AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

Agenda Item: Discussion; Transportation Impact Fee

Action Requested: Discussion

Parties to the Agreement:

Term Begins: **Term Ends:** **Grant Contract #:**

Summary:

Transportation Impact Fee

Fiscal Impact:

Submitted by: Neal Starkebaum **Submitter's Email Address:** nstarkebaum@gunnisoncounty.org

Finance Review: (●) Required ( ) Not Required

Comments:
NO concerns. ln

Reviewed by: GUNCOUNTY1\lNienhueser Discharge Date: 3/21/2019

County Attorney Review: (●) Required ( ) Not Required

Comments:
ok for placement on agenda db 3/21/19

Reveiwed by: GUNCOUNTY1\dBaumgarten Discharge Date: 3/21/2019 Certificate of Insurance Required Yes ( ) No (●)

County Manager Review:

Comments:

Reveiwed by: GUNCOUNTY1\mbirnie Discharge Date: 3/21/2019

( ) Consent Agenda ( ) Regular Agenda ( ) Worksession Time Allotted: 30 minutes

Agenda Date: 3/26/2019

Revised April 2015

Gunnison County Community
Development Department
Offices of Planning, Building and Environmental Health
221 N. Wisconsin St., Ste. D
Gunnison, CO 81230
Phone: (970) 641-0360 Fax: (970)641-8585

March 13, 2019

TO: **Board of County Commissioners**
Matthew Birnie, County Manager
David Baumgarten, County Attorney
Cathie Pagano, Community and Economic Development Director
Marlene Crosby, Public Works Director

FROM: **Neal Starkebaum, Assistant Director**

SUBJECT: **Transportation Impact Fee Update**

The *Gunnison County Road and Bridge Capital Expansion Impact Fee Report* was prepared by RPI Consulting, in April 2009. RPI Consulting updated the *Report* in 2014, titled *Gunnison County Road and Bridge Impact Fee and Safety Impact Fee Support Studies*. The Board reviewed, but decided not to adopt the transportation impact fee in 2014.

Below is an example of current total building permit fees including the building permit fee, linkage fee and (2018) Transportation Impact Fee, based upon a range of square footages, for a single-family residence. The Transportation Impact Fee will increase incrementally, each year, until 2040. (See report)

2018 Single-Family Residence

Square Feet	BP Fee	Linkage Fee	Subtotal	Trans Fee	Total Fees
1,500	$2,041.73	$500	$2,541.73	$1,997	$4,538.73
2,200	$2,796.69	$1,049	$3,845.69	$1,997	$5,842.69
3,500	$4,197.39	$5,698	$9,895.74	$1,997	$11,895.74
5,000	$5,574.73	$11,438	$17,012.23	$1,997	$19,009.73

The Transportation Impact Fee for multi-family and non-residential categories (per 1,000 square feet), by category, is below, based upon categories identified by the Assessor's land use codes.

2018 Multi- Family and Non-Residential Categories (Per 1,000 square feet)

	Multi Family	Merchandising	Lodging	Offices	Warehouse	Multi-use	Industrial	Exempt
2018	$1,384	$3,936	$7,589	$2,298	$1,034	$4,416	$1,455	$2,298

Figure 19 - Road and Bridge Impact Fee Schedule

Example:
12,000 square foot Commercial Warehouse
Building permit fee $30,715 (including linkage fee) + Transportation fee (12 x $1,034) $17,460 = Total $48,175

The attached excel spreadsheets identify the fees that could have been collected at time of building permit issuance, from 2014-2018.

		TRANSPORTATION IMPACT FEE				
		NON-RESIDENTIAL				
		BUILDING PERMITS 2014-2018				
2014						
BP #	**TYPE OF USE**	**CATEGORY**	**SQUARE FEET**	**FEE/1000 SQ. FT.**	**MULTIPLER (SQUARE FEET/1000)**	**FEE**
14-186	STORAGE BARN	WAREHOUSE	391	$970.00	0.391	**$379.27**
2015						
BP #	**TYPE OF USE**	**CATEGORY**	**SQUARE FEET**	**$/1000 SQ. FT.**	**MULTIPLER (SQUARE FEET/1000)**	**FEE**
15-80	COMM STORAGE	WAREHOUSE	2,000	$987.00	2	$1,974.00
15-84	OC FIREHOUSE ADD	EXEMPT	533.25	$2,193.00	0.53325	$1,169.42
15-97	RESTAURANT	SPECIAL PURPOSE	3,103.75	$2,539.00	3.10375	$7,880.42
15-114	RESTAURANT ADD	SPECIAL PURPOSE	392	$2,539.00	0.392	$995.28
15-126	UTILITY STRUCTURE	INDUSTRIAL	66	$1,389.00	0.066	$91.67
15-146	OFFICE	OFFICES	530	$2,193.00	0.53	$1,162.29
(15-146)	COMM STORAGE	WAREHOUSE	2,647.50	$987.00	2.6475	$2,613.08
15-175	COMMERCIAL ADD	SPECIAL PURPOSE	1,976	$2,359.00	1.976	$4,661.38
15-179	COMM STORAGE	WAREHOUSE	8,528	$987.00	8.528	$8,417.13
15-214	COMM STORAGE	WAREHOUSE	15,264	$987.00	15.264	$15,065.56
						$44,030.23
2016						
BP #	**TYPE OF USE**	**CATEGORY**	**SQUARE FEET**	**$/1000 SQ. FT.**	**MULTIPLER (SQUARE FEET/1000)**	**FEE**
16-53	INDUSTRIAL ADD	INDUSTRIAL	3,250	$1,410.00	3.25	$4,582.50
16-81	MARIJUANA CULT	INDUSTRIAL	2,034	$1,410.00	2.034	$2,867.94
16-99	COMM STORAGE	WAREHOUSE	90	$1,002.00	0.09	$563.12
(16-99)	MERCANTILE	MERCANTILE	562.5	$3,814.00	0.562	$2,143.46
(16-99)	OFFICE	OFFICES	2,348	$2,226.00	2.348	$5,226.64
16-178	COMM STORAGE	WAREHOUSE	12,000	$1,002.00	12	$12,024.00
16-200	INDUSTRIAL ADD	INDUSTRIAL	400	$1,410.00	0.4	$564.00
						$27,971.66

2017						
BP #	**TYPE OF USE**	**CATEGORY**	**SQUARE FEET**	**$/1000 SQ. FT.**	**MULTIPLER (SQUARE FEET/1000)**	**FEE**
17-18	ROOF TRUSS	INDUSTRIAL	780	$1,365.00	0.78	$1,064.70
17-38	STORAGE BLDG	WAREHOUSE	3,200	$1,019.00	3.2	$3,260.80
17-150	COMM STORAGE	WAREHOUSE	1,852.50	$1,019.00	1.8525	$1,887.70
(17-150)	BUSINESS USE	SPECIAL PURPOSE	1,048.50	$2,622.00	1.0485	$2,749.16
17-171	VET CLINIC	SPECIAL PURPOSE	783	$2,622.00	0.783	$2,053.02
17-225	AIRCRAFT HANGER	SPECIAL PURPOSE	4,071	$2,622.00	4.071	$10,674.16
17-228	INDUSTRIAL	INDUSTRIAL	1,760	$1,434.00	1.76	$2,523.84
17-248	3 - TENANT SPACES	MULTI-USE	3,481	$4,352.00	3.481	$15,149.31
17-252	INDUSTRIAL	INDUSTRIAL	625	$1,434.00	0.625	$896.25
17-261	STORAGE BLDG	WAREHOUSE	9,600	$1,019.00	9.6	$9,782.40
						$50,041.34
2018						
BP #	**TYPE OF USE**	**CATEGORY**	**SQUARE FEET**	**$/1000 SQ. FT.**	**MULTIPLER (SQUARE FEET/1000)**	**FEE**
18-265	INDUSTRIAL	INDUSTRIAL	3,871	$1,455.00	3.871	$5,632.05
18-235	INDUSTRIAL	INDUSTRIAL	9,312	$1,455.00	9.312	$13,548.96
18-202	INDUSTRIAL	INDUSTRIAL	443	$1,455.00	0.443	$644.56
18-159	COMM STORAGE	WAREHOUSE	7,160	$1,034.00	7.16	$7,403.44
18-158	COMM STORAGE	WAREHOUSE	1,200	$1,034.00	1.034	$1,069.15
						$28,298.16
					TOTALS	**$150,712.66**
NOTES:						
	CATEGORY BASED UPON ASSESSOR LAND CODES					
	BASE FEE/1000 SQ. FT. INCREASES EACH YEAR					

Gunnison County Road and Bridge Impact Fee Support Study

Prepared by RPI Consulting, December 2014

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Introduction and Fee Summary

New development generates marginal increases to the overall traffic volumes. Increased traffic associated with new development directly contributes to the need for increasing the capacity of the County's road system. Without a method by which new development pays for directly related capacity improvements, existing taxpayers will absorb capital improvement costs made necessary by new growth. Impact fees assess new growth its fair share costs of building new capacity-related infrastructure.

The impact fee calculation process and methodology can be summarized as follows:

Land use inventory, growth projections and traffic– Fair share methodology requires a thorough inventory of existing development of both residential and non-residential land uses and growth projections. New development creates additional traffic, which drives demand for road and bridge capacity improvements. Using transportation engineering sources, the development inventory and projections can be translated into existing traffic volumes and future projections.

Impact fee components - The impact fee consists of four distinct components, each of which calculates future development's fair share of the cost of expanding the capacity of various components of the road and bridge department capital facilities to accommodate future growth (equipment, public works facility, land, planned road improvements).

Figure 1 – Impact Fee Components

Fee Component	Methodology
Equipment	Incremental Expansion
Public Works Facility	Debt Service Buy-In
Land Costs	Buy-In for Existing Assets Serving Future Growth
Planned Capital Improvements	Capital Improvement Plan Based

Impact fee schedule 2015 – The impact fee schedule increases annually due to the debt service buy-in component for the public works facility. Figure 2 shows the fee schedule for 2015. As more of the debt is paid by the community, the buy-in for new development increases (see full fee schedule in Figures 18 and 19). The fee schedule is organized by the land use categories used by the county assessor and is also stated as a cost per average daily trip generated for those land uses that do not fit these established land use categories.

Figure 2 – 2015 Impact Fee Schedule

	ADT	2015 Fee
Single Family	4.8	$1,906
Multi Family	3.3	$1,321
Non-Residential Categories (Per 1,000 s.f.)		
Merchandising	9.4	$3,757
Lodging	18.2	$7,244
Offices	5.5	$2,193
Recreation	4.5	$1,795
Special Purpose	6.4	$2,539
Warehouse	2.5	$987
Multi-Use	10.6	$4,215
Industrial	3.5	$1,389
Exempt	5.5	$2,193

Development Inventory and Land Use Projections

Fair share methodology requires a thorough inventory of existing development for both residential and non-residential land uses and growth projections. New development creates additional traffic, which drives demand for road and bridge capacity improvements.

Development Inventory

The residential development inventory is based on housing unit estimates from the Colorado Department of Local Affairs (DOLA). The non-residential inventory is derived from the Gunnison County Assessor's Database. According to DOLA (2012) estimates, there are 6,185 housing units in unincorporated Gunnison County, about 52% of total residential units in the County.

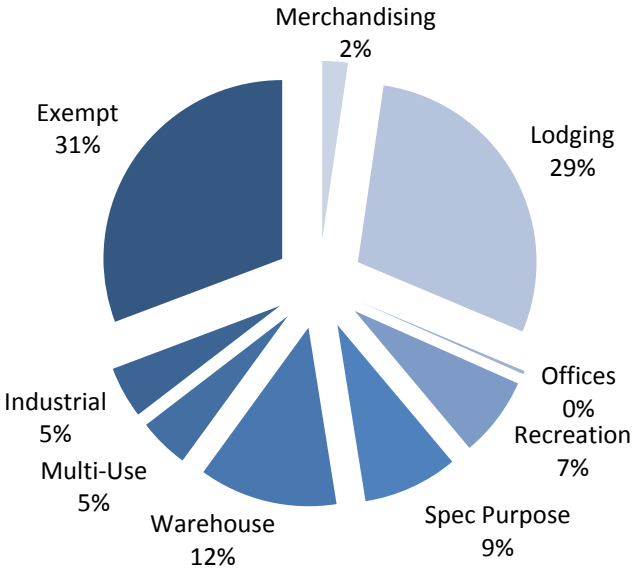
Figure 3 – Existing Development Inventory

Residential Development Inventory	
Total Residential Housing Units	6,185
Non-Residential Square Footage By Land Use Type	
Merchandising	22,326
Lodging	280,158
Offices	2,942
Recreation	70,139
Spec Purpose	82,964
Warehouse	120,935
Multi-Use	44,057
Industrial	45,145
Exempt	296,805
Total	965,471

Source: Department of Local Affairs, Gunnison County Assessor

The best source for tracking and projecting non-residential square footage is the Gunnison County Assessor's database. Analysts sorted the database by location, land use type, and year built fields. This allowed the isolation of parcels that are in unincorporated areas, the generation of daily vehicle trips, and the establishment of baseline commercial growth rate. The County Assessor's database shows a total of about one million square feet of non-residential floor area in the unincorporated county. Lodging and property tax exempt "institutional" properties (government, school, church, etc.) account for 60% of the non-residential square footage in the unincorporated county. The majority of properties classified as lodging are guest cottage format, and not hotels or motels.

Figure 4 - Non-Residential Development Inventory Composition



Source: Gunnison County Assessor

Growth Projections

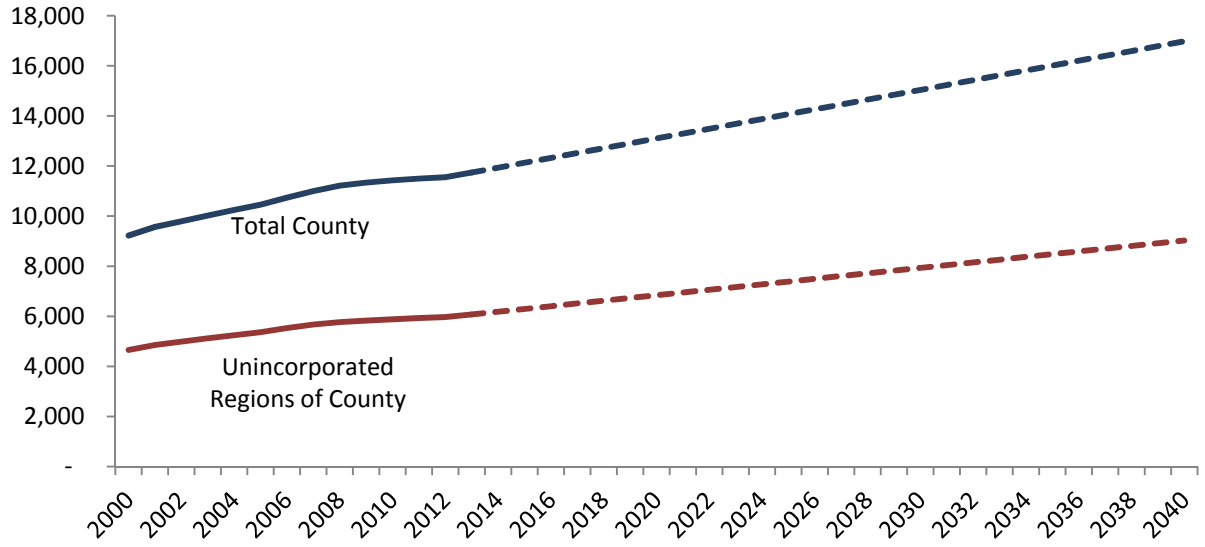
The growth estimates in this report are based on linear projections of historic trends. Residential projections rely on housing unit estimates from DOLA dating from 2000-2012 and non-residential projections are based on the square feet built per year from 1990 through 2013 (assessor database).

Between 2000 and 2012, housing in the county as a whole grew by 2,325 units, 1,312 of which were built in the unincorporated county. On average, 194 new units were built per year in the county as whole and 109 were built in the unincorporated county.

Linear projections show an increase of 3,060 residential units in the unincorporated county by 2040 for a total of 16,980 housing units in the entire county by 2040, and 9,030 units in the unincorporated county. Linear projections of trends since 2000 include both growth periods and recessions, with up to 200 new units per year in the unincorporated county during development boom years and recession years when only 35 units were built.

Applying the average growth to 2012 base levels allows for a linear projection that shows an increase of 3,061 residential units in the unincorporated County through 2040. If this trend continues, the County will have a total of 16,979 housing units by 2040, 9,027 of which are projected to be in unincorporated county.

