



Capital Improvement Plan and Development Impact Fee Study

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Teton County Fire & Rescue

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Impact Fee Study **Teton County, Idaho**

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EXECUTIVE SUMMARY

The Teton County Fire & Rescue District ("Fire District") retained TischlerBise to prepare a Capital Improvement Plan and Development Impact Fee Study in order to meet the new demands generated by new development within the Fire District. This report presents the methodology and calculation used to generate current levels of service and updated maximum supportable impact fees. It is intended to serve as supporting documentation for the evaluation and establishment of impact fees in the Fire District.

The purpose of this study is to demonstrate the Fire District's compliance with Idaho Statutes as authorized by the Idaho Legislature. Consistent with the authorization (Idaho Code 67-8202(1-4)), it is the intent of the Fire District to:

1. Collect impact fees to ensure that adequate public facilities are available to serve new growth and development;
2. Promote orderly growth and development by establishing uniform standards by which local governments may require that those who benefit from new growth and development pay a proportionate share of the cost of new public facilities needed to serve new growth and development;
3. Establish minimum standards for the adoption of development impact fee ordinances by government entities;
4. Ensure that those who benefit from new growth and development are required to pay no more than their proportionate share of the cost of public facilities needed to serve new growth and development and to prevent duplicate and ad hoc development requirements;

Impact fees are one-time payments used to construct system improvements needed to accommodate new development. An impact fee represents new growth's fair share of capital facility needs. By law, impact fees can only be used for capital improvements, not operating or maintenance costs. Impact fees are subject to legal standards, which require fulfillment of three key elements: need, benefit and proportionality.

- First, to justify a fee for public facilities, it must be demonstrated that new development will create a need for capital improvements.
- Second, new development must derive a benefit from the payment of the fees (i.e., in the form of public facilities constructed within a reasonable timeframe).
- Third, the fee paid by a particular type of development should not exceed its proportional share of the capital cost for system improvements.

TischlerBise evaluated possible methodologies and documented appropriate demand indicators by type of development for the levels of service and fees. Local demographic data and improvement costs were used to identify specific capital costs attributable to growth. This report includes summary tables

indicating the specific factors, referred to as level of service standards, used to derive the impact fees. The service area for the analysis and fee collection is countywide. Lastly, the fees are calculated for both residential and nonresidential development.

Importantly, the impact fees for the Teton County Fire & Rescue District will be collected by Teton County, City of Driggs, and City of Victor when the jurisdiction issues a building permit for new residential and nonresidential construction. To ensure that the Fire District captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the County and Cities to collect the impact fees on the District's behalf. Those revenues would be remitted to the Fire District periodically.

IDAHO DEVELOPMENT IMPACT FEE ENABLING LEGISLATION

The Enabling Legislation governs how development fees are calculated for municipalities in Idaho. All requirements of the Idaho Development Impact Fee Act have been met in the supporting documentation prepared by TischlerBise. There are four requirements of the Idaho Act that are not common in the development impact fee enabling legislation of other states. This overview offers further clarification of these unique requirements.

First, as specified in 67-8204(2) of the Idaho Act, "development impact fees shall be calculated on the basis of levels of service for public facilities . . . applicable to existing development as well as new growth and development."

Second, Idaho requires a Capital Improvements Plan (CIP) [see 67-8208]. The CIP requirements are summarized in this report, with detailed documentation provided in the discussion on infrastructure.

Third, the Idaho Act also requires documentation of any existing deficiencies in the types of infrastructure to be funded by development impact fees [see 67-8208(1)(a)]. The intent of this requirement is to prevent charging new development to cure existing deficiencies. In the context of development impact fees for the Fire District, the term "deficiencies" means a shortage or inadequacy of current system improvements when measured against the levels of service to be applied to new development. It does not mean a shortage or inadequacy when measured against some "hoped for" level of service.

TischlerBise used the current infrastructure cost per service unit (i.e., existing standards), or future levels of service where appropriate, multiplied by the projected increase in service units over an appropriate planning timeframe, to yield the cost of growth-related system improvements. The relationship between these three variables can be reduced to a mathematical formula, expressed as $A \times B = C$. In section 67-8204(16), the Idaho Act simply reorganizes this formula, stating the cost per service unit (i.e., development impact fee) may not exceed the cost of growth-related system improvements divided by the number of projected service units attributable to new development (i.e., $A = C \div B$). By using existing infrastructure standards to determine the need for growth-related capital improvements, the Fire District ensures the same level-of-service standards are applicable to existing and new development. Using

existing infrastructure standards also means there are no existing deficiencies in the current system that must be corrected from non-development impact fee funding.

Fourth, Idaho requires a proportionate share determination [see 67-8207]. Basically, local government must consider various types of applicable credits and/or other revenues that may reduce the capital costs attributable to new development. The development impact fee methodologies and the cash flow analysis have addressed the need for credits to avoid potential double payment for growth-related infrastructure.

Importantly, stated in [67-8204A], “Governmental entities . . . that are jointly affected by development are authorized to enter into intergovernmental agreements with each other or with . . . fire districts, ambulance districts . . . for the purpose of developing joint plans for capital improvements or for the purpose of agreeing to collect and expend development impact fees for system improvements, or both, provided that such agreement complies with any applicable state laws.” Thus, the impact fees for the Teton County Fire & Rescue District will be collected by Teton County, City of Driggs, and City of Victor. To ensure that the Fire District captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the County and Cities to collect the impact fees on the District’s behalf. Those revenues would be remitted to the Fire District periodically.

SUMMARY OF CAPITAL IMPROVEMENT PLANS AND DEVELOPMENT IMPACT FEES

Development impact fees can be calculated by any one of several legitimate methods. The choice of a particular method depends primarily on the service characteristics and planning requirements for each facility type. Each method has advantages and disadvantages in a particular situation, and to some extent can be interchangeable, because each allocates facility costs in proportion to the needs created by development.

Reduced to its simplest terms, the process of calculating development impact fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of impact fees can become quite complicated because of the many variables involved in defining the relationship between development and the need for facilities. The following paragraphs discuss three basic methods for calculating development impact fees, and how each method can be applied.

Cost Recovery or Buy-In Fee Calculation. The rationale for the cost recovery approach is that new development is paying for its share of the useful life and remaining capacity of facilities already built or land already purchased from which new growth will benefit. This methodology is often used for systems that were oversized such as sewer and water facilities.

Incremental Expansion Fee Calculation. The incremental expansion method documents the current level of service (LOS) for each type of public facility in both quantitative and qualitative measures, based on an existing service standard (such as park land acres per 1,000 residents). This approach ensures that there

are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments, with LOS standards based on current conditions in the community.

Plan-Based Fee Calculation. The plan-based method allocates costs for a specified set of improvements to a specified amount of development. Facility plans identify needed improvements, and land use plans identify development. In this method, the total cost of relevant facilities is divided by total demand to calculate a cost per unit of demand. Then, the cost per unit of demand is multiplied by the amount of demand per unit of development (e.g., housing units or square feet of building area) in each category to arrive at a cost per specific unit of development (e.g., single family detached unit).

Credits. Regardless of the methodology, a consideration of “credits” is integral to the development of a legally valid impact fee methodology. There are two types of “credits,” each with specific and distinct characteristics, but both of which should be addressed in the calculation of development impact fees. The first is a credit due to possible double payment situations. This could occur when contributions are made by the property owner toward the capital costs of the public facility covered by the impact fee. This type of credit is integrated into the impact fee calculation. The second is a credit toward the payment of a fee for dedication of public sites or improvements provided by the developer and for which the facility fee is imposed. This type of credit is addressed in the administration and implementation of a facility fee program.

Figure 1 lists impact fee service area, the components to the impact fee, and the methodologies used in the analysis.

Figure 1. Summary of Impact Fee Methodologies

Fee Category	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Fire & Rescue	Countywide	Impact Fee Study	Fire Stations, Fire Apparatuses, Fire Equipment		Person & Vehicle Trips

FIRE & RESCUE CAPITAL IMPROVEMENT PLAN

Below in Figure 2 is the five-year capital improvement plan the Fire District is anticipating to accommodate future demand. In the plan, there are facility, fleet, and equipment expansion that is consistent with the projected need to serve growth at the current level of service. As noted, the capital improvement plan is to be updated annually and will be revised to reflect any shift in demand, market, and costs.

Figure 2. Capital Improvement Plan

5-Year Growth-Related Capital Improvement Plan			
Facility	Count	Unit	Cost
Additional Bay	1,100	Square Feet	\$385,000
Additional Engine	1	Vehicle	\$650,000
Additional Ambulance w/ Equipment	1	Vehicle	\$330,000
Additional Wildland Engine	1	Vehicle	\$400,000
Additional Command Vehicle	1	Vehicle	\$85,000
SCBA	4	Units	\$32,000
Radios	4	Units	\$28,000
Total Growth-Related CIP Budget			<u>\$1,910,000</u>

Note: CIP is to be updated annually, revising with shift in demand, market, and costs.

MAXIMUM SUPPORTABLE DEVELOPMENT IMPACT FEES BY TYPE OF LAND USE

Figure 3 provides a schedule of the maximum supportable development impact fees by type of land use for the Fire District. The fees represent the highest supportable amount for each type of applicable land use, and represents new growth's fair share of the cost for capital facilities. The Fire Board may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service.

The fees for residential development are to be assessed per housing unit based on the square footage of the home. For nonresidential development, the fees are assessed per square foot of floor area. Nonresidential development categories are consistent with the terminology and definitions contained in the reference book, Trip Generation 11th Edition, published by the Institute of Transportation Engineers. These definitions are provided in the Appendix A. Land Use Definitions.

Figure 3. Summary of Maximum Supportable Development Impact Fee

Development Type	Maximum Supportable Fee
Residential (per housing unit by square feet)	
Under 500	\$422
500 to 999	\$894
1,000 to 1,499	\$1,163
1,500 to 1,999	\$1,361
2,000 to 2,499	\$1,509
2,500 to 2,999	\$1,631
3,000 to 3,499	\$1,737
3,500 to 3,999	\$1,829
4,000 to 4,499	\$1,905
4,500 to 4,999	\$1,976
5,000 to 5,499	\$2,042
5,500 to 5,999	\$2,098
6,000 or More	\$2,154
Nonresidential (per 1,000 square feet)	
Retail	\$3,600
Office	\$1,388
Industrial	\$623
Institutional	\$1,379
Lodging (per room)	\$1,024

CAPITAL IMPROVEMENT PLAN

The following section provides a summary of the Capital Improvement Plans depicting growth-related capital demands and costs on which the fees are based. Each infrastructure category is discussed in turn.

