

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION



Quick Facts About C-470 Tolled Express Lanes

C-470

Currently, C-470 carries a total of 80,000 to 100,000 vehicles per day in the busiest sections.

For C-470, by 2025 it was recently projected there will be:

- A population growth of 34% to 708,000 people in the corridor.
- An employment growth of 44% to 425,000 jobs in the corridor.

An average daily traffic growth of:

- 32% to 86,000 vehicles from Kipling to Wadsworth
- 33% to 106,000 vehicles from Santa Fe to Lucent
- 38% to 144,000 vehicles from Quebec to Yosemite

Environmental Assessment

After three years of intensive study and extensive public input, CDOT will soon release the C-470 Corridor Environmental Assessment document which recommends new express tolled lanes and reconstruction of the Santa Fe/C-470 interchange as the preferred alternative that will most effectively minimize congestion, reduce travel delay and increase reliability in the C-470 Corridor for the next 20 years.

Why Tolled Express Lanes? The two build alternatives, general purpose lanes (GPL) and tolled express lanes (EL), were studied in detail and it was found that both alternatives meet the project goals of minimizing congestion, reducing traveler delay and improving reliability on C-470 between I-25 and Kipling. **However, the express toll lanes is the only alternative that can be funded as there is no funding available for C-470 over the next 25 years.**

What does the project involve? The express toll lane alternative would add two tolled express lanes in each direction on C-470 between Kipling and I-25. The existing lanes on C-470 remain free. Toll collection would be electronic only with transponders that can also be used on E-470 and the Northwest Parkway.

Why can't "free lanes" be added to C-470 instead of Express Lanes? Other than partial funding for the Santa Fe Interchange, no funding is currently identified in the Denver Regional Council of Governments (DRCOG) fiscally constrained 2030 Regional Transportation Plan.

Will the express lanes take over the current C-470 lanes already in use? The existing general purpose lanes – two in each direction – will remain free, and will be rehabilitated

as part of the EL alternative. The express lanes will be built using the existing median. Drivers will have a choice of paying to use the express lanes or using the existing lanes for free.

Why would I pay a toll to use the express lanes – what’s in it for me? Unlike the average highway lane, express lanes provide a reliable, less congestive alternative to drivers who need predictable drive times. In other states, express lanes have been used by a wide variety of drivers who need to arrive on time at day care centers, soccer games and business appointments and can’t risk being caught in unpredictable peak-hour congestion.

Will toll booths slow down traffic on C-470? The C-470 express lanes will use electronic toll collection only. This will eliminate the need for traditional toll booths, allowing drivers to maintain their speed while traveling through toll collection zones.

Where will drivers be able to access the express toll lanes? Drivers will have access to the barrier-separated express lanes at I-25, Quebec St., Colorado Boulevard, Broadway and Kipling. Access will be indirectly through slip ramps on the C-470 mainline at most points, although ramps will provide direct access at Colorado Boulevard and Quebec St.

What are the right of way impacts of both of the alternatives? The total area needed to be acquired would be approximately 17 acres for the GPL alternative, and approximately 20 acres for the EL alternative for the entire 13-mile long project. The environmental impacts of both alternatives are very similar.

How much will it cost to use the express lanes? Toll pricing will be variable according to demand, allowing for consistent free-flow traffic in the express tolled lanes. Estimated opening day peak-hour toll to travel the entire 12.5-mile corridor will be approximately \$2.50. Actual tolls will be set once the toll system is operational.

Will tax dollars be needed to build the express lanes? The express lanes are projected to be financially self-supporting with toll revenues collected from users. Toll revenue could cover annual operations and maintenance (O&M) costs, debt service, and funding a capital reserve account for future major capital improvements. No outside funding from federal, state, or local sources was used in the analysis, other than federal TIFIA loans that must be repaid from toll revenues as part of the overall debt service package.

GPL Alternative (with Santa Fe Int.) (‘05 dollars): \$255M*

*Does not include long-term annual maintenance costs estimated at \$1.75 million in 2006 dollars.

EL Alternative (with Santa Fe Int.) (‘05 dollars): \$385M*

*The EL Alternative includes the addition of new ramps to provide access to C-470 at Colorado Boulevard, interchange improvements at I-25 and tolling technology components. These items are not included in the GPL Alternative.

Travel Time/Speeds

Year 2025 peak-hour travel times for the no-action alternative, GPL alternative, and EL alternative are shown below. The EL includes travel times for both the general purpose lanes and the express lanes. The travel times in the tolled express lanes are half of those in the no-action alternative. By 2025, average speeds dip below 25 miles per hour in the peak hour under the no-action alternative. Vehicles will be able to travel the speed limit in the tolled express lanes and speeds are also improved for the general purpose lanes with the EL alternative.

