

City of Greenleaf

Transportation, Parks, and Trails Plan



Prepared by J-U-B ENGINEERS, Inc.



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GROUP



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OCTOBER 2015

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City of Greenleaf Transportation, Parks, and Trails Plan

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City of Greenleaf Transportation, Parks, and Trails Plan

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Introduction

City of Greenleaf Transportation, Parks, and Trails Plan



Purpose of this Plan

The purpose of this Transportation, Parks, and Trails Plan is to identify current and future needs within the City of Greenleaf, Idaho. Funding for the preparation of this Transportation Plan was provided by a Local Rural Highway Investment Program (LRHIP) grant through the Local Highway Technical Assistance Council (LHTAC). The primary components of this Transportation Plan are:

- **Community Involvement/Planning Process**—outlines the community’s vision and goals for transportation and recreation facilities. Summarizes the outcomes of stakeholder interviews, the joint Planning and Zoning Commission and City Council meeting, community surveys, and Citizens Advisory Committee (CAC) meeting.
- **Population, Growth and Land Use**—includes an evaluation of population, growth trends, and land use.
- **Transportation System**—provides an evaluation of existing planning documents, roadway functional classification, safety (crashes), traffic information, and 20-year traffic forecasts. Summarizes existing facilities for transit/public transportation, airport, and railroad and freight/truck traffic.

- **Official Street Plan**—identifies existing streets located inside city limits, within the city’s Area of Impact (AOI), and in the surrounding Golden Gate Highway District area. Includes roadway functional classification guidelines that coincide with city code regarding right-of-way, access management, and improvement standards.
- **Sidewalks, Trails, and Parks Plan**—identifies existing facilities and future needs for bicycle, pedestrian and park facilities.
- **Pavement Management Plan (PMP)**—consists of roadway inventory, pavement management methodology, road improvement options and costs, and recommendations.
- **Sign Management Plan (SMP)**—consists of existing sign inventory, condition assessment and identifies future needs.
- **Capital Improvement Program (CIP)**—lists ranked projects to be used for budgeting purposes and to assist with obtaining funding sources.

Planning Area

City limits

The City of Greenleaf is a community of approximately 846 citizens (2010 Census). It is located in Canyon County, approximately 35 miles west of Boise, 20 miles northwest of Nampa, and 6 miles west of Caldwell. The planning area for this plan includes Greenleaf’s city limits and AOI. The City Limit boundaries span approximately 1.75 square miles in size, with north-south spanning 1.4 miles, and east-west spanning 1.25 miles.

Area of Impact

The city’s AOI, as shown on **Figure 1**, is approximately 29 square miles in size, with north-south spanning approximately 5.3 miles, and east-west spanning approximately 5.5 miles.



Greenleaf Roadway, Bike, and Pedestrian Network

The City maintains all roads within the city limits, with the exception of State Highway 19 (SH 19), which is maintained by the Idaho

Transportation Department (ITD). All other roads surrounding the city limits are under the jurisdiction of Golden Gate Highway District No. 3.

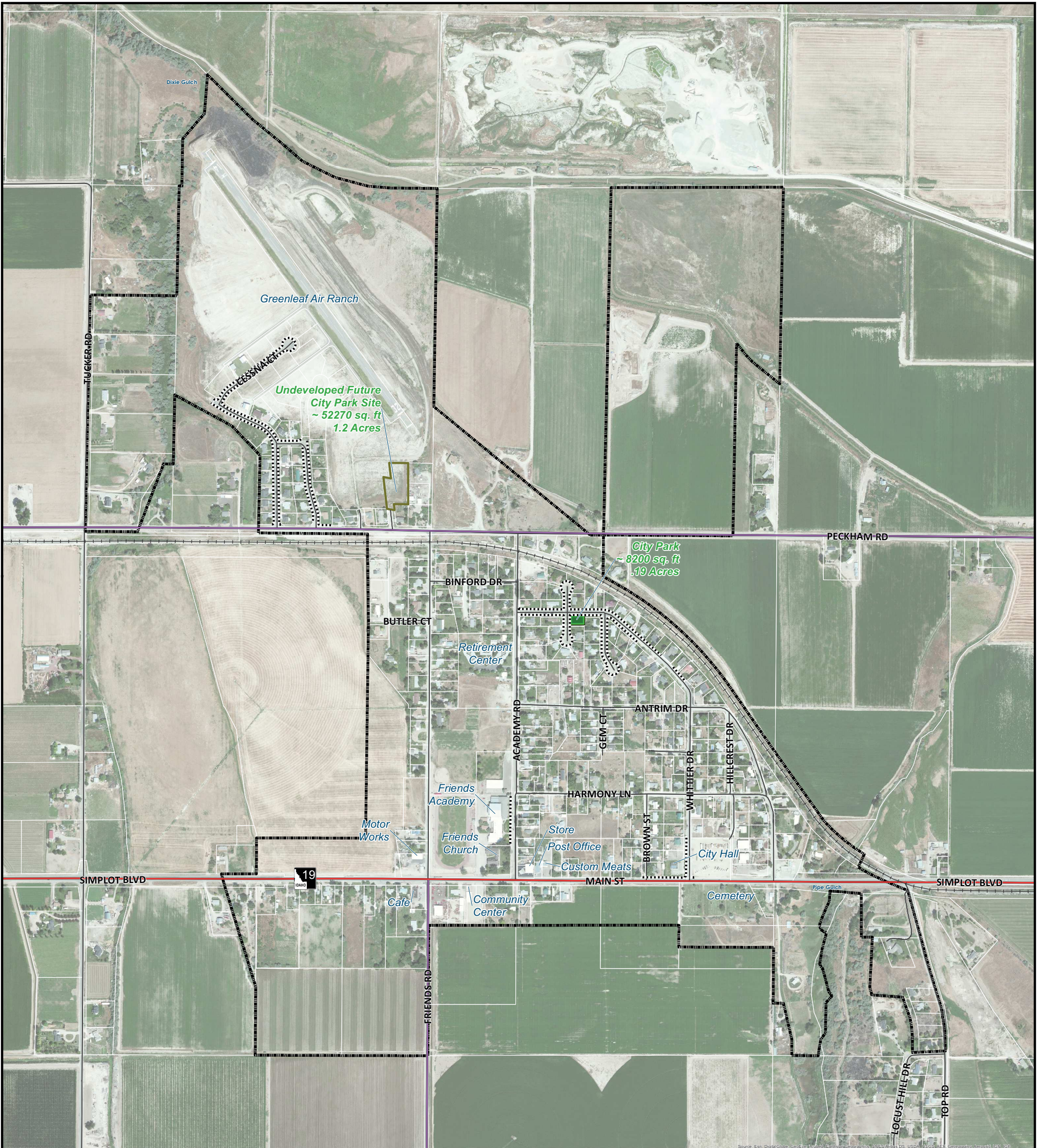
There are approximately 4.6 miles of paved roadways within the City, mostly local roads. The stretch of Peckham Road within city limits and a portion of Friends Road south of SH 19 are classified as collectors. There are no arterial roads within the City other than SH 19. A majority of the City's sidewalks and transportation facilities are in need of repair. Most intersections in the City are two-way stop-controlled at busy locations and there are no traffic signals. Most roads in the City are two lanes, with minimal shoulders, and limited curb, gutter and sidewalks.




SH 19, looking east

Greenleaf Parks and Recreation Facilities

Since transportation facilities are interconnected with parks and recreation destinations, this plan also includes an analysis of parks and recreation facilities. The City has minimal parks and recreation amenities. The City owns and maintains one 0.19-acre neighborhood park located at the southeast corner of Whittier Drive and Redwood Place. The City will also own an unimproved 1.24-acre parcel of land in the near future, located north of Peckham Road on the easterly terminus of Briarwood Drive. This 1.24 acre parcel will be dedicated to the City of Greenleaf under site-specific conditional of approval no. 10 in the Greenleaf Air Ranch Development Agreement, Instrument no. 2008036695.




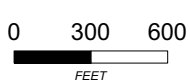



CITY OF GREENLEAF
INCORPORATED
JUNE 8
1973
CANYON COUNTY, IDAHO

**TRANSPORTATION PARKS
AND TRAILS PLAN**


**FIGURE 1
PLANNING AREA**







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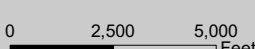
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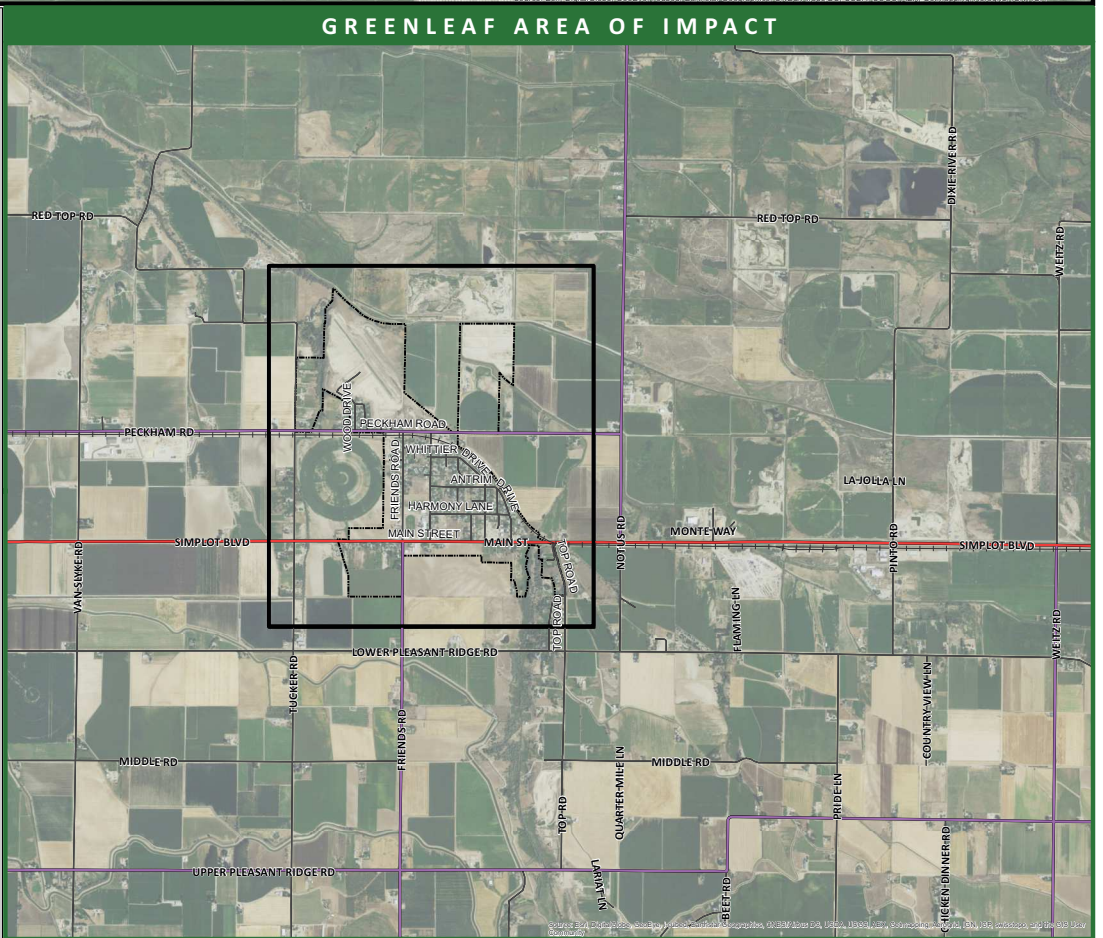
Information shown on this plan is based in part on copyrighted GIS Data from Canyon County, and may not be copied or reproduced without express written permission from Canyon County.

Plot Date: 10/1/2015

LEGEND

- Area of City Impact
- City Boundary
- Existing Developed Park
- Existing Undeveloped Park Location
- Railroads
- Points of Interest*
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Existing Sidewalks





Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan



Overview

Community Participation Purpose

The purpose of community involvement efforts was to:

- Learn the community's vision and goals for the transportation, parks, and trails system.
- Develop the Transportation, Parks, and Trails Plan in an inclusive manner.
- Clearly identify issues and concerns about the local transportation, parks, and trails system.

Community Participation Efforts

Community participation and stakeholder engagement played a key role in this planning process. Public involvement efforts included:

- Stakeholder interviews (stakeholders were identified by the City of Greenleaf).
- A Joint Workshop with the Planning and Zoning Commissioners and City Council members.
- Booth at the Greenleaf annual 4th of July celebration with a comment box, comment forms and a city-wide map for citizens to provide input.
- Two surveys seeking input on transportation facilities, parks, and trails.

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

- One workshop with Citizens Advisory Committee (CAC) members (CAC members were identified by the Mayor and City Council).

Goals

Goals for transportation, parks, and recreation were developed as part of the Greenleaf Comprehensive Plan in 2006. These goals were further refined and confirmed by stakeholders and city representatives as part of this transportation planning process.

Transportation Goals

- 1 Partner with the City of Wilder to develop a complimentary commercial corridor between the City of Wilder and Greenleaf along SH 19 and Peckham Road to include agricultural related business and light industry.
- 2 Identify railroad crossing and intersection issues, and implement measures to protect pedestrians and motorists.
- 3 Develop an effective city-wide and/or regional pedestrian and bicycle system, with enhanced safety features such as crosswalks, bike lanes, and detached sidewalks along collector roads, arterial roads, and other roads throughout the City of Greenleaf, with a focus upon integrating this feature into new development in all zoning classifications.
- 4 Establish a system of sidewalks, trails, and parks to provide interconnectivity between schools, neighborhoods, public buildings, businesses, parks, special sites and along SH 19 and Peckham Road to Wilder. Tie into scenic byway and plan for a future interpretive center at SH 19 and Friends Road.
- 5 Explore the option of creating a greenbelt pathway to Caldwell and/or Wilder.
- 6 Promote the beautification of federal, state, and local roads to improve the visual impact of Greenleaf.
- 7 Achieve a balanced transportation system inclusive of air travel, roadways, public transit, pathways, sidewalks, equestrian trails, etc.
- 8 Develop a way-finding signage system incorporating historical attractions and new walking/biking facilities.

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

- 9 Improve the appearance of gateway corridors and encourage installation of berms and landscaping for all developments to enhance safety, reduce ambient roadway noise in residential areas, and to enrich the roadway and community appearance. Entryway corridors include SH 19, Friends Road, Tucker Road, Top Road, and Peckham Road. Future gateway corridors include Notus Road, Lower, Middle and Upper Pleasant Ridge Roads and Van Slyke Road.
- 10 Improve street lighting throughout town and along SH 19.
- 11 Increase ADA accessibility near businesses and at intersections adjacent to SH 19. Consider the addition of crosswalks strategically placed to improve pedestrian safety and access from residential areas to community destinations.
- 12 Encourage education and land use integration through fulfilling agricultural, farming, industrial, and community needs while implementing transportation projects to better support land use and transportation.
- 13 Develop a pavement and sign maintenance program that identifies preventative pavement maintenance measures, minor reconstruction solutions, and sign replacement strategies.
- 14 Develop a collector system between square miles to provide connectivity from arterials to local roads.
- 15 Evaluate SH 19 for capacity and traffic issues such as the potential need for traffic lights, acceleration, and/or deceleration turn lanes.
- 16 Explore funding options for maintenance and capital improvement projects.

Parks and Recreation Goals

- 1 Evaluate the City's existing parks and recreation system, compare it to the National Recreation and Park Association (NRPA) standards, and develop a needs assessment for future park sites and recreation opportunities.



**Wilder/Greenleaf Bench View,
looking northeast from Antrim Drive**

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

- 2 Provide open space improvements for active and passive recreation for all age groups throughout the community.
- 3 Develop open space and natural feature improvements including natural river frontage, greenbelts, trails and pathways, creeks, flood plains and flood ways, drainage ways and canals, development buffers, wooded areas, sagebrush and grasslands, foothills and viewpoints for public use and enjoyment.
- 4 Encourage new developments to dedicate open space and provide park facilities (i.e. neighborhood parks, community gardens, and children’s playgrounds); develop pathways within developments; and connect to existing and/or proposed public pathways.
- 5 Enhance viewing opportunities at the Wilder/Greenleaf Bench area that overlooks the Treasure Valley and provides views of the Owyhee Mountains.
- 6 Explore funding options for park and recreation facilities and amenities.

Stakeholder Interviews

Fourteen (14) stakeholder interviews were conducted with a diverse set of people who use or are in some way connected to managing the Greenleaf transportation system. These informal interviews provided the transportation planning team with insightful information while engaging key stakeholders.

According to stakeholders, the top three transportation issues that need to be addressed by the Greenleaf Transportation Plan are:

- 1 **Funding and partnering**—Diversity of funding is limited, City needs to concentrate on two specific programs: 1) Surface Transportation Program and 2: Transportation Alternative Program. The City also needs to create a “triggers” for known community statistics for more effective funding researches.
- 2 **Potential infrastructure, Parks and Recreation improvements**—
 - Sidewalks and crosswalks - increase safety for elderly, children and emergency responders, and general movement through the community. There is a particular concern during the peak traffic hours in the morning and early evening to get from one side to the other on SH 19.

Community Involvement Process

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- Center turn lane on SH 19 - center turning lane would decrease number of vehicles that pass on the right-hand side of a left-turning vehicle to get around in a speedy manner. Turning lane promotes safer turning conditions while promoting mobility.
- Bicycle & pedestrian trail/path system: trail or path system that could ultimately connect the City of Greenleaf to the Cities of Wilder and Caldwell. The City will need to design and implement signage for the trail system.

3 Community characteristics—Challenges of mobility arise when commuting through other areas. There is a need for speed management on SH 19 to Wilder as motorists exceed the posted speed limit of 60 mph. Need for fire truck in closer proximity so that homeowner insurance rates may be reduced.

For a summary of Stakeholder Interviews, see **Appendix A**.

Joint Planning and Zoning Commission/City Council Workshop

This Joint Planning and Zoning Commission/City Council meeting was the first official workshop held for the Transportation Plan held in July 2013. Participants were asked to work together in a group discussion format to develop a “SWOT” (Strengths, Weaknesses, Opportunities, and Threats) analysis. **Table 1** lists the results of the SWOT analysis.



Joint Planning and Zoning Commission/City Council Workshop, July 2013

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

Table 1—SWOT Analysis Results

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Connectivity • Close-knit, small community • Opportunity to plan and be thoughtful about future growth • Great city leadership • Paved roads • New infrastructure • Rural, bedroom community nature* • Public Works department and city staff • Great accessibility to neighboring communities • Three strong entities (city, church and school) • No major traffic delays 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Funding, money* • Air Ranch • Prescriptive Right of Way • No distinctive downtown, community size • No sidewalks • No city vision, but developing one now • Lack of commercial • New infrastructure • Storm drains, ponding • Aesthetic quality • Utility costs* • Lack of strong commercial representation • No tie to bring community together (e.g. public school system) • No fulltime police department • Width of Friends Street • Academy railroad crossing near Peckham Road • Idaho 19 access is difficult • Lack of parks/community gathering location
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Bigger city park • Commercial development • Industrial and railroad development - Peckham Rd • Coordination with existing, solid partners (Golden Gate Highway District, Wilder, Caldwell) on improvements such as trails (livability, health) • Potential relationships with farms • Grants* • Air Ranch • Pool • Path/trails* • Bike route* • Path incorporated with scenic byway at Idaho 19/ Friends Interpretation Center* • 9 acres adjacent to Greenleaf Friends Church for community gathering site* • Connection to Greenleaf Historical Society • Beautification/Aesthetic improvements 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Growth or lack of growth (the unknown)* • Degradation of the existing transportation and recreation facilities • Industry encroaching could prohibit growth in city • Idaho 19 limitations (e.g. crosswalks) • Valley Ride timing

** Priority items identified by attendees.*

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

Community Surveys

Two surveys were distributed during this planning process. The first survey focused on general transportation, parks, and trails, and the second survey focused on specific recreation amenities.

Survey No. 1

The first survey was posted on the city’s website, hard copies were distributed at Greenleaf City Hall and Greenleaf Friends Academy, and a flyer was sent out with the monthly utility bill.

Approximately 37 individuals participated in this survey process through a combination of manually filled out survey forms, and through the city’s website. The survey (see **Appendix A**) consisted of ten questions, some were open-ended, and others were multiple choice. Three primary items came out of the survey process:

- 1 Preliminary feedback identified nine recurring transportation-related issues that need to be addressed by this Transportation Plan.** Please rate each issue in order of priority with “1” being the most important:
 - No. 1 priority—Street lighting.
 - No. 2 priority—Sidewalks. If so, where? Academy Road; SH 19/Main Street; Peckham Road; Friends Road.
 - No. 3 priority—Center turn lane on Main Street (SH19)/removal of on-street parking on Main Street.
 - No. 4 priority—Main Street (SH 19) aesthetics- frontages along the highway.
 - No. 5 priority—Growth.
- 2** What are the most important items the city should consider when prioritizing or budgeting for transportation, parks, and trails improvements?
 - No. 1 priority—Preserving small, rural town character (e.g. no sidewalks, no streetlights).
 - No. 2 priority—Improving safety (e.g. streetlights at intersections).
 - No. 3 priority—Improving aesthetic qualities (improve “looks,” beautification).

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

- No. 4 priority—Promoting economic development (e.g. improving walkability, maintaining on-street parking); improving recreational use and connectivity (e.g. sidewalks, pathways).
- 3** Preliminary feedback identified five (5) recurring parks and recreation-related issues that need to be addressed by this Plan:
- No. 1 priority—Bicycle and pedestrian trails and pathway system.
 - No. 2 priority—Improve existing park.
 - No. 3 priority—New public community gathering facility/area.
 - No. 4 priority—Create new park(s). If so, where?
Between elementary school, old passage along SH 19 cemetery; on church empty parking lot; north of Academy School; near Main Street; corner of Antrim and Whittier.

For more information about Survey No. 1, see **Appendix A**.

Survey No. 2

The second survey, seeking prioritization (1-41) of various future park system amenities and features, was sent out to Greenleaf residents with the monthly utility bill and were available for pick-up at City Hall. There were 52 survey respondents who ranked their top five priorities from 1-5. Some respondents ranked all 41 amenities. With so many different types of amenities to choose from, it is worth mentioning the top ten ranked facilities:

- 1** Walking Path
- 2** Restrooms
- 3** Picnic area/gathering place
- 4** Shade trees
- 5** Benches
- 6** Playground (2-5 years)
- 7** Community Center
- 8** Playground (5-12 years)
- 9** Amphitheatre stage/seating for outdoor concerts and events

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

10 Open play grass area

For more information about Survey No. 2, see **Appendix A**.

Citizen Advisory Committee (CAC) Meeting

The Mayor and City Council appointed 18 Citizen Advisory Committee (CAC) members at the beginning of the public participation process. One CAC workshop was conducted on April 29, 2014. The purpose of the CAC was to further develop a clear vision, goals, master street plan, sidewalk and trails plan, project criteria, and priorities for the City of Greenleaf Transportation Plan. Input from the CAC meeting is described below.

CAC Meeting Summary

The CAC was asked to review a draft list of projects and priorities and rank them in order of importance. The CAC used a dot voting system to indicate projects that they supported for near-term implementation and future implementation. The results were as follows:

Near-Term Implementation Priorities

- **Sidewalks and Trails, Pathway System**—Sidewalks should also be proposed on Whittier, Antrim, Academy, and SH 19.
- **Street Lighting**—Install street lighting around City Hall, on Academy and Friends Roads and Whittier Drive, as well as SH 19.
- **Way-finding Signage**—Low priority.
- **Rail Crossing Concerns.**
- **Replace Existing Signs With Up-To-Code Signs.**
- **New Park Development**—Near Greenleaf Friends Academy School and near Academy Road and Antrim Drive.



CAC Meeting

Future Implementation

- **Center Turn Lane on SH 19**—Maintain this as a long-term priority if parking were to be eliminated and to alleviate increasing traffic.

Community Involvement Process

City of Greenleaf Transportation, Parks, and Trails Plan

- **Crosswalks**—Would be helpful in the City’s downtown core, but second response preferred no crosswalks.
- **New Stop Signs/Lights**—Stop signs preferred if necessary. Second response—no new stop signs/lights.
- **ADA Accessibility**—Coordinate with sidewalk projects to avoid having to come back later and re-do them. Stand-alone project, keep it on the long-term list.

See **Appendix A** for a full summary of the CAC meeting.

How will community involvement be used in this plan?

Community involvement drove efforts to identify short and long-term transportation, parks, and trails projects. Information gathered during the community involvement process was used to develop a list of the top five capital improvement projects that the City of Greenleaf can use to pursue grant funding and allocate resources towards. See the Capital Improvement Plan (CIP) section of this plan for more information.

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan



Population and Demographics

Population and growth trends play an important role in the overall transportation system. In 2010, the City of Greenleaf had a population of 846 residents with a median age of 39, 316 housing units, and an average household size of 2.83 persons for owner-occupied units, and 2.50 persons for renter-occupied units. 94.6 percent of housing units were identified as occupied in the City of Greenleaf in the 2010 Census.

A decrease in population occurred between 1980 and 1990 in Greenleaf, with an overall decrease of 2.3 percent (15 people) over a ten-year period. The highest growth period occurred between 1990 and 2000, with an overall increase of 33 percent (2.8 percent annually = 214 people) over a ten-year period. Canyon County's highest growth period occurred between 2000 and 2010, with a 3.7 percent annual growth rate. Between 2000 and 2010, the growth rate slowed in Greenleaf with an overall decrease of 1.9 percent (0.2 percent annually = 16 people).

According to American Community Survey population estimates, Greenleaf has increased in population by a total of 3.4 percent between 2010 and 2013 (1.1 percent annually = 29 people).

Table 2 summarizes historical population trends and estimated population (2013) in Greenleaf, Canyon County, and the State of Idaho.

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan

Table 2—Greenleaf and Canyon County Population (1980-2010) and 2013 Population Estimate

1980	1990 (% change)	2000 (% change)	2010 (% change)	2013 Population Estimate (% change)
Greenleaf				
663	648 (-2.3%)	862 (+33%) (+2.8% annual)	846 (-1.9%) (-0.2% annual)	875 (+3.4%) (+1.1% annual)
Canyon County				
83,756	90,076 (+7.5%)	131,441 (+45.9%) (+3.9% annual)	188,923 (+43.7%) (+3.7% annual)	198,871 (+5.3%) (+1.7% annual)
State of Idaho				
944,129	1,006,734 (+6.6%)	1,293,953 (+28.5%)	1,567,582 (+21.1%)	1,612,136 (+2.8%)

Percentages rounded to the nearest tenth.

Source: 2010 U.S. Census Bureau; Idaho Department of Commerce, City and County Profiles; American Community Survey

Demographics from the 2010 Census reflect the racial makeup of the population was 87.1percent white and 12.9 percent minority.

Table 3 shows median age and average persons per household between 2000 and 2010. The median age has increased from 30.9 in 2000 to 39.6 in 2010, and household size has decreased from 3.11 in 2000 to 2.83 in 2010. Based on these population and demographic characteristics, transportation needs may shift towards more public transportation choices, such as a greater focus on walking paths, sidewalks, and improved ADA accessibility.

Table 3—Median Age and Household Size (2000-2010)

Greenleaf	2000		2010	
	Median Age	Household Size	Median Age	Household Size
	30.9	3.11	39.6	2.83

Source: 2010 U.S. Census Bureau

Growth Projections

In order to plan for future transportation needs, it is important to understand growth trends. Growth projections may be based off historical statistical information and development activity.

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan

Development Activity

The housing market in Greenleaf peaked in 2008 with approximately 16 new residential permits. Between 2009 and 2015, the City has issued five new residential building permits (four single-family residential and one manufactured home). As the economy slowed, development slowed along with it, leaving some approved development properties without a strong enough demand to pursue final plats, construction, or building permits.

Residential Growth Potential

The Greenleaf Air Ranch (GAR) development, located along the north side of Peckham Road, is an approved phased community. The first platted phase of the GAR, which caters to the aircraft enthusiast, has a total of 16 residential lots, 11 of which are available to be built on. Based on the approved preliminary plat, there will be 67 residential lots in future phases of the GAR development.

Currently, there are seven existing buildable lots outside of the GAR within city limits.

Commercial and Industrial Growth Potential

In terms of commercial development, there is one commercial property available near Friends Road and Peckham Road. Currently, no industrial properties are available within city limits; however, Greenleaf's unique proximity to the railroad could introduce future growth opportunities in this sector. One of the City's leading economic development objectives in their 2025 Comprehensive Plan is to partner with the neighboring City of Wilder to develop a complimentary commercial corridor between both cities along SH 19 and Peckham Road to include agricultural related business and light industry.

Greenleaf anticipates and plans for the future in a way that maintains its small town, rural atmosphere, yet have plenty of opportunities and services for its citizens.

Growth is likely to occur for the following reasons:

- Proposed developments (see detailed information above).
- Close proximity of urbanized areas (i.e. cities of Caldwell, Nampa, Meridian, and Boise).
- SH 19.
- Railroad access.
- Peckham Road industrial/enterprise zone along the railroad tracks.
- Affordable residential and commercial development prospects.
- Adequate law enforcement, fire protection, water, and sewer services (the City's sewer system was recently upgraded and expanded).

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan

Growth Projections

Community Planning Association of Southwest Idaho (COMPASS) Projections

Greenleaf is a rural community, but due to its close proximity to the urbanized area, it is included in the metropolitan planning organization's (MPO) planning area and travel demand model. COMPASS forecasts population using Traffic Analysis Zones (TAZ) and modeling software. The TAZ boundaries follow transportation corridors, not city limit or AOI boundaries. Based on this model, the TAZ's within the Greenleaf area (city limits plus adjacent TAZ zones within the city's AOI) account for a population of 1,119 in 2010. Using the same TAZ's, COMPASS has projected the Greenleaf area to grow to approximately 3,703 residents by 2040, which translates to a 4.07 percent annual growth rate.

Greenleaf Water Facility Plan Growth Projections

The Greenleaf Water Facility Plan, prepared in October 2012, used historical Census data to estimate an annual growth rate of 3 percent, yielding a projected population of 1,528 residents by 2030. If this growth rate were extended to 2034 (this plan's horizon year), the population would increase to approximately 1,720 residents by 2034.

Greenleaf Transportation, Parks and Trails Plan Growth Projections

For purposes of this plan, a two percent annual growth rate was used. This growth rate is based on consultation with city staff, historical census data, building permit history, and development activity. Using a two percent annual growth rate, the City of Greenleaf's population would be approximately 1,361 residents by 2034. If this growth occurs, and the average household size remains around 2.8 persons per household, there would be an average of approximately 8 new single-family residential permits issued per year, which is generally more than the City has seen (at least on a steady basis) in the past.

Land Use

Existing Land Use and Zoning

The City of Greenleaf currently encompasses approximately 417 acres. Land uses in Greenleaf include residential, commercial, active agricultural, educational, religious oriented and civic uses. The City's zoning designations shown in **Figure 2** allows for all the above uses.

Existing land uses primarily match current zoning designations shown on the City's Zoning Map. The City's existing land use in the downtown core area is primarily

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan

Central Business District (CBD) and transitions into neighborhood commercial with surrounding low, medium and high density single-family residential (R1, R2, R3).

There is a large portion of land in the city north of Peckham Road and a quarter-mile east of Friends Road that is currently zoned industrial (I), which is where the City's wastewater treatment plant is located. The Airpark Commercial District reflected on the zoning map is contingent upon negotiation of an updated Developer's Agreement with the Greenleaf Air Ranch, and does not currently exist as an applicable zoning overlay. Some multi-family residential (R12) exists along the west side of Academy Road, just north of Antrim Drive with an existing Retirement Center occupying most of the land. The remaining land within the air ranch development is single-family residential with an (R3) zoning designation. The City of Greenleaf is surrounded primarily by unincorporated agriculture land within Canyon County.

Future Land Use

Future land use designations in the City's AOI are shown in **Figure 2**. Inside the existing city limits, future land use designations along the following corridors are identified as:

- **Downtown core**—Commercial Business District, which makes up a 3.5 square-block area along Main Street/SH 19 east-to-west and along Academy Road, Friends Road, Brown Street, Whittier Drive and Antrim Drive north and south.
- **Properties adjacent to the CBD area**—The future land use map identifies a commercial corridor along SH 19 starting a quarter-mile west of Friends Road and extending beyond current city limits towards Wilder. Other adjacent land uses within city limits include low, mid and high-density development areas.

All other areas inside of city limits primarily follow existing zoning/land use designations.

Outside existing city limits within the City's AOI, the City has identified the following future land use designations along the following corridors:

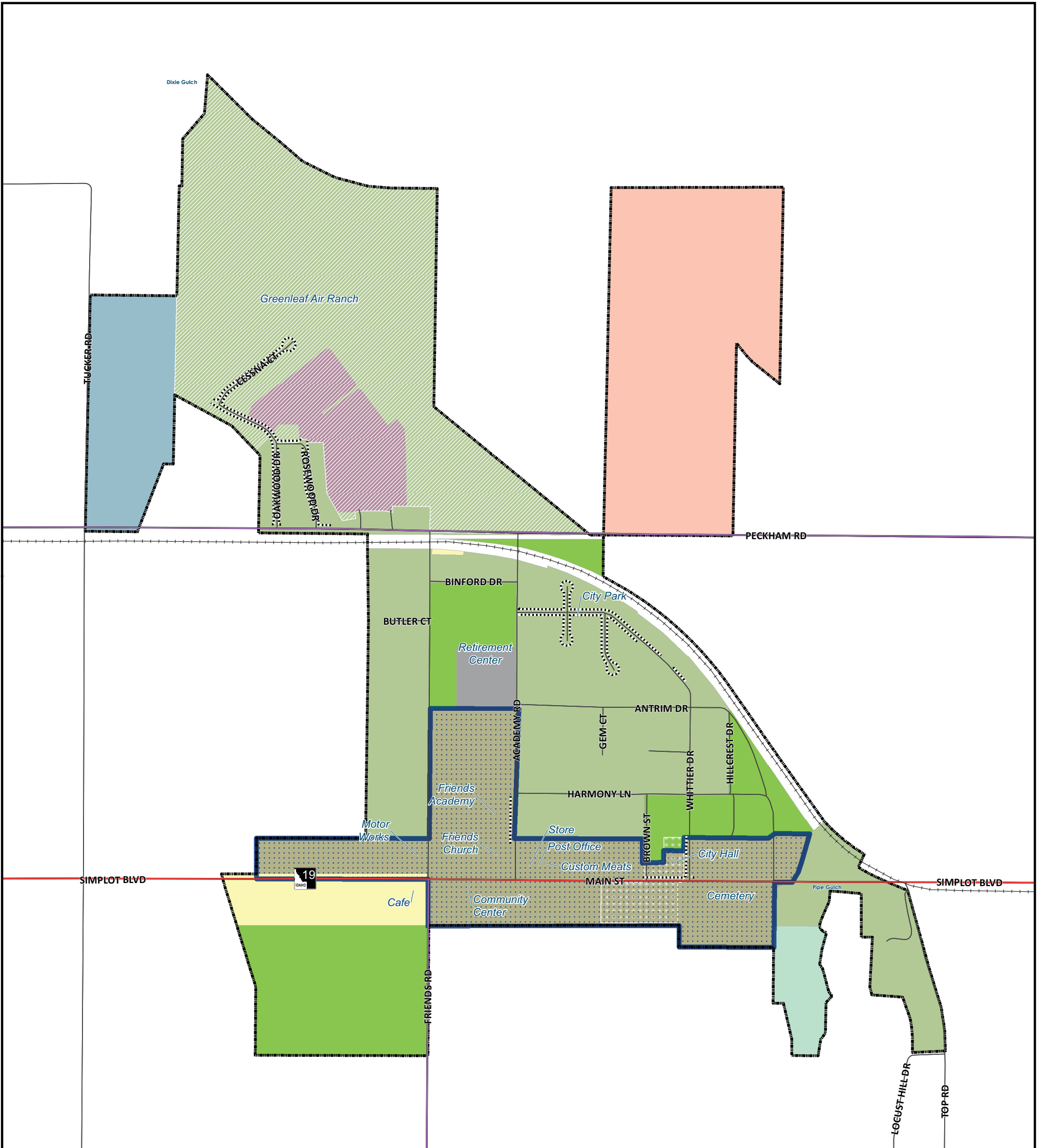
- **SH 19**—The future land use map identifies an industrial corridor along SH 19 extending west towards Wilder. Beginning at Notus Road and extending eastward to Weitz Road is an expanded industrial area on both sides of State SH 19. The northern border of the industrial area runs along Peckham Road and continues south of SH 19 to Lower Pleasant Ridge Road.

Population, Growth, and Land Use

City of Greenleaf Transportation, Parks, and Trails Plan

- **Peckham Road/Railroad Tracks**—Future Commercial primarily beginning at the four corners of Peckham Road and Notus Road extending south to SH 19/Simplot Boulevard. Low to Mid and High Density Development Areas settle between Notus Road and Tucker Road. West of Tucker Road and extending to the outer limits of the impact area towards Wilder is a new future industrial corridor on both sides of the road. Along the south side of Peckham Road beginning at Notus Road and extending east to Weitz Road is a new Industrial area identified, which extends from a future Commercial/Industrial area along SH 19 from the south.
- **Notus Road**—future High Density Development Area starting at Lower Pleasant Ridge Road and transitioning north into Low to Mid Density Development south of SH 19. North of SH 19 along Notus Road through the four corners of Peckham road is a new commercial corridor. Additional Commercial development areas have been identified at all four corners of Notus Road and Red Top Road. On both sides of Notus Road north of Peckham Road are Low- to Mid-Density Development Areas.
- **High Density Development Area**—Future High Density Development Areas have been identified both north and south of SH 19 and extending to the western and eastern impact area boundaries. The northern most boundary starts at Howe Road and travels south halfway between Bohner Road and Ustick Road.

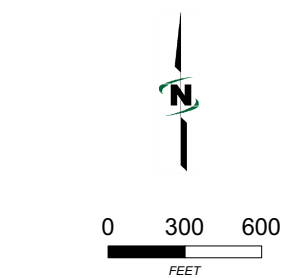
All of the other areas in the AOI outside of city limits are designated as Agricultural.



