

Douglas County Public Works Engineering Department Transportation Capital Improvements Program

Progress Report
2007 through 2016

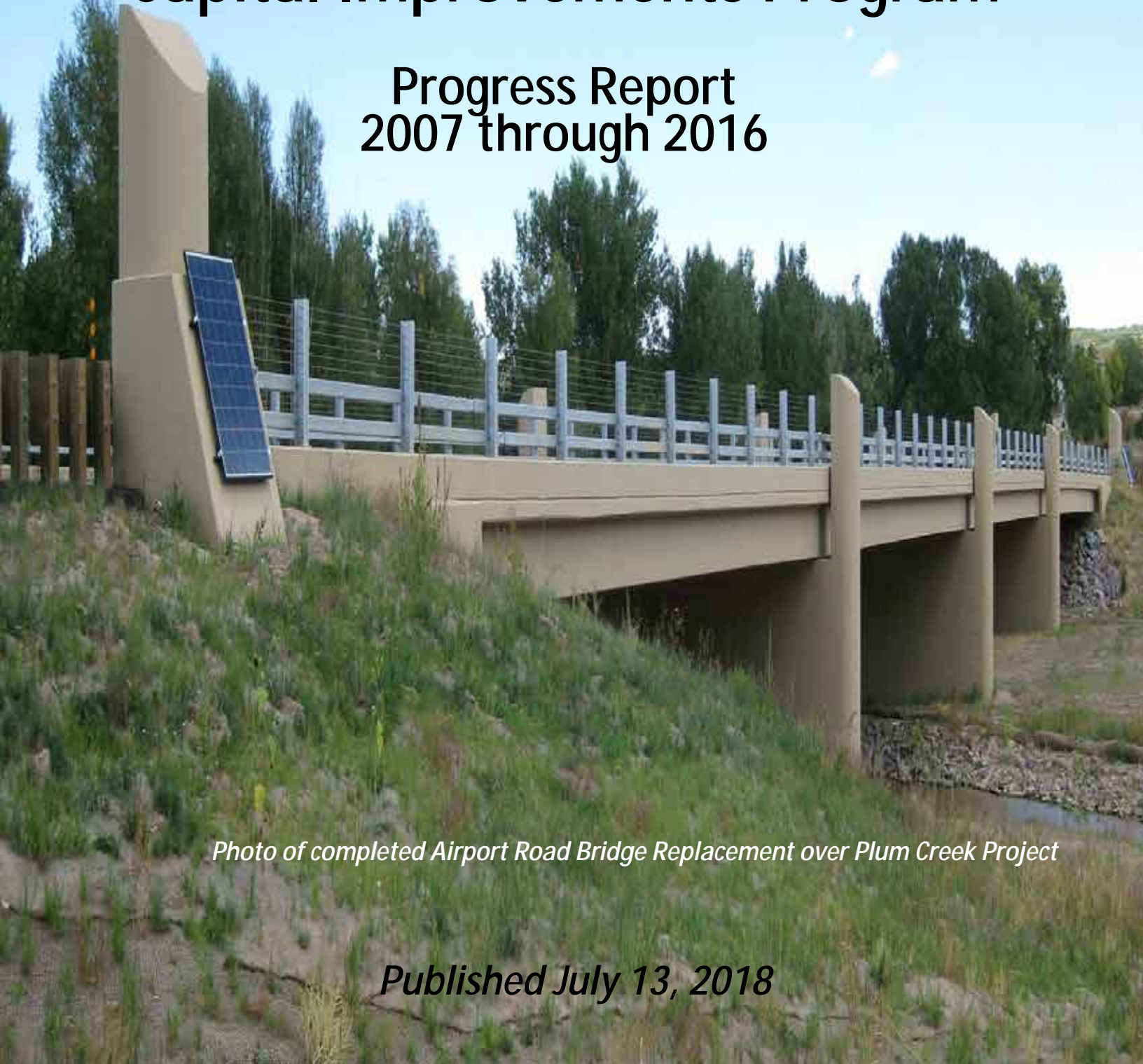


Photo of completed Airport Road Bridge Replacement over Plum Creek Project

Published July 13, 2018

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Executive Summary

The purpose of the ***Transportation Capital Improvements Program Progress Report 2007 through 2016*** is to demonstrate to the citizens of Douglas County, Colorado, (the County) that revenues collected for the Transportation Capital Improvements Program are managed effectively and economically to maintain and improve the overall condition, safety, operations, and expansion of Douglas County's transportation system.

This report builds on the **previously published *Transportation Capital Improvements Program Progress Report 1996 through 2006*** (published in 2007), and adds information about our progress, opportunities, and successes for the period from 2007 through 2016. This latest report summarizes the main sources of funding for the Transportation Capital Improvements Program, discusses key takeaways from a citizen survey, highlights projects underway or completed between 2006 and 2017, outlines partnerships the County uses to leverage resources, and reviews the long-range transportation planning process.

The information in this report is approximated from General Ledger Reports, and should not be interpreted to be an exact financial report; such as the Comprehensive Annual Financial Report (CAFR).

What is the Transportation Capital Improvements Program?

The Transportation Capital Improvements Program allows for Douglas County to plan, construct, and maintain transportation capital improvement projects that keep you safe, keep you moving, keep our economy growing, and protect our natural resources.

What are our biggest accomplishments since 2006?

Douglas County has invested in high-priority transportation capital improvement projects that address critical concerns along major corridors and major intersections. An increase in the funding of the Pavement Management Program has also improved the Pavement Condition Index (PCI) through Contracted Maintenance of Condition projects, thus extending the life time and smoothness of the existing transportation system. The following lists significant projects either completed or initiated since 2006; some of which were funded entirely by Douglas County and others partially funded through partnerships:

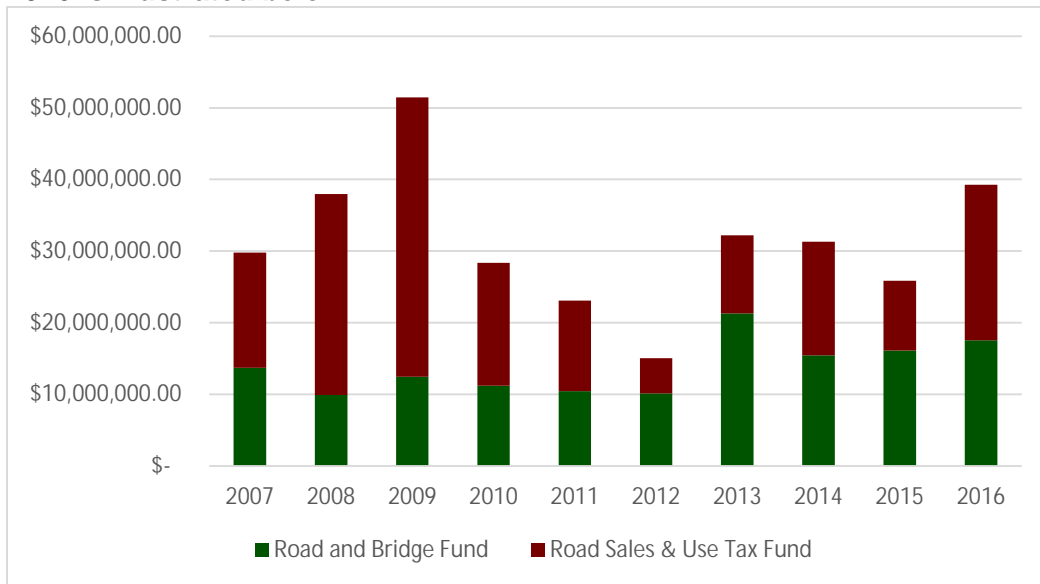
- 🚧 Pavement Management Program (Contracted Maintenance of Condition Transportation Projects)
- 🚧 Hess Road Extension (Hilltop to I-25)
- 🚧 Broadway / C-470 Widening & Reconstruction
- 🚧 North Meadows Extension (US 85 to I-25)
- 🚧 Perry Park Emergency Access Road
- 🚧 C-470 Corridor Improvements (I-25 to Wadsworth)
- 🚧 Quebec / Lincoln / University Intersection Improvements
- 🚧 Quebec / Park Meadows Drive Intersection Improvements
- 🚧 University / Cresthill Lane Intersection Improvements
- 🚧 Highlands Ranch Parkway / Broadway Intersection Improvements
- 🚧 Highlands Ranch Parkway / Wildcat Reserve Parkway Intersection Improvements
- 🚧 Wildcat Reserve Parkway / Broadway Intersection Improvements
- 🚧 Broadway / County Line Road Intersection Improvements
- 🚧 RidgeGate / Mainstreet / Peoria Construction
- 🚧 Quebec Street / C-470 Improvements
- 🚧 US 85 / C-470 Widening & Reconstruction (SB to EB Flyover)
- 🚧 US 85 Corridor Improvements (Highlands Ranch Parkway to State Highway 67)
- 🚧 US 85 / Titan Road Interchange Improvements (including traffic signals)
- 🚧 Southeast Light Rail Extension (Lincoln Station to proposed RidgeGate / Havana Station)
- 🚧 I-25 Lane Balance and Widening (Ridgegate to County Line Road)
- 🚧 County Line Road Widening & Reconstruction (Colorado Blvd to west of University Blvd)
- 🚧 County Line Road / I-25 Operational Improvements (Chester Street to Inverness Parkway)
- 🚧 Chambers Road (Arapahoe County Boundary to Hess Road)
- 🚧 Double Angel Road (Chambers Road to Hess Road)

- 🚧 Hess Road Extension (Hilltop Road to Parker Road)
- 🚧 Hess Road Extension (Parker Road to I-25)
- 🚧 Hilltop Road Widening & Reconstruction (Hess Road to Legacy High School)
- 🚧 E-470 / Jordan Road Interchange Signalization
- 🚧 E-470 / Chambers Road Interchange Reconstruction
- 🚧 Crystal Valley Parkway over East Plum Creek & Union Pacific Railroad
- 🚧 DC 105 over West Plum Creek Bridge Replacement Project
- 🚧 DC 16 over Plum Creek Bridge Replacement Project
- 🚧 Airport Road Bridge over Plum Creek Bridge Replacement Project
- 🚧 Daniels Park Road (South of Castle Pines Parkway to Grigs Road)

How is the Transportation Capital Improvements Program Funded?

Funding: Our two main sources of transportation funding are revenue generated from our property tax via the 4.493 mills set aside in the Road and Bridge Fund (Fund 200), and revenue generated from the voter-approved 4/10ths of 1 cent sales and use tax set aside for transportation, which is referred to as the Road Sales & Use Tax Fund (Fund 230).

The Annual Transportation Capital Improvement Project Expenditures by Fund Type 2007–2016 is illustrated below:



Source: Douglas County Department of Public Works Engineering. Note: the significant expenditures in 2009 was possible with the issuance of approximately \$14 million additional revenue made available by the sale of bonds that are being paid back over a ten year loan period at 2.55% interest with a small portion of annual revenue collected from the Road Sales & Use Tax Fund. This additional revenue allowed the County to accelerate several major capital improvement projects which included: the RidgeGate / Mainstreet Extension, the Hess Road Extension, the Perry Park Emergency Evacuation Exit, the County Line Road Widening and Reconstruction Project (Colorado and University), Quebec Street Widening (Park Meadows Drive to County Line Road), and the US 85 / C-470 Interchange Reconstruction Project (Phase 1 – SB Santa Fe Drive to EB C-470 flyover bridge) and continuous auxiliary extending to Lucent Blvd.

Sharebacks and Reimbursements

Sharebacks and reimbursements provide funds to enable municipalities to collaborate and leverage Road Sales & Use Tax dollars to secure additional matching funds from Douglas County, Colorado Department of Transportation (CDOT), and others for selected regional transportation improvements. Under the terms of intergovernmental agreements, Douglas County returns a portion of the Road and Bridge Fund and the Road Sales & Use Tax Fund to municipalities. For additional information regarding Sharebacks, please see *Section 5*.

Leveraging and Partnerships

In addition to funding projects through the Road and Bridge Fund and the Road Sales & Use Tax Fund, Douglas County leverages resources through partnerships to maximize return on infrastructure investments for residents. Project partners include federal agencies, CDOT, Denver Regional Council of Governments (DRCOG) or local metropolitan planning organization (MPO), Urban Drainage and Flood Control District (UDFCD), adjacent counties, cities and towns within Douglas County, and developers.

Local Improvement Districts

Douglas County also utilizes funding through issuance of bonds for new infrastructure through the creation of Local Improvement Districts (LIDs). The purpose of a LID is to provide a method for partnering with property owners to finance and construct infrastructure by assessing local property owners for the infrastructure improvements. Douglas County procures financing to pay for construction of infrastructure, and the property owners within the LID pay the County principal, interest, and fees over the payback period, typically 10 years, by means of a special assessment. Between 2007 and 2016, Douglas County partnered with landowners on two LIDs.

Developer Contributions

When new development comes to Douglas County, the developer is responsible for constructing the infrastructure necessary to support the new land use. This infrastructure includes roads, bridges, traffic signals, drainage, erosion and sediment control, pavement striping, traffic signage, among others. Construction associated with the land development is inspected and requires acceptance in accordance with Douglas County standards. However, after a 2-year warranty period, Douglas County is responsible for addressing future operations and maintenance needs.

What Have We Heard from You?

In 2003, Douglas County began a bi-annual public outreach survey program to establish an ongoing dialog and formalized process to gauge citizen satisfaction regarding service delivery, infrastructure maintenance, and transportation improvement projects.

In 2010, Douglas County conducted a transportation service-related survey to gather information from citizens regarding satisfaction with, need for, and the value of Douglas County's services. The Douglas County citizens surveyed responded that they were overall 80% satisfied with the County's services provided for Road Maintenance and Resurfacing, and 78% satisfied with Traffic Management services. In addition, 56% surveyed agreed that Douglas County has a 'somewhat' effective and adequate transportation system. During

this timeframe, the citizens who responded to this survey also voted that “Transportation” was the second most important priority area for Douglas County to focus on.

With regards to the 2012 Citizen Survey, overall 77% were satisfied with the County’s services provided for Road Maintenance and Resurfacing, and 82% were satisfied with Traffic Management services. Again in 2012, the citizens who responded to this survey also voted that “Transportation” was the second most important priority area for Douglas County to focus on. Also, 53% citizens stated that traffic congestion across the County seems to be improving.

In 2014, citizens surveyed voted 80% were satisfied with the services provided for Road Maintenance and Resurfacing, and 84% were satisfied with Traffic. In summary, the 2014 survey results indicate that, generally, Douglas County is continuing to provide a satisfactory transportation system and growth management strategy for its residents, and most residents believe funding levels for transportation programs should be maintained.

What Types of Projects are Constructed through the Transportation Capital Improvements Program?

The Transportation Capital Improvements Program addresses critical maintenance and improvement needs ranging from street paving to major interchange reconstruction. The program includes replacement or construction of bridges, culverts, and other drainage features; paving, sealing, overlay, repair, and widening of existing roadways; construction of new regional arterials; and implementation of new traffic operations, safety, and congestion management improvements. The program also includes paving of gravel roads, improvement of bicycle and pedestrian facilities, improvement of neighbourhood collector and arterial roads, needed safety improvements, and system enhancements that improve mobility.

Operations and Maintenance

Douglas County utilizes a variety of robust treatments to maintain a high level Pavement Condition Index (PCI) to extend the existing pavement lifetime, and maintain a smooth driving surface. This program also addresses repairs to curbs, gutters, sidewalks and handicap ramps for Americans with Disabilities Act (ADA) compliance.

Safety Improvement

Safety is the number one priority for all projects in Douglas County, and most projects involve safety enhancements of some kind. Safety improvements are implemented based on a number of factors, including geometric evaluation and other roadway design criteria, intersection operations, accident history, and projected traffic counts.

Traffic Improvement

These types of projects include school safety, signal replacement and maintenance, bicycle and pedestrian safety and infrastructure, signage, striping, traffic communications, and Intelligent Transportation Systems (ITS). Many of these projects are small in comparison with major construction projects, but equally important in maintaining and enhancing the quality of life in Douglas County.

Congestion Management

Congestion management projects help Douglas County maintain traffic volumes at a manageable level and prepare the transportation system for increased future demand.

Drainage / Stormwater and Water Quality Improvement

Since drainage / stormwater and water quality infrastructure is under constant distress from daily operations and severe weather conditions, it requires continued maintenance and attention to ensure that systems are safe and not failing. Failure of these systems can be hazardous and cause damage to roads, motor vehicles, bridges, homes, properties, and water quality.

Paving Gravel Roads

Some residents have expressed a desire to have the gravel roads in their subdivisions paved. Douglas County paves gravel roads through two programs: Local Improvement Districts and the County Assisted Paving Projects.

How Future Transportation Needs are Determined

Douglas County updates its Transportation Plan (TP) every 5 years. The TP is an important component of the County's Comprehensive Master Plan and the Capital Improvements Plan. Because of the substantial growth taking place in Douglas County, it is critical that the TP be developed in concert with the Comprehensive Master Plan and subsequently direct transportation resources through the Capital Improvements Plan to implement the TP. Our current 2030 Transportation Plan was adopted on November 9, 2009, and is available on the County website at: <http://www.douglas.co.us/documents/2030-transportation-plan.pdf>. We are currently in the process of updating / preparing the 2040 Transportation Plan.

What are our Future Transportation Needs?

The goals and objectives of Douglas County's Capital Improvements Program are ambitious, but attainable with diligent financial and strategic planning efforts. Not only will the projected growth in Douglas County require new transportation facilities, but the existing facilities will also require significant maintenance and upgrades as they age. Douglas County is committed to delivering a Capital Improvements Program that provides the public with the safest, most reliable, and highest-quality transportation system at the lowest possible cost to Douglas County residents. For more information visit:

<http://www.douglas.co.us/road-work/construction-capital-improvement-projects/>

1.0 Introduction and Purpose

The purpose of this report is to demonstrate to the citizens of Douglas County, Colorado, that revenues collected for the Transportation Capital Improvements Program are managed effectively and economically to maintain and improve the overall reliability, condition, safety, and traffic operations of Douglas County's transportation system.

In 2007, we published the *Transportation Capital Improvements Program: Progress Report 1996 through 2006* to share with residents how the Transportation Capital Improvements Program was progressing. This report builds on information presented in the 2007 report and adds information about our progress, opportunities, and successes for the period from 2007 through 2016. Information covered in this report is presented in the following chapters:

- **Introduction and Purpose:** An overview of purpose and organization of this report.
- **Funding:** Our two main sources of transportation funding are revenue generated from our property tax via the 4.493 mills set aside in the Road and Bridge Fund (Fund 200), and revenue generated from the voter-approved 4/10ths of 1 cent sales and use tax set aside for transportation, which is referred to as the Road Sales & Use Tax Fund (Fund 230).
- **Citizen Survey:** Highlights from recent citizen survey related to transportation and details of our efforts to listen to and integrate community feedback in projects and planning, now and in the future.
- **Projects:** Highlights projects currently underway or completed between 2007 and 2016 to demonstrate how funds have been applied to help improve the overall transportation system that is essential to our constituents.
- **Shareback:** Outlines details of the shareback program, which helps to fund projects for city and town projects within Douglas County.
- **Transportation Planning Process:** An overview of how transportation planning is conducted in Douglas County and how we are looking ahead to ensure our transportation system continues to be reliable and meets the general needs of our residents.

These report sections demonstrate how we have maintained good stewardship in the expenditures of current revenue for transportation improvements. County funds are frequently used to leverage additional dollars from federal, state, and other revenue sources to help complete important transportation projects in Douglas County. A summary of revenues and expenditures of the Road and Bridge Fund and Road Sales & Use Tax Fund is presented in this report and demonstrates the effect of sound planning and prudent use of resources. The combined funds from the Road and Bridge Fund and the Road Sales & Use Tax Fund have been used effectively to address ongoing maintenance and transportation capital improvements within Douglas County.

2.0 Transportation Funding Sources

Funding for Douglas County transportation capital improvement projects comes from several sources, including the Road and Bridge Fund, the Road Sales & Use Tax Fund, and partnerships with government and private partners. This chapter provides details on how those funds are received, allocated, and used to improve the transportation system within Douglas County. Information is presented for the last 10 years (2007 through 2016), as well as individual years to clearly demonstrate how funding has been used to address the opportunities and transportation challenges in Douglas County.

2.1 Road and Bridge Fund (Fund 200)

Typically a Road and Bridge ‘Fund’ exists to provide funding for road and bridge maintenance and construction for every county in the State of Colorado. This type of fund is comprised of revenues from several sources, depending on the county. In Douglas County, a portion of property taxes, intergovernmental revenues, including federal and state-shared revenues, fees from licenses and permits, and other miscellaneous Douglas County revenues comprise the Road and Bridge Fund. The Road and Bridge Fund is the “foundation” of stable and consistent funding for operating and maintaining the Douglas County roads and bridges.

