City of McCall

City Council

AGENDA
Special Meeting
April 28, 2023 at 9:00 AM
Legion Hall – Below City Hall
216 East Park Street
McCall, ID
AND MS TEAMS Virtual

ANNOUNCEMENT:

American with Disabilities Act Notice: The City Council Meeting room is accessible to persons with disabilities. If you need assistance, please contact City Hall at 634-7142 at least 48 hours prior to the meeting. Council Meetings are available for in person and virtual attendance. Any member of the public can join and listen only to the meeting at 5:30 pm by calling in as follows:
Dial 208-634-8900 when asked for the Conference ID enter: 299 113 422 531#
Or you may watch live by clicking this link:
https://youtube.com/live/FHBvA_gILrM?feature=share

OPEN SESSION

WORK SESSION

AB 23-093 An Overview of Impact Fees Discussion and Direction to Staff

AB 23-094 Draft Traffic Study Discussion and Direction to Staff

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McCALL CITY COUNCIL 216 East Park Street
AGENDA BILL McCall, Idaho 83638

Number **AB 23-093**
Meeting Date **April 29, 2023**

AGENDA ITEM INFORMATION				
SUBJECT: ***Work Session: An overview of Impact Fees with information on past and present efforts***		***Department Approvals***	***Initials***	***Originator or Supporter***
		Mayor / Council		
		City Manager	ABS	
		Clerk		
		Treasurer		
		Community Development	MG	
		Police Department		
		Public Works		
		Golf Course		
COST IMPACT:	TBD	Parks and Recreation		
FUNDING SOURCE:	General Fund	Airport		
		Library		
TIMELINE:	TBD	Information Systems		
		Grant Coordinator		

SUMMARY STATEMENT:

The purpose of the work session is to explore why and how Impact Fees work in Idaho for local communities. Then the City Council will learn about past efforts of the City of McCall and current efforts of the McCall Fire District to implement Impact Fees.

In 2008, the City of McCall had an Impact Fee Report prepared by BBC Research & Consulting, Spink Butler and Galena Consulting (see attached Report). The report calculated Impact Fees in the categories of police, parks and streets. The document presented the full cost recovery fees based on the City's demographic data and infrastructure needs at that time. Ultimately, that City Council chose not implement Impact Fees.

In the 2018 McCall Area Comprehensive Plan, it states that the City should "Conduct an Impact Fee Study to assure adequate infrastructure and public services" as a mid-term policy goal in the Implementation Matrix (p. 165). In order to look at Impact Fees for the City of McCall, a new Impact Fee study would need to be conducted. Council also identified impact fees and mitigating impacts of growth as a priority for 2023 during Council's annual retreat.

RECOMMENDED ACTION:

1. Discuss if City Staff should proceed with preparation of a scope of work and budget to prepare a current Impact Fee Study for the City of McCall and provide direction to staff.

RECORD OF COUNCIL ACTION	
MEETING DATE	***ACTION***

Final Report

March 24, 2008

City of McCall
Impact Fee Study and
Capital Improvement Plans

Prepared for

City of McCall
216 East Park St.
McCall, Idaho 83638

Prepared by

BBC Research & Consulting
Tom Pippin and Scott Kitchens
3773 Cherry Creek N. Drive, Suite 850
Denver, CO 80209-3827

In Association with

Spink Butler, LLP
JoAnn Butler
251 E. Front Street, Suite 200
Boise, ID 83702

Galena Consulting
Anne Wescott
1214 South Johnson Street
Boise, ID 83705

SECTION I.
Introduction

This report regarding impact fees for the City of McCall is organized into the following sections:

- An overview of the report's background and objectives;
- A definition of impact fees and a discussion of their appropriate use;
- An overview of land use and demographics;
- A step-by-step calculation of impact fees under the Capital Improvement Plan (CIP) approach;
- A list of implementation recommendations; and
- A brief summary of conclusions.

Each section follows sequentially.

Background and Objectives

The City of McCall (City) hired BBC Research & Consulting (BBC) to calculate impact fees in the categories of police, parks, and streets. BBC was assisted by two Idaho-based subcontractors: Anne Wescott of Galena Consulting and JoAnn Butler of Spink Butler, LLP.

Anne Wescott inventoried each department's current capital improvements; established capital improvement replacement costs; helped the departments refine their Capital Improvement Plans; and assisted in all phases of the project. Spink Butler interpreted the requirements of the Idaho Code, helped prepare the City's draft impact fee resolution and intergovernmental agreements and assisted in all phases of the project. This document presents the full cost recovery fees based on the City's demographic data and infrastructure costs before credit adjustment; calculates the City's monetary participation; examines the likely cash flow produced by the recommended fee amount; and outlines specific fee implementation recommendations.

Definition of Impact Fees

Impact fees are generally defined as one-time assessments used to recover the capital costs borne by local governments due to new growth and development. Impact fees are governed by principles established in Title 67, Chapter 82, Idaho Code, known as the Idaho Development Impact Fee Act (Impact Fee Act) which specifically gives cities, towns and counties the authority to levy impact fees. The Idaho Code defines an impact fee as "… a payment of money imposed as a condition of

development approval to pay for a proportionate share of the cost of system improvements needed to serve development."[1]

Purpose of impact fees. The Impact Fee Act repeats the legislative finding that "… an equitable program for planning and financing public facilities needed to serve new growth and development is necessary in order to promote and accommodate orderly growth and development and to protect the public health, safety and general welfare of the citizens of the state of Idaho."[2]

Idaho fee restrictions and requirements. The Impact Fee Act places numerous restrictions on the calculation and use of impact fees, all of which help ensure that local governments adopt impact fees that are consistent with federal law.[3] Some of those restrictions include:

- Impact fees shall not be used for any purpose other than to defray system improvement costs incurred to provide additional public facilities to serve new growth;[4]
- Impact fees must be expended within 8 years from the date they are collected. Fees may be held in certain circumstances beyond the 8-year time limit if the governmental entity can provide reasonable cause;[5]
- Impact fees must not exceed the proportionate share of the cost of capital improvements needed to serve new growth and development;[6]
- Impact fees must be maintained in one or more interest-bearing accounts within the capital projects fund.[7]

[1] *See* Section 67-8203(9), Idaho Code. "System improvements" are capital improvements (i.e., improvements with a useful life of 10 years or more) that, in addition to a long life, increase the service capacity of a public facility. Public facilities include: parks, open space and recreation areas, and related capital improvements; and public safety facilities, including law enforcement, fire, emergency medical and rescue facilities. *See* Sections 67-8203(3), (24) and (28), Idaho Code.

[2] *See* Section 67-8202, Idaho Code.

[3] As explained further in this study, proportionality is the foundation of a defensible impact fee. To meet substantive due process requirements, an impact fee must provide a rational relationship (or nexus) between the impact fee assessed against new development and the actual need for additional capital improvements. An impact fee must substantially advance legitimate local government interests. This relationship must be of "rough proportionality." Adequate consideration of the factors outlined in Section 67-8207(2) ensure that rough proportionality is reached. *See Banbury Development Corp. v. South Jordan*, 631 P.2d 899 (1981); *Dollan v. City of Tigard*, 512 U.S. 374 (1994).

[4] *See* Sections 67-8202(4) and 67-8203(29), Idaho Code.

[5] *See* Section 67-8210(4), Idaho Code.

[6] *See* Sections 67-8204(1) and 67-8207, Idaho Code.

[7] *See* Section 67-8210(1), Idaho Code.

In addition, the Impact Fee Act requires the following:

- Establishment of and consultation with a development impact fee advisory committee (Advisory Committee);[8]
- Identification of all existing public facilities;
- Determination of a standardized measure (or service unit) of consumption of public facilities;
- Identification of the current level of service that existing public facilities provide;
- Identification of the deficiencies in the existing public facilities;
- Forecast of residential and nonresidential growth;[9]
- Identification of the growth-related portion of each department's Capital Improvement Plans;[10]
- Analysis of cash flow stemming from impact fees and other capital improvement funding sources;[11]
- Implementation of recommendations such as impact fee credits, how impact fee revenues should be accounted for, and how the impact fees should be updated over time;[12]
- Preparation and adoption of a Capital Improvement Plan pursuant to state law and public hearings regarding the same;[13] and
- Preparation and adoption of a resolution authorizing impact fees pursuant to state law and public hearings regarding the same.[14]

How should fees be calculated? State law requires the City to implement the Capital Improvement Plan methodology to calculate impact fees. The City could implement fees of any amount not to exceed the full cost recovery fees calculated by the CIP approach. This methodology requires the City to describe its service area, forecast the land uses, densities and population that are expected to occur in that service area over the next 10 years, and identify the capital improvements that will be needed to serve the forecasted growth at the same level of service found in the existing

[8] *See* Section 67-8205, Idaho Code.

[9] *See* Section 67-8206(2), Idaho Code.

[10] *See* Section 67-8208, Idaho Code.

[11] *See* Section 67-8207, Idaho Code.

[12] *See* Sections 67-8209 and 67-8210, Idaho Code.

[13] *See* Section 67-8208, Idaho Code.

[14] *See* Sections 67-8204 and 67-8206, Idaho Code.

community.[15] This list and cost of capital improvements constitutes the capital improvement element to be adopted as part of McCall's Comprehensive Plan.[16] Only those items identified as growth-related on the CIP are eligible to be funded by impact fees.

Each department intending to adopt an impact fee must first prepare a capital improvements plan.[17] To ensure that impact fees are adopted and spent for capital improvements in support of the community's needs and planning goals, the Impact Fee Act establishes a link between the authority to charge impact fees and certain planning requirements of Idaho's Local Land Use Planning Act (LLUPA). The local government must have adopted a comprehensive plan per LLUPA procedures, and that comprehensive plan must be updated to include a current capital improvement element.[18] This study considers the planned capital improvements for the ten-year period from 2008 the end of 2017 that will need to be adopted as an element of McCall's Comprehensive Plan.

Once the essential capital planning has taken place, impact fees can be calculated. The Impact Fee Act places many restrictions on the way impact fees are calculated and spent, particularly via the principal that local governments cannot charge new development more than a "proportionate share" of the cost of public facilities to serve that new growth. "Proportionate share" is defined as ". . . that portion of the cost of system improvements . . . which reasonably relates to the service demands and needs of the project."[19] Practically, this concept requires the City to carefully project future growth and estimate capital improvement costs so that it prepares reasonable and defensible impact fee schedules.

The proportionate share concept is designed to ensure that impact fees are calculated by measuring the needs created for capital improvements by units development being charged the impact fee; do not exceed the cost of such improvements; and are "earmarked" to fund growth-related capital improvements so as to benefit those that pay the impact fees.

There are various approaches to calculating impact fees and to crediting new development for past and future contributions made toward system improvements. The Impact Fee Act does not specify a single type of fee calculation, but it does specify that the formula be "reasonable and fair." Impact fees must take into account the following:

- Any appropriate credit, offset or contribution of money, dedication of land, or construction of system improvements;

- Payments reasonably anticipated to be made by or as a result of a new development in the form of user fees and debt service payments;

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[15] As a comparison and benchmark for the impact fees calculated under the Capital Improvement Plan approach, BBC also calculated McCall's current level of service by quantifying the City's current investment in capital improvements for each impact fee category, allocating a portion of these assets to residential and nonresidential development, and dividing the resulting amount by current housing units (residential fees) or current square footage (nonresidential fees). By using current assets to denote the current service standard, this methodology guards against using fees to correct existing deficiencies.

[16] *See* Sections 67-8203(4) and 67-8208, Idaho Code.

[17] Section 67-8208, Idaho Code.

[18] *See* Sections 67-8203(4) and 67-8208, Idaho Code.

[19] *See* Section 67-8203(23), Idaho Code.

- That portion of general tax and other revenues allocated by the City to growth-related system improvements; and

- All other available sources of funding such system improvements.[20]

Through data analysis and interviews with each City department, BBC and Galena Consulting identified the share of each capital improvement needed to serve growth. The total projected capital improvements needed to serve growth are then allocated to residential and nonresidential development with the resulting amounts divided by the appropriate growth projections from 2008 to 2017. This is consistent with the Impact Fee Act.[21] Among the advantages of the CIP approach is its establishment of a spending plan to give developers and new residents more certainty about the use of the particular impact fee revenues.

Other fee calculation considerations. The basic CIP methodology used in the fee calculations is presented above. However, implementing this methodology requires a number of decisions. The considerations accounted for in the fee calculations include the following:

- The allocation of costs is made using a service unit which is "a standard measure of consumption, use, generation or discharge attributable to an individual unit[22] of development calculated in accordance with generally accepted engineering or planning standards for a particular category of capital improvement."[23] The service units chosen by the study team for the police, and streets departments are linked directly to residential dwelling units and nonresidential development square feet.[24] In the case of the parks and recreation department, only residential units are used as they are the primary users of parks infrastructure.

- A second consideration involves refinement of cost allocations to different land uses. According to Idaho Code, the CIP must include a "conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial, agricultural and industrial."[25] In this analysis, the study team has chosen to use the highest level of detail supportable by available data and, as a result, in this study, every impact fee is allocated between aggregated residential (i.e., all forms of residential housing) and nonresidential development (all nonresidential uses including retail, office and industrial).

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[20] *See* Section 67-8207, Idaho Code.

[21] The impact fee that can be charged to each service unit (in this study, residential dwelling units and nonresidential square feet) cannot exceed the amount determined by dividing the cost of capital improvements attributable to new development (in order to provide an adopted service level)by the total number of service units attributable to new development. *See* Sections 67-8204(16), 67-8208(1(f) and 67-8208(1)(g), Idaho Code.

[22] *See* Section 67-8203(27), Idaho Code.

[23] *See* Section 67-8203(27), Idaho Code.

[24] The construction of detached garages alongside residential units does not typically trigger the payment of additional impact fees unless that structure will be the site of a home-based business with significant outside employment.

[25] *See* Section 67-8208(1)(e), Idaho Code.

Current Assets and Capital Improvement Plans

The CIP approach estimates future capital improvement investments required to serve growth over a fixed period of time. The Impact Fee Act calls for the CIP to ". . . project demand for system improvements required by new service units . . . over a reasonable period of time not to exceed 20 years."[26] The impact fee study team recommends a 10-year time period based on McCall's best available capital planning data.

The types of costs eligible for inclusion in this calculation include any land purchases, construction of new facilities and expansion of existing facilities to serve growth over the next 10 years at existing service levels. Equipment and vehicles with a useful life of 10 years or more are also impact fee eligible under the Impact Fee Act.[27] The total cost of improvements over the 10 years is referred to as the "CIP Value" throughout this report. The cost of this impact fee study is also impact fee eligible for all impact fee categories. The police and parks categories were charged 15 percent each of the cost of the fee study ($4,950), streets was charged a total of 30 percent ($9,900), and the remaining 40 percent was used to pay for preliminary examinations of impact fees in other categories for the City.

The forward-looking 10-year CIPs for the five departments each include some facilities that are only partially necessitated by growth (e.g., road replacement, facility expansion, etc.). The study team met with each department to determine a defensible metric for including a portion of these facilities in the impact fee calculations. A general methodology used to determine this metric is discussed below. In come cases, a more specific metric was used to identify the growth-related portion of such improvements. In these cases, notations were made the in the applicable section.

Fee Calculation

In accordance with the CIP approach described above, we calculated fees for each department by answering the following seven questions:

1. **Who is currently served by the each department?** This includes the number of residential and nonresidential land-uses.

2. **What is the current level of service provided by each department?** Since the primary purpose of impact fees is to help each department *maintain* their current level of service in the future, it is necessary to know the level of service they are currently providing to the community.

3. **What current assets allow each department to provide this level of service?** This provides a current inventory of assets used by each department, such as facilities, land, roadways and equipment. In addition, each asset's replacement value was calculated and summed to determine the total value of each department's current assets.

[26] *See* Section 67-8208(1)(h).

[27] The Impact Fee Act allows a broad range of improvements to be considered as "capital" improvements, so long as the improvements have useful life of at least 10 years and also increase the service capacity of public facilities. *See* Sections 67-8203(28) and 50-1703, Idaho Code.

4. **What is the current investment per residential and nonresidential land-use?** In other words, how much of each department's current assets' total value is needed to serve current residential households and nonresidential square feet?

5. **What future growth is expected in the City?** How many residential households and nonresidential buildings will the each department serve next year? In five years? In ten years?

6. **What new capital improvements are required to serve future growth while maintaining the current level of service?** For example, how much new police office space will be needed by the police department in ten years to maintain the current level of service provided by the department?

7. **What impact fee is required to pay for the new infrastructure?** We calculated an apportionment of new infrastructure costs to future residential and nonresidential land-uses for each department. Then, using this distribution, the full cost recovery impact fees were determined.

Addressing these seven questions, in order, provides the most effective and logical way to calculate impact fees for each department. In addition, these seven steps satisfy and follow the regulations set forth earlier in this section.

"GRUM" Analysis

For each department, as in any local government, not all capital costs are associated with growth. Some capital costs are for repair and replacement of facilities e.g., standard periodic investment in existing facilities such as paving and roofing. These costs *are not* impact fee eligible. Some capital costs are for betterment of facilities, or implementation of new services (e.g., development of an expanded training facility). These costs *are generally not entirely* impact fee eligible. Some costs are for expansion of facilities to accommodate new development at the current level of service (e.g., purchase of new fire station to accommodate expanding population). These costs *are* impact fee eligible.

Because there are different reasons why each department invests in capital projects, the study team conducted a "GRUM" analysis on all projects listed in each CIP:

- **Growth.** The "G" in GRUM stands for growth. To determine if a project is solely related to growth, we ask "Is this project designed to maintain the current level of service as growth occurs? " and "Would the department still need this capital project if it weren't growing at all?" "G" projects are only necessary to maintain each department's current level of service as growth occurs. It is thus appropriate to include 100 percent of their cost in the impact fee calculations.

- **Repair & Replacement.** The "R" in GRUM stands for repair & replacement. We ask, "Is this project related only to fixing existing infrastructure?" and "Would the department still need it if it weren't growing at all?" "R" projects have nothing to do with growth. It is thus not appropriate to include any of their cost in the impact fee calculations.

- **Upgrade.** The "U" in GRUM stands for upgrade. We ask, "Would this project improve the department's current level of service?" and "Would the department still do it even if it weren't growing at all?" "U" projects have nothing to do with growth. It is thus not appropriate to include any of their cost in the impact fee calculations.

- **Mixed.** The "M" in GRUM stands for mixed. It is reserved for capital projects that have some combination of G, R and U. "M" projects by their very definition are partially necessitated by growth, but also include an element of repair, replacement and/or upgrade. In this instance, a cost amount between 0 and 100 percent should be included in the fee calculations. Although the need for these projects is triggered by new development, they will also benefit existing residents.

Projects that are 100 percent growth-related were determined by our study to be necessitated solely by growth. Alternatively, some projects were determined to be "mixed", with some aspects of growth and others aspects of repair and replacement. In these situations, only a portion of the total cost of each project was included in the final impact fee calculation. This portion represented the incremental increase in land uses from 2008 to 2017 for the City.

It should be understood that growth is expected to be paying only a portion of the cost of capital improvements that are only partially growth-related. The City will need to plan to fund the pro rata share of these partially growth-related capital improvements with revenue sources other than impact fees within the time frame that impact fees must be spent. As discussed later in this report, the value of this City participation investment is approximately $7.7 million over the next ten years. This investment includes approximately $5.4 million of discretionary funding in connection with purely non-growth-related improvements, and approximately $2.3 million of capital improvements, portions of which are not growth-related and therefore must be funded from the City's General Fund and Utility Fund. These funds could come from City revenues, donations, grants or other partnerships. Note that Exhibit VI-2 details the City participation for each fee category.