First, Figure 4 and Figure 5 lists the projected growth over the next ten years in Teton County. Overall, there is an estimated 45 percent increase in residential development (6,838 new peak population residents and 2,405 new housing units) and a 60 percent increase in nonresidential development (2,326 new jobs and 1,032,000 square feet of development).

Figure 4. Ten-Year Projected Residential Growth

Teton County, ID	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Permanent Hsg Pop	8,896	9,230	9,576	9,935	10,307	10,694	11,095	11,511	11,943	12,390	12,855	3,959
Seasonal Hsg Pop	5,921	6,143	6,373	6,612	6,860	7,118	7,385	7,661	7,949	8,247	8,556	2,635
Overnight-Visitors	547	568	589	611	634	658	682	708	734	762	790	243
Total Peak Pop	15,364	15,940	16,538	17,158	17,802	18,469	19,162	19,880	20,626	21,399	22,202	6,838
Percent Increase		3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	44.5%
Housing Units												
Single Family	4,749	4,891	5,041	5,198	5,364	5,538	5,721	5,913	6,114	6,326	6,547	1,798
Multifamily	654	715	775	836	896	957	1,018	1,078	1,139	1,200	1,260	606
Total Housing Units	5,403	5,606	5,816	6,034	6,260	6,495	6,739	6,991	7,253	7,525	7,808	2,405

[1] Source: Teton County *Comprehensive Plan (2020)* medium growth scenario

Figure 5. Ten-Year Projected Nonresidential Growth

Industry	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Jobs [1]												
Retail	1,318	1,381	1,448	1,517	1,590	1,666	1,746	1,830	1,918	2,010	2,106	788
Office	917	961	1,007	1,055	1,106	1,159	1,215	1,273	1,334	1,398	1,465	548
Industrial	851	892	935	980	1,027	1,076	1,127	1,182	1,238	1,298	1,360	509
Institutional	802	840	881	923	967	1,014	1,063	1,114	1,167	1,223	1,282	480
Total	3,888	4,075	4,270	4,475	4,690	4,915	5,151	5,398	5,657	5,929	6,214	2,326
Percent Increase		4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	59.8%
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	621	651	682	715	749	785	822	862	903	947	992	371
Office	282	295	309	324	340	356	373	391	410	429	450	168
Industrial	542	568	595	624	654	685	718	753	789	827	866	324
Institutional	281	294	308	323	339	355	372	390	408	428	449	168
Total	1,725	1,808	1,895	1,986	2,081	2,181	2,285	2,395	2,510	2,631	2,757	1,032

[1] Source: *Teton Region Housing Needs Assessment (2022)* growth rate

[2] Source: Institute of Transportation Engineers, *Trip Generation*, 2021

The Idaho Development Fee Act requires Capital Improvement Plans to be updated regularly, at least once every five years (Idaho Code 67-8208(2)). This report projects revenue and fees based on 10-year forecast in an effort to provide the public and elected officials with illustrative guidance of probable growth

demands based on current trends however, per Idaho Code, it is expected that an update to all Capital Improvement Plans included in this study will occur within five years.

The development impact fee is based on the existing level of service provided for fire and rescue facilities. To serve projected growth at current levels of service, the following infrastructure is projected over the next ten years:

- 9,959 square feet of new station space
- 10.3 new fleet units
- 72.7 new equipment units
- \$5.5 million growth-related costs

Below in Figure 6 is the five-year capital improvement plan the Fire District is anticipating to accommodate future demand. In the plan, there are facility, fleet, and equipment expansion that is consistent with the projected need to serve growth at the current level of service. As noted, the capital improvement plan is to be updated annually and will be revised to reflect any shift in demand, market, and costs.

Figure 6. Capital Improvement Plan

5-Year Growth-Related Capital Improvement Plan			
Facility	Count	Unit	Cost
Additional Bay	1,100	Square Feet	\$385,000
Additional Engine	1	Vehicle	\$650,000
Additional Ambulance w/ Equipment	1	Vehicle	\$330,000
Additional Wildland Engine	1	Vehicle	\$400,000
Additional Command Vehicle	1	Vehicle	\$85,000
SCBA	4	Units	\$32,000
Radios	4	Units	\$28,000
Total Growth-Related CIP Budget			<u>\$1,910,000</u>

Note: CIP is to be updated annually, revising with shift in demand, market, and costs.

FUNDING SOURCES FOR CAPITAL IMPROVEMENTS

In determining the proportionate share of capital costs attributable to new development, the Idaho Development Fee Act states that local governments must consider historical, available, and alternative sources of funding for system improvements (Idaho Code 67-8209(2)). Currently, there are no dedicated revenues being collected by the Fire District to fund growth-related projects.

Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for facilities. Evidence is given in the specific chapters of this report that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no general tax dollars are assumed to be used to fund growth-related capital costs, requiring no further revenue credits.

FIRE & RESCUE DEVELOPMENT IMPACT FEES

The Fire Development Impact Fee is based on the cost per service unit method specified in Idaho Code 67-8204(16), also referred to as the incremental expansion method elsewhere in this report.

The Fire infrastructure components included in the impact fee analysis are:

- Fire stations
- Fire and rescue apparatuses
- Fire and rescue equipment
- Cost of development impact fee study

The residential portion of the fee is derived from the product of persons per housing unit by square footage of dwelling unit multiplied by the net capital cost per person. To calculate nonresidential development impact fees, nonresidential vehicle trips are used as the demand indicator. Trip generation rates are highest for commercial developments, such as shopping centers, and lowest for industrial development. Office and institutional land uses trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for fire and rescue from nonresidential development and thus are the best demand indicators. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for service. If employees per thousand square feet were used as the demand indicator, Fire Development Impact Fees would be too high for office and institutional development. If floor area were used as the demand indicator, the development impact fees would be too high for industrial development. (See the Appendix for further discussion on trip rates and calculations.)

Specified in Idaho Code 67-8209(2), local governments must consider historical, available, and alternative sources of funding for system improvements. Currently, there are no dedicated revenues being collected by the Fire District to fund growth-related projects for fire and rescue facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no general tax dollars are assumed to be used to fund growth-related capital costs, requiring no further revenue credits.

COST ALLOCATION FOR FIRE & RESCUE INFRASTRUCTURE

Importantly, the impact fees will only be collected in Teton County, Idaho. However, the Fire District provides service to areas of Teton County, Wyoming. Shown in Figure 7, 13 percent of calls for service are in Wyoming. As a result, 87 percent of the Fire Districts facilities, fleet, and equipment are attributed to demand in Teton County, Idaho.

Figure 7. Calls for Service Outside of Teton County, Idaho

Location	Annual Calls	% of Total
Idaho	880	87%
Wyoming	135	13%
Total	1,015	100%

Source: Teton County Fire & Rescue
District 09/2021-09/2022 call data

Both residential and nonresidential developments increase the demand on fire and rescue services and facilities. To calculate the proportional share between residential and nonresidential demand on service and facilities, calls for service data is analyzed. Show in Figure 8, 70 percent of calls are to residential locations and 30 percent to nonresidential locations. These percentages are used to attributed facilities to respective demand units.

Figure 8. Calls for Service by Land Use Location

Location	Annual Calls	% of Total
Residential	619	70%
Nonresidential	261	30%
Total	880	100%

Source: Teton County Fire & Rescue
District 09/2021-09/2022 call data

FIRE & RESCUE LEVEL OF SERVICE AND COST ANALYSIS

The following section details the level of service calculations and capital cost for each infrastructure category.

FIRE STATIONS

Listed in Figure 9, the Fire District occupies 23,311 square feet between three stations and based on insurance valuations the average cost is \$159 per square foot. As a result of the demand from outside Teton County, 87 percent, or 20,281 square feet, is attributed to county demand. The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service percentages. As a result, 14,196 square feet is attributed to residential demand and 6,084 square feet is attributed to nonresidential demand. The current level of service is found by comparing the attributed square footage to the current peak population and nonresidential vehicles trips. As a result, there is 924 square feet per 1,000 residents and 465 square feet per 1,000 vehicles trips.

The average cost per square foot is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of \$147 per person and \$74 per vehicle trip (924 square feet per 1,000 persons x \$159 per square foot = \$147 per person, rounded).

Figure 9. Fire Station Level of Service & Cost Analysis

Fire Stations	Square Feet	Teton County Share (87%)	Total Replacement Cost [1]
Fire Station 1 & HQ - Driggs	15,083	13,122	\$2,373,211
Fire Station 2 - Victor	4,114	3,579	\$771,183
Fire Station 3 - Teton	4,114	3,579	\$568,029
Total	23,311	20,281	\$3,712,423

<i>Level-of-Service Standards</i>	Residential	Nonresidential
Proportionate Share	70%	30%
Share of Square Feet	14,196	6,084
2022 Population/Nonres. Vehicle Trips	15,364	13,088
Square Feet per 1,000 Persons/Vehicle Trips	924	465

<i>Cost Analysis</i>	Residential	Nonresidential
Square Feet per 1,000 Persons/Vehicle Trips	924	465
Average Cost per Square Foot	\$159	\$159
Capital Cost per Person/Vehicle Trip	\$147	\$74

[1] Insurance valuations

FIRE & RESCUE APPARATUSES

Per the Idaho Act, capital improvements are limited to those improvements that have a certain lifespan. As specified in 67-8203(3) of the Idaho Act, “Capital improvements’ means improvements with a useful life of ten (10) years or more, by new construction or other action, which increase the service capacity of a public facility.” Listed in Figure 10 are fire and rescue apparatuses that have a useful life of ten or more years qualifying to be impact fee-eligible.

