Infrastructure Improvements Plan and Development Fee Study

Prepared for:

The Town of Dewey-Humboldt, Arizona

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Executive Summary

The Town of Dewey-Humboldt has contracted with TischlerBise to calculate infrastructure improvements plans (IIP) and development fees for the following infrastructure categories:

- Community Facilities including open space, trails, parks, and the community center;
- Library;
- Law Enforcement;
- General Government; and
- Transportation.

DEVELOPMENT FEE REQUIREMENTS

U.S. Constitutional Requirements

Like all land use regulations, development exactions, including development fees, are subject to the Fifth Amendment prohibition on taking of private property for public use without just compensation. 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. 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 that development is not detrimental to the quality of essential public services.

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

These constitutional requirements of development fees are commonly referred to as "rational nexus" test. The rational nexus test has three elements:

Demand – a particular type of development demands a particular type of infrastructure.

Proportionality – the fees are proportionate to the demand created by development for infrastructure.

Benefit – The payer of the development fee must receive a benefit (i.e. the construction of infrastructure which accommodates their impact on a community's capital facilities and assets).

State Requirements

Many of these constitutional requirements are echoed in the state enabling legislation for municipalities to assess development fees. Development fees for municipalities in Arizona are authorized by Arizona Revised Statutes (A.R.S.) 9-463.05.

Development fees for municipalities in Arizona must specifically meet the following requirements:

> 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, other capital costs and associated appurtenances, equipment, vehicles, furnishings and other personalty.
>
> 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. 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 amended pursuant to subsection D of this section shall be used to provide the same category of necessary public service for which the development fee was assessed. Interest earned on monies in the separate fund shall be credited to the fund.
> >
> > 3. The schedule for payment of fees shall be provided by the municipality. The municipality shall provide a credit toward the payment of a development fee for the required dedication of public sites, improvements and other necessary public services 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 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.
> >
> > 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the capital costs of the necessary public service covered by the development fee.

5. If development fees are assessed by a municipality, such fees shall be assessed in a nondiscriminatory manner.

6. 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 sixty days' advance notice of intention to assess a new or modified fee and shall release to the public a written report that identifies the methodology for calculating the amount of the development fee, explains the relationship between the development fee and the infrastructure improvements plan, includes documentation that supports the assessment of a new or modified development fee and identifies any index or indices to be used for automatic adjustment of the development fee pursuant to Subsection F for this section and the timing of those adjustments. The municipality shall conduct a public hearing on the proposed new or modified development fee at any time after the expiration of the sixty day notice of intention to assess a new or modified development fee and at least thirty days prior to the scheduled date of adoption of the new or modified fee by the governing body. 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 prior to July 24, 1982.

D. Before the assessment of a new or modified development fee, the governing body of the municipality shall adopt or amend an infrastructure improvements plan. The municipality shall conduct a public hearing on the infrastructure improvements plan at least thirty days before adoption or amendment of the plan. The municipality shall release the plan to the public, make available to the public the documents used to prepare the plan and provide public notice at least sixty days before the public hearing, subject to the following:

1. An infrastructure improvements plan may be adopted concurrently with the report required by Subsection C of this section, and the municipality may provide for and schedule the notices and hearings required by this subsection together with the notices and hearings required by Subsection C of this section.

2. A municipality may amend an infrastructure improvements plan without a public hearing if the amendment addresses only elements of necessary public services that are included in the existing infrastructure improvements plan. The municipality shall provide public notices of those amendments at least fourteen days in advance of their effective date.

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

1. Estimate the future necessary public services that will be required as a result of new development and the basis for the estimate.

2. Forecast the costs of infrastructure, improvements, real property, financing, other capital costs and associated appurtenances, equipment, vehicles, furnishings and other personalty that will be associated with meeting those future needs for necessary public services and estimate the time required to finance and provide the necessary public services.

F. A municipality may automatically adjust a development fee on an annual basis without a public hearing if the adjustment is based on a nationally recognized index applicable to the cost of the necessary public service that is the subject of the development fee and the adjustment mechanism is identified in the report required by Subsection C of this section. The municipality shall provide public notice of those adjustments at least thirty days in advance of their effective date.

G. Each municipality that assesses development fees shall submit an annual report accounting for the collection and use of the fees. 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.

(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.

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.

H. Within ninety days following the end of each fiscal year, each municipality shall submit a copy of the annual report to the city clerk. Copies shall be made available to the public on request. The annual report may contain financial information that has not been audited.

I. A municipality that fails to file the report required by this section shall not collect development fees until the report is filed.

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

K. For the purposes of this section, "infrastructure improvements plan" means one or more written plans that individually or collectively identify each public service 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.

Sec. 2. Applicability

Section 9-463.05, Arizona Revised Statutes, as amended by this act, applies to development fees adopted or amended on or after the effective date of this act and shall not affect development fees duly adopted or amended before the effective date of this act.

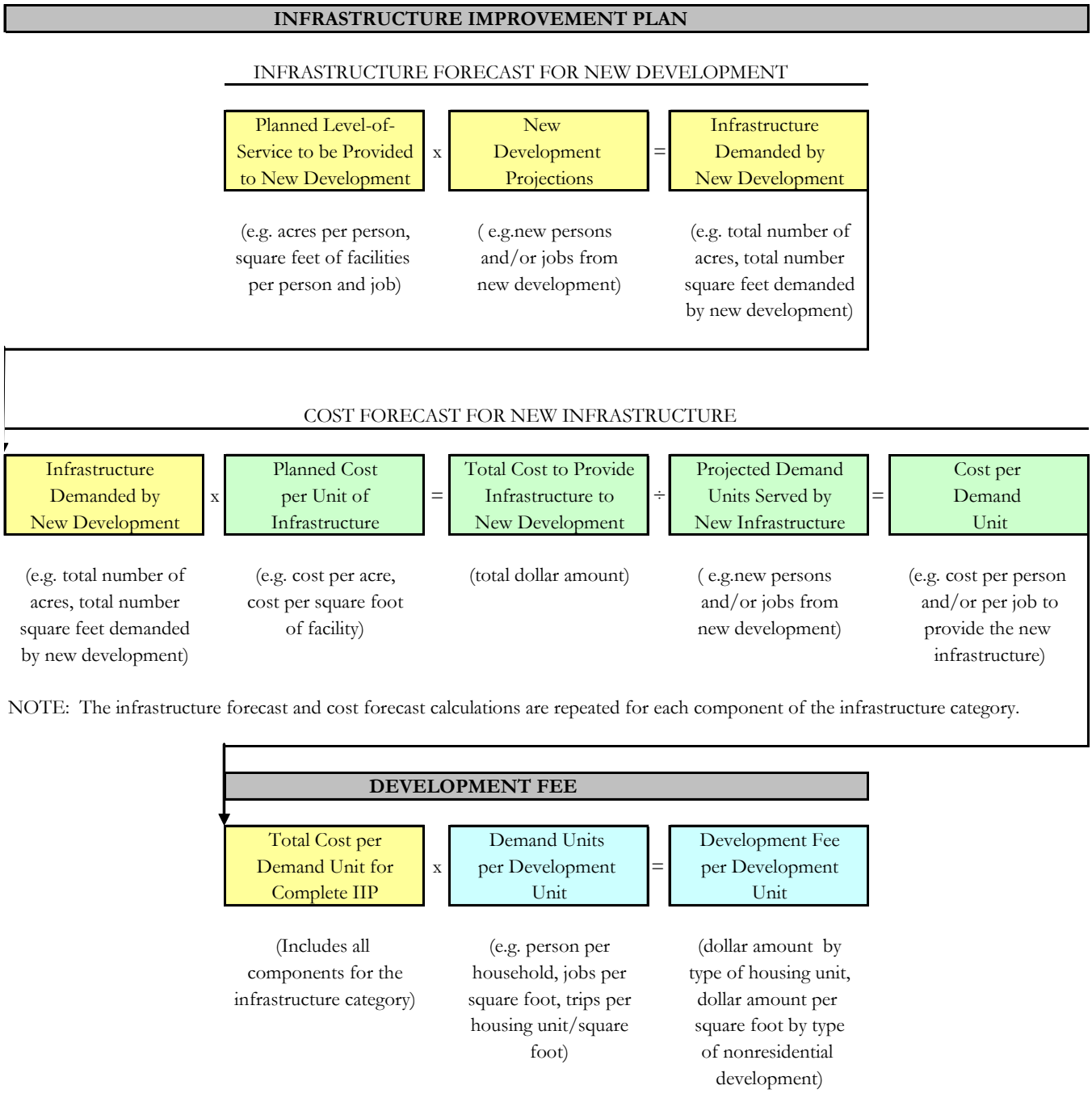
CALCULATION METHODOLOGIES

TischlerBise evaluated several possible methodologies to determine the best measure of the demand created by new development for additional infrastructure capacity. This report documents the appropriate methodology and demand indicators by type of development for each IIP. The report also documents the relationship between the IIP and the development fees. Specific capital costs have been identified using local data and current dollars.

There are three basic methods used to calculate the various components of the Town's IIP and development fees. The methodologies can be classified as looking at the past, present, and future capacities of infrastructure. In instances where infrastructure is built in advance of new development and will have excess capacity, the **buy-in methodology** is utilized. Under this methodology, new development is anticipated to repay for the excess capacity via the development fee. The **incremental expansion methodology** is used when a community plans to provide new development the same level-of-service (LOS) that is currently being provided to existing development. The third methodology is called the **plan-based methodology** which is based on existing, adopted plans. Under the plan-based methodology, there are two approaches considered. The *average approach* is used for planned projects that are the result of *both new and existing development*. The planned costs are allocated to both new and existing development which ensures that new growth only pays its share of the costs. The *marginal approach* is used for planned projects that are the result of *only new growth*. The planned costs are allocated to the net increase in new development.

The formula used to calculate the infrastructure improvement plan and development fee is diagrammed in Figure 1 below. The diagram starts in the upper left corner and progresses left-to-right and down through the lower right corner.

Figure 1: IIP and Development Fee Formula



IIP FORMULATION

As discussed above, Arizona state law requires the IIP to illustrate two points:

1. Estimate future necessary public services that will be required as a result of new development and basis for the estimate.
2. Forecast the costs of the infrastructure, improvements, real property, financing, other capital costs and associated appurtenances, equipment, vehicles, furnishings and other personalty that will be associated with meeting those future needs for necessary public services and estimate the time required to finance and provide the necessary public services.

The boxes shaded in yellow at the top of Figure 1 estimate the future necessary public services that will be required as a result of new development. This formula first determines the planned level-of-service (units of infrastructure per person and/or job and/or vehicle trip) to be provided to new development. The planned LOS is determined using the most appropriate calculation methodology (buy-in, incremental expansion, or plan-based). The planned LOS is then multiplied by the projected number of corresponding demand units (persons and/or jobs and/or vehicle trips) to calculate the total amount of infrastructure needed to serve new development.

The boxes shaded in green in the middle of Figure 1 forecast the cost to provide the projected infrastructure demanded by new development. The total cost for infrastructure is calculated by multiplying the amount of infrastructure needed to serve new development by the planned cost per unit of infrastructure. The final step in the IIP process is to calculate the cost per new demand unit (person and/or job and/or vehicle trip) to provide the infrastructure needed to serve new development. The total cost for infrastructure needed to serve new development is divided by the total number of new demand units to be served.

As noted in Figure 1, these calculations are repeated for each component of the IIP. For example, a Fire IIP might include components for stations, land for stations, apparatus, and communications equipment. The IIP forecasts the amount and cost of the infrastructure needed to serve new development for each component.

DEVELOPMENT FEE CALCULATIONS

The boxes shaded in blue at the bottom of Figure 1 illustrate the steps in the calculation of the development fee. Arizona law requires identification of the methodology for calculating the amount of the development fee and an explanation of the relationship between the development fee and the IIP. The first step in the development fee calculation totals the cost per demand unit for each component of the IIP to determine the total cost per demand unit to provide the complete IIP. The total cost per demand unit is then multiplied by the number of demand units per development unit. These factors include persons per household, jobs per square foot, vehicle trips per housing unit, and vehicle trips per square foot. These factors vary by type of development and measure the demand and proportionality of the demand created by different types of residential and nonresidential development for additional infrastructure. The development fees are calculated on a per unit basis for residential development. For nonresidential development, the majority of

development fees are calculated on a per 1,000 square foot basis, with the exception of certain development types which have a unique characteristic, such as hotels whose development fees are calculated on a per room basis.

DEVELOPMENT FEE SCHEDULE

Figure 2 provides a schedule of the development fees for the Town. The Town 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 expenditures, and/or a decrease in the planned LOS standards.

Figure 2: Schedule of Development Fees

	Community Facilities	*Library*	*Law Enforcement*	*General Government*	*Transportation*	***TOTAL***
Residential	**Per Unit**					
Single Family Detached	$585	$700	$69	$552	$1,057	**$2,963**
Nonresidential	**Per 1,000 Square Feet/Hotel Room**					
Com / Shop Ctr 50,000 SF or less	N/A	N/A	$1,304	$140	$1,611	**$3,055**
Com / Shop Ctr 50,001-100,000 SF	N/A	N/A	$1,131	$123	$1,397	**$2,651**
Com / Shop Ctr 100,001-200,000 S	N/A	N/A	$1,014	$109	$1,252	**$2,375**
Com / Shop Ctr over 200,001 SF	N/A	N/A	$895	$98	$1,105	**$2,098**
Office / Inst 25,000 SF or less	N/A	N/A	$727	$204	$989	**$1,920**
Office / Inst 25,001-50,000 SF	N/A	N/A	$620	$193	$843	**$1,656**
Office / Inst 50,001-100,000 SF	N/A	N/A	$529	$182	$719	**$1,430**
Office / Inst over 100,001 SF	N/A	N/A	$450	$172	$613	**$1,235**
Light Industrial	N/A	N/A	$276	$113	$376	**$765**
Warehousing	N/A	N/A	$141	$45	$192	**$378**
Manufacturing	N/A	N/A	$151	$88	$206	**$445**
Hotel (per room)	N/A	N/A	$223	$21	$303	**$547**

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 fees should be recalculated.

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

Community Facilities

OVERVIEW

The Community Facilities IIP and Development Fee includes components for land for open space, trails, and parks; trails; the Community Center; park improvements; and the IIP and development fee study.

The plan-based method is used to calculate each component of the Community Facilities fees; this method allows the Town to establish levels of service based on planned projects from the adopted Capital Improvements Plan based on the estimated population at build-out in FY2031 (see Appendix A for more details on demographic projections). Infrastructure and costs for the Community Facilities IIP and Development Fee have been allocated to residential development only. Unless otherwise stated, cost information is taken from the Town's Capital Improvement Plan.

LAND FOR OPEN SPACE, TRAILS, AND PARKS

Level of Service Analysis

The first component within the Community Facilities Fee is Land for Open Space, Trails, and Parks. The CIP contains three separate projects where land purchases are planned: Open Space Preservation, Chaparral Gulch Junction, and the Acquisition of the King Woolsey Ruins. While the CIP specifies that the King Woolsey Ruins project includes the purchase of one acre of land, the amount of land to be purchased for Open Space Preservation has been estimated by TischlerBise. The land to be purchased for the Chaparral Gulch Junction site has been provided by the Town.

The estimated 643.5 acres for Open Space Preservation is based on the fact that the Town plans to purchase land both from the Bureau of Land Management and the State. All the funding for land from the Bureau of Land Management has been allocated for one year and the Town can purchase a maximum of 640 acres for "other public purposes" in one year; thus, this maximum of 640 acres has been assumed. Further, the Town has allocated $350,000 for State Land, which must be purchased at market value. Market value is assumed to be $100,000 per acre based on the King Woolsey Ruins land price. Thus, it is assumed that the Town will purchase 3.5 acres from the State ($350,000 / $100,000 per acre = 3.5 acres). The total planned acres of Open Space are 643.5 (640 +3.5).

The number of acres to be purchased by the Town for the Chaparral Gulch Junction site is estimated to be 158.6 acres.

Because each of these projects is planned in the CIP, the plan-based methodology is used to calculate the planned level of service. We have conservatively estimated that planned projects will serve both existing and new development in the town through build-out, which is estimated in 2031 as noted in the demographics memo. Thus, the total number of acres is divided by the estimated population at build-out resulting in a level of service of 0.04 acres per person: 803.1 acres / 19,277 persons at build-out = 0.04 acres per person.