Specific ownership taxes (SOT), auto ownership taxes, and state highway user taxes are the primary revenue sources accounted for in this Fund, which for **2016** generated approximately **\$24.6 million**. Funds are used primarily for operational expenditures related to road maintenance, traffic services, and snow removal. **Figure 1** identifies all the typical funding sources that Douglas County has for operating, maintaining and improving our roads which for 2016 was approximately a total of \$73 million (*data provided is after Sharebacks to Towns and Cities within Douglas County*).

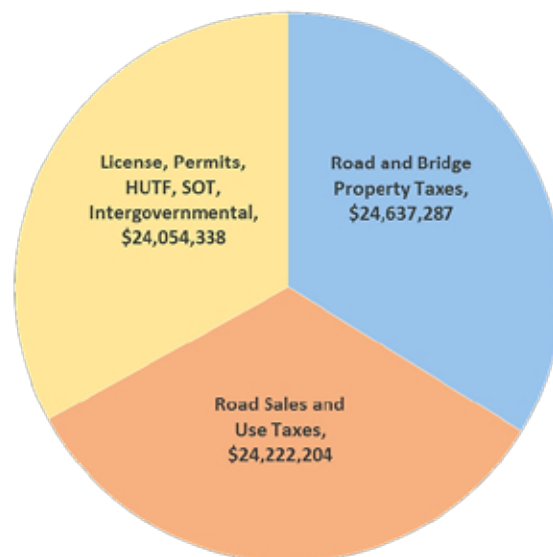


Figure 1 - Douglas County's Funding Sources for Roads in 2016

Douglas County currently has a total 19.774 mill levy property tax; and approximately 22.72% (4.493 mills) of this tax is collected and allocated annually to the Road and Bridge Fund – which in 2016 generated approximately \$24.6 million in revenue. Based on Colorado State Statutes, Douglas County is required to shareback 50% of the Road and Bridge Fund property taxes collected within incorporated cities / towns, which will be discussed in Section 5.0 of this report.

The Road and Bridge Fund's primary focus is on maintenance of our existing roads and bridges and includes both County performed and contracted maintenance services. Maintenance projects include asphalt and concrete repair and replacement; roadway stormwater and drainage improvements; traffic signal installations; repairs and replacements of sidewalk and roads; and pedestrian safety improvements. For example, the major budget requests / initiatives for 2017 in the Road and Bridge Fund includes: \$15 million for contracted asphalt and concrete maintenance, \$1 million emergency storm drainage projects, and \$1 million for other stormwater priority projects. As we move to the future, similar types of expenditures are anticipated to be needed, and with inflation, budget requests will most likely exceed these present figures. The number of concrete, sidewalk, and asphalt projects completed during a fiscal year depends on the weather, so any funds that weren't used during a particular fiscal year, are carried over to the following year for that specific project to be completed.

Figure 2 provides an example of how much of the Douglas County allocation of property tax levy collected for a \$400,000 residential home is distributed for transportation services (for 2015).

Figure 2. Property Tax Allocation for Fund 200: \$400,000 Home Example

Property Tax Allocation for the Road and Bridge Fund	
\$400,000 Home Example	
Actual Value x Assessment Percentage = Assessed Value	
\$400,000 Actual Value x 7.96% Assessment Percentage = \$31,840 Assessed Value	
Assessed Value x Douglas County ¹ Tax Rate (Mill Levy Rate) = Taxes	
\$31,840 Assessed Value x 1.9774% Douglas County Tax Rate = \$629.60	
\$31,840 Assessed Value x 4.493% Tax Rate for Road and Bridge Fund = \$143.06	
<i><u>In this example of a \$400,000 home, of the \$629.60 paid to Douglas County through its property tax levy, approximately \$143 goes towards the Road and Bridge Fund.</u></i>	

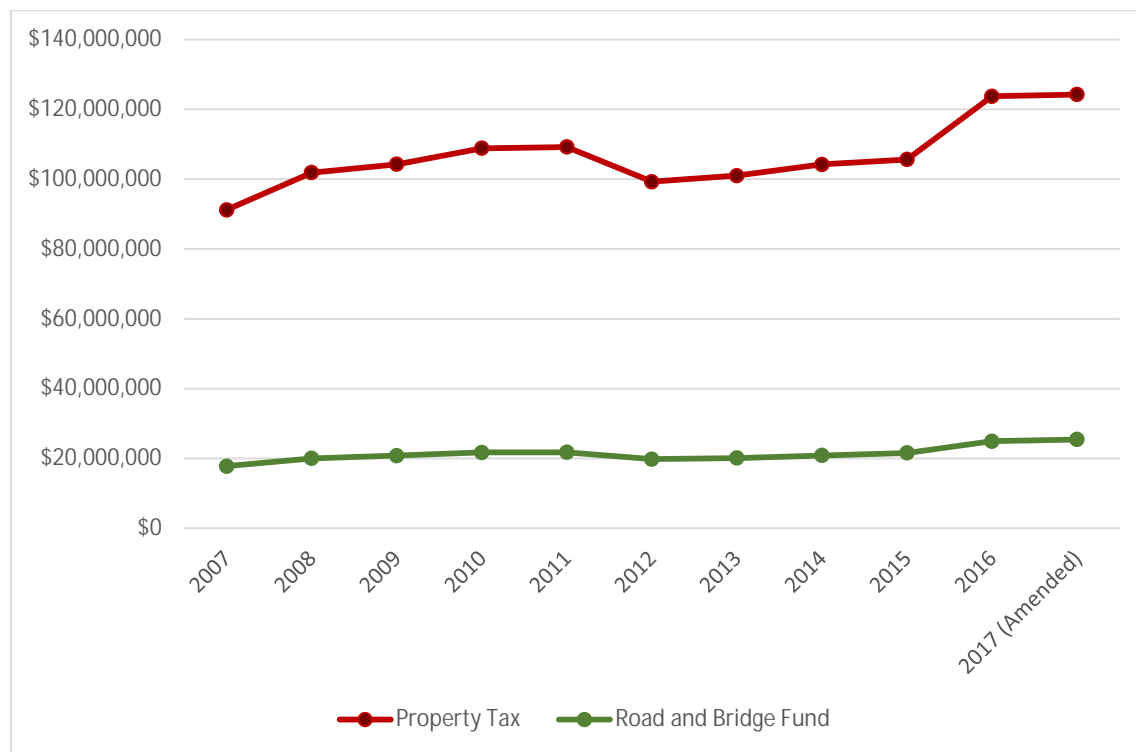
¹(within Figure 2 above) A tax rate is the mill levy expressed as a percentage. Douglas County Government. 2015. Property Tax Calculations. February. <http://www.douglas.co.us/assessor/property-taxes/property-tax-calculations/>.

The following information presents a look at the allocation and expenditure of funds over the period from 2007 to 2017 as well as a single-year example of how those funds were allocated and expended.

Figure 3 illustrates how much of the actual tax property revenue has been allocated to:

- The Road and Bridge Fund demonstrated that the actual amount allocated remained relatively flat between 2007 and 2017 (Amended Budget).
- Between 2007 and 2016, 54 percent of the revenue for the Road and Bridge Fund was from general property taxes.

Figure 3. Total Property Tax Revenue* vs. Road and Bridge Fund Allocation 2007 –2017 (Amended Budget*)

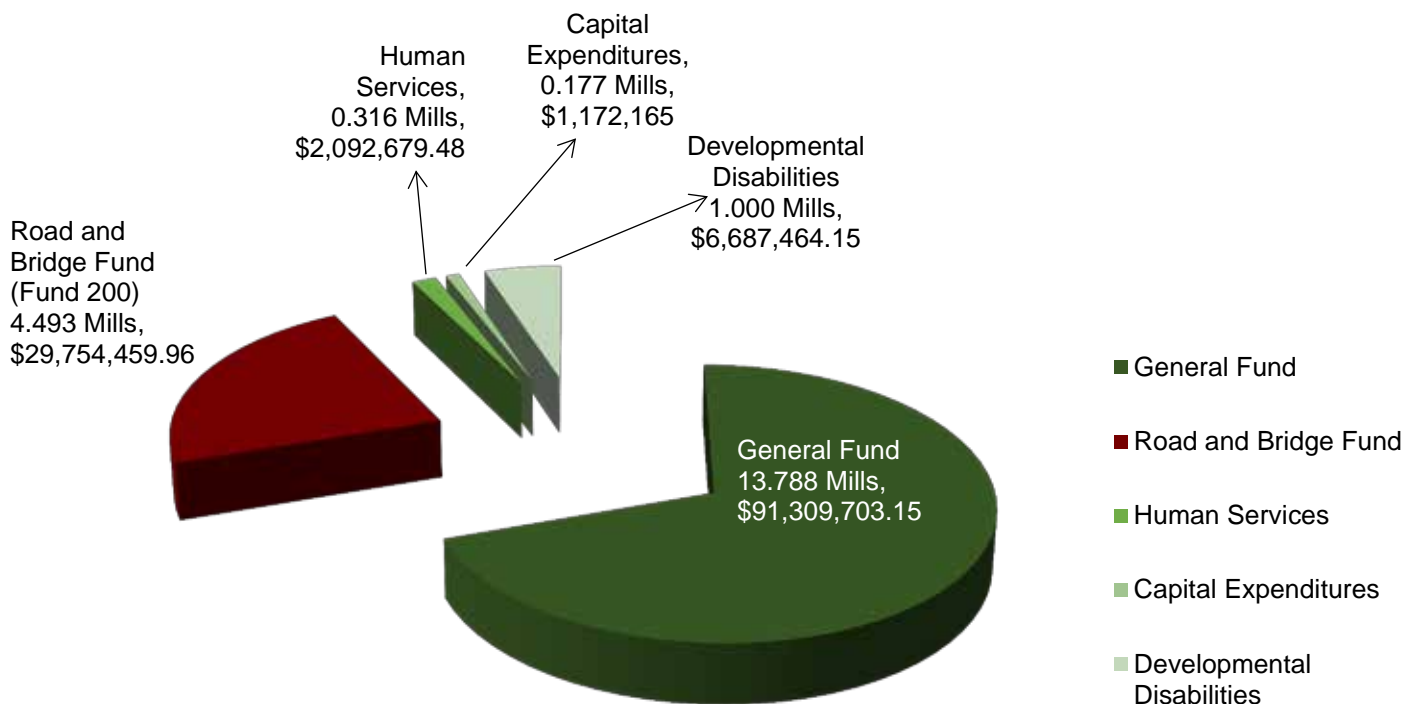


*Revenue from the 2017 Amended Budget is from the Douglas County Open Budget web tool.

Source: Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2017; Douglas County Open Budget, April 2017.

Figure 4 illustrates the percentage of Douglas County property tax levy allocated for the various services the County provided in 2016 (**Note:** During 2016, a temporary tax credit (for the General Fund only) of 0.500 mills was approved for a net County mill levy of 19.274). The allocation for the Road and Bridge Fund was 22.72 percent (4.493 mills of the 19.774 total County mill levy). A portion of these funds are available for advancing Douglas County Capital Improvements (of which approximately 15 percent are primarily used for our Pavement Management Program), while approximately 72 percent are for County Highway and Street Operating Costs, as shown in **Figure 4** below. Note: In **Figure 4** below, these totals do not include the tax collected for the Douglas County School Districts or Law Enforcement; nor the Special District Taxes such as District Re1, Parks & Recreation, Fire Protection, Water and Sanitation Districts – please refer to the following links for further information: <https://www.douglas.co.us/treasurer/tax-district-revenue/> and <https://www.douglas.co.us/treasurer/guide-to-county-taxes/>

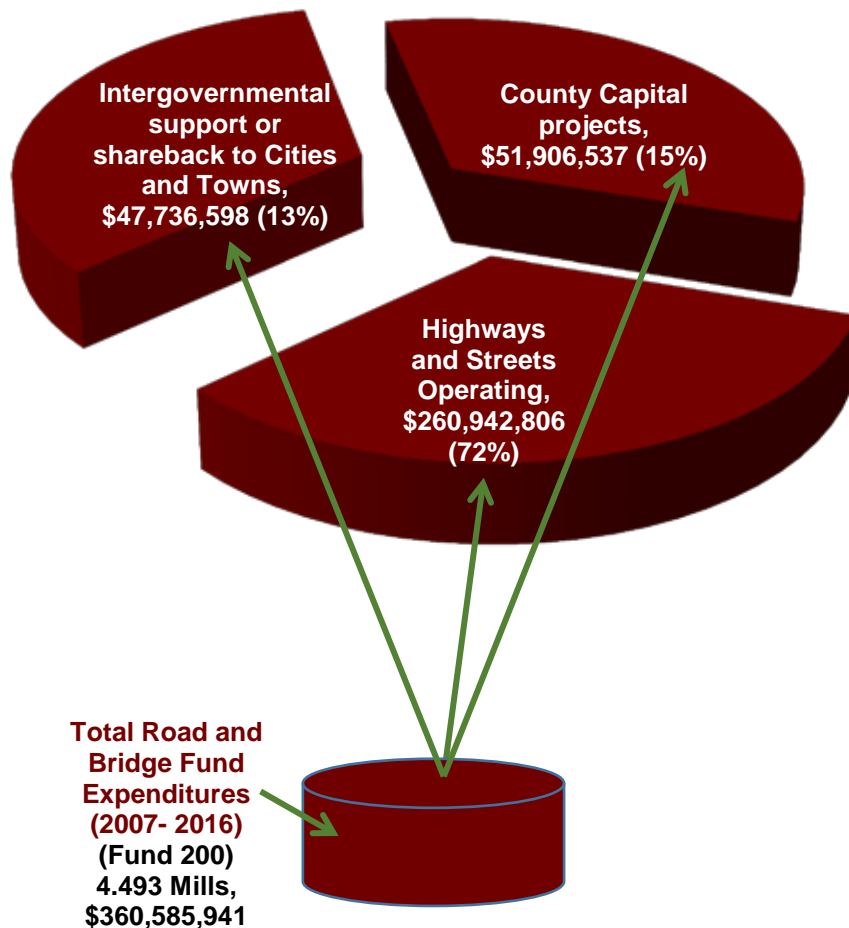
Figure 4. 2016 Douglas County Mill Levy Distribution.



Source: 2016 Douglas County Budget – NOTE: For 2016, in the General Fund there was a temporary tax credit of 0.500 mills approved for a net County Mill Levy of 19.274.

Figure 5 illustrates expenditures within the Road and Bridge Fund for the ten year period between 2007 and 2016 when approximately 72 percent of the expenditures were for general maintenance, snow removal, street sweeping, grading, and ongoing operations of the transportation system, 15 percent were used for capital improvement projects, and 13 percent were distributed to other jurisdictions through a 50/50 shareback of (County collected only) property taxes surrendered to the cities per State Statutes.

Figure 5. Total Road and Bridge Fund Expenditures 2007–2016

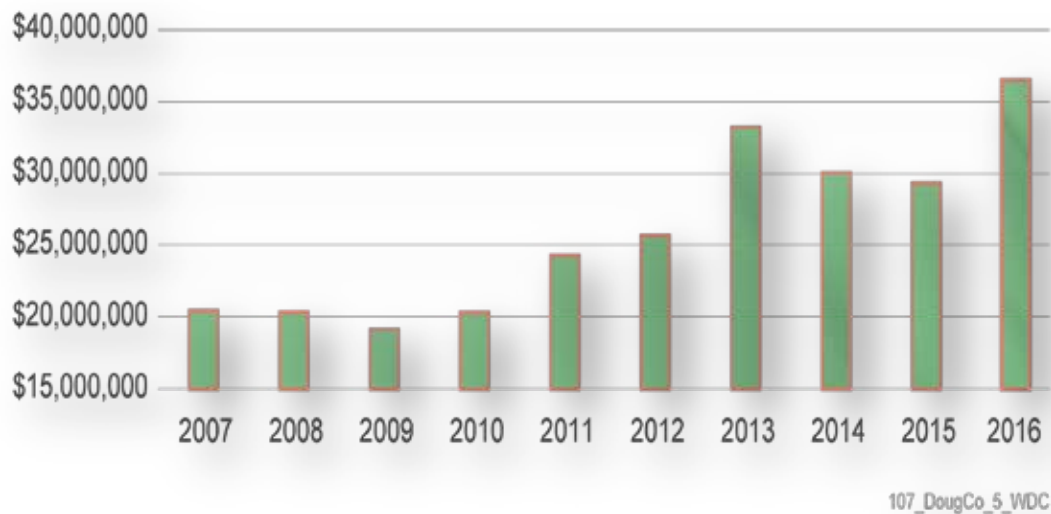


The above Figure is revised from page 11 to show how the total Road and Bridge Fund is divided out (Expenditures are from 2007- 2016 - Douglas County Mill Levy Distribution). This figure does not include taxes collected from Douglas County School Districts or Law Enforcement, nor Special District Taxes such as District Re1, Parks and Recreation, Fire Protection, Water and Sand Districts – please refer to the following link for further information: <https://www.douglas.co.us/treasurer/tax-district-revenue/>

Source: Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2016.

Figure 6 illustrates annual expenditure levels from the Road and Bridge Fund for highway and street operations between 2007 and 2016. This information shows how expenditures over time have increased due to aging infrastructure and growth of the Douglas County transportation network.

Figure 6. Road and Bridge Fund: Annual Highways and Streets Operating Expenditures 2007–2016



Source: Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2016.

As discussed in the *Transportation Improvements Program: Progress Report 1996 through 2006* (Douglas County, 2007), the Road and Bridge Fund supports “basic” road maintenance; and a minimum amount remains to augment Capital construction.

2.2 Road Sales & Use Tax Fund (Fund 230)

Douglas County Public Works Engineering is the Department responsible for the delivery of essential transportation oversight, design, construction, operation and maintenance (O&M), and program needs in Douglas County, funded by the Road Sales & Use Tax Fund (Fund 230). Services include the development and implementation of plans for new infrastructure, maintenance, traffic, and construction of transportation capital improvements. Over the past 10 years, Douglas County has implemented numerous significant capital improvement projects that enhance the County's transportation infrastructure by using funds from dedicated voter-approved (originally approved in 1995 by voters) taxes, primarily the Road Sales & Use Tax Fund.

The Road Sales & Use Tax Fund provides citizens with a better transportation system through roadway improvements and effective maintenance programs. Douglas County has been an effective steward of these funds, saving taxpayer dollars on construction costs with accelerated project construction schedules that helped to avoid inflation costs and used short-term loans to save bond interest costs. Since its implementation in 1996, the Road Sales & Use Tax Fund has been instrumental in helping maintain an even Road and Bridge property tax rate in Douglas County (*See Figure 7 next page*).

The Road Sales & Use Tax Fund accounts for 0.40% of the County's one-percent sales and use tax used for infrastructure improvements related to roads and bridges. This sales and use tax amounts to 4/10ths of 1 cent of every dollar spent. In November 2007, the voters approved extending this sales and use tax for 20 more years— as this extension became effective January 1, 2011, and will sunset on December 31, 2030. Revenue for 2017 from this dedicated Road Sales & Use Tax Fund was approximately **\$26 million**.

After accounting for the \$8.4 million in tax sharebacks to the various municipalities and the debt service payment of \$1.6 million (for a 10-year loan for transportation projects which will be paid off in 2019), there was approximately **\$16 million** remaining for Douglas County to advance transportation improvements throughout the County in 2017.