CITY OF GREENLEAF
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TRANSPORTATION PARKS AND TRAILS PLAN

**FIGURE 2
ZONING AND FUTURE LAND USE**



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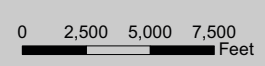
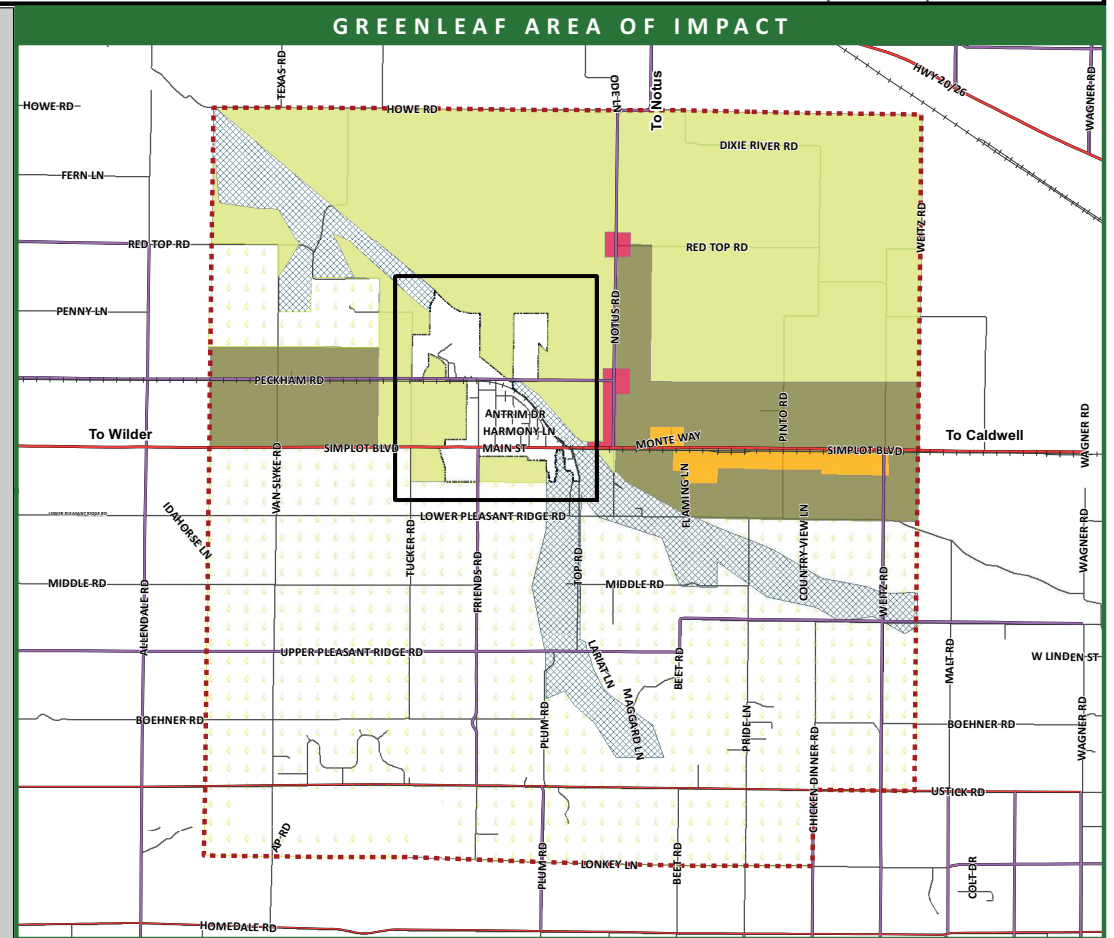
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LEGEND

Area of City Impact	Agricultural
City Boundary	Airpark Commercial
Railroads	Central Business District
Points of Interest	Industrial
Rural Principal Arterial	Neighborhood Commercial
Rural Minor Arterial	R-1
Rural Major Collector	R-12
Rural Minor Collector	R-3
Local Roads	R-5
Sidewalks	Airpark Overlay
Agriculture	Civic Use Overlay
Commercial	Pedestrian-Oriented Central Business District
Existing Industrial	
High Density Development Area	
Industrial	
Low to Mid Density Development Area	
Rural Residential Zone	



Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan



Introduction

This section provides an evaluation of existing planning documents, roadway functional classification, safety issues, traffic information, and 20-year traffic forecasts. It also summarizes existing facilities and future needs for transit/public transportation, airport, and railroad and freight/truck traffic.

Existing Planning documents

The Greenleaf area has received interest from state and local agencies due to the close proximity of urbanized areas (i.e., cities of Caldwell, Nampa, Meridian, and Boise), SH 19, access to railroad, the Peckham Road industrial future land use along the railroad tracks, and residential and commercial development prospects. **Table 4** lists the relevant sections of the City's Comprehensive Plan and City Code and how they relate to this plan.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

Table 4—City of Greenleaf Existing Transportation Planning Documents

Components	Relevancy to this Plan
2025 Comprehensive Plan Adopted October 25, 2006	
<p style="text-align: center;">Transportation</p> <p>The City’s Comprehensive plan was reviewed to understand goals and objectives related to transportation. Due to the amount of relevant sections in the City’s Comprehensive Plan, there are too many to list all of them in this table. See Appendix B for detailed information. The main components related to parks are as follows:</p> <p style="text-align: center;">Parks</p> <ul style="list-style-type: none"> ▪ Recommends following the National Recreation and Park Association (NRPA) standards for Greenleaf to use for planning, developing and acquiring park and recreation lands. ▪ In general, the code promotes parks and trails to be incorporated as part of proposed developments. ▪ Trails/pedestrian and park connections between and within developments to connect to the public walking and biking system. 	<p style="text-align: center;">Transportation</p> <ul style="list-style-type: none"> ▪ Coordination w/City of Wilder Transportation Plan, extend identified corridors into Greenleaf along SH 19 ▪ Future Land use designations appear to coincide with Wilder’s Future Land Use Map, with future commercial/industrial future land use designations along both Peckham Road (1/4 north) and along north side of SH 19 ▪ Identify “Entry corridors” on Official Street Plan map: SH 19, Friends Road, Tucker Road, Top Road, and Peckham Road. Future “Entry corridors” – Notus Road; Lower, Middle and Upper Pleasant Ridge Roads; and Van Slyke Road. ▪ Consider identifying pedestrian-oriented improvements in the CBD area. ▪ Include projects in CIP or future project list to address issues at railroad crossing locations. <p style="text-align: center;">Parks</p> <ul style="list-style-type: none"> ▪ Prepare an analysis of the City’s recreation system and NRPA standards. ▪ Develop a plan (Sidewalk, Parks and Trails Plan map) showing locations for future parks and trails facilities will be implemented by the City and those to be implemented by the development community. ▪ Include projects in CIP or future project list to initiate parks and trails projects.
City Code	
<p style="text-align: center;">Transportation</p> <ul style="list-style-type: none"> ▪ Minimum right-of-way widths are established for arterials (80’), collectors (70’), and minor/locals (60’). ▪ Minimum sidewalk, or “walkway” width – 4’ ▪ Identifies an “Official Street Plan” as the document for developers to refer to for street improvement requirements (right-of-way width, improvements, etc.) ▪ Requires curb, gutter, and sidewalks to be proposed with new developments. <p style="text-align: center;">Parks</p> <ul style="list-style-type: none"> ▪ Special Developments: In the case of residential subdivisions and planned unit developments, the city requires park and/or open space facilities that provide active and passive recreational uses. ▪ “Active use” is defined as neighborhood areas which provide gathering areas for active recreation (e.g., open fields, pathways for pedestrian, equestrian and/or non-motorized use, swimming pools, tot lots, skateboard parks, tennis and basketball courts). ▪ “Passive use” is defined as neighborhood areas which provide a combination of linear open space and scenic features (e.g., ponds, berms and view corridors). Where parks and/or open space are required, passive use areas may not exceed fifty percent (50%) of the open space/park area. 	<ul style="list-style-type: none"> ▪ Develop an “Official Street Plan” to include functional classification, right-of-way width, and “entry corridor” requirements. ▪ Develop a plan (Sidewalk, Parks and Trails Plan map) showing locations for future parks and trails facilities will be implemented by the City and those to be implemented by the development community.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

Several different types of plans, studies, and standards relating to transportation and park facilities have been developed by various agencies. These plans were researched to evaluate continuity between existing plans and the Greenleaf Transportation, Parks and Trails Plan. **Table 5** summarizes the plans that were researched and developed by other agencies.

The City of Notus Comprehensive plan was reviewed and there was not anything that appeared to present an opportunity for planning coordination. The City of Greenleaf will strive to coordinate with the plans and standards listed in this table to preserve transportation corridors and provide continuity between the current city limits and the city's AOI.

Table 5—Existing Transportation Plan Documents (Other Agencies)

Planning Document	Components	Status/Applicability
City of Wilder		
Transportation Plan - 2013	<ul style="list-style-type: none"> Master Street Plan – establishes setbacks, right-of-way widths, landscape buffer width, corridor preservation guidelines, future mid-mile collector roadway system identified Entryway/gateway corridors are located along SH 19 and Peckham Road Master Sidewalk and Trail Plan – a future multi-use trail system establishes proposed sidewalk connections, proposed trails, scenic byway. In addition, typical sections for various bike lanes, multi-use pathways, nature trails, attached and detached trails and bike path options. Design standards refer to AASHTO at the city's discretion. Proposed trails along north side of SH 19 and along Peckham Road Capital Improvement Plan: 1-10 years - Peckham Road multi-jurisdictional project, multi-use trail system; 10-20 years – SH 19 planning for bike-pedestrian connection. 	<ul style="list-style-type: none"> Coordinate Greenleaf's Official Street Plan map with Wilder's Master Street Plan Coordinate Greenleaf's Sidewalks, Parks, and Trails Map with Wilder's Master Sidewalk and Trail Plan map.
Street Standards & Development Requirements Manual - 2010	<ul style="list-style-type: none"> Roadway & access spacing requirements Signage Street Standards – 7' sidewalks on Arterials & Collectors, 5' on Minor Right-of-way widths (Arterial 80', Collector & Commercial 60', Local/Minor 50') 	<ul style="list-style-type: none"> The City of Greenleaf requires the same right-of way width for arterials (80'), and an additional 10' of right-of-way for collectors -70' and minor/locals - 60'. These right-of-way widths will be reflected on the City of Greenleaf Official Street Plan.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

Planning Document	Components	Status/Applicability
Pathways and Bike Routes Master Plan – Adopted January 19, 2010	<ul style="list-style-type: none"> The City of Caldwell’s west AOI boundary is just 1.5 miles shy of the City of Greenleaf’s east AOI boundary, so they do not touch. Citizens have expressed an interest in defining a bike route from Greenleaf to the Caldwell YMCA. Shows a future “proposed bike route” along Ustick Shows a future “proposed bike route” along Logan St, which turns into Lower Pleasant Ridge Rd in Greenleaf Shows a “proposed multi-use pathway” or greenbelt corridor along the Boise River, which, if extended, would bisect the northeast corner of the City of Greenleaf’s AOI 	<ul style="list-style-type: none"> The City of Greenleaf Sidewalk, Parks, and Trails plan will show future trail connections that will connect with the facilities shown in the City of Caldwell’s plan.
Plans and Ordinances	Setbacks on functionally classified roadways–Canyon County’s Zoning Ordinance Section 07-10-21, and Canyon County’s Functional Classification Map outlines 50’ setback from centerline of a major collector; 70’ setback from centerline of a principal arterial; 100’ from centerline of any state highway (SH 19); 130’ from centerline of any expressway. For Greenleaf’s Area of Impact, this includes SH 19.	The City of Greenleaf Official Street Plan developed as part of this plan, will serve as the City’s guide for right-of-way preservation width and building setbacks.
Idaho Transportation Department		
Access Management for Highways	Approaches 300’, Intersection .25 mi, Signals .5 mile spacing. For Greenleaf’s Area of Impact, this includes SH 19.	Access along SH 19 should be coordinated through the City of Greenleaf and ITD as part of the development review/approval process.
SH 19 Corridor Management Plan	A ten-year plan that identifies current and future highway needs within and along SH 19 beginning at Caldwell and extending to Wilder, then south through Homedale to the Oregon State Line (finishing at Oregon State Highway 201, a total of 19.8 miles. It shares the route of U.S. 95 between Homedale and Wilder.	The City of Greenleaf should engage with ITD to discuss desired improvements along SH 19.
Snake River Canyon Scenic Byway Corridor Management Plan – November 2009	<p>“Site 10” in the plan recommends the following actions:</p> <ul style="list-style-type: none"> Provide byway route signs and supplemental point-of-interest directional arrows where necessary to direct travelers to Greenleaf. In association with the byway advisory committee, find a location for byway signage within the city and provide interpretive signage about the history of Greenleaf, the Greenleaf Friends Academy, and other interpretive opportunities. 	<ul style="list-style-type: none"> The Snake River Canyon Scenic Byway Route in the area is not directly located in the City of Greenleaf’s AOI; however, with signage and upgraded facilities, byway enthusiasts could be directed towards Greenleaf from/near US 95, Fargo Road, then along SH 19. Include signage in the CIP.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

Planning Document	Components	Status/Applicability
ITD/COMPASS		
FY 2014-2018 Regional Transportation Improvement Program	GGHD projects <ul style="list-style-type: none"> 2014 Railroad crossing at Allendale Rd- replace asphalt with concrete 2014 - Railroad crossing at Peckham Rd- replace asphalt with concrete 2018 - Peckham Road from US 95 to Notus Road - curb, gutter, sidewalk, roadway widening and rehabilitation 	<ul style="list-style-type: none"> Consider these improvements when planning for CIP projects.
Vallivue School District (through the Brown Bus Company)		
2013-2014 School Bus Routes	<ul style="list-style-type: none"> Bus Stop Locations in the Vallivue School District for Elementary, Middle, and High School students 	Added to GIS maps to review for sidewalk and ADA improvements.
Valley Regional Transit (VRT)		
Valleyconnect Plan—Transit routes and projects	<ul style="list-style-type: none"> Vanpool Carpool Future new park and ride facility located on the north side of SH 19 near the western city limit area Future rural transit route that follows SH 19, US 95 and US 20/26, connecting Caldwell, Greenleaf, Wilder, Parma, and Notus Future Rural Transit Service, Demand Response Transit, Para Transit, Volunteer Driver, Travel Training, Agency Vehicle Sharing, Car Sharing 	<ul style="list-style-type: none"> Consider as part of reviewing community needs and developing a CIP.

Functional Classification

Functional Classification Overview

A roadway network is typically comprised of a hierarchy of roadways that are defined by their function. Generally, roadways serve two primary purposes: access, and mobility. It is the degree to which the roadway serves these two functions that defines its functional classification.

The functional classification system typically categorizes roadways as an arterial, collector, or local road depending on the roadway's primary function. Larger and more complex transportation systems sometimes break arterials and collectors into finer sub-categories: principal and minor arterials, and urban and residential (minor or major) collectors. **Table 6** further describes each category of roadway.

Table 6—Description of Functional Classifications

Classification	Description
Principal or Minor Arterial	Principal arterials carry longer-distance major traffic flows between population centers and important activity locations, including statewide or interstate travel. Minor arterials also provide direct transportation links between cities and major traffic generators.
Collector	Collectors link local streets with the arterial street system and provide travel corridors within a city. Travel speeds and volumes generally are more moderate than arterials and the travel distances are shorter. Collector design speeds are typically higher than local street speeds, up to 35 mph.
Local	The primary function of local roads is to provide access to adjacent residential and business land uses. Local roads are generally low-speed, two-lane roads that carry low traffic volumes. Design speeds for local roads typically range from 20 to 35 mph.

Greenleaf Functional Classification

The functional classification map in **Figure 3** shows the existing and proposed functional classifications for roads in the City. Functional classification maps are an important part of the roadway system for state and federal funding, as generally only roads with a rating of collector or above are eligible for grant funds.

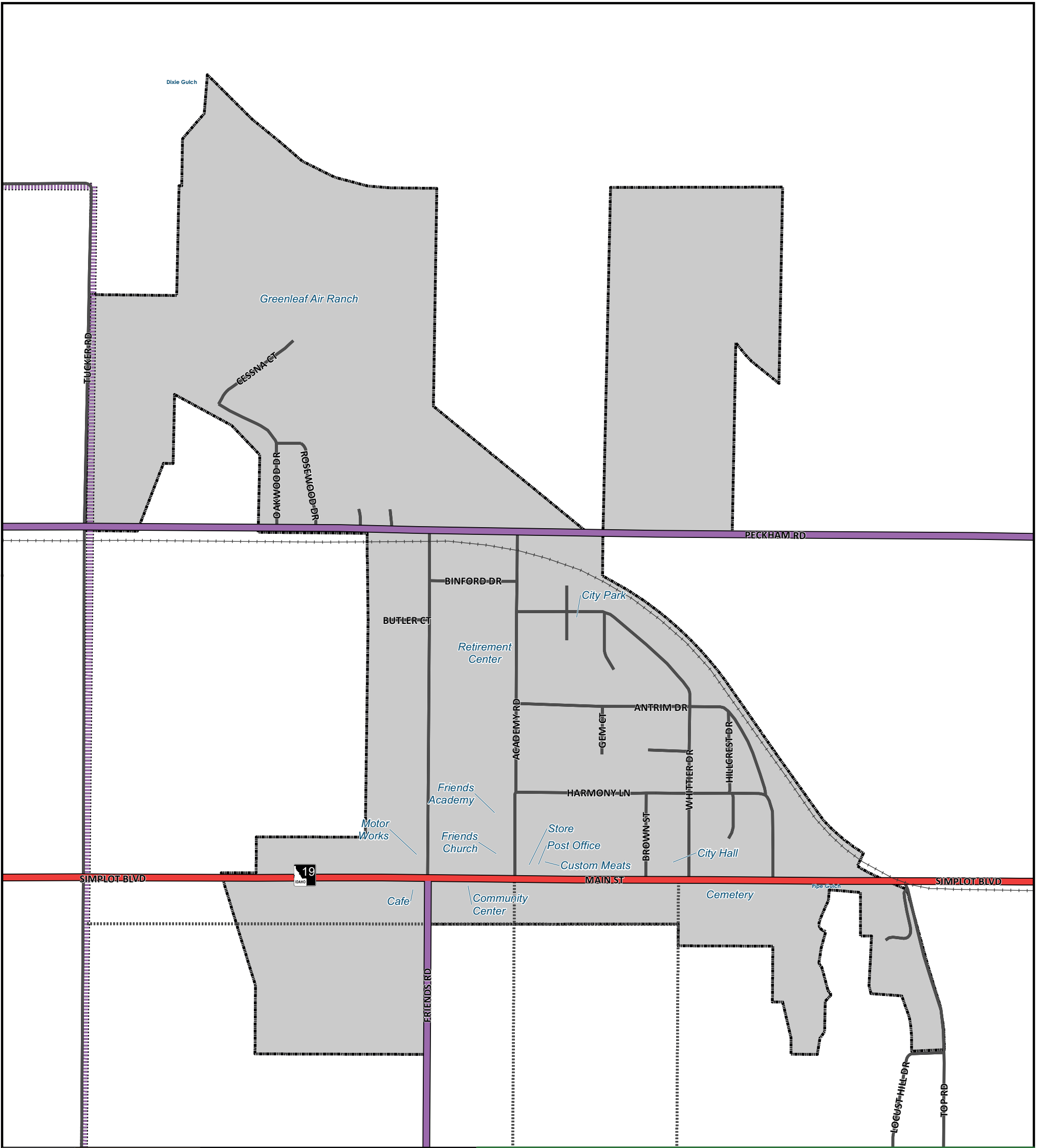
The official functional classification map is published every five years. However, request for modifications to the official ITD map can be made to the ITD Headquarters in Boise at any time depending on land use changes and/or traffic fluctuations on the roadways. The City of Greenleaf’s road types and lengths are summarized in **Table 7**.

The City has designated specific roads as future collectors and future roads as part of their Comprehensive Plan. **Figure 3** shows these designations, which will help the City plan for right-of-way preservation and roadway connectivity as development occurs.

Table 7—Road Mileage inside City Limits by Functional Classification

Road Type	Miles	Street
Arterials	0.96	SH 19
Collectors	1.01	Peckham Road, Friends Road south of SH 19
Local Roads	4.19	All City-owned Local Roads
Total	6.16	City’s jurisdiction (5.2 miles) State’s jurisdiction (0.96 miles)

Source: J-U-B ENGINEERS, Inc.



CITY OF GREENLEAF
 INCORPORATED JUNE 8 1973
 TRANSPORTATION PARKS AND TRAILS PLAN
FIGURE 3
EXISTING AND PROPOSED FUNCTIONAL CLASSIFICATION

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LEGEND

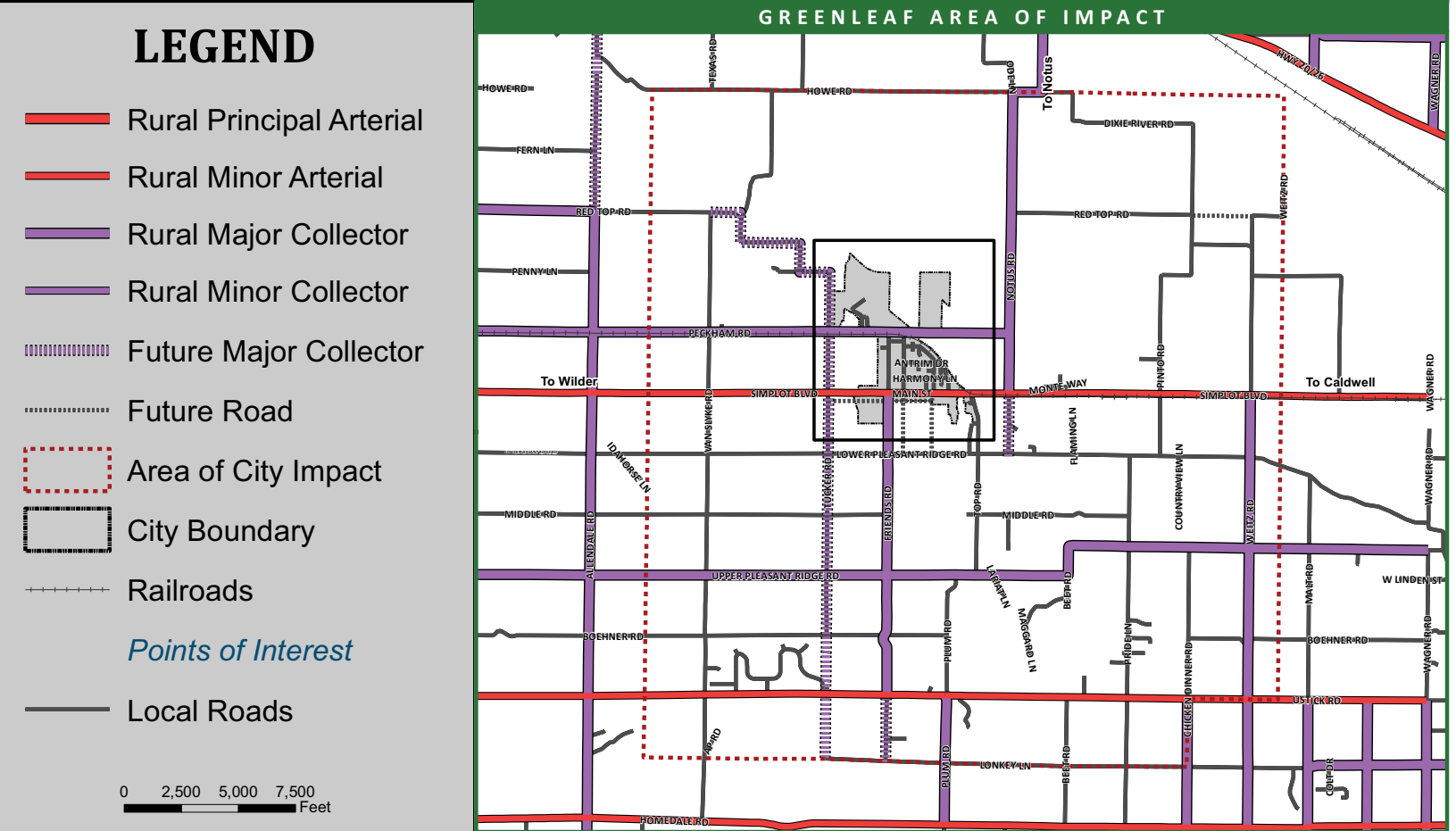
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- - - - - Rural Minor Collector
- ⋯⋯⋯ Future Major Collector
- ⋯⋯⋯ Future Road
- Area of City Impact
- City Boundary
- - - - - Railroads
- Points of Interest
- Local Roads

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0 2,500 5,000 7,500
 Feet

Safety and Crash Data

The Idaho Transportation Department (ITD) provides crash data statewide for arterial and collector roadways. **Table 8** summarizes the vehicle crashes in Greenleaf's AOI between the years 2008-2012. **Figure 4** shows the crash locations and type.

Table 8—Summary of Crashes in Greenleaf's AOI by Year and Severity (2008-2012)

Year	Type of Accident			Total Accidents
	Fatality Accident	Injury Accident (no. of persons injured)	Property Damage Only Accident	
2008	3	7 (16)	6	16
2009	0	10 (14)	8	18
2010	0	2 (2)	9	11
2011	0	6 (13)	4	10
2012	0	7 (13)	11	18
Total	3	32 (58)	38	73

Source: Idaho Transportation Department

Fatalities

Accidents involving fatalities and crash locations were evaluated to identify contributing factors and potential safety issues. No fatality accidents have been reported inside the city limits.

Three fatal crashes occurred outside of Greenleaf's city limits within the AOI, under the jurisdiction of Golden Gate Highway District No. 3 and the Idaho Transportation Department (SH 19). All three accidents occurred in 2008, two occurred on Ustick/Boundary Road, one on SH 19 and west of Weitz Road.

Crash Locations—Inside City Limits

There have been seven accidents reported with nine persons injured within the city limits between 2008 and 2012.

The following intersections have the highest number of accidents within the city limits on SH 19:

- **SH 19 and Antrim Drive**—two crashes with two injury accidents resulting in three injured at the intersection of SH 19 and Antrim Drive. In all instances, there were no negatively reported road conditions. Contributing factors included fatigue, drowsiness, and inattention.

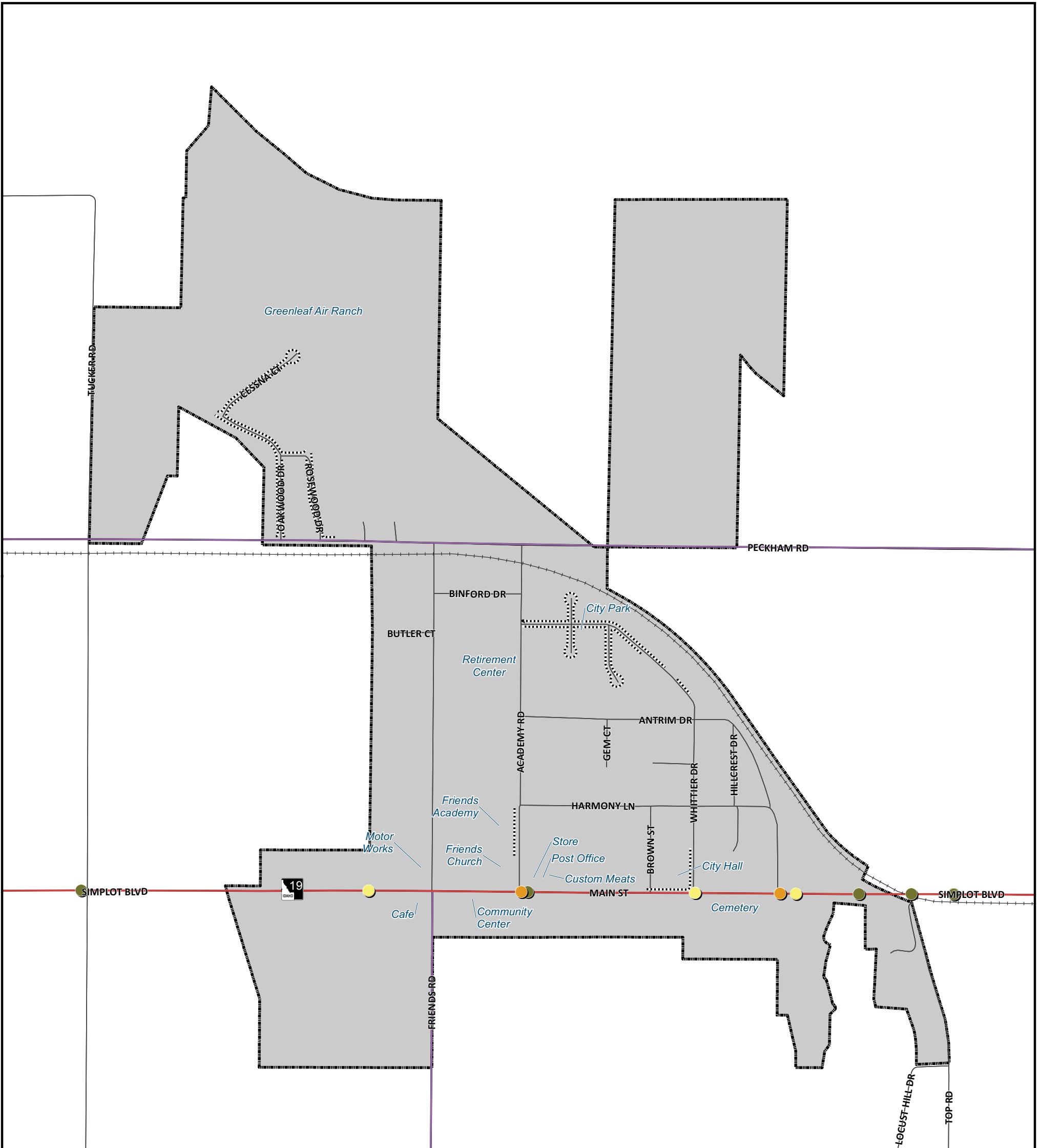
Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

- **SH 19 and Academy Road**—two crashes with one injury accident resulting in two injured and one property damaged report at the intersection of SH 19 and Academy Road. Contributing factors in the accident included inattention and failure to yield. Property damage included a parked car and hit and run incident.
- **SH 19 and Friends Road**—one crash resulting in three injuries west of intersection SH 19 and Friends Road. Contributing factors in the accident included inattention, resulting in a rear end collision.

High frequency crash locations are typically identified based on having an average of more than one-crash per year at a particular location. Based on this criterion, no street segments had high frequency of crashes in Greenleaf’s city limits. Therefore, no further analysis was performed to identify safety improvements.





CITY OF GREENLEAF
INCORPORATED JUNE 8 1973
CANYON COUNTY, IDAHO

CITY OF GREENLEAF

TRANSPORTATION PARKS AND TRAILS PLAN

FIGURE 4
CRASHES (2008-2012)

0 300 600
FEET

Source: Idaho Transportation Department

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LEGEND

Crashes

- Property Damage
- C Injury Accident
- B Injury Accident
- A Injury Accident
- Fatal Accident

Area of City Impact

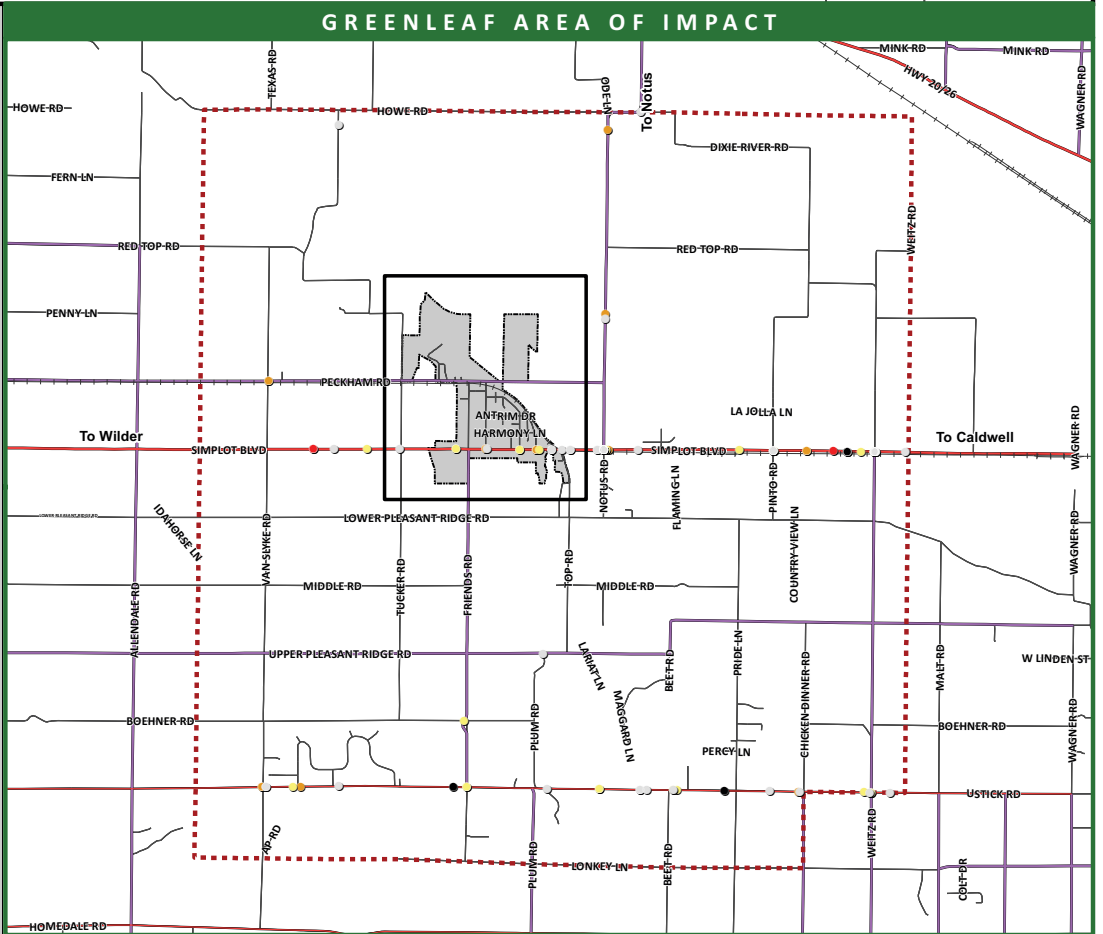
City Boundary

Railroads

Points of Interest

- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads

0 2,500 5,000 7,500
Feet



Traffic Information

Idaho Transportation Department Traffic Data

The Idaho Transportation Department (ITD) uses two primary methods to collect and evaluate traffic information: portable traffic counters and permanent Automatic Traffic Recorders (ATR's). ITD has not recently placed any portable traffic counters within the Greenleaf area.

Annual Average Daily Traffic Counts (AADT)—ITD maintains AADT counts for functionally classified roadways (minor and major collectors and minor and principal arterials) throughout the State of Idaho. AADT is useful as a simple measurement of how busy roads are, as it takes the sum of the total traffic for the entire year divided by 365 days. AADT data is generated by permanent ATR's, and in areas where ATR's are not located, AADT is calculated by using portable traffic counter data in addition to ATR data on adjacent roadways. The closest ATR is located approximately 1.5 miles east of Greenleaf on SH 19.

SH 19

SH 19 is an arterial that serves as the main highway that leads to Greenleaf from the east and west. Between Caldwell to the east and Greenleaf city limits the highway is four lanes with a center turn lane. Through Greenleaf and westward toward Wilder, SH 19 narrows down to two lanes. A center turn lane begins on the west side of Greenleaf. SH 19 provides access to the Interstate (I-84) in the City of Caldwell, approximately seven miles east of the City of Greenleaf. I-84 provides access to areas of employment in Meridian and Boise. Peckham Road is a narrow two-lane rural road that runs east-west, north of and parallel to the railroad tracks.

Traffic volumes on SH 19 are relatively low for a State Highway. According to ITD's 2013 AADT data, SH 19 carries approximately 4,800 to 7,500 vehicles through Greenleaf each day. As the area grows, the City and ITD should work together to determine if turn lanes and/or widening would be necessary to handle traffic flow.

Peckham Road

Peckham Road is a collector roadway that serves as an alternate route for agricultural traffic between Wilder and Greenleaf, and to Notus Road, which is just beyond the city's northeast boundary.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

According to ITD's 2013 AADT data, Peckham Road carries approximately 530 vehicles through Greenleaf each day. Even though traffic volumes are low on Peckham Road, improvements are necessary to provide improved access for agricultural and industrial use. Planned improvements scheduled for construction in 2017 include reconstruction, widening, and sidewalks. Conceptual plans are currently underway to determine width and number of lanes.

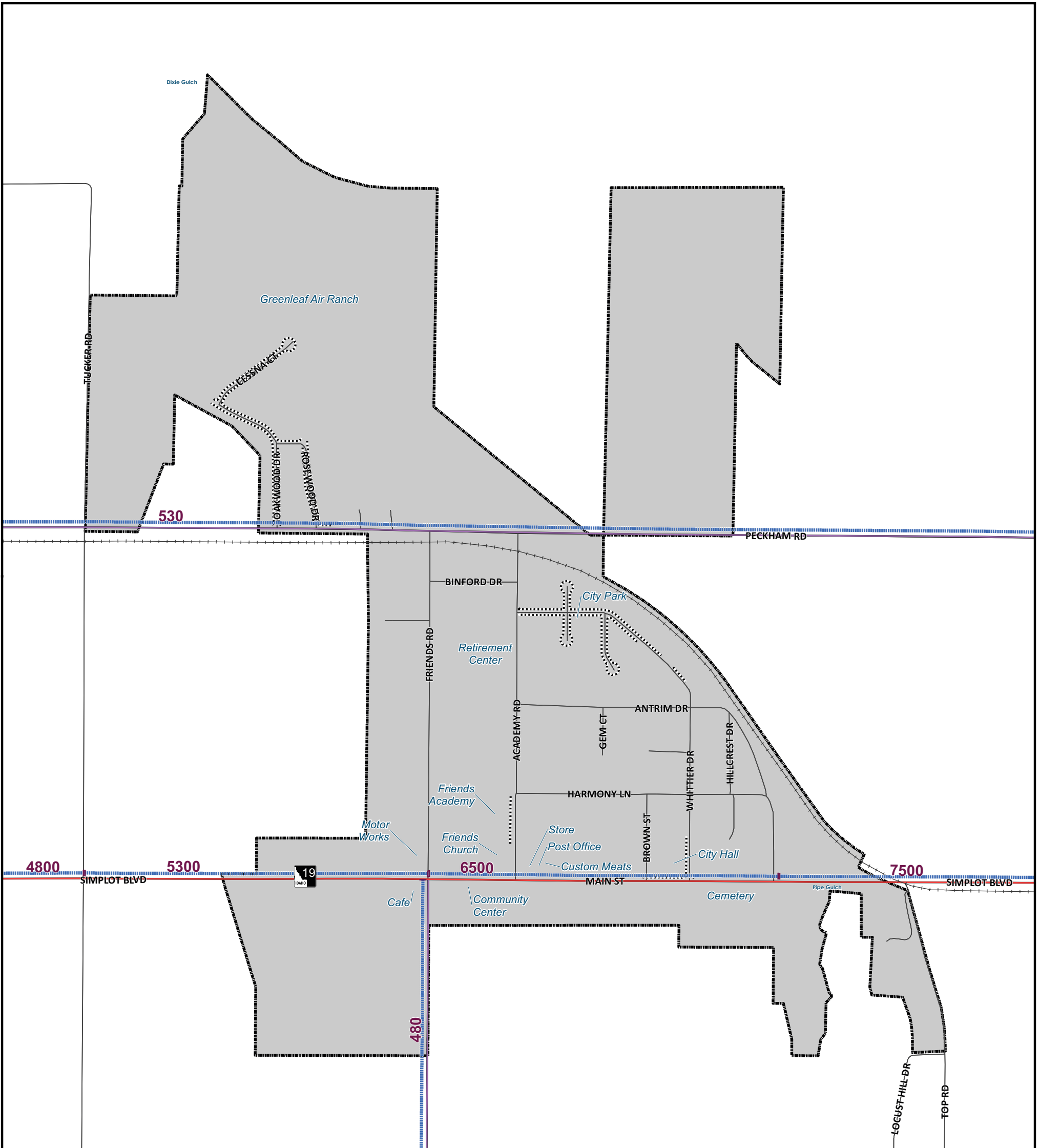
Friends Road


Friends Road is classified as a collector south of SH 19 and is one of two main north-south roads within the City. It connects rural areas south of Greenleaf to town. It continues north of SH 19, where it ultimately connects to Peckham Road.

