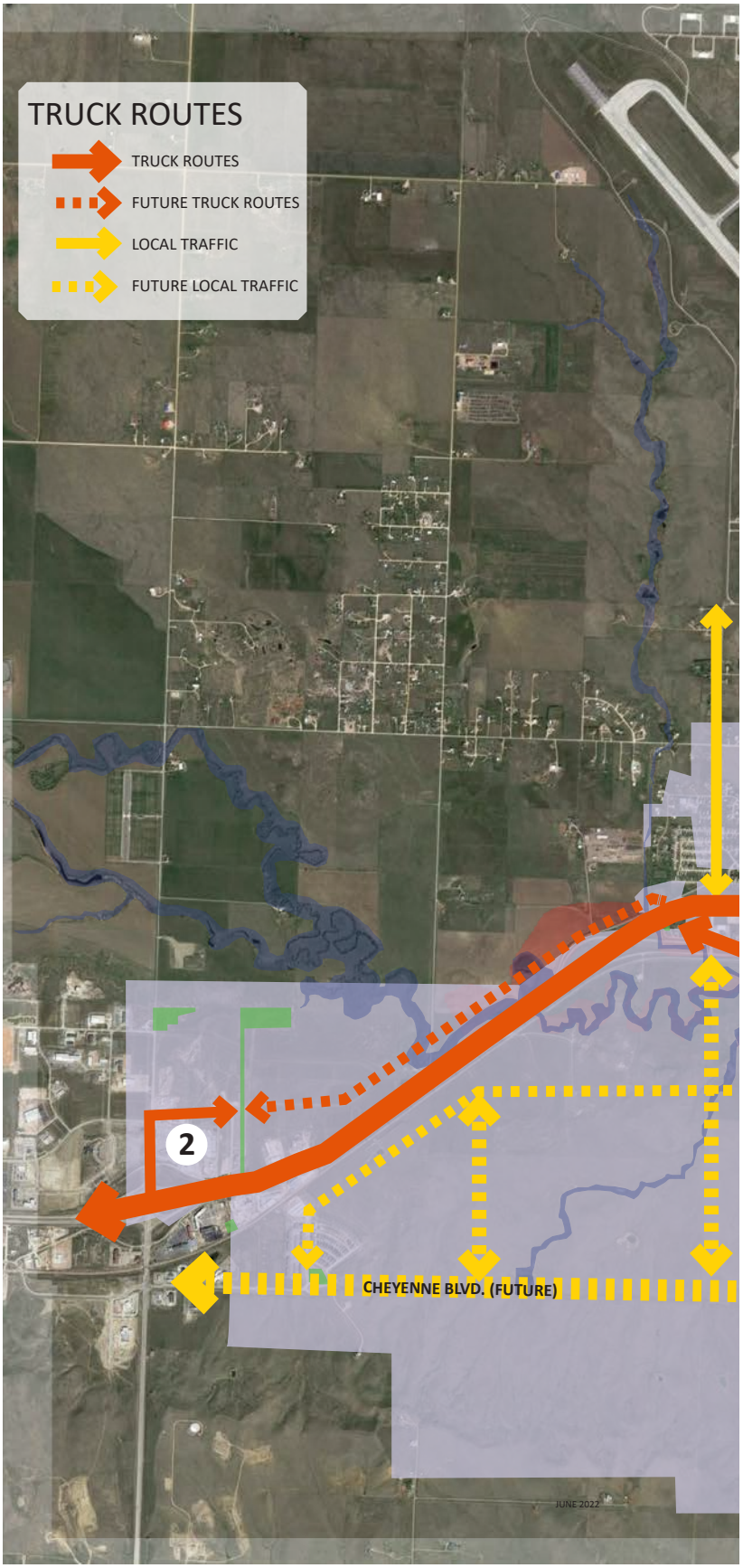



ELLSWORTH AIR FORCE BASE
225TH ST.
N. ELLSWORTH RD.
LIBERTY BLVD.
I-90
I-90
HWY 1416
TO RAPID CITY
REGIONAL AIRPORT
1
2
3
4
5
6
7

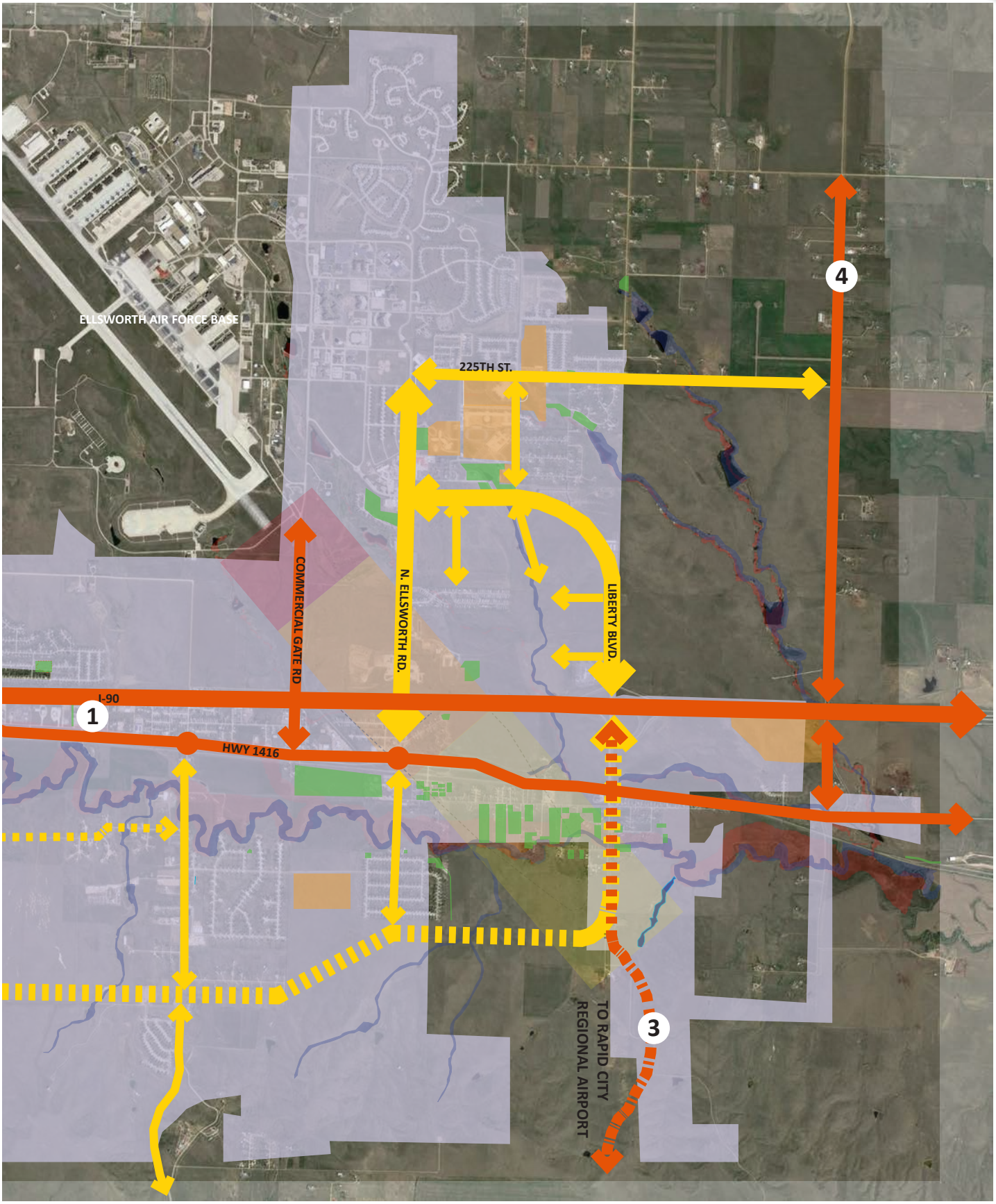
The Truck Routes map illustrates ease of commercial vehicle access to:

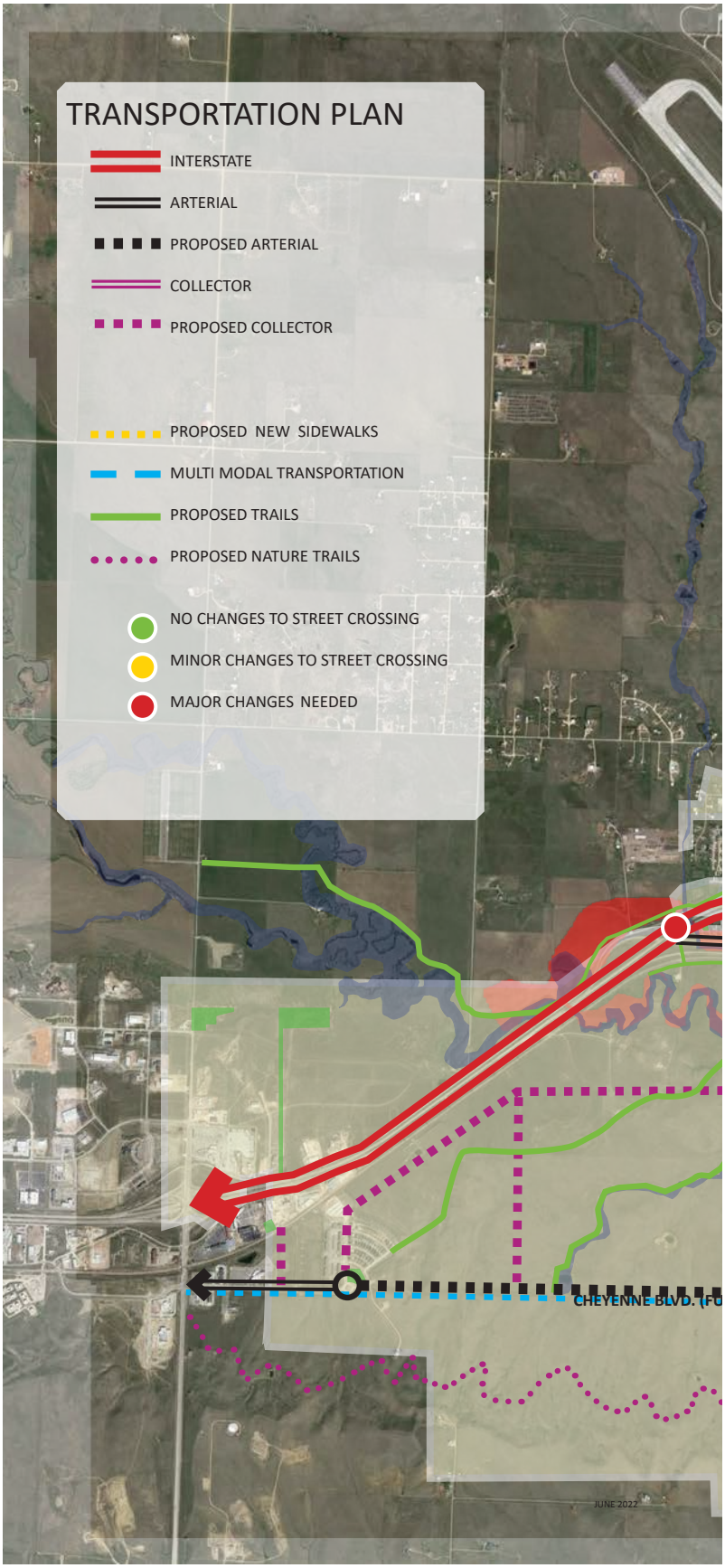
1. Opportunity Corridor
2. Seger Road business park
3. future connection to Highway 44 / Rapid City Regional Airport
4. trucking connection to the Windy Flats rubble site

With the Cheyenne Boulevard to Liberty Boulevard arterial connection, local and multi-modal traffic could largely avoid the commercial truck traffic on Highway 1416 reducing traffic conflicts.
The Overall Transportation Plan synthesizes the Major Street Plan with the Trail & Sidewalk Plan to create a network that works for all transportation types.

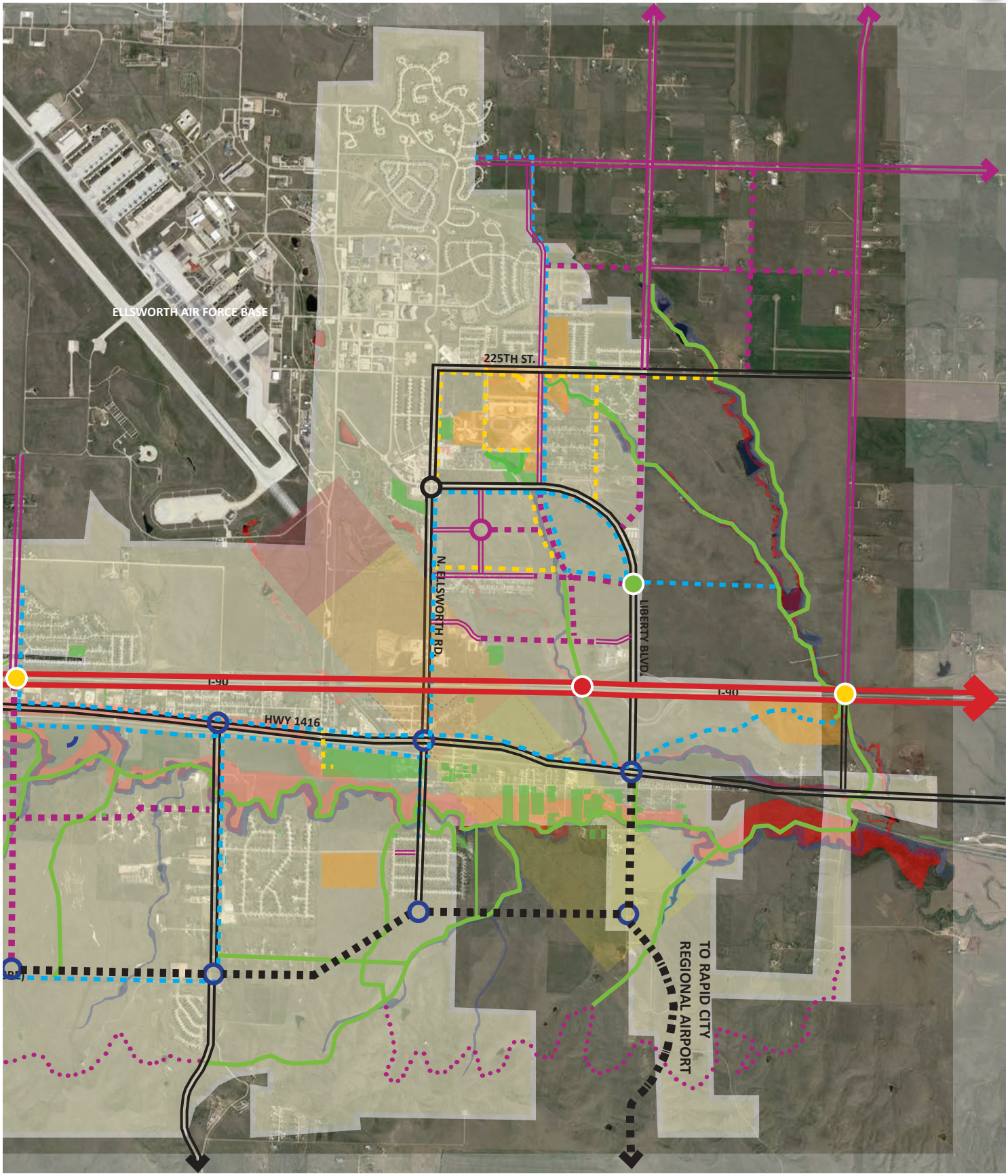


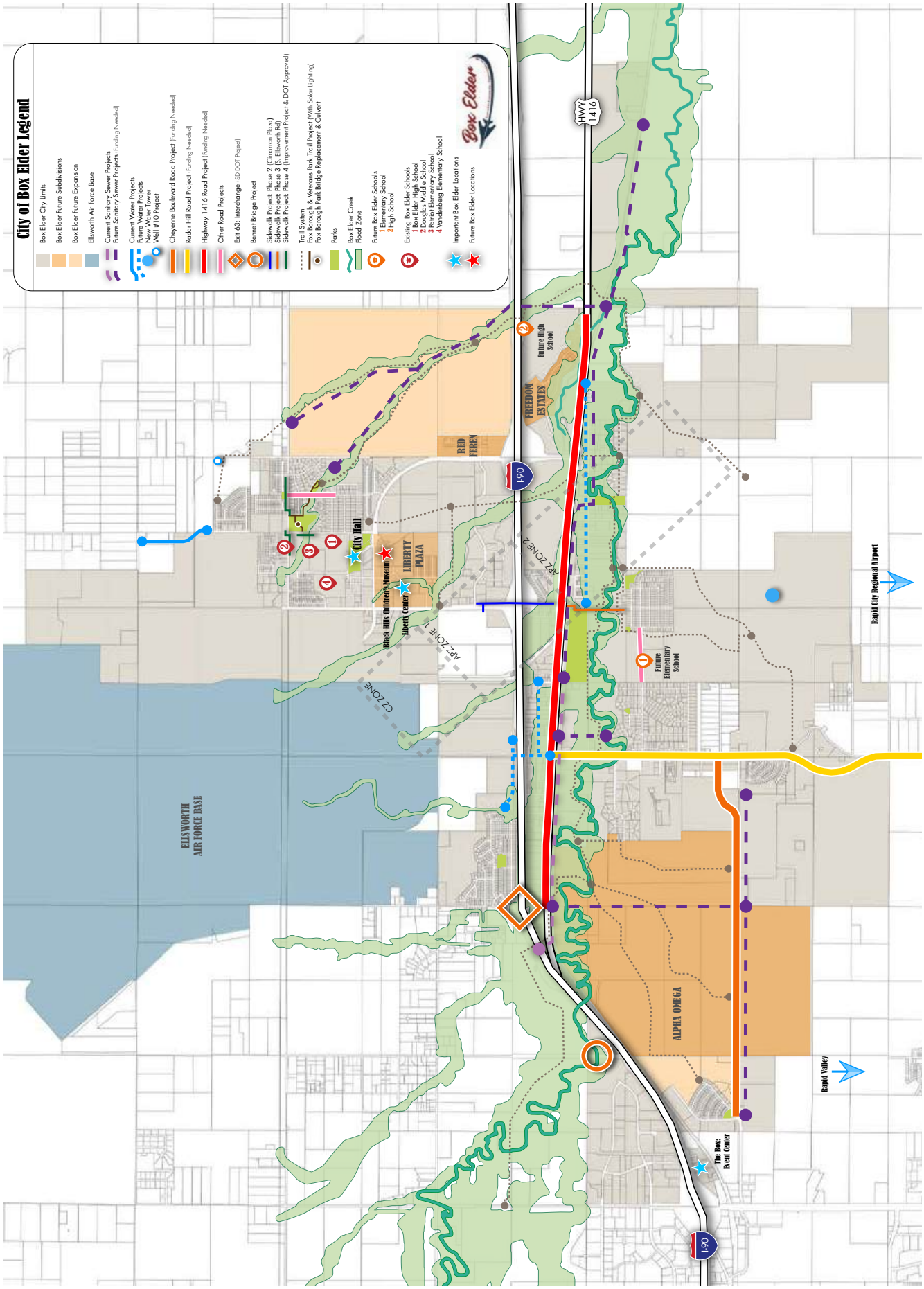
TRUCK ROUTES




TRANSPORTATION PLAN
INTERSTATE
ARTERIAL
PROPOSED ARTERIAL
COLLECTOR
PROPOSED COLLECTOR
PROPOSED NEW SIDEWALKS
MULTI MODAL TRANSPORTATION
PROPOSED TRAILS
PROPOSED NATURE TRAILS
NO CHANGES TO STREET CROSSING
MINOR CHANGES TO STREET CROSSING
MAJOR CHANGES NEEDED
CHEYENNE BLVD. (FU
JUNE 2022

