

RESOLUTION 2016-027

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF SIERRA VISTA, COCHISE COUNTY, ARIZONA; APPROVING THE LAND USE ASSUMPTIONS AND INFRASTRUCTURE IMPROVEMENT PLAN IN ACCORDANCE WITH A.R.S. 9-463, DEVELOPMENT FEES; AND AUTHORIZING AND DIRECTING THE CITY MANAGER, CITY CLERK, CITY ATTORNEY OR THEIR DULY AUTHORIZED OFFICERS AND AGENTS TO TAKE ALL STEPS NECESSARY TO CARRY OUT THE PURPOSES AND INTENT OF THIS RESOLUTION.

WHEREAS, the City of Sierra Vista assesses development fees to offset costs to the City associated with providing necessary public services to a development, as specified in Chapter 154 of the City Code of Ordinances; and

WHEREAS, Arizona Revised Statute §9-463 specifies the procedure by which the City must follow in order to update its fees to reflect current growth patterns and anticipated new construction; and

WHEREAS, in accordance with state law, a public hearing was held on April 12, 2016 regarding the Land Use Assumptions and Infrastructure Improvement Plan, as well as the corresponding Development Fee schedule; and

WHEREAS, the Council is required to first approve the Land Use Assumptions and Infrastructure Improvement Plan prior to setting the development fees following another public hearing scheduled for June 23, 2016.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF SIERRA VISTA, ARIZONA, AS FOLLOWS:

SECTION 1

That the settled policy of the City Council, supporting the assessment of Development Fees to offset the costs to the City associated with providing necessary public services to new development be, and hereby is, reaffirmed.

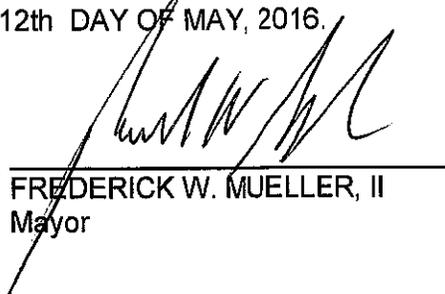
SECTION 2

That the City Council hereby approves the Land Use Assumptions and Infrastructure Improvement plan known as Option 2B and submitted by the City's consultant, TischlerBise, adopted by reference and on file with the City Clerk.

SECTION 3

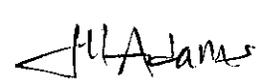
The City Manager, City Clerk, City Attorney, or their duly authorized officers and agents are hereby authorized and directed to take all steps necessary to carry out the purposes and intent of this Resolution.

PASSED AND ADOPTED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF SIERRA VISTA, ARIZONA, THIS 12th DAY OF MAY, 2016.



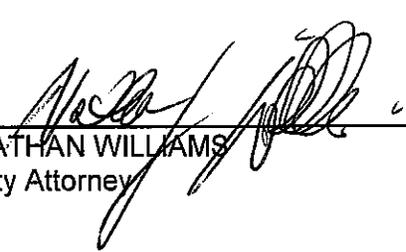
FREDERICK W. MUELLER, II
Mayor

ATTEST:



JILL ADAMS
CITY CLERK

APPROVED AS TO FORM:



NATHAN WILLIAMS
City Attorney

DRAFT
**Land Use Assumptions,
Infrastructure Improvements Plan, and
Development Fee Update**

Prepared for:
Sierra Vista, Arizona

February 2, 2016



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EXECUTIVE SUMMARY

Sierra Vista contracted with TischlerBise to update its Infrastructure Improvements Plan (IIP) for new development and resulting development fees for (1) Parks, (2) Police, (3) Fire, and (4) Streets. Because debt for library facilities has been retired, there is no library component in this IIP. Development fees are collected from new construction at the time a building permit is issued for the purpose of constructing system improvements needed to accommodate new development. A development fee represents new growth's proportionate share of capital facility needs. Development fees do have limitations and should not be regarded as the total solution for infrastructure funding. Rather, they are one component of a comprehensive funding strategy to ensure provision of adequate public facilities. Development fees may only be used for capital improvements or debt service for growth-related infrastructure. In contrast to general taxes, development fees may not be used for operations, maintenance, replacement of infrastructure, or correcting existing deficiencies.

LEGAL REQUIREMENTS

Both state and federal courts have recognized the imposition of development 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 development 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 development fees, that interest is in the protection of public health, safety, and welfare by ensuring 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 (i.e. stakeholder meetings, work sessions, and public hearings) provides opportunities for comments and refinements to the development fees.

There is little federal case law specifically dealing with development 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 development fees.

There are three reasonable relationship requirements for development 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 development 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 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. Development fees may be used to recover the cost of development-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 only be used to mitigate conditions created by the developments upon which they are imposed. 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 and is logically necessary to establish a proper nexus. Proportionality is established through the procedures used to identify development-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 development fee revenues be segregated from other funds and expended only on the facilities for which the fees were charged. Development fees must be expended in a timely manner and the facilities funded by the fees must serve the development paying the fees. However, benefit may extend to a general area including multiple real estate developments. Procedures for the earmarking and expenditure of fee revenues are discussed near the end of this study. 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 development fees is separate from and complementary to the authority to require improvements as part of subdivision or zoning review.

Arizona Revised Statutes (ARS) 9-463.05 authorizes a city to impose development impact fees (see Appendix B). In accordance with state law, this report includes Capital Improvements Plans for Parks, Police, Fire, and Transportation that are needed to accommodate new development. As documented in this report, Sierra Vista has complied with applicable legal precedents. Development fees are proportionate and reasonably related to the capital improvement demands of new development, with the projects identified in this study reflected in Sierra Vista's Capital Improvements Plan (CIP). Specific costs have been identified using local data and current dollars. With input from city staff, TischlerBise determined demand indicators for each type of infrastructure and calculated proportionate share factors to allocate costs by type of development. This report documents the formulas and input variables used to calculate the development fees for each type of public facility. Development fee methodologies also identify the extent to which new development is entitled to various types of credits to avoid potential double payment of growth-related capital costs.

CONCEPTUAL FEE CALCULATION

In contrast to project-level improvements, development fees fund growth-related infrastructure that will benefit multiple development projects, or the entire jurisdiction (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 demand units for each unit of development. For example, an appropriate indicator of the demand for parks is population growth and the number of demand or service units per development unit, 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 demand unit, typically called level-of-service (LOS) standards. In keeping with the park example, a common LOS standard is park acreage 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 the cost per acre for land acquisition and/or park improvements.

GENERAL METHODS

There are three general methods for calculating development fees. The choice of a particular method depends primarily on the timing of infrastructure construction (past, concurrent, or future) and service characteristics of the facility type being addressed. Each method 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 development fees involves two main steps: (1) determining the cost of development-related capital improvements and (2) allocating those costs equitably to various types of development. In practice, though, the calculation of development 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 methods for calculating development fees and how those methods 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 method documents current level-of-service (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 method 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).
- **Credits** - Regardless of the methodology, a consideration of credits is integral to the development of a legally defensible development fee methodology. There are two types of credits with specific characteristics, both of which should be addressed in development fee studies and ordinances. The first 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 development fee. This type of credit is integrated into the development fee calculation, thus reducing the fee amount. The second 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 development fee program.

UPDATED DEVELOPMENT FEES

Figure 1 summarizes service areas, general methods, and infrastructure cost components for each development fee. Because Sierra Vista plans to provide a uniform level of service for all types of infrastructure included in this infrastructure improvements plan, the service area for all fee components is citywide.

Figure 1: Proposed Development Fee Service Areas, Methods, and Cost Components

<i>Type of Fee</i>	<i>Service Area</i>	<i>Incremental Expansion</i>	<i>Plan-Based</i>	<i>Cost Recovery</i>	<i>Cost Allocation</i>
Parks	Citywide	N/A	N/A	Cyr Center Park, Maintenance Facility, The Cove	Citywide Population, Citywide Jobs
Police	Citywide	Communications Equipment	N/A	Police Station, Animal Control Facility	Citywide Population, Citywide Nonresidential Trips
Fire	Citywide	Communications Equipment	N/A	Fire Stations, Apparatus	Citywide Population, Citywide Nonresidential Trips
Streets	Citywide	Arterials, Intersections, Multi-Use Paths	N/A	N/A	Citywide Vehicle Miles of Travel

Figure 2 provides a schedule of updated development fees along with the current development fee¹. It is important to note Sierra Vista’s policy to pay 25 percent of the maximum allowable fee for police, fire, and streets with a portion of the construction sales tax revenue; therefore, the proposed fees below represent 75 percent of the maximum allowable fee. Development fees for residential development will be assessed per dwelling unit, based on the type of unit. Nonresidential development fees will be assessed per square foot of floor area, according to four² general types of development, or per room for hotels. Sierra Vista may adopt fees that are less than the amounts shown; however, a reduction in development fee revenue will necessitate an increase in other revenues, a decrease in planned capital improvements and/or a decrease in Sierra Vista’s LOS standards. TischlerBise will prepare a final development fee study to be consistent with City Council decisions during the public hearing process. All costs in the development fee study are in current dollars with no assumed inflation rate over time. If cost estimates change significantly over time, development fees should be recalibrated.

Figure 2: Schedule of Development Fees

Residential (per unit)

Type	Parks	Library	Police*	Fire*	Streets*	Proposed Fee*	Current Fee*	Difference
Single-Family Unit	\$624	\$0	\$359	\$263	\$1,981	\$3,226	\$3,845	(\$619)
Multi-Family Unit	\$368	\$0	\$212	\$155	\$1,159	\$1,895	\$2,946	(\$1,051)
Manufactured Housing	\$386	\$0	\$222	\$163	\$1,232	\$2,004	\$3,312	(\$1,308)

Nonresidential (per square foot)

Type**	Parks	Library	Police*	Fire*	Streets*	Proposed Fee*	Current Fee*	Difference
Hotel (per room)	\$0.00	\$0.00	\$259	\$156	\$707	\$1,122	\$880	\$242
Commercial	\$0.00	\$0.00	\$1.29	\$0.78	\$3.20	\$5.27	\$4.07	\$1.20
Office & Other Services	\$0.00	\$0.00	\$0.50	\$0.30	\$1.38	\$2.18	\$1.96	\$0.22
Industrial	\$0.00	\$0.00	\$0.32	\$0.19	\$0.87	\$1.37	\$0.98	\$0.39

*Represents 75% of maximum allowable fee for Police, Fire, and Streets.

**Institutional fees will be calculated on a case-by-case basis due to the broad range of uses.

¹ Current development fees for police, fire, and streets represent 75 percent of the maximum allowable fee presented in the 2011 fee study prepared by TischlerBise.

² Development fees for institutional uses will be calculated on a case-by-case basis due to the broad range of uses.

PARKS INFRASTRUCTURE IMPROVEMENTS PLAN

Development fees for parks are one of the infrastructure categories allowed under Arizona law (Appendix B). Parks development fees include Cyr Center Park, the parks maintenance facility, and The Cove. State law requires Sierra Vista to have an adopted infrastructure improvements plan (IIP) in order to assess development fees.

PARKS COSTS

Parks development fees allocate capital costs to residential development based on population. Residential development accounts for 100 percent of the demand for parks infrastructure, so nonresidential development is not assessed a parks development fee.

CYR CENTER PARK

To provide capacity for new development throughout Sierra Vista, the City debt-financed the 2008 improvements to Cyr Center Park. This portion of the parks development fee will be used to cover new development's share of Cyr Center Park debt service payments.

Total debt service for Cyr Center Park, as shown in Figure P1, is approximately \$3.5 million. The debt was issued in 2008 and will be retired in 2023; therefore, population in 2023 is used to distribute costs to all users. To derive the cost per service unit, 100 percent of the debt service is allocated to residential development. The cost per person of \$74.03 assumes a projected population of 46,775 persons in 2023 ($\$3,463,187 / 46,775$).

Figure P1: Cost Allocation for Cyr Center Park

<i>Name of Debt</i>	<i>Year of Debt</i>	<i>Total Principal and Interest</i>	<i>Year of Final Payment</i>	<i>Population in 2023</i>
Cyr Center Park	2008	\$3,463,187	2023	46,775
Cost per Person		\$74.03		

PARKS MAINTENANCE FACILITY

Also debt-financed in 2008, Sierra Vista constructed a parks maintenance facility to serve existing and new development. This portion of the parks development fee will be used to cover new development’s share of the parks maintenance facility debt service payments.

As shown in Figure P2, total debt service for the parks maintenance facility is approximately \$1.6 million. The debt was issued in 2008 and will be retired in 2023; therefore, population in 2023 is used to distribute costs to all users. To derive the cost per service unit, 100 percent of debt service is allocated to residential development. The cost of \$34.17 per person assumes a projected population of 46,775 persons in 2023 (\$1,598,394 / 46,775).

Figure P2: Cost Allocation for Parks Maintenance Facility

<i>Name of Debt</i>	<i>Year of Debt</i>	<i>Total Principal and Interest</i>	<i>Year of Final Payment</i>	<i>Population in 2023</i>
Parks Maint. Facility	2008	\$1,598,394	2023	46,775
Cost per Person		\$34.17		

THE COVE

Sierra Vista also debt-financed The Cove, an aquatic center with multiple pools, but this occurred prior to the 2008 bond used in the previous two components. In 2010 the original bond was refinanced and a new bond was issued. The Cove was constructed to serve existing and new development. This portion of the parks development fee will be used to cover new development’s share of debt service payments for The Cove.

The Cove’s total debt service, shown below in Figure P3, is approximately \$6.9 million. Refinanced in 2010, debt for The Cove will be retired in 2021. For this component, 2021 population is used to allocate costs. To derive the cost per service unit, 100 percent of debt service is allocated to residential development. The cost of \$149.46 per person assumes a projected population of 46,125 persons in 2021 (\$6,893,947 / 46,125).

Figure P3: Cost Allocation for The Cove

<i>Name of Debt</i>	<i>Year of Debt</i>	<i>Total Principal and Interest</i>	<i>Year of Final Payment</i>	<i>Population in 2021</i>
The Cove	2010	\$6,893,947	2021	46,125
Cost per Person		\$149.46		

PARKS DEVELOPMENT FEES

Figure P4 provides a schedule of Parks Development Fees for Sierra Vista. Cost factors are summarized in the upper portion of Figure P4. The conversion of infrastructure needs and costs per service unit into a cost per development unit is also shown in the table below. The average number of persons per housing unit provides the necessary conversion, and fees will be assessed by type of housing unit. For example, a single-family unit will pay \$624 in parks fees (\$257.66 X 2.42). This represents a decrease of \$1,076 when compared to the current fee.

Figure P4: Schedule of Parks Development Fees

<i>Fee Component</i>	<i>Cost per Person</i>
Cyr Center Park Debt	\$74.03
Parks Maint. Facility Debt	\$34.17
The Cove Debt	\$149.46
TOTAL	\$257.66

Residential (per unit)

<i>Development Type</i>	<i>Persons per Housing Unit*</i>	<i>Proposed Fees</i>	<i>Current Fee</i>	<i>Increase / Decrease</i>
Single-Family Unit	2.42	\$624	\$1,700	(\$1,076)
Multi-Family Unit	1.43	\$368	\$1,314	(\$946)
Manufactured Housing	1.50	\$386	\$1,816	(\$1,430)

*See Figure A3.

PARKS DEVELOPMENT FEE REVENUE

In accordance with state law, this report includes an IIP for park infrastructure needed to accommodate new development. Projected fee revenue shown in Figure P5 is based on the development projections in the *Land Use Assumptions* document (Appendix A) and the updated development fees for parks. To the extent these assumptions change, the projected fee revenue will change correspondingly. If development occurs at a more rapid rate than projected, the demand for infrastructure will increase and development 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 development fee revenue.

Anticipated impact fee revenue over the next eight years – the remainder of the debt service – is approximately equal to the projected growth-related cost of parks infrastructure. Existing development’s cost share (Figure P5) will have to be funded from other revenue sources.