Shown in the figure, the Fire District has 24 units in its fleet with a total replacement of \$7.9 million. As a result of the demand from outside Teton County, 87 percent, or 20.88 units, are attributed to county demand. The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service percentages. As a result, 14.6 units are attributed to residential demand and 6.3 units are attributed to nonresidential demand. The current level of service is found by comparing the attributed units to the current peak population and nonresidential vehicles trips. As a result, there is 0.95 units per 1,000 residents and 0.48 units per 1,000 vehicles trips.

The average cost per unit is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of \$313 per person and \$158 per vehicle trip (0.95 units per 1,000 persons x \$329,000 per unit = \$313 per person, rounded).

Figure 10. Fire & Rescue Apparatus Level of Service & Cost Analysis

Apparatuses	Units	Teton County Share (87%)	Current Cost per Unit	Total Replacement Cost
Engine	3	2.61	\$650,000	\$1,950,000
Rescue	2	1.74	\$250,000	\$500,000
Water Tender	3	2.61	\$310,000	\$930,000
Command	3	2.61	\$85,000	\$255,000
Support	2	1.74	\$70,000	\$140,000
Ambulance	4	3.48	\$330,000	\$1,320,000
Wildland	7	6.09	\$400,000	\$2,800,000
Total	24	20.88		\$7,895,000

<i>Level-of-Service Standards</i>	Residential	Nonresidential
Proportionate Share	70%	30%
Share of Units	14.6	6.3
2022 Population/Nonres. Vehicle Trips	15,364	13,088
Units per 1,000 Persons/Vehicle Trips	0.95	0.48

<i>Cost Analysis</i>	Residential	Nonresidential
Units per 1,000 Persons/Vehicle Trips	0.95	0.48
Average Cost per Unit	\$329,000	\$329,000
Capital Cost per Person/Vehicle Trip	\$313	\$158

FIRE & RESCUE EQUIPMENT

Per the Idaho Act, capital improvements are limited to those improvements that have a certain lifespan. As specified in 67-8203(3) of the Idaho Act, “Capital improvements’ means improvements with a useful life of ten (10) years or more, by new construction or other action, which increase the service capacity of a public facility.” Listed in Figure 11 are fire and rescue equipment that have a useful life of ten or more years qualifying to be impact fee-eligible.

Shown in the figure, the Fire District has 148 equipment units with a total replacement of \$1.1 million. As a result of the demand from outside Teton County 87 percent, or 128.76 units, are attributed to county demand. The proportionate share between residential and nonresidential demand of the facilities is found by applying the calls for service percentages. As a result, 90.1 units are attributed to residential demand and 38.6 units are attributed to nonresidential demand. The current level of service is found by comparing the attributed units to the current peak population and nonresidential vehicles trips. As a result, there is 5.87 units per 1,000 residents and 2.95 units per 1,000 vehicles trips.

The average cost per unit is combined with the current levels of service to find the capital cost per demand unit. This results in a cost of \$42 per person and \$21 per vehicle trip (5.87 units per 1,000 persons x \$7,200 per unit = \$42 per person, rounded).

Figure 11. Fire & Rescue Equipment Level of Service & Cost Analysis

Equipment Type	Units	Teton County Share (87%)	Current Cost per Unit	Total Replacement Cost
SCBA	25	21.75	\$8,000	\$200,000
Radios	123	107.01	\$7,000	\$861,000
Total	148	128.76		\$1,061,000

<i>Level-of-Service Standards</i>	Residential	Nonresidential
Proportionate Share	70%	30%
Share of Units	90.1	38.6
2022 Population/Nonres. Vehicle Trips	15,364	13,088
Units per 1,000 Persons/Vehicle Trips	5.87	2.95

<i>Cost Analysis</i>	Residential	Nonresidential
Units per 1,000 Persons/Vehicle Trips	5.87	2.95
Average Cost per Unit	\$7,200	\$7,200
Capital Cost per Person/Vehicle Trip	\$42	\$21

SHARE OF THE DEVELOPMENT IMPACT FEE STUDY

Under the Idaho enabling legislation, the Fire District is able to recover the cost of the study through the collection of future fees. An impact fee study must be completed every five years, so the study cost is compared to the five-year projected increase in population and nonresidential vehicle trips. As a result, the cost per person is \$6 and the cost per vehicle trip is \$2.

Figure 12. Share of the Development Impact Fee Study

Share of Study Cost	Residential Share	Nonresidential Share
\$24,600	78%	22%

Residential Growth Share	Five-Year Population Increase	Capital Cost per Person
100%	3,105	\$6

Nonresidential Growth Share	Five-Year Veh. Trip Increase	Capital Cost per Trip
100%	3,457	\$2

FIRE & RESCUE CAPITAL IMPROVEMENTS NEEDED TO SERVE GROWTH

Needs due to future growth were calculated using the levels of service and cost factors for the infrastructure components. Growth-related needs are a projection of the amount of infrastructure and estimated costs over the next ten years needed to maintain levels of service.

FIRE FACILITIES

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new fire and rescue facilities. Shown in Figure 13, over the next ten years, there is a need for 9,959 square feet. The average cost per square foot is multiplied by the need to find the projected capital need from growth (\$1,583,481).

Figure 13. Projected Demand for Fire & Rescue Facilities

Infrastructure		Level of Service				Cost/Unit
Fire Stations		Residential	924	Square Feet	per 1,000 persons	\$159
		Nonresidential	465		per 1,000 veh. trips	

Growth-Related Need for Fire Stations						
Year		Peak Population	Nonres. Vehicle Trips	Residential Square Feet	Nonresidential Square Feet	Total Square Feet
Base	2022	15,364	13,088	14,196	6,085	20,281
Year 1	2023	15,940	13,716	14,728	6,377	21,105
Year 2	2024	16,538	14,374	15,281	6,684	21,965
Year 3	2025	17,158	15,064	15,854	7,004	22,858
Year 4	2026	17,802	15,788	16,448	7,341	23,789
Year 5	2027	18,469	16,545	17,065	7,693	24,758
Year 6	2028	19,162	17,340	17,705	8,062	25,767
Year 7	2029	19,880	18,172	18,369	8,449	26,818
Year 8	2030	20,626	19,044	19,058	8,855	27,913
Year 9	2031	21,399	19,958	19,772	9,280	29,052
Year 10	2032	22,202	20,916	20,514	9,726	30,240
Ten-Year Increase		6,838	7,828	6,318	3,641	9,959
Projected Expenditure				\$1,004,562	\$578,919	\$1,583,481

Growth-Related Expenditures for Fire Stations					\$1,583,481
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FIRE & RESCUE APPARATUSES

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new fleet units. Shown in Figure 14, over the next ten years, there is a need for 10.3 units. The average cost per unit is multiplied by the need to find the projected capital need from growth (\$3,388,700).

Figure 14. Projected Demand for Fire & Rescue Apparatuses

Infrastructure		Level of Service				Cost/Unit
Fire Apparatuses	Residential	0.95	Units	per 1,000 persons		\$329,000
	Nonresidential	0.48		per 1,000 veh. trips		

Growth-Related Need for Fire Apparatuses						
Year		Peak Population	Nonres. Vehicle Trips	Residential Units	Nonresidential Units	Total Units
Base	2022	15,364	13,088	14.5	6.2	20.7
Year 1	2023	15,940	13,716	15.1	6.5	21.6
Year 2	2024	16,538	14,374	15.7	6.8	22.5
Year 3	2025	17,158	15,064	16.3	7.2	23.5
Year 4	2026	17,802	15,788	16.9	7.5	24.4
Year 5	2027	18,469	16,545	17.5	7.9	25.4
Year 6	2028	19,162	17,340	18.2	8.3	26.5
Year 7	2029	19,880	18,172	18.8	8.7	27.5
Year 8	2030	20,626	19,044	19.5	9.1	28.6
Year 9	2031	21,399	19,958	20.3	9.5	29.8
Year 10	2032	22,202	20,916	21.0	10.0	31.0
Ten-Year Increase		6,838	7,828	6.5	3.8	10.3
Projected Expenditure				\$2,138,500	\$1,250,200	\$3,388,700

Growth-Related Expenditures for Fire Apparatuses						\$3,388,700
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FIRE & RESCUE EQUIPMENT

The current levels of service are combined with the population and vehicle trip projections to illustrate the need for new equipment units. Shown in Figure 15, over the next ten years, there is a need for 63.3 units. The average cost per unit is multiplied by the need to find the projected capital need from growth (\$455,760).

Figure 15. Projected Demand for Fire & Rescue Equipment

Infrastructure		Level of Service			Cost/Unit
Equipment	Residential	5.87	Units	per 1,000 persons	\$7,200
	Nonresidential	2.95		per 1,000 veh. trips	

Growth-Related Need for Equipment						
Year		Peak Population	Nonres. Vehicle Trips	Residential Units	Nonresidential Units	Total Units
Base	2022	15,364	13,088	90.1	38.6	128.7
Year 1	2023	15,940	13,716	93.5	40.4	133.9
Year 2	2024	16,538	14,374	97.0	42.4	139.4
Year 3	2025	17,158	15,064	100.7	44.4	145.1
Year 4	2026	17,802	15,788	104.4	46.5	150.9
Year 5	2027	18,469	16,545	108.4	48.8	157.2
Year 6	2028	19,162	17,340	112.4	51.1	163.5
Year 7	2029	19,880	18,172	116.6	53.6	170.2
Year 8	2030	20,626	19,044	121.0	56.1	177.1
Year 9	2031	21,399	19,958	125.6	58.8	184.4
Year 10	2032	22,202	20,916	130.3	61.7	192.0
Ten-Year Increase		6,838	7,828	40.2	23.1	63.3
Projected Expenditure				\$289,440	\$166,320	\$455,760

Growth-Related Expenditures for Equipment					\$455,760
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FIRE IMPACT FEE CREDIT ANALYSIS

Currently, there are no dedicated revenues being collected by the Fire District to fund growth-related projects for facilities. Furthermore, the maximum supportable impact fees are constructed to offset all growth-related capital costs for facilities. Evidence is given in this chapter that the projected capital costs from new development will be entirely offset by the development impact fees. Thus, no general tax dollars are assumed to be used to fund growth-related capital costs, requiring no further revenue credits.

