



# BELLA VISTA

*A place to call home*

MEETING: **CITY COUNCIL WORK SESSION**  
DATE AND TIME: **Thursday March 25, 2021 at 2:30PM**

**Location: Zoom On-Line meeting**

Register in advance for this meeting.

[https://us02web.zoom.us/webinar/register/WN\\_y9WSq8arTfyYSmKaCiq-nA](https://us02web.zoom.us/webinar/register/WN_y9WSq8arTfyYSmKaCiq-nA)  
After registering, you will receive a confirmation email containing information about joining the webinar.

- I. **CALL TO ORDER:** This meeting has given public notice in accordance with the Section 25-19-106 of the Freedom of Information Act, in such form that will apprise the public and news media of subject matter that up for consideration and action.
  
- II. **ATTENDANCE:** Council Members John Flynn, Jerry Snow, James Wozniak, Larry Wilms, Doug Fowler and Steven Bourke. Mayor Peter Christie, Staff Attorney Jason Kelley and City Clerk Wayne Jertson.
  
- III. **NEW BUSINESS:**

**DISCUSSION OF POTENTIAL IMPACT FEE FOR BELLA VISTA**  
**2 Attachments are included from TischlerBise.**

## **ADJOURNMENT**

\*\*\* Please note: Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, please contact the City Clerk at 479-876-1255.

**DRAFT**  
**Impact Fee Study**

**Prepared for:**  
**Bella Vista, Arkansas**

**March 17<sup>th</sup>, 2021**



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## EXECUTIVE SUMMARY

Bella Vista, Arkansas, contracted with TischlerBise, Inc., to prepare an impact fee program for the City. Impact fees are one-time payments used to construct system improvements needed to accommodate future development. The fee represents future development's proportionate share of infrastructure costs. Impact fees may be used for infrastructure improvements or debt service for growth-related infrastructure. In contrast to general taxes, impact fees may not be used for operations, maintenance, replacement, or correcting existing deficiencies. This fee study includes the following capital facilities:

1. Fire/EMS
2. Library
3. Police

## GENERAL LEGAL FRAMEWORK

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Both state and federal courts have recognized the imposition of impact fees on development as a legitimate form of land use regulation, provided the fees meet standards intended to protect against regulatory takings. Land use regulations, development exactions, and impact fees are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. To comply with the Fifth Amendment, development regulations must be shown to substantially advance a legitimate governmental interest. In the case of impact fees, that interest is in the protection of public health, safety, and welfare by ensuring that development is not detrimental to the quality of essential public services. The means to this end are also important, requiring both procedural and substantive due process. The process followed to receive community input, with stakeholder meetings, work sessions, and public hearings provide opportunity for comments and refinements to the impact fees.

There is little federal case law specifically dealing with impact fees, although other rulings on other types of exactions (e.g., land dedication requirements) are relevant. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an "essential nexus" between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. City of Tigard, OR*, 1994), the Court ruled that an exaction also must be "roughly proportional" to the burden created by development. However, the *Dolan* decision appeared to set a higher standard of review for mandatory dedications of land than for monetary exactions such as impact fees.

There are three reasonable relationship requirements for impact fees that are closely related to "rational nexus" or "reasonable relationship" requirements enunciated by a number of state courts. Although the term "dual rational nexus" is often used to characterize the standard by which courts evaluate the validity of impact fees under the U.S. Constitution, we prefer a more rigorous formulation that recognizes three elements: need, benefit, and proportionality. The dual rational nexus test explicitly addresses only the first two, although proportionality is reasonably implied, and was specifically mentioned by the U.S. Supreme Court in the *Dolan* case. Individual elements of the nexus standard are discussed further in the following paragraphs.

All new development in a community creates additional demands on some, or all, public facilities provided by local government. If the capacity of facilities is not increased to satisfy that additional demand, the quality, or availability of public services for the entire community will deteriorate. Impact fees may be used to recover the cost of growth-related facilities, but only to the extent that the need for facilities is a consequence of development that is subject to the fees. The *Nollan* decision reinforced the principle that development exactions may be used only to mitigate conditions created by the developments upon which they are imposed. That principle clearly applies to impact fees. In this study, the impact of development on infrastructure needs is analyzed in terms of quantifiable relationships between various types of development and the demand for specific facilities, based on applicable level-of-service standards.

The requirement that exactions be proportional to the impacts of development was clearly stated by the U.S. Supreme Court in the *Dolan* case (although the relevance of that decision to impact fees has been debated) and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify growth-related facility costs, and in the methods used to calculate impact fees for various types of facilities and categories of development. The demand for facilities is measured in terms of relevant and measurable attributes of development (e.g., a typical housing unit's average weekday vehicle trips).

A sufficient benefit relationship requires that impact fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. Impact fees must be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, nothing in the U.S. Constitution or the state enabling legislation requires that facilities funded with fee revenues be available *exclusively* to development paying the fees. In other words, benefit may extend to a general area including multiple real estate developments. All of these procedural, as well as substantive, issues are intended to ensure that new development benefits from the impact fees they are required to pay. The authority and procedures to implement impact fees is separate from and complementary to the authority to require improvements as part of subdivision or zoning review.

### **CONCEPTUAL IMPACT FEE CALCULATION**

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In contrast to project-level improvements, impact fees fund growth-related infrastructure that will benefit multiple development projects, or the entire service area (usually referred to as system improvements). The first step is to determine an appropriate demand indicator for the particular type of infrastructure. The demand indicator measures the number of service units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the increase in population can be estimated from the average number of persons per housing unit. The second step in the impact fee formula is to determine infrastructure units per service unit, typically called level-of-service (LOS) standards. In keeping with the park example, a common LOS standard is improved park acres per thousand people. The third step in the impact fee formula is the cost of various infrastructure units. To complete the park example, this part of the formula would establish a cost per acre for land acquisition and/ or park improvements.

## **METHODOLOGY**

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Impact fees for the capital facilities made necessary by future development must be based on the same level of service (LOS) provided to existing development in the service area. There are three basic methodologies used to calculate impact fees. They examine the past, present, and future status of infrastructure. Each methodology has advantages and disadvantages in a particular situation and can be used simultaneously for different cost components. Reduced to its simplest terms, the process of calculating impact fees involves two main steps: (1) determining the cost of growth-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 within the designated service area. The following paragraphs discuss basic methodologies for calculating impact fees and how those methodologies can be applied.

- **Cost Recovery** (past improvements) - The rationale for recoupment, often called cost recovery, 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 utility systems that must provide adequate capacity before new development can take place.
- **Incremental Expansion** (concurrent improvements) - The incremental expansion methodology documents current LOS standards for each type of public facility, using both quantitative and qualitative measures. This approach assumes there are no existing infrastructure deficiencies or surplus capacity in infrastructure. New development is only paying its proportionate share for growth-related infrastructure. Revenue will be used to expand or provide additional facilities, as needed, to accommodate new development. An incremental expansion cost method is best suited for public facilities that will be expanded in regular increments to keep pace with development.
- **Plan-Based** (future improvements) - The plan-based methodology allocates costs for a specified set of improvements to a specified amount of development. Improvements are typically identified in a long-range facility plan and development potential is identified by a land use plan. There are two basic options for determining the cost per demand unit: (1) total cost of a public facility can be divided by total demand units (average cost), or (2) the growth-share of the public facility cost can be divided by the net increase in demand units over the planning timeframe (marginal cost).

## **EVALUATION OF CREDITS**

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There are two types of credits that should be addressed in impact fee studies and ordinances. The first type of credit is a revenue credit due to possible double payment situations, which could occur when other revenues may contribute to the capital costs of infrastructure covered by the impact fee. This type of credit is integrated into the fee calculation, thus reducing the fee amount.

The second type of credit is a site-specific credit, or developer reimbursement, for dedication of land or construction of system improvements. This type of credit is addressed in the administration and implementation of the impact fee program. For ease of administration, TischlerBise normally recommends developer reimbursements for system improvements.



## IMPACT FEE SUMMARY

### IMPACT FEE COMPONENTS

Shown below, Figure 1 summarizes service areas, methodologies, and capital facilities for each infrastructure category.

**Figure 1: Proposed Impact Fee Service Areas, Methodologies, and Capital Facilities**

Necessary Public Service	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Fire/EMS	Bella Vista	N/A	Facilities, Apparatus	Training Facilities	Population, Trip Ends
Library	Bella Vista	Facilities	Collection Items	N/A	Population, Jobs
Police	Bella Vista	N/A	Vehicles	Station Facilities	Population, Trip Ends

### PROPOSED IMPACT FEES

Proposed impact fees for residential development will be assessed per dwelling unit, based on the type of unit. Nonresidential impact fees will be assessed per 1,000 square feet of floor area, based on the type of development. Proposed impact fees are shown below in Figure 2.

Fees shown below represent the maximum allowable fees. Bella Vista 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 improvements and/or a decrease in the City’s level-of-service standards. All costs are in current dollars with no assumed inflation rate over time. If cost estimates change significantly over time, impact fees should be recalibrated.

**Figure 2: Proposed Impact Fees**

Development Type	Fees per Unit			
	Fire/EMS	Police	Library	Total
Single Family	\$457	\$302	\$269	\$1,028
Multifamily	\$248	\$164	\$119	\$532

Development Type	Fees per 1,000 Square Feet			
	Fire/EMS	Police	Library	Total
Commercial	\$1,779	\$298	\$235	\$2,311
Industrial	\$354	\$59	\$163	\$577
Office/Institutional	\$695	\$116	\$298	\$1,109

## FIRE/EMS IMPACT FEES

### METHODOLOGY

The Fire/EMS impact fees include components for stations, apparatus, and training space. The *incremental expansion* methodology is used for stations and apparatus. The *plan-based* methodology is used for training space.

### SERVICE AREA

The City of Bella Vista provides Fire/EMS services throughout Bella Vista; therefore, there is a single service area for the Fire/EMS impact fees.

### PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The Fire/EMS impact fees allocate the cost of capital facilities between residential and nonresidential development using functional population. Based on 2018 population and employment data, from the U.S Census Bureau, TischlerBise can calculate the Functional Population within Bella Vista. Residential development accounts for approximately 86 percent of functional population and nonresidential development is responsible for the remaining 14 percent.

Figure F1: Proportionate Share

Proportionate Share					
	<i>Demand Units in 2018</i>	<i>Demand Hours/Day</i>	<i>Person Hours</i>	<i>Proportionate Share</i>	
<b>Residential</b>					
Estimated Residents	28,774				
57% Residents Not Working	16,519	20	330,380		
43% Workers Living in the City	12,255				
6% City Residents Working in the City	781	16	12,496		
94% City Residents Working outside of the City	11,474	16	183,584		
	<i>Residential Subtotal</i>		526,460		<b>86.0%</b>
<b>Nonresidential</b>					
Non-working Residents	16,519	4	66,076		
Jobs Located in the City	2,465				
City Residents Working in the City	781	8	6,248		
Non-Resident Workers	1,684	8	13,472		
	<i>Nonresidential Subtotal</i>		85,796		<b>14.0%</b>
	<b>Total</b>		<b>612,256</b>		<b>100%</b>

Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics

The proportionate share of costs attributable to residential development will be allocated to population and then converted to an appropriate amount by type of housing unit, based on persons per housing unit. Since the breakdown of nonresidential calls for service is not by specific nonresidential use (i.e., retail, office, industrial, etc.), TischlerBise recommends using average weekday vehicle trips as the best demand indicator for Fire/EMS infrastructure. Trip generation rates are highest for commercial development, such as a shopping center, and lowest for industrial/warehouse development. Office/institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for Fire/EMS services from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for Fire/EMS services. If employees per 1,000 square feet of building area were used as the demand indicator, Fire/EMS impact fees would be too high for office/institutional development.

## **IMPACT FEE COMPONENTS**

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### **Fire/EMS Stations – Incremental Expansion**

As a result of anticipated development, the City of Bella Vista plans to expand its current inventory of Fire/EMS station space to serve future development. The current inventory includes 23,324 square feet at an estimated replacement cost of \$4,551,024, which equates to an average cost per square foot of \$195.

This analysis uses functional population to allocate the proportionate share of demand to residential and nonresidential development. The existing level of service for residential development is 0.58 square feet per person (23,324 square feet X 86 percent residential share / 34,936 persons). The existing nonresidential level of service is 0.39 square feet per nonresidential vehicle trip (23,324 square feet X 14 percent nonresidential share / 8,372 trips). Using the average cost of \$195 per square foot, the Fire/EMS station cost is \$113.77 per person (0.58 square feet per person X \$195 per square foot) and \$76.17 per nonresidential vehicle trip (0.39 square feet per trip X \$195 per square foot).

**Figure F2: Fire/EMS Station Level of Service and Cost Allocation**

Description	Square Feet**	Cost per Sq. Ft.	Replacement Cost*
Town Center Central Fire	6,824	\$195	\$1,331,512
Trafalgar Rd Station 2	5,000	\$195	\$975,610
Branchwood Station	2,300	\$195	\$448,780
Highlands Gate Station	9,200	\$195	\$1,795,122
<b>TOTAL</b>	<b>23,324</b>	<b>\$195</b>	<b>\$4,551,024</b>

\*Based on replacement cost for Station 2

\*\*City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trips in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Sq. Ft. per Person</b>	<b>0.58</b>
<b>LOS: Sq. Ft. per Vehicle Trip</b>	<b>0.39</b>

Cost Analysis	
Cost per Square Foot	\$195
LOS: Square Feet per Person	0.58
<b>Cost per Person</b>	<b>\$113.77</b>
LOS: Square Feet per Vehicle Trip	0.39
<b>Cost per Vehicle Trip</b>	<b>\$76.17</b>

**Fire/EMS Apparatus – Incremental Expansion**

The City of Bella Vista plans to expand its current inventory of Fire/EMS apparatus to serve future development. The current inventory includes 25 units with a total cost of \$5,217,000, so this analysis uses the average cost of \$208,680 per unit.

This analysis uses functional population to allocate the proportionate share of demand to residential and nonresidential development. The existing level of service for residential development is 0.0006 units per person (25 units X 86 percent residential share / 34,396 persons). The existing nonresidential level of service is 0.0004 units per nonresidential vehicle trip (25 units X 14 percent nonresidential share / 8,236 trips). Using the average cost of \$208,680 per unit, the Fire/EMS apparatus cost is \$130.42 per person (0.0006 units per person X \$208,680 per unit) and \$87.32 per nonresidential trip (0.0004 units per trip X \$208,680 per unit).

**Figure F3: Fire/EMS Apparatus Level of Service and Cost Allocation**

Description	Units	Cost per Apparatus*	Replacement Cost
Ambulance F450	3	\$168,000	\$504,000
Ambulance F550	3	\$192,000	\$576,000
SUV	6	\$56,000	\$336,000
Brush Truck	2	\$175,000	\$350,000
Pickup Truck	3	\$42,000	\$126,000
Pumpers	3	\$600,000	\$1,800,000
Tender	1	\$450,000	\$450,000
Quint	1	\$1,000,000	\$1,000,000
Rescue Trucks	2	\$30,000	\$60,000
Polaris	1	\$15,000	\$15,000
<b>TOTAL</b>	<b>25</b>	<b>\$208,680</b>	<b>\$5,217,000</b>

\* City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trip Ends in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Apparatuses per Person</b>	<b>0.0006</b>
<b>LOS: Apparatuses per Vehicle Trip End</b>	<b>0.0004</b>

Cost Analysis	
Cost per Apparatus	\$208,680
LOS: Units per Person	0.001
<b>Cost per Person</b>	<b>\$130.42</b>
LOS: Units per Vehicle Trip End	0.0004
<b>Cost per Vehicle Trip End</b>	<b>\$87.32</b>

**Fire/EMS Training Space – Plan Based**

The City of Bella Vista has plans to expand its Fire/EMS training space. The planned training facility is 4,800 square feet with a total cost of \$936,585, or \$195 per square foot. Since this planned facility is being constructed partly to correct existing deficiencies as well as serve the needs of new growth, TischlerBise is using year 2045 to establish the level of service for this facility, as this coincides with the final payment year of the Sales and Use Tax Bonds Series 2020. This will ensure that all demand units are treated equally, and new development pays no more than their proportionate share.