Figure 3: Land for Open Space, Trails, and Parks Level of Service

Project	*Acres*
Open Space Preservation*	643.5
Chaparral Gulch Junction**	158.6
Acquisition of King Woolsey Ruins***	1.0
TOTAL	803.1
Development Being Served at Build-out (in 2031)	
Residential--persons	19,277
Planned Level of Service	
Residential--Acres per person	0.04

**Based on the assumption that the Town will purchase the maximum number of acres allowed from the Bureau of Land Management (540 acres) and will purchase the maximum amount of acres possible from the State at an assumed cost of $100,000 per acre: 3.5 acres.*
***Estimate provided by the Town.*
****From the CIP.*

Cost Analysis

Land for open space, trails, and parks costs $1,220 per acre on average in the Town of Dewey-Humboldt. Based on the planned LOS of 0.04 acres per person, and an average cost of $1,220 per acre, the cost per person is $50.84 ($1,220 per acre x 0.04 acres per person = $50.84 per person).

Figure 4: Land for Open Space, Trails, and Parks Cost Analysis

Project	*Acres*	*Cost*
Open Space Preservation*	643.5	$400,000
Chaparral Gulch Junction**	158.6	$340,000
Acquisition of King Woolsey Ruins***	1.0	$110,000
Open Space & Trails Master Plan		$130,000
TOTAL	803.1	$980,000
Cost per Acre	$1,220	
Planned Level of Service		
Residential--Acres per person	0.04	
Cost		
Per person	$50.84	

**Based on the assumption that the Town will purchase the maximum number of acres allowed from the Bureau of Land Management (540 acres) and will purchase the maximum amount of acres possible from the State at an assumed cost of $100,000 per acre: 3.5 acres.*
***Estimate provided by the Town.*
****From the CIP.*

Infrastructure Improvement Plan

Figure 5 shows the IIP for land for open space, trails, and parks. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 Town residents. Based on the planned LOS, this amount of residential development will require approximately 72.39 additional acres of open space, trails, and park land. The projected cost of this demanded infrastructure totals $88,340 over the next five years.

The bottom of Figure 5 illustrates the planned projects from the Town's adopted Capital Improvement Plan that will be constructed to meet the demands for new land for open space, trails, and parks.

Figure 5: Land for Open Space, Trails, and Parks IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

LAND FOR OPEN SPACE, TRAILS, AND PARKS

Future Necessary Public Services Required by New Development							
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Acres Per Person		0.04	0.04	0.04	0.04	0.04	
							5 Year Total
Acres to be Utilized by New Res. Development		5.85	11.47	15.46	18.55	21.07	72.39
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Acre		$1,220	$1,220	$1,220	$1,220	$1,220	
							5 Year Total
Planned Cost for New Res. Development		$7,136	$13,994	$18,859	$22,633	$25,717	$88,340
Planned Projects from CIP							*5 Year Total*
Open Space Preservation		$0	$0	$0	$0	$0	$0
Chaparral Gulch Junction**		$0	$170,000	$170,000	$0	$0	$340,000
Acquisition of King Woolsey Ruins***		$0	$0	$0	$55,000	$55,000	$110,000
TOTAL		$0	$170,000	$170,000	$55,000	$55,000	$450,000

TRAILS

Level of Service Analysis

The Town's CIP has a plan for trail development that TischlerBise assumes will provide capacity through the Town's build-out, estimated to occur in 2031. The plan-based method is used to calculate the level of service for trails.

A total of 6.1 miles of trails are expected to be built according to the CIP. The level of service is found by dividing the 6.1 miles of trails by the total population at build-out of 19,277; the result is a level of service of 0.0003 miles per person of trails for both existing and new development.

Figure 6: Trails LOS Analysis

Project	*Miles*
Aqua Fria Riparian Restoration*	1.7
Agua Fria River to E. Boundary of Town	1.3
Agua Fria River to Chaparral Gulch @ 3rd St.	0.9
Chaparral Gulch Trail	1.0
Blue Ridge Road Trail	1.2
TOTAL	6.1
Development Being Served at Build-out (in 2031)	
Residential--persons	19,277
Planned Level of Service	
Residential--Miles per person	0.0003

**TischlerBise estimate based on map analysis.*

Cost Analysis

The level of service of 0.0003 miles of trails per person is multiplied by the average cost of constructing one mile of trails, $205,738, to arrive at a cost per user of $65.10.

Figure 7: Trails Cost Analysis

Project	*Miles*	*Cost*
Aqua Fria Riparian Restoration*	1.7	$410,000
Agua Fria River to E. Boundary of Town	1.3	$175,000
Agua Fria River to Chaparral Gulch @ 3rd St.	0.9	$135,000
Chaparral Gulch Trail	1.0	$234,000
Blue Ridge Road Trail	1.2	$301,000
TOTAL	6.1	$1,255,000
Cost per Mile	$205,738	
Planned Level of Service		
Residential--Miles per person	0.0003	
Cost		
Per person	$65.10	

**TischlerBise estimate based on map analysis.*

Infrastructure Improvement Plan

Figure 8 shows the IIP for trails. The IIP is calculated using the development projections from Appendix A at the back of the report and the current LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons. Based on this growth, 0.55 miles of new trails will be demanded by these new Town residents at a cost of $113,129.

The bottom of Figure 8 illustrates the planned projects from the Town's adopted Capital Improvement Plan that will be constructed to meet the demands for new trails.

Figure 8: Trails IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

TRAILS

Future Necessary Public Services Required by New Development						
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Miles Per Person		0.0003	0.0003	0.0003	0.0003	0.0003	
							5 Year Total
Miles to be Utilized by New Res. Development		0.04	0.09	0.12	0.14	0.16	0.55
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Mile		$205,738	$205,738	$205,738	$205,738	$205,738	
							5 Year Total
Planned Cost for New Res. Development		$9,139	$17,921	$24,152	$28,985	$32,933	$113,129
Planned Projects from CIP							*5 Year Total*
Aqua Fria Riparian Restoration*		$136,667	$136,667	$136,667	$0	$0	$410,001
Agua Fria River to E. Boundary of Town		$87,500	$87,500	$0	$0	$0	$175,000
Agua Fria River to Chaparral Gulch @ 3rd St.		$67,500	$67,500	$0	$0	$0	$135,000
Chaparral Gulch Trail		$0	$0	$0	$234,000	$0	$234,000
Blue Ridge Road Trail		$0	$0	$0	$0	$0	$0
TOTAL		$291,667	$291,667	$136,667	$234,000	$0	$954,001

COMMUNITY CENTER

Level of Service Analysis

The Town's planned Community Center/Library is expected to be 8,000 square feet. For the purposes of this study, it is assumed that 50% of the space will be Library space and 50% will be the Community Center. Because this project is planned in the CIP, the plan-based approach is used to calculate the level of service. It is assumed that the Community Center will have the capacity to

serve development through build-out. The level of service is calculated by dividing the 4,000 square feet of Community Center space by the population at build-out (19,277); the resulting level of service is 0.21 square feet per person for existing and new development.

Figure 9: Community Center Level of Service

Project	*Square Feet*
Dewey-Humboldt Community Center	4,000
Development Being Served at Build-out (in 2031)	
Residential--persons	19,277
Planned Level of Service	
Residential--Square feet per person	0.21

Cost Analysis

The planned Community Center has an estimated cost of $386 per square foot. Based on the planned LOS of 0.21 square feet per person and a cost of $386 per square foot, the cost per person is $80.15 ($386 per square foot x 0.21 square feet per person = $80.15 per user).

Figure 10: Community Center Cost Analysis

Project	*Square Feet*	*Cost*
Dewey-Humboldt Community Center	4,000	$1,545,000
Cost per Square Foot	$386	
Planned Level of Service		
Residential--Square feet per person	0.21	
Cost		
Per person	$80.15	

Infrastructure Improvement Plan

Figure 11 shows the IIP for the Community Center. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons. Based on the planned LOS, this amount of residential development will require approximately 361 square feet of community center facilities. The projected cost of this demanded infrastructure totals $139,270 over the next five years.

Figure 11: Community Center IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

COMMUNITY CENTER

Future Necessary Public Services Required by New Development							
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Square Feet Per Person		0.21	0.21	0.21	0.21	0.21	
							5 Year Total
Square Feet to be Utilized by New Res. Development		29.13	57.12	76.98	92.38	104.97	360.57
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Square Foot		$386	$386	$386	$386	$386	
							5 Year Total
Planned Cost for New Res. Development		$11,251	$22,062	$29,732	$35,682	$40,543	$139,270
Planned Project from CIP							*5 Year Total*
Dewey-Humboldt Community Center		$0	$0	$511,667	$511,667	$511,667	$1,535,000

PARKS IMPROVEMENTS

Level of Service

The next component of the Community Facilities Fee is Park Improvements. In the Town's CIP, there is only one planned park improvement project: Blue Hill Picnic and Parking Area. TischlerBise has conservatively assumed that this project will have capacity to serve development in the Town through build-out. Thus, the plan-based approach is used to calculate the level of service: 1 park improvement project / 19,277 persons at build-out = 0.0001 units per person.

Figure 12: Parks Improvements LOS

Project	*Units*
Blue Hill Picnic & Parking Area	1
Development Being Served at Build-out (in 2031)	
Residential–persons	19,277
Planned Level of Service	
Residential–Units per person	0.0001

Cost Analysis

The planned Blue Hill Picnic and Parking Area has an estimated cost of $235,000. Based on the LOS of 0.0001 improvement per user and a cost of $235,000, the cost per user is $12.19 ($235,000 x 0.0001 = $12.19 per user).

Figure 13: Parks Improvements Cost Analysis

Project	*Units*
Blue Hill Picnic & Parking Area	1
Cost per Unit	$235,000
Planned Level of Service	
Residential–Units per person	0.0001
Cost	
Per person	$12.19

Infrastructure Improvement Plan

Figure 14 shows the IIP for parks improvements. The IIP is calculated using the development projections from Appendix A at the back of the report and the cost figures listed above. Over the next five years, there is a projected increase of 1,738 Town residents. Based on the planned cost per person, this amount of residential development will require parks improvements totaling $21,184 over the next five years.

The bottom of Figure 14 illustrates the planned projects from the Town's Adopted CIP that will be constructed to meet the demands of new parks improvements.

Figure 14: Parks Improvements IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

PARK IMPROVEMENTS

Future Necessary Public Services Required by New Development							
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Units Per Person		0.0001	0.0001	0.0001	0.0001	0.0001	
							5 Year Total
Units to be Utilized by New Res. Development		0.01	0.01	0.02	0.02	0.03	0.09
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Unit		$235,000	$235,000	$235,000	$235,000	$235,000	
							5 Year Total
Planned Cost for New Res. Development		$1,711	$3,356	$4,522	$5,427	$6,167	$21,184
Planned Projects from CIP							*5 Year Total*
Blue Hill Picnic & Parking Area		$0	$0	$117,500	$117,500	$0	$235,000

IIP AND DEVELOPMENT FEE STUDY

The cost of preparing the Community Facilities IIP and Development Fee Study is also included in the fee calculations. The Town should update its IIP and development fees every three years. As we do with many of our development fee clients in Arizona, TischlerBise has included the cost of preparing the current IIP and development fee in the fee calculations in order to create a source of funding to conduct this regular update. This cost ($15,900) is allocated over the projected increase in population over the next three years. This results in a development fee study of $20.21 per person.

Figure 15 shows the IIP for the Open Space IIP and Development Fee Study. The projected cost of this study totals $15,900 over the next three years for residential development.

Figure 15: Open Space IIP and Development Fee Study IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

COMMUNITY FACILITY IIP AND DEVELOPMENT FEE STUDY

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned Study Cost per Person		$20.21	$20.21	$20.21	$20.21	$20.21	
							5 Year Total
IIP and Development Fee Study Cost For Res. Development		$2,837	$5,564	$7,499	$8,999	$10,225	$35,124

COMMUNITY FACILITIES DEVELOPMENT FEE

Developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the Community Facilities IIP and Development Fee calculation schedule. Specific policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the Town's fees. Project improvements normally required as part of the development approval process are not eligible for credits against development fees.

The development fee enabling legislation for municipalities (A.R.S. 9-463.05) includes the following provision:

> 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the *capital costs of the necessary public service covered by the development fee* (emphasis added).

The intent of this provision is to avoid potential "double payment" for capital facilities. Double payment occurs when new growth pays for the same capacity twice through the development fee and another revenue source. The Town does not plan to fund new growth's proportionate share of infrastructure capacity projects with debt, thus no credit for such future revenues is necessary for this development fee category.

As shown at the bottom of Figure 16, the capital cost per person is $228.50.

Figure 16: Community Facilities Development Fee Calculation Factors

	Standards:
Persons Per Housing Unit	
Single Family Detached	2.56
Cost Summary (per person)	
Land for Open Space, Trails, & Parks	$50.84
Trails	$65.10
Community Center	$80.15
Park Improvements	$12.19
IIP and Development Fee Study	$20.21
Net Capital Cost per Person	$228.50

Figure 17 lists the schedule of Community Facilities Development Fees. Persons per household are multiplied by the capital cost per person for each of the fee components which are then added together to determine the total development fee per unit.

Figure 17: Community Facilities Development Fee Schedule

Development Fees	
Single Family Detached	$585

Library

OVERVIEW

The Library IIP and Development Fee includes components for facilities, collections, and the IIP and development fee study.

The plan-based method is used to calculate the facilities component of the Library development fee. Using the current level of service, the capacity of the planned new library space from the adopted Capital Improvements Plan is estimated.

Because the Town plans to maintain the current LOS for library collections that it is providing to current development, the incremental expansion methodology is used to calculate the collections component of the Library Development Fee.

Infrastructure and costs for the Community Facilities IIP and Development Fee have been allocated to residential development only. Unless otherwise stated, cost information is taken from the Town's Capital Improvement Plan.

LIBRARY FACILITIES

Level of Service Analysis

As mentioned in the previous section, the Town's CIP includes the construction of a new Community Center/Library; TischlerBise has assumed that 50% of this new 8,000 square foot facility will be library space. Because there is a planned facility in the CIP, the plan-based approach will be used to calculate this fee component.

However, unlike the components of the Community Facilities fee, the Town already has a library facility. Thus, the level of service is calculated based on current library facilities. The Town currently has 2,760 square feet of library facilities space serving 4,481 residents. The level of service is calculated by dividing the current space by the current number of residents: 2,760 square feet / 4,481 persons = 0.62 square feet per person.

Figure 18: Library Facilities Level of Service

	Square Feet
Current Library	2,760
Current Development Being Served	
Residential–Persons	4,481
Current Level of Service	
Residential–Square feet per person	0.62

Given the current level of service of 0.62 square feet per person, the planned new library with 4,000 square feet of space can be expected to serve 6,495 persons (4,000 square feet / 0.62 square feet per person = 6,495 persons). The demographic projections indicate that this population and thus the capacity of the new library should be reached during FY2015.

Figure 19: Capacity of the New Library

Square Feet of Planned Library	4,000
Current LOS	
Residential--Square feet per person	0.62
Total Development to be Served	
Persons	6,495

Cost Analysis

The planned new library has an estimated cost of $1.5 million, or $386 per square foot. Based on the LOS of 0.62 square feet per person and the cost of $386 per square foot, the cost per person is $237.89 ($386 per square foot x 0.62 square feet per person = $237.89 per user).

Figure 20: Library Facilities Cost Analysis

Square Feet of Planned Library	4,000
Current LOS	
Residential--Square feet per person	0.62
Total Cost of Planned Library	$1,545,000
Cost per square foot	$386
Cost	
Per person	$237.89

Infrastructure Improvement Plan

Figure 21 shows the IIP for library facilities. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons. Based on the planned LOS, this amount of residential development will require approximately 1,070 square feet of facilities. The projected cost of this demanded infrastructure totals $413,368 for facilities over the next five years.