Figure 5 – Residential Unit Trends and Projection



Source: Gunnison County Assessor

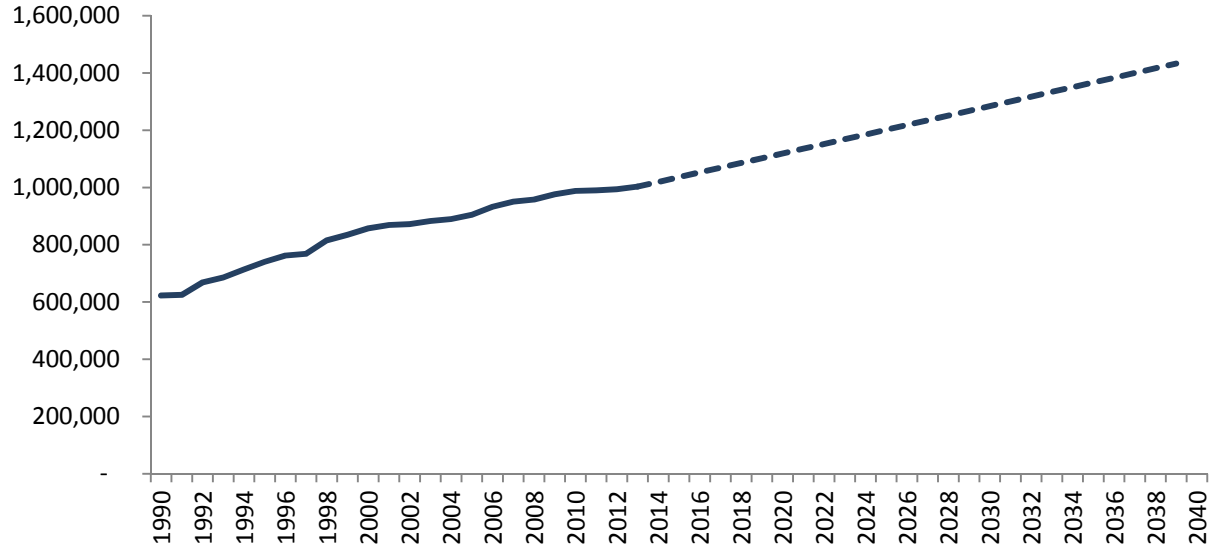
A linear projection method was used to project future non-residential growth in the unincorporated county. Between 1990 and 2013, non-residential floor area in the incorporated county increased on average by 15,301 square feet per year. If trends continue through 2040, the unincorporated County is projected to have about 1.4 million square feet of non-residential development, a 40% increase over 25 years.

Figure 6 – Average Annual Non-Residential Growth

Non-residential Category	Average Annual Increase in Square Footage
Merchandising	696
Lodging	2,303
Offices	87
Recreation	848
Spec Purpose	1,979
Warehouse	3,888
Multi-Use	372
Industrial	1,436
Exempt	3,691
Total	15,301

Source: Gunnison County Assessor

Figure 7 – Non-Residential Projection Through 2040



Source: Gunnison County Assessor

Traffic Volume Analysis and Projections

The residential and non-residential land use inventory and projections allow for the calculation of traffic generated by land uses and for projecting future traffic. The unit of measurement for traffic, used worldwide by traffic engineers and planners is the Average Daily Vehicle Trip (ADT)[1]. Average Daily Trips generated by various categories of residential and non-residential development come from the Institute of Transportation Engineers Trip Generation Manual 8th Edition (ITE). ITE "trip generation rates" are multiplied by the residential and non-residential inventory and projections to calculate the existing and projected traffic generated by development in the unincorporated county.

Average daily trip volumes contained in the ITE need to be adjusted to avoid double counting. Trip generation is the number of in-bound trips caused, or attributable to a specific land use. For example, a single-family residence has a driveway volume of about 9.6 ADT[2], but only half of those trips are in-bound, the other half are out-bound and are assigned to other destinations accordingly. The trip generation for a single family residence is 4.8 average daily trips. A shopping destination is often part of a trip shared with another destination, for example, stopping at the store on the way home from work. Theses shared trips require a "pass-by" adjustment as recommended by the Trip Generation Handbook 3rd Edition.

Figure 8 – ADT by Land Use Category and Adjustment

Residential Categories	ADT	Adjustment	Adjusted ADT Rate
Single Family	9.5	0.5	4.8
Multi Family	6.6	0.5	3.3
Non-Residential Categories (Per 1,000 s.f.)			
Merchandising	42.9	0.22	9.4
Lodging	36.4	0.5	18.2
Offices	11	0.5	5.5
Recreation	9	0.5	4.5
Special Purpose	12.8	0.5	6.4
Warehouse	5	0.5	2.5
Multi-Use	21.1	0.5	10.6
Industrial	7	0.5	3.5
Exempt	11	0.5	5.5

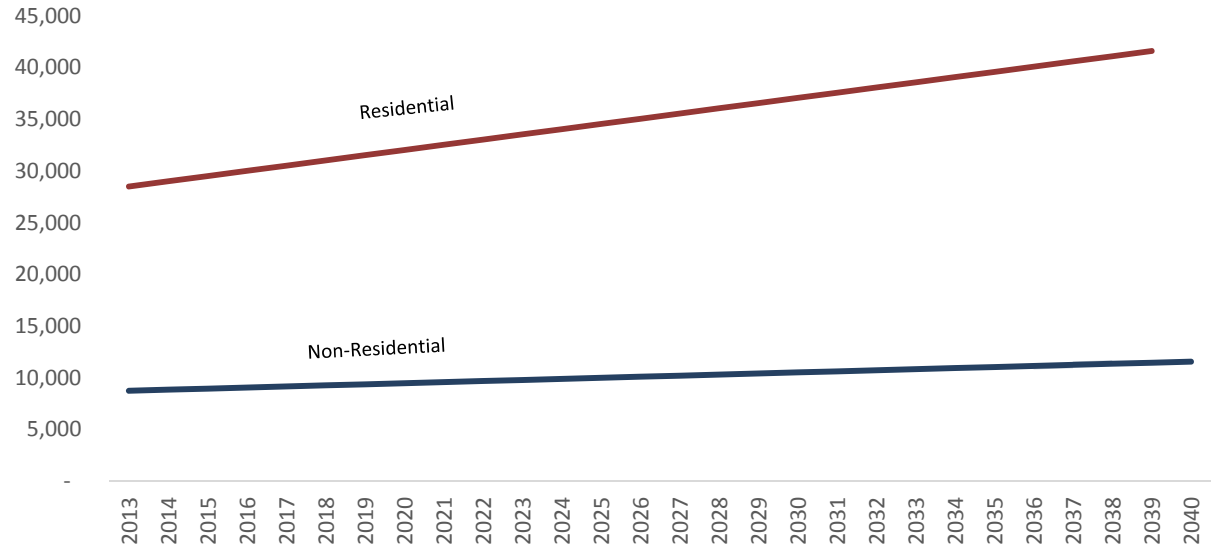
Source: Institute of Transportation Engineers Trip Generation Manual 8th Edition

6,185 residential units in the unincorporated county generate 28,488 ADT, 87% of which are in-bound to single family homes and 13% of which are in-bound to multi-family units. Non-residential development generates an additional 8,835 ADT for a combined total daily trip generation of 37,325 ADT. Based on

[1] An Average Daily Vehicle trip is the average number of times a car passes over a single line across a street in either direction in one day.
[2] Source: Institute of Transportation Engineers Trip Generation Manual y7th Edition, 2004

the linear trends, total ADT including residential and non-residential are expected to increase to 52,522 ADT by 2040. 41,580 ADT are projected to be generated by residential development and 11,548 ADT by non-residential development.

Figure 9 - Residential and Non-Residential ADT Through 2040



Impact Fee Analysis by Component

The impact fee consists of four distinct components, each of which calculates future development's fair share of the cost of expanding the capacity of various components of the road and bridge capital facilities to accommodate future growth (equipment, public works facility, land, planned road improvements). Each component is described in detail below.

Figure 10 – Impact Fee Components

Fee Component	Methodology
Equipment	Incremental Expansion
Public Works Facility	Debt Service Buy-In
Land Costs	Buy-In for Oversized Assets Serving Future Growth
Planned Capital Improvements	Capital Improvement Plan Based

Equipment Incremental Expansion

This component of the impact fee represents the fair share cost of expanding equipment to accommodate future growth in traffic. As traffic increases, so will demand for services from the Road and Bridge Department, ultimately necessitating an incremental increase in equipment fleet capacity. If the road system is increased to handle larger volumes of traffic, it follows that the equipment should increase proportionally. If this component of the road and bridge capital facilities is increased proportionate to new growth, the County will avoid an incremental decrease in the level of service that is currently provided to residents. Equipment should be increased to protect the investment in road system capacity.

The county finance department maintains a thorough asset inventory that includes a replacement cost and description of each asset. Equipment that will last 5 years or more was included in this analysis while temporary assets, like computers and office equipment were not included.

The Public Works Department uses a total of $7.5 million worth of equipment to improve and maintain county roads, $143 per ADT generated in the county. To maintain this level of service the county will need to invest $143 per ADT generated by future development.

Figure 11 – Equipment Incremental Expansion Component

	Total Equipment Value	% Attributable to Road and Bridge	2014 ADT	Per ADT
Value	$7,567,596	71%	37,324	$143

Source: Gunnison County Road and Bridge, Gunnison County Finance

Buy-In for Existing Land Assets Sized to Serve Future Growth

The land currently owned by the Public Works department will serve the needs of the county for the next 25 years. This component of the fee calculates the fair share cost for future development to buy-in to the land inventory. There are over 17 acres of land used by public works throughout the county and the Road and Bridge Department functions occupy about 70% of this land. Land costs are calculated using a value of $100,000 per acre, based on land values form the Assessor's Database. Dividing the

Road and Bridge Department land value by the 2040 capacity year projection of 52,522 ADT shows that the fair share cost of buying into the existing land inventory is $24 per ADT.

Figure 12 – Land Buy-In Component

	Value	% Attributable to Road and Bridge	2040	Per ADT
Land Costs	$1,784,000	71%	52,522	$24

Debt Service Buy-In Methodology for the Public Works Facility

The debt service buy-in methodology calculates fair share for new homes and non-residential development to "buy-in" to the debt that has already been paid by the community for the new public works facility, which was designed to accommodate future growth. The debt service buy-in component is calculated using the repayment schedules from Gunnison County finance office. The new public works facility was financed jointly with the new public safety center. Annual debt payments were first separated to isolate the portion of debt payments for the public works facility. According to the county's fixed asset inventory, 36% of the finance costs are attributable to the Public Works Facility.

The fair share cost for development built in 2015 to buy-in to the debt paid to date is $32 per ADT when just over $1.6 million of the debt will have been paid, increasing in future years as more of the debt is paid-off by the community. For example, in 2020, $3.4 million of the debt will have been paid by the community, so the buy-in will be $64 per ADT.

Figure 13 – Public Works Facility Debt Buy-In Component

	Road and Bridge Share of Annual Debt Payments	Cumulative Debt Paid	Cumulative % Paid	Per ADT Debt Service Buy-In
2011	$297,571	$297,571		
2012	$342,164	$639,735		
2013	$342,700	$982,435		
2014	$341,650	$1,324,084	14%	$25
2015	$340,257	$1,664,341	18%	$32
2016	$339,896	$2,004,237	21%	$38
2017	$337,917	$2,342,154	25%	$45
2018	$336,737	$2,678,891	28%	$51
2019	$335,077	$3,013,968	32%	$57
2020	$334,081	$3,348,049	36%	$64
2021	$331,529	$3,679,578	39%	$70
2022	$330,571	$4,010,149	43%	$76
2023	$328,081	$4,338,230	46%	$83
2024	$325,400	$4,663,630	50%	$89

2025	$322,530	$4,986,160	53%	$95
2026	$319,356	$5,305,516	56%	$101
2027	$317,156	$5,622,672	60%	$107
2028	$313,298	$5,935,970	63%	$113
2029	$310,414	$6,246,384	66%	$119
2030	$307,149	$6,553,533	70%	$125
2031	$303,505	$6,857,038	73%	$131
2032	$300,452	$7,157,490	76%	$136
2033	$295,653	$7,453,143	79%	$142
2034	$291,739	$7,744,882	82%	$147
2035	$287,356	$8,032,238	85%	$153
2036	$283,781	$8,316,019	88%	$158
2037	$278,381	$8,594,400	91%	$164
2038	$273,789	$8,868,189	94%	$169
2039	$268,650	$9,136,839	97%	$174
2040	$264,240	$9,401,079	100%	$179

Source: Gunnison County Finance Department

Planned Capacity Related Road and Bridge Improvement

Road improvements will be necessary to accommodate future traffic (increasing by 40%) in areas of the unincorporated County between 2014, the base year, and 2040, the capital facilities planning horizon. The road improvement summary contained in this report is a compilation and extension of improvements planning obtained from the County Road and Bridge Department.

Capacity improvements are generally defined as construction that increases the capacity of a roadway. It is important to remember that impact fees can only be used to pay for projects that increase a system's capacity required due to growth. Typical capacity improvement projects include surface upgrades, widening, the addition of turn lanes, creative design or intersection projects and major reconstruction in order to decrease the maintenance schedule. In other words if an improvement allows a roadway to handle larger volumes of traffic on a day to day basis (i.e. surface upgrades) or over the long run (i.e. improvements to drainage systems), it is considered a capacity improvement.

Road Capacity Improvement Component

Road improvements will be necessary to accommodate future traffic (increasing by 40% by 2040) in the unincorporated County between 2014, the base year, and 2040, the capital facilities planning horizon. The capital facilities planning horizon is also known as the "capacity-year," that is, the year through which the planned improvements are designed to accommodate. The road improvement summary contained in this report is a compilation of planning and cost information obtained from the County Road and Bridge Department.

[duplicative]Capacity improvements are generally defined as construction that increases the capacity of a roadway. It is important to remember that impact fees can only be used to pay for projects that increase a system's capacity required to accommodate future growth. Typical capacity improvement projects include surface upgrades, widening, the addition of turn lanes, creative design or intersection projects and major reconstruction. If an improvement allows a roadway to handle larger volumes of traffic on a day to day basis or over the long run, it is considered a capacity improvement.

Capacity Improvement Types

Geometrics: includes minor realignments in order to create the straightest line possible without major reconstruction. Increases capacity by making traffic flow smoothly by reducing the amount of turning needed to get from point A to point B.

Capacity Widening: Many Gunnison County roads, both paved and gravel roads, have been developed to a 22 foot wide standard. In most cases they are paved edge to edge, and if there is shoulder potential it has not been developed. Capacity improvements would be widening road to 24 feet wide, managing vegetation, and adding shoulders. Widening a road means that motorists can travel safer and at slightly higher speeds: thus a roadway can handle marginal increases to its overall capacity.

Light Reconstruction: Includes building minor fills, laying banks back, installing new drainage structures and other capacity related projects. For example, if a road receives improved drainage structures, the road surface will be in better condition in the long-run and will be able to handle more trips during its service life.

Minor Base and Paving: Includes gravel for blue-topping a gravel road at full width and paving. Anytime the surface of a road is upgraded from gravel to flexible pavement or chip-seal, vehicles can travel faster and more efficiently without creating excessive dust.

Overlay: Two compacted inches of asphalt is a major surface upgrade allowing for better driving conditions and accommodating more traffic safely and efficiently.

Major Reconstruction: Includes significant cuts and fills, laying back banks in unstable soils, all new drainage structures, and widening. Major reconstruction is not usually preformed as part of regular maintenance schedule. Instead once a road has hit peak ADT volumes and needs to be widened or improved to accommodate maintain an adequate LOS the road then is able to handle higher volumes of traffic.

Gravel and Dust Suppressant: Dust can be a problem for residents that live near a number of dirt or gravel roads. Thus by decreasing the amount of dust produced on dirt roads, the County could increase total traffic volumes without adding to the dust problem.

Major Projects: Additionally, major construction projects such as the extension of roads, improvements to bridges, and allowing an intersection to operate more efficiently all are considered capacity improvements. These larger projects do not fit directly in the above categories but engineers design these major projects to increase the overall capacity to a roadway and to accommodate future growth.

Fair Share Cost per ADT for Planned Improvements

The capital improvement plan and costs from the 2008 impact fee support study were updated to reflect increased construction costs and to include more recently planned projects and to account for projects that have been completed. The total cost of planned improvements is $31.7 million which when divided by the ADT in year 2040 means the fair share cost of planned improvements is $603 per ADT. The planned capital improvements are all capacity improvements designed to increase the capacity of the system as a whole to accommodate traffic through the year 2040.

