
Town of Mancos

Streets Mitigation Fee

April 2003

Draft Report (2)

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Executive Summary

Introduction

This document establishes a streets mitigation fee applied to new development in the Town of Mancos.

Without a mechanism requiring new development to pay its fair share of increasing the streets system capacity, growth will degrade the system causing it to become inefficient, inconvenient, and perhaps dangerous. If the Town does not charge new development for its fair share of the costs, then the taxpayers at large will bear the burden of building capacity related improvements, even though the need is being generated by new development. This results in a de-facto subsidy of new growth by the taxpayers at large.

While the study is based upon extensive information from several sources and the calculations can be complex, the basic logic leading to impact fees is simple and can be distilled into answering the following five questions:

1. Does Mancos have the legal authority to charge impact fees?
2. Does Mancos have a need for a streets mitigation fee?
3. What is generating the need for streets capacity related improvements?
4. What type of improvements address the need?
5. What is new development's fair share of the cost of these improvements?

Legal Authority

Under its current land use code, Mancos has clear legal authority under C.R.S. 29-20-104.5 to charge a streets mitigation fee to development occurring in existing platted subdivisions, town site lots, and development occurring in future subdivisions.

Need for a Transportation Impact Fee

A public streets system contributes fundamentally to municipal infrastructure by providing mobility and safety to citizens and business owners. As Mancos continues to grow at a moderate rate, new development will generate increasing levels of traffic. In order to maintain existing service levels, Mancos will need to continually plan for and construct improvements to increase the capacity of the streets system. Mancos has limited general fund revenues for the streets department, so funds for capital improvements have historically been scarce. Maintaining a safe and efficient streets system requires foresight and given current funding, it is unlikely that Mancos will have the revenue

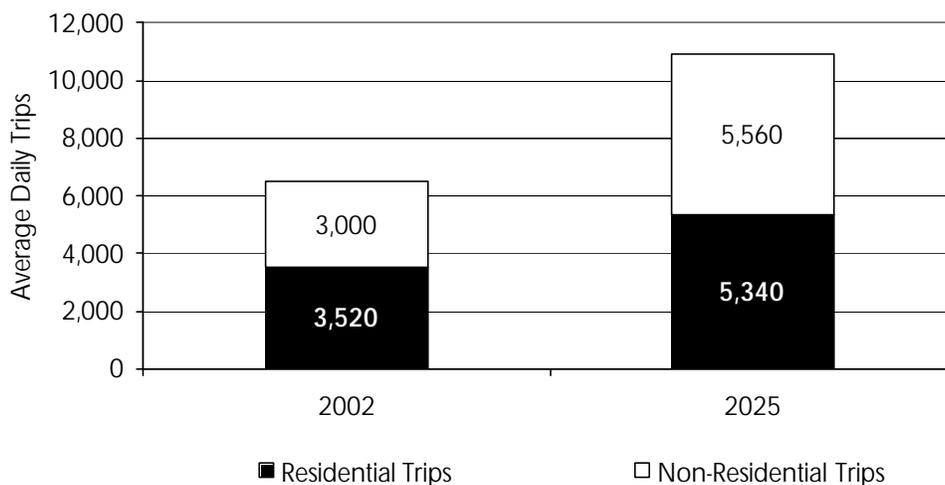
Without a streets impact fee, Mancos should expect a drop in service levels for streets or it will need to find other revenue sources to pay for the improvements.

necessary to pay for future capacity related improvements caused by growth. Without a streets impact fee, Mancos should expect a drop in service levels for streets or it will need to find other revenue sources to pay for the improvements.

Trends

The need for streets improvements is driven by increased traffic and each increment of new development produces additional traffic. When a new house is built and residents occupy it, they drive to and from that house on a regular basis to conduct day-to-day business. Thus, understanding the need for capacity related improvements requires an inventory of current land uses and an analysis of how they might contribute to traffic both now and in the future.

Projections of moderate growth in housing units, businesses, public facilities, and other non-residential development through 2025 will result in a 67% increase in total traffic in Mancos (see ensuing section Measuring and Projecting Future and Current Traffic for details). Housing units are projected to increase 55% while non-residential development will increase by 85%, a faster rate due to tourism demand and highway traffic projections. Increased traffic translates into a need for capacity related streets improvements.



Source: See Figure 4 and accompanying analysis

Specific Capacity Related Improvements

Improving Overall System Circulation: Circulation of traffic between neighborhoods, the downtown, and highways is an important factor to increasing streets system capacity. Improvements designed to circulate traffic efficiently and safely between neighborhoods, the downtown, the highway, and highway businesses will increase the capacity the streets system.

Paving Gravel Streets: Paving gravel streets is a common capacity related improvement in small towns. Paving improves traffic flow because it is durable, smooth, resistant to potholes, washboards, and other surface inconsistencies common to gravel surface roads. A gravel road has limited capacity because as traffic increases, maintenance intervals often cannot keep pace with damage and the roadway is frequently rendered rough and inconsistent. Paved streets allow for more precise snow plowing and generally clear of snow and ice faster than other road surfaces.

Collector Street Improvements: Collector streets deserve special attention because incremental development tends to accumulate traffic on these streets. Collector streets need to be durable and designed to handle significant traffic volumes. Identification of collector streets needing improvements and funding these improvements is a key element of maintaining a safe, efficient streets system.

Maintenance Shop Expansion: As the streets system becomes more extensive and complex, so does the maintenance equipment fleet. The shop is a key facility for servicing and protecting the Town's equipment investment. The best way to ensure adequate capacity in the maintenance shop is to plan for expansion of the maintenance facility in proportion to the growth in traffic.

Fee Schedule

The purpose of the streets mitigation fee is to charge new development the fair share of cost to increase streets system capacity. Determining the fair share requires consideration of the proportion of need generated by new development. The fee structure breaks logically into 3 components:

1. Incremental Paving
2. Plan-Based Improvements
3. Incremental Maintenance Facility Expansion

Because traffic ultimately generates the need for capacity related streets improvements, future development's fair share of the cost of these improvements can be stated in terms of the cost per unit of traffic (average daily trip or ADT).

	Dollars per Average Daily Trip
Incremental Paving	\$ 231
Plan Based	\$ 52
Facility Expansion	\$ 7
Total Cost Per ADT	\$ 290
General Fund Credit per ADT	\$ 13
Final Fee per ADT	\$ 277

Source: See Section Entitled "Streets Mitigation Fee" for derivations of the mitigation fee.

In order to prevent double charging future development, the total cost per average daily trip was adjusted with a **credit** (amounting to a 6% discount per average daily trip) for payments into revenue sources typically used by the streets fund.

New development is charged according to the amount of traffic (average daily trips) it generates. The residential mitigation fees are broken down into single-family detached residential units and multi-family attached residential units.

Land Use	Fee per Unit
Single Family Detached Unit	\$ 1,890
Multi-Family Attached Unit	\$ 1,300

Source: See Section Entitled "Streets Mitigation Fee" for derivations of the mitigation fee.

In practice, the majority of fees for non-residential development in Mancos will be based on independent traffic studies. That is to say, an applicant seeking to build a commercial structure will submit to the Town fee administrator an analysis to determine the number of vehicles trips generated by the type of businesses to be located in the structure, and once approved by the fee administrator, the fee will be calculated by multiplying the development's trip generation (in average daily trips) by the per trip fee listed above (\$277 per ADT).

Example Non-Residential Fee Schedule Based on Standardized Traffic Data

Land Use Category	Driveway Volume (ADT per 1000 Sq Ft or Other Units if Noted)	Adjustment Factor	Trip Generation (ADT per 1000 Sq Ft or Other Units if Noted)	Mitigation Fee (per 1000 Sq. Ft. or Other Units if Noted)
bank	156	22%	34	\$ 9,418
carwash (<i>per position</i>)	40	22%	9	\$ 2,493
medical clinic	31	50%	16	\$ 4,432
general office	11	50%	6	\$ 1,662
hardware store	51	50%	26	\$ 7,202
high turn-over restaurant	130	50%	65	\$ 18,005
industrial	2	50%	1	\$ 277
light industrial	7	50%	4	\$ 1,108
lodging (<i>per lodging unit</i>)	6	50%	3	\$ 831
post office	108	22%	24	\$ 6,648
quality restaurant	90	50%	45	\$ 12,465
specialty retail	40	22%	9	\$ 2,493
super market	112	22%	25	\$ 6,925
video store	54	22%	12	\$ 3,324
warehousing	5	50%	3	\$ 831

Note: In practice, fees for non-residential development will be calculated using independent traffic generation studies, not standard traffic generation numbers. Most likely, given the lower level of activity in small town commercial establishments, the independent studies will find lower traffic generation rates in Mancos than the standard rates based on national averages and therefore the fees will be lower than those in the example schedule above.

Nonetheless, it is useful to look at a schedule of fees based on standardized numbers¹ even though non-residential traffic generation rates from standardized sources may not always reflect unique small town conditions. Traffic generation by non-residential land uses is typically measured in terms of the average daily trips per thousand square feet of floor area -- consequently the fees are also expressed in this manner.

Cash Flow

If residential growth continues as it has, the Town could realize an average of about \$17,000 per year from residential development alone. Unsteady growth will result in uneven collections from year to year.

Cash Flow Projections from Residential Development

	New Units 1990-2002	Average Units Per Year	Mitigation Fee Revenue per Year
Single Family	77	6	\$ 11,340
Apartment/Condo	57	4.4	\$ 5,720
Total (rounded)			\$ 17,100

Non-residential fee revenue is more difficult to project. RPI assumes that due to the mixed nature in small-town non-residential development (e.g. a gift shop with a deli, or building with a commercial cabinet shop on one side and a wood stove store on the other) means that most of the non-residential developments will submit independent traffic generation studies to the Town to assess their mitigation fees. This makes it difficult to ascertain the relationship between projected growth and the amount of revenue that might be collected. It appears, based on discussions with the building official and by analyzing the assessor data, that about 3-4 non-residential structures are added per year. If, on average, a non-residential structure pays a \$2,500 mitigation fee an additional \$7,500 per year will be added to the residential fees, bringing the total average annual revenue to around \$25,000.