Figure P5: Capital Costs and Revenues for Parks

<i>Infrastructure Costs for Parks</i>		
	<i>Growth Cost</i>	<i>Total Cost*</i>
Cyr Center Park Debt	\$187,814	\$1,634,427
Parks Maint. Facility Debt	\$86,689	\$754,351
The Cove Debt	\$282,031	\$3,055,580
TOTAL	\$556,534	\$5,444,358

<i>Parks Development Fee Revenue</i>		
		<i>Residential \$549 per housing unit</i>
	<i>Year</i>	<i>Hsg Units</i>
Base	2015	19,724
Year 1	2016	19,869
Year 2	2017	20,015
Year 3	2018	20,162
Year 4	2019	20,310
Year 5	2020	20,459
Year 6	2021	20,610
Year 7	2022	20,762
Year 8	2023	20,915
<i>Eight-Yr Increase</i>		1,191
Total Projected Revenues =>		\$556,536
Total Cost of Parks Expenditures =>		\$5,444,358
Other Revenue Needed =>		\$4,887,822

**Total cost for Cyr Center Park, Parks Maint. Facility, and The Cove represents remaining principal and interest.*

POLICE INFRASTRUCTURE IMPROVEMENTS PLAN

Development fees for police are one of the infrastructure categories allowed under Arizona law (Appendix B). Police development fees include communication equipment and debt service for both the police station and the animal control center. State law requires Sierra Vista to have an adopted infrastructure improvements plan (IIP) in order to assess development fees.

POLICE COSTS

To meet the proportionality requirement, police development fees allocate capital cost to residential and nonresidential development based on non-traffic calls for service. Figure PO1 shows the calls for service for residential and nonresidential development in Sierra Vista. According to the proportionate share analysis, residential development accounts for 48 percent of the demand for police infrastructure, and nonresidential development accounts for the remaining 52 percent of the police infrastructure demand.

Figure PO1: Police Calls for Service

Police Calls for Service: 2014

	In Town ¹	Outside Town ¹	Total
Traffic	15,549	1,492	17,041
Non-Traffic	28,611	701	29,312
TOTAL	44,160	2,193	46,353

Non-Traffic Police Calls for Service

	Proportionate Share ¹	Calls for Service
Residential	48%	13,733
Nonresidential	52%	14,878
TOTAL	100%	28,611

1. Source: Sierra Vista Police Department.

POLICE STATION

The City debt-financed an expansion of its police station in 2008 to provide capacity for existing and new development throughout Sierra Vista. This portion of the police development fee will be used to cover new development's share of police station debt service payments.

Total debt service for the police station, as shown in Figure PO2, is approximately \$8.7 million. In order to allocate the appropriate share of debt service between residential and nonresidential development, TischlerBise uses calls for service. Because the debt will be retired in 2023, population and nonresidential trips in 2023 are used as the residential and nonresidential service units, respectively. For residential development, the cost of \$88.84 per person assumes a 48 percent cost allocation and a projected population of 46,775 persons in 2023 ($\$8,657,967 \times 48 \text{ percent} / 46,775$). For nonresidential development, the cost of \$80.46 per nonresidential trip assumes a cost allocation of 52 percent and 55,949 projected trips to nonresidential development in 2023 ($\$8,657,967 \times 52 \text{ percent} / 55,949$).

Figure PO2: Police Station Cost Allocation

Name of Debt	Year of Debt	Total Principal and Interest	Year of Final Payment	Population in 2023	Nonres. Trips in 2023
Police Department Expansion	2008	\$8,657,967	2023	46,775	55,949

Allocation Factors

Residential Share	48%
Nonresidential Share	52%

Cost per Person	\$88.84
Cost per Nonres. Trip	\$80.46

ANIMAL CONTROL CENTER

Also included in the 2008 bond, Sierra Vista debt-financed the Animal Control Facility to provide capacity for new and existing development throughout the city. This portion of the police development fee will be used to cover new development's share of Animal Control Center debt service payments.

As shown in Figure PO3, total debt service for the Animal Control Center is approximately \$4.0 million. Since the debt will be retired in 2023, population in 2023 is used as the service unit. For residential development, the cost of \$85.42 per person assumes a 100 percent cost allocation and a projected population of 46,775 persons in 2023 ($\$3,995,985 / 46,775$).

Figure PO3: Animal Control Center Cost Allocation

Name of Debt	Year of Debt	Total Principal and Interest	Year of Final Payment	Population in 2023
Animal Control Center	2008	\$3,995,985	2023	46,775

Cost per Person	\$85.42
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COMMUNICATIONS EQUIPMENT

Development fees will be used to expand Sierra Vista’s inventory of police communications equipment. Figure PO4 lists the current communications equipment used by Sierra Vista’s police department and fire department. Sierra Vista currently has 35 units of communications equipment representing a capital investment of approximately \$3.4 million. The weighted average cost is \$97,386 per unit (\$3,408,500 / 35).

Figure PO4: Existing Standards for Communications Equipment

Type	Units	Cost per Unit	Total Cost
Dispatch Console	4	\$40,000	\$160,000
Repeater	4	\$35,000	\$140,000
Receiver	7	\$25,000	\$175,000
Tower	6	\$200,000	\$1,200,000
Central Communications Rack	2	\$30,000	\$60,000
Generator	5	\$80,000	\$400,000
Communications/Information System	1	\$1,050,000	\$1,050,000
Digital Recorder for Dispatch	1	\$30,000	\$30,000
Encrypted Radios/Repeater	1	\$42,500	\$42,500
AFIS Fingerprint System	2	\$38,000	\$76,000
Reverse 911	1	\$45,000	\$45,000
UPS for Communications Center	1	\$30,000	\$30,000
TOTAL	35	\$97,386	\$3,408,500

Since both the police department and fire department use the communications equipment, total non-traffic calls for service are used for the proportionate share. Based on non-traffic calls for service, the police share is 84 percent; therefore, the police department provides 84 percent of the demand for communications equipment. To derive the cost per service unit, non-traffic police calls for service (Figure PO1) are used to allocate the proportionate share of demand to residential and nonresidential service units. Sierra Vista’s existing infrastructure standard for residential development is 0.0003 units per person based on the 2015 population of 44,238 ($35 \times 84 \text{ percent} \times 48 \text{ percent} / 44,238$). The nonresidential infrastructure standard, based on 2015 nonresidential trips of 54,529, is 0.0003 units per nonresidential trip ($35 \times 84 \text{ percent} \times 52 \text{ percent} / 54,529$).

Figure PO5: Existing Standards for Communications Equipment

Allocation Factors for Communications Equipment

Police Share	84%
Fire Share	16%
2015 Citywide Population	44,238
2015 Citywide Nonres. Trips	54,529
Residential Share	48%
Nonresidential Share	52%

Level-of-Service (LOS) Standards

LOS: Units per Person	0.0003
LOS: Units per Nonres. Trip	0.0003

Cost Analysis

Cost per Unit	\$97,386
Cost per Person	\$23.39
Cost per Nonres. Trip	\$41.99

As shown in Figure PO6, population and nonresidential trips drive the need for police communications equipment. Based on the development projections in the Land Use Assumptions (see Appendix A), Sierra Vista will need approximately 1.6 additional units of communications equipment over the next ten years $([3,197 \times 0.0003] + [1,929 \times 0.0003])$. The ten-year, growth-related capital cost associated with these additional units of police communications equipment is \$155,818 $(1.6 \times \$97,386)$. Each additional person requires a capital cost of \$23.39 $(\$155,818 \times 48 \text{ percent} / 3,197)$. Similarly, each additional trip to nonresidential development requires a capital cost of \$41.99 $(\$155,818 \times 52 \text{ percent} / 1,929)$.

Figure PO6: Growth-Related Need for Police Communications Equipment

Communications Equipment Level-of-Service Standards

Comm. Equipment - Residential	0.0003 Units per Person
Comm. Equipment - Nonresidential	0.0003 Units per Nonres. Trip
Average Cost	\$97,386 per Unit

Police Need for Communications Equipment				
	Year	Population	Nonres. Trips	Comm. Equipment Units
Base	2015	44,238	54,529	29
Year 1	2016	44,546	54,650	30
Year 2	2017	44,857	54,772	30
Year 3	2018	45,170	54,955	30
Year 4	2019	45,486	55,139	30
Year 5	2020	45,804	55,324	30
Year 6	2021	46,125	55,510	30
Year 7	2022	46,449	55,698	30
Year 8	2023	46,775	55,949	31
Year 9	2024	47,104	56,203	31
Year 10	2025	47,435	56,458	31
	<i>Ten-Yr Increase</i>	3,197	1,929	1.60
Growth-Related Expenditure on Communications Equipment =>				\$155,818

POLICE DEVELOPMENT FEES

Infrastructure standards and cost factors for police are summarized in the upper portion of Figure PO7. It is important to note Sierra Vista's policy to pay 25 percent of the maximum allowable police fee with a portion of the construction sales tax revenue; therefore, the proposed fees below represent 75 percent of the maximum allowable fee.

Development fees for residential development are determined by type of housing unit. For example, a dwelling in a multi-unit structure will pay \$212 in police fees based on a cost factor of \$197.65 per person and an average of 1.43 persons per housing unit ($\$197.65 \times 1.43 \times 75$ percent).

Nonresidential development fees are stated per square foot of floor area or, for hotels, per room. For example, the proposed police fee of \$259 per hotel room is derived from a capital cost of \$122.45 per nonresidential trip multiplied by 5.63 average weekday trip ends and a trip rate adjustment of 50 percent ($\$122.45 \times 5.63 \times 50$ percent $\times 75$ percent). The other nonresidential categories require an additional step because the average weekday vehicle trip ends are based on 1,000 square feet – development fees are assessed per square foot. The proposed police fee of \$1.29 per square foot of commercial development is derived from a capital cost of \$122.45 per nonresidential trip multiplied by 42.70 average weekday vehicle trip ends with a trip rate adjustment of 33 percent divided by 1,000 square feet ($\$122.45 \times 42.70 \times 33$ percent / 1,000 $\times 75$ percent).

Figure PO7: Schedule of Police Development Fees

Fee Component	Cost per Person	Cost per Nonres. Trip
Police Station Expansion Debt	\$88.84	\$80.46
Animal Control Center Debt	\$85.42	
Communications Equipment	\$23.39	\$41.99
TOTAL	\$197.65	\$122.45

Residential (per unit)

Development Type	Persons per Housing Unit*	Proposed Fees**	Current Fee**	Increase / Decrease
Single-Family Unit	2.42	\$359	\$226	\$133
Multi-Family Unit	1.43	\$212	\$175	\$37
Manufactured Housing	1.50	\$222	\$241	(\$19)

Nonresidential (per square foot)

Development Type***	Avg Wkdy Veh Trip Ends****	Trip Rate Adjustment	Proposed Fees**	Current Fee**	Increase / Decrease
Hotel (per room)	5.63	50%	\$259	\$153	\$106
Commercial	42.70	33%	\$1.29	\$0.74	\$0.55
Office & Other Services	11.03	50%	\$0.50	\$0.34	\$0.16
Industrial	6.97	50%	\$0.32	\$0.17	\$0.15

*See Figure A3.

**Represents 75% of maximum allowable fee.

***Institutional fees will be calculated on a case-by-case basis due to the broad range of uses.

****See Figure A8. Hotel equals trip ends per room.

POLICE DEVELOPMENT FEE REVENUE

Projected fee revenue shown in Figure PO8 is based on the development projections in the Land Use Assumptions (see Appendix A) and the updated Police development fees (see Figure PO7). If development occurs at a faster rate than projected, the demand for infrastructure will increase along with development fee revenue. If development occurs at a slower rate than projected, the demand for infrastructure will decrease and development fee revenue will decrease at a similar rate.

Anticipated development fee revenue of approximately \$533,000 over the next ten years is approximately 75 percent of the projected growth-related cost of police infrastructure (\$712,190). As shown in Figure PO8, the cost share due to existing development will have to be funded from other revenue sources.

Figure PO8: Projected Revenue from Police Development Fees

Infrastructure Cost for Police

	Growth Cost	Total Cost*
Police Dept. Expansion Debt	\$339,662	\$4,086,067
Animal Control Center Debt	\$216,711	\$1,885,877
Communications Equipment	\$155,818	\$155,818
TOTAL	\$712,190	\$6,127,761

Police Development Fee Revenue

		Residential \$316 per housing unit	Commercial \$1.29 per SF	Office & Other Services \$0.50 per SF	Industrial \$0.32 per SF
Year		Hsg Units	KSF	KSF	KSF
Base	2015	19,724	2,353	3,538	535
Year 1	2016	19,869	2,358	3,546	536
Year 2	2017	20,015	2,363	3,554	537
Year 3	2018	20,162	2,371	3,566	539
Year 4	2019	20,310	2,379	3,578	541
Year 5	2020	20,459	2,387	3,590	542
Year 6	2021	20,610	2,395	3,602	544
Year 7	2022	20,762	2,403	3,614	546
Year 8	2023	20,915	2,414	3,630	549
Year 9	2024	21,069	2,425	3,647	551
Year 10	2025	21,224	2,436	3,663	554
<i>Ten-Yr Increase</i>		1,500	83	125	19
Projected Revenue =>		\$387,599	\$88,798	\$52,043	\$4,935
Total Projected Revenues =>					\$533,375
Total Cost of Police Expenditures =>					\$6,127,761
Other Revenue Needed =>					\$5,594,386

*Total cost for Police Department and Animal Control Center represents remaining principal and interest.

FIRE INFRASTRUCTURE IMPROVEMENTS PLAN

Development fees for fire are one of the infrastructure categories allowed under Arizona law (Appendix B). Fire development fees include communication equipment and debt service for both a fire station and fire apparatus. State law requires Sierra Vista to have an adopted infrastructure improvements plan (IIP) in order to assess development fees.

FIRE COSTS

To meet the proportionality requirement, fire development fees allocate capital cost to residential and nonresidential development based on non-traffic calls for service. Figure F1 shows the calls for service for residential and nonresidential development in Sierra Vista. According to the proportionate share analysis, residential development accounts for 63 percent of the demand for fire infrastructure, and nonresidential development accounts for the remaining 37 percent of the fire infrastructure demand.

Figure F1: Fire Calls for Service

Fire Calls for Service: 2014

	In Town¹	Outside Town¹	Total
Traffic	643	258	901
Residential	3,499	1,842	5,341
Nonresidential	2,080	208	2,288
TOTAL	6,222	2,308	8,530

Non-Traffic Fire Calls for Service

	Proportionate Share	Calls for Service
Residential	63%	3,499
Nonresidential	37%	2,080
TOTAL	100%	5,579

FIRE STATION

Sierra Vista debt-financed the construction of a fire station in 2008 to provide capacity for existing and new development throughout Sierra Vista. This portion of the fire development fee will be used to cover new development’s share of fire station debt service payments.

Total debt service for the fire station, shown in Figure F2, is approximately \$8.7 million. In order to allocate the appropriate share of debt service between residential and nonresidential development, TischlerBise uses calls for service. Because the debt will be retired in 2023, population and nonresidential trips in 2023 are used as the residential and nonresidential service units, respectively. For residential development, the cost of \$116.61 per person assumes a 63 percent cost allocation and a projected population of 46,775 persons in 2023 ($\$8,657,967 \times 63 \text{ percent} / 46,775$). For nonresidential development, the cost of \$57.25 per nonresidential trip assumes a cost allocation of 37 percent and 55,949 projected trips to nonresidential development in 2023 ($\$8,657,967 \times 37 \text{ percent} / 55,949$).

Figure F2: Fire Station Cost Allocation

<i>Name of Debt</i>	<i>Year of Debt</i>	<i>Total Principal and Interest</i>	<i>Year of Final Payment</i>	<i>Population in 2023</i>	<i>Nonres. Trips in 2023</i>
Fire Station	2008	\$8,657,967	2023	46,775	55,949

Allocation Factors

Residential Share	63%
Nonresidential Share	37%

Cost per Person	\$116.61
Cost per Nonres. Trip	\$57.25

FIRE STATION APPARATUS

Also included in the 2008 bond, Sierra Vista debt-financed fire apparatus to provide capacity for new and existing development throughout the city. This portion of the fire development fee will be used to cover new development’s share of fire apparatus debt service payments.