This analysis uses functional population to allocate the proportionate share of demand to residential and nonresidential development in 2045. The 2045 level of service for residential development is 0.07 units per person (4800 square feet X 86 percent residential share / 57,547 persons). The existing nonresidential level of service is 0.02 units per nonresidential vehicle trip (4800 square feet X 14 percent nonresidential share / 31,426 trips). Using the average cost of \$195 per unit, the Fire/EMS training space cost is \$13.99

per person (0.07 square feet per person X \$195 per square foot) and \$4.18 per nonresidential trip (0.02 square feet per trip X \$195 per square foot).

**Figure F4: Training Facility Level of Service and Cost Allocation**

Description	Square Feet**	Cost per Sq.Ft.*	Replacement Cost
Training Station	4,800	\$195	\$936,585

\*Cost per square foot from the cost per square foot of station 2.

\*\* City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2045	57,547
Nonresidential Vehicle Trips in 2045	31,426
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Sq. Ft. per Person</b>	<b>0.07</b>
<b>LOS: Sq. Ft. per Vehicle Trip</b>	<b>0.02</b>

Cost Analysis	
Cost per Square Foot	\$195
LOS: Square Feet per Person	0.07
<b>Cost per Person</b>	<b>\$13.99</b>
LOS: Square Feet per Vehicle Trip	0.02
<b>Cost per Vehicle Trip</b>	<b>\$4.18</b>

**PROJECTED DEMAND**

**Fire/EMS Stations**

Based on a projected population increase of 8,577 persons over the next 10 years, future residential development demands an additional 5,114 square feet (8,577 additional persons X 0.60 square feet per person). With a projected 5,362 increase in nonresidential vehicle trip ends over the next 10 years, future nonresidential development demands an additional 2,128 square feet (5,362 additional trips X 0.40 square feet per trip). Future development demands an additional 7,242 square feet of Fire/EMS station space at a cost of \$1,413,104 (7,242 square feet X \$195 per square foot).

**Figure F5: Projected Demand for Fire Station Facilities**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Fire Station Facilities	0.58 Square Feet	per Person	\$195
	0.39 Square Feet	per Vehicle Trip	

Demand for Fire Facilities					
Year	Population	Nonresidential Vehicle Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	20,056	3,268	23,324
2022	35,175	8,780	20,510	3,427	23,938
2023	35,973	9,213	20,975	3,597	24,572
2024	36,788	9,676	21,451	3,777	25,228
2025	37,622	10,168	21,937	3,970	25,907
2026	38,475	10,694	22,434	4,175	26,609
2027	39,348	11,255	22,943	4,394	27,337
2028	40,240	11,854	23,463	4,627	28,091
2029	41,152	12,493	23,995	4,877	28,872
2030	42,085	13,175	24,539	5,143	29,683
2031	42,972	13,904	25,057	5,428	30,484
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>5,001</b>	<b>2,159</b>	<b>7,160</b>

<b>Growth-Related Expenditures</b>	<b>\$975,790</b>	<b>\$421,366</b>	<b>\$1,397,155</b>
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**Fire/EMS Apparatus**

Based on a projected population increase of 8,577 persons over the next 10 years, future residential development demands an additional 5.36 units of Fire/EMS apparatus (8,577 additional persons X 0.0006 units per person). With projected growth of 5,532 nonresidential vehicle trips over the next 10 years, future nonresidential development demands an additional 2.31 units of Fire/EMS apparatus (5,532 additional trips X 0.0004 units per nonresidential vehicle trip). Future development demands an additional 7.67 units of Fire/EMS apparatus at a cost of \$1,601,608 (7.67 units X \$208,680 per unit).

**Figure F6: Projected Demand for Fire/EMS Apparatus**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Fire/EMS Apparatus	0.0006 Units	per Person	\$208,680
	0.0004 Units	per Vehicle Trip	

Demand for Fire/EMS Apparatus					
Year	Population	Nonresidential Trips	Apparatus		
			Residential	Nonresidential	Total
2021	34,396	8,372	21.50	3.50	25.00
2022	35,175	8,780	21.98	3.67	25.66
2023	35,973	9,213	22.48	3.86	26.34
2024	36,788	9,676	22.99	4.05	27.04
2025	37,622	10,168	23.51	4.25	27.77
2026	38,475	10,694	24.05	4.47	28.52
2027	39,348	11,255	24.59	4.71	29.30
2028	40,240	11,854	25.15	4.96	30.11
2029	41,152	12,493	25.72	5.23	30.95
2030	42,085	13,175	26.30	5.51	31.82
2031	42,972	13,904	26.86	5.82	32.67
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>5.36</b>	<b>2.31</b>	<b>7.67</b>

<b>Growth-Related Expenditures</b>	<b>\$1,118,582</b>	<b>\$483,026</b>	<b>\$1,601,608</b>
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**Fire/EMS Training Space**

Based on a projected population increase of 23,151 persons to the year 2045, future residential development demands an additional 1,660 square feet (23,151 additional persons X 0.07 square feet per person). With a projected 23,053 increase in nonresidential vehicle trip ends over the next 23 years, future nonresidential development demands an additional 493 square feet (23,053 additional trip ends X 0.02 square feet per trip end). Future development demands an additional 2,154 square feet of Fire/EMS training space at a cost of \$420,270 (2,154 square feet X \$195 per square foot). Existing development demands 2,646 square feet at a total cost of \$516,315 and non-development fee funds must be used for repayment.



**Figure F7: Projected Demand for Fire/EMS Training Space**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Fire Training Facilities	0.07 Square Feet	per Person	\$195
	0.02 Square Feet	per Vehicle Trip	

Demand for Training Facilities					
Year	Population	Nonresidential Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	2,467	179	2,646
2022	35,175	8,780	2,523	188	2,711
2023	35,973	9,213	2,580	197	2,777
2024	36,788	9,676	2,639	207	2,846
2025	37,622	10,168	2,698	218	2,916
2026	38,475	10,694	2,760	229	2,988
2027	39,348	11,255	2,822	241	3,063
2028	40,240	11,854	2,886	254	3,140
2029	41,152	12,493	2,952	267	3,219
2030	42,085	13,175	3,018	282	3,300
2031	42,972	13,904	3,082	298	3,380
2032	43,878	14,683	3,147	314	3,461
2033	44,803	15,515	3,213	332	3,545
2034	45,747	16,405	3,281	351	3,632
2035	46,712	17,356	3,350	371	3,722
2036	47,696	18,374	3,421	393	3,814
2037	48,702	19,462	3,493	417	3,910
2038	49,728	20,626	3,567	441	4,008
2039	50,777	21,872	3,642	468	4,110
2040	51,847	23,205	3,719	497	4,215
2041	52,940	24,632	3,797	527	4,324
2042	54,056	26,160	3,877	560	4,437
2043	55,195	27,796	3,959	595	4,554
2044	56,359	29,549	4,042	632	4,675
2045	57,547	31,426	4,127	673	4,800
10-Yr Increase	8,577	5,532	615	118	734
24-Yr Increase	23,151	23,053	1,660	493	2,154

10-Yr Growth-Related Expenditures	\$120,026	\$23,103	\$143,129
<b>Total Growth-Related Expenditures</b>	<b>\$323,992</b>	<b>\$96,278</b>	<b>\$420,270</b>
Existing Development Share	\$481,349	\$34,966	\$516,315
<b>Total Expenditures</b>	<b>\$805,341</b>	<b>\$131,245</b>	<b>\$936,585</b>

**CREDIT FOR FUTURE DEBT PAYMENTS**

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included a credit in the development impact fee calculations for the debt issued for the Fire Station 3 Replacement

and Training Facilities construction. The debt was issued as a Sales and Use Tax Bond (2020) and 19% of the bond was allocated to Fire/EMS uses. The repayment of annual debt service is allocated to residential and nonresidential development via functional population. Annual principal payments are divided by population/trips to yield principal payments per person/trip. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$49.39 per person and \$24.89 per trip.

**Figure F8: Credit for Future Fire/EMS Debt Payments**

Fire/EMS Share of Sales and Use Tax Bond Series 2020				Residential Share (86%)			Nonresidential Share (14%)		
Date	Principal	Interest	Total	Principal Payment	Population	Principal Payment per Person	Principal Payment	Nonresidential Trip Ends	Principal Payment per Trip End
10/1/2021	\$123,956.09	\$96,836.40	\$220,792.49	\$106,602.24	34,396	\$3.10	\$17,353.85	8,299	\$2.09
10/1/2022	\$124,909.60	\$95,217.35	\$220,126.95	\$107,422.26	35,175	\$3.05	\$17,487.34	8,700	\$2.01
10/1/2023	\$130,630.65	\$90,220.96	\$220,851.61	\$112,342.36	35,973	\$3.12	\$18,288.29	9,127	\$2.00
10/1/2024	\$135,398.19	\$84,995.74	\$220,393.93	\$116,442.45	36,788	\$3.17	\$18,955.75	9,582	\$1.98
10/1/2025	\$141,119.24	\$79,579.81	\$220,699.05	\$121,362.55	37,622	\$3.23	\$19,756.69	10,067	\$1.96
10/1/2026	\$146,840.29	\$73,935.04	\$220,775.33	\$126,282.65	38,475	\$3.28	\$20,557.64	10,584	\$1.94
10/1/2027	\$152,561.34	\$68,061.43	\$220,622.77	\$131,202.76	39,348	\$3.33	\$21,358.59	11,136	\$1.92
10/1/2028	\$158,282.39	\$61,958.98	\$220,241.37	\$136,122.86	40,240	\$3.38	\$22,159.54	11,724	\$1.89
10/1/2029	\$163,049.94	\$57,210.50	\$220,260.44	\$140,222.94	41,152	\$3.41	\$22,826.99	12,353	\$1.85
10/1/2030	\$167,817.48	\$52,319.01	\$220,136.48	\$144,323.03	42,085	\$3.43	\$23,494.45	13,023	\$1.80
10/1/2031	\$173,538.53	\$47,284.48	\$220,823.01	\$149,243.13	42,972	\$3.47	\$24,295.39	13,739	\$1.77
10/1/2032	\$178,306.07	\$42,078.33	\$220,384.40	\$153,343.22	43,878	\$3.49	\$24,962.85	14,504	\$1.72
10/1/2033	\$184,027.12	\$36,729.14	\$220,756.26	\$158,263.32	44,803	\$3.53	\$25,763.80	15,322	\$1.68
10/1/2034	\$0.00	\$31,208.33	\$31,208.33	\$0.00	45,747	\$0.00	\$0.00	16,195	\$0.00
10/1/2035	\$0.00	\$31,208.33	\$31,208.33	\$0.00	46,712	\$0.00	\$0.00	17,128	\$0.00
10/1/2036	\$0.00	\$31,208.33	\$31,208.33	\$0.00	47,696	\$0.00	\$0.00	18,127	\$0.00
10/1/2037	\$0.00	\$31,208.33	\$31,208.33	\$0.00	48,702	\$0.00	\$0.00	19,194	\$0.00
10/1/2038	\$973,532.07	\$31,208.33	\$1,004,740.40	\$837,237.58	49,728	\$16.84	\$136,294.49	20,335	\$6.70
10/1/2039	\$0.00	\$16,605.35	\$16,605.35	\$0.00	50,777	\$0.00	\$0.00	21,557	\$0.00
10/1/2040	\$0.00	\$16,605.35	\$16,605.35	\$0.00	51,847	\$0.00	\$0.00	22,863	\$0.00
10/1/2041	\$0.00	\$16,605.35	\$16,605.35	\$0.00	52,940	\$0.00	\$0.00	24,262	\$0.00
10/1/2042	\$0.00	\$16,605.35	\$16,605.35	\$0.00	54,056	\$0.00	\$0.00	25,759	\$0.00
10/1/2043	\$0.00	\$16,605.35	\$16,605.35	\$0.00	55,195	\$0.00	\$0.00	27,361	\$0.00
10/1/2044	\$0.00	\$16,605.35	\$16,605.35	\$0.00	56,359	\$0.00	\$0.00	29,076	\$0.00
10/1/2045	\$1,476,030.99	\$16,605.37	\$1,492,636.36	\$1,269,386.66	57,547	\$22.06	\$206,644.34	30,913	\$6.68
	\$4,430,000.00	\$1,158,706.28	\$5,588,706.28						

Discount Rate	4%
Residential Credit	\$49.39

Discount Rate	4%
Nonresidential Credit	\$24.89



## PROPOSED FIRE/EMS IMPACT FEES

Infrastructure components and cost factors for Fire/EMS impact fees are summarized in the upper portion of Figure F9. For Fire/EMS impact fees, the capital cost is \$208.80 per person and \$142.77 per trip end.

Fire/EMS impact fees for residential development are assessed according to the number of persons per housing unit. The single-family fee of \$457 is calculated using a cost of \$208.80 per person multiplied by a demand unit of 2.19 persons per housing unit.

Nonresidential impact fees are assessed according to the average weekday vehicle trip ends by type of development. The industrial fee of \$354 per 1,000 square feet of floor area is derived from a cost of \$142.77 per trip multiplied by a demand unit of 2.48 trip ends per 1,000 square feet.

**Figure F9: Schedule of Maximum Allowable Fire/EMS Impact Fees**

Fee Component	Cost per Person	Cost per Trip
Fire Facilities	\$113.77	\$76.17
Fire Apparatus	\$130.42	\$87.32
Fire Training Facilities	\$13.99	\$4.18
Credit for Debt Payments	(\$49.39)	(\$24.89)
<b>Total</b>	<b>\$208.80</b>	<b>\$142.77</b>

Development Type	Fees per Unit	
	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$457
Multifamily	1.19	\$248

Development Type	Fees per 1,000 Square Feet	
	AWVT per 1,000 Sq Ft*	Proposed Fees
Commercial	12.46	\$1,779
Industrial	2.48	\$354
Office	4.87	\$695

\* See Land Use Assumptions

## PROJECTED FIRE/EMS IMPACT FEE REVENUE

Projected fee revenue shown below is based on the development projections, shown in Appendix A, and the proposed Fire/EMS impact fees shown in Figure F9. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease, along with impact fee revenue. Projected impact fee revenue over the next 10 years equals \$2,588,585 and total projected expenditures equal \$3,658,207.

**Figure F11: Projected Fire/EMS Impact Fee Revenue**

Fee Component	Growth Share	Existing Share	Total
Fire/EMS Stations	\$1,397,155	\$0	\$1,397,155
Fire/EMS Apparatus	\$1,601,608	\$0	\$1,601,608
Fire/EMS Training Space	\$143,129	\$516,315	\$659,444
<b>Total</b>	<b>\$3,141,892</b>	<b>\$516,315</b>	<b>\$3,658,207</b>

		Single Family \$457 per unit	Multifamily \$248 per unit	Commercial \$1,779 per KSF	Industrial \$354 per KSF	Office \$695 per KSF
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF
Base	2021	15,421	652	355	143	739
Year 1	2022	15,770	667	381	155	750
Year 2	2023	16,128	682	408	168	762
Year 3	2024	16,494	697	438	182	774
Year 4	2025	16,868	713	470	197	786
Year 5	2026	17,250	729	504	214	799
Year 6	2027	17,641	746	540	232	811
Year 7	2028	18,041	763	579	251	824
Year 8	2029	18,450	780	621	272	837
Year 9	2030	18,868	798	666	295	850
Year 10	2031	19,266	814	715	320	864
10-Year Increase		3,845	163	360	178	125
<b>Projected Revenue</b>		<b>\$1,758,286</b>	<b>\$40,388</b>	<b>\$640,068</b>	<b>\$62,908</b>	<b>\$86,935</b>

<b>Projected Fee Revenue</b>	<b>\$2,588,585</b>
Total Expenditures	\$3,658,207

**POLICE IMPACT FEES**

**METHODOLOGY**

The Police impact fees include components for Police facilities and vehicles. The *incremental expansion* methodology is used for Police vehicles and equipment. The *plan-based* methodology is used for Police facilities.

