# WE IMPROVE YOUR JOURNEY



# E-470 ROUTE MAP LEGEND E470 E470 DENVER ARAPAHOE COUNTY C-470



E-470 FACING WEST NEAR COLORADO BLVD

# A NOTE FROM EXECUTIVE DIRECTOR, TIM STEWART

#### E-470 Friends and Community,

The year 2017 was filled with milestones and progress for E-470. From the completion of the Road Widening Project to the development and approval of our first long-term Master Capital Plan, to our continued ability to provide a superior level of service to our customers and tolling partners, we have made significant strides toward our goals as an organization.

By freezing ExpressToll rates for the coming year, and potentially through 2020, we are making a commitment to our customers to ensure that E-470 is accessible, responsive to market conditions and a reliable travel option. Collectively with the Board of Directors, I am dedicated to the future of mobility and transportation choices in Colorado. It is with this enthusiasm and continued assurance that we will work on the growth of toll interoperability across the state and surrounding regions, and on initiatives to explore technological advances with a continued focus on safe and efficient transportation.

As we transition into 2018, E-470 is positioned as a national leader in tolling services and technology. We embrace the work ahead with our local transportation partners, customers, neighbors and tolling community to advance mobility solutions and options for all of Colorado while working to always "Improve Your Journey". Thank you for your continued support of our efforts.

Sincerely,

Tim Stewart

E-470 Executive Director

# E-470 PUBLIC HIGHWAY AUTHORITY LEADERSHIP BOARD OF DIRECTORS



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City of Thornton



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**DAVID KRISTICK**Deputy Executive
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**SANDRA BISH**Director of Information
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**JASON MYERS**Director of Finance



**NEIL THOMSON**Director of
Engineering and
Roadway Maintenance

# E-470: A FOUNDATION IN REGIONAL COLLABORATION

The 75-mph E-470 toll road forms a 47-mile semi-circular beltway around metropolitan Denver's eastern area and provides access to Denver International Airport. E-470 connects in the south to the I-25/C-470 interchange in Douglas County, and in the north to the I-25/Northwest Parkway interchange in Adams County. The highway was built in segments, with the first segment opening in June 1991 and the final segment opening in January 2003.

The toll road has been financed. constructed, operated and governed by the E-470 Public Highway Authority and is not taxpayer funded. The Authority is a political subdivision of the State of Colorado, operating as an enterprise under state statute and thus is self-sustaining, generating its own revenues without recourse to taxpayer funds. The Authority is composed of its eight member jurisdictions, including five municipalities (Aurora, Brighton, Commerce City, Parker and Thornton) and three counties (Adams, Arapahoe and Douglas). Each jurisdiction has one voting member on the E-470 Board of Directors.

## **Non-Voting Local Governments**

- City of Arvada
- City and County of Broomfield
- City of Greeley
- City of Lone Tree
- Weld County

#### **Non-Voting Agencies**

- Colorado Department of Transportation
- Denver Regional Council of Governments
- Regional Air Quality Council
- Regional Transportation District



E-470 FOUR LANE TRAFFIC IN 2016 PRIOR TO ROAD WIDENING PROJECT



E-470 SIX LANE TRAFFIC IN 2017 AFTER THE ROAD WIDENING PROJEC

## "WE IMPROVE YOUR JOURNEY"

## PROVIDING RELIABLE AND ACCESSIBLE MOBILITY OPTIONS

2017 was a year of many firsts for E-470. Milestones were focused on rewarding loyal customers, as well as preparing for growing traffic numbers and the future of transportation solutions in Colorado.

#### REWARDING LOYAL CUSTOMERS WITH TOLL RATE ADJUSTMENTS

In a first for the Authority, E-470 announced a toll adjustment freezing toll rates for ExpressToll customers for up to three years (2018-2020) on E-470 based on a toll rate study conducted in 2017. The ExpressToll rates are effectively locked in, pending annual Board approval. Additionally, the toll rate on E-470 between I-70 and Peña Boulevard (Toll Plaza C) was reduced by \$0.25 to align toll pricing with demand in the area and to ease congestion on neighboring roadways.