As shown in Figure F3, total debt service for the fire apparatus is approximately \$1.7 million. In order to allocate the appropriate share of debt service between residential and nonresidential development, TischlerBise uses calls for service. Because the debt will be retired in 2023, population and nonresidential trips in 2023 are used as the residential and nonresidential service units, respectively. For residential development, the cost of \$22.42 per person assumes a 63 percent cost allocation and a projected population of 46,775 persons in 2023 ($\$1,664,994 \times 63 \text{ percent} / 46,775$). For nonresidential development, the cost of \$11.01 per nonresidential trip assumes a cost allocation of 37 percent and 55,949 projected trips to nonresidential development in 2023 ($\$1,664,994 \times 37 \text{ percent} / 55,949$).

Figure F3: Fire Apparatus Cost Allocation

Name of Debt	Year of Debt	Total Principal and Interest	Year of Final Payment	Population in 2023	Nonres. Trips in 2023
Fire Apparatus	2008	\$1,664,994	2023	46,775	55,949

Allocation Factors

Residential Share	63%
Nonresidential Share	37%

Cost per Person	\$22.42
Cost per Nonres. Trip	\$11.01

COMMUNICATIONS EQUIPMENT

Similar to the discussion of communications equipment in the police section, development fees will be used to expand Sierra Vista’s inventory of fire communications equipment. Figure F4 lists the current communications equipment used by Sierra Vista’s police department and fire department. Sierra Vista currently has 35 units of communications equipment representing a capital investment of approximately \$3.4 million. The weighted average cost is \$97,386 per unit (\$3,408,500 / 35).

Figure F4: Existing Standards for Communications Equipment

Type	Units	Cost per Unit	Total Cost
Dispatch Console	4	\$40,000	\$160,000
Repeater	4	\$35,000	\$140,000
Receiver	7	\$25,000	\$175,000
Tower	6	\$200,000	\$1,200,000
Central Communications Rack	2	\$30,000	\$60,000
Generator	5	\$80,000	\$400,000
Communications/Information System	1	\$1,050,000	\$1,050,000
Digital Recorder for Dispatch	1	\$30,000	\$30,000
Encrypted Radios/Repeater	1	\$42,500	\$42,500
AFIS Fingerprint System	2	\$38,000	\$76,000
Reverse 911	1	\$45,000	\$45,000
UPS for Communications Center	1	\$30,000	\$30,000
TOTAL	35	\$97,386	\$3,408,500

Since both the police department and fire department use the communications equipment, total non-traffic calls for service are used for the proportionate share. Based on non-traffic calls for service, the fire share is 16 percent; therefore, the fire department provides 16 percent of the demand for communications equipment. To derive the cost per service unit, non-traffic police calls for service (Figure F1) are used to allocate the proportionate share of demand to residential (63 percent) and nonresidential (37 percent) service units. Sierra Vista’s existing infrastructure standard for residential development is 0.00008 units per person based on the 2015 population of 44,238 (35 X 16 percent X 63 percent / 44,238). The nonresidential infrastructure standard, based on 2015 nonresidential trips of 54,529, is 0.00004 units per nonresidential trip (35 X 16 percent X 37 percent / 54,529).

Figure F5: Existing Standards for Communications Equipment

Allocation Factors for Communications Equipment

Police Share	84%
Fire Share	16%
2015 Citywide Population	44,238
2015 Citywide Nonres. Trips	54,529
Residential Share	63%
Nonresidential Share	37%

Level-of-Service (LOS) Standards

LOS: Units per Person	0.00008
LOS: Units per Nonres. Trip	0.00004

Cost Analysis

Cost per Unit	\$97,386
Cost per Person	\$5.75
Cost per Nonres. Trip	\$5.60

As shown in Figure F6, population and nonresidential trips drive the need for fire communications equipment. Based on the development projections in the Land Use Assumptions (see Appendix A), Sierra Vista will need approximately 0.3 additional units of communications equipment over the next ten years $([3,197 \times 0.00008] + [1,929 \times 0.00004])$. The ten-year, growth-related capital cost associated with these additional units of fire communications equipment is \$29,216 $(0.3 \times \$97,386)$. Each additional person requires a capital cost of \$5.75 $(\$29,216 \times 63 \text{ percent} / 3,197)$. Similarly, each additional trip to nonresidential development requires a capital cost of \$5.60 $(\$29,216 \times 37 \text{ percent} / 1,929)$.

Figure F6: Growth-Related Need for Fire Communications Equipment

Communications Equipment Level-of-Service Standards

Comm. Equipment - Residential	0.00008	Units per Person
Comm. Equipment - Nonresidential	0.00004	Units per Nonres. Trip
Average Cost	\$97,386	per Unit

Fire Need for Communications Equipment				
	Year	Population	Nonres. Trips	Comm. Equipment Units
Base	2015	44,238	54,529	6
Year 1	2016	44,546	54,650	6
Year 2	2017	44,857	54,772	6
Year 3	2018	45,170	54,955	6
Year 4	2019	45,486	55,139	6
Year 5	2020	45,804	55,324	6
Year 6	2021	46,125	55,510	6
Year 7	2022	46,449	55,698	6
Year 8	2023	46,775	55,949	6
Year 9	2024	47,104	56,203	6
Year 10	2025	47,435	56,458	6
	<i>Ten-Yr Increase</i>	3,197	1,929	0.3
Growth-Related Expenditure on Communications Equipment =>				\$29,216

FIRE DEVELOPMENT FEES

Infrastructure standards and cost factors for fire are summarized in the upper portion of Figure F7. It is important to note Sierra Vista’s policy to pay 25 percent of the maximum allowable fire fee with a portion of the construction sales tax revenue; therefore, the proposed fees below represent 75 percent of the maximum allowable fee.

The conversion of infrastructure costs per service unit into a cost per development unit is also shown in the table below. For residential development, the average number of persons per housing unit provides the necessary conversion. Development fees for residential development are determined by type of housing unit. For example, a mobile home will pay \$163 in fire fees based on a cost factor of \$144.78 per person and an average of 1.50 persons per housing unit (\$144.78 x 1.50 X 75 percent).

Nonresidential development fees are stated per square foot of floor area or, for hotels, per room. The proposed fire fee of \$0.19 per square foot of industrial development is derived from a capital cost of \$73.86 per nonresidential trip multiplied by 6.97 average weekday vehicle trip ends with a trip rate adjustment of 50 percent divided by 1,000 square feet (\$73.86 X 6.97 X 50 percent / 1,000 X 75 percent).

Figure F7: Schedule of Fire Development Fees

Fee Component	Cost per Person	Cost per Nonres. Trip
Fire Station Debt	\$116.61	\$57.25
Fire Apparatus Debt	\$22.42	\$11.01
Communications Equipment	\$5.75	\$5.60
TOTAL	\$144.78	\$73.86

Residential (per unit)

Development Type	Persons per Housing Unit*	Proposed Fees**	Current Fee**	Increase / Decrease
Single-Family Unit	2.42	\$263	\$266	(\$3)
Multi-Family Unit	1.43	\$155	\$206	(\$51)
Manufactured Housing	1.50	\$163	\$284	(\$121)

Nonresidential (per square foot)

Development Type***	Avg Wkdy Veh Trip Ends****	Trip Rate Adjustment	Proposed Fees**	Current Fee**	Increase / Decrease
Hotel (per room)	5.63	50%	\$156	\$39	\$117
Commercial	42.70	33%	\$0.78	\$0.19	\$0.59
Office & Other Services	11.03	50%	\$0.30	\$0.09	\$0.21
Industrial	6.97	50%	\$0.19	\$0.04	\$0.15

*See Figure A3.

**Represents 75% of maximum allowable fee.

***Institutional fees will be calculated on a case-by-case basis due to the broad range of uses.

****See Figure A8. Hotel equals trip ends per room.

FIRE DEVELOPMENT FEE REVENUE

Projected fee revenue shown in Figure F8 is based on the development projections in the Land Use Assumptions (see Appendix A) and the updated fire development fees (see Figure F7). If development occurs at a faster rate than projected, the demand for infrastructure will increase along with development fee revenue. If development occurs at a slower rate than projected, the demand for infrastructure will decrease and development fee revenue will decrease at a similar rate.

Anticipated development fee revenue of approximately \$358,000 over the next ten years is approximately 75 percent of the projected growth-related cost of fire infrastructure (\$478,883). As shown in Figure F8, the cost share due to existing development will have to be funded from other revenue sources.

Figure F8: Projected Revenue from Fire Development Fees

Infrastructure Cost for Fire

	Growth Cost	Total Cost*
Fire Station Debt	\$377,150	\$4,086,067
Fire Apparatus Debt	\$72,517	\$785,782
Communications Equipment	\$29,216	\$29,216
TOTAL	\$478,883	\$4,901,065

Fire Development Fee Revenue

		Residential \$231 per housing unit	Commercial \$0.78 per SF	Office & Other Services \$0.30 per SF	Industrial \$0.19 per SF
Year		Hsg Units	KSF	KSF	KSF
Base	2015	19,724	2,353	3,538	535
Year 1	2016	19,869	2,358	3,546	536
Year 2	2017	20,015	2,363	3,554	537
Year 3	2018	20,162	2,371	3,566	539
Year 4	2019	20,310	2,379	3,578	541
Year 5	2020	20,459	2,387	3,590	542
Year 6	2021	20,610	2,395	3,602	544
Year 7	2022	20,762	2,403	3,614	546
Year 8	2023	20,915	2,414	3,630	549
Year 9	2024	21,069	2,425	3,647	551
Year 10	2025	21,224	2,436	3,663	554
Ten-Yr Increase		1,500	83	125	19
Projected Revenue =>		\$278,300	\$49,099	\$28,411	\$2,684
Total Projected Revenues =>					\$358,494
Total Cost of Fire Expenditures =>					\$4,901,065
Other Revenue Needed =>					\$4,542,571

*Total cost for Fire Station and Fire Apparatus represents remaining principal and interest.

STREETS INFRASTRUCTURE IMPROVEMENTS PLAN

Development fees for streets are one of the infrastructure categories allowed under Arizona law (see Appendix B). Sierra Vista will collect streets development fees for arterial streets and intersections. State law requires Sierra Vista to have an adopted infrastructure improvements plan (IIP) in order to assess development fees. These improvements assume a citywide service area.

STREETS COMPONENTS

Development fees for streets are derived using an incremental approach for growth-related arterial and intersection improvements, with vehicle miles of travel as the service units. Each component used to derive vehicle miles of travel is described in Appendix A.

Sierra Vista Travel Demand

The relationship between the amount of development in Sierra Vista and growth-related system improvements is documented below. Figure S1 summarizes the input variables used to determine the average trip length on arterial improvements. In the table below HU means housing units, KSF means square feet of nonresidential development, in thousands, Institute of Transportation Engineers is abbreviated ITE, and VTE means vehicle trip ends. Trip generation rates by type of housing unit are documented in Figures A12 and A13 and related text.

Projected development in Sierra Vista over the next ten years, and the corresponding need for additional lane miles, is shown in the middle section of Figure S1. Trip generation rates and trip adjustment factors convert projected development into average weekday vehicle trips. A typical vehicle trip, such as a person leaving their home and traveling to work, generally begins on a local street that connects to a collector street, which connects to an arterial road and eventually to a state or interstate highway. This progression of travel up and down the functional classification chain limits the average trip length determination, for the purpose of development fees, to the following question, “What is the average vehicle trip length on development fee system improvements?”

With demand for 10.6 additional arterial lane-miles in the city and a lane capacity standard of 7,000 vehicles per lane, the demand on the future network is 74,344 vehicle miles of capacity (i.e., 7,000 vehicles per lane traveling the entire 10.6 lane miles). To derive the average utilization (i.e., average trip length expressed in miles) of growth-related system improvements, divide vehicle miles of capacity by the ten-year increase in vehicle trips attracted to development in the service area. As shown in the bottom-right corner of the table below, new development produces an increase of 8,566 average weekday vehicle trips over ten years. Dividing 74,344 vehicle miles of capacity by the ten-year increase of 8,566 inbound average weekday vehicle trips yields an un-weighted average trip length of approximately 8.68 miles. However, the calibration of average trip length includes the same adjustment factors used in the impact fee calculations (i.e., journey-to-work commuting, pass-by adjustment and average trip length adjustment by type of land use). With these adjustments, TischlerBise determined the weighted-average trip length to be 7.945 miles.

Figure S1: Sierra Vista Travel Demand and Trip Length Calibration

<i>Dev Type</i>	<i>ITE Code</i>	<i>Weekday VTE</i>	<i>Dev Unit</i>	<i>Trip Adj</i>	<i>Trip Length Wt Factor</i>			
Single-Family Unit		8.20	HU	58%	121%			
Multi-Family Unit		4.80	HU	58%	121%			
Mobile Home		5.10	HU	58%	121%			
Commercial	820	42.70	KSF	33%	66%			
Office & Other Services	710	11.03	KSF	50%	73%			
Industrial	110	6.97	KSF	50%	73%			
Avg Trip Length (miles)	7.945							
Vehicle Capacity Per Lane	7,000							
Year->	Base	1	2	3	4	5	10	10-Year Increase
	2015	2016	2017	2018	2019	2020	2025	
Single-Family Unit	13,655	13,776	13,898	14,020	14,143	14,267	14,904	1,248
Multi-Family Unit	4,327	4,351	4,375	4,400	4,425	4,450	4,578	252
Mobile Home	1,742	1,742	1,742	1,742	1,742	1,742	1,742	0
Commercial KSF	2,353	2,358	2,363	2,371	2,379	2,387	2,436	83
Office & Other Services KSF	3,538	3,546	3,554	3,566	3,578	3,590	3,663	125
Industrial KSF	535	536	537	539	541	542	554	19
<i>Single-Family Unit Trips</i>	64,945	65,519	66,097	66,679	67,264	67,854	70,881	
<i>Multi-Family Trips</i>	12,045	12,113	12,181	12,250	12,319	12,389	12,746	
<i>Mobile Home Trips</i>	5,153	5,153	5,153	5,153	5,153	5,153	5,153	
<i>Commercial Trips</i>	33,153	33,227	33,301	33,412	33,524	33,637	34,326	
<i>Office & Other Services Trips</i>	19,513	19,556	19,600	19,665	19,731	19,797	20,203	
<i>Industrial Trips</i>	1,863	1,867	1,871	1,878	1,884	1,890	1,929	
<i>Total Vehicle Trips</i>	136,672	137,435	138,203	139,036	139,875	140,720	145,239	8,566
<i>Vehicle Miles of Travel (VMT)</i>	1,087,503	1,094,332	1,101,207	1,108,459	1,115,761	1,123,111	1,161,847	74,344
ARTERIAL LANE MILES	155.4	156.3	157.3	158.4	159.4	160.4	166.0	10.6
IMPROVED INTERSECTIONS	28.0	28.2	28.4	28.5	28.7	28.9	29.9	1.9
								Ten-Year VMT Increase => 6.4%

STREETS INFRASTRUCTURE

Updated streets development fees are based on the same level of service provided to existing development. As shown above in Figure S1, Sierra Vista’s streets infrastructure includes 155.4 lane miles of arterials and 28 signalized intersections. Development fees will be used to increase capacity through arterial improvements and to increase inventory of signalized intersections. Existing level-of-service standards are discussed in the following sections.

Arterials

Based on 2015 vehicle miles of travel of 1,087,503 and 155.4 arterial lane miles, the existing level-of-service standard in Sierra Vista is 1.4289 lane miles per 10,000 VMT ($155.4 / [1,087,503 / 10,000]$). Shown below in Figure S2, the average cost of approximately \$479,000 per arterial lane mile ($\$6,836,500 / 14.27$) is based on projects from Sierra Vista’s CIP.