TRANSPORTATION PLAN




City of Box Elder Legend
Box Elder City Limits
Box Elder Future Subdivisions
Box Elder Future Expansion
Ellsworth Air Force Base
Current Sanitary Sewer Projects
Future Sanitary Sewer Projects (Funding Needed)
Current Water Projects
Future Water Projects
New Water Tower
Well #10 Project
Cheyenne Boulevard Road Project (Funding Needed)
Radar Hill Road Project (Funding Needed)
Highway 1416 Road Project (Funding Needed)
Other Road Projects
Exit 63 - Interchange (SD DOT Project)
Bennet Bridge Project
Sidewalk Project: Phase 2 (Cimarron Plaza)
Sidewalk Project: Phase 3 (S. Ellsworth Rd)
Sidewalk Project: Phase 4 (Improvement Project & DOT Approved)
Trail System
Fox Borough & Veterans Park Trail Project (With Solar Lighting)
Fox Borough Park Bridge Replacement & Culvert
Parks
Box Elder Creek
Flood Zone
Future Box Elder Schools
1 Elementary School
2 High School
Existing Box Elder Schools
1 Box Elder High School
2 Douglas Middle School
3 Patriot Elementary School
4 Vandenberg Elementary School
Important Box Elder Locations
Future Box Elder Locations
Box Elder
ELLSWORTH AIR FORCE BASE
City Hall
Black Hills Children's Museum
Liberty Center
LIBERTY PLAZA
RED FEREN
FREEDOM ESTATES
Future High School
Future Elementary School
ALPHA OMEGA
The Box: Event Center
Rapid Valley
Rapid City Regional Airport
HWY 1416
I-90
AZ ZONE 1
AZ ZONE 2
CZ ZONE

CAPITAL IMPROVEMENT PLAN

The Capital Improvement Plan (CIP) is a community planning and budgeting tool used to coordinate the identification, timing, and financing of capital improvements and major, non-recurring physical expenditures. This includes streets and other infrastructure projects such as water and sanitary sewer. The CIP includes priority ranking, schedules of project funding, and an estimate of project costs and financing sources. The CIP is updated annually to reflect changes in community needs and priorities. Transportation projects planned in the 2025-2029 CIP are prioritized below:

Local Streets

1	2025	Cottonwood and Oak Street RR Crossing Closures
2	2026	Thunderbird Neighborhood Streets & Drainage Recon
3	2027	Cardinal Heights Streets and Drainage (Spot Utility Repairs)
4	2028	Old Town Box Elder
5	2028	S Ellsworth Road
6	2029	Prairie View Streets & Spot Utility Repairs
7	2026	Main Street Lights

Collector Streets

1	2025	W Sunnydale Road (Northern Lights Blvd East)
2	2026	Tower Road (Liberty to 225th)
3	2026	225th (Tower to 150th)
4	2028	Westgate Road - South
5	2025	Cimarron/Chisholm Road Improvement
6	2026	Cimarron/Reagan Connection
7	2027	Spruce (1416 to Harmony)
8	2028	Tower Road (225th to 224th)
9	2028	Repair Haul Roads
10	2028	Spruce and S Ellsworth Active Rail Crossings
11	2029	Creekside Connector (to Prairie View Estates)
12	2025	Cimarron Drive Extension
13	2029	Spruce (Harmony, Longview)
		Northern Lights Blvd (Cheyenne to Kenai)
		Cheyenne Blvd (Rapid City line through round about)

Arterial Streets

1	2028	1416 Highway/Radar Hill Road Reconstruction
2	2027	Cheyenne Boulevard - Street
3	2025	Bennet Road Bridge Replacement
4	2026	East Mall Drive - Bennet Road Extension
5	2026	Liberty Boulevard - Reagan Avenue Intersection
6	2026	N Ellsworth Intersections (Liberty and 225 St)
7	2027	N Ellsworth Reconstruction (Liberty - 225th St.)
8	2028	N. Elk Vale/East Mall Traffic Signal
		Liberty/Main Street Crossing/Signal

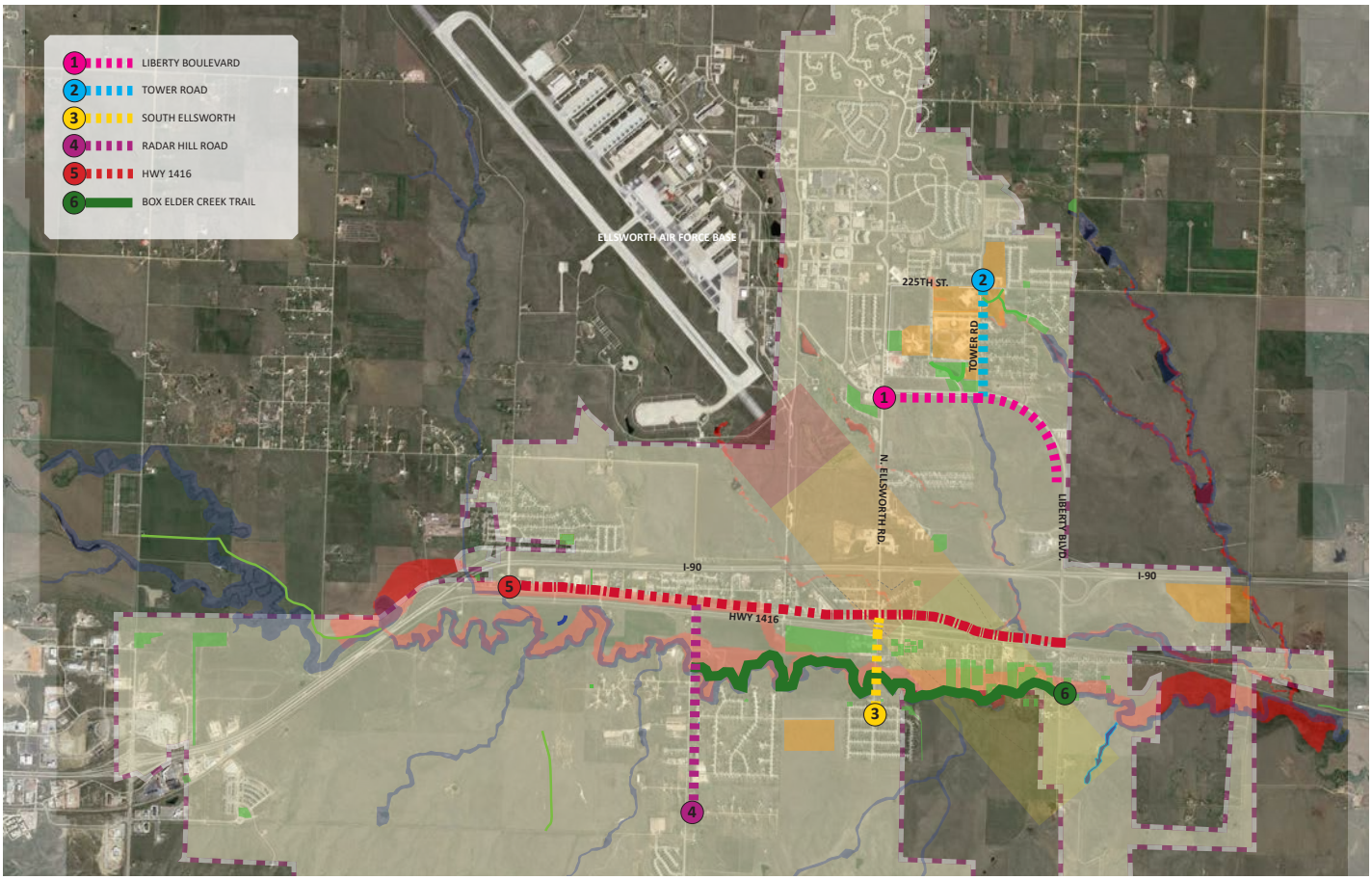
ENGAGEMENT

COMMUNITY ENGAGEMENT

Community engagement was held by the City of Box Elder at the 2024 Patriot Day event focusing on sidewalk / trail priorities and development preferences. 211 participants selected the highest priority sidewalks and trails from the selections on the map below.

Trail Number	Location	Count
2	Tower Road	69
1	Liberty Boulevard	45
6	Box Elder Creek Trail	34
5	Highway 1416	32
3	South Ellsworth	16
4	Radar Hill Road	15

Tower Road recieved the highest votes and this is confirmed by public engagement from the Parks and Open Space Master Plan, in discussions with community members at other events, and by first-hand observation; a large number of children walk from the school campus to and from school along Tower Road. Per Douglas School District policy, bussing is only available to students who live at least 2.5 miles from the District transportation building.



TRANSPORTATION GOALS

Transportation Goal: Develop Strong Multimodal Community Connections

Connect people through a multimodal transportation system that weaves the community together and overcomes barriers between north and south Box Elder

Each Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

T1 Conduct necessary studies to identify transportation needs in the community.

T1.1 Update the Box Elder Strategic Transportation Plan to include:

- **T1.1a** Recommend design standards for all development types and road classifications with an emphasis on safety and connectivity for all transportation types.
- **T1.1b** Provide community engagement opportunities and regular updates to inform and educate the community about transportation planning and projects.
- **T1.1c** Recommend ordinances, policies, and land use needs to incorporate multimodal transportation strategies throughout the community.
- **T1.1d** Identify transportation grants and other funding opportunities relevant to priority projects and provide data and analysis to support grant applications.
- **T1.1e** Identify opportunities to coordinate with regional partners for street and multimodal transportation project implementation.
- **T1.1f** Review and analyze options for incorporating green infrastructure into roadway design standards throughout the community taking into account cost savings, stormwater conveyance, management, and treatment and vehicular and multimodal uses

T1.2 Conduct a sidewalk audit to identify deficiencies and priorities in the sidewalk system and to confirm community engagement findings.

T1.3 Conduct traffic counts and reclassify roads if necessary every 5 years.

T1.4 Maintain a GIS dashboard showing hot spots with the highest rate of traffic incidents.

T2 **Develop transportation design standards for development types (Commercial, Housing, Industrial) and road classifications (arterial, collector, local, rural) that include requirements for safe pedestrian and bicycle transportation.**

T2.1 Prioritize routes for children to safely walk and bike to school and to access parks and neighborhood amenities

T2.2 Invest in a comprehensive trail system that connects neighborhoods to community spaces and amenities

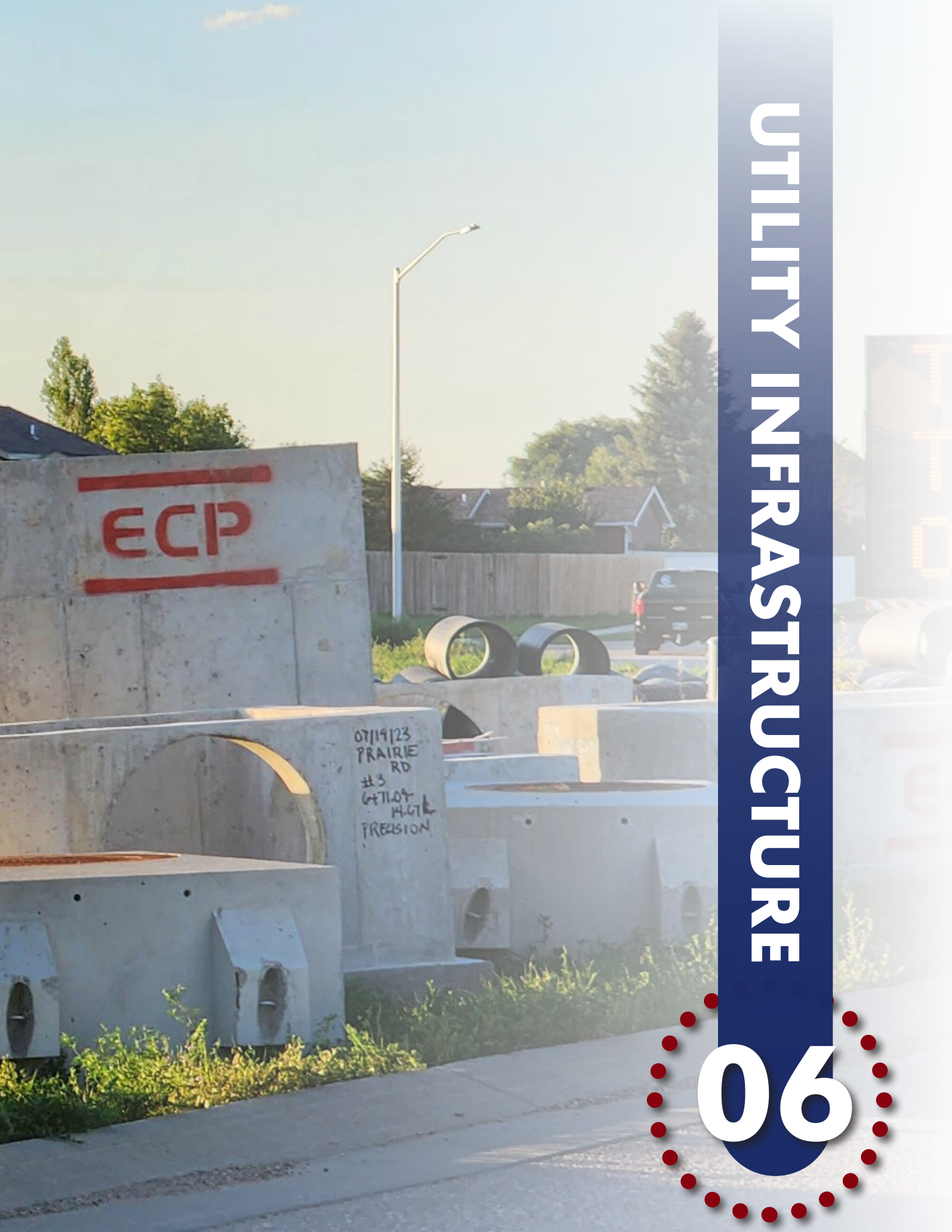
T2.3 Adopt policies and ordinances that incorporate complete street concepts; Vision Zero (zero traffic deaths) strategies, traffic calming elements, street trees, wide sidewalks, and pedestrian, bicycle, and transit access throughout Box Elder, considering the safety needs of people of all ages and abilities.

T2.4 Adopt ordinances requiring commercial development to include sidewalk access from the public right-of-way to the public entrance of commercial buildings.

T3 **Work with state and regional organizations to facilitate better connectivity for multimodal trails.**

T3.1 increase the quantity and capacity of north-south multimodal crossings across I-90 and 1416

T3.2 coordinate with regional partners for multimodal transportation implementation



UTILITY INFRASTRUCTURE

06

PUBLIC UTILITIES

As Box Elder grows from a small rural town into one of the larger cities in South Dakota, its infrastructure capacity could drive or inhibit growth. The Infrastructure chapter addresses services within the City and adjacent to City limits that are necessary components of a safe and healthy community, including water, wastewater, storm water management, electrical service, natural gas service, and telecommunications.

The Box Elder Public Works Department is made up of five divisions: Streets, Parks, Water, Sanitary Sewer, and Fleet & Vehicle Maintenance. The Water Department oversees the operation of the City's water wells (water production), and the water distribution system which consists of piping, water storage tanks, pump stations, and pressure-reducing stations. The water system consists of over 78 miles of buried water mains varying in size from 4" to 16", thousands of feet of water service lines, three water wells, four water storage tanks, 636 fire hydrants, and 1,059 valves necessary to operate the system. The Sewer Department oversees the sanitary sewer collection system, which consists of over 48 miles of sewer collection main varying in size from 8" to 42", over 1,025 manholes, and one sewer lift station.

Utility systems currently serving the community are performing well, but the City plans to adopt methods to plan life cycle replacements and upgrades, assess the implications of different development scenarios on utility systems, and minimize the financial impact of the systems to current users.

DRINKING WATER SYSTEMS

The mission of the City of Box Elder water division is to provide the citizens of Box Elder with an ample supply of quality drinking water that meets or surpasses state and federal guidelines while ensuring the system is adequately maintained to meet the needs of the future.