2025 Average Travel Times

Time of Day	No-Action Alternative (minutes)		GPL Alternative (minutes)		Express Lanes Alternative GPL portion (minutes)		Express Lanes Alternative EL portion (minutes)	
	EB	WB	EB	WB	EB	WB	EB	WB
AM Peak Hour	34-35	31-32	15-16	15-16	28-29	22-23	13-14	11-12
PM Peak Hour	29-30	35-36	17-18	18-19	26-27	31-32	11-12	12-13

How congested will C-470 get?

By 2025, C-470 and the adjacent arterials will be in a congested condition nearly all day if no action is taken. The tolled express lanes will be un-congested at all times. With the tolled express lanes, the hours of congestion in the general purpose lanes and adjacent arterials is cut in half.

Will buses be able to use the express lanes?

RTD is not currently operating commuter bus service on C-470 due to unreliable travel times and congestion levels. RTD believes that commuter bus service on C-470 might be a viable option if congestion levels are sufficiently reduced to permit reliable service to its patrons. Express lanes would provide just that.

Will enough people use the express lanes?

Based on the value of time and the future demand, analysis shows that there will be good and varied usage of the express toll lanes.

Income vs. Stated Preference for Express Lanes

Response Type	Under \$35,000	\$35,000-\$59,999	\$60,000-\$99,999	\$100,000+
<i>Question: In general, do you think it would be an "excellent," "good," "okay," or "bad" idea for the Colorado Department of Transportation to fund the development and maintenance of additional lanes on C-470 by charging a toll for using the new express toll lanes described above?</i>				
"Excellent idea," "good idea," or "ok idea"	66%	66%	65%	76%
<i>Question: If traffic on the existing general purpose lanes of C-470 were congested, would you consider using express toll lanes to avoid congestion?</i>				
"Yes" or "maybe"	67%	67%	70%	80%

Will toll lanes prevent a future light rail transit alternative for the C-470 corridor? The addition of toll lanes, or general purpose lanes, will still provide enough right of way to allow for a future transit system outside the highway. Neither would allow for transit in the median.

Will the bike trail along C-470 be displaced? No. The only thing that will change is a relocation of the trail to the north. There will still be a bike trail. In fact, toll lanes and general purpose lanes both require similar modifications to the bike trail.

If toll lanes are added to C-470, will that mean other roads never get improved? The C-470 project does not assume non-compete clauses and but rather takes into account major improvements to the closest parallel facility (County Line Road).

Survey Data

C-470 Express Toll Lanes Market Demand Survey (May 2004):

67% of the commuters surveyed were very or somewhat supportive of the development of express toll lanes on C-470. 31% were non supportive and 2 % did not have an opinion.

70% of the commuters surveyed indicated they would consider using the tolled express lanes if the general purpose lanes were congested.

82% of the commuters surveyed indicated they had use toll highways in other parts of the Denver metropolitan area, such as E-470.

11% of the commuters surveyed indicated that they already had a transponder for toll highways in the Denver area; 43% of those survey indicated that they did not currently have a transponder, but they would be very or somewhat likely to get one if tolled express lanes were developed on C-470; 31% indicated they were not likely to get a transponder; and 15% did not have an opinion.

81% of the commuters surveyed indicated they would pay 20-30 cents per mile to use tolled express lanes on C-470 in an emergency or if they were late for an appointment.

56% of the commuters surveyed indicated they would pay 20-30 cents per mile to use tolled express lanes on C-470 if traffic in the free lanes of C-470 was not moving.

43% of the commuters surveyed indicated they would pay 20-30 cents per mile to use tolled express lanes on C-470 if there was heavy congestion on C-470.

21% of the commuters surveyed indicated they would pay 20-30 cents per mile to use tolled express lanes on C-470 if there was moderate congestion on C-470.

10% of the commuters surveyed indicated they would pay 20-30 cents per mile to use tolled express lanes on C-470 if there was light congestion on C-470.

In addition to the C-470 Express Toll Lanes Market Demand Survey, the Denver Chamber included two questions in Dr. David Hill's poll of 800 voters in October of 2004 regarding voter attitudes on tolling. The results were:

1. Preferred way of financing new highway construction to relieve traffic congestion:

- 5% - no opinion
- 23% - raise sales taxes
- 18% - raise gasoline taxes
- 37% - build toll roads
- 6% - raise property taxes
- 11% - none/other

2. View of toll roads as a way to finance new highway construction:

- 4% - no opinion
- 17% - very favorable
- 45% - somewhat favorable
- 15% - very unfavorable
- 19% - somewhat unfavorable

Overall: 62% favorable and 34% unfavorable

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Quick Facts About Tolling

- Tolling is being considered to add *new capacity* (new highways or additional lanes) that cannot otherwise be funded under current and projected transportation funding scenarios. Tolling of existing lanes is *not* being considered and is *not* allowed under law. (The only exception to this is the I-25 HOV/HOT lanes conversion project north of downtown Denver.)
- There are no “free roads”. Most roads are supported by motorists who pay gasoline taxes – whether they drive on a specific road or not! Toll roads are supported by those that choose to use them as limited or no gas tax revenue is required to build or maintain them. Those that use a toll road pay for it.
- There are 5,244 miles of toll roads in the U.S., operating in 35 states. Tolling has been in use in some form in America for more than 350 years.
- Studies indicate that toll roads are used by all socio-economic groups. The majority of users are not expected to use a toll/road lane for every trip. In Colorado, motorists will also have the choice to use the adjacent or nearby non-toll alternatives as well.