Figure 14 – Planned Capital Improvements

Road Name	#	Improvement Type	Miles	Estimated Cost
Allen Lane	8	Gravel and Dust Suppressant	2.5	$220,713
Antelope	17	Light Construction Capacity and Overlay	4.5	$1,856,340
Big Cimarron	860	Gravel and Dust Suppressant	3.9	$331,500
Brush Creek	738	Capacity and Overlay	1.2	$321,024
Brush Creek	738	Gravel and Dust Suppressant	1.8	$158,913
Camino del Rio	33	Capacity and Overlay	0.98	$320,970
Castle Mountain	48	Minor Base and Paving	2	$613,324
Castle Mountain	48	Overlay	4.5	$1,203,840
Cement Creek	740	Light Recreation, Gravel, Dust	3	$519,855
Cottonwood Pass	209	Light Reconstruction Capacity Minor Base and Paving	7	$3,161,634
Cranor Hill	10	Capacity and Overlay	4.7	$1,539,344
Dos Rios Subdivision	34-37	Capacity and Overlay	1.8	$589,536
Gold Basin	38	Capacity and Overlay	5.6	$1,834,112
Gold Creek	771	Light Reconstruction Gravel and Dust Suppressant	5	$866,425
Gothic Road	317	Capacity Light Reconstruction Gravel and Dust Suppressant	3.8	$886,483
Jack's Cabin	813	Geometrics Capacity an Overlay	4.2	$844,182

		Minor Base and Pavement		
Lost Canyon	743	Capacity Gravel and Dust Suppressant	1	$148,285
McCabe Lane	32	Capacity and Overlay	0.35	$114,632
McCabe Lane	32	Minor Base and Paving	1.55	$475,326
North Elk Meadows F1	48	Minor Base and Paving	0.8	$245,330
North Elk Meadows F2	48	Minor Base and Paving	0.25	$76,666
Ohio Creek	730	Capacity and Overlay	12.7	$4,159,504
Ohio Creek	730	Light Reconstruction Minor Base and Paving	1	$391,662
Ohio Creek	730	Minor Base and Paving	2.3	$705,323
Old Highway 135	48 e	Overlay	0.5	$133,760
Pine Creek	25	Gravel and Dust Suppressant	16.5	$1,456,703
Quartz Creek	76	Capacity and Overlay	14.6	$4,781,792
Sapinero Mesa	26	Gravel and Dust Suppressant	15.5	$1,368,418
Shavano Drive	33c	Overlay	0.22	$58,854
Six Mile Lane	42	Overlay	1.6	$428,032
Spring Creek		Overlay	4	$1,070,080
Spring Meadows Trail	48m	Minor Base and Paving	0.46	$141,065
Tomichi Heights	72-72e	Minor Base and Paving	1.7	$521,325
Washington Gulch	811	Capacity	2.5	$150,000
TOTAL				$31,694,949

Source: Gunnison County Road and Bridge Department

Figure 15 – Planned Capital Improvements Cost Per ADT

	Total Estimated Costs of Planned Improvements	2040 ADT	Per ADT
Value	$31,694,949	52,522	$603

Credits

This impact fee includes 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 that fund the same improvements impact fee revenues are intended to cover. 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. Because double dipping is inequitable, this impact fee includes a system of credits to avoid double dipping. Credits are applied as a discount applied to the fair share costs and integrated into the impact fee schedule.

Credit for Improvements Required During Development Review

The difference between road capital improvements related to on-site traffic (i.e. circulation within the development) and improvements to the overall County road system (the type of improvements for which the impact fee is designated) should be considered when site improvements are negotiated. If improvements to the County road system made by developers will serve traffic from existing or future development and increase the overall capacity of the county road system, the County should establish a reasonable credit towards the impact fees. If off-site improvements will only benefit the private development and possibly neighboring private developments, then they probably do not warrant a credit.

In these case-by-case development 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 address 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 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 $250 discount per single family home under the fee proposed in this study.

In calculating this type of credit, it is crucial for the County to distinguish between improvements specifically related to and benefiting the subdivision or development, and those improving the overall road system. No credit is necessary for improvements serving only the on-site needs of particular developments.

Credit for Road and Bridge Tax Revenues

The majority of Road and Bridge capital improvements are paid for through expenditures from the Road and Bridge Fund. Since 2011, intergovernmental transfers have composed the majority of Road and Bridge Fund revenues. Federal and state revenues sources are not included due to their sporadic nature. For example, 2011 road and bridge improvements were paid for in part with funds from DOLA Energy Impact Assistance Funds, and Federal Bridge Grants. 2014 road and bridge improvements were paid in part with funds from the US and state Departments of Transportation. Because these revenue sources are unpredictable they are subtracted from total Road and Bridge Fund Revenues, and the remaining

revenues from local taxes and fees are divided by annual ADT. The credit is calculated by dividing average annual tax and fee revenue contributions from 2011-2014 by the average annual ADT for these same years.

Between 2011 and 2013 the County received an average of $13 per ADT in local taxes and fees. This annual credit is multiplied by 25 years in order to capture total contributions over the capital improvements horizon. If past trends remain constant, over 25 years the Road and Bridge Fund will receive $317 per ADT, which will be credited against the total cost per ADT in the impact fee schedule.

Figure 16 – Per ADT Credit

	2011	2012	2013	2014	Average
Road and Bridge Fund Revenues (Less Intergovernmental Revenues)	$499,214	507,402	$478,840	361,213	
ADT	35,947	36,141	36,713	37,324	
Per ADT	$13.89	$14.04	$13.04	$9.68	$13
Total 25 Year Contribution	$347	$351	$326	$242	$317

Credit for HUTF Revenues

The HUTF credit was calculated on a per ADT basis for revenue streams including the $0.22 cent gasoline tax and revenues from motor vehicle licenses, registrations and fees. The calculation is summarized in Figure 17 and relies on data from the US Energy Information Administration, Colorado Department of Treasury, Colorado Department of Revenue, DOLA and Gunnison County 2001-2014 Budgets.

Over 25 years each ADT will be responsible for generating $87 dollars in HUTF revenues. The combined per ADT 25 year credit totals $404.

Figure 17 – Per ADT Credit

		Variable	Source/Formula
Registered Vehicles	22,085	a	Colorado Department of Revenue
Percentage of Population In Unincorporated	46%	b	Colorado Department of Local Affairs
Vehicles in Unincorporated	10,117	c	a*b
2013 ADT in County	36,713	d	
Trips Per Vehicle	3.63	e	c/d
Gallons of Gas Per Year	664	f	US Energy Information Administration
Gallons of Gas Per Average Daily Trip	183	g	f/e
Gas Tax per Year per Average Daily Trip (@ $ .22/gal)	$40	h	g*.22
% of $0.22 Funds to Counties	19%	i	Colorado Department of Treasury
Annual Per ADT Contribution	$8	j	h*i
Other HUTF Per Vehicle	$69	k	Colorado Department of Treasury/Revenue
Other HUTF Per ADT	$19	l	k/e

% Back to Counties	19%	m	Colorado Department of Treasury
Total Other HUTF Revenues to County Per ADT	$4	n	l*m
Total HUTF Per ADT	$12	o	n+j
% Spent on Capital Expend	29%	p	2011-2014 Gunnison County Budgets
25 Year Contribution	$87	q	o*p*25

Fee Schedule

Combining the impact fee components and the credit yields a base fee of $391 per ADT in 2014, increasing incrementally to $545 2040. The per ADT cost is the foundation for the final fee schedule presented in Figure 19. The per ADT base fee can also be used to calculate the impact fees for developments that do not fit with the standardized assessor land use categories.

Figure 18 – Per ADT Fee

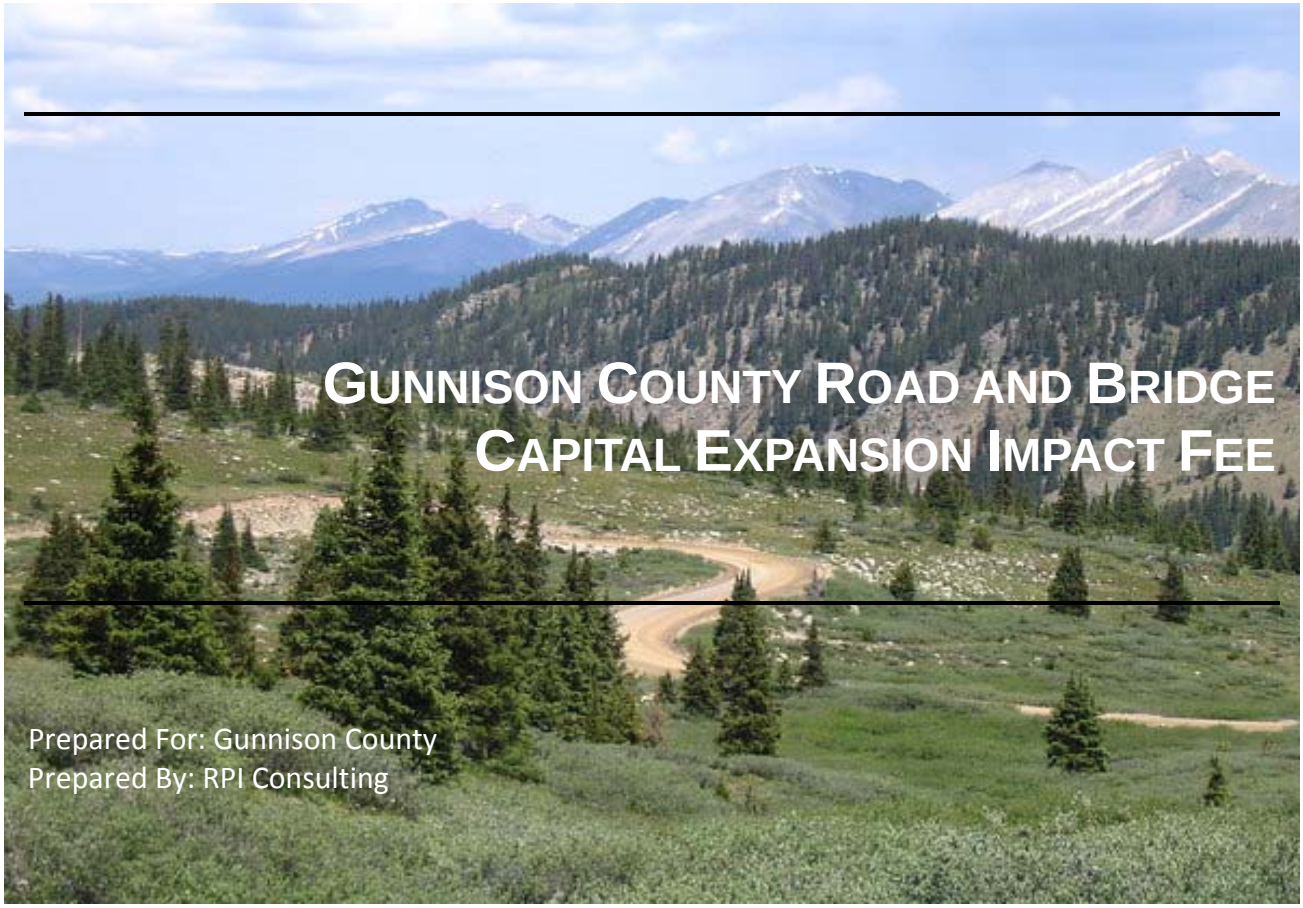
PW Fee Schedule	Buy in	Equipment and Land	CIP	Total Per ADT	Credit	Credited
2014	$25	$167	$603	$795	$404	$391
2015	$32	$167	$603	$802	$404	$398
2016	$38	$167	$603	$808	$404	$404
2017	$45	$167	$603	$815	$404	$411
2018	$51	$167	$603	$821	$404	$417
2019	$57	$167	$603	$827	$404	$423
2020	$64	$167	$603	$834	$404	$430
2021	$70	$167	$603	$840	$404	$436
2022	$76	$167	$603	$846	$404	$442
2023	$83	$167	$603	$853	$404	$449
2024	$89	$167	$603	$859	$404	$455
2025	$95	$167	$603	$865	$404	$461
2026	$101	$167	$603	$871	$404	$467
2027	$107	$167	$603	$877	$404	$473
2028	$113	$167	$603	$883	$404	$479
2029	$119	$167	$603	$889	$404	$485
2030	$125	$167	$603	$895	$404	$491
2031	$131	$167	$603	$901	$404	$497
2032	$136	$167	$603	$906	$404	$502
2033	$142	$167	$603	$912	$404	$508
2034	$147	$167	$603	$917	$404	$513
2035	$153	$167	$603	$923	$404	$519
2036	$158	$167	$603	$928	$404	$524

2037	$164	$167	$603	$934	$404	$530
2038	$169	$167	$603	$939	$404	$535
2039	$174	$167	$603	$944	$404	$540
2040	$179	$167	$603	$949	$404	$545

Annual per ADT figures are multiplied by ADT generation rates to calculate the final fee. For a single family home the fee totals $1,873 in 2014 and increases to $2,611 through 2040, over the lifespan of the facility buy in and CIP. For 1,000 s.f. of office space the fee totals $2,154 in 2014 and increases to $3,3003 in 2040. Figure 19 summarizes annual increases to per ADT fee. The fee increases over time due to the public works facility debt service buy-in component.

Figure 19 - Road and Bridge Impact Fee Schedule

	Residential Categories		Non-Residential Categories (Per 1,000 s.f.)								
	Single Family	Multi Family	Merchandising	Lodging	Offices	Recreation	Special Purpose	Warehouse	Multi-Use	Industrial	Exempt
2014	$1,873	$1,298	$3,691	$7,116	$2,154	$1,763	$2,495	$970	$4,141	$1,365	$2,154
2015	$1,906	$1,321	$3,757	$7,244	$2,193	$1,795	$2,539	$987	$4,215	$1,389	$2,193
2016	$1,935	$1,341	$3,814	$7,353	$2,226	$1,822	$2,578	$1,002	$4,278	$1,410	$2,226
2017	$1,969	$1,365	$3,880	$7,480	$2,265	$1,854	$2,622	$1,019	$4,352	$1,434	$2,265
2018	$1,997	$1,384	$3,936	$7,589	$2,298	$1,881	$2,660	$1,034	$4,416	$1,455	$2,298
2019	$2,026	$1,404	$3,993	$7,699	$2,331	$1,908	$2,699	$1,049	$4,480	$1,476	$2,331
2020	$2,060	$1,428	$4,059	$7,826	$2,369	$1,939	$2,743	$1,066	$4,554	$1,501	$2,369
2021	$2,088	$1,448	$4,116	$7,935	$2,402	$1,966	$2,782	$1,081	$4,617	$1,522	$2,402
2022	$2,117	$1,467	$4,172	$8,044	$2,435	$1,993	$2,820	$1,096	$4,681	$1,543	$2,435
2023	$2,151	$1,491	$4,239	$8,172	$2,474	$2,025	$2,865	$1,114	$4,755	$1,567	$2,474
2024	$2,179	$1,511	$4,295	$8,281	$2,507	$2,052	$2,903	$1,128	$4,818	$1,588	$2,507
2025	$2,208	$1,531	$4,352	$8,390	$2,540	$2,079	$2,941	$1,143	$4,882	$1,609	$2,540
2026	$2,237	$1,550	$4,408	$8,499	$2,573	$2,106	$2,979	$1,158	$4,946	$1,630	$2,573
2027	$2,266	$1,570	$4,465	$8,609	$2,606	$2,133	$3,018	$1,173	$5,009	$1,651	$2,606
2028	$2,294	$1,590	$4,522	$8,718	$2,639	$2,160	$3,056	$1,188	$5,073	$1,672	$2,639
2029	$2,323	$1,610	$4,578	$8,827	$2,672	$2,187	$3,094	$1,203	$5,136	$1,693	$2,672
2030	$2,352	$1,630	$4,635	$8,936	$2,705	$2,214	$3,133	$1,218	$5,200	$1,714	$2,705
2031	$2,381	$1,650	$4,692	$9,045	$2,738	$2,241	$3,171	$1,233	$5,263	$1,735	$2,738
2032	$2,405	$1,667	$4,739	$9,136	$2,766	$2,264	$3,203	$1,245	$5,316	$1,752	$2,766
2033	$2,433	$1,687	$4,796	$9,246	$2,799	$2,291	$3,241	$1,260	$5,380	$1,773	$2,799
2034	$2,457	$1,703	$4,843	$9,337	$2,827	$2,314	$3,273	$1,272	$5,433	$1,790	$2,827
2035	$2,486	$1,723	$4,899	$9,446	$2,860	$2,341	$3,311	$1,287	$5,496	$1,811	$2,860
2036	$2,510	$1,740	$4,947	$9,537	$2,887	$2,363	$3,343	$1,300	$5,549	$1,829	$2,887
2037	$2,539	$1,760	$5,003	$9,646	$2,920	$2,390	$3,381	$1,314	$5,613	$1,850	$2,920
2038	$2,563	$1,776	$5,050	$9,737	$2,948	$2,413	$3,413	$1,327	$5,666	$1,867	$2,948
2039	$2,587	$1,793	$5,098	$9,828	$2,975	$2,435	$3,445	$1,339	$5,719	$1,885	$2,975
2040	$2,611	$1,809	$5,145	$9,919	$3,003	$2,458	$3,477	$1,352	$5,772	$1,902	$3,003



Gunnison County Road and Bridge Capital Expansion Impact Fee

Prepared For: Gunnison County
Prepared By: RPI Consulting

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INTRODUCTION

As Gunnison County grows additional strains will be placed on the road system. Without a method by which new development pays for directly related capacity improvements, the system could become inefficient, inadequate, and possibly hazardous. If new development is not assessed, existing taxpayers will absorb capital improvement costs made necessary by new growth. In effect, existing taxpayers subsidize new growth. Impact fees assess new growth its fair share costs of building new capacity-related infrastructure.