Furthermore, the premium that License Plate Toll (LPT) customers pay over ExpressToll customers has increased due to inequities in operational and collection expenses. E-470 hopes the rate adjustment will incentivize LPT customers to sign up for an ExpressToll account to benefit from savings of approximately 35%. The ExpressToll and LPT adjustments for E-470 went into effect January 1, 2018.

#### LOOKING AHEAD WITH A MASTER CAPITAL PLAN

The E-470 Board unanimously approved the adoption of a Master Capital Plan for the Authority at the December 2017 Board meeting. The benefits of the master planning process will be to identify, prioritize and guide capital rehabilitation and expansion needs for the toll facility. The plan will expand upon previous study efforts incorporating long-range forecasting, coordination with local and regional transportation planning and focus on individual interchanges in addition to the widening of E-470 in some areas.

The Master Capital Plan is intended to be a living document that will be updated annually to respond to changing conditions, including traffic volumes, growth and development in the corridor, local and regional mobility planning and evolving transportation technology.

#### PAVING THE WAY

- The E-470 Board of Directors voted to terminate the Highway Expansion Fee, a one-time fee placed on new construction building permits issued along the E-470 corridor, first introduced in 1989. The elimination of the fee is a step towards fostering economic growth and vitality along the E-470 corridor, and was effectively removed in July 2017.
- The Board of Directors agreed to provide additional funding for the proposed Tower Road and Peña Boulevard Interchange, which was originally agreed upon and funded in 2014 with an intergovernmental agreement (IGA) with Commerce City. The ramp will improve access and promote commercial development in the area, and is expected to be completed before the end of 2018.
- Traffic and net toll revenues surged to new highs in 2017, further bolstering E-470's already strong financial foundation. Traffic, as measured in the number of toll transactions, grew 4% over 2016, and net toll revenues grew 11% over 2016.
- Bond debt service coverage substantially exceeded the required ratio.
   Wall Street took note of these successes, rewarding E-470 with a bond ratings upgrade from Standard & Poor's (S&P) and Fitch in conjunction with the 2017 bond refunding transaction of \$138.6 million.

Beyond operations and maintenance, E-470 is committed to reinvesting toll revenue to improve safety and reliability on the roadway. In 2017 the Authority continued to commit funds for additional safety measures. Programs over the past decade have included installation of deer fence, median rehabilitation and erosion prevention, bridge rail preservation, cable barrier repairs and wrong-way driver initiatives that all contribute to the safest possible journey for E-470 customers.

#### **INNOVATION IS KEY**

- Variable message signs (VMS) located at several locations across the E-470 corridor were upgraded with full-color digital boards featuring a customizable display, allowing E-470 to create more dynamic safety alerts and messaging. The signs use LED technology, making them more visible regardless of light levels and weather conditions. They can also be controlled at ground level, eliminating the need to close road lanes for maintenance, ultimately improving efficiency and safety for maintenance crews and motorists.
- E-470 is providing support for a test track and study with the Colorado Department of Transportation (CDOT) and Arrivo, a next generation transportation company engineering a hyperloop-inspired infrastructure and vehicle system. The test track and study will analyze a possible first ever Arrivo super-urban network to serve the greater Denver region. As a first phase, Arrivo and CDOT will conduct a feasibility study in conjunction with construction of the Arrivo test site adjacent to E-470, where the proposed first commercial leg of the Denver network may be built.
- E-470, with support from a Charge Ahead Colorado grant, now offers electric vehicle (EV) drivers the ability to "recharge at no charge" on two DC fast charge spots located at E-470's headquarters. E-470's rooftop solar power installation provides a portion of the electricity for the units. The sustainable energy initiative earned E-470 a State of Colorado EV Wired Workplace Award.
- ExpressToll, Colorado's "One Stop Toll Shop", celebrated 26 years of providing exceptional customer service, billing and back-office support for Colorado tolling facilities. The ExpressToll Service Center has processed ExpressToll transactions for the Northwest Parkway Public Highway Authority (NWPKY) since 2003, and all toll transactions for CDOT and the High-Performance Transportation Enterprise (HPTE) on the Express Lanes since 2006. The interoperability between E-470, CDOT, HPTE and NWPKY continues to provide drivers with mobility choices and a one-stop toll solution for all Colorado tolling facilities.