FIRE & RESCUE INPUT VARIABLES AND DEVELOPMENT IMPACT FEES

Figure 16 provides a summary of the input variables (described in the chapter sections above) used to calculate the net cost per person and vehicle trip. The residential Fire Development Impact Fees are the product of persons per housing unit by size of the dwelling unit multiplied by the total net capital cost per person. The nonresidential fees are the product of trips per 1,000 square feet multiplied by the net capital cost per nonresidential vehicle trip.

The Fire District Board may adopt fees that are less than the amounts shown. However, a reduction in impact fee revenue will necessitate an increase in other revenues, a decrease in planned capital expenditures, and/or a decrease in levels of service. Importantly, the Fire District impact fees will be collected by Teton County, City of Driggs, and City of Victor on the District's behalf. As a result, those jurisdictions have the ability to adopt a fee less than the maximum supportable amounts.

Figure 16. Fire & Rescue Input Variables and Maximum Supportable Impact Fees

Fee Component	Cost per Person	Cost per Vehicle Trip
Fire Stations	\$147	\$74
Fire Apparatuses	\$313	\$158
Fire Equipment	\$42	\$21
Impact Fee Study	\$6	\$3
Gross Total	\$508	\$256
Net Total	\$508	\$256

Residential

Dwelling Size (square feet)	Persons per Household	Maximum Supportable Fee
Residential (per housing unit by square feet)		
Under 500	0.83	\$422
500 to 999	1.76	\$894
1,000 to 1,499	2.29	\$1,163
1,500 to 1,999	2.68	\$1,361
2,000 to 2,499	2.97	\$1,509
2,500 to 2,999	3.21	\$1,631
3,000 to 3,499	3.42	\$1,737
3,500 to 3,999	3.60	\$1,829
4,000 to 4,499	3.75	\$1,905
4,500 to 4,999	3.89	\$1,976
5,000 to 5,499	4.02	\$2,042
5,500 to 5,999	4.13	\$2,098
6,000 or More	4.24	\$2,154

Nonresidential

Development Type	Vehicle Trips per KSF	Maximum Supportable Fee
Nonresidential (per 1,000 square feet)		
Retail	14.06	\$3,600
Office	5.42	\$1,388
Industrial	2.44	\$623
Institutional	5.39	\$1,379
Lodging (per room)	4.00	\$1,024

CASH FLOW PROJECTIONS FOR FIRE & RESCUE MAXIMUM SUPPORTABLE IMPACT FEE

This section summarizes the potential cash flow to the Fire District if the development impact fees are implemented at the maximum supportable amounts. The cash flow projections are based on the assumptions detailed in this chapter and the development projections discussed in Appendix B.

The summary provides an indication of the impact fee revenue generated by new development. The fee for the average sized single family and multifamily units are used in the calculations. Shown at the bottom of the figure, the maximum supportable fire impact fee is estimated to generate \$5.8 million in revenue while there is a growth-related cost of \$5.5 million, offsetting all the growth-related capital costs.

Importantly, the impact fees for the Teton County Fire & Rescue District will be collected by Teton County, City of Driggs, and City of Victor. To ensure that the Fire District captures the full potential revenue of the impact fees an intergovernmental agreement (IGA) is necessary for the County and Cities to collect the impact fees on the District's behalf. Those revenues would be remitted to the Fire District periodically.

Figure 17. Cash Flow Summary for Fire & Rescue Impact Fees

Infrastructure Costs for Fire & Rescue Facilities

	Total Cost	Growth Cost
Fire Stations	\$1,583,481	\$1,583,481
Fire Apparatuses	\$3,388,700	\$3,388,700
Fire Equipment	\$455,760	\$455,760
Impact Fee Study	\$49,200	\$49,200
Total Expenditures	\$5,477,141	\$5,477,141

Projected Development Impact Fee Revenue

		Single Family \$1,631 per unit	Multifamily \$1,163 per unit	Retail \$3,600 per KSF	Office \$1,388 per KSF	Industrial \$623 per KSF	Institutional \$1,379 per KSF	Lodging \$1,024 per room
Year		Housing Units	Housing Units	KSF	KSF	KSF	KSF	Rooms
Base	2022	4,749	654	621	282	542	281	288
1	2023	4,891	715	651	295	568	294	299
2	2024	5,041	775	682	309	595	308	310
3	2025	5,198	836	715	324	624	323	322
4	2026	5,364	896	749	340	654	339	334
5	2027	5,538	957	785	356	685	355	346
6	2028	5,721	1,018	822	373	718	372	359
7	2029	5,913	1,078	862	391	753	390	373
8	2030	6,114	1,139	903	410	789	408	387
9	2031	6,326	1,200	947	429	827	428	401
10	2032	6,547	1,260	992	450	866	449	416
Ten-Year Increase		1,798	606	371	168	324	168	128
Projected Revenue		\$2,933,064	\$705,069	\$1,336,707	\$233,719	\$202,001	\$231,528	\$131,249
Projected Revenue =>								\$5,773,000
Projected Expenditures =>								\$5,477,000
Non-Impact Fee Funding =>								\$0

PROPORTIONATE SHARE ANALYSIS

Development impact fees for Teton County Fire & Rescue District are based on reasonable and fair formulas or methods. The fees do not exceed a proportionate share of the costs incurred or to be incurred by the District in the provision of system improvements to serve new development. The District will fund non-growth-related improvements with non-development impact fee funds as it has in the past. Specified in the Idaho Development Impact Fee Act (Idaho Code 67-8207), several factors must be evaluated in the development impact fee study and are discussed below.

- 1) The development impact fees for Teton County Fire & Rescue District are based on new growth's share of the costs of previously built projects along with planned public facilities as provided by the Fire District. Projects are included in the District's capital improvements plan and will be included in annual capital budgets.
- 2) TischlerBise estimated development impact fee revenue based on the maximum supportable development impact fees for the one, countywide service area; results are shown in the cash flow analyses in this report. Development impact fee revenue will entirely fund growth-related improvements.
- 3) TischlerBise has evaluated the extent to which new development may contribute to the cost of public facilities.
- 4) The relative extent to which properties will make future contributions to the cost of existing public facilities has also been evaluated in regards to existing debt. Outstanding debt for growth's portion of already constructed facilities will be paid from development impact fee revenue, therefore a future revenue credit is not necessary.
- 5) The District will evaluate the extent to which newly developed properties are entitled to a credit for system improvements that have been provided by property owners or developers. These "site-specific" credits will be available for system improvements identified in the annual capital budget and long-term Capital Improvements Plans. Administrative procedures for site-specific credits should be addressed in the development impact fee ordinance.
- 6) Extraordinary costs, if any, in servicing newly developed properties should be addressed through administrative procedures that allow independent studies to be submitted to the District. These procedures should be addressed in the development impact fee ordinance. One service area represented by Teton County is appropriate for the fees herein.
- 7) The time-price differential inherent in fair comparisons of amounts paid at different times has been addressed. All costs in the development impact fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the annual evaluation and update of development impact fees.

IMPLEMENTATION AND ADMINISTRATION

The Idaho Development Impact Fee Act (hereafter referred to as the Idaho Act) requires jurisdictions to form a Development Impact Fee Advisory Committee (DIFAC). The committee must have at least five members with a minimum of two members active in the business of real estate, building, or development. The committee acts in an advisory capacity and is tasked to do the following:

- Assist the governmental entity in adopting land use assumptions;
- Review the capital improvements plan, and proposed amendments, and file written comments;
- Monitor and evaluate implementation of the capital improvements plan;
- File periodic reports, at least annually, with respect to the capital improvements plan and report to the governmental entity any perceived inequities in implementing the plan or imposing the development impact fees; and
- Advise the governmental entity of the need to update or revise land use assumptions, the capital improvements plan, and development impact fees.

Furthermore, it is the collecting jurisdiction that is required to form the DIFAC. In this case, Teton County Fire & Rescue Impact Fees will be collected by Teton County, City of Driggs, and City of Victor. Thus, those three jurisdictions will form separate DIFACs.

Per the above, each jurisdiction has formed a DIFAC. TischlerBise has met with each DIFAC during the process and provided information on land use assumptions, level of service and cost assumptions, and draft development impact fee schedules. This report reflects comments and feedback received from the DIFACs.

The Fire District must develop and adopt a capital improvements plan (CIP) that includes those improvements for which fees were developed. The Idaho Act defines a capital improvement as an “improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility.” Requirements for the CIP are outlined in Idaho Code 67-8208. Certain procedural requirements must be followed for adoption of the CIP and the development impact fee ordinance. Requirements are described in detail in Idaho Code 67-8206. The Fire District has a CIP that meets the above requirements.

TischlerBise recommends that development impact fees be updated annually to reflect recent data. One approach is to adjust for inflation in construction costs by means of an index like the RSMeans or Engineering News Record (ENR). This index can be applied against the calculated development impact fee. If cost estimates change significantly the Fire District should evaluate an adjustment to the CIP and development impact fees.

Idaho's enabling legislation requires an annual development impact fees report that accounts for fees collected and spent during the preceding year (Idaho Code 67-8210). Development impact fees must be deposited in interest-bearing accounts earmarked for the associated capital facilities as outlined in capital improvements plans. Also, fees must be spent within eight years of when they are collected (on a first in, first out basis) unless the local governmental entity identifies in writing (a) a reasonable cause why the fees should be held longer than eight years; and (b) an anticipated date by which the fees will be expended but in no event greater than eleven years from the date they were collected.

Credits must be provided for in accordance with Idaho Code Section 67-8209 regarding site-specific credits or developer reimbursements for system improvements that have been included in the development impact fee calculations. Project improvements normally required as part of the development approval process are not eligible for credits against development impact fees. Specific policies and procedures related to site-specific credits or developer reimbursements for system improvements should be addressed in the ordinance that establishes the fees.

The general concept is that developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in CIP and development impact fee calculations. If a developer constructs a system improvement that was included in the fee calculations, it is necessary to either reimburse the developer or provide a credit against the fees in the area that benefits from the system improvement. The latter option is more difficult to administer because it creates unique fees for specific geographic areas. Based on TischlerBise's experience, it is better for a reimbursement agreement to be established with the developer that constructs a system improvement. For example, if a developer elects to construct a system improvement, then a reimbursement agreement can be established to payback the developer from future development impact fee revenue. The reimbursement agreement should be based on the actual documented cost of the system improvement, if less than the amount shown in the CIP. However, the reimbursement should not exceed the CIP amount that has been used in the development impact fee calculations.