Currently there are 2,783 utility accounts with the City of Box Elder. Water usage for billing is based on monthly volumetric water charges per the Master Fee Schedule. Sanitary sewer charges are based on average water usage in November, December & January per Box Elder Municipal Code Section 42-29.c and Section 42-222. A small number of households are on water or sewer only and occasionally residents request annexation to access the City water system.

Box Elder's average daily water use is in line with national per person average usage between 80-100 gallons per day. If current growth rates are maintained, Box Elder population may reach over 22,000 by 2034 more than doubling daily requirements for water.

Year	Population	Avg. Daily Use GPD	Peak Use GPD
2007	4,025	366,200	732,400
2013	8,700	791,700	1,583,400
2024	14,512	972,344	1,843,200

Figure 1: City of Box Elder Water Use

Existing Reservoir Storage

Reservoir	Capacity (million gal)	Construction	Ground or Elevated	Year Constructed	Approx. Location	Notes
Tank #3	0.25 MG	Welded Steel	Elevated	1999	Phelps Pond	non-potable irrigation only
Tank #4	0.64 MG	Steel	Ground		Line Road	
Tank #6	1.00 MG	Steel	Ground		Cheyenne Blvd	
tank #7	1.50 MG	Steel	Ground	2013	150th Street	
Tank #5	1.50 MG	Steel	Ground	2017	Northern Lights Blvd.	
Total Capacity	**4.89 MG**					

Existing Well Capacity

Well	Pump Capacity (GPM)	Aquifer	Approx. Location	Notes
#1	62	Lakota	Duster's Corner	currently not operational
#3	135	Lakota	Patriot Drive / Tower Road	irrigation only (non-potable)
#4	275	Madison	Line Rd / S. Ellsworth Rd.	
#5	400	Madison	Northern Lights / Cheyenne Blvd	
#6	400	Madison	West Sunnydale Rd	
#7	400	Madison	North 150th St	expect online in 2025
#8	60	Lakota	Box Road	currently not operational
#9	65	Lakota	Hub Road	currently not operational
#10	450	Madison	150th Ave / Tyler Tr	spring 2025 completion
current capacity	**1,075 GPM** (operating wells)			
future capacity	**1,525 GPM** (all wells including those currently not operational)			

Additional water system components include two pump stations, four pressure reducing valves, and many fire hydrants located throughout Box Elder. Water distribution system expansion is occurring or planned in various locations throughout the community (see CIP map). An additional private pump station is located at the Antelope Ridge development and is not connected to the City water system.

The 2022 Water System Facility Plan Update by KLJ Engineering indicates that the City of Box Elder has adequate storage volume for its existing population, but that water production is insufficient to meet peak day usage. Currently, the City must purchase water from the City of Rapid City to make up for this deficiency. The study proposes the construction of five additional wells to adequately increase water production to meet peak day demand through the planning period (through 2041).

Deficiencies noted in the Facility Plan update include the identification of undersized water mains; identification of water mains prone to breakage on Gumbo Drive, Douglas Road, Country Road and Line Road; over pressuring in some zones, and fire flow deficiencies which are further described in the Hydraulic Model report. Other deficiencies are noted by zone in the report with proposed alternative remedies.

A number of improvements have been made to the system since the 2022 update including the Valley Heights Booster building structural repair, the Creekside Drive water main, a 12-inch water line installed on Tower Rd. between 224th St. and 225th St. and upsizing Radar Hill Rd. main from 6” to 10” from Bus Barn Rd. to Box Elder Road. Well #10 is anticipated to be online in 2025 and Tank #4 will be upsized and replaced in 2025.

A Water Distribution System 2024 Hydraulic Model report was prepared by DGR Engineering in 2024. The calibrated model was used to evaluate the performance of the distribution system under various operating conditions. The distribution system was found to be in good condition in most areas of the community. Normal operating pressures within the City range from 45 psi to 100 psi, depending on elevation. The analysis indicated that distribution system pressures were good within a majority of the water system with greater than 50 psi under normal operating conditions. The 10-States Standards for Waterworks recommend normal operating pressures be 60-80 psi and not less than 35 psi.

This calibrated hydraulic model will allow engineers to run hydraulic model scenarios at the City’s request to evaluate changes to the water distribution system.

Deficiencies noted during fire hydrant testing as part of the hydraulic study have been or are being addressed.

Water Quality and Safety

The 2023 Annual Drinking Water Report provided by the State of South Dakota indicates the relative susceptibility rating for the Box Elder Public Water supply system is rated moderate. The state requires the City of Box Elder to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Water temperatures of well water range from 105-120 degrees naturally. Higher water temperatures are typical for the Madison Aquifer, which is the source of water to warm artesian springs in the southern Black Hills.

PFAS (per- and polyflouroalkyl substances) contamination was identified on Ellsworth Air Force Base in 2011. The PFAS groundwater and surface water contamination has migrated beyond the base in a plume extending south-southeast from the base with contamination first detected in 2016 in private drinking water wells outside city limits. PFAS sampling had been completed for 117 drinking water wells in the affected area as of 2023. Of these, 23 wells has PFOS / PFOA concentrations above the 2016 Lifetime Health Advisories of 70 ppt. The USAF

connected four of the properties to municipal water, installed treatment systems at 16 properties, and are providing bottled water to the remaining 3 properties. As of fall 2024 a water main project is supported by Rapid City, Box Elder, Pennington County, SDEDA, and EAFB to provide a clean water supply to properties impacted by the PFAS plume.

PFAS does not affect the City of Box Elder's municipal water supply. City of Box Elder wells are over 4,000' deep in the Madison Aquifer, a confined aquifer, and are protected from PFAS contamination by overlaying non-permeable layers in the soil geology.

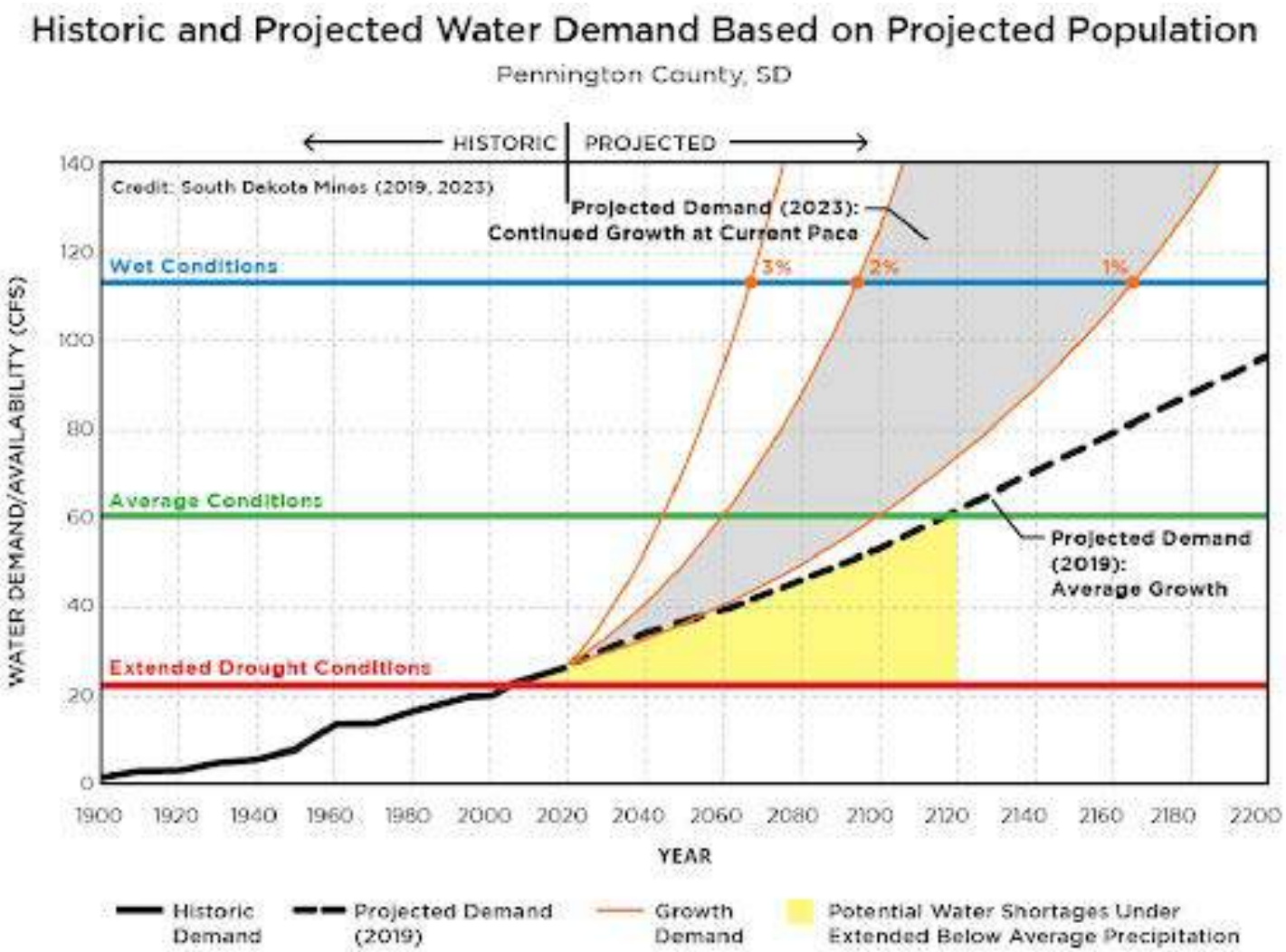


Figure 2: Historic and Projected Water Demand; South Dakota School of Mines and Technology; Missouri River Water Allotment Study for Future Use Water Permit 1443-2; December 2019; Katzenstein et al.

Redundancy

The City of Box Elder has additional connections to other water systems for redundancy, including connection to the City of Rapid City's potable water system. Those connections include a 12" water main connecting Rapid Valley at the Northern Lights subdivision and a 16" main connection on Country Road. This 16" main is designed to flow either way; currently flows east but when the future Western Dakota Regional Water System comes on line it will likely flow west into Rapid City's potable water system.

A 2019 SDSM&T study investigated if and when new sources of water will be needed in western Pennington County based on current available water sources relative to predicted population growth. The study concluded

that while local supplies meet current demand and the region is not currently in need of new water sources during periods of average or above precipitation, the ability of current sources to meet demand during prolonged drought is less certain and will likely be stressed as population in the region increases. Current data indicates that with recent population growth the region could see water shortages sooner than predicted by the SDSM&T study. The graph below from the SDSM&T study shows the deficiency of supply during drought conditions.

In 2021 the Western Dakota Regional Water System was formed by Tribal, community, governmental, and water systems leaders to plan, construct, and manage the delivery of Missouri River water to communities, tribes, and other rural water systems throughout western South Dakota to ensure future water access. The group is currently studying preliminary alternatives for water pipeline routing, conducting a feasibility study, and conducting program planning and user canvassing.

Planning

Improvements to the water delivery system are planned in various locations of the City. Future water projects are planned along Line Road, Gumbo Road, and Douglas Road to replace failing water main.

The City updates the Water System Facility Plan every five years. The most recent update was in 2021-22 to update the 2016 Facility Plan. The Plan focuses on the City of Box Elder's water supply and distribution system and establishes a planning area and design population through a 20-year planning window. It identifies "deficiencies in the system, both current and projected, and relative urgency of correction actions as they relate to the condition and capacity of the system." Alternatives are evaluated to correct each of the deficiencies and final recommendations are provided for a course of action in response to the findings. The study is used to inform water system Capital Improvement Planning priorities and budgets.

A water system model was completed in 2024 that will serve as the data points for an updated Water Facilities Plan. The Water Distribution System 2024 Hydraulic Model found that the Box Elder water distribution systems has good hydrant flow capacities and operating pressures within the recommended ranges. With the model, the engineer can run accurate hydraulic modeling based on different development scenarios, allowing the City to evaluate and plan more efficiently for potential impacts to the distribution system.

WASTE WATER SYSTEMS

The mission of the City of Box Elder's waste water division is to ensure wastewater is efficiently transported to the treatment plant for processing and maintaining the collection system to improve longevity while also reducing operating costs.

The City of Box Elder transitioned from a four cell lagoon treatment system to a new treatment plant in 2014. The new Wastewater Treatment Facility is owned by the South Dakota Ellsworth Authority (SDEDA) and is divided into two allocations; one for Ellsworth Air Force Base and the other for the City of Box Elder. As of 2024, the City is at 30% capacity of their "allocated capacity". The City pays a fixed capital cost and a variable operation and maintenance cost based on gallonage. The Water Treatment Facility was designed as a modular system so can be expanded as demand requires. If the City's growth exceeds the plant's capacity, the City will be responsible for the plant's expansion costs.

Repairs to the sanitary sewer system are ongoing but have indicated signs of success - City accounts have gone up, but flows have gone down because Public Works has been able to isolate and fix infiltration and infill issues.

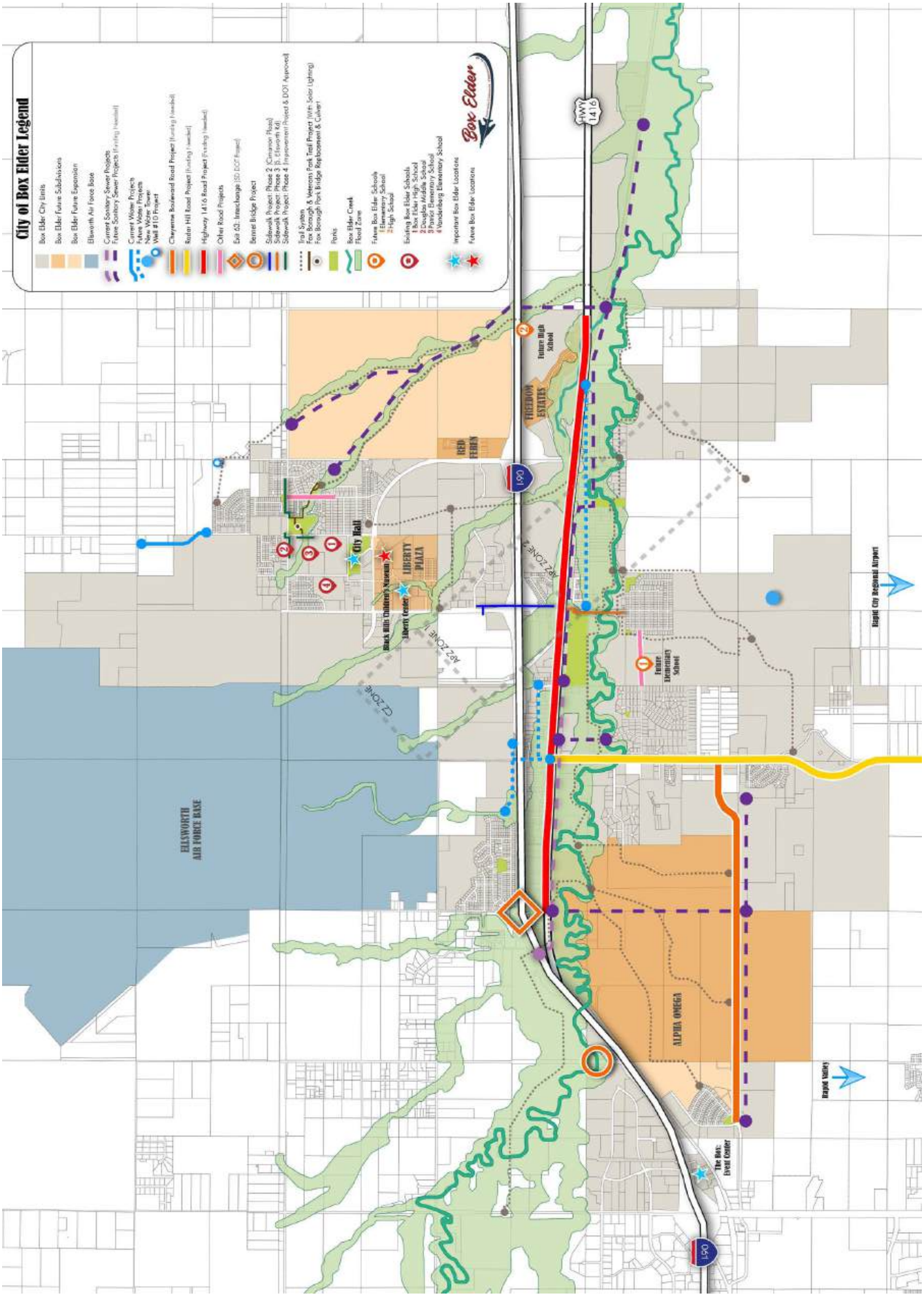


Figure 4: City of Box Elder Future Improvements Map

Planning

Sanitary sewer system improvements to increase capacity or expand the system are under construction or in planning; including sewer construction along the future Cheyenne Boulevard extension, Highway 1416, and 151st Street. They primarily include sanitary sewer infrastructure necessary for the development of the Alpha Omega subdivision and predicted future development in the northeast quadrant of the community (see the CIP map).

The creation of a wastewater model is planned for 2025. This model will allow the city to access real-time data about the capacity of the system and test the system for impacts of proposed development.

STORM WATER SYSTEMS

Box Elder receives an average of 20" of precipitation per year with most falling in the spring and early summer. Naturally occurring drainages throughout the community with active or remnant agricultural ponds flow toward Box Elder Creek which absorbs the community's storm water. Box Elder's Storm Water drainage system is a combination of underground and surface conveyance, with underground systems occurring in most new developments and systems of connected "green infrastructure" (ditches and culverts) in older neighborhoods.