Exhibits found in Sections III through V of this report detail all capital improvements planned for purchase over the next ten years by each department

Mechanics of Transportation Fee Calculations

In this report, the allocation of assets to residential and nonresidential development is accomplished using two methods. Unlike police and parks fee calculations in which fees are calculated *generally* for residential units and nonresidential square feet, streets fees are calculated for residential and nonresidential land uses based on street and facility usages generated by each land use type. To calculate this distribution, trip generation figures from the Institute of Transportation Engineers' *Trip Generation Manual Sixth Edition* are considered. The trip generation figures estimate the number of p.m. peak hour trips generated by particular land uses. Peak hour trips are appropriate for this calculation because street infrastructure is sized according to the expected peak. Since peak hour trips will be used to distribute infrastructure costs, peak hour estimates should be employed. Exhibit I-1 below presents trip generation figures for the land uses in McCall.

Exhibit I-1.
Trip Generation Rates by Land Use Category

Note:

All trip generation weighting factors are based on the weekday, peak p.m. period formula.

Source:

International Transportation Engineering *Trip Generation Manual Sixth Edition*.

Land-Use Category	Trip Generation Relative Weighting
Residential	1.02
Nonresidential	
1,000 Retail square feet	4.88
1,000 Lodging square feet	2.92
1,000 Office square feet	1.49
1,000 Institutional square feet	0.80
1,000 Industrial square feet	1.08

Using the trip generation figures from Exhibit I-1 and projected development in McCall found in Section II, total trips are then attributed to each land use. For nonresidential development, the *Trip Generation Manual* reports trips per 1,000 square feet of nonresidential space. Therefore, after applying the weight to each nonresidential square footage category, the total is divided by 1,000. After calculating trip totals for residential and nonresidential development, trips are distributed on a *percentage* basis between the six land uses.

Acknowledgements

We would like to thank Deputy City Manager/Treasurer Fred Quiel for serving as our project liaison to all the city departments.

Section II.
McCall Land Uses

As noted in Section I, it was necessary to allocate capital improvement plan (CIP) costs to both residential and nonresidential development when calculating impact fees. The study team performed this allocation based on the number of projected new households and nonresidential square footage added from 2008 through 2017 for the City. These projections were based on data found in the McCall Wastewater Facilities Plan, 2007, and previous impact fee studies performed in Idaho by BBC Research & Consulting.

Demographic and land-use projections are some of the most variable and potentially debatable components of an impact fee study, and in all likelihood the projections used in our study will not prove to be 100 percent correct. However, as each CIP is tied to the City's land-use growth, the CIP and resulting fees can be revised based on actual growth as it occurs. In other words, even if our projections are wrong, the CIP and impact fees can be updated to correctly reflect actual growth.

The following Exhibit II-1 presents the current and future population for McCall.

Exhibit II-1.
Current and Future Population in McCall, Idaho

	2008	2017	Net Increase	% Increase
Population	6,978	10,463	3,485	49.9%

Source:
City of McCall Wastewater Facilities Plan 2007 and BBC Research & Consulting

McCall's total population is expected to increase by 3,485 residents, or approximately 50 percent, over the next ten years. Please note that these population figures include McCall's substantial tourist population. Per the assumptions used in the McCall Wastewater Facilities Plan, we have equated one tourist as 0.8 residents.

The following Exhibit II-2 presents the current and future number of residential units and nonresidential square feet for McCall.

Exhibit II-2.
Current and Future Land Uses in McCall, Idaho

	2008	2017	Increase in Square Footage [2]	Percent of Total Increase
Residential (in dwelling units)	2,122	3,181	2,235,743	82%
Nonresidential (in square feet) [1]	964,255	1,445,830	481,575	18%
Total			2,717,318	100%

Note:

(1) We have assumed 304 nonresidential square feet per residential dwelling unit (including tourist population). This reflects the midpoint of five previous impact fee studies recently performed in Idaho.

(2) Based on assumed 2,110 square feet per residential unit from National Association of Homebuilders 5-year trailing average for square footage.

Source:

City of McCall Wastewater Facilities Plan 2007 and BBC Research & Consulting

As shown above, land uses within McCall are expected to grow by approximately 1,060 residential units and 480,000 nonresidential square feet over the next ten years. 82 percent of this growth is attributable to residential land uses, while the remaining 18 percent is attributable to nonresidential growth. These growth numbers and percentages will be used later in the study.

Section III.
Police Impact Fees

In this section, we calculate impact fees for the McCall Police Department following the seven question method outlined in Section I of this report.

1. Who is currently served by the McCall Police Department?

As shown in Exhibit II-2, the Police Department currently serves 2,122 residential units and approximately 964,250 square feet of nonresidential land use.

2. What is the current level of service provided by the McCall Police Department?

The Police Department currently provides a level of service of 2.0 full-time employees per 1,000 population.[28]

3. What current assets allow the McCall Police Department to provide this level of service?

The following Exhibit III-1 displays the current assets of the Police Department.

Exhibit III-1.
Current Assets – McCall Police Department

Type of Capital Infrastructure	Square Feet	Acreage	Replacement Value	*times*	Equity Percentage	*times*	Shared Facility (% in fee)	*equals*	Amount to Include in Current Investment Calculations
Facilities									
Police Facility (located in City Hall)	8,346	2.0	$2,877,850		100%		71%		$2,043,274
Vehicles									
none which meet the 10-year life criteria									
Equipment									
Weaponry			$32,800		100%		100%		$32,800
Total Infrastructure			**$2,910,650**						**$2,076,074**
Plus Cost of Fee-Related Research									
Impact Fee Study			$33,000		100%		15%		$4,950
Grand Total			**$2,943,650**						**$2,081,024**

Notes: Current level of service is 2.0 FTEs per 1,000 population (including tourist population).
Construction valued at $225 per square foot based on CH2M Hill Facility Plan. Land valued at $500,000 per acre.
The 71 percent shared facility portion represents the police owned portion of City Hall square footage.

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Police Department currently owns approximately $2.1 million of impact fee eligible current assets. These assets are used to provide the Department's current level of service.

4. What is the current investment per residential unit and nonresidential square foot for the McCall Police Department?

The Police Department has already invested $807 per residential unit and $0.38 per nonresidential square foot in order to provide the current level of service. This figure is derived by allocating the

[28] This population figure includes the tourist population, with one tourist equaling 0.8 residents.

value of the Department's current assets between the current number of residential units and nonresidential square feet. It will be compared to the impact fees calculated below.

5. What future growth is expected in McCall?

As shown in Exhibit II-2, McCall is expected to grow by 1,060 residential units and 480,000 square feet of nonresidential land use over the next ten years.

6. What new capital improvements are required to serve future growth while maintaining the current level of service?

The following Exhibit III-2 displays the capital improvements planned for purchase by the Police Department over the next ten years.

Exhibit III-2.
McCall Police Department CIP – 2008-2017

Type of Capital Infrastructure	Square Footage	CIP Value	*times*	Growth Portion	*times*	Shared Facility (% in fee)	*equals*	Amount to Include in Fees
Facilities								
Replacement/upgrade of existing facility	8,520	$1,917,000		0%		100		$0
Expansion of facility to accomodate growth	2,975	$669,375		100% [1]		100%		$669,375
Total Infrastructure		**$2,586,375**						**$669,375**
Plus Cost of Fee-Related Research								
Impact Fee Study		$33,000		100%		15%		$4,950
Grand Total		**$2,619,375**						**$674,325**

Note: (1) Police currently houses 14 FTEs in 5,944 square feet = 425 sf per FTE. Estimated population increase by 2017 of 3,845 (includes tourist population at 0.8 per resident). Increased population warrants an additional 7 FTEs to respond to growth (3,485/1,000x2.0). 7 FTEs x 425 sq ft per FTE = 2,975 new sq ft attributable to growth.

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Department plans to fund approximately $2.6 million in capital improvements over the next ten years, $675,000 of which is impact fee eligible. These assets will allow the Department to maintain its current level of service in the future.

7. What impact fee is required to pay for the new capital improvements?

The following Exhibit III-3 takes the projected future growth in McCall from Exhibit II-2 and the growth-related CIP from Exhibit III-2 to calculate impact fees for the Police Department.

Exhibit III-3. McCall Police Department Fee Calculation

Note:
(1) From Exhibit III-2.
(2) From Exhibit II-2.
(3) From Exhibit II-2.

Source:
City of McCall and Impact Fee Study Team.

Impact Fee Calculation	
Allocated Value for Future Police Capital Improvements [(1)]	$674,325
Future District Land Use [(2)]	
Residential (in dwelling units)	82%
Nonresidential (in square feet)	18%
Allocated Value by Land Use Category	
Residential	$554,818
Nonresidential	$119,507
Future City Development [(2)]	
Residential (in dwelling units)	1,060
Nonresidential (in square feet)	481,575
Future Investment by City Land Use	
Residential (per dwelling unit)	$ 524
Nonresidential (per square foot)	$ 0.25

As shown above, we have calculated full-cost recovery impact fees for the McCall Police Department at $524 per residential unit and $0.25 per nonresidential square foot. The City cannot assess fees greater than this amount. The City can assess fees lower than this amount, but would then experience a decline in service levels unless other City revenues made up the difference.

The Study Team is pleased to report the impact fees calculated in Exhibit III-3 are less than the current investment described earlier in this section. This indicates new growth would not be asked to pay more than its proportionate share of future capital infrastructure.

Section IV.
Parks Impact Fees

In this section, we calculate impact fees for the McCall Parks Department following the seven question method outlined in Section I of this report.

1. Who is currently served by the McCall Parks Department?

As shown in Exhibit II-2, the Parks Department currently serves 2,122 residential units.

2. What is the current level of service provided by the McCall Parks Department?

The Parks Department currently provides a level of service of 4.9 acres of developed parks per 1,000 population.

3. What current assets allow the McCall Parks Department to provide this level of service?

The following Exhibit IV-1 displays the current assets of the McCall Parks Department.

Exhibit IV-1.
Current Assets – McCall Parks Department

Type of Capital Infrastructure	Size of Park (acres)	Square Footage	Replacement Value	*times*	Equity Percentage	*times*	Shared Facility (% in fee)	*equals*	Amount to Include in Fee Calculations
Paths & Trails									
Developed Pathways	12		$5,000,000		100%		100%		$5,000,000
Pocket Parks									
Community Park/Veterans' Memorial	0.2		$100,000		100%		100%		$100,000
Art Roberts	0.5		$1,500,000		100%		100%		$1,500,000
Lick Creek Meadows	4.53		$600,000		100%		100%		$600,000
City (Library, Museum, 4 Corners, etc.)	2.5		$1,047,160		100%		100%		$1,047,160
Neighborhood Parks									
Brown Park	1.76		$2,800,000		100%		100%		$2,800,000
Davis Beach	1.2		$1,500,000		100%		100%		$1,500,000
Fairway Park	5		$800,000		100%		100%		$800,000
Harshman Skatepark	1		$700,000		100%		100%		$700,000
Rotary Park	1.65		$1,800,000		100%		100%		$1,800,000
Community Parks									
Legacy Park	3.20		$5,000,000		100%		100%		$5,000,000
Undeveloped Parks (land cost only)									
Riverfront	25.00		$1,200,000		100%		100%		$1,200,000
Broken Ridge	3.27		$327,000		100%		100%		$327,000
Cathedral Pines	1.06		$100,000		100%		100%		$100,000
Cattail Ridge	2.19		$219,000		100%		100%		$219,000
Wild Horse	0.76		$76,000		100%		100%		$76,000
Reserve on Payette	0.74		$74,000		100%		100%		$74,000
Park Facilities									
Parks Administration/Shops		945	$141,750		100%		100%		$141,750
Equipment									
Polaris Ranger			$16,000		100%		100%		$16,000
Rotary Lawn Mower			$35,000		100%		100%		$35,000
4 vehicles			$80,000		100%		100%		$80,000
Total Infrastructure	**66.56**		**$23,115,910**						**$23,115,910**
Plus Cost of Fee-Related Research									
Impact Fee Study			$33,000		100%		15%		$4,950
Grand Total			**$23,148,910**						**$23,120,860**

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Parks Department currently owns approximately $24.2 million of impact fee eligible current assets. These assets are used to provide the Department's current level of service.

4. What is the current investment per residential unit and nonresidential square foot?

The Parks Department has already invested $10,897 per residential unit in order to provide the current level of service. As parks infrastructure is primarily used by residential land-uses, we have attributed 100 percent of the park department's current investment to residential land use. It will be compared to the impact fees calculated below.

5. What future growth is expected in McCall?

As shown in Exhibit II-2, the Parks Department's service population is expected to grow by 1,060 residential units over the next ten years.

6. What new capital improvements are required to serve future growth while maintaining the current level of service?

The following Exhibit IV-2 displays the capital improvements planned for purchase by the Parks Department over the next ten years.

Exhibit IV-2.
McCall Parks Department CIP – 2008-2017

Type of Capital Infrastructure	CIP Value [(1)]	*times*	Growth Portion	*times*	Shared Facility	*equals*	Amount to Include in Fees
Pathways and Trails							
3 additional miles to support growth	$1,750,000		100%		100%		$1,750,000
Parks							
Riverfront Park- develop 17 acres to support growth	$3,408,577		100%		100%		$3,408,577
Riverfront Park - develop remaining 13 acres	$2,571,382		0%		100%		$0
Broken Ridge - develop 6.69 acres	$300,000		0%		100%		$0
Wild Horse - develop .76 acres	$150,000		0%		100%		$0
Purchase Forest service property (riverfront)	$500,000		0%		100%		$0
Park Facilities							
Expanded recreation/parks shop 4,041 sf	$606,150		50%		100%		$303,075
Equipment							
3 additional lawn mowers	$105,000		50%		100%		$52,500
2 additional vehicles	$40,000		50%		100%		$20,000
Total Infrastructure	**$9,431,109**						**$5,534,152**
Plus Cost of Fee-Related Research							
Impact Fee Study	$33,000		100%		15%		$4,950
Grand Total	**$9,464,109**						**$5,539,102**

Note: To continue existing service level of 4.9 acres per thousand, if the 2017 population is estimated at 10,463, 17 acres of parks/trails are impact fee eligible. These parks could be dedicated parks currently undeveloped, or the acquisition and development of additional parks.

Source: Galena Consulting interview with the McCall Parks Department, October 2007.

As shown above, the Department plans to fund approximately $9.5 million in capital improvements over the next ten years, approximately half, or $5.5 million, of which is impact fee eligible. These new assets will allow the Department to maintain its current level of service in the future.

7. What impact fee is required to pay for the new capital improvements?

The following Exhibit IV-3 takes the projected future growth from Exhibit II-2 and the growth-related CIP from Exhibit IV-2 to calculate impact fees for the Parks Department.

Exhibit IV-3.
McCall Parks Department Fee Calculation

Note:
(1) From Exhibit III-2.
(2) From Exhibit II-2.
(3) From Exhibit II-2.

Source:
City of McCall and Impact Fee Study Team.

Impact Fee Calculation	
Allocated Value for Future Parks Capital Improvements [1]	$5,539,102
Future District Land Use [2]	
Residential (in dwelling units)	100%
Nonresidential (in square feet)	0%
Allocated Value by Land Use Category	
Residential	$ 5,539,102
Nonresidential	$ -
Future City Development [2]	
Residential (in dwelling units)	1,060
Nonresidential (in square feet)	N/A
Future Investment by City Land Use	
Residential (per dwelling unit)	$ 5,228
Nonresidential (per square foot)	$ -

As shown above, we have calculated full-cost recovery impact fees for the McCall Parks Department at $5,228 per residential unit. As residential land uses are the primary users of parks infrastructure, we have only calculated fees for future residential growth. The City cannot assess fees greater than this amount. The City can assess fees lower than this amount, but would then experience a decline in service levels unless other City revenues made up the difference.

The Study Team is pleased to report the impact fees calculated in Exhibit IV-3 are less than the current investment described earlier in this section. This indicates new growth would not be asked to pay more than its proportionate share of future capital infrastructure.

Section V.
Streets Impact Fees

In this section, we calculate impact fees for the McCall Streets Department following the seven question method outlined in Section I of this report. This fee calculation consists of two separate Streets infrastructure categories: streets infrastructure and storm drainage infrastructure.

1. Who is currently served by the McCall Streets Department?

As shown in Exhibit II-2, the Streets Department currently serves 2,122 residential units and approximately 964,250 square feet of nonresidential land use.

2. What is the current level of service provided by the McCall Streets Department?

The City of McCall street department operates and maintains the street and drainage system to prevent nuisance flooding and standing water on the roadway; in general, it requires conveyance of the 25 year storm for drainages crossing streets and conveyance of the 100 year storm for major structures such as bridges.

3. What current assets allow the McCall Streets Department to provide this level of service?

The following Exhibit V-1 displays the current streets infrastructure assets of the Streets Department.

Exhibit V-1.
Current Assets – McCall Streets Infrastructure

Type of Capital Improvement	Qty	Unit	Unit Cost	Replacement Value	*times*	Equity %	*times*	Shared Facility	*equals*	Amount to Include in Current Investment Calculations
Street Lights	40	EA	$ 3,500	$ 140,000		100%		100%		$ 140,000
Roadways										
Existing paved road	32.3	MI	$ 1,372,800	$ 44,341,440		100%		100%		$ 44,341,440
Existing gravel road	6.8	MI	$ 1,372,800	$ 9,335,040		100%		100%		$ 9,335,040
Bridges										
Deinhard Bridge	1	LS	$ 2,000,000	$ 2,000,000		100%		100%		$ 2,000,000
Facilities										
Public Works Shop, 2 acres, 5600 SF [1]	1	LS	$ 1,000,000	$ 1,000,000		100%		90%		$ 900,000
Equipment										
Backhoe	1	EA	$ 60,000	$ 90,000		100%		100%		$ 90,000
Loaders	3	EA	$ 178,000	$ 534,000		100%		100%		$ 534,000
Graders	2	EA	$ 178,000	$ 356,000		100%		100%		$ 356,000
10 YD Dump Truck	2	EA	$ 70,000	$ 140,000		100%		100%		$ 140,000
14 YD Dump Truck	1	EA	$ 80,000	$ 80,000		100%		100%		$ 80,000
Roller	1	EA	$ 75,000	$ 75,000		100%		100%		$ 75,000
Tractor Mower	1	EA	$ 2,000	$ 2,000		100%		100%		$ 2,000
Paint Striper	1	EA	$ 13,000	$ 13,000		100%		100%		$ 13,000
Sander Beds	3	EA	$ 5,000	$ 15,000		100%		100%		$ 15,000
Pickup Trucks	6	EA	$ 20,000	$ 120,000		100%		100%		$ 120,000
Lowboy Trailer 20 tons	1	EA	$ 8,000	$ 8,000		100%		100%		$ 8,000
5th Wheel Flatbed Trailer	1	EA	$ 5,000	$ 5,000		100%		100%		$ 5,000
Rental Loader (5 month winter rental)	1	EA	$ 17,250	$ 17,250		0%		100%		$ -
Rental Grader (5 month winter rental)	1	EA	$ 17,250	$ 17,250		0%		100%		$ -
Minor Equipment (misc.)	1	LS	$ 15,000	$ 15,000		100%		100%		$ 15,000
Total Infrastructure				**$ 58,303,980**						**$ 58,169,480**
Plus Cost of Fee-Related Research										
Impact Fee Study				$ 33,000		100%		15%		$ 4,950
Grand Total				**$ 58,336,980**						**$ 58,174,430**

Notes: (1) Public Works Shop is distributed 10 percent to storm drainage, 90 percent to streets.