Increased traffic associated with new development directly contributes to the need for increasing the capacity of the County's road system. Traffic circulating within the system originates from various land use categories; residential, commercial, and institutional (i.e. schools, government, libraries, churches). New development and land use generates marginal increases to the overall traffic volumes. The process of measuring current and reasonably foreseeable demand for road capital improvements involves three steps, each answering a fundamental question:

1. What causes traffic? - Inventory existing land uses and develop future land use projections
2. How much traffic? - Calculate traffic produced by current and future land uses
3. Where does it occur? - Establish traffic growth rates for geographic areas

This approach is often used in transportation planning in order to measure demand for the overall road system. 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). This report assumes a planning horizon of 20 years, and the growth projections are calculated through 2028.

METHODOLOGY

An impact fee can be derived for any service that a County, municipality or special district is authorized to provide to its constituents. There are a few underlying concepts present in all impact fee analysis:

1. Demand Units
2. Demonstration of Need (Nexus)
3. Capital Facilities Inventory
4. Level of Service (LOS)
5. Proportionate Share
6. Credits
7. Baseline cost
8. Fee Schedule Calculation

Demand Units: the differing sectors that demand specific services. Typically demand units are divided among the residential, non-residential sectors, and when relevant, report specific units (example: oil and gas wells). However, this report only examines the residential and non-residential sectors.

The road and bridge service demand (traffic generation) originates from both the residential and non-residential sector. Average Daily Trip (ADT) generation rates from the Institute of Transportation Engineers are used as a common unit of measurement.

Demonstration of Need (Nexus): A defensible impact fee is supported when there is a demonstrated link between development and additional capital needed to provide services for that development. If growth is happening but not affecting the amount of capital necessary for an organization to operate, then no nexus exists on which to base the fee. demonstration of need is typically exhibited by an increase in services demanded due to additional population, housing units and/or non-residential square floor area.

In this case, additional traffic generated by development necessitates additional road system capacity in order to maintain existing service levels. If capacity improvements to the system are not built, the existing system must simply absorb the additional vehicle trips. This increases the wear on the roads, decreases service levels by inhibiting traffic flows.

Capital Facilities Inventory: provides a value of the capital employed by a department to provide a given service. This inventory is composed of all capital valued at over $5,000 or that has a life span of more than five years. Additionally this includes the all capacity improvements that are encompassed by the County's capital improvements plan (CIP). RPI analysts are typically quite conservative in determining what assets constitute capital facilities, for this report capital included land buildings and equipment valued at $5,000 or greater.

Level of Service (LOS): is the amount of a given service provided to the constituents of a governmental organization. For road and bridge impact analysis LOS is often measured in terms of capital value per ADT. In other words, it is the value of the road and bridge system distributed amongst an area's residents in terms of a common variable.

Proportionate Share: the relative amount of demand for services by different sectors. Services provided by governments are not uniformly distributed to all sectors due to differing needs. Proportionate share is analyzed on a case by case basis, using many different variables in order to provide a percentage breakdown of how services are used in a given population. In other words, proportionate share is the facilities and services necessary for each type of land use. In the case of road and bridge the proportionate share is divided among residential and non-residential units based on the average daily trips (ADT) that each land use type generates. Thus proportionate share is determined for each specific land use type by the number of vehicle trips it generates.

Credits: provide an equitable method for calculating impact fees. Often governments pay for capital expenditures from general fund accounts that are derived from taxes on the demand sectors (property taxes, sales taxes, motor vehicle taxes, etc.). Credits prevent impact fees from overcharging residents for improvements. For example, if a portion of Road and Bridge Department capital is paid for by a mill levy upon property, residents and businesses are contributing monies used in a capital expenditures account. If developers were required to pay an uncredited impact fee while simultaneously paying property taxes, the resulting fee schedule would account for more than the developer's fair-share.

Each credit is spread over a 20 year period; this is to account for the useful lifespan of most capital. By spreading out the credit the full per unit contribution is captured thus eliminating double dipping over a wide time-span. Credits are calculated on a per unit basis and then subtracted from the per unit baseline cost resulting in the final impact fee.

Fee Schedule Calculation: The final fee is calculated using the baseline cost and the crediting system. The credit is subtracted from the baseline cost

There are additional complexities that depend on a variety of variables. The above equations are meant to outline the general methods by which impact fees are calculated.

DEMAND UNIT DEMOGRAPHICS, TRENDS, AND PROJECTIONS

APPROACH

This report presents 20 year projections for population, housing unit counts, and non-residential square footage for unincorporated areas of Gunnison County. RPI typically prefers the use of projections to estimate future growth or decline. Projections and forecasts are often mistakenly considered to be one and the same, however this is inaccurate and a distinction between the two is particularly important in the context of impact analysis.

Projections are essentially an if-then statement about the future. For example, if variable x has changed at rate y over the last 20 years, and those 20 years encompass a variety of conditions including growth and decline, we can reasonably expect (barring extraordinary changes) variable x, on average, to follow a similar pattern of change over the next ten-year period. Projections assume that historical trends will continue, on average, into the future. Indeed, projections have proven to be very accurate over ten year periods because they mathematically take into account naturally occurring cycles of change.

For example, unemployment observed over the last 30 years would have been high in the eighties, and quite small in the late nineties – a typical business cycle. Average growth/decline rates analyzed between 1985 and 2005 reflect this and consequently projections using these numbers over a future ten year period would, on average, likely be accurate. Although change, either growth or decline, can be perceived as being abrupt (e.g. a large shopping center or subdivision occurring) for long range budgeting and level of service analysis, we are primarily interested in the average annual rate of change rather than single anomalous events.

Forecasts use a significantly different methodology to predict future events. Forecasts are essentially a judgment statement representing a best guess about what the future may hold. They typically include numerous disparate variables and combine them with a forecaster's expertise and experience to predict future conditions. In certain situations, forecasts can certainly be useful; however, they may be inappropriate for conservative budgeting that will be used to make policy decisions today. Finally, forecasting methodologies may vary widely, making it difficult for third parties to understand how results are achieved. Although forecasts do have a place in future trends analysis, they should be used sparingly and primarily employed only when there is very concrete evidence of the probability, nature, and scope of future

development. Otherwise, projections offer the most stable method by which to estimate future conditions – particularly when future County budgeting questions are at stake.

It is important to note that the projections and demand unit counts used in this report are strictly parcels that reside in the unincorporated areas of Gunnison County. While there is no doubt that municipal units are placing demands on the County's road system, a County does not have jurisdiction to assess impact fees to residents of a municipality. Thus the resulting calculations are based solely on unincorporated properties. Unfortunately, this means that County residents are effectively subsidizing use of County infrastructure by municipal residents to some degree.

POPULATION

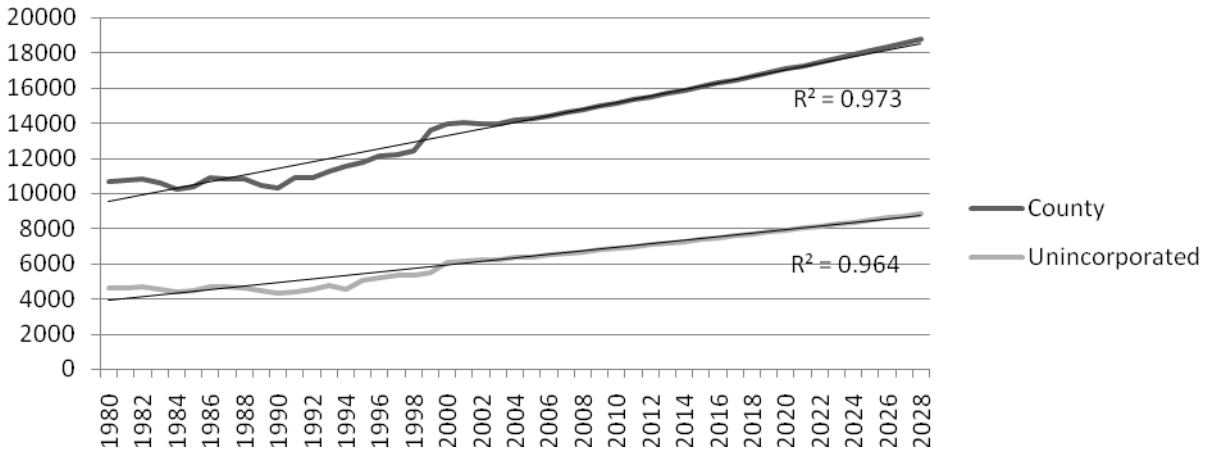
The following population projection was developed from population estimate data obtained from the U.S. Census Bureau and the Colorado Department of Local Affairs Demography Department. The population projection is based on data from 1980 to 2006 in order to account for the population fluxes that occurred in the 1980's and 1990's.

Overall the County grew at an average annual rate of 1.2%; the County experienced its greatest growth rate in the late 1990's with an average annual growth rate of around 3%, since then population increases have leveled off at around 1% annually. This pattern is fairly typical, as the economy expanded in the 1990's. Many counties across the state of Colorado and the Western United States experienced population booms which were then checked by the recession that occurred in the early part of this century.

The unincorporated regions of the County experienced similar population changes throughout the last 25 years. However these regions collectively grew at a slightly higher annual average rate of 1.41%. The unincorporated regions of the County, on average, have accounted for 43% of the County's population.

Based on the growth rates discussed above by 2028 the County can expect to gain around 4,000 people for a total population of around 18,761. If growth rate patterns remain static roughly half of this growth will occur in unincorporated regions. The projections fit the historical data relatively well returning coefficient of determination ($^{R}2$) values of 0.973 and 0.964 for the County as a whole and the unincorporated regions respectively.

Figure 1 – Gunnison County Population Projections Through 2028



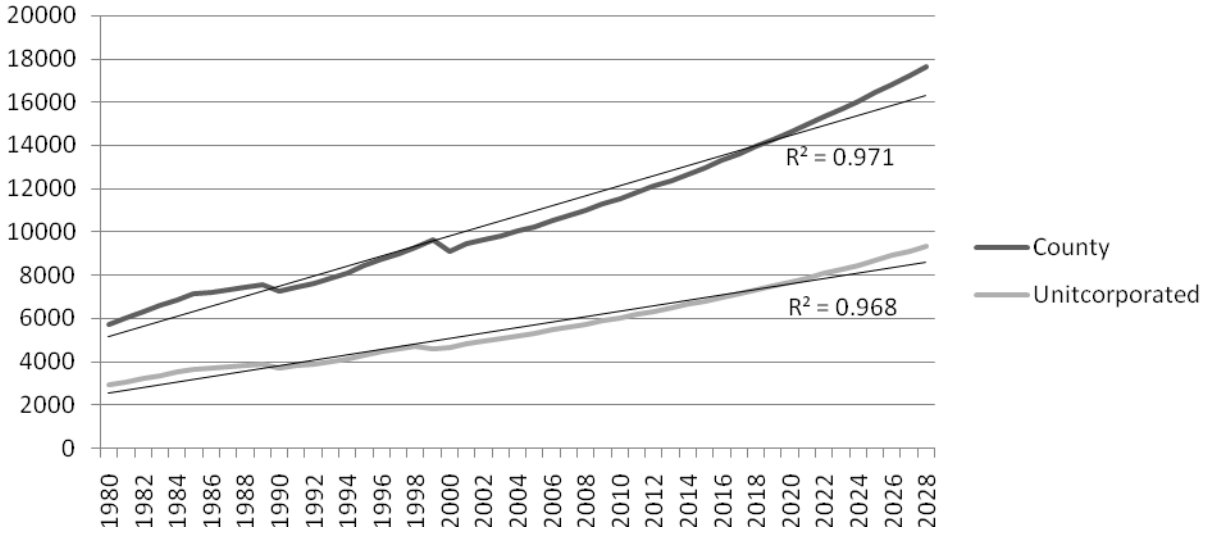
HOUSING UNITS

The following housing projection is based on Colorado Department of Local Affairs Demography Department and U.S. Census data from 1980-2006.

Important Note: Because the Census only occurs every ten years, DOLA and the Census use estimates in the interim years, which sometimes contain slight inconsistencies due to estimation methods. For example the year preceding a decennial census often have higher housing counts than recorded by the census in the following year. By using 26 years of data and using annual average rates of growth these inconsistencies are considered, i.e. one year's high growth rate does not affect the averaged rate by much.

The County as a whole experienced an average annual housing unit growth rate of 2.38% while the annual housing unit growth in just the unincorporated area was 2.46%. Housing unit growth rates were higher than population growth rates. This probably results from two factors. First, housing stock is not liquid, and thus negative growth rates are uncommon. Second, due to the resort nature of Crested Butte and other areas of Gunnison County, many of the homes built in the last two decades are second or vacation homes. These two categories of households typically have a smaller number of persons per household than the average single family home. Thus when a large number of second homes are built population growth does not mirror housing unit growth. This is seen as the number of people per household as decreasing at an average annual rate of -1.10%.

Figure 2 – Gunnison County Housing Projection Through 2028



By 2028 the County can expect to have around 18,000 homes - 9,300 of which could be located in the unincorporated areas. Again, these projections fit the historical data reasonably well returning R2 values of 0.971 and 0.968.

NON-RESIDENTIAL SQUARE FOOTAGE

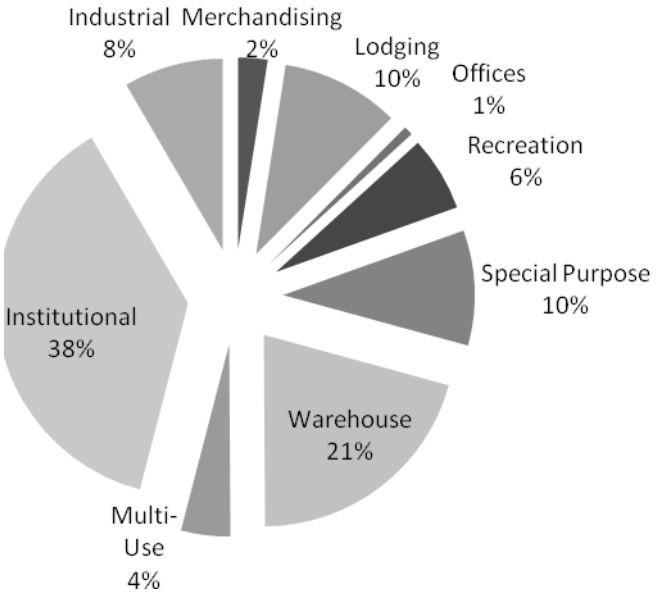
The best source for tracking and projecting non-residential square footage can be found in the Gunnison County Assessor's database. Analysts sorted the database by location, land use type, and year built fields. This allowed the isolation of parcels that are in unincorporated areas, the generation of daily vehicle trips, and the establishment of baseline commercial growth rate. Using the year build field analysts considered all non-residential construction activity that has occurred since 1980. Non-residential land use in the unincorporated County grew at an average annual rate of 0.24%. Currently there is around 363,000 s.f. of non-residential land use. It is important to remember that these parcels are strictly in unincorporated regions and that the vast majority of non-residential development occurs within municipalities.

Institutional, warehousing, lodging and special purpose constitutes almost 80% of the total non-residential square footage in the unincorporated regions. The following chard summarizes non-residential land use by providing relevant examples for each type.

Land Use Type	Examples
Merchandising	Apparel, furniture stores, books stores newsstands, etc
Lodging	Hotel, Motel, Bed and Breakfast
Offices	Accounting, Collection Agencies, Law, Real Estate
Recreation	Amusement parks, ski areas, ice rinks, theaters
Special Purpose	Auditoriums, Banks, Car washes etc.
Warehouse	Any property used to store goods, mini storage , grain house
Multi-Use	Properties with 3 or more specific but different commercial uses
Industrial	Contractors (home road etc), Manufacturing plants Refineries Mills
Institutional	Churches, Schools, Government Buildings

Institutional is the largest single category and is made up of governmental buildings, schools, and churches. This is a fairly typical development pattern. While a County's merchandising and office buildings are usually built in towns, warehouses, lodging, and numerous governmental buildings are located on the outskirts of population centers.