Figure 21: Library Facilities IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

LIBRARY FACILITIES

Future Necessary Public Services Required by New Development							
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Current LOS-Square Feet Per Person		0.62	0.62	0.62	0.62	0.62	
							5 Year Total
Square Feet to be Utilized by New Res. Development		86	170	228	274	312	1,070
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Square Foot		$386	$386	$386	$386	$386	
							5 Year Total
Planned Cost for New Res. Development		$33,393	$65,482	$88,248	$105,908	$120,337	$413,368
Planned Projects from CIP							*5 Year Total*
New Library		$0	$0	$511,667	$511,667	$511,667	$1,535,000

LIBRARY COLLECTION

Level of Service Analysis

Because the Town intends to maintain the Library Collection's current level of service, the incremental expansion method is used for this component of the Library Development Fee. Thus, the total units in the collection are divided by the current population of the town to determine the level of service: 7,052 units / 4,481 persons = 1.57 units per person.

Figure 22: Library Collection Level of Service

	Units
Library Collection	7,052
Current Development Being Served	
Residential–Persons	4,481
Current Level of Service	
Residential–Units per person	1.57

Cost Analysis

Based on the replication cost of library collections by type, TischlerBise estimates that the average replication cost of library collections is $18.38 per unit. Based on the current LOS of 1.57 units per person, and an average cost of $18.38 per unit, the cost per person is $28.93 ($18.38 per unit x 1.57 units per person = $28.93 per person).

Figure 23: Library Collection Cost Analysis

Current LOS	
Residential--Units per person	1.57
Collections (Books, DVDs, CDs)	7,052
Total replication value of collections	$129,603
Average cost per unit	$18.38
Cost	
Per person	$28.93

Infrastructure Improvement Plan

Figure 24 shows the IIP for the library collection. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons. Based on the planned LOS, this amount of residential development will require approximately 2,734 new units in the library collection. The projected cost of this demanded infrastructure totals $50,266 over the next five years.

Figure 24: Library Collection IIP

NEW DEVELOPMENT PROJECTIONS

	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections		4,481	4,622	4,897	5,268	5,713	6,219
							5 Year Total
Net Change Population		140	275	371	445	506	1,738

LIBRARY COLLECTION

Future Necessary Public Services Required by New Development							
	Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Current LOS-Units Per Person		1.57	1.57	1.57	1.57	1.57	
							5 Year Total
Units to be Utilized by New Res. Development		221	433	584	701	796	2,734
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development							
Cost per Unit		$18	$18	$18	$18	$18	
							5 Year Total
Cost for New Res. Development		$4,061	$7,963	$10,731	$12,879	$14,633	$50,266

IIP AND DEVELOPMENT FEE STUDY

The cost of preparing the Library IIP and Development Fee Study is also included in the fee calculations. The Town should update its IIP and development fees every three years. As we do with many of our development fee clients in Arizona, TischlerBise has included the cost of preparing the current IIP and development fee in the fee calculations in order to create a source of funding to conduct this regular update. This cost ($5,100) is allocated over the projected increase in population over the next three years. This results in a development fee study of $6.48 per person.

Figure 25 shows the IIP for the Library IIP and Development Fee Study. The projected cost of this study totals $5,100 over the next three years for residential development.

Figure 25: Library IIP and Development Fee Study IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
						5 Year Total
Net Change Population	140	275	371	445	506	1,738

LIBRARY IIP AND DEVELOPMENT FEE STUDY

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned Study Cost per Person	$6.48	$6.48	$6.48	$6.48	$6.48	
						5 Year Total
IIP and Development Fee Study Cost For Res. De	$910	$1,785	$2,405	$2,886	$3,280	$11,266

LIBRARY DEVELOPMENT FEE

Developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the Library IIP and Development Fee calculation schedule. Specific policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the Town's fees. Project improvements normally required as part of the development approval process are not eligible for credits against development fees.

The development fee enabling legislation for municipalities (A.R.S. 9-463.05) includes the following provision:

> 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the *capital costs of the necessary public service covered by the development fee* (emphasis added).

The intent of this provision is to avoid potential "double payment" for capital facilities. Double payment occurs when new growth pays for the same capacity twice through the development fee and another revenue source. The Town does not plan to fund new growth's proportionate share of infrastructure capacity projects with debt, thus no credit for such future revenues is necessary for this development fee category.

As shown at the bottom of Figure 26, the capital cost per person is $273.30.

Figure 26: Library Development Fee Calculation Factors

	Standards:
Persons Per Housing Unit	
Single Family Detached	2.56
Cost Summary (per person)	
Facility	$237.89
Holdings	$28.93
IIP and Development Fee Study	$6.48
Net Capital Cost per Person	$273.30

Figure 27 lists the schedule of Library Development Fees. Persons per household are multiplied by the capital cost per person for each of the fee components which are then added together to determine the total development fee per unit.

Figure 27: Library Development Fee Schedule

	Development Fees
Single Family Detached	$700

Law Enforcement

OVERVIEW

The Law Enforcement IIP and Development Fee includes components for police facilities, support vehicles, and the IIP and development fee study. The Town will maintain the current LOS for new development that it is providing existing development. Thus, the incremental expansion methodology is used for the facilities and support vehicles.

The Law Enforcement IIP and Development Fee is allocated to both residential and nonresidential development. Residential demand is measured in terms of population while nonresidential demand is measured using vehicle trips. Nonresidential vehicle trips are used as the best measure of the presence of people (including employees, shoppers, and visitors) at nonresidential land uses.

Unless otherwise stated, cost information is taken from the Town's Capital Improvement Plan.

PROPORTIONATE SHARE

The Law Enforcement IIP and development fees are allocated to both residential and nonresidential development; the proportionate share of calls for service is used as a measure of nonresidential and residential demand. Figure 28 shows the proportionate share of residential demand is 44% while it is 56% for nonresidential demand. Road related calls are omitted because they cannot be allocated to residential or nonresidential development in that a person could be on their way home, or to work, or passing through the Town.

Figure 28: Law Enforcement Calls for Service

	Residential	*Nonresidential*
June	63	76
July	55	74
TOTAL	118	150
Percent	44%	56%

Source: Yavapi County Sheriff's Department.

LAW ENFORCEMENT FACILITIES

Level of Service Analysis

Because the Town intends to maintain the Law Enforcement Facility's current level of service, the incremental expansion method is used for this component of the Law Enforcement Development Fee. To calculate the current level of service, the square footage of facility space (768 square feet) is multiplied by the proportionate share and then divided by the current development being served.

For the residential level of service, the current development served is measured in terms of the population; the level of service calculation is: (768 square feet x 44%) / 4,481 persons = 0.08 square feet per person.

This calculation is repeated for nonresidential development resulting in a level of service of 0.25 square feet per nonresidential vehicle trip.

Figure 29: Law Enforcement Facilities Level of Service

	*Square Feet**
Office Space	768
Proportionate Share**	
Residential	44%
Nonresidential	56%
Current Development Being Served	
Residential--persons	4,481
Nonresidential--vehicle trips	1,743
Current Level of Service	
Residential--Square feet per person	0.08
Nonresidential--Square feet per trip	0.25

**Source: Town of Dewey-Humboldt*
***From Figure 28*

Cost Analysis

TischlerBise has assumed that the replication cost of law enforcement facilities is the same as the replication costs for town hall facilities. Based on the LOS of 0.08 square feet per person and a cost of $176 per square foot, the cost per person is $13.28 ($176 x 0.08 = $13.28 per person). This calculation is repeated for nonresidential development: $176 per square foot x 0.25 square feet per trip = $43.40 per nonresidential trip.

Figure 30: Law Enforcement Facilities Cost Analysis

Current Level of Service	
Residential--Square feet per person	0.08
Nonresidential--Square feet per trip	0.25
Replication Cost per square foot*	$176
Cost per	
Per person	$13.28
Per nonresidential vehicle trip	$43.40

**Assumed the same cost per square foot as the town hall from CIP*

Infrastructure Improvements Plan

Figure 31 shows the IIP for law enforcement facilities. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons and 2,549 nonresidential vehicle trips. Based on the planned LOS, this amount of residential development will require approximately 131 square feet while nonresidential development will require 629 square feet of new facilities. The projected cost of this demanded infrastructure totals $133,722 over the next five years.

Figure 31: Law Enforcement IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Vehicle Trip Projections	1,743	2,253	2,763	3,273	3,783	4,293
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Vehicle Trips	510	510	510	510	510	2,549

POLICE FACILITIES

Future Necessary Public Services Required by New Development						
Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Current LOS-Square Feet Per Person	0.08	0.08	0.08	0.08	0.08	
Current LOS-Square Feet Per Nonres. Trip	0.25	0.25	0.25	0.25	0.25	
						5 Year Total
Square Feet to be Utilized by New Res. Development	11	21	28	34	38	131
Square Feet to be Utilized by New Nonres. Development	126	126	126	126	126	629
Square Footage to be Utilized by New Development	136	147	154	159	164	760
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development						
Cost per Square Foot	$176	$176	$176	$176	$176	
						5 Year Total
Planned Cost for New Res. Development	$1,864	$3,656	$4,927	$5,913	$6,718	$23,077
Planned Cost for New Nonres. Development	$22,129	$22,129	$22,129	$22,129	$22,129	$110,645
TOTAL	$23,993	$25,785	$27,056	$28,042	$28,847	$133,722

LAW ENFORCEMENT SUPPORT VEHICLES

Level of Service Analysis

The Town currently has a fleet of 3 law enforcement vehicles serving the current development base of 4,481 persons and 1,743 nonresidential vehicle trips. The Town plans to maintain the current LOS for law enforcement support vehicles, so the incremental expansion method is used to calculate this component of the Law Enforcement Development Fee.

Based on the size of the current fleet, the proportionate share factors, and current development base, the current LOS for vehicles is of 0.003 vehicles per person (3 vehicles x 44% / 4,481 = 0.0003). This calculation is repeated for nonresidential development resulting in a LOS of 0.001 vehicles per nonresidential vehicle trip.

Figure 32: Law Enforcement Vehicles Level of Service

	*No. of Units**
SUVs	3
TOTAL	3

Proportionate Share**	
Residential	44%
Nonresidential	56%
Current Development Being Served	
Residential--persons	4,481
Nonresidential--vehicle trips	1,743
Current Level of Service	
Residential--vehicles per person	0.0003
Nonresidential--vehicles per trip	0.0010

**Source: Yavapi County Sheriff's office.*
***From Figure 28*

Cost Analysis

The Sheriff's office estimates the current fleet of vehicles to have a replication value of $104,463, an average of $34,821 per unit. Based on the current LOS of 0.003 units per person and 0.0010 units per nonresidential vehicle trips, and an average cost of $34,821 per unit, the cost per demand unit is $10.26 per person and $33.54 per nonresidential vehicle trip.

Figure 33: Law Enforcement Vehicles Level of Service

	*No. of Units**	*Replication Cost per Unit**	*Replication Total*
SUVs	3	$34,821	$104,463
TOTAL	3	$34,821	$104,463

Average cost per vehicle =>	$34,821
Current Level of Service	
Residential--vehicles per person	0.0003
Nonresidential--vehicles per trip	0.0010
Cost	
Per person	$10.26
Per nonresidential vehicle trip	$33.54

**Source: Yavapi County Sheriff's office.*

Infrastructure Improvement Plan

Figure 34 shows the IIP for law enforcement vehicles. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons and 2,549 nonresidential vehicle trips. Based on the planned LOS, this amount of development will require approximately 3 vehicles. The projected cost of this demanded infrastructure totals $103,346 over the next five years.

Figure 34: Law Enforcement IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Vehicle Trip Projections	1,743	2,253	2,763	3,273	3,783	4,293
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Vehicle Trips	510	510	510	510	510	2,549

VEHICLES

Future Necessary Public Services Required by New Development

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Current LOS-Vehicles per Person	0.0003	0.0003	0.0003	0.0003	0.0003	
Current LOS-Vehicles per Nonres. Trip	0.0010	0.0010	0.0010	0.0010	0.0010	
						5 Year Total
Vehicles Demanded by New Res. Development	0.0	0.1	0.1	0.1	0.1	0.5
Vehicles Demanded by New Nonres. Development	0.5	0.5	0.5	0.5	0.5	2.5
TOTAL	0.5	0.6	0.6	0.6	0.6	3.0

Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development

Cost Per Vehicle	$34,821	$34,821	$34,821	$34,821	$34,821	
						5 Year Total
Vehicles Cost For New Res. Development	$1,441	$2,825	$3,807	$4,569	$5,192	$17,835
Vehicles Cost For New Nonres. Development	$17,102	$17,102	$17,102	$17,102	$17,102	$85,511
TOTAL	$18,543	$19,927	$20,910	$21,672	$22,294	$103,346

IIP AND DEVELOPMENT FEE STUDY

The cost of preparing the Law Enforcement IIP and Development Fee Study is also included in the fee calculations. The Town should update its IIP and development fees every three years. As we do with many of our development fee clients in Arizona, TischlerBise has included the cost of preparing the current IIP and development fee in the fee calculations in order to create a source of funding to conduct this regular update. This cost ($6,500) is allocated using the proportionate share factors over the projected increase in population and nonresidential vehicle trips over the next three years. This results in a development fee study of $3.64 per person and $2.38 per nonresidential vehicle trip.

Figure 35 shows the IIP for the Law Enforcement IIP and Development Fee Study. The projected cost of this study totals $6,500 over the next three years for residential development.

Figure 35: Law Enforcement IIP and Development Fee Study IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Vehicle Trip Projections	1,743	2,253	2,763	3,273	3,783	4,293
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Vehicle Trips	510	510	510	510	510	2,549

LAW ENFORCEMENT IIP AND DEVELOPMENT FEE STUDY

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned Study Cost per Person	$3.64	$3.64	$3.64	$3.64	$3.64	
Planned Study Cost per Nonres. Trip	$2.38	$2.38	$2.38	$2.38	$2.38	
						5 Year Total
IIP and Development Fee Study Cost For Res. Development	$511	$1,002	$1,350	$1,620	$1,840	$6,322
IIP and Development Fee Study Cost For Nonres. Development	$1,213	$1,213	$1,213	$1,213	$1,213	$6,063
TOTAL	$1,723	$2,214	$2,562	$2,832	$3,053	$12,386

LAW ENFORCEMENT DEVELOPMENT FEE

Developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the Law Enforcement IIP and Development Fee calculation schedule. Specific policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the Town's fees. Project improvements normally required as part of the development approval process are not eligible for credits against development fees.

The development fee enabling legislation for municipalities (A.R.S. 9-463.05) includes the following provision:

> 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the *capital costs of the necessary public service covered by the development fee* (emphasis added).

The intent of this provision is to avoid potential "double payment" for capital facilities. Double payment occurs when new growth pays for the same capacity twice through the development fee and another revenue source. The Town does not plan to fund new growth's proportionate share of infrastructure capacity projects with debt, thus no credit for such future revenues is necessary for this development fee category.

As shown at the bottom of Figure 36, the capital cost per person is $27.18 while the capital cost per nonresidential vehicle trip is $79.32.

Figure 36: Law Enforcement Development Fee Calculation Factors

	Standards:	
Persons Per Household		
Single Family Detached	2.56	
Weekday Vehicle Trip Ends per 1,000 Sq Ft/Hotel Room		
Com / Shop Ctr 50,000 SF or less		86.56
Com / Shop Ctr 50,001-100,000 SF		67.91
Com / Shop Ctr 100,001-200,000 SF		53.28
Com / Shop Ctr over 200,001 SF		41.80
Office / Inst 25,000 SF or less		18.35
Office / Inst 25,001-50,000 SF		15.65
Office / Inst 50,001-100,000 SF		13.34
Office / Inst over 100,001 SF		11.37
Light Industrial		6.97
Warehousing		3.56
Manufacturing		3.82
Hotel (per room)		5.63
Trip Adjustment Factors		
Com / Shop Ctr 50,000 SF or less		19%
Com / Shop Ctr 50,001-100,000 SF		21%
Com / Shop Ctr 100,001-200,000 SF		24%
Com / Shop Ctr over 200,001 SF		27%
All Other Nonresidential Development		50%
Cost Summary	Per Person	Per Trip
Police Facilities	$13.28	$43.40
Vehicles	$10.26	$33.54
IIP and Development Fee Study	$3.64	$2.38
Total Capital Cost	$27.18	$79.32

Figure 37 lists the schedule of Law Enforcement Development Fees. For residential land uses, persons per household are multiplied by the capital cost per person (for Single Family Detached: 2.56 x $27.18 = $69). Nonresidential development fees are calculated by multiplying the number of vehicle trips per square foot or hotel room by the capital cost per trip (for Commercial/Shopping Center with less than 50,000 square feet: 86.56 x 19% x $79.32 = $1,304).