According to ITD's 2013 AADT data, Friends Road carries about 480 vehicles per day. The portion of Friends Road south of SH 19 was chip sealed in 2012.

2013 AADT traffic data is shown in **Figure 5**.








CITY OF GREENLEAF


INCORPORATED
JUNE 8
1973

**TRANSPORTATION PARKS
AND TRAILS PLAN**


**FIGURE 5
AVERAGE ANNUAL
DAILY TRAFFIC (2013)**



0 300 600
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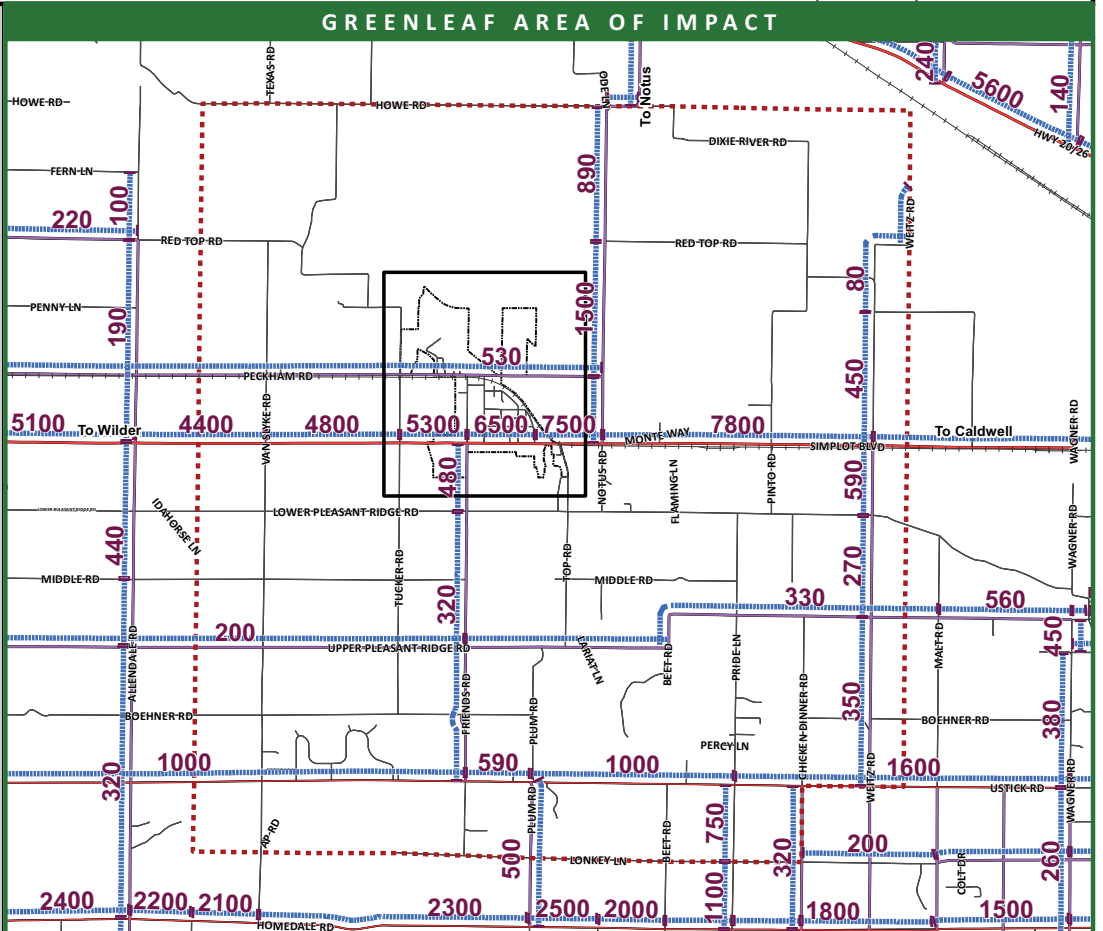
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LEGEND

- 2013 AADT (Per Segment)
- Area of City Impact
- City Boundary
- Railroads
- Points of Interest*
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads



Level of Service—Current and 20-Year Forecast

Level of Service Overview

Traffic flow is typically measured by Level of Service (LOS) at intersections.

Two-way stop-controlled and all-way stop-controlled intersections measure LOS by the average stopped delay at the intersection. This can be determined by observing and documenting traffic counts and turning movements at a given intersection during peak times in either the morning (AM) or evening (PM), or both. LOS rating and associated delay times are described in **Table 9**.

Table 9—LOS at Stop-controlled Intersections

LOS	Description
A	Less than 10 second delay
B	More than 10 and less than 15 seconds of delay
C	More than 15, but less than 25 seconds of delay
D	More than 25 seconds, and less than 35 seconds of delay
E	More than 35 seconds, but less than 50 seconds of delay
F	More than 50 seconds of delay

Source: Highway Capacity Manual (2000)

City of Greenleaf Current Level of Service

City representatives identified two intersections for PM Peak hour turning movement traffic counts: SH 19/Friends Road and SH 19/Academy Road. Counts were taken on a Wednesday in January 2014 between 4:00 pm and 6:30 pm.

Existing PM Peak Hour intersection turning movement volumes at these intersections were collected manually, then a LOS analysis was performed using the Highway Capacity Manual methodology.

SH 19/Friends Road

This intersection is a two-way stop controlled intersection, with stop signs at the north and south approaches of Friends Road and through lanes on SH 19 for eastbound and westbound traffic.



SH 19/Friends Road Intersection

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

According to the LOS analysis, the southbound approach has the longest average delay of 15.7 seconds, or a LOS C. Both east and westbound approaches are operating at a LOS A, and the northbound approach is operating at a LOS B.

SH 19/Academy Road

This intersection is a “T” intersection along SH 19, with a stop sign at Academy Road on the north side of SH 19 for southbound traffic and through lanes on SH 19 for eastbound and westbound traffic.



SH 19/Academy Road Intersection

According to the LOS analysis, the southbound approach has the longest average delay of 13 seconds, or a LOS B. Both east and westbound approaches are operating at a LOS A.

Summary

Based on this LOS analysis, all other intersections in the City of Greenleaf are anticipated to function with less delay and therefore are operating at acceptable LOS levels.

Figure 6 shows estimated Average Daily Traffic (ADT) and results of the current (2014) LOS analysis.

City of Greenleaf 20-year Level of Service Forecast

Current LOS data was used as a baseline and an annual growth rate of two percent was applied to forecast 20-year future operational conditions at SH 19/Friends Road and SH 19/Academy Road.

Due to the community’s interest in a potential center turn lane [two way left turn lane (TWLTL)] on SH 19 through town, improvement scenarios were developed and analyzed to determine future LOS levels with the addition of a TWLTL on SH 19.



Example - TWLTL

Photo courtesy of Federal Highway Administration (FHWA)

Another analysis was performed to determine future LOS levels with the addition of southbound left turn lanes and northbound right turn lanes at the SH19/Academy Road intersection. **Table 10** summarizes the results of this analysis.

Table 10—Current (2014) and Future (2034) PM Peak Hour Delay and LOS and Future (2034) Improvement Scenarios

Intersection	Current (2014) PM Peak Hour (Longest Delay Approach)	Future (2034) PM Peak Hour w/no improvements (Longest Delay Approach)	Improvement Scenarios w/improvements Future (2034) PM Peak Hour (Longest Delay Approach)		
			Add TWLTL on SH 19	Add SB left & SB right turn lanes	Both (TWLTL on SH 19 & SB left and SB right turn lanes)
SH 19/Friends Road	SB—15.7/C	SB—23.2/C	SB—14.8/B	SB—17.6/C	SB—14.2/B
SH 19/Academy Road	SB—13.0/B	SB—18.5/C	SB—17.7/C	--	--

Legend: SB = southbound; 15.7/C Delay seconds/Level of Service

Source: J-U-B ENGINEERS, Inc.

Summary

Based on this analysis with a two percent annual growth rate, both intersections are projected to operate at a LOS C in 2034 with no improvements. Adding a TWLTL on SH 19 would decrease delay times, resulting in a 14.8 second delay (LOS B) at SH 19/Friends Road, and 17.7 second delay (LOS C) at SH 19/Academy Road.

The City of Greenleaf should monitor growth and determine if a TWLTL is warranted. LOS is not the only factor to use when considering capacity improvements. Capacity improvements not only reduce wait times but they often

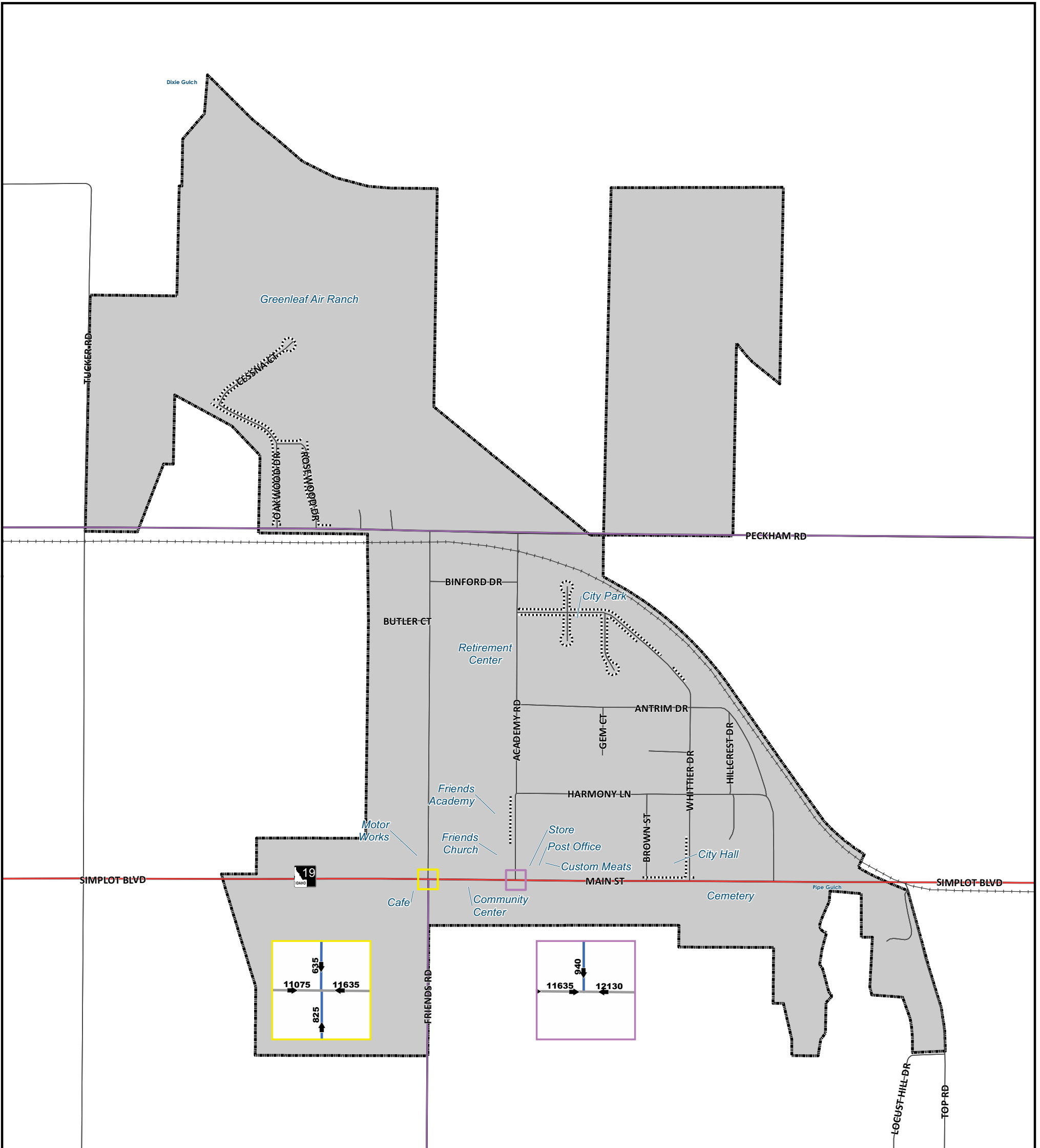
Transportation System


City of Greenleaf Transportation, Parks, and Trails Plan

provide a sense of security, especially for citizens who commute daily and have to turn onto SH 19 in a safe manner. A TWLTL would also remove stopped cars from the flow of traffic and reduce the likelihood of rear-end accidents.

Figure 7 shows estimated Average Daily Traffic (ADT) and results of the future (2034) LOS analysis. See **Appendix C** for additional Traffic Data.








CITY OF GREENLEAF

INCORPORATED
JUNE 8
1973


**TRANSPORTATION PARKS
AND TRAILS PLAN**

**FIGURE 7
ADT/FUTURE LEVEL
OF SERVICE (2034)**



0 300 600
FEET

*ADT Traffic Counts Based on Peak Hour Volumes and a 2% Annual Growth Rate



**GATEWAY
MAPPING
INC.**

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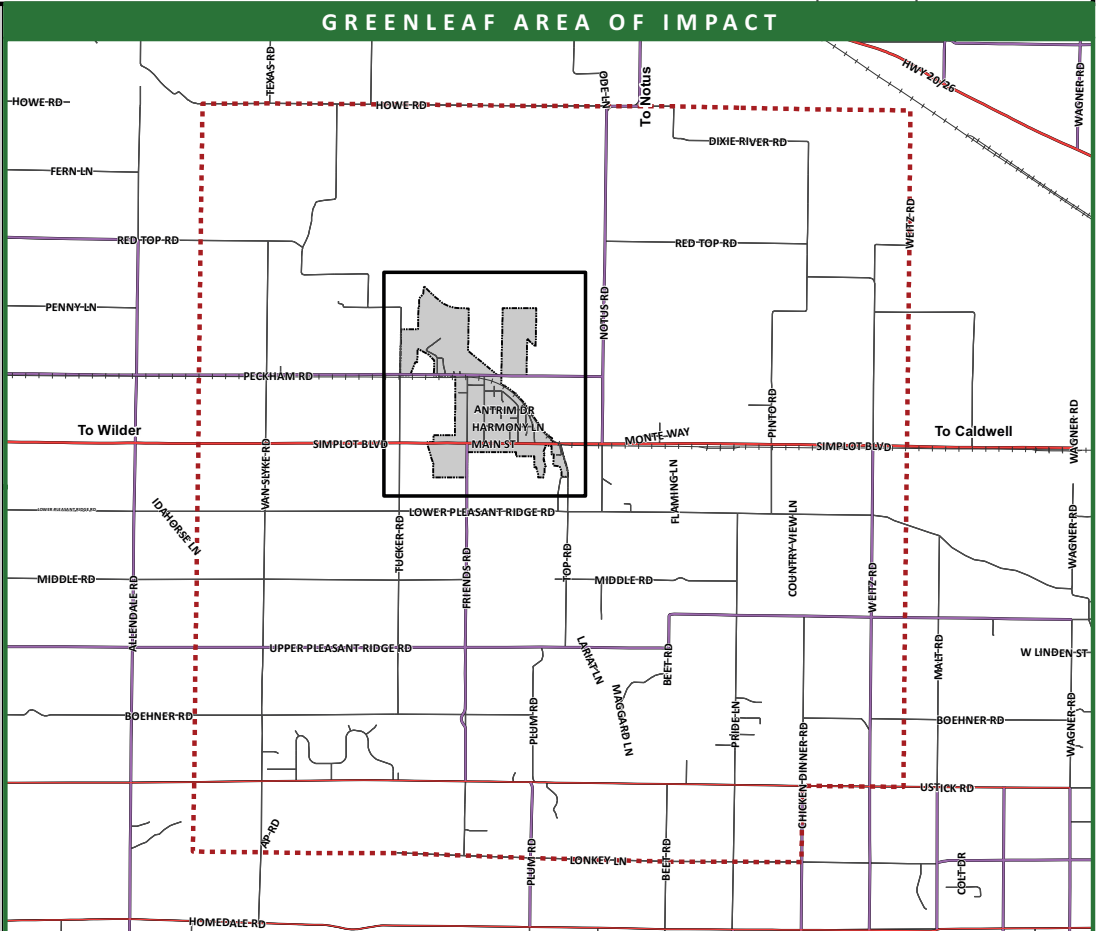
LEGEND

- Area of City Impact
- City Boundary
- Railroads
- Points of Interest
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads

Level of Service (ADT*)

- Not Specified
- B
- C

0 2,500 5,000 7,500
Feet



Other Modes of Transportation

Bicycle, Pedestrian, and Trails Facilities

There are few bicycle and pedestrian facilities within the City. There are short sections of existing sidewalks sporadically located along SH 19 and Whittier Drive in front of City Hall, Academy Road in front of Greenleaf Friends Academy, and along Antrim Drive. Sidewalks were constructed on both sides of the new local roads within the GAR development. There are no designated bike lanes within Greenleaf. Connectivity, supply, and handicapped accessibility is lacking in Greenleaf.

The community identified bicycle, pedestrian and trails as their number one priority. Therefore, future sidewalks and pathways/trails have been identified in the Sidewalks, Trails, and Parks Plan, and CIP sections of this plan.



SH 19/Whittier Drive,
looking east



Friends Road,
looking south towards SH 19

Transit/Public Transportation Options

There are few public transportation options for Greenleaf residents. As the population ages and needs for alternative transportation options increase, Greenleaf officials should work with Valley Regional Transit (VRT), the transit authority for Ada and Canyon counties, to explore options and devise solutions for Greenleaf residents.

Bus Service

Currently, there is no general public bus service provided to the Greenleaf area.

Vanpool

The closest Vanpool alternative is located approximately 5.5 miles west of Greenleaf in the City of Wilder. The service is provided through the Ada County Highway District (ACHD) Commuteride Program that provides a van for groups of 11 to 14 commuters who share similar commute trips and work schedules.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

This vanpool is currently full and it provides a route from Wilder to Downtown Boise and Elder Street, Monday through Friday from 7:00 a.m. to 4:00 p.m.

Park and Ride

Park & Rides are parking locations where carpoolers, vanpoolers, and bus riders can park and catch their ride. Currently 16 park & ride locations exist in Ada and Canyon counties. Valleyconnect has identified general locations for 19 more. One of the identified park and ride lots is in the City of Greenleaf, however, a specific location or timeframe for implementation has not been established. The City should work with ACHD Commuteride and VRT in its efforts to evaluate a potential location and improvements needed for a future park and ride facility.

The City should continue to serve on VRT's Board to support opportunities for rural transit, demand response transit, para transit, expanded vanpool services, expanded carpool services, volunteer driver program, travel training, and car sharing.

Carpooling

ACHD's Commuteride carpool matching service gives individuals with similar commute patterns the opportunity to organize their own group through RideshareOnline.com.

Airports

The City of Greenleaf does not have a municipal airport. The closest municipal airports are located in Homedale, approximately nine miles southwest of Greenleaf, and Parma, located approximately 13 miles northwest of Greenleaf. The closest commercial service air terminal airport is located in Boise, approximately 34 miles east of Greenleaf. The City of Caldwell Industrial airport, approximately 10 miles east of Greenleaf is a designated reliever airport for the Boise airport.

Exclusive to Greenleaf is the GAR subdivision, which is a privately funded development that offers residential lots, a private airstrip (approximately 2,500 feet long), and a taxiway located inside city limits. This development offers a unique way of life that has gained the attention of many flight enthusiasts who are looking for an easy, convenient way to live, work and fly.



Greenleaf Air Ranch private airstrip

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

The community did not identify the need to pursue a municipal airport. In addition, no issues were mentioned during this transportation planning process regarding improved access or issues with nearby municipal or commercial airports.

Railroad

Railroad tracks run east-west along the south side of SH 19 east of the city limits. At the east city limits, the tracks cross SH 19 and continue traveling along a ridge to Peckham Road on the northwest side of the city. The Boise Valley Railroad (BVR) has a lease purchase agreement with Union Pacific Railroad. The railroad spur connects Caldwell to Wilder



View of RR Tracks from Antrim Drive, looking northeast

spanning approximately 11 miles. The tracks provide access to the local agricultural products processors. The major commodities shipped along this stretch of railroad include potatoes, lumber, fertilizer and fuels.

A future development area designated commercial/industrial is located along both sides of Peckham Road and runs parallel with the railroad tracks. This commercial/industrial corridor starts west of Tucker Road (western edge of city limits) extending a half-mile west of Van Slyke Road (outside city limits, inside the city's AOI). Peckham Road provides access along the tracks, and intersecting rural roadways with at-grade railroad crossings provides access to future commercial/industrial properties along the south side of the tracks. The city designated this area for future commercial/industrial development due to the existing transportation network including the railroad tracks and planned improvements for Peckham Road.

The railroad corridor along Peckham Road was identified as a community asset by Greenleaf citizens, with commercial and industrial expansion opportunities. Citizens expressed the desire to utilize the railroad right-of-way and the adjacent roadway section (Peckham Road) as a potential bicycle-pedestrian route for a regional pathway system between Greenleaf and Wilder to the west.

Transportation System

City of Greenleaf Transportation, Parks, and Trails Plan

There are two unguarded railroad street crossings within city limits. These at-grade crossings are located at Academy Road and at Friends Road, just south of the intersections of these roads with Peckham Road. Currently, only signage exists at these crossings, and there are no crossing arms or flashing lights.



**Academy Road RR Crossing,
looking north towards Peckham Road**

The community cited a lack of visibility near Peckham Road at Friends Road and Academy Road where they intersect with the railroad tracks. In addition, a cause for concern is the deep dip approaching the tracks on Academy Road. Therefore, recommended improvements are included in the Sign Management Plan and CIP section of this plan.

Freight/Truck Traffic

Truck traffic generally occurs along SH 19 and Peckham Road, where heavy trucks, farm equipment, and industrial traffic serve the commercial/agricultural/industrial area along the rail corridor.

With improvements coming to Peckham Road in 2017, truck traffic flow and safety will improve. The City of Greenleaf does not experience a lot of freight or heavy truck traffic internal to the City due to lack of connectivity. However, Friends Road and Academy Road provide north-south connections from Peckham Road to SH 19. Most agricultural and heavy truck traffic uses Tucker Road to the west.

Greenleaf citizens did not voice any concerns over freight/truck traffic, therefore, opportunities for improvement were not explored. However, with agriculture being such an important part of the economy in the area, Greenleaf officials should consider the needs and issues associated with freight/truck traffic as the industrial corridor develops along Peckham Road.

For example, if an industrial business is proposed along Peckham Road, the City should look at impacts to the overall transportation network (i.e. connecting north-south routes) so as to not disproportionately disrupt established residential neighborhoods within the City. This can be accomplished with traffic impact studies to determine impacts and establish official truck routes (i.e. Tucker Road instead of Friends Road).



Official Street Plan Overview

The city identified the need for an Official Street Plan map to provide guidance to city staff and developers regarding functional classification, right-of-way, and road improvement requirements upon development and subdivisions. In an effort to encourage implementation of existing city policies as well as neighboring jurisdictions plans, the guidelines in the Greenleaf Official Street Plan considered Greenleaf's city codes, Greenleaf's Comprehensive Plan, and Wilder's Transportation Plan and Comprehensive Plan. The Greenleaf Official Street Plan map includes the following elements:

- Corridor preservation and right-of-way width - in accordance with the City's zoning and improvement standard codes.
- Identification of "Entry corridors"—per the City's Comprehensive Plan, SH 19, Friends Road, Tucker Road, Top Road, and Peckham Road. Future "Entry corridors"—Notus Road; Lower, Middle and Upper Pleasant Ridge Roads; and Van Slyke Road.
- Future roadway connections - in accordance with the City's Comprehensive Plan, incorporates a future mid-mile collector roadway system to be implemented by future developments within the city's AOI to serve future growth.

- Building setback guidelines—aligns with Canyon County’s existing setback requirements and are established to prevent building encroachments, protect neighboring uses, and allow for roadway capacity expansion within the city’s AOI.

Greenleaf Official Street Plan

The Official Street Plan map is the city’s official street network guide to be utilized in conjunction with city codes and ordinances and the adopted Comprehensive Plan. The Official Street Plan map identifies corridor preservation guidelines for arterials, entry corridors, and collectors. The City of Greenleaf’s corridor preservation guidelines are summarized in **Table 11**.

Table 11—Greenleaf Corridor Preservation Guidelines

Road Type	Minimum Right-of-Way*	Building Setbacks** (Commercial use)	Building Setbacks** (Residential use)
Highway	130'	100'	115'
Arterial	80'	60'	75'
Entry Corridor***	80'	75'	90'
Collector	70'	50'	65'

*Additional right-of-way may be required as deemed appropriate by the City Council.

**Measured from roadway centerline.

***Designated Entry Corridors—City Comprehensive Plan—SH 19, Friends Road, Tucker Road, Top Road, Peckham Road.

The Official Street Plan Map to be utilized in conjunction with the City’s adopted Street Standards and Development Requirements manual, landscaping requirements and Comprehensive Plan. As the city grows and develops within the AOI, the city should consider requesting roadway re-classifications to align with the Official Street Plan map.

Recommendations

Other elements related to the Official Street Plan that City officials should consider as part of future policy or code updates include:

- Landscape features along entry corridors to improve aesthetics.
- Landscape buffers to provide separation between arterial and collector roadways and residential development.

Official Street Plan

City of Greenleaf Transportation, Parks, and Trails Plan

- New developments to install wider sidewalks or pathways along SH 19 and collector roadways adjacent to the development to help implement the community's desire to improve pedestrian connections and accessibility. Detached sidewalks or pathways should be considered to provide an area between the curb and sidewalk for storm water swales.
- New developments to install detached sidewalks with a minimum width of five feet with curb and gutter along both sides of the road. Detached sidewalks should be considered to provide an area between the curb and sidewalk for storm water swales.
- Develop specific pavement section, typical sections, and design standards for all types of roadways, sidewalks and pathways for the City to provide clearer guidance for staff and prospective developers. These standards should incorporate standards for storm water.

These recommendations are meant to help streamline the process for city staff and officials when future development occurs. This will help the city be more equipped when the next wave of growth begins.



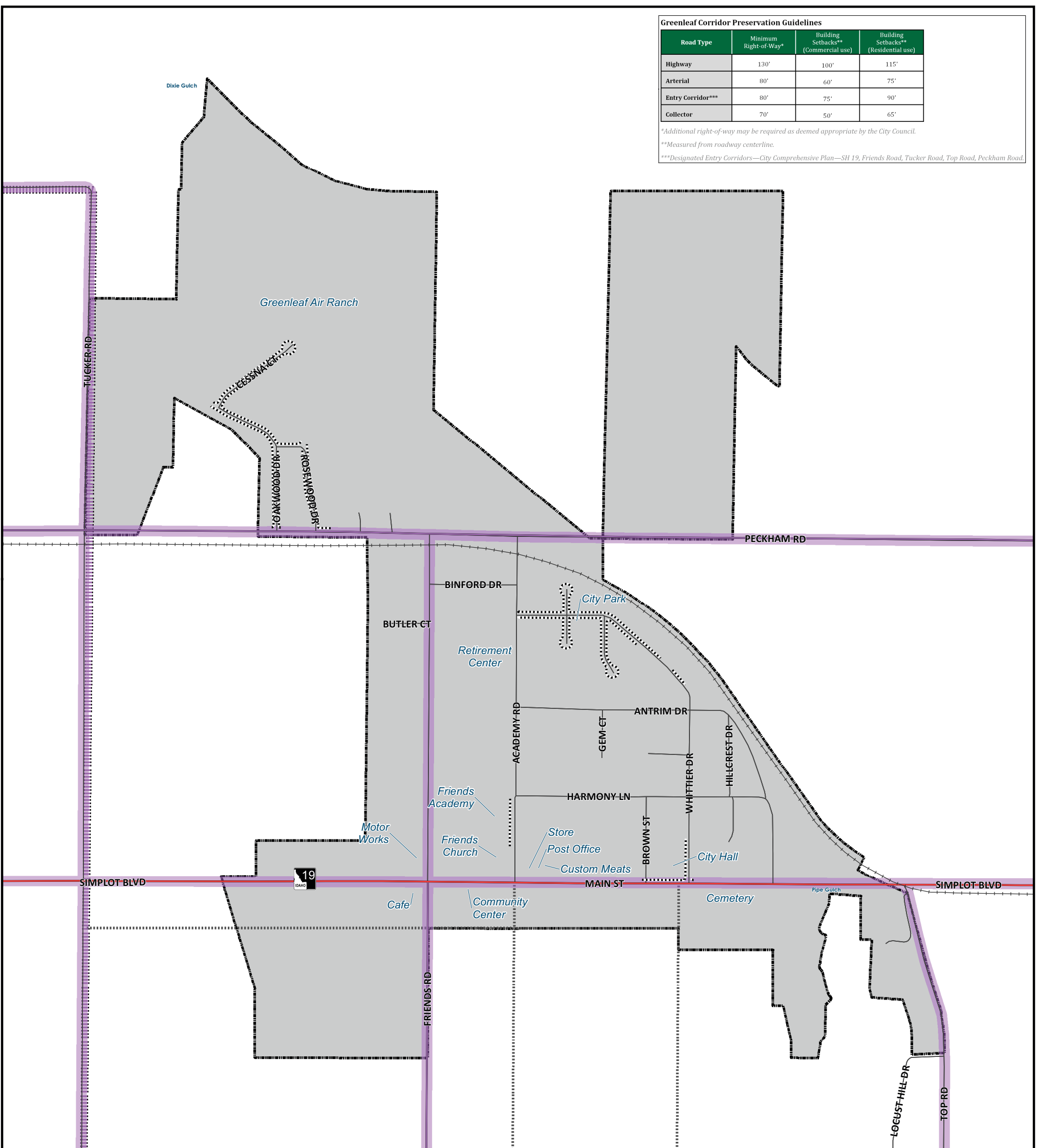
Greenleaf Corridor Preservation Guidelines

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Arterial	80'	60'	75'
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Collector	70'	50'	65'

*Additional right-of-way may be required as deemed appropriate by the City Council.

**Measured from roadway centerline.

***Designated Entry Corridors—City Comprehensive Plan—SH 19, Friends Road, Tucker Road, Top Road, Peckham Road.



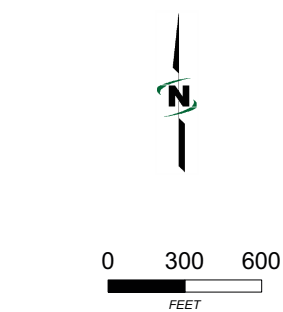
CITY OF GREENLEAF
INCORPORATED JUNE 8 1973
CANYON COUNTY, OREGON

CITY OF GREENLEAF

TRANSPORTATION PARKS AND TRAILS PLAN

FIGURE 8

OFFICIAL STREET PLAN



JUB
J-U-B ENGINEERS, INC.

GATEWAY MAPPING INC.
a J-U-B Company

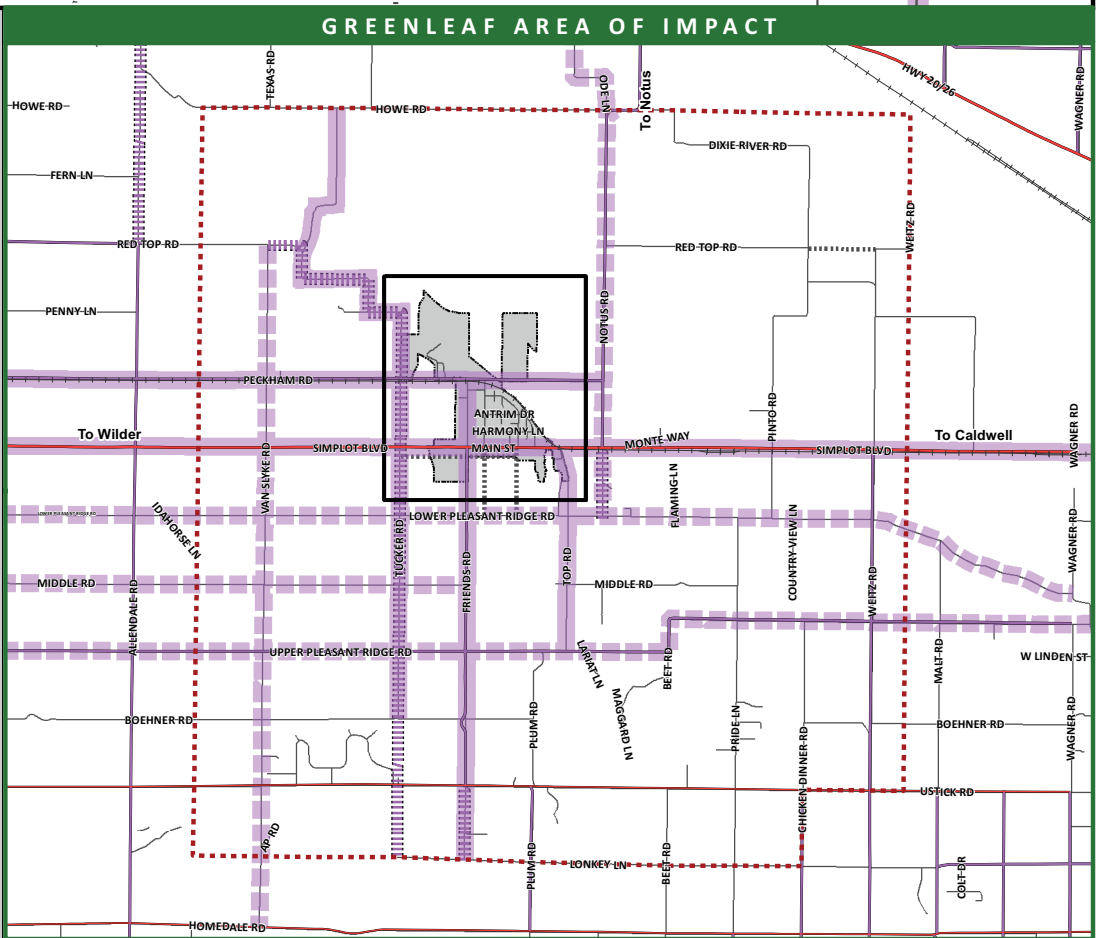
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LEGEND

- Area of City Impact
- City Boundary
- Railroads
- Points of Interest
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Future Major Collector
- Future Road
- Existing Entry Corridor
- Future Entry Corridor

0 2,500 5,000 7,500 Feet



Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Sidewalks, Trails, and Parks Plan Overview

The Greenleaf Sidewalks, Trails, and Parks Plan identifies key destinations, existing sidewalks and parks facilities, and future sidewalks, trails and parks. The Sidewalks, Trails, and Parks Plan provides guidance to city staff and developers for capital improvement projects and improvements to be incorporated with proposed developments and subdivisions.

In an effort to encourage implementation of existing city policies as well as neighboring jurisdictions plans, the Greenleaf Sidewalks, Trails and Parks Plan incorporates Greenleaf's city codes, Greenleaf's Comprehensive Plan, Wilder's Transportation Plan and Comprehensive Plan, and the City of Caldwell's Master Bicycle and Pedestrian Plan.

This map may be used in conjunction with city codes and ordinances, the Comprehensive Plan and the latest version of the *AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities* for bicycle and pedestrian facilities and NRPA standards for park facilities.

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Sidewalks/Trails/Pathways

As previously mentioned in the introduction section of this plan, there are few sidewalks within the City. There are short sections sporadically located along SH 19 and Whittier Drive in front of City Hall, Academy Road in front of Greenleaf Friends Academy, and along Antrim Drive. Sidewalks were constructed on both sides of the new local roads within the GAR development. There are no designated bike lanes within Greenleaf.

The community identified bicycle, pedestrian and trails as their number one priority. The community also expressed a desire for improved handicap accessibility, or upgraded facilities that meet the Americans with Disabilities Act (ADA) to be incorporated as part of future sidewalk projects.

Sidewalks

Future sidewalks have been identified by citizens in the following locations:

- SH 19 from Friends Road to Whittier Drive, connecting to the existing sidewalks in front of City Hall.
- Friends Road from SH 19 to Peckham Road.
- Academy Road from SH 19 to Peckham Road.
- Whittier Road, on the west side beginning one block north of SH 19 (connect into existing sidewalk on west side of the road) to existing sidewalks in the residential portion of the City.
- Whittier Road, on the east side of the road from SH 19 to the existing sidewalks in the residential portion of the City.
- Antrim Drive, from Whittier Drive to Academy Road.



Friends Road, looking south; a Greenleaf resident walking home from the Café

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Sidewalks along arterial and collector roadways should be a minimum of 7' wide, and sidewalks along local roads should be a minimum of 5' wide. Street lighting should be included as part of sidewalk projects whenever possible for safety and improved visibility. These projects may be implemented as funding and grants become available.

Trails/Pathways

It is the community's desire to implement a trail/pathway system through joint efforts of the City of Greenleaf and developers. By showing these connections on the Sidewalks, Trails and Parks Plan map, the city can pursue grants and developers can include trails and pathway connections as part of their development to provide connectivity to the city's main roads and destinations. In such a quaint community such as Greenleaf, walking and biking should be effortless and safe. Promoting walking and biking will help give the community a sense of place and will promote healthier lifestyles. Future trails/pathways have been identified by citizens and city staff in the following locations:

- SH 19 - a shared-use pathway connecting the cities of Wilder, Greenleaf and Caldwell. Sidewalks are proposed along SH 19 in the downtown area from Friends Road to just past Whittier Drive. This regional connection is identified in Wilder's Transportation Plan and Greenleaf citizens have expressed support for a similar bicycle/pedestrian connection.
- Peckham Road—a shared-use pathway between the cities of Wilder and Greenleaf. It is identified in Wilder's Transportation Plan and Greenleaf citizens expressed support for a similar bicycle/pedestrian connection.
- South of SH 19—center of town, west of the Greenleaf Cemetery and east of the Community Center, this future trail/pathway could be incorporated as part of a future development and/or park project.
- South of SH 19—west side of town, east of Tucker Road, as part of a future development.
- North of SH 19—west side of town, east of Tucker Road, continuing along the west side of the canal, connecting to Tucker Road. On the same property, trails/pathways are identified on the east side of the property that would provide bicycle/pedestrian connections to Friends Road and SH 19.
- North of SH 19—east side of town, along the perimeter, as part of future developments.