APPENDIX A. LAND USE DEFINITIONS

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. The Fire District will collect impact fees from all new residential units and one-time impact fees are determined by site capacity (i.e., number of residential units).

Single Family Units:

1. Single family detached is a one-unit structure detached from any other house, that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides.
2. Single family attached (townhouse) is a one-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
3. Mobile home includes both occupied and vacant mobile homes, to which no permanent rooms have been added. Mobile homes used only for business purposes or for extra sleeping space and mobile homes for sale on a dealer's lot, at the factory, or in storage are not counted in the housing inventory.

Multifamily Units:

1. 2+ units (duplexes and apartments) are units in structures containing two or more housing units, further categorized as units in structures with "2, 3 or 4, 5 to 9, 10 to 19, 20 to 49, and 50 or more apartments."
2. Boat, RV, Van, etc. includes any living quarters occupied as a housing unit that does not fit the other categories (e.g., houseboats, railroad cars, campers, and vans). Recreational vehicles, boats, vans, railroad cars, and the like are included only if they are occupied as a current place of residence.

NONRESIDENTIAL DEVELOPMENT CATEGORIES

Nonresidential development categories used throughout this study are based on land use classifications from the book *Trip Generation* (ITE, 2021). A summary description of each development category is provided below.

Retail: Establishments primarily selling merchandise, eating/drinking places, and entertainment uses. By way of example, *Retail* includes shopping centers, supermarkets, pharmacies, restaurants, bars, automobile dealerships, and movie theaters.

Office: Establishments providing management, administrative, professional, or business services. By way of example, *Office* includes banks, business offices, medical offices, and veterinarian clinics.

Industrial: Establishments primarily engaged in the production and transportation of goods. By way of example, *Industrial* includes manufacturing plants, trucking companies, warehousing facilities, utility substations, power generation facilities, and telecommunications buildings.

Institutional: Public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, *Institutional* includes schools, universities, churches, daycare facilities, hospitals, health care facilities, and government buildings.

Lodging: Place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, cocktail lounge, meeting rooms, banquet room, and recreational facilities.

APPENDIX B. DEMOGRAPHIC ASSUMPTIONS

As part of our Work Scope, TischlerBise has prepared documentation on demographic data and development projections that will be used in Teton County Fire & Rescue Impact Fee Study. The data estimates and projections are used in the study's calculations and to illustrate the possible future pace of service demands on the District's infrastructure. The demographic assumptions are used in the impact fee calculations to determine current and future levels of service.

This chapter includes discussion and findings on:

- Household/housing unit size
- Current population and housing unit estimates
- Residential projections
- Current employment and nonresidential floor area estimates
- Nonresidential projections
- Functional population
- Vehicle trip generation and projections
- Household size and vehicle trip generate by dwelling size

Note: calculations throughout this technical memo are based on an analysis conducted using Excel software. Results are discussed in the memo using one-and two-digit places (in most cases), which represent rounded figures. However, the analysis itself uses figures carried to their ultimate decimal places; therefore, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to the rounding of figures shown, not in the analysis).

POPULATION AND HOUSING CHARACTERISTICS

Impact fees often use per capita standards and persons per housing unit or persons per household to derive proportionate share fee amounts. Housing types have varying household sizes and, consequently, a varying demand on County infrastructure and services. Thus, it is important to differentiate between housing types and size.

When persons per housing unit (PPHU) is used in the development impact fee calculations, infrastructure standards are derived using year-round population. In contrast, when persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Teton County and the surrounding area is home to a large number of second/vacation homes and hosts many visitors throughout the year. Thus, TischlerBise recommends that fees for residential development in Teton County be imposed according to persons per household.

Based on housing characteristics, TischlerBise recommends using two housing unit categories for the Impact Fee study: (1) Single Family and (2) Multifamily. Each housing type has different characteristics which results in a different demand on County facilities and services. Figure 18 shows the countywide US Census American Community Survey 2020 5-Year Estimates data for Teton County. Single family units have a household size of 2.74 persons and multifamily units have a household size of 2.76 persons. Additionally, there is a housing mix of 87 percent single family and 13 percent multifamily.

The estimates in Figure 18 are for household size calculations. Base year population and housing units are estimated with another, more recent data source.

Figure 18. Persons per Housing Unit

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	10,513	5,197	2.02	3,832	2.74	87%
Multifamily [2]	1,263	785	1.61	458	2.76	13%
Total	11,776	5,982	1.97	4,290	2.74	

[1] Includes attached and detached single family homes and mobile homes

[2] Includes all other types

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

BASE YEAR HOUSING UNITS AND POPULATION

To begin calculating the base year (2022) housing stock, the *Teton Region Housing Needs Assessment* (2022) provides a countywide housing stock estimate for 2021. There are an estimated 4,693 single family units (including mobile/manufactured homes) and 641 multifamily units. Next, the 2022 new residential building permits (through May 10, 2022) are added to the 2021 estimate. Shown in Figure 19, there is an estimated 4,749 single family and 654 multifamily units in Teton County countywide.

Figure 19. Base Year Housing Units

Housing Type [3]	2021 [1]	New Housing Units [2]	Base Year 2022
Single Family	4,693	56	4,749
Multifamily	640	14	654
Total			5,403

[1] Source: Teton Region Housing Needs Assessment (2022)

[2] Source: Teton County, Victor, and Driggs 2022 YTD building permit data

[3] Note: Single family includes mobile and manufactured homes. Multifamily includes ADUs.

The housing estimate is further detailed in Figure 20 by applying the vacancy rates to the totals. Since the impact fee study is assuming full occupancy of housing during the peak season of part-time residents and seasonal visitors, the vacant home estimate is considered to be seasonal housing.

Figure 20. Permanent vs Seasonal Housing

Base Year 2022	Single Family Units	Multifamily Units	Total Units
Permanent Housing	3,058	187	3,245
Seasonal Housing	1,691	467	2,158
Total Units	4,749	654	5,403

[1] Source: TischlerBise analysis of Teton Region Housing Needs Assessment (2022); 2020 American Community Survey 5-Year Estimates; 2022 YTD building permit data

Furthermore, the nature of the influx of seasonal population in Teton County necessitates three types of populations to be included in the impact fee study:

- 1) Permanent Residents
- 2) Seasonal Residents
- 3) Visitors

As mentioned, the county is a destination for vacationers and because of the presence of temporary residents and visitors, county facilities and services have been sized to accommodate the additional demand. The seasonal population includes residents who have second homes in the county and the seasonal labor influx during peak tourism months. Permanent housing population and seasonal housing population estimates are found by applying the PPHH factors for each housing type to base year housing estimates. As a result, there is a permanent population estimate of 8,896 residents and a seasonal population estimate of 5,921 residents.

The visitor population includes overnight visitors at lodging locations. From a survey done by TischlerBise, there are eight lodging properties in Teton County that total 288 rooms. The City of Driggs has found that the average countywide lodging occupancy is 80 percent, so conservatively a peak season occupancy rate is assumed to be 95 percent. So based on general lodging assumptions of two occupants per lodge room, a total of 547 overnight-visitors are estimated in Teton County, see Figure 21.

Figure 21. Lodging Rooms and Peak Visitors

Property	Rooms
Cobblestone	56
Moose Creek Ranch	18
Super 8	46
Teton Peaks Resort	19
Teton Springs Lodge and Spa	51
Teton Valley Motel	20
Teton Valley Resort	40
Teton West Motel	38
Total	288

Total Lodging Rooms	288
Assumed Ave Occupancy	2
Assumed Occupancy Rate	95%
Total Overnight-Visitors	547

Source: TischlerBiseGalena survey of lodging property and general peak season lodging factors.

The information above is summarized in Figure 22. Based on the three population types, there is an estimated peak population of 15,364 residents along with 5,403 housing units in Teton County.

Figure 22. Base Year Peak Population and Housing

Teton County, ID	Base Year 2022
Permanent Hsg Population [1]	8,896
Seasonal Hsg Population [2]	5,921
Overnight-Visitors [3]	547
Total Peak Population	15,364
Housing Units [4]	
Single Family	4,749
Multifamily	654
Total Housing Units	5,403

[1] Source: TischlerBise analysis of occupied housing units and PPHU factors

[1] Source: TischlerBise analysis of vacant/seasonal housing units and PPHU factors

[3] TischlerBise survey of available lodging rooms

[4] Source: TischlerBise analysis of Teton Region Housing Needs Assessment (2022); 2022 YTD building permit data

TischlerBise is currently conducting the impact fee studies for the Cities of Victor and Driggs. This allows for more detailed understanding of growth in the region along with demographic estimates for the incorporated areas of Teton County. By comparing the estimate population and housing units in the municipalities, unincorporated residential estimates are calculated. Shown in Figure 23, 54 percent of the

countywide peak population resides in unincorporated areas while 59 percent of the housing stock is in unincorporated areas.

Figure 23. Base Year Housing and Population by Location

Teton County, ID	Base Year 2022	Percent of Total
Peak Population		
Municipalities	7,028	46%
Unincorporated	8,336	54%
Countywide Total	15,364	100%
Housing Units		
Municipalities	2,218	41%
Unincorporated	3,185	59%
Countywide Total	5,403	100%

Source: TischlerBise is performing the impact fee studies for the municipalities in Teton County.

HOUSING UNIT AND POPULATION PROJECTIONS

The residential projections are based on the medium annual growth rate of 3.75 percent in the County's *Comprehensive Plan* (2020). As a result, there is a projected increase of 6,838 peak residents over the next ten years, nearly 4,000 new permanent residents. Total housing is projected to grow at the same rate as population. However, there is an adjustment to account for the housing development pipeline in the municipalities allowing for more granular detail of housing development. As a result, there is an estimated increase of 1,798 single family and 606 multifamily units over the next ten years.