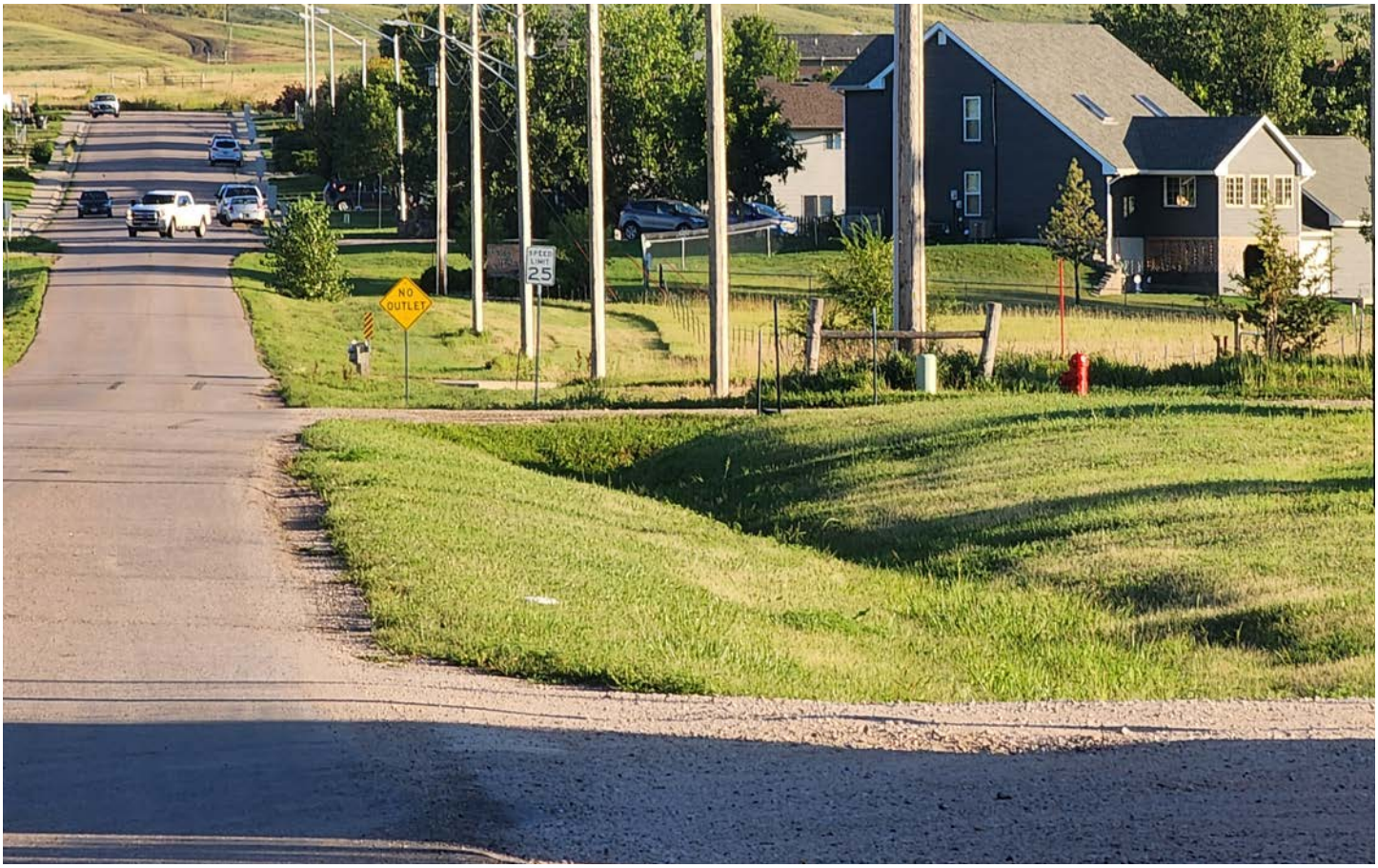
As development continues, increased impermeable surfaces will impact the capacity of the system to absorb peak storm flows which may increase flood risk. Measures are being implemented to reduce health and safety impacts of flooding events, including the purchase of floodway properties by the City of Box Elder, redesign of Hwy 1416 to manage flood waters and reduce flooding in the Thunderbird neighborhood, and enacting standards requiring new developments to meet pre-development outflow rates.

The City of Box Elder Parks and Open Space master plan proposes maintaining and protecting the community's rural drainage system to the extent practicable including swales and ditches, natural drainages, and agricultural ponds to manage the City's storm water. These types of systems not only reduce peak storm flows, but they clean and infiltrate storm water, recharging aquifers and contributing to the overall health and resilience of the drinking water system. In regions that depend on aquifers for a safe abundant supply of drinking water, aquifer health is inextricably linked to proper storm water management.

Planning

In public engagement for this Comprehensive Plan and the Parks Master Plan, the community clearly identified the rural or small town character as a critical part of identity of Box Elder. The wide ditches adjacent to narrow streets with no curb and gutter contribute to the overall rural or small town feeling. Generally this requires a larger lot size and streets are shared by all users, pedestrian and vehicular. Underground stormwater management is required by ordinance for most new development areas allowing a smaller lot size with fully developed curb and gutter and sidewalk systems. Future planning should consider the balance between multiple competing issues when planning stormwater facilities including; cost of construction and maintenance of underground storm water management vs surface conveyance, cost of land development, community identity, watershed and aquifer health, and flood control.

The City plans to start a Hydrology and Hydrolics study in 2025 to generate an overall understanding of stormwater flows and identify issues and generate data to support more robust ordinances and design standards.



Typical surface storm water conveyance

Typical curb and gutter systems in new neighborhoods

OTHER UTILITIES

Residential solid waste management is contracted with Sanders Sanitation and billed through utility bills. Commercial facilities may contract with other solid waste management services.

The community is generally served well by broadband service with fourteen residential internet service providers: 4 fiber optic, 1 cable, 1 DSL, 3 cellular, 3 satellite, and 2 low availability providers resulting in 80%-100% coverage of the community.

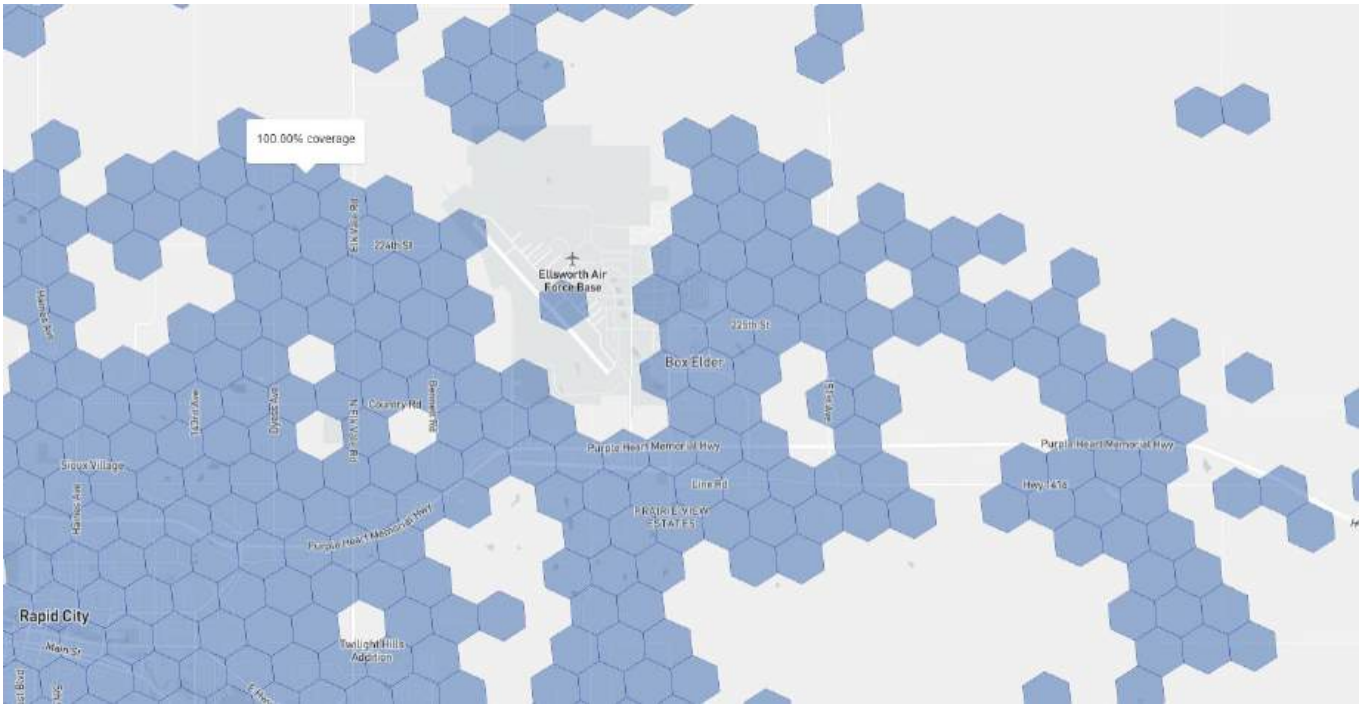


Figure 5: Internet Service Coverage; FCC National Broadband Map

Electrical service is provided by two utilities; Black Hills Energy and West River Electric Association. Electrical energy generation for Black Hills Energy is from coal plants, state-of-the-art natural gas-fired generating station and wind energy projects. West River Electric Association energy comes from coal-fired power plants in North Dakota and Wyoming, hydroelectric dams on the Missouri River and a peaking plant in Vermillion, South Dakota, wind turbines, natural gas fired turbines, nuclear and waste heat recovery units.

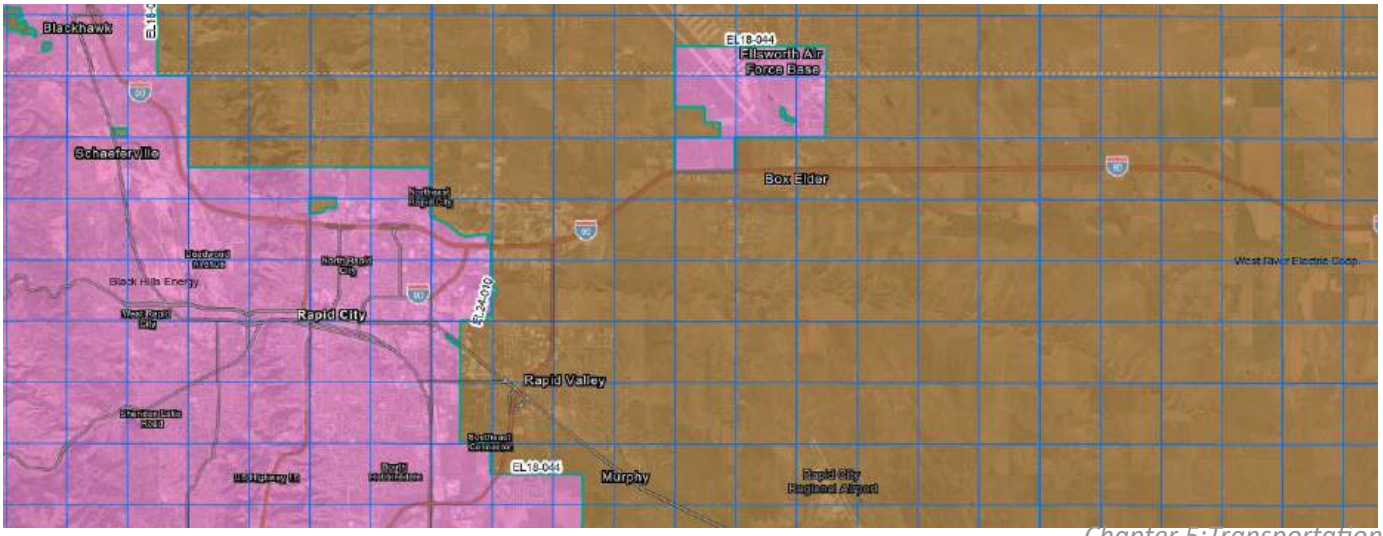


Figure 6: Electrical Service Areas

PUBLIC UTILITY GOALS

Public Utility Infrastructure Goal: Accurately Plan for Current and Future Needs

Provide high quality, reliable, and efficient public utility services to the Box Elder community.

Each Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

PU1 Calculate, forecast, and plan for needed investments in public utility systems to meet the needs of the community into the future.

PU1.1 Design and maintain accurate maps, models, and studies of water, wastewater, and storm water systems.

PU1.1a Continue to update the Facility Plan for Water Supply and storage system every five years, incorporating data from accurate water system models.

PU1.1b Develop a City-wide waste water map or model that included piping sizes and locations, valves, etc.

PU1.1c Develop a City-wide storm water management plan using up to date storm sewer mapping and Hydraulics and Hydrology studies.

PU1.2 Review and prioritize critical infrastructure projects that are necessary to maintain the required level of service to residents, while also anticipating the needs of new development.

PU1.3 Modernize and upgrade utility infrastructure to meet anticipated capacity needs, improve service delivery, and improve public health.

PU1.4 Create and maintain detailed infrastructure maintenance and replacement schedules and reflect prioritized projects in the CIP.

PUBLIC UTILITIES

PU2 Ensure that public utility services are efficient, equitably distributed, and self sustaining.

PU2.1 Review impact or service fees on an annual basis to ensure that appropriate percentages of infrastructure costs are borne by private developers.

PU2.2 Review utility rates annually to determine potential increases or decreases in fees.

PU2.3 Engage the public on issues related to public utility infrastructure to ensure customer satisfaction and understanding of rates and rate adjustments. Engage the public in reducing water use through conservation, reclamation and drought-management programs.

PU2.4 Maintain regular communications with other public utility providers and stakeholders to respond efficiently to utility infrastructure issues.

PU2.5 Maintain membership in the Western Dakota Regional Water System

PU3 Incentivize Best Practices Community-wide

PU3.1 Identify best practices for development that reduce the impact on public infrastructure and facilities use. For example, infill development has a lower impact on public infrastructure than development that requires the extension of utility systems.

PU3.1 Incentivize best practices by offering impact fee reductions for employing identified best practices for public infrastructure, including water use efficiency, storm water management, energy efficiency, etc.

PARKS & OPEN SPACE

07

PARKS & OPEN SPACE 07

This Comprehensive Plan section follows the recommendations of the 2022 Parks and Open Space Master Plan. The Master Plan, published in 2022, included a six-month public engagement process and helped to frame the community's identity as a basis for Comprehensive Plan public engagement.

PARKS AND OPEN SPACE MASTER PLAN

The 2022 Parks and Open Space Master Plan is a comprehensive guide for improving Box Elder's parks and trails system through the next ten years. The Plan provides a new vision for outdoor recreation, trails, and community facilities based on a strong, unique community identity and outlines the steps to achieve that vision.

Primarily focused on Parks, Trails, and Recreation Facilities, the plan also touches on how these elements connect to community streets, streetscapes, cultural facilities, school facilities, and other development in the area. Each of these elements grows and is managed separately with separate purpose, mission, and vision. As a whole, they create the feeling of place and sense of shared community of Box Elder.

The plan serves different purposes, depending upon need:

- To develop a long-range vision
- To determine residents' needs and priorities
- To validate existing facilities and programs
- To accommodate changing trends in recreation
- To update capital improvements programs
- To update the comprehensive plan
- To build consensus regarding appropriate level(s) of service (LOS)
- To form community partnerships
- To develop phasing, funding and/or implementation strategies
- To provide a basis for grants, bonds and/or other implementation initiatives

The City of Box Elder has a rare opportunity that many communities never get; to plan parks, trails, and open space BEFORE the community is fully developed with a good idea of how and when the community will become fully developed. Recognizing this opportunity and taking advantage of the timing is the basis of the kind of practical innovation that characterizes this community. This is the kind of opportunity that defines cities; Boston's Emerald Necklace, the Minneapolis Grand Rounds, even the Rapid City's Greenway Trails.

Box Elder still has the undeveloped open space that can connect parks and community destinations throughout the community with trails, overcome the I-90 to Box Elder Creek corridor barrier, and provide ancillary benefits like reducing future flood impacts.

Strategies to implement innovation in parks, open space and the trail system include:

- Reconnecting the community with trails by taking advantage of existing and planned utility infrastructure projects and how the Box Elder Creek flood way is the connective heart of all community trails.
- Expanding the use of green infrastructure, sustainable technology, shared streets, and Low Impact Development principles for safer streets, to save money, and build in more natural disaster resilience.
- Developing inclusive parks that contribute to the health and wealth of the community and help create "Opportunities for All".

Heritage

Box Elder grew from, and still maintains, a rural heart. This is unusual in that the spaces literally in the center of town are still used for agricultural purposes. That character appeals to residents. Driving past the farm, past the horses and cows reinforces the idea that residents live in wide open spaces. Narrow roads and streets where you stop to talk to your neighbors as they're walking down the center of the street reinforce the sense of community cohesion.

Parks, recreation facilities, trails, and open space are all part of retaining and enhancing this part of Box Elder's unique character and identity.

Mission

Deeply influenced by Ellsworth Air Force base, Box Elder residents feel responsibility for a greater mission. The way that emerges is through a focus on families; by the Air Force Base with Military and Family Support Center; in the school district as they accommodate this unique population; and at the City with regular community events that invite new residents to get to know their neighbors and community.

Part of Box Elder's specific purpose is to be a friendly, comforting, and safe hometown - its unstated mission is to provide service men and women and their families with great places and activities.

Strong Community

The City's investments in The Box, supporting the Liberty Center development, planning for the Black Hills Children's Museum, undertaking a new Comprehensive Plan, and a multitude of other projects shows that the community wants growth to support building strong community connections and ties.

Creating a sense of community ties and cohesion is particularly challenging with the transient military population. In response, the City has taken the lead on event programming and regular community gatherings. These events have become critical to building a strong sense of community. The City often includes community-building activities into these events, like opportunities for residents to comment on current initiatives.