Figure 37: Law Enforcement Development Fee Schedule

Development Fees

Residential	Per Housing Unit
Single Family Detached	$69
Nonresidential	**Per 1,000 Sq Ft/Hotel Room**
Com / Shop Ctr 50,000 SF or less	$1,304
Com / Shop Ctr 50,001-100,000 SF	$1,131
Com / Shop Ctr 100,001-200,000 SF	$1,014
Com / Shop Ctr over 200,001 SF	$895
Office / Inst 25,000 SF or less	$727
Office / Inst 25,001-50,000 SF	$620
Office / Inst 50,001-100,000 SF	$529
Office / Inst over 100,001 SF	$450
Light Industrial	$276
Warehousing	$141
Manufacturing	$151
Hotel (per room)	$223

General Government

OVERVIEW

The General Government IIP and Development Fee includes components for general government facilities, land for general government facilities, support vehicles, and the IIP and development fee study. Because the CIP includes planned new general government facilities and land for these facilities to be built upon, the plan based method is used to calculate these two components of the fee. The Town will maintain the current LOS for new development that it is providing existing development for support vehicles. Thus, the incremental expansion methodology is used for the support vehicles component.

The General Government IIP and Development Fee is allocated to both residential and nonresidential development. Residential demand is measured in terms of population while nonresidential demand is measured using jobs.

Unless otherwise stated, cost information is taken from the Town's Capital Improvement Plan.

PROPORTIONATE SHARE

The General Government Development Fee uses a functional population concept to allocate capital costs to residential and nonresidential development. Figure 38 distinguishes time at home (2/3 of a day, 16 hours) versus time at work (1/3 of a day, 8 hours) and accounts for commuting patterns in Dewey-Humboldt.

According to 2000 Census data, 34.43% of residents in Dewey-Humboldt worked in 2000. This percentage was applied to the 2009 population estimate of 4,481 for the Town, resulting in 1,543 resident workers in the Town in 2009. The remaining 2,938 resident non-workers are considered to be in the Town 24 hours a day, generating 70,524 residential person hours.

In 2000, the U.S. Census Bureau estimated that of the total employed residents, 17.79% lived and worked in the Town. Applying this share to the current labor force estimate for Dewey-Humboldt of 1,543, the estimate of residents working in Dewey-Humboldt is 275. The balance, 1,268 resident workers, commute out of Dewey-Humboldt for work. The time that these resident workers spend in the Town for residential functions (16/hours a day) is calculated at 92,209 residential person hours (4,392 + 20,293 = 24,685 residential person hours). Added to the person hours for non-working residents (70,524 person hours), this brings the total residential person hours to 95,209.

The 2009 employment estimate for Dewey-Humboldt is 627 jobs. As discussed above, 275 of these jobs are estimated to be Town residents working in Dewey-Humboldt. The balance, 353 jobs, are considered non-resident workers. The time spent at work (8 hours/day) is allocated to nonresidential development, resulting in 5,019 nonresidential person hours (2,196 + 2,823 = 5,019 nonresidential person hours). Based on estimated person hours, the cost allocation for residential development is 95%, while nonresidential development accounts for 5% of the demand for general government facilities, land for facilities, and vehicles.

Figure 38: Proportionate Share

			Demand	Person
Residential	*Demand Units in FY2009*		*Hours/Day*	*Hours*
Population (FY2009)	4,481			
Residents Not Working [1]	2,938		24	70,524
Workers Living in Dewey-Humboldt [1]	1,543			
Residents Working in Dewey-Humboldt [2]		275	16	4,392
Residents Working outside of Dewey-Humboldt		1,268	16	20,293
		Residential Subtotal		95,209
				95%
Nonresidential				
Jobs Located in Dewey-Humboldt (2009) [3]	627			
Residents Working in Dewey-Humboldt		275	8	2,196
Non-Resident Workers		353	8	2,823
		Nonresidential Subtotal		5,019
				5%
			TOTAL	100,228

[1,2] Source: City residents working inside and outside Dewey-Humboldt based on data in Table P27 from SF3, Census 2000 detailing the share of 2000 population in the labor force and the place of work (outside or inside place of residence). The 2000 ratios are applied to the current demographics data.
[3] Jobs estimate taken from Appendix A.

GENERAL GOVERNMENT FACILITIES

Level of Service Analysis

The first component within the General Government Development Fee is facilities. The Town's CIP contains two planned general government facilities' projects: construction of a new Town Hall and a Public Works Yard Equipment Shed. It is assumed that both of these facilities will have the capacity to serve the Town through build-out. Based on these planned facilities, TischlerBise is using the plan-based approach to calculate this component of the development fee.

Figure 38 below shows the calculation of the level of service for General Government Facilities. For the residential level of service, the total square footage of planned facilities space is multiplied by the proportionate share factor and then divided by the population at build-out: (30,000 square feet x 95%) / 19,277 persons = 1.48 square feet per person for existing and new development. The

calculation is repeated for nonresidential development resulting in a level of service of 0.34 square feet per job for both existing and new development.

Figure 39: General Government Facilities Level of Service

	Square Feet
Town Hall	20,000
Publics Works Yard Equipment Shed	10,000
Total Facilities	30,000
Proportionate Share	
Residential	95%
Nonresidential	5%
Development Being Served at Build-out (in 2031)	
Residential--persons	19,277
Nonresidential--jobs	4,469
Planned Level of Service	
Residential--Square feet per person	1.48
Nonresidential--Square feet per job	0.34

Cost Analysis

The planned Town Hall has an estimated cost of $3.52 million and the planned Public Works Yard Equipment Shed's estimated cost is $122,000. Thus, the average cost per square foot for general government facilities is $121.40 per square foot (($3,520,000 + $122,000) / (20,000 + 10,000) = $121.40).

Based on the planned LOS of 1.48 square feet per person and 0.34 square feet per job as well as the $121.40 cost per square foot, the cost per person is $179.47 ($121.40 per square foot x 1.48 square feet per person = $278.23 per person) and $40.81 per job ($121.40 x 0.34 square feet per job = $40.81 per job).

Figure 40: General Government Facilities Cost Analysis

	Square Feet	*Planned Cost*
Town Hall	20,000	$3,520,000
Publics Works Yard Equipment Shed	10,000	$122,000
Total Facilities	30,000	$3,642,000
Proportionate Share		
Residential	95%	
Nonresidential	5%	
Development Being Served at Build-out (in 2031)		
Residential--persons	19,277	
Nonresidential--jobs	4,469	
Planned Level of Service		
Residential--Square feet per person	1.48	
Nonresidential--Square feet per job	0.34	
Cost per Square Foot	$121.40	
Cost		
Per person	$179.47	
Per job	$40.81	

Infrastructure Improvement Plan

Figure 41 shows the IIP for general government facilities. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons and 907 jobs. Based on the planned LOS, this amount of development will require approximately 2,874 square feet of general government facilities. The projected cost of this demanded infrastructure totals $348,853 over the next five years.

Figure 41: General Government Facilities IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Job Projections	627	809	990	1,171	1,353	1,534
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Job Projections	181	181	181	181	181	907

GENERAL GOVERNMENT FACILITIES

Future Necessary Public Services Required by New Development						
Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Square Feet Per Person	1.48	1.48	1.48	1.48	1.48	
Planned LOS-Square Feet Per Job	0.34	0.34	0.34	0.34	0.34	
						5 Year Total
Square Feet to be Utilized by New Res. Development	208	407	548	658	748	2,569
Square Feet to be Utilized by New Nonres. Development	61	61	61	61	61	305
Square Footage to be Utilized by New Development	268	468	609	719	809	2,874
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development						
Cost per Square Foot	$121	$121	$121	$121	$121	
						5 Year Total
Planned Cost for New Res. Development	$25,193	$49,402	$66,578	$79,901	$90,786	$311,860
Planned Cost for New Nonres. Development	$7,399	$7,399	$7,399	$7,399	$7,399	$36,993
TOTAL	$32,592	$56,800	$73,976	$87,299	$98,185	$348,853
Planned Projects from CIP						*5 Year Total*
New Town Hall	$1,173,333	$1,173,333	$1,173,333	$0	$0	$3,520,000
Facilities in Public Works Complex & Equipment Yard	$40,667	$40,667	$40,667	$0	$0	$122,000
TOTAL	$1,173,333	$1,173,333	$1,173,333	$0	$0	$3,520,000

LAND FOR GENERAL GOVERNMENT FACILITIES

Level of Service Analysis

The development of a Public Works Yard also includes the purchase of land for the facility and yard itself. Because this purchase of land is planned in the CIP, the plan-based approach is used to calculate this component of the development fee; like the public works yard equipment shed, it is assumed that the land for this facility has sufficient capacity to serve development through build-out.

To calculate the residential level of service, the total acres are multiplied by the proportionate share and then divided by the population at build-out: (7.31 acres x 95%) / 19,277 people = 0.0004 acres per person. The calculation is repeated for nonresidential development and results in a level of service of 0.0001 acres per job.

Figure 42: Land for General Government Facilities Level of Service

	Acres
Land for Publics Works Yard	7.31
Proportionate Share	
Residential	95%
Nonresidential	5%
Development Being Served at Build-out (in 2031)	
Residential--persons	19,277
Nonresidential--jobs	4,469
Planned Level of Service	
Residential--Acres per person	0.0004
Nonresidential--Acres per job	0.0001

Cost Analysis

The planned cost for the Public Works Yard land is $400,000, or $54,720 per acre. Based on the current LOS of 0.004 acres per person and 0.0001 acres per job together with the average cost of $54,720 per acre, the cost per person is $19.71 ($54,720 per acre x 0.0004 units per person = $19.71 per person) and the cost per job is $4.48.

Figure 43: Land for General Government Facilities Cost Analysis

	Acres
Land for Publics Works Yard	7.31
Total Cost of Land for Public Works Yard	$400,000
Cost per Acre	$54,720
Planned Level of Service	
Residential--Acres per person	0.0004
Nonresidential--Acres per job	0.0001
Cost	
Per person	$19.71
Per job	$4.48

Infrastructure Improvement Plan

Figure 44 shows the IIP for land for general government facilities. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons and 907 jobs. Based on the planned LOS, this amount of residential development will require approximately 0.63 acres of land for general government facilities while nonresidential development will require 0.07 acres. The projected cost of this demanded infrastructure totals $38,314 over the next five years.

Figure 44: Land for General Government Facilities IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Job Projections	627	809	990	1,171	1,353	1,534
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Job Projections	181	181	181	181	181	907

LAND FOR GENERAL GOVERNMENT FACILITIES

Future Necessary Public Services Required by New Development						
Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned LOS-Acres Per Person	0.0004	0.0004	0.0004	0.0004	0.0004	
Planned LOS-Acres Per Job	0.0001	0.0001	0.0001	0.0001	0.0001	
						5 Year Total
Acres to be Utilized by New Res. Development	0.05	0.10	0.13	0.16	0.18	0.63
Acres to be Utilized by New Nonres. Development	0.01	0.01	0.01	0.01	0.01	0.07
Acres to be Utilized by New Development	0.07	0.11	0.15	0.18	0.20	0.70
Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development						
Cost per Acre	$54,720	$54,720	$54,720	$54,720	$54,720	
						5 Year Total
Planned Cost for New Res. Development	$2,767	$5,426	$7,312	$8,775	$9,971	$34,252
Planned Cost for New Nonres. Development	$813	$813	$813	$813	$813	$4,063
TOTAL	$3,580	$6,238	$8,125	$9,588	$10,784	$38,314
Planned Projects from CIP						*5 Year Total*
Land for Public Works Complex & Equipment Yard	$133,333	$133,333	$133,333	$0	$0	$400,000
TOTAL	$133,333	$133,333	$133,333	$0	$0	$400,000

GENERAL GOVERNMENT VEHICLES

Level of Service Analysis

Because the Town intends to maintain the general government vehicles' current level of service, the incremental expansion methodology is used for this component. The current level of service is found by multiplying the current fleet of 2 vehicles by the proportionate share and then dividing by the current amount of development. Thus, for residential development, the 2 vehicles are multiplied by 95% and then divided by 4,481 people resulting in a level of service of 0.0004 vehicles per

person. The calculation is repeated for nonresidential development; this nonresidential level of service is 0.0002 vehicles per job.

Figure 45: General Government Vehicles Level of Service

	Units
Ford Pick-ups	2
Proportionate Share	
Residential	95%
Nonresidential	5%
Current Development Being Served	
Residential–persons	4,481
Nonresidential--jobs	627
Current Level of Service	
Residential–Vehicles per person	0.0004
Nonresidential--Vehicles per job	0.0002

Cost Analysis

Based on conversations with the Town, the estimated replication cost per unit of general government vehicles is $22,000. Given this per unit cost and the levels of service of 0.0004 vehicles per person and 0.0002 vehicles per job, the cost per person is $9.33 ($22,000 x 0.0004 = $9.33) and the cost per job is $3.51.

Figure 46: General Government Vehicles Cost Analysis

	Units	*Replication Cost per Unit*
Ford Pick-ups	2	$22,000
Current Level of Service		
Residential--Vehicles per person	0.0004	
Nonresidential--Vehicles per job	0.0002	
Cost		
Per person	$9.33	
Per job	$3.51	

Infrastructure Improvement Plan

Figure 47 shows the IIP for general government vehicles. The IIP is calculated using the development projections from Appendix A at the back of the report and the LOS and cost figures listed above. Over the next five years, there is a projected increase of 1,738 persons and 907 jobs. Based on the planned LOS, this amount of development will require approximately 1 new vehicle. The projected cost of this demanded infrastructure totals $19,391 over the next five years.

Figure 47: General Government Vehicles IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Job Projections	627	809	990	1,171	1,353	1,534
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Job Projections	181	181	181	181	181	907

VEHICLES

Future Necessary Public Services Required by New Development

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Current LOS-Vehicles per Person	0.0004	0.0004	0.0004	0.0004	0.0004	
Current LOS-Vehicles per Job	0.0002	0.0002	0.0002	0.0002	0.0002	
						5 Year Total
Vehicles Demanded by New Res. Development	0.1	0.1	0.2	0.2	0.2	0.7
Vehicles Demanded by New Nonres. Development	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	0.1	0.1	0.2	0.2	0.2	0.9

Cost Forecast for Infrastructure Associated with Future Necessary Public Services Required by New Development

Cost Per Vehicle	$22,000	$22,000	$22,000	$22,000	$22,000	
						5 Year Total
Vehicles Cost For New Res. Development	$1,309	$2,567	$3,460	$4,152	$4,718	$16,207
Vehicles Cost For New Nonres. Development	$637	$637	$637	$637	$637	$3,184
TOTAL	$1,946	$3,204	$4,097	$4,789	$5,355	$19,391

IIP AND DEVELOPMENT FEE STUDY

The cost of preparing the General Government IIP and Development Fee Study is also included in the fee calculations. The Town should update its IIP and development fees every three years. As we do with many of our development fee clients in Arizona, TischlerBise has included the cost of preparing the current IIP and development fee in the fee calculations in order to create a source of funding to conduct this regular update. This cost ($5,900) is allocated using the proportionate share factors over the projected increase in population and nonresidential vehicle trips over the next three years. This results in a development fee study of $7.13 per person and $0.54 per job.

Figure 48 shows the IIP for the General Government IIP and Development Fee Study. The projected cost of this study totals $5,900 over the next three years for residential development.

Figure 48: General Government IIP and Development Fee Study IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Population Projections	4,481	4,622	4,897	5,268	5,713	6,219
Nonresidential Job Projections	627	809	990	1,171	1,353	1,534
						5 Year Total
Net Change Population	140	275	371	445	506	1,738
Net Change Nonresidential Job Projections	181	181	181	181	181	907

GENERAL GOVERNMENT IIP AND DEVELOPMENT FEE STUDY

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned Study Cost per Person	$7.13	$7.13	$7.13	$7.13	$7.13	
Planned Study Cost per Job	$0.54	$0.54	$0.54	$0.54	$0.54	
						5 Year Total
IIP and Development Fee Study Cost For Res. Development	$1,000	$1,961	$2,643	$3,172	$3,604	$12,381
IIP and Development Fee Study Cost For Nonres. Development	$98	$98	$98	$98	$98	$492
TOTAL	$1,099	$2,060	$2,742	$3,271	$3,703	$12,873

GENERAL GOVERNMENT DEVELOPMENT FEE

Developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the General Government IIP and Development Fee calculation schedule. Specific policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the Town's fees. Project improvements normally required as part of the development approval process are not eligible for credits against development fees.