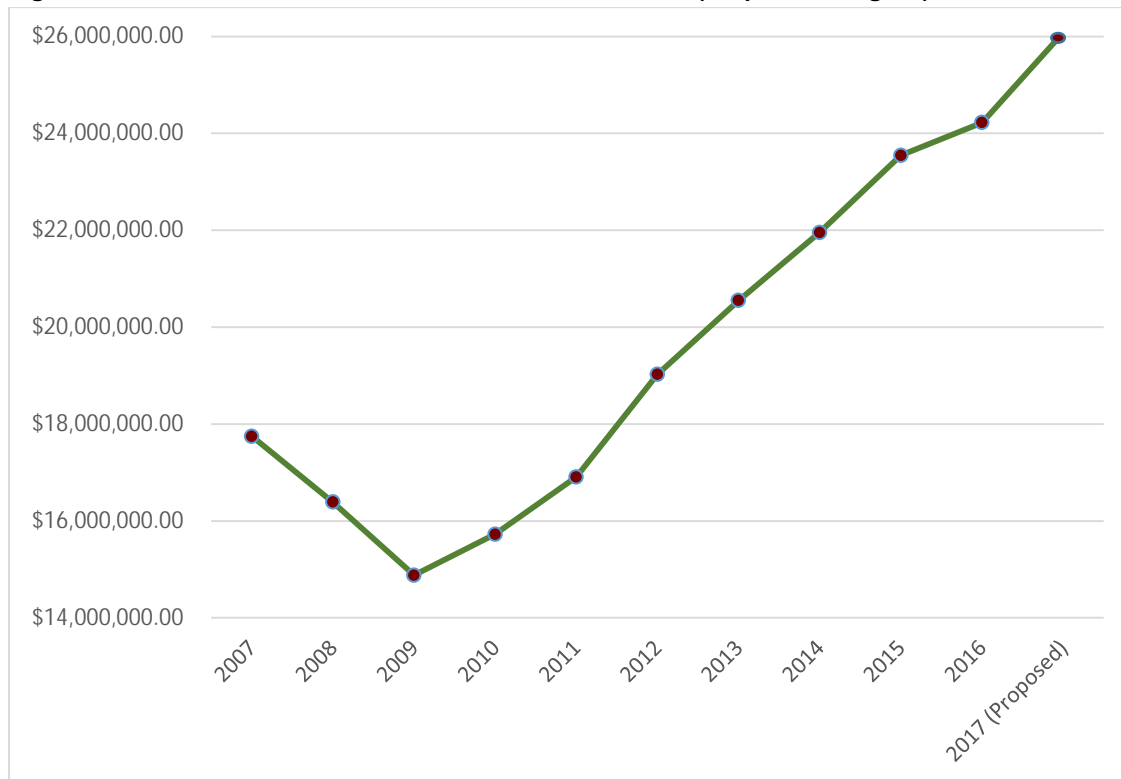
As Douglas County continues to grow and infrastructure ages, revenues from the Road Sales & Use Tax are used by Douglas County to mitigate impacts of growth and make local and regional transportation improvements to enhance safety and mobility. The Road Sales & Use Tax is now and will continue to be an essential funding mechanism to support the maintenance and improvements of the Douglas County transportation system.

Figure 7. Road Sales & Use Tax (4/10ths of 1 cent of Every Dollar Spent)



Figure 8 illustrates how this extension to the annual Road Sales & Use Tax increased revenue collected by Douglas County from 2007 to 2016 (also shows proposed revenue for 2017) to support the increased demand of growth within the County.

Figure 8. Annual Road Sales & Use Tax Revenue 2007–2017 (Proposed Budget)**



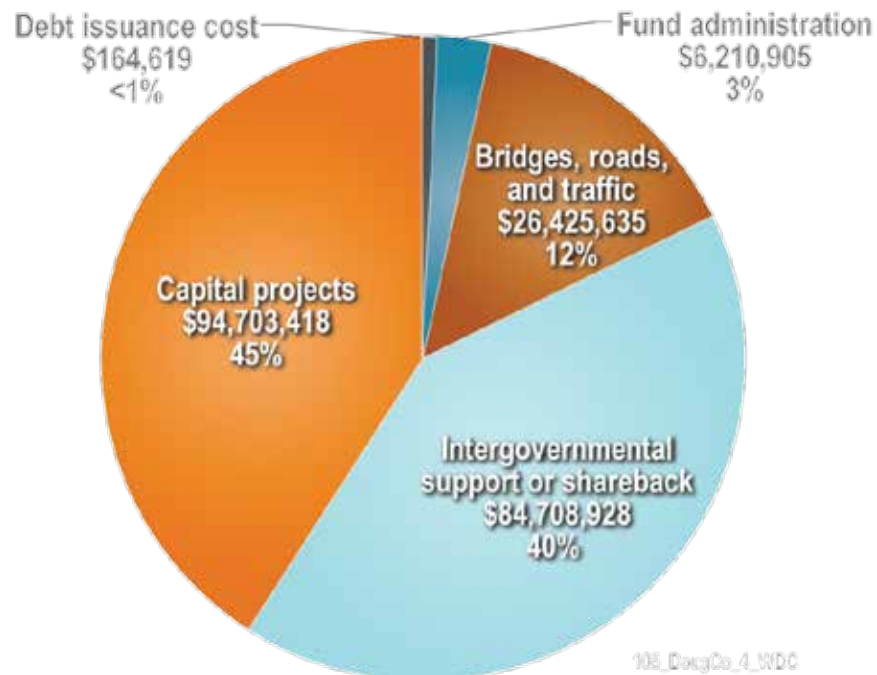
**The reported 2017 Proposed Budget revenue is from the 2017 Douglas County Adopted Budget.
Source: Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2017.

Between 2007 and 2016, the Road Sales & Use Tax Fund is directly responsible for advancing approximately \$176 million of transportation capital improvements, and for providing an additional \$69.9 million in shareback funding to local municipalities (for an explanation of shareback funding related to Road Sales & Use Tax Fund **see Section 5**). This has contributed to funding **58** projects between 2007 and 2016.

Implementation of the Douglas County's *2030 Transportation Plan* and our current adopted *Comprehensive Master Plan 2035* (Douglas County, 2014), would not be possible without the funding generated from the Road Sales & Use Tax Fund. **Figure 9** shows the allocation of Road Sales & Use Tax collected from 2007 to 2016.

Figure 9. Road Sales & Use Tax Fund

Total Expenditures 2007–2016



Source: Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2016.

2.3 General Fund (Fund 100)

General Fund revenue occasionally has been used to help advance further improvements on federally related transportation projects, such as \$12 million for US 85 corridor improvements, and \$7.3 million for RTD's Southeast FasTracks Light Rail Extension Project in which Douglas County entered into a Cost Sharing Agreement for the construction of this Project, allocated through 2016. Several other local agencies partnered with the City of Lone Tree and RTD to accelerate this Project. The total cost of the Southeast Light Rail Extension Project is estimated to exceed \$234 million. (General Funds are not normally designated or set-aside specifically for transportation projects.)

2.4 Leveraging

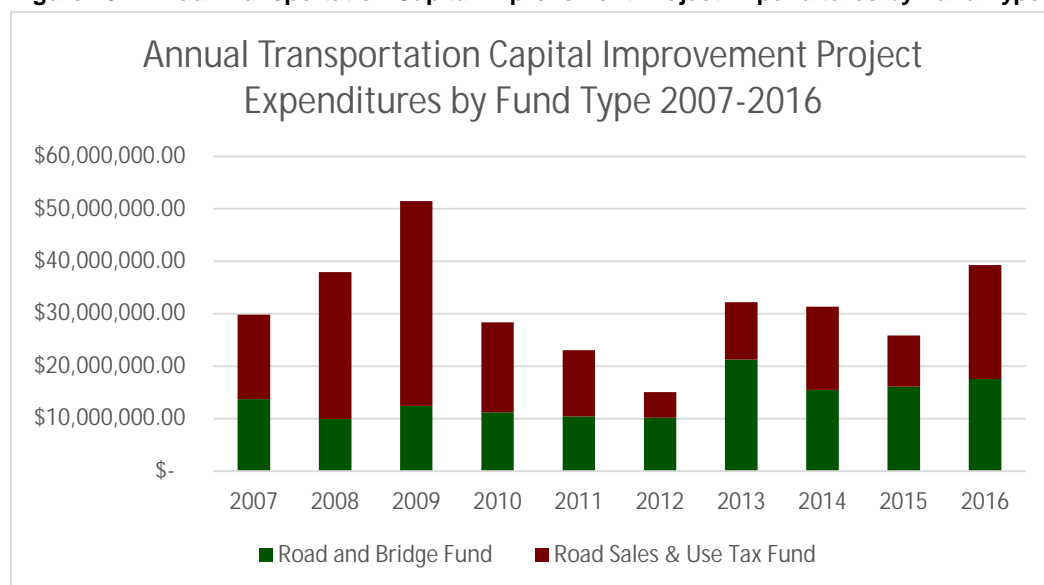
Douglas County Capital Improvement Projects are funded either by the County or by leveraging federal, state, local and / or private funds. These projects include the replacement or construction of bridges, culverts, and other drainage features; paving, sealing, overlay, repair, and widening of existing roadways; construction of new regional roadway arterials; and implementation of new traffic operations, safety, and congestion management improvements. Paving of existing local residential gravel roads (in subdivisions where the roads were not built by the developer or were built but were never accepted by the County for maintenance) are accomplished through the use of Local Improvement Districts (LIDs) administered through Douglas County's Public Works Engineering Department.²

Douglas County Department of Public Works (PW) Engineering administers several programs related specifically to maintaining **and operating** Douglas County's existing transportation system. Some of the programs administered by the PW Engineering Department include Pavement Management (Contracted Maintenance of Condition), as well as Traffic Engineering services, including installation and operating our Intelligent Transportation Systems (ITS) and Traffic Signals, and managing our Traffic Signs and Markings programs. Funding for these programs largely come from the Road and Bridge Fund, but is augmented with revenue from our Road Sales & Use Tax Fund.

As previously noted, in 1995 the Douglas County voters approved the Road Sales & Use Tax, and in 2007, they voted to extend the tax through 2030. In 2003, residents approved bond financing for transportation improvements. The benefits of these resident-approved actions are noted above. Douglas County utilized approximately **\$138.3 million** from the Road and Bridge Fund, and **\$176.0 million** from the Road Sales & Use Tax Fund between 2007 and 2016 to fund transportation capital improvement projects. **Figure 10 (next page)** shows annual transportation capital improvement project expenditures by fund type between 2007 and 2016. The expenditures shown in 2009 include the sale of 10 year bonds of approximately \$14 million to accelerate priority construction projects.

² Douglas County Government 2015. Roadway/Transportation – Capital Improvement Projects (CIP). February. <http://www.douglas.co.us/road-work/construction-capital-improvement-projects/>.

Figure 10. Annual Transportation Capital Improvement Project Expenditures by Fund Type 2007–2016



Douglas County also leverages funding for new infrastructure through voter approved Local Improvement Districts (LID). The purpose of a LID is to provide a method for partnering with property owners to finance and construct infrastructure by assessing local property owners for the infrastructure improvements. Douglas County procures financing to pay for construction of infrastructure, and the property owners within the LID pay the County principal, interest, and fees over the payback period, typically 10 years, by means of a special assessment. Between 2007 and 2016, Douglas County partnered with landowners on two LIDs.

2.4.1 Partnerships

In addition to funding projects through the Road and Bridge Fund and Road Sales & Use Tax Fund, Douglas County leverages resources through partnerships. Project partners include federal agencies, the Colorado Department of Transportation (CDOT), Denver Regional Council of Governments (DRCOG), the local Metropolitan Planning Organization (MPO), Urban Drainage & Flood Control District (UDFCD), adjacent counties, cities and towns within Douglas County, and developers.

Intergovernmental Partners

One example of an Intergovernmental Partnership is the US 85 / Colorado State Highway 470 (C-470) interchange reconstruction project, where project partners including the Federal Highway Administration (FHWA), CDOT, DRCOG, and Douglas County jointly funded Phase 1 of the project, which included constructing a southbound to eastbound flyover and adding a continuous auxiliary lane for eastbound C-470 between US 85 and Lucent Boulevard. Douglas County and various DOT federal funding sources (which were secured by Douglas County through DRCOG and congressional authorized allocations) were the two primary funding source used to advance this project, with Douglas County contributing approximately \$9.8 Million of the \$28 Million in total project costs while CDOT contributed about \$2 Million and provided construction oversight.

Developer Contributions

When new development comes to Douglas County, the developer is tasked with providing the infrastructure necessary to support the new land use. This infrastructure includes roads, bridges, traffic signals, drainage, erosion and sediment control, pavement striping, traffic signage, among others. Construction associated with the land development is inspected and requires acceptance in accordance with Douglas County standards. Typically, once a 2-year warranty period has been successfully completed, the improvements are accepted by the County and included for future Operational & Maintenance (O&M). If repairs or corrective work is required during the warranty period, it is the developer's responsibility to correct the work before the County takes over the long term ownership and maintenance responsibilities.



Photograph of Daniels Park Road being reconstructed by A Plus and Lafarge (both Contractors) – completed in 2009

3.0 Citizen Survey

In 2003, Douglas County began a survey program to establish an ongoing dialog and formalized process to gauge citizen satisfaction regarding service delivery, infrastructure maintenance, and transportation improvement projects. Survey results from the 2003 and 2005 survey are included in ***Transportation Improvements Program Progress Report 1996 through 2006*** (Douglas County, 2007).

Again in 2010, Douglas County conducted a similar transportation service-related survey. The Douglas County citizens surveyed responded that they were overall 80% satisfied with the County's services provided for Road Maintenance and Resurfacing, and 78% satisfied with Traffic Management services. In addition, 56% surveyed agreed that Douglas County has a 'somewhat' effective and adequate transportation system. During this timeframe, the citizens who responded to this survey also voted that "Transportation" was the second most important priority area for Douglas County to focus on.

With regards to the 2012 Citizen Survey, overall 77% were satisfied with the County's services provided for Road Maintenance and Resurfacing, and 82% were satisfied with Traffic Management services. Again in 2012, the citizens who responded to this survey also voted that "Transportation" was the second most important priority area for Douglas County to focus on. Also, 53% citizens stated that Traffic congestion across the County seems to be improving.

In 2014, Douglas County conducted a transportation service-related survey to gather information from citizens regarding satisfaction with, need for, and the value of Douglas County's services. Results of the survey indicate overall satisfaction with transportation system growth management strategies and funding levels for transportation programs. General transportation service-related survey highlights include the following:

- 80 percent of those surveyed were either "very satisfied" or "somewhat satisfied" with road maintenance;
- 84 percent were either "very satisfied" or "somewhat satisfied" with traffic management; and
- 71 percent were either "very satisfied" or "somewhat satisfied" with planning to manage growth and development.

These are all indicators that Douglas County's expenditures on transportation programs have been well spent.

Additionally, 82 percent of those surveyed responded that Douglas County should spend "more" or "about the same" on funding for a safe, efficient, and affordable transportation system for residents and visitors.

The above is an indicator that the majority of taxpayers believe the level of spending on Douglas County's transportation system should be maintained or increased.

In summary, the 2014 survey results generally indicate that Douglas County is providing a satisfactory transportation system and growth management strategy for its residents, and the majority of residents believe funding levels for transportation programs should be continued or increased.

4.0 Projects

During the 10-year period since their inception (from 1996 to 2006) the **Road and Bridge Fund** and the **Road Sales & Use Tax Fund** have allowed Douglas County to complete over 300 capital improvement projects totaling more than **\$300 million**. The revenue generated from both of these Funds allowed the County to create partnerships with government agencies, railroads, and private developers, resulting in more dollars for County projects. Projects and funding information from 1996 to 2006 are described in Douglas County's May 2007 *Transportation Capital Improvements Program Progress Report*. Since 2006, (through the end of 2016), the Road and Bridge Fund and the Road Sales & Use Tax Fund have contributed to capital improvement projects totaling an **additional \$314.3 million**.

From 2007 through 2016, revenue from the County's Road and Bridge Fund allowed Douglas County to fund **103** capital improvements and ongoing maintenance projects/programs totaling approximately **\$138.3 million**. Of these projects, more than **\$86.7 million** has been spent on Pavement Management Program within the **Contracted Maintenance of Condition Program**.

From 2007 through 2016, revenue from the County's Road Sales & Use Tax Fund has allowed the County to fund **58** capital improvement projects / programs totaling approximately **\$176.0 million**. Since the launch of the Road Sales & Use Tax Fund, Douglas County has focused on additional maintenance of existing roads, paving of gravel roads, improvement of bicycle and pedestrian facilities, improvement of neighborhood collector and arterial roads, safety improvements, and other road infrastructure enhancements to improve mobility. Additionally, the County has focused heavily on congestion management techniques and operational and traffic improvements to mitigate some of the congestion and frustrations growth causes to its residents and businesses.

For a complete list of capital improvement projects and expenditures over the past 20 years (from 1996 through 2016), see "**Appendix A**".

Appendix B identifies the Five Year Capital Improvement Program (CIP) Budget Project Priorities (2017 thru 2021).

The information in this report is approximated from General Ledger Reports, and should not be interpreted to be an exact financial report; such as the Comprehensive Annual Financial Report (CAFR).

4.1 Contracted Maintenance Projects



Happy Canyon Road – In 2017, the County rebuilt this rural collector roadway utilizing new centerline and edge-of-asphalt profiles in order to improve ride quality of the roadway and also provided a concrete apron to reduce erosion along the shoulder.

Maintenance of existing infrastructure through the Contracted Maintenance of Condition Program is a crucial ongoing component of the Douglas County transportation system made possible by the **Road and Bridge Fund** and the **Road Sales & Use Tax Fund**.

These funds provide for a planned maintenance program and ensure that roads are maintained in the most economical manner using recommendations from the County's Pavement Management System software program. By programming the right treatment at the right time, the full benefit of maintenance work is achieved and roads are kept in good condition for the lowest possible cost.

As mentioned in Section 2.4.1, developers are generally responsible for constructing the infrastructure necessary to support the new land use. After a successful 2-year warranty period, Douglas County assumes Operation & Maintenance (O&M) of new roads. The **Road and Bridge Fund** and the **Road Sales & Use Tax Fund** provides revenue to ensure that these new roads can be well maintained and in good operating condition well into the future.

4.2 Safety Improvement Projects



School Signs / Markings improvements at Northridge Elementary

Safety is the foremost priority for all projects in Douglas County, and most projects involve safety enhancements of some kind. Safety improvements are designed based on geometric evaluation of existing roadways and bridges, intersection operations, crash history, and projected traffic counts. Without the Road and Bridge Fund and the Road Sales & Use Tax Fund, the following examples of improved safety components would not be possible:

- Constructing new interchanges and roadways
- Widening roads to provide additional lanes
- Adding right- or left-turn lanes and other operational improvements at intersections
- Improving vertical and horizontal road profiles that improve lines of sight
- Installing traffic signals, pedestrian improvements (including grade-separated facilities)
- Providing paved surfaces
- Providing new roads that help distribute traffic and provide alternative routes
- Repairing emergency stormwater / drainage
- Replacing at-grade railroad crossings with bridges that separate vehicular and train conflict points
- Replacing substandard bridges

4.3 Traffic Improvement Projects

The Road and Bridge Fund and the Road Sales & Use Tax Fund have provided Douglas County the ability to complete traffic improvements, including school safety, signal inspection and maintenance, bicycle and pedestrian safety and infrastructure, signage, striping, traffic communications, and Intelligent Transportation Systems (ITS). Many of these projects are small in comparison with major construction projects, but equally important in maintaining and enhancing the quality of life in Douglas County. These various types of projects are explained in the following sections.

Traffic Signal Inspection and Major Maintenance

Douglas County operates and maintains **102 signals**, not including 48 of the City of Lone Tree's signals, which are on the same traffic signal system. Douglas County conducts annual traffic signal pole inspections to identify deficiencies primarily involving traffic signal foundations, poles, and mast arms. The County also conducts annual preventative maintenance on all traffic signal equipment.

Traffic Signal Communications Network

In 2012, Douglas County converted the traffic signal communications network to a more robust and faster network design at 140 signalized intersections in Douglas County and Lone Tree. The network design provided a stable and scalable platform for the new traffic signal controllers and other field devices communicating with the Traffic Management Center. The redesign provides the level of performance needed to ensure that the new controllers are not disrupted by chatter from other devices on the network. That means less downtime and more reliable communication so that the field technician staff and the Traffic Management Center staff can work with traffic signals remotely.

Traffic Communications

Along with the traffic signal system, ITS allows Douglas County Traffic staff to actively manage the capacity of the existing roadways by monitoring daily traffic congestion, work zone traffic congestion, travel speeds, and intersection operations. Additionally, ITS provides congestion travel information to traffic engineers, the traveling public, and other agencies. ITS devices that the County has incorporated in since 2007 include traffic detection and monitoring cameras, variable message signs, system detectors (data collectors), and other devices not directly pertaining to traffic signals, and signal system management.



Traffic Signal at Plaza Drive in Highlands Ranch

School, Bicycle, and Pedestrian Improvements

Providing safe access to destinations such as schools, public spaces, and alternative transportation is important to Douglas County. School, bicycle, and pedestrian improvements made from 2007 to 2016 have greatly enhanced the safety of Douglas County citizens and provided safe options for non-vehicular traffic to reach their destinations. Douglas County has invested in infrastructure improvements such as:

- Missing sidewalks
- School zone beacons
- Wayfinding / signing
- Pedestrian crossings and crosswalks
- Road shoulder improvements and additions
- Striping and pavement markings
- Pedestrian and bicyclist visibility signage and markings
- Traffic signal addition and replacement
- Neck-downs and other traffic-calming techniques



Bicycle lanes and shoulders on Hess Road

4.4 Congestion Management



Construction cones and barriers at 'modified' entrance to Park Meadows Mall in Lone Tree

As population and traffic volumes increase and urban areas continue to grow, congestion management is an ongoing effort to maintain mobility and travel time reliability in Douglas County. Congestion management projects help Douglas County maintain traffic volumes at a manageable level and prepare the transportation system for increased future demand.