Figure S2: Existing Standards for Arterials

Allocation Factors for Arterials Improvements

Arterial Lane Miles	155.4
2015 VMT	1,087,503

Level-of-Service (LOS) Standards

LOS: Arterial Lane Miles per 10,000 VMT	1.4289
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Cost Analysis

Cost per Lane Mile	\$479,082
Cost per VMT	\$32.22

Arterial Improvement Cost Factors

Project	Lane Miles*	Cost per Lane Mile	Total Cost*
Avenida Del Sol Widening (SR 90 to Camino Del Norte)	1.50	\$333,333	\$500,000
Guilio Cesare Widening (SR90 to Michelangelo)	0.50	\$500,000	\$250,000
BST Extension (SR 92 to Avenida Del Sol)	6.60	\$492,424	\$3,250,000
Charleston Road (Giulio Cesare east to City Limits)	2.32	\$500,000	\$1,160,000
Moson Road (between SR 90 and Horse Thief Rd)	0.8	\$500,000	\$400,000
Foothills (between El Camino Real and SR 92)	0.3	\$505,000	\$151,500
Tacoma (Coronado to Avenida Escuela extension)	0.75	\$500,000	\$375,000
Las Brisas (Police Station to Avenida Escuela extension)	1.5	\$500,000	\$750,000
TOTAL	14.27	\$479,082	\$6,836,500

*Provided by Sierra Vista staff.

Signalized Intersections

Similar to arterials, level-of-service standards for signalized intersections also use vehicle miles of travel. Sierra Vista’s streets infrastructure includes 28 signalized intersections, and when allocated per 10,000 VMT, the level of service is 0.2574 signalized intersections per 10,000 VMT. City staff identified seven intersection improvement projects from the most recent CIP to determine an average cost per signalized intersection of approximately \$386,000 (\$2,700,000 / 7).

Figure S3: Existing Standards for Signalized Intersections

<i>Allocation Factors for Signalized Intersections</i>	
Improved Intersections	28
2015 VMT	1,087,503
<i>Level-of-Service (LOS) Standards</i>	
LOS: Sig. Intersections per 10,000 VMT	0.2574
<i>Cost Analysis</i>	
Cost per Intersection	\$385,714
Cost per VMT	\$9.85
<i>Intersection Improvement Cost Factors</i>	
<i>Project</i>	<i>Total Cost*</i>
Seventh / Golf Links	\$350,000
Campus Drive / Columbo	\$400,000
El Camino Real / Wilcox	\$400,000
Charleston / Wal-Mart	\$350,000
BST / Golf Links	\$400,000
SR 92 / Snyder	\$400,000
Coronado/Tacoma	\$400,000
TOTAL	\$2,700,000

*Provided by Sierra Vista staff.

Multi-Use Paths

The Vista 2030 General Plan identified the need for multi-use paths (MUPs). To ensure new development pays for only its share of improvements, an incremental expansion methodology is used for this component.

Development fees will be used to expand Sierra Vista’s inventory of multi-use paths, and Figure S4 lists the current inventory of multi-use paths as of 2015. Sierra Vista currently has 142,268 linear feet of multi-use paths.

Figure S4: Existing Inventory of Multi-Use Paths and Trails

<i>Name</i>	<i>Linear Feet</i>
Avenida Cochise	7,269
Avenida del Sol	3,901
Bella Vista	3,587
BST	23,533
Canyon de Flores	724
Charleston	2,802
Colombo	1,592
Coronado	4,572
Country Club	5,513
Eddie Cyr Park	2,543
Forrest Doerner	1,328
Gateway	645
Giulio Cesare	4,387
HWY 90	12,143
HWY 90 BYP	11,390
HWY 92	20,178
Len Roberts Park	2,087
Lenzner	3,338
MLK	5,484
Oakmont	682
Path to Higher Learning	3,426
Snyder	9,108
Soldier's Creek Park	3,625
Summit Heights	2,329
Topkins Park	4,440
Woodcutters	1,642
TOTAL	142,268

Multi-use paths are allocated per 10,000 VMT for residential and nonresidential development. Based on the 2015 VMT of 1,087,503, the existing level of service is 1,308.21 linear feet per 10,000 VMT (142,268 / [1,087,503 / 10,000]). The weighted average cost is approximately \$120 per linear foot (\$1,588,303 / 13,265). This cost is based on three planned multi-use paths included in the fiscal year 2014-2015 budget. These projects include 13,265 linear feet of new multi-use paths and cost \$1,588,303 to construct.

Figure S5: Existing Standards for Multi-Use Paths

<i>Allocation Factors for Multi-Use Paths</i>		
Linear Feet of MUPs		142,268
2015 VMT		1,087,503
<i>Level-of-Service (LOS) Standards</i>		
LOS: Linear Feet per 10,000 VMT		1,308.21
<i>Cost Analysis</i>		
Cost per Linear Foot		\$120
Cost per VMT		\$15.69
<i>Cost Basis from Planned Projects</i>		
<i>Project</i>	<i>Linear Feet</i>	<i>Total Cost*</i>
Higher Education	3,700	\$562,983
Buffalo Soldier Trail	4,800	\$501,640
Colombo/Guilio Cesare/Coronado	4,765	\$523,680
TOTAL	13,265	\$1,588,303
Average Cost per Linear Foot		\$120

*Sierra Vista CIP FY15-18, FY14-15 Budget.

Projected Need for Streets Infrastructure

As shown in Figure S6, projected VMT drives the need for arterial improvements, signalized intersections, and multi-use paths. Over the next ten years, Sierra Vista will need 10.6 additional lane miles of arterials. Sierra Vista staff, however, estimate five lane miles are likely to be constructed during the study period at a cost of approximately \$2.4 million (5 X \$479,082). The cost per VMT for arterial improvements is \$32.22 (\$2,395,410 / 74,344). Additionally, new development will demand 1.9 additional signalized intersections at a cost of approximately \$733,000 (1.9 X \$385,714), or \$9.85 per VMT (\$694,285 / 74,344). Finally, new development will demand 9,725.7 linear feet of multi-use paths at a cost of approximately \$1.2 million (9,725.7 X \$120), or \$15.69 per linear foot (\$1,167,084 / 9,725.7). In combination, Sierra Vista anticipates capital costs of approximately \$7.0 million for growth-related streets infrastructure over the next ten years.

Figure S6: Growth-Related Need for Streets Infrastructure

Streets Level-of-Service Standards

Arterial Improvements	1.42890 Lane Miles per 10,000 VMT
Average Cost	\$479,082 per Lane Mile
Intersection Improvements	0.25740 Sig. Intersections per 10,000 VMT
Average Cost	\$385,714 per Intersection
Multi-Use Paths	1,308.21 Linear Feet per 10,000 VMT
Average Cost	\$120 per Linear Foot

Need for Streets Infrastructure					
	Year	VMT	Arterial Lane Miles	Signalized Intersections	Multi-Use Paths
Base	2015	1,087,503	155.4	28.0	142,268
Year 1	2016	1,094,332	156.4	28.2	143,162
Year 2	2017	1,101,207	157.4	28.3	144,061
Year 3	2018	1,108,459	158.4	28.5	145,010
Year 4	2019	1,115,761	159.4	28.7	145,965
Year 5	2020	1,123,111	160.5	28.9	146,926
Year 6	2021	1,130,552	161.5	29.1	147,900
Year 7	2022	1,138,041	162.6	29.3	148,880
Year 8	2023	1,145,923	163.7	29.5	149,911
Year 9	2024	1,153,858	164.9	29.7	150,949
Year 10	2025	1,161,847	166.0	29.9	151,994
<i>Ten-Yr Increase</i>		74,344	10.6	1.9	9,725.7
Planned Arterials* =>			5.00		
Growth-Related Expenditure on Arterials =>					\$2,395,410
Growth-Related Expenditure on Signalized Intersections =>					\$732,857
Growth-Related Expenditure on Multi-Use Paths =>					\$1,167,084
Total Growth-Related Expenditure on Streets Infrastructure =>					\$4,295,351

*Sierra Vista staff assume 5 lane miles are more likely during the study period.

STREETS DEVELOPMENT FEES

Infrastructure standards and cost factors for streets fees are summarized in the upper portion of Figure S7. The conversion of infrastructure costs per service unit into a cost per development unit is also shown in the table below. VMT by type of development, multiplied by the capacity cost per vehicle mile of travel, yields the fee per development unit. To derive the fee for commercial development per square foot of floor area, multiply the following factors from Figure S7.

$$\begin{array}{r} 42.70 \text{ weekday vehicle trip ends per 1,000 square feet} \\ \times \\ 33 \text{ percent adjustment factor for inbound trips, including pass-by} \\ \times \\ 7.945 \text{ average miles per trip} \\ \times \\ 66 \text{ percent trip length adjustment factor for commercial development} \\ \times \\ \$57.76 \text{ total cost per VMT} \\ \div \\ 1,000 \text{ square feet} \\ \times \\ 75 \text{ percent of maximum allowable fee} \\ = \\ \$3.20 \text{ per square foot} \end{array}$$

Figure S7: Schedule of Streets Development Fees

Fee Component	Cost per VMT
Arterial Improvements	\$32.22
Signalized Intersections	\$9.85
Multi-Use Paths	\$15.69
TOTAL	\$57.76
Average Miles per Trip	7.945

Residential (per unit)

Development Type	Avg Wkdy Veh Trip Ends*	Trip Rate Adjustment	Trip Length Adjustment	Proposed Fees**	Current Fee**	Increase / Decrease
Single-Family Unit	8.20	58%	121%	\$1,981	\$1,581	\$400
Multi-Family Unit	4.80	58%	121%	\$1,159	\$1,196	(\$37)
Manufactured Housing	5.10	58%	121%	\$1,232	\$895	\$337

Nonresidential (per square foot)

Development Type	Avg Wkdy Veh Trip Ends***	Trip Rate Adjustment	Trip Length Adjustment	Proposed Fees**	Current Fee**	Increase / Decrease
Hotel (per room)	5.63	50%	73%	\$707	\$688	\$19
Commercial	42.70	33%	66%	\$3.20	\$3.14	\$0.05
Office & Other Services	11.03	50%	73%	\$1.38	\$1.53	(\$0.15)
Industrial	6.97	50%	73%	\$0.87	\$0.77	\$0.10

*See Figure A12.

**Represents 75% of maximum allowable fee.

***See Figure A8. Hotel equals trip ends per room.

****Institutional fees will be calculated on a case-by-case basis due to the broad range of uses.

STREETS DEVELOPMENT FEE REVENUE

Projected fee revenue shown in Figure S8 is based on the development projections in the Land Use Assumptions (see Appendix A) and the updated streets development fees (see Figure S7). If development occurs at a faster rate than projected, the demand for infrastructure will increase along with development fee revenue. If development occurs at a slower rate than projected, the demand for infrastructure will decrease and development fee revenue will decrease at a similar rate. Anticipated development fee revenue of approximately \$3.2 million over the next ten years is approximately 75 percent of the projected growth-related cost of streets infrastructure (\$4,295,351).

Figure S8: Projected Revenue from Streets Development Fees

Infrastructure Cost for Streets

	Growth Cost	Total Cost
Arterial Improvements	\$2,395,410	\$2,395,410
Signalized Intersections	\$732,857	\$732,857
Multi-Use Paths	\$1,167,084	\$1,167,084
TOTAL	\$4,295,351	\$4,295,351

Streets Development Fee Revenue

		Residential	Commercial	Office & Other Services	Industrial
		\$1,843	\$3.20	\$1.38	\$0.87
		per housing unit	per SF	per SF	per SF
Year		Hsg Units	KSF	KSF	KSF
Base	2015	19,724	2,353	3,538	535
Year 1	2016	19,869	2,358	3,546	536
Year 2	2017	20,015	2,363	3,554	537
Year 3	2018	20,162	2,371	3,566	539
Year 4	2019	20,310	2,379	3,578	541
Year 5	2020	20,459	2,387	3,590	542
Year 6	2021	20,610	2,395	3,602	544
Year 7	2022	20,762	2,403	3,614	546
Year 8	2023	20,915	2,414	3,630	549
Year 9	2024	21,069	2,425	3,647	551
Year 10	2025	21,224	2,436	3,663	554
Ten-Yr Increase		1,500	83	125	19
Projected Revenue =>		\$2,764,099	\$265,958	\$172,745	\$16,457
Total Projected Revenues =>					\$3,219,259

APPENDIX A: LAND USE ASSUMPTIONS

Arizona Revised Statutes (ARS) 9-463.05 (T)(7) requires the preparation of a Land Use Assumptions document, which shows:

“projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the General Plan of the municipality.”

TischlerBise prepared current demographic *estimates* and future development *projections* for both residential and nonresidential development that will be used in the Infrastructure Improvements Plan (IIP) and calculation of the development fees. Current demographic data estimates for 2015 are used in calculating levels of service (LOS) provided to existing development in the City of Sierra Vista, Arizona. Although long-range projections are necessary for planning infrastructure systems, a shorter time frame of five to ten years is critical for the development fee analysis.

Arizona’s Development Fee Act requires fees to be updated at least every five years and limits the IIP to a maximum of ten years. Therefore, the use of a very long-range “build-out” analysis is no longer acceptable for deriving development fees in Arizona municipalities.

SUMMARY OF GROWTH INDICATORS

Development projections – residential and nonresidential – are summarized in Figure A1. These projections are used to estimate development fee revenue and to indicate the anticipated need for growth-related infrastructure. However, development fee methodologies are designed to reduce sensitivity to accurate development projections in the determination of the proportionate share fee amounts. If actual development is slower than projected, development fee revenues will decline, but so will the need for growth-related infrastructure. In contrast, if development is faster than anticipated, the City will receive an increase in development fee revenue, but will also need to accelerate capital improvements to keep pace with development.

Sierra Vista data for the demographic analysis and development projections include 2010 census counts of population and housing units, building permit data provided by Sierra Vista staff, and 2013 5-year American Community Survey data. The projected long-range increase in population uses an average annual growth rate of 0.8 percent. While more conservative than some projections, this takes into account recent employment decreases at Fort Huachuca and a slight dip on population during the recession. Because TischlerBise recommends a 3- to 5-year update cycle for development fees, the development fee study does not vary the persons per housing unit ratio over time, nor assume any change to the residential vacancy rate in Sierra Vista. At the time of the 2013 ACS estimate, approximately 13 percent of the housing stock in Sierra Vista was vacant or only used seasonally. To calculate housing units, the population in housing units is divided by the 2013 average of 2.13 year-round residents per housing unit. The compound growth rate from 2015 to 2020 for off-base housing unit growth equals 0.78 percent.

Nonresidential floor area in 2015 is based on 2014 job estimates from the Cochise College Center for Economic Research (Sierra Vista Economic Outlook 2015) and 2013 data from the U.S. Census Bureau's OnTheMap web application. Projected jobs within Sierra Vista are based on employment growth projections determined by city staff and are converted to nonresidential floor area using average square-feet-per-employee multipliers. For nonresidential development in Sierra Vista, the development fee study assumes a compound annual growth rate of 0.4 percent in 2014 that increases to 1.0 percent by the end of the study period.

Figure A1: Summary of Development Projections

	Start of FY 2015-16								Cumulative Increase		
	Base Yr	1	2	3	4	5	10	20	5-Year	10-Year	20-Year
	2015	2016	2017	2018	2019	2020	2025	2035	2015-20	2015-25	2015-35
Population											
Citywide Total	44,238	44,546	44,857	45,170	45,486	45,804	47,435	50,898	1,566	3,197	6,660
Off-Base Total	38,552	38,860	39,171	39,484	39,800	40,118	41,749	45,212	1,566	3,197	6,660
Housing Units											
Single-Family Units	15,397	15,518	15,640	15,762	15,885	16,009	16,646	17,999	612	1,248	2,601
Multi-Family Units	4,327	4,351	4,375	4,400	4,425	4,450	4,578	4,851	123	252	525
Citywide Total	19,724	19,869	20,015	20,162	20,310	20,459	21,224	22,850	735	1,500	3,126
Off-Base Total	18,585	18,730	18,876	19,023	19,171	19,320	20,085	21,711	735	1,500	3,126
Employment By Type											
Commercial	4,706	4,716	4,727	4,742	4,758	4,774	4,872	5,151	69	166	445
Office & Other Services	11,755	11,781	11,807	11,846	11,886	11,926	12,171	12,866	171	416	1,112
Industrial	1,234	1,237	1,239	1,243	1,248	1,252	1,277	1,351	18	44	117
Citywide Total	17,694	17,733	17,773	17,832	17,892	17,952	18,320	19,367	258	626	1,673
Off-Base Total	9,820	9,859	9,899	9,958	10,018	10,078	10,446	11,493	258	626	1,673
Nonres Floor Area SF (x1,000)											
Commercial	2,353	2,358	2,363	2,371	2,379	2,387	2,436	2,575	34	83	222
Office & Other Services	3,538	3,546	3,554	3,566	3,578	3,590	3,663	3,873	52	125	335
Industrial	535	536	537	539	541	542	554	585	8	19	51
Citywide Total	6,426	6,440	6,454	6,476	6,497	6,519	6,653	7,033	94	227	608
Off-Base Total	3,566	3,580	3,595	3,616	3,638	3,660	3,793	4,174	94	227	608

RESIDENTIAL DEVELOPMENT

Current estimates and future projections of residential development are detailed in this section including population and housing units by type.