**SERVICE AREA**

The City of Bella Vista provides Police services throughout Bella Vista; therefore, there is a single service area for the Police impact fees.

**PROPORTIONATE SHARE**

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The Police impact fees allocate the cost of capital facilities between residential and nonresidential development using functional population. Based on 2018 population and employment data, from the U.S Census Bureau, TischlerBise can calculate the functional population within Bella Vista. Residential development accounts for approximately 86 percent of functional population and nonresidential development accounts for the remaining 14 percent.

**Figure P1: Proportionate Share**

Proportionate Share					
	<i>Demand Units in 2018</i>	<i>Demand Hours/Day</i>	<i>Person Hours</i>	<i>Proportionate Share</i>	
<b>Residential</b>					
Estimated Residents	28,774				
57% Residents Not Working	16,519	20	330,380		
43% Workers Living in the City	12,255				
6% City Residents Working in the City	781	16	12,496		
94% City Residents Working outside of the City	11,474	16	183,584		
	<i>Residential Subtotal</i>		<u>526,460</u>		<b>86.0%</b>
<b>Nonresidential</b>					
Non-working Residents	16,519	4	66,076		
Jobs Located in the City	2,465				
City Residents Working in the City	781	8	6,248		
Non-Resident Workers	1,684	8	13,472		
	<i>Nonresidential Subtotal</i>		<u>85,796</u>		<b>14.0%</b>
				<b>Total</b>	<b>612,256 100%</b>

Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics

The proportionate share of costs attributable to residential development will be allocated to population and then converted to an appropriate amount by type of housing unit, based on persons per housing unit. Since the breakdown of nonresidential calls for service is not by specific nonresidential use (i.e., retail, office, industrial, etc.), TischlerBise recommends using average weekday vehicle trips as the best demand indicator for Police infrastructure. Trip generation rates are highest for commercial development, such as a shopping center, and lowest for industrial/warehouse development. Office/institutional trip rates fall between the other two categories. This ranking of trip rates is consistent with the relative demand for Police protection from nonresidential development. Other possible nonresidential demand indicators, such as employment or floor area, do not accurately reflect the demand for Police services. If employees per 1,000 square feet of building area were used as the demand indicator, Police impact fees would be too high for office/institutional development.

## **IMPACT FEE COMPONENTS**

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### **Police Facilities – Plan Based**

Bella Vista plans to expand its current inventory of Police facilities to serve future development by constructing the projects shown in Figure P2. Since this planned facility is being constructed partly to correct existing deficiencies as well as serve the needs of new growth, TischlerBise is using year 2045 to establish the level of service for this facility, as this coincides with the final payment year of the Sales and Use Tax Bonds Series 2020. This will ensure that all demand units are treated equally, and new development pays no more than their proportionate share.

This analysis uses functional population to allocate the proportionate share of demand to residential and nonresidential development. The 2045 level of service for residential development is 0.69 square feet per person (46,000 square feet X 86 percent residential share / 57,547 persons). The existing nonresidential level of service is 0.21 square feet per nonresidential vehicle trip (46,000 square feet X 14 percent nonresidential share / 31,426 trips). Using the average cost of \$409 per square foot from planned facilities, the Police facilities cost is \$280.91 per person (0.69 square feet per person X \$409 per square foot) and \$83.83 per nonresidential vehicle trip (0.21 square feet per trip X \$409 per square foot).

**Figure P2: Planned Police Facilities Level of Service and Cost Allocation**

Description	Square Feet*	Cost per Sq. Ft.	Cost*
New Police Station	46,000	\$409	\$18,800,000

\*Bella Vista Police Department

Level-of-Service Analysis	
Population in 2045	57,547
Nonresidential Vehicle Trips in 2045	31,426
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Square Feet per Person</b>	<b>0.69</b>
<b>LOS: Square Feet per Vehicle Trip</b>	<b>0.21</b>

Cost Analysis	
Cost per Square Foot	\$409
LOS: Square Feet per Person	0.69
<b>Cost per Person</b>	<b>\$280.91</b>
LOS: Square Feet per Vehicle Trip	0.21
<b>Cost per Vehicle Trip</b>	<b>\$83.83</b>

**Police Vehicles – Incremental Expansion**

The City of Bella Vista plans to expand its current inventory of Police vehicles to serve future development. The current inventory includes 45 units with a total cost of \$2,658,000, so this analysis uses the average cost of \$59,067 per unit.

This analysis uses functional population to allocate the proportionate share of demand to residential and nonresidential development. The existing level of service for residential development is 0.0011 units per person (45 units X 86 percent residential share / 34,396 persons). The existing nonresidential level of service is 0.0008 units per nonresidential trip (45 units X 14 percent nonresidential share / 8,372 trips). Using the average cost of \$59,067, the Police vehicles and equipment cost is \$66.45 per person (0.0011 units per person X \$59,067 per unit) and \$44.49 per nonresidential trip end (0.0008 units per trip X \$59,067 per unit).



**Figure P3: Police Vehicle Level of Service and Cost Allocation**

Vehicle Description	Units*	Cost Per Unit*	Total Cost
Marked Patrol Vehicle	33	\$66,000	\$2,178,000
Unmarked/Administrative	12	\$40,000	\$480,000
<b>Total</b>	<b>45</b>	<b>\$59,067</b>	<b>\$2,658,000</b>

\*Bella Vista Police Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trips in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Vehicles per Person</b>	<b>0.0011</b>
<b>LOS: Vehicles per Vehicle Trip</b>	<b>0.0008</b>

Cost Analysis	
Cost per Unit	\$59,067
LOS: Vehicles per Person	0.001
<b>Cost per Person</b>	<b>\$66.45</b>
LOS: Vehicles per Vehicle Trip	0.0008
<b>Cost per Vehicle Trip</b>	<b>\$44.49</b>

**PROJECTED DEMAND**

**Police Station Facilities**

Based on a projected population increase of 23,151 persons over the next 24 years, future residential development demands an additional 15,913 square feet of police facilities (23,151 additional persons X 0.69 square feet per person). With projected nonresidential trip growth of 23,053 over the next 24 years, future nonresidential development demands an additional 4,729 square feet of police facilities (22,614 additional trips X 0.21 square feet per trip). Future development demands an additional 20,641 square feet of police facilities at a cost of \$8,436,053 (20,641 units X \$409 per square foot).

**Figure P4: Projected Demand for Police Station Space**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Police Station	0.69 Square Feet	per Person	\$409
	0.21 Square Feet	per Vehicle Trip End	

Demand for Facilities					
Year	Population	Nonresidential Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	23,641	1,717	25,359
2022	35,175	8,780	24,177	1,801	25,978
2023	35,973	9,213	24,725	1,890	26,615
2024	36,788	9,676	25,286	1,985	27,271
2025	37,622	10,168	25,859	2,086	27,945
2026	38,475	10,694	26,445	2,194	28,639
2027	39,348	11,255	27,045	2,309	29,354
2028	40,240	11,854	27,658	2,431	30,090
2029	41,152	12,493	28,285	2,563	30,848
2030	42,085	13,175	28,926	2,703	31,629
2031	42,972	13,904	29,536	2,852	32,388
2032	43,878	14,683	30,159	3,012	33,171
2033	44,803	15,515	30,795	3,183	33,977
2034	45,747	16,405	31,444	3,365	34,809
2035	46,712	17,356	32,107	3,560	35,667
2036	47,696	18,374	32,783	3,769	36,552
2037	48,702	19,462	33,474	3,992	37,466
2038	49,728	20,626	34,180	4,231	38,411
2039	50,777	21,872	34,901	4,486	39,387
2040	51,847	23,205	35,636	4,760	40,396
2041	52,940	24,632	36,387	5,053	41,440
2042	54,056	26,160	37,154	5,366	42,521
2043	55,195	27,796	37,938	5,702	43,639
2044	56,359	29,549	38,737	6,061	44,798
2045	57,547	31,426	39,554	6,446	46,000
10-Yr Increase	8,577	5,532	5,895	1,135	7,030
24-Yr Increase	23,151	23,053	15,913	4,729	20,641

10-Yr Growth-Related Expenditures	\$2,409,267	\$463,743	\$2,873,009
<b>Total Growth-Related Expenditures</b>	<b>\$6,503,469</b>	<b>\$1,932,584</b>	<b>\$8,436,053</b>
Existing Development Share	\$9,662,070	\$701,877	\$10,363,947
<b>Total Expenditures</b>	<b>\$16,165,539</b>	<b>\$2,634,461</b>	<b>\$18,800,000</b>

**Police Vehicles**

Based on a projected population increase of 8,577 persons over the next 10 years, future residential development demands an additional 10 units of vehicles/equipment (8,577 additional persons X 0.001 units per person). With projected nonresidential trip growth of 5,440 over the next 10 years, future nonresidential development demands an additional 4 units (5,532 additional trips X 0.0008 units per trip).

Future development demands an additional 14 units of Police vehicles at a cost of \$828,921 (14 units X \$59,067 per unit).

**Figure P5: Projected Demand for Police Vehicles**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Police Vehicles	0.0012 Vehicles	per Person	\$59,067
	0.0008 Vehicles	per Vehicle Trip End	

Demand for Vehicles					
Year	Population	Nonresidential Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	40	6	46
2022	35,175	8,780	40	7	47
2023	35,973	9,213	41	7	48
2024	36,788	9,676	42	7	50
2025	37,622	10,168	43	8	51
2026	38,475	10,694	44	8	52
2027	39,348	11,255	45	8	54
2028	40,240	11,854	46	9	55
2029	41,152	12,493	47	9	57
2030	42,085	13,175	48	10	58
2031	42,972	13,904	49	10	60
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>10</b>	<b>4</b>	<b>14</b>

<b>Growth-Related Expenditures</b>	<b>\$582,825</b>	<b>\$246,096</b>	<b>\$828,921</b>
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### CREDIT FOR FUTURE DEBT PAYMENTS

To ensure fee-payers avoid potential double payment for annual debt service, TischlerBise included a credit in the development impact fee calculations for the debt issued for the Police Department Headquarters construction. The debt was issued as a Sales and Use Tax Bond (2020) and 81 percent of the bond was for the headquarters construction.

The repayment of annual debt service is allocated to residential and nonresidential development via functional population. Annual principal payments are divided by population/trips to yield principal payments per person/trip. To account for the time value of money, annual payments are discounted using a net present value formula based on the applicable discount (interest) rate. This results in a credit of \$209.61 per person and \$104.44 per trip.

**Figure P6: Credit for Future Police Debt Payments**

Police Share of Sales and Use Tax Bond Series 2020				Residential Share (86%)			Nonresidential Share (14%)		
Date	Principal	Interest	Total	Principal Payment	Population	Principal Payment per Person	Principal Payment	Nonresidential Trip Ends	Principal Payment per Trip End
10/1/2021	\$526,043.91	\$410,953.59	\$936,997.50	\$452,398	34,396	\$13.15	\$73,646	8,372	\$8.80
10/1/2022	\$530,090.40	\$404,082.65	\$934,173.05	\$455,878	35,175	\$12.96	\$74,213	8,780	\$8.45
10/1/2023	\$554,369.35	\$382,879.04	\$937,248.39	\$476,758	35,973	\$13.25	\$77,612	9,213	\$8.42
10/1/2024	\$574,601.81	\$360,704.26	\$935,306.07	\$494,158	36,788	\$13.43	\$80,444	9,676	\$8.31
10/1/2025	\$598,880.76	\$337,720.19	\$936,600.95	\$515,037	37,622	\$13.69	\$83,843	10,168	\$8.25
10/1/2026	\$623,159.71	\$313,764.96	\$936,924.67	\$535,917	38,475	\$13.93	\$87,242	10,694	\$8.16
10/1/2027	\$647,438.66	\$288,838.57	\$936,277.23	\$556,797	39,348	\$14.15	\$90,641	11,255	\$8.05
10/1/2028	\$671,717.61	\$262,941.02	\$934,658.63	\$577,677	40,240	\$14.36	\$94,040	11,854	\$7.93
10/1/2029	\$691,950.06	\$242,789.50	\$934,739.56	\$595,077	41,152	\$14.46	\$96,873	12,493	\$7.75
10/1/2030	\$712,182.52	\$222,030.99	\$934,213.52	\$612,477	42,085	\$14.55	\$99,706	13,175	\$7.57
10/1/2031	\$736,461.47	\$200,665.52	\$937,126.99	\$633,357	42,972	\$14.74	\$103,105	13,904	\$7.42
10/1/2032	\$756,693.93	\$178,571.67	\$935,265.60	\$650,757	43,878	\$14.83	\$105,937	14,683	\$7.21
10/1/2033	\$780,972.88	\$155,870.86	\$936,843.74	\$671,637	44,803	\$14.99	\$109,336	15,515	\$7.05
10/1/2034	\$0.00	\$132,441.67	\$132,441.67	\$0	45,747	\$0.00	\$0	16,405	\$0.00
10/1/2035	\$0.00	\$132,441.67	\$132,441.67	\$0	46,712	\$0.00	\$0	17,356	\$0.00
10/1/2036	\$0.00	\$132,441.67	\$132,441.67	\$0	47,696	\$0.00	\$0	18,374	\$0.00
10/1/2037	\$0.00	\$132,441.67	\$132,441.67	\$0	48,702	\$0.00	\$0	19,462	\$0.00
10/1/2038	\$4,131,467.93	\$132,441.67	\$4,263,909.60	\$3,553,062	49,728	\$71.45	\$578,406	20,626	\$28.04
10/1/2039	\$0.00	\$70,469.65	\$70,469.65	\$0	50,777	\$0.00	\$0	21,872	\$0.00
10/1/2040	\$0.00	\$70,469.65	\$70,469.65	\$0	51,847	\$0.00	\$0	23,205	\$0.00
10/1/2041	\$0.00	\$70,469.65	\$70,469.65	\$0	52,940	\$0.00	\$0	24,632	\$0.00
10/1/2042	\$0.00	\$70,469.65	\$70,469.65	\$0	54,056	\$0.00	\$0	26,160	\$0.00
10/1/2043	\$0.00	\$70,469.65	\$70,469.65	\$0	55,195	\$0.00	\$0	27,796	\$0.00
10/1/2044	\$0.00	\$70,469.65	\$70,469.65	\$0	56,359	\$0.00	\$0	29,549	\$0.00
10/1/2045	\$6,263,969.01	\$70,469.73	\$6,334,438.74	\$5,387,013	57,547	\$93.61	\$876,956	31,426	\$27.91
	\$18,800,000.00	\$4,917,308.81	\$23,717,308.81	\$16,168,000			\$2,632,000		

Discount Rate	4%
Residential Credit	\$209.61

Discount Rate	4%
Nonresidential Credit	\$104.44

**PROPOSED POLICE IMPACT FEES**

Infrastructure components and cost factors for Police impact fees are summarized in the upper portion of Figure P8. For Police impact fees, the capital cost is \$137.75 per person and \$23.88 per trip end.

Police impact fees for residential development are assessed according to the number of persons per housing unit. The single-family fee of \$302 is calculated using a cost of \$137.75 per person multiplied by a demand unit of 2.19 persons per housing unit.



Nonresidential impact fees are assessed according to the average weekday vehicle trip ends per 1,000 square feet of floor area. The industrial fee of \$58 per 1,000 square feet of floor area is derived from a cost of \$23 per trip end multiplied by a demand unit of 2.48 trips per 1,000 square feet.

**Figure P7: Schedule of Maximum Allowable Police Impact Fees**

Fee Component	Cost per Person	Cost per Trip
Police Facilities	\$280.91	\$83.83
Police Vehicles	\$66.45	\$44.49
Credit for Debt Payments	(\$209.61)	(\$104.44)
<b>Total</b>	<b>\$137.75</b>	<b>\$23.88</b>

Development Type	Fees per Unit	
	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$302
Multifamily	1.19	\$164

Development Type	Fees per 1,000 Square Feet	
	AWVT per 1,000 Sq Ft*	Proposed Fees
Commercial	12.46	\$298
Industrial	2.48	\$59
Office & Other Services	4.87	\$116

\*See Land Use Assumptions

**PROJECTED POLICE IMPACT FEE REVENUE**

Projected fee revenue shown below is based on the development projections, shown in Appendix A, and the proposed Police impact fees shown in Figure P7. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease, along with impact fee revenue. Projected impact fee revenue over the next 10 years equals \$1,318,746 and total projected expenditures equal \$14,052,957. Existing development’s share equals \$10,363,947 and must use non-development funds for repayment.