Types of projects completed include:

- Arterial and local connectors
- Bike and pedestrian improvements
- Intelligent Transportation Systems (ITS)
- Interchange modifications and improvements
- Interchange construction
- Multimodal transportation
- Roadway extensions
- Traffic communication systems
- Traffic signal maintenance and improvements
- Traffic studies
- Widening at roads to provide additional through lanes

4.5 Drainage / Stormwater and Water Quality Improvement Projects

The Road and Bridge Fund and the Road Sales & Use Tax Fund have allowed Douglas County to address drainage and stormwater needs and plan for improvements 20 to 30 years in to the future. Because this infrastructure is under constant stress from daily operations and severe weather conditions, it requires continuous maintenance and attention to ensure that systems are safe and dependable. Failure of these systems can be hazardous and cause damage to roads, motor vehicles, bridges, homes and properties, and water quality.

Funds allocated to drainage, stormwater, and water quality improvement projects also encompass the following:

- Culvert replacement and maintenance
- Flood gauge maintenance and monitoring
- Natural Resources Conservation Service dams in Douglas County
- Sediment control
- Weather station maintenance
- Water quality monitoring



Corrugated Metal Drainage Pipe (CMP) – CMP has a design life of 30 + / - years, but many environmental factors can affect the actual length of the CMP life span. (Subsequent to the adoption of the Douglas County Storm Drainage Design & Technical Criteria Manual in 1986. CMP was no longer allowed for storm sewer installations).



Culvert Repairs in Heritage Hills Park under construction (Pictured Left)

4.6 Paving of Gravel Roads

Douglas County maintains roughly **135 miles of residential gravel roads in 34 subdivisions and 225 miles of gravel roads outside of subdivisions**. There are also considerable miles of private gravel roads not maintained by Douglas County. Some residents within these subdivisions have expressed a desire to have the roads paved. In response, the County has developed two options for residents:

- **Local Improvement District (LID):** This is a method used to fund and construct public infrastructure by assessing the whole or a part of the cost of improvements to benefitting property owners. LIDs are created when property owners within a defined benefit district petition the County to make street, stormwater, and/or sanitary sewer improvements.
- **County Assisted Paving Project (CAPP):** A CAPP method is used to fund and pave local gravel streets currently maintained by the County, whereby property owners pay for paving materials and the County provides the labor, equipment, and design, if necessary, to perform the work. The CAPP method is designed to address small non-complex projects that do not require extensive design modification to the roadway alignment or involve major earthwork. This paving option is limited to gravel roadways currently maintained by the County.

Figure 11. Comparison of LID and CAPP Methods of Paving Gravel Roads

LID	CAPP
☹ Program is governed by the state statutes	☹ Program is not governed by state statutes
☹ Official petition and vote needed	☹ Informal petition to start process
☹ Majority rules (if most residents in the subdivision vote to form a LID, the cost is shared among all residents)	☹ Voluntary (only the residents interested in this project can participate, but they must cover the cost for those not participating)
☹ Douglas County contracts out for the work performed	☹ Douglas County provides labor, equipment, and design
☹ Financed through bonds/collection through special assessments	☹ Finance by owner/money collected up front
☹ Property owners pay for bonding cost, labor, equipment, and materials	☹ Property owners pay for materials only
☹ Timeframe is approximately 2 years	☹ Timeframe is approximately 1 year

The Road and Bridge Fund and the Road Sales & Use Tax Fund allow for us to make contributions to the LID and County assisted paving projects.

4.7 Highlights of Major Transportation Capital Improvement Program Projects

Since 2007, Douglas County has invested in the Road and Bridge Fund and the Road Sales & Use Tax Fund to advance numerous high-priority transportation capital improvement projects that address transportation related congestion and safety concerns along several major corridors and major intersections.

These projects include implementing safety improvements, reducing congestion, and providing a more reliable transportation system by improving the distribution of trips (developing a grid system) rather than concentrating trips along a few overcrowded corridors. Additionally, these transportation improvements focus on improving roads that connect to high-growth areas within Douglas County and regional transit facilities. The highlighted projects below and on the following pages represent some of the more expensive projects that Douglas County contributed to financially.

*Hess Road Extension Project – Completion Year: 2012
Cost: \$28.3 Million - \$26.5 Million Douglas County Contribution for I-25 to
Motsenbocher Road*

The completion of the Hess Road Extension Project in 2012 provided a much-needed alternate east-west transportation corridor between Interstate 25 (I-25) and State Highway (SH) 83 (aka Parker Road) in north-central Douglas County, which significantly decreased commuting time to and from I-25 for many Douglas County citizens. This project was constructed over several years, with the Town of Parker managing the construction of the segments between Chambers Road and SH 83, and the Town of Parker was responsible for building a long and expensive bridge across Cherry Creek. One of the more complex segments extended Hess Road west from Chambers Road to connect with I-25 utilizing an alignment north of the Rueter-Hess Reservoir, which



RE Monks Grading Hess Road – June 2011



IHC Paving Hess Road – June 2011

required installing five bridges, rock blasting, and large cut and fill slopes. This segment consumed a majority of the County's \$26.5 million that was set aside for this corridor. While the Town of Parker and its developer collectively contributed \$1,800,000 towards

the cost to construct the segment of Hess Road between I-25 and Chambers Road, the Town also paid for the entire cost to build the segment from Motsenbocher to SH 83; and both agencies and adjacent developers contributed funds to build the segment between Motensbocher and Chambers.

The Hess Road Project was initially paved mostly as a two-lane facility, but it was graded full width in order to facilitate a future cost effective widening to accommodate a four-lane facility (two lanes in each direction). However, it was determined that it would be advantageous for some segments of Hess Road to be paved at full width with the initial construction phases, which includes the segment approaching I-25 where it connects to Castle Pines Parkway and South Havana Street, (aka East Frontage Road), as well as the segment just west of Chambers Road.

In addition to \$26.5 million for Hess Road, the County contributed an additional \$7.5 million (or about 60%) of the cost to reconstruct the Castle Pines Parkway / Hess Road Interchange at I-25 to its current configuration which was substantially completed in 2005, while state and federal funds paid for the remaining 40% of the reconstruction costs.

Partnering with other governmental agencies and developers is essential in building a reliable transportation network. Prior to completion of RidgeGate Parkway / Mainstreet and the Hess Road extension projects, highly congested Lincoln Avenue was the only east-west transportation corridor located south of E-470 that connected I-25 to SH 83, (other than Crowfoot Valley Road and SH 86 in and out of Castle Rock). Prior to these two major improvement projects being completed, there were no continuous east-west local roadways for the eight mile section of I-25 between Lincoln Avenue and Meadows / Founders interchanges.

*North Meadows Extension (a.k.a. Castle Rock Parkway) – Completion Year: 2016
Cost: approximately \$84 Million (approximate) – \$13.4 Million Douglas County
Contribution*



*North Meadows Drive Extension
(a.k.a. Castle Rock Parkway) –
Photo was provided by the
contractor (KNA) and is looking
northeast. The Castle Rock
Parkway / US-85 Interchange is
in the foreground and I-25 is
located further to the east.*

The regionally significant North Meadows Drive Extension Project involved constructing a portion of a future four-lane arterial roadway from the Meadows Subdivision and extending to two new interchanges – one at US-85 and another at I-25. Douglas County's contribution was used to help fund the most regionally significant segment, namely the connection from US 85 to I-25. This project was needed to accommodate anticipated business and residential growth in Castle Rock and Douglas County and help to reduce congestion and improve safety and mobility at the existing Meadows / Founders Interchange at I-25.

In the spring of 2005, Town of Castle Rock voters approved the sale of bonds to advance several transportation improvement projects, including the North Meadows Drive Extension Project. At that time the Town of Castle Rock Public Works Department initially proposed building this new road from the Meadows Subdivision and stopping it at US 85. In 2005, Castle Pines Village residents became aware of the Town's plan and became very concerned about the potential of a significant increase in traffic on Happy Canyon Road if the proposed new road from the Meadows stopped at US 85.

In response to Castle Pines concerns, Douglas County became involved in helping find a win-win solution that would help mitigate concerns of increased traffic and congestion on Happy Canyon Road. Traffic studies associated with the North Meadows Extension Project indicated that 85% of the northbound traffic leaving Castle Rock Parkway / The Meadows Subdivision is headed to designations in the Denver Tech Center or north along the I-25 Corridor, (while 15% of northbound traffic had anticipated designations north along the US 85 Corridor). Therefore, the County was able to demonstrate to the Town and CDOT that stopping the proposed Castle Rock Parkway at US 85 wasn't a logical project terminus (end point) and that this new road needed to be connected to I-25 to avoid adversely impacting other roads not designed to carry the large forecasted traffic volumes - such as Happy Canyon Road.

The traffic studies also demonstrated that the segment of Castle Rock Parkway between US 85 and I-25 will improve our regional roadway network and it was estimated that over 30% of the 2035 traffic projections would have origins and designations outside of The Meadows. Recognizing the long term regional benefits of this project, the County agreed to contribute \$13.4 million to help fund a portion of the new I-25 Interchange and the connection to US 85, which included building all four lanes between US-85 and I-25 as part of the initial construction rather than waiting to widen this segment in the future when the road was open to traffic and would cost significantly more to construct.

C-470 Corridor Coalition – Managed Toll Express Lane Project
Anticipated Completion – Summer 2019
Cost: \$281 Million – \$17 Million Douglas County Contribution

Douglas County was responsible for initiating the formation of the C-470 Coalition and the Coalition held its first kickoff meeting in February 2011 with the purpose of creating a cooperative vision for the C-470 corridor. The Coalition structure has a policy committee comprised of elected or appointed officials and a technical working group comprised of engineers and planners. The C-470 Corridor Coalition is an organizational and governmental body consisting of representatives that include:

- Douglas, Arapahoe, and Jefferson Counties
- Cities of Lone Tree, Centennial, Littleton, Greenwood Village,
- Towns of Castle Rock and Parker
- Highlands Ranch Metropolitan District
- Multiple corridor stakeholder groups and community partnerships and organizations which include Denver South Transportation Management Association, representatives from businesses, and various chambers of commerce
- CDOT, High Performance Transportation Enterprise, DRCOG, RTD, and FHWA

The Coalition adopted the following Mission Statement: “To work together to develop and implement a solution that improves safety and mobility along the C-470 corridor and within the south metro area.” The Coalition focused on finding solutions that will enhance quality of life, promote economic vitality, support regional partnerships and accelerate project delivery.

The Coalition also adopted the following C-470 Corridor Goals: “develop and evaluate options that are cost effective, reach consensus on a technical solution(s), and develop a strategic plan for phased implementation for I-25 to I-70. The Coalition’s responsibilities include planning and design of the C-470 corridor. Additional responsibilities included identifying project funding and public outreach efforts.

The Coalition identified the segment from I-25 to Kipling as the top priority followed the segment from Kipling to I-70 as the second highest priority. Although, the segment from Wadsworth to Kipling was cleared from an environmental standpoint and 30% preliminary design has been completed for this segment, no funding for construction was identified at

the time that construction began in summer of 2016.

The project currently under construction (when the report was written) is estimated to be completed in the summer of 2019 and will improve safety and mobility along 12.5 miles of C-470 between I-25 and Wadsworth Boulevard. The managed express lanes will provide additional capacity and are in addition to the existing two free general-purpose lanes in each direction. Additionally, this entire segment will be reconstructed.

The managed express lanes provide corridor users with a choice to pay a toll in order to obtain more reliable travel times. The managed express lanes is a current CDOT strategy to improve travel time reliability, and is consistent with CDOT Policy Directive 1603, which encourages the use of managed lanes on all capacity related projects.



Ultimate Lane Configuration for C-470 is shown above for Full Buildout Section (providing for 2 managed toll lanes in each direction that are located in the center of C-470)

The C-470 project includes the following improvements:

- Initially, two new westbound express lanes will be added between I-25 and Colorado Boulevard and one new westbound express lane will be added between Colorado Boulevard to Wadsworth Boulevard (SH 121). The project is being designed and constructed so it has the ability to be expanded to accommodate an additional managed lane from Colorado Boulevard to Wadsworth Boulevard in a future phase when it is needed to ensure reliable travel times.
- Additionally, traveling westbound from E-470, users will have the option to continue directly into the C-470 managed tolled express lanes or the option to exit at Quebec Street or choose to continue west in the C-470 general purpose lanes (un-tolled lanes).
- Initially, one new eastbound express lane will be added along the entire length of the project (between Wadsworth Boulevard and I-25). The project is being designed and constructed so it has the ability to be expanded to accommodate an additional managed lane from Wadsworth Boulevard to I-25 in a future phase when it is needed to ensure reliable travel times.
- With the initial construction project, direct ramp connections will be provided from northbound I-25 and southbound I-25 to take travelers directly to the proposed westbound C-470 managed tolled express lanes. These connections will occur between I-25 and Yosemite Street.
- As part of this project, the existing left lanes drops, (that occur between I-25 and

Yosemite Street), will be removed, which will greatly improve safety and traffic operations in both the general purpose lanes and the new managed lanes.

- Replacing the original pavement (1980s) and making geometric improvements and adding continuous auxiliary lanes between the closely spaced interchanges will improve safety and reduce congestion related to merging in and out of the thru general purpose (un-tolled) travel lanes.
- Trail realignment and grade separation at Colorado Boulevard and at Quebec Street will provide safer crossing for trail users while improving traffic operations and traffic progression of the adjacent local roads.
- Other improvements include improved signage, realignment of substandard curves, improved horizontal and vertical curve site distances, widening of existing bridges, replacing the bridges over the South Platte River, and installing tolling equipment and overhead signs that can be used to provide users with additional travel time and incident management information.

This \$281 million regional priority project is primarily funded by state and federal funds. A \$17 million project contribution was provided by Douglas County; and significant portion of the project will be funded with state and federal loans to be repaid by toll revenues collected from the proposed managed express lanes.

Douglas County's contribution included \$10 million for construction and \$7 million for various preconstruction tasks which included funding to complete the following tasks: final design level surveying and right-of-way mapping, the Level 2 Traffic & Revenue Study, 30% preliminary plans, 30% preliminary geotechnical analysis and pavement design, preliminary drainage report and design, provide various project cost estimates and toll revenue projections, develop construction phasing concepts, prepare preliminary tolling method of operations, and the completion of National Environmental Policy Act (NEPA) Environmental Assessment (EA) project Re-Evaluation and the NEPA decision document approval, which is referred to as a Finding of No Significant Impact (FONSI).

Additionally, it is important to note that because Douglas County advanced the majority of the pre-construction, (performed by the consultants under contract with Douglas County), this project was positioned well to apply and was successful in being selected by CDOT Transportation Commission to receive \$100 million from CDOT's Responsible Acceleration of Maintenance and Partnerships (RAMP) Program – ultimately about \$52 million in RAMP funds were replaced with state bond funds for the C-470 Managed Lanes Project (for the I-25 to Wadsworth segment), allowing additional CDOT priority projects to move forward, that includes pre-construction activities for the I-25 South Gap Project and the next segment of C-470 (Wadsworth to I-70) to commence.

A significant portion of this project will be funded with state and federal loans to be repaid by toll revenues from the managed express lanes. Once the construction loans are paid off, tolls will remain on the managed express lanes in order to fund corridor operation and maintenance costs and toll revenue can also be used to make other C-470 corridor improvements between I-25 and I-70. *(See Project photos on next page).*



Photographs provided by Flatiron / AECOM taken in spring 2018 of C-470 widening under construction

*RidgeGate / Mainstreet / Peoria Construction Project – Completion Year: 2010
Cost: \$8 Million – \$6 Million Douglas County Contribution*

This project is an excellent example of the importance of partnering with developers and other local agencies, which allowed Douglas County to accelerate construction of a new east-west arterial roadway. Douglas County and the Southeast Public Improvement Metropolitan District (SPIMD) were the primary project funding partners, but the other project partners all contributed important roles in making this project successful, built in a timely manner, and cost effective. The other project partners included the Denver South Transportation Management



RidgeGate Parkway and Peoria Street Intersection

Association, the City of Lone Tree, Shea Properties, the Meridian Metro Districts, and Coventry Development. Collectively, these project partners were able to extend both RidgeGate / Mainstreet from I-25 to Meridian Village Parkway, and extend Peoria Street from Crescent Moon Parkway to RidgeGate Parkway East. The project completed a critical transportation corridor between SH 83 and I-25 to provide relief of congestion on Lincoln Avenue.

The developers dedicated the necessary right-of-way to grade for a future four lane arterial roadway; and provided funding to build several pedestrian / bicycle grade separations which will be beneficial to future adjacent communities once development occurs.

While Douglas County managed the majority of the RidgeGate Parkway / Mainstreet Project, (between Peoria Street and Meridian Village Parkway), the City of Lone Tree oversaw the extension of RidgeGate Parkway between I-25 and Peoria Street and the extension of Peoria Street between Crescent Moon Parkway to RidgeGate Parkway. Additionally, through an executed intergovernmental agreement with Lone Tree, Douglas County agreed to maintain this new arterial roadway until development or additional improvements occurred in Coventry Development's property located east of I-25. The project was substantially completed in record breaking time, and within three months of opening the road, it saw over 16,000 vehicles per day using this new east-west connection between SH 83 and I-25. In 2017, the average daily traffic counts exceeded 30,000 vehicles per day; and Douglas County is currently working with the City of Lone Tree and Coventry Development to widen RidgeGate Parkway to 4 lanes.

*US-85 / C-470 Interchange Reconstruction Project - Phase 1– Completion Year: 2012
Cost: \$28 Million – \$9.8 Million Douglas County Contribution*

Douglas County led the way in the design and pursuit of funding to reconstruct the US 85 / C-470 Interchange Reconstruction Project; and in the early 2000's the segment of US 85 between County Line Road and Blakeland Drive was considered to be one of the most congested arterial highways in the entire Denver metro area and had a very high number of accidents.

This regionally significant improvement project addressed critical mobility concerns at the US-85 / C-470 interchange and surrounding roadways. The interchange received joint funding by DRCOG, CDOT, FHWA, and Douglas County.

The initial Phase 1 interchange improvements were completed in 2012 and included:

- Constructing a flyover ramp bridge to directly connect southbound US-85 to eastbound C-470 flyover ramp
- Constructing a continuous eastbound C-470 auxiliary lane between US-85 and Lucent Boulevard / C-470 Interchange
- Constructing a grade-separated crossing of the C-470 multimodal path over Erickson Boulevard

The proposed Phase 2 interchange improvements will likely include the following:

- Replacement of the US-85 bridge over C-470 since it cannot be widened
- Expand US-85 from four to six through lanes between County Line Road and Blakeland Drive and add an attached bike / pedestrian trail on the west side.
- Add a bicycle and pedestrian underpass to carry the C-470 Trail under US-85

Photographs below are provided by Kraemer North America – showing the southbound US-85 to eastbound C-470 flyover bridge – which was completed and opened to traffic in 2012 ahead of schedule



*Southeast Light Rail Extension (Lincoln Station to RidgeGate / Havana Station)
Construction Currently Underway – Anticipated to be open to public in 2019
Cost: \$233 Million – \$7.3 Million Douglas County Contribution*

The Southeast Light Rail Extension project, part of the 2004 voter-approved Regional Transportation District (RTD) FasTracks plan, will extend light rail from Lincoln Avenue south to RidgeGate Parkway.

The project is expected to be completed in 2019. It will add 2.3 miles of light rail to the existing 19-mile Southeast Corridor line, resulting in three new stations and the 1,300 additional parking spaces located at the end of the line light rail station which is south of RidgeGate (Mainstreet) off of South Havana Street (aka East I-25 Frontage Road).

Riders will have the option to travel from the RidgeGate Station on the E Line to Union Station in downtown Denver, on the F Line to 18th and California, or on the R Line through Aurora to Peoria Station and connect to the University of Colorado A Line commuter train to Denver International Airport or to Union Station.

The Federal Transit Administration (FTA) provided approximately \$92 million in federal funds toward completion of this voter approved RTD FasTracks light rail extension program. The local funding sources included Douglas County, the City of Lone Tree, Coventry Development, and the Southeast Public Improvement Metropolitan District (SPIMD) and the Regional Transportation District (RTD) who were responsible for covering the remaining project costs of approximately \$141 million.

Douglas County's contribution of \$7.3 million was part of the local agencies collective contribution that totaled \$25 million (which doesn't include \$116 million from RTD). But local contribution doesn't include the tens of millions of dollars for the value of the land that was donated by Coventry Development). The City of Lone Tree led the way in the pursuit FTA grants and working with RTD and the other local agencies to accelerate this major multi-modal improvement project.