BOX ELDER CHARACTER: HERITAGE, MISSION & STRONG COMMUNITY

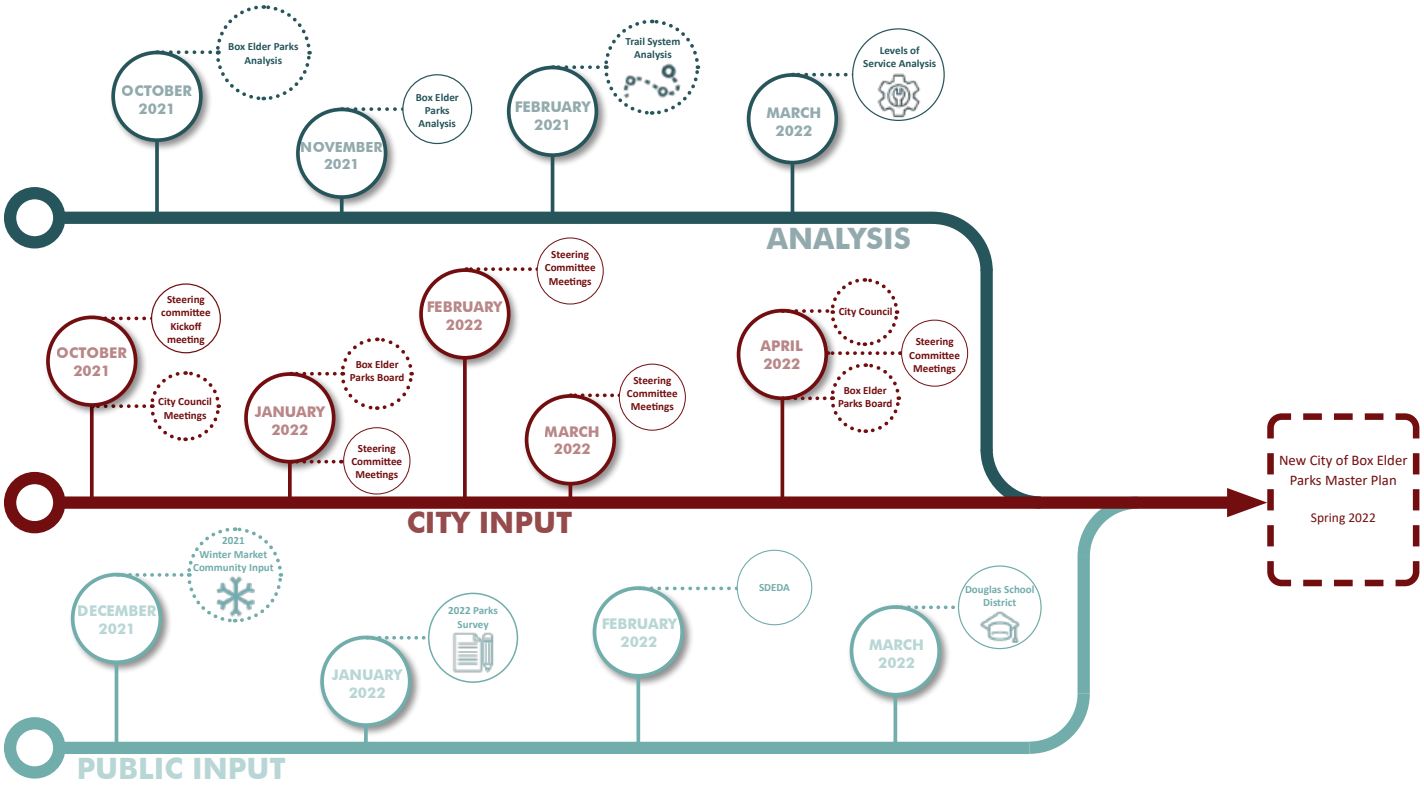
Part the Parks and Open Space Master Plan effort was to help identify Box Elder's unique character through community engagement and develop that unique character in the master plan.

Through the community engagement process core principles to Box Elder's community identity emerged: Heritage, Mission, and Strong Community.

Agriculture is an important part of South Dakota heritage. One of Box Elder's unique characteristics is that agriculture remains at the heart of the community. Subdivisions abut pastures with grazing cattle on nearly all sides of the community. Because much of this Ag Zoned property is in the Box Elder Creek floodway other types of development are restricted preserving this unique characteristic.

Ellsworth Air Force Base remains an inextricable part of Box Elder's character. For military community members it is where they work, play, shop, and socialize. It is a primary driver of the local and regional economy. It is a source of new residents to the entire region. And it is an enormous source of pride for the community. Core to that pride is an overall feeling of serving a greater mission - as a country and as a community.

Box Elder has strong community organizations that are attending to the social aspects of community-building. Between the City of Box Elder, Douglas School District, Ellsworth Air Force Base, and local clubs and organizations, community involvement opportunities abound; seasonal festivals, community movie nights, events to honor and care for service people and their families, car shows, air shows, and the list goes on. Even with lacking facilities, Box Elder is a strong family oriented community identity that shines through.



Box Elder Parks and Open Space Community Engagement Process Map

PARK
LEGEND
1 WATCHEE PARK
2 TRAIL CONNECTION TO WATCHEE PARK
3 EXISTING TRUE TREE
4 DRAINAGE CHANNEL
5 NEW PLANTINGS
6 BRIDGE
7 TRAILS
8 CREEK
9 FUTURE DEVELOPMENT
RUHE LANE

PARK
LEGEND
1 PARKING LOT
2 PLAYGROUND
3 PLANTING BEDS
4 DRAINAGE CHANNEL
5 NEW TREE PLANTING
6 BRIDGE
7 DRAINAGE PAN
8 SHELTER
9 SIDEWALK

PARK
LEGEND
1 PARKING LOT
2 PLAYGROUND
3 PLANTING BEDS
4 NEW TREE PLANTING
5 DRAINAGE PAN
6 SHELTER
7 OPEN LAWN
8 EXISTING PLANTS
9 SEATING

PARK
LEGEND
1 PARKING AREA
2 PLAYGROUND
3 PLANTING BEDS
4 NEW TREE PLANTING
5 DRAINAGE AREA
6 SIDEWALK
7 RETAINING WALL
8 STEPS

FRONT ST
ELM ST
ASH ST
RUHE LN

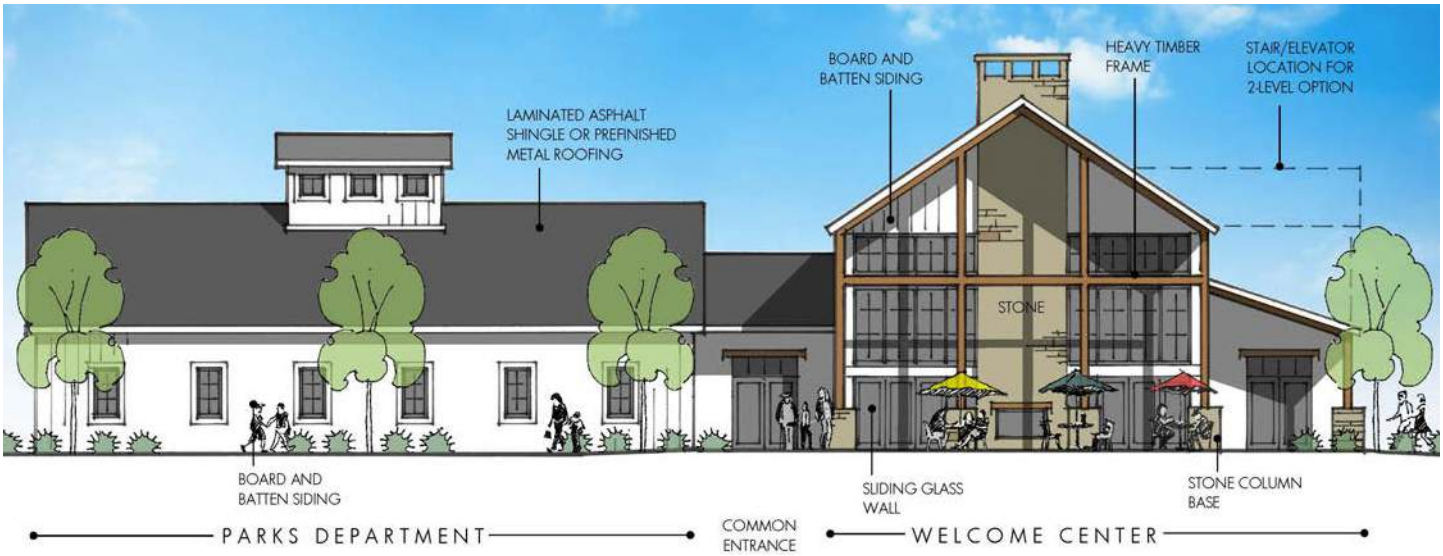
PARKS MASTER PLAN

The Parks Master Plan provided updates to all current community parks and laid out a vision preserving the Box Elder Creek Greenway for flood protection and as the core of Box Elder's connected parks and trails system.

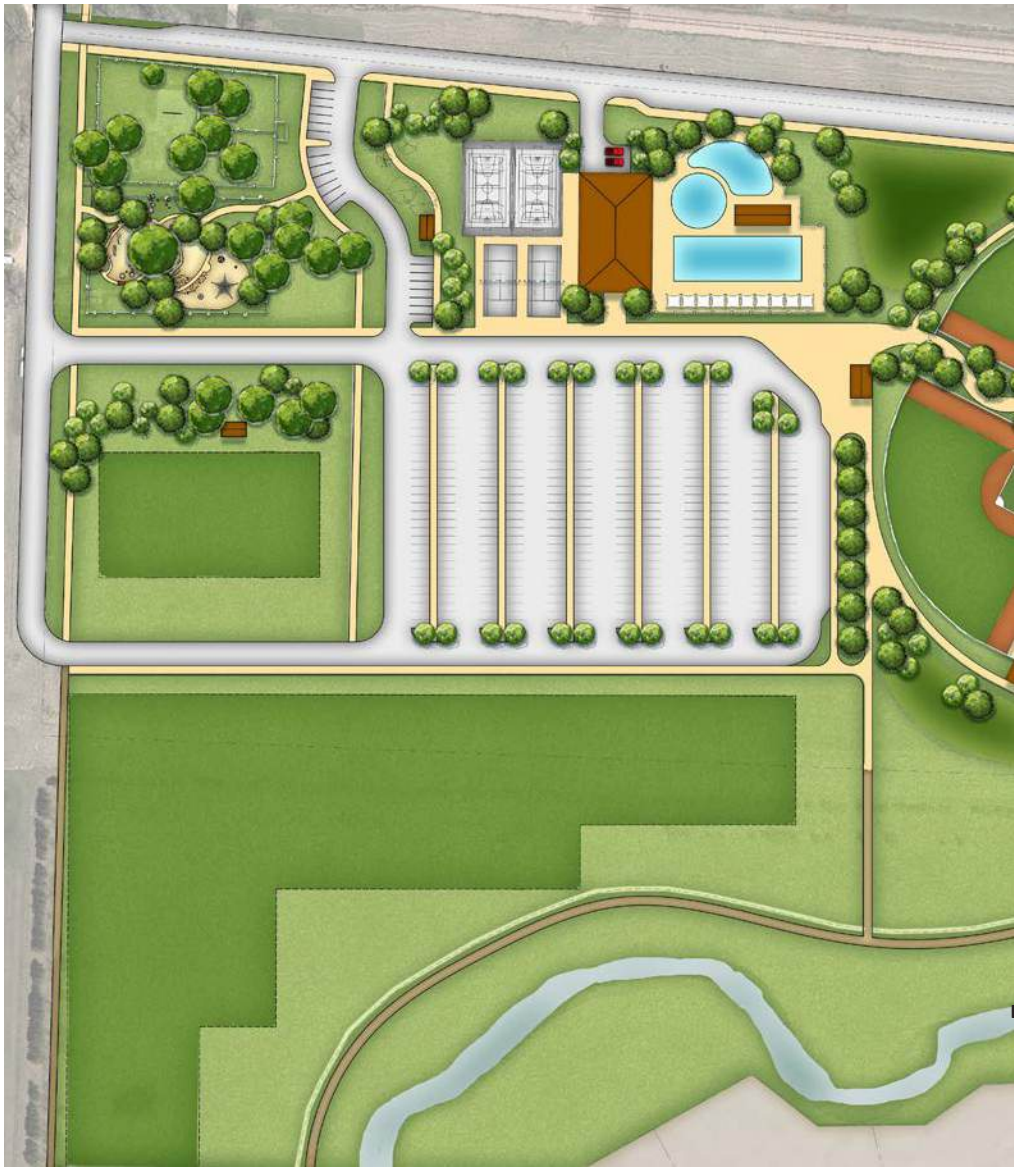
The Box Elder Creek Greenway would connect Community Park to Vucurevich Park with potential for additional parks to be developed along the Greenway, including a BMX / Bicycle Skills Park, a neighborhood park and playground at the end of Sunnydale Road, and an expanded Community Park that incorporates the land between the current park and Box Elder Creek. Expanding Community Park to the creek will open space for soccer fields, playgrounds, and potentially a recreational pond that could also provide water holding capacity from Community Park stormwater runoff.

The Greenway would also connect via drainage easements to parks south of Box Elder Creek. The Watchee Park connection is shown in the example below.

Because this corridor has limited development potential because of the flood plain and APZ, parks and recreation spaces are a good fit for land use. Additional opportunities include expanding community gardens, camping facilities, equestrian facilities, and redundant sidewalks and trails.



- (A) EVENT CENTER / PARKS DEPARTMENT BUILDING
  - (A1) STAGE
  - (A2) FOOD COURT WITH FOOD TRUCK PARKING AND TABLES & CHAIRS / WINTER SKATING RINK
  - (A3) STRING LIGHT EVENT SPACE
  - (A4) "FRONT PORCH"
  - (A5) SPLASH FOUNTAIN
  - (A6) SHADED SEATING
  - (A7) LAWN
  - (A8) EVENT LAWN
  - (A9) PORT-O-LETS OR SALES TENTS
  - (A10) SECURE LOADING / PARKS DEPARTMENT YARD
  - (A11) FLIGHT VIEWING AREAS
  - (A12) HERITAGE PARK PLAYGROUND
- (B) LITTLE LEAGUE COMPLEX
  - (B1) RESTROOMS / CONCESSIONS / ANNOUNCING
  - (B2) BATTING PRACTICE BUILDING
  - (B3) BULL PEN
  - (B4) TICKETING / INFORMATION
  - (B5) PICNIC SHELTER
  - (B6) SMALL PLAYGROUND
- (3) RECREATION CENTER COMPLEX
  - (C1) OUTDOOR POOLS
  - (C2) SHADED SEATING
  - (C3) BASKETBALL COURTS
  - (C4) PICKLEBALL COURTS
- (4) DOG PARK
- (5) NATURE PLAYGROUND
- (6) PICNIC SHELTERS

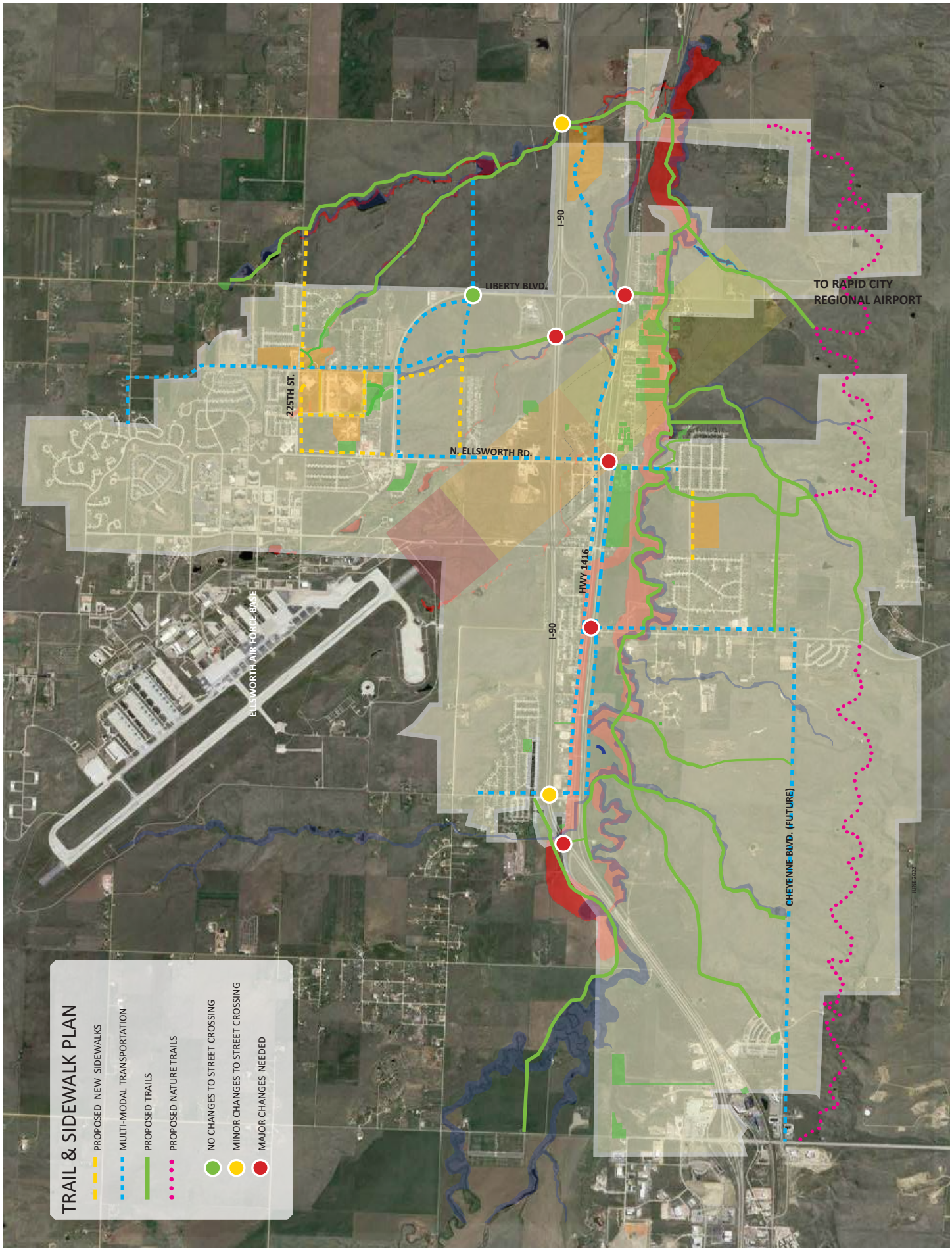


COMMUNITY PARK

Community Park is intended to be jewel of the Box Elder parks system. It will be the center of outdoor community life and express community identity through the amenities and style of the park. The park is the hub around which the rest of the park system revolves - all connected through the Box Elder Creek Greenway and trails that extend throughout the community.