FULL COLOR VARIABLE MESSAGE SYSTEM SIGN



ARRIVO ANNOUNCES TEST SITE ADJACENT TO E-470



DC FAST CHARGE ELECTRIC VEHICLE CHARGING STATION

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TOLLING. MOVING SMARTER.

# THE INTERNATIONAL BRIDGE, TUNNEL AND TURNPIKE ASSOCIATION ANNOUNCES TIM STEWART AS 2018 PRESIDENT

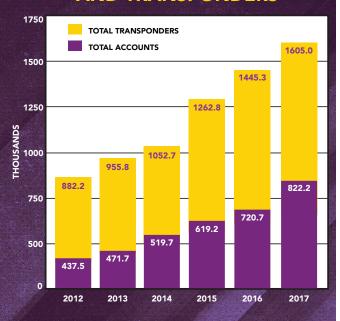
On September 12, 2017, Tim Stewart, Executive Director of E-470, was elected to serve as the 2018 President of the International Bridge, Tunnel and Turnpike Association (IBTTA) by its members.

Stewart's term began January 1, 2018. Stewart has served as a member of the international association's Executive Committee for the past two years and on the Board of Directors for four years.

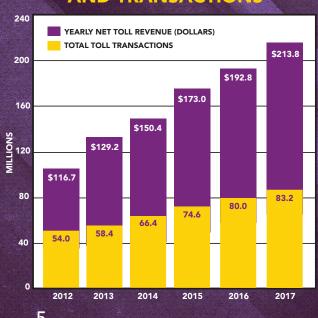
"We are thrilled that Tim Stewart will serve as the president of the association for 2018, bringing a wealth of knowledge to the developing infrastructure debate at home and around the globe," said Patrick Jones, Executive Director and CEO of IBTTA.

"Tim's experience leading Colorado's largest tolling system will help guide the international mobility conversation and bring to the table innovative strategies to foster collaboration among our members to meet the global transportation challenges of the future."

# **EXPRESSTOLL ACCOUNTS AND TRANSPONDERS**

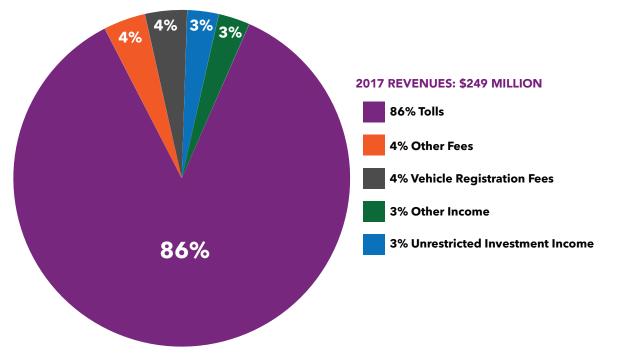


# E-470 YEARLY TOLL REVENUE AND TRANSACTIONS



# **2017 FINANCIAL OVERVIEW**

ervice	168,666,250 96,380,350	202,334,239 95,246,810	MINIMUM REQUIRED	BUDGETED COVERAGE	ACTUAL COVERAGE
ervice	168,666,250	202,334,239	MINIMUM	BUDGETED	ACTUAL
	-	(1,066,228)			
	(51,786,750)	(46,165,326)			
	220,453,000	249,565,793	1.30		
2	017 BUDGET	2017 ACTUAL	4.00		
OTAL	220,453,000	\$249,565,793			
	5,340,000	8,854,627		1./5	
	6,000,000	6,927,889		1 75	
	10,257,000	10,510,715			
	6,775,000	9,506,913			2.12
Ş	\$ 192,081,000	\$ 213,765,649			
2	017 BUDGET	2017 ACTUAL	2017 DEB	T SERVICE C	OVERAGE
	OTAL	10,257,000 6,000,000 5,340,000  **COTAL \$220,453,000  2017 BUDGET 220,453,000	\$ 192,081,000 \$ 213,765,649 6,775,000 9,506,913 10,257,000 10,510,715 6,000,000 6,927,889 5,340,000 8,854,627  **COTAL \$220,453,000 \$249,565,793  2017 BUDGET 2017 ACTUAL 220,453,000 249,565,793 (51,786,750) (46,165,326)	\$ 192,081,000 \$ 213,765,649 6,775,000 9,506,913 10,257,000 10,510,715 6,000,000 6,927,889 5,340,000 8,854,627  **COTAL \$220,453,000 \$249,565,793  2017 BUDGET 2017 ACTUAL 220,453,000 249,565,793 (51,786,750) (46,165,326)	\$ 192,081,000 \$ 213,765,649 6,775,000 9,506,913 10,257,000 10,510,715 6,000,000 6,927,889 5,340,000 8,854,627  **COTAL**  2017 BUDGET 2017 ACTUAL 220,453,000 249,565,793 (51,786,750) (46,165,326)  1.30