The development fee enabling legislation for municipalities (A.R.S. 9-463.05) includes the following provision:

> 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the *capital costs of the necessary public service covered by the development fee* (emphasis added).

The intent of this provision is to avoid potential "double payment" for capital facilities. Double payment occurs when new growth pays for the same capacity twice through the development fee and another revenue source. The Town does not plan to fund new growth's proportionate share of infrastructure capacity projects with debt, thus no credit for such future revenues is necessary for this development fee category.

As shown at the bottom of Figure 49, the capital cost per person is $215.64 while the capital cost per job is $49.34.

Figure 49: General Government Development Fee Calculation Factors

	Standards:	
Persons Per Household		
Single Family Detached	2.56	
Employees per 1,000 Sq Ft/Hotel Room		
Com / Shop Ctr 50,000 SF or less		2.86
Com / Shop Ctr 50,001-100,000 SF		2.50
Com / Shop Ctr 100,001-200,000 SF		2.22
Com / Shop Ctr over 200,001 SF		2.00
Office / Inst 25,000 SF or less		4.14
Office / Inst 25,001-50,000 SF		3.91
Office / Inst 50,001-100,000 SF		3.70
Office / Inst over 100,001 SF		3.49
Light Industrial		2.31
Warehousing		0.92
Manufacturing		1.79
Hotel (per room)		0.44
Cost Summary	Per Person	Per Job
Facilities	$179.47	$40.81
Land for Public Works Facilities	$19.71	$4.48
Vehicles	$9.33	$3.51
IIP and Development Fee Study	$7.13	$0.54
Total Capital Cost	$215.64	$49.34

Figure 50 lists the schedule of General Government Development Fees. For residential land uses, persons per household are multiplied by the capital cost per person (for Single Family Detached: 2.56 x $215.64 = $552). Nonresidential development fees are calculated by multiplying the number of employees per thousand square feet or hotel room by the capital cost per trip (for Commercial/Shopping Center with less than 50,000 square feet: 2.86 x $49.34 = $140).

Figure 50: General Government Development Fee Schedule

Development Fees

Residential	Per Housing Unit
Single Family Detached	$552
Nonresidential	**Per 1,000 Sq Ft/Hotel Room**
Com / Shop Ctr 50,000 SF or less	$140
Com / Shop Ctr 50,001-100,000 SF	$123
Com / Shop Ctr 100,001-200,000 SF	$109
Com / Shop Ctr over 200,001 SF	$98
Office / Inst 25,000 SF or less	$204
Office / Inst 25,001-50,000 SF	$193
Office / Inst 50,001-100,000 SF	$182
Office / Inst over 100,001 SF	$172
Light Industrial	$113
Warehousing	$45
Manufacturing	$88
Hotel (per room)	$21

Transportation

OVERVIEW

The Transportation IIP and Development Fee includes components for collector street improvements and the IIP and development fee study. Average weekday trip generation rates by type of development are multiplied by the capital cost per vehicle miles of travel (VMT) to yield the Transportation IIP and Development Fees. The methodology includes trip adjustment factors for commuting patterns, pass-by trips, and average trip length variation by type of land use.

All cost information is taken from the Town's Capital Improvement Plan.

TRIP GENERATION RATES

Trip generation rates are from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The Transportation Development Fees are based on average weekday vehicle trip ends. 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 the development fees, trip generation rates are adjusted to avoid double counting each trip at both the origin and destination points. Therefore, the basic trip adjustment factor is 50%. As discussed further below, the development fee methodology includes additional adjustments to make the fees more proportionate to the infrastructure demand for particular types of development.

ADJUSTMENT FOR PASS-BY TRIPS

Average Weekday Vehicle Trip Ends are from the reference book, *Trip Generation*, published by the Institute of Transportation Engineers (ITE) in 2008. A "trip end" represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip ends are calculated based on the number of units for residential development and per thousand square feet for nonresidential development. The ITE *Trip Generation* provides estimates, shown in Figure A-12, of the number of trips for each type of unit.

Trip rates are adjusted to avoid over-estimating the number of actual trips because one vehicle trip is counted in the trip rates of both the origination and destination points. A simple factor of 50% has been applied to the residential, institutional/government, office, and goods production categories.

The commercial category has a trip factor of less than 50% due to two characteristics of this land use. First, commercial development attracts vehicles as they pass-by on arterial and collector roads ("pass-by" trips). For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination.

A second adjustment for diverted linked trips is made to the commercial category. Diverted linked trips are trips that are attracted from the traffic volume on roads in the vicinity of commercial development but require a diversion from one road to another road to gain access to the commercial development. These trips add traffic to streets adjacent to the development, but do not add trips to a community's transportation network.

Using a 100,000 square foot shopping center as an example, pass-by trips account for 34% of total trips while diverted link trip account for an additional 24% of total trips. The remaining 42% of primary trips (100%-34%-24% = 42%) is adjusted by 50% to avoid over-estimating the number of actual trips because one vehicle trip is counted in the trip rates of both the origination and destination points. The total commercial trip adjustment factor for a 100,000 square foot shopping center is 21% (42% x 50% = 21%). Commercial trip adjustment factors with diverted link adjustments can be seen in Figure 51.

Figure 51: Shopping Center/Retail Trip Rates and Adjustment Factors

Floor Area in thousands (KSF)	All Commercial Trips (a)	Comm. Pass-by Trips (b)*	Comm. Diverted-Link Trips (c)**	Primary Comm. Trips (d=(a-(b+c))	Origin - Destination Adj. Factor (e)***	Commercial Trip Adj Factor (d x e)
10	100%	52%	24%	24%	50%	12%
25	100%	45%	24%	31%	50%	16%
50	100%	39%	24%	37%	50%	19%
100	100%	34%	24%	42%	50%	21%
200	100%	29%	24%	47%	50%	24%
400	100%	23%	24%	53%	50%	27%
800	100%	18%	24%	58%	50%	29%

* Based on data published by ITE in *Trip Generation Handbook* (2004), the best trendline correlation between pass-by trips and floor area is a logarithmic curve with the equation ((-7.6967*LN(KSF)) + 69.448).
** Based on data published by ITE in *Trip Generation Handbook* (2004).
*** To account for the origin-destination relationship of a trip, an adjustment factor of 50% is applied to the primary trips to account for only the trip destinations, i.e. the trips attracted to a land use.

AVERAGE TRIP LENGTH ADJUSTMENT BY LAND USE

The demand for street infrastructure is a function of both the number of vehicle trips and the distance traveled. Multiplying the number of vehicle trips by the average trip length (in miles) yields vehicle miles of travel (VMT). The Transportation Development Fee methodology includes a percentage adjustment to account for trip length variation by type of land use. As documented in Table 6 of the *National Household Travel Survey* (FHWA, 2001), vehicle trips from residential development are approximately 122% of the average trip length. Trips associated with residential development include home-based work trips plus social and recreational purposes. Conversely, shopping trips associated with commercial development are roughly 68% of the average trip length, while other nonresidential development typically accounts for trips that are 75% of the average trip length.

COLLECTOR STREETS

The collector streets component of the Transportation IIP and Development Fees includes the collector streets projects from the Town's CIP which add capacity to the transportation network. As shown in Figure 52, the adopted CIP lists collector streets projects totaling 28.82 lane miles with a planned cost of $9.02 million.

Figure 52: IIP for Planned Collector Street Projects

Project Number	*Project Title*	*Total Cost*	*Lane Miles*	*FY2009-10*	*FY2010-11*	*FY2011-12*	*FY2012-13*	*FY2013-14*	*FY2014-19*
3.0.0	Transportation - Bridges/Streets								
3.1.0	Small Area Transportation Plan	$125,000		$125,000					
3.2.10	Foothill Extension to Prescott Street	$60,000	0.22				$30,000	$30,000	
3.2.06	Rocky Hill Road inclusion into Town Road System	$1,150,005	5.00	$383,000	$153,400	$153,400	$153,400	$153,400	$153,400
3.2.13	Dewey Road	$685,003	2.50	$100,000	$292,500	$292,500			
3.2.08	Prescott Dells inclusion into Town Road System	$1,515,006	5.50	$505,000	$202,000	$202,000	$202,000	$202,000	$202,000
3.2.11	Black Canyon Highway inclusion into Town System	$1,230,002	2.40			$115,000	$115,000	$500,000	$500,000
3.2.02	Connect Shirley Lane to Highway 69	$1,100,006	5.60		$366,667	$366,667	$366,667		
3.2.03	Iron King Road inclusion into Town Road System	$915,002	1.72		$305,000	$305,000	$305,000		
3.2.12	Cranberry Road	$285,002	1.50			$285,000			
3.2.05	Aqua Fria Crossing @ Prescott St	$390,000	0.07	$125,000	$265,000				
3.2.09	Meadow to Clearview connection	$325,001	0.86				$25,000	$150,000	$150,000
3.2.07	Sierra Extension from Trails End to Green Valley Way	$130,000	0.30				$30,000	$50,000	$ 50,000
3.2.14	Old Black Canyon Highway	$110,001	0.75			$25,000	$85,000		
3.2.04	Iron King Road North to Prescott Dells Ranch Road	$1,000,002	2.40			$300,000	$350,000	$350,000	
	TOTAL	**$9,020,029**	**28.82**	**$1,238,000**	**$1,584,567**	**$2,044,567**	**$1,662,067**	**$1,435,400**	**$1,055,400**

For the planned collector street projects, *average cost approach* is used for planned capacity improvements that result from both existing and future development, as all of these planned projects do. Under this approach, costs are conservatively allocated to both new and existing development utilizing the capacity of these projects through FY2031 (estimated year of build-out) to ensure that new growth pays only its share of the costs. The capacity of these projects is measured in vehicle miles of travel (VMT) on the network of collector streets in Dewey-Humboldt. Four factors (shown in Figure 51) go into this VMT analysis:

1. **Projected vehicle trips**: based on current vehicle trips and projected residential and nonresidential growth.
2. **Lane miles:** total lane miles including planned projects.
3. **Lane capacity:** Level of service D has been assumed, which is a lane capacity standard of 7,600 vehicles per lane.
4. **Average trip length:** Knowing the increase in vehicle trips, planned collector lane miles, and lane capacity, it is possible to derive the average trip length on the planned collector streets from new and existing residential and nonresidential growth in Dewey-Humboldt. Because the VMT calculations include the same adjustment factors used in the development fee calculations (i.e., residential commuting adjustment, commercial pass-by adjustment and average trip length adjustment by type of land use), the average trip length is determined through a series of iterations using spreadsheet software. As shown in Figure 53, the average trip length on the recently completed and planned street projects by new and existing residential and nonresidential development is 4.26 miles.

Figure 53: Collector Street Capacity Analysis

INPUT VARIABLES

Single Family Ave. Weekday Trips/Unit	9.57
Commercial Ave. Weekday Trips/1,000 SF	152.03
Office Ave. Weekday Trips/1,000 SF	22.66
Education/Government Ave. Weekday Trips/1,000 SF	22.66
Industrial/Flex Ave. Weekday Trips/1,000 SF	6.97
Residential Trip Adjustment Factor	63%
Commercial Trip Adjustment Factor	12%
Other Nonresidential Trip Adjustment Factor	50%
Average Trip Length Citywide	**4.26**
Residential Trip Length	122%
Commercial Trip Length	68%
Other Nonresidential Trip Length	75%
City Collector Capacity Per Lane Per Day @ LOS D**	7,600

	Fiscal Year=>					*5 Year Increments*				
Dewey-Humboldt, Arizona	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2020*	*2025*	*2030*	*2031*
DEMAND DATA*										
SINGLE FAMILY UNITS	1,991	2,046	2,153	2,298	2,472					
COMMERCIAL SQUARE FOOTAGE (1,000's)	47	63	78	94	110	125	203	281	358	374
OFFICE SQUARE FOOTAGE (1,000's)	20	27	34	41	47	54	88	121	155	161
EDUCATION/GOV'T SQUARE FOOTAGE (1,000's)	17	17	17	17	17	17	17	17	17	17
INDUSTRIAL/FLEX SQUARE FOOTAGE (1,000's)	131	174	217	260	304	347	562	777	993	1,036
SINGLE FAMILY TRIPS	11,955	12,284	12,930	13,800	14,844	16,030	23,495	32,713	43,132	45,332
COMMERCIAL TRIPS	865	1,148	1,432	1,716	2,000	2,283	3,702	5,121	6,540	6,823
OFFICE TRIPS	232	308	384	460	536	612	992	1,372	1,752	1,828
EDUCATION/GOVERNMENTAL TRIPS	190	190	190	190	190	190	190	190	190	190
INDUSTRIAL/FLEX TRIPS	457	608	758	908	1,058	1,208	1,959	2,709	3,460	3,610
TOTAL COLLECTOR TRIPS	13,698	14,537	15,693	17,073	18,627	20,323	30,338	42,105	55,073	57,783
VMT	67,434	70,689	75,588	81,654	88,624	96,334	142,847	198,469	260,330	273,308
COLLECTOR LANE MILES	9	9	10	11	12	13	19	26	34	36
ANNUAL LANE MILES NEEDED	0	1	1	1	1	1	1	2	2	2
CUMULATIVE LANE MILES NEEDED	0	1	2	3	4	5	11	19	27	**28.82**

** See Appendix A for complete discussion of development projections.*

***Source: Florida's Quality/Level of Service Handbook. Level of service D for non-state signalized roadways in developed areas less than 5,000 population.*

COST PER VMT FOR COLLECTOR STREETS PROJECTS

The total cost of the planned collector street projects which are the result of both new and existing development totals $9,020,029. This figure is divided by the total number of Townwide VMT's for new and existing development on these projects through FY2031 (273,308) which is taken from Figure 53 above. This results in a cost per VMT of $33.00. For each land use category in the schedule of development fees, this cost per VMT is multiplied by the average trip length (in this case 4.26) and the land use's trip adjustment factor to determine this component's portion of the transportation development fee.

Figure 54: Planned Collector Street Improvements Cost per VMT

Project Number	*Project Title*	*Total Cost*	*Lane Miles*
3.0.0	Transportation - Bridges/Streets		
3.1.0	Small Area Transportation Plan	$125,000	
3.2.10	Foothill Extension to Prescott Street	$60,000	0.22
3.2.06	Rocky Hill Road inclusion into Town Road System	$1,150,005	5.00
3.2.13	Dewey Road	$685,003	2.50
3.2.08	Prescott Dells inclusion into Town Road System	$1,515,006	5.50
3.2.11	Black Canyon Highway inclusion into Town System	$1,230,002	2.40
3.2.02	Connect Shirley Lane to Highway 69	$1,100,006	5.60
3.2.03	Iron King Road inclusion into Town Road System	$915,002	1.72
3.2.12	Cranberry Road	$285,002	1.50
3.2.05	Aqua Fria Crossing @ Prescott St	$390,000	0.07
3.2.09	Meadow to Clearview connection	$325,001	0.86
3.2.07	Sierra Extension from Trails End to Green Valley Way	$130,000	0.30
3.2.14	Old Black Canyon Highway	$110,001	0.75
3.2.04	Iron King Road North to Prescott Dells Ranch Road	$1,000,002	2.40
	TOTAL	**$9,020,029**	**28.82**

VMT's at capacity 273,308
Cost per VMT $33.00

IIP AND DEVELOPMENT FEE STUDY

The cost of preparing the Transportation IIP and Development Fee Study is also included in the fee calculations. The Town should update its IIP and development fees every three years. As we do with many of our development fee clients in Arizona, TischlerBise has included the cost of preparing the current IIP and development fee in the fee calculations in order to create a source of funding to conduct this regular update. This cost ($11,900) is allocated using the proportionate share factors over the projected increase in residential and nonresidential trips over the next three years. This results in a development fee study of $3.97 per vehicle trip.

Figure 55 shows the IIP for the Transportation IIP and Development Fee Study. The projected cost of this study totals $11,900 over the next three years for new development.