**Figure P8: Projected Police Impact Fee Revenues**

Fee Component	Growth Share	Existing Share	Total
Police Facilities	\$2,873,009	\$10,363,947	\$13,236,956
Police Vehicles	\$816,001	\$0	\$816,001
<b>Total</b>	<b>\$3,689,010</b>	<b>\$10,363,947</b>	<b>\$14,052,957</b>

		Single Family \$302 per unit	Multifamily \$164 per unit	Commercial \$298 per KSF	Industrial \$59 per KSF	Office \$116 per KSF
Year		Hsg Unit	Hsg Unit	KSF	KSF	KSF
Base	2021	15,421	652	355	143	739
Year 1	2022	15,770	667	381	155	750
Year 2	2023	16,128	682	408	168	762
Year 3	2024	16,494	697	438	182	774
Year 4	2025	16,868	713	470	197	786
Year 5	2026	17,250	729	504	214	799
Year 6	2027	17,641	746	540	232	811
Year 7	2028	18,041	763	579	251	824
Year 8	2029	18,450	780	621	272	837
Year 9	2030	18,868	798	666	295	850
Year 10	2031	19,266	814	715	320	864
10-Year Increase		3,845	163	360	178	125
<b>Projected Revenue</b>		<b>\$1,159,965</b>	<b>\$26,644</b>	<b>\$107,071</b>	<b>\$10,523</b>	<b>\$14,543</b>

<b>Projected Fee Revenue</b>	<b>\$1,318,746</b>
Existing Development Share	\$10,363,947
Total Expenditures	\$14,052,957

## LIBRARY IMPACT FEES

### METHODOLOGY

The Library impact fees include components for collection items and facilities. The *incremental expansion* methodology is used for Library collection items and the *cost recovery* methodology is used for Library facilities.

### SERVICE AREA

The City of Bella Vista provides Library services throughout Bella Vista; therefore, there is a single service area for the Library impact fees.

### PROPORTIONATE SHARE

Impact fees should not exceed a proportionate share of the capital cost needed to provide capital facilities to the development. The Library impact fees allocate the cost of capital facilities between residential and nonresidential development using the proportionate share of library card holders. Based on 2020 library card registration data, provided by Bella Vista Library staff, residential development accounts for approximately 92 percent of functional population and nonresidential development is responsible for the remaining 8 percent.

Figure L1: Library Proportionate Share Analysis

Proportionate Share Analysis		
Type	Registration Cards*	Percent
Residential	5,750	92%
Nonresidential	500	8%
TOTAL	6,250	100%

\* Bella Vista Library

### IMPACT FEE COMPONENTS

#### Library Facilities – Cost Recovery

The City of Bella Vista plans to repay itself for costs related to excess capacity in existing Library facilities. In May of 2020, the Library added an additional 6,400 square feet of space to serve future development. The cost of this project was \$2,169,166. Based on discussions with staff, Library facilities have enough capacity to serve all development in 2031.

This analysis uses library card registration data to allocate the proportionate share of demand to residential and nonresidential development in 2031. The 2031 level of service for residential development is 0.29 square feet per person (13,544 square feet X 92 percent residential share / 42,972 persons). The existing nonresidential level of service is 0.23 square feet per job (13,544 square feet X 8 percent nonresidential share / 4,746 jobs). For residential development, the cost is \$98.28 per person (0.29 square feet per person X \$338.93 cost per square foot). For nonresidential development, the cost is \$77.38 per job (0.23 square feet per job X \$338.93 cost per square foot).



**Figure L2: Library Facility Level of Service and Cost Allocation**

Description	Square Feet	Total Cost*
Library Expansion	6,400	\$2,169,166

\*Bella Vista Library

Level-of-Service Analysis	
Existing Square Feet	13,544
Population in 2031	42,972
Jobs in 2031	4,746
Residential Share	92%
Nonresidential Share	8%
<b>LOS: Square Feet per Person</b>	<b>0.29</b>
<b>LOS: Square Feet per Job</b>	<b>0.23</b>

Cost Analysis	
Cost per Square Foot	\$339
LOS: Square Feet per Person	0.29
<b>Cost per Person</b>	<b>\$98.28</b>
LOS: Square Feet per Job	0.23
<b>Cost per Job</b>	<b>\$77.38</b>

**Library Collection – Incremental Expansion**

The City of Bella Vista plans to expand its current inventory of Library collection items to serve future development. The current inventory includes 40,061 collection items with an estimated replacement cost of \$899,864. This equates to an average cost per cost per collection item of \$22.

This analysis uses Bella Vista Library card registration data, provided by City staff, to allocate the proportionate share of demand to residential and nonresidential development. The existing level of service for residential development is 1.09 units per person (40,396 collection items X 92 percent residential share / 34,396 persons). The existing nonresidential level of service is 1.00 units per job (40,681 collection items X 8 percent nonresidential share / 3,250 jobs). Using the average cost of \$22 per collection item, the Library collection items cost is \$24.07 per person (1.09 collection items per person X \$22 per unit) and \$22.15 per job (1.00 units per job X \$22 per unit).

**Figure L3: Library Collection Cost Allocation and Level of Service**

Description	Units*	Replacement Cost*
Collection Items	40,681	\$899,864

\*City of Bella Vista Library

Level-of-Service Analysis	
Population in 2021	34,396
Jobs in 2021	3,250
Residential Share	92%
Nonresidential Share	8%
<b>LOS: Collection Items per Person</b>	<b>1.09</b>
<b>LOS: Collection Items per Job</b>	<b>1.00</b>

Cost Analysis	
Cost per Collection Item	\$22
LOS: Collection Items per Person	1.09
<b>Cost per Person</b>	<b>\$24.07</b>
LOS: Collection Items per Job	1.00
<b>Cost per Job</b>	<b>\$22.15</b>

**PROJECTED DEMAND**

**Library Facilities**

Based on a projected population increase of 8,577 persons over the life of the library expansion, future residential development demands an additional 2,487 square feet of library facilities (8,577 additional persons X 0.29 square feet per person). With projected employment growth of 1,496 jobs over the life of the library expansion, future nonresidential development demands an additional 342 square feet of library space (1,496 additional jobs X \$0.23 square feet per job). Future development’s share of library facilities costs is \$958,671. Existing development’s share is \$1,210,495 and must use non-development funds for repayment.

**Figure L4: Projected Demand for Library Space**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Library Facilities	0.29 Square Feet	per Person	\$339
	0.23 Square Feet	per Job	

Demand for Facilities					
Year	Population	Employment	Residential Demand	Nonresidential Demand	Total
2021	34,396	3,250	9,974	742	<b>10,715</b>
2022	35,175	3,364	10,200	768	<b>10,968</b>
2023	35,973	3,484	10,431	795	<b>11,226</b>
2024	36,788	3,612	10,667	825	<b>11,492</b>
2025	37,622	3,747	10,909	855	<b>11,765</b>
2026	38,475	3,889	11,157	888	<b>12,045</b>
2027	39,348	4,041	11,410	923	<b>12,332</b>
2028	40,240	4,202	11,668	959	<b>12,627</b>
2029	41,152	4,372	11,933	998	<b>12,931</b>
2030	42,085	4,553	12,203	1,040	<b>13,243</b>
2031	42,972	4,746	12,460	1,084	<b>13,544</b>
10-Yr Increase	8,577	1,496	2,487	342	<b>2,829</b>

Growth-Related Expenditures	\$842,902	\$115,769	\$958,671
Existing Development Share	\$1,152,731	\$57,764	\$1,210,495
Total Cost	\$1,995,633	\$173,533	\$2,169,166

**Library Collection Items**

Based on a projected population increase of 8,577 persons over the next 10 years, future residential development demands an additional 9,332 collection items (8,577 additional persons X 1.1 collection items per person). With projected employment growth of 1,496 jobs over the next 10 years, future nonresidential development demands an additional 1,498 collection items (1,496 additional jobs X 1.00 collection items per job). Future development demands an additional 10,831 units of library collection items at a cost of \$239,575 (10,831 units X \$22.12 per item).

**Figure L5: Projected Demand for Library Collection Items**

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Library Collections	1.09 Collection Items	per Person	\$22
	1.00 Collection Items	per Job	

Demand for Collection Items					
Year	Population	Employment	Residential Demand	Nonresidential Demand	Total
2021	34,396	3,250	37,427	3,254	<b>40,681</b>
2022	35,175	3,364	38,275	3,369	<b>41,644</b>
2023	35,973	3,484	39,143	3,489	<b>42,632</b>
2024	36,788	3,612	40,030	3,617	<b>43,647</b>
2025	37,622	3,747	40,938	3,752	<b>44,690</b>
2026	38,475	3,889	41,866	3,895	<b>45,761</b>
2027	39,348	4,041	42,815	4,047	<b>46,862</b>
2028	40,240	4,202	43,786	4,208	<b>47,993</b>
2029	41,152	4,372	44,778	4,379	<b>49,157</b>
2030	42,085	4,553	45,794	4,560	<b>50,354</b>
2031	42,972	4,746	46,759	4,753	<b>51,512</b>
10-Yr Increase	8,577	1,496	9,332	1,498	<b>10,831</b>

<b>Growth-Related Expenditures</b>	<b>\$206,433</b>	<b>\$33,142</b>	<b>\$239,575</b>
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**PROPOSED LIBRARY IMPACT FEES**

Infrastructure components and cost factors for Library impact fees are summarized in figure L6. For Library impact fees, the capital cost is \$122.89 per person and \$100.29 per job.

Library impact fees for residential development are assessed according to the number of persons per housing unit. The single-family fee of \$269 is calculated using a cost of \$122.89 per person multiplied by a demand unit of 2.19 persons per housing unit.

Nonresidential impact fees are assessed according to the number of jobs per 1,000 square feet of floor area. The commercial/shopping center fee of \$235 per 1,000 square feet of floor area is derived from a cost of \$100.29 per job multiplied by a demand unit of 2.34 jobs per 1,000 square feet.

**Figure L6: Schedule of Maximum Allowable Library Impact Fees**

Fee Component	Cost per Person	Cost per Job
Library Facilities	\$98.28	\$77.38
Library Collection	\$24.61	\$22.91
<b>Total</b>	<b>\$122.89</b>	<b>\$100.29</b>

Development Type	Fees per Unit	
	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$269
Multifamily	1.19	\$119

Development Type	Fees per 1,000 Square Feet	
	Jobs per 1,000 Sq Ft*	Proposed Fees
Commercial	2.34	\$235
Industrial	1.63	\$163
Office	2.97	\$298

\* See Land Use Assumptions

**PROJECTED LIBRARY IMPACT FEE REVENUE**

Projected fee revenue shown below is based on the development projections, shown in Appendix A, and the proposed Library impact fees shown in Figure L6. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and impact fee revenue will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease, along with impact fee revenue. Projected impact fee revenue over the next 10 years equals \$1,205,578 and total projected expenditures equal \$2,408,741. Existing development's share equals \$1,203,163 and must use non-development funds for repayment.

**Figure L7: Projected Library Impact Fee Revenue**

Fee Component	Growth Share	Existing Share	Total
Library Collection	\$239,575	\$0	\$239,575
Library Facilities	\$958,671	\$1,210,495	\$2,169,166
<b>Total Expenditures</b>	<b>\$1,198,246</b>	<b>\$1,210,495</b>	<b>\$2,408,741</b>

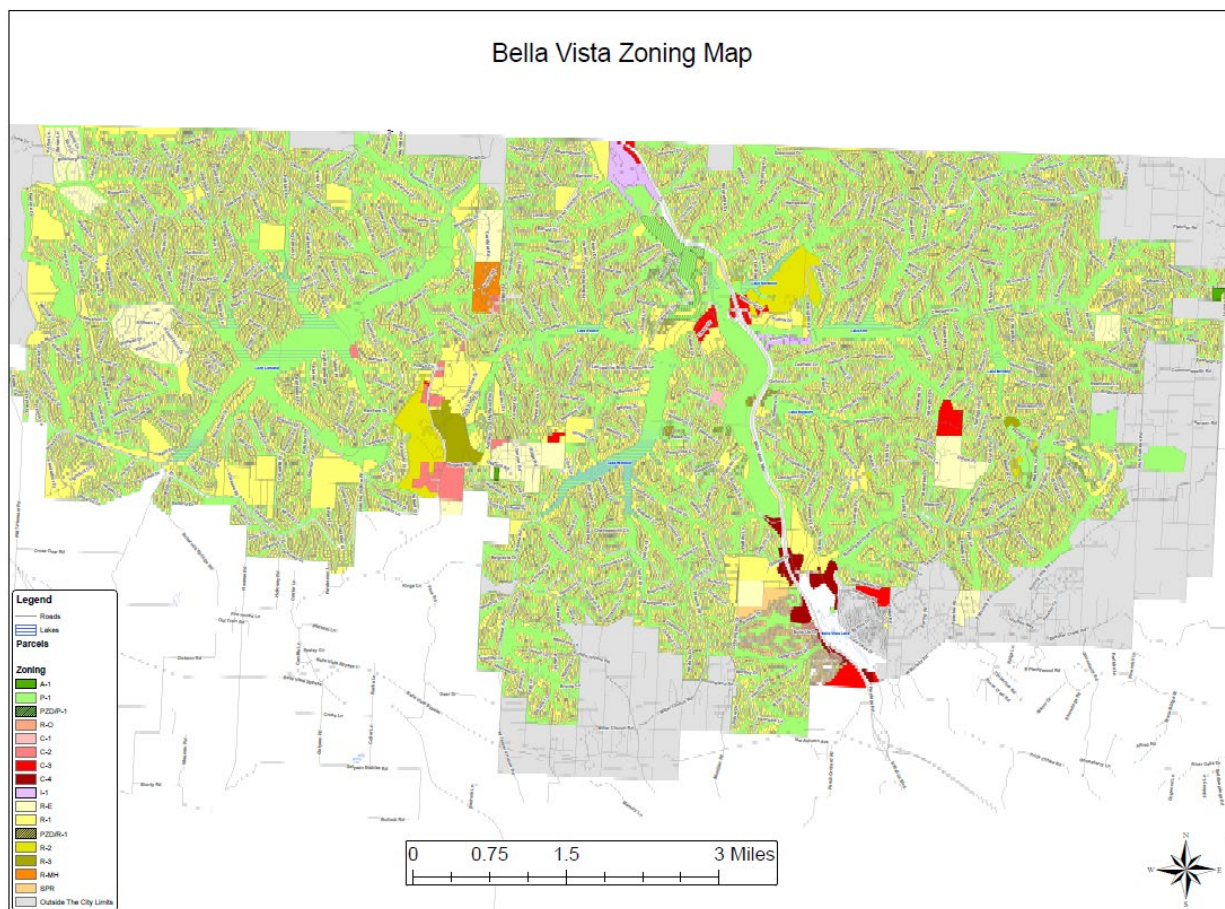
		Single Family \$269 per Unit	Multifamily \$119 per Unit	Commercial \$235 per 1,000 Sq Ft.	Industrial \$163 per 1,000 Sq Ft.	Office \$298 per 1,000 Sq Ft.
Year		Housing Units	Housing Units	KSF	KSF	KSF
Base	2021	15,421	652	355	143	739
Year 1	2022	15,770	667	381	155	750
Year 2	2023	16,128	682	408	168	762
Year 3	2024	16,494	697	438	182	774
Year 4	2025	16,868	713	470	197	786
Year 5	2026	17,250	729	504	214	799
Year 6	2027	17,641	746	540	232	811
Year 7	2028	18,041	763	579	251	824
Year 8	2029	18,450	780	621	272	837
Year 9	2030	18,868	798	666	295	850
Year 10	2031	19,266	814	715	320	864
10-Yr Increase		3,845	163	360	178	125
<b>Projected Revenue</b>		<b>\$1,035,451</b>	<b>\$19,400</b>	<b>\$84,440</b>	<b>\$29,045</b>	<b>\$37,243</b>

<b>Projected Fee Revenue</b>	<b>\$1,205,578</b>
Total Expenditures	\$2,408,741
Existing Development Share	\$1,203,163

## APPENDIX A: LAND USE ASSUMPTIONS

The City of Bella Vista, Arkansas, retained TischlerBise to analyze the impacts of development on its capital facilities and to calculate impact fees based on that analysis. TischlerBise prepared current demographic estimates and future development projections for both residential and nonresidential development that will be used in the calculation of the impact fees. Current demographic data estimates for 2021 are used in calculating levels of service (LOS) provided to existing development in Bella Vista.