Community Park is a large community park with an events complex, baseball and softball complex, aquatics complex, and multiple other community amenities including a dog park, nature playground, large regional playground, multipurpose sports fields, splash pad, food truck court, pond with fishing areas, trails throughout the park, and parking to support the full facility.

The events complex would include a 4,600 sf events building with a splash pad and food truck courts near the entrance, a large outdoor performance stage, amphitheater for 5,000 event attendees with VIP tent areas, and a trail with viewing platform of the EAFB flight line.


TRAIL & SIDEWALK PLAN
PROPOSED NEW SIDEWALKS
MULTI-MODAL TRANSPORTATION
PROPOSED TRAILS
PROPOSED NATURE TRAILS
NO CHANGES TO STREET CROSSING
MINOR CHANGES TO STREET CROSSING
MAJOR CHANGES NEEDED
ELLSWORTH AIR FORCE BASE
225TH ST.
LIBERTY BLVD.
N. ELLSWORTH RD.
I-90
HWY 1416
I-90
CHEYENNE BLVD. (FUTURE)
TO RAPID CITY
REGIONAL AIRPORT

BOX ELDER CREEK GREENWAY

The Box Elder Creek Greenway is intended to engage the community with its main open water resource and act as the main connective tissue of the Box Elder trails system. Starting about at the intersection of I-90 and Hwy 1416, the Greenway follows the creek to the Spruce Drive /Liberty Boulevard. The trail could eventually expand west of I-90 to connect to Rapid City's Dakota Fields and east to the Sunset Ranch subdivision. Trail spurs extend into the neighborhoods of north and south Box Elder along the mostly undisturbed natural drainage ways.

The trail is proposed to be a wide paved walking and biking trail. It will be located within the floodway above the top of bank and set back from the top of bank to reduce the risk of eventual undercutting by the meandering of the creek. The Greenway should be fenced to protect private property along the creek.

The creation of the Box Elder Creek Greenway is a long term strategy of property purchase and / or easement negotiation along the entire length of Box Elder Creek within city limits.

BOX ELDER TRAILS AND SIDEWALKS

The Box Elder Trails and Sidewalks plan is a comprehensive multi-year non-vehicular transportation plan that will reconnect the north and south sides of Box Elder.

Trails follow water in this plan - from the Box Elder Creek Greenway, naturally occurring drainages extend like fingers to the edges of the watershed and reach through every area of potential future development in the City.

In addition to drainages and waterways, trails are located on existing utility easements. In these instances, easements have already been established so would be logical trail locations. Future trails can be planned along with utilities where the locations coincide; for instance, a trail running along the drainage between Veteran's Park and the 151st Avenue underpass is also a logical location for a new sanitary sewer line that eliminates the pump station at Veteran's Park and serves the new development planned east of Liberty Boulevard.

I-90 remains a significant barrier to the completion of the trails system. The trail plan identifies locations where sidewalks or trails cross I-90 and the level of change that will be required to complete those crossings.

New sidewalks are proposed throughout the community, with priority placed on sidewalks around school district properties and along busy student walking routes. New sidewalks are also prioritized AROUND the edges of neighborhoods. These sidewalks are generally along collector or arterial streets where pedestrian and bicycle use of the roadway is unsafe. The planned SDDOT STIP Project sidewalk is noted and is a critical sidewalk connection on a main thoroughfare.

Future sidewalks are indicated in known locations of future streets, such as the Cheyenne Boulevard extension to Radar Hill Road.

PARKS & OPEN SPACE GOALS

Parks and Open Space Goal: Celebrate Community Identity Through Shared Public Spaces

Lay the groundwork for a large connected parks, open space, and trails system.

Each Parks and Open Space Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

P1 **Identify and preserve open space community-wide for connected trails, future parks, and natural resource management.**

- **P1.1** Continue to purchase properties in the floodway to preserve them for use for the public benefit. Develop lands for parks, trails, and open space where it does not conflict with AICUZ Guidelines.
- **P1.2** Purchase or otherwise preserve natural drainage features through ordinances and policies including requirements for property development adjacent to natural drainage features (setbacks, stormwater ordinances).
- **P1.3** Create a Parkland Donation and Payment-In-Lieu of Parkland ordinance to require developers to incorporate park land and trail connections into developments.
- **P1.4** Explore enacting Park Impact Fees (PIFs) to help pay for park and trail construction and improvements

P2 **Coordinate and update planning documents on a regular basis.**

- **P2.1** Coordinate trail and sidewalk connectivity with other chapters during planning, particularly Transportation and Infrastructure Plans.
- **P2.2** Review the Parks and Open Space master plan annually and update as needed to adapt to changing community needs and opportunities and reflect implementation items that have been completed.

P3 **Enhance core community character through Parks and Open Space.**

P3.1 Consider policies to preserve agricultural use of properties that are unsuitable for other uses. This may include properties that are in the floodplain and are impacted by AICUZ compatible uses. Ensure that ordinances allow these uses.

P3.2 Incorporate connections to EAFB in Park, trail, and sidewalk planning.

P3.3 Incorporate opportunities to build community connections in parks and open spaces, including places for large community gatherings or activities, rentable community spaces for parties and weddings, sports facilities and other social settings outside of work, school, or home where people can socialize.

P3.4 Continue to expand City-planned community events. As EAFB grows, the transitory population will increase making these community touch points even more critical to ensuring that active duty military and their families feel a strong sense of belonging in the community.

P4 **Coordinate with other agencies on collaborative opportunities to expand parks, open spaces, sidewalks, and trails.**

P4.1 Coordinate with SDEDA on potential community benefit uses of SDEDA owned properties.

P4.2 Open regular lines of communication with the South Dakota Department of Transportation about current I-90 corridor planning and opportunities to provide underpasses or other opportunities to connect North and South Box Elder via trails.

P4.3 Continue to monitor grant opportunities to help fund parks, trails, and recreational facilities. Take advantage of opportunities like walk audits that will help boost grant application success.

PUBLIC HEALTH & SAFETY

08

PUBLIC HEALTH

Public Health in small communities typically addresses disease prevention and promoting health, including preventative care, health education, community engagement, telehealth / technology optimization, and addressing mental health issues.

As Box Elder grows it can expect to contend with all of these issues and, in addition, health care issues specific to being a military community. Military service members and veterans may face many health issues and risks that civilian populations encounter less frequently. Common military health issues include chronic pain, sleep disorders, and mental health disorders. Service members also are at higher risk for various types of injuries such as sprains and strains, back and shoulder injuries, tinnitus and hearing loss, head injuries and traumatic brain injuries, shrapnel and gunshot wounds, and loss of limbs.

The City of Box Elder enjoys close proximity to high quality health care in adjacent Rapid City, including hospital care, emergency services, and specialty medical services, but currently lacks local medical, dental, mental health, or vision services within the community. A new Monument Health Urgent and Primary Care facility in Box Elder is expected to be open and serving the community in summer 2025. Access to medical care and understanding and responding to public health issues is likely to be an emerging issue that may impact City resources.

The 28th Medical Group (MDG) on Ellsworth Air Force base provides outpatient medical care to active-duty members, retirees and their families. They provide a wide array of services and programs, including family health clinic, women's health clinic, optometry clinic, dental clinic, flight and operational medicine clinic, physical therapy clinic, health promotion office, mental health and public health clinic. The 28th MDG does not have an emergency room. Ambulance services are available 24/7 for in-flight emergencies, emergencies on base and emergencies requiring transport from the base or the 28th MDG to Monument Health Hospital.

Meade and Pennington County both offer community health services and Pennington County maintains a WIC office at Ellsworth Air Force Base. Veterans can access health care at the Rapid City VA Community Based Outpatient Clinic or the VA Black Hills Health Care system at Fort Meade in Sturgis or in Hot Springs. To better understand and treat the health needs of veterans in the future, the Veterans Administration created the Million Veteran Program (MVP). This research program is looking at how genes, lifestyle, military experiences, and exposures affect health and wellness in veterans.

The Oyate Health Center in Rapid City serves tribal members of the community. New medical facilities minutes from Box Elder are also being planned at East Mall Drive and East North Street and at East Mall Drive and Dyess Avenue.

The South Dakota Department of Health delivers a wide range of public health programs to prevent disease, promote health and ensure access to needed, high-quality health care in locations by county. Pennington County Public Health Nurse and WIC office is located in Rapid City, fairly accessible to Box Elder on Mall Drive.

Future focus on medical care should include those types of care that the community lacks - dental, vision, and mental health services. The City of Box Elder should coordinate with regional health care providers, Ellsworth

Air Force Base, the SD Department of Health, and other entities to track local and regional public health issues and trends, particularly as it relates to military service.

LAND USE PLANNING AND PUBLIC HEALTH

Land use planning and urban form has a significant impact on public health and safety.

Walkable communities with mixed land uses, higher density connected street networks, rich physical activity resources, and pedestrian-friendly designs have been linked to increased physical activity in daily routine. According to the Federal Highway Administration, 8% of pedestrian deaths occurred while walking alongside the roadway. Providing separated walkways for pedestrians dramatically increases pedestrian safety, preventing up to 88% of these types of incidents.

Parks are an increasingly valuable, cost effective public health resource that can help support better mental and physical health outcomes for communities. According to the Center for Disease Control "People who have more access to green environments, such as parks and trails, tend to walk and be more physically active than those with limited access. The closer people live to a park and the safer they feel in the park, the more likely they are to walk or bike there and use it for physical activity. Parks and trails that are well-designed offer many benefits. They provide a place where people can be physically active to reduce stress, which can improve their mental health. They also provide a place where neighbors can meet, which improves community connections. Parks can provide environmental benefits by reducing air and water pollution and mitigating urban heat islands. They help people reduce their risk of illness and injury by providing safe spaces to play and exercise away from busy streets and commercial zones."

Access to healthy foods is a crucial component of public health. According to the Center for Disease Control, "Community gardens increase access to and availability of healthy food, and fruit and vegetable consumption is higher among adults who participate in community garden projects than those who do not, in both rural and urban areas. Physical activity levels are also higher among community gardeners, because the work done in gardens constitutes moderate-to-high physical activity. Furthermore, people who garden have lower body mass indexes than those who do not, probably because of the diet- and physical activity–related benefits of gardens and gardening. Connecting and interacting with nature itself has many health benefits, and the benefits of community gardens go beyond improving diet, physical activity, and weight outcomes. Numerous social and emotional benefits of community gardening have been documented, including social interaction, strengthened family relationships, community building and engagement, and greater life satisfaction."

The Box Elder Parks and Open Space Master Plan provides goals for a comprehensive, connected sidewalk and trail system, robust parks and recreation facilities, and space to develop community gardens. Supporting and implementing the Box Elder Parks and Open Space Master Plan goals for a comprehensive and connected sidewalk system, trails and sidewalks separated from roadways, and robust parks and recreation facilities, and community gardens should be part of the public health strategy of the City of Box Elder.

BOX ELDER POLICE DEPARTMENT

The Box Elder Police Department's organizational values are Pride, Integrity, and Community and its mission is to provide the highest quality of professional law enforcement service by working in partnership with the community to improve the quality of life, while at the same time maintaining respect for individual rights and human dignity.

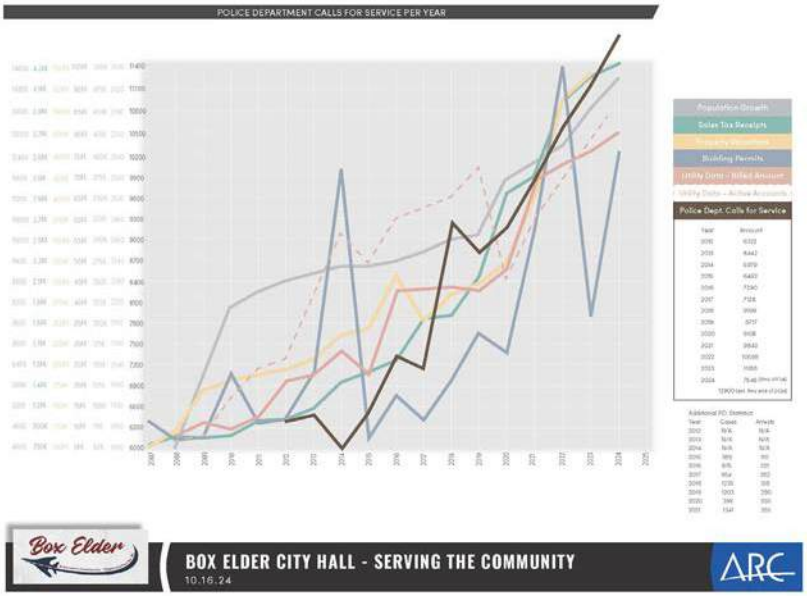
The Department recognizes the value and importance of its employees and will ensure that all employees are treated equitably and fairly. The Department is committed to providing its members with quality leadership, training and the equipment necessary to perform its mission.

The Department is committed to a rapid and effective police emergency response to all calls for service along with high quality follow-up investigations, case preparation, and maximizing the percentage of case closures.

The Box Elder Police Department (BEPD) is currently comprised of thirty sworn and civilian staff. Those staff make up three divisions, Patrol, Criminal Investigations, and Administration. The patrol division, led by three sergeants, serves the community around the clock, and works collaboratively with the surrounding agencies to answer over ten thousand calls for service each year. The criminal investigations division, led by one sergeant, is responsible for the investigation of all serious crimes and potential criminal activity. A school resource officer is also a member of the criminal investigations team and works in a multi-agency team within the Douglas School District. The administration division is comprised of the Chief of Police, Assistant Chief of Police, and non-sworn administrative support staff. Pennington County provides dispatch services through a consolidated Emergency Services Communication Center located in Rapid City. Jail services are provided by the Pennington and Meade County Sheriff's Offices. Calls for service to the Box Elder Police Department have increased an average of 8.2% in the past 10 years.

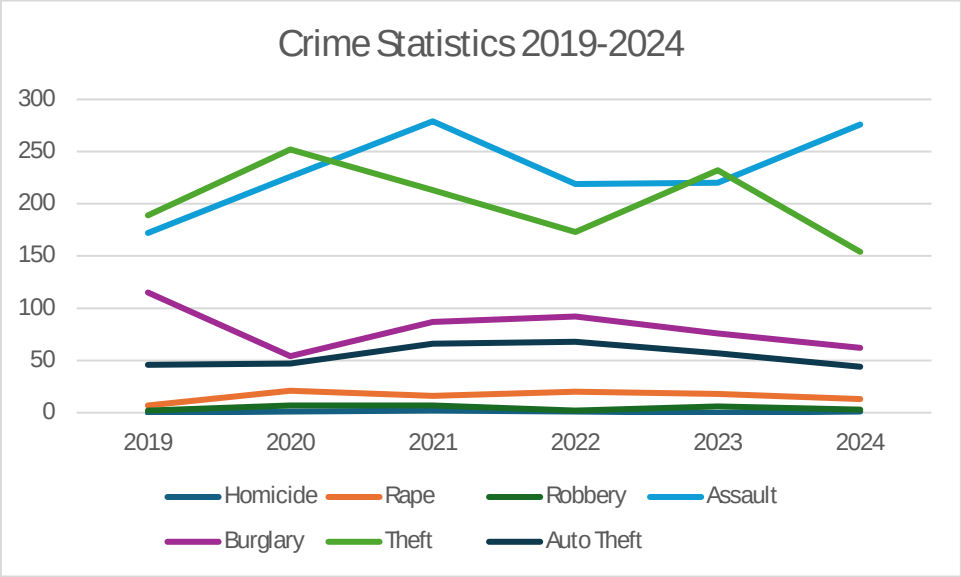
Year	Calls for Service
2012	6,322
2013	6,442
2014	5,979
2015	6,492
2016	7,290
2017	7,128
2018	9,199
2019	8,717
2020	9,105
2021	9,849
2022	10,588
2023	11,188
2024	12,900 (estimated)

* statistics & graphic provided by ARC International



Over the past year, the Box Elder Police Department's overall part-one index crimes decreased by 56, but there is an overal increase in index crimes since 2019 of 1.45%. Part-one index crimes are a set of eight serious crimes that include murder, aggravated assault, forcible rape, robbery, motor vehicle theft, burglary, larceny/theft, and arson. This rate is not expected to continue to decline due to the current economic, criminal activity,

and community growth trends. Despite the relatively low increase in index crimes, the Department's overall workload has risen by nearly 6%. Factors for the calls for service include an increase in domestic violence calls, illegal drug cases, property crimes, medical calls, and traffic accidents due to increased vehicular volume. Also, petty stealing cases continue to increase due to reported shoplifting at various retail establishments.



Strategic Planning

The Box Elder Police Department is currently developing a strategic plan that will help guide Police Services, Traffic Management, Personnel Development, Technology Development, and Capital Improvements through 2029. The Strategic Plan offers a systematic approach to establishing priorities, viewing community problems holistically, defining specific goals, coordinating and communicating with all those involved in bringing about needed changes and implementing specific strategies. The Comprehensive Plan Public Safety Goals are aligned with the Goals and Objectives of the Strategic Plan.

In the Strategic Plan, the Box Elder Police Department embraces the Community Policing and Problem Solving (COPS) philosophy as opposed to Problem-Oriented Policing (POP). Community policing is a philosophy that promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime. Community policing comprises three key components:

1. ***Community Partnerships*** between the law enforcement agency and individuals and organizations they serve to develop solutions to problems and increase trust in police.
2. ***Organizational Transformation,*** which is the alignment of organizational management, structure, personnel, and information systems to support community partnerships and proactive problem solving.
3. ***Problem Solving***, which is the process of engaging in the proactive and systematic examination of identified problems to develop and evaluate effective responses.