Figure 55: Transportation IIP and Development Fee Study IIP

NEW DEVELOPMENT PROJECTIONS

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*
Projected Residential Vehicle Trips	9,527	9,789	10,304	10,997	11,829	12,775
Projected Nonresidential Vehicle Trips	1,743	2,253	2,763	3,273	3,783	4,293
						5 Year Total
Net Change in Residential Demand	262	515	693	832	946	3,248
Net Change in Nonresidential Demand	510	510	510	510	510	2,549

TRANSPORTATION IIP AND DEVELOPMENT FEE STUDY

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	
Planned Study Cost per Trip	$3.97	$3.97	$3.97	$3.97	$3.97	
						5 Year Total
IIP and Development Fee Study Cost For Res. Development	$1,041	$2,041	$2,750	$3,301	$3,751	$12,884
IIP and Development Fee Study Cost For Nonres. Development	$2,023	$2,023	$2,023	$2,023	$2,023	$10,113
TOTAL	$3,063	$4,064	$4,773	$5,323	$5,773	$22,997

TRANSPORTATION DEVELOPMENT FEE

Developers may be eligible for site-specific credits or reimbursements only if they provide system improvements that have been included in the Transportation IIP and Development Fee calculation schedule. Specific policies and procedures related to site-specific credits for system improvements are addressed in the ordinance that establishes the Town's fees. Project improvements normally required as part of the development approval process are not eligible for credits against development fees.

The development fee enabling legislation for municipalities (A.R.S. 9-463.05) includes the following provision:

> 4. The amount of any development fees assessed pursuant to this section must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development. The municipality, in determining the extent of the burden imposed by the development, shall consider, among other things, the contribution made or to be made in the future in cash or by taxes, fees or assessments by the property owner towards the *capital costs of the necessary public service covered by the development fee* (emphasis added).

The intent of this provision is to avoid potential "double payment" for capital facilities. Double payment occurs when new growth pays for the same capacity twice through the development fee and another revenue source. The Town does not plan to fund new growth's proportionate share of infrastructure capacity projects with debt, thus no credit for such future revenues is necessary for this development fee category.

As shown at the bottom of Figure 55, the capital cost is $175.47 per residential trip, $97.94 per nonresidential vehicle trip for commercial and shopping centers, and $107.78 per nonresidential trip for all other nonresidential uses.

Figure 56: Transportation Development Fee Calculation Factors

	Residential	Commercial / Shopping Ctrs	Other Nonres
Weekday Vehicle Trip Ends			
Residential (per Housing Unit)			
Single Family Detached	9.57		
Nonresidential (per Square Foot of Floor Area/Hotel Room)			
Com / Shop Ctr 50,000 SF or less		86.56	
Com / Shop Ctr 50,001-100,000 SF		67.91	
Com / Shop Ctr 100,001-200,000 SF		53.28	
Com / Shop Ctr over 200,001 SF		41.80	
Office / Inst 25,000 SF or less			18.35
Office / Inst 25,001-50,000 SF			15.65
Office / Inst 50,001-100,000 SF			13.34
Office / Inst over 100,001 SF			11.37
Light Industrial			6.97
Warehousing			3.56
Manufacturing			3.82
Hotel (per room)			5.63
Trip Adjustment Factors			
Residential	63%		
Com / Shop Ctr 50,000 SF or less		19%	
Com / Shop Ctr 50,001-100,000 SF		21%	
Com / Shop Ctr 100,001-200,000 SF		24%	
Com / Shop Ctr over 200,001 SF		27%	
All Other Nonresidential Development			50%
Cost Summary			
Planned Arterial Cost Summary			
Collectors - Ave. Trip Length (miles)	4.26	4.26	4.26
Average Trip Length Adjustment	122%	68%	75%
Planned Collector Cost Per VMT	$33.00	$33.00	$33.00
Planned Collector Cost for Ave. Length Trip	**$171.50**	**$95.59**	**$105.43**
Development Fee Study Cost Per Trip	**$3.97**	**$2.35**	**$2.35**
Net Capital Cost Per Trip	**$175.47**	**$97.94**	**$107.78**

The input variables listed above are used to derive the development fees shown in Figure 57 below. The development fees are the product of the trip generation rates multiplied by the trip adjustment factors multiplied by the net capital cost per trip. For example, the development fee for a single-family detached house is 9.57 multiplied by 0.63 multiplied by $175.47, which equals $1,057 per unit.

Figure 57: Transportation Development Fee Schedule

Development Fees	**Residential**	**Commercial / Shopping Ctrs**	**Other Nonres**
Residential (per housing unit)			
Single Family	$1,057		
Nonresidential Per 1,000 Square Feet of Floor Area/Hotel Room			
Com / Shop Ctr 50,000 SF or less		$1,611	
Com / Shop Ctr 50,001-100,000 SF		$1,397	
Com / Shop Ctr 100,001-200,000 SF		$1,252	
Com / Shop Ctr over 200,001 SF		$1,105	
Office / Inst 25,000 SF or less			$989
Office / Inst 25,001-50,000 SF			$843
Office / Inst 50,001-100,000 SF			$719
Office / Inst over 100,001 SF			$613
Light Industrial			$376
Warehousing			$192
Manufacturing			$206
Hotel (per room)			$303

Implementation and Administration

As specified in the Development Fees Act, there are certain accounting requirements that must be met by the Town. Monies received shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by ARS 9-463.05. Interest earned on monies in the separate fund shall be credited to the fund.

The Town will prepare an annual report that will keep government and private sector leaders informed of the performance of development fees. The report will contain basic information such as the revenue generated by each type of public facility. At the time of the annual report, suggested improvements can be acted upon and necessary updates incorporated in the adopted ordinance.

All costs in the development fee calculations are given in current dollars with no assumed inflation rate over time. Necessary cost adjustments can be made as part of the recommended annual evaluation and update of development fees. TischlerBise recommends using the Engineering News Record *Construction Cost Index*. This index could be applied against the calculated development fee. If cost estimates change significantly the Town should redo the fee calculations.

Residential development categories are based on data from the 2000 U.S. Census Summary File 3 for Dewey-Humboldt. Specifically:

Single Family Detached – units in structure: 1-detached, owner and renter occupied.

Nonresidential development categories are based on land use classifications from the book *Trip Generation Manual* (ITE, 2003). A summary description of each development category is provided below.

Shopping Center (820) – A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center provides on-site parking facilities sufficient to serve its own parking demands. Shopping centers may contain non-merchandizing facilities, such as office buildings, movie theaters, restaurants, post offices, banks, health clubs and recreational facilities. In addition to the integrated unit of shops in one building or enclosed around a mall, many shopping centers include out-parcels. For smaller centers without an enclosed mall or peripheral buildings, the Gross Leasable Area (GLA) may be the same as the Gross Floor Area (GFA) of the building.

General Office (710) – A general office building houses multiple tenants including, but not limited to, professional services, insurance companies, investment brokers and tenant services such as banking, restaurants and service retail facilities. In the development fees study, this category is used as a proxy for institutional uses that may have more specific land use codes.

Light Industrial (110) – Light industrial facilities usually employ fewer than 500 persons and have an emphasis on activities other than manufacturing. Typical light industrial activities include, but are not limited to printing plants, material-testing laboratories and assembling of data processing equipment.

Warehousing (150) – Warehouses are primarily devoted to the storage of materials.

Manufacturing (140) – In manufacturing facilities, the primary activity is the conversion of raw materials or parts into finished products.

Hotel (320) **-** A place of lodging that provides sleeping accommodations and often a restaurant. They offer free on-site parking and provide little or no meeting space and few (if any) supporting facilities.

For development types not shown above, Town staff may use the most appropriate rates from the ITE manual or rates from approved local transportation studies or observed data.

Appendix A – Demographic Estimates and Development Projections

TischlerBise has prepared documentation on current demographic *estimates* and development *projections* for both residential and nonresidential development that will be used in the infrastructure improvement plan (IIP) and development fee study. The demographic data estimates are as of July 1, 2009, the start of FY2010. They are used in calculating current levels-of-service (LOS) being provided to existing development by the current infrastructure in the Town. The development *projections* are used for calculating the LOS to be provided to future development by planned capital projects or existing infrastructure that was oversized in anticipation of new development. The development projections are also used in forecasting the amount and cost of infrastructure required by new development that will be documented in the IIP. Our recommended approach is to forecast housing units and employment (by place of work) and then derive all other demand factors from these key demand indicators.

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

HOUSING UNIT ESTIMATE

According to the Arizona Department of Economic Security's (DES) 2008 population estimate, there are 1,978 single family units in the Town of Dewey-Humboldt. The Town has issued 13 building permits in FY2008-09 to date resulting in a total of 1,991 housing units. It is assumed that this will be the total on July 1, 2009. The Town reports that all housing units are single family.

Figure A-1: Housing Unit Estimate

	As of July 1, 2008*	Permits Issued FY2008-09**	Total Housing Units, July 1, 2009
Single Family Units	1,978	13	1,991

**Arizona Department of Economic Security*
***Town of Dewey-Humboldt*

POPULATION ESTIMATE

The DES estimate of the July 1, 2008 population is 4,452. To estimate the population added since then, the number of households is determined based on the residential permits issued in FY2008-09

and the DES vacancy rate (13 x (1-0.12) = 11 occupied units). The number of occupied units is multiplied by the DES and Town estimate of persons per household to estimate the population added in FY2008-09: 11 x 2.56 = 29. Thus, the total population is 4,481 (4,452 + 29).

Figure A-2: Population Estimate

Permits Issued FY2008-09*	Vacancy Rate**	Occuppied Units***	Persons Per Household**	Population Added, FY2008-09
13	12%	11	2.56	29

**Town of Dewey-Humboldt*
***Arizona Department of Economic Security*
****Calculated by 13 x (1 - 0.12) = 11*

	As of July 1, 2008*	Population Added in FY2008-09	Total Population, July 1, 2009
Population	4,452	29	4,481

**Arizona Department of Economic Security*

HOUSING UNIT PROJECTIONS

Four methods of calculating housing unit projections were considered: average residential building permits, annual growth rate, linear projection of 22-year build-out, and a 22-year build-out with phased-in growth. The results of each are shown below.

Alternative one is based on the average number of residential building permits on an annual basis during the period FY2006 to FY2009: 66 building permits annually. Alternative one assumes that the Town will continue to have an average of 66 building permits per year resulting in a total increase of 1,249 residential units over twenty years.

The Town experienced an average annual growth rate of 3.6% for new residential units during the period 2005 to 2008. Alternative two assumes that this growth rate will continue for the next twenty years resulting in an average of 101 new units annually and 1,923 units total.

Figure A-3: Housing Unit Projections

									five year increments					
fiscal year -->	2006	2007	2008	2009	2010	2011	2012	2013	2014	2019	2024	2029	FY2009-FY2029	
					projection years =>								*Total*	*Annual*
Alternatives					1	2	3	4	5	10	15	20		
1. Avg. Number of Residential Bldg Permits Projection [1]	1,813	1,905	1,959	1,978	1,991	2,057	2,123	2,188	2,254	2,583	2,912	3,240	*1,249*	*66*
2. Annual Growth Rate Projection [2]	5.07%	2.83%	0.97%	0.66%	1,991	2,038	2,087	2,137	2,188	2,461	2,769	3,115	*1,124*	*59*
3. 22-Year Build-out Projection [3]					1,991	2,254	2,516	2,779	3,042	4,355	5,669	6,982	*4,991*	*263*
4. 22-Year Build-out Projection with Phased-In Growth [4]					1,991	2,046	2,153	2,298	2,472	3,637	5,123	6,823	*4,832*	*254*

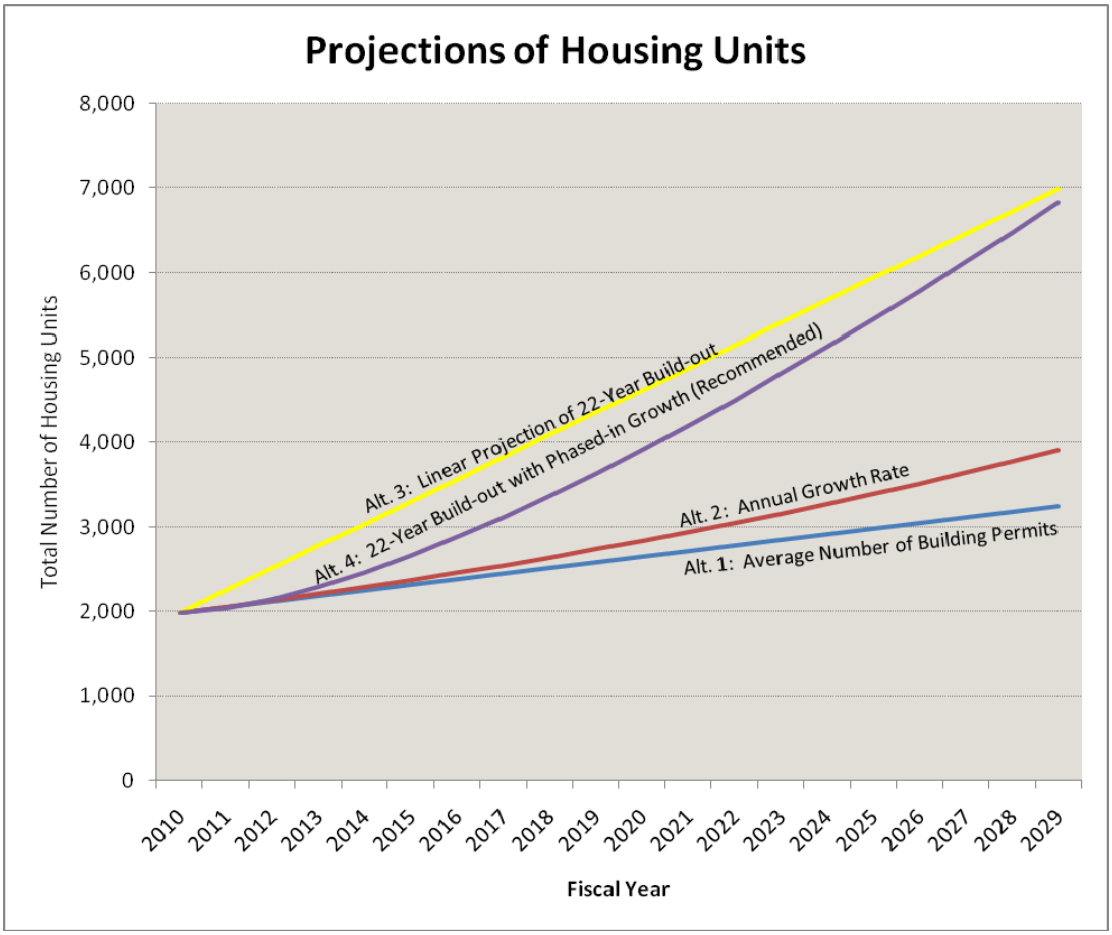
[1] *Linear projection based on 66 new housing units per year, which is the average annual number of new residential units during the 2005 to 2008 period according to the City's building permit records.*

[2] *Compound annual growth rate of 3.6% percent based on 2005 to 2008 housing increase.*

[3] *Linear projection based on 22 year absorption of the housing units to build-out.*

[4] *Logarithmic projection based on 22 year absorption of the housing units to build-out.*

Figure A-4: Comparison of Four Projections of Housing Units



Alternatives three and four are based on a calculation of build-out that incorporates the Town Manager's estimation that the Town population will grow by 10,000 in the next fifteen years and the General Plan's estimation that 6,024 acres of the existing town will be developed with residential units at two given densities.

To calculate how many housing units could be built within this 6,024 acres, the number of acres occupied by existing housing units had to be calculated (see Figure A-4 below). Two assumptions from the General Plan are used in this calculation: (1) 86% of housing units will be low density and 14% will be medium density and (2) low density units will be on 70,000 square foot lots while medium density units will be on 18,000 square foot lots. Thus, the current housing units were allocated with 86% as low density and 14% as medium density. Next, the number of units is multiplied by the lot square footage to determine the land footprint of existing housing units (for low density: 1,712 units x 70,000 square feet per unit = 119,858,200 square feet of land). These square footage factors were then converted into acres.