¹ Trip generation numbers obtained from the Institute of Transportation Engineers Trip Generation Manual, 6th Edition, 1997

Legal Authority

Impact Fee Authority

In 2001 the legislature adopted SB 15 granting counties and municipalities authority to charge impact fees to fund “expenditures by such local government on capital facilities needed to serve new development.”²

The bill defines “capital facility” as follows:

As used in this section, the term “capital facility” means any improvement or facility that: (a) is directly related to any service that a local government is authorized to provide; (b) has an estimated useful life of five years or longer; and (c) is required by the charter or general policy of a local government pursuant to a resolution or ordinance. § 29-20-104.5(4)

Under this definition, streets are a capital facility if directly related to a service that the Town is authorized to provide. Municipalities are granted the power to construct and maintain streets, sidewalks, alleys, and their associated drainage in C.R.S. 31-15-702 as a basic power of a municipality.

Because Mancos is authorized to provide the services under consideration in this impact fee support study, the fee revenue can only be used for capital facilities investments “directly related” to providing that service. Assessment of a fee to construct streets meets this requirement.

The impact fee statute also requires that the impact fee be based on a quantification of the “reasonable impacts of proposed development on existing capital facilities” and that it be set at a level “no greater than necessary to defray such impacts directly related to proposed development.” What is directly related is not defined by the statute. However, in a recent Colorado Supreme Court decision, the Court made it clear that a local government does not need to engage in an individualized assessment of each development to determine the reasonableness of the fee.³ It appears that the impact fee must be directly related to the cumulative impacts of development in the community, not to a particular development proposal.⁴ The documentation contained in this study establishing a link between growth in broad categories of development (residential and non-residential) and the need for streets capacity related improvements is more than adequate to support the relationship between the fee and the impacts on these facilities caused by new development.

The impact fee statute also restricts when a fee may be imposed.

No impact fee or other similar development charge shall be imposed on any development permit for which the applicant submitted a complete application

² § 29-20-104.5(1)

³ *Krupp v. Breckenridge Sanitation District*, 19 P.3d 687 (Colo. 2001).

⁴ See White, “A Municipal Perspective on Senate Bill 15: Impact Fees,” 31 Colo. Law. 5 (May 2002)

before the adoption of a schedule of impact fees or other similar development charges by the local government pursuant to this section. No impact fee ... shall be collected before the issuance of a development permit for such development activity. Nothing in this section shall ... prohibit ... deferring collection of an impact fee ... until the issuance of a building permit. § 29-20-104.5(6)

The Town's Land Use Code contains a requirement that an applicant for any type of development obtain a *zoning development permit* prior to the issuance of a building permit (LUC 6.21). This zoning development permit, since it is a review of a use, bulk, height, and the site development plan, fits the definition of development permit as defined in C.R.S. 29-20-103. Since a zoning permit approval is required prior to the issuance of a building permit, under C.R.S. 29-20-104.5(b), the Town can require the full payment of the streets mitigation fee after the development permit is issued, but prior to the issuance of a building permit.

Need and Relevant Trends

Introduction

A public streets system contributes fundamentally to municipal infrastructure by providing mobility and safety to citizens. Neglect of the basic streets system results in inefficiencies, unsafe intersections and roadways, interrupted traffic flows, excessive dust, drainage problems, and a host of other transportation related dysfunctions that can lead to an immediate and noticeable decline in the quality of citizens lives and the ability to conduct business.

Maintaining a safe, functional streets system requires persistence and foresight. Mancos's nearly 40% increase in population since 1990 is expected to continue into the next decade. Although this reflects a somewhat moderate growth rate relative to other jurisdictions in Southwestern Colorado, even moderate growth can accumulate noticeable impacts on the Town's streets network.

Mancos's nearly 40% increase in population since 1990 is expected to continue into the next decade.

An access management plan with the Colorado Department of Transportation (CDOT) will initiate construction of roadway through Mancos and a number of key intersection improvements along Highways 160 and 184 through Town during the summer of 2003. Prioritizing the development/improvement of the streets systems over the next 20 years to accommodate future growth is prudent.

The access management planning process revealed the need for several improvements reaching beyond highways and into the Town site essential for maintaining an efficient streets system. Mancos needs to accomplish some of the improvements to develop natural and safe connectivity and circulation with the highways, while the need for other improvements relates more to internal traffic circulation.

As part of the access management planning process, Mancos contracted Felsburg Holt & Ullevig (FHU), a transportation engineering firm, to conduct a general Transportation Study (2000). The resultant study makes a compelling case concerning the need for additional streets infrastructure given future buildout⁵ potentials of the Townsite. In addition to several highway specific recommendations, the FHU report also recommends key improvements reaching beyond the highways to improve the overall efficiency and safety of traffic circulation in Town.

The consequences of failing to make streets capacity improvements result in inefficiencies or inconveniences at best and higher accident rates at worst.

While creative design solutions can cut costs substantially, streets improvements are often expensive. Relying on a few small revenue sources allocated by the County and State, the Mancos streets fund can scarcely afford operations and maintenance of the existing 8.3 miles of Town streets, existing equipment, and facilities -- leaving limited funding for capital improvements. An impact fee is a funding mechanism to ensure that new development pays its fair share for streets improvements built with future development in mind. The methods used in this analysis to calculate a schedule of streets impact fees carefully separate disaggregate costs attributable to new development from those attributable to other causes, such as existing development, or highway traffic.

Development, Traffic, and the Need for Capacity Related Streets Improvements

Increased traffic is among the most noticeable effects of development aside from the built structure itself. When a home is constructed on a vacant residential lot, additional traffic is generated by the residents. Similarly, a new grocery store on a vacant lot will produce traffic where none existed before. In urban areas, large developments can frequently lead to a drastic increases in traffic (e.g. a mall). In Mancos, development happens steadily, but in smaller increments, and over time the traffic increases incrementally.

Land uses require site-specific improvements to accommodate on-site traffic and to tie site-specific traffic circulation safely into the streets system. However, development also contributes to impacts on the overall streets system by adding more to the total in-town traffic. Transportation infrastructure includes streets extending well outside of a single neighborhood or subdivision.

This incremental addition of more traffic to a streets system leads to the need for capacity increasing improvements on key collector streets improving and increasing the capacity of overall traffic circulation. Typically, site-specific improvements are required as part of the development approval process (subdivision, annexation, special use permit, etc.). However, the development review process does not always yield improvements to the streets system as a whole. The impact fee presented in this report

⁵ Buildout refers to the amount of development possible in a specified area given site constraints and the land use regulations in place.

represents an effective tool for collecting new development 's share of the cost of such system-oriented improvements.

Measuring Current and Future Projected Traffic

Increased traffic directly contributes to the need for streets system capacity related improvements. As established above, traffic circulating in the Town's streets system is generated by the homes, businesses, and institutions. New development generates increased traffic. The process of measuring current and projected demand for streets capital improvements involves two steps:

1. Inventory existing land uses and develop future land use projections
2. Calculate traffic produced by current and future land uses

This is an approach commonly used in transportation planning to measure demand in many contexts, from overall streets system planning to measuring demand of specific developments.

The process for inventorying land uses differs for residential land uses (includes all types of residential units and accessory structures) and non-residential land uses (includes all structures containing commercial, government, and institutional uses).

I. Non-Residential 2002 Land Use Inventory and Traffic

The best source of data for tracking the non-residential sector in Mancos is the Montezuma County assessor's database. No more detailed and comprehensive data source for inventorying non-residential land uses exists. RPI analysts used the assessor's database, combined with information gathered from other local governments, public agencies, and institutions to compile the non-residential land use inventory contained in **figure 1**.

Analysts first sorted out the non-residential uses using standard query methodology applied assessor abstract codes to establish inventories of taxable improvements. The exempt property information gathered locally was then added to the taxable improvement data to form a complete inventory of non-residential land uses in Mancos.

RPI analysts then categorized each improvement into one of 19 land use categories using the abstract code, the business name, the owner name, and the location of the improvement on the GIS parcel map of Mancos⁶. The square footage of improvements is then summed by category to establish the inventory in the first and second columns in **figure 2**. Where other units were more appropriate for the purposes of calculating the traffic generated, (such as students for schools) those units were obtained by contacting owners or managers by phone.

⁶ All improvements were tied into the GIS parcel layer, created and recently updated by Montezuma County Mapping using the Assessor's parcel I.D. number.

Figure 2. 2002 Non-Residential Inventory by Use and Trip Generation

ITE Category	Square Footage	ADT Rate per 1000 Sq Ft or Other Units if Noted	Other Units Number	Other Units Type	Driveway Volume (ADT)	Adjustment Factor	Trip Generation
bank	7,065	156			1102	22%	242
general office	21,822	11			240	50%	120
church	1,040	9			9	50%	5
medical clinic	37,414	31			1160	50%	580
gas station	other units	0.03	6595	ADT on 160 ⁷	198	22%	44
carwash	other units	40	3	positions	120	22%	26
hardware store	11,200	51			571	50%	286
high turn-over restaurant	720	130			94	50%	47
industrial	42,191	2			84	50%	43
library	1,200	54			65	50%	32
light industrial	6,956	7			49	50%	24
lodging	other units	6	44	lodging units	264	50%	132
post office	4,813	108			520	22%	114
quality restaurant	3,556	90			320	50%	160
school	other units	1	461	students	461	50%	231
specialty retail	66,431	40			2657	22%	584
super market	8,910	112			998	22%	219
video store	1,350	54			73	22%	16
warehousing	38,224	5			191	50%	95
TOTAL					9,176		3,000

Sources: Montezuma County Assessor's Database, Mancos Schools, Lodge Owners, Town of Mancos, Institute of Transportation Engineers Trip Generations Manual 6th Edition

A non-residential land use inventory allowed calculation of the traffic currently generated by the non-residential sector. The unit of measurement for traffic, used worldwide by traffic engineers and planners, is the vehicle trip, and in this case, the Average Daily Vehicle Trip⁸ (ADT). The estimate for traffic generated by non-residential development is obtained by applying the trip generation rates developed by the Institute of Transportation Engineers Trip Generation Manual 6th Edition, 1997 (ITE) to the 2002 inventory of non-residential square footage.