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

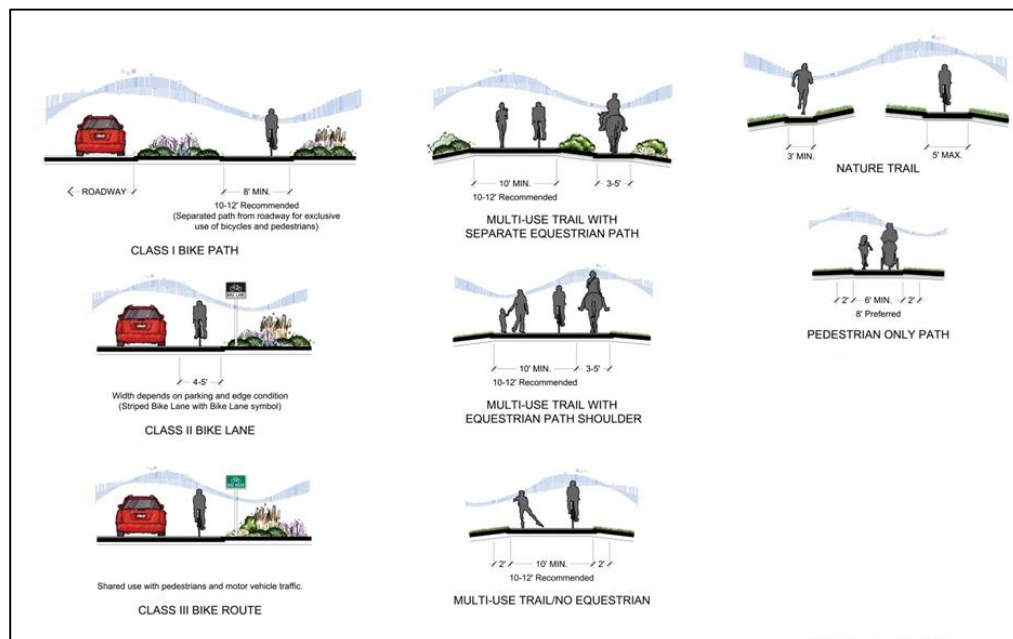
- Southeast of town—a north-south connection from Greenleaf along Weitz Road to connect to a future bike route identified in Caldwell’s Master Bicycle and Pedestrian plan.
- Southeast of town (partially outside of Greenleaf’s AOI)—north of SH19, along Wagner Road, a north-south connection from SH 19 to a future bicycle/pedestrian connection to the Boise River, identified in Caldwell’s Master Bicycle and Pedestrian plan.

It should be noted that locations for trails/pathways are approximate. Exact locations will need to be coordinated with city projects, subdivision, and project development layout.

Design Standards and plans for bicycle and pedestrian facilities should be reviewed for conformance with the *AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities* by the City Engineer and Planning and Zoning Commission, and approved by the City Council prior to construction.

Trail/pathway typical sections and bike path options are provided in **Figure 9**. The City Council should identify preferred typical sections to be applied to capital improvement projects and proposed developments/subdivisions on a case-by-case basis. These typical sections are also part of the City of Wilder Transportation Plan, allowing for coordinated policies and facilities within the region.

Figure 9—Typical Section Options for Trails and Bike Paths



Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Figure 10 shows existing and future sidewalks and trails.

Existing Parks

It is the community's desire to improve its parks and recreation opportunities in Greenleaf. All too often, Greenleaf residents have to travel to Caldwell, Nampa, Meridian, and/or Boise to enjoy basic recreation facilities. The City has minimal parks and recreation amenities. The City owns and maintains one 0.19-acre neighborhood park located at the southeast corner of Whittier Drive and Redwood Place. As shown in the photos below, this park has a teeter-totter, jungle gym, picnic tables, a barbeque and a grassy area.



Teeter-totter



Jungle Gym



Picnic Table and Barbeque



Grassy Area

The City also will also own an unimproved 1.24-acre parcel of land that will be dedicated in the near future, located north of Peckham Road at the easterly terminus of Briarwood Drive. This land will be dedicated to the City of Greenleaf as part of the GAR development.

Service Area

According to NRPA standards, the service area for community parks is about one-half of a mile, a distance that people are typically willing to walk or bike to access recreation facilities. **Figure 10** shows the existing improved park with a half-mile radius service area around it. The City should keep this in mind when planning for future park site locations.

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

NRPA Parks Analysis

City of Greenleaf’s Comprehensive Plan recognizes NRPA open space guidelines and standards. Therefore, an analysis was performed using NRPA guidelines for existing and future level of service. NRPA’s recommends an overall standard of 6.25-10.5 acres per 1,000 people. With only one improved .19-acre park, and a population of 846, the City of Greenleaf should currently have approximately 5.10 to 8.69 acres of parkland. With a two percent annual growth rate, there should be a minimum of 8.51 to 14.29 acres of parkland by 2034. **Table 12** lists 2010 and 2034 minimum park acre standards and discrepancies.

Table 12—2010 and 2034 Park Inventory

2010 Park Inventory			
City Population	Park Inventory	Range (Acres)	
846	Greenleaf Existing Park Inventory	0.19	0.19
	2010 Greenleaf Minimum Park Acreage (based on NRPA Standards and population)	5.29	8.88
	2010 Discrepancy	(5.10)	(8.69)
2034 Park Inventory			
Projected City Population	Park Inventory	Range (Acres)	
1,361 <i>(based on a 2% annual growth rate)</i>	Greenleaf Existing Park Inventory - with no park improvements	0.19	0.19
	Greenleaf Minimum Park Acreage (based on NRPA Standards and population)	8.51	14.29
	2034 Discrepancy	(8.32)	(14.10)

Source: NRPA Standards and J-U-B ENGINEERS, Inc.

Future Parks and Recreation Facilities—Public

Future public parks and recreation facilities have been identified by citizens and city staff. These sites would be owned and maintained by the City to serve the overall community.

- Develop a new park north of the Greenleaf Friends Academy property on the west side of Academy Road and east side of Friends Road. This property has potential because it is currently owned by the Greenleaf Friends Church and the City of Greenleaf could work with them to determine if a community park would be possible and/or feasible at this location.
- Develop a viewing area near the corner of Antrim Drive near Hillcrest Drive along the ridge.

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Antrim Drive/Hillcrest Drive



View from the ridge off of Antrim Drive

- Potential park site behind the Community Center south of SH 19 east of Friends Road. This property has potential because it is currently owned by the Greenleaf Friends Church and the City of Greenleaf could work with them to determine if a community park would be possible and/or feasible at this location.
- Install a new informational kiosk at the northeast corner of SH 19 and Friends Road for the Snake River Canyon Scenic Byway. The 'Northern Ag Super Side Strip' of the Scenic Byway runs along Friends Road south of Greenleaf, then through Greenleaf up to Peckham Road, then west towards Wilder. The kiosk, combined with sidewalk and lighting improvements along Friends Road and SH 19 and proposed park north of the Academy Road will make for a unique local and tourist experience.
- Improve existing park property at the GAR development area.

Prior to initiating park improvements, it is recommended that the City of Greenleaf initiate a specific planning effort to develop design concepts for each project and obtain community input and support. These projects may be implemented as funding and grants become available.

Future Parks and Recreation Facilities—Neighborhood

Future neighborhood parks have been identified for implementation as part of future developments in areas that will likely be developed. Depending on the development, these sites may be publicly or privately owned and maintained.

- South of SH 19, east of Tucker Road.
- South of SH 19, east of Friends Road, behind and east of the Community Center, and behind the Cemetery.
- North of SH 19, east of the railroad tracks.

Sidewalks, Trails, and Parks Plan

City of Greenleaf Transportation, Parks, and Trails Plan

- North of SH 19, south of Peckham Road, between Tucker Road and Friends Road.
- North of Peckham Road, east of the City's wastewater treatment plant property.

Recreation Amenities and Facilities

Based on a survey that was sent out and responded to by Greenleaf residents, the following recreation amenities and facilities were identified as the top ten priorities:

- 1 Walking Path
- 2 Restrooms
- 3 Picnic area/gathering place
- 4 Shade trees
- 5 Benches
- 6 Playground (2-5 years)
- 7 Community Center
- 8 Playground (5-12 years)
- 9 Amphitheatre stage/seating for outdoor concerts and events
- 10 Open play grass area

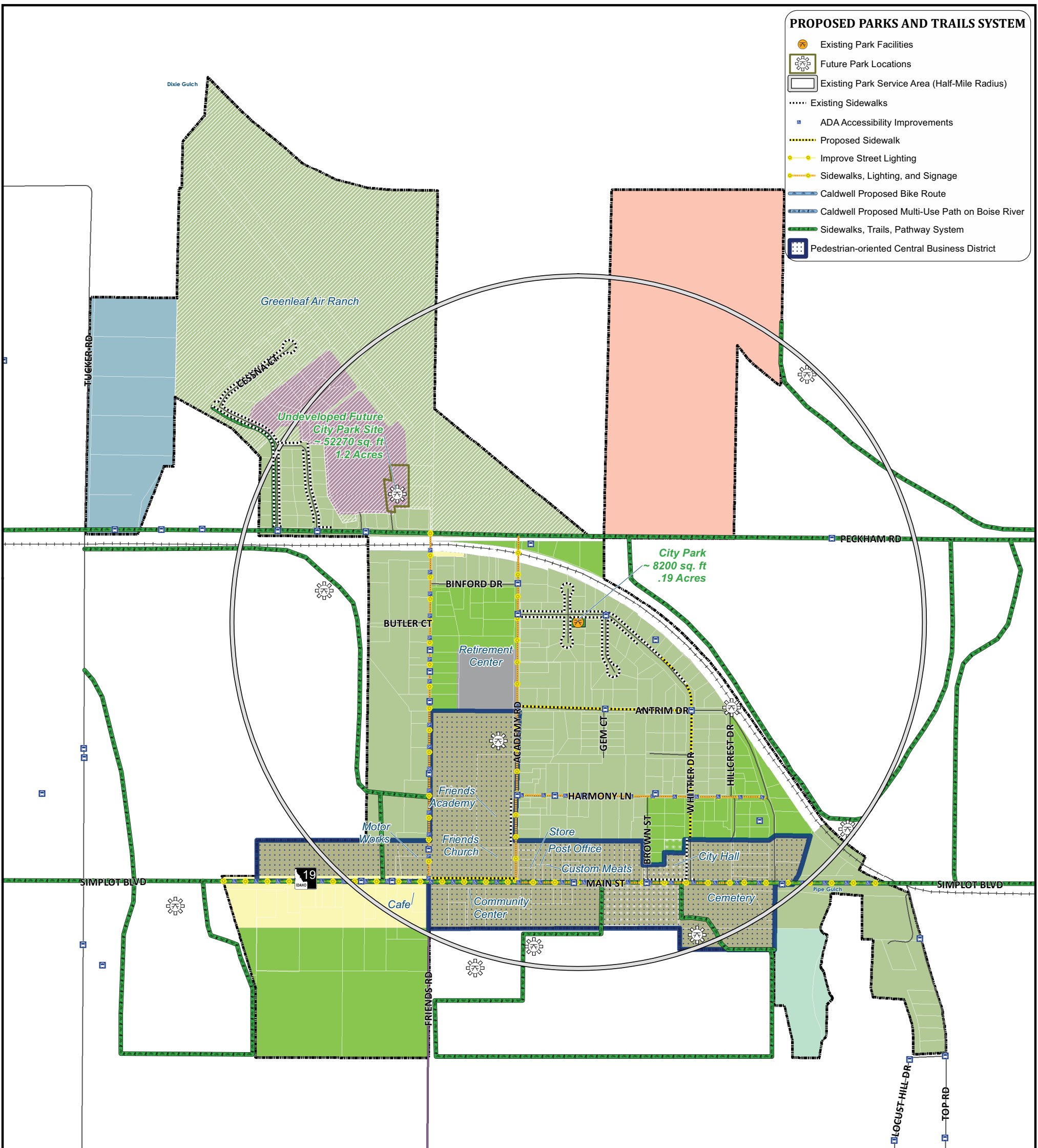
When planning for parks and recreation facilities, the City Council should consider these priorities. Park amenities may be implemented as funding and grants become available.

Figure 10 shows existing and proposed sidewalks, trails, and park sites.



PROPOSED PARKS AND TRAILS SYSTEM

- Existing Park Facilities
- Future Park Locations
- Existing Park Service Area (Half-Mile Radius)
- Existing Sidewalks
- ADA Accessibility Improvements
- Proposed Sidewalk
- Improve Street Lighting
- Sidewalks, Lighting, and Signage
- Caldwell Proposed Bike Route
- Caldwell Proposed Multi-Use Path on Boise River
- Sidewalks, Trails, Pathway System
- Pedestrian-oriented Central Business District



CITY OF GREENLEAF
INCORPORATED JUNE 8 1973
CANYON COUNTY, IDAHO

TRANSPORTATION PARKS AND TRAILS PLAN

FIGURE 10
SIDEWALKS, TRAILS, AND PARKS PLAN MAP

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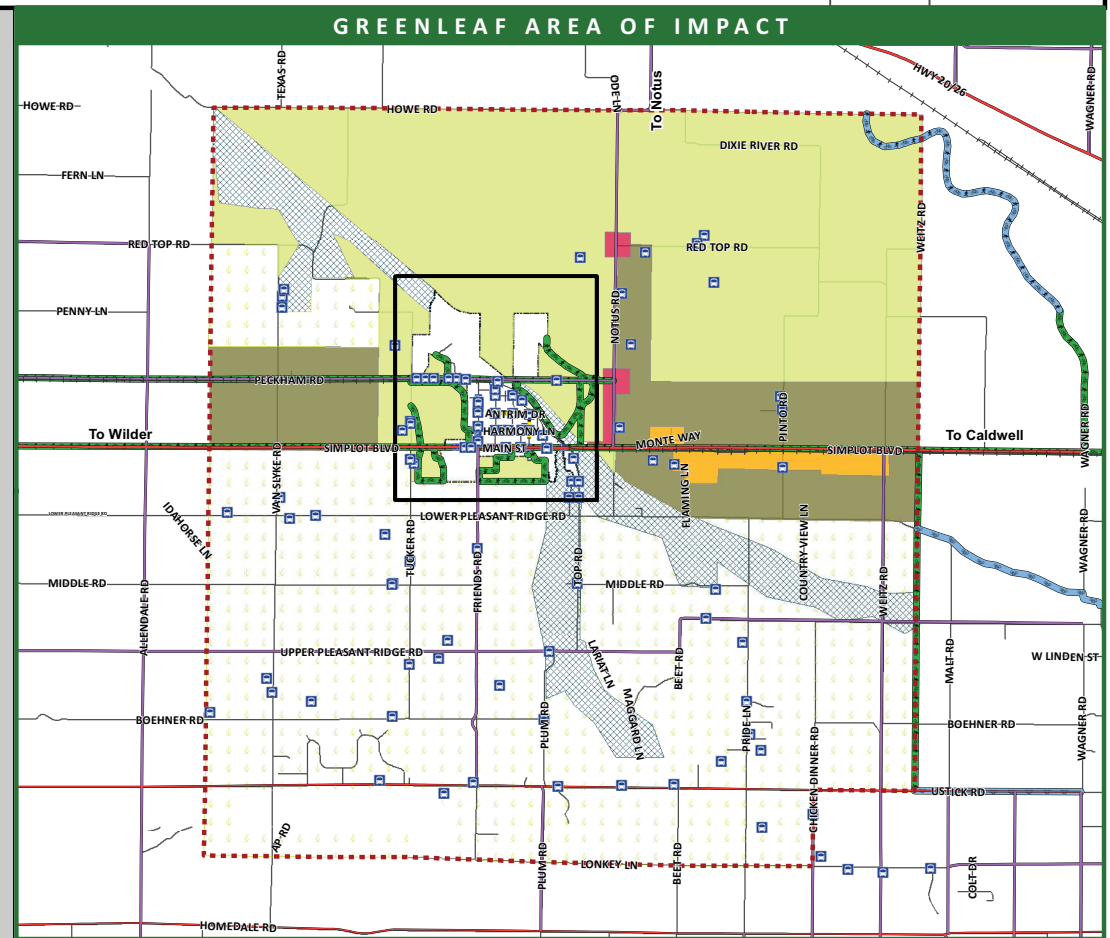
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GATEWAY MAPPING INC.
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Plot Date: 10/1/2015

LEGEND

Bus Stops	Parks	Agricultural
Area of City Impact	City Boundary	Airpark Commercial
Railroads	Points of Interest	Central Business District
Rural Principal Arterial	Rural Minor Arterial	Industrial
Rural Major Collector	Rural Minor Collector	Neighborhood Commercial
Local Roads	Existing Sidewalks	R-1
		R-12
		R-3
		R-5
		Airpark Overlay
		Civic Use Overlay
		Agriculture
		Commercial
		Existing Industrial
		High Density Development Area
		Industrial
		Low to Mid Density Development Area
		Rural Residential Zone



0 2,500 5,000 7,500
Feet

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Pavement Management Plan Overview

The City of Greenleaf maintains all roads within the city limits, with the exception of SH 19, which is maintained by the Idaho Transportation Department (ITD). All other roads surrounding the city limits are under the jurisdiction of Golden Gate Highway District No. 3.

There are approximately 4.6 miles of paved roadways within the City, mostly local roads. The stretch of Peckham Road within city limits and a portion of Friends Road south of SH 19 are classified as collectors. There are no arterial roads within the City other than SH 19.

As the City's population grows, the demand on the road network will intensify and it is important that the City of Greenleaf successfully implement a plan to manage its investment in the roadway network. Having the capability to analyze the road network allows the City to identify and take actions in a more strategic approach.

A pavement management plan (PMP) presents the City with an opportunity to better understand the state of their road network. Pavement management planning empowers the City with a systematic approach to performing budget analysis. Direct relationships between budget, repair strategies, and remaining service life will all be apparent through the use of a PMP. Proper identification of fund allocation is an imperative step towards meeting the City's goals for road network management.

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Current Pavement Management Practice in Greenleaf

According to City staff, the City chip seals approximately one mile of roadway every-other year. The City typically allocates approximately \$17,000 to \$25,000 out of the Streets budget each year to go towards chip sealing and pot-hole repairs.

The Golden Gate Highway District assists the City of Greenleaf with routine maintenance and sanding in the winter.

Pavement Management Purpose

The intent of this PMP is to help the City of Greenleaf manage their most valuable asset, the road network. The report has been developed to outline a standard procedure that the road department can rely on when creating a pavement management strategy. The reliability of the PMP will be dictated by the quality of the road network pavement condition inventory. An updated pavement condition inventory is recommended every two years, or every three years at a minimum. Between the biennial data collection, changes in staff and management styles could result in different data collection methods. This is why a successful PMP must be accompanied by guidelines that can be referenced year after year to ensure the continuity of the data.

Pavement Management Goals

The principle of pavement management is that the cost to repair a roadway only becomes greater with time. Pavement condition deteriorates with time at an exponentially increasing rate. The goal is to provide a clear and effective pavement management plan that takes inventory data and produces a treatment strategy that preserves the roadway in a cost effective manner. A successful pavement management plan makes it easy to define the necessary budget that will be required to meet the goals for the city road network.

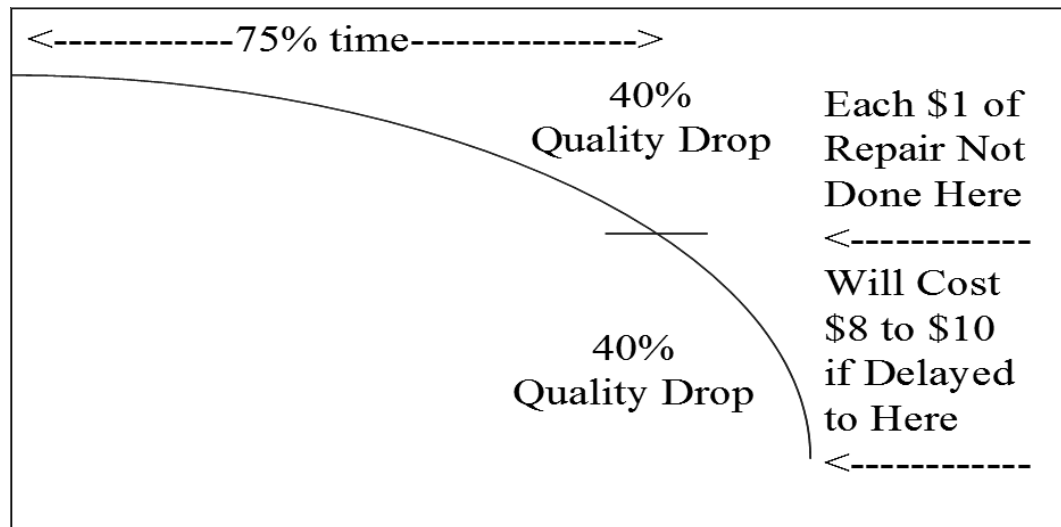
A road network is a combination of multiple road segments. Segments are usually divided at logical locations, such as intersections or significant changes in pavement condition or type. Segments should have the same traffic volume and load intensity. The objective of a PMP is to implement a strategy that extends the life of the roadway for either the greatest cost-benefit or lowest average annual cost. The individual segments will be treated with a specific repair strategy to increase the service life of the segment.

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Figure 11 shows typical pavement deterioration over time and the associated cost of repair. Maintenance within the first 75 percent of the pavements design life is significantly more cost effective than maintenance deferred for just a few more years.

Figure 11—Typical Pavement Deterioration Curve



Pavement Management Elements

General

This PMP creates a simple informational and tracking system for the City to use when budgeting for maintenance and repair projects. The development of this PMP involves the following steps:

- Mapping (GIS) Road Network
- Basic Roadway Information
- Decision Tree on Structural Deterioration
- Recommended Treatment
- Implementation

Roadway Network Geographic Information Systems (GIS) Map

The road network must be organized in a format that can be used in the pavement management spreadsheet. The individual roads are divided into segments for analysis purposes.

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Repair strategies, which will be further explained later in the plan, are developed based on road segment conditions that will fit into a practical maintenance plan. Dividing a section of roadway into multiple segments that have been historically maintained as one segment is not normally practiced unless there is a large discrepancy in the pavement condition. Street data in **Appendix D** includes a listing of city street segments, recommended treatments, and the associated remaining service life.

Basic Roadway Information

This information includes road name, segment terminus, and number of lanes, pavement width, segment length, and shoulder type. When collecting this information, length and width of the road need special consideration. GIS mapping will generate a scaled length, but this should be verified in the field by a distance measuring device or odometer reading. The length and width are used to determine the area of surfacing and resulting cost. The width should be accurate, and rounding up to the nearest foot to provide slightly conservative estimates of area is recommended.

Decision Tree on Structural Deterioration

By evaluating and recording the structural deterioration of the road network in the decision tree spreadsheet, the City can begin to allocate funds to the appropriate repair strategies. The decision tree shown in **Appendix D** will help the road department personnel go through a step-by-step process to assign a treatment number to each road segment to help determine the recommended treatment needed. It should be noted that Brown Street is listed as a do nothing for treatment because it has new asphalt.

The four main categories of repair/maintenance strategies include:

- 1 Routine Maintenance (Crack Seal and/or Crack Seal and Chip Seal)
- 2 Preventative Maintenance (Crack Seal and Overlay)
- 3 Rehabilitation (Pulverize and Overlay and/or CRABS and Overlay)
- 4 Reconstruction (Total Reconstruction)

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Recommended Treatment

Determining the most cost effective treatment strategy for any road system is a matter of identifying the general roadway deficiencies and trying several alternatives to find the best fit. **Appendix D** summarizes recommended treatment (repair strategies) for each roadway segment and the associated estimated cost of each of the recommended treatments. Recommended treatments based on structural condition for the street’s network are shown in **Table 13** and **Figure 12**.

Table 13—Recommended Treatments, Sorted by Treatment Type

Treatment Type	Miles	Estimated Cost	Roadway
Routine Maintenance	4.11	\$172,022	Local roads except for Harmony Lane (preventative maintenance) and Peckham Road (to be rehabilitated as part of an LHTAC project)
Preventative Maintenance	0.36	\$105,883	Harmony Lane
Rehabilitation	0.0	\$0.00	--
Reconstruction	0.0	\$0.00	(Future widening of Harmony Lane)
Total	4.47	\$277,905	

Implementation

Harmony Lane is identified in the CIP as a priority project for a chip seal and 2-inch overlay. The City of Greenleaf could apply for a \$100,000 Construction LRHIP grant through LHTAC to implement this project.



Harmony Lane

Whittier Drive, Hillcrest Drive, and Antrim Drive are identified as needing a crack seal and chip seal treatment within the next few years.

The final step of a PMP is implementing the recommended treatments on an annual basis to complete the repairs within a seven to ten year period. This is typically done by budgeting sufficient funds to allow the recommended treatments determined in the decision tree to be applied to the appropriate roadways. It is important to reevaluate the pavement condition every two years, three at the most, to provide an up-to-date inventory for better decision making and to allow pavement performance to be tracked over time.

Pavement Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Each year after a condition assessment is performed if no pavement repair strategy is implemented on a road segment, the structural deterioration increases. This will be important when considering road treatments in the future since those roads that have not had a treatment applied in recent years will likely have their recommended treatment number increased.

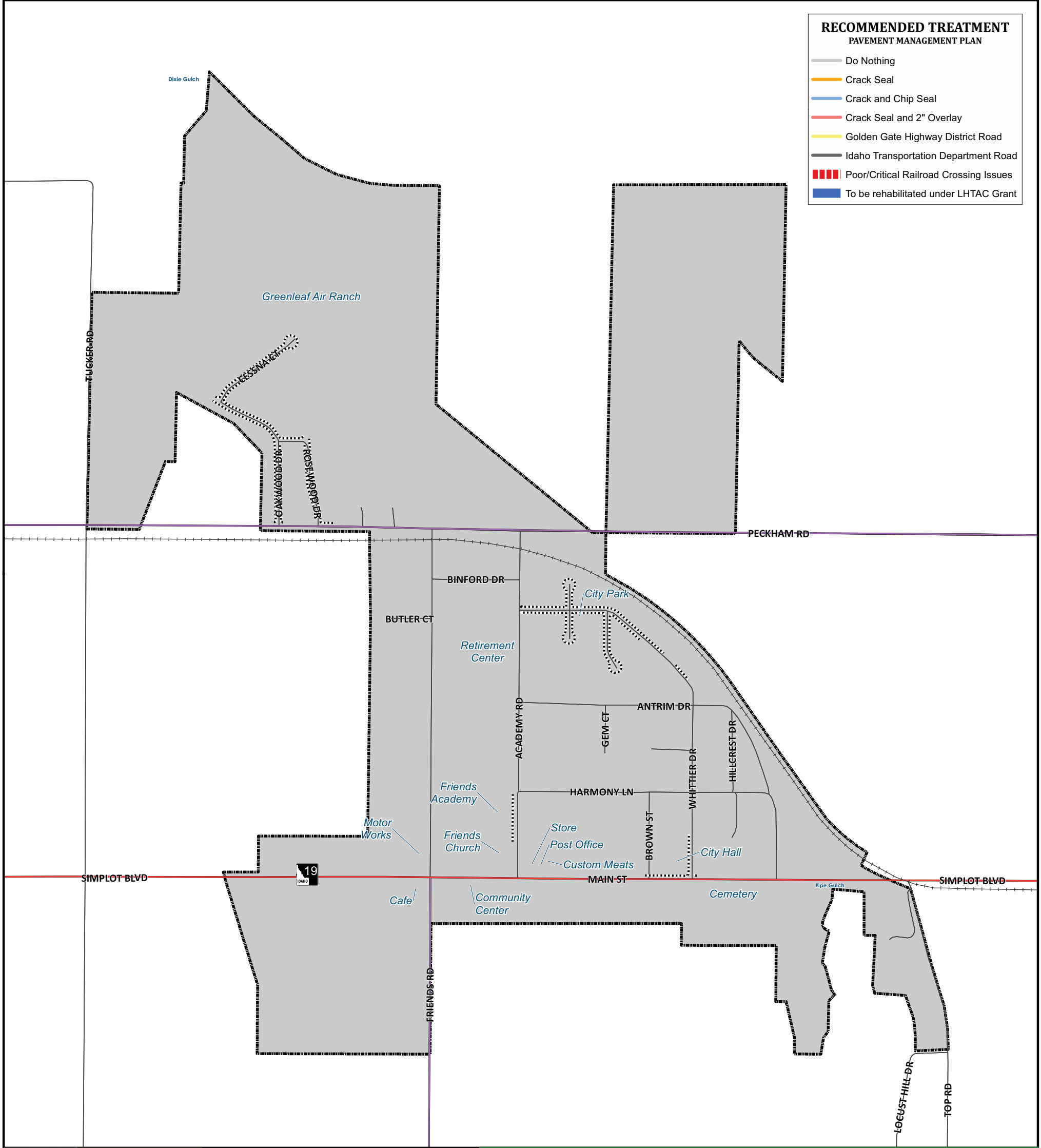
See the following Pavement Management elements in **Appendix D**:

- Decision Tree
- Recommended Treatment Repair Strategies
- Street Data with pavement condition inventory



RECOMMENDED TREATMENT
PAVEMENT MANAGEMENT PLAN

- Do Nothing
- Crack Seal
- Crack and Chip Seal
- Crack Seal and 2" Overlay
- Golden Gate Highway District Road
- Idaho Transportation Department Road
- Poor/Critical Railroad Crossing Issues
- To be rehabilitated under LHTAC Grant



CITY OF GREENLEAF
INCORPORATED
JUNE 8
1973
CANYON COUNTY, IDAHO

**TRANSPORTATION PARKS
AND TRAILS PLAN**

**FIGURE 12
RECOMMENDED PAVEMENT
TREATMENT**

JUB
J-U-B ENGINEERS, INC.

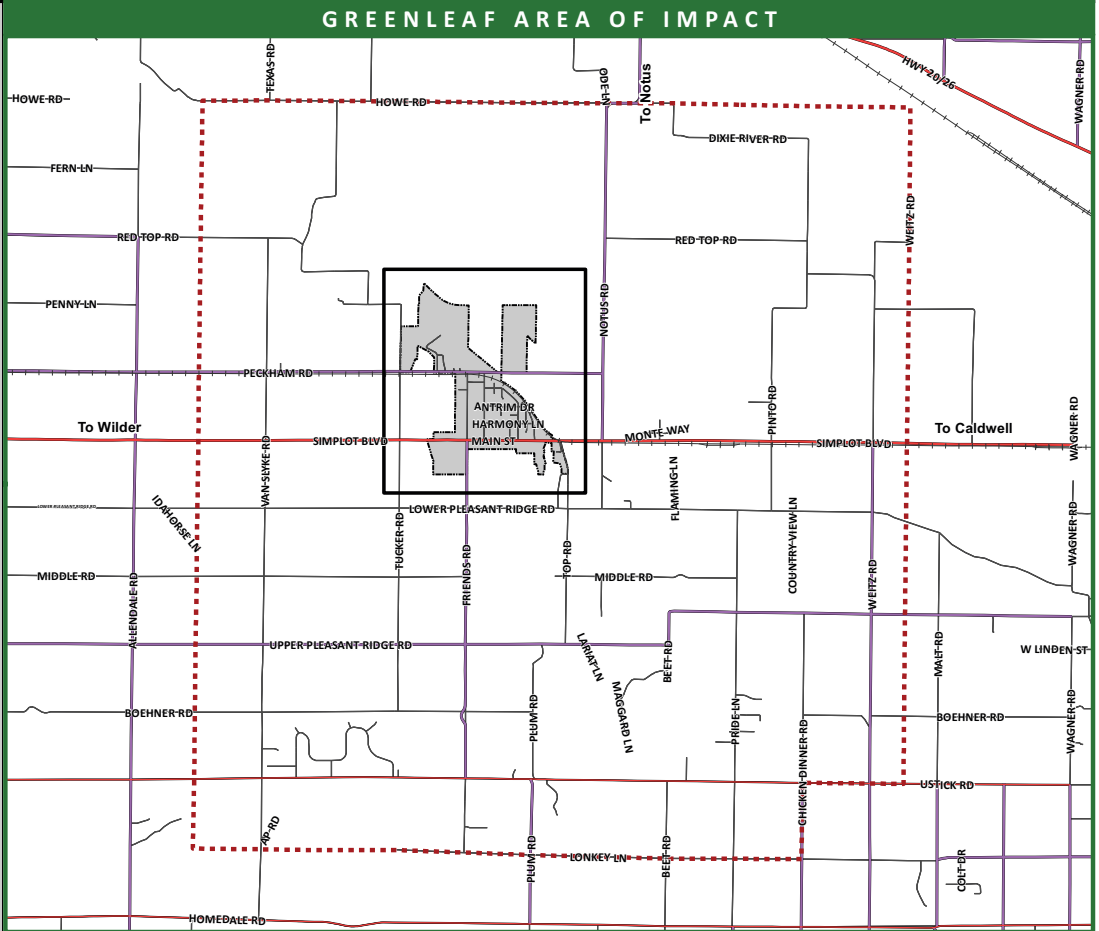
**GATEWAY
MAPPING
INC.**
a J-U-B Company

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Plot Date: 10/1/2015

LEGEND

- Area of City Impact
- City Boundary
- Railroads
- Points of Interest*
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Sidewalks



Sign Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Sign Management Plan Overview

Public agencies or officials having jurisdiction have the responsibility to use an assessment or management method that is designed to maintain sign retro-reflectivity at or above the minimum levels as listed in the Manual on Uniform Traffic Control Devices (MUTCD) standards Section 2A.22. In addition to bringing signs up to MUTCD standards to improve nighttime sign visibility, warning and regulatory signs and posts should be evaluated for overall condition to determine if replacement is necessary.

Sign Inventory

An inventory of signage was conducted as part of this transportation plan. The initial step in this process was to transfer sign inventory that had been previously mapped in iWorQ software in 2006 to a Geographic Information Systems (GIS) mapping system. Once a GIS map was created, a field visit was conducted to verify and update sign inventory.

The City of Greenleaf is responsible for the maintenance of approximately 147 signs within City limits. This includes regulatory, warning, and street name signs. There are approximately six signs along the border of City limits that are maintained by Golden Gate District. There are approximately 12 signs within City limits along SH 19 that are maintained by ITD.

Sign Condition Assessment

Once a complete sign inventory was completed, a condition assessment was conducted by visual inspection in the field. Sign conditions were then assigned and documented as poor, fair, good, or very good. Based on this assessment, it is recommended that 67 warning and regulatory signs be replaced.

As part of the condition assessment, the ITD traffic manual was reviewed. Section 851.00 and Idaho Code Section 49-202(25) requires the placement of stop signs at all railroad grade crossings where electronic or mechanical warning signals do not exist. Local jurisdictions should be cautioned that they need to either place stop signs or have an evaluation and resolution or minute entry for not placing stop signs at a crossing. Therefore, additional signs have been identified for safety, including new and upgraded signage at the at-grade railroad track crossings on Friends Road and Academy Road. Prior to installing these signs, the City should first evaluate stopping distances, driveway locations, and intersection geometry in order to make a determination if it would be safer to install stop signs, or if installing signs would create a potential hazard due to the limited space between the railroad tracks and Peckham Road. In either case, an official determination should be made on the record and documented with minutes in order to meet Idaho Code.



Peckham Road/Academy Road Stop Sign



Snake River Scenic Byway Sign Design



Friends Road RR Crossing Sign

Sign Management Plan

City of Greenleaf Transportation, Parks, and Trails Plan

During the planning process, the public identified the need for wayfinding signs. As part of this sign project, new Snake River Canyon Scenic Byway and improved City of Greenleaf directional signage has been identified. While it is not a full-blown wayfinding signage system, it is a good starting point. A more comprehensive tourist-oriented wayfinding signage system can be developed and implemented in the future to build upon this initial signage.

Railroad Signage / Traffic Control

If Academy Road remains open between Peckham Road and Binford Drive, the following improvements should be considered:

- 1 Install signage on Peckham Road and Academy Road to close Academy Road to all truck traffic between Peckham Road and Binford Drive due to the sub-standard railroad crossing on Academy Road.
- 2 Install signage for no left turns from Academy Road northbound onto Peckham Road westbound, due to the blind turn where traffic coming westbound on Peckham Road up the grade to the top of the Wilder Bench (aka Billy Goat Hill) cannot be seen from the Academy Road intersection.
- 3 Option for installation of a physical curbing feature (“porkchop” or island similar to that recently installed at the intersection of Farmway and Ustick Roads, or other curbing feature) to prevent left turns from Academy Road northbound onto Peckham Road westbound for the reason given above.

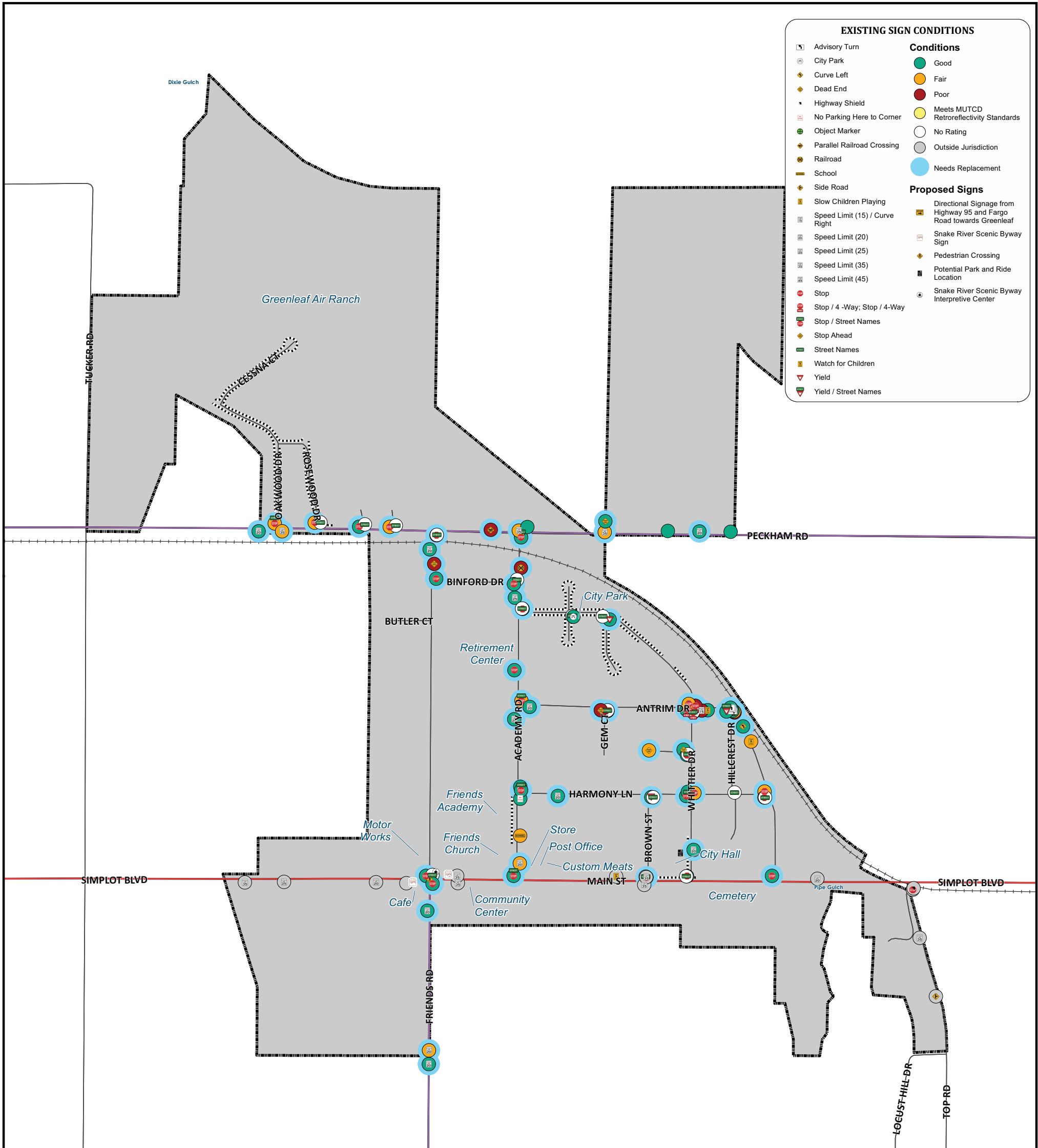
Based on an engineer’s opinion of probable costs, the estimated cost of an overall sign replacement project is approximately \$26,013. With contingency and mobilization costs, it is recommended that an additional \$4,000 be set aside for budgeting purposes, for a total project cost of \$30,000. This will provide flexibility and opportunities to replace or install new signs as deemed necessary.