Why is there so much talk about tolling lately? Tolling is being considered as *part* of the solution to today’s transportation challenges. Funding for road repair and expansion is not meeting current demand. Today’s federal and state fuel taxes raise between two and three cents per mile—about half the level of fuel taxes during the 1960s when interstate highway construction was in full swing. With large increases in gas taxes unlikely, building toll roads becomes a viable alternative to address ever-worsening highway congestion.*

It is estimated that between now and the year 2030, Colorado needs to invest approximately \$123 billion just to sustain our existing statewide transportation system. That compares to only about \$75 billion in anticipated revenue. That equates to an estimated \$48 billion dollar shortfall – just to maintain the level of service on the highways we have now!

- By the year 2030, the percentage of congested lane miles in Colorado is expected to spike by 161 percent.
- Traveler delay due to congestion in the Denver, Boulder and Colorado Springs areas now costs more than \$1 billion, or \$1,426 per traveler annually.

Why should I have to pay to use a toll road? Tolling is about choice—it only presents an alternative. It allows people to choose whether or not to use a toll road based on how bad

traffic is and what they feel their time is worth. No one has to use a toll lane if they don't want to. There will always be a non-toll alternative to use.

One of the greatest benefits of a toll lane/road is that it offers a predictable travel time compared to a non-toll alternative. Toll lane prices can vary by level of congestion to ensure that traffic always flows freely, unlike an unpredictable average highway lane. A toll lane is a reliable, non-congested alternative to adding a "free" lane that will likely become congested later on. Having a predictable toll alternative is important to businesses and emergency responders, and may be important to many individuals as well.

Think of tolling like you would mail service. You can use the US Postal Service and pay a fee to mail your package with the knowledge it will arrive in a few days. However, if you absolutely need for your package to get there quickly or by a certain date, you may opt to use FedEx and pay a little bit more for that service but have a guarantee that it will get there when you need it to.

What about lower income people who can't afford to pay to drive on toll roads? Studies from existing toll roads show that people of all income levels choose to drive on toll lanes. Consider a few examples of when it might be worth it for even the lowest income person to choose to pay a toll: someone who is late for work and risks losing their job or someone who needs to pick up a child from day care on time.

What if I can't afford to use the lanes every day? The majority of users of existing toll lanes in other states do not use the lanes for every trip. It is expected that the majority of users will use toll lanes just some of the time. Those are the times when people really need a congestion-free, reliable trip. Toll lanes provide a choice for a parent who doesn't want to be late to their child's sporting event, or an employee who has an important meeting. The adjacent "free" lanes will always provide another option for those who choose not to use the toll lanes.

What happens if there isn't enough revenue to pay the bonds issued to build a toll road? The state and Colorado taxpayers have no responsibility for or obligation to repay the debt. Only bond holders would be affected. Bond holders have the option of restructuring the financing and/or management of the facility.

Doesn't funding for toll road construction and maintenance divert much needed funding away from existing roads? Not at all. By making the road financially self-sufficient, tolling actually allows states and localities to devote their limited resources to build and maintain other important transportation facilities.

Aren't drivers overwhelmingly against tolling? Studies and survey data suggests the public has a more positive attitude toward tolls than they do taxes. People tend to like the concept of user fees that they pay only when they use a facility rather than paying a tax that goes to something they may not use. Individual support for tolling is directly linked to perceived benefit. For example, if a toll road noticeably alleviates congestion, the public is likely to be in favor of paying the fee. When the choice is between a "toll road" or "no road", public opinion can shift strongly.

States with recent or newly created public or private toll road authorities;
Alaska, California, Colorado, Florida, Louisiana, Minnesota, North Carolina, South Carolina, Texas, Virginia and Washington

States considering or in the process of creating toll authorities:
Arkansas, Missouri and Utah

States adding toll lanes:
California, Colorado, Florida, Illinois, Maine, New Jersey, New York, North Carolina, Ohio, Oregon, Texas and Virginia

Why don't tolls just disappear when enough has been collected to pay for a particular project? Toll facilities, like houses, suffer wear and tear over time. And much like a house, failure to maintain the property, and simply using the facility and just paying off the original debt leaves the user with a dilapidated, worn out facility that is in need of serious repairs or construction. While a homeowner might choose to let repairs lag, a toll facility has a very strong interest in maintaining the service it provides to customers in the form of a safe and efficient roadway.

Won't less congested toll roads turn into racetracks for commuters who tend to exceed the speed limit? Not at all. Toll roads are well patrolled and safe. The need to keep traffic moving smoothly is a primary goal of every facility.

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