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Streets Department owns approximately $58.2 million of impact fee eligible streets infrastructure current assets.

Exhibit V-2 below displays the current storm drainage assets of the Streets Department.

Exhibit V-2.
Current Assets – McCall Storm Drainage Infrastructure

Type of Capital Infrastructure	Qty	Unit	Unit Cost	Replacement Value	*times*	Equity %	*times*	Shared Facility	*equals*	Amount to Include in Current InvestmentCalculations
Structures										
Storm Main System	6	MI	$ 644,160	$ 3,864,960		100%		100%		$ 3,864,960
Storm Manholes	55	EA	$ 2,800	$ 154,000		100%		100%		$ 154,000
Catch Basins	50	EA	$ 2,655	$ 132,750		100%		100%		$ 132,750
Sand & Grease Separators	7	EA	$ 3,000	$ 21,000		100%		100%		$ 21,000
Vortexes	4	EA	$ 35,000	$ 140,000		100%		100%		$ 140,000
Public Works Shop, 2 acres, 5600 SF [1]	1	LS	$ 1,000,000	$ 1,000,000		100%		10%		$ 100,000
Drainage										
Culverts @ 32' x 18"	85	EA	$ 1,500	$ 127,500		100%		100%		$ 127,500
Land and Basins										
Drainage Basins	9	AC	$ 150,000	$ 1,350,000		100%		100%		$ 1,350,000
Equipment										
Street Sweeper	1	EA	$ 200,000	$ 200,000		100%		100%		$ 200,000
Total Infrastructure				**$ 6,990,210**						**$ 6,090,210**
Plus Cost of Fee-Related Research										
Impact Fee Study				$ 33,000		100%		15%		$ 4,950
Grand Total				**$ 7,023,210**						**$ 6,095,160**

Note: (1) Public Works shop is distributed 10 percent to storm drainage, 90 percent to streets.

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Streets Department owns approximately $6.1 million of impact fee eligible storm drainage infrastructure current assets.

4. What is the current investment per residential unit and nonresidential square foot?

The Streets Department has already invested $11,779 per residential unit, $56.35 per retail square foot, $33.72 per lodging square foot, $17.21 per office square foot, $9.24 per institutional square foot, and $12.47 per industrial/warehouse square foot in order to provide the current level of service for both streets and storm drainage. This figure is derived by allocating the value of the Department's current assets between the current number of residential-based trips and nonresidential-based trips. It will be compared to the impact fees calculated below.

5. What future growth is expected in McCall?

As shown in Exhibit II-2, McCall is expected to grow by 1,060 residential units and 480,000 square feet of nonresidential land use over the next ten years.

6. What new capital improvements are required to serve future growth while maintaining the current level of service?

The following Exhibit V-3 displays the streets infrastructure capital improvements planned for purchase by the McCall Streets Department over the next ten years.

Exhibit V-3.
McCall Streets Infrastructure CIP – 2008-2017

Type of Capital Improvement	Qty	Unit	Unit Cost	CIP Value	*times*	Growth %	*times*	Shared Facility	*equals*	Amount to Include in Fees
Traffic Lights	2	EA	$ 240,000	$ 480,000		90%		100%		$ 432,000
Roadways										
CRABS	2	MI	$ 450,000	$ 900,000		60%		100%		$ 540,000
Replaced paved roads	0.5	MI	$ 871,200	$ 435,600		60%		100%		$ 261,360
New paved roads	5	MI	$ 185,000	$ 925,000		90%		100%		$ 832,500
Sidewalk Improvements	1	LS	$ 345,000	$ 345,000		40%		100%		$ 138,000
Facilities/Equipment										
Expanded shop facility	2,000	SF	$ 200	$ 400,000		100%		90%		$ 360,000
Land acquisition to relocate shop out of downtown area	2	AC	$ 150,000	$ 300,000		80%		90%		$ 216,000
Land acquisition for new sand/gravel storage area	3	AC	$ 100,000	$ 300,000		80%		100%		$ 240,000
Land acquisition for new snow storage area	2	AC	$ 150,000	$ 300,000		80%		100%		$ 240,000
Graders	3	EA	$ 178,000	$ 534,000		100%		100%		$ 534,000
Loaders	3	EA	$ 178,000	$ 534,000		100%		100%		$ 534,000
Backhoe	1	EA	$ 65,000	$ 65,000		100%		100%		$ 65,000
Dump trucks	2	EA	$ 50,000	$ 100,000		100%		100%		$ 100,000
Water truck	1	EA	$ 65,000	$ 65,000		80%		100%		$ 52,000
Snow blower attachment	1	EA	$ 100,000	$ 100,000		100%		100%		$ 100,000
Snow melter	1	EA	$ 100,000	$ 100,000		100%		100%		$ 100,000
Pickup trucks	3	EA	$ 20,000	$ 60,000		100%		100%		$ 60,000
Total Infrastructure				**$ 5,943,600**						**$ 4,804,860**
Fee-Related Research										
GIS/Roads, Inventory, and ROW Mapping	1	LS	$ 150,000	$ 150,000		100%		100%		$ 150,000
Traffic signal studies	2	EA	$ 3,000	$ 6,000		100%		100%		$ 6,000
Impact Fee Study				$ 33,000		100%		15%		$ 4,950
Grand Total				**$ 6,132,600**						**$ 4,965,810**

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Streets Department plans to fund approximately $6.1 million of streets infrastructure capital improvements over the next ten years, $5.0 million of which is impact fee eligible. These purchases will allow the Department to maintain its level of service in the future.

Exhibit V-4 below displays the storm drainage infrastructure capital improvements planned for purchase by the Streets Department over the next ten years.

Exhibit V-4.
McCall Storm Drainage Infrastructure CIP – 2008-2017

Type of Capital Improvement	Qty	Unit	Unit Price	CIP Value	*times*	Growth %	*times*	Shared Facility	*equals*	Amount to Include in Fees
Structures										
Culverts @ 32' x 18"	20	EA	$ 1,500	$ 30,000		100%		100%		$ 30,000
Pipe	3000	LF	$ 122	$ 366,000		100%		100%		$ 366,000
Manholes	20	EA	$ 2,800	$ 56,000		100%		100%		$ 56,000
Sand & Grease Traps	2	EA	$ 3,000	$ 6,000		100%		100%		$ 6,000
Vortex	1	EA	$ 35,000	$ 35,000		25%		100%		$ 8,750
Land and Basins										
Drainage Basins	3	AC	$ 150,000	$ 450,000		100%		100%		$ 450,000
Land acquisition to relocate shop out of downtown area	2	AC	$ 150,000	$ 300,000		80%		10%		$ 24,000
Expanded shop	2000	SF	$ 200	$ 400,000		100%		10%		$ 40,000
Equipment and Vehicles										
New Street Sweeper	1	EA	$ 200,000	$ 200,000		50%		100%		$ 100,000
New pickup truck (inspections/maintenance)	1	EA	$ 20,000	$ 20,000		100%		100%		$ 20,000
Total Infrastructure				**$ 1,863,000**						**$ 1,100,750**
Fee-Related Studies										
Stormwater management studies				$ 125,000		80%		100%		$ 100,000
Impact fee study				$ 33,000		100%		15%		$ 4,950
Grand Total				**$ 2,021,000**						**$ 1,205,700**

Source: Galena Consulting interview with McCall City Staff, January 2008.

As shown above, the Streets Department plans to fund approximately $2.0 million of storm drainage capital improvements over the next ten years, $1.2 million of which is impact fee eligible. These purchases will allow the Department to maintain its level of service in the future.

The combined, impact fee-eligible value of the McCall Streets Department's CIPs is approximately $6.1 million. The City will be required to fund approximately $1.9 million in additional non-growth related capital improvements to ensure the CIP remains intact.

7. What impact fee is required to pay for the new capital improvements?

As noted in Section I, the calculation of transportation impact fees is based on the projected number of trips each land-use type will generate in the next ten years. Exhibit V-5 below displays this projection for the City.

Exhibit V-5.
Projected Trips 2008-2017 – McCall, Idaho

Land Use	New Development [1]	Weighted Trip Generation Factor [2]	Percent Distribution
Residential (*1.02)	1,060	1,081	39%
Nonresidential			
Retail (*4.88)	240,787	1,175	42%
Lodging (*2.92)	120,394	352	13%
Office (*1.49)	72,236	108	4%
Institutional (*0.8)	48,157	39	1%
Warehouse/Industrial (*1.08)	24,079	26	1%
Total		**2,780**	**100%**

Note:

(1) See Exhibit II-2.

(2) See Exhibit I-1.

May not total due to rounding. Reflects general traffic generation patterns, emphasizing PM peak period conditions.

Source:

International Transportation Engineering Trip Generation Manual Sixth Edition, City of McCall and Impact Fee Study Team.

As shown above, the number of daily trips in McCall is expected to increase by approximately 2,780 trips by 2017. Thirty-nine percent of those trips will be for residential uses, 42 percent for retail, 13 percent for lodging, four percent for office, one percent for institutional and one percent for warehouse/industrial. Residential uses include buildings such as single-family homes and apartments.

Exhibit V-6 below uses the trip generation figures from Exhibit V-5 and the growth-related CIPs from Exhibit V-3 and Exhibit V-4 to calculate impact fees for the McCall Streets Department.

Exhibit V-6.
Calculation of Impact Fees, Streets Department

Note:
(1) See Exhibit V-3 and V-4.
(2) See Exhibit II-2.
(3) See Exhibit II-2.

Source:
City of McCall and Impact Fee Study Team.

Calculation of Impact Fees	
Future Value for Streets and Storm Drainage[(1)]	**$6,171,510**
Percent of Future Trips [(2)]	
Residential	39%
Nonresidential	
Retail	42%
Lodging	13%
Office	4%
Institutional	1%
Warehouse/Industrial	1%
Allocated Value by Land Use Category	
Residential	$2,399,706
Nonresidential	
Retail	$2,608,987
Lodging	$780,558
Office	$238,979
Institutional	$85,541
Warehouse/Industrial	$57,740
Growth to 2017 [(3)]	
Residential (total dwelling units)	1,060
Nonresidential (in square feet)	
Retail	240,787
Lodging	120,394
Office	72,236
Institutional	48,157
Warehouse/Industrial	24,079
Impact Fee by Land Use (rounded)	
Residential (per dwelling unit)	$2,265
Nonresidential (per square foot)	
Retail	$10.84
Lodging	$6.48
Office	$3.31
Institutional	$1.78
Warehouse/Industrial	$2.40

The Streets Department's full cost-recovery impact fees have been calculated at $2,265 per residential unit, $10.84 per retail square foot, $6.48 per lodging square foot, $3.31 per office square foot, $1.78 per institutional square foot and $2.40 per warehouse/industrial square foot. The City cannot assess fees greater than this amount. The City can assess fees lower than this amount, but would then experience a decline in service levels unless other City revenues made up the difference.

In addition, the City of McCall could choose to exempt certain land uses from paying the impact fees shown in Exhibit V-6 if it believed that would promote economic development or comply with other

Comprehensive Plan goals.[29] In this case, however, the City would be *required* to transfer General Fund revenues to the Impact Fee Fund in order to keep the system whole.

The Study Team is pleased to report the impact fees calculated in Exhibit V-6 are less than the current investment described earlier in this section. This indicates new growth would not be asked to pay more than its proportionate share of future capital infrastructure.

[29] Such land uses could include retail establishments in the Central Business District.

Section VI. Summary

The following Exhibit VI-1 summarizes the non-utility fees for the City of McCall.

Exhibit VI-1.
McCall Non-utility Impact Fees

Source:
Impact Fee Study Team.

Impact Fee Category	
Police Fees	
Residential (per dwelling unit)	$ 524
Nonresidential (per square foot)	$ 0.25
Parks Fees	
Residential (per dwelling unit)	$ 5,228
Nonresidential (per square foot)	$ -
Streets Fees	
Residential (per dwelling unit)	$ 2,265
Nonresidential	
Retail (per square foot)	$ 10.84
Lodging (per square foot)	$ 6.48
Office (per square foot)	$ 3.31
Institutional (per square foot)	$ 1.78
Warehouse/Industrial (per square foot)	$ 2.40
Total Fees	
Residential (per dwelling unit)	$ 8,016
Nonresidential (per square foot)	
Retail (per square foot)	$ 11.08
Lodging (per square foot)	$ 6.73
Office (per square foot)	$ 3.56
Institutional (per square foot)	$ 2.02
Warehouse/Industrial (per square foot)	$ 2.65

We have calculated full cost-recovery impact fees for McCall that total $8,016 per residential dwelling unit, $11.08 per retail square foot, $6.73 per lodging square foot, $3.56 per office square foot, $2.02 per institutional square foot and $2.65 per warehouse/industrial square foot.

City Participation

Because not all the capital improvements listed in the CIPs are 100 percent growth-related, the City would assume the responsibility of paying for the portion of the capital improvements that are not attributable to new growth. These payments would come from existing funds, Federal or state grants, donations and/or ongoing revenue sources.

To arrive at the City participation amount, the expected impact fee revenue and any shared facility amount need to be subtracted from the total CIP value. Exhibit VI-2 divides the City's participation amount into two categories: the portion of purely non-growth-related improvements, and the portion of growth-related improvements that are attributable to repair, replacement, or upgrade, but are not impact fee eligible.

It should be noted that the participation amount associated with purely non-growth improvements is discretionary. The City can choose not to fund these capital improvements (although this could result in a decrease in the level of service if the deferred repairs or replacements were urgent). However, the non-growth-related portion of improvements that are impact fee eligible *must* be funded in order to maintain the integrity of the impact fee program.

Exhibit VI-2.
City Participation Summary, 2008 through 2017

Source:
City of McCall and Impact Fee Study Team.

	Required	Discretionary	Total
Police	$ -	$ 1,917,000	$ 1,917,000
Parks	$ 375,575	$ 3,521,382	$ 3,896,957
Streets	$ 1,925,990	$ -	$ 1,925,990
TOTAL	**$ 2,301,565**	**$ 5,438,382**	**$ 7,739,947**

The total amount the City would be *required* to contribute over 10 years, should the City adopt fees at the cost recovery amount, will be approximately $2.3 million. The $2.3 million in required funding dictates the City to fund approximately $230,000 per year from 2008 through the end of 2017.

The City could also choose to fund the discretionary infrastructure of $5.4 million for police, parks and streets capital improvements over the 10-year period.

As noted in prior sections, the City of McCall could choose to exempt certain land uses from paying impact fees entirely if it believed that would promote economic development or comply with other Comprehensive Plan goals.[30] In this case, however, the City would be *required* to transfer General Fund revenues to the Impact Fee Fund in order to keep the system whole.

Implementation Recommendations

As the City Council evaluates whether or not to adopt the Capital Improvement Plans and impact fees, we also offer the following information for your consideration. Please note that this information will be included in the City's impact fee enabling ordinance.

Capital Improvements Plan. Should the Advisory Committee recommend this study to the City Council and should the City Council adopt the study, the Finance Department should revise the City's existing Capital Improvement Plans using the information in this study. A revised capital improvement plan would then be presented to the City for adoption as an element of the Comprehensive Plan pursuant to the procedures of the Local Land Use Planning Act.[31]

[30] Such land uses could include retail establishments in the Central Business District.

[31] *See* Sections 67-8203(4) and 67-8208(1).

Impact Fee Ordinance. Following adoption of the Capital Improvement Plan, the City should review the proposed Impact Fee Ordinance for adoption as reviewed and recommended by the Advisory Committee.

Advisory Committee. The Advisory Committee is in a unique position to work with and advise several departments and the City Council to ensure that the capital improvement plans and impact fees are routinely reviewed and modified as appropriate.

Impact fee service area. Some municipalities have fee differentials for various city zones under the assumption that some areas utilize more or less current and future capital improvements. The study team, however, does not recommend the City assess different fees by dividing the City into zones. Police, parks, and streets capital improvements inherently serve a system-wide function.

Specialized assessments. If permit applicants are concerned they would be paying more than their fair share of future infrastructure purchases, the applicant can request a specialized assessment to ensure they will only be paying what they actually owe. The applicant would be required to pay for all costs related to such an assessment.

Donations. If the City receives donations for capital improvements listed on the CIP, the City must account for the donation in one of two ways. If the donation is for a non- or partially growth-related improvement, the donation can contribute to the City's General Fund participation along with more traditional forms, such as revenue transfers from the General Fund. If, however, the donation is for a growth-related project in the CIP, the donor's impact fees should be reduced dollar for dollar. This means that the City will either credit the donor or reimburse the donor for that portion of the impact fee.

Grants. If a grant is expected and regular, the growth related portion of that grant amount should be reflected upfront in the fee calculations, meaning that the impact fees will be lower in anticipation of the contribution. If the grant is speculative or uncertain, this should not be reflected up-front in the fee calculations since the City cannot count on those dollars as it undergoes capital planning.

The rational nexus is still maintained because the unexpected higher fund balance, due to the receipt of a grant, is deducted from the calculations as a "down payment on the CIP" when the fee study is updated.

Credit/reimbursement. If a developer constructs or contributes all or part of a growth-related project that would otherwise be financed with impact fees, that developer must receive a credit against the fees owed for this category or, at the developer's choice, be reimbursed from impact fees collected in the future.[32] This prevents "double dipping" by the City.

The presumption would be that builders/developers owe the entirety of the impact fee amount until they made the City aware of the construction or contribution. If credit or reimbursement is due, the City must enter into an agreement with the fee payor that specifies the amount of the credit or the amount, time and form of reimbursement.[33]

[32] *See* Section 67-8209(3), Idaho Code.

[33] *See* Section 67-8209(4), Idaho Code.

Impact fee accounting. The City should continue to maintain Impact Fee Funds separate and apart from the General Fund. All current and future impact fee revenue should be immediately deposited into this account and withdrawn only to pay for growth-related capital improvements. The City General Funds should be reserved solely for the receipt of tax revenues, grants, user fees and associated interest earnings, and ongoing operational expenses including the repair and replacement of existing capital improvements not related to growth.

Spending policy. The City should establish and adhere to a policy governing their expenditure of monies from the Impact Fee Fund. The Fund should be prohibited from paying for City operational expenses and the repair and replacement or upgrade of existing infrastructure not necessitated by growth. In cases when *growth-related capital improvements are constructed,* impact fees are an allowable revenue source as long as only new growth is served. In cases when new capital improvements are expected *to partially replace existing capacity and to partially serve new growth*, cost sharing between the General Fund and Impact Fee Fund should be allowed on a pro rata basis.

Update procedures. The City is expected to grow rapidly over the 10-year span of the CIPs. Therefore, the fees calculated in this study should be updated annually as the City invests in additional infrastructure beyond what is listed in this report, and/or as the City's projected development changes significantly. Fees can be updated on an annual basis using an inflation factor for building material from a reputable source such as McGraw Hill's Engineering News Record.