Figure 13 shows a complete inventory, condition assessment and signs to be replaced.

Implementation

The City of Greenleaf should apply for a \$30,000 Sign LRHIP grant through LHTAC to bring warning and regulatory signs, signposts, and pavement markings up to Manual on Uniform Traffic Control Devices (MUTCD) standards.

See sign inventory and cost estimate for sign replacement in **Appendix E**.



EXISTING SIGN CONDITIONS	
	Advisory Turn
	City Park
	Curve Left
	Dead End
	Highway Shield
	No Parking Here to Corner
	Object Marker
	Parallel Railroad Crossing
	Railroad
	School
	Side Road
	Slow Children Playing
	Speed Limit (15) / Curve Right
	Speed Limit (20)
	Speed Limit (25)
	Speed Limit (35)
	Speed Limit (45)
	Stop
	Stop / 4-Way; Stop / 4-Way
	Stop / Street Names
	Stop Ahead
	Street Names
	Watch for Children
	Yield
	Yield / Street Names
	Good
	Fair
	Poor
	Meets MUTCD Retroreflectivity Standards
	No Rating
	Outside Jurisdiction
	Needs Replacement

Proposed Signs	
	Directional Signage from Highway 95 and Fargo Road towards Greenleaf
	Snake River Scenic Byway Sign
	Pedestrian Crossing
	Potential Park and Ride Location
	Snake River Scenic Byway Interpretive Center

CITY OF GREENLEAF

TRANSPORTATION PARKS AND TRAILS PLAN

FIGURE 13

SIGN INVENTORY

0 300 600
FEET

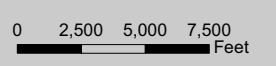
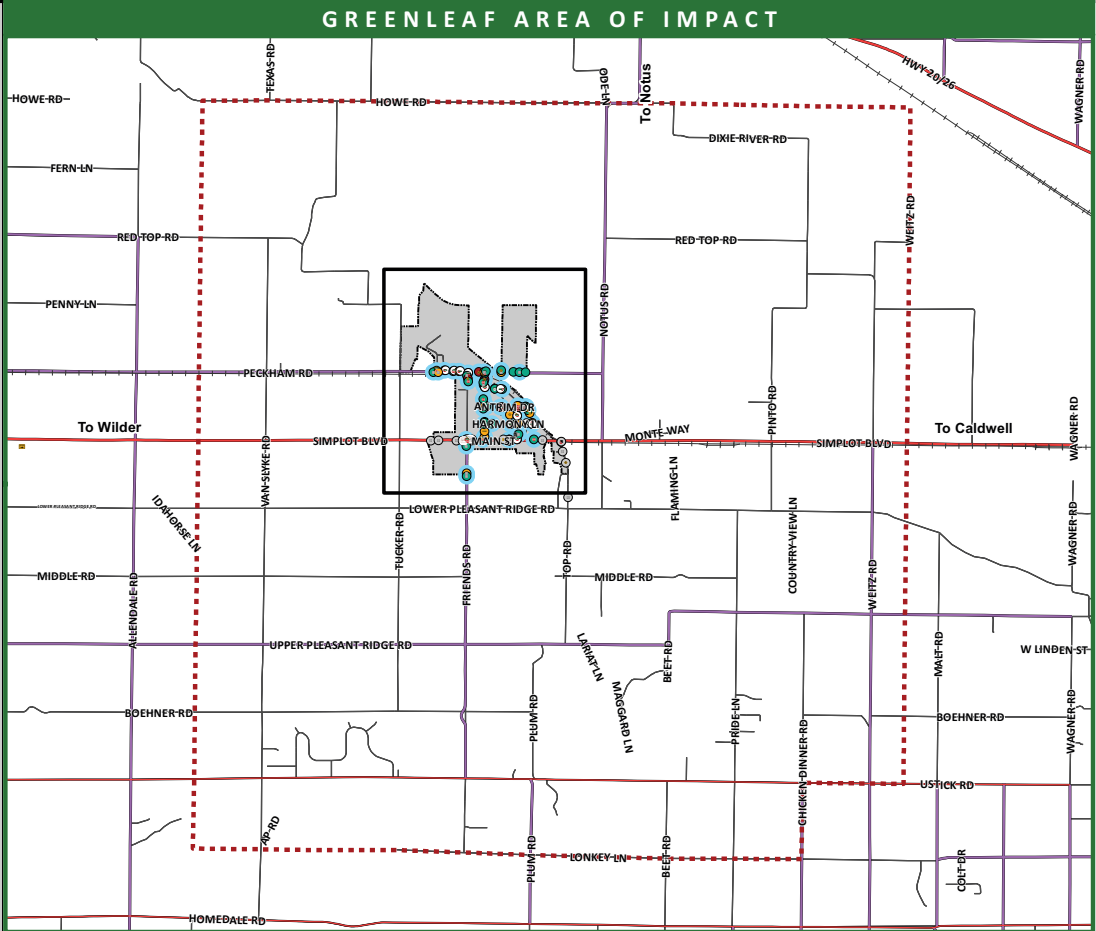
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Plot Date: 10/2/2015

LEGEND

- Area of City Impact
- City Boundary
- Railroads
- Points of Interest*
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Sidewalks



Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



CIP Overview

The Capital Improvement Plan (CIP) serves as the guiding tool for future transportation improvement projects. Through community involvement efforts, goals were defined for capital improvement projects. Public participation strategies were used to garner feedback from the City and residents. Land use, level of service and crash data was analyzed, and pavement maintenance and sign management issues were also reviewed. These efforts resulted in a prioritized list of projects that are recommended for future improvements.

In order to implement these CIP projects, grant funding will be necessary to leverage with local matching funds and/or in-kind labor. The following section summarizes grant and funding sources for transportation, park and trail projects.

Grants and Funding

Transportation funding programs are determined by the latest “Map-21” transportation bill that was passed in 2012. Since that time, Map-21 has been extended through a continuing resolution. This means that it is highly possible that grant programs and funding sources will change in the near future. Funding programs resulting from the most current transportation bill are summarized below.

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Transportation Funding

- **LHTAC Local Rural Highway Investment Program (LRHIP)**—The funding limit for LRHIP grants is \$100,000 for construction/maintenance projects and \$30,000 for sign replacement projects. This program does not require a local match; however, providing a local match typically makes LRHIP applications more competitive. Applications for these funds are accepted once a year (usually in December) and funds are typically distributed within one year.
- **LHTAC Federal-Aid (STP- Rural)**—This program provides funding for reconstruction, rehabilitation, corridor studies, and transportation planning projects for populations below 5,000, classified roadways by the Federal Highway Administration (through ITD’s process) as collectors, requires a 7.34% non-federal match, and is ultimately included in the Idaho Transportation Investment Program (ITIP) when the project is awarded.
- **LHTAC Local Highway Safety Improvement Program (LHSIP)**—The Highway Safety Improvement Program (LHSIP) is a federally funded program aimed at reducing Fatal and Serious Type A Injury crashes on the roadway system. Eligibility for LHSIP is based on the number of Fatal and Type A Serious Injury crashes per jurisdiction using five years of crash data. Eligible jurisdictions will be notified in the fall of each year to begin the application process. This federally funded program requires a 7.34 percent local match. Greenleaf is currently not eligible for this funding but should be aware of it in the event that safety improvements become necessary.
- **Community Choices for Idaho (CCI)**—This program provides funding for infrastructure and non-infrastructure: planning, design, construction for pedestrian, bicyclist, rails to trails, historic preservation facilities, trails, sidewalks. There is a \$500,000 maximum amount that can be applied for and a non-federal 7.34 percent match requirement.
- **Transportation Investment Generating Economic Recovery (TIGER) Funding**—TIGER is a competitive federal discretionary grant program that funds planning and construction projects including roads, trail transit and port improvements. For rural areas, there is typically a minimum grant amount of \$1 million for construction projects and no minimum match requirement. In order to be competitive a minimum match of 20 percent is recommended. The Notice of Funding Availability (NOFA) typically comes out in February each year with an application due date in late-April. The last round of TIGER funding was \$600 million with a minimum of 20 percent (\$120 million) dedicated to rural areas.

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

- **Cash for Towns Bike/Pedestrian Funding**—Annually, ITD awards communities funding to construct ADA pedestrian curb ramp improvements. The application period typically begins in January of each year.
- **Idaho Americans with Disabilities (ADA) Pedestrian Curb Ramp Program**—This program, administered by ITD, funds construction costs only (no engineering or administration funds) for curb ramps along Idaho State Highways. Applications are typically due in May of each year.
- **Idaho Community Development Block Grant (CDBG)**—Transportation/streetscape improvements can be funded through the Downtown Revitalization CDBG program, which is administered by the Idaho Department of Commerce with funds received annually from the U.S. Department of Housing and Urban Development. CDBG funds can be used for design and construction of projects to help prevent or eliminate slum and blight conditions (downtown revitalization) or solve catastrophic health and safety threats in local areas. The CDBG Downtown Revitalization grant is limited to a maximum of \$500,000. There is no minimum match required, however a local match of at least 20 to 50 percent is recommended in order to be competitive.

Parks and Recreation Funding

- **Idaho Parks and Recreation (IDPR) Funding**—The IDPR provides a variety of funding programs and grants to government entities for the purchase of equipment and for the creation and renovation of outdoor recreational facilities. IDPR grant applications are typically due in late-January of each year. IDPR grant programs that are likely to be a fit to implement Greenleaf CIP projects include:
 - **Land and Water Conservation Fund**—This program funds projects to acquire, develop, and maintain outstanding property into perpetuity for outdoor recreation purposes. The goal of the program is to develop quality recreation facilities for the people in the community and state for future generations. There is approximately \$400,000 statewide available through this program annually. A minimum local match of 50 percent is required.

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

- **Recreational Trails Program (RTP)**—This program funds projects including maintenance and restoration of existing recreational trails; development and rehabilitation of trailside and trailhead facilities and trail linkages for recreational trails; purchase and lease of recreational trail construction and maintenance equipment; and construction of new recreational trails. There is approximately \$1.5 million statewide available through this program annually. A minimum local match of 20 percent is required.
- **Recreational Road and Bridge**—This program funds projects that develop, construct, maintain, and repair roads, bridges and parking areas within and leading to parks and recreation areas. There is approximately \$300,000 statewide available through this program annually. There is no minimum match but it is recommended to provide a match in order to be competitive.
- **Blue Cross High Five! Children’s Health Collaborative Grant**—This foundation grant provides funding to cities and counties to build or renovate playgrounds or parks, create or improve walking and biking paths, community gardens and safe routes to school expansion projects. Grant funds range from \$50,000 to \$300,000. It is anticipated that an announcement for another round of funding will come out sometime in 2015.
- **Idaho Community Development Block Grant (CDBG)**—Improvements can be funded through the Senior Citizen and Community Center CDBG program, which is administered by the Idaho Department of Commerce with funds received annually from the U.S. Department of Housing and Urban Development. CDBG funds can be used for design and construction of projects that build and improve community centers. Applications are due in early-March of each year. The maximum grant amount is limited to \$150,000. There is no minimum match required, however a local match of at least 20 to 50 percent is recommended in order to be competitive.
- **Idaho Community Foundation Grant**—This foundation grant funds projects involving arts and culture, conservation/environment, education, emergency services, libraries, public projects, recreation, and social services. Eligible applicants are government agencies and 501(C)3 entities. The grant cycle opens in May and closes in July of each year. The maximum award amount is \$5,000 and there is no minimum match requirement.

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Funding for Transportation and/or Recreation Projects

- **Idaho Gem Grant**—The program is open to any rural community with a population of 10,000 persons or less. This program is focused on job creation and retention and funding is limited to the hard implementation costs of economic development projects. Funds may be used for public infrastructure including water, sewer, roads and remediation of slum and blight conditions blocking business development. The maximum grant amount is \$50,000 and a minimum 20 percent local match is required. Applications are accepted on a quarterly basis in December, March, June and September of each year.
- **Development Impact Fees**—Idaho Statute Title 67, Chapter 82, Idaho Code sets forth the requirements for the calculation and accounting of impact fees. To impose impact fees, the City must adopt a Comprehensive Plan, a Capital Improvements Plan and an Impact Fee Ordinance to comply with Idaho Law. Impact fees on new developments can be used for transportation improvement, parks, and public facilities.

Greenleaf CIP

The list of capital improvement projects is arranged into two timeframe categories: Short-Intermediate Range (1-10 years) and Intermediate-Long Range (10-20 years).

The order in which improvements occur will depend on availability of grants and funding sources. Some improvements will require a long-term funding strategy, while other improvements may be funded and completed earlier. CIP projects are summarized in **Table 14** and shown on **Figure 14**.

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Short-Intermediate Range CIP Projects (1-10 Years)

Table 14—City of Greenleaf CIP Projects

Short-Intermediate Range CIP (1-10 Years)		
Project Description	*Estimated Construction Costs	Potential Grant Sources
**Top Priority Sidewalks and Trails, Pathway System Improvements		
Friends Road Sidewalks and Lighting —Approximately 0.5 mi. (2,630 lf.) of 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along both sides of Friends Road from SH 19 to City side of railroad tracks near Peckham Road	\$387,000	CCI
Academy Road Sidewalks and Lighting — Approximately 0.5 mi. (2,630 lf.) 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along both sides of Academy Road from SH 19 to City side of railroad tracks near Peckham Road	\$387,000	CCI; CDBG
SH 19/Main Street Sidewalks and Lighting — Approximately 0.45 mi. (2,355 lf.) 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along the north and south sides of SH 19 from Friends Road to approx. 290 ft. east of Whittier Drive (existing curb terminus)	\$330,000	ITD; ITD Curb Ramp Grant; CCI; CDBG
SH 19 and/or Peckham Road Pathway/Trail System —Approximately 2 mi. (10,500 lf.) 10 ft. wide pathway along the north side of SH 19 or one side of Peckham Road from Friends Road to Greenleaf’s west AOI boundary/Wilder’s east AOI	\$380,000	CCI; ITD; RTP
**Top Priority Pavement Management Plan Project		
Harmony Lane —Crack Seal and 2-inch overlay .36 mi (1,900 lf.) of Harmony Lane from Antrim Drive to Academy Road.	\$105,883	LRHIP (Construction)
**Top Priority Sign Management Plan Project		
Sign Replacement Project —1) Regulatory and warning signs; 2) Scenic byway and city signage; 3) Signage at the railroad crossings – Friends Road and Academy Road.	\$30,000	LRHIP (Signs)
**Top Priority Park Projects		
Academy Road/Friends Road, New Park Development —Develop a new park north of the Greenleaf Friends Academy property on the west side of Academy Road and east side of Friends Road. This property has potential because it is currently owned by the Greenleaf Friends Church and the City of Greenleaf could work with them to determine if a community park would be possible and/or feasible at this location.	TBD	LWCF; High Five
Antrim Drive/Hillcrest Drive Viewing Area —Develop a viewing area near the corner of Antrim Drive near Hillcrest Drive along the ridge. Improvements may include seating, signage, pavers, kiosk, lighting, railing, etc.	TBD	High Five
North Side SH 19/Friends Road informational Kiosk —Install a new informational kiosk at the northeast corner of SH 19 and Friends Road for the Snake River Canyon Scenic Byway. The ‘Northern Ag Super Side Strip’ of the Scenic Byway runs along Friends Road south of Greenleaf, then through Greenleaf up to Peckham Road, then west towards Wilder. The kiosk, combined with sidewalk and lighting improvements along Friends Road and SH 19 and proposed park north of the Academy Road will make for a unique local and tourist experience.	TBD	High Five
South Side SH 19/East of Friends Road - Develop park site behind the Community Center south of SH 19 east of Friends Road. This property has potential because it is currently owned by the Greenleaf Friends Church and the City of Greenleaf could work with them to determine if a community park would be possible and/or feasible at this location.		LWCF; CDBG (Community Facility); High Five

*Cost estimates are planning-level only. Estimated costs are limited to construction including mobilization and contingency. Estimated costs do not include right-of-way costs or engineering.

**For all projects, especially park projects, it is recommended that the City initiate specific planning efforts to develop concepts and obtain community input and support. Once specific concepts are developed, detailed cost estimates and funding applications can be prepared.

Capital Improvement Plan

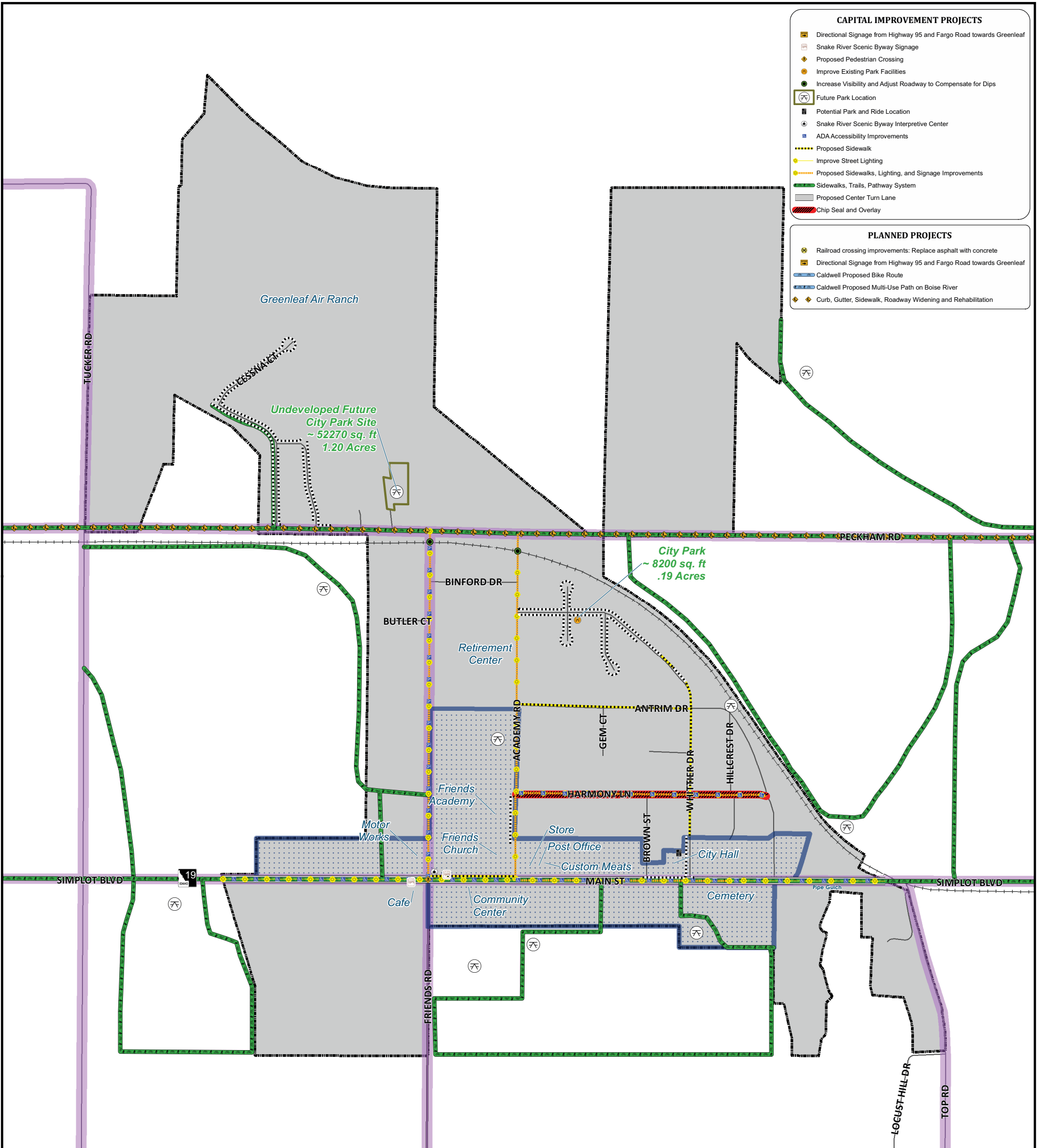
City of Greenleaf Transportation, Parks, and Trails Plan

Intermediate-Long Range CIP Projects (10-20 Years)

The intermediate-long range CIP projects are projects that the community wishes to implement as funding becomes available in the near future (listed in no particular order):

- Sidewalks and lighting along Harmony Lane from Antrim Drive to Academy Road.
- Sidewalks along Whittier Drive, north of SH 19 from north City Hall boundary, tying into existing sidewalks north of Antrim Drive.
- Sidewalks along Antrim Drive from Whittier Drive to Academy Road.
- Center turn lane on SH 19.
- Crosswalks along SH 19 at Friends Road, Academy Road and/or Whittier Drive. However, city staff's concerns should be taken into consideration before any improvements are made. Concerns include:
 - 1 Installing standard cross-walk(s) across SH 19 may lead to a false sense of security on the part of pedestrians and contribute to occurrence of pedestrian injury accidents. It appears that only very expensive HAWK beacon (High-intensity Activated crosswalk beacon) or equivalent crossings effectively stop traffic at crosswalks. Experience in our neighboring City of Wilder along US 95 with crosswalk efforts short of a HAWK-type crossing including paint, reflectors, road-side signage, flashing lights on road-side signage, cones in the middle of the crosswalk, increased police patrol, etc. have been largely ineffective in the observance of crosswalks by drivers.
 - 2 Ongoing maintenance costs are potentially onerous, as multiple annual paintings are anticipated to keep crosswalk paint plainly visible year-round, requiring additional personnel for traffic control during restriction of SH 19 to one lane or detour around the city.
- Improve existing park property at the GAR development area.

Figure 14 shows the locations of the short-term and intermediate-long-term CIP projects.



- CAPITAL IMPROVEMENT PROJECTS**
- Directional Signage from Highway 95 and Fargo Road towards Greenleaf
 - Snake River Scenic Byway Signage
 - Proposed Pedestrian Crossing
 - Improve Existing Park Facilities
 - Increase Visibility and Adjust Roadway to Compensate for Dips
 - Future Park Location
 - Potential Park and Ride Location
 - Snake River Scenic Byway Interpretive Center
 - ADA Accessibility Improvements
 - Proposed Sidewalk
 - Improve Street Lighting
 - Proposed Sidewalks, Lighting, and Signage Improvements
 - Sidewalks, Trails, Pathway System
 - Proposed Center Turn Lane
 - Chip Seal and Overlay

- PLANNED PROJECTS**
- Railroad crossing Improvements: Replace asphalt with concrete
 - Directional Signage from Highway 95 and Fargo Road towards Greenleaf
 - Caldwell Proposed Bike Route
 - Caldwell Proposed Multi-Use Path on Boise River
 - Curb, Gutter, Sidewalk, Roadway Widening and Rehabilitation

CITY OF GREENLEAF

TRANSPORTATION PARKS AND TRAILS PLAN

FIGURE 14

CAPITAL IMPROVEMENT PROJECTS

LEGEND

- Parks
- Area of City Impact
- City Boundary
- Railroads
- Points of Interest*
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Sidewalks
- Existing Entry Corridor
- Future Entry Corridor
- Pedestrian-oriented Central Business District

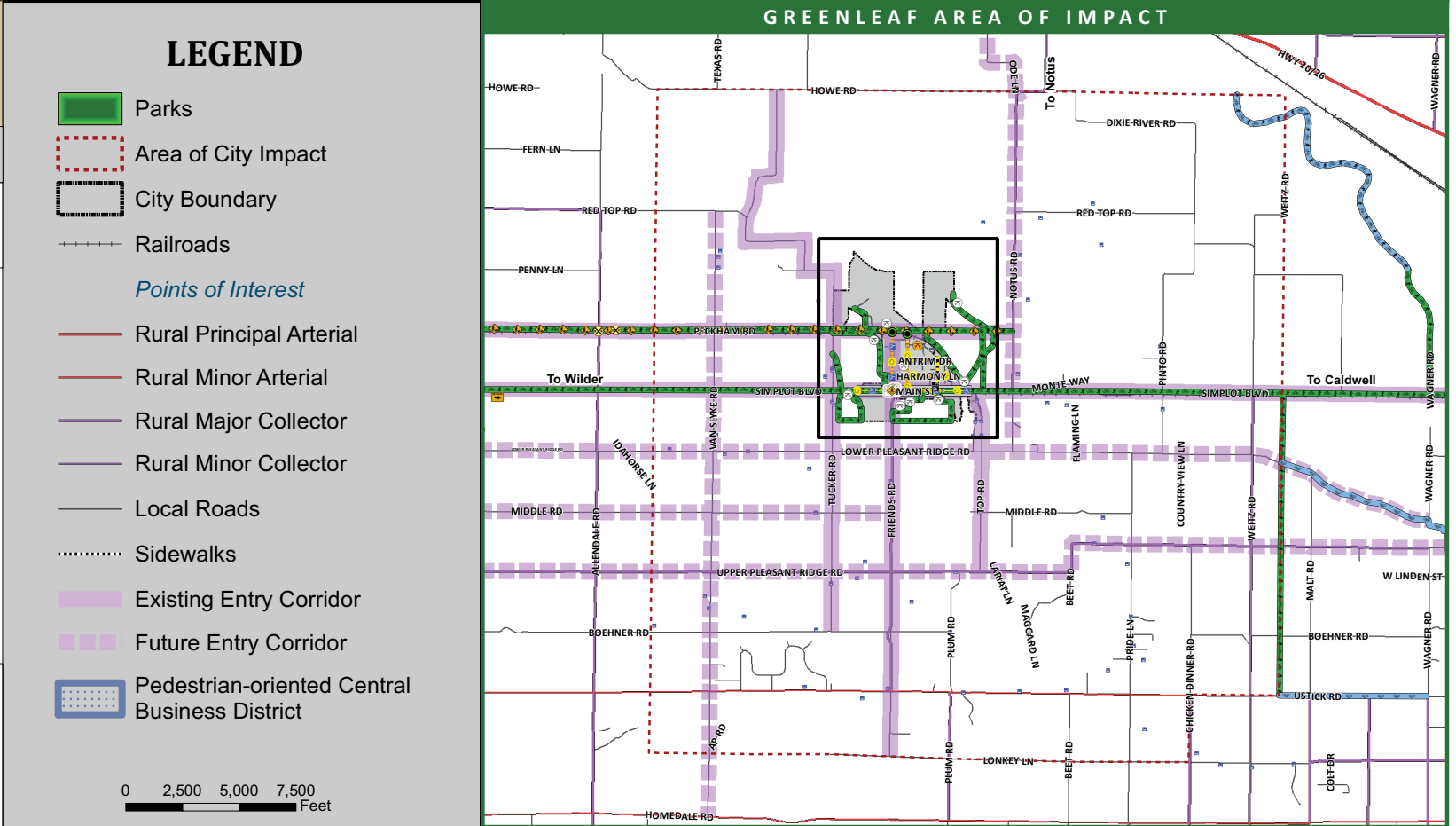
Note: Signs to be replaced shown on Figure 13

0 300 600
FEET

0 2,500 5,000 7,500
Feet

Information shown on this plan is based in part on copyrighted GIS Data from Canyon County, and may not be copied or reproduced without express written permission from Canyon County.

Plot Date: 10/1/2015



CIP Implementation

Implementation Overview

In order to successfully implement this Transportation, Parks and Trails Plan, the City of Greenleaf should update the CIP project list and discuss available funding opportunities on an annual basis. Projects should be re-prioritized regularly based on project needs and available funding sources. The City should make efforts to seek outside funding through grants and funding programs that align with projects identified in this plan. As discussed in this section, there are specific strategies the City may initiate to increase the likelihood of successful implementation.

Implementation Strategies

Attend annual grant and funding workshops and federal funding webinars - Funding agencies such as LHTAC, ITD, WFL, IDPR, etc. typically hold funding workshops annually or periodically to educate eligible applicants on upcoming funding opportunities, scoring criteria, and program changes. This will help City staff establish and maintain a solid knowledge based on the status of various state and federal grant and funding programs.

The City of Greenleaf should update relevant/pertinent sections of this overall plan every five years, or as projects are completed or priorities change. The City should pass a resolution noting any proposed changes. This will keep information up-to-date, help the City of Greenleaf qualify for grant funding (by having an up-to-date plan vs an out-of-date plan), and provide guidance as development is proposed.

Continuing Education on Roadway Maintenance

Funding agencies typically encourage roadway agency staff to be educated on roadway maintenance and roadway safety. Through LHTAC's Training and Technical Assistance (T2) program, Road Department personnel can attend courses and earn certifications. If the City of Greenleaf can demonstrate to LHTAC that their personnel have attended and/or earned certifications through this program, the City's proposed project and grant application would rank higher.

Contact Funding Agencies Early and Often, Well Before the Deadline

It is good practice to inform funding agencies of a potential upcoming project well in advance of a grant application deadline. If the City of Greenleaf desires to submit a grant application that is due in the fall or winter, it is recommended that City staff

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

contact funding agencies as early as possible, ideally in the spring or early summer. Grant agency staff can offer invaluable advice on how to put a successful application together as well as specific ideas about the project.

Project Development

For CIP projects that the City of Greenleaf wants to implement in the near future, it is recommended that the City identify the next steps that are needed. A typical next step towards implementation would involve taking a CIP project from planning to project development. Depending on the type and location of the project, project development may involve site investigation, survey, a specific study, etc. For projects that overlap with other jurisdictions such as ITD, it is recommended that the City of Greenleaf work closely with those partner agencies to determine the next step to move to project development. It could be a matter of working with another agency that may ultimately want to sponsor and program the project.

CIP Project Summary Sheets, Cost Estimates, and Project Maps

CIP project summary sheets and planning-level cost estimates were developed as part of this plan for top-priority transportation and sign projects. Park projects will need further planning and evaluation in order to develop the details necessary to apply for grants. The goal of the summary sheets is to provide the City of Greenleaf with specific information to help with the implementation of this plan. These summary sheets will be especially useful when applying for grants and beginning the project development process.



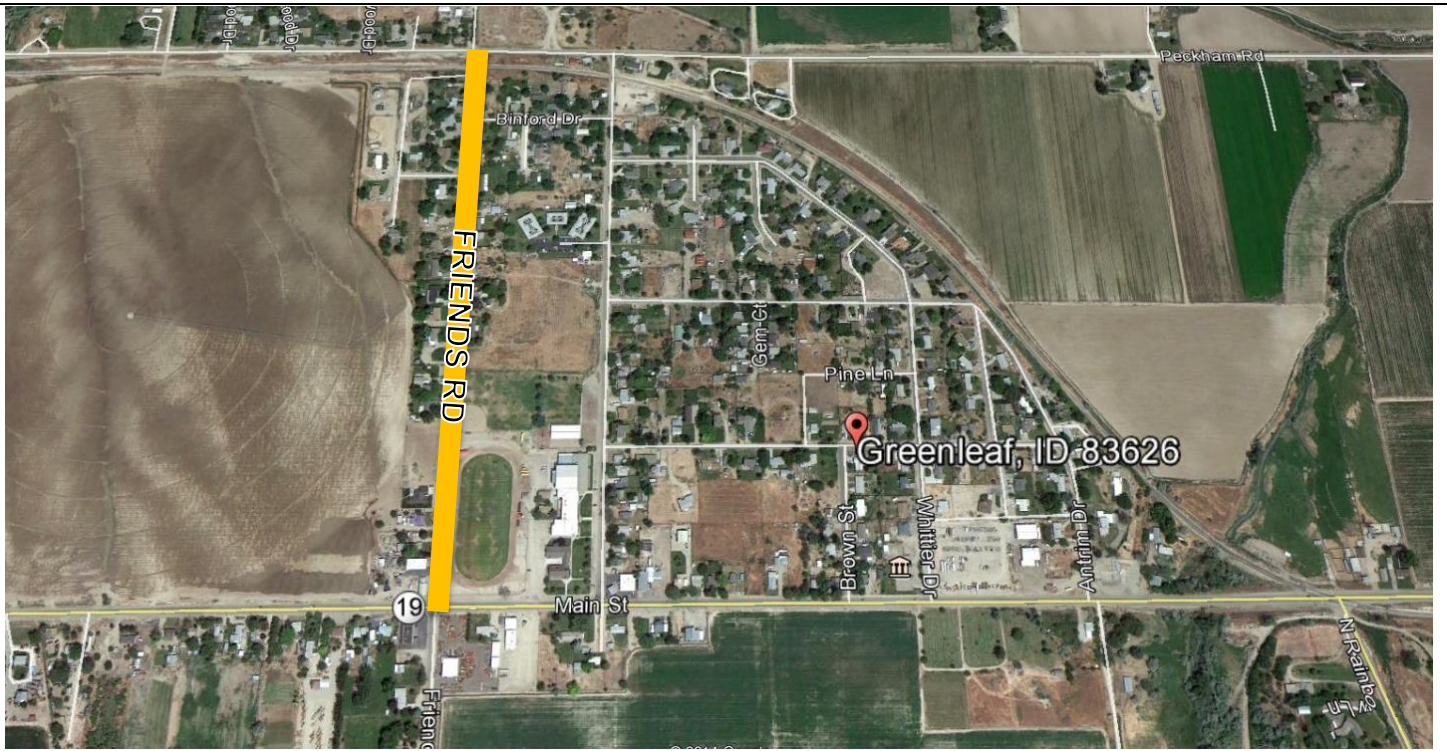
Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	Friends Road Sidewalks and Lighting Project						
Project Purpose	The purpose of this project is to provide safe, accessible facilities to promote walking, biking, and recreation for seniors, children and citizens in the City of Greenleaf.						
Project Need/ Existing Conditions	Currently, Friends Road is improved with approximately 24 feet of pavement with no sidewalks, no ADA ramps and inadequate lighting. This route is important as it serves the Greenleaf Friends Academy School and Church, and is the main route to the corner Cafe'.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Econ Dev
	X	X	X	X	X	X	X
Community Priority	Short-term						
Stakeholders	ITD; Greenleaf Friends Academy; Greenleaf Friends Church						
Implementing/ Affected Agencies	ITD – coordination for connection to SH 19						
Project Funding				Technical Information			
Funding Sources	Up to \$500,000 grant through the ITD Community Choices of Idaho (CCI) Transportation Alternatives Program			ADT	-		
				Crash Info	-		
Match Required	7.34%			Environmental Aspects	4(f)		
				Safety Issues	No ADA access; Railroad Crossing safety issues near Peckham Road		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Sidewalks – \$153,000 Street Lights – \$220,000 Pavement Rehabilitation – \$14,000 Total \$387,000			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
Approximately 0.5 mi. (2,630 lf.) of 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along both sides of Friends Road from SH 19 to City side of railroad tracks near Peckham Road.				Apply for CCI funding in early 2016, or when the funding announcement comes out. It is recommended to meet with the program manager in advance to discuss this project and refine the concept as needed.			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



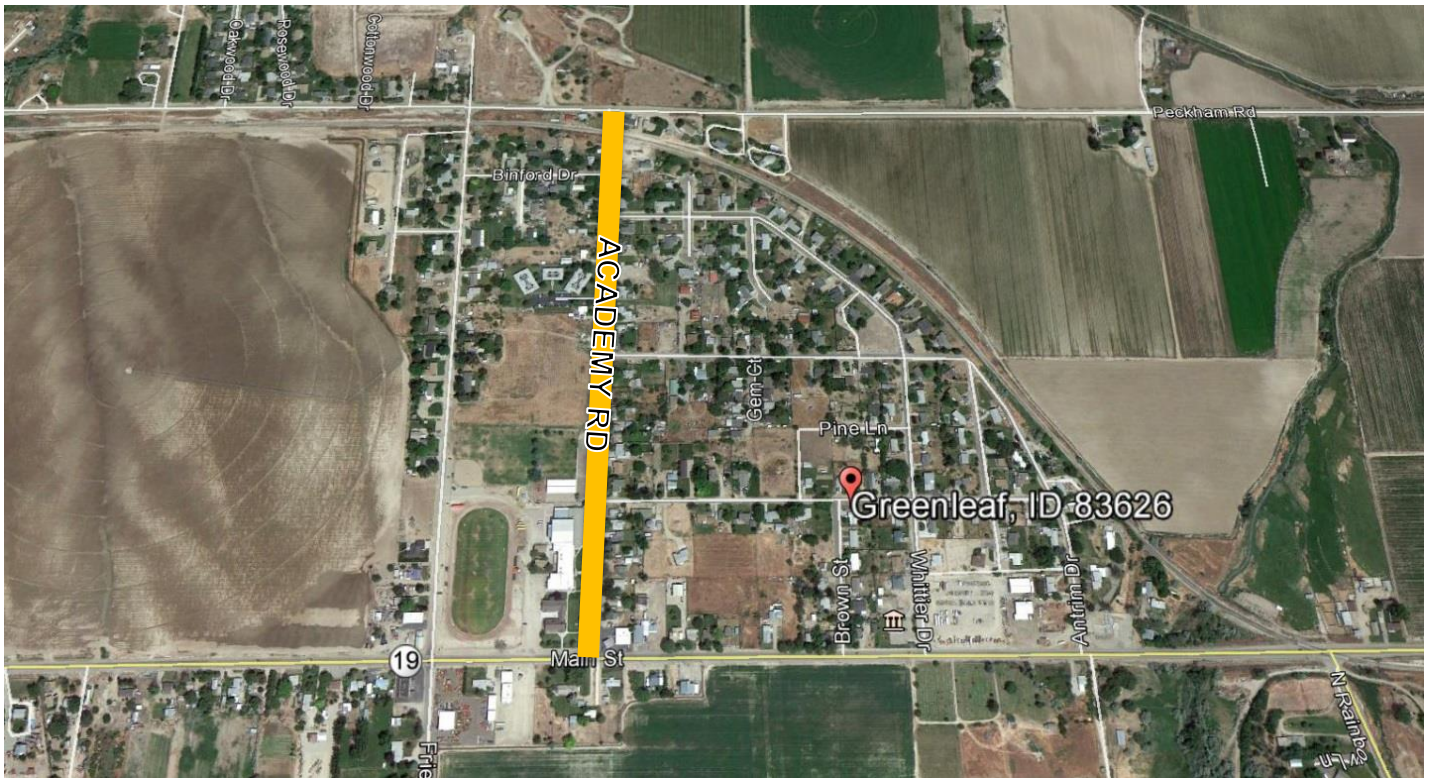
Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	Academy Road Sidewalks and Lighting Project						
Project Purpose	The purpose of this project is to provide safe, accessible facilities to promote walking, biking, and recreation for seniors, children, and citizens in the City of Greenleaf.						
Project Need/ Existing Conditions	Currently, Academy Road is improved with approximately 24 feet of pavement with no sidewalks, no ADA ramps, and inadequate lighting.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Other
	X	X	X	X	X	X	
Community Priority	Short-term						
Stakeholders	ITD; Greenleaf Friends Academy; Greenleaf Friends Church						
Implementing/ Affected Agencies	ITD – coordination for connection to SH 19						
Project Funding				Technical Information			
Funding Sources	Up to \$500,000 grant through the ITD Community Choices of Idaho (CCI) Transportation Alternatives Program			ADT	-		
				Crash Info	2 crashes at SH 19/Academy in 5 years		
Match Required	7.34%			Environmental Aspects	4(f)		
				Safety Issues	No ADA access; Railroad Crossing safety issues near Peckham Road		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Sidewalks – \$153,000 Street Lights – \$220,000 Pavement Rehabilitation – \$14,000 Total \$387,000			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
Approximately 0.5 mi. (2,630 lf.) 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along both sides of Academy Road from SH 19 to City side of railroad tracks near Peckham Road.				Apply for CCI funding in early 2015, 2016, or 2017 or when the funding announcement comes out. It is recommended to meet with the program manager in advance to discuss this project and refine the concept as needed.			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