Average daily trips are adjusted to avoid double counting. For example, a single-family residence has a driveway volume of about 9.7 ADT and a grocery store has about 111 ADT per 1000 ft² -- the total driveway volume for both structures on a given weekday. The ITE has trip adjustment factors that eliminate the possibility of double counting a trip from the residence to the grocery store by assigning the trip to both the residence and the grocery store. Furthermore, the ITE has calculated "pass-by trip" adjustments that adjust for the fact that a trip to a grocery store is often only a detour on the trip

⁷ From CDOT's online trip count database:

http://www.dot.state.co.us/App_DTD_DataAccess/Traffic/index.cfm?fuseaction=TrafficMain&MenuType=Traffic.

⁸ An Average Daily Vehicle trip is the average number of times a car passes over a single line across a road in either direction in one day.

home, or to the post office. Thus trip generation, is the number of trips caused, or attributable to a type of land use of a specific size, and is a much lower number than the total driveway volume before the appropriate adjustments have been made.

II. Residential Land Use Current Inventory and Traffic

Currently, Mancos has 543 residential units, 456 of which are single-family detached units (includes manufactured homes) and 87 of which are multi-family attached units. To calculate these unit counts, RPI added building permits for new residential construction issued during 2000-2002 to the unit counts in the Census 2000 summary file 3 data that lists the number of units by type (single family detached, manufactured, multifamily, etc.). This represents an increase of 148 housing units since 1990 (37% increase).

The ITE trip generation manual finds that multifamily apartments generate less traffic per unit than single family detached units. This makes intuitive sense because multi-family apartments are usually smaller and have a lower average number of residents per unit. Apartments, with a driveway volume of 6.6 ADT per unit generate about 2/3 as much traffic as single family detached units at 9.6 ADT.

As with non-residential land uses, residential driveway volume must be adjusted to avoid double counting a trip at its origin (home, in this case) and its destination (e.g., the bank or post-office). All inbound trips to a residence are attributed to the residence (50% of the driveway volume). In Mancos, it cannot be assumed that all of the outbound trips from a residence (the other 50%) will be attributed to the non-residential land uses in Mancos because the majority of the Mancos labor force commutes to other Towns for work⁹ and Mancos households likely do a significant amount of their shopping in nearby Towns as well¹⁰. Consequently, although these trips originate at residential units, but are destined for outside of Mancos, they need to be attributed to the residential units themselves in order to avoid unmitigated traffic. Based on calculations presented in detail in **appendix I**, the residential trip adjustment factor for Mancos is 71%.

Given the inventory of residential units (Census 2000 and building permit records), the driveway volume (ITE), and the residential trip adjustment factor (**appendix I**), analysts were able to calculate the residential trip generation, summarized in **figure 3**.

⁹ U.S. Census

¹⁰ See Appendix I

Figure 3. Residential Trip Generation 2002

	Units 2002	ITE Rate (ADT)	Driveway Volume (ADT)	Adjustment Factor	Trip Generation (ADT)
Single Family Detached (includes manufactured)	456	9.6	4,378	71%	3,108
Apartments or Condos (2 or more attached units)	87	6.6	574	71%	408
Total	543		4,952		3,516

Sources: Appendix I, U.S. Census, Mancos Building Permit Records, Institute of Transportation Engineers Trip Generation Manual 6th Edition,

III. 2002 Trip Generation Summary

After adjusting for double counting, and pass-by trips, there are 6,520 total average daily trips in Mancos¹¹ generated by current land uses in 2002.

Figure 4. 2002 Mancos Trip Generation

	2002
Average Daily Trips Generated by Non-Residential Land Uses	3,000
Average Daily Trips Generated by Residential Land Uses	3,520
Average Daily Trips Generated by All Land Uses	6,520

Source: Summarizes Figures 2 and 3

2025 Growth Projections and Projected Traffic

2025 is the planning horizon for improvements considered in this analysis (including CDOT plans). A 20 year horizon is typical for streets and highway improvements and the justification for this planning horizon will become clear as the specific projects and improvements considered in the impact fee are discussed in following sections of this study.

IV. Non-Residential 2025 Growth Projections and Trip Generation

Using projection methodology described in detail in **appendix II**, RPI analysts estimate that the Town will have about 670,000 non-residential sq. ft. by 2025, an 86% increase.

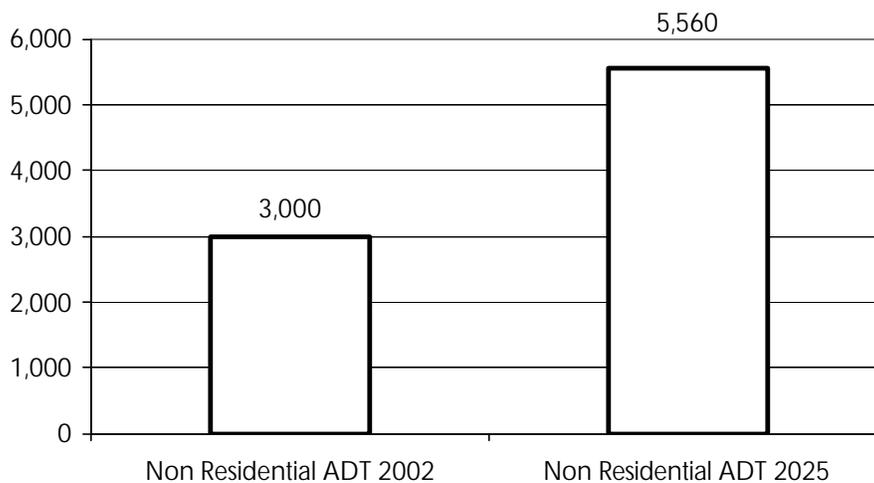
¹¹ Rounded to nearest ten

Figure 5. Non-Residential Square Footage

Year	Non-Residential Sq. Ft.
1990	223,490
2002	360,180
2025	669,858

Sources: See appendices II and III

Calculating the non-residential trip generation in 2025 required a slightly different approach than that used above to calculate the current trip generation, the details of which are described in **appendix III**. The main difference lies in the land use categories. While the assessor's database allowed for a detailed inventory of existing land uses, projections required the use of more general land use categories used by the assessor's office to classify improvements. The trip generation analysis for 2025 yields a projected 5,560 ADT generated by non-residential land uses, an 85% increase. Because the projections incorporate a similar mix of non-residential land uses in 2025 as that in the Town currently, the rate of increase in traffic parallels the increase in the rate of non-residential square footage (86%).

Figure 6. Non-Residential Trip Projections

Sources: See Appendices II and III for details and sources.

V. Residential Units 2025 Projection and Trip Generation

Residential unit growth projections were based on population projections for the Town of Mancos. The Colorado Department of Local Affairs Demography section, cooperating with the Center of Economic and Business Forecasting, provides sophisticated population projections, which are the best available.

To estimate Mancos' projected 2025 population based upon the Demography Section County projections, RPI analysts assumed that Mancos would continue to maintain its

share of total County population growth through 2025 as it did between 1990-2002 (5.4%). The Demography Section projects another 12,500 people in Montezuma County between 2002-2025. Assuming Mancos continues to contribute to this growth in the same proportion it has in the past decade (5.4% of total growth), Mancos should be home to another 679 people, for a total projected 2025 population of 1,810 residents.

Historically, housing and population growth have moved congruently, reflecting the fact that most Mancos homes are occupied by full-time residents, with very little vacation or summer home activity. Assuming this will continue, housing units should continue to increase at the same rate as population. To generate a housing unit projection based on population, RPI divided the population by the current residents per housing unit (2.14 residents/unit)¹². This yields a projected 845 housing units in 2025.

Because traffic generation rates differ between single family homes, apartments, and other attached units, RPI further estimated the breakdown between single family homes vs. multi-family/apartment units based on historic growth. Since 1990, 37% of the new units have been multi-family apartments while the other 63% have been single family detached units. Assuming this same proportion will continue, the 845 units in 2025 will consist of 200 apartment/condos and the remaining 645 units will be single-family units.

Figure 7. Population and Housing, 2002 and Projected 2025

	2002	2025
Population	1,163	1,810
Total Housing Units	543	845
Single Family Detached	456	645
Apartments/Condos	87	200

Sources: U.S. Census, Town Building Permit Records, CO Demography Section

¹² This is a different number than the average household size (2.31 people in 2000). This is literally the number of people living in Town divided by the number of housing units. Using residents per household instead of average household size accounts for vacancy of housing units.

Given the driveway volume rates in the ITE and the residential trip adjustment factor established in **appendix 1**, the residential trip generation in 2025 is projected to be 5,340 ADT.

Figure 8. Residential Trip Generation 2025

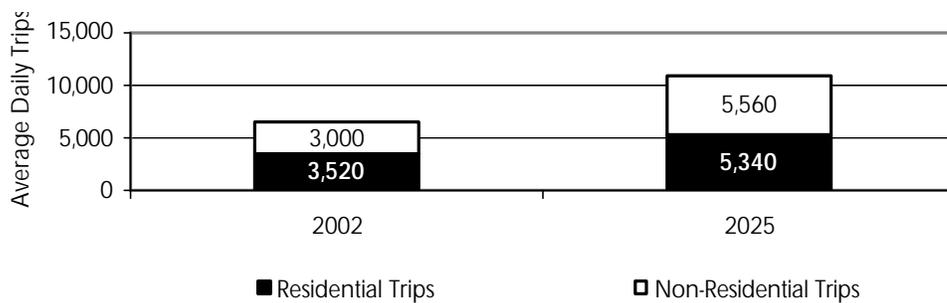
	Units 2025	ITE Rate (ADT)	Driveway Volume (ADT)	Adjustment Factor	Trip Generation (ADT)
Single Family Detached (includes manufactured)	645	9.6	6,192	71%	4,400
Apartments or Condos (2 or more attached units)	200	6.6	1,320	71%	940
Total	845		7,512		5,340

Sources: U.S. Census, Town Building Permit Records, CO Demography Section, Institute of Transportation Engineers Trip Generation Manual, 6th Edition

VI. Projected 2025 Trip Generation Summary

Traffic in Mancos is projected to increase by 67%, from the 6520 average daily trips to 10,900 by 2025. Residential and non-residential land uses are projected to contribute to this increase approximately equally (see **figure 9**).

Figure 9. Residential and Non-Residential Trip Generation 2002-2025



Addressing the Need for Streets Capacity Related Improvements

Capacity Related Improvements

Incremental increase in land uses lead to incremental increase in traffic. Increasing traffic generates the need for capacity related streets improvements. What types of improvements will increase Mancos street system capacity?