Figure A-5: Acreage of Existing Housing Units

	Allocation	*1 Dwelling Unit per (square feet)*	*Existing Housing Units*	*Footprint of Existing Housing Units (square feet)*	*Footprint of Existing Housing Units (acres)*
Low Density	86%	70,000	1,712	119,858,200	2,752
Medium Density	14%	18,000	279	5,017,320	115
Total	100%		1,991	124,875,520	2,867

Next, the square feet of land available for development is determined so that this can be converted into the number of new units needed to reach build-out. The allocation of low and medium density is applied to the total acres allocated in the General Plan for residential development resulting in 7,646 acres for low density and 1,245 for medium density. The land footprint of existing housing units is subtracted from this to find the acreage available for development: for low density 7,646 – 2,752 = 4,895. The acres are then converted into square feet resulting in 213 million square feet of land available for low density residential development and 49 million square feet available for medium density development.

Figure A-6: Land Available for Residential Development

	*Allocation**	*Total Residential Acres at Buildout**	*Footprint of Existing Housing Units (acres)***	*Acreage Available for Development*	*Square Feet Available for Development****
Low Density	86%	7,646	2,752	4,895	213,212,886
Medium Density	14%	1,245	115	1,130	49,203,554
Total	100%	8,891	2,867	6,024	262,416,440

**From the Town's General Plan, page 15.*
***From Figure A-4.*
**** 1 acre = 43,560 square feet.*

The number of housing units to build-out is calculated by dividing the square feet available for development by each of square feet per dwelling unit factors. Thus, 3,046 low density and 2,734 medium density housing units can be built in Dewey-Humboldt before build-out is reached.

Figure A-7: Housing Units to Build-Out

	*Square Feet Available for Development**	*1 Dwelling Unit per (square feet)***	*Housing Units to Build-out*
Low Density	213,212,886	70,000	3,046
Medium Density	49,203,554	18,000	2,734
Total	262,416,440		5,779

**From Figure A-5.*
***From the Town's General Plan.*

These 5,779 units represent a population growth of 14,795 between now and build-out (5,779 x 2.56 PPH = 14,794). Given the Town Manager's estimate that the Town population will increase by 10,000 people in the next fifteen years (667 per year), build-out will occur in 22 years (14,794 total population growth / 667 persons per year = 22 years).

The alternative three growth projection seen in Figure A-3 assumes that growth over this 22-year period will be constant at 263 units per year with 4,991 units built over twenty years and the full 5,779 built by 2031.

Because the number of building permits issued since the Town's incorporation in 2005 has not been greater than 92, an alternate approach to projecting housing units to build-out is also examined: a gradual increase in the number of units per year. Alternative four does this as can be seen in Figure A-7. Alternative four results in an average of 254 new housing units per year and a total of 4,832 new units over twenty years.

Because alternative four is both a reasonable assumption of growth and consistent with the Town Manager's estimation of growth, TischlerBise recommends using this calculation method for the development fee study. As such, all other residential projections in this memo are based on the alternative four calculation.

POPULATION PROJECTION

To project the future population of Dewey-Humboldt, TischlerBise multiplied the increase in housing units for each year by the 2.56 persons per household (PPH) figure. The results are shown in Figure A-8 below.

Figure A-8: Population Projection

							five year increments					
	PPH	*start of FY-->*	2010	2011	2012	2013	2014	2019	2024	2029	2008-2028	
											Total	*Annual*
Population	2.56		4,481	4,622	4,897	5,268	5,713	8,694	12,500	16,851	*12,370*	*651*

NONRESIDENTIAL MULTIPLIERS

In addition to data on residential development, the calculation of development fees requires data on nonresidential development in Dewey-Humboldt. To convert employment projections to gross floor area of nonresidential development, average square feet per employee multipliers are used. The multipliers shown in Figure A-9 are derived from national data published by the Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI).

The multipliers are also used to calculate the number of average weekday vehicle trips from nonresidential development in Dewey-Humboldt.

Figure A-9: Floor Area per employee and Nonresidential Trip Rates

ITE Code	*Land Use / Size*	*Demand Unit*	*Wkdy Trip Ends Per Dmd Unit**	*Wkdy Trip Ends Per Employee**	*Emp Per Dmd Unit***	*Sq Ft Per Emp*
Commercial / Shopping Center						
820	10K gross leasable area	1,000 Sq Ft	152.03	na	3.33	300
820	25K gross leasable area	1,000 Sq Ft	110.32	na	3.33	300
820	50K gross leasable area	1,000 Sq Ft	86.56	na	2.86	350
820	100K gross leasable area	1,000 Sq Ft	67.91	na	2.50	400
820	200K gross leasable area	1,000 Sq Ft	53.28	na	2.22	450
820	400K gross leasable area	1,000 Sq Ft	41.80	na	2.00	500
857	Discount Club	1,000 Sq Ft	41.80	32.21	1.30	771
General Office						
710	10K gross floor area	1,000 Sq Ft	22.66	5.06	4.48	223
710	25K gross floor area	1,000 Sq Ft	18.35	4.43	4.14	241
710	50K gross floor area	1,000 Sq Ft	15.65	4.00	3.91	256
710	100K gross floor area	1,000 Sq Ft	13.34	3.61	3.70	271
710	200K gross floor area	1,000 Sq Ft	11.37	3.26	3.49	287
710	Average	1,000 Sq Ft	11.01	3.32	3.32	302
Other Nonresidential						
770	Business Park***	1,000 Sq Ft	12.76	4.04	3.16	317
760	Research & Dev Center	1,000 Sq Ft	8.11	2.77	2.93	342
610	Hospital	1,000 Sq Ft	16.50	5.20	3.17	315
565	Day Care	student	4.48	28.13	0.16	na
550	University/College	student	2.38	9.13	0.26	na
530	High School	student	1.71	19.74	0.09	na
520	Elementary School	student	1.29	15.71	0.08	na
520	Elementary School	1,000 Sq Ft	15.43	15.71	0.98	1,018
320	Lodging	room	5.63	12.81	0.44	na
150	Warehousing	1,000 Sq Ft	3.56	3.89	0.92	1,093
140	Manufacturing	1,000 Sq Ft	3.82	2.13	1.79	558
110	Light Industrial	1,000 Sq Ft	6.97	3.02	2.31	433

** Trip Generation , Institute of Transportation Engineers, 2008.*

*** Employees per demand unit calculated from trip rates, except for Shopping Center data, which are derived from Development Handbook and Dollars and Cents of Shopping Centers, published by the Urban Land Institute.*

**** According to ITE, a Business Park is a group of flex-type buildings served by a common roadway system. The tenant space includes a variety of uses with an average mix of 20-30% office/commercial and 70-80% industrial/warehousing.*

The square feet per employee multipliers shown in the last column on the right of Figure A-9 are used to convert employment projections into thousands of square feet (KSF) of nonresidential floor area. For retail jobs, a prototype development is a building or shopping center of approximately 10,000 square feet. This size shopping center has an average of 300 square feet per employee. A prototypical office development is typically located in a building of approximately 10,000 square feet with an average of 223 square feet per employee. For industrial/flex jobs, the light industrial category of 433 square feet per job is used.

JOB AND NONRESIDENTIAL SQUARE FOOTAGE ESTIMATES

Because the jobs figures obtained from ESRI were counted from an area larger than the Town, total jobs have been estimated using the employee to population ratio from ESRI of 0.14 and the Town's current population of 4,481: 0.14 x 4,481 = 627 total jobs. The total jobs were then allocated by type using the allocation of jobs shown in the ESRI report. This breakdown can be used as an approximation of jobs by sector.

Figure A-10 shows the total number of jobs and percentage distribution by sector. The commercial sector includes retail and half of the services jobs while the office sector includes finance, real estate, and insurance jobs as well as half of the services jobs. Agriculture, construction, mining, other basic industries, standard manufacturing, transportation and distribution, and wholesale trade make up the industrial/flex sector.

Figure A-10: Jobs by Type, July 1, 2009

Employee to Population Ratio*	0.14
Current Population**	4,481
Derived Number of Total Jobs	627

	*Allocation of Jobs by Type**	*Number of Jobs*
Commercial	25%	158
Office	15%	92
Education/Government	12%	75
Industrial/Flex	48%	303
TOTAL	100%	627

**From ESRI's Business Analyst report for Dewey-Humboldt and surrounding area.*
***From Figure A-2.*

The total number of jobs can then be used to calculate the total nonresidential square feet using the square feet per employee multipliers (see Figure A-11).

Figure A-11: Total Nonresidential Square Feet, July 1, 2009

	*Jobs**	*SF/Employee***	*Square Feet*
Commercial	158	300	47,390
Office	92	223	20,443
Education/Government	75	223	16,735
Industrial/Flex	303	433	131,251
TOTAL	627		215,819

**From Figure A-10*
***From Figure A-9*

JOB AND NONRESIDENTIAL SQUARE FOOTAGE PROJECTIONS

The Town Manager estimates that there will be approximately 30 acres of nonresidential development over the next five years. Thus, TischlerBise used this estimate and the current allocation of nonresidential jobs (holding education/government constant) to forecast nonresidential development over the next twenty years.

First, as shown in Figure A-12, the estimated 30 acres of development over the next five years is allocated to commercial, office, and industrial/flex and then converted into square feet of land by multiplying 30 acres by 43,560 square feet per acre to get 1.3 million square feet.

Figure A-12: Nonresidential Development over the Next Five Years

	*Allocation of Future Development**	*Expected Development over the Next 5 Years (acres)*	*Expected Land Development over the Next 5 Years (square feet)***
Commercial	24%	7.14	311,072
Office	10%	3.08	134,189
Education/Government	0%	-	-
Industrial/Flex	66%	19.78	861,539
TOTAL	100%	30	1,306,800

**Allocation of jobs from Figure A-10 while holding education/government constant.*
*** 1 acre = 43,560 square feet.*

A floor-to-area ratio of 0.25 is next used to convert this expected land development over the next five years into an expected 326,700 square feet of building area to be developed over the next five years. This building area is then divided by five to get an average annual floor area of development of 65,340 square feet total—15,554 of commercial, 6,709 of office, and 43,077 of industrial/flex.

Figure A-12: Annual Development of Nonresidential Square Footage

	Expected Land Development over the Next 5 Years (square feet)	*Floor to Area Ratio*	*Expected Floor Area Development over the Next 5 Years (square feet)*	*Expected Annual Floor Area Development (square feet)*
Commercial	311,072	0.25	77,768	15,554
Office	134,189	0.25	33,547	6,709
Education/Government	-	-	-	-
Industrial/Flex	861,539	0.25	215,385	43,077
TOTAL	1,306,800		326,700	65,340

It is assumed that this average amount of nonresidential development will remain constant over the next twenty years, as shown in the projections in Figure A-13. In reality, nonresidential development does not typically occur in such a consistent manner but in irregular intervals with minor construction followed by large-scale projects.

Figure A-13: Projection of Nonresidential Square Footage, FY2010-FY2029

					five year increments				FY2010 -FY2029	
start of FY-->	*2010*	*2011*	*2012*	*2013*	*2014*	*2019*	*2024*	*2029*	*Total*	*Annual*
Commercial	47,390	62,944	78,497	94,051	109,604	187,372	265,140	342,908	*295,518*	*15,554*
Office	20,443	27,152	33,862	40,571	47,281	80,828	114,375	147,923	*127,480*	*6,709*
Education/Government	16,735	16,735	16,735	16,735	16,735	16,735	16,735	16,735	*0*	*0*
Industrial/Flex	131,251	174,328	217,405	260,481	303,558	518,943	734,328	949,713	*818,462*	*43,077*
TOTAL	215,819	281,159	346,499	411,839	477,179	803,879	1,130,579	1,457,279	*1,241,460*	*65,340*

The average annual floor area of development is divided by the estimate of square feet per employee from Figure A-9 to determine the average annual increase in jobs as shown in Figure A-14.

Figure A-14: Annual Increase in Jobs

	Expected Annual Floor Area Development (square feet)	*SF/ Employee**	*Jobs Added per Year*
Commercial	15,554	300	52
Office	6,709	223	30
Education/Government	-	223	0
Industrial/Flex	43,077	433	99
TOTAL	65,340		181

**From Figure A-9*

It is assumed that job growth will remain at this level for the next twenty years as shown in Figure A-15.

Figure A-15: Projection of Jobs, FY2010-FY2029

					five year increments				FY2010 -FY2029	
start of FY-->	*2010*	*2011*	*2012*	*2013*	*2014*	*2019*	*2024*	*2029*	*Total*	*Annual*
Commercial	158	210	262	314	365	625	884	1,143	*985*	*52*
Office	92	122	152	182	212	362	512	662	*571*	*30*
Education/Government	75	75	75	75	75	75	75	75	*0*	*0*
Industrial/Flex	303	402	502	601	701	1,198	1,695	2,192	*1,889*	*99*
TOTAL	627	809	990	1,171	1,353	2,259	3,166	4,072	*3,445*	*181*

AVERAGE DAILY VEHICLE TRIP END ESTIMATES AND PROJECTIONS

Average Weekday Vehicle Trip Ends are from the reference book, *Trip Generation*, published by the Institute of Transportation Engineers (ITE) in 2008. A "trip end" represents a vehicle either entering or exiting a development (as if a traffic counter were placed across a driveway). Trip ends are calculated based on the number of units for residential development and per thousand square feet for nonresidential development. The ITE *Trip Generation* provides estimates, shown in Figure A-12, of the number of trips for each type of unit.

Trip rates are adjusted to avoid over-estimating the number of actual trips because one vehicle trip is counted in the trip rates of both the origination and destination points. A simple factor of 50% has been applied to the residential, institutional/government, office, and goods production categories.

The commercial category has a trip factor of less than 50% due to two characteristics of this land use. First, commercial development attracts vehicles as they pass-by on arterial and collector roads

("pass-by" trips). For example, when someone stops at a convenience store on their way home from work, the convenience store is not their primary destination.

A second adjustment for diverted linked trips is made to the commercial category. Diverted linked trips are trips that are attracted from the traffic volume on roads in the vicinity of commercial development but require a diversion from one road to another road to gain access to the commercial development. These trips add traffic to streets adjacent to the development, but do not add trips to a community's transportation network.

Using a 100,000 square foot shopping center as an example, pass-by trips account for 34% of total trips while diverted link trip account for an additional 24% of total trips. The remaining 42% of primary trips (100%-34%-24% = 42%) is adjusted by 50% to avoid over-estimating the number of actual trips because one vehicle trip is counted in the trip rates of both the origination and destination points. The total commercial trip adjustment factor for a 100,000 square foot shopping center is 21% (42% x 50% = 21%). Commercial trip adjustment factors with diverted link adjustments can be seen in Figure A-16.

Figure A-16: Trip Rate Adjustment Factors for ITE Land Use Code 820 (Shopping Centers)

Floor Area in thousands (KSF)	All Commercial Trips (a)	Comm. Pass-by Trips (b)*	Comm. Diverted-Link Trips (c)**	Primary Comm. Trips (d=(a-(b+c))	Origin - Destination Adj. Factor (e)***	Commercial Trip Adj Factor (d x e)
10	100%	52%	24%	24%	50%	12%
25	100%	45%	24%	31%	50%	16%
50	100%	39%	24%	37%	50%	19%
100	100%	34%	24%	42%	50%	21%
200	100%	29%	24%	47%	50%	24%
400	100%	23%	24%	53%	50%	27%
800	100%	18%	24%	58%	50%	29%

* Based on data published by ITE in *Trip Generation Handbook* (2004), the best trendline correlation between pass-by trips and floor area is a logarithmic curve with the equation ((-7.6967*LN(KSF)) + 69.448).
** Based on data published by ITE in *Trip Generation Handbook* (2004).
*** To account for the origin-destination relationship of a trip, an adjustment factor of 50% is applied to the primary trips to account for only the trip destinations, i.e. the trips attracted to a land use.

TischlerBise has taken these trip end estimates and adjustment factors to calculate the average weekday trip ends for each category of residential and nonresidential development in Figure A-17 below.