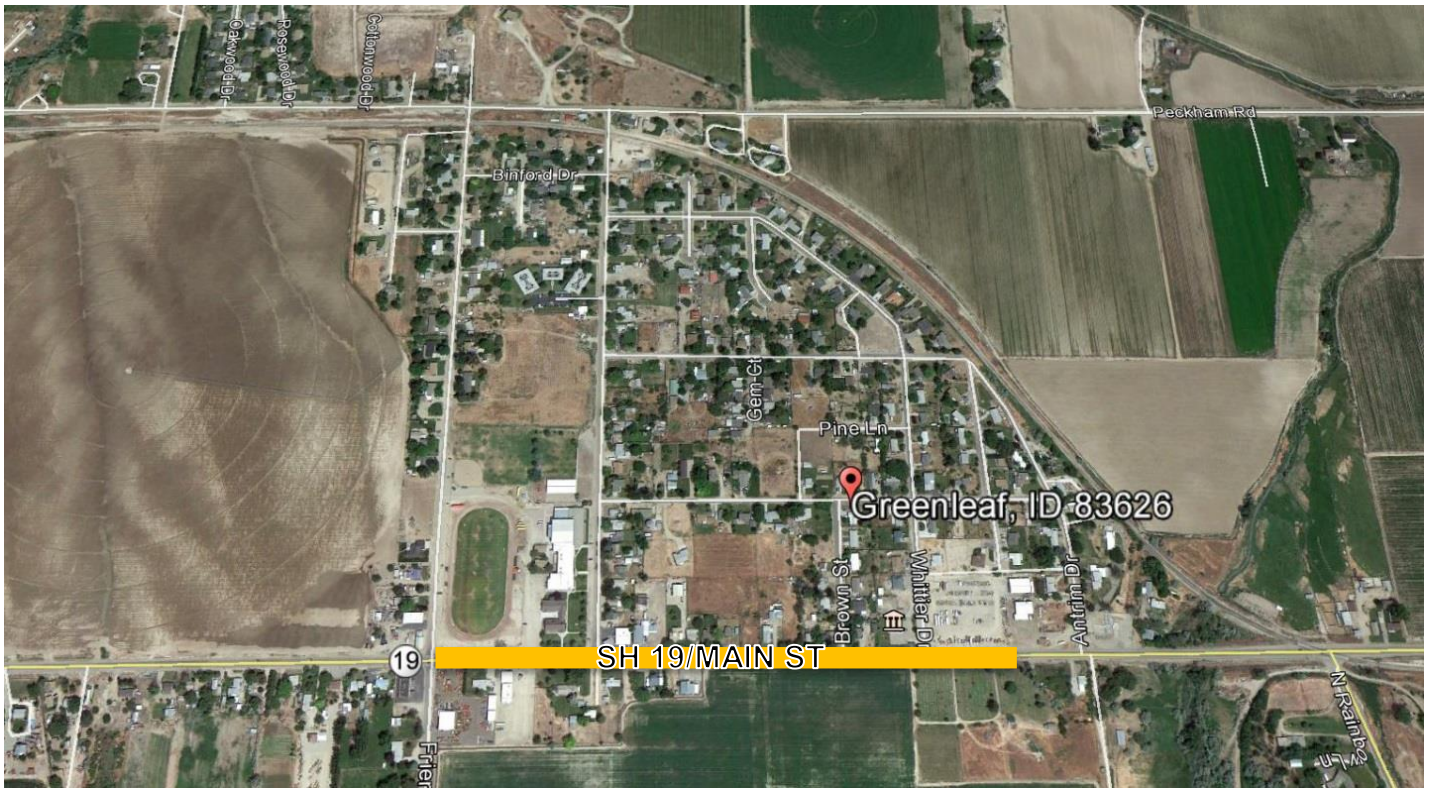
Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	SH 19/Main Street Sidewalks and Lighting Project						
Project Purpose	The purpose of this project is to improve the aesthetics of Greenleaf's Main Street and provide safe, accessible facilities to promote walking, biking for seniors, children and citizens.						
Project Need/ Existing Conditions	This section of SH 19 has no sidewalks, no ADA ramps, and inadequate lighting. There is existing vertical curb on both sides of SH 19 with no sidewalks. Additionally, the two-lane highway does not reflect Greenleaf's charm and character. Decorative lighting and sidewalks would bring out the vitality of the community.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Econ Dev
	X	X	X	X	X	X	X
Community Priority	Short-term						
Stakeholders	ITD; Greenleaf Friends Academy; Greenleaf Friends Church; Community Center; Businesses; Cemetery						
Implementing/ Affected Agencies	ITD - coordination of SH 19 improvements						
Project Funding				Technical Information			
Funding Sources	<ul style="list-style-type: none"> CCI or Transportation Alternatives funding - up to \$500,000 grant ITD Curb Ramp Grant - up to \$60,000 CDBG Downtown Revitalization grant - up to \$500,000 grant 			ADT	Approx. 6,500		
				Crash Info	6 crashes along SH 19 in 5 years		
Match Required	<ul style="list-style-type: none"> CCI - 7.34% CDBG - recommended 20%-50% 			Environmental Aspects	Cemetery; Possible Haz Mat; 4(f)		
				Safety Issues	No ADA access; lack of safe bicycle and pedestrian access along SH 19		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Sidewalks - \$136,000 Street Lights - \$194,000 Total \$330,000			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
Approximately 0.45 mi. (2,355 lf.) 5 ft. wide sidewalks and street lights (every 200 ft. on each side of the street) along the north and south sides of SH 19 from Friends Road to approx. 290 ft. east of Whittier Drive (existing curb terminus).				It is recommended to meet with the program manager and D3 Transportation Planner in advance to discuss this project and refine the concept. Funding could be sought for this project as early as 2015 at the desire of the City.			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	SH 19/Main Street and/or Peckham Road Pathway/Trail System to Wilder						
Project Purpose	The purpose of this project is to improve regional bicycle and pedestrian connectivity between the City of Greenleaf and Wilder. The goal is to promote physical activity and additional interest in the 'Northern Ag Super Side Strip' of the Snake River Canyon Scenic Byway with a safe and accessible pathway system.						
Project Need/ Existing Conditions	Both SH 19 and Peckham Road have no shoulders, sidewalks, or pathways. There has been a long-standing desire to connect Greenleaf and Wilder with a non-motorized detached pathway along the 'Northern Ag Super Side Strip' of the Snake River Canyon Scenic Byway. High truck traffic volumes prevent bicyclists and pedestrians from walking or biking between the two communities.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Econ Dev
	X	X	X	X	X	X	X
Community Priority	Short-term						
Stakeholders	ITD; Greenleaf Friends Academy; Greenleaf Friends Church; Businesses; Residents; Farmers; City of Wilder; Golden Gate Highway District; Canyon County; Scenic Byway Committee						
Implementing/ Affected Agencies	ITD - coordination of SH 19 improvements LHTAC, City of Wilder - coordination of Peckham Road improvements						
Project Funding				Technical Information			
Funding Sources	<ul style="list-style-type: none"> CCI or Transportation Alternatives funding - up to \$500,000 grant ITD Curb Ramp Grant - up to \$60,000 (SH 19) 			ADT	Approx. 5,000 (SH 19) Approx. 530-1,000 (Peckham)		
				Crash Info	5 crashes along SH 19 within project limit in 5 years		
Match Required	CCI - 7.34%			Environmental Aspects	Possible Haz Mat; Farmland; Wetlands		
				Safety Issues	Lack of safe bicycle and pedestrian access along SH 19 and Peckham		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Total \$380,000			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
Approximately 2 mi. (10,500 lf.) 10 ft. wide pathway along the north side of SH 19 or along one side of Peckham Road from Friends Road to Greenleaf's west AOI boundary/Wilder's east AOI.				<p>It is recommended to meet with the program manager and the ITD District 3 Transportation Planner and/or LHTAC in advance to discuss this project and refine the concept.</p> <p>Funding could be sought for this project as early as 2015/2016 at the desire of the City.</p>			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



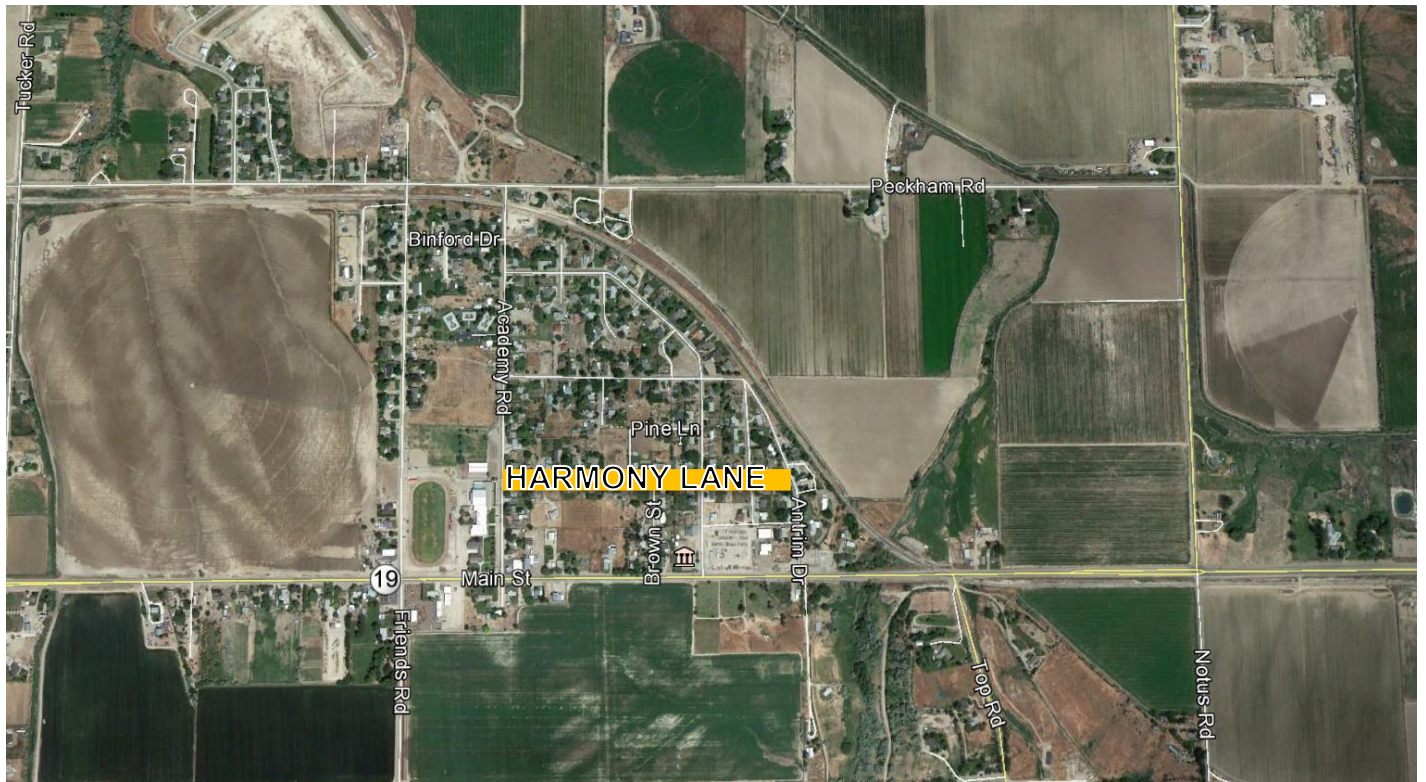
Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	Harmony Lane Overlay Project						
Project Purpose	The purpose of this project is to improve the roadway surface and safety for motorists.						
Project Need/ Existing Conditions	The City's Pavement Management Plan identifies significant pavement distress on Harmony Lane. This determination was made based on pavement condition inventory and engineering analysis.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Econ Dev
			X	X	X		
Community Priority	Short-term						
Stakeholders	Residents; City of Greenleaf						
Implementing/ Affected Agencies	City of Greenleaf						
Project Funding				Technical Information			
Funding Sources	Up to \$100,000 in LRHIP Construction funds through LHTAC			ADT	Approx. 300		
				Crash Info	-		
Match Required	\$5,883 (remaining project costs)			Environmental Aspects	-		
				Safety Issues	Uneven surface, cracking, narrowness.		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Total \$105,883			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
Crack Seal and 2-inch overlay .36 mi (1,900 lf.) of Harmony Lane from Antrim Drive to Academy Road.				Funding could be sought for this project in 2014 or 2015 at the desire of the City.			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



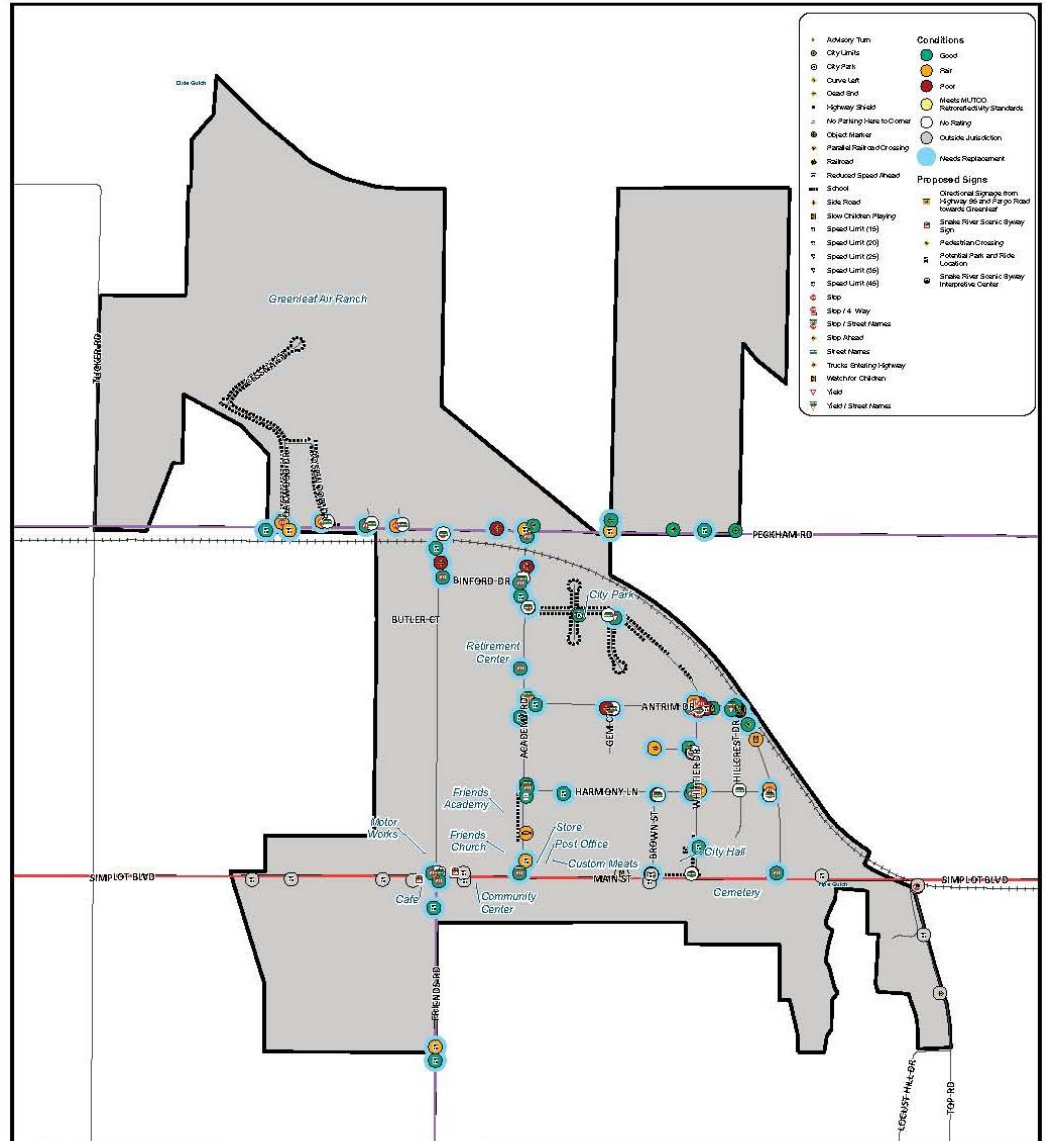
Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan

Project Name	Sign Replacement Project						
Project Purpose	The purpose of this project is to improve the safety and visibility of signage throughout the City of Greenleaf.						
Project Need/ Existing Conditions	The City's Sign Management Plan identifies poor sign conditions and those that need to be replaced. This determination was made based on sign inventory and engineering analysis.						
Project Benefits	REC	ADA	Safety	Seniors	Mobility	Connectivity	Econ Dev
	X		X	X			X
Community Priority	Short-term						
Stakeholders	Residents; Businesses, Greenleaf Friends Academy; ITD; Railroad; Golden Gate Highway District						
Implementing/ Affected Agencies	City of Greenleaf						
Project Funding				Technical Information			
Funding Sources	Up to \$30,000 in LRHIP Sign funds through LHTAC			ADT	-		
				Crash Info	-		
Match Required	None			Environmental Aspects	-		
				Safety Issues	Signs do not meet retro-reflectivity standards; lack of visibility; RR Crossing safety issues		
Estimated Construction Cost Estimate				Assumptions			
ROW	-			ROW Assumptions	Project would occur within existing ROW		
Construction	Total \$30,000			Cost Estimate	Cost estimate is planning-level. Estimated costs are limited to construction including mobilization and contingency and do not include right-of-way costs or engineering.		
Project Scope of Work				Action Plan and Timing			
<ul style="list-style-type: none"> Regulatory and warning signs; Scenic byway and city signage; Signage at the railroad crossings - Academy Road and Peckham Road (see Sign Management Plan for more details) 				Funding could be sought for this project in 2014 or 2015 at the desire of the City.			

Capital Improvement Plan

City of Greenleaf Transportation, Parks, and Trails Plan



Symbol	Condition
Star	Advisory Turn
Circle with dot	City Limits
Circle with dot	City Park
Circle with dot	Civic Center
Circle with dot	Dead End
Circle with dot	Highway Shield
Circle with dot	No Parking Here to Corner
Circle with dot	Object Marker
Circle with dot	Parallel Road or Crossing
Circle with dot	Roadwork
Circle with dot	Roadwork Speed Ahead
Circle with dot	School
Circle with dot	Sidewalk
Circle with dot	Slow Children Playing
Circle with dot	Speed Limit (15)
Circle with dot	Speed Limit (20)
Circle with dot	Speed Limit (25)
Circle with dot	Speed Limit (35)
Circle with dot	Speed Limit (45)
Circle with dot	Stop
Circle with dot	Stop / 4 Way
Circle with dot	Stop / Street Names
Circle with dot	Stop Ahead
Circle with dot	Street Name
Circle with dot	Truck Stop Ahead
Circle with dot	Watch for Children
Circle with dot	Yield
Circle with dot	Yield / Street Names

CITY OF GREENLEAF
 TRANSPORTATION PARKS AND TRAILS PLAN
FIGURE 13
 SIGNS INVENTORY

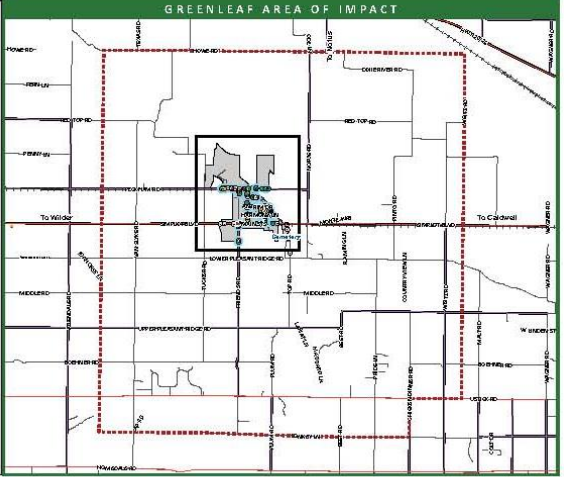
0 300 600
 FEET

JUB JUB CONSULTING, INC.
 GATEWAY MAPPING INC.

Scale: 0 2,500 5,000 7,500
 Feet

LEGEND

- Area of City Impact
- City Boundary
- Railroads
- Points of Interest
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Local Roads
- Sidewalks



Appendix A – Community Involvement

Joint City Council and Planning and Zoning Commission Meeting Minutes

Stakeholder Interview Summary

Survey No. 1 Report

Survey No. 2 Report





City of Greenleaf Transportation Plan

Joint City Council and Planning and Zoning Commission Meeting

Greenleaf City Hall

July 23, 2013

6:00 - 7:30 p.m.

Attendees:

City Councilmembers: De Enrico, Steve Jett, Kurt Kopadt, Ryan Schnuerle

Planning & Zoning Commissioners: Rob Foster, Janalyn Jett

Impact Area Representative: Liza Warner

City Staff: Doug Amick, Lee Belt, Amy Woodruff

Others: Bill Sali (Kuna)

Consultants: Lisa Bachman (J-U-B), Kirby Cook (Civil Dynamics P.C.), Joan Sabott (The Langdon Group, a subsidiary of J-U-B)

Introduction & Format:

This Joint Planning and Zoning Commission/City Council meeting was the first workshop held for the City of Greenleaf Transportation Plan. Prior to the workshop, J-U-B and The Langdon Group (consultants for the Transportation Plan) presented the plan development process to the Mayor and City Council at their June 2013 meeting. At the outset of this joint meeting, Lisa Bachman explained the elements of a transportation plan and the process for developing the plan. Then, attendees were asked to work together in a group discussion format to develop a SWOT (Strengths, Weaknesses, Opportunities, & Threats) analysis. Attendees also approved the preliminary list of stakeholders to be interviewed and citizens to represent the community in an advisory capacity.

SWOT Analysis Results

A SWOT Analysis is a process to identify strengths, challenges and opportunities. This analysis was completed in order to identify the transportation and recreation features that might be addressed in the City of Greenleaf Transportation Plan. The following outlines the outcomes of the SWOT Analysis.

Strengths (What does the City of Greenleaf do well?)

- Connectivity
- Close-knit, small community
- Opportunity to plan and be thoughtful about future growth
- Great city leadership
- Paved roads
- New infrastructure
- Rural, bedroom community nature*
- Public Works department and city staff
- Great accessibility to neighboring communities



- Three strong entities (city, church and school)
- No major traffic delays

Weaknesses (What could the City of Greenleaf improve?)

- Funding, money*
- Air Ranch
- Prescriptive Right of Way
- No distinctive downtown
- No sidewalks
- No city vision, but developing one now
- Lack of commercial
- New infrastructure
- Storm drains, ponding
- Aesthetic quality
- Utility costs*
- Lack of strong commercial representation
- No tie to bring community together (e.g. public school system)
- No fulltime police department
- Width of Friends Street
- Academy railroad crossing near Peckham Road
- Idaho 19 access is difficult
- Community size
- Lack of parks/community gathering location

Opportunities (What opportunities are open the City of Greenleaf?)

- Bigger city park
- Commercial development
- Industrial and railroad development on Peckham Road
- Coordination with existing, solid partners (Golden Gate Highway District, Wilder, Caldwell) on improvements such as trails (livability, health)
- Potential relationships with farmers
- Grants*
- Air Ranch
- Pool
- Paths/trails*



- Bike route*
- Path incorporated with scenic byway at Idaho 19/Friends Interpretation Center*
- 9 acres adjacent to Greenleaf Friends Church for community gathering site*
- Connection to Greenleaf Historical Society
- Beautification/Aesthetic improvements

Threats (What threats could harm the City of Greenleaf?)

- Growth or lack of growth (the unknown)*
- Degradation of the existing transportation and recreation facilities
- Industry encroaching could prohibit growth in city
- Idaho 19 limitations (e.g. crosswalks)
- Valley Ride timing

**Priority items identified by attendees.*

Stakeholders, Interview Template and Citizen Advisory Committee

The meeting attendees reviewed the following items and made minor adjustments.

Stakeholder Interview List

The attendees agreed to the list, with the addition of a representative from the post office. Attendees were encouraged to contact Lee with any additions.

Interview Template

The attendees agreed that the interview template was acceptable as is.

Citizen Advisory Committee (CAC)

The attendees agreed that the makeup of the Citizen Advisory Committee was acceptable, with the addition of a representative from the Air Ranch. Attendees were encouraged to contact Lee with any additions.

Next Steps

- Commence interviews with stakeholders
- Community Survey

**City of Greenleaf Transportation Plan
Stakeholder Interview List**

Organization	Interviewee's Name	Phone Number	E-mail Address
Caldwell Rural Fire Protection District	Mark Wendelsdorf Chief Andy Cater Fire Marshal	455-4703 office 250-4945 Andy's cell	mwendelsdorf@ci.caldwell.id.us acater@ci.caldwell.id.us
COMPASS (Community Planning Association of Southeast Idaho)	Toni Tisdale Principal Planner COMPASS	465-2238 office 440-1109 cell	ttisdale@compassidaho.org
GGHD (Golden Gate Highway District)	Rich Girard Director	482-6267 office	richg@gghd3.org
Greenleaf Friends Academy	Jeff Metcalf, Principal Ellen Morse Dir of Advancement	459-6346 office	jeffmetcalf@gfaschools.org ellenmorse@gfaschools.org
Greenleaf Senior Center (Idaho Friends Retirement Homes)	Joe & Cherie Rubens Management Glenn Koch Board Chair	455-0390 office 455-0987 home 459-7623	rubens4@juno.com koch@threfingers.net
Idaho Transportation Department, Region 3	Mark Wasdahl Senior Planner (contact for SH-19 corridor study)	334-8344 office	mark.wasdahl@itd.idaho.gov
Western Alliance for Economic Development	Tina Wilson Director	615-6083 cell	tina@westernallianceed.org
Wilder Police	Dusty Tveidt Chief	482-6204 office 573-6231 cell	dtveidt@cityofwilder.org
Greenleaf Friends Church	Dennis Ankeny Administrator	459-3896 office 340-9545 cell	dennis@greenleaffriends.org
Greenleaf Historical Society	Liza Warner Vice-Chair	454-8305 home	liza.warner@yahoo.com

Big Valley Supply	Brent Bozeman	459-9213 office	P.O. Box 327 Greenleaf, ID 83626
Jahn's Greenleaf MeatPacking	Randy Jahn	454-0164 office 724-1320 cell	P.O. Box 393 Greenleaf, ID 83626
Greenleaf Cafe	Eric Perry	459-8334	21513 Main St. Greenleaf, ID 83626
Greenleaf Store	Art Bailey	459-3248	P.O. Box 246 Greenleaf, ID 83626
U.S. Postal Service	Virginia	459-8691	

City of Greenleaf Transportation Plan



Stakeholder Interview		PRE-INTERVIEW INFORMATION	
Name of Stakeholder			
Position/organization			
Contact details (WORK / HOME)	Phone:	Fax:	
Circle one	E-mail:		
Name of Interviewer(s)			
Date			

PROJECT/ISSUE-RELATED QUESTIONS

- What is your connection or history to the City of Greenleaf? (ex: City leader, business owner, resident, etc.)

- Thinking about how you get to [work / church / school / _____], what are the ways Greenleaf's transportation system works?

- How could the transportation system be changed?

- What are the three most important transportation issues that need to be addressed by this plan?

- What are additional features that Greenleaf should address in the transportation plan (e.g. parks, trails, etc.)?

City of Greenleaf Transportation Plan



6. Who are the opinion leaders or active groups in the community?

7. Thinking about earlier efforts to involve this community, (public meetings, mailings, gathering comments) – what can we learn from this? Is there anything we do to improve the process?

8. Who else should we talk to?

9. Is there anything else you want to tell us?

Interviewer's comments

FOLLOW-UP NEEDED

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**City of Greenleaf Transportation Plan
Citizen Advisory Committee List**

Citizen's Name	Phone Number	Mailing Address
Richard Cox	454-6586	21664 Sprucewood Greenleaf, Idaho 83626
Angela Douty	454-2128	PO Box 154 Greenleaf, Idaho 83626
Julie Douty	454-0144	20771 Locust Hill Dr Greenleaf, Idaho 83626
Laberta Douty	454-2315	PO Box 92 Greenleaf, Idaho 83626
Bruce Germain	454-1790	21204 Harmony Lane Greenleaf, Idaho 83626
Kathy Hazen	863-5862	21425 Binford Dr Greenleaf, Idaho 83626
Julie Humphreys	880-4833	P. O. Box 118 Greenleaf, Idaho 83626
Jess Knepper	305-5233	21453 Binford Greenleaf, Idaho 83626
Eddie Kyle	454-8592	20809 Sequoia Greenleaf, Idaho 83626
Minerva Ortiz	454-0557	PO Box 261 Greenleaf, Idaho 83626
Ismael Pedraza	455-5181	21695 Main St Greenleaf, Idaho 83626
Steve Pemberton	459-8944 371-8944	21454 Binford Greenleaf, Idaho 83626
Scott Pew	318-8515	20730 Whittier Dr Greenleaf, Idaho 83626
Ed Priddy	724-5606	Greenleaf Air Ranch



Project Overview

The City of Greenleaf has received funding from the Local Rural Highway Investment Program through the Local Highway Technical Assistance Council to develop a local Transportation Plan. The City currently has a transportation component in the form of a chapter in their Comprehensive Plan dated October 25, 2006. This Transportation Plan is being developed to further address elements in Idaho Code 67-6508 to supplement the City's existing Comprehensive Plan as noted above and to develop an Official Street Plan, Official Sidewalks, Trails, and Parks Plan, Pavement Management Plan, and Capital Improvement Plan.

J-U-B is guiding the planning process, explaining technical data, and providing decision-making tools to promote community ownership of the vision, goals and policies developed for the Transportation Plan.

Overview of Key Stakeholder Interviews

In August 2013, The Langdon Group (subsidiary of J-U-B) interviewed key stakeholders from the City of Greenleaf and individuals who have a tie to the Greenleaf community. Interviewed stakeholders include:

- Dennis Ankeny, Greenleaf Friends Church
- Art Bailey, Greenleaf Store
- Brent Bozeman, Big Valley Supply
- Andy Cater, Caldwell Rural Fire Protection District
- Shane Jolley, Big Valley Supply
- Mike Kaes, Paragon Consulting, Golden Gate Highway District Engineer
- Dave Szplett, ITD District 3
- Toni Tisdale, COMPASS
- Dusty Tveidt, Wilder Police
- Liza Warner, Greenleaf Historical Society
- Mark Wasdahl, ITD District 3
- Tina Wilson, Western Alliance for Economic Development
- Mark Wendelsdorf, Caldwell Rural Fire Protection District



Interview Themes

The following is a summary of the themes heard from the 14 interviewees that provided input on the City of Greenleaf Transportation Plan.

Plan Direction: Interviewees mentioned the following suggestions for the direction of the Plan.

- **The Need for a Transportation Plan:** Several interviewees questioned the need for a City of Greenleaf Transportation Plan, mentioning it was upsetting that the City needed to spend money on the plan in order to obtain funding for any improvements identified in the plan. This was distressing to some individuals, but they understood the need for the plan given the requirements for some funding sources.
- **Concerns about Continued Growth:** There are concerns that mobility could become an increasing concern with the projected growth in the area and the potential for future Air Ranch development/use. There are times during the year (e.g. harvest), when the number of vehicles transporting commodities, employees, students, etc. is more than the roads (Highway 19 and Peckham Road) can handle. This situation will get worse if it goes unaddressed. Additionally, parking availability could become a problem in the future if accommodations are not made. There is concern that growth could split the City in half (north and south) if the community does not plan for growth on the south side of Highway 19, as some feel that this has already occurred due to the commercial properties dividing residential areas in the Area of Impact.
- **Telling the Story of Future Growth and Development:** With many funders, the City of Greenleaf will need to tell the story well about the demands that future growth and development will have. The plan needs to adequately tell this story and COMPASS can help to pull the supporting data together.
- **Tie the Transportation Plan to Other Plans:** Another persuasive story to tell funders is how the Transportation Plan ties to other existing plans undertaken by the City of Greenleaf.
- **Building Support for Plan:** Interviewees mentioned that the community members of Greenleaf can be difficult to engage on these types of endeavors, but that frequent interactions are the key to building understanding.

Funding and Partnering: Interviewees mentioned the following suggestions on funding and partnering for the outcomes of the Plan.

- **Funding Opportunities for Improvements in Greenleaf:** While the City of Greenleaf, given its relative size, is limited in the diversity of funding sources it can obtain, it can go after at least two specific programs: 1) Surface Transportation Program and 2) Transportation Alternative Program. There are community members that hesitate to tap into these funds and would prefer to fund any absolutely necessary improvements locally.



- **Partnering with the State:** The City of Greenleaf may need to tap into state highway improvement funds in order to make improvements to Highway 19.
- **Identifying Construction-Ready Projects:** In many cases, project ideas are rejected by funding sources (including the state). Construction-ready projects that have the support of the community are more likely, even in rural communities, to receive support for implementation. Knowing that funding sources are limited in our current economic climate, the City might include “triggers” in the transportation plan to indicate when a certain project might be needed (e.g. traffic lights are needed when the population in the Area of Impact is “x”).

Potential Infrastructure Improvements in the City of Greenleaf: Interviewees mentioned the following as infrastructure improvements the City might consider in the Plan.

- **Sidewalks:** A majority of interviewees mentioned sidewalks as a necessary improvement in Greenleaf. Reasons include: safety for elderly, children and emergency responders, and general movement through the community. With this being said, there are community members who do not see a need for sidewalks due to the small size of the community and number of streets.
- **Crosswalks, Particularly on Highway 19:** Again, a majority of interviewees mentioned the need for crosswalks. The only specific location highlighted was across Highway 19. This improvement would benefit nearly all community members, but particularly the elderly and children who likely need the assistance of a crosswalk to safely get from one side of Highway 19 to the other. This is of particular concern during the peak traffic hours in the morning and early evening. Many community activities occur on the south side, while the school, senior center and church are on the north side. A crosswalk would promote safety as community members crossed to get from one facility to the other.
- **Center Turn Lane on Highway 19:** Interviewees, particularly those emergency responders and business owners interviewed, would like a center lane to be constructed on Highway 19 through the City. Currently, many cars pass along the right-hand side of a left-turning vehicle to get around in an expeditious manner. This creates unsafe circumstances for all on the highway, including pedestrians. Therefore, people would like a center turn lane to promote safer turning conditions, while promoting mobility.
- **Physical Traffic Calming Devices:** Interviewees, particularly emergency responders, do *not* want to see additional physical traffic calming devices (e.g. rumble strips, speed bumps) placed on roadways. While these devices may lead to a reduction in speed, they cause unsafe conditions for many motorists, delay emergency responders and can risk the welfare of a patient in an emergency vehicle.
- **Traffic Lights:** While very few mentioned the need for traffic lights in the community, emergency responders would, if lights are installed, prefer to have traffic signal preemption.



- **Transit Service Opportunities:** There are community members that would like to explore transit options, even seasonally, for the City of Greenleaf.
- **Peckham Road Improvements:** Interviewees mentioned that, if growth continues in the area, Peckham Road will need to be improved (i.e. widened) to create an alternative, safe route for the increased number of motorists.
- **Friends and Academy near Railroad:** There are concerns about the lack of visibility at the railroad crossing, particularly highlighting that trains seem to appear before you know it. This concern is heightened during harvest. It was suggested that improvements be made to increase visibility in this area.
- **Street Lighting:** It was mentioned that City could install lighting that would make the streets safer.
- **Frontage Areas:** Interviewees also mentioned that some of the frontages (area in which the yard meets the street) are inconsistent, so it is difficult to differentiate from property to property where the street begins. It was suggested that improved maintenance could help with this problem, as this makes walking on the shoulders challenging.

Opportunities for Parks and Recreation Improvements in the City of Greenleaf: Interviewees mentioned the following as parks and recreation improvements the City might consider in the Plan.

- **Use of Existing Community Gathering Facilities:** When asked about parks and recreation opportunities in the City of Greenleaf, a number of interviewees expressed concern about spending a great deal of money on these improvements because they do not see people (including the youth in the community) using the existing facilities.
- **Opportunities for New Community Gathering Facility:** Several interviewees mentioned the need for a publically owned/managed community gathering site. The Greenleaf Historical Society may have access to land on the south side of Highway 19. If this site is developed for the community, interviewees mentioned the increased need to install a crosswalk on Highway 19.
- **Need for Bicycle & Pedestrian Trail/Path System:** Interviewees expressed their interest in a trail or path system that could ultimately connect the City of Greenleaf to the Cities of Wilder and Caldwell. They understand that this may not be the most significant priority of the Transportation Plan, but mentioned that it could be a valuable improvement for the City. The policy manual for highway districts doesn't have standards for trails and paths in any great detail. The City of Greenleaf may need to engage others (e.g. canal companies, other communities) in conversation to get this type of system implemented.
- **Way Finding Signs as Part of Plan for Parks and Recreation Improvements:** If the City decides to install a trail/path system, the design and implementation must include a plan for



way finding signs. This was important to the emergency responders interviewed, as the signs are critical in life and death situations that may occur on the trail/path.