The capacity of the Town’s streets system can be defined as the amount of traffic that can flow through Town over a period of time without imposing a threat to the health and safety of the Town’s residents, businesses, and visitors. The following four types of improvements increase the overall capacity of a small Town’s streets system.

Improving Overall System Circulation: Circulation of traffic between neighborhoods, the downtown, and the highways is an important component of increasing streets system capacity. Improvements designed to circulate traffic efficiently and safely between neighborhoods, the downtown, the highway, and highway businesses will increase the capacity the streets system.

Paving Gravel Streets: Paving gravel streets is a common capacity related improvement in small towns. Paving improves traffic flow because it is durable, smooth, resistant to potholes, washboards, and other surface inconsistencies common to gravel surface roads. A gravel road has limited capacity because as traffic increases, maintenance intervals often cannot keep pace with damage, and the roadway is frequently rendered rough and inconsistent. Paved streets allow for more precise snow plowing and generally clear of snow and ice faster than other road surfaces.

Collector Street Improvements: Collector streets deserve special attention because incremental development tends to accumulate traffic on these streets. Collector streets need to be durable and designed to handle significant traffic volumes. Identification of collector streets needing improvements and funding these improvements is a key element of maintaining a safe, efficient streets system.

Maintenance Shop Expansion: As the streets system becomes more extensive and complex, so does the maintenance equipment fleet. The shop is a key facility for servicing and protecting the Town's equipment investment. The best way to ensure adequate capacity in the maintenance shop is to plan for expansion of the maintenance facility in proportion to the growth in traffic.

Identified Improvements

VII. The Need for Improved Circulation: W. Sunset

Both FHU (2000 Town of Mancos Transportation Study), and CDOT (Intergovernmental Agreement between the State and Town regarding the pending Highway improvements) have pointed to the need for a street running parallel to and north of Hwy. 160 connecting Willow, Oak, and Beech streets to the Highway to improve overall circulation. Throughout this report the proposed street is referred to as *W. Sunset*. See **appendix IV**, for a map showing proposed alignment of *W. Sunset*.

Transportation experts have recommended that the Town build *W. Sunset* because without it the streets system will not be able to safely and efficiently handle future development. The northwest quadrant of Mancos, as it is commonly referred to in various planning documents, has a higher potential for future development than any other area in Town. In addition to the potential future development of residential and commercial lots, this section of Town contains a vacant 40+ acre parcel (currently zoned agriculture). As this section of Town builds-out, and continues to provide property for new housing and commercial establishments, it will generate more traffic by producing outbound trips and attracting other trips in from other parts of Town.

The current streets system is unable to accommodate future traffic volumes safely and efficiently. Currently, outbound traffic in the Fautz and Wagoner subdivision is compelled to use Beech and Hwy. 160 to access downtown Mancos. In order to meet safety standards associated with the intersection of Hwy 184- Hwy 160, CDOT intends to make the Beech-Hwy 160 intersection right-in and right-out. This will eliminate the ability to make left turns onto the highway. An all-access 4-way intersection is slated for construction further west at Willow Street. Functionally this means that traffic will first have to travel west in order to get downtown and to the businesses around the Hwy 184- Hwy 160 intersection.

The construction of W. Sunset will alleviate many future safety issues and inefficiencies associated with increasing pressure on the existing streets system. Given the projected future development, CDOT recommends a parallel collector like the proposed W. Sunset in order to divert traffic in and out of the Northwest quadrant from un-signalized intersections with Hwy. 160 to the safer, high-capacity intersection of Hwys. 184 and 160.

Another benefit of W. Sunset is that it will provide connectivity between existing and future northwest quadrant neighborhoods. W. Sunset would make this a short, safe, direct route with minimal potential for conflicts. As more development occurs, the internal circulation of the northwest quadrant will become increasingly important.

VIII. Incremental Paving

As Mancos continues to grow and traffic increases, some gravel roads will need to be upgraded to pavement surfaces. Paving improves traffic flow because pavement is a durable, smooth surface, not as prone to “washboards,” potholes, and surface inconsistencies as are gravel surface roads. A gravel road has limited capacity because as traffic increases, maintenance intervals often cannot keep pace with the wear and tear, and the roadway is rendered rough and inconsistent much of the time. Paved streets also allow for more precise snow plowing, and will hold snow and ice for shorter periods of time.

One of the consequences of not paving busy gravel streets is excessive dust. Dust is a particular problem in Southwest Colorado during periods of drought. High traffic flows on gravel streets can result in air quality violations (PM10 regulations enforced by the CO Dept of Health) which requires immediate mitigation measures. Paving gravel surfaces almost eliminates dust related to traffic.

IX. Collector Street Improvements: South Main, Monte Street, and Park Street

Collector streets deserve special attention because incremental development tends to accumulate traffic on these streets. Collector streets need to be durable and designed to handle large traffic volumes. Identification of collector streets needing improvements and funding these improvements is a key element of maintaining a safe, efficient streets system.

South main (Main Street south of Grand Avenue, see map in **appendix IV**) is in need of capacity related improvements. Currently, South Main is narrow, with no drainage, has some awkward jogs in its alignment, and the base and surface will not be able to handle future traffic levels. Furthermore, the sidewalk is incomplete along this street, and due to its proximity and visibility from downtown, sidewalk enhancement along this street would benefit the businesses and residents in Town.

Monte Street is a collector of traffic for in and outbound trips to and from Hwy. 160 West. Improvements to Monte Street involve laying gravel and asphalt, sidewalk, and culverts for drainage. The alignment, width, and surface of Monte Street are all well suited to making these improvements and therefore make this project relatively affordable.

Park Street is included in CDOT's plans for construction pursuant to the access management plan. However, improvements to this street will occur outside of the Hwy. 160 right-of-way and consequently the Town is responsible for paying half of the costs associated with improvements. Park street, even in its current alley-like condition acts as a collector street. When CDOT creates the 4-way, all-access intersection with Railroad, Hwy. 160, and Ervien Street, Park street will serve as an even more important collector street, connecting the Downtown, Hwy. 160 W., the park, the businesses along Railroad north of main, and the frontage road along the north side of Hwy. 160. CDOT's plans for Park Street include surface work, gravel, and paving.

X. Maintenance Facility Incremental Expansion

As the Town's streets system becomes more extensive and complex, so does its maintenance equipment fleet. Streets equipment is expensive and the maintenance shop is a key facility for maintaining and protecting this investment. The Town recently constructed a new maintenance facility that completely addresses current needs, but future growth will generate increased traffic, leading to increased maintenance and additional pressure on the facility. The best way to maintain adequate capacity in the maintenance shop is to plan for expansion of the facility in proportion to the growth in traffic.

Streets Mitigation Fee

Introduction

The purpose of the streets mitigation fee is to charge new development its fair share of the cost of increasing the capacity of the Town's streets system. As the Town continues to develop, additional maintenance and operations costs will also accrue, but these costs will need to be covered by other revenue. The streets mitigation fee is for capacity related capital improvements only.

The previous section of this report exposes the need for specific capacity related improvements to the streets system to handle future growth. Determining new

development's fair share of the cost of these improvements requires another level of analysis. Determining the fair share requires the consideration of the proportion of the need of the capacity related improvements generated by new development. The fee structure breaks logically into 3 components:

1. Incremental Paving
2. Plan-Based Improvements
3. Incremental Maintenance Facility Expansion

Incremental Paving

The incremental paving of existing gravel streets in the Town site (i.e. excluding Highways 184 N. of 160 and the 160 bypass) is a need created entirely by future traffic. While the length of paved streets in Town currently is adequate, future traffic volumes on existing gravel streets will eventually make it impractical, inefficient, and potentially unsafe and health threatening (due to dust) to continue maintaining a gravel surface on various segments throughout Town. The approach taken for this component of the fee is to calculate the cost per increment of additional traffic to maintain the current proportion of paved streets relative to the amount of traffic currently using the streets system.

XI. Current Ratio of Paved Streets to Traffic: Paved Streets Current Level of Service

RPI compiled the streets map (**appendix IV**) using a Geographic Information System (GIS) and data obtained from the Montezuma County Mapping Department. Because the focus of this component of the fee is on the need for paving streets in the within the Townsite this analysis excludes Highways 184 N. of 160 and the 160 bypass, but includes Grand Avenue (the Highway 160 Business Route), and the frontage roads along Highway 160 (these roadways serve as Town collector streets). Using a GIS streets coverage combined with on-site observations, and the Town's H.U.T.F. signature sheet streets inventory, RPI identified and measured the length of the existing streets and segments of streets that have a paved surface and those that have a gravel surface. Currently the Town site contains 3.2 miles of paved surface streets out of a total of 8.3 miles of streets (**figure 10**).

Figure 10. Length of Paved Streets and Total Length of Streets in Mancos

	Ft.	Miles
Length of Paved Streets	16,942	3.21
Length of All Streets	44,038	8.34

Sources: Town HUTF Signature Sheet, Mancos Streets GIS layer

Because the need for paving gravel streets is linked to increasing traffic, the way to express the *level of service* for Mancos paved streets is by the length of paved streets per increment of traffic, or, in this case, the feet of paved street per Average Daily Trip (ADT). The *level of service* is the quantity of public facility per unit of demand. Commonly used level of service expressions include library space per capita, acres of parks per capita, and classroom space per student. If demand units are increased (population or students in the examples above) but the community fails or decides not to provide a proportionate increase in the quantity of facilities (e.g. library space, parks, and school facilities) the community should expect service level declines. To maintain a level of service, the community must continually plan for and fund incremental expansions or build facilities to handle future capacity. In this case, the capital facility is the streets system and the specific component of the system under consideration is the level of service for paved streets. The current level of service for incremental paving is 2.6 linear feet of paved streets per ADT (**figure 11**).