# **2017 FINANCIAL STATEMENTS**

#### STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

Operating revenues	As of December 31, 2017
Tolls	\$ 213,765,649
Other fees	9,506,913
Tolling services	4,939,181
Total operating revenues	228,211,743
Operating expenses	
Toll road operations	40,379,073
Salaries and benefits	7,422,115
General and administrative	2,791,638
Total operating expenses before depreciation	50,592,826
Depreciation	37,831,366
Total operating expenses	88,424,192
Operating income	139,787,551
Nonoperating revenues (expenses)	
Vehicle registration fees	10,510,715
Investment income	7,416,945
Net change in fair value of derivative instruments and investments	(1,437,963)
Interest expenses	(96,378,233)
Other income	4,720,552
Total nonoperating expenses, net	(75,167,984)
Change in net position	64,619,567
Net position, beginning of year	(484,232,477)
Net position, end of year	\$ (419,612,910)

#### STATEMENT OF NET POSITION

Assets and Deferred Outflows of Resources	As of December 31, 2017
Current unrestricted assets	\$ 201,154,684
Current restricted assets	58,604,634
Capital assets (net of accumulated depreciation)	618,593,181
Other noncurrent assets	200,102,207
Total assets	1,078,454,706
Deferred outflows of resources	78,298,009
Total assets and deferred outflows of resources	1,156,752,715
Liabilities	
Other current liabilities	45,267,072
Current bonds payable	89,630,000
Other noncurrent liabilities	45,613,180
Noncurrent bonds payable	1,395,855,373
Total liabilities	1,576,365,625
Net Position	
Net investment in capital assets	43,757,482
Restricted for debt service	3,242,173
Unrestricted	(466,612,565)
Total net position	(419,612,910)
Total liabilities and net position	\$1,156,752,715

## **FINANCIAL HIGHLIGHTS**

## RECORD REVENUES; OPERATING COSTS BELOW BUDGET

Traffic and net toll revenue set new records in 2017. The increase in toll revenues reinforces E-470's ability to meet its bond debt obligations while having the reserves required to reinvest in the road. This financial security ensures the Authority can continue to provide the driving experience customers expect in return for the toll they choose to pay.

#### **2017 FINANCIAL HIGHLIGHTS**

- Traffic, as measured by the number of toll transactions, increased 4% over 2016, with transactions rising from 80.0 million to 83.2 million.
   It was the eighth straight year of traffic growth and broke the annual record for transactions in a year.
- E-470 broke its all-time, single-day traffic record. The new daily record is 311,366 transactions, set on July 14, 2017.
- A total of 128,958 new ExpressToll accounts were opened in 2017, bringing the total number of accounts to 822,154. Total transponders outstanding at year-end were 1,605,030.
- The rise in traffic, coupled with a 2017 toll increase, resulted in an 11%, \$21.0 million, increase to \$213.8 million in net toll revenues.
- The 11% growth in net toll revenues was sufficient to meet E-470's financial obligations, including its 2017 \$95.2 million debt service.
- Operating costs were \$46.2 million in 2017, compared to the \$51.8 million budgeted. The 2017 actual operating costs compared to \$42.3 million in the prior year, a 9% increase. A portion of the Authority's increased operating costs are directly related to processing and collecting the growing volume of tolls. E-470's operational costs is also a result of the growth in ExpressToll services provided to other tolling agencies.

#### STABLE DEBT AND CASH MANAGEMENT

E-470 has approximately \$1.5 billion in outstanding bond debt. In 2017, E-470 made \$95.2 million in debt service payments to bondholders, and is scheduled to increase this amount annually until 2020. The Authority has a call opportunity in 2020 to level future debt service and restructure the debt curve.