The estimates and projections of residential and nonresidential development in this *Land Use Assumptions* document are for areas within the boundaries of Bella Vista, Arkansas. The map below illustrates the areas within the Citywide Service Area for Fire/EMS, Police, and Library development impact fees.



## SUMMARY OF GROWTH INDICATORS

Key land use assumptions for the Bella Vista Impact Fee Study are population, housing units, and employment. Based on discussions with city staff, TischlerBise estimates population using data from the Northwest Arkansas Regional Planning Commission’s *2040 Northwest Arkansas Metropolitan Transportation Plan* (Chapter 3; Table 2). For housing units, TischlerBise applies person per housing unit factors derived from 2014-2018 American Community Survey 5-Year Estimates to population estimates and projections. For nonresidential development, the base year employment estimate is calculated based on data used in the *2040 Northwest Arkansas Metropolitan Transportation Plan*. TischlerBise converts employment estimates and projections to nonresidential floor area based on average square feet per job multipliers published by the Institute of Transportation Engineers (ITE). The projections contained in this document provide the foundation for the Impact Fee Study. These metrics are the service units and demand indicators used in the Impact Fee Study.

Development projections, summarized below, will be used to estimate impact fee revenue and to indicate the anticipated need for growth-related infrastructure. However, impact fee methodologies are designed to reduce sensitivity to development projections in the determination of the proportionate share fee amounts. If actual development is slower than projected, fee revenue will decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, Bella Vista will receive an increase in fee revenue, but will also need to accelerate infrastructure improvements to keep pace with the actual rate of development. During the next 10 years, citywide development projections indicate an increase of 4,008 housing units and approximately 663 thousand square feet of nonresidential floor area.

Bella Vista, AR	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Increase
	Base Yr	1	2	3	4	5	6	7	8	9	10	
<b>Population<sup>1</sup></b>												
Single Family Units	33,395	34,152	34,926	35,718	36,528	37,356	38,203	39,069	39,955	40,861	41,722	8,327
Multifamily Units	1,001	1,023	1,046	1,070	1,094	1,119	1,145	1,171	1,197	1,224	1,250	249
<b>Total</b>	<b>34,396</b>	<b>35,175</b>	<b>35,973</b>	<b>36,788</b>	<b>37,622</b>	<b>38,475</b>	<b>39,348</b>	<b>40,240</b>	<b>41,152</b>	<b>42,085</b>	<b>42,972</b>	<b>8,577</b>
<b>Housing Units<sup>2</sup></b>												
Single Family Units	15,421	15,770	16,128	16,494	16,868	17,250	17,641	18,041	18,450	18,868	19,266	3,845
Multifamily Units	652	667	682	697	713	729	746	763	780	798	814	163
<b>Total</b>	<b>16,073</b>	<b>16,437</b>	<b>16,810</b>	<b>17,191</b>	<b>17,581</b>	<b>17,979</b>	<b>18,387</b>	<b>18,804</b>	<b>19,230</b>	<b>19,666</b>	<b>20,080</b>	<b>4,008</b>
<b>Jobs<sup>3</sup></b>												
Commercial	831	891	956	1,025	1,100	1,180	1,265	1,357	1,455	1,561	1,674	843
Industrial	227	246	266	289	313	340	368	399	433	470	509	282
Office/ Institutional	2,192	2,227	2,262	2,297	2,333	2,370	2,408	2,446	2,484	2,523	2,563	371
<b>Total</b>	<b>3,250</b>	<b>3,364</b>	<b>3,484</b>	<b>3,612</b>	<b>3,747</b>	<b>3,889</b>	<b>4,041</b>	<b>4,202</b>	<b>4,372</b>	<b>4,553</b>	<b>4,746</b>	<b>1,496</b>
<b>Nonres Sq Ft in thousands (KSF)<sup>3</sup></b>												
Commercial	355	381	408	438	470	504	540	579	621	666	715	360
Industrial	143	155	168	182	197	214	232	251	272	295	320	178
Office/ Institutional	739	750	762	774	786	799	811	824	837	850	864	125
<b>Total</b>	<b>1,236</b>	<b>1,286</b>	<b>1,338</b>	<b>1,394</b>	<b>1,453</b>	<b>1,516</b>	<b>1,583</b>	<b>1,655</b>	<b>1,731</b>	<b>1,812</b>	<b>1,899</b>	<b>663</b>

1. Population projections given by NWARPC for 2020, 2030, and 2040. All other years total population is calculated by annual compound growth rates using the 2020, 2030, and 2040 projections. The annual compound growth rate between 2020 and 2030 is 2.27% and between 2030-2040 it is 2.11%.

2. Total housing unit projections are calculated by dividing the total population projection by the average persons-per-housing unit (2.14). Multiplying the total housing units by the current housing mix results in number of housing units by type.

3. Employment projections based on annual employment growth in each sector between 2010-2017. Annualized growth rates were calculated to be 7% for commercial, 8% for industrial, and 2% for office.

4 Nonresidential Floor Area is calculated by multiplying an ITE (Institute of Transportation Engineers) floor area per employee (Sq.Ft.) estimate and that years employees in per respective industry.



**RESIDENTIAL DEVELOPMENT**

**Housing Unit Size**

According to the U.S. Census Bureau, a household is a housing unit occupied by year-round residents. Impact fees often use per capita standards and persons per housing unit (PPHU) or persons per household (PPH) to derive proportionate share fee amounts. When PPHU is used in the fee calculations, infrastructure standards are derived using year-round population. When PPH is used in the fee calculations, the impact fee methodology assumes a higher percentage of housing units will be occupied, thus requiring seasonal or peak population to be used when deriving infrastructure standards. TischlerBise recommends that Bella Vista impose impact fees for residential development according to the number of persons per housing unit (PPHU).

Occupancy calculations require data on population and the types of units by structure. The 2010 census did not obtain detailed information using a “long-form” questionnaire. Instead, the U.S. Census Bureau switched to 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 now combined with attached single units (commonly known as townhouses, which share a common sidewall, but are constructed on an individual parcel of land). For impact fees in Bella Vista, detached stick-built units and attached are included in the “Single-Family” category. The second residential category includes duplexes and all other structures with two or more units on an individual parcel of land. This is referred to as the “Multi-Family” category. The “Multi-Family” category also includes mobile homes, boats, RV, vans, and all other units.

Figure A1 below shows the occupancy estimates for Bella Vista. Single-family units average 2.19 persons per housing unit and multi-family units average 1.19 persons per housing unit.

**Figure A1: Persons per Housing Unit**

2018 Summary by Type of Housing	Persons	Households	Persons per Household	Housing Units	Persons Per Housing Unit	Housing Mix
Single Family	27,937	11,757	2.38	12,759	2.19	95%
Multifamily	837	497	1.68	701	1.19	5%
<b>TOTAL</b>	<b>28,774</b>	<b>12,254</b>	<b>2.35</b>	<b>13,460</b>	<b>2.14</b>	

*Source: 2013-2018 American Community Survey 5-year Estimates, U.S. Census Bureau*

## Residential Estimates

TischlerBise uses the Northwest Arkansas Regional Planning Commissions' 2040 Northwest Arkansas Metropolitan Transportation Plan data to derive 2021 base year population estimates. Shaded yellow in Figure A2, city population estimates equal 34,396 persons in 2021. TischlerBise allocates population to interim years using a linear projection. Since population in group quarters is not associated with a housing unit, the analysis excludes group quarters population. TischlerBise uses resident population, calculated by subtracting group quarters population from total population, to project demand from future residential development. The base year resident population estimate equals 34,396 persons.

To estimate housing units, TischlerBise applies the persons per housing unit factor derived from 2014-2018 American Community Survey 5-Year Estimates to the resident population estimates and projections. To estimate housing units by type, the analysis maintains the existing housing mix shown in Figure A1. This results in an additional 3,845 single-family units and 163 multi-family units. The base year housing estimate includes 16,073 housing units.

**Figure A2: Residential Estimates**

Bella Vista, AR	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Increase
	Base Yr	1	2	3	4	5	6	7	8	9	10	
<b>Population<sup>1</sup></b>												
Single Family Units	33,395	34,152	34,926	35,718	36,528	37,356	38,203	39,069	39,955	40,861	41,722	8,327
Multifamily Units	1,001	1,023	1,046	1,070	1,094	1,119	1,145	1,171	1,197	1,224	1,250	249
<b>Total</b>	<b>34,396</b>	<b>35,175</b>	<b>35,973</b>	<b>36,788</b>	<b>37,622</b>	<b>38,475</b>	<b>39,348</b>	<b>40,240</b>	<b>41,152</b>	<b>42,085</b>	<b>42,972</b>	<b>8,577</b>
<b>Housing Units<sup>2</sup></b>												
Single Family Units	15,421	15,770	16,128	16,494	16,868	17,250	17,641	18,041	18,450	18,868	19,266	3,845
Multifamily Units	652	667	682	697	713	729	746	763	780	798	814	163
<b>Total</b>	<b>16,073</b>	<b>16,437</b>	<b>16,810</b>	<b>17,191</b>	<b>17,581</b>	<b>17,979</b>	<b>18,387</b>	<b>18,804</b>	<b>19,230</b>	<b>19,666</b>	<b>20,080</b>	<b>4,008</b>

Source: 2040 Northwest Arkansas Metropolitan Transportation Plan, Northwest Arkansas Regional Planning Commission.; Chapter 3, Table 3.2.

1. Population projections given by NWARPC for 2020, 2030, and 2040. All other years total population is calculated by annual compound growth rates using the 2020, 2030, and 2040 projections. The annual compound growth rate between 2020 and 2030 is 2.27% and between 2030-2040 it is 2.11%.

2. Total housing unit projections are calculated by dividing the total population projection by the average persons-per-housing unit (2.14). Multiplying the total housing units by the

## NONRESIDENTIAL DEVELOPMENT

Current estimates and future projections of nonresidential development are detailed in this section including jobs and nonresidential floor area. TischlerBise uses the term jobs to refer to employment by place of work. In Figure A3, gray shading indicates the nonresidential development prototypes used by TischlerBise to derive employment densities and average weekday vehicle trip ends. For nonresidential development, TischlerBise uses data published in Trip Generation, Institute of Transportation Engineers, 10<sup>th</sup> Edition (2017).

The prototype for industrial development is Light Industrial (110) which generates 4.96 average weekday vehicle trip ends per 1,000 square feet of floor area and has 613 square feet of floor area per employee. For office and institutional development, the proxy is General Office (ITE 710); it generates 9.74 average weekday vehicle trip ends per 1,000 square feet of floor area and has 337 square feet of floor area per employee. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.75 average weekday vehicle trips per 1,000 square feet of floor area and has 427 square feet of floor area per employee.

**Figure A3: Nonresidential Demand Units**

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit <sup>1</sup>	Wkdy Trip Ends Per Employee <sup>1</sup>	Employees Per Dmd Unit	Sq Ft Per Employee
110	Light Industrial	1,000 Sq Ft	4.96	3.05	1.63	613
130	Industrial Park	1,000 Sq Ft	3.37	2.91	1.16	862
140	Manufacturing	1,000 Sq Ft	3.93	2.47	1.59	629
150	Warehousing	1,000 Sq Ft	1.74	5.05	0.34	2,941
254	Assisted Living	bed	2.60	4.24	0.61	na
320	Motel	room	3.35	25.17	0.13	na
520	Elementary School	1,000 Sq Ft	19.52	21.00	0.93	1,075
530	High School	1,000 Sq Ft	14.07	22.25	0.63	1,587
540	Community College	student	1.15	14.61	0.08	na
550	University/College	student	1.56	8.89	0.18	na
565	Day Care	student	4.09	21.38	0.19	na
610	Hospital	1,000 Sq Ft	10.72	3.79	2.83	353
620	Nursing Home	bed	3.06	2.91	1.05	na
710	General Office (average size)	1,000 Sq Ft	9.74	3.28	2.97	337
760	Research & Dev Center	1,000 Sq Ft	11.26	3.29	3.42	292
770	Business Park	1,000 Sq Ft	12.44	4.04	3.08	325
820	Shopping Center (average size)	1,000 Sq Ft	37.75	16.11	2.34	427

1. *Trip Generation*, Institute of Transportation Engineers, 10th Edition (2017).

### Employment Estimates

TischlerBise uses the Esri Business Analyst and Past employment growth data to derive 2021 base year employment estimates. Shaded yellow in Figure A4, Bella Vista employment estimates equal 3,250 jobs in 2021. To calculate employment by industry sector, TischlerBise applies 2020 Esri Business Analyst data to the ITE Trip Generation Estimates.

To estimate nonresidential floor area, TischlerBise applies the employment density factors shown in Figure A3 to employment estimates, by industry sector, shown below in Figure A4. For example, 2020 city-wide industrial employment of 209 jobs multiplied by an employment density factor of 613 square feet per employee equals 143 KSF of industrial floor area. TischlerBise repeats this process for commercial and office development. The 2021 base year estimate includes approximately 1.18 million square feet of nonresidential floor area.

**Figure A4: Nonresidential Estimates**

Development Type	2020 Jobs	Share of Total Jobs	Square Feet per Employee <sup>1</sup>	2020 Estimated Floor Area <sup>2</sup>	Jobs per 1,000 Sq Ft <sup>2</sup>
Commercial <sup>3</sup>	775	25%	427	330,925	2.34
Industrial <sup>4</sup>	209	7%	613	128,117	1.63
Office/Institutional <sup>5</sup>	2,158	69%	337	727,246	2.97
<b>Total</b>	<b>3,142</b>	<b>100%</b>		<b>1,186,288</b>	

Source: Esri Business Analyst Online, 2020.

1. Trip Generation, Institute of Transportation Engineers, 10th Edition (2017).
2. TischlerBise Calculation
3. Major sectors include Retail Trade; Accommodation and Food Services.
4. Major sectors include Manufacturing; Wholesale Trade.
5. Major sectors include Educational Services; Health Care & Social Assistance.

### Nonresidential Projections

TischlerBise utilizes US Census Bureau data from 2010 to 2017 on past employment to project future employment. Based on these projections, Bella Vista’s citywide employment will increase to 4,746 jobs in 2031. TischlerBise converts projected employment to projected floor area using the same steps outlined in the previous section. This results in a total nonresidential floor area projection of approximately 1.89 million square feet in 2031.

Employment and nonresidential floor area projections are used to illustrate the possible future pace of service demands, revenues, and expenditures. To the extent these factors change, the projected need for infrastructure will also change. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase at a corresponding rate. If development occurs at a slower rate than is projected, the demand for infrastructure will also decrease.

**Figure A5: Nonresidential Projections**

Job Projections <sup>1</sup>	Base	1	2	3	4	5	6	7	8	9	10	10-Year Increase
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Commercial	831	891	956	1,025	1,100	1,180	1,265	1,357	1,455	1,561	1,674	899
Industrial	227	246	266	289	313	340	368	399	433	470	509	300
Office	2,192	2,227	2,262	2,297	2,333	2,370	2,408	2,446	2,484	2,523	2,563	405
<b>Total</b>	<b>3,250</b>	<b>3,364</b>	<b>3,484</b>	<b>3,612</b>	<b>3,747</b>	<b>3,889</b>	<b>4,041</b>	<b>4,202</b>	<b>4,372</b>	<b>4,553</b>	<b>4,746</b>	<b>1,604</b>

1. Employment projections based on annual employment growth in each sector between 2010-2017. Annualized growth rates were calculated to be 7% for commercial, 8% for industrial, and 3% for office.