Figure 3 – Unincorporated County Non-Residential Land Use by Type



In order to project non-residential land use in the County analysts used the average annual growth rate, derived from the Assessor's database, to estimate the gross square footage through 2028. In order to project each individual non-residential category analysts assumed that the proportionality of non-residential development will remain relatively constant through 2028. This was done because not enough data exists to project each category separately due to the relatively small amount of non-residential development outside of the municipalities. For example there are only four parcels with a merchandising class code, not enough info to make an accurate projection. Additionally the Assessor's database does not

have the actual year built for every property. While this method does have its limitations it is the most accurate method possible. Additionally because the development pattern is relatively standard across the state, and follows historical land use proportions, it is assumed that this trend of development will continue.

By 2028, if historical trends remain static the County can expect to gain around, 19,000 s.f. of non-residential floor area. This represents roughly a 5% increase from existing levels. While this may not seem like a significant amount of development it is important to remember that commercial properties are usually built within city limits because of higher population densities, tax reasons, and because there is typically established infrastructure such as water and sewer systems in municipalities. The following figures summarize the reasonably foreseeable growth in non-residential land use through 2028.

Figure 4 – Non- Residential Square Footage for Unincorporated County Through 2028

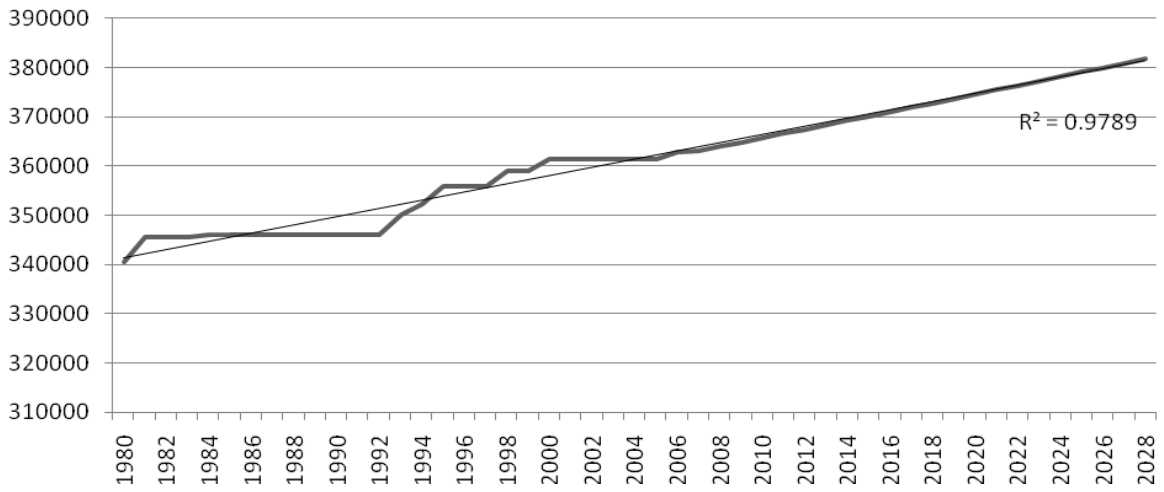


Figure 5 – Non Residential S.F. (1,000's) 2007 and 2028

Non-Residential Land Use Categories (1,000's of s.f.)	2007	2028
Merchandising	8.95	9.44
Lodging	36.24	38.11
Offices	2.83	2.97
Recreation	22.89	24.07
Special Purpose	35.31	37.13
Warehouse	74.99	78.87
Multi-Use	15.04	15.81
Institutional	136.42	143.46
Industrial	30.51	32.08
Total Non Res S.F.	363.18	381.94

Figure 6 – Demand Unit Summary

	Housing Units	Non-Residential S.F. (1,000s)	ADT	Population
2007	5,595	363.18	27,936	6,623
2028	9,326	381.94	45,283	8,880
New Units	3,731	18.76	17,347	2,257

RATIONAL NEXUS – EXISTING AND REASONABLY FORESEEABLE TRAFFIC VOLUMES

New development is occurring in all demand sectors and is likely to continue. The second part of establishing an impact fee is linking new development trends to the need for capital and capacity improvements.

One of the most noticeable effects of growth within a County is an increased amount of vehicles present on the public road system. As new homes and most non-residential structures are built and inhabited they generate additional traffic. For example, residents of a new home use the roads to go to the grocery store, take children to school, drive to work, etc. Additionally, as new commercial development occurs, further road demand may be generated by employees, customers, and suppliers.

A road system ties a community together and new development not only creates site specific demand but also demand on the road system as a whole. These facts lead to the need for overall capacity related improvements, not just on-site improvements. Typically site specific improvements are absorbed by the developer; however, these improvements do not address the system-wide impacts. The impact fee developed in this report corrects for this and provides a mechanism by which new development pays for its direct impact to and need for overall improvements to the road system.

TRAFFIC MEASUREMENT

Average daily trip weekday driveway volumes contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual are adjusted to avoid double counting. 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. For example, a single-family residence has a driveway volume of about 9.57 ADT[1], but only half of those trips have the residence as the destination and are assigned to that land use, the other half are headed to other destinations and should be assigned to those land uses accordingly. Therefore the trip generation, i.e. the trips directly attributable to that residence are 50% of the driveway volume, or 4.79 average daily trips.

[1] Source: Institute of Transportation Engineers Trip Generation Manual 7th Edition, 2004

The ITE Trip Generation Manual also includes "pass-by trip" data that account for the fact that a trip to the grocery store is often only a detour on the trip home from work. 53 studies in the ITE summarize the percentage of total trips that are pass-by trips for various land uses that attract customers on site (ITE Trip Generation Handbook, 2nd Ed., Tables 5.8 through 5.30, see Appendix A for a summary). Using this data, RPI found that the mean pass-by rate for a broad range of commercial uses is 50% (Appendix B), that is, half of all trips for these land uses are a detour from another primary trip (like stopping at the store on the trip home from work). As with residential uses, trip generation for non-residential uses is not more than 50% of the driveway volume because outbound trips are attributable to the destinations of those trips. However, since half of all trips are pass-by trips, the adjustment factor for typical commercial land uses that attract customers on-site is 25%.

Figure 7 – ADT by Land Use Type 2

Residential Categories	ADT	Adjustment	Adjusted ADT Rate
Single Family	9.57	0.5	4.79
Multi Family	6.63	0.5	3.32
Non-Residential Categories (Per 1,000 s.f.)			
Merchandising	42.92	0.22	9.44
Lodging	36.4	0.5	18.20
Offices	11.01	0.5	5.51
Recreation	9.02	0.5	4.51
Special Purpose	12.76	0.5	6.38
Warehouse	4.96	0.5	2.48
Multi-Use	21.17	0.5	10.59
Industrial	6.97	0.5	3.49
Exempt	11.01	0.5	5.51

EXISTING TRAFFIC VOLUMES

A current residential and non-residential land use inventory and attendant projections allows calculation of Road and Bridge capital facilities that will be needed by 2028. Multiplying the inventory and projections for residential units and non-residential land uses by the trip generation (adjusted to avoid double counting) yields the existing and reasonably foreseeable traffic for unincorporated Gunnison County. This method provides the foundation for calculating the LOS and eventually the fee schedule.

[2]Source: Institute of Transportation Engineers Trip Generation Manual 7th Edition, 2004

The majority of the County's traffic volume is generated by the residential sector. This is not surprising given the relatively small amount of non-residential development in the unincorporated areas.

Figure 8 – 2007 ADT Generation by land use type.

Land use type	Gross Unincorporated ADT	Percent of Total
Single family	23,796	85%
Multi Family	2,064	7%
Merchandising	85	<1%
Lodging	659	2%
Offices	16	<1%
Recreation	103	<1%
Special Purpose	225	1%
Warehouse	186	1%
Multi-Use	159	1%
Industrial	475	2%
Institutional	168	1%
Total	27,936	

Additionally, analysts obtained historical traffic count data, collected by the Gunnison County Public Works Department. The aggregated data from these counts yields higher traffic volumes than the counts built off of the Assessor Database. This is most likely due to municipal residents and business traffic using County roads. The higher rates were expected and are summarized in the following chart. The 2007 ADT rate of 31,207 encompasses only roads that were tracked in 2007 (see appendix). Thus to get an accurate number analysts aggregated all of the most recent data to provide a better idea of traffic volumes in the County.

The actual counts returned around 10,000 more trips than that of the 2007 counts developed from the assessor database. Thus approximately a third of all trips on County roads probably originate from municipalities. This is not surprising because there is approximately 1.8 million s.f. of non residential land use in the Municipalities and an additional 5,000 households. It is obvious that the County's road system experiences significant traffic volumes from residents of unincorporated regions as well as residents of Gunnison, Crested Butte, Mount Crested Butte and Pitkin. , absent an intergovernmental agreement the County has no means to assess for the costs of these trips.

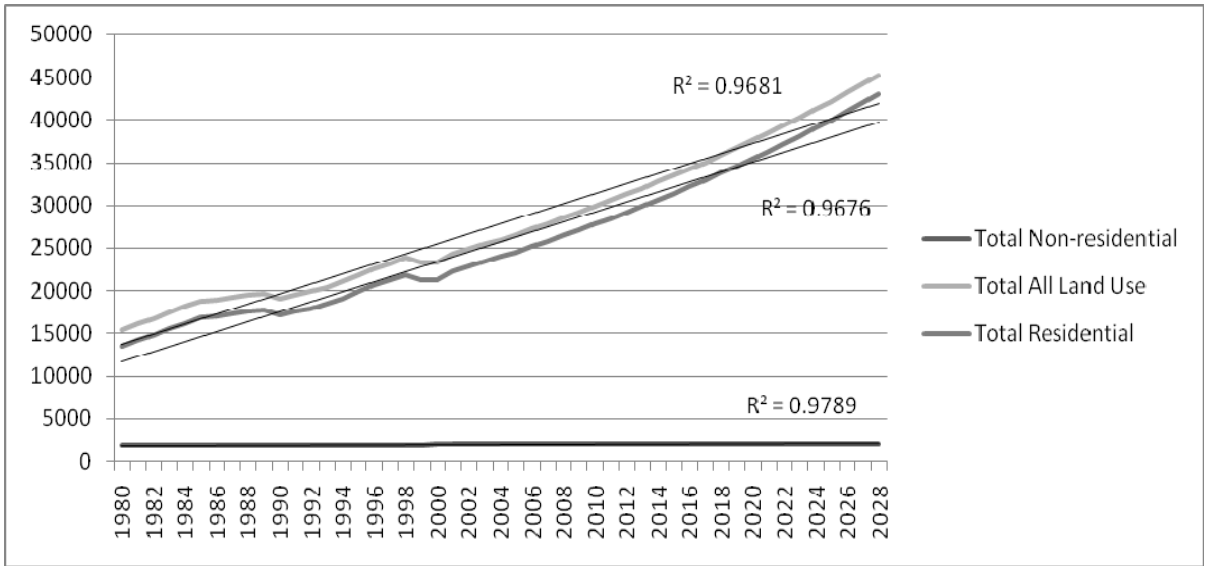
Figure 9 – Gunnison County Traffic Count Summary3

2007 ADT (based on Assessor Database)	2007 ADT (Public Works Count)	Total ADT (Most Recent Count)	Historical Average 1989-2007
27,936	31,207	37,564	28,522

REASONABLY FORESEEABLE TRAFFIC VOLUMES

Using land use projections developed earlier in this report analysts were able to project traffic volumes through 2028. Overall the County can expect traffic volumes to increase by 62% in the next 20 years. This will bring the total number of trips on County roads to around 45,000 per day, most of which will originate from the residential sector.

Figure 10 – ADT Volume Through 2028



[3] Obtained from Gunnison County, see appendix for entire chart of specific road counts

Figure 11 - 2007 and 2028 ADT

Land use type	2007 ADT	2028 ADT
Single family	23,796	39,658
Multi Family	2,064	3,440
Merchandising	85	89
Lodging	659	694
Offices	16	16
Recreation	103	109
Special Purpose	225	237
Warehouse	186	196
Multi-Use	159	167
Industrial	475	500
Institutional	168	177
Total	27,936	45,283

To verify this method against actual historical counts analysts built another historically based projection off actual counts. Once a typical counts and missing counts were eliminated (see appendix) traffic on County roads increased at an average annual rate of 3.36%.

Both projections returned similar results, rate increases of roughly 3% and around 26-29% of total volume originating from the municipalities. While both projections are accurate, the assessor based calculations will be used in the final calculations because the County cannot charge an impact fee to municipal residents. Additionally the assessor based calculations allows for differentiation between land use types where as historical counts provide no information concerning what land use type is responsible for traffic in the County. Nonetheless congruency of the two methods results gives us confidence in the methodology.

Figure 12 – Projection Comparison

	2007	2028	Total % Increase	Annual Increase
Assessor Based Calculations	27,936	45,283	62%	2.96%
Historical Counts	37,564	64,069	71%	3.36%
% Originating from Municipalities	26%	29%		

GEOGRAPHIC TRAFFIC ANALYSIS

The ability to evaluate impacts from future development on County roads is greatly augmented by geographically relating growth patterns to traffic impacts- i.e. where is growth going to

occur? To estimate the geographic distribution of future development and traffic, analysts measured recent residential and non-residential development between 1980 and 2007.

DATA

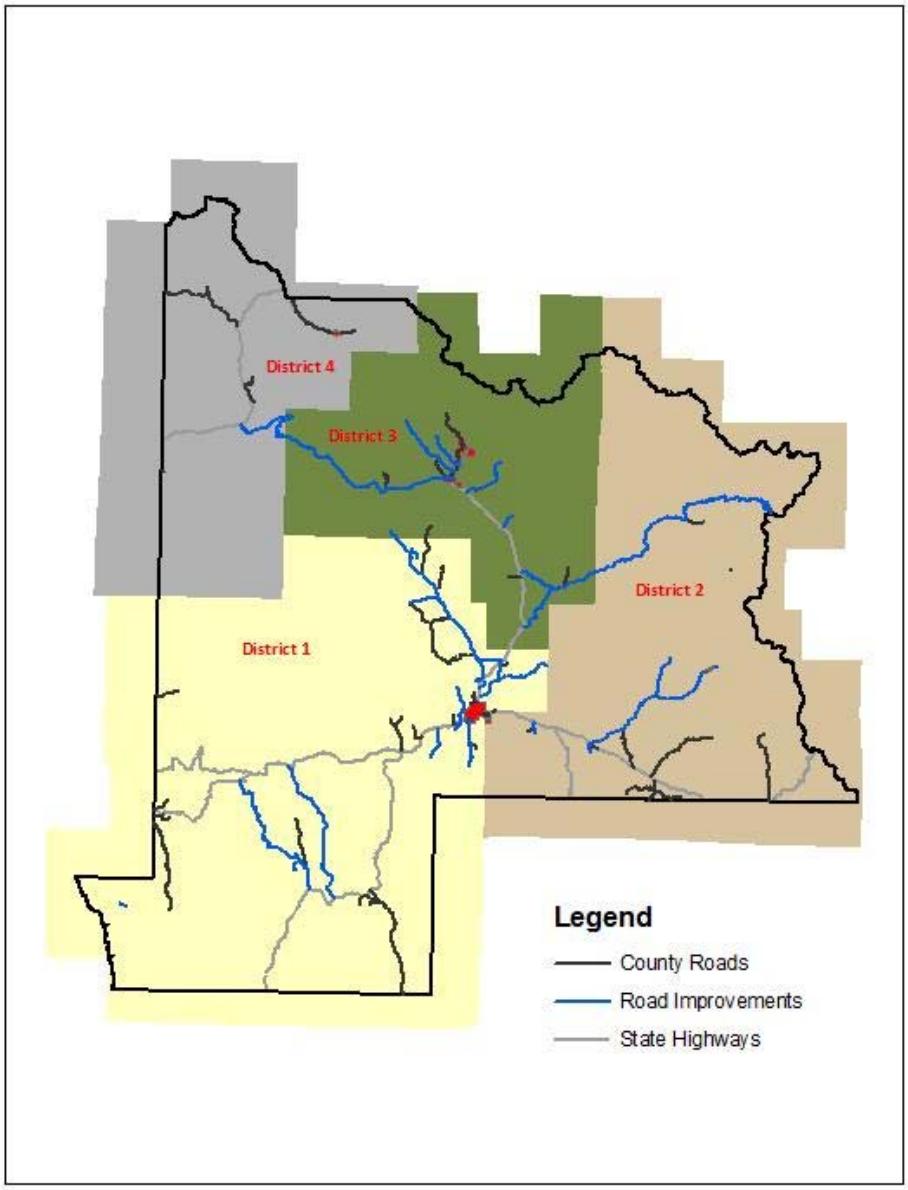
Gunnison County Assessor data is the best available data for performing this analysis because it is the most detailed land use information available and is easily tied into the GIS parcel layer. In addition to possessing rich detail, including the year a structure was built, assessor data is the only good choice for conducting recent geographic growth analysis in the County. The only other option, census block group housing unit data poses accuracy problems. The census block group boundaries were changed between 1990 and 2000 as part of a statewide redrawing of these demographic units.