Figure 11. Incremental Paving Level of Service and Incremental Cost

2002 Average Daily Trips	6,520
Ft. of Paved Streets per ADT	2.6
Cost per Linear Ft. to Pave Gravel Streets	\$ 89
Incremental Paving Cost per ADT	\$ 231

The goal of this component of the fee is to maintain the current level of service for paved streets as the Town continues to grow and traffic increases. RPI contracted Wilbur Engineering to assist Town staff and RPI analysts evaluate the extent of the improvements needed (e.g. 2" asphalt vs. 4" asphalt, quantity of base needed, etc.) and to conduct cost estimates. According to the 2002 report completed by Wilbur Engineering, (included as **attachment A**), paving a gravel street with a 24' asphalt roadway, 6' gravel parking lanes on both sides, drainage swales, driveway culverts, and 4' concrete sidewalks on both sides of the street costs \$89 per linear foot. This means that the cost of maintaining the current level of service for incremental paving is \$231 per ADT.

Plan-Based Improvements: System Circulation and Collector Street Improvements

The planned based component of the fee includes the specifically named projects, the need for which was discussed in the previous section entitled *Identified Improvements*. Improvements included in this component of the fee are the construction of W. Sunset (to improve Town traffic circulation), and improvements to Park Street, South Main, and Monte Street (improvements to important collector streets). See **appendix V** for a detailed cost breakdown of these four projects.

The Town intends to construct these improvements within the near future (~ within the next 10 years), but these improvements will endure and accommodate traffic¹³

¹³ With regular maintenance intervals, streets improvements to moderate flow roadways like those under consideration in this report usually last up to 20 years.

through 2025. These improvements will benefit both existing and future development. Thus, it would not be fair to assign the entire cost of these improvements only to future development. To avoid inequity, the cost of these improvements is divided by the projected 2025 traffic (in ADT) of all development in the entire Town generated by both existing and future development. Calculating this component of the fee ensures that new development is charged proportionate to its impact on the overall Town streets system.

Structuring the fee in this manner means that impact fees collected from new development through 2025 will not cover the entire cost of these planned improvements. Consequently, Mancos will need to find other revenue to cover existing development's¹⁴ share of the cost of these improvements.

The cost of the four projects included in the planned based component of this fee totals \$570,000. Given the trip generation analysis and projections developed previously (see 2025 Trip Generation Summary), the Mancos streets system is projected to carry about 10,900 average daily trips in 2025. Dividing the total cost of the planned based components by the projected average daily trips yields a cost of \$52 per average daily trip; the cost of each increment of traffic generated by future development.

Figure 12. Cost per Average Daily Trip for Planned Based Component of the Impact Fee

Projected ADT 2025	10,900
Total Cost of Plan Based Projects	\$ 570,000
Plan-Based Cost/ADT	\$ 52

Incremental Maintenance Facility Expansion

The purpose of the incremental expansion of Town maintenance facilities (new public works shop) is to maintain current service levels. Ultimately, increased traffic generates the need for additional maintenance and minor streets construction covered by the public works department, putting additional pressure on the street facilities. Thus, the level of service must be an expression of the quantity of maintenance facility per increment of traffic (ADT). The Town's CIRSA insurance summary states the value of the public works facility in terms of replacement cost. Given that the ultimate goal is to calculate the cost of maintaining the current level of service, the level of service is best expressed as the value of streets maintenance facilities per average daily trip.

One important factor to address before calculating the impact fee is that the public works department, and therefore the maintenance facility, serves sewer/water, parks, and general maintenance, in addition to streets. To accurately assign the cost per trip the 36% proportion of the maintenance facilities dedicated to streets maintenance must be applied to the total cost of public works facilities (see **appendix VI** for details).

¹⁴ That is development that is in place as of 2003.

Figure 13. Calculating the Value of Public Works Maintenance Facility per Average Daily Trip

2002 Average Daily Trips	6,520
Current Value of Public Works Shop	\$ 130,000
Value Used by Streets	\$ 47,232
Value of Public Works Maintenance Facility per Trip	\$ 7

Sources: Town CIRSA Insurance Summary, 2003 Mancos Town Budget (used in appendix VI)

Total Cost per Average Daily Trip

The three components of the streets mitigation fee are stated in terms of the cost per average daily trip and are then added for a total cost per trip:

Figure 14. Cost per Trip

	Dollars per Average Daily Trip
Incremental Paving	\$ 231
Plan Based	\$ 52
Facility Expansion	\$ 7
Total Cost	\$ 290

Credits

Some impact fees include the provision of credits to avoid "double dipping," that is, to avoid requiring a developer to pay an impact fee and then also require payment through other mechanisms for the same purpose. For example, an impact fee might be collected for expansion of municipal library while simultaneously a portion of property taxes are earmarked for capital improvements to the library. Clearly the developer is paying twice for the same purpose. Because double dipping is unfair and probably un-statutory (future court cases will likely clarify this), durable and equitable impact fees include a system of credits to avoid double dipping. Credits are usually applied as a discount (or full exemption in some cases) to the full price of the fee that roughly equals the amount that would otherwise be double-charged.

XII. Credit for Improvements Required During Subdivision and/or Annexation

The difference between streets capital improvements related to on-site traffic (i.e. circulation between land uses within the development and the intersections with the rest of the Town's streets system) and improvements to the overall Town streets system (the type of improvements for which the impact fee is designated) should be considered when site improvements are negotiated. The Mancos Land Use Code subdivision standards (section 4.3, Streets and Alleys) contain language that gives the Town authority to require off-site improvements (improvements beyond the boundaries of the subdivision) as part of a subdivision process in order to adequately serve the subdivision. If these off-site improvements will serve existing development or

future subdivisions, the Town should establish a reasonable credit towards the impact fees for the development. If off-site improvements will only benefit the subdivision itself, then they do not warrant a credit.

In these case by case subdivision/annexation crediting scenarios, it is probably not as important how the credits are addressed so much that they are addressed and that a concerted effort is made to avoid "double dipping". One way to deal with credits of this type is to take the value of the improvements to the overall streets system and discount each Average Daily Trip in the subdivision equally. For example:

A subdivision is required to improve an existing collector street that serves existing development and will most likely serve future subdivisions. The cost of the improvements is \$50,000 and the subdivision is expected to generate 1000 average daily trips, thus the credit would be \$50/ADT, or about a \$350 discount per single family home under the fee proposed in this study.

In calculating this type of credit, it is crucial for the Town to distinguish between improvements specifically related to and benefiting the subdivision, and those improving the overall streets system. *No credit is necessary for improvements serving only the needs of a particular development.*

XIII. Credit for General Fund Tax Revenue Spent on Streets Capital Improvements

While the Town has no officially earmarked revenue source for streets capital improvements, it has and will continue to pay for some level of streets capital improvements using a portion of general fund revenues that are unofficially designated to the streets fund. The revenue sources that warrant a credit from the streets mitigation fee are:

1. HUTF funds allocated by State to Town originating from gas tax and registration fees
2. Specific Ownership Tax collected by County and allocated to Town
3. County Road and Bridge funds collected by County and allocated to Town.

These revenue sources make up the backbone of the streets fund. Historically and in future years the Town has, and will use, about 30% of these revenues for streets capital improvements, some of which will likely go towards the same improvements included in the streets mitigation fee. Thus, in order to avoid double charging future development, which will also pay gas tax, specific ownership tax, and road and bridge property tax, RPI recommends that the Town adopt the system of general fund credits toward the impact fee.

An analysis laid out in detail in **appendix VII** establishes the total credit as \$13 per average daily trip (ADT) as summarized in **figure 15**.

Figure 15. Credits

HUTF Tax Credit per ADT	\$	4
Specific Ownership Tax Credit per ADT	\$	5
County Rd. and Bridge Revenue Credit per ADT	\$	4
Total Credits per ADT	\$	13

Sources: see appendix VII for sources

The fact that the credit is calculated per Average Daily Trip allowed RPI analysts to subtract the credit from the Cost per Average Daily Trip summarized in **figure 16** to get the base mitigation fee per Average Daily Trip. The credit amounts to a 6% discount against the full cost of providing the streets capacity related improvements included in this analysis.

Figure 16. Base Mitigation Fee per Average Daily Trip

Total Cost Per ADT	\$	290
General Fund Credit per ADT	\$	13
Final Fee per ADT	\$	277

Fee Schedule

The fee thus far has been stated in terms of the cost per increment of traffic, or average daily trip. As established earlier in the report, each increment of development leads to a proportionate increase in traffic, according to different traffic generation rates contained in the ITE¹⁵, adjusted to account for pass-by trips and avoid double counting. Establishing a fee schedule involves multiplying the trip generation for various land uses by the base fee per average daily trip calculated in **figure 16** (\$277).

XIV. Residential Streets Mitigation Fee Schedule

Throughout this analysis, residential traffic generation has been analyzed separately for two residential units types due to their differing trip generation rates (single & multi-family). For a description of the residential adjustment factor see **appendix I**.

Figure 17. Residential Fee Schedule

Land Use	Total Driveway Volume	Adjustment Factor	Trip Generation	Fee per Units
Single Family Detached Unit	9.6 ADT	71%	6.8 ADT	\$ 1,890
Multi-Family Attached Unit	6.6 ADT	71%	4.7 ADT	\$ 1,300

XV. Non-Residential Mitigation Fee Schedule

In practice, the majority of fees for non-residential development in Mancos will be based on independent traffic studies. That is to say, an applicant seeking to build a

¹⁵ Institute of Transportation Engineers Trip Generation Manual, the authority on traffic generation analysis.

commercial structure will submit to the Town fee administrator an analysis to determine the number of vehicles trips generated by the type of businesses to be located in the structure, and once approved by the fee administrator, the fee will be calculated by multiplying the development's trip generation (in average daily trips) by the per trip fee listed above (\$279 per ADT).

Nonetheless, it may be useful to look at a schedule of fees based on standardized numbers¹⁶ even though non-residential traffic generation rates from standardized sources may not always reflect unique small town conditions. Traffic generation by non-residential land uses is typically measured in terms of the average daily trips per thousand square feet of floor area -- consequently the fees are also expressed in this manner.