Data supporting the COPS philosophy includes evidence showing that when police actively engage with communities, build trust, and work collaboratively to identify and address underlying issues causing crime, it can lead to significant reductions in crime rates, improved community safety perceptions, and increased citizen cooperation with law enforcement. The Box Elder Police Department believes that the most effective way of reducing crime problems is through community policing partnerships that involve residents and police personnel working together to solve neighborhood problems.

Challenges, Needs, and Goals

Due to the steady increase in service calls the Box Elder Police Department anticipates needing to grow as the community grows to be able to effectively provide necessary services. Workloads are anticipated to increase substantially over the next five years requiring additional sworn officers and administrators to respond to the population and workload increase.

New police facilities will likely be required to house additional staff and equipment. There is potential need to expand the existing Police Department Facility at City Hall as well as adding two police sub-stations in geographically distributed locations throughout the community. This distribution would not only help house increased staff, but would decrease response times for service and could increase officer visibility and neighborhood engagement in line with COPS philosophy goals.

The Box Elder Police Department is committed to pursuing its CALEA (Commission on Accreditation for Law Enforcement Agencies) accreditation. CALEA accreditation provides a framework for continuous improvement for law enforcement agencies and is a commitment to community safety by meeting nationally recognized best practices in law enforcement operations. Law enforcement agencies benefit from CALEA accreditation through increased accountability, improved community relations, enhanced professionalism, better management practices, greater public trust, and potential cost savings.

BOX ELDER VOLUNTEER FIRE DEPARTMENT

The Box Elder Volunteer Fire Department was created in 1965. The taxable fire district has been in place since the later 1980's or early 1990's to help with the cost of equipment and the building. It has been a "combination" department since August of 2018, meaning that there is a combination of paid staff and volunteers. They currently have 2 paid positions during the day seven days a week to cover lower level calls, take care of buildings and equipment, and complete reports. They have a volunteer staff of 25.

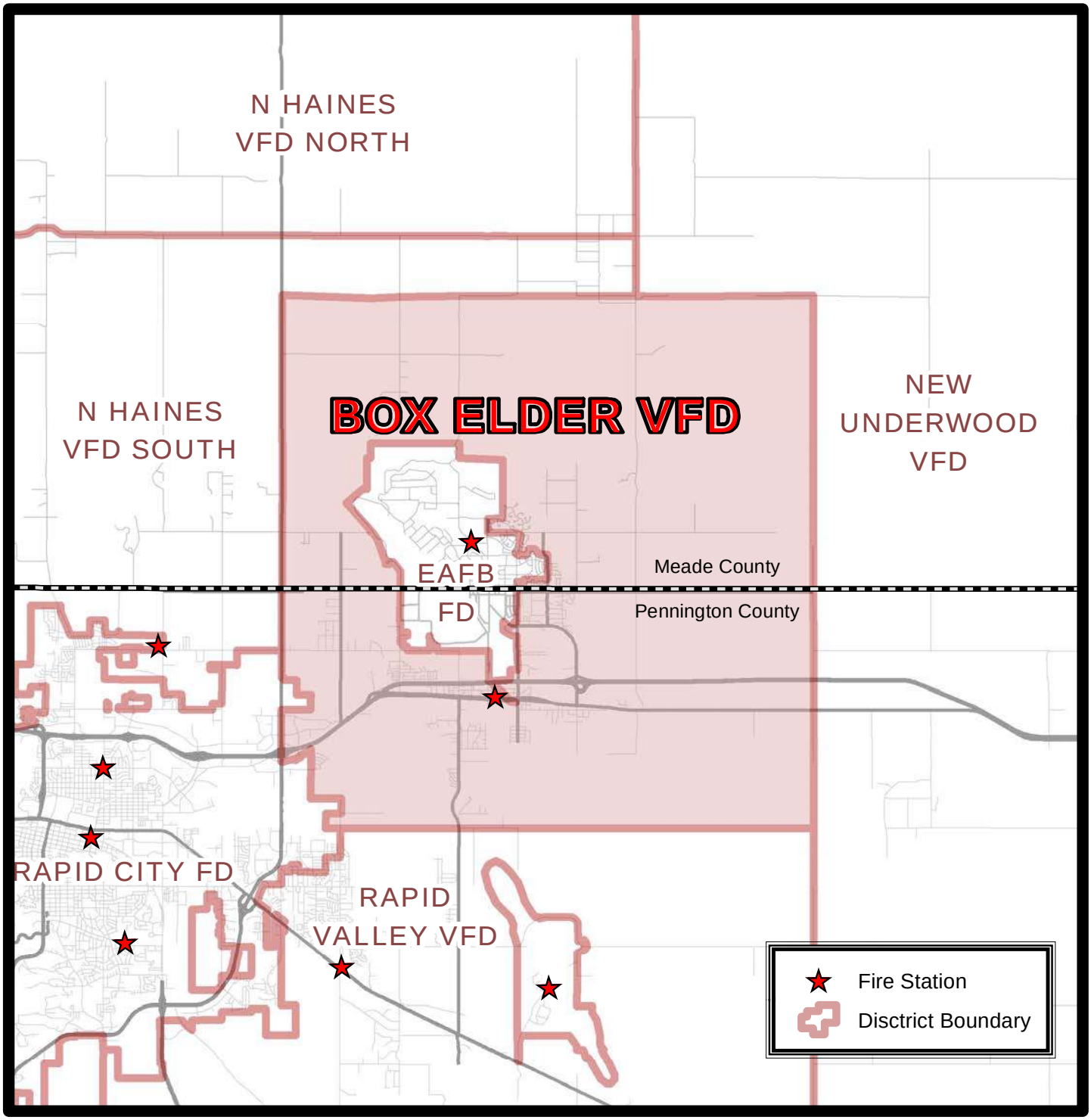
Activities

The Box Elder VFD takes over 1,000 calls per year. Two thirds of the calls are for Emergency Medical Services and one third are for fire, motor vehicle accidents, and alarm calls. They are able to provide support for Ellsworth Air Force Base, but that is rare. The VFD provides mutual aid to fire departments and districts that border the Box Elder Fire District as needed and as they are available. Adjacent districts are Ellsworth, North Haines, Rapid Valley, and New Underwood. The Box Elder VFD takes part in prescribed burning, mostly in conjunction with EAFB.

Calls have been significantly increasing in recent years. Between 2017 and 2022 the department had a 61% increase in call volume.

Year	Calls
2017	737
2018	728
2019	798
2020	971
2021	1120
2022	1183
2023	1059 (YTD at January reporting time)

Box Elder VFD
Fire District Map



Firefighter Training and Certification

Becoming a certified firefighter 120 hours of coursework is required. Courses cover fire service history, building construction, communications, PPE and Self Contained Breathing Apparatus (SCBA), fire behavior, extinguishers, ropes & knots, hoses and appliances, ladders, forcible entry, structural search and rescue, ventilation, fire suppression and ground fires, CPR / AED / First Aid, vehicle extraction, assisting technical rescue, fire origin and cause, and community risk reduction. Additional Wildland Fire Training courses help Box Elder VFD firefighters stay familiar with the special fire conditions of the Black Hills and surrounding prairie areas.

Facilities and Equipment

The Box Elder VFD has a fire station (Fire Station 1) located on Box Elder Road, a frontage road along Highway 1416. The station has an apparatus bay capable of holding 10 apparatus, an attached meeting/training room, kitchen, and some other office space. Two offices have been converted to bunk rooms. There are two restrooms in the meeting room and two restrooms in the apparatus bay complete with showers. While the Fire Station meets current needs, changing standards may impact the ability of the station to meet up to date needs.

The National Fire Protection Association (NFPA) provides recommendations for equipment lifecycle for various fire fighting equipment. They recommend that the lifecycle of a fire engine is 20 years. Staggering equipment replacement to financially manage life cycle replacements, the Box Elder VFD needs to replace an engine every 7-10 years. Current Box Elder VFD equipment includes:

- 1 ladder / aerial truck
- 2 type I engines
- 1 type II water tender
- 1 rescue truck
- A utility vehicle
- 4 wildland / brush trucks

Each firefighter has personal protective equipment (PPE) that must be replaced on a regular basis. ISO/TC 94/SC14 was established specifically to deal with the unique requirements for firefighters' Personal Protective Equipment (PPE). Under the scope of SC 14, each Standard for firefighters' PPE is developed for a particular aspect of fire and rescue activities. Within its scope, firefighters PPE includes head protection, eye and face protection, hearing protection, hand protection, body protection (includes upper and lower torso), foot protection and respiratory protection that is used by firefighters. Special PPE includes a helmet, uniform, pager, bunker gear, gloves, boots, and SCBA air tank and mask. The total cost of PPE for one firefighter is approximately $15,000.

Fire engines can cost from several hundred thousand dollars to up to $1.2 million for an aerial ladder truck with an addition cost of up to $50,000 to equip a new engine. Many smaller fire districts purchase used equipment if it is available and in good condition.

Challenges, Needs, and Goals

The ISO (Insurance Rating Organization) (ISO) assigns a Public Protection Classification (PPC) rating to fire departments and their communities to indicate how well-protected a community is by its fire department using its own standards. The ISO uses Fire Suppression Rating Schedule (FSRS) to evaluate a community's fire suppression ability considering emergency communications, distribution of fire companies and their equipment, water suppy, and community risk reduction.

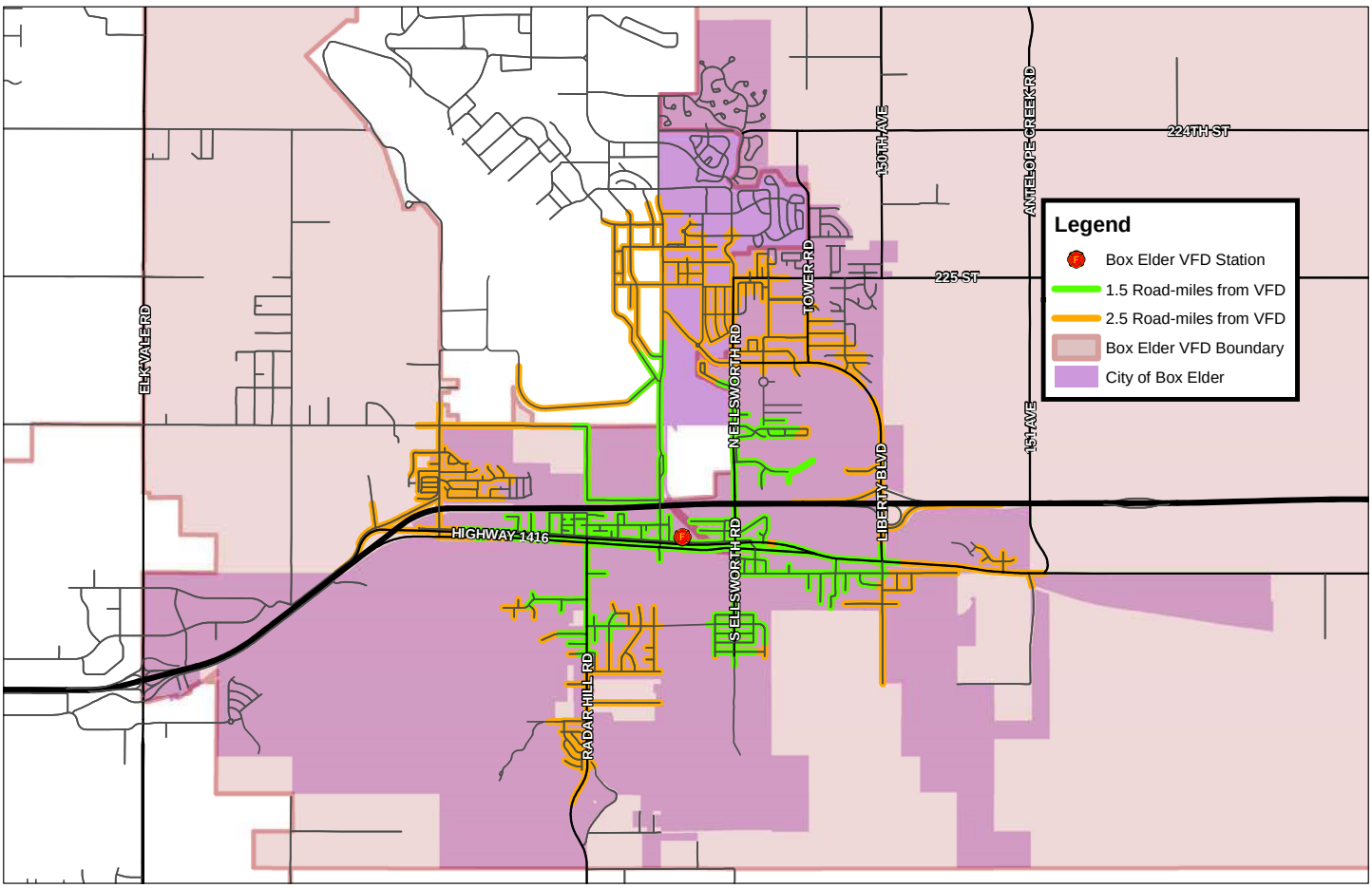
One part of the critical FSRS rating is distance from a fire station. For full credit in the Fire Suppression Rating Schedule (FSRS), the fire protection area with residential and commercial properties should have a first-due

engine company within 1.5 road miles and a ladder service company within 2.5 road miles. The Box Elder VFD and City of Box Elder track the 1.5 and 2.5 mile road distance from the Fire Station 1.

As the City of Box Elder grows, an increasing proportion of the community is more than 2.5 road miles from Fire Station 1 including most of the newer developments in the northeast quadrant of the community. The distance from the fire station also impacts development restrictions such as the maximum height of structures (impacting development density), square feet of building, and fire suppression systems. Currently the Northern Lights subdivision is just over the maximum 5 road mile distance recommendation. The nearest fire station (Rapid City Fire Station 7) is over 2.5 road miles to the Northern Lights subdivision. This distance may impact the cost of insurance for commercial and multifamily properties.

Fire station distribution will become an issue as development continues and may leave some areas with incomplete coverage.

The Box Elder Fire Department is exploring developing a new Fire Station in the northeast quadrant of the community to help alleviate these issues. A new station would have a separate apparatus bay with an exhaust system capable of storing at least three apparatus. A small workout area, full kitchen, dayroom/training area, and separate storage area for gear that transitions to the apparatus bay would be preferred, along with sleeping quarters for at least four personnel. Other area fire departments are developing better living quarters and dormitory spaces as a recruitment measure.



HEALTH & SAFETY

Public Health and Safety Goal: Protect and improve community well-being

Protect and improve the well-being of the community through initiatives and actions that promote physical and mental health and enhance community safety and quality of life.

Each Goal correlates to the guiding principles of this document, which is indicated by the symbol for each principle. The guiding principles are:

ECONOMIC PROSPERITY & RESILIENCE

INFRASTRUCTURE INVESTMENT & MAINTENANCE

SUSTAINABLE GROWTH & DEVELOPMENT

QUALITY OF LIFE & COMMUNITY WELL-BEING

RESPONSIBLE RESOURCE MANAGEMENT

PLACEMAKING

HS1 Improve public health outcomes through targeted initiatives

HS1.1 Focus on attracting and retaining a spectrum of health care options within the community, including but not limited to: dental care, vision care, and mental health services.

HS1.2 Work with regional health care providers and EAFB to provide a Community Health Needs Assessment (CHNA) and develop a Community Health Plan that responds to the unique issues and needs of the community.

HS1.3 Support law enforcement efforts to reduce drug use through evidence-based community health initiatives and programs.

HS1.4 Collaborate with community health organizations to collect data and implement projects that support community health.

HS1.5 Prioritize projects that meet public health goals for the community, such as sidewalks, trails, and parks.

HS2 Collaborate between public health and safety agencies to improve services.

HS2.1 Collaborate between Box Elder Police Department and Box Elder Volunteer Fire Department on substation locations and facilities to efficiently meet community growth needs.

HS3 **Focus the energy and resources of the Box Elder Police Department on homeland security concerns, quality of life issues, identifying and preventing crime, and reducing the fear of crime in Box Elder.**

HS3.1 Acquire accreditation status through CALEA
HS3.2 Strengthen and improve Community Policing Strategies (COPS) to reduce crime and violence, and maintain quality of life in the community.
HS3.3 Reduce the availability and use of drugs through traditional and innovative enforcement efforts.
HS3.4 Increase programs that benefit senior citizens
HS3.5 Enhance the overall image of the Box Elder Police Department
HS3.6 Improve and increase the overall efficiency for police communications while maintaining compliance with Federal, State, Municipal, and CALEA standards
HS3.7 Develop and implement a traffic management program
HS3.8 Expand automated enforcement and seek new technologies to reduce accidents and enhance traffic management.
HS3.9 Provide appropriate training for police officers
HS3.10 Continue to develop and refine recruitment and retention programs that attract well-qualified candidates best suited for the department.
HS3.11 Increase the use of computerization / automation to promote work habit efficiency, reduce waste, and reduce the police department's carbon footprint.
HS3.12 Reduce patrol fleet maintenance costs by replacing vehicles in an effort to ensure effective patrol through reliable means.
HS3.13 Review and update the Box Elder Police Department Strategic Plan on an annual basis.

HS4 **Anticipate and plan for Box Elder Volunteer Fire Department needs**

HS4.1 Strategically plan for fire suppression coverage that meets or exceeds the FSRS full credit requirements including:
- **HS4.1a** Plan for additional Fire Station locations to meet current and anticipated community growth.
- **HS4.1b** Coordinate with City of Box Elder leadership and departments to include fire station planning in ordinances or actions designed to reserve property for public safety use.
- **HS4.1c** Maintain coordination and strengthen relationships with other public safety organizations to improve fire suppression coverage and further overall public health and safety goals of the community.

HS4.2 Develop a recruitment plan for future volunteer fire fighters within the community
HS4.3 Develop a community engagement plan to create a strong base of support for and knowledge about the Volunteer Fire Department and its activities and responsibilities.
HS4.4 Regularly communicate service deficiencies and needs to the City of Box Elder.