Recent Residential Construction

Development fees require an analysis of current levels of service. For residential development, current levels of service are determined using estimates of population and housing units. To estimate current housing units in the City of Sierra Vista, TischlerBise obtained building permit information from the City. This information is then used to determine a base year estimate of housing units. Figure A2 shows residential building permit trends by calendar year for the City of Sierra Vista.

Residential housing unit estimates are also shown in Figure A2 below. The 2011 housing unit estimate corresponds with the 2011 Fee Study housing unit estimate of 19,117 and is used as the base housing unit estimate. To estimate 2012, 2013, and 2014 housing units, residential building permits issued each calendar year are allocated by fiscal year and added to the 2011 housing unit estimate. For example, 61 single-family units constructed in 2011 were included in the 2011 study. The remaining 122 single-family units constructed in 2011 and the 41 single-family units constructed in the first half of 2012 are added to the 2011 single-family total to determine the 2012 single-family total of 13,324 (122 + 41 + 13,161 = 13,324). TischlerBise estimates the Sierra Vista's July 1, 2014 housing unit total to be 19,580.

Figure A2 – Residential Housing Permits

	Residential Permits ¹			
	2011	2012	2013	2014
Single Family	184	81	61	110
2+ Units	0	88	0	0
Residential Permits¹	184	169	61	110

	2011	2012	2013	2014
	Single Units	13,161	13,324	13,395
2+ Units	4,214	4,214	4,302	4,302
Mobile Homes	1,742	1,742	1,742	1,742
Housing Units²	19,117	19,280	19,439	19,580

1. City of Sierra Vista, Building Permit Data (previous study included January-April permits in 2011).

2. 2011 housing unit estimate from 2011 Development Fee Study. Totals represent July 1 estimates.

Persons Per Housing Unit

According to the U.S. Census Bureau, a household is a housing unit that is occupied by year-round residents. Development 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 development 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 development fees for residential development in Sierra Vista be imposed according to the number of year-round residents per housing unit. This methodology assumes some portion of the housing stock will be vacant during the course of a year. According to the U.S. Census Bureau American Community Survey, Sierra Vista’s 2013 vacancy rate was 13 percent.

Persons per housing unit (PPHU) requires data on population in occupied units and the types of units by structure and bedroom count. 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). For development fees in Sierra Vista, detached stick-built units and attached units (commonly known as townhouses, which share a common sidewall, but are constructed on an individual parcel of land) are included in the “Single-Family Units” category. The second residential category includes duplexes and all other structures with two or more units on an individual parcel of land. This category is referred to as “Multi-Family Units.” Single, detached manufactured units (formerly known as mobile homes), boats, RVs, vans, and any housing units that are not included in the previous two categories are included in the “Manufactured Homes” category. (Note: housing unit estimates from ACS will not equal decennial census counts of units. These data are used only to derive the custom PPHU factors for each type of unit).

Figure A3 below shows the ACS 2013 5-Year Estimates for Sierra Vista. Single-family units averaged 2.42 persons per housing unit (33,723 / 13,918), multi-family units averaged 1.43 persons per housing unit (6,638 / 4,634), and manufactured homes averaged 1.50 persons per housing unit (2,119 / 1,412). Sierra Vista’s 2013 persons per housing unit factor is 2.13.

Figure A3 – Persons per Housing Unit by Type of Housing, 2013

2013 Summary by Type of Housing	Persons	House-holds	PPH	Housing Units	PPHU	Housing Mix	Vacancy Rate
Single-Family Units ¹	33,723	12,740	2.65	13,918	2.42	70%	8%
Multi-Family Units ²	6,638	3,572	1.86	4,634	1.43	23%	23%
Manufactured Homes ³	2,119	958	2.21	1,412	1.50	7%	32%
Subtotal	42,480	17,270	2.46	19,964	2.13		13%
Group Quarters Population	2,707						
TOTAL	45,187	17,270	2.62	19,964	2.26		

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey.

1. Includes detached and attached units.
2. Includes units in structures with 2 or more units.
3. Includes manufactured units, boats, RVs, vans, etc.

Population Estimates and Projections

To more accurately determine future population, TischlerBise analyzed recent growth trends, reviewed the Sierra Vista General Plan: Vista 2030, and had discussions with staff. Year-round population estimates for 2010 through 2014 from the Arizona Department of Administration and the Cochise

College Center for Economic Research are used to establish growth patterns for Sierra Vista. Estimates for Fort Huachuca, also from the Cochise College Center for Economic Research, represent a population decline due to a decrease in available housing after the demolition and replacement of older units. For this study, it is assumed that Fort Huachuca’s population will remain constant; therefore, population projections for the entire city will include persons at Fort Huachuca and off-base projections will exclude persons at Fort Huachuca. Projections are based on expected off-base population growth.

In 2013, the Arizona Department of Administration released sub-county population projections for 2013-2050 based on its medium growth scenario for each county. Sierra Vista’s 2012 population was estimated to be 45,794 with a projected population of 56,740 in 2035. To add almost 11,000 people between 2012 and 2035 would require annual residential building activity to substantially outpace recent trends. Based on discussions with city staff regarding recent population loss, it was determined a more conservative growth rate of 0.8 percent would better project population. Figure A4 presents a summary of the population estimates and projections for Sierra Vista.

Figure A4 – Population Estimates and Projections

	Annual July 1 Population Estimates (Start of a Fiscal Year)					Base Year ³	Population Projections ³			
	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Citywide ¹	45,047	45,098	45,794	45,303	44,286	44,238	45,804	47,435	49,132	50,898
Fort Huachuca ²	6,791	6,595	6,405	6,220	6,040	5,686	5,686	5,686	5,686	5,686
Off-Base	38,256	38,503	39,389	39,083	38,246	38,552	40,118	41,749	43,446	45,212

1. Arizona Department of Administration, July 1, 2014 Population Estimates.
2. Cochise College Center for Economic Research, Sierra Vista Economic Outlook 2010-2015.
3. TischlerBise, based on average annual growth rates from city staff.

Population and Housing Unit Projections

Sierra Vista housing unit estimates and projections are shown below in Figure A5. According to Cochise College’s Center for Economic Research, Fort Huachuca’s housing unit total declined from 1,200 units in 2010 to 1,139 units in 2014. The third line in the table below represents the difference between citywide housing units and Fort Huachuca housing units. TischlerBise uses a two-step process to project citywide housing units for each year past base year 2015. First, to calculate off-base housing units, the annual net population increase—excludes Fort Huachuca—is divided by the 2013 PPHU factor ($38,552 - 38,246 / 2.13 = 144$) and added to the previous year’s off-base housing total ($144 + 18,441 = 18,585$). Like the population projections, Fort Huachuca’s housing units are assumed to remain constant; therefore, Fort Huachuca’s 2015 housing unit total is added to the off-base housing units ($1,139 + 18,585 = 19,724$) to determine citywide housing units.

Figure A5 – Housing Unit Estimates and Projections

	Annual July 1 Housing Estimates					Base Year	Housing Unit Projections ³			
	2010	2011	2012	2013	2014	2015	2020	2025	2030	2035
Citywide ¹		19,117	19,280	19,439	19,580	19,724	20,459	21,224	22,021	22,850
Fort Huachuca ²	1,200	1,184	1,169	1,154	1,139	1,139	1,139	1,139	1,139	1,139
Off-Base		17,933	18,111	18,285	18,441	18,585	19,320	20,085	20,882	21,711

1. TischlerBise Development Fee Study, 2011; City of Sierra Vista Annual Building Permits, 2011-2014.

2. Cochise College Center for Economic Research, Sierra Vista Economic Outlook 2014.

3. Based on TischlerBise population projections and 2013 PPHU of 2.13.

The 2014 housing mix in Figure A2 is used to distribute housing units between single-family units³ and multi-family units. Next, the projected citywide housing units are distributed, by type of structure, based on building permit data shown in Figure A2 – 83.2% single-family units and 16.8% multi-family units. For example, Figure A5 estimates the construction of 144 new housing units from 2014 to 2015 (18,585 – 18,441 = 144). Based on recent building permit data, this will include 120 single-family units (144 X 83.2% = 120) and 24 multi-family units (144 X 16.8% = 24). See Figure A6 below for a summary of population and housing unit projections.

Population and housing unit 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.

³ Because manufactured housing units are expected to remain constant, these units are included with projections for single-family units. All new housing units are expected to be single-family or multi-family units.

Figure A6 – Population and Housing Unit Projections

	Start of FY 2015-16								Cumulative Increase		
	Base Yr	1	2	3	4	5	10	20	5-Year	10-Year	20-Year
	2015	2016	2017	2018	2019	2020	2025	2035	2015-20	2015-25	2015-35
Population											
Citywide Total	44,238	44,546	44,857	45,170	45,486	45,804	47,435	50,898	1,566	3,197	6,660
Off-Base Total	38,552	38,860	39,171	39,484	39,800	40,118	41,749	45,212	1,566	3,197	6,660
Housing Units											
Single-Family Units	15,397	15,518	15,640	15,762	15,885	16,009	16,646	17,999	612	1,248	2,601
Multi-Family Units	4,327	4,351	4,375	4,400	4,425	4,450	4,578	4,851	123	252	525
Citywide Total	19,724	19,869	20,015	20,162	20,310	20,459	21,224	22,850	735	1,500	3,126
Off-Base Total	18,585	18,730	18,876	19,023	19,171	19,320	20,085	21,711	735	1,500	3,126

ANNUAL INCREASES - CITYWIDE									Average Annual Increases		
	1	2	3	4	5	10	20	5-Year	10-Year	20-Year	
	2015-16	2016-17	2017-18	2018-19	2019-20	2024-25	2034-35	2015-20	2015-25	2015-35	
Population	308	311	313	316	318	331	359	313	320	333	
Single-Family Units	121	121	122	123	124	129	141	122	125	130	
Multi-Family Units	24	25	25	25	25	26	28	25	25	26	
Housing Units	145	146	147	148	149	155	169	147	150	156	

NONRESIDENTIAL DEVELOPMENT

Current estimates and future projections of nonresidential development are detailed in this section including jobs and nonresidential floor area.

Employment Estimates and Projections

In addition to data on residential development, the calculation of development fees requires data on employment (number of jobs) and nonresidential square footage in the City of Sierra Vista. TischlerBise analyzed recent employment trends, reviewed data provided by the City, and had discussions with city staff.

TischlerBise uses a four-step process to calculate a base year job estimate and projections for each year past the base. First, historic job estimates from the Cochise College Center for Economic Research are used as the base year for Sierra Vista and Fort Huachuca (Figure A7). Second, 2013 job estimates from the U.S. Census Bureau’s OnTheMap (OTM) web application are grouped by type: commercial, office and other services, and industrial. Third, the 2013 OTM distribution is applied to the 2014 job estimates discussed in step one to determine the number of citywide, Fort Huachuca, and off-base jobs. Finally, annual employment growth rates provided by city staff are used to project jobs for each year past the base. It is assumed that Fort Huachuca jobs will remain constant; therefore, job growth is based on off-base jobs with on-base jobs held steady.

Figure A7 – Estimated Employment and Distribution by Industry Type, 2014

	Citywide Distribution ¹	Start of FY 2014 Jobs ²		
		Citywide	Fort Huachuca	Off-Base
Commercial	27%	4,695	2,094	2,601
Office & Other Services	66%	11,729	5,231	6,498
Industrial	7%	1,231	549	682
TOTAL	100%	17,655	7,874	9,781

1. U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2013, adjusted to reflect jobs added since 2013.

2. Total jobs from Cochise College Center for Economic Research, Sierra Vista Economic Outlook 2015.

Nonresidential Square Footage Development

Job estimates are used to estimate nonresidential square footage based on nationally recognized average square feet per employee data published by The Institute of Transportation Engineers (ITE) and shown in Figure A8 below. Rows shaded in gray are used as prototypes for development in Sierra Vista.

Figure A8 – The Institute of Transportation Engineers, Employee and Building Area Ratios

ITE Code	Land Use	Demand Unit	Weekday Trip Ends		Emp Per 1,000 Sq Ft	Sq Ft Per Emp ²
			Per 1,000 Sq Ft ¹	Per Employee ¹		
Commercial						
	Average	1,000 Sq Ft	42.70	na	2.00	500
General Office and Other Services						
	Average	1,000 Sq Ft	11.03	3.32	3.32	301
Industrial						
110	Light Industrial	1,000 Sq Ft	6.97	3.02	2.31	433
140	Manufacturing	1,000 Sq Ft	3.82	2.13	1.79	558
151	Mini-Warehouse	1,000 Sq Ft	2.50	61.90	0.04	24,760
150	Warehousing	1,000 Sq Ft	3.56	3.89	0.92	1,093
Other Nonresidential						
760	Research & Dev Center	1,000 Sq Ft	8.11	2.77	2.93	342
610	Hospital	1,000 Sq Ft	13.22	4.50	2.94	340
310	Hotel	room	8.17	14.34	0.57	na
320	Motel	room	5.63	12.81	0.44	na
565	Day Care	student	4.38	26.73	0.16	na

1. Trip Generation, Institute of Transportation Engineers, 2012.

2. Square feet per employee calculated from trip rates except for Shopping Center data, which are derived from the Urban Land Institute's Development Handbook and Dollars and Cents of Shopping Centers.

TischlerBise uses 2012 data from the ITE to calculate the total nonresidential floor area for the development categories used in the calculation of development fees. To estimate current nonresidential floor area, ITE square feet per employee factors are applied to 2014 job estimates shown in Figure A7. It is estimated the City of Sierra Vista has approximately 6.4 million square feet of nonresidential space in active use with approximately 2.9 million square feet located at Fort Huachuca. Figure A 9 shows the estimated square footage in 2014 for each major category of nonresidential development.

Figure A9 – Estimated Nonresidential Floor Area, 2014

		Start of FY 2014 Nonresidential Floor Area		
		Square Feet per Employee ¹	Citywide	Fort Huachuca
Commercial	500	2,347,500	1,047,000	1,300,500
Office & Other Services	301	3,530,397	1,574,517	1,955,880
Industrial	433	533,374	237,873	295,501
TOTAL	363	6,411,271	2,859,390	3,551,881

1. Institute of Transportation Engineers. (2012). Trip Generation 9th Edition.

Nonresidential Floor Area and Employment Projections

Future employment growth and nonresidential development in Sierra Vista are projected based on information provided by city staff and analysis of past trends in Sierra Vista. To project employment, TischlerBise applies an annual growth rate provided by city staff to each year beyond 2014 estimate of 17,655 jobs.

The projected increase in employment is then used to project growth in nonresidential square footage using the square feet per employee factors previously discussed. Results are shown in Figure A10. Over the next twenty years, Sierra Vista is projected to gain 1,673 jobs. To keep pace with employment growth, the City should expect to add roughly 608,000 square feet of nonresidential development during the same period.