KSF Projections <sup>1</sup>	Base	1	2	3	4	5	6	7	8	9	10	10-Year Increase
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Commercial	355	381	408	438	470	504	540	579	621	666	715	384
Industrial	143	155	168	182	197	214	232	251	272	295	320	189
Office	739	750	762	774	786	799	811	824	837	850	864	136
<b>Total</b>	<b>1,236</b>	<b>1,286</b>	<b>1,338</b>	<b>1,394</b>	<b>1,453</b>	<b>1,516</b>	<b>1,583</b>	<b>1,655</b>	<b>1,731</b>	<b>1,812</b>	<b>1,899</b>	<b>709</b>

1. Nonresidential Floor Area is calculated by multiplying an ITE (Institute of Transportation Engineers) floor area per employee (Sq.Ft.) estimate and that years employees in their respective industry.

### AVERAGE WEEKDAY VEHICLE TRIPS

Bella Vista will use average weekday vehicle trips (AWVT) as the nonresidential demand units for Law Enforcement fees.

## Nonresidential Trip Generation Rates

For nonresidential development, TischlerBise uses trip generation rates published in *Trip Generation*, Institute of Transportation Engineers, 10<sup>th</sup> Edition (2017). The prototype for industrial development is Light Industrial (110) which generates 4.96 average weekday vehicle trip ends per 1,000 square feet of floor area. For office and institutional development, the proxy is General Office (ITE 710), and it generates 9.74 average weekday vehicle trip ends per 1,000 square feet of floor area. The prototype for commercial development is Shopping Center (ITE 820) which generates 37.75 average weekday vehicle trips per 1,000 square feet of floor area.

**Figure A6: Average Weekday Vehicle Trip Ends by Land Use**

ITE Code	Land Use / Size	Demand Unit	Wkdy Trip Ends Per Dmd Unit <sup>1</sup>	Wkdy Trip Ends Per Employee <sup>1</sup>	Employees Per Dmd Unit	Sq Ft Per Employee
820	Shopping Center (average size)	1,000 Sq Ft	37.75	16.11	2.34	427
110	Light Industrial	1,000 Sq Ft	4.96	3.05	1.63	613
710	General Office (average size)	1,000 Sq Ft	9.74	3.28	2.97	337

<sup>1</sup>1. Trip Generation, Institute of Transportation Engineers, 10th Edition (2017).

## Trip Rate Adjustments

Average Weekday Vehicle Trips (AWVT) are used as a measure of demand by land use. Vehicle trips are estimated using average weekday vehicle trip ends from the reference book, *Trip Generation, 10<sup>th</sup> Edition*, published by the Institute of Transportation Engineers (ITE) in 2017. A vehicle trip end represents a vehicle entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate the impact fees, trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. The basic trip adjustment factor is 50 percent. As discussed further below, the impact fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

### Adjustment for Pass-By Trips

For commercial development, the trip adjustment factor is less than 50 percent 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 the way home from work, the convenience store is not the primary destination. For the average shopping center, ITE data indicate 34 percent of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66 percent of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66 percent multiplied by 50 percent, or approximately 33 percent of the trip ends.

## FUNCTIONAL POPULATION

TischlerBise recommends functional population to allocate the cost of infrastructure to residential and nonresidential development. Functional population is similar to what the U.S. Census Bureau calls "daytime population," which accounts for people living and working in a jurisdiction, but also considers commuting patterns and time spent at home and at nonresidential locations. OnTheMap is a web-based mapping and reporting application that shows where workers are employed and where they live. OnTheMap was developed through a unique partnership between the U.S. Census Bureau and its Local Employment Dynamics (LED) partner states.

Residents who do not work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents who work in Bella Vista are assigned 16 hours to residential development and 8 hours to nonresidential development. Residents who work outside Bella Vista are assigned 16 hours to residential development, and inflow commuters are assigned 8 hours to nonresidential development. Based on 2018 data, residential development accounts for 86 percent of functional population and nonresidential development accounts for the remaining 14 percent.

**Figure A7: Functional Population**

<b>Proportionate Share</b>				
	<i>Demand Units in 2018</i>	<i>Demand Hours/Day</i>	<i>Person Hours</i>	<i>Proportionate Share</i>
<b>Residential</b>				
Estimated Residents	28,774			
57% Residents Not Working	16,519	20	330,380	
43% Workers Living in the City	12,255			
6% City Residents Working in the City	781	16	12,496	
94% City Residents Working outside of the City	11,474	16	183,584	
	<i>Residential Subtotal</i>		<u>526,460</u>	<b>86.0%</b>
<b>Nonresidential</b>				
Non-working Residents	16,519	4	66,076	
Jobs Located in the City	2,465			
City Residents Working in the City	781	8	6,248	
Non-Resident Workers	1,684	8	13,472	
	<i>Nonresidential Subtotal</i>		<u>85,796</u>	<b>14.0%</b>
			<b>Total</b>	<b>612,256</b>
				<b>100%</b>

Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics

**DEVELOPMENT PROJECTIONS**

**Citywide**

Provided below are summaries of Bella Vista development projections used in the Impact Fee Study. Development projections are used to illustrate a possible future pace of demand for service units and cash flows resulting from revenues and expenditures associated with those demands.

**Figure A8: Development Projections Summary**

Bella Vista, AR	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Increase
	Base Yr	1	2	3	4	5	6	7	8	9	10	
<b>Population<sup>1</sup></b>												
Single Family Units	33,395	34,152	34,926	35,718	36,528	37,356	38,203	39,069	39,955	40,861	41,722	8,327
Multifamily Units	1,001	1,023	1,046	1,070	1,094	1,119	1,145	1,171	1,197	1,224	1,250	249
<b>Total</b>	<b>34,396</b>	<b>35,175</b>	<b>35,973</b>	<b>36,788</b>	<b>37,622</b>	<b>38,475</b>	<b>39,348</b>	<b>40,240</b>	<b>41,152</b>	<b>42,085</b>	<b>42,972</b>	<b>8,577</b>
<b>Housing Units<sup>2</sup></b>												
Single Family Units	15,421	15,770	16,128	16,494	16,868	17,250	17,641	18,041	18,450	18,868	19,266	3,845
Multifamily Units	652	667	682	697	713	729	746	763	780	798	814	163
<b>Total</b>	<b>16,073</b>	<b>16,437</b>	<b>16,810</b>	<b>17,191</b>	<b>17,581</b>	<b>17,979</b>	<b>18,387</b>	<b>18,804</b>	<b>19,230</b>	<b>19,666</b>	<b>20,080</b>	<b>4,008</b>
<b>Jobs<sup>3</sup></b>												
Commercial	831	891	956	1,025	1,100	1,180	1,265	1,357	1,455	1,561	1,674	843
Industrial	227	246	266	289	313	340	368	399	433	470	509	282
Office/ Institutional	2,192	2,227	2,262	2,297	2,333	2,370	2,408	2,446	2,484	2,523	2,563	371
<b>Total</b>	<b>3,250</b>	<b>3,364</b>	<b>3,484</b>	<b>3,612</b>	<b>3,747</b>	<b>3,889</b>	<b>4,041</b>	<b>4,202</b>	<b>4,372</b>	<b>4,553</b>	<b>4,746</b>	<b>1,496</b>
<b>Nonres Sq Ft in thousands (KSF)<sup>3</sup></b>												
Commercial	355	381	408	438	470	504	540	579	621	666	715	360
Industrial	143	155	168	182	197	214	232	251	272	295	320	178
Office/ Institutional	739	750	762	774	786	799	811	824	837	850	864	125
<b>Total</b>	<b>1,236</b>	<b>1,286</b>	<b>1,338</b>	<b>1,394</b>	<b>1,453</b>	<b>1,516</b>	<b>1,583</b>	<b>1,655</b>	<b>1,731</b>	<b>1,812</b>	<b>1,899</b>	<b>663</b>

1. Population projections given by NWARPC for 2020, 2030, and 2040. All other years total population is calculated by annual compound growth rates using the 2020, 2030, and 2040 projections. The annual compound growth rate between 2020 and 2030 is 2.27% and between 2030-2040 it is 2.11%.

2. Total housing unit projections are calculated by dividing the total population projection by the average persons-per-housing unit (2.14). Multiplying the total housing units by the current housing mix results in number of housing units by type.

3. Employment projections based on annual employment growth in each sector between 2010-2017. Annualized growth rates were calculated to be 7% for commercial, 8% for industrial, and 2% for office.

4. Nonresidential Floor Area is calculated by multiplying an ITE (Institute of Transportation Engineers) floor area per employee (Sq.Ft.) estimate and that years employees in per respective industry.

## NONRESIDENTIAL VEHICLE TRIP PROJECTIONS

Provided below are citywide summaries of residential vehicle trip projections used in the Impact Fee Study.

**Figure A9: Nonresidential Vehicle Trip Projections Summary**

<b>Trip Projections</b>	<b>Base</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>10-Year</b>
<u>Residential</u>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Increase
Single Family	88,523	90,530	92,582	94,681	96,828	99,023	101,268	103,564	105,912	108,313	110,597	22,073
Multi-Family	1,766	1,806	1,847	1,889	1,932	1,975	2,020	2,066	2,113	2,161	2,206	440
<b>Total</b>	<b>90,289</b>	<b>92,336</b>	<b>94,429</b>	<b>96,570</b>	<b>98,760</b>	<b>100,999</b>	<b>103,288</b>	<b>105,630</b>	<b>108,025</b>	<b>110,474</b>	<b>112,803</b>	<b>22,514</b>
<u>Nonresidential</u>												
Commercial	4,421	4,742	5,086	5,455	5,850	6,274	6,729	7,217	7,740	8,302	8,904	4,482
Industrial	354	383	416	451	489	530	575	623	675	732	794	441
Office	3,598	3,654	3,712	3,770	3,830	3,890	3,951	4,014	4,077	4,141	4,206	609
<b>Total</b>	<b>8,372</b>	<b>8,780</b>	<b>9,213</b>	<b>9,676</b>	<b>10,168</b>	<b>10,694</b>	<b>11,255</b>	<b>11,854</b>	<b>12,493</b>	<b>13,175</b>	<b>13,904</b>	<b>5,532</b>
<b>Grand Total</b>	<b>98,661</b>	<b>101,115</b>	<b>103,643</b>	<b>106,246</b>	<b>108,928</b>	<b>111,693</b>	<b>114,544</b>	<b>117,484</b>	<b>120,518</b>	<b>123,649</b>	<b>126,707</b>	<b>28,046</b>



## **APPENDIX B: LAND USE DEFINITIONS**

### **RESIDENTIAL DEVELOPMENT**

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As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Bella Vista will collect impact fees from all new residential units. 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.

#### **Multi-Family 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. 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.
3. 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**

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The proposed general nonresidential development categories (defined below) can be used for all new construction within Bella Vista. Nonresidential development categories represent general groups of land uses that share similar average weekday vehicle trip generation rates and employment densities (i.e., jobs per thousand square feet of floor area).

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

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

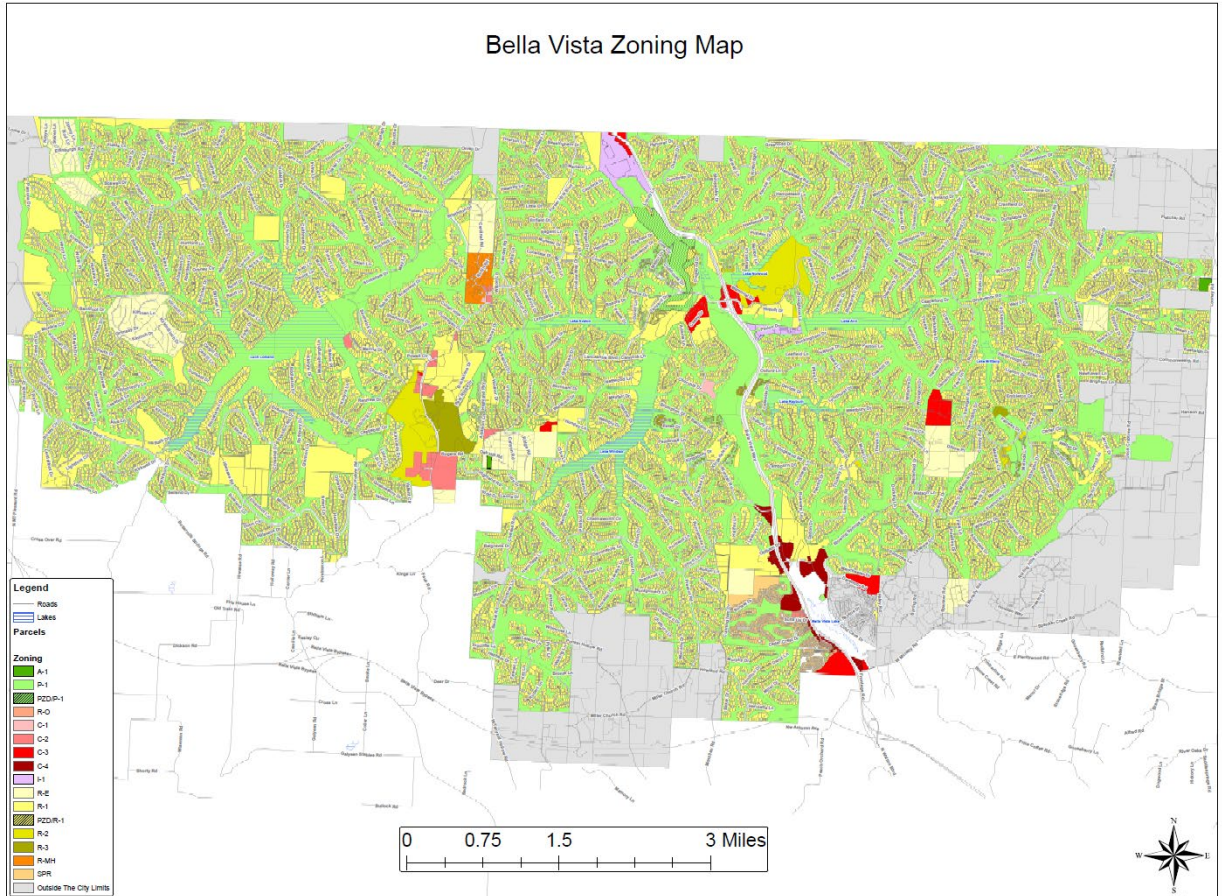
**Institutional:** Public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, *Institutional* includes schools, universities, churches, daycare facilities, hospitals, government buildings, assisted living facilities, and nursing home facilities.

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

## APPENDIX C: SERVICE AREA MAPS

### CITYWIDE SERVICE AREA

The map below represents the Citywide Service Area for Fire/EMS, Police, Library, and Transportation development impact fees.