METHODOLOGY

Using GIS software, the Assessor's database and township and range maps analysts performed the following tasks:

1. Overlay a township and rage map, obtained from the County, over the County's Summer Maintenance District Map. While analysts were not able to match the geographic boundaries exactly, this method was the only way by which properties could be isolated by their road maintenance district.
2. Isolate land use types by district, using the township and range map that contained values corresponding with each parcels identifying number.
3. Using a proportional algorithm analysts were able to section the reasonably foreseeable traffic volumes by land use type and maintenance district.

Figure 13 – District Map



Assumptions

The primary assumption underlying the geographic analysis described is that residential or non-residential development will tend to favor the same areas in which it has occurred during the past 15-20 years. For a County with stable population centers, like Gunnison County, this is a sound assumption because the amenities and infrastructure driving the geographic location of growth in the past couple decades are expected to remain in place. In other words, given the relative maturity of Crested Butte and Gunnison, commercial development will most likely happen within municipal boundaries.

Results

Traffic volumes are expected to increase proportionally throughout the County corresponding with the district's historical development patterns. As expected, the largest traffic volume increases are in districts 1 and 3. Again these districts are home to the major population centers. Increases are most likely on major arterials such as Gothic Road and rural arterials such as Gold Basin and Cement Creek.

Figure 14 - ADT by District

	2007 ADT	2028 ADT	New ADT	% of Traffic
District 1	12,655	20,517	7,862	45%
District 2	3,958	6,495	2,537	14%
District 3	9,521	15290	5,769	34%
District 4	1,802	2,981	1,179	6%
Total	27,936	45,283	17,347	

ROAD AND BRIDGE CAPACITY IMPROVEMENTS AND COSTS

INTRODUCTION

The first step to actually calculating a base impact fee revolves around the development of capacity improvement related costs on a per ADT basis. Road and Bridge Impact fees are typically composed of three types:

1. Incremental Expansion For Capital Facilities- the amount of physical capital that the Road and Bridge Department owns and utilizes
2. Capacity Improvements- necessary construction projects that increase the gross capacity of the system
3. Projects recently completed that were designed to accommodate future growth and to which new development would contribute its proportional share

Note on inflation - 2007 dollars are used to estimate costs throughout this analysis. Because capital improvement costs are construction related costs, future updates to this improvements section and the fee section would need to be adjusted to account for construction industry inflation. See Implementation and Procedural Considerations for a fee update schedule.

Additionally, given the current price increase for asphalt, RPI Consulting and the Gunnison County Road and Bridge Officials think it is prudent to consider the following disclaimer provided by the Road and Bridge Department:

The prices are based on actual costs of the Public Works Department and review of bids submitted to other public agencies and private projects within the last year. These costs were developed to reflect today's dollars. However it is estimated that at the time of writing hot mix asphalt, which the CIP priced at $90.00 per ton, is now available FOB the plant for $105.00 per ton. The only projects on this list that have been publicly reviewed are those that are on the CIP.

CAPACITY IMPROVEMENT PLAN

Road improvements will be necessary to accommodate future traffic (increasing by 62%) in areas of the unincorporated County between 2007, the base year, and 2028, the capital facilities planning horizon. The road improvement summary contained in this report is a compilation and extension of improvements planning obtained from the County Road and Bridge Department.

Capacity improvements are generally defined as construction that increases the capacity of a roadway. It is important to remember that impact fees can only be used to pay for projects that increase a system's capacity required due to growth. Typical capacity improvement projects include surface upgrades, widening, the addition of turn lanes, creative design or intersection projects and major reconstruction in order to decrease the maintenance schedule. In other words if an improvement allows a roadway to handle larger volumes of traffic on a day to day basis (i.e. surface upgrades) or over the long run (i.e. improvements to drainage systems), it is considered a capacity improvement.

SPECIFIC CAPACITY IMPROVEMENT CONSTRUCTION TYPES

Geometrics: includes minor realignments in order to create the straightest line possible without major reconstruction. Increases capacity by making traffic flow smoothly by reducing the amount of turning needed to get from point A to point B.

Capacity Widening: Many Gunnison County roads, both paved and gravel roads, have been developed to a 22 foot wide standard. In most cases they are paved edge to edge, and if there is shoulder potential it has not been developed. Capacity improvements would be widening road to 24 feet wide, managing vegetation, and adding shoulders. Widening a road typically means that motorists can travel safer and at slightly higher speeds: thus a roadway can handle marginal increases to its overall capacity.

Light Reconstruction: Includes building minor fills, laying banks back, installing new drainage structures and other small capacity related projects. For example if a road receives improved drainage structures, less basic maintenance is required to keep the road at an acceptable level, thus the road can handle more trips in between scheduled maintenance.

Minor Base and Paving: Includes gravel for blue-topping a gravel road at full width and paving. Anytime the surface of a road is upgraded from gravel to pavement, vehicles can travel faster and more efficiently without creating excessive dust.

Overlay: the addition of 2 compacted inches of asphalt, again this is a surface upgrade.

Major Reconstruction: Includes significant cuts and fills, laying back banks in unstable soils, all new drainage structures, and widening. Major reconstruction is not usually preformed as part of regular maintenance schedule. Instead once a road has hit peak ADT volumes and needs to

be widened or improved to accommodate maintain an adequate LOS the road then is able to handle higher volumes of traffic.

Gravel and Dust Suppressant: In the past Gunnison has used magnesium chloride, but the rising cost of the product, the life of the application, and environmental concerns are causing a re-evaluation and use of other products as well. Dust is a major inhibitor to the smooth flow of traffic; multiple vehicles cannot travel at adequate speeds safely due to the presence of dust decreasing visibility. Additionally, dust can be a problem for residents that live near a number of dirt roads. Thus by decreasing the amount of dust produced on dirt roads the County could effectively increase total traffic volumes.

Additionally, major construction projects such as the extension of roads, improvements to bridges, and allowing an intersection operate more efficiently all are considered capacity improvements. These larger projects do not fit directly in the above categories but it is obvious that they increase the overall capacity to a roadway.

Capacity Improvement Costs

The costs provided by the Road and Bridge Department reflect in-house construction costs for the Road and Bridge Department. If it becomes infeasible to accomplish improvements using road and bridge resources these costs would need to be revised to reflect substantial cost increases associated with hiring construction firms to do the same work. Additionally it is worth mentioning again that the cost of asphalt has been steadily increasing since the costs were initially figured by the County's Road and Bridge Department.

Figure 15 - Capacity Improvement Cost Matrix

Capacity Improvement Type	Cost Per Mile
Geometrics	$ 50,000
Capacity	$ 60,000
Light Reconstruction	$ 85,000
Minor Base and Paving	$ 248,392
Overlay / Paving	$ 209,250
Chip Seal Cover Coat	$ 83,776
Major Reconstruction	$ 1,500,000
Gravel and Dust Suppressant	$ 88,285
Light Reconstruction, Gravel and Dust Suppressant	$ 173,285
Double Lift Chip Seal	$ 112,640
Base, Double Lift Chip Seal, Capacity	$ 240,925

The following figure summarizes the end costs associated with the 20 year planning horizon for maintaining the existing LOS. In most cases it is simply the project mileage multiplied by the costs provided above. A few of the more crucial projects are summarized below the figure in order to highlight how these improvements will improve the systems overall capacity.

Figure 16 – Gunnison County Capital Improvement Plan

Road Name	Improvement Type	Miles		Cost
Allen Lane	Gravel and Dust Suppressant	2.5	$	88,285
Antelope	Light Construction Capacity and Overlay	4.5	$	1,594,125
Big Cimarron	Gravel and Dust Suppressant	3.9	$	344,311
Brush Creek	Capacity and Overlay	1.2	$	251,100
Brush Creek	Gravel and Dust Suppressant	1.8	$	158,625
Camino del Rio	Capacity and Overlay	0.98	$	263,865
Castle Mountain	Minor Base and Paving	2	$	496,784
Castle Mountain	Overlay	4.5	$	941,625
Cement Creek	Light Recreation, Gravel, Dust	3	$	519,855
Cottonwood Pass	Light Reconstruction and Capacity Minor Base and Paving	7	$	2,753,744
Cranor Hill	Capacity and Overlay	4.7	$	1,265,475
Dos Rios Subdivision	Capacity and Overlay	1.8	$	484,650
Gold Basin	Capacity and Overlay	5.6	$	1,130,850
Gold Creek	Light Reconstruction Gravel and Dust Suppressant	5	$	866,425
Gothic Road	Capacity Light Reconstruction Gravel and Dust Suppressant	3.8	$	699,855
Gothic Road	Slate River Bridge (see CIP)		$	1,100,000
Jack's Cabin	Geometrics Capacity an Overlay Minor Base and Pavement	4.2	$	1,224,104
Kebler Pass	Major Reconstruction	10	$	15,000,000
Kebler Pass	Light Reconstruction Capacity and Paving	15	$	5,313,750
Kebler Pass	Overlay	4	$	837,000
Lost Canyon	Capacity Gravel and Dust Suppressant	1	$	148,285
McCabe Lane	Capacity and Overlay	0.35	$	94,237
McCabe Lane	Minor Base and Paving	1.55	$	385,007
Mill Creek	Bridge		$	475,000
Miller Lane	Bridge		$	360,000
North Elk Meadows F1	Minor Base and Paving	0.8	$	198,714
North Elk Meadows F2	Minor Base and Paving	0.25	$	62,098
Ohio Creek	Capacity and Overlay	12.7	$	3,419,475
Ohio Creek	Light Reconstruction Minor Base and Paving	1	$	333,392
Ohio Creek	Minor Base and Paving	2.3	$	571,302
Ohio Creek	Intersection		$	1,002,282
Old Highway 135	Overlay	0.5	$	104,625
Parlin Cut-off	Bridge			
Pine Creek	Gravel and Dust Suppressant	16.5	$	1,456,702
Ponderosa	Capacity and Overlay	0.4	$	107,700
Ponderosa	Capacity Minor Base and Paving	0.4	$	123,357
Quartz Creek	Capacity and Overlay	14.6	$	3,931,050
Sapinero Mesa	Gravel and Dust Suppressant	15.5	$	1,368,418
Slate River	Light Reconstruction Minor Base and Paving	3	$	1,000,176
Shavano Drive	Overlay	0.22	$	92,070
Six Mile Lane	Overlay	1.6	$	334,800
Spring Creek	Overlay	4	$	837,000

Spring Meadows Trail	Minor Base and Paving	0.46	$	114,260
Taylor River Road	See Comments			
Tomichi Heights	Minor Base and Paving	1.7	$	372,588
Walker Lane	See Cranor Hill			
Washington Gulch	Capacity	2.5	$	150,000
TOTAL			**$**	**52,376,966**

The following summary provides some background information for Gunnison County's road system, and was obtained from the Road and Bridge Department:

Allen Lane: bordered on both sides by agriculture land, it is often used as a shortcut between Ohio Creek Road and HW #135. It is also used to detour traffic if there is an accident or construction on the highway.

Antelope Creek: many of the parcels are already served by central sewer, and it is feasible to serve them with Dos Rios Water. It is a difficult road to maintain in the winter due to the grades.

Cement Creek: a portion of the road included in the 3 miles is currently a Forest Service Road, but there has been a great deal of discussion about the types of use, and is expected to ultimately become a County road with maintenance and plowing.

Cranor Hill/Walker Lane: much of this road is currently bordered by agriculture and has high development potential. A municipal sewer is planned to extend to the North Valley Subdivision in the future. This road is also a connector between HW #135 and HW #135 near the City of Gunnison. Like Allen Lane it is used for a detour if there is construction or an accident on HW #135.

Gold Basin: much of the traffic on Gold Basin Road south of Hartman Rocks is generated by a subdivision that is in Saguache County.

Gold Creek: a number of proposals have been brought forward over the past 10 years for development of some mining claims in this area.

Jack's Cabin: the realignment of the Jack's Cabin intersection is being done in conjunction with the Taylor River Road project. Jack's Cabin is largely bordered by Forest Service and agricultural parcels, but it is a connector between the Taylor River Road and HW #135.

Kebler Pass: the bridges on this road were replaced in the 90's by the Federal Highway Administration. It is one of the three Forest Highways in Gunnison County. Kebler Pass is an important connection between the residents of the Somerset, Buzzard Divide and Marble area and the County seat. In the last couple of years commercial use of the road is increasing.

McCabe Lane: was added to the list because of the commercial industrial use in the area due to gravel pits, this traffic is associated and a result of development throughout Gunnison County.

Mill Creek: is bordered largely by agricultural land, but is used extensively in the winter as a winter recreation area by Gunnison County residents and tourists.

Pine Creek: accesses a subdivision that has a large number of lots and the number of homes is growing.

Because a rational nexus must link need to development it is important to consider the proposed CIP as it pertains to County wide traffic patterns.

The following figure summarizes the project value by district and contrasts it with the amount of County traffic patterns. District three has the highest cost of improvements while experiencing the second highest traffic volumes. District 1 has the most traffic and the highest number of improvement projects, however the combined cost is the smallest. This disparity is caused by the type of projects undertaken in each district. District 1 has the most established infrastructure so the projects tend to be smaller in nature, (i.e. not major construction). These improvements are mostly capacity, light reconstruction, and overlays. In district 3 the majority of the cost comes from the major construction proposed for Kebler Pass. Overall the CIP does align with County traffic patterns, smaller, more numerous projects for higher developed areas with large amounts of traffic; and major reconstruction in undeveloped areas with high growth potential.

Figure 17 – Improvements Linked to Traffic Patterns

	Cost of Improvements	% of Total Cost	Number of Capacity Improvements	Percent Of Traffic
District 1	$ 17,399,482	33%	29	45%
District 2	$ 7,886,019	15%	6	14%
District 3	$ 27,091,465	52%	12	34%
District 4	$ -	0%	0	6%

CAPITAL IMPROVEMENT PLAN PER ADT COSTS

The gross cost of the CIP through 2028 totals $52.3million. However over the next 20 years new residents will be contributing towards the CIP through the County's sales tax. Currently half of the 1% sales tax in Gunnison County is earmarked for capital improvements. By examining historical budgets analysts found that, on average, 19% of this revenue is transferred to the Road and Bridge Department. It is important to credit the residents of Gunnison County for their yearly and cumulative contributions towards capital projects. Otherwise the fee might be unjustly high because residents could effectively be charged twice for a portion of these projects.

Using an algorithm based on the average housing price in Gunnison County, analysts determined that the average household contributes around $133 a year towards capital improvements. So, on average, households contribute approximately $25 per year to the Road and Bridge Department. To achieve the total credit that a household will contribute over a 20 year horizon analyst built in an annual inflator to the average housing price calculation. Thus the $133 contribution annually increases along the historical national average home appreciation rate of 4%. These values were multiplied by the unincorporated housing projections and then aggregated over 20 years to derive a total contribution of $6.3 million. Again this number represents 19% of the total sales tax revenue directed towards capital projects.

The $6.3 million dollars in sales tax revenue is subtracted from total CIP construction costs which yields an overall credited sum of $46 million. This figure is then divided by the 2028 ADT value to establish the monetary impact of each ADT in terms of maintaining the LOS as the County grows. Each ADT costs the County approximately $1,000 in capacity upgrades to the road and bridge system.

Figure 18 - CIP per ADT Costs

		Value	ADT Divisor 2028 total		Per ADT Costs
CIP (Total)	$	52,376,966	N/A		N/A
Sales Tax Credit	$	6,315,156	N/A		N/A
Total CIP	**$**	**46,061,810**	**45,283**	**$**	**1,017**

INCREMENTAL EXPANSION FOR CAPITAL FACILITIES

As traffic increases, so will demand for services from the Road and Bridge Department. Ultimately necessitating an incremental increase in facility space and fleet size. If the road system is increased to handle larger volumes of traffic, it follows that the equipment should increase proportionally. If these two aspects of the road system are increased in parallel increments, the County will not experience a decrease in the level of service that is currently provided to residents. Equipment, shop space, and tools should be increased to properly care for the road system and to protect the investment and contributing to the increased road system capacity.

The County finance department meticulously maintains a thorough asset inventory that includes a replacement cost and description of each asset. Land, building, and heavy equipment purchases are all capital improvements that will last 5 years or more and were included in this analysis. Some temporary assets, like computers and pickups were not included as major capital assets although some of those assets may last 5 years or more as well. Analysts chose to analyze this portion of the CIP here because it represents an actual expansion to the facilities that maintain and operate the physical roadways.