Figure A10 – Employment and Nonresidential Floor Area

	Start of								Cumulative Increase		
	FY 2015-16								5-Year 2015-20	10-Year 2015-25	20-Year 2015-35
	Base Yr 2015	1 2016	2 2017	3 2018	4 2019	5 2020	10 2025	20 2035			
Employment By Type											
Commercial	4,706	4,716	4,727	4,742	4,758	4,774	4,872	5,151	69	166	445
Office & Other Services	11,755	11,781	11,807	11,846	11,886	11,926	12,171	12,866	171	416	1,112
Industrial	1,234	1,237	1,239	1,243	1,248	1,252	1,277	1,351	18	44	117
Citywide Total	17,694	17,733	17,773	17,832	17,892	17,952	18,320	19,367	258	626	1,673
Off-Base Total	9,820	9,859	9,899	9,958	10,018	10,078	10,446	11,493	258	626	1,673
Nonres Floor Area SF (x1,000)											
Commercial	2,353	2,358	2,363	2,371	2,379	2,387	2,436	2,575	34	83	222
Office & Other Services	3,538	3,546	3,554	3,566	3,578	3,590	3,663	3,873	52	125	335
Industrial	535	536	537	539	541	542	554	585	8	19	51
Citywide Total	6,426	6,440	6,454	6,476	6,497	6,519	6,653	7,033	94	227	608
Off-Base Total	3,566	3,580	3,595	3,616	3,638	3,660	3,793	4,174	94	227	608

									Average Annual Increases		
									5-Year 2015-20	10-Year 2015-25	20-Year 2015-35
	1 2015-16	2 2016-17	3 2017-18	4 2018-19	5 2019-20	10 2024-25	20 2034-35				
ANNUAL INCREASES - CITYWIDE											
Jobs	39	39	59	60	60	83	114	52	63	84	
Commercial SF (x1,000)	5	5	8	8	8	11	15	7	8	11	
Office & Other Serv. SF (x1,000)	8	8	12	12	12	17	23	10	13	17	
Industrial SF (x1,000)	1	1	2	2	2	3	3	2	2	3	
Nonres Floor Area SF (x1,000)	14	14	22	22	22	30	41	19	23	30	

AVERAGE DAILY VEHICLE TRIPS

Average Daily Vehicle Trips 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, 9th Edition*, published by the Institute of Transportation Engineers (ITE) in 2012. A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway).

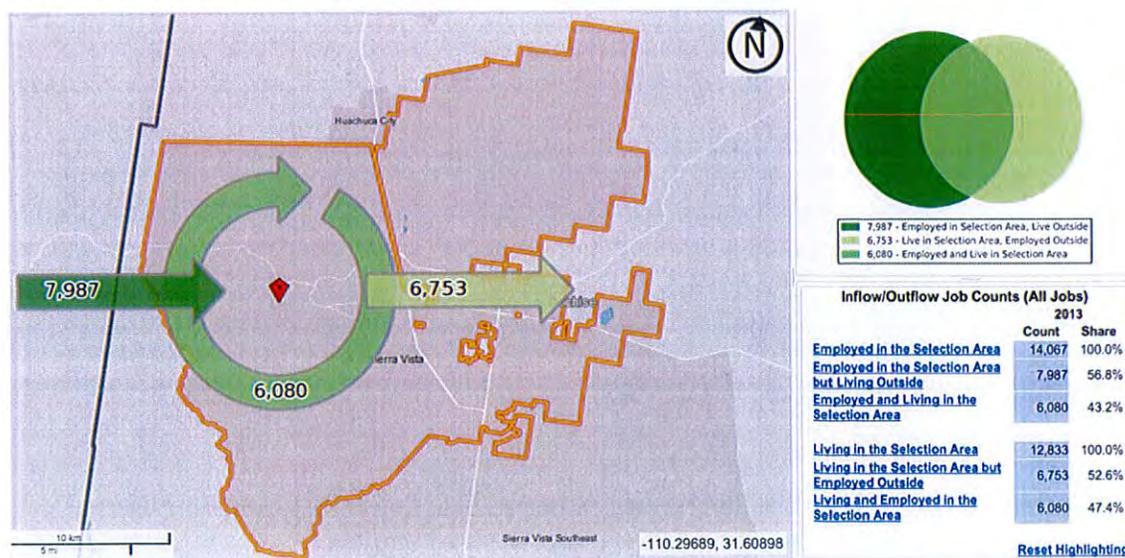
Trip Rate Adjustments

Sierra Vista’s streets development fees use average weekday trip generation rates from the reference book *Trip Generation* published by the Institute of Transportation Engineers (ITE 2012). A vehicle trip end represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). To calculate streets development fees, trip generation rates require an adjustment factor to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50 percent. As discussed further below, the development fee methodology includes additional adjustments to make the fees proportionate to the infrastructure demand for particular types of development.

Adjustment for Journey-To-Work Commuting

Residential development has a larger trip adjustment factor of 58% to account for commuters leaving the city for work. According to the 2009 National Household Travel Survey (see Table 30) weekday work trips are typically 31 percent of production trips (i.e., all out-bound trips, which are 50 percent of all trip ends). As shown in Figure A11, the Census Bureau’s web application OnTheMap indicates that 52.6 percent of resident workers traveled outside Sierra Vista for work in 2013. In combination, these factors ($0.31 \times 0.50 \times 0.526 = 0.08$) support the additional eight percent allocation of trips to residential development.

Figure A11 – Inflow/Outflow Analysis



Adjustment for Pass-By Trips

For commercial development, the trip adjustment factor is less than 50 percent because retail 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 indicates that 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.

Estimated Vehicle Trips

As an alternative to simply using the national average trip generation rate for residential development, the Institute of Transportation Engineers (ITE) publishes regression curve formulas that may be used to derive custom trip generation rates, using local demographic data. Key independent variables needed for the analysis (i.e. vehicles available, housing units, households and persons) are available from American Community Survey data for Sierra Vista. Customized average weekday trip generation rates by type of housing are shown in Figure A12. A vehicle trip end represents a vehicle either entering or exiting a development, as if a traffic counter were placed across a driveway. The custom trip generation rates for Sierra Vista vary slightly from the national averages. For example, single-unit residential development is expected to produce 8.20 average weekday vehicle trip ends per dwelling, which is lower than the national average of 9.52 (see ITE code 210). Similarly, multi-family residential development is expected to produce 4.80 average weekday vehicle trip ends per dwelling, which is also lower than the national average of 6.65. Manufactured homes, however, are expected to produce 5.10 average weekday vehicle trips. This is higher than the national average of 4.99 for mobile home parks.

Figure A12 – Average Weekday Vehicle Trip Ends by Housing Type

	Vehicles Available ¹	Households by Structure Type ²			Total	Vehicles per Household by Tenure
		Single-Family Units ³	Multi-Family Units	Manufactured Homes ⁴		
Owner-occupied	20,032	9,087	51	464	9,602	2.09
Renter-occupied	11,414	3,653	3,521	494	7,668	1.49
TOTAL	31,446	12,740	3,572	958	17,270	1.82

1. Vehicles available by tenure from Table B25046, American Community Survey, 2009-2013.
2. Households by tenure and units in structure from Table B25032, American Community Survey, 2009-2013.
3. Includes detached and attached units.
4. Includes mobile homes, boats, RVs, vans, etc.

	Persons in Households ⁵	Trip Ends ⁶	Vehicles by Type of Housing	Trip Ends ⁷	Average Trip Ends	Housing Units ⁸	Trip Ends per Unit	
							Sierra Vista	Average ⁹
Single-Family Units	33,723	87,341	24,395	141,020	114,181	13,918	8.20	9.52
Multi-Family Units	6,638	22,969	5,347	21,363	22,166	4,634	4.80	6.65
Manufactured Homes	2,119	7,288	1,703	7,005	7,147	1,412	5.10	4.99
TOTAL	42,480	117,599	31,446	169,388	143,493	19,964	7.20	

5. Total population in households from Table B25033, American Community Survey, 2009-2013.
6. Vehicle trips ends based on persons using formulas from Trip Generation (ITE 2012). For single-family units (ITE 210), the fitted curve equation is $EXP(0.91 \cdot LN(\text{persons}) + 1.52)$. To approximate the average population of the ITE studies, persons were divided by 61 and the equation result multiplied by 61. For multi-family units (ITE 220) and manufactured homes (ITE 240), the fitted curve equation is $(3.47 \cdot \text{persons}) - 64.48$.
7. Vehicle trip ends based on vehicles available using formulas from Trip Generation (ITE 2012). For single-family units (ITE 210), the fitted curve equation is $EXP(0.99 \cdot LN(\text{vehicles}) + 1.81)$. To approximate the average number of vehicles in the ITE studies, vehicles available were divided by 95 and the equation result multiplied by 95. For multi-family units (ITE 220) and manufactured homes (ITE 240), the fitted curve equation is $(3.94 \cdot \text{vehicles}) + 293.58$.
8. Housing units from Table B25024, American Community Survey, 2009-2013.
9. Trip Generation, Institute of Transportation Engineers, 9th Edition (2012).

Figure A13 details the calculations used to determine that existing development in Sierra Vista generates an average of 136,672 inbound vehicle trips on a typical weekday. Residential development is estimated to generate 82,143 inbound trips (60 percent) compared to 54,529 inbound trips (40 percent) generated by nonresidential development. An example of the calculation is as follows for single-family units: 13,655 single units x 8.20 vehicle trips ends per day per unit x 58 percent adjustment factor = 64,945 total inbound vehicle trips per day from single-family units in Sierra Vista. The same calculation is performed for each land use type.

Figure A13 – Average Daily Trips from Existing Development

Base Year		
Residential Vehicle Trips on an Average Weekday¹ 2015		
Residential Units	Assumptions	
Single-Family Units	13,655	
Multi-Family Units	4,327	
Manufactured Homes	1,742	
Total Housing Units	19,724	
Average Weekday Vehicle Trip Ends per Unit¹	Trip Ends	Adj. Factor
Single-Family Units	8.20	58%
Multi-Family Units	4.80	58%
Manufactured Homes	5.10	58%
Residential Vehicle Trip Ends of an Average Weekday		
Single-Family Units	64,945	
Multi-Family Units	12,045	Share of
Manufactured Homes	5,153	Total Trips
Total Inbound Residential Trips	82,143	60%
Nonresidential Vehicle Trips on an Average Weekday² 2015		
Nonresidential Floor Area (x1,000 sq. ft.)	Assumptions	
Commercial	2,353	
Office & Other Services	3,538	
Industrial	535	
Total Nonresidential Floor Area (x1,000 sq. ft.)	6,426	
Average Weekday Vehicle Trips Ends per 1,000 Sq. Ft.²	Trip Ends	Adj. Factor
Commercial	42.70	33%
Office & Other Services	11.03	50%
Industrial	6.97	50%
Nonresidential Vehicle Trips on an Average Weekday		
Commercial	33,153	
Office & Other Services	19,513	Share of
Industrial	1,863	Total Trips
Total Inbound Nonresidential Trips	54,529	40%
TOTAL INBOUND TRIPS	136,672	100%

1. Trip rates are customized for Sierra Vista. See accompanying tables and discussion.

2. Trip rates are from the Institute of Transportation Engineers (ITE) Trip Generation Manual (2012).

For certain infrastructure facilities TischlerBise often uses “functional population” to establish the relative demand for infrastructure from both residential and nonresidential development. As shown in Figure A14, functional population accounts for people living and working in a jurisdiction. Residents who don't work are assigned 20 hours per day to residential development and four hours per day to nonresidential development (annualized averages). Residents who work in Sierra Vista are assigned 14 hours to residential development and 10 hours to nonresidential development. Residents who work

outside Sierra Vista are assigned 14 hours to residential development. Inflow commuters are assigned 10 hours to nonresidential development. Based on 2013 functional population data, the resulting proportionate share is 75 percent from residential development and 25 percent from nonresidential development.

Figure A14 – Functional Population

	<i>Demand Units in 2013</i>	<i>Demand Hours/Day</i>	<i>Person Hours</i>	<i>Proportionate Share</i>
Residential				
Estimated Residents	45,303			
Residents Not Working	32,470	20	649,400	
Employed Residents	12,833			
Employed in Service Area	6,080	14	85,120	
Employed outside Service Area	6,753	14	94,542	
<i>Residential Subtotal</i>			829,062	75%
Nonresidential				
Non-working Residents	32,470	4	129,880	
Jobs in Service Area	14,067			
Residents Employed in Service Area	6,080	10	60,800	
Non-Resident Workers (inflow Commuters)	7,987	10	79,870	
<i>Nonresidential Subtotal</i>			270,550	25%
TOTAL			1,099,612	100%

Source: City of Sierra Vista, AZ 2013 Population Estimate; U.S. Census Bureau, OnTheMap 6.1.1 Application and LEHD Origin-Destination Employment Statistics.

DETAILED DEVELOPMENT PROJECTIONS

Provided below is a summary of cumulative and annual demographic and development projections to be used for the development fee study. Base year estimates for 2015 are used in the development fee calculations. 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 A15 – Development Projections Summary

	Start of FY 2015-16								Cumulative Increase		
	Base Yr	1	2	3	4	5	10	20	5-Year	10-Year	20-Year
	2015	2016	2017	2018	2019	2020	2025	2035	2015-20	2015-25	2015-35
Population											
Citywide Total	44,238	44,546	44,857	45,170	45,486	45,804	47,435	50,898	1,566	3,197	6,660
Off-Base Total	38,552	38,860	39,171	39,484	39,800	40,118	41,749	45,212	1,566	3,197	6,660
Housing Units											
Single-Family Units	15,397	15,518	15,640	15,762	15,885	16,009	16,646	17,999	612	1,248	2,601
Multi-Family Units	4,327	4,351	4,375	4,400	4,425	4,450	4,578	4,851	123	252	525
Citywide Total	19,724	19,869	20,015	20,162	20,310	20,459	21,224	22,850	735	1,500	3,126
Off-Base Total	18,585	18,730	18,876	19,023	19,171	19,320	20,085	21,711	735	1,500	3,126
Employment By Type											
Commercial	4,706	4,716	4,727	4,742	4,758	4,774	4,872	5,151	69	166	445
Office & Other Services	11,755	11,781	11,807	11,846	11,886	11,926	12,171	12,866	171	416	1,112
Industrial	1,234	1,237	1,239	1,243	1,248	1,252	1,277	1,351	18	44	117
Citywide Total	17,694	17,733	17,773	17,832	17,892	17,952	18,320	19,367	258	626	1,673
Off-Base Total	9,820	9,859	9,899	9,958	10,018	10,078	10,446	11,493	258	626	1,673
Nonres Floor Area SF (x1,000)											
Commercial	2,353	2,358	2,363	2,371	2,379	2,387	2,436	2,575	34	83	222
Office & Other Services	3,538	3,546	3,554	3,566	3,578	3,590	3,663	3,873	52	125	335
Industrial	535	536	537	539	541	542	554	585	8	19	51
Citywide Total	6,426	6,440	6,454	6,476	6,497	6,519	6,653	7,033	94	227	608
Off-Base Total	3,566	3,580	3,595	3,616	3,638	3,660	3,793	4,174	94	227	608
									Average Annual Increases		
ANNUAL INCREASES - CITYWIDE		1	2	3	4	5	10	20	5-Year	10-Year	20-Year
		2015-16	2016-17	2017-18	2018-19	2019-20	2024-25	2034-35	2015-20	2015-25	2015-35
Population		308	311	313	316	318	331	359	313	320	333
Single-Family Units		121	121	122	123	124	129	141	122	125	130
Multi-Family Units		24	25	25	25	25	26	28	25	25	26
Housing Units		145	146	147	148	149	155	169	147	150	156
Jobs		39	39	59	60	60	83	114	52	63	84
Commercial SF (x1,000)		5	5	8	8	8	11	15	7	8	11
Office & Other Serv. SF (x1,000)		8	8	12	12	12	17	23	10	13	17
Industrial SF (x1,000)		1	1	2	2	2	3	3	2	2	3
Nonres Floor Area SF (x1,000)		14	14	22	22	22	30	41	19	23	30

APPENDIX B: ARIZONA REVISED STATUTES

Arizona Revised Statutes (ARS) 9-463.05. Development fees; imposition by cities and towns; infrastructure improvements plan; annual report; advisory committee; limitation on actions; definitions (Effective January 1, 2012)

A. A municipality may assess development fees to offset costs to the municipality associated with providing necessary public services to a development, including the costs of infrastructure, improvements, real property, engineering and architectural services, financing and professional services required for the preparation or revision of a development fee pursuant to this section, including the relevant portion of the infrastructure improvements plan.