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McCALL CITY COUNCIL 216 East Park Street
AGENDA BILL McCall, Idaho 83638

Number **AB 23-094**
Meeting Date **April 28, 2023**

AGENDA ITEM INFORMATION

SUBJECT:

Work Session – DRAFT Southeast McCall Buildout Transportation Recommendations Discussion

Department Approvals	***Initials***	***Originator or Supporter***
Mayor / Council		
City Manager	ABS	
Clerk		
Treasurer		
Community Development		
Police Department		
Public Works	MTS	Originator
Golf Course		
Parks and Recreation		
Airport		
Library		
Information Systems		
Grant Coordinator		

COST IMPACT:	~$30,000
FUNDING SOURCE:	Streets LOT Fund
TIMELINE:	Summer 2022-Spring 2023

SUMMARY STATEMENT:

Horrocks Engineers, in collaboration with City engineering and planning staff, have developed the *Southeast McCall Buildout Transportation Recommendations* memorandum (see attached). This DRAFT report evaluates various opportunities to expand existing transportation facilities throughout the southeast segment of the City to meet anticipated future traffic volumes from both infill and new development.

To do so, Horrocks developed a traffic model and utilized 2021 anonymized Bluetooth Streetlight® data from devices traveling through the study area to estimate vehicle and pedestrian counts and identify the origins and destinations of the traffic. The data was then validated using traffic count and turning movement data collected historically. Traffic projections were then made assuming future buildout of the City (based on zoning densities) and known potential developments that are currently being discussed. Once the model was established, an analysis on multiple roadways and major intersections throughout the southeast area of McCall was completed to develop recommendations for expanding roadway connections and enhancing intersections to accommodate projected 2040 traffic volumes and maintenance.

The resulting report identifies that extensions of Samson Trail, Floyde Street, Davis Street and Deinhard Lane will improve traffic to and from the study area. These extensions will also require significant intersection improvements at all major intersections. However, by building these transportation facilities, over time, and in collaboration with future developments some mitigation of traffic congestion on 3rd Street (north of Deinhard) can be achieved. Equally important, more efficient transportation routes (for both vehicle and multi-modal users) in the southeast area of town will be made. This work session will inform the Council of the details of the study, gain input/comments from Council members so staff can finalize the report so it can be formally adopted via Resolution at a subsequent meeting

RECOMMENDED ACTION:

None, For Council discussion and to gain input and direction for finalizing the report for formal adoption

RECORD OF COUNCIL ACTION

MEETING DATE	***ACTION***

Horrocks.

MEMORANDUM

TO: Brian Parker, City Planner

Morgan Stroud, Staff Engineer

Nathan Stewart, Public Works Director, City Engineer

FROM: Aron Baker, P.E.

DATE: February 2, 2023

SUBJECT: **Southeast McCall Buildout Transportation Recommendations**

INTRODUCTION

Horrocks Engineers has been working with the City of McCall, Idaho to determine a plan to enhance its transportation system in the growing southeast segment of the city. With schools in operation, and plans to develop larger areas for residential and commercial uses, a transportation system needs to meet the demands that growth presents.

A traffic model was built using Vistro 2022 traffic analysis software, and a sample of roadway segments and intersections were analyzed to determine the weak points of the roadway network. The purpose of this memo is to report on the findings of the traffic model and recommend improvements accordingly.

METHODOLOGY

Existing conditions in McCall were modeled by collecting turning movement count data from StreetLight InSight and ground counts performed by the City of McCall. StreetLight is a data collection company that uses Bluetooth devices throughout North America to estimate vehicle and pedestrian counts in a study area and evaluates the origins and destinations of the traffic. The collected data is anonymized and validated against permanent traffic counting stations in the area. The processed data from StreetLight includes intersection turning movement counts and origin/destination analysis. As part of this study, StreetLight data compiled from 2021 was used to estimate turning movement counts at four study intersections:

- North 3rd Street & Railroad
- Wooley Avenue & Samson Trail
- Samson Trail & Deinhard Lane
- North 3rd Street & Elo Road

The turning movement counts were compared with the daily traffic counts that were collected by the City of McCall in 2022. StreetLight data also provided an estimated trip distribution throughout the City of McCall using an origin/destination analysis. With the StreetLight data and the counts from the City of McCall an existing traffic model was built using PTV Vistro 2022 traffic modeling software.

The Vistro model is built with trip generation zones and trip distribution gates. Each zone is assigned a number of trips, then the trip distribution is used to distribute the trips to the gates. The estimated trip distribution and the trip generation zones used in this model are shown in Figure 1.

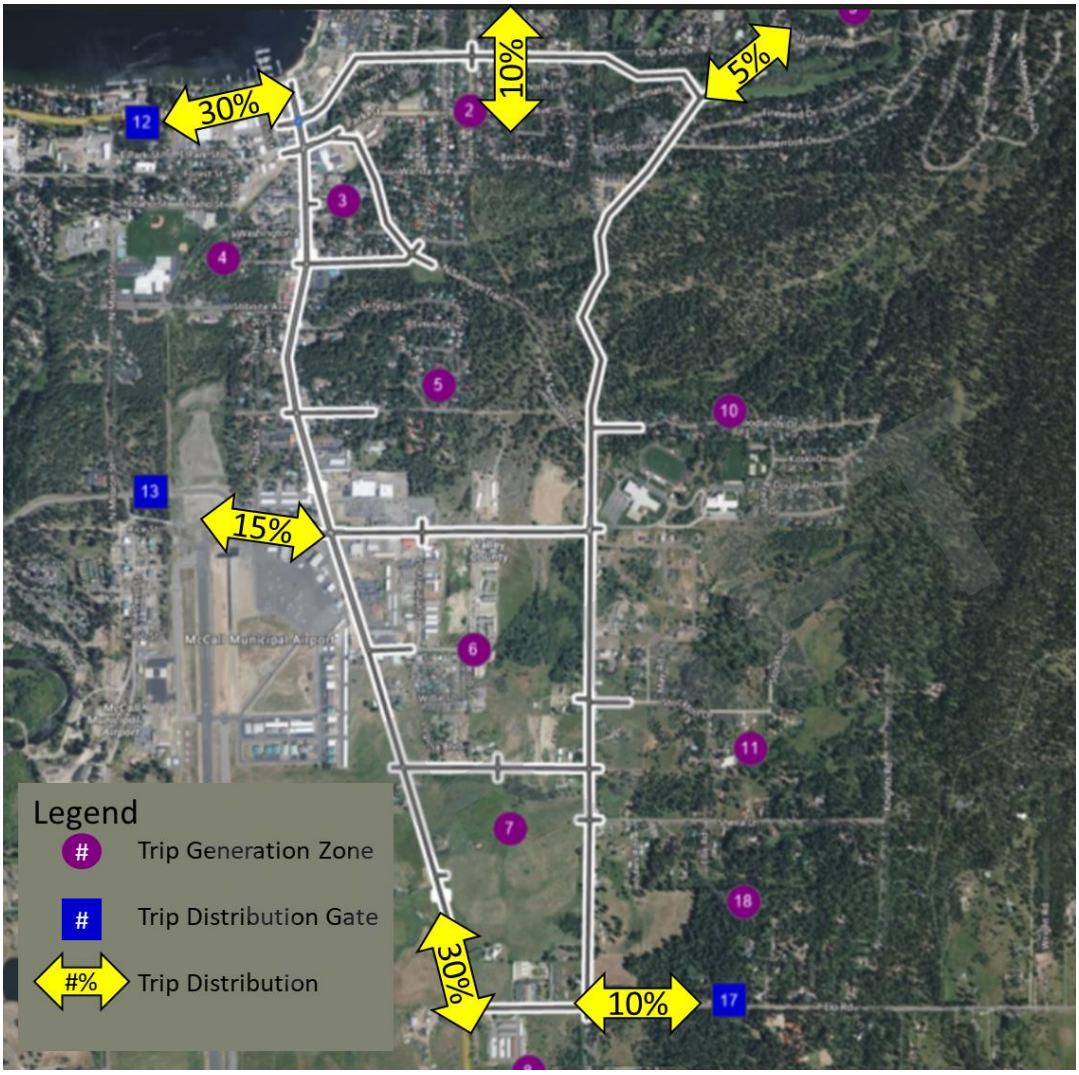


Figure 1-Trip Distribution

The existing counts and trip distribution through the southeast side of McCall were used as a base for the buildout volumes. The buildout volumes were assumed based on existing traffic patterns, land areas, and zoning densities. Land uses were discussed with city staff to allow conversation on what zoning densities are envisioned for the undeveloped areas.

The City of McCall Zoning map was divided into traffic analysis zones (TAZ) and used to estimate maximum buildout densities by zone. Figure 2 shows the TAZ map in southeast McCall. The acreage of the zone was multiplied by the anticipated density from the zoning map, and added to any existing units, if applicable.

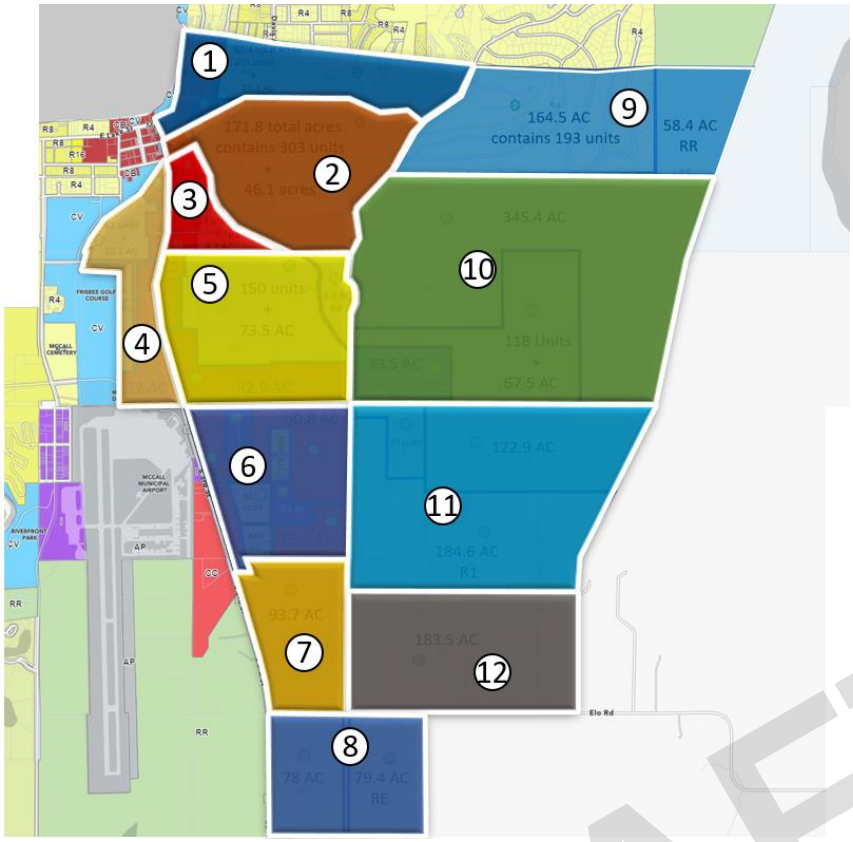


Figure 2-Traffic Analysis Zones

Understanding that not every zone would be able to meet its maximum density because of topography, ownership, and other factors, staff provided information on how much of each zone they expected to be built as a percentage. After the initial analysis by Horrocks Engineers, the full buildout of southeast McCall was determined to be higher than what is realistically expected in McCall. The volumes were larger than expected for the buildout of McCall as many of the homes in McCall are second homes and are only used periodically. To account for second homes in McCall and reduce the buildout volumes to a reasonably expected buildout for the study area, it was recommended by City staff that the maximum buildout volumes be reduced to represent 60 percent occupancy of the residential units in the buildout condition. The buildout densities and volumes by TAZ are provided in the Appendix.

To confirm the accuracy of the estimated buildout volumes, the volumes from this analysis were compared with the 2040 volume projections Horrocks developed for ITD in their design of the SH-55 and Deinhard Lane intersection which is being constructed in Summer 2023. It was confirmed that the buildout volumes from this study at the intersection of Deinhard Lane and SH-55 were comparable to the 2040 volumes anticipated in the Deinhard Lane and SH-55 intersection study.

Finally, to improve the traffic projections for TAZ 10 and TAZ 11, input was received from a potential future development to the east, which plans to construct residential units east of Samson Trail. The potential development also provided an expected trip distribution for any potential development of their land. The expected trip distribution for each TAZ and the volumes from the potential future development were implemented in the 60 percent buildout model.

TRAFFIC ANALYSIS

Future Build Scenarios

The projected buildout volumes were applied to multiple scenarios with potential future roadway connections through McCall. Five roadway network scenarios were analyzed as described below:

1. No Improvements
    a. Assumes 60 percent buildout occupancy with no additional connections or extensions of the existing roadway network
2. Floyde Street Connection
    a. Assumes 60 percent buildout occupancy
    b. Assumes the extension of Floyde Street to the east to connect with the intersection of Woodlands Drive and Samson Trail as a two-way or four-way stop.
3. Floyde Street, Samson Trail, and Davis Avenue Connections
    a. Assumes 60 percent buildout occupancy
    b. Assumes the extension of Floyde Street to the east to connect with the intersection of Woodlands Drive and Samson Trail as a two-way or four-way stop.
    c. Assumes the extension of Samson Trail from the intersection of Samson Trail and Colorado Street to the southeast to connect with the extension of Floyde Street as a T-intersection.
    d. Assumes the extension of Davis Avenue to the south to connect with the extension of Samson Trail as a T-intersection.
4. Deinhard Lane Extension
    a. Assumes 60 percent buildout occupancy
    b. Assumes Deinhard Lane is extended to the east from its intersection with Samson Trail to provide access to the future development to the east as well as the existing schools
        i. Assumes that approximately 50 percent of the future development traffic east of Samson Trail will use the Deinhard Lane Extension
5. Floyde Street, Samson Trail, and Davis Avenue Connections with the Deinhard Lane Extension
    a. Assumes 60 percent buildout occupancy
    b. Assumes the extension of Floyde Street to the east to connect with the intersection of Woodlands Drive and Samson Trail as a two-way or four-way stop.
    c. Assumes the extension of Samson Trail from the intersection of Samson Trail and Colorado Street to the southeast to connect with the extension of Floyde Street as a T-intersection.

d. Assumes the extension of Davis Avenue to the south to connect with the extension of Samson Trail as a T-intersection.

e. Assumes Deinhard is extended to the east from its intersection with Samson Trail to provide access to the future development traffic to the east of Samson Trail as well as the existing schools

    i. Assumes 45 to 50 percent of the future development traffic will use the Deinhard Lane Extension

Figure 3 shows the proposed connections for the buildout scenarios.

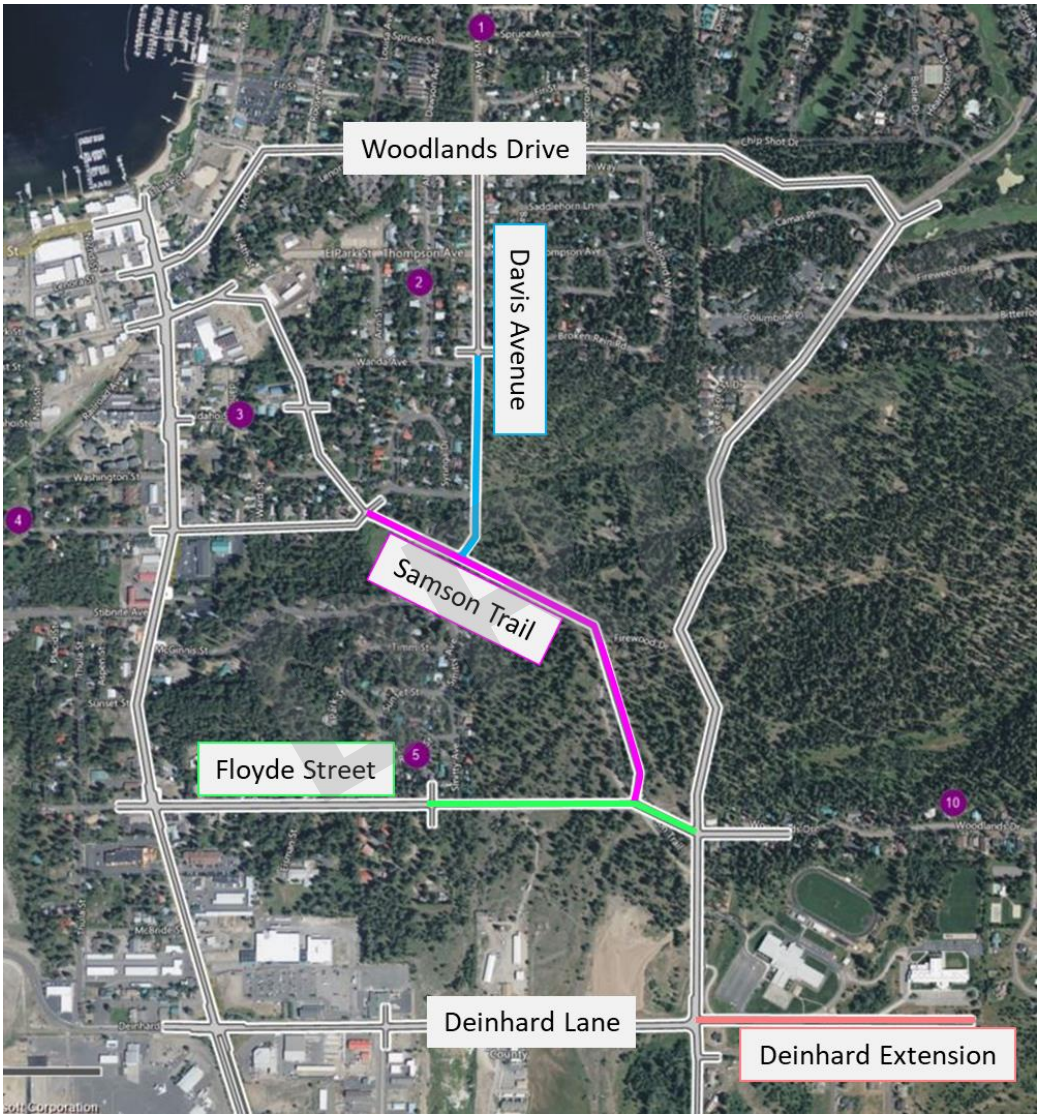


Figure 3-Proposed Connections for Buildout Scenarios

Table 1 shows a summary of the five scenarios and the roadway connections that are included in each scenario.

Table 1- Buildout Scenario Summary

Projects	Existing	No Improvements	Floyde St Connection	Floyde St, Samson Tr, Davis Ave Connections	Deinhard Ln Extension	Floyde St, Samson Tr, Davis Ave Connections, AND Deinhard Ln Extension
Floyde Street Connection			x	x		x
Samson Trail Connection				x		x
Davis Connection				x		x
Deinhard Extension					x	x

Roadway Segment Operations

To evaluate the operation of the roadway segments in each scenario, each scenario was analyzed using the daily volume of the study roadways. The daily roadway volumes for southeast McCall were estimated by multiplying the PM peak hour volumes by ten, which is the standard method for calculating daily volumes for a high-level planning analysis.