Community Characteristics: Interviewees mentioned the following as characteristics of the City of Greenleaf and surrounding areas.

- **Ease of Mobility:** Interviewees resoundingly indicated that mobility is great in the City of Greenleaf.
- **Challenge is Commute through Other Areas:** While mobility in the City of Greenleaf is great, the challenges come in other communities along the way to a final destination. Wilder was mentioned specifically.
- **Layout of City is Great:** Interviewees mentioned the layout of the City as an attractive feature that promotes safety and mobility.
- **Traffic is Acceptable but Trucks Can Be a Disturbance:** Many interviewees mentioned that the traffic in the area, currently, isn't bothersome. Several did mention that the volume and frequency of trucks driving along Highway 19 can be a disturbance to the community.
- **Need for Speed Management on Highway 19 to Wilder:** One concern that a number of interviewees would like to address is the rate of speed on Highway 19 to Wilder. The posted speed limit is 55 mph, but many motorists exceed the speed limit.
- **Supportive and Responsive City Government:** Interviewees mentioned that they value the support and responsiveness of their elected officials and the City staff.
- **Need for Fire Truck in Closer Proximity:** One interviewee mentioned the need for a fire truck to be in closer proximity (less than five miles away) from the City of Greenleaf so that homeowner insurance rates can be reduced.

Use of the Interview Themes

Interviewing stakeholders is one of four outreach strategies that Greenleaf is undertaking to obtain input on this Plan. Information from the stakeholder interview themes will be used to help define overall community priorities, maintenance goals and capital improvement projects.

City of Greenleaf Transportation, Parks and Trails Plan Survey Results



A Survey for the City of Greenleaf Transportation, Parks and Trails Plan was posted on the city's website, and hard copies were distributed at the Greenleaf Academy School and city hall.

Thirty-seven individuals participated in the survey process through a combination of manually filled out survey forms, and through the city's website. The survey consisted of ten questions, some were open-ended, and others were multiple choice.

1. **Where do you commute to work?** Please choose one.

Listed in order of ranking

- Outside of Greenleaf in Canyon County— (12)
- Greenleaf— (11)
- I do not commute to work— (6)
- Outside of Greenleaf in Ada County— (4)
- None of the above: I work in— (4)
 - Remotely in my home
 - All of the above- travel
 - Ontario, OR
 - Homemaker/spouse works Ada County

2. Preliminary feedback identified nine recurring transportation-related issues that need to be addressed by this Transportation Plan. Please rate each issue in order of priority with “1” being the most important:

Listed in order of ranking

- (No. 1) Street lighting.
- (No. 1) Sidewalks. If so, where? **Academy (8); SH 19/Main (6); Peckham (2); Friends (2)**
- Center turn lane on Main Street (Hwy 19) /removal of on-street parking on Main Street
- Main Street (Hwy 19) aesthetics – frontages along the highway
- Growth
- Crosswalks & ADA Ramps. If so, where? **SH 19/Main (4); Academy (3); Peckham (1)**
- Peckham Road reconstruction. **Widen side of street on Peckham going up hill**
- Railroad crossings at Friends and Academy near Peckham Road
- Transit service options (e.g. buses, van pool, etc.)
- Other(s): **Not traffic light!; need lights to see better around town; growth not needed**

		<i>Point Values</i>										
		10	9	8	7	6	5	4	3	2	1	
#	Transportation-Related Issues	1	2	3	4	5	6	7	8	9	10	Total
1	Street lighting	8	2	4	1	0	5	1	3	1	3	28
	Total points with weighted values	80	18	32	7	0	25	4	9	2	3	180
1	Sidewalks	7	7	3	0	1	1	0	1	2	5	27
	Total points with weighted values	70	63	24	0	6	5	0	3	4	5	180
3	Center turn lane on Main Street (Hwy 19)/ removal of on-street parking on Main Street	6	3	2	0	2	4	2	1	1	6	27
	Total points with weighted values	60	27	16	0	12	20	8	3	2	6	154
4	Main Street (Hwy 19) aesthetics- frontages along the highway	3	2	3	2	4	2	4	0	2	7	29
	Total points with weighted values	30	18	24	14	24	10	16	0	4	7	147
5	Growth	4	1	3	2	2	0	2	3	1	6	24
	Total points with weighted values	40	9	24	14	12	0	8	9	2	6	124
6	Crosswalks & ADA ramps	3	0	3	4	2	3	1	2	1	5	24
	Total points with weighted values	30	0	24	28	12	15	4	6	2	5	126
7	Peckham Road reconstruction	1	3	1	2	4	1	2	3	3	4	24
	Total points with weighted values	10	27	8	14	24	5	8	9	6	4	115
8	Railroad crossing at Friends and Academy near Peckham Road	1	2	2	2	4	0	2	5	2	5	25
	Total points with weighted values	10	18	16	14	24	0	8	15	4	5	114
9	Transit service options (e.g. buses, van pool, etc.)	3	1	0	3	2	0	2	2	5	6	24
	Total points with weighted values	30	9	0	21	12	0	8	6	10	6	102
10	Other(s)	1	2	1	0	1	0	0	0	1	9	15
	Total points with weighted values	10	18	8	0	6	0	0	0	2	9	53

3. What are the most important items the city should consider when prioritizing or budgeting for transportation, parks, and trails improvements? Please rate each issue in order of importance with “1” being the most important:

Listed in order of ranking

- Preserving small, rural town character (e.g.. no sidewalks, no street lights)
- Improving safety (e.g. street lights at intersections)
- Improving aesthetic qualities (improve “looks”, beautification)
- Promoting economic development (e.g. improving walkability, maintaining on-street parking)
- Improving recreational use and connectivity (e.g. sidewalks, pathways)
- Improving emergency access (e.g. connecting dead end streets)
- Improving connectivity and mobility (e.g. future road connections)
- Other(s): Comment No. 1 -I live on main. Since survey came out, I've been observing. I think this is a bad idea. 1) Traffic slow up is minimal- mostly at Academy driving school coming and going. 2) Many funerals need parking on Main Street. 3) During summer bicycle groups come through-- an example of forcing a dangerous situation. 4) Increase noise for houses. 5) Moves heavy traffic much slower to pedestrians. Comment No. 2 Need open spaces for people to gather.

#	Items to Consider When Prioritizing	Point Values								Total
		8	7	6	5	4	3	2	1	
1	Preserving small, rural town character (e.g. no sidewalks, no street lights)	11	6	2	2	1	1	6	4	33
	Total points with weighted values	88	42	12	10	4	3	12	4	175
2	Improving safety (e.g. street lights at intersections)	10	4	6	3	0	1	1	5	30
	Total points with weighted values	80	28	36	15	0	3	2	5	169
3	Improving aesthetic qualitative (improve "looks" beautification)	8	2	4	7	3	1	3	3	31
	Total points with weighted values	64	14	24	35	12	3	6	3	161
4	Promoting economic development (e.g. improving walkability, on-street parking)	5	3	5	3	3	2	1	5	27
	Total points with weighted values	40	21	30	15	12	6	2	5	131
5	Improving recreational use and connectivity (e.g. sidewalks, pathways)	4	4	4	4	0	4	3	4	27
	Total points with weighted values	32	28	24	20	0	12	6	4	126
6	Improving emergency access (e.g. connecting dead end streets)	1	2	4	7	2	3	1	8	28
	Total points with weighted values	8	14	24	35	8	9	2	8	108
7	Improving connectivity and mobility (e.g. future road connections)	0	1	0	4	7	3	3	7	25
	Total points with weighted values	0	7	0	20	28	9	6	7	77

4. How should Greenleaf prioritize its funding for transportation and recreation-related projects?

Listed in order of ranking

- Save up for big projects while funding smaller projects through grants and other alternative funding sources— (20)
- Do as many projects as possible with or without alternative funding sources— (4)
- Save up for big projects—(3)

8 Comments

- Pay off sewer system ASAP. Then work on whatever the budget allows
- Do not charge the residents any more money!!!
- How about paying our sewer? Lowering our overall bill? Novel don't you think?!
- Finish sewer stuff and clean it up
- No answer
- Are you trying to be another Eagle, Idaho? Com on leave Greenleaf a village.
- Pay for the sewer plant first
- No more borrowing!! Save for the projects. We should have learned our lesson from the sewer scandal. Who would of dreamed of paying 79.99 a month for sewer.

5. Would you utilize multi-use walking and biking trails throughout the community?

- Yes—52% (16) – see locations below
- No—48% (15)

15 Comments – Sidewalk Locations

- We need to watch people's current walking patterns and ask how to make more safe & enjoyable
- I would use them, but don't feel that they are particularly needed at this time
- I would use them no matter where they would be located
- Outskirt of town or airport
- No answer
- With school students
- Around the town
- No answer
- Around the perimeter
- No answer
- Around adjacent to air park; along creek and cemetery
- Edge of town away from traffic areas
- Around town edges primarily
- I ride now, and would utilize trails, but give current patterns, they aren't necessary
- I walk for exercise, and know a lot of others do too

6. Why do you walk or ride a bicycle?

Listed in order of ranking

- Exercise—(24)
- Recreation— (19)
- Commuting to work— (2)

7. What prevents you from walking or bicycling in Greenleaf?

Listed in order of ranking

- Other— (15) See comments below
- I do not have enough time—(6)
- No bike paths, lanes or bike routes— (4)
- Not interested in biking or walking in Greenleaf— (4)
- Not enough lighting— (3)
- Destinations are too far away— (2)
- Lack of end-of-trip facilities (bike parking, restrooms, etc.)— (2)
- Too many cars— (1)

15 Comments

- There is a difference between recreational biking and exercise. I got for a minimum of 8-109 miles.
- For this kind of riding the question will be if there are long distance bike routes coming from other places that we want to connect to?
- Too stinking many goatheads – flat tires!
- Nothing prevents me from biking or walking in Greenleaf
- Stupid surveys. Who said anything did?
- No sidewalks
- I do it
- I only commute to Greenleaf
- I don't live here
- Safety in some parts of town
- Nothing prevents me from walking or riding my bike
- Cars going too fast on town streets
- Nothing prevents me from walking or biking in Greenleaf
- Nothing prevents me. I have no problem biking in and around town
- Nothing

8. Preliminary feedback identified five (5) recurring parks and recreation-related issues that need to be addressed by this Plan. Please rate each issue in order of importance with “1” being the most important:

Listed in order of ranking

- Bicycle and pedestrian trails and pathway system
- Improve existing park. If so, which and how? **Not Sure (2); You ruined the little one we have**
- New public community gathering facility/area
- Create new park(s). If so, where? **Between elem. school, old passage along Hwy 19 cemetery, or behind businesses along Main Street; on church empty parking lot; north of Academy School (2); near Main Street; corner of Antrim and Whittier**
- Signage for walkers/riders to know how to get from “Point A” to “Point B”

10 Comments

- Between elementary school, old passage along Highway 19 cemetery, or behind businesses along Main Street
- I’m not really sure
- I think you better come up with a new plan. Who comes up with all this?
- Not sure
- On church empty lot
- North of Academy School
- Corner of Antrim and Whittier
- You ruined the little one we have
- Not sure, near Main Street
- Create new park—North of Academy School

		<i>Point Values</i>	5	4	3	2	1	
#	Recurring Parks and Recreation Issues		1	2	3	4	5	Total
1	Bicycle and pedestrian trails and pathway system		9	3	7	2	9	30
	<i>Total points with weighted values</i>		45	12	21	4	9	91
2	Improve existing park. If so, which and how?		3	3	6	6	10	27
	<i>Total points with weighted values</i>		15	12	18	12	10	67
3	New public community gathering facility/area		3	6	3	3	10	25
	<i>Total points with weighted values</i>		15	24	9	6	10	64
4	Create new park(s). If so, where?		5	1	1	0	19	26
	<i>Total points with weighted values</i>		25	4	3	0	19	51
5	Signage for walks/riders to know how to get from "Point A" to "Point B"		1	3	3	5	14	26
	<i>Total points with weighted values</i>		5	12	9	10	14	50

9. Are there any specific projects or locations, not mentioned in this survey that should be addressed in the Greenleaf Transportation Plan? If so, please provide specifics about the projects or locations that you are recommending to be addressed.

10 Comments

- Pay off the sewer facility. Only ESSENTIAL projects until the sewer is done. Stop thinking of ways to spend money we don't have. Nobody wants to live here when they can't afford their utility bills.
- Eradicate the goatheads!!!
- No.
- Come on! Really? We need a transportation plan? If you are having trouble getting around...let me know I will give you a very simple tour. On bike or walking your choice. I'll go slow.
- Lights to see around town; no traffic lights
- N/A
- Walk/bike path connecting Wilder to Greenleaf along Peckham between road and railroad tracks
- Speeding is a continual problem in town. Speed bumps or dips should be seriously considered before some gets hurt
- There are a lot of speeders traveling on Whittier. Maybe a speed bump (or two) to slow them down?
- I WOULD LIKE TO SEE PUBLIC TRANSPORTATION OFFERED FOR THIS AREA.

10. Are there any other issues that should be addressed in the Greenleaf Transportation Plan? If so, please provide explain the issue that you are recommending be addressed.

10 Comments

- Pay off the sewer.
- No.
- I think it's time for a change of city council members and mayor. Since when do we what to be a copy of Eagle? No wonder folks are moving away. I may join them...wait for it...after the election.
- Widen side of street on Peckham Road going uphill.
- By street lighting. I am referring to well-lit roads—not traffic lights.
- Don't spend money we don't need to spend!
- I would like to see, as new businesses comes in, that parking lots be designed rather than on street parking.
- The only thing I view as even remotely pressing is the street lighting. The city should try to reduce costs whenever possible, i.e. not taking on any additional projects that are not absolutely necessary for public safety, until debt is paid down enough on the sewer system to get user fees down to a reasonable level.
- I FEEL WE SHOULD NOT ADD ANYMORE EXPENSE TO THE COMMUNITY UNTIL WE SOLVE THE SEWER EXPENSE ISSUE. THE COMMUNITY WAS NOT INFORMED PROPERLY ESPECIALLY CONCERNING THE EXPENSES BEFORE THE FACT. NOW FAMILIES ARE CARING MORE OF BURDEN THEY REALLY DIDN'T NEED.
- Please keep the small town quaintness of Greenleaf. Expand on that.

City of Greenleaf

2014 Future Park System Amenities and Features Survey Results

	1	2	3	4	5	Total
1. Walking Path	8	6	4	5	0	23
<i>points</i>	40	24	12	10	0	86

	1	2	3	4	5	Total
2. Restrooms	5	3	3	5	4	20
<i>points</i>	25	12	9	10	4	60

	1	2	3	4	5	Total
3. Picnic area/ gathering	3	6	3	3	2	17
<i>points</i>	15	24	9	6	2	56

	1	2	3	4	5	Total
4. Shade trees	4	3	3	5	4	19
<i>points</i>	20	12	9	10	4	55

	1	2	3	4	5	Total
5. Benches	1	3	5	3	7	19
<i>points</i>	5	12	15	6	7	45

	1	2	3	4	5	Total
6. Playground 2-5 yrs	4	2	2	2	0	10
<i>points</i>	20	8	6	4	0	38

	1	2	3	4	5	Total
7. Community center	4	2	2	1	1	10
<i>points</i>	20	8	6	2	1	37

	1	2	3	4	5	Total
8. Playground 5-12 yrs	0	3	4	4	2	13
<i>points</i>	0	12	12	8	2	34

	1	2	3	4	5	Total
9. Amphitheatre stage/ seating for outdoor concerts & events	3	4	0	0	3	10
<i>points</i>	15	16	0	0	3	34

City of Greenleaf

2014 Future Park System Amenities and Features Survey Results

10. Open grass play area	1	2	3	4	5	Total
	2	1	3	3	2	11
	<i>points</i>	10	4	9	6	2

11. Event area for Independence Day celebration; tractor pull, etc.	1	2	3	4	5	Total
	2	2	0	0	5	9
	<i>points</i>	10	8	0	0	5

12. Archery	1	2	3	4	5	Total
	3	2	0	0	0	5
	<i>points</i>	15	8	0	0	0

13. Farmer's market	1	2	3	4	5	Total
	0	2	3	0	3	8
	<i>points</i>	0	8	9	0	3

14. Water feature for Summer cool-down; splash & spray pad/ misting system	1	2	3	4	5	Total
	2	0	1	2	2	7
	<i>points</i>	10	0	3	4	2

15. Fishing	1	2	3	4	5	Total
	2	0	2	1	1	6
	<i>points</i>	10	0	6	2	1

16. Volleyball, outdoor sand	1	2	3	4	5	Total
	2	0	1	1	0	4
	<i>points</i>	10	0	3	2	0

17. Basketball, outdoor court	1	2	3	4	5	Total
	0	2	1	1	1	5
	<i>points</i>	0	8	3	2	1

City of Greenleaf

2014 Future Park System Amenities and Features Survey Results

	1	2	3	4	5	Total
18. Community garden	1	0	1	3	0	5
<i>points</i>	5	0	3	6	0	14

	1	2	3	4	5	Total
19. Dog off-leas area	1	1	0	2	1	5
<i>points</i>	5	4	0	4	1	14

	1	2	3	4	5	Total
20. Shooting range	0	0	4	0	0	4
<i>points</i>	0	0	12	0	0	12

	1	2	3	4	5	Total
21. RV sites	0	0	0	2	1	3
<i>points</i>	0	0	0	4	1	5

	1	2	3	4	5	Total
22. BMX bicycle jump park	0	0	1	0	2	3
<i>points</i>	0	0	3	0	2	5

	1	2	3	4	5	Total
23. Baseball	0	0	0	2	1	3
<i>points</i>	0	0	0	4	1	5

	1	2	3	4	5	Total
24. Skateboard area	0	0	0	2	1	3
<i>points</i>	0	0	0	4	1	5

	1	2	3	4	5	Total
25. RV dump station	0	0	1	0	1	2
<i>points</i>	0	0	3	0	1	4

	1	2	3	4	5	Total
26. Disk golf	0	1	0	0	0	1
<i>points</i>	0	4	0	0	0	4

City of Greenleaf

2014 Future Park System Amenities and Features Survey Results

	1	2	3	4	5	Total
27. Horseshoes	0	0	1	0	0	1
<i>points</i>	0	0	3	0	0	3

	1	2	3	4	5	Total
28. Tennis court	0	0	0	1	1	2
<i>points</i>	0	0	0	2	1	3

	1	2	3	4	5	Total
29. Track and Field: Track, shot-put discus, long/high jump, hurdles, etc.	0	0	0	0	2	2
<i>points</i>	0	0	0	0	2	2

	1	2	3	4	5	Total
30. Interceptive/ educational signage	0	0	0	0	2	2
<i>points</i>	0	0	0	0	2	2

	1	2	3	4	5	Total
31. Water fountain for drinking water	0	0	0	0	1	1
<i>points</i>	0	0	0	0	1	1

	1	2	3	4	5	Total
32. Water fountain as ornamental feature	0	0	0	0	1	1
<i>points</i>	0	0	0	0	1	1

	1	2	3	4	5	Total
33. Soccer field	0	0	0	0	0	0
<i>points</i>	0	0	0	0	0	0

	1	2	3	4	5	Total
34. Softball field	0	0	0	0	0	0
<i>points</i>	0	0	0	0	0	0

	1	2	3	4	5	Total
35. Football field	0	0	0	0	0	0
<i>points</i>	0	0	0	0	0	0

City of Greenleaf

2014 Future Park System Amenities and Features Survey Results

36. Other: Crosswalk to cemetery	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

37. Other: Equestrian area	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

38. Other: Exercise/ gym facility	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

39. Other: Library	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

40. Other: Swimming pool	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

41. Other: Zip line	1	2	3	4	5	Total
	0	0	0	0	0	0
	<i>points</i>	0	0	0	0	0

Appendix B – Existing Plans

Existing Plan Needs



Existing Plans

Agency	Document Name	Components
City of Greenleaf	2025 Comprehensive Plan Adopted October 25, 2006	<ul style="list-style-type: none"> • Historical population growth (no future projections) from 1980-2000 • p. 15, “partner with City of Wilder to develop a complimentary commercial corridor between the City of Wilder and Greenleaf along Highway 19/Peckham Road to include agricultural related business and light industry”. • p. 15, “Establish a Pedestrian oriented Central Business District...” • p. 27, “Identify dangerous railroad crossings and intersections, and implement measures to protect pedestrians and motorists” • p. 28, “Reduce speeds at dangerous roads and intersections.” • “Require sidewalks and crosswalks as needed to provide safety of pedestrian traffic throughout the city”. • “Require detached sidewalks along collector roads, arterial roads, and other roads of concern in the opinion of the Greenleaf Public Services Department”. • “Add crosswalks and required stopping in crosswalk areas” • “Add bike lanes on each side of arterial and collector roadways” • Evaluate the need for stop signs/lights, street lights, and railroad crossings on a regular basis” • p. 33, “Maintain and upgrade municipal roads and streets. Add pedestrian and bicycle paths” • “Improve, widen and upgrade municipal roads and streets as local and area growth increase traffic volumes” • “Provide adequate improvement to pedestrian walkways and sidewalks to maintain the safety and connectivity of pedestrian traffic within the city” • Develop a balanced and mixed transportation system in accordance with air quality and environmental concerns which provides for the efficient and safe movement of people and goods, including agricultural activity. • Achieve a balanced transportation system inclusive of air travel, roadways, public transit, pathways, sidewalks, equestrian trails, etc. • Encourage a transportation system designed and developed to reduce existing traffic congestion and facilitate the safe efficient movement of people and goods within the community. • Promote the beautification of federal, state, and local roads to improve the visual impact of Greenleaf. • Acknowledge that many city roads and streets also function as farm-to-market trade routes. This must be maintained and taken into account with all future transportation planning. • Develop a long range plan that identifies streets in accordance with best-practice road and street classification (urban collectors, local collectors, arterials, etc.). • Identify transportation projects that need to be investigated for sound community development • Encourage new development to provide for pedestrian, equestrian, and bicycle pathways. • Review the City’s transportation priorities including roadway widening , signalization, and other improvements in concert with the Transportation Improvement Program within the City limits and Impact Area. • Address street lighting in new development to balance roadway and neighborhood safety with the desire to maintain a rural feel to the overall community. • Plan for and implement minimum setbacks between developments and roadways, and encourage installation of berms and landscaping for all developments to enhance safety, reduce ambient roadway noise in residential areas, and to enrich the roadway and community appearance. • Encourage arterial and collector roadway design criteria consistent with the rural nature of the planned and existing developments general within the areas designated on the Land Use map as Rural Residential. Such designs should include the following: <ol style="list-style-type: none"> 1. Vertical Curbs should be discouraged except where may be needed to address drainage or safety issues. Where curbs are needed, flat or rolled curbs should be encouraged. 2. Sidewalks and/or pathways should meander and be separated from any roadway edge or curb to allow for added pedestrian safety. Topography, trees, ditches and/or similar features may limit the distance between sidewalks and/or pathways and the roadway edge. Easements may be needed if portions of the sidewalk and/or pathway is to be located outside of the right of way. 3. Unless otherwise determined to be necessary for public safety, roadways should be a maximum of two lanes with a center turn lane in locations that are expected to generate a minimum of 1000 vehicle trips per day, or where determined to be necessary for safety. 4. Encourage new development to address bike lanes and pedestrian paths along designated routes 5. Encourage and plan a complete system of bike lanes and pedestrian paths that provide interconnectivity to all areas of the community 6. A minimum building setback ordinance on designated arterial routes resulting in a setback of approximately 125 feet from the roadway centerline should be considered to be adopted by the City. <ul style="list-style-type: none"> • Encourage five foot sidewalks that are separated back approximately four feet or greater, depending on traffic flow, from the curb on all streets, except for areas where City Code requires sidewalks to abut the curb and where there are pre-existing buildings. • Encourage planning of local roadway systems which will provide for intra-neighborhood connectivity to provide for emergency and delivery access without developing ‘shortcut’ routes through neighborhood areas. The connecting roadways should be designed to not become collectors and to discourage traffic from cutting through neighborhoods to go from collector to arterial to another collector or arterial. • Encourage the development of a city-wide and/or regional pedestrian and bicycle system, with enhanced safety features, with focus upon designing this feature into new development in all zoning classifications. • New developments shall be required to stub access to adjacent underdeveloped parcels, where deemed appropriate by city planners.

- Develop transit friendly corridors along Hwy.19 and Peckham Road.
- The City shall resolve responsibility for design and installation of sidewalks.
- Traffic mitigation strategies, perhaps including traffic lights, acceleration turn lanes, and deceleration turn lanes, will be needed along Hwy 19 to address increased traffic flows from new developments located both inside and outside the city limits. New development causing the need for such mitigation strategies should be required to pay for such mitigation.
- The City should explore the option of creating a greenbelt pathway to Caldwell and/or Wilder. The railroad track right of way area could possibly be used for this purpose.
- A collector street system shall be pursued within each square mile of development adequate to serve the density of development. Suggestions shall be forwarded to ITD and appropriate highway district for planning and adoption in the TIP.
- Implement, in conjunction with ITD, appropriate highway district and the appropriate fire district, alternative street standards related to new urbanism, including narrower local streets and tighter curb radii.
- Moreover, open spaces will need to be preserved as park areas for the public to enjoy. For example, a greenbelt walking path or a natural wooded area by one of our creeks would help preserve the rural qualities important to our residents. It is important to have places where youth and families can enjoy the outdoors within their own community.
- Add recreational opportunities and an activity center. Greenleaf's natural features, are treasured by the community and require protection. These natural open-spaced features help purify air and water, provide recreational and educational opportunities and reinforce the distinctive character of the community.
- The National Recreation and Park Association (NRPA) has developed standards for communities to use for planning, developing and acquiring park and recreation lands.
- To create a pathway system that provides interconnectivity of schools, neighborhoods, public buildings, businesses, parks, special sites and other communities.
- To provide wherever possible open space and natural features such as natural river frontage, greenbelts, trails and pathways, creeks, flood plains and flood ways, drainage ways and canals, development buffers, wooded areas, sagebrush and grasslands, foothills and viewpoints for public use and enjoyment.
- To encourage new development to provide open space and park facilities.
- To plan and design parks for sustainability and conservation of natural resources by utilization of trees, grasses, flowers, and other vegetation that will enhance and preserve natural features.
- To provide a system of neighborhood parks and/or common open areas with safe and convenient access.
- To dedicate and develop areas for parks in new residential developments.
- To encourage the continued existence of pastures and open spaces on large residential lots within the older sections of the city.
- To provide a network of central and neighborhood paths where residents are able to safely access and utilize pathways for alternative forms of transportation.
- All development should provide developed pathways for connection to a planned public pathway system.
- To provide open space to protect the finite resource base of Greenleaf's natural environment including air, ground water, surface water, soil, plant and wildlife habitats, agricultural lands, and aquifer, watersheds, and wetlands.
- To provide and open space setting for active and passive recreation for all age groups throughout the community.
- To protect against hazards that are inherent to flood plains, flood ways, steep slopes, and areas of geological instability.
- Create an impact fee ordinance that requires developers to dedicate and establish parks, pathways, and/or open spaces in new developments. Require new development to set aside land for public use such as neighborhood parks, community gardens, and children's playgrounds.
- Explore grant and financing options to purchase playground equipment for parks.
- Create ordinances that require developments to provide improved pathway systems with links to adjoining pathway systems
- Require developers to utilize open space as may be designated by city planning or engineering staff for above-ground (i.e. grassy swales, constructed wetlands, and water features) or below-surface, on site storm water management (i.e. French drain).
- Create an ordinance that requires developers to include set asides for open spaces. Establish guidelines for open space set asides.
- Pathways may be generally defined as non-motorized multi-use paths that are separate features from bicycle and pedestrian lanes constructed as a part of a roadway.
- Trails may be generally defined as a path having an un-improved surface to encourage equestrian as well as pedestrian and bicycle use through and around the community.
- Greenbelts may typically be defined as land areas that border scenic features or hazard areas and are designed to prevent undesirable encroachment. Greenbelts may include pathways and/or bike lanes.
- pg. 44, Creation of waterways and Wilder Bench greenbelt areas
- pg. 51-52, "ENTRY CORRIDORS: These are roadways that introduce both visitors and residents to Greenleaf. City of Greenleaf entry corridors include State Highway 19, Friends Road, Tucker Road, Top Road, and Peckham Road. These entrances, with their landscaping (or lack thereof), commercial signage and building character provide the first, and oftentimes the most lasting impressions of the entire community. The City of Greenleaf has the responsibility to guide development and redevelopment that occurs along these entryway corridors. As the city limits expand, Notus Road, the three Pleasant Ridge Roads (Lower, Middle, and Upper), and Van Slyke Road are expected to also become city corridors.
- SIDEWALK AND STREET-SIDE DESIGN: Create and maintain standards for the design review and implementation of amenities addressing sidewalks and street-side development, including criteria such as street lighting, egress needs, construction setbacks, berms and landscaping, and including varying pedestrian requirements as appropriate for different areas of the city.
- PATHWAYS AND TRAILS: Encourage the development of pathways and open-space corridors to interconnect throughout the City and be a part of all future developments.
- ENTRY CORRIDORS: By ordinance, require the development of a strong community identity through design standards which enhance the entry corridors to the City. The city has the responsibility to guide development and redevelopment that occurs along entry corridors so as to compliment the character and uniqueness of the city.
- SIDEWALK AND STREET-SIDE DESIGN: By ordinance, prepare and adopt design guidelines and development standards to be the basis for design review of architectural, landscaping, signage and other visual impacts of development projects, in order to create a clearly identifiable community that is unique and distinctive in its' small-town rural residential flavor.

		<ul style="list-style-type: none"> • PATHWAYS AND TRAILS: By ordinance, require development of pathways and open-space corridors to interconnect throughout the City. • Identify areas that would benefit from pathways and open space corridors. • Cooperate with transportation districts in creating and identifying potential pathways and open space corridors.
City of Greenleaf	City Code	<ul style="list-style-type: none"> • pg. 55, 2-1-12: Parks and Recreation Commission (3-member) • pgs. 328-329, 9-2-2, STREET: A right of way which provides vehicular and pedestrian access to adjacent properties. The term "street" also includes the terms highway, thoroughfare, parkway, road, avenue, boulevard, lane, place, and other such terms. Streets are classified as follows (where an existing street has less than the below indicated width of right of way, such fact shall not deprive it of the status of "street", but shall instead evidence city policy for lawful acquisition of right of way in the fullness of time): • Arterial: A street designated on the comprehensive plan for the purpose of carrying fast and/or heavy traffic, of which the right of way shall be not less than eighty feet (80') in width. • Collector: A street designated on the comprehensive plan for the purpose of carrying traffic from minor streets to other collector streets and/or arterial streets, of which the right of way shall be not less than seventy feet (70') in width. • Cul-De-Sac: A short street terminated by a vehicular turnaround. • Dead End: An adjective describing a street terminating at a property line, having no outlet. • Frontage: A minor street parallel to and adjacent to an arterial street providing access to abutting properties and protection from through traffic. • Half: A portion of the width of a street, usually along the edge of a subdivision, where the remaining portion of the street could be provided by dedication in connection with approval of an adjoining subdivision. • Highway: A street designated as a state or federal highway by the state or federal agency responsible therefor. • Minor: A street which has the primary purpose of providing access to abutting properties, of which the right of way shall be not less than sixty feet (60') in width. • Private: A street that is not accepted by the city (or, in the impact area, by the county) for public maintenance which provides vehicular and pedestrian access, of which the roadway shall be adequate in width to provide access for emergency vehicles when snow is being stored, and in any event with a traveled surface not less than twenty feet (25') wide. Minimum right of way for a private street shall conform to the functional classification in the terms "minor", "collector" and "arterial" of this definition. • WALKWAY: A public way, four feet (4') or more in width, for pedestrian use only, whether or not along the side of a road. • Setbacks – see tables below • Landscape buffers – in CV and AP zones • City Park parking requirements – community allows local street parking, large play areas require 1 space per 8,000 square feet including abutting on street parking; neighborhood park requires 1 per 5,000 square-feet including abutting on street parking • 9-7-5 location of streets Street and road location shall conform to the following subsections: <ul style="list-style-type: none"> • Street Location And Arrangements: When an official street plan or comprehensive development plan has been adopted, subdivision streets shall conform to such plans. • Minor Streets: Minor streets shall be so arranged as to discourage their use by through traffic. • Stub Streets: Where adjoining areas are not subdivided, the arrangement of streets in new subdivisions shall be such that said streets extend to the boundary line of the tract to make provisions of the future extension of said streets into adjacent areas. • D. Relation To Topography: Streets shall be arranged in proper relation to topography. • E. Alleys: Alleys may be required in residential five (R5) and residential twelve (R12), multiple use and commercial subdivisions unless other provisions are made for service access and off street loading and parking. Dead end alleys shall be prohibited in all cases. • F. Frontage Roads: Where a subdivision abuts or contains an arterial street, it shall be required that there be frontage roads approximately parallel to, and on each side of, such arterial street; or such other treatment as is necessary for the adequate protection of residential properties and to separate through traffic from local traffic. • G. Cul-De-Sac Streets: Cul-de-sac streets shall not be more than seven hundred feet (700') in length and shall terminate with an adequate turnaround having a minimum outside roadway diameter of at least ninety feet (90') curb face to curb face. Nonstandard turnarounds may be approved. • H. Half Streets: Half streets shall be prohibited except where unusual circumstances make such necessary to the reasonable development of a tract in conformance with this title and where satisfactory assurance for dedication of the remaining part of the street is provided. • Private Streets: Private streets and roads shall be prohibited except within planned unit developments. (Ord. 205, 10-25-2006) • 9-7-6: SPECIFICATIONS: <ul style="list-style-type: none"> • Street Right Of Way Widths: Street and road right of way widths shall conform to the adopted major street plan or comprehensive development plan and the rules and standards of the Golden Gate highway district. • Street Grades: Street grades shall conform to geometric design standards as adopted by the Golden Gate highway district. • Street Alignment: Street alignment shall conform to geometric design standards as adopted by the Golden Gate highway district. (Ord. 205, 10-25-2006) • 9-7-8: INTERSECTIONS: Intersections shall conform to the following specifications: <ul style="list-style-type: none"> • Angle Of Intersection: Streets shall intersect at ninety degrees (90°) or as closely thereto as possible, and in no case shall streets intersect at less than eighty degrees (80°). • Number Of Streets: No more than two (2) streets shall cross at any one intersection. • "T" Intersections: "T" intersections may be used whenever such design will not restrict the free movement of traffic. • Centerline Street Offsets: Local street centerlines shall be offset by a distance of at least one hundred twenty five feet (125').

		<ul style="list-style-type: none"> • 9-7-9: PEDESTRIAN WALKWAYS: Right of way for pedestrian walkways may be required where necessary to obtain convenient pedestrian circulation. • B. Special Developments: In the case of residential subdivisions and planned unit developments, the city requires park and/or open space facilities that provide active and passive recreational uses. • "Active use" shall be defined as neighborhood areas which provide • gathering areas for active recreation (e.g., open fields, pathways for pedestrian, equestrian and/or nonmotorized use, swimming pools, tot lots, skateboard parks, tennis and basketball courts). • "Passive use" shall be defined as neighborhood areas which provide a combination of linear open space and scenic features (e.g., ponds, berms and view corridors). Where parks and/or open space is required in this title, passive use areas may not exceed fifty percent (50%) of the open space/park area. • 9-16-7: SIDEWALKS, CURBS, AND GUTTERS: Sidewalks shall be required improvements for projects requiring design review approval in the commercial zones, or other districts where existing sidewalk adjoins the subject property, or where the commission determines sidewalks are necessary for public safety. Sidewalks (and curb and gutter where required) shall meet the standards set forth in this code.
Vallivue School District through the Brown Bus Company	2013-2014 School Bus Routes	<ul style="list-style-type: none"> • Bus Stop Locations in the Vallivue School District for Elementary, Middle, and High School students
Greenleaf Friends Academy (GFA) School	Bus Stop Locations	<ul style="list-style-type: none"> • Greenleaf Friends Academy does not have a bus route per se. They do have a courtesy van that goes around Greenleaf and picks up a few students.
Valley Regional Transit (VRT)	Valley Connect Plan – Transit routes & projects	<ul style="list-style-type: none"> • Vanpool (expand – already have) • Carpool (expand – already have) • Future new park and ride facility located on the north side of SH 19 near the western city limit area • Future rural transit route that follows SH 19, US 95 and US 20/26, connecting Caldwell, Greenleaf, Wilder, Parma, and Notus • Future Rural Transit Service, Demand Response Transit, Para Transit, Volunteer Driver, Travel Training, Agency Vehicle Sharing, Car Sharing
City of Notus	Comprehensive Plan - 2004	<ul style="list-style-type: none"> • Nothing noticeable
City of Wilder	Transportation Plan - 2013	<ul style="list-style-type: none"> • Master Street Plan – establishes setbacks, row, landscape buffer width, corridor preservation guidelines, future mid-mile collector roadway system identified • Entryway/gateway corridors are located along SH 19 and Peckham Road • Master Sidewalk and Trail Plan – a future multi-use trail system establishes proposed sidewalk connections, proposed trails, scenic byway. In addition, typical sections for various bike lanes, multi-use pathways, nature trails, attached and detached trails and bike path options. Design standards refer to AASHTO at the city’s discretion. • Proposed trails along north side of SH 19 and along Peckham Road • Capital Improvement Plan: 1-10 years - Peckham Road multi-jurisdictional project, multi-use trail system; 10-20 years – SH 19 planning for bike-ped connection
City of Wilder	Street Standards & Development Requirements Manual - 2010	<ul style="list-style-type: none"> • Construction Standards • Street & Storm Drainage Design Criteria • Pedestrian Improvements • Landscaping Buffer Requirements • Roadway & access spacing requirements • Signage • Street Standards – 7’ sidewalks on Arterials & Collectors, 5’ on Minor • Right-of-way widths (Arterial 80’, Collector & Commercial 60’, Local/Minor 50’)
City of Wilder	Peckham Road Study	<ul style="list-style-type: none"> • Future Growth Pattern Scenario Analysis • Western Canyon Circulation Plan • Traffic Capacity Guidelines • Future Roadway Improvements/Sections based on Smart Growth Scenarios: Peckham Road, Red Top Road, US 95, Travis Road, SH 19 • 2030 Build-out Travel Demand Projections • Traffic Counts (ADT & Peak Hour) • Access Management • Road Improvement Cost Estimates • Pedestrian facilities – design & cost estimates – text of locations • Potential RR improvements/crossings
City of Caldwell	Pathways and Bike Routes Master Plan – Adopted January 19, 2010	<ul style="list-style-type: none"> • The City of Caldwell’s west AOI boundary is just 1.5 miles shy of the City of Greenleaf’s east AOI boundary, so they do not touch. Citizens have expressed an interest in defining a bike route from Greenleaf to the Caldwell YMCA. • Shows a future “proposed bike route” along Ustick

		<ul style="list-style-type: none"> Shows a future “proposed bike route” along Logan St, which turns into Lower Pleasant Ridge Rd in Greenleaf Shows a “proposed multi-use pathway” or greenbelt corridor along the Boise River, which, if extended, would bisect the northeast corner of the City of Greenleaf’s AOI
Canyon County Highway Districts, Canyon County, Nampa, and Caldwell	Corridor Preservation Planning Map Draft 2006	<ul style="list-style-type: none"> Right-of Way widths to be preserved on SH 19: 130’ Class II 50-55 MPH one-mile spacing, no direct parcel access; Red Top from Allendale to Notus Rd & Notus Rd from SH 19 to Howe: 130’ Class III 40-45 MPH ½-mile spacing
Canyon County	Plans & Ordinances	<ul style="list-style-type: none"> Setbacks – based on zoning ord. 07-10-21 and based on the Canyon County Functional Classification Map = 50’ setback from centerline of major collector; 70’ setback from centerline of principal arterial
Idaho Transportation Department (ITD)	Access Management for Highways	<ul style="list-style-type: none"> Approaches 300’, Intersection .25 mi, Signals .5 mi le spacing Note-in the process of being updated
ITD	Highway 19 Corridor Management Plan	10-year plan that identifies current and future highway needs within and along State Highway 19 beginning at Caldwell and extending to Wilder, then south through Homedale to the Oregon State Line (finishing at Oregon State Highway 201, a total of 19.8 miles. It shares the route of U.S. 95 between Homedale and Wilder.
ITD/COMPASS	FY 2014-2018 Regional Transportation Improvement Program	GGHD projects <ul style="list-style-type: none"> 2014 Railroad crossing at Allendale Rd– replace asphalt with concrete 2014 Railroad crossing at Peckham Rd– replace asphalt with concrete PD (2017?) Peckham Road from US 95 to Notus Road – curb, gutter, sidewalk, roadway widening and rehabilitation
Golden Gate HD	2035 Functional Classification Map	Adoption of the COMPASS Functional class map dated December 21, 2009; however, COMPASS has adopted a newer version Jan. 28, 2013. see map for more details
COMPASS	Long Range Transportation Plan – CIM	Nothing shown in CIM funded/unfunded projects – sent request for info to Toni at COMPASS
ITD	Snake River Canyon Scenic Byway Corridor Management Plan – November 2009	<ul style="list-style-type: none"> Site 10 recommends the following actions: <ul style="list-style-type: none"> Provide byway route signs and supplemental point-of-interest directional arrows where necessary to direct travelers to Greenleaf In association with the byway advisory committee, find a location for byway signage within the city and provide interpretive signage about the history of Greenleaf, the Greenleaf Friends Academy, and other interpretive opportunities.