Figure 18. Example Non-Residential Mitigation Fees Using ITE Trip Generation Rates

Land Use Category	Driveway Volume (ADT per 1000 Sq Ft or Other Units if Noted)	Adjustment Factor	Trip Generation (ADT per 1000 Sq Ft or Other Units if Noted)	Mitigation Fee (per 1000 Sq. Ft. or Other Units if Noted)
bank	156	22%	34	\$ 9,418
carwash (<i>per position</i>)	40	22%	9	\$ 2,493
medical clinic	31	50%	16	\$ 4,432
general office	11	50%	6	\$ 1,662
hardware store	51	50%	26	\$ 7,202
high turn-over restaurant	130	50%	65	\$ 18,005
industrial	2	50%	1	\$ 277
light industrial	7	50%	4	\$ 1,108
lodging (<i>per lodging unit</i>)	6	50%	3	\$ 831
post office	108	22%	24	\$ 6,648
quality restaurant	90	50%	45	\$ 12,465
specialty retail	40	22%	9	\$ 2,493
super market	112	22%	25	\$ 6,925
video store	54	22%	12	\$ 3,324
warehousing	5	50%	3	\$ 831

Note: In practice, fees for non-residential development will be calculated using independent traffic generation studies, not standard traffic generation numbers. Most likely, given the lower level of activity in small town commercial establishments, the independent studies will find lower traffic generation rates in Mancos than the standard rates based on national averages and therefore the fees will be lower than those in the example schedule above.

Cash Flow

RPI analysts have conducted a cash-flow analysis in order to provide an approximate estimate of the revenues Mancos might realize from this fee on an annual basis. The Town should not budget based on these cash flow estimates, but measure the fee's performance every year and base budgeting upon the actual collections.

¹⁶ Trip generation numbers obtained from the Institute of Transportation Engineers Trip Generation Manual, 6th Edition, 1997

The cash flow from residential development is derived by multiplying the appropriate mitigation fee (**figure 18**) to the average number of new units that have been built in past years. If residential growth continues as it has, the Town could realize an average of about \$17,000 per year from residential development alone. Unsteady growth will result in uneven collections from year to year.

Figure 19. Cash Flow Projections

	New Units 1990-2002	Average Units Per Year	Mitigation Fee Revenue per Year
Single Family	77	6	\$ 11,340
Apartment/Condo	57	4.4	\$ 5,720
Total (rounded)			\$ 17,100

Non-residential fee revenue is more difficult to project. RPI assumes that due to the mixed nature in small-town non-residential development (e.g. a gift shop with a deli, or building with a commercial cabinet shop on one side and a wood stove store on the other) means that most of the non-residential developments will submit independent traffic generation studies to the Town to assess their mitigation fees. This makes it difficult to ascertain the relationship between projected growth and the amount of revenue that might be collected. It appears, based on discussions with the building official and by analyzing the assessor data, that about 3-4 non-residential structures are added per year. If, on average, a non-residential structure pays a \$2,500 mitigation fee an additional \$7,500 per year will be added to the residential fees, bringing the total average annual revenue to around \$25,000.

Implementation, Administration, and Procedural Considerations

Who is Subject to the Fee

RPI recommends that the fee be applied to all building permits for new construction (both residential and non-residential) in Town boundaries. That is, the fee should be applied to development on both existing platted vacant lots and to development on lots in future subdivisions. The other option is to collect the fee only on future subdivisions, but given the rarity of new subdivisions and the fact that most of new development is occurring in subdivisions platted decades ago, applying the fee in this manner would capture only a sliver of the impacts and yield very little revenue. Nonetheless, a fee attached only to new subdivisions will yield *some* revenue and begin to capture a larger portion of the impacts as the Town expands into new subdivisions over time.

The fee should be applied to development on both existing platted vacant lots and to development on lots in future subdivisions.

The Town also may consider applying the impact fee to the expansion of existing non-residential structures. This would eliminate a loophole in which a developer builds a 1000 sq. ft. structure one year and pays the streets mitigation fee accordingly, but

subsequently doubles the size to 2000 sq. ft. the next year by applying for an addition permit.

Exemption for Affordable Housing

The impact fee Statute includes specific provisions allowing (but not requiring) local governments to exempt “low or moderate income affordable employee housing” from impact fees:

...a local government may waive an impact fee or other similar development charge on the development of low- or moderate- income housing or affordable employee housing as defined by the local government.¹⁷

If the Town chooses to consider an exemption or reduction in fees for affordable housing, several issues should be explored:

- 1) How does the Town define affordable housing? The first step would be to determine how to measure affordability. Typically, affordability is based on the earning power of local households or prospective newcomer households, but local circumstances might make additional considerations necessary (such as commuter households with higher earnings in adjacent counties).
- 2) After affordability is defined, the question becomes: How does this affordability, or local households' ability to pay for housing relate to the construction of *new units* of various types and sizes? In other words, how does the Town go from defining affordability (usually defined in terms of an affordable price) to setting some exemption threshold? Would the exemption be based on size, unit type, location? Other issues relate to real estate market dynamics and the fact that housing that is affordable in today's market may be unaffordable in next year's market.
- 3) A waived fee can be a market cue, creating incentives for certain types of development and disincentives for other types. For example, the Town conducts an analysis and finds that affordable housing, as defined by local earning power, includes mobile homes and apartments. If the Town grants an exemption for affordable housing defined in such a way, it may create incentives for this type of development. This may be good, bad, or benign, depending on the Town's ability to provide services to these denser development types without jeopardizing service levels or other community goals or values.
- 4) Finally, if the Town waives fees for development of a certain type, or below a certain size, how does it propose to maintain its level of service for Steets given the waived revenue? The population occupying the affordable housing will draw upon general government facilities the same as other residents, but will

¹⁷ CRS. 29-20-104.5

not be paying the fee. Maintaining service levels may require Town make up for the waived revenue from other funds.

In short, the Town has full authority to create a waiver or discount for affordable housing, but implementing such waivers or discounts requires careful analysis of regional labor force dynamics, real estate markets, and may require some expenditures out of other funds to compensate for waived revenues.

Exemptions for Certain Public Facilities

The Town may wish to waive impact fees for some public facilities (classified as government/institutional/community facilities). For example, the Town might consider exempting all government and special district facilities from the impact fee. Fundamentally, services and facilities provided by governments (local, state, and federal) and special districts all serve the same end, to provide some type of service or to the residents, businesses, and visitors.

When to Collect the Fee

Given the language in the Impact Fee Statute and the provisions in the Mancos Land Use Code, the Town is authorized to collect the streets mitigation fee prior to building permit issuance, when the building permit fees are collected. This always makes sense in the context of impact fees, because impacts accrue when development takes place. Developers generally also prefer this arrangement because it minimizes the amount of time they are required to “carry” the cost of the mitigation fee before passing it on to the buyer.

Other Legislative/Legal Considerations

- Be certain that the goal of requiring new development to pay its fair share of the costs of streets capacity related improvements is a clearly stated goal, objective, or policy in the Town Master Plan.
- Adopt the fee schedule by resolution or ordinance adopting the fee schedule into the land use code. The fee schedule, applicability, and purpose should be located or referenced in the Zoning Development Permit section of the Code. The Zoning Development Permit section of the Code (L.U.C. 6.21 and appendix A) should be amended to require the payment of the adopted streets mitigation fees prior to the issuance of a building permit. Include within the resolution or ordinance legislating the code amendments a statement concerning the purpose of the fee (to require new development to pay its fair share of the costs of streets capacity related improvements). Also note provisions to sequester the funds and stipulate the purposes of their expenditure.
- Adopt language into the code allowing for an administrative appeal process for the streets mitigation fee. The ability to appeal should be granted to applicants

for development as well as to the fee administrator. In practice, an applicant for appeal would be appealing a determination of the fee administrator. Given that the fee administrator will most likely be the Town Administrator or an assistant to the Administrator, the appeal would best be directed towards the Town Board of Trustees. Generally, an appeal of a determination of a mitigation fee must occur within a certain window of time after the fee determination is made (15 days is typical). Statutory time limits on appeals can also limit the amount of time the Town has to schedule the appeal hearing, and public notice should be provided to adjacent property owners and affected parties or more broad public notice should occur in the newspaper¹⁸. A fair administrative appeal process is a necessary tool for resolving conflicts and avoiding litigation.

How to Calculate the Fees

XVI. Residential Fees

For residential development, the land use categories are simple: single-family detached units cost \$1,890 per unit and multi-family apartments/condos cost \$1,300 per unit.

XVII. Non-Residential Fees

Determining the fee for non-residential land uses involves some level of analysis. To help with this process, the Town should consider obtaining a copy of the ITE¹⁹. The basic formula for calculating non-residential fees follows:

Driveway Volume (ADT) * Adjustment Factor % * Base Mitigation Fee (\$277)

The driveway volume is the trips in and out of the establishment. The ITE contains driveway volume averages per 1000 sq. ft., employee, etc. for hundreds of land uses and is an invaluable resource for estimating trip generation. The adjustment factor is to account for pass-by trips and double counting. In all cases with non-residential development, the adjustment factor never exceeds 50% because at least half of the trips are leaving the establishment for another destination, thus, those trips should not be assigned to that establishment. Generally speaking, retail establishments, video stores, gas stations, and the like are assigned a 22% adjustment factor because stops at these establishments tend to be combined with other "errands". However, office buildings, movie theaters, and the like tend to be the primary purpose of a trip and therefore they are assigned a 50% adjustment factor. The ITE contains more information on pass-by trips and the adjustment factors.

¹⁸ The Town will need to research the specific time limits and noticing requirements surrounding this type of appeal.

¹⁹ Institute of Transportation Engineers Trip Generation Manual 6th Edition, 1997

XVIII. Independent Fee Calculation for Non-Residential Development

Small-town non-residential development is often mixed (e.g. a gift shop with a deli, or building with a commercial cabinet shop on one side and a wood stove store on the other) or operates at a lower intensity than the establishments included in the studies upon which the ITE driveway volume estimates are based. For this reason, Mancos may consider the option of allowing for independent traffic studies for non-residential development. The studies submitted by the applicant would simply estimate how many trips that establishment would attract on a daily basis. The independent traffic study could be reviewed as part of the zoning development permit application process and the fees would be assigned accordingly. If the Town decides to allow this option, it would be crucial to outline some parameters for the studies and assign the duty of reviewing the studies to a fee administrator.

Appendix I

Two factors must be considered in the process of establishing the residential trip adjustment factor for Mancos:

1. Commuters to Other Towns
2. Shopping in Other Towns

XIX. Commuters

The Census 2000 summary file 3 contains the number of commuters that live in Mancos, but work in another place. Adjusting the 2000 figure upwards by the growth in labor force for 2000-2002 yields a total of 328 Commuters out of Mancos for work. The trips in-bound to the residence are already included in the standard 50% adjustment factor, but the 328 outbound trips going to other Towns for work must be attributed to the residential sector, or they will go unmitigated. The 328 outbound commuter trips constitute 7% of the total residential driveway volume. See **figure 20** for a graphic summary.