Table 2 compares the daily roadway volumes for each scenario to the "No Improvements" scenario. Yellow represents an increase in volume from the "No Improvements" scenario and blue represents a decrease in volume from the "No Improvements" scenario. Darker shades of blue and yellow are volume changes that are greater than +/- 25%. Gray shading demonstrates relatively little change in volume compared to the "No Improvements" scenario. The Existing scenario stands alone and serves as a base comparison.

just adding " " around the "No Improvements" language

Table 2- Daily Roadway Volumes by Segment

2040 Daily Roadway Volumes	Existing	No Improvements	Floyde St Connection	Floyde St, Samson Tr, Davis Ave Connections	Deinhard Ln Extension	Floyde St, Samson Tr, Davis Ave Connections, AND Deinhard Ln Extension
N 3rd Street, north of Park Street	12,000	20,800	17,800	16,300	18,100	17,900
N 3rd Street, north of Colorado Street	12,300	24,000	23,400	17,700	23,000	20,500
N 3rd Street, north of Floyde Street	12,400	24,400	23,500	18,700	23,600	20,400
N 3rd Street, north of Deinhard Lane	12,600	24,600	22,000	19,200	24,300	20,000
N 3rd Street, north of Krahn Lane	10,900	17,700	15,600	17,800	17,100	15,200
N 3rd Street, north of Elo Road	10,300	18,200	15,700	14,600	16,600	14,900
Wooley Ave, east of N 3rd Street	7,700	10,700	11,000	7,800	11,000	8,700
Wooley Ave, west of Spring Mtn Ranch	2,400	3,700	3,900	3,200	4,200	3,600
Davis Street, south of Wooley Ave	Local Road	n/a	n/a	3,800	n/a	1,400
Spring Mtn Ranch, south of Wooley Ave	2,600	5,500	5,400	4,900	5,400	5,200
Spring Mtn Ranch, north of Woodlands	2,600	5,600	5,400	4,800	5,400	5,300
Samson Trail, north of Deinhard Lane	3,400	6,900	7,700	10,000	6,000	9,300
Samson Trail, north of Krahn Lane	3,600	7,800	9,900	10,900	8,500	10,500
Samson Trail, north of Elo Road	3,800	8,500	10,300	11,400	9,400	11,100
Samson Trail, west of Spring Mtn Ranch	n/a	n/a	n/a	5,600	n/a	3,400
Floyde Street, west of Samson Trail	n/a	n/a	5,000	4,900	5,000	6,300
Deinhard Lane, east of N 3rd Street	5,000	15,400	11,300	9,600	15,400	10,700
Deinhard Lane, west of Samson Trail	3,000	9,300	6,900	5,700	9,300	6,400
Deinhard Lane, east of Samson Trail	Local Road	n/a	n/a	n/a	5,500	4,600
Fox Ridge Lane, east of Samson Trail	Local Road	2,100	2,100	2,100	530	940
Stockton Drive, east of Samson Trail	Local Road	3,400	3,400	3,200	2,200	2,300
Sheila Lane, east of Samson Trail	Local Road	1,100	1,100	1,100	1,400	1,500
Krahn Lane, east of N 3rd Street	880	2,500	1,800	1,200	1,300	1,200
Elo Road, east of N 3rd Street	1,300	2,800	3,300	3,800	3,800	3,800

The daily volumes were then compared to Table 3 to determine the Level of Service of the roadway segment. It was assumed that all of the roadways in McCall are two lanes, except for North 3rd Street north of Colorado Street. Additional roadway capacity tables are included in the Appendix for reference. Roadway capacity is described as the Level of Service (LOS) with LOS A being free-flowing traffic, and LOS E being unacceptable delays and congestion.

Table 3-Roadway Segment Level of Service-Daily Traffic Capacity

Rural			
2 Lane			
	Freeway	Arterial	Collector
LOS A	NA	5,300	3,700
LOS B	NA	8,900	5,800
LOS C	NA	12,900	8,100
LOS D	NA	17,000	10,500
LOS E	NA	21,000	12,900

3 Lane			
	Freeway	Arterial	Collector
LOS A	NA	5,800	4,200
LOS B	NA	9,500	6,300
LOS C	NA	14,000	9,100
LOS D	NA	18,300	11,800
LOS E	NA	22,600	14,500

NO IMPROVEMENTS

Without any improvements, North 3rd Street is expected to have between 20,000 and 24,000 vehicles, which would be a LOS E or F based on Table 3. The City of McCall and ITD are not planning to widen North 3rd Street beyond three lanes, so any mitigations to the area will need to be based on additional connections through McCall or intersection-related improvements.

FLOYDE STREET CONNECTION

With the addition of the Floyde Street connection, the volumes on North 3rd Street decreased as shown in Figure 4. The addition of a connection between Samson Trail and North 3rd Street allows more vehicles to stay on Samson Trail and use the Floyde Street connection instead of Deinhard Lane. The volumes on Deinhard also decrease by 2,000-4,000 vehicles.

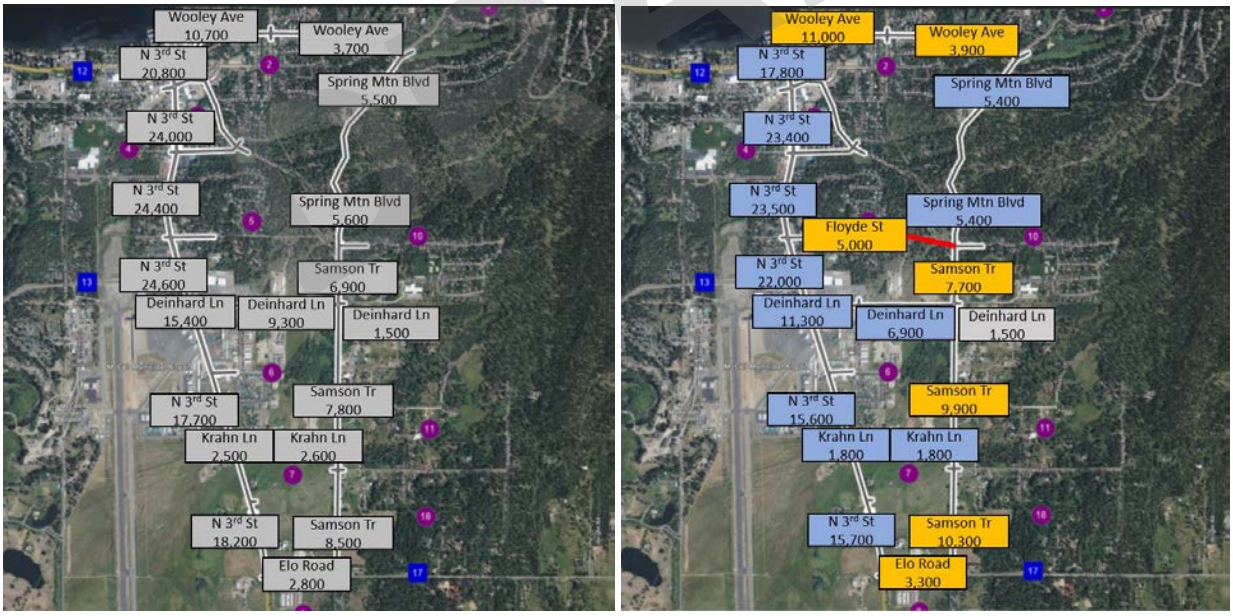


Figure 4- Roadway Volume Comparison with Floyde Connection

FLOYDE STREET, DAVIS AVENUE, AND SAMSON TRAIL CONNECTIONS

Figure 5 shows the comparison for the No Improvement volumes and the Floyde Street, Davis Avenue, and Samson Trail connections. These connections reduce the volumes on North 3rd Street by 4,000 to 6,000 vehicles per day, which improves the LOS from LOS E or F to LOS D. The volumes on Deinhard Lane are also reduced by 3,000 to 6,000 vehicles per day.

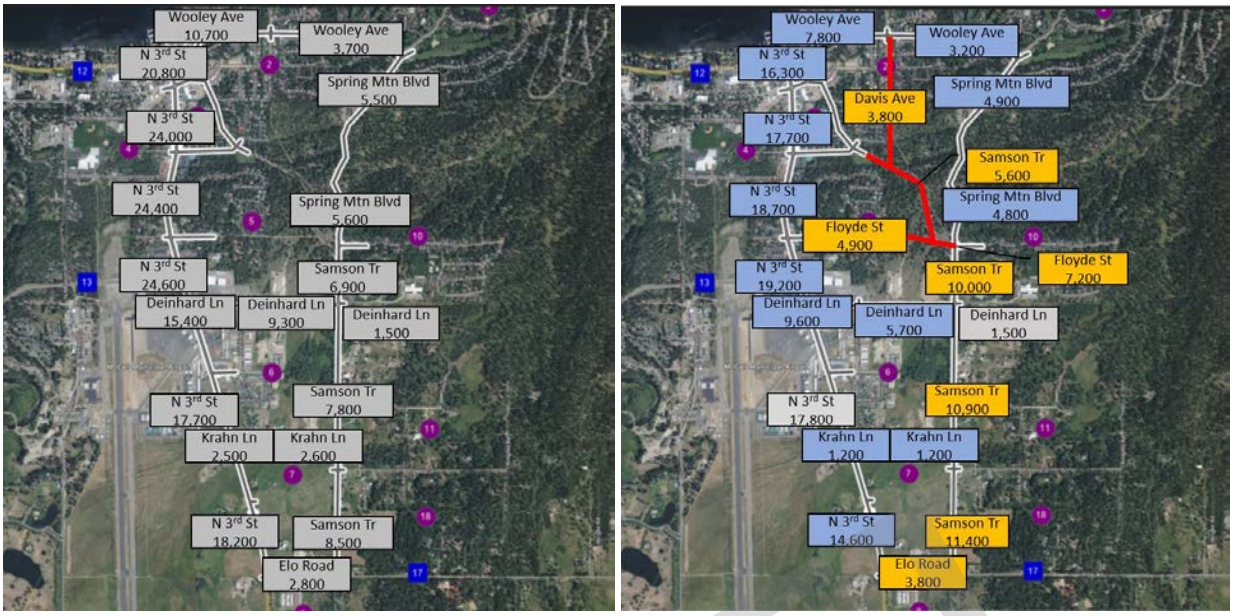


Figure 5- Roadway Volume Comparison with Floyde Street, Davis Avenue, and Samson Trail Connections

DEINHARD EXTENSION

In the model trip distribution, it was assumed that the school traffic on Deinhard Lane would be 25 percent of the traffic in the area east of McCall. No other development or residential areas were assumed to use Deinhard Lane except for the school. Figure 6 shows the trip distribution used in the model without the Deinhard Extension.

25% of the traffic utilizing the Deinhard/Samson Trail intersection?

east of the Samson Trail intersection?

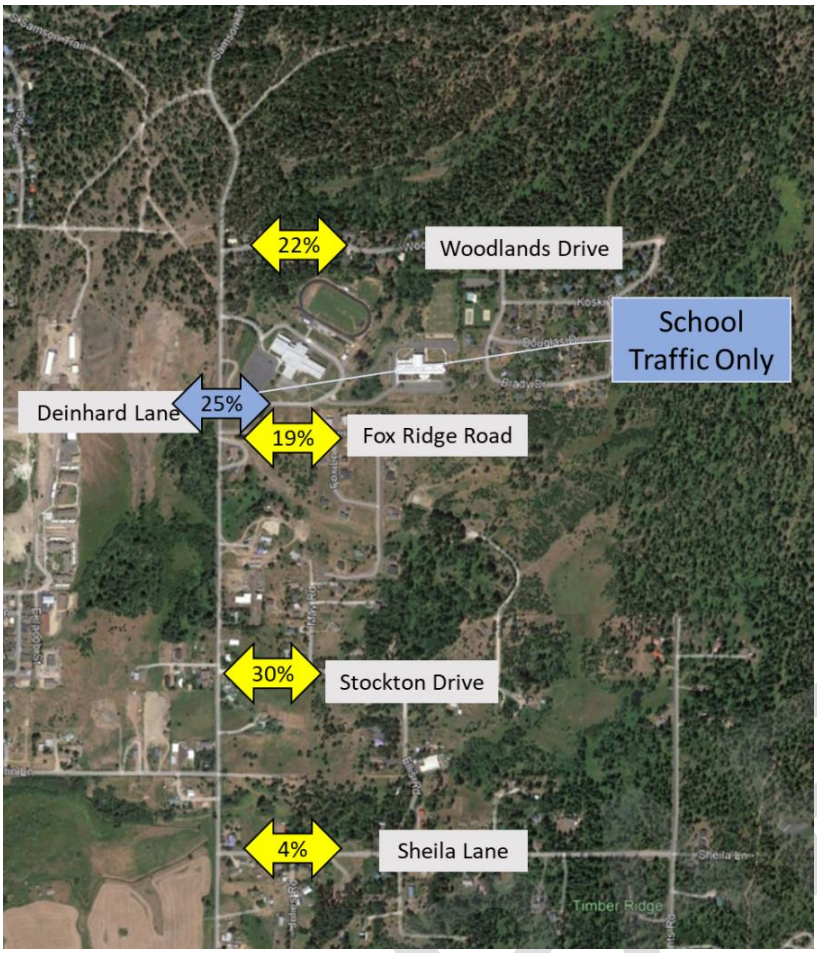


Figure 6-Future Development in East McCall Trip Distribution without the Deinhard Extension

With the proposed trip distribution, the traffic from any development to the east of Samson Trail is expected to use the local roadways to access Samson Trail. The majority of the traffic will use Stockton Drive, Fox Ridge Road, and Woodlands Drive. The school traffic will be the only traffic expected on Deinhard Lane east of Samson Trail.

With the addition of the Deinhard extension, it was assumed that fifty percent of the traffic on the east side of Samson Trail would use Deinhard Lane, which concentrates the traffic to Deinhard Lane instead of spreading it to Stockton Lane, Sheila Lane, and Woodlands Drive, which are all classified as local roads. Impacting these roadways with new development traffic may not be in the city's and these neighborhoods' best interest as these smaller streets likely were not intended to accommodate higher volumes of traffic, so concentrating the traffic to Deinhard Lane, a collector road, may be an acceptable strategy. The trip distribution with the Deinhard Lane Extension is shown in Figure 7. The direct impact of development to the east on Stockton Lane, Sheila Lane, and Woodlands Drive should be analyzed as a part of any traffic impact studies that are done for incoming development.

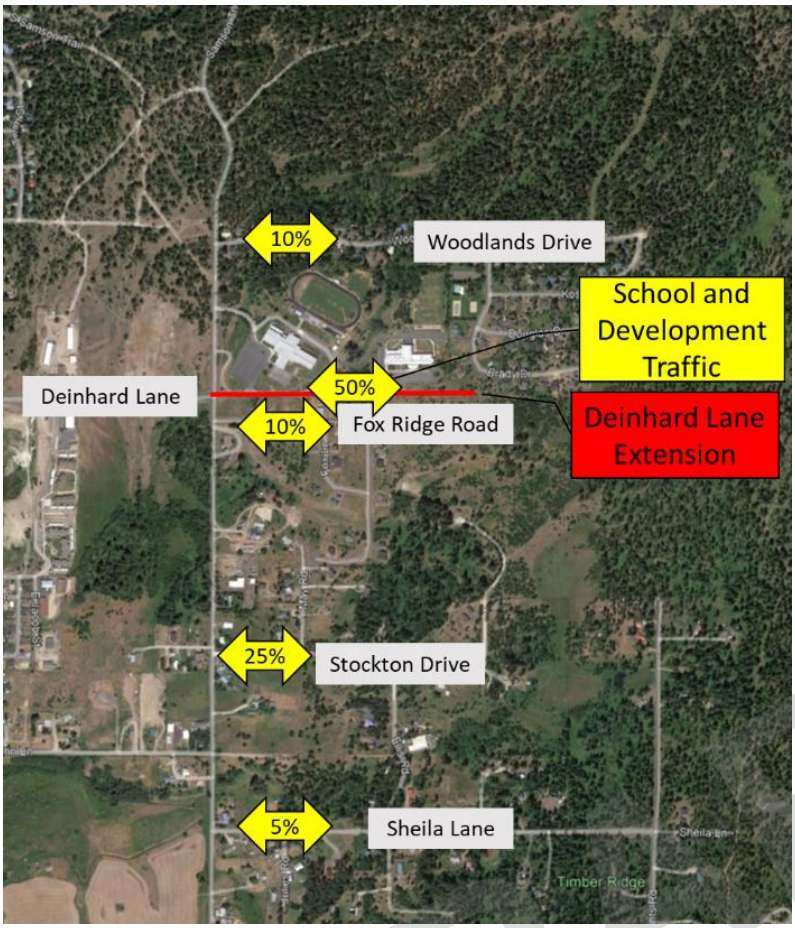


Figure 7- Future Development in East McCall Trip Distribution with the Deinhard Lane Extension

Figure 8 shows the traffic volumes for the Deinhard Extension scenario. Traffic on Samson Trail continues to use Deinhard Lane to cross to North 3rd Street, so an extension at Deinhard does not decrease the volumes on Deinhard Lane or North 3rd Street by itself. While the Deinhard Lane Extension does not decrease the volumes, it concentrates the traffic from any development to the east of Samson Trail to one collector road instead of allowing it to spread to other local roads like Woodland Drive, Stockton Drive, and Sheila Lane.

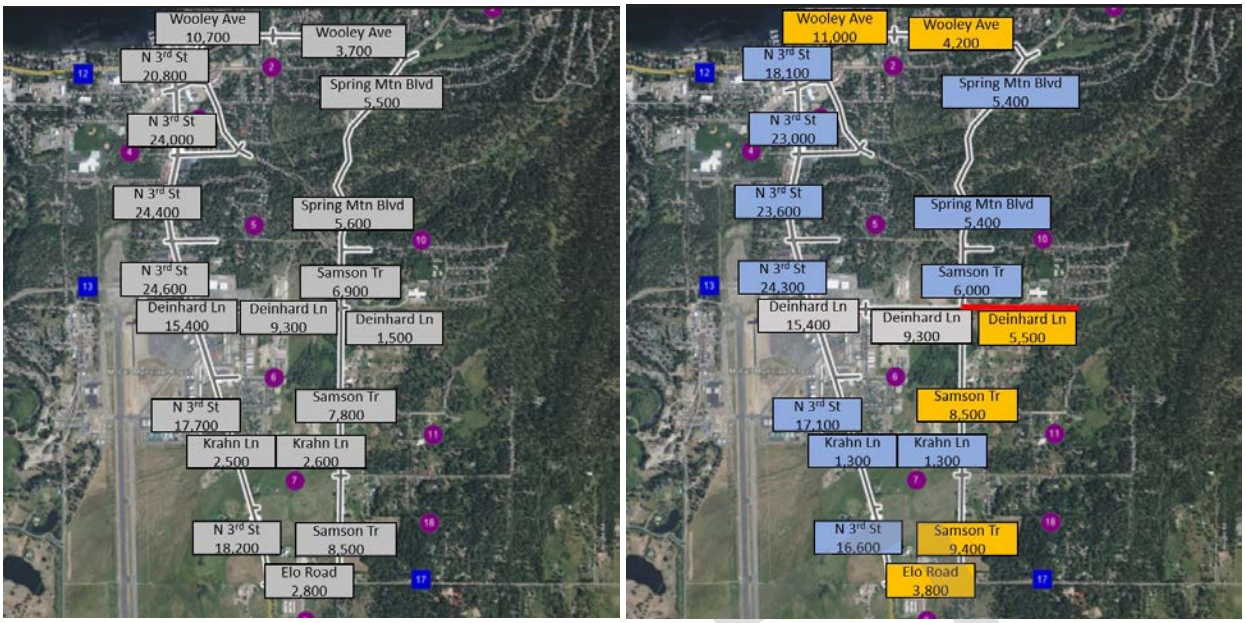


Figure 8-Roadway Volume Comparison with Deinhard Extension

With all of the proposed connections, the volumes on North 3rd Street decreased by 3,000 to 5,000 vehicles per day, as shown in Figure 9. The traffic on Samson Trail increases as vehicles can stay on Samson Trail to use Floyde Street or Samson Trail to access North 3rd Street. With approximately 10,000-11,000 vehicles on South Samson Trail, the LOS is expected to be LOS D or LOS E. With three lanes, Samson Trail would operate at LOS C or LOS D. Improvements to the intersections on Samson Trail may improve the delays at the intersections, but without being widened, Samson Trail will be at capacity. More mitigation and improvements may be needed as more traffic is routed to Samson Trail. North 3rd Street is not planned to be widened, so spreading the traffic to another route is a way to reduce delays on North 3rd Street.