B. Development fees assessed by a municipality under this section are subject to the following requirements:

1. Development fees shall result in a beneficial use to the development.
2. The municipality shall calculate the development fee based on the infrastructure improvements plan adopted pursuant to this section.
3. The development fee shall not exceed a proportionate share of the cost of necessary public services, based on service units, needed to provide necessary public services to the development.
4. Costs for necessary public services made necessary by new development shall be based on the same level of service provided to existing development in the service area.
5. Development fees may not be used for any of the following:
 - (a) Construction, acquisition or expansion of public facilities or assets other than necessary public services or facility expansions identified in the infrastructure improvements plan.
 - (b) Repair, operation or maintenance of existing or new necessary public services or facility expansions.
 - (c) Upgrading, updating, expanding, correcting or replacing existing necessary public services to serve existing development in order to meet stricter safety, efficiency, environmental or regulatory standards.
 - (d) Upgrading, updating, expanding, correcting or replacing existing necessary public services to provide a higher level of service to existing development.
 - (e) Administrative, maintenance or operating costs of the municipality.
6. Any development for which a development fee has been paid is entitled to the use and benefit of the services for which the fee was imposed and is entitled to receive immediate service from any existing facility with available capacity to serve the new service units if the

available capacity has not been reserved or pledged in connection with the construction or financing of the facility.

7. Development fees may be collected if any of the following occurs:

(a) The collection is made to pay for a necessary public service or facility expansion that is identified in the infrastructure improvements plan and the municipality plans to complete construction and to have the service available within the time period established in the infrastructure improvement plan, but in no event longer than the time period provided in subsection H, paragraph 3 of this section.

(b) The municipality reserves in the infrastructure improvements plan adopted pursuant to this section or otherwise agrees to reserve capacity to serve future development.

(c) The municipality requires or agrees to allow the owner of a development to construct or finance the necessary public service or facility expansion and any of the following apply:

(i) The costs incurred or money advanced are credited against or reimbursed from the development fees otherwise due from a development.

(ii) The municipality reimburses the owner for those costs from the development fees paid from all developments that will use those necessary public services or facility expansions.

(iii) For those costs incurred the municipality allows the owner to assign the credits or reimbursement rights from the development fees otherwise due from a development to other developments for the same category of necessary public services in the same service area.

8. Projected interest charges and other finance costs may be included in determining the amount of development fees only if the monies are used for the payment of principal and interest on the portion of the bonds, notes or other obligations issued to finance construction of necessary public services or facility expansions identified in the infrastructure improvements plan.

9. Monies received from development fees assessed pursuant to this section shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by this section. Monies received from a development fee identified in an infrastructure improvements plan adopted or updated pursuant to subsection D of this section shall be used to provide the same category of necessary public services or facility expansions for which the development fee was assessed and for the benefit of the same service area, as defined in the infrastructure improvements plan, in which the development fee was assessed. Interest earned on monies in the separate fund shall be credited to the fund.

10. The schedule for payment of fees shall be provided by the municipality. Based on the cost identified in the infrastructure improvements plan, the municipality shall provide a credit toward the payment of a development fee for the required or agreed to dedication of public sites, improvements and other necessary public services or facility expansions included in the infrastructure improvements plan and for which a development fee is assessed, to the extent the public sites, improvements and necessary public services or facility expansions are provided by the developer. The developer of residential dwelling units shall be required to pay development fees when construction permits for the dwelling units are issued, or at a later time if specified in a development agreement pursuant to section 9-500.05. If a development agreement provides for fees to be paid at a time later than the issuance of construction permits, the deferred fees shall be paid no later than fifteen days after the issuance of a certificate of occupancy. The development agreement shall provide for the value of any deferred fees to be supported by appropriate security, including a surety bond, letter of credit or cash bond.

11. If a municipality requires as a condition of development approval the construction or improvement of, contributions to or dedication of any facilities that were not included in a previously adopted infrastructure improvements plan, the municipality shall cause the infrastructure improvements plan to be amended to include the facilities and shall provide a credit toward the payment of a development fee for the construction, improvement, contribution or dedication of the facilities to the extent that the facilities will substitute for or otherwise reduce the need for other similar facilities in the infrastructure improvements plan for which development fees were assessed.

12. The municipality shall forecast the contribution to be made in the future in cash or by taxes, fees, assessments or other sources of revenue derived from the property owner towards the capital costs of the necessary public service covered by the development fee and shall include these contributions in determining the extent of the burden imposed by the development. Beginning August 1, 2014, for purposes of calculating the required offset to development fees pursuant to this subsection, if a municipality imposes a construction contracting or similar excise tax rate in excess of the percentage amount of the transaction privilege tax rate imposed on the majority of other transaction privilege tax classifications, the entire excess portion of the construction contracting or similar excise tax shall be treated as a contribution to the capital costs of necessary public services provided to development for which development fees are assessed, unless the excess portion was already taken into account for such purpose pursuant to this subsection.

13. If development fees are assessed by a municipality, the fees shall be assessed against commercial, residential and industrial development, except that the municipality may distinguish between different categories of residential, commercial and industrial development in assessing the costs to the municipality of providing necessary public services to new development and in determining the amount of the development fee applicable to the category of development. If a municipality agrees to waive any of the development fees assessed on a

development, the municipality shall reimburse the appropriate development fee accounts for the amount that was waived. The municipality shall provide notice of any such waiver to the advisory committee established pursuant to subsection G of this section within thirty days.

14. In determining and assessing a development fee applying to land in a community facilities district established under title 48, chapter 4, article 6, the municipality shall take into account all public infrastructure provided by the district and capital costs paid by the district for necessary public services and shall not assess a portion of the development fee based on the infrastructure or costs.

C. A municipality shall give at least thirty days' advance notice of intention to assess a development fee and shall release to the public and post on its website or the website of an association of cities and towns if a municipality does not have a website a written report of the land use assumptions and infrastructure improvements plan adopted pursuant to subsection D of this section. The municipality shall conduct a public hearing on the proposed development fee at any time after the expiration of the thirty day notice of intention to assess a development fee and at least thirty days before the scheduled date of adoption of the fee by the governing body. Within sixty days after the date of the public hearing on the proposed development fee, a municipality shall approve or disapprove the imposition of the development fee. A municipality shall not adopt an ordinance, order or resolution approving a development fee as an emergency measure. A development fee assessed pursuant to this section shall not be effective until seventy-five days after its formal adoption by the governing body of the municipality. Nothing in this subsection shall affect any development fee adopted before July 24, 1982.

D. Before the adoption or amendment of a development fee, the governing body of the municipality shall adopt or update the land use assumptions and infrastructure improvements plan for the designated service area. The municipality shall conduct a public hearing on the land use assumptions and infrastructure improvements plan at least thirty days before the adoption or update of the plan. The municipality shall release the plan to the public, post the plan on its website or the website of an association of cities and towns if the municipality does not have a website, including in the posting its land use assumptions, the time period of the projections, a description of the necessary public services included in the infrastructure improvements plan and a map of the service area to which the land use assumptions apply, make available to the public the documents used to prepare the assumptions and plan and provide public notice at least sixty days before the public hearing, subject to the following:

1. The land use assumptions and infrastructure improvements plan shall be approved or disapproved within sixty days after the public hearing on the land use assumptions and infrastructure improvements plan and at least thirty days before the public hearing on the report required by subsection C of this section. A municipality shall not adopt an ordinance, order or resolution approving the land use assumptions or infrastructure improvements plan as an emergency measure.
2. An infrastructure improvements plan shall be developed by qualified professionals using generally accepted engineering and planning practices pursuant to subsection E of this section.

3. A municipality shall update the land use assumptions and infrastructure improvements plan at least every five years. The initial five year period begins on the day the infrastructure improvements plan is adopted. The municipality shall review and evaluate its current land use assumptions and shall cause an update of the infrastructure improvements plan to be prepared pursuant to this section.

4. Within sixty days after completion of the updated land use assumptions and infrastructure improvements plan, the municipality shall schedule and provide notice of a public hearing to discuss and review the update and shall determine whether to amend the assumptions and plan.

5. A municipality shall hold a public hearing to discuss the proposed amendments to the land use assumptions, the infrastructure improvements plan or the development fee. The land use assumptions and the infrastructure improvements plan, including the amount of any proposed changes to the development fee per service unit, shall be made available to the public on or before the date of the first publication of the notice of the hearing on the amendments.

6. The notice and hearing procedures prescribed in paragraph 1 of this subsection apply to a hearing on the amendment of land use assumptions, an infrastructure improvements plan or a development fee. Within sixty days after the date of the public hearing on the amendments, a municipality shall approve or disapprove the amendments to the land use assumptions, infrastructure improvements plan or development fee. A municipality shall not adopt an ordinance, order or resolution approving the amended land use assumptions, infrastructure improvements plan or development fee as an emergency measure.

7. The advisory committee established under subsection G of this section shall file its written comments on any proposed or updated land use assumptions, infrastructure improvements plan and development fees before the fifth business day before the date of the public hearing on the proposed or updated assumptions, plan and fees.

8. If, at the time an update as prescribed in paragraph 3 of this subsection is required, the municipality determines that no changes to the land use assumptions, infrastructure improvements plan or development fees are needed, the municipality may as an alternative to the updating requirements of this subsection publish notice of its determination on its website and include the following:

(a) A statement that the municipality has determined that no change to the land use assumptions, infrastructure improvements plan or development fee is necessary.

(b) A description and map of the service area in which an update has been determined to be unnecessary.

(c) A statement that by a specified date, which shall be at least sixty days after the date of publication of the first notice, a person may make a written request to the

municipality requesting that the land use assumptions, infrastructure improvements plan or development fee be updated.

(d) A statement identifying the person or entity to whom the written request for an update should be sent.

9. If, by the date specified pursuant to paragraph 8 of this subsection, a person requests in writing that the land use assumptions, infrastructure improvements plan or development fee be updated, the municipality shall cause, accept or reject an update of the assumptions and plan to be prepared pursuant to this subsection.

10. Notwithstanding the notice and hearing requirements for adoption of an infrastructure improvements plan, a municipality may amend an infrastructure improvements plan adopted pursuant to this section without a public hearing if the amendment addresses only elements of necessary public services in the existing infrastructure improvements plan and the changes to the plan will not, individually or cumulatively with other amendments adopted pursuant to this subsection, increase the level of service in the service area or cause a development fee increase of greater than five per cent when a new or modified development fee is assessed pursuant to this section. The municipality shall provide notice of any such amendment at least thirty days before adoption, shall post the amendment on its website or on the website of an association of cities and towns if the municipality does not have a website and shall provide notice to the advisory committee established pursuant to subsection G of this section that the amendment complies with this subsection.

E. For each necessary public service that is the subject of a development fee, the infrastructure improvements plan shall include:

1. A description of the existing necessary public services in the service area and the costs to upgrade, update, improve, expand, correct or replace those necessary public services to meet existing needs and usage and stricter safety, efficiency, environmental or regulatory standards, which shall be prepared by qualified professionals licensed in this state, as applicable.
2. An analysis of the total capacity, the level of current usage and commitments for usage of capacity of the existing necessary public services, which shall be prepared by qualified professionals licensed in this state, as applicable.
3. A description of all or the parts of the necessary public services or facility expansions and their costs necessitated by and attributable to development in the service area based on the approved land use assumptions, including a forecast of the costs of infrastructure, improvements, real property, financing, engineering and architectural services, which shall be prepared by qualified professionals licensed in this state, as applicable.
4. A table establishing the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of necessary public services or facility expansions and an

equivalency or conversion table establishing the ratio of a service unit to various types of land uses, including residential, commercial and industrial.

5. The total number of projected service units necessitated by and attributable to new development in the service area based on the approved land use assumptions and calculated pursuant to generally accepted engineering and planning criteria.

6. The projected demand for necessary public services or facility expansions required by new service units for a period not to exceed ten years.

7. A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved land use assumptions, and a plan to include these contributions in determining the extent of the burden imposed by the development as required in subsection B, paragraph 12 of this section.

F. A municipality's development fee ordinance shall provide that a new development fee or an increased portion of a modified development fee shall not be assessed against a development for twenty-four months after the date that the municipality issues the final approval for a commercial, industrial or multifamily development or the date that the first building permit is issued for a residential development pursuant to an approved site plan or subdivision plat, provided that no subsequent changes are made to the approved site plan or subdivision plat that would increase the number of service units. If the number of service units increases, the new or increased portion of a modified development fee shall be limited to the amount attributable to the additional service units. The twenty-four month period shall not be extended by a renewal or amendment of the site plan or the final subdivision plat that was the subject of the final approval. The municipality shall issue, on request, a written statement of the development fee schedule applicable to the development. If, after the date of the municipality's final approval of a development, the municipality reduces the development fee assessed on development, the reduced fee shall apply to the development.

G. A municipality shall do one of the following:

1. Before the adoption of proposed or updated land use assumptions, infrastructure improvements plan and development fees as prescribed in subsection D of this section, the municipality shall appoint an infrastructure improvements advisory committee, subject to the following requirements:

(a) The advisory committee shall be composed of at least five members who are appointed by the governing body of the municipality. At least fifty per cent of the members of the advisory committee must be representatives of the real estate, development or building industries, of which at least one member of the committee must be from the home building industry. Members shall not be employees or officials of the municipality.

- (b) The advisory committee shall serve in an advisory capacity and shall:
- (i) Advise the municipality in adopting land use assumptions and in determining whether the assumptions are in conformance with the general plan of the municipality.
 - (ii) Review the infrastructure improvements plan and file written comments.
 - (iii) Monitor and evaluate implementation of the infrastructure improvements plan.
 - (iv) Every year file reports with respect to the progress of the infrastructure improvements plan and the collection and expenditures of development fees and report to the municipality any perceived inequities in implementing the plan or imposing the development fee.
 - (v) Advise the municipality of the need to update or revise the land use assumptions, infrastructure improvements plan and development fee.
- (c) The municipality shall make available to the advisory committee any professional reports with respect to developing and implementing the infrastructure improvements plan.
- (d) The municipality shall adopt procedural rules for the advisory committee to follow in carrying out the committee's duties.

2. In lieu of creating an advisory committee pursuant to paragraph 1 of this subsection, provide for a biennial certified audit of the municipality's land use assumptions, infrastructure improvements plan and development fees. An audit pursuant to this paragraph shall be conducted by one or more qualified professionals who are not employees or officials of the municipality and who did not prepare the infrastructure improvements plan. The audit shall review the progress of the infrastructure improvements plan, including the collection and expenditures of development fees for each project in the plan, and evaluate any inequities in implementing the plan or imposing the development fee. The municipality shall post the findings of the audit on the municipality's website or the website of an association of cities and towns if the municipality does not have a website and shall conduct a public hearing on the audit within sixty days of the release of the audit to the public.

H. On written request, an owner of real property for which a development fee has been paid after July 31, 2014 is entitled to a refund of a development fee or any part of a development fee if:

1. Pursuant to subsection B, paragraph 6 of this section, existing facilities are available and service is not provided.
2. The municipality has, after collecting the fee to construct a facility when service is not available, failed to complete construction within the time period identified in the infrastructure

improvements plan, but in no event later than the time period specified in paragraph 3 of this subsection.

3. For a development fee other than a development fee for water or wastewater facilities, any part of the development fee is not spent as authorized by this section within ten years after the fee has been paid or, for a development fee for water or wastewater facilities, any part of the development fee is not spent as authorized by this section within fifteen years after the fee has been paid.

I. If the development fee was collected for the construction of all or a portion of a specific item of infrastructure, and on completion of the infrastructure the municipality determines that the actual cost of construction was less than the forecasted cost of construction on which the development fee was based and the difference between the actual and estimated cost is greater than ten per cent, the current owner may receive a refund of the portion of the development fee equal to the difference between the development fee paid and the development fee that would have been due if the development fee had been calculated at the actual construction cost.

J. A refund shall include any interest earned by the municipality from the date of collection to the date of refund on the amount of the refunded fee. All refunds shall be made to the record owner of the property at the time the refund is paid. If the development fee is paid by a governmental entity, the refund shall be paid to the governmental entity.