Figure 20. Residential Trip Adjustment for Mancos Out-Commuters

2002 Commuters Out of Mancos	328
Total Residential Driveway Volume 2002	4,952
Commuter Adjustment	7%

XX. Shopping in Other Towns

In order to determine whether and to what degree Mancos residents shop in other Towns, RPI analysts conducted calculations as follows:

1. First, 2000 taxable sales were calculated by dividing the sale tax revenue (obtained from the CO Dept. of Revenue) by the current sales tax rate.
2. The taxable sales include tourist spending, and this analysis focuses on resident spending, so in order to calculate local resident spending analysts assumed that 1st quarter sales tax collections, the true "off-season" for Mancos, represent the level of local spending. In order to calculate the proportion of annual sales tax that is generated by residents to total sales tax collections, analysts summed the first quarter collections for 1996-2000, multiplied by 4 (to spread 1st quarter spending levels throughout the year) and divided this into the total for this same year. This yielded the conclusion that 72% of all sales tax is generated by local resident spending.
3. Applying this proportion (72%) to the tax collections for 2000, and dividing by the rate yields the 2000 local resident taxable sales for 2000 (\$4,142,995).

4. According the Census 2000, the aggregate income for all households in the Town of Mancos is \$15,935,100. Dividing the taxable sales into this number yields the percentage of income spent on local retail and taxable services (26%).
5. 26% is 12 percentage points lower than the average retail spending as a proportion of income according to the 1997 Consumer Expenditure Survey conducted by the Census Bureau (38%).
6. Dividing the 26% observed in Mancos into the standard 38% yields the conclusion that 32%, or about 1/3 of the Town residents' retail spending takes place in other Towns.
7. Separating out all commuter trips (in-town commuting plus the out of town commuting accounted for above), we find that the remaining outbound driveway volume from residences in Mancos is 1,970 ADT.
8. Not all non-commuting trips are for shopping. In fact, by examining the non-residential trip generation by type (2002 Non-Residential Inventory by Use and Trip Generation), only 45% of the non-residential trips are to retail establishments. The other 55% are to offices, institutions, schools, the post office, etc.
9. Multiplying the percentage of resident shopping occurring outside of Mancos by the percentage of trips attributable to shopping yields the percentage of outbound trips to shopping establishments in other towns. This is the shopping adjustment factor.

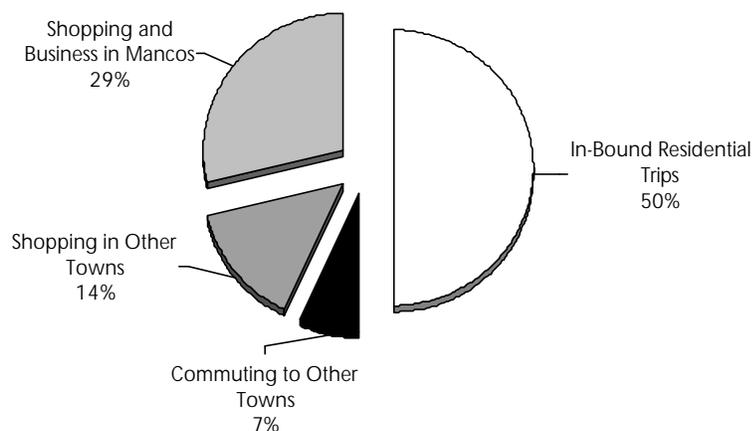
Figure 21. Adjustment for Shopping in other Towns

Sale Tax Revenue 2000	\$ 228,073
Sales Tax Rate	4%
Total Taxable Sales	\$ 5,701,835
Local Resident Sales Tax 2000	\$ 165,720
Local Resident Taxable Sales 2000	\$ 4,142,995
Aggregate Household Income	\$ 15,935,100
Proportion of Household Income Spent on Shopping in Mancos	26%
Normal % Spent on Retail (from Consumer Expenditure Survey)	38%
% of Shopping Occurring in Other Towns	32%
Commuter Outbound Trips	506
Other Outbound Trips	1,970
% of Non-Res Trip Generation for Shopping	45%
% Adjustment for Shopping in Other Towns	14%

XXI. Residential Trip Adjustment Summary

Figure 22 summarizes the proportions accounting for the aggregated residential driveway trip volume. In-bound trips are always attributed to the land use (a residence in this case) and as demonstrated above; 7% of the outbound trips are commuters to other towns, attributable to the residence itself; and 14% of the outbound trips are for shopping in other towns, also attributable to the residence itself. The sum of these percentages is 71%, the residential adjustment factor.

Figure 22. Accounting for Aggregate Residential Driveway Average Daily Trip Volume



Appendix II

2025 Non-Residential Land Use Projections

The level of detail in the land use inventory (2002 Non-Residential Inventory by Use and Trip Generation) was achieved, in part, by taking into account the name of the business (e.g. Millwood Junction, Cox Conoco, etc.). In order to conduct a projection, RPI needed historic non-residential land use data, also available using the Assessor database²⁰, but was constrained to maintain the categories used by the Assessor's office. While the Assessor's office assigns improvements to various categories based on how the building is designed and its generally intended use, the categories in **figure 23** were defined, in many cases, by the business currently occupying the space. To say that the current business occupying the building now is the same as it was in 1990 would be too liberal of an assumption. To avoid un-grounded assumptions, RPI simply redefined the land use categories to align with the Assessor categories for the purpose of conducting the 2025 projections.

²⁰ For every improvement in the County, the Assessor's database contains a year-built field, which can generate historic growth trends using standard query methodology.

Figure 23. Non Residential Land Use Categories

Category	1990	2002	% Increase 1990-2002	Annual Increase	Projection Factor	Increase Percentage	Projected 2025 Sq. Ft.	2002-2025 Change
Merchandising	41,220	54,020	31%	1,164	Town Population and Highway 160 Traffic (Averaged)	55%	83,526	29,506
Lodging	21,107	21,107	0%	-	Linear Projection of Montezuma County Lodging Employment	82%	38,375	17,268
Offices	3,717	8,530	129%	438	Linear	123%	19,031	10,501
Special Purpose	41,052	84,555	106%	3,955	Linear	112%	179,471	94,916
Warehousing	14,079	48,255	243%	3,107	Linear	155%	122,821	74,566
Multi-Use	5,459	5,459	0%	-	Linear	0%	5,459	-
Manufacturing	14,512	25,012	72%	955	Manufacturing Job Growth in Montezuma County	62%	40,519	15,507
Exempt	82,344	113,242	38%	2,809	Linear	60%	180,656	67,414
Total	223,490	360,180	61%	12,426			669,858	309,678

Different categories required different projection factors. The merchandising category contains most of the retail establishments. The Mancos retail market consists of downtown retail and highway retail. While the downtown retail serves the local population (and some tourists) the highway retail serves the highway and the locals. Thus a reasonable projection factor was the average of projected population growth and projected highway traffic (obtained from the CDOT plans for Hwy. 60).

Lodging did not increase during the 1990's, but a linear projection of no growth is no growth, which does not agree with the market potential for more lodging in Mancos, given its proximity to many amenities, one of which is Mesa Verde National Park. Instead of using a linear projection, RPI applied the projected growth in lodging employment²¹ in Montezuma County to the square footage to obtain a 2025 projection for lodging square footage in Mancos. A parallel process was used to generate a 2025 projection for manufacturing square footage.

The other categories were appropriate for the application of a linear projection using the annual increase between 1990-2002 obtained by analyzing the year-built field in the Assessor database.

Appendix III

2025 Trip Generation Projection

Part of the motivation for conducting the detailed land use inventory for 2002, containing 19 land use categories, was to achieve congruency with the categories contained in the ITE for calculating driveway trip volume. However, as stated in

²¹ Used CO Demography Section total employment projections for 2025 and applied the percent of total employment growth 90-2001 to calculate the percentage of projected job growth to be held by lodging for 2002-2025. Total projected growth was then added to 2001 lodging employment (obtained using Demography Section's CEDIS system) to obtain a projected 2025 lodging employment projection, and growth rate was calculated accordingly.

Appendix II, such a detailed categories could not be used for conducting long-range projections.

In order to calculate trip generation rates specific to the Assessor categories, RPI developed trip generation rates (already accounting for double counting and pass-by trips) by calculating the average trip generation rates per 1000 sq. ft. by assessor code using the detailed analysis conducted for 2002. The detailed inventory for 2002 is an aggregation of a line-by-line trip generation analysis of each improvement in Town. After completing the trip generation analysis, RPI simply aggregated this improvement specific analysis by Assessor code, instead of by the more detailed 19 category menu presented for the 2002 inventory and trip generation analysis. These trip generation rates by Assessor code reflect the mix of uses contained in each category, and thus present an accurate trip generation rate for the Town of Mancos by Assessor Code. Trip generation rates organized in this fashion made calculating the projected growth in trips through 2025, based on the projected growth in non-residential land use in 2025 a matter of multiplication.

Figure 24. Trip Generation Rates

Category	2002-2025 Change	Trip Generation Rates by Assessor Category	Additional Trip Generation 2003-2025
Merchandising	29,506	14	413
Lodging	17,268	6	104
Offices	10,501	15	158
Special Purpose	94,916	15	1424
Warehousing	74,566	3	224
Multi-Use	-	11	0
Manufacturing	15,507	2	31
Exempt	67,414	3	202

The aggregation of projected new traffic for each category reveals an 85% increase in non-residential traffic in Mancos through 2025.

Figure 25. Average Daily Trip Increase 2002-2025

Non Residential ADT 2002	3,000
Non Residential ADT 2025	5,560
Percent Increase	85%

Appendix IV

Appendix IV
Mancos Streets:
Current and Planned
RPI Consulting 2003



Appendix V

Planned Streets Improvements Costs

Given the improvements as outlined in Wilbur Engineering's 2003 report (**Attachment A**), the following chart of itemized costs applies to the 4 projects included in the plan-based component of the streets mitigation fee.