Figure A-17: Vehicle Trip Ends and Pass-by Trip Percentages

Residential Vehicle Trips on an Average Weekday (2009)

Residential Units	*Assumptions*	
Single Family	1,991	
Average Weekday Vehicle Trip Ends per Unit*	Trip Rate	Trip Factor
Single Family	9.57	50%
Residential Vehicle Trip Ends of an Average Weekday		
Single Family	9,527	
Total Residential Trips	**9,527**	

Nonresidential Vehicle Trips on an Average Weekday

Nonresidential Gross Floor Area (1,000 sq. ft.)**	*Assumptions*	
Commercial	47	
Office	20	
Education/Government	17	
Industrial/Flex	131	
Average Weekday Vehicle Trips Ends per 1,000 Sq. Ft.*	Trip Rate	Trip Factor
Commercial	152.03	12%
Office	22.66	50%
Education/Government	22.66	50%
Industrial/Flex	6.97	50%
Nonresidential Vehicle Trips on an Average Weekday		
Commercial	865	
Office	232	
Education/Government	190	
Industrial/Flex	457	
Total Nonresidential Trips	**1,743**	

TOTAL TRIPS	**11,270**

**Trip rates are from the Institute of Transportation Engineers (ITE) Trip Generation Manual (2008)*

***Floor area estimates were derived using sq. ft. per employee factors from ULI and ITE*

On average, 11,270 vehicle trip ends are generated by existing development in Dewey-Humboldt on a weekday. As the table above indicates, residential development generates 9,527 vehicle trip ends compared to 1,743 vehicle trip ends generated by nonresidential development.

The projected number and type of housing units from Figure A-3 and projected amount and type of nonresidential square footage from Figure A-13 are multiplied by their corresponding trip rates and

trip adjustment factors to project the total number of average daily trip ends over the next twenty years in Figure A-18.

Figure A-18: Average Daily Trip End Projections

								5 Year Increments	
Added During Fiscal Year =>			*2010*	*2011*	*2012*	*2013*	*2014*	*2019*	*2024*
	*Trips/ Demand Unit**	*Trip Adj. Factor**							
Single Family	9.57	50%	262	515	693	832	946	1,322	1,555
Commercial	152.03	12%	284	284	284	284	284	284	284
Office	22.66	50%	76	76	76	76	76	76	76
Education/Government	22.66	50%	0	0	0	0	0	0	0
Industrial/Flex	6.97	50%	150	150	150	150	150	150	150
TOTAL NEW TRIP ENDS ADDED ANNUALLY			772	1,024	1,203	1,342	1,455	1,832	2,065

**From Figure A-9*

Start of Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*2019*	*2024*	*2028*
Single Family	9,527	9,789	10,304	10,997	11,829	17,401	24,514	32,648
Commercial	865	1,148	1,432	1,716	2,000	3,418	4,837	6,256
Office	232	308	384	460	536	916	1,296	1,676
Education/Government	190	190	190	190	190	190	190	190
Industrial/Flex	457	608	758	908	1,058	1,809	2,559	3,310
TOTAL TRIP ENDS	11,270	12,042	13,067	14,270	15,612	23,734	33,396	44,079

SUMMARY OF DEVELOPMENT PROJECTIONS FY 2010-FY 2020

Annual demographic and development projections for the development fee study are summarized in Figure A-19 below. The FY2010 demographic estimates will be used to derive current levels-of-service (LOS). The development *projections* are used to have an understanding of the future LOS, pace of service demands, and cash flows resulting from revenues and expenditures associated with those service demands.

Dewey-Humboldt is projected to add approximately 1,646 housing units and 4,213 persons during the next ten years. From FY2010 to FY2019, TischlerBise projects an average annual increase in employment of 163 jobs and approximately 59,000 square feet of nonresidential floor area per year. However, actual nonresidential construction is often built in irregular intervals compared to residential development, with minor construction followed by large-scale projects.

Figure A-19: Development Projections FY 2010-FY 2019

Year=>	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*Total*	*Avg. Annual*
Start of Fiscal Year=>	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*Increase*	*Increase*
DEMAND PROJECTIONS (cumulative)												
POPULATION	4,481	4,622	4,897	5,268	5,713	6,219	6,776	7,378	8,018	8,694	**4,213**	**421**
HOUSING UNITS	1,991	2,046	2,153	2,298	2,472	2,670	2,887	3,122	3,373	3,637	**1,646**	**165**
JOBS	627	809	990	1,171	1,353	1,534	1,715	1,897	2,078	2,259	**1,632**	**163**
POPULATION & JOBS	5,109	5,430	5,887	6,439	7,066	7,753	8,491	9,274	10,096	10,953	**5,845**	**584**
NONRESIDENTIAL SF (1,000's)	216	281	346	412	477	543	608	673	739	804	**588**	**59**
RESIDENTIAL VEHICLE TRIPS	9,527	9,789	10,304	10,997	11,829	12,775	13,816	14,941	16,138	17,401	**7,874**	**787**
NONRESIDENTIAL VEHICLE TRIPS	1,743	2,253	2,763	3,273	3,783	4,293	4,803	5,312	5,822	6,332	**4,589**	**459**
TOTAL TRIPS	11,270	12,042	13,067	14,270	15,612	17,068	18,619	20,253	21,961	23,734	**12,463**	**1,246**
Nonres. Square Footage (1,000's):												
Commercial	47	63	78	94	110	125	141	156	172	187	**140**	**14**
Office	20	27	34	41	47	54	61	67	74	81	**60**	**6**
Education/Government	17	17	17	17	17	17	17	17	17	17	**-**	**-**
Industrial/Flex	131	174	217	260	304	347	390	433	476	519	**388**	**39**
Employment By Type												
Commercial	158	210	262	314	365	417	469	521	573	625	**467**	**47**
Office	92	122	152	182	212	242	272	302	332	362	**270**	**27**
Education/Government	75	75	75	75	75	75	75	75	75	75	**-**	**-**
Industrial/Flex	303	402	502	601	701	800	899	999	1,098	1,198	**895**	**89**
Nonresidential Trips												
Commercial	865	1,148	1,432	1,716	2,000	2,283	2,567	2,851	3,135	3,418	**2,554**	**255**
Office	232	308	384	460	536	612	688	764	840	916	**684**	**68**
Education/Government	190	190	190	190	190	190	190	190	190	190	**-**	**-**
Industrial/Flex	457	608	758	908	1,058	1,208	1,358	1,508	1,658	1,809	**1,351**	**135**

Appendix B – Cash Flow Analysis

This cash flow analysis is based on the IIP's, development fees, and methodologies plus the demographic and development projections in Appendix A. FY2010 (beginning July 1, 2009) is the first projection year (note: all figures are in thousands of dollars).

This cash flow analysis is based on several assumptions:

- 100% of all future residential and nonresidential development will pay 100% of the proposed development fees.
- Future development will occur at the pace and magnitude outlined in the demographic and development projects in Appendix A of the development fee report.

To the extent these assumptions change, the cash flow analysis will change correspondingly. Also, the cash flow analysis is based on the proposed fees and LOS over a five year time frame. If Dewey-Humboldt updates its development fees on a regular basis, it is likely the fee amounts, LOS, and methodologies will change over the course of the cash flow analysis.

COMMUNITY FACILITIES

The cash flow summary below indicates total revenues of $362,000 over the next five years.

The deficits shown at the bottom of the table are the result of two factors. First, the planned LOS of the Community Facilities land, trails, Community Center, and parks improvements provide capacity to both new and existing development. Existing development's share of the cost of the projects is $933,000.

The remaining deficit of $1.9 million occurs because these planned projects will serve new development beyond the five year period shown. Community Facility development fees will later pay the Town back for the development of this additional capacity.

New development's proportionate share of total expenditures over the next five years ($362,000) will be funded with development fees, but the Town will have to use non-development fee revenues to fund existing development's share of these planned expenditures.

Figure B-1: Community Facilities Development Fee Cash Flow

COMMUNITY FACILITIES								Ave.
Fiscal Year =>		*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
DEVELOPMENT FEE REVENUES ($1,000's)								
Single Family Detached		$32	$63	$85	$102	$116	$397	$79
TOTAL REVENUE		**$32**	**$63**	**$85**	**$102**	**$116**	**$397**	**$79**

								Ave.
Fiscal Year =>		*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
CAPITAL COSTS ($1,000's)	**Existing Development's Share of Planned Projects**							
Land	$228	$0	$170	$170	$55	$55	$450	$90
Trails	$292	$292	$292	$137	$234	$0	$954	$191
Community Center	$359	$0	$0	$512	$512	$512	$1,535	$307
Parks Improvements	$55	$0	$0	$118	$118	$0	$235	$47
Dev Fee Study		$3	$6	$7	$9	$10	$35	$7
TOTAL EXPENDITURES	$933	**$295**	**$467**	**$943**	**$927**	**$577**	**$3,209**	**$642**

Annual Surplus/(Deficit)	**($262)**	**($404)**	**($859)**	**($825)**	**($461)**
Cumulative Surplus/(Deficit)	**($262)**	**($667)**	**($1,525)**	**($2,351)**	**($2,812)**

LIBRARY CASH FLOW ANALYSIS

The cash flow summary below indicates total revenues of $475,000 over the next five years.

The deficits shown at the bottom of the table are the result of two factors. First, the planned LOS of the new library facility provides capacity to both new and existing development. Existing development's share of the library facility is $1.1 million.

The remaining deficit of $56,000 occurs because the library facility being provided will serve new development beyond the five year period shown. Library development fees will later pay the Town back for the development of this additional capacity. This is what causes the annual surpluses in FY2010 and FY2011: development fees are paying the Town for the library facility that will be built in FY2012 through FY2014.

New development's proportionate share of total expenditures over the next five years ($475,000) will be funded with development fees, but the Town will have to use non-development fee revenues to fund existing development and non-resident's share of these planned expenditures.

Figure B-2: Library Development Fee Cash Flow

LIBRARY

Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Ave. Annual*
DEVELOPMENT FEE REVENUES ($1,000's)							
Single Family Detached	$38	$75	$101	$122	$138	$475	$95
TOTAL REVENUE	**$38**	**$75**	**$101**	**$122**	**$138**	**$475**	**$95**

Fiscal Year =>	**Existing Development's Share of Planned Projects**	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Ave. Annual*
CAPITAL COSTS ($1,000's)								
Facilities	$1,066	$0	$0	$512	$512	$512	$1,535	$307
Collections		$4	$8	$11	$13	$15	$50	$10
Dev Fee Study		$1	$2	$2	$3	$3	$11	$2
TOTAL EXPENDITURES	$1,066	**$5**	**$10**	**$525**	**$527**	**$530**	**$1,597**	**$319**
Annual Surplus/(Deficit)		**$33**	**$65**	**($423)**	**($406)**	**($391)**		
Cumulative Surplus/(Deficit)		**$33**	**$99**	**($325)**	**($730)**	**($1,122)**		

LAW ENFORCEMENT CASH FLOW ANALYSIS

The cash flow summary below indicates total revenues of $249,000 over the next five years. There are no deficits in the Law Enforcement Development Fee Cash Flow because the incremental method was used for the calculation of all categories of the development fee.

The Town plans to provide the same level of service to future development that is currently being provided, so the incremental method is used. With the incremental method, any additional capacity added to law enforcement infrastructure is directly the result of new development, and development fees pay for this additional capacity.

Figure B-3: Law Enforcement Development Fee Cash Flow

LAW ENFORCEMENT							Ave.
Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
DEVELOPMENT FEE REVENUES ($1,000's)							
Single Family Detached	$4	$7	$10	$12	$14	$47	$9
Commercial	$23	$23	$23	$23	$23	$113	$23
Office	$6	$6	$6	$6	$6	$30	$6
Industrial/Flex	$12	$12	$12	$12	$12	$59	$12
TOTAL REVENUE	**$44**	**$48**	**$50**	**$52**	**$54**	**$249**	**$50**

							Ave.
Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
CAPITAL COSTS ($1,000's)							
Facilities	$24	$26	$27	$28	$29	$134	$27
Vehicles	$19	$20	$21	$22	$22	$103	$21
Dev Fee Study	$2	$2	$3	$3	$3	$12	$2
TOTAL EXPENDITURES	**$44**	**$48**	**$50**	**$52**	**$54**	**$249**	**$50**

Annual Surplus/(Deficit)	**$0**	**$0**	**$0**	**$0**	**$0**
Cumulative Surplus/(Deficit)	**$0**	**$0**	**$0**	**$0**	**$0**

GENERAL GOVERNMENT CASH FLOW ANALYSIS

The cash flow summary below indicates total revenues of $417,000 over the next five years.

The deficits shown at the bottom of the table are the result of two factors. First, the planned new Town Hall and Public Works Yard facility and land provide capacity to both new and existing development. Existing development's share of these costs is $921,000.

Additionally, these planned facilities and land will serve new development beyond the five year period shown; new development occurring beyond this five-year timeframe will later pay the Town back for the development of this additional capacity through General Government development fees totaling $3.7 million. This is what causes the annual surpluses in FY20132 and FY2014: development fees are paying the Town back for the Town Hall and Public Works Yard facilities and land that are incurred in FY2010 through FY2012.

New development's proportionate share of total expenditures over the next five years ($417,000) will be funded with development fees, but the Town will have to use non-development fee revenues to fund existing development and non-resident's share of these planned expenditures.

Figure B-4: General Government Development Fee Cash Flow

GENERAL GOVERNMENT								Ave.
Fiscal Year =>		*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
DEVELOPMENT FEE REVENUES ($1,000's)								
Single Family Detached		$30	$59	$80	$96	$109	$375	$75
Commercial		$2	$2	$2	$2	$2	$11	$2
Office		$1	$1	$1	$1	$1	$7	$1
Industrial/Flex		$5	$5	$5	$5	$5	$24	$5
TOTAL REVENUE		**$39**	**$68**	**$88**	**$104**	**$117**	**$417**	**$83**
Fiscal Year =>		*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Ave. Annual*
CAPITAL COSTS ($1,000's)	**Existing Development's Share of Planned Projects**							
Facilities	$830	$1,214	$1,214	$1,214	$0	$0	$3,642	$728
Land	$91	$133	$133	$133	$0	$0	$400	$80
Vehicles		$2	$3	$4	$5	$5	$19	$4
Dev Fee Study		$1	$2	$3	$3	$4	$13	$3
TOTAL EXPENDITURES	$921	**$1,350**	**$1,353**	**$1,354**	**$8**	**$9**	**$4,074**	**$815**
Annual Surplus/(Deficit)		**($1,312)**	**($1,285)**	**($1,266)**	**$96**	**$108**		
Cumulative Surplus/(Deficit)		**($1,312)**	**($2,597)**	**($3,862)**	**($3,766)**	**($3,658)**		

TRANSPORTATION CASH FLOW ANALYSIS

The cash flow summary below indicates total revenues of $957,000 over the next five years.

The deficits shown at the bottom of the table are the result of two factors. First, the planned LOS of collector streets projects provides capacity to both new and existing development. Existing development's share of these projects totals $1.9 million.

The remaining deficit of $5.1 million occurs because these roads projects will serve new development beyond the five year period shown. Transportation development fees will later pay the Town back for the development of this additional capacity.

New development's proportionate share of total expenditures over the next five years ($957,000) will be funded with development fees, but the Town will have to use non-development fee revenues to fund existing development and non-resident's share of these planned expenditures.

Figure B-5: Transportation Development Fee Cash Flow

TRANSPORTATION								Ave.
		Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
DEVELOPMENT FEE REVENUES ($1,000's)								
Single Family Detached			$58	$114	$153	$184	$209	$717	$143
Commercial			$25	$25	$25	$25	$25	$125	$25
Office			$7	$7	$7	$7	$7	$33	$7
Industrial/Flex			$16	$16	$16	$16	$16	$81	$16
TOTAL REVENUE			**$106**	**$162**	**$201**	**$232**	**$257**	**$957**	**$143**

								Ave.
		Fiscal Year =>	*2010*	*2011*	*2012*	*2013*	*2014*	*TOTAL*	*Annual*
CAPITAL COSTS ($1,000's)	**Existing Development's Share of Planned Projects**								
Collector Streets Projects	$1,851		$1,238	$1,585	$2,045	$1,662	$1,435	$7,965	$1,593
Dev Fee Study			$3	$4	$5	$5	$6	$23	$5
TOTAL EXPENDITURES	$1,851		**$1,241**	**$1,589**	**$2,049**	**$1,667**	**$1,441**	**$7,988**	**$1,598**

Annual Surplus/(Deficit)	**($1,135)**	**($1,427)**	**($1,848)**	**($1,436)**	**($1,184)**
Cumulative Surplus/(Deficit)	**($1,135)**	**($2,562)**	**($4,411)**	**($5,846)**	**($7,031)**