Appendix C – Traffic Data

Two-way Stop Control Summary



TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2014			
Analysis Time Period	PM Peak Hour							
Project Description <i>Greenleaf Transportation Plan</i>								
East/West Street: <i>SH 19</i>				North/South Street: <i>Academy Road</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	7	272			376	17		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	7	302	0	0	417	18		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				13		14		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	14	0	15		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	7						29	
C (m) (veh/h)	1109						478	
v/c	0.01						0.06	
95% queue length	0.02						0.19	
Control Delay (s/veh)	8.3						13.0	
LOS	A						B	
Approach Delay (s/veh)	--	--					13.0	
Approach LOS	--	--					B	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description <i>Greenleaf Transportation Plan</i>								
East/West Street: <i>SH 19</i>				North/South Street: <i>Academy Road</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	405			560	25		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	11	450	0	0	622	27		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0					0
Lanes	0	1	0	0	1	0		
Configuration	LT							TR
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	22		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration						LR		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	11						44	
C (m) (veh/h)	923						310	
v/c	0.01						0.14	
95% queue length	0.04						0.49	
Control Delay (s/veh)	8.9						18.5	
LOS	A						C	
Approach Delay (s/veh)	--	--					18.5	
Approach LOS	--	--					C	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description Greenleaf Transportation Plan - with SBL & SBR								
East/West Street: SH 19				North/South Street: Academy Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	405			560	25		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	11	450	0	0	622	27		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0					0
Lanes	0	1	0	0	1	0		
Configuration	LT							TR
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	22		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT					L		R
v (veh/h)	11					22		22
C (m) (veh/h)	923					229		478
v/c	0.01					0.10		0.05
95% queue length	0.04					0.32		0.14
Control Delay (s/veh)	8.9					22.4		12.9
LOS	A					C		B
Approach Delay (s/veh)	--	--				17.6		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description <i>Greenleaf TP - with Two-way Left-turn lane</i>								
East/West Street: <i>SH 19</i>				North/South Street: <i>Academy Road</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	405			560	25		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	11	450	0	0	622	27		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0			0		
Lanes	1	1	0	0	1	0		
Configuration	L	T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	22		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LR	
v (veh/h)	11						44	
C (m) (veh/h)	923						413	
v/c	0.01						0.11	
95% queue length	0.04						0.35	
Control Delay (s/veh)	8.9						14.8	
LOS	A						B	
Approach Delay (s/veh)	--	--					14.8	
Approach LOS	--	--					B	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description: Greenleaf TP - with Two-way Left-turn lane & SBL & SBR								
East/West Street: SH 19				North/South Street: Academy Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	405			560	25		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	11	450	0	0	622	27		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0					0
Lanes	1	1	0	0	1	0		
Configuration	L	T						TR
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	22		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	11					22		22
C (m) (veh/h)	923					364		478
v/c	0.01					0.06		0.05
95% queue length	0.04					0.19		0.14
Control Delay (s/veh)	8.9					15.5		12.9
LOS	A					C		B
Approach Delay (s/veh)	--	--				14.2		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Academy Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description Greenleaf TP - with Two-way Left-turn lane & SBL & SBR & WBR								
East/West Street: SH 19				North/South Street: Academy Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	405			560	25		
Peak-Hour Factor, PHF	0.90	0.90	1.00	1.00	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	11	450	0	0	622	27		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0					0
Lanes	1	1	0	0	1	1		
Configuration	L	T			T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	0.90		
Hourly Flow Rate, HFR (veh/h)	0	0	0	22	0	22		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (veh/h)	11					22		22
C (m) (veh/h)	923					368		487
v/c	0.01					0.06		0.05
95% queue length	0.04					0.19		0.14
Control Delay (s/veh)	8.9					15.4		12.7
LOS	A					C		B
Approach Delay (s/veh)	--	--				14.1		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Friends Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2014			
Analysis Time Period	PM Peak Hour							
Project Description Greenleaf Transportation Plan								
East/West Street: SH 19				North/South Street: Friends Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	3	258	3	16	346	8		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	3	286	3	17	384	8		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0					0
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	4	6	11	8	3	1		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	4	6	12	8	3	1		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		LTR			LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	3	17		22			12	
C (m) (veh/h)	1150	1284		490			347	
v/c	0.00	0.01		0.04			0.03	
95% queue length	0.01	0.04		0.14			0.11	
Control Delay (s/veh)	8.1	7.8		12.7			15.7	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--		12.7			15.7	
Approach LOS	--	--		B			C	

TWO-WAY STOP CONTROL SUMMARY									
General Information				Site Information					
Analyst	Montgomery			Intersection	SH 19/Friends Road				
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf				
Date Performed	1/16/2014			Analysis Year	2034				
Analysis Time Period	PM Peak Hour								
Project Description <i>Greenleaf Transportation Plan</i>									
East/West Street: <i>SH 19</i>				North/South Street: <i>Friends Road</i>					
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments									
Major Street	Eastbound			Westbound					
Movement	1	2	3	4	5	6			
	L	T	R	L	T	R			
Volume (veh/h)	5	385	5	25	515	15			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR (veh/h)	5	427	5	27	572	16			
Percent Heavy Vehicles	5	--	--	0	--	--			
Median Type	Undivided								
RT Channelized			0					0	
Lanes	0	1	0	0	1	0			
Configuration	LTR			LTR					
Upstream Signal		0			0				
Minor Street	Northbound			Southbound					
Movement	7	8	9	10	11	12			
	L	T	R	L	T	R			
Volume (veh/h)	5	10	15	10	5	5			
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly Flow Rate, HFR (veh/h)	5	11	16	11	5	5			
Percent Heavy Vehicles	0	0	0	2	0	2			
Percent Grade (%)	0			0					
Flared Approach		N			N				
Storage		0			0				
RT Channelized			0					0	
Lanes	0	1	0	0	1	0			
Configuration		LTR			LTR				
Delay, Queue Length, and Level of Service									
Approach	Eastbound	Westbound	Northbound			Southbound			
Movement	1	4	7	8	9	10	11	12	
Lane Configuration	LTR		LTR			LTR			
v (veh/h)	5	27	32			21			
C (m) (veh/h)	973	1138	306			219			
v/c	0.01	0.02	0.10			0.10			
95% queue length	0.02	0.07	0.35			0.31			
Control Delay (s/veh)	8.7	8.2	18.1			23.2			
LOS	A		C			C			
Approach Delay (s/veh)	--	--	18.1			23.2			
Approach LOS	--	--	C			C			

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	Montgomery			Intersection	SH 19/Friends Road			
Agency/Co.	JUB Engineers			Jurisdiction	City of Greenleaf			
Date Performed	1/16/2014			Analysis Year	2034			
Analysis Time Period	PM Peak Hour							
Project Description <i>Greenleaf Transportation Plan- with Two-way Left-turn Lane</i>								
East/West Street: <i>SH 19</i>				North/South Street: <i>Friends Road</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	5	385	5	25	515	15		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	5	427	5	27	572	16		
Percent Heavy Vehicles	5	--	--	0	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0					0
Lanes	1	1	0	1	1	0		
Configuration	L		TR	L		TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	5	10	15	10	5	5		
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly Flow Rate, HFR (veh/h)	5	11	16	11	5	5		
Percent Heavy Vehicles	0	0	0	2	0	2		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		LTR			LTR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L		LTR			LTR	
v (veh/h)	5	27		32			21	
C (m) (veh/h)	973	1138		344			304	
v/c	0.01	0.02		0.09			0.07	
95% queue length	0.02	0.07		0.31			0.22	
Control Delay (s/veh)	8.7	8.2		16.5			17.7	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--		16.5			17.7	
Approach LOS	--	--		C			C	

Appendix D – Pavement Management

Recommended Treatment (Repair Strategies)

Decision Tree

Roads Inventory



Recommended Treatment

City of Greenleaf Transportation, Parks, and Trails Plan

Recommended Treatment (Repair Strategies)

General

Recommended Treatments (Repair Strategies) are chosen based on the condition (structural deterioration) of the road segment. Road surface structural deterioration will dictate the repair strategy that should be used. Most repair strategies have multiple repair methods. The repair method used to implement a repair strategy should be based on the standard practices of the City. There are five generally accepted repair strategies:

- Deferred Action (Do Nothing Approach)
- Routine Maintenance
- Preventative Maintenance
- Rehabilitation
- Reconstruction

Deferred Action

Deferred action is always a viable option when developing a repair strategy. For the first few years after original construction, roadways should require very little maintenance. Therefore maintenance for certain roadways will be deferred until adequate funds are available to produce beneficial results that improve the road network system as a whole.

Routine Maintenance

Routine maintenance is usually driven by existing defects (environmental cracking extent and surface wear severity) in the road surface. This maintenance can be used to prevent further deterioration of the roadway. Examples of possible routine maintenance treatment alternatives include: **crack sealing (treatment 1) and crack sealing & chip sealing (treatment 2).**

Preventative Maintenance

Preventative maintenance is used to stop the deterioration on roadways before the surface distresses to the point of showing signs of structural deterioration. This strategy provides the most benefit to a roadway if implemented before the structural deterioration becomes apparent. Examples of possible preventative maintenance treatment alternatives include: **crack seal and various depths of overlay (treatments 3, 4, and 5).**

Rehabilitation

Rehabilitation includes repair alternatives such as recycling with overlays. This strategy should be reserved for road surfaces that have signs of fatigue cracking and rutting. The implementation of this strategy can require intense scheduling and will require allocation of a significant portion of the budget. This strategy should be reserved for road segments that fit into a major planning scheme. Examples of possible rehabilitation strategy treatment alternatives include: **pulverize and overlay (treatment 6 and 7) or 5" RABS and overlay (treatment 8).**

Recommended Treatment

City of Greenleaf Transportation, Parks, and Trails Plan

Reconstruction

Reconstruction includes repair alternatives such as rehabilitation / recycling of existing materials plus overlay to removal / replacement of a failed pavement section (advanced fatigue cracking and rutting). Improving the road horizontal and vertical alignment plus drainage is the goal of a reconstruction strategy. This strategy will require considerable funding and lead time to allow for proper design. Therefore, this strategy is reserved for roads that are at the end of their design life. Examples of possible rehabilitation strategy treatment alternatives include: **8"CRABS and overlay (treatment 9) and total reconstruction (treatment 10).**

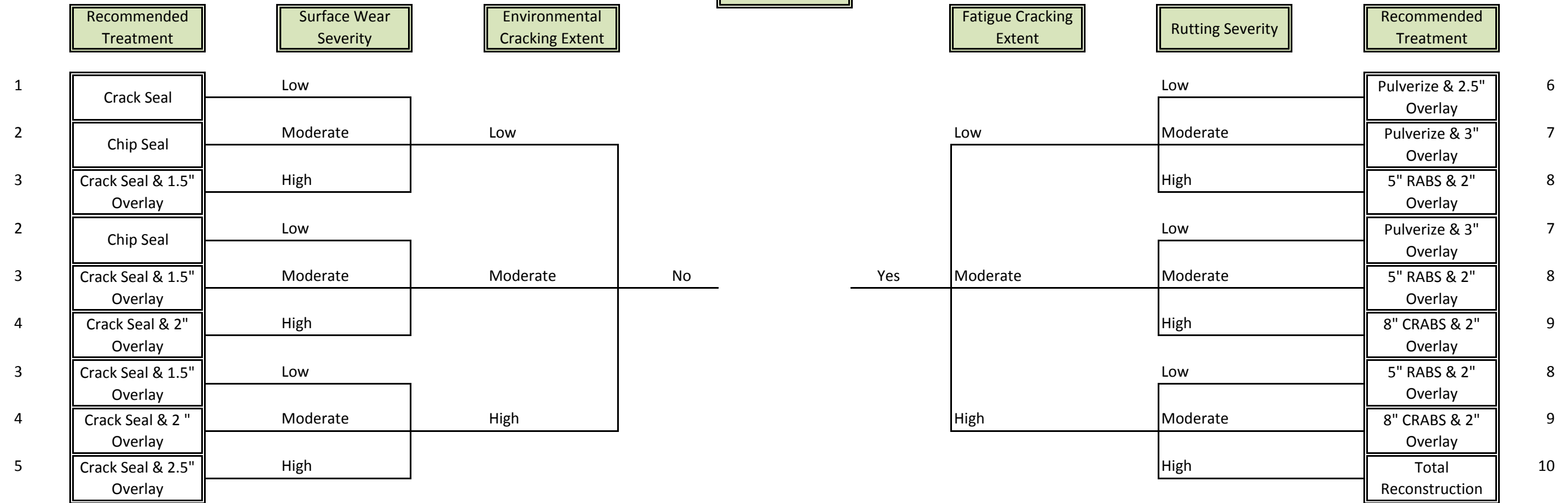
Treatment Costs

Recommended Treatment	Cost per Square Foot
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0	Do Nothing	\$0.00
1	Crack Seal	\$0.22
2	Crack Seal & Chip Seal	\$0.52
3	Crack Seal & 1.5" Overlay	\$2.11
4	Crack Seal & 2" Overlay	\$3.00
5	Crack Seal & 2.5" Overlay	\$3.15
6	Pulverize & 2.5" Overlay	\$3.25
7	Pulverize & 3" Overlay	\$3.50
8	5" RABS & 2" Overlay	\$4.75
9	8" CRABS & 2" Overlay	\$5.25
10	Total Reconstruction	\$7.50

***DECISION TREE**

Structural Deterioration



Structural Deterioration

If little or no structural deterioration exists, the associated treatments are directed at maintaining the functional performance and preserving the intended life of the original pavement. This is the optimum timing for applying preservation treatments. If structural deterioration (in the form of fatigue cracking or rutting) does exist, then the associated treatments are directed more to improving the structural performance; i.e., retarding the rate of structural deterioration and extending the intended life of the original pavement.

Environmental Cracking:

This refers to the transverse, longitudinal, and block cracking that develops in an asphalt pavement as it ages and undergoes the thermal stresses associated with daily temperature cycles. Treatments for this type of distress are intended to prevent moisture intrusion and retard the rate of crack deterioration that occurs at the pavement surface. The extent levels are defined as follows:

Low - The amount of cracking is so slight that there is little question as to the feasibility of crack sealing.

Moderate - The cracking has achieved a level where sealing alone may not be cost effective.

High - The extent of cracking is so great that sealing alone would not be cost effective and other work is required.

Surface Wear:

This refers to the pavement deterioration that takes place at the asphalt pavement surface, primarily as a result of tire wear (polishing) and material degradation (raveling). Treatments for surface wear remove and/or cover up the worn surface. The severity levels are defined as follows:

Low - Surface texture and frictional resistance are minimally affected.

Moderate - Surface texture and frictional resistance are significantly affected. The potential for wet weather accidents is increased,

High - Surface texture and frictional resistance are heavily affected. The probability of wet weather accidents is near or above the unacceptable level.

Fatigue Cracking:

Wheel path cracking associated with the cumulative effects of wheel loads is a clear indication of structural deterioration and loss of load carrying capacity. Accordingly, rehabilitation strategies focus on removal and replacement of the HMA surface and base course. The extent levels are defined as follows:

Low - Less than one per cent of the wheel path area exhibits load-associated cracking, which may start as single longitudinal cracks.

Moderate - At least one and up to ten percent of the wheel path area exhibits cracking, likely in an interconnected pattern. Crack progression is increasing.

High - Ten percent or more of the wheel path exhibits load-associated cracking. Rapid progression to one hundred percent of the wheel path is likely.

Rutting:

This type of pavement deformation can take place in any of the pavement layers. If the HMA surface layer is of poor quality, rutting can be confined to the layer. If the base/subbase layer is inadequate or the pavement section is being overloaded, rutting can take place in the underlying layers and the subgrade soil. Pavement rehabilitation strategies are targeted at replacing the deteriorated/deformed layers. The rut severity levels are defined as follows:

Low - Rut depth is less than 1/4 inch. Hydroplaning and wet weather accidents are unlikely.

Moderate- Rut depth is in the range of 1/4 to 1/2 inch. Inadequate cross slope can lead to hydroplaning and wet weather accidents.

High - Rut depth is greater than 1/2 inch. Hydroplaning and wet weather accidents are significantly increased.

* Based on the report "Selecting a Preventive Maintenance Treatment for Flexible Pavements" by Dr. R. Gary Hicks, P.E., Stephen B. Seeds, P.E. and David G. Peshkin, P.E.

Seg_ID	Road_Name	From_Address	To_Address	Lanes	Width	Length	Area_SF	Surface	Drainage_Type	RSL	Treatment	Cost/SF	Cost/Seg	Comments
1	Main Street	TOP ROAD	ANTRIM DRIVE	2	21	978	2282.9	Asphalt	Turf Shoulder	20				Idaho Transportation Department Road
2	PECKHAM ROAD	OAKWOOD DRIVE	CITY LIMIT	2	23	146	3358.0	Asphalt	Turf Shoulder	8	1	0.22	\$738.76	To be rehabilitated under LHTAC Grant
3	PECKHAM ROAD	OAKWOOD DRIVE	ROSEWOOD DRIVE	2	21	299	6288.8	Asphalt	Turf Shoulder	10	1	0.22	\$1,383.53	To be rehabilitated under LHTAC Grant
4	PECKHAM ROAD	COTTONWOOD DRIVE	ROSEWOOD DRIVE	2	21	348	7298.0	Asphalt	Turf Shoulder	10	1	0.22	\$1,605.56	To be rehabilitated under LHTAC Grant
5	PECKHAM ROAD	BIRARWOOD DRIVE	COTTONWOOD DRIVE	2	18	240	4318.8	Asphalt	Turf Shoulder	6	1	0.22	\$950.13	To be rehabilitated under LHTAC Grant
6	PECKHAM ROAD	FRIENDS ROAD	BRIARWOOD DROVE	2	23	282	6486.3	Asphalt	Turf Shoulder	6	1	0.22	\$1,427.00	To be rehabilitated under LHTAC Grant
7	PECKHAM ROAD	ACADAMY ROAD	FRIENDS ROAD	2	22	670	14732.4	Asphalt	Turf Shoulder	8	1	0.22	\$3,241.13	To be rehabilitated under LHTAC Grant
8	PECKHAM ROAD	CITY LIMIT	ACADEMY ROAD	2	21	1631	34259.8	Asphalt	Turf Shoulder	8	1	0.22	\$7,537.16	To be rehabilitated under LHTAC Grant
9	ACADEMY ROAD	BENFORD STREET	BECKHAM ROAD	2	19	381	7232.0	Asphalt	Turf Shoulder	8	1	0.22	\$1,591.05	Should be closed - Poor/Critical RR Xing
10	ACADEMY ROAD	WHITTIER DRIVE	BENFORD STREET	2	27	224	6036.3	Asphalt	Turf Shoulder	8	1	0.22	\$1,327.99	
11	ACADEMY ROAD	WHITTIER DRIVE	RETIREMENT HOME RD.	2	26	439	11410.4	Asphalt	Turf Shoulder	8	1	0.22	\$2,510.30	
12	ACADEMY ROAD	RETIREMENT HOME RD.	ANTRIM DRIVE	2	26	273	7097.9	Asphalt	Turf Shoulder	6	1	0.22	\$1,561.55	
13	ACADEMY ROAD	ANTRIM DRIVE	HARMONEY LANE	2	24	668	16026.4	Asphalt	Turf Shoulder	8	1	0.22	\$3,525.80	
14	ACADEMY ROAD	HARMONY LANE	HWY 19	2	24	672	16136.2	Asphalt	Turf Shoulder	8	1	0.22	\$3,549.97	
15	FRIENDS ROAD	HWY 19	CITY LIMIT	2	20	690	13806.1	Asphalt	Turf Shoulder	18	1	0.22	\$3,037.35	
16	FRIENDS ROAD	BUTLER LANE	HWY 19	2	18	1990	35828.6	Asphalt	Turf Shoulder	6	1	0.22	\$7,882.30	Old waterline patch on west side under chipseal
17	FRIENDS ROAD	BENFORD STREET	BUTLER LANE	2	19	296	5621.1	Asphalt	Turf Shoulder	6	1	0.22	\$1,236.63	
18	FRIENDS ROAD	PECKHAM ROAD	BENFORD STREET	2	19	390	7417.4	Asphalt	Turf Shoulder	6	1	0.22	\$1,631.83	
61	WHITTIER DRIVE	REDWOOD PLACE	ACADAMY ROAD	2	34	84	2857.7	Asphalt	Concrete C & G	8	2	0.52	\$1,485.99	
20	WHITTIER DRIVE	SEQUOIA PLACE	REDWOOD PLACE	2	33	294	9694.8	Asphalt	Turf Shoulder	6	2	0.52	\$5,041.28	
21	WHITTIER DRIVE	ANTRIM DRIVE	SEQUOIA PLACE	2	25	1012	25303.0	Asphalt	Turf Shoulder	8	2	0.52	\$13,157.56	
22	WHITTIER DRIVE	PINE STREET	ANTRIM DRIVE	2	25	346	8658.3	Asphalt	Turf Shoulder	10	2	0.52	\$4,502.30	
23	WHITTIER DRIVE	HARMONEY LANE	PINE STREET	2	23	312	7177.9	Asphalt	Turf Shoulder	10	2	0.52	\$3,732.51	
24	WHITTIER DRIVE	HWY 19	HARMONY LANE	2	35	663	23220.3	Asphalt	Concrete C & G	10	2	0.52	\$12,074.54	
25	ANTRIM DRIVE	HARMONY LANE	HWY 19	2	22	665	14620.2	Asphalt	Turf Shoulder	8	2	0.52	\$7,602.49	
26	ANTRIM DRIVE	HARMONY LANE	HILLCREST	2	23	703	16171.7	Asphalt	Turf Shoulder	8	2	0.52	\$8,409.30	
27	ANTRIM DRIVE	HILLCREST DRIVE	WHITTIER DRIVE	2	25	300	7492.9	Asphalt	Turf Shoulder	8	2	0.52	\$3,896.32	
28	ANTRIM DRIVE	WHITTIER DRIVE	GEM COURT	2	23	667	15333.0	Asphalt	Turf Shoulder	8	2	0.52	\$7,973.17	
29	ANTRIM DRIVE	GEM COURT	PAVED DRIVEWAY	2	23	268	6171.6	Asphalt	Turf Shoulder	8	2	0.52	\$3,209.23	
30	ANTRIM DRIVE	PAVED DRIVEWAY	ACADEMY ROAD	2	18	392	7049.0	Asphalt	Turf Shoulder	8	2	0.52	\$3,665.47	
31	HARMONY LANE	BROWN STREET	ACADAMY ROAD	2	20	996	19910.7	Asphalt	Turf Shoulder	4	4	3	\$59,732.04	
32	HARMONY LANE	BROWN STREET	WHITTIER DRIVE	2	20	327	6536.3	Asphalt	Turf Shoulder	4	4	3	\$19,609.02	
33	HARMONY LANE	WHITTIER DROVE	HILLCREST DRVE	2	15	315	4718.9	Asphalt	Turf Shoulder	4	4	3	\$14,156.55	narrow
34	HARMONY LANE	HILLCREST DRIVE	ANTRIM DRIVE	2	15	275	4128.6	Asphalt	Turf Shoulder	4	4	3	\$12,385.80	narrow
35	HILLCREST DRIVE	HARMONY DRIVE	END	2	24	293	7032.4	Asphalt	Turf Shoulder	8	2	0.52	\$3,656.84	narrow with on street parking / no turn around
36	HILLCREST DRIVE	ANTRIM DRIVE	HARMONY LANE	2	23	631	14503.8	Asphalt	Turf Shoulder	8	2	0.52	\$7,542.00	
37	BROWN STREET	HWY 19	HARMONY LANE	2	27	664	17917.3	Asphalt	Turf Shoulder	18	0	0	\$0.00	
38	PINE STREET	WHITTIER DRIVE	DEAD END	2	20	312	6238.5	Asphalt	Turf Shoulder	8	1	0.22	\$1,372.47	
39	GEM COURT	ANTRIM DRIVE	END	2	25	317	7926.4	Asphalt	Turf Shoulder	6	1	0.22	\$1,743.80	narrow with on street parking / no turn around
40	RETIREMENT HOME ROAD	ACADAMY ROAD	END	2	23	146	3347.1	Asphalt	Concrete C & G	10	1	0.22	\$736.37	
41	REDWOOD PLACE	END	WHITTIER DRIVE	2	35	219	7682.3	Asphalt	Concrete C & G	6	2	0.52	\$3,994.79	
42	REDWOOD PLACE	END	WHITTIER DRIVE	2	38	237	9018.9	Asphalt	Concrete C & G	6	2	0.52	\$4,689.84	
43	SEQUOIA PLACE	END	ANTRIM DRIVE	2	34	466	15852.8	Asphalt	Concrete C & G	6	1	0.22	\$3,487.62	Cracks opening after chip seal
44	BINFORD STREET	FRIENDS ROAD	ACADAMY ROAD	2	26	282	7320.7	Asphalt	Turf Shoulder	8	1	0.22	\$1,610.56	
45	DIRT ROAD	BINFORD ROAD	END	2	27	29	87.3	Unpaved	Turf Shoulder	7		0	\$0.00	same as 62 - not a City street
46	BUTLER LANE	FRIENDS ROAD	END	2	24	295	7074.8	Asphalt	Turf Shoulder	10	1	0.22	\$1,556.46	Built with LHTAC funds
47	BRAIRWOOD DRIVE	END	PECKHAM ROAD	2	34	160	5423.8	Asphalt	Concrete C & G	6	2	0.52	\$2,820.38	
48	COTTONWOOD DRIVE	PECKMAN ROAD	END	2	34	149	5071.8	Asphalt	Concrete C & G	6	2	0.52	\$2,637.34	
49	ROSEWOOD DRIVE	PECKMAN ROAD	SPRUCEWOOD DROVE	2	31	652	20197.4	Asphalt	Concrete C & G	8	2	0.52	\$10,502.63	
50	SPRUCEWOOD ROAD	ROSEWOOD DRIVE	OAKWOOD DRIVE	2	32	213	6813.4	Asphalt	Concrete C & G	10	2	0.52	\$3,542.99	numerous cracks
51	OAKWOOD DRIVE	SPRUCEWOOD DRIVE	PECKMAN ROAD	2	32	644	20598.8	Asphalt	Concrete C & G	10	2	0.52	\$10,711.37	

52 TOP ROAD	LOCUST HILL ROAD	MAIN STREET	2	21	1364	3182.8	Asphalt	Turf Shoulder	20	0	\$0.00	Golden Gate Highway District Road
53 TOP ROAD	LOWER PLEASANT RIDGE RE	LOCUST HILL ROAD	2	21	1312	3062.3	Asphalt	Turf Shoulder	20	0	\$0.00	Golden Gate Highway District Road
54 LOCUST HILL ROAD	TOP ROAD	LOWER PLEASANT RIDGE R	2	21	1625	3791.6	Asphalt	Turf Shoulder	20	0	\$0.00	Golden Gate Highway District Road
55 NORTH RAINBOW ROAD	END OF ROAD	TOP ROAD	2	21	337	7068.5	Asphalt	Turf Shoulder	20	0	\$0.00	Golden Gate Highway District Road
56 MAIN STREET	FRIENDS ROAD	CITY LIMIT	2	21	2570	5996.0	Asphalt	Turf Shoulder	20	0	\$0.00	Idaho Transportation Department Road
57 MAIN STREET	ACADEMY ROAD	FRIENDS ROAD	2	21	673	1569.7	Asphalt	Turf Shoulder	20	0	\$0.00	Idaho Transportation Department Road
58 MAIN STREET	ANTRIM DRIVE	WHITTIER DRIVE	2	21	635	1481.1	Asphalt	Turf Shoulder	20	0	\$0.00	Idaho Transportation Department Road
59 MAIN STREET	WHITTIER DRIVE	BROWN STREET	2	21	329	768.2	Asphalt	Turf Shoulder	20	0	\$0.00	Idaho Transportation Department Road
60 MAIN STREET	BROWN STREET	ACADEMY ROAD	2	21	996	2325.1	Asphalt	Turf Shoulder	20	0	\$0.00	Idaho Transportation Department Road
63 OAKWOOD DRIVE	SPRUCEWOOD DRIVE	CESSNA CT.	2	30	585	17550.0	Asphalt	Concrete C & G	13	1	0.22	\$3,861.00
64 CESSNA CT.	OAKWOOD DRIVE	END	2	30	750	22500.0	Asphalt	Concrete C & G	13	1	0.22	\$4,950.00

\$294,788.06
 Minus Peckham -\$16,883.27
Total \$277,904.79

Appendix E – Sign Inventory

Sign Inventory



ID	TYPE	Lowest Rating	Recommended Treatment	JURIS
1	Stop / Street Names	Fair		
2	Stop	Fair		
3	Street Names	No Rating		
4	Stop	Good		
5	Street Names	No Rating		
6	Stop	Fair		
7	Street Names	No Rating		
8	Stop	Poor		
9	Street Names	No Rating		
10	Speed Limit (20)	Good		
11	Stop Ahead	Poor		
12	delete	NA		
13	delete	NA		
14	Stop	Good		
15	Street Names	No Rating		
16	Stop	Good		
17	Speed Limit (20)	Good		
18	Stop / Street Names	Good	replace with S4-3(fyg) 24" X 8"	
19	Speed Limit (20)	Fair		
20	School	Fair	replace with S4-3(fyg) 24" X 8"	
21	No Parking Here to Corner	Good	Discontinued	
22	No Parking Here to Corner	Good	Discontinued	
23	Speed Limit (20)	Good		
24	Speed Limit (25)	Good		
25	Railroad	Poor		
26	Stop / Street Names	Good		
27	delete	NA		
28	Street Names	No Rating		
29	City Park	Good		
30	Yield	Good		
31	Street Names	No Rating		
32	Yield	Poor		
33	Street Names	No Rating		
34	Dead End	Poor		
35	Street Names	No Rating		
36	Stop	Good		
37	Street Names	No Rating		
38	Yield	Good		
39	Speed Limit (35)	Outside Jurisdiction		GGHD
40	Side Road	Outside Jurisdiction		GGHD
41	Speed Limit (45)	Outside Jurisdiction		GGHD
42	Stop	Outside Jurisdiction		GGHD
43	Highway Shield	Outside Jurisdiction		GGHD
44	Stop	Good		
45	delete	NA		
46	delete	NA		

47 Stop	Fair		
48 Slow Children Playing	Fair	Discontinued - Remove	
49 Curve Left	Good		
50 Object Marker	Poor	Replace with W1-6	
51 Object Marker	Fair	Replace with W1-6	
52 Advisory Turn	Good	Replace with W1-6	
53 Advisory Turn	Good	Replace with W1-6	
54 Advisory Turn	Good	Replace with W1-6	
55 delete	NA		
56 Yield / Street Names	Good		
57 Slow Children Playing	Good	Discontinued - Remove	
58 Speed Limit (15) / Curve Right	Poor	Remove	
59 Stop / 4-Way	Poor	Add R1-4	
60 Stop / 4-Way	Good	Replace R1-3 with R1-4	
61 Stop / Street Names	Fair		
62 delete	NA		
63 Speed Limit (20)	Good		
64 Stop	Good		
65 Street Names	No Rating		
66 Speed Limit (20)	Good		
67 Stop / 4 -Way	Poor		
68 Street Names	No Rating		
69 Stop / 4-Way	Fair	Replace R1-3 with R1-4	
70 Stop	Good		
71 Street Names	No Rating		
72 Stop	Good		
73 Street Names	No Rating		
74 Stop	Good		
75 Stop	Good		
76 delete	NA		
77 Speed Limit (35)	Outside Jurisdiction		ITD
78 Speed Limit (25)	Outside Jurisdiction		ITD
79 Speed Limit (20)	Outside Jurisdiction		ITD
80 delete	Outside Jurisdiction		ITD
81 Speed Limit (35)	Outside Jurisdiction		ITD
82 Speed Limit (35)	Outside Jurisdiction		ITD
83 Speed Limit (20)	Outside Jurisdiction		ITD
84 Speed Limit (35)	Outside Jurisdiction		ITD
85 Watch for Children	Outside Jurisdiction		ITD
86 Speed Limit (35)	Outside Jurisdiction		ITD
87 Speed Limit (20)	Good		
88 Speed Limit (35)	Fair		
89 Parallel Railroad Crossing	Poor		
90 Speed Limit (35)	Fair		
91 Speed Limit (35)	Fair		
92 delete	NA		
93 Stop / Street Names	Good		

94 Speed Limit (20)	Good
95 Street Names	No Rating
96 Stop	Good
97 Street Names	Good
98 Stop	Fair
99 Stop	Fair
100 Street Names	No Rating
101 Dead End	Good
102 Dead End	Fair
103 Stop	Good
104 Street Names	No Rating
105 Trucks Entering Highway	Good
106 Dead End	Good
107 Trucks Entering Highway	Good
108 Speed Limit (20)	Good
109 City Limits	Good
110 Speed Limit (20)	Good
111 Speed Limit (20)	Fair
112 Stop	Good
113 Stop / Street Names / Dead End	Good
114 Reduced Speed Ahead	Good
115 Speed Limit (20)	Good

Appendix F – Implementation Checklist

Implementation Checklist



Implementation Checklist

City of Greenleaf Transportation, Parks, and Trails Plan

City of Greenleaf Implementation Checklist

This checklist represents a summary of the recommendations made in the City of Greenleaf Transportation, Parks, and Trails Plan. The purpose of this checklist is to provide guidance on implementation of this Plan.

Relevant Plan Section	Recommendation	Timing
Official Street Plan	<p>Update City Code and/or Develop Design Guidelines for:</p> <ul style="list-style-type: none"> • Landscape features along entry corridors to improve aesthetics. • Landscape buffers to provide separation between arterial and collector roadways and residential development. • New developments to install wider sidewalks or pathways along SH 19 and collector roadways adjacent to the development to help implement the community's desire to improve pedestrian connections and accessibility. Detached sidewalks or pathways should be considered to provide an area between the curb and sidewalk for storm water swales. • New developments to install detached sidewalks with a minimum width of five feet with curb and gutter along both sides of the road. Detached sidewalks should be considered to provide an area between the curb and sidewalk for storm water swales. • Specific pavement section, typical sections, and design standards for all types of roadways, sidewalks and pathways for the City to provide clearer guidance for staff and prospective developers. These standards should incorporate standards for storm water. 	1 year (2016)
Sidewalks, Trails, and Parks Plan; Capital Improvement Plan	Prior to initiating parks or transportation improvements, initiate a specific planning effort to develop design concepts for each project and obtain community input and support. These projects may be implemented as funding and grants become available.	As projects are initiated
Pavement Management Plan	Update pavement condition inventory every two years, or as improvements are completed. Between the biennial data collection, changes in staff and management styles could result in different data collection methods.	Every 2 years (2016, 2018, etc.)
Pavement Management Plan	Follow recommended treatments (repair strategies) listed in Table 13.	3 year schedule (2016-2018)
Pavement Management Plan	Complete annual road maintenance using the Decision Tree and inventory in Appendix D as tools for decision-making.	Annually

Implementation Checklist

City of Greenleaf Transportation, Parks, and Trails Plan

Relevant Plan Section	Recommendation	Timing
Sign Management Plan	Replace a minimum of 67 warning and regulatory signs listed in Appendix E and shown on Figure 13.	2 years, or when funding is available (2016 – 2017)
Capital Improvement Plan	Early in the fiscal year budgeting process, visit the CIP list of projects and decide which project(s) to pursue. This will allow staff and decision-makers to anticipate and budget for local matching dollars. Completing one project every year or every-other year would be considered good progress on plan implementation and carrying out the desires of the community.	Annually
Capital Improvement Plan	Funding agency coordination – reach out to funding agency representatives often to remain informed about funding options, and to inform the funding agencies of the City’s upcoming applications.	Bi-annually
Capital Improvement Plan	For the top-priority projects, follow the “Action Plan and Timing”, and evaluate the project scope, cost estimate, and potential funding sources.	Annually
Capital Improvement Plan	Implementation – Attend continuing education classes and earn certifications through LHTAC’s T2 Training Courses program.	Annually (known dates: Nov/Dec 2015)