Rendering of what RTD's RidgeGate / Havana End of the Light Rail Station will look like once complete

I-25 Lane Balance and Widening Project – Construction completed in 2016
Cost: \$36 Million – \$4 Million Douglas County Contribution

Douglas County led the way in finding most of the funding to accelerate this project and for getting it recognized as one of the top regional priority projects in the Denver metro area. Originally this portion of I-25 was to be widened as part of the TREX project (2001-2006) but funding limitations at that time delayed it from moving forward.

The I-25 Lane Balance and Widening Project involved widening I-25 from three to four through travel lanes in each direction between the RidgeGate Parkway interchange and the County Line Road interchange. The project improved access to and from three closely spaced interchanges within this stretch of I-25 and the eastern half of the I-25 / Lincoln Avenue Interchange was reconstructed which has greatly improved traffic operations and mobility in the area.

The original interstate pavement (built in the 1960s) was fully reconstructed as part of this project with new concrete pavement, and the roadway geometrics were improved, which provided better roadway drainage for this segment of I-25.

Approximately \$6 Million in local agency contributions (\$4 Million from Douglas County) were successful in leveraging more than \$30 million in state and federal funds for this critical project, which included \$10.4 Million in federal funds that Douglas County applied for and was successful in receiving from Denver Regional Council of Governments (DRCOG) through their formal project selection process. Other local agency contributions included \$1.5 million from the Southeast Public Improvement Metropolitan District (SPIMD), and approximately \$500,000 from Lone Tree and the Park Meadows Metro District (PMMD) for widening the eastbound to northbound loop ramp at the Lincoln / I-25 Interchange.

Additionally, the Denver South Transportation Management Association (TMA) managed the installation of over \$500,000 of landscaping enhancements at the Lincoln / I-25 Interchange - from the additional funds provided by SPIMD.



I-25 looking north (January 2016)

Broadway / C-470 Project – Completion Year: 2010
Cost: \$5.4 Million – \$5.4 Million Douglas County Contribution

This project involved widening Broadway between Plaza Drive and County Line Road. The most challenging part of the project was maintaining traffic during construction for the segment located beneath the bridges that carry C-470 over Broadway, where a very deep storm sewer system was installed.

The purpose of the project was to improve safety, reduce congestion, and improve traffic operation. Additionally, the original pavement constructed in 1980 was completely replaced with new concrete pavement. Douglas County worked closely with CDOT to coordinate construction.



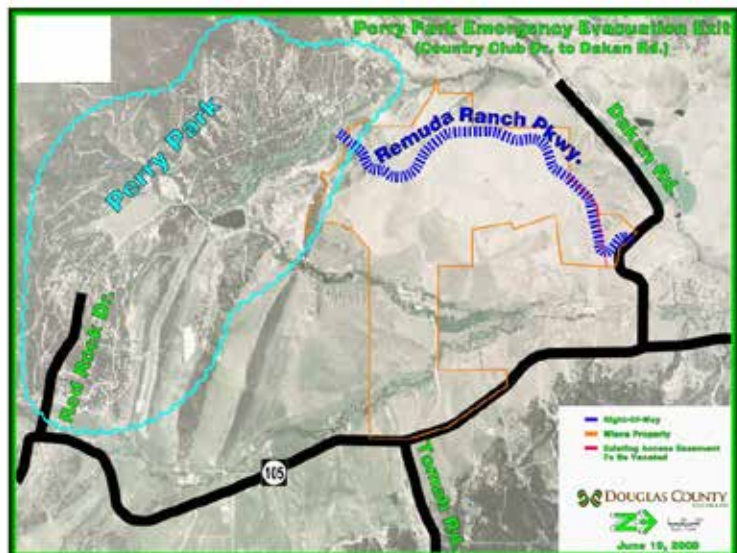
South Broadway and Dad Clark Drive – Looking North

Perry Park Emergency Access Road – Completion Year: 2010
Cost: \$2.3 Million – \$2.3 Million Douglas County Contribution

The Perry Park Emergency Access Road (aka Remuda Ranch Parkway) provided a more balanced transportation system for the Perry Park community and helped promote livability while ensuring a safe, effective system of roadways with the ability to operate efficiently and safely during emergencies events (fires, floods, etc.).

The project included constructing:

- a new gravel access road into Perry Park from DC Hwy. 105
- add a right-turn lane into Perry Park coming from the north on DC Hwy. 105
- add a left-turn lane on DC Hwy. 105 coming from the south
- Shoulder improvements



*Quebec / Lincoln / University Improvement Project – Completion Year: 2017
Cost: \$3.3 Million – \$3.3 Million Douglas County Contribution*

This operational and maintenance project focused on improvements and approaches to the Quebec Street / Lincoln / University intersection. The improvements included:

- Rebuilding approximately 10,000 square yards of existing concrete pavement
- The addition of a northbound right-turn lane from Quebec Street to Lincoln Avenue
- Fixing a vertical grade issue that exists on the southeast corner of the intersection

Future phases of the project will focus on widening the remaining legs of the intersection to provide for additional capacity improvements.



*Quebec / Lincoln / University Intersection—
new right turn lane from Quebec to
eastbound Lincoln Avenue shown above*

*Quebec Street / C-470 Pedestrian Bridge – Completion Year: 2015
Cost: \$4.9 Million – \$3.2 Million Douglas County Contribution*



*Quebec Street at C-470 Pedestrian
Bridge looking northbound*

Initially, Douglas County widened and reconstructed Quebec Street between Park Meadows Drive and County Line Road, which included adding a bicycle / pedestrian bridge along the east side of Quebec.

The second phase included adding second bike / ped bridge on the west side of Quebec Street in order to complete the missing sidewalk / trail links. Prior to the west bridge construction, pedestrians and bikers were required to cross Quebec Street twice to access the C-470 Trail or businesses in the area. The west bike / ped bridge over C-470 was partially funded (\$500,000) with DRCOG allocated federal enhancement funds. Park Meadows Metro District also provided funds for the initial widening.

*Double Angel Road Extension Project – Completion Year: 2014
Cost: \$1.3 Million – \$1.3 Million Douglas County Contribution*

This regional road project extended the existing Double Angel Road from where it originally ended at the Double Angel Ball Fields, to Hess Road. This half mile of roadway extension has improved regional access from I-25 and Hess Road to the Double Angel Ball Fields and the Douglas County School District EchoPark Automotive Stadium, and from Chambers Road to the future Rueter Hess Reservoir Park.



Hess Road and Double Angel Road Intersection

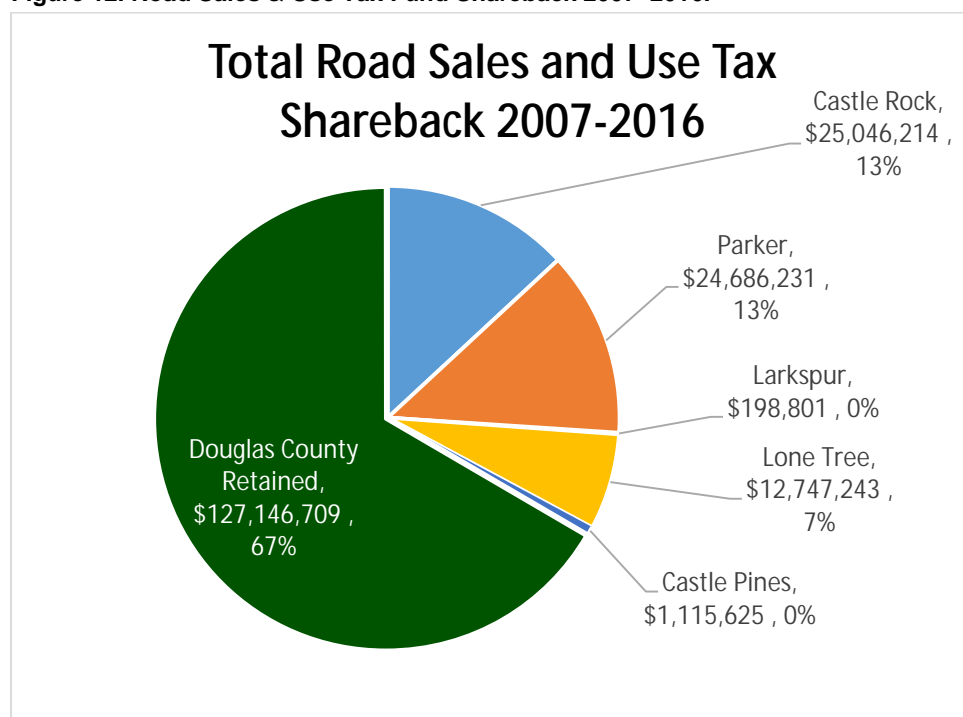
5.0 Shareback

In 1995, Douglas County entered into shareback Intergovernmental Agreements (IGAs) with the towns of Castle Rock, Parker, and Larkspur. These original IGAs provided for cooperation in supporting the adaptation of the countywide Road Sales & Use Tax. Under the terms of the original IGAs, from 1996 through 2010, Douglas County agreed to collect the Road Sales & Use Tax and agreed to return (shareback) 100% of the revenue collected within the incorporated areas (Castle Rock, Parker, and Larkspur) to each respective town for use on their transportation priority projects within their municipalities.

In November 2007, Douglas County voters overwhelmingly approved extending the countywide 4/10's of one cent Road Sales & Use Tax for another 20 years (beginning January 1, 2011 and ending December 31, 2030). The new shareback program associated with this new extension was modified slightly, whereby the County shared back only 75% of the revenues collected within each city or town where it was generated and the County retains 25% of the revenues collected from within each city or town in order to invest / advance regional transportation priority projects that are essential to maintaining a reliable transportation network. Additionally, the County retains 100% of revenues collected within the Park Meadows internal ring road (even though it is located within the City of Lone Tree) as well as 100% of the revenues collected within the unincorporated areas of the County.

Figure 12 illustrates the total amount of revenue that Douglas County returned (sharebacks) distributed to each municipality participating in the Shareback program.

Figure 12. Road Sales & Use Tax Fund Shareback 2007–2016.



Source: Data provided by Douglas County Department of Public Works Engineering

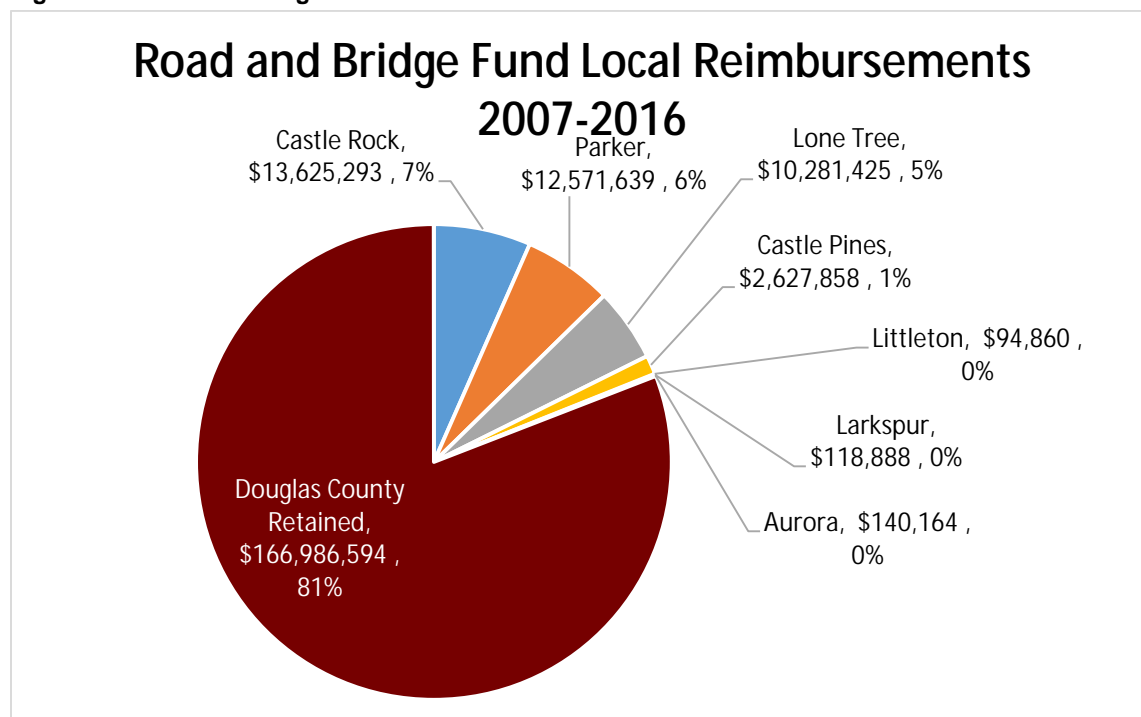
Road Sales & Use Tax Sharebacks provide additional revenue to enable municipalities to collaborate and leverage these funds to help them secure additional matching funds from Douglas County, CDOT, DRCOG and other state and federal funding opportunities for

projects or programs that are deemed eligible and / or selected to receive funding / grants. The partnership between Douglas County and the communities participating in the Shareback Program have been mutually beneficial to all parties, including the public.

In accordance with Colorado state statutes, Douglas County returns (shares back) 50% of the revenue generated from the County's 4.493 mill levy that is designated for the Road and Bridge Fund. This Road and Bridge Shareback applies to all the incorporated municipalities within Douglas County, which includes the following cities: Aurora, Littleton, Lone Tree, Castle Pines; and includes the following towns: Castle Rock, Larkspur, Parker.

As shown in **Figure 13**, approximately 19 percent of the Road and Bridge Fund revenue was shared back to Douglas County cities and towns between 2007 and 2016.

Figure 13. Road and Bridge Fund Local Reimbursements 2007–2016



Source: Data provided by Douglas County Department of Public Works Engineering

6.0 Transportation Planning Process

The Douglas County Board of County Commissioners' goal is to keep you safe, keep you moving, keep our economy growing, protect the County's natural resources, and protect the most vulnerable of our citizens.³ These are the goals of all elected officials and staff of Douglas County and shape the planning for the future of the Transportation Capital Improvements Program.

Douglas County updates its Transportation Plan (TP) every 5 years. The TP is an important component of the County's *Comprehensive Master Plan* and the *Capital Improvements Plan*. Because of the substantial growth taking place in Douglas County, it is critical that the TP be developed in concert with the *Comprehensive Master Plan* and subsequently direct transportation resources through the *Capital Improvements Plan* to implement the TP.

The TP lists prioritized transportation improvements that help direct and manage growth, economic development, and safety concerns. The TP also provides evaluation of the transportation network based on existing conditions, anticipated growth, and traffic projections. The 5-year List of Capital Improvement Priority Projects is updated annually in the fall as part of preparing the County's annual budget for the coming year; and it is based on fiscal constraints, transportation needs, TP priorities, safety considerations, and partnering / leveraging opportunities.

The current TP, Douglas County *2030 Transportation Plan*⁴ describes the following six goals for long-range transportation planning:

1. Develop an efficient, multi-functional transportation network that is designed to ensure safety, promote user access, and facilitate cost-effective Operations and Maintenance
2. Develop and maintain an efficient and safe road network in harmony with natural features and existing neighborhoods
3. Support enhanced public transit in Douglas County
4. Coordinate transportation and land-use planning design, programs, and policies to reduce traffic congestion, provide alternatives to automobile use, improve air quality, and create healthy, desirable living environments
5. Refine land-use compatibility within the Centennial Airport Review Overlay District to ensure air and ground safety
6. Achieve compatibility between the railways, other transportation corridors, and surrounding land uses



³ Douglas County Government. 2015. February. <https://www.douglas.co.us>

⁴ Douglas County Transportation Plan. Adopted by the Douglas County Planning Commission. 2009 November 9. <http://www.douglas.co.us/documents/2030-transportation-plan.pdf>

Per the Douglas County *2030 Transportation Plan* (adopted November 2009), Douglas County's population is expected to double between 2009 and 2030 while employment during the same period is projected to double or triple. The population of Douglas County in 2015 was 319,210, the housing growth rate that same year was 2.5 percent, and the total number of jobs in 2014 was 107,528 (a 4.4 percent increase from the previous year).

Douglas County is a member of the Denver Regional Council of Governments (DRCOG) which is recognized by CDOT and the Federal Highway Administration (FHWA) as the Metropolitan Planning Organization (MPO) for the entire Denver Metropolitan Area. Therefore, DRCOG is responsible for several transportation related tasks, including making sure that the DRCOG roadway network is in conformance with federal and state air quality requirements (which includes local arterial roads that are 100% funded by the local agencies or its developers).

Additionally, DRCOG is responsible for the distribution of federal funds that are allocated to this MPO. Given the size of the Denver metro area and its many transportation needs, DRCOG federal funding is fairly limited and the process of getting a project or program selected to receive a portion of these funds requires following a formal federal project selection process which is very competitive.

In order for a roadway project to be eligible, the project must be located on the DRCOG Regional Roadway System, which is comprised of roadways that have a classification of an arterial or higher; and projects must be consistent with DRCOG's Metro Vision goals and objectives. DRCOG funds projects primarily with the following: (1) Surface Transportation Block Grant Program (formerly STP-Metro), (2) Transportation Alternatives (TA) which is used primarily for bicycle and pedestrian infrastructure improvements, and (3) Congestion Management / Air Quality (CMAQ) which is used for projects and programs that provide an air quality benefit by reducing emissions and congestion (capacity and reconstruction projects are not eligible for CMAQ funds).

Federal law charges MPO's (in our case DRCOG) with the responsibility for developing and approving Transportation Improvement Program (TIP) for the Denver metro area. DRCOG directly selects projects with federal funding, and reviews CDOT submitted and RTD submitted projects for consistency with region plans. The DRCOG TIP allows for Douglas County's transportation planning to be integrated into a regional context, and facilitates opportunities to pursue federal funds for eligible projects located in or benefiting Douglas County. The DRCOG TIP projects also become part of the Statewide Transportation Improvement Program (STIP).

In 2006, Douglas County initiated development of the Highlands Ranch Transportation Improvement Program (HRTIP). This program focuses on transportation planning for the Highlands Ranch Metro District specifically. Highlands Ranch is bounded on the west by US 85 (Santa Fe Drive), on the north by County Line Road, on the east by the City of Lone Tree, and on the south by Chatfield-Cherry Creek Regional Trail that is located primarily adjacent to open spaces north of the City of Castle Pines. The HRTIP is integrated into Douglas County's transportation planning efforts.

The Douglas County *Five Year Capital Improvement Projects (CIP) Priority Plan* identifies approximately \$200 million for various multi-modal improvement projects for the period between 2017 and 2021 (see **Appendix B**). This transportation planning document identifies the County's potential budget allocations for priority projects for the next 5 years and is subject to annual review and approval by the Board of County Commissioners. Only

the County's contributions are shown in this budget and planning document, although several of our priority projects require significant contributions from other project partners in order to be fully implemented / constructed.

7.0 Acknowledgements, References and Sources

For more information about these projects, please call (303.660.7490).

Acknowledgements

Mr. Frederick H. Koch, P.E., Public Works Engineering Director
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Ms. Carol Konecny, Business Resources Manager
Mr. Duane Cleere, P.E., Traffic Engineering / Traffic Operations Manager
Mr. Darrell Roberts, Engineering Permits, Inspections & Utilities Manager
Mr. Matt Williams, P.E., Development Review Manager
Ms. Katherine Haire, P.E., Principal Traffic Engineer
Additional Credits to: Mr. Zeke Lynch, Senior Traffic Engineer, CH2M

References/Sources

Douglas County Annual Budgets and Comprehensive Annual Financial Reports, 2007-2016.

Department of Public Works Engineering – Douglas County Government

¹A tax rate is the mill levy expressed as a percentage. Douglas County Government. 2015. Property Tax Calculations. February. <http://www.douglas.co.us/assessor/property-taxes/property-tax-calculations/>.

²Douglas County Government. 2015. Roadway/Transportation – Capital Improvement Projects (CIP). February. <http://www.douglas.co.us/road-work/construction-capital-improvement-projects/>.

³Douglas County Government. 2015. February. <https://www.douglas.co.us>.