Figure 26. Planned Streets Improvements

	South Main	Monte Street	Sunset	Park Street
Road Base and Surface	\$ 130,362	\$ 36,469	\$ 126,544	\$ 33,500
Curb & Gutter	\$ 27,200			
Driveway Features & Culverts	\$ 22,800	\$ 1,600	\$ 2,450	
Sidewalk	\$ 28,800	\$ 37,200	\$ 53,280	
Contingency/Engineering/Surveying/Legal	\$ 31,374	\$ 11,290	\$ 27,341	
Total	\$ 240,536	\$ 86,559	\$ 209,615	\$ 33,500

Grand Total (rounded to thousands)	\$ 570,000
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The only project not included in Wilbur Engineering's analysis that is included in **figure 26** is the \$33,500 improvement to Park Street. According to Bahram Seifipour of CDOT, this is the Town's share of the cost of these improvements planned for the summer of 2003.

Appendix VI

Share of Maintenance Facilities Demand Generated by Streets

The best indication of how much each of the functions provided by public works draws on the maintenance facilities is the maintenance budget expenditures. To calculate the maintenance expenditures for each of the functions, RPI analyzed the 2003 Town Budget for maintenance related expenditures for the four funds. The percent each holds of the total represents the amount each of the functions draws on the maintenance facilities. Streets draws on approximately 36% of the public works facilities.

Figure 27. % of Maintenance Facility Usage

	2003 Maintenance Expenditures	% of Facility Usage
Streets	\$ 10,500	36%
Parks	\$ 1,700	6%
Sewer	\$ 5,350	19%
Water	\$ 11,350	39%

Appendix VII

General Fund Credit Calculations

Three primary funding sources form the Town's Streets Fund:

1. HUTF revenue allocated by the State consisting of two sources:
 - a. The \$.22/gallon gas tax
 - b. Registration fees
2. Specific ownership tax collected by the County attached to vehicle registration and allocated proportionate to the percentage of the total mill levy each taxing district holds.
3. County road and bridge property tax revenue allocated to the Town from the County based on half the assessed valuation of property in the Town applied to the County road and bridge mill levy

Calculating the credit for each requires a unique methodology, but all three can be stated in terms of a credit per average daily trip and can thus be combined into one expression.

HUTF Credit

Figure 28 shows the mathematical operations and sources leading to the \$6 / ADT credit for payments into HUTF streets revenue.

Figure 28. Credit for Payments into the HUTF Streets revenue source

Gas Tax			
		Variable Symbol	Source or Formula
Registered Vehicles in Mancos 2002	1078	a	http://www.dola.state.co.us/is/cedishom.htm
2002 Average Daily Vehicle Trips in Mancos	6,520	b	figure x - Residential and Non-Residential ADT
Trips per Registered Vehicle	6.0	c	b / a
Gallons of Gas per Vehicle per Year	581	d	http://www.epa.gov/otaq/consumer/f00013.htm
Gallons of Gas per Year per Average Daily Trip	96	f	d/c
Gallons of Gas per Year per Average Daily Trip Purchased in Mancos	65	g	f * [1-% of shopping occurring outside of Mancos] figure x - Adjustment for Shopping in Other Towns
Gas Tax per Year per Average Daily Trip (@ \$.22/gal)	\$ 14	h	g * \$.22/gal (http://www.revenue.state.co.us/)
Gas Tax per Year per Average Daily Trip Back to Town	\$ 1.15	j	see note 1
% of Streets Revenue Spent on Streets Capital Facilities	30%	k	see note 2
Gas Tax Credit Jan 2004- Jan 2014	\$ 3.44	l	j * k * 10 yrs (see note 3)

Figure 28 Continued

Other HUTF Revenue			
Other HUTF per Registered Vehicle	\$ 4.32	m	see note 4
Other HUTF Tax per Average Daily Trip	\$ 0.71	n	m / c
Other HUTF Tax per Average Daily Trip Back to Town	\$ 0.06	p	see note 1
Other HUTF Credit 2004-2014	\$ 0.17	q	p * k * 10 yrs

Total HUTF Credit			
HUTF Tax per Average Daily Trip 2004-2014	\$ 4	r	q + l (rounded to nearest 1\$)

Specific Ownership Tax

Often called vehicle registration tax, this tax is paid as part of the vehicle registration fees, but the County allocates the revenue directly without going through the CO Dept. of Revenue. **Figure 29** outlines the operations and sources to calculate the specific ownership tax. Some of the variables refer back to quantities derived in **figure 28**, the HUTF tax calculations.

Figure 29. Specific Ownership Tax Credit

Specific Ownership and Motor Vehicle Tax Credit			
		Variable Symbol	Source or Formula
Specific Ownership and M.V. Tax Revenue Dedicated to Streets 2002	\$ 9,776	z	see note 5
Registered Vehicles in Mancos 2002	1,078	a	a in figure 28
Revenue per Year per Registered Vehicle	\$ 9.10	y	z / a
Average Daily Trips per Registered Vehicle	6.0	c	c in figure x
Revenue per Year per Average Daily Trip	\$ 1.50	x	y / c
Revenue per Average Daily Trip 2004-2014	\$ 15	v	x * 10 (see note 1)
% of Streets Budget Spent on Capital Expenditures	30%	k	k in figure 28
Credit per Average Daily Trip	\$ 5	u	k * v

Road and Bridge Property Tax

The road and bridge property tax revenue allocated by the County to the Town is also allocated to the streets fund and thus warrants a credit.

Figure 30. Road and Bridge Property Tax Credit

Road and Bridge Property Tax Credit			
		Variable Symbol	Source or Formula
Mancos Assessed Valuation 2000	\$ 7,388,710	A	2000 Dept of Local Affairs Property Tax Annual Report
Road and Bridge Mill Levy	2.616	B	same source as A
2000 Rd. and Br. Revenue	\$ 9,664	C	(B/1000) * A * 50% (see note 6)
Portion Generated by Residential and Non-Residential Development	\$ 8,220	D	note 7
Portion of Rd. and Br. Revenue Spent on Streets Capital Facilities	\$ 2,467	F	D * k in figure 28
Average Daily Trips	6,520	b	b in figure 28
Rd. and Br. Revenue per Average Daily Trip	\$ 0.38	H	F / b
Rd. and Br. Revenue per Average Daily Trip 2004-2014	\$ 4	J	H * 10 (rounded to nearest \$1)

Total Credit

Because all of the credits are stated in terms of \$/ADT, combining them into one quantity is a matter of simple addition.

Figure 31. Total Credit per ADT

HUTF Tax Credit per ADT	\$ 4
Specific Ownership Tax Credit per ADT	\$ 5
County Rd. and Bridge Revenue Credit per ADT	\$ 4
Total Credits per ADT	\$ 13

Notes to Figures 29, 30, and 31

Note 1: CDOT uses HUTF revenue to pay for State road operations and capital improvements as well as providing Counties with some revenue and cities. First CDOT takes an "off-the-top" percentage (currently 11%, but increasing at a moderate rate each year). After these appropriations occur, the 9% of the remaining revenues go to cities. Thus amount of HUTF funding that goes back to the Town is $89\% * 9\% = 8\%$

Note 2: Based on *actual* expenditures 1999-2002. See Appendix VIII.

Note 3: 10 years is the credit time frame. Based on tentative construction plans, it is assumed that the improvements identified in this impact fee will be in place by 2014. The Town is unlikely to leverage debt off of HUTF funds, so general fund expenditures on many of the improvements identified in this fee will most likely occur as the improvements are undertaken. This means that within 10 years many of the improvements will be in place and the credit may no longer apply and should be re-evaluated at this time.

Note 4: In 2000 nearly 16 million of *other HUTF revenue* (not derived from gas tax, derived from state registration fees) went back to Cities and Towns (CDOT 2000-01 Budget). Dividing this by the number of registered vehicles in Colorado in 2000 yields an average of just over \$4 per vehicle per year in *other HUTF revenue*.

Figure 32. Other HUTF per Vehicle per Year

Other HUTF Back to Cities 2000	\$ 15,892,200
Registered Vehicles 2000	\$ 3,676,034
Other HUTF per Vehicle per Year	\$ 4.32

Note 5: This is a 4 year average obtained by averaging 1999-2002 Town budget actual revenues received from specific ownership tax and motor vehicle tax each year.

Note 6: The County allocates the Town half of the property tax derived from applying the Road and Bridge mill levy to the Town's assessed valuation.

Note 7: This is the portion of the assessed valuation of the Town that is derived from property containing developed residential and non- residential structures. It excludes revenue generated by property that would not be assessed an impact fee under the fee as presented in this report (vacant land and state assessed property like utilities and resource extraction).

Appendix VIII

Analysis of Streets Budget Expenditure and Revenues 1999-2002

Figure 33 summarizes streets budget details for 1999-2002. The operating costs were disaggregated from capital expenditures on a line by line basis. Since the staffing costs for streets is covered under public works administration, neither the operating expenditures nor the capital expenditures include staffing costs in Figure 33. Streets related revenue includes gas tax and other HUTF revenue, motor vehicle and specific ownership tax, as well as County road and bridge property tax. These are the categories of revenue specifically related to transportation and automobiles.

Figure 33 – Streets Budget Summary

Year	Operations Expenditures (does not include staffing costs)	Capital Expenditures	Total Expenditures (does not include staffing costs)	Streets Related Revenue
1999	\$ 22,925	\$ 16,537	\$ 39,462	\$ 50,740
2000	\$ 46,599	\$ 12,433	\$ 59,033	\$ 53,912
2001	\$ 45,048	\$ 24,128	\$ 69,176	\$ 45,560
2002	\$ 34,465	\$ 10,808	\$ 45,273	\$ 46,400

Even when staffing costs are not included, overall through the 4 year period, the streets related revenue falls short of covering the streets related costs by 8% (Figure 34). The shortfall would be much greater taking into account staffing costs.

Figure 34 – Streets Revenue Shortfall

Total Revenue 1999-2002	\$	196,611
Total Expenditures 1999-2002 (does not include staffing costs)	\$	212,945
Shortfall		8%

Looking at the years 1999-2002 combined, RPI found that the Town spends 70% of its streets fund expenditures on operations and maintenance while the other 30% is spent on capital improvements.

Figure 35 – Streets Operations vs. Capital Expenditures