IMPLEMENTATION

09

IMPLEMENTATION KEY

Goal number and description	**LU1.1**	
Time Frame for Implementation	Ongoing	A regular part of department tasks
	Short Term	1-3 years to study, recommend, and implement
	Medium Term	3-5 years to study, recommend, and implement
	Long Term	5+ years to study, recommend, and implement
Guiding Principles		
		Economic Prosperity & Resilience
		Quality of Life & Community Well-being
		Infrastructure Investment & Maintenance
		Responsible Resource Management
		Sustainable Growth & Development
		Placemaking
Cost	$	Costs of tasks are incorporated into regular departmental work and budgets
	$$	Costs of tasks may require some outside expertise or additional investment
	$$$	Costs of tasks will require significant investment in outside expertise or work

IMPLEMENTATION 09

A GUIDE TO IMPLEMENTING THIS PLAN

This Comprehensive Plan is intended to be a working document that can be updated on an annual basis and modified as necessary to include the current conditions of the day. Most implementation steps are abbreviated versions of the longer task descriptions in the respective sections. Refer to Comprehensive Plan chapters for discussion and full descriptions of tasks.

Implementation tasks are organized into the following categories:

Policy
For the purposes of this document, policies and ordinances are organized together. A policy is a course of action, guiding principle, procedure, or strategy that is adopted by a municipal public body to guide internal decision-making. An ordinance is a legislative act by the legislative body of a municipality. Once adopted ordinances become legally enforceable local laws.

Collaboration
While many of the tasks require interdepartmental collaboration, these tasks require collaboration outside of City departments with other entities. These tasks may include items to update in the comprehensive plan that are necessary to applying for particular grants and other funding opportunities.

Operations
The operations work of a municipality refers to the day-to-day management and delivery of essential services to residents within the boundaries of a city or town, ensuring the smooth functioning of the community through maintenance, repairs, and upkeep of vital services. Operational recommendations may include special initiatives or expansion of duties.

Projects
Municipal projects are government-authorized construction, design, or planning activities that take place on or in support of city-owned property. They can involve the development and implementation of technology tools and physical improvements such as new construction, renovation, or demolition of physical assets of the municipality. They typically require expertise of outside consultants.

Each task follows the Implementation Key; identifying the goal, timeline, costs, and guiding principles that the recommendation meets. Due to the fast pace of growth in the City of Box Elder, many of the tasks are recommended for implementation in the short term to address issues and take advantage of opportunities afforded by the growth.

POLICY

Policy recommendations include changes to internal policies, ordinances or approaches to the actions or obligations of the City. Typically these types of tasks are identified as a priority by City leadership or elected officials and are directed to staff and legal council to research and develop. Policy and Ordinance changes are generally recommended by staff for review and approved by City Council on an as-needed basis triggered by updates from each department's annual policy review and in response to changing trends, conditions, or emerging issues.

Land Use & Placemaking Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	cost
LU1.1	Incorporate EAFB AICUZ guidelines into City Policy, where appropriate	x					$
LU1.2	Incorporate new Future Land Use categories into City Policy to enshrine AICUZ land use restrictions		x				$
LU1.3	Update City Policy when AICUZ is updated	x					$$
LU1.5	Maintain a land use buffer around EAFB. Review any proposed development in the buffer on a case-by-case basis	x					$
LU2	Develop design standards for Box Elder Commercial Areas		x				$$
LU3.2a	Develop a stormwater ordinance that addresses stormwater management		x				$
LU3.2b	Develop a stormwater ordinance that protects drainages, draws, and waterways		x				$
LU3.2c	Incentivize green infrastructure to reduce long term street and stormwater costs		x				$
LU4.1	SMART Growth Principles: incentivize development types and locations that have lower long term municipal liabilities		x				$
LU4.2	Develop and ordinance to require developers to include trail and sidewalk connections to public trails and sidewalks		x				$
LU5	Set maximum growth boundaries		x				$
LU5	Annex or restrict developments that depend on City infrastructure outside of set growth boundaries		x				$
LU6	Promote the annexation of donut holes in the municipal boundary	x					$

Land Use & Placemaking Policy cont.

LU7	Develop Landscape Ordinances that address: a) Parks and Open Space requirements b) Trails and non-vehicular connectivity c) Landscaping requirements for all development types		x				$
LU7.3	Develop Ordinances that protect "Heritage" or agricultural Landscapes where no other development can occur due to flood plain and APZ restrictions		x				$
LU7.4	Develop policies or ordinances that protect scenic views		x				$
LU8	Reference the community VISION statement and Community Character section of the Box Elder Parks and Open Space Master Plan in future branding, design standards, and other community aesthetics	x					$

Housing Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	Cost
H1	Form a Box Elder Housing Authority or task a City Department to lead efforts to direct the housing needs of the community		x				$
H1.3	Take an active role in developing new affordable housing		x	x			$
H1.7	Develop ordinances that support innovative housing solutions		x				$
H2.1	Incentivize housing types and quantities identified in the Housing Study: encourage infill development, redevelopment, housing renovations, ADU development where appropriate		x				$$
H2.3	Create healthy vacancy goals and limit incentives for additional development that exceed the healthy vacancy rate		x				$
H3.2	Develop ordinances that prohibit development on or require mitigation of hazardous or unstable soils		x				$

Transportation Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	Cost
T2	Develop transportation design standards for development types and road classifications. Include requirements for safe pedestrian and non-vehicular transportation.		x				$$
T2.3	Adopt policies and ordinances that incorporate complete streets concepts		x	x			$
T2.4	Adopt ordinances requiring commercial development to include sidewalk access from public ROW to the public entrance of commercial buildings		x	x			$

Utility Infrastructure Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	Cost
PU2.1	Review impact or service fees on an annual basis to ensure that appropriate percentages of infrastructure costs are borne by private developers	x					$
PU2.2	Review utility rates annually to determine potential fee changes	x					$
PU2.5	Maintain membership in the Western Dakota Regional Water System	x					$
PU3	Identify and incentivize best practices for development that reduce the impact on public infrastructure and facilities use		x				$$

Parks and Open Space Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	Cost
P1.1	Continue to puchase floodway properties for parks and open space	x					$$$
P1.2	Develop policies and ordinances to preserve natural drainage features including requirements for propoerties adjacent to natural drainage features (setbacks, storm water ordinances, etc)		x	x			$
P1.3	Create a Parkland Donation and Payment-in-lieu of Parkland ordinance to require developers to incorporate parks and trail connections into developments		x	x			$
P1.4	Explore enacting Park Impact Fees (PIFs) to help pay for park and trail construction and improvements			x			$$
P3.1	Consider policies and ordinances to preserve agricultural use of properties that are unsuitable for other uses, such as floodplain or AICUZ compatible uses.		x				$

Public Health and Safety Policy			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	Guiding Principles	Cost
HS3.13	Review and update the Box Elder Police Department Strategic Plan on an annual basis	x					$
HS4.1b	Collaborate with City of Box Elder leadership and departments to include fire station planning in ordinances or actions designed to reserve property for public safety use.		x				$

COLLABORATION

Collaboration recommendations include efforts that will require significant interdepartmental collaboration, efforts that require collaboration with Federal, State, or Regional organizations or partners, and collaboration and engagement with community members. It is incumbent on City leadership to cultivate a collaborative environment; this includes shared decision making, trust, and mutual respect within the City Departments, with partner organizations, and with the community at large.

Land Use & Placemaking Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
LU1.4a	Create regular lines of communication with EAFB understanding that leadership may experience frequent changes by: ensuring the regular participation of Ellsworth AFB Advisory representative on the Planning Commission	x					$
LU1.4b	Continue to inform EAFB regarding planning and zoning actions that have the potential to affect existing ordinances or resolutions that impact the base.	x					$
LU2.1	Develop strategies to encourage development in the Town Center, Neighborhood Commercial Zones, Opportunity Corridor		x	**x**			$$
LU7.5	Collaborate between planning efforts: future land use plans, street plans, master utility plans, park master plans and other planning	x					$
LU7.5	Collaborate on planning efforts with surrounding jurisdictions	x					$
LU8.3	Include Economic Development and the Chamber of Commerce in Comprehensive Plan updates and other significant planning	x					$

Economic Development Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
ED1.1	Attract businesses and develop entrepreneurs to meet the needs identified by the community - restaurants, retail, and social hubs	x					$$
ED1.2	Idenity and target other service industries necessary for a thriving and resilient community		x	x	x		$$
ED4.2	Join and be active in regional and state economic development organizations		x				$$
ED5.5	Enhance community engagement by developing community-centric stories that reflect the community's progress and positive impact for residents and businesses		x	x			$

COLLABORATION

Housing Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
H1.1	Create a Housing Plan that coordinates the City's efforts with multiple agencies and partners to address the needs of renters and home owners	x					$$
H1.2	Work with Housing Agencies to assure that Box Elder residents are receiving their share of resources available in the region	x					$
H2.2	Connect low and moderate income households to federal and state programs for low interest home rehab loans and grants.	x					$

Transportation Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
T3.1	Work with state and regional partners to increase the quantity and capacity of north-south multimodal crossings at I-90 and Highway 1416		x	x	x		$$$
T3.2	Coordinate with state and regional partners for multimodal transportation implementation.		x	x	x		$$$

Utility Infrastruction Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
PU2.3	Engage the public in issues related to public utility infrastructure on a variety of issues including rate changes and encouraging water conservation.	x					
PU2.4	Maintain regular communications with public utility providers and stakeholders to respond efficiently to utility infrastructure issues.	x					

Parks and Open Space Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
P2.1	Coordinate trail and sidewalk development with other chapters of the Comp Plan, including the Land Use Plan, Transportation, and Infrastructure Plans		x				$
P4.1	Coordindate with SDEDA on potential community benefit uses of SDEDA-owned properties	x					$
P4.2	Regularly communicate with the SDDOT about trail underpass opportunities and other connectivitiy opportunities during I-90 Corridor planning.		x				$

Public Health and Safety Collaboration			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
HS1.1	Attract and retain a spectrum of health care services		x	x	x		$
HS1.3	Collaborate between law enforcement and public health agencies to reduce drug use through evidence-based community health initiatives and programs	x					$$
HS1.4	Collaborate with community health organizations to collect data and implement initiatives that support community health			x			$ - $$$
HS2.1 HS401a	Collaborate between the Box Elder Police Department and Box Elder Volunteer Fire Department on substation locations and facilities. Plan for additional Fire Station locations to meet current and anticipated community growth.		x	x			$$$
HS3.3	Reduce the availability and use of drugs through traditional and innovative enforcement efforts	x					$$
HS3.7	Develop and implement a traffic management program			x			$
HS3.8	Expand automated enforcement and seek new technologies to reduce accidents and enhance traffic management			x	x		$$
HS4.1c	Maintain coordination and strengthen relationships with other public safety organizations to improve fire suppression coverage and futher overal public health and safety goals	x					$

OPERATIONS

From a comprehensive planning perspective, operations recommendations include updating some of the regular day to day operational and maintenance duties of City departments to support Comprehensive Plan goals. Operations may include some interface with the public. Increasingly, municipal maintenance duties include regular review of planning, digital monitoring, data collection, and record keeping. Generally, each Department Head is responsible for planning for and implementing these recommendations.

Land Use & Placemaking Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
LU4.1	SMART Growth Principle: Analyze proposed developments to understand how growth impacts long term costs and liabilities to the City.		x				$$

Economic Development Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
ED3.1	Develop economic development strategies that cultivate retail and restaurants to fill underserved community needs	x					$
ED3.2	Grow industries around Box Elder's competitive advantages	x	x				$
ED3.3	Grow workforce around Box Elder's competitive advantages and Five and Thrive Goals	x	x				$$
ED3.4	Promote entrepreneurship to encourage an innovative economy	x	x				$$
ED3.5	Engage businesses with academia / research to encourage development in advanced technology to serve EAFB and meet the SD GOED Key Industry goals	x	x				$
ED5.3	Increase visibility in media and share compelling narratives about the City's economic development achievements and future goals	x	x				$$

Housing Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
H1.4	Utilize and promote programs with assist with home ownership		x				$
H1.5	Create and maintain an up-to-date inventory of housing unity types.	x	x				$
H1.6	Develop home ownership and new construction marketing programs and strategies		x				$$
H1.8	Enact the directives of the Housing Study and respond to changing housing needs and conditions		x				$
H2.4	Create a plan for mobile home housing						$$

Transportation Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
T1.3	Conduct traffic counts every 5 years and reclassify roads if necessary			x			$$
T1.4	Maintain a GIS dashboard of traffic incident "hot spots" and identify corrective measures	x					$

Utility Infrastructure Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
PU1.1	Design and Maintain accurate maps, models, and studies of water, wastewater and storm water systems	x	x				$$
PU1.1c	Develop a City-wide storm water management plan	x	x				$
PU1.4	Create and Maintain detailed infrastructure maintenance and replacement schedules and reflect prioritized projects in the CIP	x	x	x	x		$

Parks and Open Space Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
P2.2	Review the Parks and Open Space Master Plan annually and update as needed to adapt to changing community needs and opportunties and to reflect items that have been implemented	x					$$
P4.3	Continue to monitor grants and other opportunities to help fund parks, trails, and recreational facilies. Take advantage of assessments like walk audits to boost grant success.	x					

OPERATIONS

Public Health and Safety Operations			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
HS3.1	Acquire Police Department CALEA accreditation		x				$
HS3.2	Strengthen and improve Community Policing Strategies to reduce crime and violence and maintain quality of life	x					$$
HS3.4	Increase programs that benefit senior citizens	x					$$
HS3.5	Enhance the overal image of the Box Elder Police Department	x					$
HS3.6	Improve and increase the overal efficiency for police communications while maintaining compliance with Federal, State, Municipal, and CALEA standards.		x				$
HS3.9	Provide appropriate training for police officers	x					$$
HS3.10	Develop and refine recruitment and retention programs that attract well-qualified candidates best suited for the department		x				$
HS3.11	Increase the use of computerization / automation to promote work habit efficiency, reduce waste, and reduce the police department's carbon footprint.		x				$$
HS3.12	Reduce patrol fleet maintenance costs by replacing vehicles to ensure effective patrol through reliable means.	x					$$$
HS4.4	Regularly communicate service deficiencies and needs to the City of Box Elder	x					$

PROJECTS

Projects can be improvements to the built environment of the community or could be technological improvements that help the municipality operate more efficiently or effectively. These are tasks that are above and beyond the usual work of City departments and typically involve the evaluation and selection of outside consultants. They require careful budget planning.

Projects may be part of the five-year Capitol Improvement Plan (CIP). CIP projects are generally based on collaboration between departments to ensure that necessary steps are in place to property execute a given project. Projects may also be part of annual departmental budgets.

Land Use & Placemaking Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
LU3.1	Complete a hydrological assessment of the community to determine best stormwater practices that protect natural waterways, preserve water resources, and limit negative storm water impacts	x	x				$$
LU7.2	Prepare a City -wide tree planting / landscape Plan		x				$
LU8	Reference the community VISION statement and Community Character section of the Box Elder Parks and Open Space Master Plan in future branding, design standards, and other community aesthetics	x					$
LU8.2	Review the Comprehensive Plan annually to check off accomplishments and plan for budget needs for the following year.	x					$

Economic Development Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
ED2.1	Focus economic development in targeted development zones: the Town Center, Neighborhood Commercial Zones, and Opportunity Corridor		x	x	x		$$
ED5.1	Create an authentic community brand that conveys a strong sense of place and community identity. Incorporate the brand into wayfinding, signage, and other brand opportunities.		x				$$
ED4.1	Create an action plan to diversify the local economy	x	x				$
ED5.2	Create compelling storytelling and marketing tailored toward target audiences		x				$$
ED5.4	Attract and retain investment through targeted marketing campaigns			x			$$
ED5.6	Strengthen brand identity through clear, consistance marketing and messaging that conveys the City's vision and values that also resonate with target audiences	x					$$
LU8	Reference the community VISION statement and Community Character section of the Box Elder Parks and Open Space Master Plan in future branding, design standards, and other community aesthetics	x					$

PROJECTS

Housing Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
H3.1	Develop a geotechnical master plan to identify locations of hazardous or unstable soils			x	x		$$$
H3.3	Develop resources / information for builders, individuals, and small developers about soils issues and impacts with a focus on those who would not otherwise perform a geotechnical report.			x			$$

Transporation Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
T1.1	Update the Box Elder Strategic Transportation Plan		x				$$
T1.2	Conduct a sidewalk audit to identify deficiencies and priorities in the sidewalk system		x				$
T2.1	Prioritize projects on routes for children to safely walk and bike to schools, parks, and neighborhood amenities	x					$$$
T2.2	Invest in a comprehensive trail system that connects neighborhoods, community spaces, parks, and other amenities		x	x	x		$$$

Utility Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
PU1.1a	Update the Facility Plan for Water Supply and Storage System every five years		x				$$$
PU1.1b	Develop a City-wide waste water map or model		x	x			$$$
PU1.2	Review and prioritize critical infrastructure projects that are necessary to maintain the required level of service to residents while also anticipating the needs of new development	x					$$$
PU1.3	Modernize and upgrade utility infrastructure to meet anticipated capactiy needs, improve service delivery, and improve public health		x	x	x		$$$

Parks and Open Space Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
P3.2	Incorporate connections to EAFB in park, trail, and sidewalk planning	x					$$
P3.3	Incorporate opportunities to build community connections in parks and open spaces; places for the community to gather, socialize, attend events, and build community bonds.		x	x	x		$-$$$
P3.4	Expand City-planned community events	x					$

Public Health and Safety Projects			1-3 years	3 to 5	5+		
Goal	Description	Ongoing	Short Term	Medium Term	Long Term	symbols	cost
HS1.2	Collaborate with regional health care providers and EAFB on a Community Health Needs Assessment			x			$$
HS1.5	Prioritize projects that meet public health goals for the community	x	x	x	x		$-$$$
HS4.2	Develop a recruitment plan for future volunteer fire fighters		x				$
HS4.3	Develop a community engagement plan to create a strong base of support for and knowledge about the Volunteer Fire Department and its activities and responsibilities		x				$$