# Overview of Development Impact Fee Study

Presented To:

City of Bella Vista, AR



**BELLA VISTA**  
*A place to call home*

# Impact Fee Methodologies

- **Cost Recovery / Buy-In (Past)**
  - » Future development “buying in” to cost the community has already incurred to provide growth-related capacity
  
- **Incremental Expansion (Present)**
  - » Formula-based approach using existing levels of service
  - » Fee based on current cost to replicate existing levels of service (i.e. replacement cost)
  
- **Plan-Based (Future)**
  - » Usually reflects an adopted CIP or master plan

# Bella Vista Impact Fee Study

Necessary Public Service	Service Area	Cost Recovery	Incremental Expansion	Plan-Based	Cost Allocation
Fire/EMS	Bella Vista	N/A	Facilities, Apparatus	Training Facilities	Population, Trip Ends
Police	Bella Vista	N/A	Vehicles and Equipment	Facilities	Population, Trip Ends
Library	Bella Vista	Facilities	Collection Items	N/A	Population, Jobs

# Population & Housing Characteristics

- TischlerBise recommends assessing residential impact fees according to persons per housing unit

2018 Summary by Type of Housing	Persons	Households	Persons per Household	Housing Units	Persons Per Housing Unit	Housing Mix
Single Family	27,937	11,757	2.38	12,759	2.19	95%
Multifamily	837	497	1.68	701	1.19	5%
TOTAL	<u>28,774</u>	<u>12,254</u>	2.35	<u>13,460</u>	<b>2.14</b>	

Source: 2013-2018 American Community Survey 5-year Estimates, U.S. Census Bureau

# Proportionate Share

<b>Proportionate Share</b>				
<b>Residential</b>	<u>Demand Units in 2018</u>	<u>Demand Hours/Day</u>	<u>Person Hours</u>	<u>Proportionate Share</u>
Estimated Residents	28,774			
57% Residents Not Working	16,519	20	330,380	
43% Workers Living in the City	12,255			
6% City Residents Working in the City	781	16	12,496	
94% City Residents Working outside of the City	11,474	16	183,584	
	<b>Residential Subtotal</b>		<b>526,460</b>	<b>86.0%</b>
<b>Nonresidential</b>				
Non-working Residents	16,519	4	66,076	
Jobs Located in the City	2,465			
City Residents Working in the City	781	8	6,248	
Non-Resident Workers	1,684	8	13,472	
	<b>Nonresidential Subtotal</b>		<b>85,796</b>	<b>14.0%</b>
	<b>Total</b>		<b>612,256</b>	<b>100%</b>

Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics



# Nonresidential Development

- For Library impact fees, TischlerBise recommends using jobs per 1,000 square feet as the demand indicator

Development Type	2020 Jobs	Share of Total Jobs	Square Feet per Employee <sup>1</sup>	2020 Estimated Floor Area <sup>2</sup>	Jobs per 1,000 Sq Ft <sup>2</sup>
Commercial <sup>3</sup>	775	25%	427	330,925	2.34
Industrial <sup>4</sup>	209	7%	613	128,117	1.63
Office/Institutional <sup>5</sup>	2,158	69%	337	727,246	2.97
<b>Total</b>	<b>3,142</b>	<b>100%</b>		<b>1,186,288</b>	

Source: Esri Business Analyst Online, 2020.

1. Trip Generation, Institute of Transportation Engineers, 10th Edition (2017).
2. TischlerBise Calculation
3. Major sectors include Retail Trade; Accommodation and Food Services.
4. Major sectors include Manufacturing; Wholesale Trade.
5. Major sectors include Educational Services; Health Care & Social Assistance.

- For Police and Fire/EMS impact fees, TischlerBise recommends using trips per 1,000 square feet as the demand indicator

Nonresidential Trip Adjustment	Demand Unit (Sqft)	Trip Ends Per Demand Unit <sup>1</sup>	Trip Adjustment <sup>2</sup>	Adjusted Nonresidential Trips Per Demand Unit
Commercial	1,000	37.75	33%	12.46
Industrial	1,000	4.96	50%	2.48
Office	1,000	9.74	50%	4.87

1. Institute of Transportation Engineers 12<sup>th</sup> Edition.
2. TischlerBise Calculation

# Summary of Development Projections

Bella Vista, AR	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	10-Year Increase
	Base Yr	1	2	3	4	5	6	7	8	9	10	
<b>Population<sup>1</sup></b>												
Single Family Units	33,395	34,152	34,926	35,718	36,528	37,356	38,203	39,069	39,955	40,861	41,722	8,327
Multifamily Units	1,001	1,023	1,046	1,070	1,094	1,119	1,145	1,171	1,197	1,224	1,250	249
<b>Total</b>	<b>34,396</b>	<b>35,175</b>	<b>35,973</b>	<b>36,788</b>	<b>37,622</b>	<b>38,475</b>	<b>39,348</b>	<b>40,240</b>	<b>41,152</b>	<b>42,085</b>	<b>42,972</b>	<b>8,577</b>
<b>Housing Units<sup>2</sup></b>												
Single Family Units	15,421	15,770	16,128	16,494	16,868	17,250	17,641	18,041	18,450	18,868	19,266	3,845
Multifamily Units	652	667	682	697	713	729	746	763	780	798	814	163
<b>Total</b>	<b>16,073</b>	<b>16,437</b>	<b>16,810</b>	<b>17,191</b>	<b>17,581</b>	<b>17,979</b>	<b>18,387</b>	<b>18,804</b>	<b>19,230</b>	<b>19,666</b>	<b>20,080</b>	<b>4,008</b>
<b>Jobs<sup>3</sup></b>												
Commercial	831	891	956	1,025	1,100	1,180	1,265	1,357	1,455	1,561	1,674	843
Industrial	227	246	266	289	313	340	368	399	433	470	509	282
Office/ Institutional	2,192	2,227	2,262	2,297	2,333	2,370	2,408	2,446	2,484	2,523	2,563	371
<b>Total</b>	<b>3,250</b>	<b>3,364</b>	<b>3,484</b>	<b>3,612</b>	<b>3,747</b>	<b>3,889</b>	<b>4,041</b>	<b>4,202</b>	<b>4,372</b>	<b>4,553</b>	<b>4,746</b>	<b>1,496</b>
<b>Nonres Sq Ft in thousands (KSF)<sup>3</sup></b>												
Commercial	355	381	408	438	470	504	540	579	621	666	715	360
Industrial	143	155	168	182	197	214	232	251	272	295	320	178
Office/ Institutional	739	750	762	774	786	799	811	824	837	850	864	125
<b>Total</b>	<b>1,236</b>	<b>1,286</b>	<b>1,338</b>	<b>1,394</b>	<b>1,453</b>	<b>1,516</b>	<b>1,583</b>	<b>1,655</b>	<b>1,731</b>	<b>1,812</b>	<b>1,899</b>	<b>663</b>

1. Population projections given by NWARPC for 2020, 2030, and 2040. All other years total population is calculated by annual compound growth rates using the 2020, 2030, and 2040 projections.

The annual compound growth rate between 2020 and 2030 is 2.27% and between 2030-2040 it is 2.11%.

2. Total housing unit projections are calculated by dividing the total population projection by the average persons-per-housing unit (2.14). Multiplying the total housing units by the current housing mix results in number of housing units by type.

3. Employment projections based on annual employment growth in each sector between 2010-2017. Annualized growth rates were calculated to be 7% for commercial, 8% for industrial, and 2% for office.

4. Nonresidential Floor Area is calculated by multiplying an ITE (Institute of Transportation Engineers) floor area per employee (Sq.Ft.) estimate and that years employees in per respective industry.

# Trips Projections

<b>Trip Projections</b>	Base	1	2	3	4	5	6	7	8	9	10	10-Year Increase
<b>Residential</b>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Single Family	88,523	90,530	92,582	94,681	96,828	99,023	101,268	103,564	105,912	108,313	110,597	22,073
Multi-Family	1,766	1,806	1,847	1,889	1,932	1,975	2,020	2,066	2,113	2,161	2,206	440
<b>Total</b>	<b>90,289</b>	<b>92,336</b>	<b>94,429</b>	<b>96,570</b>	<b>98,760</b>	<b>100,999</b>	<b>103,288</b>	<b>105,630</b>	<b>108,025</b>	<b>110,474</b>	<b>112,803</b>	<b>22,514</b>
<b>Nonresidential</b>												
Commercial	4,421	4,742	5,086	5,455	5,850	6,274	6,729	7,217	7,740	8,302	8,904	4,482
Industrial	354	383	416	451	489	530	575	623	675	732	794	441
Office	3,598	3,654	3,712	3,770	3,830	3,890	3,951	4,014	4,077	4,141	4,206	609
<b>Total</b>	<b>8,372</b>	<b>8,780</b>	<b>9,213</b>	<b>9,676</b>	<b>10,168</b>	<b>10,694</b>	<b>11,255</b>	<b>11,854</b>	<b>12,493</b>	<b>13,175</b>	<b>13,904</b>	<b>5,532</b>
<b>Grand Total</b>	<b>98,661</b>	<b>101,115</b>	<b>103,643</b>	<b>106,246</b>	<b>108,928</b>	<b>111,693</b>	<b>114,544</b>	<b>117,484</b>	<b>120,518</b>	<b>123,649</b>	<b>126,707</b>	<b>28,046</b>

- Citywide service area
- Fee components
  - » Fire facilities (*incremental expansion*)
  - » Apparatus and equipment (*incremental expansion*)
  - » Training Facility (*plan-based*)
- Demand Indicators
  - » Residential: Population
  - » Nonresidential: Vehicle Trip Ends

# Fire/EMS Facilities

Description	Square Feet**	Cost per Sq. Ft.	Replacement Cost*
Town Center Central Fire	6,824	\$195	\$1,331,512
Trafalgar Rd Station 2	5,000	\$195	\$975,610
Branchwood Station	2,300	\$195	\$448,780
Highlands Gate Station	9,200	\$195	\$1,795,122
<b>TOTAL</b>	<b>23,324</b>	<b>\$195</b>	<b>\$4,551,024</b>

\*Based on replacement cost for Station 2

\*\*City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trips in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Sq. Ft. per Person</b>	<b>0.58</b>
<b>LOS: Sq. Ft. per Vehicle Trip</b>	<b>0.39</b>

Cost Analysis	
Cost per Square Foot	\$195
LOS: Square Feet per Person	0.58
<b>Cost per Person</b>	<b>\$113.77</b>
LOS: Square Feet per Vehicle Trip	0.39
<b>Cost per Vehicle Trip</b>	<b>\$76.17</b>

# Fire Apparatus

Description	Units	Cost per Apparatus*	Replacement Cost
Ambulance F450	3	\$168,000	\$504,000
Ambulance F550	3	\$192,000	\$576,000
SUV	6	\$56,000	\$336,000
Brush Truck	2	\$175,000	\$350,000
Pickup Truck	3	\$42,000	\$126,000
Pumpers	3	\$600,000	\$1,800,000
Tender	1	\$450,000	\$450,000
Quint	1	\$1,000,000	\$1,000,000
Rescue Trucks	2	\$30,000	\$60,000
Polaris	1	\$15,000	\$15,000
<b>TOTAL</b>	<b>25</b>	<b>\$208,680</b>	<b>\$5,217,000</b>

\* City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trips in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Apparatuses per Person</b>	<b>0.0006</b>
<b>LOS: Apparatuses per Vehicle Trip</b>	<b>0.0004</b>

Cost Analysis	
Cost per Apparatus	\$208,680
LOS: Units per Person	0.001
<b>Cost per Person</b>	<b>\$130.42</b>
LOS: Units per Vehicle Trip	0.0004
<b>Cost per Vehicle Trip End</b>	<b>\$87.32</b>

# Fire/EMS Training Facility

Description	Square Feet**	Cost per Sq.Ft.*	Replacement Cost
Training Station	4,800	\$195	\$936,585

\*Cost per square foot from the cost per square foot of station 2.

\*\* City of Bella Vista Fire Department

Level-of-Service Analysis	
Population in 2045	57,547
Nonresidential Vehicle Trips in 2045	31,426
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Sq. Ft. per Person</b>	<b>0.07</b>
<b>LOS: Sq. Ft. per Vehicle Trip</b>	<b>0.02</b>

Cost Analysis	
Cost per Square Foot	\$195
LOS: Square Feet per Person	0.07
<b>Cost per Person</b>	<b>\$13.99</b>
LOS: Square Feet per Vehicle Trip	0.02
<b>Cost per Vehicle Trip</b>	<b>\$4.18</b>

# Fire Station Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Fire Station Facilities	0.58 Square Feet	per Person	\$195
	0.39 Square Feet	per Vehicle Trip	

Demand for Fire Facilities					
Year	Population	Nonresidential Vehicle Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	20,056	3,268	23,324
2022	35,175	8,780	20,510	3,427	23,938
2023	35,973	9,213	20,975	3,597	24,572
2024	36,788	9,676	21,451	3,777	25,228
2025	37,622	10,168	21,937	3,970	25,907
2026	38,475	10,694	22,434	4,175	26,609
2027	39,348	11,255	22,943	4,394	27,337
2028	40,240	11,854	23,463	4,627	28,091
2029	41,152	12,493	23,995	4,877	28,872
2030	42,085	13,175	24,539	5,143	29,683
2031	42,972	13,904	25,057	5,428	30,484
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>5,001</b>	<b>2,159</b>	<b>7,160</b>

<b>Growth-Related Expenditures</b>	<b>\$975,790</b>	<b>\$421,366</b>	<b>\$1,397,155</b>
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# Fire Apparatus Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Fire/EMS Apparatus	0.0006 Units	per Person	\$208,680
	0.0004 Units	per Vehicle Trip	

Demand for Fire/EMS Apparatus					
Year	Population	Nonresidential Vehicle Trips	Apparatus		
			Residential	Nonresidential	Total
2021	34,396	8,372	21.50	3.50	25.00
2022	35,175	8,780	21.98	3.67	25.66
2023	35,973	9,213	22.48	3.86	26.34
2024	36,788	9,676	22.99	4.05	27.04
2025	37,622	10,168	23.51	4.25	27.77
2026	38,475	10,694	24.05	4.47	28.52
2027	39,348	11,255	24.59	4.71	29.30
2028	40,240	11,854	25.15	4.96	30.11
2029	41,152	12,493	25.72	5.23	30.95
2030	42,085	13,175	26.30	5.51	31.82
2031	42,972	13,904	26.86	5.82	32.67
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>5.36</b>	<b>2.31</b>	<b>7.67</b>

<b>Growth-Related Expenditures</b>	<b>\$1,118,582</b>	<b>\$483,026</b>	<b>\$1,601,608</b>
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# Training Facilities Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Fire Training Facilities	0.07 Square Feet	per Person	\$195
	0.02 Square Feet	per Vehicle Trip	

Demand for Training Facilities					
Year	Population	Nonresidential Vehicle Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	2,467	179	2,646
2022	35,175	8,780	2,523	188	2,711
2023	35,973	9,213	2,580	197	2,777
2024	36,788	9,676	2,639	207	2,846
2025	37,622	10,168	2,698	218	2,916
2026	38,475	10,694	2,760	229	2,988
2027	39,348	11,255	2,822	241	3,063
2028	40,240	11,854	2,886	254	3,140
2029	41,152	12,493	2,952	267	3,219
2030	42,085	13,175	3,018	282	3,300
2031	42,972	13,904	3,082	298	3,380
2032	43,878	14,683	3,147	314	3,461
2033	44,803	15,515	3,213	332	3,545
2034	45,747	16,405	3,281	351	3,632
2035	46,712	17,356	3,350	371	3,722
2036	47,696	18,374	3,421	393	3,814
2037	48,702	19,462	3,493	417	3,910
2038	49,728	20,626	3,567	441	4,008
2039	50,777	21,872	3,642	468	4,110
2040	51,847	23,205	3,719	497	4,215
2041	52,940	24,632	3,797	527	4,324
2042	54,056	26,160	3,877	560	4,437
2043	55,195	27,796	3,959	595	4,554
2044	56,359	29,549	4,042	632	4,675
2045	57,547	31,426	4,127	673	4,800
10-Yr Increase	8,577	5,532	615	118	734
24-Yr Increase	23,151	23,053	1,660	493	2,154

10-Yr Growth-Related Expenditures	\$120,026	\$23,103	\$143,129
<b>Total Growth-Related Expenditures</b>	<b>\$323,992</b>	<b>\$96,278</b>	<b>\$420,270</b>
Existing Development Share	\$481,349	\$34,966	\$516,315
<b>Total Expenditures</b>	<b>\$805,341</b>	<b>\$131,245</b>	<b>\$936,585</b>

# Credit Evaluation

Residential Share (86%)		
Principal Payment	Population	Principal Payment per Person
\$106,602.24	34,396	\$3.10
\$107,422.26	35,175	\$3.05
\$112,342.36	35,973	\$3.12
\$116,442.45	36,788	\$3.17
\$121,362.55	37,622	\$3.23
\$126,282.65	38,475	\$3.28
\$131,202.76	39,348	\$3.33
\$136,122.86	40,240	\$3.38
\$140,222.94	41,152	\$3.41
\$144,323.03	42,085	\$3.43
\$149,243.13	42,972	\$3.47
\$153,343.22	43,878	\$3.49
\$158,263.32	44,803	\$3.53
\$0.00	45,747	\$0.00
\$0.00	46,712	\$0.00
\$0.00	47,696	\$0.00
\$0.00	48,702	\$0.00
\$837,237.58	49,728	\$16.84
\$0.00	50,777	\$0.00
\$0.00	51,847	\$0.00
\$0.00	52,940	\$0.00
\$0.00	54,056	\$0.00
\$0.00	55,195	\$0.00
\$0.00	56,359	\$0.00
\$1,269,386.66	57,547	\$22.06