⁴Douglas County Transportation Plan. Adopted by the Douglas County Planning Commission. 2009 November 9. <http://www.douglas.co.us/documents/2030-transportation-plan.pdf>

Appendix A

Douglas County Road and Bridge Fund (Fund 200) and Road Sales & Use Tax Fund (Fund 230) Expenditures 1996–2016

Appendix B
Douglas County Priority Projects Funding
2017–2021 – Five Year Capital Improvement
Projects (CIP) Budget Project Priorities

APPENDIX A
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD AND BRIDGE FUND (FUND 200)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Municipal Sharebacks (50% of 4.493 mill levy)			\$54,572,396	\$442,336	\$508,562	\$732,516	\$794,385	\$996,185	\$1,127,065	\$1,489,353	\$1,834,072	\$2,110,645	\$2,357,914	\$2,733,003	\$2,943,364	\$3,525,062	\$4,049,501	\$4,222,160	\$4,165,128	\$3,759,347	\$3,805,221	\$3,978,681	\$4,119,421	\$4,878,475
TOTAL Expenditures by Year (for various projects as shown below) - The amounts shown below include contributions from other funding partners			\$237,777,096	\$7,686,000	\$3,134,000	\$6,003,000	\$4,221,000	\$5,904,000	\$14,547,000	\$9,649,000	\$8,351,000	\$12,446,000	\$8,528,000	\$19,018,000	\$13,726,000	\$9,915,000	\$12,464,000	\$11,191,258	\$10,427,294	\$10,148,272	\$21,300,363	\$15,466,908	\$16,112,256	\$17,538,745
Asphalt Overlay	800100	On-Going	\$47,458,521	\$875,000	\$1,090,000	\$1,654,000	\$1,270,000	\$928,000	\$997,000	\$1,606,000		\$1,846,000	\$1,910,000	\$2,189,000	\$2,082,000	\$1,856,000	\$216,000	\$1,657,679	\$3,485,080	\$4,483,799	\$6,890,930	\$1,332,723	\$3,986,481	\$7,102,829
Chipseal	800101	On-Going	\$4,729,384							\$292,000		\$517,000	\$416,000	\$769,000	\$540,000	\$490,000	\$1,051,000	\$654,334	\$50					
Guardrails	800102	On-Going	\$73,000											\$36,000	\$37,000									
Perry Park Traffic Management System	800103	Completed	\$208,000									\$17,000	\$191,000											
Gilbert Road Improvements	800108	Completed	\$160,000										\$10,000	\$150,000										
Concrete Repair	800110	On-Going	\$42,197,619	\$290,000	\$542,000	\$566,000	\$533,000	\$597,000	\$682,000	\$597,000		\$473,000	\$466,000	\$924,000	\$813,000	\$1,114,000	\$2,598,000	\$3,236,762	\$4,407,952	\$2,334,573	\$6,462,543	\$5,890,310	\$4,447,621	\$5,222,858
Silver Heights Drainage	800112	Completed	\$841,301									\$6,000	\$65,000	\$193,000	\$2,000			\$16,256	\$39,112	\$449,037		\$43,638	\$27,258	
Crystal Valley Pkwy Over East Plum Creek & UPRR (dev. funded)	800113	Completed	\$9,121,808											\$7,268,000	\$1,830,000	\$3,000	\$14,000	\$6,808						
Monarch Berganot Trail Grading	800114	Completed	\$20,000										\$20,000											
I-25 West Frontage Road (design & ROW acquisition)	800120	Planned	\$1,493,000				\$583,000	\$876,000	\$34,000															
Blackfeather / Castleton Court Connection	800121	Completed	\$450,000						\$450,000															
Channel Stabilization/Little Willow Creek	800122	Completed	\$395,000						\$185,000				\$210,000											
Happy Canyon Creek Drainage Improvements	800123	Planned	\$554,000						\$204,000						\$350,000									
Rampart Range Road Drainage Swale	800124	Completed	\$79,000						\$4,000	\$62,000	\$13,000													
Park Meadows Mall Vicinity Projects (conceptual design)	800125	Completed	\$139,000						\$10,000	\$70,000	\$50,000	\$9,000												
Titan Road / US 85 Interchange (Railroad Grade Separations)	800126	Completed	\$3,021,000				\$21,000		\$3,000,000															
Perry Park Emergency Exit	800130	Completed	\$302,000						\$36,000	\$191,000	\$49,000	\$4,000	\$2,000	\$20,000										
Rio Grande Avenue Paving	800138	Completed	\$22,000						\$22,000															
Schweiger / I-25 Interchange Improvements	800140	Completed	\$150,000					\$84,000	\$66,000															
I-25 Frontage / South Hanava (Castle Pines to Ridgeway)	800142	Completed	\$846,773						\$2,000	\$4,000	\$59,000			\$712,000	\$3,000	\$15,000	\$47,000		\$1,950			\$2,025		\$798
Yosemite Widening near Park Meadows	800143	Completed	\$141,000							\$61,000	\$47,000	\$33,000												
Inspiration Drive (preliminary design & ROW acquisition)	800145	Underway	\$919,000							\$35,000		\$168,000	\$45,000	\$111,000	\$50,000	\$35,000	\$475,000							
Yosemite Widening near Park Meadows (design)	800146	Completed	\$25,000							\$25,000														
I-25 West Frontage Road (Douglas Lane to Plum Creek)(design)	800147	Completed	\$46,000							\$9,000	\$37,000													
Chambers Road Extension (Arapahoe County Line to E-470)	800148	Completed	\$1,323,000								\$140,000	\$1,167,000	\$16,000											
Castle Pines Pkwy / Yorkshire Traffic Signal	800149	Completed	\$327,000										\$164,000	\$163,000										
Broadway Widening	800150	Completed	\$219,000				\$9,000	\$19,000	\$191,000															
Bear Dance Road (South of Tomah Road 1.8 miles)	800151	Completed	\$980,000								\$25,000	\$1,000	\$952,000	\$2,000										
Ridge Road Paving (Mikelson to E. Willow Creek Road)	800152	Completed	\$300,000									\$20,000		\$72,000	\$58,000	\$103,000	\$47,000							
Yosemite Widening (C-470 to Maximus)(preliminary design)	800154	Completed	\$50,000										\$50,000											
US 85 Widen & Reconstruct (Sedilia to IREA / Landfill Access)	800167	Completed	\$1,308,000										\$1,308,000											
US 85 / C-470 Interchange Reconstruction (design)	800169	Completed	\$11,000								\$9,000	\$2,000												
Castle Pines Parkway / I-25 Interchange (design)	800184	Completed	\$22,000								\$22,000													
Chester Street Widening (Yosemite to County Line)	800188	Completed	\$473,000								\$23,000	\$55,000	\$22,000		\$73,000	\$300,000								
Quebec Bridge North to County Line	800189	Completed	\$409,000								\$24,000	\$163,000	\$105,000	\$117,000										
Culvert Repairs - Yosemite / Lincoln	800190	Completed	\$56,000					\$56,000																
Park Meadows Center Drive NB to I-25 County Line	800191	Completed	\$200,000										\$21,000		\$179,000									
Yosemite Street / C-470 Trail Grade Separation (concept design)	800192	Completed	\$25,000											\$25,000										
Windfield Way Improvements	800193	Completed	\$25,000												\$25,000									
Mountain View Drainage Improvements	800197	Completed	\$148,000									\$6,000	\$113,000	\$29,000										
SH 83 Intersection Improvements	800198	Underway	\$277,000									\$20,000	\$3,000	\$129,000		\$112,000	\$13,000							
West Creek Sediment Mitigation	800199	On-Going	\$377,429										\$58,000	\$33,000	\$76,000	\$35,000	\$31,000	\$32,550	\$15,315	\$46,184	\$50,380			
Iron Horse Open Space Bridge	800208	Planned	\$0																					
Chambers Road (preliminary design)	800210	Completed	\$68,000					\$26,000		\$29,000	\$13,000													
C-470 Environmental Assessment Review	800224	Completed	\$569,000										\$139,000	\$229,000	\$82,000	\$59,000	\$15,000	\$24,271	\$20,729					
SH 85 Titan Road Drainage Improvements	800225	Planned	\$0																					
Meadow View / Pinery Drainage Project	800231	Completed	\$196,000										\$104,000	\$92,000										
C-470 / Broadway Drainage Improvements	800233	Completed	\$152,000										\$1,000	\$151,000										
Highlands Ranch Transportation Plan	800234	On-Going	\$2,147,427											\$186,000	\$10,000	\$362,000	\$137,000	\$25,476	\$114,543	\$457,293	\$473,687	\$146,305	\$87,433	\$147,690
South Park Lane Channel Improvements	800235	Completed	\$5,000										\$5,000											
Fiber Optic (University-CL-Quebec)	800236	On-Going	\$277,000											\$38,000	\$239,000									
TOC Office Renovation	800237	Completed	\$71,000												\$38,000	\$33,000								
Ponderosa Drive	800238	Completed	\$93,000											\$93,000										
I-25 / County Line / Park Meadows Center Drive Intersection	800240	Completed	\$334,000					\$199,000	\$54,000	\$35,000	\$46,000													

APPENDIX A
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD AND BRIDGE FUND (FUND 200)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Jordan Road Bridge Widening	800241	Completed	\$350,000											\$350,000										
Transit Planning and Operations	800242	On-Going	\$5,000													\$5,000								
Signal Rebuild (HR Pkwy-University)	800243	Completed	\$745,000											\$96,000	\$601,000	\$48,000								
Traffic Commications	800244	On-Going	\$241,632												\$21,000	\$105,000	\$1,000	\$6,078				\$78,554	\$15,000	\$15,000
Hayman Flood Gauges	800245	On-Going	\$297,138											\$34,000	\$45,000	\$48,000	\$28,000	\$30,951	\$37,354	\$27,315	\$26,393	\$8,405	\$11,720	
Hayman Water Quality Monitoring	800246	On-Going	\$94,000											\$40,000	\$7,000	\$10,000	\$37,000							
Lincoln Creek Traffic Signals	800248	On-Going	\$0																					
Weather Station Maintenance	800249	On-Going	\$55,469											\$11,000	\$12,000	\$6,000	\$22,000	\$1,129	\$1,656	\$1,684				
Lemon Gulch Bridge Replacement & Channelization @ Crowfoot	800250	Completed	\$2,371,000			\$11,000	\$162,000	\$55,000	\$1,763,000	\$72,000	\$1,000	\$307,000												
Russellville Road Bridge Replacement (South of Anderson)	800251	Completed	\$324,000						\$65,000	\$245,000	\$1,000			\$13,000										
Waterton Road Improvements (Wadsworth to High Line Canal)	800252	On-Going	\$2,029,393							\$53,000	\$49,000	\$3,000	\$3,000	\$13,000	\$89,000	\$67,000	\$1,655,000	\$19,365	\$78,028					
High Line Canal Pedestrian Bridge	800253	Completed	\$158,000						\$24,000	\$34,000	\$100,000													
Rio Grande Avenue over Plum Creek Bridge Replacement	800254	Completed	\$1,901,000						\$57,000	\$149,000	\$699,000	\$965,000	\$11,000	\$5,000	\$6,000	\$9,000								
DC 105 over W. Plum Creek Bridge Replacement (so. of Fox Farm)	800255	Completed	\$3,748,550						\$4,000	\$129,000	\$65,000	\$253,000	\$27,000	\$18,000	\$142,000	\$2,844,000	\$266,000	\$550						
Liberty Blvd. / Cottonwood	800256	Completed	\$43,000						\$17,000	\$15,000	\$11,000													
Rampart Range over High Line Canal Bridge Replacement	800257	Completed	\$671,000							\$40,000	\$105,000	\$32,000	\$33,000	\$27,000	\$434,000									
Bluffs Regional Park Access (South of Yosemite)	800258	Completed	\$85,000							\$15,000				\$70,000										
Haystack Road over Sellars Creek Bridge Replacement	800259	Completed	\$629,434						\$1,000	\$1,000									\$121,678	\$468,279	\$37,477			
Waconda Drive over Bear Creek Spillway Improvements	800261	Completed	\$221,000						\$10,000	\$10,000	\$33,000	\$158,000	\$8,000	\$2,000										
Happy Canyon Creek Upper Reach Restoration	800264	Completed	\$75,000													\$75,000								
Parker Road Traffic Study	800265	Completed	\$53,000													\$53,000								
Grandview Estates Road Improvements	800266	Planned	\$1,000											\$1,000										
DC16 Over Plum Creek Bridge	800268	Planned	\$2,650,724													\$29,000	\$1,442,000	\$1,178,224	\$1,500					
Zebulon Drainage Improvements	800271	Completed	\$113,000												\$2,000	\$75,000	\$36,000							
Quarry Road Over Sellars Gulch Bridge	800272	Completed	\$28,000												\$3,000	\$25,000								
Sugar Creek Sediment Mitigation	800273	Planned	\$141,962													\$55,000	\$2,000	\$24,908	\$60,054					
Russellville Drainage Improvements	800277	Underway	\$172,000													\$22,000	\$150,000							
Castlewood Canyon Paving (3 projects)	800280	Completed	\$1,288,000			\$166,000	\$277,000	\$813,000	\$32,000															
NRCS Dams	800283	On-Going	\$60,813																\$32,895	\$27,918				
Ridgegate/Mainstreet/Peoria Extension	800288	Completed	\$2,302,510															\$2,127,223	\$21,916	\$153,371				
Castle Pines Parkway (design)	800290	Completed	\$41,000					\$11,000	\$30,000															
Daniels Park / Castle Pines Parkway (design)	800291	Completed	\$52,000				\$10,000			\$42,000														
Airport Road over Plum Creek Bridge Replacement	800292	Completed	\$3,712,401															\$624	\$17,901	\$247,029	\$142,930	\$2,956,428	\$347,489	
2011 Roxborough Filing 1 & 2 Reconstruction	800297	Completed	\$1,505,473																\$509,946	\$995,527				
Double Angel Road Extension	800298	Completed	\$1,261,821																\$41,001	\$60,528	\$1,145,796	\$14,496		
Roxborough - US 85 South Connector	800301	On-Going	\$2,943,989																\$67,246	\$35,740	\$2,327,022	\$226,933	\$287,048	
US 85 Corridor Improvements	800302	On-Going	\$7,066,792																	\$73,839	\$2,363,700	\$782,866	\$1,603,081	\$2,243,306
Northwest Douglas County System Level Study	800303	Completed	\$216,781																\$172,505	\$44,276				
Roxborough Park over Little Willow Creek	800305	Underway	\$0																					
Happy Canyon Subdiviison SW Gated Emergency Access	800306	Planned	\$0																					
Red Rock Drive Plum Creek Bridge Repairs	800307	Underway	\$10,302																					\$10,302
Kimmer/Yosemite Signal	800330	Completed	\$193,000					\$45,000	\$133,000	\$15,000														
Urban Drainage Flood Control	800340	Completed	\$110,000					\$110,000																
Dakan Road Improvements	800359	Completed	\$41,410											\$11,000	\$11,000	\$11,000	\$5,000					\$3,410		
Ponderosa Way Drainage Improvements	800395	Completed	\$59,000												\$1,000	\$24,000	\$34,000							
Cameron LID 2011	800397	Completed	\$74																\$74					
Lincoln/Lone Tree (East Signal)	800410	Completed	\$5,000					\$5,000																
Union Pacific Railroad Crossing	800411	Completed	\$4,000											\$4,000										
Lagae Road (Castle Pines Pkwy to Castle Pines Village)	800465	Completed	\$1,019,000							\$909,000	\$106,000		\$4,000											
Dakan Road Paving (DC 105 to west of Plum Creek)	800466	Completed	\$325,480													\$3,000	\$321,000	\$1,480						
Tomah Road Paving Project	800467	Completed	\$1,000													\$1,000								
Traffic Signal @ Quebec/Palomino Pkwy	800468	Completed	\$207,000													\$44,000	\$163,000							
Peoria Street Extension (E-470 into Arapahoe County)	800480	Completed	\$4,749,000	\$274,000	\$268,000	\$7,000	\$2,000	\$117,000	\$3,681,000	\$400,000														
Douglas Lane / I-25 Interchange (NEPA, design & ROW acq.)	800481	Underway	\$1,455,000							\$392,000	\$303,000	\$580,000	\$180,000											
Scott Road Access west of Cherry Creek (due to closing bridge)	800483	Completed	\$285,000										\$14,000	\$2,000	\$16,000	\$238,000	\$15,000							
Spruce Mountain Rd. Over East Plum Creek Bridge Replacement	800484	Completed	\$1,636,000											\$210,000	\$31,000	\$1,381,000	\$8,000	\$6,000						
North Meadows Drive Extension to US 85 & I-25	800487	Completed	\$1,545,929										\$132,000	\$489,000	\$134,000	\$171,000	\$82,000					\$190,939	\$346,990	

*All Amounts Rounded to Nearest \$1,000

APPENDIX A
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD AND BRIDGE FUND (FUND 200)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Rampart Range Widen & Reconstruct (south of Waterton)	800488	Completed	\$1,003,088										\$8,000	\$8,000	\$904,000	\$2,000	\$40,000	\$750	\$17,485	\$21,765	\$1,088			
Colorado Blvd / C-470 Trail Crossing Improvements	800489	Completed	\$53,000												\$53,000									
Misc. Drainage Improvement Projects throughout County	800490	On-Going	\$3,401,413		\$170,000	\$99,000	\$120,000	\$19,000	\$158,000	\$45,000	\$41,000	\$399,000	\$41,000	\$53,000	\$85,000	\$51,000	\$215,000	\$210,583	\$351,660	\$256,330	\$729,106	\$223,817	\$102,375	\$31,542
Elbert Place Drainage	800491	Completed	\$150,000						\$2,000	\$121,000	\$27,000													
Windlawn Way/Windmont Ave Drainage Impr.	800492	Completed	\$652,000							\$27,000	\$152,000	\$271,000	\$34,000	\$159,000	\$9,000									
Cherry Creek Master Drainage Plan	800493	Completed	\$40,000						\$40,000															
Kenny Creek and Founder Draw	800494	Completed	\$96,000							\$1,000	\$5,000	\$90,000												
Kings Court Drainage	800495	Completed	\$230,000							\$22,000	\$190,000	\$18,000												
Grandview Tributary Improvements	800498	Underway	\$335,000											\$4,000	\$1,000	\$2,000	\$328,000							
NRCS Grant (Drainage)	800499	Underway	\$399,349												\$8,000	\$243,000	\$48,000	\$93,269	\$7,080					
Emergency Storm Drainage	800503	On-Going	\$831,573																			\$278,531	\$445,387	\$107,655
Galen Buck Improvements	800504	Completed	\$167,068																\$28,474	\$22,219	\$116,375			
Stormwater Priority Projects	800506	On-Going	\$2,168,757																		\$752,531	\$798,575	\$449,469	\$168,182
Accelerated Pavement Restoration	800508	Completed	\$4,516,030																		\$2,077,788	\$1,081,208	\$723,484	\$633,550
Traffic Mgmt Park Meadows	800510	On-Going	\$0																					
Roxborough Drive Maintenance	800511	Completed	\$141,272																		\$75,720	\$65,552		
Lone Tree Light Rail Extension	800512	Underway	\$0																					
Happy Canyon SW Gated Emergency Access	800513	Underway	\$94,135																		\$4,416	\$21,266	\$65,918	\$2,535
Columbine Open Space Bridge Replacement	800514	Completed	\$675,000																			\$1,480		\$673,520
Martinez Open Space Bridge Reconstruction	800515	Underway	\$0																					
Daniels Park Rd - Phase II	800516	Underway	\$0																					
Plum Creek Channel Improvement	800517	Completed	\$76,058																			\$63,984	\$12,074	
Lincon Creek Village Rd Mnt/Rp	800518	Completed	\$1,556																					\$1,556
Roadway Safety & Risk Assessment	800519	On-Going	\$86,000																			\$61,000		\$25,000
Bayou Gulch Drainage	800520	Completed	\$463,000				\$246,000	\$217,000																
Yosemite Street Widening	800570	Completed	\$1,918,000					\$326,000	\$1,484,000	\$84,000	\$7,000	\$9,000	\$8,000											
Happy Canyon / US 85 Signal	800580	Completed	\$80,000							\$80,000														
Happy Canyon Signal	800580	Completed	\$176,000					\$96,000		\$80,000														
Willow Street Signal	800760	Completed	\$186,000					\$9,000	\$177,000															
Lincoln Avenue (Peoria to Chambers)	800780	Completed	\$1,085,000					\$1,085,000																
Santa Fe (US 85) Median Improvements	800790	Completed	\$100,000					\$100,000																
Cottonwood / E-470 Interchange	800800	Completed	\$4,637,000					\$7,000	\$121,000	\$805,000	\$3,700,000		\$4,000											
Ponderosa / Bayou Gulch Signal	800801	Completed	\$159,000								\$10,000	\$142,000	\$7,000											
Colorado Blvd./Siskin (Signal)	800802	Completed	\$22,000							\$10,000	\$12,000													
Colorado Blvd./Market Place (Signal)	800803	Completed	\$24,000							\$12,000	\$12,000													
County Line/South Park Terrace Signal	800804	Completed	\$157,000						\$151,000	\$6,000														
School #35 Traffic Signal	800807	Completed	\$224,000							\$11,000	\$196,000	\$17,000												
Castle Pines/Charter Oak Signal	800810	Completed	\$193,000					\$3,000	\$167,000	\$23,000														
Traffic Signal @ Fairview / Weybridge	800814	Completed	\$71,551																		\$9,413	\$62,138		
Castle Pines/Monarch Signal	800820	Completed	\$240,000		\$20,000			\$2,000	\$175,000	\$43,000														
Pooria/Compark/Chambers (Signal)	800822	Completed	\$189,000								\$159,000	\$23,000	\$7,000											
Rampart Range / Village Circle Signal	800823	Completed	\$281,000						\$11,000	\$270,000														
Bluegrass Circle/Jordan Road Signal	800824	Completed	\$6,000							\$6,000														
Rampart Range / Waterton Signal	800825	Completed	\$150,000								\$27,000	\$123,000												
County Line Copper Mountain Apartments	800827	Planned	\$75,000											\$75,000										
Castle Pines/Lagae Road Signal	800828	Underway	\$61,000							\$10,000	\$41,000					\$10,000								
Chester Median Island	800830	Completed	\$118,000						\$116,000	\$2,000														
Flintwood (Hilltop to Highway 86)(safety assessment)	800838	Completed	\$51,000												\$44,000	\$7,000								
Castle Rock Railroad Relocation	800840	Completed	\$61,000		\$3,000			\$40,000		\$18,000														
Horsepark Drainage Improvements	800843	Underway	\$153,000												\$11,000	\$2,000	\$140,000							
Cherry Creek Highlands Drainage	800844	Underway	\$576,571												\$3,000		\$266,000	\$307,571						
Red Oak Drainage	800845	Completed	\$173,000												\$8,000	\$158,000	\$7,000							
Highlands Ranch Broadway Comm.	800852	Planned	\$732,872													\$400,000	\$332,872							
School & Pedestrian Safety Program	800853	On-Going	\$470,526														\$87,356	\$11,277	\$5,644	\$4,480	\$51,503	\$310,266		
Blakeland Drive Signal	800870	Completed	\$211,000						\$19,000	\$181,000	\$11,000													
School Flasher Projects	800901	On-Going	\$475,000						\$50,000	\$111,000	\$105,000	\$26,000	\$180,000	\$3,000										
Mall Communications Project	800902	On-Going	\$383,000						\$36,000	\$46,000	\$5,000		\$226,000	\$51,000	\$19,000									