Analysts sorted through the County's asset inventory to specifically isolate land and buildings that are used for road and bridge purposes. However, because much of the equipment is utilized by differing departments within Public Works, analysts obtained Public Works FTE and used that ratio (84%) to divide the equipment value.

Figure 19 – Public Works FTE Break Down

Public Works Employee Breakdown	FTE	% On Road and Bridge	FTE
Administration	3	79%	2.36
Allocated Employees (R+B)	37.32	100%	37.32
Water and Sewer	1.89	0%	0
Solid Waste	5.21	0%	0
Total	47.42		39.69
Road and Bridge %	84%		

Figure 20 - Road and Bridge Capital Facility Summary.

	Total Value	Road and Bridge Proportional Share	Road and Bridge Value[4]
Equipment	$ 6,841,907	84%	$ 5,725,304
Land	$ 1,427,200	100%	$ 1,427,200
Buildings	$ 1,830,401	100%	$ 1,830,401
Total (Existing Assets)	$ 10,099,508	N/A	$ 8,982,905
New Public Works Facility	$ 5,834,000	84%	$ 4,881,888

The per ADT costs for the existing asset values and the cost of the new Public Works facility were calculated in slightly different methods. Existing assets were divided by the 2007 ADT thus representing the existing LOS provided by the County. The new facility value was divided by the 2028 ADT value to encapsulate the new traffic that it is being built for. When combined the per ADT cost for incremental expansion totals $430 per ADT. This cost represents the existing capital LOS provided to existing residents, and the marginal LOS increase that will be provided to residents in the next few years.

Figure 21 - Per ADT Costs for Incremental Expansion

	Value	ADT Divisor	Per ADT Costs
Existing Assets	$ 8,982,905	27,936	$ 322
New Public Works Facility	$ 4,881,888	45,283	$ 108
Total			$ 430

BUY-IN

The third and final component is the amount charged to new development based on its prorata share of the impact to the road system. Analysts examined the non-maintenance related construction costs incurred by the County in the last five years. Overall these improvements totaled over $1.1 million. Because these projects were not backlog or routine maintenance and provide capacity increases beyond the needs of existing residents, it is appropriate to charge new development its fair share of the construction costs. If new development did not "buy-in" to this project existing residents would be subsidizing growth.

[4] Due to rounding capital values vary slightly when calculated, this does not change final fee calculations due to a round up function used in the final calculus.

The total cost was first divided by the 2028 reasonably foreseeable ADT. Since this project benefits existing development, new development should not be held accountable for the entire cost of the project. The gross 2028 ADT was used as the cost divisor; this divisor includes existing ADT values as well as the reasonably foreseeable ADT associated with development. The resulting per ADT cost totaled $25.

Figure 22 - Per ADT Cost of Buy-In to Recently Completed Projects

Cost of Recently Completed Projects	2028 ADT Divisor	Per ADT Cost
$ 1,114,053	45,283	$ 25

CAPITAL FACILITY BASELINE COST

All of the costs considered, the County incurs a total $1,472 per ADT. The following figure summarizes the costs.

Figure 23 - Per ADT Cost Summary

Capital Facility	Cost	ADT Divisor	Cost Per ADT
Existing Capital Assets Total	$ 8,982,905	27936	$ 322
New Road and Bridge Facility	$ 4,881,888	45283	$ 108
Total CIP	$ 46,061,810	45283	$ 1,017
Buy- In	$ 1,114,053	45283	$ 25
Total Per ADT			**$ 1,472**

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 inequitable this impact fee includes a system of credits to avoid double dipping. Credits are usually applied as a discount (or full exemption in some cases) applied to the full price of the fee.

CREDIT FOR IMPROVEMENTS REQUIRED DURING DEVELOPMENT REVIEW

The difference between streets capital improvements related to on-site traffic (i.e. circulation within the development) and improvements to the overall County road system (the type of improvements for which the impact fee is designated) should be considered when site improvements are negotiated. If these off-site improvements to the County road system will serve traffic from existing or future development, the County should establish a reasonable credit towards the impact fees. If off-site improvements will only benefit the private development and possibly neighboring private developments, then they probably do not warrant a credit.

In these case-by-case development 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 address 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 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 $250 discount per single family home under the fee proposed in this study.

In calculating this type of credit, it is crucial for the County to distinguish between improvements specifically related to and benefiting the subdivision or development, and those

improving the overall road system. No credit is necessary for improvements serving only the on-site needs of particular developments.

CREDIT FOR TAX REVENUE SPENT ON STREETS CAPITAL IMPROVEMENTS

The County has and will continue to pay for some level of road capital improvements using revenues collected from taxpayers. Road and bridge improvements are generally funded directly from the road and bridge fund or via transfers from the road and bridge fund. The revenue sources that warrant a credit from the road and bridge impact fee are:

1. HUTF funds allocated by State
2. Vehicle registration taxes
3. Special Ownership Taxes
4. Federal Funds

Establishing the tax credit involves answering three key questions:

1. How much revenue gets spent on County road capital improvements?
2. How much tax revenue does residential vs. non-residential land uses generate?
3. What credit on the road impact fee would compensate for this annual tax revenue over the capital improvements planning horizon?

According to the records in the Gunnison County 2003-07 budgets, about 5% of the road and bridge fund has gone towards capital improvements fund during the most recent 5 complete years. In the past five years not more than $300,000 has been spent on capacity related capital improvements. The County is going to have to drastically increase this amount in order to pay for all of the improvements included in the CIP. In fact, the total cost of the CIP spread over the planning horizon will raise the yearly capital expenditure value to more than $3 million annually. The 2008 budget allocated over $1 million towards new infrastructure. Thus this historical pattern is likely to be significantly altered. Because it is prudent to calculate fees on a conservative basis it is assumed that these revenue sources will be spent on capital related projects.

Figure 24 - Capital Expenditure Summary

	2003	2004	2005	2006	2007
Total Expenditures	$ 3,973,589	$ 3,735,192	$ 4,430,287	$ 4,664,314	$ 3,709,686
Expenditures on Capital	$ 101,313	$ 68,180	$ 582,186	$ 296,949	$ 65,424
% Capital Expend	3%	2%	13%	6%	2%
Average	5%				

HIGHWAY USERS TAX FUND

It is important to note that credits are applied on a 20 year basis. Thus each credit is an aggregation of a demand unit's revenue contribution over the planning horizon. Highway Users Tax Revenue is a tax collected by the state and reallocated to each County. This is the largest single revenue source for the County's Road and Bridge Department, typically constituting around 50% of gross revenues. Most of this money is the direct result of a $0.22 per gallon tax on gasoline.

In order to calculate the per ADT HUTF contribution, analysts obtained the number of registered vehicles in Gunnison County from the Department of Local Affairs - in 2007 this totaled 20,540. Analysts then calculated the average number of vehicle miles travel on Gunnison County roads by multiplying the gross County wide ADT by the U.S. Department of Energy average vehicle trip value of 9.9 miles. This number was multiplied by 365 to obtain the gross number of miles traveled in a year. The gross vehicle miles were distributed amongst all registered vehicles in the County, this yielded an average yearly per vehicle mileage of just under 12,000, which roughly aligns with the national average. This number was divided by 22.4 (average mph for U.S. vehicles U.S. Bureau of Transportation), to calculate the yearly gallons of gas consumed per vehicle. Yearly gas consumption was multiplied by $0.22 to estimate the yearly HUTF revenue per vehicle. This was multiplied by the total number of registered vehicles to calculate how much HUTF revenue the County produced - around $2.3 million, a 5% difference from actual 2007 budget HUTF revenues. Analysts then divided the HUTF per vehicle revenue by the average ADT per vehicle to calculate the per ADT contribution to County HUTF revenue. In total each ADT contributes roughly $36 to the County in any given year.

It should be noted that the per vehicle ADT value, while based on actual measurable numbers, makes intuitive sense, the largest portion of traffic for the County originates in the residential sector that has an adjusted ADT value of 4.79 trips per day. The average household has two

vehicles thus giving each vehicle roughly 2.5 trips per day, combined with the less prevalent but higher ADT values associated with commercial land use - 3.27 trips per vehicle.

Figure 25 – Per ADT HUTF Credit

Registered Vehicles in Gunnison County		20,540
Yearly vehicle miles		242,629,296
Miles per vehicle		11,813
Gallons of gas/ vehicle		527
HUTF revenue/ vehicle	$	116
Total HUTF Revenue	$	2,382,966
ADT Per Vehicle		3.27
HUTF Credit per ADT	$	36

SPECIFIC OWNERSHIP AND VEHICLE REGISTRATION

Specific ownership and vehicle registration credits were slightly easier to calculate than HUTF. Analysts divided 2003-2007 revenues by the number of registered vehicles in any given year. This returned 5 values that were averaged in order to calculate the per vehicle credit. This was divided by the average ADT per vehicle value to achieve a per ADT credit.

Additionally, analysts calculated a Federal Funds Credit using the same method described for the S.O. and registration credit. This was done to capture taxpayer contributions from Federal agencies such as the Forest Service and Payment in Lieu of Tax (PILT) from the U.S. Department of Interior. This approach was taken to ensure that all taxpayer revenue was accounted for. Again, this reinforces RPI's conservative calculation methods.

Figure 26 - Per ADT Specific Ownership and Vehicle Registration Credit

	5 Year per Vehicle Average		Per ADT	
Vehicle Registration	$	2.40	$	0.73
Specific Ownership	$	9.13	$	2.79
Other (Federal Funds)	$	26.53	$	8.12

COMBINED CREDITS

Important note: when calculating the final values for both costs and credits RPI uses the roundup function in excel to create seamless fees. This does not change the overall fee by a significant amount. Thus the figures that follow may slightly differ from actual analysis presented above.

When all of the above credits are combined and aggregated over the planning horizon, each ADT contributes around $980 worth of revenue.

	Annual		Cumulative (20 Year)	
HUTF	$	36	$	720
Vehicle Registration	$	1	$	20
Specific Ownership	$	3	$	60
Federal Funding (PILT)	$	9	$	180
	$	49	$	980

ROAD AND BRIDGE IMPACT FEE SCHEDULE

Calculating the actual fee for various types of land use requires the integration of three following elements:

1. The Average Daily Vehicle Trip generation for each land use type.
2. The cost per Average Daily Trip.
3. The credit per 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 ITE[5], adjusted to account for pass-by trips and avoid double counting. Because impacts on the roads system are directly related to the amount of traffic added to the system, the analysis begins with the average vehicle trip generation for residential units and non-residential square footage.

The fee amount per average daily trip amount is the difference between the total cost per average daily trip and the credit per average daily trip for residential and non-residential uses.

Base per ADT Fee ($1,472) – Base per ADT Credit ($980) = Per ADT Fee ($492)

The fee amount per average daily trip can then be multiplied by the trip generation for each land use to calculate the fee for that land use. The following figure summarizes this calculation for each land use.

[5]Source: Institute of Transportation Engineers Trip Generation Manual 7th Edition, 2004.

Figure 27 – Per ADT Road and Bridge Impact Fee.

Land Use Type	ADT	Base Cost	Base Credit	Final
Single Family	4.79	$ 7,044	$ 4,690	$ 2,354
Multi Family	3.32	$ 4,880	$ 3,249	$ 1,631
		$ -	$ -	
Merchandising	9.44	$ 13,900	$ 9,254	$ 4,646
Lodging	18.20	$ 26,791	$ 17,836	$ 8,955
Offices	5.51	$ 8,104	$ 5,395	$ 2,709
Recreation	4.51	$ 6,639	$ 4,420	$ 2,219
Special Purpose	6.38	$ 9,392	$ 6,253	$ 3,139
Warehouse	2.48	$ 3,651	$ 2,431	$ 1,220
Multi-Use	10.59	$ 15,582	$ 10,374	$ 5,208
Industrial	3.49	$ 5,130	$ 3,416	$ 1,714
Institutional	5.51	$ 8,104	$ 5,395	$ 2,709

Important Note: as previously stated the final fees are based calculations using the round up function in excel.

INDEPENDENT TRIP GENERATION STUDY

Occasionally project developers may estimate that the trips generated by their particular project are not accurately represented by the ITE. In these cases the developer should be able to conduct a private trip generation study specific to their project. Once the study is 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 ($492 per ADT).

CASH FLOW

RPI analysts performed a cash flow analysis to provide an idea of what the County could expect in terms of gross revenue originating from the implementation of this impact fee. Using the Assessor's database, specifically the year build field, analysts were able to estimate what the County would have realized had the fees been in place. The residential sector impact fee is presented on a year-by-year basis because housing units in the past have been built at a fairly consistent annual rate. However, non-residential land use in the unincorporated County is far more sporadic. Some years totaled less than 1,000 s.f. of newly constructed floor area. Thus this revenue stream was not examined. Overall the County might expect to generate around $310,000 per year from impact fee revenues. Again, RPI designs cash flows to be very conservative to avoid overstating the fee's impact to County budgets.

Figure 28 – Historical Cash Flow

	2002	2003	2004	2005	2006	2007
Single Family Units	4,940	5,069	5,186	5,298	5,461	5,595
Additional Units	132	129	117	112	163	134
Annual Fee Revenue	$ 310,728	$ 303,666	$ 275,418	$ 263,648	$ 383,702	$ 315,436
Average	$ 308,766					
6 Year Cumulative	$ 1,852,598					

This analysis is provided for strictly informational purposes and should not be used for budgeting purposes.

IMPLEMENTATION AND ADMINISTRATION

WHO IS SUBJECT TO THE FEE?

The fee may be applied to all new subdivision applications or building permits for new construction in the unincorporated areas of the County. The fee could be applied to development on existing unimproved legal lots and to new subdivisions that may occur in the future. The fee should not apply to residential remodels unless they result in an increased number of units. he fee should not be applied to the replacement of any existing legal residential unit.

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.[6]

If the County chooses to consider an exemption or reduction in fees for essential housing, several issues should be explored.

1. The County defines essential housing as housing for qualified households as determined by the Gunnison County Housing Authority[7]. 2.: How does this affordability, relate to the construction of new residences of various types and sizes? In other words, how does the County go from defining affordability to setting some exemption threshold? Would the exemption be based on size, unit type, location? Or on other issues related 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, based upon the County's current housing needs

[6] *CRS. 29-20-104.5*

[7] Gunnison County Essential Housing Linkage Amendment

assessment, the County may grant an exemption for essential housing and create incentives for this type of development. This may be good, bad, or benign, depending on the County's ability to provide services to these denser development types without jeopardizing service levels or other community goals or values.

4. Finally, if the County waives fees for development of a certain type, or below a certain size, how does it propose to maintain service levels for County services given the waived revenue? The population occupying the essential housing will draw upon general government facilities the same as other residents, but will not be paying the fee. Maintaining service levels may require County make up for the waived revenue from other funds.

In short, the County 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 expenditure out of other funds to compensate for waived revenues.

EXEMPTIONS FOR CERTAIN PUBLIC FACILITIES

The County may wish to waive impact fees for some public facilities (classified as government /institutional /community facilities). For example, the County 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 to residents, businesses, and visitors.

WHEN TO COLLECT THE FEE

Given the Impact Fee Statute language, it may be advisable for the County to collect the Impact Fee prior to the issuance of a building permit when permit fees are collected. This approach is sensible in the context of impact fees because the impacts are experienced when the development takes place. Furthermore, Developers generally prefer this method because it minimizes the amount of time they are required to carry the cost of the fee before they can pass it off to the buyer. Ultimately this decision is up to the County, as of yet the State Statues do not provide a clear cut time for the payment of impact fees.

OTHER CONSIDERATIONS

- Be certain that the goal of requiring new development to pay its fair share of the costs of capital related improvements is a clearly stated goal, objective, or policy in the County's Strategic Plan.
- Adopt the fee schedule by resolution or ordinance.
- Include within the resolution or ordinance legislating a statement concerning the purpose of the fee (to require new development to pay its fair share of the costs of road and bridge related improvements). Also note provisions to sequester the funds and stipulate the purposes of their expenditure.
- Adopt language allowing for an administrative appeal process for the Road and Bridge Capital Expansion impact 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. Generally, an appeal of a determination of an impact 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 County 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 newspaper.[8] A fair administrative appeal process is a necessary tool for resolving conflicts and avoiding litigation.

UPDATING THE FEE

All of the revenue received from the implementation of this impact fee must be kept in a separate interest bearing account, and must be used only for projects that are related to Road and Bridge capital expansion improvements. It is important that the monies garnered be placed in an account to accrue interest so that the fee revenues are not devalued by inflation

Furthermore, RPI recommends that the fee undergo periodic revision and updating. The County should update this fee consistent with the methods used to update other fees.