Figure 24. Residential Development Projections

Teton County, ID	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Permanent Hsg Population	8,896	9,230	9,576	9,935	10,307	10,694	11,095	11,511	11,943	12,390	12,855	3,959
Seasonal Hsg Population	5,921	6,143	6,373	6,612	6,860	7,118	7,385	7,661	7,949	8,247	8,556	2,635
Overnight-Visitors	547	568	589	611	634	658	682	708	734	762	790	243
Total Peak Population	15,364	15,940	16,538	17,158	17,802	18,469	19,162	19,880	20,626	21,399	22,202	6,838
Percent Increase		3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	44.5%
Housing Units												
Single Family	4,749	4,891	5,041	5,198	5,364	5,538	5,721	5,913	6,114	6,326	6,547	1,798
Multifamily	654	715	775	836	896	957	1,018	1,078	1,139	1,200	1,260	606
Total Housing Units	5,403	5,606	5,816	6,034	6,260	6,495	6,739	6,991	7,253	7,525	7,808	2,405

[1] Source: Teton County *Comprehensive Plan* (2020) medium growth scenario

Based on the data collected from the parallel studies TischlerBise is performing for the municipalities, population and housing projections are listed by location in Figure 25. Of the total countywide population increase, 64 percent (4,344 residents) are projected in the municipalities and 36 percent (2,493 residents) are projected in the unincorporated areas of Teton County. Correspondingly, there are 1,375 housing units projected in the municipalities and 1,029 housing units in the unincorporated areas.

Figure 25. Residential Development Projections by Location

Teton County, ID	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Peak Population												
Municipalities	7,028	7,462	7,897	8,331	8,766	9,200	9,635	10,069	10,503	10,938	11,372	4,344
Unincorporated	8,336	8,478	8,641	8,827	9,036	9,269	9,527	9,811	10,122	10,461	10,829	2,493
Countywide Total	15,364	15,940	16,538	17,158	17,802	18,469	19,162	19,880	20,626	21,399	22,202	6,838
Housing Units												
Municipalities	2,218	2,356	2,493	2,631	2,768	2,906	3,043	3,181	3,318	3,456	3,593	1,375
Unincorporated	3,185	3,250	3,323	3,403	3,492	3,589	3,695	3,811	3,935	4,070	4,214	1,029
Countywide Total	5,403	5,606	5,816	6,034	6,260	6,495	6,739	6,991	7,253	7,525	7,808	2,405

Source: TischlerBise is performing the impact fee studies for the municipalities in Teton County.

CURRENT EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA

The impact fee study will include nonresidential development as well. Available through the U.S. Bureau of Labor Statistics QCEW, there were 3,710 year-round jobs in Teton County in 2021. Year-round jobs are included to ensure there is no double counting of economic activity. In the case that temporary/seasonal jobs were included there would be an overestimate of the county workforce. Furthermore, based on the *Teton Region Housing Needs Assessment* (2022), there has been job growth of 4.8 percent annually in Teton County between 2021 to 2022. To estimate the jobs in the base year, the 2021 totals are combined with the growth rate. As a result, there are 3,888 jobs in Teton County: 1,318 retail jobs, 917 office jobs, 851 industrial jobs, and 802 institutional jobs.

Figure 26. Base Year Employment by Industry

Employment Industries	2021 Year-Round Jobs [1]	Job Growth [2] 4.8%	Base Year 2022	Percent of Total
Retail	1,258	60	1,318	34%
Office	875	42	917	24%
Industrial	812	39	851	22%
Institutional	765	37	802	21%
Total Jobs	3,710	178	3,888	100%

[1] Source: U.S. Bureau of Labor Statistics QCEW 2021 Annual Average; Year-round jobs are included to ensure there is no double counting of economic activity in Teton County.

[2] Source: Teton Region Housing Needs Assessment (2022)

The base year nonresidential floor area for the industry sectors is calculated with the Institution of Transportation Engineers' (ITE) square feet per employee averages, Figure 27. For the retail industry the Shopping Center land use factors are used; for office the General Office factors are used; for industrial the Light Industrial factors are used; for Institutional the Hospital factors are used.

Figure 27. Institute of Transportation Engineers (ITE) Employment Density Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Emp per Dmd Unit	Sq. Ft. per Emp
Retail	820	Shopping Center	1,000 Sq Ft	2.12	471
Office	710	General Office	1,000 Sq Ft	3.26	307
Industrial	110	Light Industrial	1,000 Sq Ft	1.57	637
Institutional	610	Hospital	1,000 Sq Ft	2.86	350

Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition (2021)

By combining the base year job totals and the ITE square feet per employee factors the nonresidential floor area is calculated in Figure 28. There is an estimated total of 1.7 million square feet of nonresidential floor area in Teton County. Retail industries accounts for the great share, with approximately 36 percent. Industrial accounts for 31 percent, office accounts for 16 percent, and institutional accounts for 16 percent of the total.

Figure 28. Base Year Nonresidential Floor Area

Employment Industries	Base Year Jobs [1]	Sq. Ft. per job [2]	Floor Area (sq. ft.)	Percent of Total
Retail	1,318	471	620,778	36%
Office	917	307	281,519	16%
Industrial	851	637	542,087	31%
Institutional	802	350	280,700	16%
Total	3,888		1,725,084	100%

[1] Source: TischlerBise analysis of U.S. BLS QCEW and *Teton Region Housing Needs Assessment* (2022) growth rate.

[2] Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition (2021)

Shown in Figure 29, about 60 percent of the existing jobs and 56 percent nonresidential floor area countywide is in the municipalities.

Figure 29. Base Year Employment and Floor Area by Location

Teton County, ID	Base Year 2022	Percent of Total
Jobs		
Municipalities	2,327	60%
Unincorporated	1,561	40%
Countywide Total	3,888	100%
Nonresidential Floor Area (1,000 sq. ft.)		
Municipalities	965	56%
Unincorporated	760	44%
Countywide Total	1,725	100%

Source: TischlerBise is performing the impact fee studies for the municipalities in Teton County.

EMPLOYMENT AND NONRESIDENTIAL FLOOR AREA PROJECTIONS

Based on the *Teton Region Housing Needs Assessment*, there is a regional projected employment annual growth rate of 4.8 percent. This factor is assumed to be appropriate for Teton County and is applied to the base year estimates to project 10-year employment growth. As a result, there is a 2,326-increase in jobs, a 60 percent increase from the base year. Retail development accounts for the greatest share of the increase.

The nonresidential floor area projections are calculated by applying the ITE square feet per employee factors to the job growth. Over the next ten years, the nonresidential floor area is projected to increase by just over 1 million square feet.

Figure 30. Employment and Nonresidential Floor Area Projections

Industry	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Jobs [1]												
Retail	1,318	1,381	1,448	1,517	1,590	1,666	1,746	1,830	1,918	2,010	2,106	788
Office	917	961	1,007	1,055	1,106	1,159	1,215	1,273	1,334	1,398	1,465	548
Industrial	851	892	935	980	1,027	1,076	1,127	1,182	1,238	1,298	1,360	509
Institutional	802	840	881	923	967	1,014	1,063	1,114	1,167	1,223	1,282	480
Total	3,888	4,075	4,270	4,475	4,690	4,915	5,151	5,398	5,657	5,929	6,214	2,326
Percent Increase		4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	59.8%
Nonresidential Floor Area (1,000 sq. ft.) [2]												
Retail	621	651	682	715	749	785	822	862	903	947	992	371
Office	282	295	309	324	340	356	373	391	410	429	450	168
Industrial	542	568	595	624	654	685	718	753	789	827	866	324
Institutional	281	294	308	323	339	355	372	390	408	428	449	168
Total	1,725	1,808	1,895	1,986	2,081	2,181	2,285	2,395	2,510	2,631	2,757	1,032

[1] Source: *Teton Region Housing Needs Assessment* (2022) growth rate

[2] Source: Institute of Transportation Engineers, *Trip Generation*, 2021

Nonresidential projections can be estimated by location with the data TischlerBise has gathered from the City of Driggs and Victor impact fee studies. Shown in Figure 31, over the next ten years 1,392 jobs are projected in the municipalities (60 percent of countywide growth) and 934 jobs are projected in the unincorporated areas (40 percent of countywide growth).

Figure 31. Nonresidential Projections by Location

Teton County, ID	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Jobs												
Municipalities	2,327	2,439	2,556	2,678	2,807	2,942	3,083	3,231	3,386	3,549	3,719	1,392
Unincorporated	1,561	1,636	1,714	1,797	1,883	1,973	2,068	2,167	2,271	2,380	2,495	934
Countywide Total	3,888	4,075	4,270	4,475	4,690	4,915	5,151	5,398	5,657	5,929	6,214	2,326
Nonresidential Floor Area (1,000 sq. ft.)												
Municipalities	965	1,012	1,060	1,111	1,164	1,220	1,279	1,340	1,405	1,472	1,543	577
Unincorporated	760	796	835	875	917	961	1,007	1,055	1,106	1,159	1,214	454
Countywide Total	1,725	1,808	1,895	1,986	2,081	2,181	2,285	2,395	2,510	2,631	2,757	1,032

Source: TischlerBise is performing the impact fee studies for the municipalities in Teton County.

FUNCTIONAL POPULATION

Both residential and nonresidential developments increase the demand on County services and facilities. To calculate the proportional share between residential and nonresidential demand on service and facilities, a functional population approach is used. The functional population approach allocates the cost of the facilities to residential and nonresidential development based on the activity of residents and workers in the County through the 24 hours in a day.

Residents that do not work are assigned 20 hours per day to residential development and 4 hours per day to nonresidential development (annualized averages). Residents that work in Teton County are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents that work outside the County are assigned 14 hours to residential development, the remaining hours in the day are assumed to be spent outside of the County working. Inflow commuters are assigned 10 hours to nonresidential development. Based on the most recent functional population data (2019), residential development accounts for 78 percent of the functional population, while nonresidential development accounts for 22 percent.