*All Amounts Rounded to Nearest \$1,000

APPENDIX A
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD AND BRIDGE FUND (FUND 200)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Intelligent Transportation Systems	800903	On-Going	\$1,041,227							\$8,000	\$154,000	\$26,000	\$351,000	\$395,000	\$23,000					\$1,169	\$11,880	\$30,103	\$37,495	\$3,580
Traffic System Upgrade	800904	On-Going	\$623,642							\$80,000		\$18,000	\$16,000		\$167,000	\$53,000	\$2,000	\$94	\$156,745	\$8,887		\$120,956	\$960	
Traffic Signal Consultant	800909	On-Going	\$844,118						\$12,000	\$29,000	\$1,000	\$62,000	\$56,000	\$100,000	\$138,000	\$107,000	\$132,000	\$7,049	\$8,875		\$46,359	\$61,788	\$36,204	\$46,843
UPS / LED Program	800910	On-Going	\$563,000						\$50,000			\$56,000		\$312,000	\$78,000	\$67,000								
Traffic Signal Head Replacement	800911	Completed	\$50,000							\$50,000														
DRCOG Installation	800912	Underway	\$937,007						\$9,000	\$90,000	\$10,000	\$75,000	\$54,000	\$16,000	\$143,000		\$220,000	\$206,647	\$47,702			\$19,800	\$45,858	
Pavement Management System	800913	On-Going	\$515,184						\$14,000	\$53,000	\$2,000					\$57,000	\$121,000	\$61,630	\$43,815	\$50,855	\$61,978	\$35,448	\$9,631	\$4,827
Transportation Plan Update	800914	Underway	\$273,012												\$2,000	\$162,000	\$102,000	\$7,012						
Signal Timing Consultant	800915	On-Going	\$225,000							\$1,000	\$34,000		\$34,000	\$32,000	\$78,000	\$36,000	\$10,000							
Traffic Signal Repl & Major Maintenance	800916	On-Going	\$2,323,881							\$216,000	\$16,000	\$247,000	\$281,000	\$235,000	\$103,000	\$77,000	\$625,000	\$55,881	\$10,788	\$117,044	\$118,979	\$37,398	\$148,440	\$35,351
T-REX Contribution for Pedestrian Bridges over I-25	800917	Completed	\$2,000,000							\$400,000	\$400,000	\$400,000	\$400,000	\$400,000										
Miscellaneous Road & Bridge Improvements	800918	Completed	\$356,000						\$5,000	\$351,000														
Quebec/Lincoln/University Signal (Rebuild)	800919	Completed	\$152,000							\$98,000	\$13,000	\$18,000	\$23,000											
Broadway Dad Clark Signal Rebuild	800920	Completed	\$390,000							\$67,000	\$132,000	\$166,000	\$25,000											
University/Dad Clark Signal (Rebuild)	800921	Completed	\$130,000							\$39,000	\$78,000	\$13,000												
Weather Stations	800922	Completed	\$39,000							\$17,000	\$3,000	\$14,000	\$3,000	\$2,000										
Quebec/McArthur/Monarch Signal	800923	Completed	\$313,000							\$75,000	\$238,000													
Colorado Blvd./South Suburban (Signal)	800924	Completed	\$35,000							\$11,000	\$24,000													
Colorado Blvd./C-470 Pedestrian Signal	800925	Completed	\$7,000							\$1,000	\$6,000													
Jamaica/Liberty at Meridian Signals (2)	800926	Completed	\$180,000							\$180,000														
Pecoria/E-470 (2 Signals)	800927	Completed	\$453,000							\$32,000	\$421,000													
Park Meadows Drive/Nordstrom's Signal)	800929	Completed	\$272,000						\$15,000	\$257,000														
Quebec Wildcat Ridge Signal	800931	Completed	\$223,000							\$13,000	\$36,000	\$174,000												
Chambers/Pradera	800932	Planned	\$120,000											\$60,000			\$60,000							
Access Signal Monarch Middle School	800942	Completed	\$37,000								\$37,000													
Access Signal at McArthur/PAX	800943	Completed	\$302,000								\$18,000	\$226,000	\$58,000											
Access Signal Monarch High School	800944	Completed	\$151,000								\$13,000	\$127,000	\$11,000											
Broadway Plaza Drive/County Line	800958	Completed	\$29,000							\$29,000														
Park 85 Drainage Improvements	800961	Completed	\$268,000									\$268,000												
Titan Road Plum Creek Sediment Mitigation	800962	Completed	\$188,000									\$22,000	\$15,000	\$25,000	\$81,000	\$38,000	\$7,000							
Local Road Restoration Program	800963	On-Going	\$159,433														\$47,000		\$200		\$750	\$31,131	\$35,352	\$45,000
Newlin Gulch Channel Improvements	800965	Completed	\$3,708,222									\$4,000	\$9,000	\$940,000	\$1,667,000	\$68,000	\$482,000	\$450,396	\$19,292		\$68,534			
Yosemite Widening	800966	Completed	\$1,007,000									\$257,000	\$250,000	\$500,000										
Singing Hills	800967	Completed	\$30,000										\$30,000											
Waterton Road (Willow Creek / High Line Canal) Improvements	800968	Underway	\$194,000										\$113,000		\$1,000	\$56,000	\$24,000							
Havana/Meridian Signal Rebuild	800974	Planned	\$0																					
Broadway/Highlands Ranch Signal Rebuild	800975	Planned	\$0																					
Quebec County Line Signal Rebuild	800976	Completed	\$142,000												\$142,000									
County Line Inverness Signal Rebuild	800977	Planned	\$0																					
I-25 West Frontage Road (Tomah to Dawson Ridge)	800983	Completed	\$100,000									\$100,000												
Monarch Utility Box Relocation	800987	Completed	\$60,000									\$60,000												
Yosemite Widening 2004 Construction	800989	Completed	\$1,031,000									\$1,021,000	\$10,000											
Emergency Flood Planning	800990	Underway	\$919,439									\$118,000	\$54,000	\$117,000	\$43,000	\$58,000	\$126,000	\$40,241	\$57,459	\$66,808	\$85,143	\$113,583	\$4,911	\$35,294
Lincoln Avenue (Lincoln Ave/Jordan)	800994	Completed	\$738,000										\$29,000	\$297,000	\$356,000	\$25,000	\$31,000							
Bear Creek Drainage Improvements	800995	Completed	\$274,000									\$65,000	\$21,000			\$187,000	\$1,000							
Castlewood Canyon Road	800996	Underway	\$40,000									\$35,000		\$5,000										
Spruce Mtn Rd / Carpenter Creek Bridge Replacement	800999	Completed	\$449,000									\$20,000	\$30,000	\$297,000	\$102,000	\$0	\$0							
Willow Creek/Little Dry Creek/Greenwood	801002	Planned	\$0																					
Safety & Congestion Management	801004	On-Going	\$510,191																	\$36,844	\$106,494	\$253,221	\$113,632	
Village Circle East Reconstruction	801005	Completed	\$147,404															\$147,404						
West Creek Sediment (EPA Grant)	861517	Planned	\$276,150												\$20,000	\$12,000	\$168,000	\$47,402	\$28,748					
EECBG Recovery Act - Traffic	861532	On-Going	\$1,012,028															\$90,433	\$838,014	\$83,581				
C-470 / Yosemite Interchange (CDOT)	800XXX	Completed	\$3,808,000	\$3,781,000	\$27,000																			
Colorado Blvd. Widening	800XXX	Completed	\$207,000	\$207,000																				
Costco/Park Meadows Signal	800XXX	Completed	\$91,000			\$81,000	\$10,000																	
County Line Road (2 projects)	800XXX	Completed	\$290,000	\$14,000	\$198,000	\$78,000																		
Fox Sparrow Road Paving Project	800XXX	Completed	\$674,000			\$674,000																		

*All Amounts Rounded to Nearest \$1,000

APPENDIX A
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD AND BRIDGE FUND (FUND 200)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Tomah Road (I-25 to Perry Park Road)	800XXX	Completed	\$199,000					\$199,000																
Lincoln Avenue (Hwy 83 to Pine Drive)	800XXX	Completed	\$29,000				\$29,000																	
Lincoln/Lone Tree Signal	800XXX	Completed	\$175,000			\$85,000	\$90,000																	
Meridian Special District	800XXX	Completed	\$552,000	\$287,000	\$265,000																			
Monarch/Quebec	800XXX	Completed	\$35,000			\$8,000	\$27,000																	
Park Meadows Traffic Study	800XXX	Completed	\$80,000				\$80,000																	
Parker No./Parkglen Drainage	800XXX	Completed	\$50,000		\$50,000																			
Pine Cliff	800XXX	Completed	\$8,000		\$8,000																			
Plaza Creek Ext. Drainage	800XXX	Completed	\$50,000		\$50,000																			
Quebec/Yosemite/Park Meadows	800XXX	Completed	\$264,000	\$264,000																				
Ridge Road / South Lake Gulch Intersection	800XXX	Completed	\$58,000			\$27,000	\$31,000																	
Russellville Road (DC 69) Paving	800XXX	Completed	\$366,000	\$366,000																				
Quarry Road (aka Crystal Valley Pkwy) over Sellars Gulch Bridge	800XXX	Completed	\$864,000		\$68,000	\$593,000	\$203,000																	
Sulphur/Tallman Drainage	800XXX	Completed	\$119,000		\$40,000		\$79,000																	
Three Bridge Widening on DC 105	800XXX	Completed	\$950,000		\$59,000	\$891,000																		
Titan Road & Railroad Crossing	800XXX	Completed	\$126,000		\$126,000																			
Titan Road (DC 7)	800XXX	Completed	\$771,000	\$690,000	\$81,000																			
Titan Road over High Line Bridge Replacement	800XXX	Completed	\$539,000		\$45,000	\$492,000	\$2,000																	
Traffic Management - Park Meadows	800XXX	Completed	\$271,000			\$265,000	\$3,000	\$3,000																
DC 58 A over West Plum Creek Bridge Replacement	800XXX	Completed	\$278,000		\$24,000	\$254,000																		
Yosemite Signal	800XXX	Completed	\$638,000	\$638,000																				
Yosemite Street Signal	800XXX	Completed	\$175,000			\$52,000	\$121,000	\$2,000																
Yosemite/Lone Tree Signal	800XXX	Completed	\$114,000				\$114,000																	
			\$0																					
			\$0																					

\$237,777,096

APPENDIX A (Continued)
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD SALES AND USE TAX FUND (FUND 230)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Municipal Sharebacks (75% of 4/10 ths of one cent beginning in 2011)			\$104,057,538	\$1,776,154	\$2,016,555	\$2,476,964	\$2,940,489	\$3,513,988	\$3,906,635	\$4,008,582	\$4,078,714	\$4,743,403	\$5,412,959	\$5,388,981	\$5,287,865	\$4,986,362	\$4,713,528	\$4,754,259	\$5,696,182	\$6,708,696	\$7,403,131	\$7,518,477	\$8,189,502	\$8,536,112
TOTAL Expenditures by Year (for various projects as shown below) - The amounts shown below include contributions from other funding partners			\$279,425,509	\$2,370,000	\$2,608,000	\$9,058,000	\$11,600,000	\$10,374,000	\$6,911,000	\$15,112,000	\$9,580,000	\$17,029,000	\$15,454,000	\$13,406,000	\$10,726,000	\$23,067,000	\$33,978,000	\$17,151,607	\$12,651,260	\$4,900,507	\$10,885,328	\$15,856,598	\$14,988,484	\$21,718,725
County Line Road Extension	800105	Completed	\$193,000									\$193,000												
Lorraine Road (preliminary design)	800106	Completed	\$23,000									\$23,000												
South Arlston Road (preliminary design)	800107	Completed	\$9,000									\$9,000												
Spring Valley Road (preliminary design)	800109	Completed	\$17,000									\$17,000												
Titan Road Improvements	800111	Completed	\$800,189									\$9,000	\$14,000				\$410,000	\$75,000		\$ 136,239	\$16,500	\$46,807	\$83,648	\$8,995
Asphalt Overlay	800115	On-Going	\$9,183,249								\$893,000	\$1,000					\$4,100,000	\$58,059	\$2,963	\$633		\$4,036,884		\$90,710
Chipseal & Other Surface Treatments	800116	Completed	\$674,000								\$331,000	\$6,000	\$337,000											
Concrete Repair	800117	Completed	\$5,257,704								\$324,000	\$38,000										\$2,400,000	\$1,449,298	\$1,046,406
Colorado Boulevard Widening	800127	Completed	\$319,000							\$12,000	\$97,000	\$210,000												
Tomichi Road Paving	800128	Completed	\$2,692,000						\$122,000	\$157,000	\$171,000	\$2,234,000	\$3,000	\$3,000	\$2,000									
I-25 West Frontage Road (Tomah Road to Douglas Lane)	800129	Completed	\$273,000						\$26,000	\$28,000	\$108,000	\$104,000	\$6,000	\$1,000										
Hess Road (I-25 to SH83)	800131	Completed	\$28,314,700						\$35,000	\$74,000	\$32,000	\$36,000	\$801,000	\$290,000	\$997,000	\$642,000	\$9,629,000	\$8,401,599	\$6,970,864	\$342,456	\$63,781			
Best Road / Jones Road (preliminary design)	800132	Completed	\$1,084,908						\$79,000	\$137,000	\$68,000	\$1,000	\$4,000	\$46,000	\$29,000	\$9,000	\$700,000	\$5,908	\$6,000					
Castle Pines Parkway / I-25 Interchange	800133	Completed	\$5,294,000						\$10,000	\$3,000		\$366,000	\$4,770,000	\$145,000										
Daniels Road Paving (US 85 to Gross Access)	800135	Completed	\$1,714,000						\$1,305,000	\$281,000	\$17,000	\$31,000	\$58,000	\$14,000	\$8,000									
Russellville Road (Phase II)	800136	Completed	\$2,723,000						\$85,000	\$2,346,000	\$292,000													
Castle Pines Parkway (I-25 to Charter Oaks)	800137	Completed	\$1,793,000						\$1,428,000	\$364,000	\$1,000													
County Line / Holly Raised Median	800141	Completed	\$13,000							\$13,000														
Hilltop Widening & Reconstruction (Hess to Canterbury)	800155	Completed	\$2,422,060							\$25,000	\$103,000	\$2,190,000	\$3,000	\$7,000	\$5,000	\$34,000	\$37,000	\$16,715	\$475	\$870				
Hilltop Widening & Reconstruction (Canterberry to Singing Hills)	800156	Underway	\$2,631,843							\$39,000	\$13,000	\$0	\$114,000	\$23,000	\$1,714,000	\$468,000	\$85,000				\$11,954	\$2,658	\$63,059	\$98,172
West Parker Road (East of Chambers Road)	800158	Completed	\$397,000							\$38,000	\$119,000	\$202,000	\$38,000											
West Parker Road (Lone Tree Limits to Chambers Road)	800159	Completed	\$39,000								\$35,000	\$4,000												
Spring Creek Road (Tomahawk to Piney Lake)	800161	Completed	\$1,671,000							\$37,000	\$82,000	\$42,000	\$1,417,000	\$92,000	\$1,000									
Chambers Road Extension (Compark to Arapahoe)(design)	800162	Completed	\$25,000							\$25,000														
Chambers Road Extension (E-470 to Hess Road)	800163	Underway	\$16,730,726								\$10,000	\$166,000	\$2,388,000	\$6,788,000	\$3,842,000	\$130,000	\$1,504,000	\$1,989	\$39,973	\$74,645	\$34,369	\$1,750		\$1,750,000
Daniels Park Road (Gross to Castle Pines Parkway)	800165	Completed	\$3,488,852							\$100,000			\$30,000		\$41,000	\$516,000	\$2,797,000	\$2,065	\$2,787					
Daniels Park (Castle Pines Parkway to Griggs Road)	800166	Underway	\$253,192										\$30,000								\$87,619	\$126,787	\$8,246	\$540
Spruce Mountain Road Reconstruction (Noe to Palmer Divide)	800168	Completed	\$727,000								\$90,000	\$631,000	\$6,000											
Wolfensberger Road (preliminary design)	800170	Completed	\$180,000				\$130,000	\$50,000																
Pinery Parkway / SH 83 / Bayou Gulch Road	800171	Planned	\$0																					
Jamaica Inverness Parkway Improvements	800172	Completed	\$111,000								\$111,000													
Bayou Gulch Road (Crowfoot to Pradera)(preliminary design)	800174	Completed	\$105,000							\$21,000	\$23,000		\$6,000		\$55,000									
Inspiration Drive (Pine Drive to Tomahawk)(preliminary design)	800175	Completed	\$136,000							\$80,000	\$12,000	\$26,000		\$18,000										
Asphalt Overlay (Yosemite to Lone Tree)	800176	Completed	\$176,000							\$176,000														
Perry Park Emergency Evacuation Exit	800177	Completed	\$4,988,416							\$115,000	\$37,000	\$60,000				\$16,000	\$68,000	\$4,084,000	\$594,423	\$4,180	\$9,813			
Piney Lake Road Paving	800178	Completed	\$5,000											\$5,000										
Furrow Road Paving (Best Road to County Line)(design)	800179	Completed	\$43,000								\$43,000													
Lincoln Avenue / Third Street Intersection Improvements	800180	Completed	\$242,000					\$142,000	\$47,000	\$34,000	\$19,000													
Dakan Road Paving (Segment 1)	800181	Completed	\$393,000								\$44,000	\$320,000	\$23,000	\$6,000										
Wildfield Lane Extension (Titan Road to North)	800194	Completed	\$10,000									\$10,000												
East Cherry Creek Paving (Segment 1)	800195	Completed	\$2,263,000									\$49,000	\$23,000	\$57,000	\$2,121,000	\$13,000								
Russellville Road Paving (Phase I)	800200	Completed	\$6,188,000			\$97,000	\$3,144,000	\$1,180,000	\$1,730,000	\$37,000														
Piney Lake Road Improvements (design)	800201	Completed	\$7,356																		\$7,356			
Bayou Gulch Road (Pradera to Scott Road), (Phase 1)	800202	Completed	\$96,941																				\$20,478	\$76,463
Heidemannn Road Survey Monumentation	800203	On-Going	\$6,450																				\$6,450	
Scott Road over Cherry Creek Bridge (design review)	800204	Completed	\$16,256																				\$15,618	\$638
C-470 Trail over Yosemite Street (Grade Separation)	800205	Underway	\$14,660																					\$14,660
I-25 PEL Study (C-470 to Monument)	800207	Underway	\$0																					