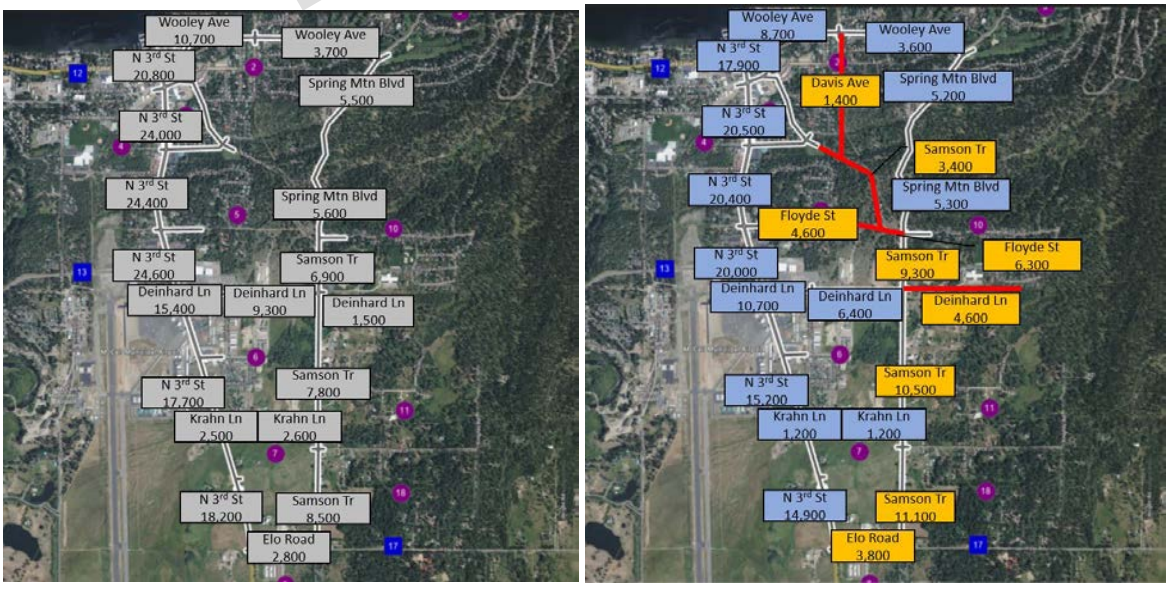


Figure 9- Roadway Volume Comparison with Floyde Street, Davis Avenue, and Samson Trail Connections and Deinhard Extension

Intersection Operations

In addition to the daily volumes, nine study intersections were analyzed to determine the Level of Service. Intersection Level of Service is based on average delay per vehicle at an intersection. For each scenario, it was assumed that the study intersections were mitigated to achieve an acceptable amount of delay (LOS A thru D). Table 4 shows the intersection LOS classifications based on the delay and the average delay per vehicle at an intersection. The mitigations required to achieve an acceptable LOS at the study intersections are shown in Table 5.

Table 4-Intersection Level of Service-Average Delay per Vehicle

Seconds of Delay	Average Control Delay (sec/veh)	
	Signalized	Unsignalized
LOS A	≤ 10	≤ 10
LOS B	>10-20	>10-15
LOS C	>20-35	>15-25
LOS D	>35-55	>25-35
LOS E	>55-80	>35-50
LOS F	>80	>50

Table 5-Required Traffic Control to Achieve Acceptable LOS

Minimum Required Traffic Control	No Improvements	Deinhard Ln Extension Only	Floyde St, Samson Tr, Davis Ave Connections	Floyde St, Samson Tr, Davis Ave Connections, AND Deinhard Ln Extension
Railroad Avenue & 3rd Street	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes
Floyde Street & 3rd Street	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes
Deinhard & 3rd Street	Signalized, To Be Upgraded	Signalized, To Be Upgraded	Signalized, To Be Upgraded	Signalized, To Be Upgraded
Krahn Lane & 3rd Street	Signalized	Signalized	Signalized	Signalized
Wooley Avenue & Spring Mountain Ranch	No Changes	No Changes	No Changes	No Changes
Woodlands Drive/Floyde Street & Spring Mountain Ranch	No Changes	No Changes	All Way Stop	All Way Stop
Samson Trail & Deinhard Lane	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes	Signalized, Dedicated Left-Turn Lanes
Samson Trail & Stockton Drive	No Changes	No Changes	All Way Stop	All Way Stop
Samson Trail & Sheila Lane	No Changes	No Changes	No Changes	No Changes

To achieve the minimum acceptable LOS, following were recommended at the study intersections:

- The study intersections on North 3rd Street will need to be signalized and improved to include dedicated left turn lanes. As growth occurs on North 3rd Street and the side streets, signal

Can you confirm if a Left turn lane may be needed from Spring Mountain to Wooley

warrant analyses should be performed to determine when each intersection should be signalized.

- The intersection of Wooley Avenue and Spring Mountain Boulevard is not expected to need improvements.
- The intersections of Woodlands Drive/Floyde Street and Spring Mountain Boulevard/Samson Trail and Samson Trail and Stockton Lane are expected to require all-way stops.
- The intersection of Samson Trail and Deinhard Lane is planned to be signalized with dedicated left-turn lanes. The alignment of the existing intersection is not ideal as the intersection is offset east/west. This introduces possible conflicts as cars travel in opposite directions, as they need to move over while traveling through the intersection. Improvements to the intersection will need to include realignment of either the east or west leg to remove the offset. A roundabout is also an acceptable solution to improve the delay, however, challenges in topography, the east/west offset, and the location of Fox Ridge Road may restrict the possibility of a roundabout. Further study would need to be employed to establish how a roundabout could be configured in this location.

Table 6 shows the LOS for each study intersection assuming it has been improved to the standards discussed previously.

Table 6- Average Delay per Vehicle at the Mitigated Study Intersections

2040 Average Delay per Vehicle	No Improvements	Deinhard Ln Extension Only	Floyde St, Samson Tr, Davis Ave Connections	Floyde St, Samson Tr, Davis Ave Connections, AND Deinhard Ln Extension
Railroad Avenue & 3rd Street (Signalized)	48.3	44.2	20.5	53.4
Floyde Street & 3rd Street (Signalized)	15.9	15.2	12.2	56.8
Deinhard & 3rd Street (Signalized)	-	-	-	-
Krahn Lane & 3rd Street (Signalized)	7.8	5.8	5.2	7.7
Wooley Avenue & Spring Mountain Boulevard (Unsignalized)	16.5	18.5	15.6	17.3
Woodlands Drive/Floyde Street & Spring Mountain Boulevard (Unsignalized)	14.4	13.1	14.9	13.1
Samson Trail & Deinhard Lane (Signalized)	9.3	8.7	8.2	8.6
Samson Trail & Stockton Drive (Unsignalized)	34.0	26.5	27.8	21.4
Samson Trail & Sheila Lane (Unsignalized)	20.7	24.2	30.3	32.2

*Deinhard Lane and 3rd Street will be upgraded in 2023. The improvements are expected to improve the operations to an acceptable LOS.

CONCEPTUAL INTERSECTION IMPROVEMENTS

In the previous study performed by Horrocks Engineers, the traffic operations at the intersection of Deinhard Lane and North 3rd Street were analyzed using existing and projected 2040 volumes, and a

concept design was provided based on the need of the intersection. In cooperation with ITD, the intersection is planned to be improved in 2023 based on the recommendations from that report. The improvements are expected to improve the LOS at the intersection through 2040.

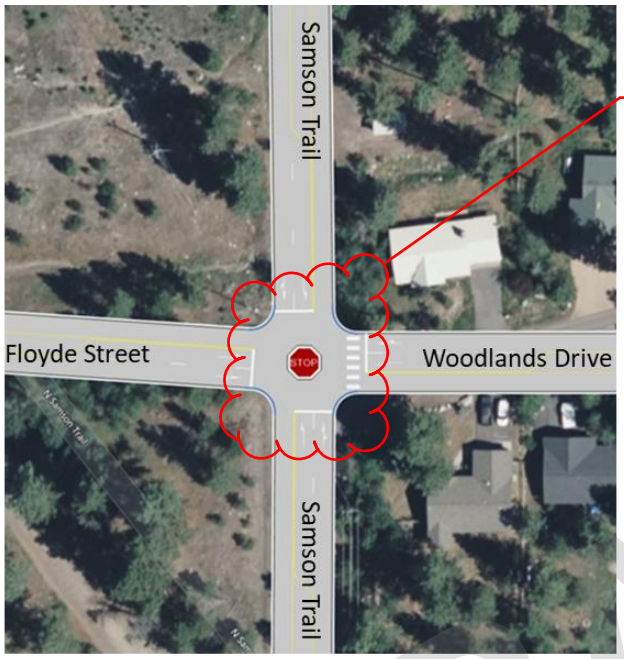
The scenario with the lowest overall delays is the Floyde Street, Samson Trail, Davis Avenue Connections scenario. In this scenario, the additional connections provide relief to North 3rd Street.

Figure 10 shows the proposed mitigation for the intersection of Floyde Street and North 3rd Street. It is expected that all of the signalized intersections on North 3rd Street will need dedicated left turn lanes. With all of the proposed connections and the Deinhard Lane Extension, the intersection of Floyde Street and North 3rd Street is expected to operate at LOS E as a signalized intersection with left turn lanes. In the traffic model, the Deinhard Lane extension concentrates the daily traffic to the proposed connections at Floyde Street and Samson Trail and does not use Deinhard Lane as frequently as when the traffic accesses South Samson Trail. In reality, vehicles will find ways to reroute around congested areas if an intersection like Floyde Street and North 3rd Street has high delays. North 3rd Street is not planned to be widened to five lanes, so the delay may not be mitigated any further by widening North 3rd Street.

Figure 10-Intersection of Floyde Street and North 3rd Street

Figure 11 shows the proposed mitigation at the intersection of the Floyde Street Connection/Woodlands Drive and Samson Trail/Spring Mountain Boulevard. To achieve the minimum LOS at this intersection with the proposed connections with Floyde Street and Samson Trail, a four-way stop with dedicated left-turn lanes is recommended. A signal or a roundabout would also mitigate the delays at this intersection. This intersection may be a good candidate for a roundabout. It is approximately 650 feet from the intersection of Samson Trail and Deinhard Lane, which is planned to be signalized, and the spacing may

be too close for an additional signal. As an all-way stop with the Floyde Street and Samson Trail connections, the intersection is expected to operate at LOS B.



could a 2-way stop for Woodlands/Floyde only work? This would keep N/S traffic on Samson Trail flowing.

Figure 11-Intersection of Woodlands Drive/Floyde Street and Samson Trail

Figure 12 shows the intersection of Samson Trail and Deinhard Lane as a signalized intersection. As a signalized intersection it is expected to operate at LOS A under all of the study scenarios. It is recommended that the west leg of the intersection be realigned to eliminate the offset with the east leg of the intersection. Fox Ridge Road is approximately 150 feet to the south of the intersection, which may interfere with queuing at the intersection.

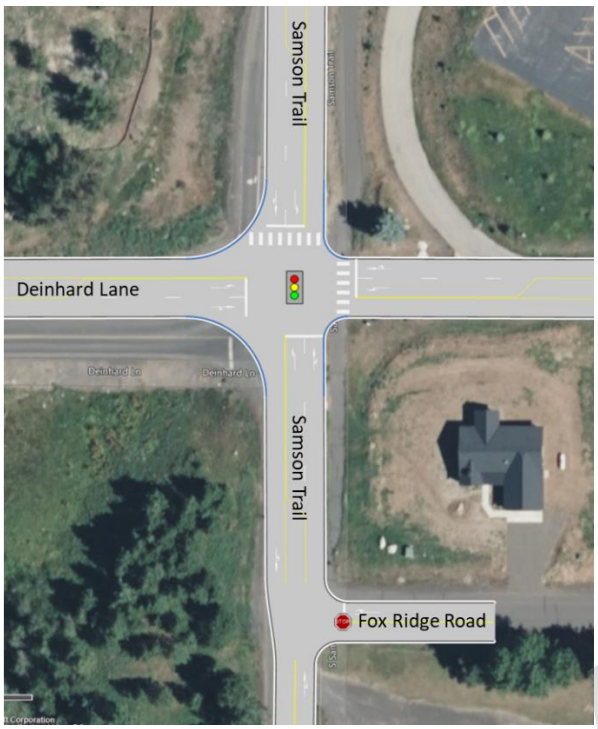


Figure 12-Intersection of Deinhard Lane and Samson Trail

A roundabout may also mitigate the delay at this intersection, however other factors may make a roundabout impractical. The change in grade and offset between the east and west legs of the intersection and the grade of the east leg may restrict the roundabout geometry. Pedestrian safety is also a concern, as this is an intersection with school crossings and a pedestrian path on the north and east sides of the intersection. The path would also have to be realigned with the west leg of the intersection.

PROJECT ESTIMATES

Planning-level estimates for three of the recommended projects are included in the Appendix. Each of the estimates include costs for right-of-way at an assumed $150,000 per acre (which could be removed if it is determined to be unnecessary), percentages for drainage, mobilization, traffic control, contingency, and engineering costs. Planning level estimates are expected to be

Floyde is a Minor Collector, use rural cross-section for this estimate

FLOYDE STREET ESTIMATE

The first is the Floyde Street Connection. The estimate assumes a ~~rural local~~ cross-section with a 70-foot right of way, roadside ditches, and no curb/gutter. On Floyde Street, a separated path is planned alongside the roadway alignment. Additional ROW will be needed for a separated path. The Floyde Street Connections is estimated to cost approximately 1.7 million dollars.

SAMSON TRAIL ESTIMATE

The second estimate is for the connection of Samson Trail to Colorado Street. The estimate assumes a rural cross-section with a 70-foot right of way. A separated paved path is included alongside the roadway alignment. The Samson Trail connection is estimated to cost approximately 2.1 million dollars.

Similar comment regarding the pathway should be placed in the Samson Trail discussion.

DEINHARD LANE ESTIMATE

The third estimate is for the extension of Deinhard Lane to the east of Samson Trail. The McCall Transportation Master Plan defines Deinhard Lane east of 3rd Street as a Major Collector with a 70-foot right of way, three lanes, and a separated, paved path. The Deinhard Lane Extension is estimated to cost approximately 1.9 million dollars.

SAMSON TRAIL AND DEINHARD LANE INTERSECTION ESTIMATE

A planning estimate is not included for improvements at the intersection of Samson Trail and Deinhard Lane. The realignment of the west leg of the intersection and the replacement of the paved trail are expected to cost between $300,000 and $400,000. The installation of a traffic signal is expected to cost approximately $500,000. A roundabout was also discussed at this intersection. Roundabouts have variable costs depending on the topography, the diameter of the inner island, the type of landscaping on the island, etc. A roundabout at the intersection of Samson Trail and Deinhard Lane may cost between $700,000 and $1.2 Million.

SUMMARY AND RECOMMENDATIONS

The volumes used for this analysis were based on the PM peak hour volumes. According to the roadway segment and intersection LOS analysis, mitigation on North 3rd Street will be needed under all of the scenario conditions. It is recommended that the intersections on North 3rd street be signalized as needed, with the understanding that delays may be longer during peak periods. North 3rd Street is not planned to be widened, so additional routes may provide the needed relief to North 3rd Street.

The proposed connections at Floyde Street, Samson Trail, and Davis Avenue will balance and distribute traffic onto Samson Trail, which will require additional mitigation to accommodate the additional traffic volumes. Additional mitigation is expected on Samson Trail as it becomes another major north/south route through southeast McCall as a parallel route to North 3rd Street.

The addition of the future development traffic impacts the roadway network as a whole with the most pressure on the east/west connections like Deinhard Lane and Krahn Lane as vehicles make their way to North 3rd Street. Any development to the east of Samson Trail should provide traffic analysis for Stockton Drive and Sheila Lane to monitor the mitigation needed at those intersections on Samson Trail. As growth occurs, Stockton Drive and Sheila Lane should be monitored and may need to be widened and improved to accommodate additional traffic to those roadways.

The Deinhard Extension will provide access to future development to the east and will make it so fewer vehicles travel through local roads in the surrounding neighborhoods to access Samson Trail, thereby, enhancing critical circulation in the region. It would serve the existing and future school traffic and any future development traffic on a Collector road instead of a series of local roads. **Although the LOS and capacities of the surrounding roadways do not improve with the Deinhard Lane extension, there is a benefit to the extension in the circulation of traffic as discussed above.**

With all of the proposed connections and the Deinhard Lane Extension, it is recommended that the intersection of Floyde Street and North 3rd Street be signalized, the intersection of Woodlands Drive/Floyde Street be an all-way stop, and the intersection of Samson Trail and Deinhard Lane be signalized.

Based on the findings in this report, implementing the proposed connections at Floyde Street, Samson Trail, and Davis Avenue is recommended to provide improved connectivity through McCall and enhance circulation for both north/south and east/west traffic. This will also reduce the miles traveled by the traveling public when vehicles don't have to head out of direction to get to where they're going. The proposed connections will also provide relief to North 3rd Street, which is not planned to be widened. The extension of Deinhard Lane to the east is also recommended to provide a Collector road for future development to the east. This extension would enhance traffic circulation and reduce the traffic that would route through Woodlands Drive, Stockton Drive, Sheila Lane, and Fox Ridge Road, and the impacts through these existing neighborhoods. As development occurs east of Samson Trail, it is recommended that Traffic Impact Studies be prepared to identify the impacts to the local roadways and to recommend mitigations based on the proposed land uses in the future. Any improvements that are recommended outside of the jurisdiction of the City in Valley County will need to be approved by Valley County.