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[8] The County will need to research the specific time limits and noticing requirements required for this type of appeal.

Note on using 2007 dollars: All of the costs and fees are calculated in 2006 dollars throughout this support study. This is a consistent method because RPI assumes that the revenues collected will be invested to keep up with inflation while the fee amount will be adjusted at least every two years to keep up with inflation. So long as these accounting practices are followed, this revenue system will very closely keep up with inflation. For this reason, it was not necessary to calculate costs using dollar values from future or past years.

INDEPENDENT TRIP CALCULATION FOR NON-RESIDENTIAL DEVELOPMENT

Since non-residential development is often mixed (e.g. a gift shop with a restaurant, or a retail outdoor shop and a law office within the same building) and thus the different land use types generate different amounts of traffic, the County may want to consider allowing non-residential impact fees to be assessed based on an independent traffic generation study for each proposed use. The studies submitted by the applicant would estimate their contribution to the overall traffic with in Gunnison County. Such a study could be reviewed as part of the Land Use Change Permit or Special Development Project Permit processes and the fees would then be assessed appropriately. RPI recommends that any such study should be thoroughly reviewed by the County's staff, before accepting an independent trip calculation. If the County adopts this policy a calculation framework would need to be implemented to ensure a fair assessment. The basic formula is as follows:

Number of Units*ITE ADT Value * Per ADT Fee = Impact Fee

Determining the fee involves a small amount of analysis and RPI recommends that the County refer to the Institute of Transportation Engineers Trip Generation Manual,, which documents average daily trips for most types of land uses. The adjustment factors vary but for all residential applications it is 50%, because half of the trips are leaving the establishment heading for another destination and thus those trips should not be assigned to that establishment. Generally for retail establishments, gas stations, video stores, etc. the adjustment factor is 22% because these sorts of trips are generally part of a series of errands.

SUMMARY

INTRODUCTION

Increased traffic associated with development, directly contributes to the need for increasing the County's road system capacity. Traffic circulating in the system originates from various land use categories; residential, commercial, recreational, and institutional. New development and land use marginally increase overall traffic volumes. The process of measuring existing and reasonably foreseeable demands for road capital improvements involves three steps, each answering a fundamental question:

4. What causes traffic? --Inventory existing land uses and develop future land use projections
5. How much traffic? -- Calculate traffic produced by existing and future land uses
6. Where does it occur? -- Establish traffic growth rates for areas in the County.

METHODOLOGY

An impact fee can be derived for any service that a County, municipality or special district is authorized to provide to its constituents. The following are concepts present in an impact fee analysis:

1. Demand Units
2. Demonstration or Need (Nexus)
3. Capital Facilities Inventory
4. Level of Service (LOS)
5. Proportionate Share
6. Credits
7. Fee schedule Calculation

DEMAND UNIT TRENDS, DEMOGRAPHICS AND PROJECTIONS

The following figure summarizes reasonably foreseeable growth for residential units, non-residential floor space, Average Daily Trips (ADT), and population.

2007 and 2028 Demand Units

	Housing Units	Non-Residential S.F. (1,000s)	ADT	Population
2007	5,595	363.18	27,936	6,623
2028	9,326	381.94	45,283	8,880
New Units	3,731	18.76	17,347	2,257

ROAD AND BRIDGE CAPACITY IMPROVEMENTS AND COSTS

The following figure summarizes the per ADT cost components that establish the baseline, or pre credited fee for the Gunnison County Road and Bridge Impact Fee.

ADT Cost Components

Capital Facility	Cost	ADT Divisor	Cost Per ADT
Existing Capital Assets Total	$ 8,982,905	27936	$ 322
New Road and Bridge Facility	$ 4,881,888	45283	$ 108
Total CIP	$ 46,061,810	45283	$ 1,017
Buy- In	$ 1,114,053	45283	$ 25
Total Per ADT			**$ 1,472**

Additionally it is important that the County's capital improvement plan (CIP) correspond geographically to land use and traffic development, the Gunnison County CIP aligns with existing traffic patterns and volumes

CIP Value and Projects by County Road and Bridge District

	Cost of Improvements	% of Total Cost	Number of Capacity Improvements	Percent Of Traffic
District 1	$ 17,399,482	33%	29	45%
District 2	$ 7,886,019	15%	6	14%
District 3	$ 27,091,465	52%	12	34%
District 4	$ -	0%	0	6%

CREDITS

Once the fee schedule is established it is necessary to calculate an appropriate crediting structure so that residents and businesses are not overcharged. Per ADT Crediting

	Annual Contribution		Cumulative (20 Year) Contribution	
HUTF	$	36	$	720
Specific Ownership	$	1	$	20
Vehicle Registration	$	3	$	60
Federal Funding	$	9	$	180
Total	$	49	$	980

IMPACT FEE SCHEDULE

The fee schedule is calculated by subtracting the credits from the baseline cost, this value is then multiplied by each land use type's appropriate ADT generation rate.

Gunnison County Road and Bridge Impact Fee by Land Use Type

Land Use Type	ADT	Base Cost	Base Credit	Final
Single Family	4.79	$ 7,044	$ 4,690	$ 2,354
Multi Family	3.32	$ 4,880	$ 3,249	$ 1,631
		$ -	$ -	
Merchandising	9.44	$ 13,900	$ 9,254	$ 4,646
Lodging	18.20	$ 26,791	$ 17,836	$ 8,955
Offices	5.51	$ 8,104	$ 5,395	$ 2,709
Recreation	4.51	$ 6,639	$ 4,420	$ 2,219
Special Purpose	6.38	$ 9,392	$ 6,253	$ 3,139
Warehouse	2.48	$ 3,651	$ 2,431	$ 1,220
Multi-Use	10.59	$ 15,582	$ 10,374	$ 5,208
Industrial	3.49	$ 5,130	$ 3,416	$ 1,714
Institutional	5.51	$ 8,104	$ 5,395	$ 2,709

APPENDIX

		Stock Value	% Attributable to Road and Bridge		Road and Bridge Share
Buildings					
10th & Rio Grande, Gunnison	$	675,594	100%	$	675,594
CR 45-54, Doyleville	$	96,640	100%	$	96,640
CR 45-54, Doyleville	$	27,897	100%	$	27,897
Doyleville	$	6,878	100%	$	6,878
Highway 135, Crested Butte	$	487,450	100%	$	487,450
Highway 133, Somerset	$	120,324	100%	$	120,324
Highway 133, Somerset	$	4,889	100%	$	4,889
Highway 133, Somerset	$	7,571	100%	$	7,571
Highway 133, Somerset	$	11,356	100%	$	11,356
105 W. Main, Marble	$	126,543	100%	$	126,543
105 W. Main, Marble	$	265,259	100%	$	265,259
Land	$	1,427,200	100%	$	1,427,200
Equipment					
00 Chevy 3/4 ton 4x2	$	19,702	84%	$	16,487
00 GMC 1 ton 4x2	$	20,220	84%	$	16,920
01 Chevy 3/4 ton 4x4	$	24,184	84%	$	20,237
01 GMC 1 ton 4x4	$	35,431	84%	$	29,648
03 Tahoe	$	34,514	84%	$	28,881
02 Chevy 3/4 ton 4x4	$	23,161	84%	$	19,381
02 Chevy 3/4 ton 4x2	$	17,970	84%	$	15,038
03 Chevy 1 ton Dually 4x4	$	28,364	84%	$	23,735
03 Chevy 3/4 ton 4X4	$	21,556	84%	$	18,038
04 Chevy 3/4 ton 4X4	$	20,393	84%	$	17,065
05 Chevy 3/4 ton 4x4	$	21,416	84%	$	17,921
05 Chevy 3/4 ton 4x4	$	21,416	84%	$	17,921
08 Chevy 3/4 ton 4x4	$	21,416	84%	$	17,921
88 Ford 1/2 ton 4x4	$	11,344	84%	$	9,493
89 Chevy 3/4 ton 4x4	$	14,085	84%	$	11,786
89 Chevy 3/4 ton 4x4	$	14,085	84%	$	11,786
91 Chevy 3/4 ton 4x4	$	15,166	84%	$	12,691
92 Ford 3/4 ton 4x4	$	14,661	84%	$	12,268
96 Chevy 3/4 ton 4x4	$	18,721	84%	$	15,665
96 Chevy 3/4 ton 4x4	$	18,404	84%	$	15,400
96 Chevy 3/4 ton 4x4	$	20,055	84%	$	16,782
96 Chevy 3/4 ton 4x4	$	18,479	84%	$	15,463

00 Chevy 3/4 ton 4x4	$	22,622	84%	$	18,930
00 Chevy 3/4 ton 4x4	$	22,044	84%	$	18,447
00 Chevy 1 ton 4x4	$	26,383	84%	$	22,077
95 CHEV 3/4 on 4x4	$	18,721	84%	$	15,665
90 Chevy 1 ton 4x4	$	15,601	84%	$	13,054
03 Chevy 3\4 ton 4x4	$	17,970	84%	$	15,038
99 Chevy Suburban	$	23,235	84%	$	19,443
78 KW Tandem Truck (Distributor)	$	49,990	84%	$	41,832
86 Peterbuilt Belly Dump	$	58,087	84%	$	48,607
86 Peterbilt Belly Dump	$	58,087	84%	$	48,607
88 Peterbilt Belly Dump	$	59,486	84%	$	49,778
92 Peterbilt Tandem Truck	$	63,557	84%	$	53,184
93 IHC 9400 Dump	$	72,067	84%	$	60,305
93 IHC 9400 Water Truck	$	78,451	84%	$	65,647
96 Peterbilt Tandem Truck	$	87,172	84%	$	72,946
97 Peterbilt Tandem Truck	$	73,999	84%	$	61,922
98 Peterbilt	$	89,519	84%	$	74,910
01 Kenworth Service Truck	$	94,599	84%	$	79,160
01 Kenworth Single Axle Truck	$	43,000	84%	$	35,982
03 Peterbilt Tandem Truck	$	99,863	84%	$	83,565
05 Peterbilt Tandem	$	131,558	84%	$	110,088
07 Kenworth	$	41,706	84%	$	34,900
08 Peterbilt	$	89,519	84%	$	74,910
85 Kenworth Tandem Truck	$	46,717	84%	$	39,093
90 Kenworth Tractor Truck-Grey	$	37,886	84%	$	31,703
91 Kenworth Tractor Truck-Blue	$	50,335	84%	$	42,120
95 Kenworth Water Truck	$	41,706	84%	$	34,900
04 Cat 140H	$	161,050	84%	$	134,767
04 Cat 140H	$	158,550	84%	$	132,675
04 Cat 140H	$	159,550	84%	$	133,511
06 Cat 140H	$	159,550	84%	$	133,511
90 Cat 140G	$	116,918	84%	$	97,837
90 Cat 140G	$	107,448	84%	$	89,912
92 John Deere 722B-H	$	75,517	84%	$	63,192
95 Cat 140H	$	117,269	84%	$	98,131
98 Cat 140H	$	133,766	84%	$	111,935
99 Cat 140H	$	163,299	84%	$	136,649
00 Cat 140H	$	181,151	84%	$	151,587
02 Cat 140H	$	186,159	84%	$	155,778
04 Cat 140H	$	163,602	84%	$	136,902
82 John Deere 500C	$	36,000	84%	$	30,125
87 Ford 555B	$	38,008	84%	$	31,805

90 John Deere 310C	$	33,263	84%	$	27,834
90 John Deere 710C	$	82,773	84%	$	69,264
98 Ford 675E	$	45,955	84%	$	38,455
00 CAT 446B	$	95,729	84%	$	80,106
56 Cat D7	$	273,259	84%	$	228,663
00 816F Cat Compactor	$	147,746	84%	$	123,634
95 Cat D7H	$	251,003	84%	$	210,039
99 D7R Cat Dozer	$	251,003	84%	$	210,039
85 Cat 950	$	102,822	84%	$	86,041
90 John Deere 644E	$	105,670	84%	$	88,425
92 John Deere 624G	$	90,235	84%	$	75,509
93 John Deere 624G	$	94,107	84%	$	78,749
96 John Deere 624G	$	105,026	84%	$	87,886
98 John Deere 644H	$	162,992	84%	$	136,392
05 Cat 950G	$	166,318	84%	$	139,175
06 John Deere 624J	$	166,318	84%	$	139,175
85 Spartan Belly Dump #119	$	18,314	84%	$	15,325
85 Spartan Belly Dump #120	$	18,314	84%	$	15,325
86 Utility Trailer	$	1,150	84%	$	962
89 Crysteel Dump Box #123	$	11,595	84%	$	9,703
89 Crysteel Dump Box #119	$	11,595	84%	$	9,703
89 Crysteel Dump Box #120	$	11,595	84%	$	9,703
91 Trail-Eze Lowboy	$	11,617	84%	$	9,721
95 Trail King Belly Dump	$	31,023	84%	$	25,960
97 Fruehauf Tanker (Water)	$	27,854	84%	$	23,308
00 Trail-Eze Lowboy	$	13,718	84%	$	11,479
03 Rock Trailer	$	12,000	84%	$	10,042
04 Fruehauf Tanker (Water)	$	15,000	84%	$	12,552
94 Atlas Copco Compressor	$	12,287	84%	$	10,282
74 LeRoi Compressor	$	11,040	84%	$	9,238
93 4" Trash Pump	$	7,799	84%	$	6,526
88 John Deere Tractor	$	24,645	84%	$	20,623
88 Porta-Tank s/n 102743	$	10,800	84%	$	9,037
89 Porta-Tank s/n 103341	$	12,100	84%	$	10,125
90 Etnyre Distrib BTSAM #117	$	48,151	84%	$	40,293
91 Vermeer Wood Chipper	$	16,250	84%	$	13,598
97 Klauer Snow Blower	$	63,558	84%	$	53,185
97 Crafco Crack Sealer	$	24,295	84%	$	20,330
98 Hotsy Portable Washer	$	6,645	84%	$	5,561
99 J/D Tractor w/mower	$	60,988	84%	$	51,035
01 Broce Broom	$	23,971	84%	$	20,059
01 Dura Patcher	$	38,095	84%	$	31,878

04 Dynapac Pneumatic Roller	$	49,434	84%	$	41,366
Leboy Laydown Machine	$	79,375	84%	$	66,421
02 Variable Message Board	$	16,875	84%	$	14,121
03 Swenson Sander #9	$	5,963	84%	$	4,990
03 Shoulder Spreader	$	27,627	84%	$	23,118
03 Warren Sander #134	$	9,161	84%	$	7,666
03 Warren Sander #128	$	8,400	84%	$	7,029
Total	**$**	**10,099,508**		**$**	**8,982,905**

Historical Average Daily Traffic Counts

Road	2007	Total (Most Recent Count)	Historical Average 1989-2007
Antelope	1,182	1,182	900
Allen Lane	126	126	89
Big Cimarron	237	237	226
Blue Mesa Cutoff	102	102	87
Brush Creek < Skyland (lower)	2,681	2,681	1,661
Brush Creek < Airport (middle)	1,233	1,233	408
Brush Creek > Airport (upper)	235	235	227
Castle Mountain < Sierra Vista	794	794	722
Chekwa	369	369	339
Seneca Drive -		941	367
Castle Mountain > Sierra Vista Way		870	658
Cement Creek	2,931	2,931	2,085
Copper Creek	240	240	240
Cottonwood	478	478	583
Gold Basin Lower Dos Rios Sub.		2,949	2,210
Gold Basin Upper Goodwin Lane		1,060	842
Gold Creek, Upper	2,918	2,918	1,518
Gold Creek, Lower	977	977	514
Golf Course	660	660	729
Gothic Road	5,140	5,140	4,398
Gothic at Mt. CB (cattle guard)	611	611	588
Gothic Townsite	425	425	485
Jack's Cabin	458	458	374
Kebler Pass @CB town limits #1	1,179	1,179	950
Kebler Pass - Top of Pass-Cemetery	492	492	407
Kebler Pass- Paonia Reservoir #3	616	616	616
Lake City Cut-Off	61	61	89
Landfill Road	182	182	136
Little Cimarron	68	68	93
Marble -	719	719	589
McCabe Lane		284	284
Muddy Creek	245	245	133
Ohio Creek	410	410	691
Paradise Divide	48	48	48
Pine Creek		100	82

Powderhorn	107	107	115
Quartz Creek Lower Parlin	911	911	588
Quartz Creek Upper Ohio City	431	431	464
Slate River	565	565	448
Spring Creek		153	153
Stueben Creek	91	91	92
Taylor River	1,280	1,280	1,087
Lower Walker Lane CR # 10	767	767	453
Upper Walker Lane CR #10	376	376	216
Washington Gulch -	862	862	538
Total	**31,207**	**37,564**	**28,522**