Figure 32. Teton County Functional Population

Teton County (2019)			
Residential		<i>Demand</i>	<i>Person</i>
Population*	11,426	<i>Hours/Day</i>	<i>Hours</i>
Residents Not Working	5,537	20	110,740
Employed Residents	5,889		
Employed in Teton County	2,065	14	28,910
Employed outside Teton County	3,824	14	53,536
Residential Subtotal			193,186
Residential Share =>			78%
Nonresidential			
Non-working Residents	5,537	4	22,148
Jobs Located in Teton County	3,198		
Residents Employed in Teton County	1,133	10	11,330
Non-Resident Workers (inflow commuters)	2,065	10	20,650
Nonresidential Subtotal			54,128
Nonresidential Share =>			22%
TOTAL			247,314

Source: U.S. Census Bureau, OnTheMap 6.1.1 Application and LEHD Origin-Destination Employment Statistics.

* Source: U.S. Census Bureau, 2019 American Community Survey 5-Year Estimates

VEHICLE TRIP GENERATION

RESIDENTIAL VEHICLE TRIPS BY HOUSING TYPE

A customized trip rate is calculated for the single family and multifamily units in Teton County. In Figure 33, the most recent data from the US Census American Community Survey is inputted into equations provided by the ITE to calculate the trip ends per housing unit factor. A single family unit is estimated to generate 14.45 trip ends and a multifamily unit is estimated to generate 7.89 trip ends on an average weekday.

Figure 33. Customized Residential Trip End Rates by Housing Type

Tenure by Units in Structure	Vehicles Available ¹	Households by Structure Type ²			Vehicles per HH by Tenure
		Single Family	Multifamily	Total	
Owner-Occupied	7,741	3,311	39	3,350	2.31
Renter-Occupied	1,899	521	419	940	2.02
Total	9,640	3,832	458	4,290	2.25
Housing Units ³		5,197	785	5,982	

Housing Type	Persons in Households ⁴	Trip Ends ⁵	Vehicles by Type of Unit	Trip Ends ⁶	Average Trip Ends	Local Trip Ends per HH	National Trip Ends per Unit ⁷
Single Family	10,513	29,308	8,701	81,437	55,373	14.45	9.43
Multifamily	1,263	2,811	936	4,421	3,616	7.89	4.54
Total	11,776	32,119	9,637	85,858	58,989	13.75	

1. Vehicles available by tenure from Table B25046, 2020 American Community Survey 5-Year Estimates.

2. Households by tenure and units in structure from Table B25032, 2020 American Community Survey 5-Year Estimates.

3. Housing units from Table B25024, 2020 American Community Survey 5-Year Estimates.

4. Total population in households from Table B25033, 2020 American Community Survey 5-Year Estimates.

5. Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is $\text{EXP}(0.89 \cdot \text{LN}(\text{persons}) + 1.72)$. To approximate the average population of the ITE studies, persons were divided by 19 and the equation result multiplied by 19. For multi-family housing (ITE 221), the fitted curve equation is $(2.29 \cdot \text{persons}) - 64.48$ (ITE 2017).

6. Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2021). For single-family housing (ITE 210), the fitted curve equation is $\text{EXP}(0.92 \cdot \text{LN}(\text{vehicles}) + 2.68)$. To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 34 and the equation result multiplied by 34. For multi-family housing (ITE 221), the fitted curve equation is $(4.77 \cdot \text{vehicles}) - 46.46$ (ITE 2021).

7. Trip Generation, Institute of Transportation Engineers, 11th Edition (2021).

RESIDENTIAL VEHICLE TRIPS ADJUSTMENT FACTORS

A vehicle trip end is the out-bound or in-bound leg of a vehicle trip. As a result, so to not double count trips, a standard 50 percent adjustment is applied to trip ends to calculate a vehicle trip. For example, the out-bound trip from a person's home to work is attributed to the housing unit and the trip from work back home is attributed to the employer.

However, an additional adjustment is necessary to capture County residents' work bound trips that are outside of the County. The trip adjustment factor includes two components. According to the National Household Travel Survey, home-based work trips are typically 31 percent of out-bound trips (which are 50 percent of all trip ends). Also, utilizing the most recent data from the Census Bureau's web application "OnTheMap", 65 percent of Teton County workers travel outside the County for work. In combination, these factors account for 10 percent of additional production trips ($0.31 \times 0.50 \times 0.65 = 0.10$). Shown in Figure 34, the total adjustment factor for residential housing units includes attraction trips (50 percent of trip ends) plus the journey-to-work commuting adjustment (10 percent of production trips) for a total of 60 percent.

Figure 34. Residential Trip Adjustment Factor for Commuters

Employed Teton County Residents (2019)	5,889
Residents Working in Teton County (2019)	2,065
Residents Commuting Outside of Teton County for Work	3,824
Percent Commuting Out of Teton County	65%
Additional Production Trips	10%

Standard Trip Adjustment Factor	50%
Residential Trip Adjustment Factor	60%

Source: U.S. Census, OnTheMap Application, 2019

NONRESIDENTIAL VEHICLE TRIPS

Vehicle trip generation for nonresidential land uses are calculated by using ITE's average daily trip end rates and adjustment factors found in their recently published 11th edition of Trip Generation. To estimate the trip generation in Teton County, the weekday trip end per 1,000 square feet factors listed in Figure 35 are used.

Figure 35. Institute of Transportation Engineers Nonresidential Factors

Employment Industry	ITE Code	Land Use	Demand Unit	Wkdy Trip Ends per Dmd Unit	Wkdy Trip Ends per Employee
Retail	820	Shopping Center	1,000 Sq Ft	37.01	17.42
Office	710	General Office	1,000 Sq Ft	10.84	3.33
Industrial	110	Light Industrial	1,000 Sq Ft	4.87	3.10
Institutional	610	Hospital	1,000 Sq Ft	10.77	3.77

Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition (2021)

For nonresidential land uses, the standard 50 percent adjustment is applied to office, industrial, and institutional. A lower vehicle trip adjustment factor is used for retail because this type of development attracts vehicles as they pass-by on arterial and collector roads. For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination.

In Figure 36, the Institute for Transportation Engineers' land use code, daily vehicle trip end rate, and trip adjustment factor is listed for each land use.

Figure 36. Daily Vehicle Trip Factors

Land Use	ITE Codes	Daily Vehicle Trip Ends	Trip Adj. Factor	Daily Vehicle Trips
Residential (per housing unit)				
Single Family	210	14.45	60%	8.67
Multifamily	220	7.89	60%	4.73
Nonresidential (per 1,000 square feet)				
Retail	820	37.01	38%	14.06
Office	710	10.84	50%	5.42
Industrial	110	4.87	50%	2.44
Institutional	610	10.77	50%	5.39

Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition (2021); 'National Household Travel Survey, 2009

VEHICLE TRIP PROJECTIONS

The base year vehicle trip totals and vehicle trip projections are calculated by combining the vehicle trip end factors, the trip adjustment factors, and the residential and nonresidential assumptions for housing stock and floor area. Countywide, residential land uses account for 44,270 vehicle trips and nonresidential land uses account for 13,088 vehicle trips in the base year (Figure 37).

Through 2032, it is projected that daily vehicle trips will increase by 26,289 trips with the majority of the growth being generated by single family (59 percent) and retail (20 percent) development.

Figure 37. Vehicle Trip Projections

Development Type	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Residential Trips												
Single Family	41,174	42,405	43,702	45,067	46,504	48,013	49,599	51,265	53,012	54,845	56,766	15,591
Multifamily	3,096	3,383	3,670	3,957	4,244	4,531	4,818	5,105	5,392	5,679	5,966	2,870
Subtotal	44,270	45,788	47,372	49,024	50,747	52,544	54,417	56,369	58,404	60,523	62,731	18,461
Nonresidential Trips												
Retail	8,730	9,150	9,589	10,049	10,531	11,037	11,567	12,122	12,704	13,313	13,952	5,222
Office	1,526	1,599	1,676	1,756	1,841	1,929	2,022	2,119	2,220	2,327	2,438	913
Industrial	1,320	1,383	1,450	1,519	1,592	1,669	1,749	1,833	1,921	2,013	2,110	790
Institutional	1,512	1,584	1,660	1,740	1,823	1,911	2,003	2,099	2,199	2,305	2,416	904
Subtotal	13,088	13,716	14,374	15,064	15,788	16,545	17,340	18,172	19,044	19,958	20,916	7,828
Vehicle Trips												
Grand Total	57,358	59,504	61,746	64,089	66,535	69,089	71,757	74,541	77,448	80,482	83,648	26,289

Source: Institute of Transportation Engineers, *Trip Generation*, 11th Edition (2021)

DEMAND INDICATORS BY DWELLING SIZE

As an alternative to simply using national average trip generation rates for residential development, published by the Institute of Transportation Engineers (ITE), TischlerBise derived custom trip rates using local demographic data. Key inputs needed for the analysis (i.e., average number of persons and vehicles available per household) are available from American Community Survey (ACS) data.

TETON COUNTY CONTROL TOTALS

The U.S. Census Bureau provides a continuous monthly mailing of surveys, known as the American Community Survey (ACS), which has limitations due to sample-size constraints. For example, data on detached housing units are combined with attached single units (commonly known as townhouses). Part of the rationale for deriving fees by house size, as discussed further below, is to address this ACS data limitation. Because townhouses generally have fewer bedrooms and less living space than detached units, fees by house size ensure proportionality and facilitate construction of affordable units.

According to the U.S. Census Bureau, a household is a housing unit occupied by year-round residents. Development fees often use per capita standards and persons per housing unit (PPHU) or persons per household (PPHH) to derive proportionate share fee amounts. When persons per household (PPHH) is used in the development impact fee calculations, the fee methodology assumes all housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. Teton County and the surrounding area is home to a large number of second/vacation homes and hosts many visitors throughout the year. Thus, TischlerBise recommends that fees for residential development in Teton County be imposed according to persons per household.

Figure 38. Persons per Household

Housing Type	Persons	Housing Units	Persons per Housing Unit	Households	Persons per Household	Housing Unit Mix
Single Family [1]	10,513	5,197	2.02	3,832	2.74	87%
Multifamily [2]	1,263	785	1.61	458	2.76	13%
Total	11,776	5,982	1.97	4,290	2.74	

[1] Includes attached and detached single family homes and mobile homes

[2] Includes all other types

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

Trip generation rates are also dependent upon the average number of vehicles available per dwelling. Key independent variables needed for the analysis (i.e., vehicles available, households, and persons) are available from the U.S. Census Bureau American Community Survey (ACS), indicating an average of 2.25 vehicles per household in Teton County.