K. A development fee that was adopted before January 1, 2012 may continue to be assessed only to the extent that it will be used to provide a necessary public service for which development fees can be assessed pursuant to this section and shall be replaced by a development fee imposed under this section on or before August 1, 2014. Any municipality having a development fee that has not been replaced under this section on or before August 1, 2014 shall not collect development fees until the development fee has been replaced with a fee that complies with this section. Any development fee monies collected before January 1, 2012 remaining in a development fee account:

1. Shall be used towards the same category of necessary public services as authorized by this section.
2. If development fees were collected for a purpose not authorized by this section, shall be used for the purpose for which they were collected on or before January 1, 2020, and after which, if not spent, shall be distributed equally among the categories of necessary public services authorized by this section.

L. A moratorium shall not be placed on development for the sole purpose of awaiting completion of all or any part of the process necessary to develop, adopt or update development fees.

M. In any judicial action interpreting this section, all powers conferred on municipal governments in this section shall be narrowly construed to ensure that development fees are not used to impose on new residents a burden all taxpayers of a municipality should bear equally.

N. Each municipality that assesses development fees shall submit an annual report accounting for the collection and use of the fees for each service area. The annual report shall include the following:

1. The amount assessed by the municipality for each type of development fee.
2. The balance of each fund maintained for each type of development fee assessed as of the beginning and end of the fiscal year.
3. The amount of interest or other earnings on the monies in each fund as of the end of the fiscal year.
4. The amount of development fee monies used to repay:
 - (a) Bonds issued by the municipality to pay the cost of a capital improvement project that is the subject of a development fee assessment, including the amount needed to repay the debt service obligations on each facility for which development fees have been identified as the source of funding and the time frames in which the debt service will be repaid.
 - (b) Monies advanced by the municipality from funds other than the funds established for development fees in order to pay the cost of a capital improvement project that is the subject of a development fee assessment, the total amount advanced by the municipality for each facility, the source of the monies advanced and the terms under which the monies will be repaid to the municipality.
5. The amount of development fee monies spent on each capital improvement project that is the subject of a development fee assessment and the physical location of each capital improvement project.
6. The amount of development fee monies spent for each purpose other than a capital improvement project that is the subject of a development fee assessment.

O. Within ninety days following the end of each fiscal year, each municipality shall submit a copy of the annual report to the city clerk and post the report on the municipality's website or the website of an association of cities and towns if the municipality does not have a website. Copies shall be made available to the public on request. The annual report may contain financial information that has not been audited.

P. A municipality that fails to file the report and post the report on the municipality's website or the website of an association of cities and towns if the municipality does not have a website as required by this section shall not collect development fees until the report is filed and posted.

Q. Any action to collect a development fee shall be commenced within two years after the obligation to pay the fee accrues.

R. A municipality may continue to assess a development fee adopted before January 1, 2012 for any facility that was financed before June 1, 2011 if:

1. Development fees were pledged to repay debt service obligations related to the construction of the facility.
 2. After August 1, 2014, any development fees collected under this subsection are used solely for the payment of principal and interest on the portion of the bonds, notes or other debt service obligations issued before June 1, 2011 to finance construction of the facility.
- S. Through August 1, 2014, a development fee adopted before January 1, 2012 may be used to finance construction of a facility and may be pledged to repay debt service obligations if:
1. The facility that is being financed is a facility that is described under subsection T, paragraph 7, subdivisions (a) through (g) of this section.
 2. The facility was included in an infrastructure improvements plan adopted before June 1, 2011.
 3. The development fees are used for the payment of principal and interest on the portion of the bonds, notes or other debt service obligations issued to finance construction of the necessary public services or facility expansions identified in the infrastructure improvement plan.
- T. For the purposes of this section:
1. "Dedication" means the actual conveyance date or the date an improvement, facility or real or personal property is placed into service, whichever occurs first.
 2. "Development" means:
 - (a) The subdivision of land.
 - (b) The construction, reconstruction, conversion, structural alteration, relocation or enlargement of any structure that adds or increases the number of service units.
 - (c) Any use or extension of the use of land that increases the number of service units.
 3. "Facility expansion" means the expansion of the capacity of an existing facility that serves the same function as an otherwise new necessary public service in order that the existing facility may serve new development. Facility expansion does not include the repair, maintenance, modernization or expansion of an existing facility to better serve existing development.
 4. "Final approval" means:
 - (a) For a nonresidential or multifamily development, the approval of a site plan or, if no site plan is submitted for the development, the approval of a final subdivision plat.
 - (b) For a single family residential development, the approval of a final subdivision plat.
 5. "Infrastructure improvements plan" means a written plan that identifies each necessary public service or facility expansion that is proposed to be the subject of a development fee and otherwise complies with the requirements of this section, and may be the municipality's capital improvements plan.

6. "Land use assumptions" means projections of changes in land uses, densities, intensities and population for a specified service area over a period of at least ten years and pursuant to the general plan of the municipality.
7. "Necessary public service" means any of the following facilities that have a life expectancy of three or more years and that are owned and operated by or on behalf of the municipality:
- (a) Water facilities, including the supply, transportation, treatment, purification and distribution of water, and any appurtenances for those facilities.
 - (b) Wastewater facilities, including collection, interception, transportation, treatment and disposal of wastewater, and any appurtenances for those facilities.
 - (c) Storm water, drainage and flood control facilities, including any appurtenances for those facilities.
 - (d) Library facilities of up to ten thousand square feet that provide a direct benefit to development, not including equipment, vehicles or appurtenances.
 - (e) Street facilities located in the service area, including arterial or collector streets or roads that have been designated on an officially adopted plan of the municipality, traffic signals and rights-of-way and improvements thereon.
 - (f) Fire and police facilities, including all appurtenances, equipment and vehicles. Fire and police facilities do not include a facility or portion of a facility that is used to replace services that were once provided elsewhere in the municipality, vehicles and equipment used to provide administrative services, helicopters or airplanes or a facility that is used for training firefighters or officers from more than one station or substation.
 - (g) Neighborhood parks and recreational facilities on real property up to thirty acres in area, or parks and recreational facilities larger than thirty acres if the facilities provide a direct benefit to the development. Park and recreational facilities do not include vehicles, equipment or that portion of any facility that is used for amusement parks, aquariums, aquatic centers, auditoriums, arenas, arts and cultural facilities, bandstand and orchestra facilities, bathhouses, boathouses, clubhouses, community centers greater than three thousand square feet in floor area, environmental education centers, equestrian facilities, golf course facilities, greenhouses, lakes, museums, theme parks, water reclamation or riparian areas, wetlands, zoo facilities or similar recreational facilities, but may include swimming pools.
 - (h) Any facility that was financed and that meets all of the requirements prescribed in subsection R of this section.
8. "Qualified professional" means a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education or experience.

9. "Service area" means any specified area within the boundaries of a municipality in which development will be served by necessary public services or facility expansions and within which a substantial nexus exists between the necessary public services or facility expansions and the development being served as prescribed in the infrastructure improvements plan.

10. "Service unit" means a standardized measure of consumption, use, generation or discharge attributable to an individual unit of development calculated pursuant to generally accepted engineering or planning standards for a particular category of necessary public services or facility expansions.

APPENDIX C: IMPLEMENTATION AND ADMINISTRATION

As specified in ARS 9-463.05, there are certain accounting requirements that must be met by the City:

Monies received from development fees assessed pursuant to this section shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by this section. Monies received from a development fee identified in an infrastructure improvements plan adopted or updated pursuant to subsection D of this section shall be used to provide the same category of necessary public services or facility expansions for which the development fee was assessed and for the benefit of the same service area, as defined in the infrastructure improvements plan, in which the development fee was assessed. Interest earned on monies in the separate fund shall be credited to the fund.

All costs in the development fee calculations are given in current dollars with no assumed inflation rate over time. If cost estimates change significantly the City should update the fee calculations.

RESIDENTIAL DEVELOPMENT

As discussed below, residential development categories are based on data from the U.S. Census Bureau, American Community Survey. Sierra Vista will collect development fees from all new residential units, including mobile homes and Recreational Vehicles (RV). For a parcel intended for occupancy by multiple mobile homes and/or RVs, the landowner will pay a development fee for each site than can accommodate a residential unit. One-time development fees are determined by site capacity (i.e. number of residential units) and will not be imposed on replacement units.

Single-Family Detached: This is a 1-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. Mobile homes to which one or more permanent rooms have been added or built also are included.

Single-Family Attached (Townhouses): This is a 1-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.

2+ Units (Duplexes and Apartments): These are units in structures containing 2 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.”

Mobile Home: Both occupied and vacant mobile homes, to which no permanent rooms have been added, are counted in this category. 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.

Boat, RV, Van, Etc.: This category is for 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

The proposed general nonresidential development categories (defined below) can be used for all new construction within Sierra 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, and movie theaters.

Office & Other Services: Establishments providing management, administrative, professional, or business services; personal and health care services; lodging facilities; and public and quasi-public buildings providing educational, social assistance, or religious services. By way of example, *Office & Other Services* includes banks, business offices; hotels and motels; assisted living facilities, nursing homes, hospitals and medical offices; veterinarian clinics; and institutional facilities such as schools, universities, churches, daycare facilities, government buildings, and prisons.

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.

APPENDIX D: REVENUE PROJECTIONS AND REQUIRED OFFSET

ARS 9-463.05.E.7 requires “A forecast of revenues generated by new service units other than development fees, which shall include estimated state-shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting or similar excise taxes and the capital recovery portion of utility fees attributable to development based on the approved land use assumptions, and a plan to include these contributions in determining the extent of the burden imposed by the development as required in subsection B, paragraph 12 of this section.”

ARA 9-463.05.B.12 states, “The municipality shall forecast the contribution to be made in the future in cash or by taxes, fees, assessments or other sources of revenue derived from the property owner towards the capital costs of the necessary public service covered by the development fee and shall include these contributions in determining the extent of the burden imposed by the development. Beginning August 1, 2014, for purposes of calculating the required offset to development fees pursuant to this subsection, if a municipality imposes a construction contracting or similar excise tax rate in excess of the percentage amount of the transaction privilege tax rate imposed on the majority of other transaction privilege tax classifications, the entire excess portion of the construction contracting or similar excise tax shall be treated as a contribution to the capital costs of necessary public services provided to development for which development fees are assessed, unless the excess portion was already taken into account for such purpose pursuant to this subsection.”

The required forecast of non-development fee revenue that might be used for growth-related capital costs is shown in Figure D1. General Fund revenues are shown at the top of the table, and Highway User Revenue Funds are shown at the bottom. The forecast of revenues is derived from a linear regression analysis. Historical revenue data for the past nine years, obtained from Sierra Vista budgets, are correlated to the growth in population and jobs in Sierra Vista. Projected population plus jobs, from the land use assumptions, is the independent variable that drives each revenue forecast.

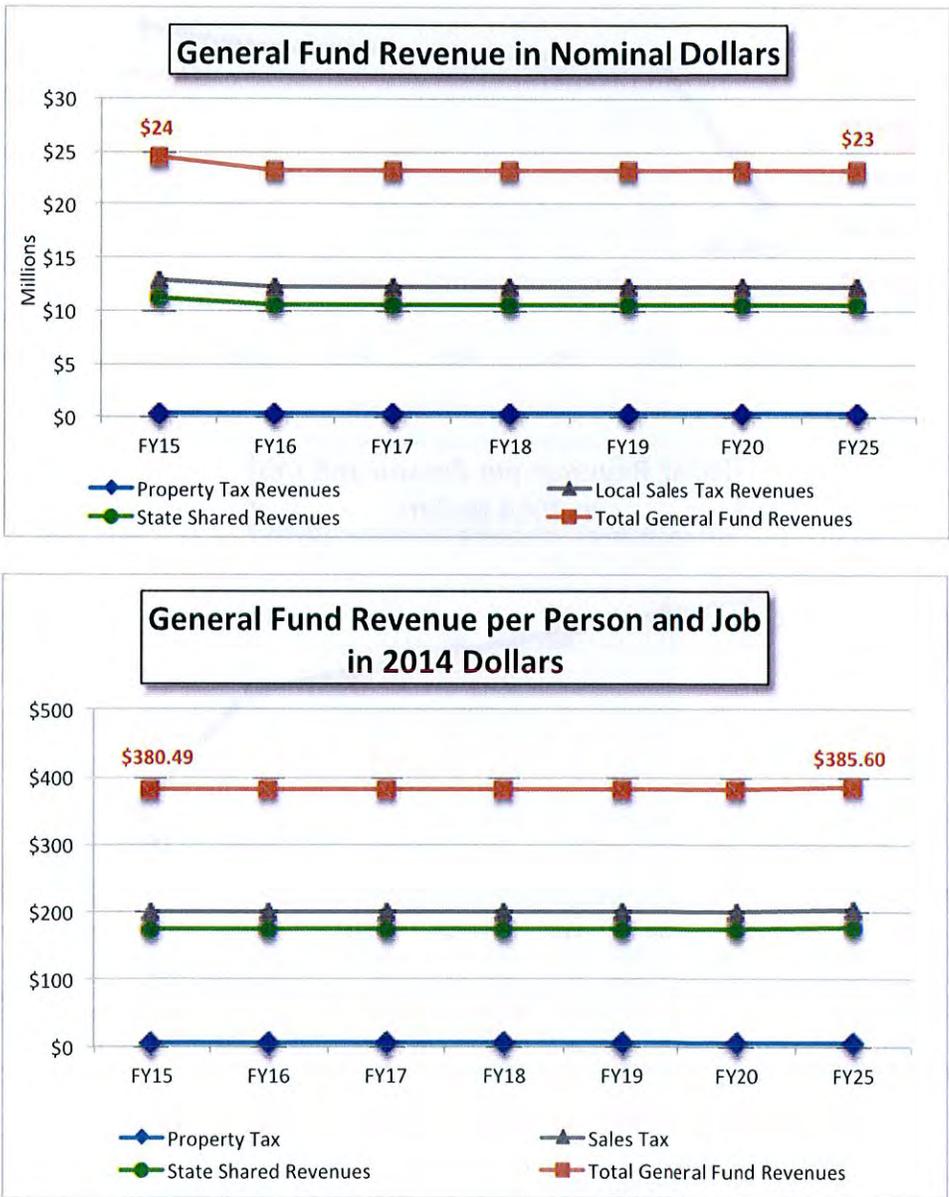
Figure D1 – Revenue Projections

	Base Year	1	2	3	4	5	10
Forecast of Revenues in Nominal Dollars	2015	2016	2017	2018	2019	2020	2025
Property Tax Revenues	\$369,537	\$370,985	\$372,153	\$373,394	\$374,647	\$375,907	\$382,571
Local Sales Tax Revenues	\$12,949,209	\$12,205,348	\$12,207,059	\$12,208,878	\$12,210,713	\$12,212,560	\$12,222,323
State Shared Revenues	\$11,172,548	\$10,628,438	\$10,621,321	\$10,613,758	\$10,606,128	\$10,598,449	\$10,557,852
Total General Fund Revenues	\$24,491,294	\$23,204,770	\$23,200,533	\$23,196,031	\$23,191,488	\$23,186,916	\$23,162,746
Highway User Revenue Funds	\$2,842,455	\$3,123,328	\$3,130,258	\$3,137,623	\$3,145,054	\$3,152,531	\$3,192,065

Source: From Sierra Vista FY09-10 through FY14-15 budgets. Projections are linear regression analysis based on historical budget data correlated to the growth of population and jobs in Sierra Vista.

The graph at the top of Figure D2 gives the impression that total General Fund revenues are expected to decrease slightly over the next ten years. When nominal dollars are converted to constant 2014 dollars, to account for inflation, and then divided by persons plus jobs in Sierra Vista, to “normalize” the amounts for population and job growth, the results show a slight increase. As shown in the lower portion of Figure D2, projected revenues in constant 2014 dollars are projected to increase relative to population and job growth. In other words, Sierra Vista expects a small General Fund fiscal surplus to be available for growth-related capital improvements.

Figure D2 – Graph of General Fund Revenues



The methodology described above is also applied to Highway User Revenue Funds, with the results graphed in Figure D3. HURF revenue shows an increase in nominal dollars, but a decrease in revenue per person and job in 2014 dollars. Therefore, there is no surplus gas tax revenue for funding growth-related street facilities.

Figure D3 – Graph of Highway User Revenue Funds