In summary, the following roadway connections are recommended:

- Floyde Street from Timm Street to Samson Trail
- Samson Trail from Colorado Street to Floyde Street
- Davis Avenue from Wanda Avenue to Samson Trail
- Deinhard Lane Extension

The following intersection improvements are recommended:

- Intersection of Floyde Street and North 3rd Street be signalized
- Intersection of Woodlands Drive/Floyde Street be an all-way stop
- Intersection of Samson Trail and Deinhard Lane be signalized

APPENDIX

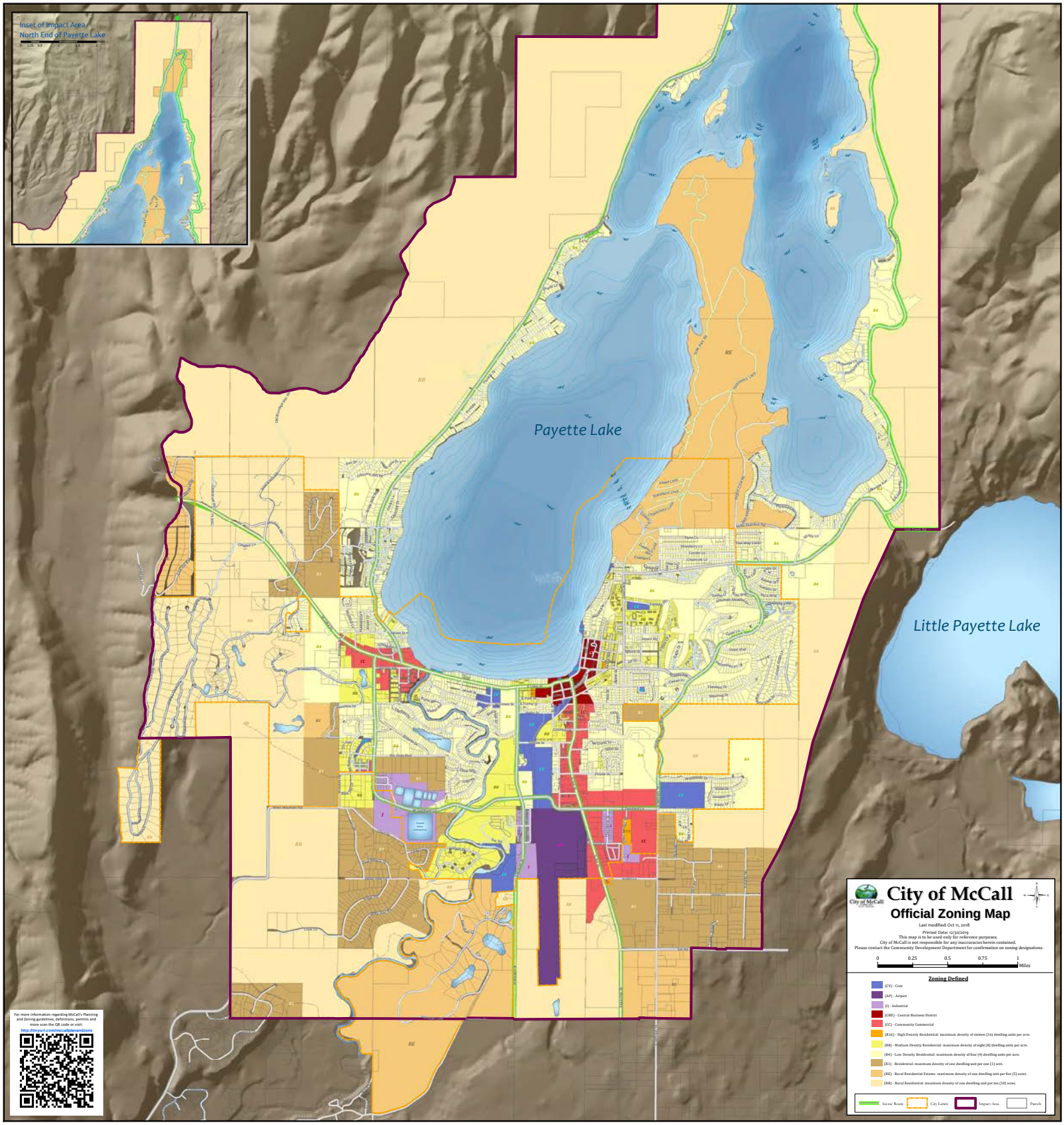
McCall Zoning Map

Trip Generation Tables

Roadway Capacities and Level of Service

Vistro Reports

Estimates


Inset of Impact Area
North End of Payette Lake
Payette Lake
Little Payette Lake
City of McCall
Official Zoning Map
Last modified: Oct 11, 2018
Printed Date: 12/30/2019
This map is to be used only for reference purposes;
City of McCall is not responsible for any inaccuracies herein contained.
Please contact the Community Development Department for confirmation on zoning designations.
0
0.25
0.5
0.75
1
Miles
Zoning Defined
(CV) - Civic
(AP) - Airport
(I) - Industrial
(CBD) - Central Business District
(CC) - Community Commercial
(R16) - High Density Residential: maximum density of sixteen (16) dwelling units per acre.
(R8) - Medium Density Residential: maximum density of eight (8) dwelling units per acre.
(R4) - Low Density Residential: maximum density of four (4) dwelling units per acre.
(R1) - Residential: maximum density of one dwelling unit per one (1) acre.
(RE) - Rural Residential Estates: maximum density of one dwelling unit per five (5) acres.
(RR) - Rural Residential: maximum density of one dwelling unit per ten (10) acres.
Scenic Route
City Limits
Impact Area
Parcels
For more information regarding McCall's Planning and Zoning guidelines, definitions, permits and more scan the QR code or visit:
http://tinyurl.com/mccallplanandzone

Existing Trip Generation by TAZ

				PM Peak Hour			
Vistro Zone	**ITE Land Use**		**Units**	**ITE Rate**	**Trips In**	**Trips Out**	**Total**
1	210: Single Family Detached Housing	261	units	0.94	155	91	245
	210: Single Family Detached Housing	58	units	0.94	35	20	55
	821: Shopping Plaza	49	1000 sq ft	5.19	124	129	253
	Total				313	240	553
2	210: Single Family Detached Housing	303	units	0.94	179	105	285
	210: Single Family Detached Housing	9	units	0.94	5	3	8
	210: Single Family Detached Housing	10	units	0.94	6	3	9
	Total				190	112	302
3	210: Single Family Detached Housing	21	units	0.94	12	7	20
	215: Multifamily Housing (Low-Rise)	10	units	0.57	3	2	6
	821: Shopping Plaza	27	1000 sq ft	5.19	68	71	139
	Total				84	81	165
4	210: Single Family Detached Housing	62	units	0.94	37	22	58
	210: Single Family Detached Housing	17	units	0.94	10	6	16
	210: Single Family Detached Housing	0	units	0.94	0	0	0
	820: Shopping Center	0	1000 sq ft	3.4	0	0	0
	Total				47	27	74
5	210: Single Family Detached Housing	150	units	0.94	89	52	141
	821: Shopping Plaza	47	1000 sq ft	5.19	120	124	244
	210: Single Family Detached Housing	6	units	0.94	4	2	6
	215: Multifamily Housing (Low-Rise)	0	units	0.57	0	0	0
	820: Shopping Center	0	1000 sq ft	3.4	0	0	0
	Total				212	179	391
6	110: General Light Industrial	73	1000 sq ft	0.65	7	41	47
	215: Multifamily Housing (Low-Rise)	49	units	0.57	16	12	28
	820: Shopping Center	10	1000 sq ft	3.4	17	18	35
	210: Single Family Detached Housing	8	units	0.94	5	3	7
	820: Shopping Center	18	1000 sq ft	3.4	30	33	63
	210: Single Family Detached Housing	73	units	0.94	43	25	69
	110: General Light Industrial	47	1000 sq ft	0.65	4	26	31
	210: Single Family Detached Housing	62	units	0.94	37	22	58
	416: Campground/Recreational Vehicle Park	41	Occupied Sites	0.21	3	6	9
	Total				161	185	346
7	210: Single Family Detached Housing	75	units	0.94	44	26	70
	Total				44	26	70
8	210: Single Family Detached Housing	25	units	0.94	15	9	24
	Total				15	9	24
9	210: Single Family Detached Housing	193	units	0.94	114	67	181
	210: Single Family Detached Housing	6	units	0.94	3	2	5
	Total				118	69	187
10	210: Single Family Detached Housing	34	units	0.94	20	12	32
	210: Single Family Detached Housing	78	units	0.94	46	27	73
	520: Elementary School	450	students	0.16	33	39	72
	522: Middle School/Junior High School	400	students	0.15	29	31	60
	Total				128	109	237
11	210: Single Family Detached Housing	2	units	0.94	1	1	2
	210: Single Family Detached Housing	39	units	0.94	23	14	37
	210: Single Family Detached Housing	74	units	0.94	44	26	69
	Total				68	40	108
18	210: Single Family Detached Housing	92	units	0.94	54	32	86
	Total				54	32	86

Buildout Trip Generation by TAZ

PM Peak Hour

Vistro Zone	ITE Land Use		Units	ITE Rate	Trips In	Trips Out	Total
	210: Single Family Detached Housing	343	units	0.94	203	119	323
1	210: Single Family Detached Housing	97	units	0.94	58	34	92
	821: Shopping Plaza	81	1000 sq ft	5.19	206	215	421
	Total				468	368	836
	210: Single Family Detached Housing	487	units	0.94	289	170	458
2	210: Single Family Detached Housing	12	units	0.94	7	4	11
	210: Single Family Detached Housing	13	units	0.94	8	4	12
	Total				303	178	481
	210: Single Family Detached Housing	54	units	0.94	32	19	51
3	215: Multifamily Housing (Low-Rise)	200	units	0.57	65	49	114
	821: Shopping Plaza	54	1000 sq ft	5.19	137	142	279
	Total				234	210	444
	210: Single Family Detached Housing	143	units	0.94	85	50	134
4	210: Single Family Detached Housing	46	units	0.94	27	16	43
	210: Single Family Detached Housing	128	units	0.94	76	45	120
	820: Shopping Center	160	1000 sq ft	3.4	261	283	544
	Total				449	393	842
	210: Single Family Detached Housing	477	units	0.94	283	166	449
	821: Shopping Plaza	47	1000 sq ft	5.19	119	124	243
5	210: Single Family Detached Housing	16	units	0.94	10	6	15
	215: Multifamily Housing (Low-Rise)	423	units	0.57	137	104	241
	820: Shopping Center	265	1000 sq ft	3.4	432	468	899
	Total				981	867	1848
	110: General Light Industrial	121	1000 sq ft	0.65	11	68	79
	215: Multifamily Housing (Low-Rise)	488	units	0.57	158	120	278
	820: Shopping Center	203	1000 sq ft	3.4	332	359	691
	210: Single Family Detached Housing	79	units	0.94	47	28	74
6	820: Shopping Center	184	1000 sq ft	3.4	300	325	625
	210: Single Family Detached Housing	73	units	0.94	43	25	69
	110: General Light Industrial	315	1000 sq ft	0.65	29	176	205
	210: Single Family Detached Housing	62	units	0.94	37	22	58
	416: Campground/Recreational Vehicle Park	41	Occupied Sites	0.21	3	6	9
	Total				960	1128	2088
7	210: Single Family Detached Housing	94	units	0.94	55	33	88
	Total				55	33	88
8	210: Single Family Detached Housing	31	units	0.94	19	11	30
	Total				19	11	30
9	210: Single Family Detached Housing	658	units	0.94	390	229	619
	210: Single Family Detached Housing	6	units	0.94	3	2	5
	Total				393	231	624
	210: Single Family Detached Housing	35	units	0.94	20	12	32
10	210: Single Family Detached Housing	388	units	0.94	230	135	365
	520: Elementary School	450	students	0.16	33	39	72
	522: Middle School/Junior High School	525	students	0.15	38	41	79
	Total				321	227	548
	210: Single Family Detached Housing	500	units	0.94	296	174	470
11	210: Single Family Detached Housing	39	units	0.94	23	14	37
	210: Single Family Detached Housing	185	units	0.94	109	64	174
	Total				429	252	680
18	210: Single Family Detached Housing	184	units	0.94	109	64	172
	Total				109	64	172

60% Buildout Trip Generation by TAZ

PM Peak Hour

Vistro Zone	ITE Land Use		Units	ITE Rate	Trips In	Trips Out	Total
1	210: Single Family Detached Housing	343	units	0.94	203	119	323
	210: Single Family Detached Housing	97	units	0.94	58	34	55
	821: Shopping Plaza	81	1000 sq ft	5.19	206	215	253
	Total Reduced				281	221	378
2	210: Single Family Detached Housing	487	units	0.94	289	170	458
	210: Single Family Detached Housing	12	units	0.94	7	4	11
	210: Single Family Detached Housing	13	units	0.94	8	4	12
	Total Reduced				182	107	289
3	210: Single Family Detached Housing	54	units	0.94	32	19	51
	215: Multifamily Housing (Low-Rise)	200	units	0.57	65	49	114
	821: Shopping Plaza	54	1000 sq ft	5.19	137	142	279
	Total Reduced				140	126	266
4	210: Single Family Detached Housing	143	units	0.94	85	50	134
	210: Single Family Detached Housing	46	units	0.94	27	16	43
	210: Single Family Detached Housing	128	units	0.94	76	45	120
	820: Shopping Center	160	1000 sq ft	3.4	261	283	544
	Total Reduced				269	236	505
5	210: Single Family Detached Housing	477	units	0.94	283	166	449
	821: Shopping Plaza	47	1000 sq ft	5.19	119	124	243
	210: Single Family Detached Housing	16	units	0.94	10	6	15
	215: Multifamily Housing (Low-Rise)	423	units	0.57	137	104	241
	820: Shopping Center	265	1000 sq ft	3.4	432	468	899
	Total Reduced				588	520	1109
6	110: General Light Industrial	121	1000 sq ft	0.65	11	68	79
	215: Multifamily Housing (Low-Rise)	488	units	0.57	158	120	278
	820: Shopping Center	203	1000 sq ft	3.4	332	359	691
	210: Single Family Detached Housing	79	units	0.94	47	28	74
	820: Shopping Center	184	1000 sq ft	3.4	300	325	625
	210: Single Family Detached Housing	73	units	0.94	43	25	69
	110: General Light Industrial	315	1000 sq ft	0.65	29	176	205
	210: Single Family Detached Housing	62	units	0.94	37	22	58
	416: Campground/Recreational Vehicle Park	41	Occupied Sites	0.21	3	6	9
	Total Reduced				576	677	1253
7	210: Single Family Detached Housing	94	units	0.94	55	33	88
	Total Reduced				33	20	53
8	210: Single Family Detached Housing	31	units	0.94	19	11	30
	Total Reduced				11	7	18
9	210: Single Family Detached Housing	658	units	0.94	390	229	619
	210: Single Family Detached Housing	6	units	0.94	3	2	5
	Total Reduced				236	139	374
10	210: Single Family Detached Housing	35	units	0.94	20	12	32
	210: Single Family Detached Housing	442	units	0.94	262	154	415
	520: Elementary School	450	students	0.16	33	39	72
	522: Middle School/Junior High School	525	students	0.15	38	41	79
	Total Reduced				353	246	599
11	210: Single Family Detached Housing	290	units	0.94	172	101	273
	210: Single Family Detached Housing	39	units	0.94	23	14	37
	210: Single Family Detached Housing	185	units	0.94	109	64	174
	Total Reduced				251	148	399
18	210: Single Family Detached Housing	184	units	0.94	109	64	172
	Total Reduced				65	38	103

Percent of Buildout
60%

HORROCKS ENGINEERS

Maximum Daily Traffic Capacity Estimate

Suburban			
2 Lane			
	Freeway	Arterial	Collector
LOS A	NA	5,800	5,300
LOS B	NA	7,900	7,400
LOS C	NA	10,800	9,700
LOS D	NA	13,400	12,100
LOS E	NA	16,100	14,500

Rural			
2 Lane			
	Freeway	Arterial	Collector
LOS A	NA	5,300	3,700
LOS B	NA	8,900	5,800
LOS C	NA	12,900	8,100
LOS D	NA	17,000	10,500
LOS E	NA	21,000	12,900

Urban/CBD			
2 Lane			
	Freeway	Arterial	Collector
LOS A	NA	6,800	5,800
LOS B	NA	7,900	6,800
LOS C	NA	9,100	8,100
LOS D	NA	10,200	9,100
LOS E	NA	11,300	10,200

3 Lane			
	Freeway	Arterial	Collector
LOS A	NA	7,400	5,800
LOS B	NA	9,500	7,900
LOS C	NA	12,400	10,800
LOS D	NA	15,100	13,400
LOS E	NA	17,700	16,100

3 Lane			
	Freeway	Arterial	Collector
LOS A	NA	5,800	4,200
LOS B	NA	9,500	6,300
LOS C	NA	14,000	9,100
LOS D	NA	18,300	11,800
LOS E	NA	22,600	14,500

3 Lane			
	Freeway	Arterial	Collector
LOS A	NA	7,900	6,800
LOS B	NA	10,000	8,900
LOS C	NA	12,900	11,300
LOS D	NA	15,600	13,800
LOS E	NA	18,300	16,100

4 Lane			
	Freeway	Arterial	Collector
LOS A	31,000	14,700	10,500
LOS B	45,500	20,500	15,200
LOS C	60,000	26,900	20,400
LOS D	70,000	31,200	24,200
LOS E	89,000	39,600	30,600

4 Lane			
	Freeway	Arterial	Collector
LOS A	20,500	8,900	7,400
LOS B	35,000	15,200	12,100
LOS C	50,000	22,000	17,200
LOS D	63,000	28,000	22,000
LOS E	80,000	35,500	27,400

4 Lane			
	Freeway	Arterial	Collector
LOS A	36,500	13,700	10,000
LOS B	49,500	18,400	13,100
LOS C	63,000	23,700	17,200
LOS D	73,000	28,000	20,400
LOS E	90,000	33,900	24,700

5 Lane			
	Freeway	Arterial	Collector
LOS A	NA	15,200	12,600
LOS B	NA	21,500	17,300
LOS C	NA	28,500	23,100
LOS D	NA	32,800	26,900
LOS E	NA	40,300	33,900

5 Lane			
	Freeway	Arterial	Collector
LOS A	NA	10,000	8,400
LOS B	NA	16,300	13,700
LOS C	NA	23,700	19,400
LOS D	NA	30,100	24,200
LOS E	NA	37,600	30,600

5 Lane			
	Freeway	Arterial	Collector
LOS A	NA	17,900	14,200
LOS B	NA	23,600	18,900
LOS C	NA	30,100	24,200
LOS D	NA	34,900	28,000
LOS E	NA	42,500	34,400

6 Lane			
	Freeway	Arterial	Collector
LOS A	51,000	19,400	NA
LOS B	72,500	27,800	NA
LOS C	95,000	37,600	NA
LOS D	112,000	43,500	NA
LOS E	140,000	55,900	NA

6 Lane			
	Freeway	Arterial	Collector
LOS A	29,500	13,100	NA
LOS B	50,500	22,600	NA
LOS C	72,000	32,800	NA
LOS D	91,000	41,900	NA
LOS E	115,000	52,700	NA

6 Lane			
	Freeway	Arterial	Collector
LOS A	58,500	21,500	NA
LOS B	79,000	28,900	NA
LOS C	100,000	37,600	NA
LOS D	118,000	43,500	NA
LOS E	142,000	53,800	NA

7 Lane			
	Freeway	Arterial	Collector
LOS A	NA	22,600	NA
LOS B	NA	32,000	NA
LOS C	NA	43,000	NA
LOS D	NA	50,500	NA
LOS E	NA	63,400	NA

7 Lane			
	Freeway	Arterial	Collector
LOS A	NA	14,200	NA
LOS B	NA	24,200	NA
LOS C	NA	35,500	NA
LOS D	NA	45,200	NA
LOS E	NA	57,000	NA

7 Lane			
	Freeway	Arterial	Collector
LOS A	NA	26,300	NA
LOS B	NA	35,200	NA
LOS C	NA	45,200	NA
LOS D	NA	52,700	NA
LOS E	NA	64,000	NA

8 Lane			
	Freeway	Arterial	Collector
LOS A	66,500	NA	NA
LOS B	92,000	NA	NA
LOS C	120,000	NA	NA
LOS D	140,000	NA	NA
LOS E	174,000	NA	NA

8 Lane			
	Freeway	Arterial	Collector
LOS A	NA	NA	NA
LOS B	NA	NA	NA
LOS C	NA	NA	NA
LOS D	NA	NA	NA
LOS E	NA	NA	NA

8 Lane			
	Freeway	Arterial	Collector
LOS A	78,000	NA	NA
LOS B	102,000	NA	NA
LOS C	127,000	NA	NA
LOS D	148,000	NA	NA
LOS E	176,000	NA	NA