Discount Rate	4%
Residential Credit	\$49.39

Nonresidential Share (14%)		
Principal Payment	Nonresidential Trip Ends	Principal Payment per Trip End
\$17,353.85	8,299	\$2.09
\$17,487.34	8,700	\$2.01
\$18,288.29	9,127	\$2.00
\$18,955.75	9,582	\$1.98
\$19,756.69	10,067	\$1.96
\$20,557.64	10,584	\$1.94
\$21,358.59	11,136	\$1.92
\$22,159.54	11,724	\$1.89
\$22,826.99	12,353	\$1.85
\$23,494.45	13,023	\$1.80
\$24,295.39	13,739	\$1.77
\$24,962.85	14,504	\$1.72
\$25,763.80	15,322	\$1.68
\$0.00	16,195	\$0.00
\$0.00	17,128	\$0.00
\$0.00	18,127	\$0.00
\$0.00	19,194	\$0.00
\$136,294.49	20,335	\$6.70
\$0.00	21,557	\$0.00
\$0.00	22,863	\$0.00
\$0.00	24,262	\$0.00
\$0.00	25,759	\$0.00
\$0.00	27,361	\$0.00
\$0.00	29,076	\$0.00
\$206,644.34	30,913	\$6.68

Discount Rate	4%
Nonresidential Credit	\$24.89

# Fire/EMS Impact Fee

Fee Component	Cost per Person	Cost per Trip
Fire Facilities	\$113.77	\$76.17
Fire Apparatus	\$130.42	\$87.32
Fire Training Facilities	\$13.99	\$4.18
Credit for Debt Payments	(\$49.39)	(\$24.89)
<b>Total</b>	<b>\$208.80</b>	<b>\$142.77</b>

Development Type	Fees per Unit	
	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$457
Multifamily	1.19	\$248

Development Type	Fees per 1,000 Square Feet	
	AWVT per 1,000 Sq Ft*	Proposed Fees
Commercial	12.46	\$1,779
Industrial	2.48	\$354
Office	4.87	\$695

\* See Land Use Assumptions

- Citywide service area
- Fee components
  - » Police facilities (*plan-based*)
  - » Vehicles and equipment (*incremental expansion*)
- Demand Indicators
  - » Residential: Population
  - » Nonresidential: Vehicle Trip Ends

# Police Facilities

Description	Square Feet*	Cost per Sq. Ft.	Cost*
New Police Station	46,000	\$409	\$18,800,000

\*Bella Vista Police Department

Level-of-Service Analysis	
Population in 2045	57,547
Nonresidential Vehicle Trips in 2045	31,426
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Square Feet per Person</b>	<b>0.69</b>
<b>LOS: Square Feet per Vehicle Trip</b>	<b>0.21</b>

Cost Analysis	
Cost per Square Foot	\$409
LOS: Square Feet per Person	0.69
<b>Cost per Person</b>	<b>\$280.91</b>
LOS: Square Feet per Vehicle Trip	0.21
<b>Cost per Vehicle Trip</b>	<b>\$83.83</b>

# Police Vehicles

Vehicle Description	Units*	Cost Per Unit*	Total Cost
Marked Patrol Vehicle	33	\$66,000	\$2,178,000
Unmarked/Administrative	12	\$40,000	\$480,000
<b>Total</b>	<b>45</b>	<b>\$59,067</b>	<b>\$2,658,000</b>

\*Bella Vista Police Department

Level-of-Service Analysis	
Population in 2021	34,396
Nonresidential Vehicle Trips in 2021	8,372
Residential Share	86%
Nonresidential Share	14%
<b>LOS: Vehicles per Person</b>	<b>0.0011</b>
<b>LOS: Vehicles per Vehicle Trip</b>	<b>0.0008</b>

Cost Analysis	
Cost per Unit	\$59,067
LOS: Vehicles per Person	0.001
<b>Cost per Person</b>	<b>\$66.45</b>
LOS: Vehicles per Vehicle Trip	0.0008
<b>Cost per Vehicle Trip</b>	<b>\$44.49</b>

# Police Facilities – Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Police Station	0.69 Square Feet	per Person	\$409
	0.21 Square Feet	per Vehicle Trip End	

Demand for Facilities					
Year	Population	Nonresidential Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	23,641	1,717	25,359
2022	35,175	8,780	24,177	1,801	25,978
2023	35,973	9,213	24,725	1,890	26,615
2024	36,788	9,676	25,286	1,985	27,271
2025	37,622	10,168	25,859	2,086	27,945
2026	38,475	10,694	26,445	2,194	28,639
2027	39,348	11,255	27,045	2,309	29,354
2028	40,240	11,854	27,658	2,431	30,090
2029	41,152	12,493	28,285	2,563	30,848
2030	42,085	13,175	28,926	2,703	31,629
2031	42,972	13,904	29,536	2,852	32,388
2032	43,878	14,683	30,159	3,012	33,171
2033	44,803	15,515	30,795	3,183	33,977
2034	45,747	16,405	31,444	3,365	34,809
2035	46,712	17,356	32,107	3,560	35,667
2036	47,696	18,374	32,783	3,769	36,552
2037	48,702	19,462	33,474	3,992	37,466
2038	49,728	20,626	34,180	4,231	38,411
2039	50,777	21,872	34,901	4,486	39,387
2040	51,847	23,205	35,636	4,760	40,396
2041	52,940	24,632	36,387	5,053	41,440
2042	54,056	26,160	37,154	5,366	42,521
2043	55,195	27,796	37,938	5,702	43,639
2044	56,359	29,549	38,737	6,061	44,798
2045	57,547	31,426	39,554	6,446	46,000
10-Yr Increase	8,577	5,532	5,895	1,135	7,030
24-Yr Increase	23,151	23,053	15,913	4,729	20,641

10-Yr Growth-Related Expenditures	\$2,409,267	\$463,743	\$2,873,009
<b>Total Growth-Related Expenditures</b>	<b>\$6,503,469</b>	<b>\$1,932,584</b>	<b>\$8,436,053</b>
Existing Development Share	\$9,662,070	\$701,877	\$10,363,947
<b>Total Expenditures</b>	<b>\$16,165,539</b>	<b>\$2,634,461</b>	<b>\$18,800,000</b>



# Police Vehicles – Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Police Vehicles	0.0012 Vehicles	per Person	\$59,067
	0.0008 Vehicles	per Vehicle Trip End	

Demand for Vehicles					
Year	Population	Nonresidential Trips	Residential Demand	Nonresidential Demand	Total
2021	34,396	8,372	40	6	46
2022	35,175	8,780	40	7	47
2023	35,973	9,213	41	7	48
2024	36,788	9,676	42	7	50
2025	37,622	10,168	43	8	51
2026	38,475	10,694	44	8	52
2027	39,348	11,255	45	8	54
2028	40,240	11,854	46	9	55
2029	41,152	12,493	47	9	57
2030	42,085	13,175	48	10	58
2031	42,972	13,904	49	10	60
<b>10-Yr Increase</b>	<b>8,577</b>	<b>5,532</b>	<b>10</b>	<b>4</b>	<b>14</b>

<b>Growth-Related Expenditures</b>	<b>\$582,825</b>	<b>\$246,096</b>	<b>\$828,921</b>
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# Credit Evaluation

Residential Share (86%)		
Principal Payment	Population	Principal Payment per Person
\$452,398	34,396	\$13.15
\$455,878	35,175	\$12.96
\$476,758	35,973	\$13.25
\$494,158	36,788	\$13.43
\$515,037	37,622	\$13.69
\$535,917	38,475	\$13.93
\$556,797	39,348	\$14.15
\$577,677	40,240	\$14.36
\$595,077	41,152	\$14.46
\$612,477	42,085	\$14.55
\$633,357	42,972	\$14.74
\$650,757	43,878	\$14.83
\$671,637	44,803	\$14.99
\$0	45,747	\$0.00
\$0	46,712	\$0.00
\$0	47,696	\$0.00
\$0	48,702	\$0.00
\$3,553,062	49,728	\$71.45
\$0	50,777	\$0.00
\$0	51,847	\$0.00
\$0	52,940	\$0.00
\$0	54,056	\$0.00
\$0	55,195	\$0.00
\$0	56,359	\$0.00
\$5,387,013	57,547	\$93.61
<b>\$16,168,000</b>		

Discount Rate	4%
Residential Credit	\$209.61

Nonresidential Share (14%)		
Principal Payment	Nonresidential Trip Ends	Principal Payment per Trip End
\$73,646	8,372	\$8.80
\$74,213	8,780	\$8.45
\$77,612	9,213	\$8.42
\$80,444	9,676	\$8.31
\$83,843	10,168	\$8.25
\$87,242	10,694	\$8.16
\$90,641	11,255	\$8.05
\$94,040	11,854	\$7.93
\$96,873	12,493	\$7.75
\$99,706	13,175	\$7.57
\$103,105	13,904	\$7.42
\$105,937	14,683	\$7.21
\$109,336	15,515	\$7.05
\$0	16,405	\$0.00
\$0	17,356	\$0.00
\$0	18,374	\$0.00
\$0	19,462	\$0.00
\$578,406	20,626	\$28.04
\$0	21,872	\$0.00
\$0	23,205	\$0.00
\$0	24,632	\$0.00
\$0	26,160	\$0.00
\$0	27,796	\$0.00
\$0	29,549	\$0.00
\$876,956	31,426	\$27.91
<b>\$2,632,000</b>		

Discount Rate	4%
Nonresidential Credit	\$104.44

# Police Impact Fee

Fee Component	Cost per Person	Cost per Trip
Police Facilities	\$280.91	\$83.83
Police Vehicles	\$66.45	\$44.49
Credit for Debt Payments	(\$209.61)	(\$104.44)
<b>Total</b>	<b>\$137.75</b>	<b>\$23.88</b>

Development Type	Fees per Unit	
	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$302
Multifamily	1.19	\$164

Development Type	Fees per 1,000 Square Feet	
	AWVT per 1,000 Sq Ft*	Proposed Fees
Commercial	12.46	\$298
Industrial	2.48	\$59
Office & Other Services	4.87	\$116

\*See Land Use Assumptions

- Citywide service area
- Fee components
  - » Library facilities (*cost recovery*)
  - » Library collections (*incremental expansion*)
- Proportionate Share
  - » Unlike Fire and Police fees, Library fees are not allocated according to functional population
  - » Library card registration data by place of residence

Proportionate Share Analysis		
Type	Registration Cards	Percent
Residential	5750	92%
Nonresidential	500	8%
<b>TOTAL</b>	<b>6,250</b>	<b>100%</b>

Source: Bella Vista Library

# Library Facilities LOS

Description	Square Feet	Replacement Cost*
Library Facilities	6,400	\$2,169,166

\*Based on cost of March 2020 Library Expansion

Level-of-Service Analysis	
Existing Square Feet	13,544
Population in 2031	42,972
Jobs in 2031	4,746
Residential Share	92%
Nonresidential Share	8%
<b>LOS: Square Feet per Person</b>	<b>0.29</b>
<b>LOS: Square Feet per Job</b>	<b>0.23</b>

Cost Analysis	
Cost per Square Foot	\$339
LOS: Square Feet per Person	0.29
<b>Cost per Person</b>	<b>\$98.28</b>
LOS: Square Feet per Job	0.23
<b>Cost per Job</b>	<b>\$77.38</b>

# Library Collection Items LOS

Description	Units*	Replacement Cost*
Collection Items	40,681	\$899,864

\*City of Bella Vista Library

Level-of-Service Analysis	
Population in 2021	34,396
Jobs in 2021	3,250
Residential Share	92%
Nonresidential Share	8%
<b>LOS: Collection Items per Person</b>	<b>1.09</b>
<b>LOS: Collection Items per Job</b>	<b>1.00</b>

Cost Analysis	
Cost per Collection Item	\$22
LOS: Collection Items per Person	1.09
<b>Cost per Person</b>	<b>\$24.07</b>
LOS: Collection Items per Job	1.00
<b>Cost per Job</b>	<b>\$22.15</b>

# Library Facilities Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Sq. Ft.
Library Facilities	0.29 Square Feet	per Person	\$339
	0.23 Square Feet	per Job	

Demand for Facilities					
Year	Population	Employment	Residential Demand	Nonresidential Demand	Total
2021	34,396	3,250	9,974	742	<b>10,715</b>
2022	35,175	3,364	10,200	768	<b>10,968</b>
2023	35,973	3,484	10,431	795	<b>11,226</b>
2024	36,788	3,612	10,667	825	<b>11,492</b>
2025	37,622	3,747	10,909	855	<b>11,765</b>
2026	38,475	3,889	11,157	888	<b>12,045</b>
2027	39,348	4,041	11,410	923	<b>12,332</b>
2028	40,240	4,202	11,668	959	<b>12,627</b>
2029	41,152	4,372	11,933	998	<b>12,931</b>
2030	42,085	4,553	12,203	1,040	<b>13,243</b>
2031	42,972	4,746	12,460	1,084	<b>13,544</b>
10-Yr Increase	8,577	1,496	2,487	342	<b>2,829</b>

<b>Growth-Related Expenditures</b>	<b>\$842,902</b>	<b>\$115,769</b>	<b>\$958,671</b>
Existing Development Share	\$1,152,731	\$57,764	\$1,210,495
Total Cost	\$1,995,633	\$173,533	\$2,169,166

# Library Collection Items Demand Projection

Type of Infrastructure	Level of Service	Demand Unit	Cost per Unit
Library Collections	1.09 Collection Items	per Person	\$22
	1.00 Collection Items	per Job	

Demand for Collection Items					
Year	Population	Employment	Residential Demand	Nonresidential Demand	Total
2021	34,396	3,250	37,427	3,254	40,681
2022	35,175	3,364	38,275	3,369	41,644
2023	35,973	3,484	39,143	3,489	42,632
2024	36,788	3,612	40,030	3,617	43,647
2025	37,622	3,747	40,938	3,752	44,690
2026	38,475	3,889	41,866	3,895	45,761
2027	39,348	4,041	42,815	4,047	46,862
2028	40,240	4,202	43,786	4,208	47,993
2029	41,152	4,372	44,778	4,379	49,157
2030	42,085	4,553	45,794	4,560	50,354
2031	42,972	4,746	46,759	4,753	51,512
10-Yr Increase	8,577	1,496	9,332	1,498	10,831

<b>Growth-Related Expenditures</b>	<b>\$206,433</b>	<b>\$33,142</b>	<b>\$239,575</b>
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# Proposed Library Fees

Fee Component	Cost per Person	Cost per Job
Library Facilities	\$98.28	\$77.38
Library Collection	\$24.61	\$22.91
<b>Total</b>	<b>\$122.89</b>	<b>\$100.29</b>

	Fees per Unit	
Development Type	Persons per Housing Unit*	Proposed Fees
Single Family	2.19	\$269
Multifamily	1.19	\$119

	Fees per 1,000 Square Feet	
Development Type	Jobs per 1,000 Sq Ft*	Proposed Fees
Commercial	2.34	\$235
Industrial	1.63	\$163
Office	2.97	\$298

\* See Land Use Assumptions

# Impact Fee Summary

- Fees shown below represent the maximum allowable fees
- The City of Bella Vista may choose to adopt fees less than the amount shown below

Development Type	Fees per Unit			
	Fire/EMS	Police	Library	Total
Single Family	\$457	\$302	\$269	\$1,028
Multifamily	\$248	\$164	\$119	\$532

Development Type	Fees per 1,000 Square Feet			
	Fire/EMS	Police	Library	Total
Commercial	\$1,779	\$298	\$235	\$2,311
Industrial	\$354	\$59	\$163	\$577
Office/Institutional	\$695	\$116	\$298	\$1,109