Figure 39. Vehicles per Household

Tenure	Vehicles Available	Households		Total	Vehicles per HH by Tenure
		Single Family	Multifamily		
Owner-occupied	7,741	3,311	39	3,350	2.31
Renter-occupied	1,899	521	419	940	2.02
Total	9,640	3,832	458	4,290	2.25

Housing Type	Vehicles Available	Housing Units	Vehicles per Housing Unit
Single Family	8,701	3,832	2.27
Multifamily	936	458	2.04
Total	9,637	4,290	2.25

Source: U.S. Census Bureau, 2020 American Community Survey 5-Year Estimates

DEMAND INDICATORS BY DWELLING SIZE

Impact fees must be proportionate to the demand for infrastructure. Because averages per household, for both persons and vehicle trip ends, have a strong, positive correlation to the number of bedrooms, TischlerBise recommends residential fee schedules that increase by unit size. Custom tabulations of demographic data by bedroom range can be created from individual survey responses provided by the U.S. Census Bureau in files known as Public Use Microdata Samples (PUMS). PUMS files are only available for areas of at least 100,000 persons with Teton County included in Public Use Microdata Areas (PUMA) 1100.

Cells shaded yellow below are survey results for PUMA 1100. Unadjusted persons per household (2.94), derived from PUMS data for the PUMA listed above, are adjusted downwards to match the control totals for Teton County (2.74), as shown above in Figure 40. Adjusted persons per household totals are shaded in gray.

Figure 40. Persons by Bedroom Range

Bedroom Range	Persons ¹	Vehicles Available ¹	Households ¹	Housing Mix	Unadjusted PPHH	Adjusted PPHH ²
0-2	1,267	1,088	614	26%	2.06	1.92
3	2,251	1,892	803	34%	2.80	2.61
4	1,779	1,424	539	23%	3.30	3.08
5+	1,637	1,191	402	17%	4.07	3.79
Total	6,934	5,595	2,358	100%	2.94	2.74

PERSONS BY DWELLING SIZE

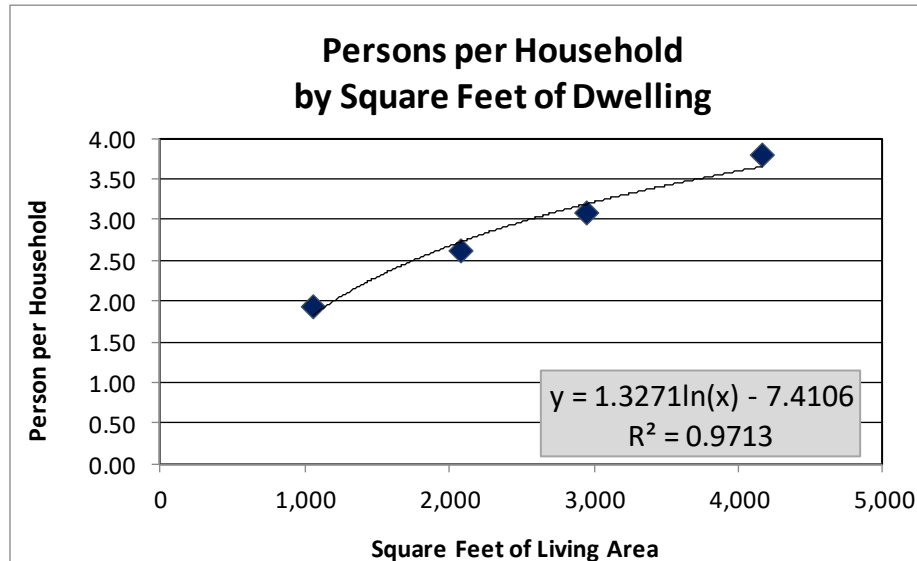
Average floor area and number of persons by bedroom range are plotted in Figure 41 with a logarithmic trend line derived from 2020 square footage estimates provided by the U.S. Census Bureau (West Region). Dwellings with two bedrooms or less average 1,059 square feet of floor area—based on multifamily dwellings constructed in West Census Region. Three-bedroom dwellings average 2,078 square feet, four-

bedroom dwellings average 2,947 square feet, and dwellings with five or more bedrooms average 4,164 square feet—based on single family dwellings constructed in West Census Region. Using the trend line formula shown in the chart, TischlerBise derived the estimated average number of persons, by dwelling size, using 13 size thresholds.

As shown in the upper-right corner of the table below, the smallest floor area range (500 square feet or less) has an estimated average of 0.83 persons per dwelling. The largest floor area range (6,000 square feet or more) has an estimated average of 4.24 persons per dwelling.

Figure 41. Persons by Dwelling Size

Actual Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
0-2	1,059	1.92	Under 500	0.83
3	2,078	2.61	500 to 999	1.76
4	2,947	3.08	1,000 to 1,499	2.29
5+	4,164	3.79	1,500 to 1,999	2.68
Average persons per household derived from 2020 ACS PUMS data for the area that includes Teton County. Unit size for 0-2 bedroom is from the 2020 U.S. Census Bureau average for all multifamily units constructed in the Census West region. Unit size for all other bedrooms is from the 2020 U.S. Census Bureau average for single family units constructed in the Census Mountain division.			2,000 to 2,499	2.97
			2,500 to 2,999	3.21
			3,000 to 3,499	3.42
			3,500 to 3,999	3.60
			4,000 to 4,499	3.75
			4,500 to 4,999	3.89
			5,000 to 5,499	4.02
			5,500 to 5,999	4.13
			6,000 or More	4.24



TRIP GENERATION BY DWELLING SIZE

Rather than rely on one methodology, the recommended trip generation rates shown at the bottom of Figure 42, shaded gray, are an average of trip rates based on persons and vehicles available for all types of housing units. In Teton County, the average household is expected to yield 10.72 average weekday vehicle trip ends (AWVTE), compared to the national average of 8.79 trip ends per household.

Figure 42. Average Weekday Vehicle Trip Ends by Bedroom Range

Bedroom Range	Persons ¹	Vehicles Available ¹	Households ¹	Housing Mix	Unadjusted PPHH	Adjusted PPHH ²	Unadjusted VPHH	Adjusted VPHH ²
0-2	1,267	1,088	614	26%	2.06	1.92	1.77	1.68
3	2,251	1,892	803	34%	2.80	2.61	2.36	2.23
4	1,779	1,424	539	23%	3.30	3.08	2.64	2.51
5+	1,637	1,191	402	17%	4.07	3.79	2.96	2.81
Total	6,934	5,595	2,358	100%	2.94	2.74	2.37	2.25

National Averages According to ITE

ITE Code	AWVTE per Person	AWVTE per Vehicle	AWVTE per HH	Housing Mix	Persons per Household	Vehicles per Household
210 SFD	2.65	6.36	9.43	87%	3.56	1.48
221 Apt	3.31	5.10	4.54	13%	1.37	0.89
Weighted Avg	2.74	6.19	8.79	100%	3.27	1.40

Recommended AWVTE per Household

Bedroom Range	AWVTE per HH Based on Persons ³	AWVTE per HH Based on Vehicles ⁴	AWVTE per Household ⁵
0-2	5.26	10.40	7.83
3	7.15	13.80	10.48
4	8.44	15.54	11.99
5+	10.38	17.39	13.89
Average	7.51	13.93	10.72

1. American Community Survey, Public Use Microdata Sample for Idaho PUMA 1100 (2020 5-Year unweighted data).
2. Adjusted multipliers are scaled to make the average PUMS values match control totals for Idaho based on 2020 American Community Survey 5-Year Estimates.
3. Adjusted persons per household multiplied by national weighted average trip rate per person.
4. Adjusted vehicles available per household multiplied by national weighted average trip rate per vehicle.
5. Average trip rates based on persons and vehicles per household.

ITE Code	AWVTE per Person	AWVTE per Vehicle	AWVTE per HH	Unadjusted PPHH	Unadjusted VPHH
210 SFD	7.51	14.05	10.78	2.74	2.27
220 Apt	7.56	12.63	10.10	2.76	2.04
All Types	7.51	13.93	10.72	2.74	2.25

VEHICLE TRIP ENDS BY DWELLING SIZE

To derive AWWTE by dwelling size, TischlerBise matched trip generation rates and average floor area, by bedroom range, as shown in Figure 43, with a logarithmic trend line derived from 2020 square footage estimates provided by the U.S. Census Bureau (West Region). Dwellings with two bedrooms or less average 1,059 square feet of floor area—based on multifamily dwellings constructed in West Census Region. Three-bedroom dwellings average 2,078 square feet, four-bedroom dwellings average 2,947 square feet, and dwellings with five or more bedrooms average 4,164 square feet—based on single family dwellings constructed in West Census Region. Using the trend line formula shown in the chart, TischlerBise derived the estimated average weekday vehicle trip ends, by dwelling size, using 13 size thresholds.

As shown in the upper-right corner of the table below, the smallest floor area range (500 square feet or less) generates an estimated average of 4.42 trip ends per dwelling. The largest floor area range (6,000 square feet or more) generates an estimated average of 15.62 trip ends per dwelling.

Figure 43. Vehicle Trip Ends by Dwelling Size

Actual Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Trip Ends	Sq Ft Range	Trip Ends
0-2	1,059	7.83	Under 500	4.42
3	2,078	10.48	500 to 999	7.45
4	2,947	11.99	1,000 to 1,499	9.22
5+	4,164	13.89	1,500 to 1,999	10.47
Vehicle trips by dwelling size are derived from 2020 ACS PUMS data for the area that includes Teton County. Unit size for 0-2 bedroom is from the 2020 U.S. Census Bureau average for all multifamily units constructed in the Census West region. Unit size for all other bedrooms is from the 2020 U.S. Census Bureau average for single family units constructed in the Census Mountain division.			2,000 to 2,499	11.45
			2,500 to 2,999	12.24
			3,000 to 3,499	12.92
			3,500 to 3,999	13.50
			4,000 to 4,499	14.01
			4,500 to 4,999	14.47
			5,000 to 5,499	14.89
			5,500 to 5,999	15.27
			6,000 or More	15.62