Assumes phf between 8%and 12%, higher for better LOS and less urban conditions;
No right turn lanes will decrease capacity approximately 5% to 10 %;
Use with caution based on signal spacing, access management and other issues.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Existing.pdf

Scenario 1 Existing PM Peak Hour
1/17/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	3rd Street & Floyde Street	Two-way stop	HCM 6th Edition	WB Left	0.336	43.5	E
5	3rd Street & Deinhard Lane	Signalized	HCM 6th Edition	EB Left	3.481	88.6	F
7	3rd Street & Krahn Lane	Two-way stop	HCM 6th Edition	WB Left	0.045	26.2	D
8	3rd Street & Elo Road	Two-way stop	HCM 6th Edition	WB Left	0.084	24.7	C
9	3rd Street & Lenora Street	Two-way stop	HCM 6th Edition	WB Left	1.565	409.9	F
10	Wooley Avenue & Samson Trail	Two-way stop	HCM 6th Edition	EB Left	0.108	11.3	B
11	Samson Trail & Woodlands Drive	Two-way stop	HCM 6th Edition	WB Left	0.067	10.6	B
12	Deinhard Lane & Samson Trail	All-way stop	HCM 6th Edition	NB Thru	0.244	8.8	A
13	Samson Trail & Stockton Drive	Two-way stop	HCM 6th Edition	WB Left	0.016	11.6	B
14	Samson Trail & Krahn Lane	Two-way stop	HCM 6th Edition	EB Left	0.013	11.8	B
15	Samson Trail & Sheila Lane	Two-way stop	HCM 6th Edition	WB Left	0.028	12.5	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro

Report File: S:\...\Existing.pdf

Scenario 1 Existing PM Peak Hour

1/17/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	3rd Street & Floyde Street	0	638	55	42	524	0	0	0	0	46	0	33	1338

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	3rd Street & Deinhard Lane	101	441	67	135	369	67	125	66	130	59	49	127	1736

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7	3rd Street & Krahn Lane	0	539	9	42	484	0	0	0	0	8	0	28	1110

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	3rd Street & Elo Road	0	500	27	39	444	0	0	0	0	17	0	45	1072

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
9	3rd Street & Lenora Street	20	321	300	149	337	0	5	32	70	164	18	134	1550

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
10	Wooley Avenue & Samson Trail	56	92	61	67	72	49	397

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
11	Samson Trail & Woodlands Drive	140	53	10	100	47	7	357

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12	Deinhard Lane & Samson Trail	50	109	26	10	76	61	77	28	61	20	28	7	553

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
13	Samson Trail & Stockton Drive	10	171	18	18	138	0	0	0	11	9	0	14	389

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
14	Samson Trail & Krahn Lane	29	192	0	0	154	4	7	0	36	0	0	0	422

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15	Samson Trail & Sheila Lane	6	197	27	37	153	1	1	0	4	14	0	23	463

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout All Connections.pdf

Scenario 9 Mitigated Buildout PM Peak Hour All Connections
1/17/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	3rd Street & Floyde Street	Signalized	HCM 6th Edition	NB Thru	0.705	56.8	E
5	3rd Street & Deinhard Lane	Signalized	HCM 6th Edition	WB Thru	4.074	331.6	F
6	3rd Street & Jacob Street	Two-way stop	HCM 6th Edition	WB Left	1.265	458.2	F
7	3rd Street & Krahn Lane	Signalized	HCM 6th Edition	WB Right	0.479	7.7	A
8	3rd Street & Elo Road	Two-way stop	HCM 6th Edition	WB Left	0.914	192.6	F
9	3rd Street & Lenora Street	Signalized	HCM 6th Edition	NB Thru	0.699	53.4	D
10	Wooley Avenue & Samson Trail	Two-way stop	HCM 6th Edition	EB Left	0.279	17.3	C
11	Samson Trail & Woodlands Drive	All-way stop	HCM 6th Edition	NB Thru	0.468	13.1	B
12	Deinhard Lane & Samson Trail	Signalized	HCM 6th Edition	WB Left	0.384	8.5	A
14	Samson Trail & Krahn Lane	Two-way stop	HCM 6th Edition	EB Left	0.047	27.6	D
16	Elo Road & Samson Trail	Two-way stop	HCM 6th Edition	SB Left	1.777	707.9	F
33	New Intersection	Signalized	HCM 6th Edition		0.000	0.0	A
34	New Intersection	Two-way stop	HCM 6th Edition	SB Left	0.030	8.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout All Connections.pdf

Scenario 9 Mitigated Buildout PM Peak Hour All Connections
1/17/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	3rd Street & Floyde Street	0	930	137	163	828	0	0	4	0	108	4	121	2295

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	3rd Street & Deinhard Lane	135	650	141	243	569	124	198	189	158	126	156	219	2908

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
6	3rd Street & Jacob Street	707	72	200	653	85	219	1936

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7	3rd Street & Krahn Lane	0	750	26	41	696	0	0	0	0	25	0	30	1568

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	3rd Street & Elo Road	0	691	137	81	633	0	0	0	0	74	0	83	1699

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
9	3rd Street & Lenora Street	27	680	356	122	846	0	5	46	80	199	16	132	2509

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
10	Wooley Avenue & Samson Trail	89	224	161	102	117	52	745

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11	Samson Trail & Woodlands Drive	220	253	29	7	170	36	55	44	241	18	32	5	1110

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12	Deinhard Lane & Samson Trail	143	328	92	84	277	68	109	99	156	54	64	66	1540

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
14	Samson Trail & Krahn Lane	50	579	0	0	456	5	8	0	61	0	0	0	1159

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16	Elo Road & Samson Trail	0	277	6	186	219	71	131	86	0	3	85	225	1289

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
33	New Intersection	0	55	0	0	41	27	16	0	0	0	0	0	139

ID	Intersection Name	Northbound		Southbound		Total Volume
		Thru	Right	Left	Thru	
34	New Intersection	538	24	30	457	1049

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout Deinhard Ext.pdf

Scenario 8 Mitigated PM Peak Hour Deinhard Extension
1/17/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	3rd Street & Floyde Street	Signalized	HCM 6th Edition	WB Left	0.784	15.2	B
5	3rd Street & Deinhard Lane	Signalized	HCM 6th Edition	EB Left	38.625	556.1	F
6	3rd Street & Jacob Street	Two-way stop	HCM 6th Edition	WB Left	2.180	960.5	F
7	3rd Street & Krahn Lane	Signalized	HCM 6th Edition	WB Right	0.511	5.8	A
8	3rd Street & Elo Road	Two-way stop	HCM 6th Edition	WB Left	1.238	352.0	F
9	3rd Street & Lenora Street	Signalized	HCM 6th Edition	SB Left	0.847	44.2	D
10	Wooley Avenue & Samson Trail	Two-way stop	HCM 6th Edition	EB Left	0.314	18.5	C
11	Samson Trail & Woodlands Drive	Two-way stop	HCM 6th Edition	WB Left	0.067	13.1	B
12	Deinhard Lane & Samson Trail	Signalized	HCM 6th Edition	WB Left	0.400	8.7	A
14	Samson Trail & Krahn Lane	Two-way stop	HCM 6th Edition	EB Left	0.035	21.8	C
15	Samson Trail & Sheila Lane	Two-way stop	HCM 6th Edition	WB Left	0.087	24.2	C
16	Elo Road & Samson Trail	Two-way stop	HCM 6th Edition	SB Left	0.940	229.9	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout Deinhard Ext.pdf

Scenario 8 Mitigated PM Peak Hour Deinhard Extension
1/17/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	3rd Street & Floyde Street	0	1112	151	116	1037	0	0	0	0	134	0	95	2645

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	3rd Street & Deinhard Lane	137	702	201	445	597	128	195	193	158	179	151	366	3452

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
6	3rd Street & Jacob Street	811	72	193	742	85	229	2132

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7	3rd Street & Krahn Lane	0	846	23	50	776	0	0	0	0	23	0	38	1756

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	3rd Street & Elo Road	0	784	140	78	714	0	0	0	0	75	0	82	1873

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
9	3rd Street & Lenora Street	20	662	467	162	827	0	5	35	70	257	22	150	2677

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
10	Wooley Avenue & Samson Trail	101	212	152	111	129	73	778

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
11	Samson Trail & Woodlands Drive	302	53	11	215	32	11	624

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12	Deinhard Lane & Samson Trail	162	183	117	31	117	99	149	186	205	67	126	24	1466

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
14	Samson Trail & Krahn Lane	56	475	0	0	362	4	8	0	66	0	0	0	971

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15	Samson Trail & Sheila Lane	5	501	35	51	376	1	1	0	3	18	0	31	1022

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16	Elo Road & Samson Trail	0	180	6	189	136	73	135	83	0	3	85	226	1116

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout Floyde Samson Davis.pdf

Scenario 10 Mitigated Buildout PM Peak Hour Floyde and Samson Connection
1/17/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	3rd Street & Floyde Street	Signalized	HCM 6th Edition	WB Left	0.641	12.2	B
5	3rd Street & Deinhard Lane	Signalized	HCM 6th Edition	EB Left	35.919	514.5	F
6	3rd Street & Jacob Street	Two-way stop	HCM 6th Edition	WB Left	1.409	508.0	F
7	3rd Street & Krahn Lane	Signalized	HCM 6th Edition	WB Right	0.447	5.2	A
8	3rd Street & Elo Road	Two-way stop	HCM 6th Edition	WB Left	0.944	198.0	F
9	3rd Street & Lenora Street	Signalized	HCM 6th Edition	WB Left	0.634	20.5	C
10	Wooley Avenue & Samson Trail	Two-way stop	HCM 6th Edition	EB Left	0.250	15.6	C
11	Samson Trail & Woodlands Drive	All-way stop	HCM 6th Edition	EB Right	0.574	14.9	B
12	Deinhard Lane & Samson Trail	Signalized	HCM 6th Edition	WB Left	0.364	8.2	A
14	Samson Trail & Krahn Lane	Two-way stop	HCM 6th Edition	EB Left	0.054	27.9	D
15	Samson Trail & Sheila Lane	Two-way stop	HCM 6th Edition	WB Left	0.090	30.3	D
16	Elo Road & Samson Trail	Two-way stop	HCM 6th Edition	SB Left	2.185	915.9	F
31	New Intersection	Two-way stop	HCM 6th Edition	SB Left	0.079	9.0	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout Floyde Samson Davis.pdf

Scenario 10 Mitigated Buildout PM Peak Hour Floyde and Samson Connection
1/17/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	3rd Street & Floyde Street	0	868	149	127	786	0	0	4	0	117	4	88	2143

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	3rd Street & Deinhard Lane	137	632	121	214	559	130	206	180	160	116	149	179	2783

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
6	3rd Street & Jacob Street	686	72	196	640	85	203	1882

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7	3rd Street & Krahn Lane	0	731	26	38	687	0	0	0	0	25	0	27	1534

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	3rd Street & Elo Road	0	677	150	79	627	0	0	0	0	79	0	79	1691

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
9	3rd Street & Lenora Street	27	655	256	122	813	0	5	79	80	150	41	132	2360

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
10	Wooley Avenue & Samson Trail	59	224	161	102	117	44	707

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11	Samson Trail & Woodlands Drive	254	230	65	12	161	32	44	81	251	39	57	9	1235

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12	Deinhard Lane & Samson Trail	149	412	35	24	353	73	120	34	165	22	26	17	1430

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
14	Samson Trail & Krahn Lane	48	598	0	0	450	5	9	0	58	0	0	0	1168

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15	Samson Trail & Sheila Lane	5	619	27	39	468	2	1	0	3	14	0	26	1204

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16	Elo Road & Samson Trail	0	278	6	188	220	77	144	84	0	3	82	229	1311

ID	Intersection Name	Northbound		Southbound		Total Volume
		Thru	Right	Left	Thru	
31	New Intersection	543	51	78	462	1134

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout.pdf

Scenario 7 Mitigated Buildout PM Peak Hour
1/17/2023

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
4	3rd Street & Floyde Street	Signalized	HCM 6th Edition	WB Left	0.803	15.9	B
5	3rd Street & Deinhard Lane	Signalized	HCM 6th Edition	EB Left	33.007	420.4	F
6	3rd Street & Jacob Street	Two-way stop	HCM 6th Edition	WB Left	2.412	1,085.9	F
7	3rd Street & Krahn Lane	Signalized	HCM 6th Edition	WB Left	0.597	8.0	A
8	3rd Street & Elo Road	Two-way stop	HCM 6th Edition	WB Left	0.975	273.6	F
9	3rd Street & Lenora Street	Signalized	HCM 6th Edition	SB Left	0.860	48.3	D
10	Wooley Avenue & Samson Trail	Two-way stop	HCM 6th Edition	EB Left	0.283	16.5	C
11	Samson Trail & Woodlands Drive	Two-way stop	HCM 6th Edition	WB Left	0.186	14.4	B
12	Deinhard Lane & Samson Trail	Signalized	HCM 6th Edition	WB Left	0.407	9.3	A
14	Samson Trail & Krahn Lane	Two-way stop	HCM 6th Edition	EB Left	0.340	27.0	D
16	Elo Road & Samson Trail	Two-way stop	HCM 6th Edition	SB Left	0.656	83.3	F
27	New Intersection	Two-way stop	HCM 6th Edition	WB Left	0.083	20.9	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Vistro File: S:\...\McCall Traffic Model_Pine Creek Ranch.vistro
Report File: S:\...\Mitigated Buildout.pdf

Scenario 7 Mitigated Buildout PM Peak Hour
1/17/2023

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4	3rd Street & Floyde Street	0	1148	151	116	1083	0	0	0	0	134	0	95	2727

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
5	3rd Street & Deinhard Lane	135	709	220	483	606	128	195	135	156	197	105	396	3465

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
6	3rd Street & Jacob Street	834	72	193	766	85	229	2179

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7	3rd Street & Krahn Lane	0	864	94	57	794	0	0	0	0	69	0	42	1920

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
8	3rd Street & Elo Road	0	874	77	77	778	0	0	0	0	48	0	82	1936

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
9	3rd Street & Lenora Street	20	724	442	167	880	0	5	37	70	250	24	154	2773

ID	Intersection Name	Northbound		Southbound		Eastbound		Total Volume
		Left	Thru	Thru	Right	Left	Right	
10	Wooley Avenue & Samson Trail	72	212	152	111	129	56	732

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
11	Samson Trail & Woodlands Drive	273	138	16	192	89	10	718

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12	Deinhard Lane & Samson Trail	225	195	40	12	130	139	208	36	294	28	25	9	1341

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
14	Samson Trail & Krahn Lane	56	419	0	0	327	54	86	0	67	0	0	0	1009

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16	Elo Road & Samson Trail	0	184	6	189	141	45	72	83	0	3	85	226	1034

ID	Intersection Name	Northbound		Southbound		Westbound		Total Volume
		Thru	Right	Left	Thru	Left	Right	
27	New Intersection	399	35	94	358	21	61	968

City of McCall

2023 Roadway Estimate

Floyde Street from Timm Street to Spring Mountain Ranch Blvd. — Local Rural — (0.28 Miles)

Description	Unit	Unit Cost	Quantity	Total
Asphalt (4.0 inches)	ton	$180.00	1,000	$180,000.00
Base Course (4.0 inches)	cu yd	$64.00	600	$38,400.00
Granular Borrow (13.0 inches)	cu yd	$50.00	3,500	$175,000.00
10' Separated Paved Path	sq ft	$4.00	15,000	$60,000.00
10' Right-of-Way for Paved Path	acre	$150,000.00	0.3	$51,652.89
Right - of - Way	acre	$150,000.00	3	$450,000.00
			SUBTOTAL	**$955,052.89**

SUBTOTAL	**$955,052.89**
Drainage (10%)	$95,506.00
Mobilization (10%)	$95,506.00
Traffic Control (10%)	$95,506.00
Subtotal	**$1,241,570.89**
Construction Contingency (20%)	$248,315.00
Bid-Contingency (0%)	$0.00
Subtotal	$1,489,885.89
Engineering (20%)	$248,315.00
GRAND TOTAL	$1,738,200.89

Existing Conditions
New roadway
Separated 10' paved path
No curb and gutter
No sidewalk

Assumptions
4.00 inch Thick Asphalt
Pavement Width of 31.00 ft
Right-Of-Way of 60.00 ft
4.00 inch Thick Base Course
13.00 inch Thick Granular Borrow
Added 10' Right-Of-Way for path

Horrocks.

City of McCall

2023 Roadway Estimate

Samson Trail from 600 feet East of Colorado Street to Floyde **Collector Rural** **(0.38 Miles)**

Description	Unit	Unit Cost	Quantity	Total
Asphalt (4.0 inches)	ton	$180.00	1,800	$324,000.00
Base Course (4.0 inches)	cu yd	$64.00	600	$38,400.00
Granular Borrow (13.0 inches)	cu yd	$50.00	3,600	$180,000.00
10' Wide Separated Path	sq ft	$5.00	20,000	$100,000.00
10' Right-of-Way for Separated Path	acre	$150,000.00	0.5	$68,870.52
Right - of - Way	acre	$150,000.00	3	$450,000.00
			SUBTOTAL	**$1,161,270.52**

SUBTOTAL	**$1,161,270.52**
Drainage (10%)	$116,128.00
Mobilization (10%)	$116,128.00
Traffic Control (10%)	$116,128.00
Subtotal	**$1,509,654.52**
Construction Contingency (20%)	$301,931.00
Bid-Contingency (0%)	$0.00
Subtotal	$1,811,585.52
Engineering (20%)	$301,931.00
GRAND TOTAL	$2,113,516.52

Existing Conditions
New roadway
Separated 10' path on one side
No curb and gutter
No sidewalk

Assumptions
4.00 inch Thick Asphalt
Pavement Width of 34.00 ft
Right-Of-Way of 70.00 ft
4.00 inch Thick Base Course
13.00 inch Thick Granular Borrow
Added 10' Right-Of-Way for path

Horrocks.

City of McCall

2023 Roadway Estimate

Deinhard Lane Extension from Samson Trail to the East 1,600' — Collector Rural — (0.30 Miles)

Description	Unit	Unit Cost	Quantity	Total
Asphalt (4.0 inches)	ton	$180.00	1,500	$270,000.00
Base Course (4.0 inches)	cu yd	$64.00	700	$44,800.00
Granular Borrow (12.0 inches)	cu yd	$50.00	4,100	$205,000.00
10' Wide Separated Path	sq ft	$5.00	16,000	$80,000.00
30" High Back Curb & Gutter	ft	$35.00	-	$0.00
Right - of - Way	acre	$150,000.00	3	$450,000.00
			SUBTOTAL	**$1,049,800.00**

SUBTOTAL	**$1,049,800.00**
Drainage (10%)	$104,980.00
Mobilization (10%)	$104,980.00
Traffic Control (10%)	$104,980.00
Subtotal	**$1,364,740.00**
Construction Contingency (20%)	$272,948.00
Bid-Contingency (0%)	$0.00
Subtotal	$1,637,688.00
Engineering (20%)	$272,948.00
GRAND TOTAL	$1,910,636.00

Existing Conditions
New roadway
Separated 10' path on one side
No curb and gutter
No sidewalk

Assumptions
4.00 inch Thick Asphalt
Pavement Width of 34.00 ft
Right-Of-Way of 70.00 ft
4.00 inch Thick Base Course
12.00 inch Thick Granular Borrow

Horrocks.