*All Amounts Rounded to Nearest \$1,000
**Assumes 2005 Project Rolls

APPENDIX A (Continued)
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD SALES AND USE TAX FUND (FUND 230)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016	
Stroh Road Extension (I-25 to Hilltop)(design review)	800209	Planned	\$0																						
Chambers Road / E-470 Interchange (west ramps)	800212	Completed	\$457,000							\$99,000	\$252,000	\$101,000	\$5,000												
Chambers Road Extension / Stroh Road Extension Grading	800213	Completed	\$313,000							\$306,000	\$7,000														
Palmer Divide Road Paving	800220	Completed	\$2,882,000			\$92,000	\$58,000	\$18,000	\$114,000	\$2,303,000	\$297,000														
Titan Road Loop / Railroad Grade Separation (Reqd by UPRR)	800227	Completed	\$4,103,000						\$155,000	\$495,000	\$14,000	\$195,000	\$2,602,000	\$557,000			\$85,000								
Travois Trail Paving	800230	Completed	\$1,169,000		\$6,000	\$97,000	\$1,040,000	\$26,000																	
North Meadows Drive Extension to US 85 and I-25	800247	Completed	\$11,807,046													\$54,000	\$170,000	\$130,232			\$16,130	\$2,955,928	\$5,640,628	\$2,840,128	
Monarch Extension (MacArthur to Power Line)	800260	Completed	\$3,049,000			\$72,000	\$2,784,000	\$117,000	\$43,000	\$33,000															
Lincoln Avenue Improvements (Yosemite to Jordan)	800262	Underway	\$5,386,420											\$1,320,000		\$1,493,000	\$1,913,000	\$589,866						\$70,554	
Waterton Road (High Line Canal to Platte River)(design)	800267	Completed	\$32,708													\$19,000		\$13,708							
County Line Road / I-25 Operational Improvements	800269	Underway	\$378,096																		\$6,090		\$246,632	\$125,374	
Peoria Street (E-470 to Ridgegate)(preliminary design)	800276	Planned	\$97,000													\$26,000	\$70,000			\$1,000					
Park Meadows Drive Improvements	800278	Completed	\$500,000														\$500,000								
Lone Tree Multi-Modal Transportation Priority Projects	800286	On-Going	\$1,500,000																\$1,500,000						
Ridgegate / Mainstreet / Peoria Extension	800287	Completed	\$5,701,406															\$5,297,369	\$404,037						
C-470 Corridor Improvements	800296	Underway	\$2,310,027																	\$137,876	\$96,876	\$71,901	\$3,204	\$170	\$2,000,000
Park Meadows Drive / Lincoln Avenue Intersection	800304	Completed	\$500,000																	\$500,000					
Piney Lake Road Paving	800310	Completed	\$2,058,000		\$23,000	\$127,000	\$1,903,000	\$5,000																	
East Upper Lake Gulch Road Improvements	800320	Completed	\$324,000			\$5,000	\$119,000	\$21,000	\$175,000			\$4,000													
South Lake Gulch Road Paving (Garton Road to SH 83)	800420	Completed	\$3,803,000			\$102,000	\$228,000	\$3,267,000	\$197,000	\$1,000	\$2,000	\$6,000													
Palmer Divide Road Widening & Reconstruction (I-25 to Furrow)	800421	Completed	\$160,926																			\$160,926			
Roxborough - US 85 Southern Connector	800423	Planned	\$700,000																					\$700,000	
Jackson Creek Road over West Plum Creek Bridge	800424	Planned	\$0																						
Dakan Road over West Plum Creek Bridge	800425	Planned	\$0																						
Havana / Lincoln Intersection Improvements	800426	Planned	\$0																						
Democrat Road Paving (Irish Pat Murphy to Flintwood)	800450	Completed	\$4,254,000		\$55,000	\$147,000	\$2,077,000	\$211,000	\$8,000	\$1,571,000	\$149,000	\$36,000													
County Line Road Widen & Reconstruct (Quebec to Colorado)	800460	Completed	\$2,738,000					\$427,000	\$248,000	\$21,000	\$2,042,000														
County Line Road Widen & Reconstruct (Colorado to Phillips)	800461	Underway	\$20,556,713								\$101,000	\$160,000	\$81,000	\$892,000	\$934,000	\$13,402,000	\$3,478,000	\$306,252	\$198,933	\$1,003,528					
Lagae Road (Castle Pines Parkway to Castle Pines Village)	800462	Completed	\$54,000						\$30,000	\$20,000	\$4,000														
Pine Lane Widen & Reconstruct (Hwy 83 to Pine Drive)	800464	Completed	\$3,554,000					\$12,000	\$12,000	\$92,000	\$540,000	\$2,894,000	\$4,000												
Tomahawk Road Paving (Inspiration to East Main Street)	800500	Completed	\$2,150,000			\$119,000	\$1,173,000	\$839,000	\$19,000																
Happy Canyon / I-25 Interchange System Level Study	800505	Underway	\$306,156																			\$1,600	\$33,293	\$271,263	
Lone Tree Regional Transportation Priority Projects	800507	Completed	\$2,200,000																		\$2,200,000				
Hess Road (I-25 to SH83)(design & ROW acquisition)	800710	Completed	\$973,000					\$48,000		\$12,000	\$16,000	\$24,000	\$873,000												
Ponderosa Paving Project	800720	Completed	\$753,000					\$614,000	\$71,000	\$29,000	\$39,000														
Crowfoot Valley Road Paving Project	800750	Completed	\$4,968,000	\$141,000	\$381,000	\$4,233,000	\$172,000	\$41,000																	
Pine Drive Widening & Lincoln Extension (SH 83 to Pine Drive)	800770	Completed	\$7,397,000					\$322,000	\$848,000	\$5,597,000	\$377,000	\$253,000													
Jordan / E-470 Intersection Improvements (New Signals at Ramps)	800805	Completed	\$150,000									\$150,000													
Signal County Line/Copper Mountain Apartments	800806	Completed	\$0																						
Traffic Comm. / Fiber / CCTV O&M	800833	On-Going	\$500																					\$500	
Traffic Engineering Studies	800834	On-Going	\$409,000							\$153,000	\$183,000	\$14,000	\$24,000	\$34,000		\$1,000									
Monarch Widening for High School & Middle School	800837	Completed	\$1,054,000							\$3,000	\$1,018,000	\$7,000	\$26,000												
Pine Drive (design)	800850	Completed	\$387,000					\$340,000					\$47,000												
Quebec / Lincoln / University Intersection Improvemnts	800851	Underway	\$3,235,227																\$148,616	\$755,396	\$383,641	\$44,470	\$40,394	\$1,862,710	
Hazard Elimination / Congestion Management	800854	On-Going	\$1,557,031																\$39,504	\$105,369	\$508,521	\$458,757	\$430,193	\$14,687	
Highlands Ranch Transportation Improvement Projects	800855	On-Going	\$3,444,358														\$32,000					\$2,261,855	\$193,008	\$957,495	
C-470 Corridor Coalition	800856	Underway	\$14,400,608																\$39,942	\$830,355	\$3,352,029	\$1,522,166	\$599,110	\$8,057,006	
Todd Drive Paving Project	800858	Completed	\$600,000																			\$600,000			
West Parker Road / Chambers Road	800860	Completed	\$575,000					\$27,000	\$27,000	\$23,000				\$203,000	\$258,000	\$33,000	\$4,000								
Parker Road (Canterberry to Tomahawk)(preliminary design)	800861	Completed	\$134,000						\$23,000	\$10,000	\$21,000		\$80,000												
Bear Dance (KOA - Independence)	800862	Completed	\$153,000								\$27,000	\$124,000	\$2,000												

*All Amounts Rounded to Nearest \$1,000
**Assumes 2005 Project Rolls

APPENDIX A *(Continued)*
DOUGLAS COUNTY PUBLIC WORKS ENGINEERING - CAPITAL IMPROVEMENT PROGRAM
ROAD SALES AND USE TAX FUND (FUND 230)
Updated - June 7, 2017

ROAD PROJECTS	Business Unit	STATUS	TOTAL EXPENDITURES 1996-2016	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	ACTUAL 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016
Havana / Meridian Intersection / Signal Rebuild	800934	Planned	\$10,000								\$5,000		\$4,000	\$1,000										
Lincoln Avenue (Yosemite to Jordan)(preliminary design)	800936	Planned	\$121,000								\$20,000	\$11,000	\$16,000	\$74,000										
Broadway Highlands Rancy Pkwy Signal Rebuild	800937	Completed	\$7,000										\$7,000											
Colorado Boulevard / Siskin Signal	800938	Completed	\$146,000								\$5,000	\$96,000	\$45,000											
Quebec/Monarch / McArthur Signal	800939	Completed	\$8,000								\$8,000													
Colorado Blvd. South Suburban	800941	Completed	\$172,000								\$30,000	\$117,000	\$25,000											
County Line Road (Piney Lake Road to Delbert Road)	800947	Completed	\$318,000								\$1,000	\$317,000												
Quebec /Lincoln Intersection & Signal Rebuild	800948	Completed	\$423,000								\$6,000	\$71,000	\$346,000											
Flintwood (Singing Hills to Oxen)(preliminary design)	800950	Completed	\$74,000								\$15,000		\$23,000	\$12,000			\$24,000							
Greenland (I-25 to Hwy 83)(preliminary design)	800953	Completed	\$61,000								\$15,000	\$46,000												
Noe Road (I-25 to Hwy 105)(preliminary design)	800954	Underway	\$36,000								\$32,000		\$2,000		\$2,000									
Dahlberg Road (South Lake Gulch to Greenland)(design)	800955	Completed	\$29,000								\$29,000													
US 85 / C-470 Interchange Reconstruction (multiple phases)	800957	Underway	\$9,760,336								\$1,202,000	\$257,000	\$334,000	\$90,000	\$52,000	\$28,000	\$2,965,000	\$1,586,677	\$3,021,697	\$119,529	\$26,439			\$77,994
Anderson Road Paving (Russellville to Elbert County)	800959	Completed	\$1,273,000									\$40,000	\$344,000	\$827,000	\$26,000	\$29,000	\$7,000							
Heidemman Road Improvements (Russellville to Elbert County)	800960	Completed	\$285,000									\$14,000		\$61,000	\$78,000	\$82,000	\$50,000							
University Widen & Reconstruct (County Line to Dad Clark)	800969	Underway	\$143,506								\$15,000	\$47,000	\$60,000					\$21,506						
Stroh Road Extension (SH 83 to Hilltop)(design)	800970	Planned	\$22,000									\$20,000	\$2,000											
Perry Park (Oakland to Palmer)	800972	Completed	\$131,000									\$131,000												
Douglas Lane / I-25 Interchange	800979	Planned	\$2,127,171										\$124,000	\$1,612,000	\$213,000	\$18,000	\$138,000	\$13,230	\$8,755	\$186				
Quebec Widening (County Line to Park Meadows Drive)	800980	Completed	\$7,581,513										\$208,000	\$175,000	\$332,000	\$4,457,000	\$1,065,000		\$63,370	\$15,817	\$32,520	\$1,232,806		
Broadway Widen & Reconstruct (Plaza to County Line)	800981	Completed	\$5,442,570									\$42,000	\$94,000	\$58,000		\$45,000	\$131,000	\$37,009	\$61,288	\$907,795	\$4,066,478			
Chambers / E-470 Interchange	800982	Completed	\$4,874,000									\$4,874,000												
US 85 Improvements	800998	On-Going	\$1,882,752																				\$921,259	\$961,493
County Line Road Lincoln Resurfacing Projects	801003	Completed	\$1,500,000													\$1,500,000								
I-25 Lane Balance Project	801008	Completed	\$5,929,937																				\$237000	\$692,937
Bayou Gulch Road East / Drainage	800XXX	Completed	\$294,000		\$4,000	\$228,000	\$62,000																	
Burning Tree / SH 86 Intersection	800XXX	Completed	\$359,000		\$4,000	\$1,000	\$354,000																	
Colorado Blvd. / University Intersection Improvements	800XXX	Completed	\$384,000		\$30,000	\$162,000				\$192,000														
County Line Road (preliminary design)	800XXX	Completed	\$83,000				\$83,000																	
DC 16 & DC 18 Paving Project (Louviers & Sedalia)	800XXX	Completed	\$1,981,000		\$77,000	\$1,819,000	\$85,000																	
Delbert Road Paving (East Mainstreet to Arapahoe County Line)	800XXX	Completed	\$1,632,000	\$1,561,000	\$43,000	\$28,000																		
Fox Farm Road Paving (Spruce Mountain to DC 105)	800XXX	Completed	\$1,219,000		\$56,000	\$1,124,000	\$39,000																	
Grant Avenue Paving (Flintwood into Elbert County)	800XXX	Completed	\$891,000			\$38,000	\$853,000																	
Hilltop Road Paving (Flintwood to Elbert County)	800XXX	Completed	\$671,000		\$29,000	\$634,000	\$8,000																	
Ponderosa Lane Paving (Flintwood to Elbert County)	800XXX	Completed	\$558,000	\$14,000	\$544,000																			
Tomah Road Paving (Keene Ranch to DC 105 Perry Park Road)	800XXX	Completed	\$924,000	\$30,000	\$889,000	\$5,000																		
Yosemite / Colorado Blvd.	800XXX	Completed	\$467,000		\$467,000																			
Yosemite / Lincoln / I-25	800XXX	Completed	\$624,000	\$624,000																				

*All Amounts Rounded to Nearest \$1,000
**Assumes 2005 Project Rolls

DOUGLAS COUNTY PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM* LOCAL IMPROVEMENT DISRICTS (LID)(s) FUND 200/FUND 950/Fund 350 AS OF MARCH 7, 2017																							
ROAD PROJECTS	STATUS	ACTUAL 1996	ACTUAL 1997	ACTUAL 1998	ACTUAL 1999	ACTUAL 2000	ACTUAL 2001	ACTUAL 2002	ACTUAL 2003	ACTUAL 2004	ACTUAL 2005	ACTUAL 2006	ACTUAL 2007	ACTUAL 2008	BUDGET 2009	ACTUAL 2010	ACTUAL 2011	ACTUAL 2012	ACTUAL 2013	ACTUAL 2014	ACTUAL 2015	ACTUAL 2016	TOTAL EXPENDITURES 1996-2016
Beverly Hills 0-3135-9-9315-330 Design Construction	Completed	\$70,000 \$308,000	\$3,000																				\$73,000 \$308,000
Sageport 800392 880392 Design Construction	Completed										\$31,000	\$70,000	\$13,000 \$14,000	\$86,000									\$0 \$200,000 \$14,000
Sageport Woods 0-3135-9-9315-358 Design Construction	Completed	\$64,000 \$829,000	(\$10,000) \$880,000																				\$0 \$54,000 \$1,709,000
Plum Valley 0-3135-9-9315-352 Design Construction	Completed		\$8,000 \$212,000																				\$0 \$8,000 \$212,000
Crow Road 0-3135-9-9315-355 Design Construction	Completed			\$11,000 \$228,000	\$1,000 \$82,000																		\$0 \$12,000 \$310,000
Perry Park Woods 0-3135-9-9315-356 Design Construction	Completed			\$67,000 \$1,024,000	\$7,000 \$178,000																		\$0 \$74,000 \$1,202,000
Perry Park Metro 0-3135-9-9315-359 Design	Completed			\$50,000	\$2,000																		\$0 \$52,000
Mohawk Drive # 11-30-3135-9-9315-339 800730 800740 Design Construction	Completed				\$54,000 \$684,000	\$5,000 \$214,000	\$11,000																\$0 \$59,000 \$909,000
Shoshone Drive # 11-30-3135-9-9315-335 800370 800380 Design Construction	Completed				\$3,000 \$4,000	\$73,000 \$762,000	\$86,000																\$0 \$76,000 \$852,000
Delaware Drive # 11-30-3135-9-9315-334 800350 800360 Design Construction	Completed					\$21,000 \$243,000	\$14,000																\$0 \$21,000 \$257,000
Country Club Drive # 11-30-3135-9-9315-333 800390 800400 Design Construction	Closed 2003				\$4,000 \$3,000	\$29,000		\$491,000	\$45,000	\$29,000		\$2,000											\$0 \$571,000 \$32,000
Tenderfoot Drive 800355 880355 Design Construction	Closed								\$64,000 \$235,000														\$0 \$64,000 \$235,000
Mohawk Extension 800375 880375 Design Construction	Closed								\$38,000 \$200,000														\$0 \$38,000 \$200,000
Inca/Delaware 800394 880394 Design Construction	Completed																						\$0 \$107,929 \$748,186
Sageport 2006 LID 800393 Design Construction	Completed																						\$0 \$97,314 \$781,147
Elati Schedule A 800398 880398 Design Construction	Dissolved													\$7,000	\$37,000								\$0 \$7,000 \$0
Shrine Schedule A 800399 880399 Design Construction	Dissolved													\$9,000	\$33,000								\$0 \$9,000 \$0
Sageport 2014 800393 Design Construction	Completed																						\$120,000 \$462,727
Cameron LID 2011 Design Construction	Completed																						\$10,000 \$116,104
TOTALS		\$1,271,000	\$1,093,000	\$1,380,000	\$1,022,000	\$1,347,000	\$111,000	\$491,000	\$582,000	\$29,000	\$31,000	\$72,000	\$27,000	\$102,000	\$70,000								\$10,001,408

* LID: Roadway design paid for 100% by Douglas County. Roadway construction contribution by Douglas County is 25%, with remaining 75% paid by property owners. Water and Sewer design and construction paid for entirely by the property owners.

Design = Fund 200
Construction = Fund 350

APPENDIX B - Five Year Capital Improvement Projects (CIP) Budget Priorities (2017 thru 2021) - (Updated October 28, 2016)

These budget priorities are subject to change in the future based on annual appropriations and at the discretion of the Douglas County Board of County Commissioners.

BU	Fund 200 - Road and Bridge Fund (4.493 Mill Levy)	2017	2018	2019	2020	2021
800100	Contracted Major Road Maintenance (Asphalt Surface Treatments and Concrete)	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
800503	Emergency Storm Drainage	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
800506	Stormwater Priority Projects	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
800853	School & Pedestrian Safety Programs	100,000	100,000	100,000	100,000	100,000
800909	Traffic Engineering Consultants	100,000	100,000	100,000	100,000	100,000
800916	Traffic Signal Maintenance	400,000	400,000	400,000	400,000	400,000
Fund 200 - Subtotal for CIP		17,600,000	17,600,000	17,600,000	17,600,000	17,600,000
Fund 230 - Road Sales and Use Tax Fund (from 4/10's of one cent sales and use tax for transportation)		2017	2018	2019	2020	2021
800111	Titan Road & Moore Road at Plum Creek				2,500,000	
800156	Hilltop Road Improvements (Legend HS/Crestview/Merryvale/Singing Hills)	2,000,000				500,000
800202	Bayou Gulch Road Extension (Pradera Parkway to Scott Road)			2,400,000		
800205	C-470 Multi-Modal Trail at Yosemite Street Improvement Projects	150,000	1,000,000			
800262	Lincoln Avenue Widening (First Street to Keystone)					8,000,000
800267	Waterton Road Improvements (Wadsworth to Campfire)				4,500,000	
800269	County Line Road/I-25 Operational Impr. (Chester to Inverness)	1,000,000				
800287	RidgeGate Widening Project (\$1.5 M DRCOG TIP Commitment)		1,500,000			
800424	Jackson Creek Road over West Plum Creek Bridge Replacement					1,850,000
800245	Dakan Road over West Plum Creek Bridge Replacement					1,850,000
800426	Havana Street / Lincoln Avenue Intersection				4,000,000	1,000,000
800428	Allens Way / Founders Intersection (\$250 K DRCOG TIP Commitment)	250,000				
800833	Traffic Communications / Fiber / CCTV O & M / VMS	500,000	500,000	500,000	600,000	600,000
800854	Hazard Elimination / Congestion Management	750,000	500,000	500,000	1,000,000	1,000,000
800855	Highlands Ranch Transportation Improvement Projects	1,000,000	875,000	1,000,000	1,200,000	2,000,000
800957	US 85 / C-470 Interchange Reconstruction Project Phase 2		5,000,000	10,000,000		
800969	University @ C-470 Improvements (Dad Clark to County Line Road)				2,500,000	
800998	US Highway 85 Improvements (Highlands Ranch Pkwy to C-470)	9,000,000	5,000,000			
Fund 230 - Subtotal for CIP		14,650,000	14,375,000	14,400,000	16,300,000	16,800,000
Fund 100 Budget Requests for Emergency Storm Drainage & Regional Transportation Projects (on State Hwys)		2017	2018	2019	2020	2021
800523	Emergency Storm Drainage Projects	600,000	5,000,000	5,000,000	5,000,000	5,000,000
890022	US 85 Improvements (C-470 Interchange Reconstruction - Phase 2)		2,000,000	2,000,000		
890022	US 85 Improvements (Highlands Ranch Pkwy to C-470)	1,000,000				
890022	US 85 Improvements (Louviere to MP 191.75) - potential TIGER Grant				3,700,000	
890022	US 85 Improvements (Sedalia to Happy Canyon Road)				300,000	4,000,000
Fund 100 - US 85 Improvement & Countywide Emergency Drainage Projects		1,600,000	7,000,000	7,000,000	9,000,000	9,000,000