The rise in net toll revenues helped contribute to three ongoing principal financial goals: (1) continue a stable debt management program with sufficient reserves and liquidity, (2) avoid issuing additional debt and (3) ensure



E-470 EARLY MORNING COMMUTER TRAFFIC

the capability to self-fund capital projects. In 2017, E-470 maintained sufficient reserves to self-fund its planned capital projects. Those reserves were budgeted and used to self-fund the multi-year, approximately \$90 million Road Widening Project between Parker Road and Quincy Avenue completed in late 2017, as well as other capital projects.

#### **DEBT SERVICE COVERAGE RATIO SURPASSED**

Debt service coverage, a critical financial metric, exceeded the Master Bond Resolutions requirement of producing net income at least 1.30 times the aggregate senior debt service payment for the year. E-470 had budgeted for a 2017 ratio of 1.75 and achieved a year-end ratio of 2.12, which was the highest E-470 has ever achieved, an accomplishment bound to engender even more confidence in E-470 among bond investors.

#### **BOND RATING AGENCIES DEMONSTRATE CONFIDENCE IN E-470**

The bond investment community continued to show confidence in E-470 bonds. E-470 received two rating upgrades and a rating reaffirmation in 2017 in conjunction with the bond refunding transaction of \$138.6 million.

In early 2017, S&P and Fitch Ratings, two of the nation's top three bond rating agencies, upgraded the E-470 Public Highway Authority toll revenue bonds to A- and BBB+, respectively. The ratings outlook were both stable. Also, Moody's Investors Service reaffirmed the Authority's A3 rating with a stable outlook. The improved bond ratings ultimately resulted in lowering the interest costs on E-470's bond debt, specifically the 2017 Series bonds.

#### 2017 BOND TRANSACTIONS AND FUTURE PLANS

A total of \$138 million in senior revenue bonds were refunded on March 1, 2017 including the 2017A Series bonds of \$72 million and 2017B Series bonds of \$66 million. The bonds are variable rate debt and are exempt from federal, state and local taxes for Colorado residents, and were highly over subscribed from bond investors demonstrating a high interest in E-470's bond structure and overall credit.

## E-470 ROAD WIDENING PROJECT REACHES COMPLETION

#### CONTINUING TO PROVIDE SAFE AND RELIABLE TRAVEL

E-470's Road Widening Project, aimed at providing improved mobility by adding a new third lane in each direction along an eight-mile stretch of the tollway, was officially completed in December 2017. The project completed on budget totaling approximately \$90 million over a three-year period, which was paid in full from the Authority's capital reserve funds. The expansion between Quincy Avenue and Parker Road was a proactive step allowing E-470 to accommodate projected growth in the coming years and to continue to maintain a free flow of traffic for customers. The project also ensures that the roadway is providing maximum safety benefits to drivers by facilitating stable traffic conditions.

A 2014 study of the E-470 Public Highway Authority indicated the section of roadway between Quincy Avenue and Parker Road would need to be widened by 2018 in order to be ahead of impacts to the current level of service (LOS) for the roadway. The Authority began work on the project in the spring of 2016. The new lanes opened to the public on October 16, 2017, two months ahead of the originally projected schedule.

The project also included the widening of eleven bridge structures and the construction of a new regional bike and pedestrian trail along the west side of E-470 between Quincy Avenue and Ireland Way, which opened to the public on December 1, 2017. The trail construction lays the groundwork for future connections and travel options in the area through partnerships with local jurisdictions.





E-470 ROAD WIDENING PROJECT DURING CONSTRUCTION (ABOVE





E-470 ROAD WIDENING PROJECT POST-CONSTRUCTION

PEDESTRIAN AND BIKE TRAIL (LOWER)

#### **STEWARDS TO THE COMMUNITY**



The E-470 Transportation Safety Foundation, a nonprofit organization that raises its own funds, awarded seven, \$2,500 transportation safety grants to support teen driving education, seat belt awareness, car seat safety programs and transportation for individuals with intellectual disabilities. Every other year, E-470 helps sponsor a golf tournament to benefit the foundation. The 2017 tournament raised over \$65,000.



The E-470 Good Guys, a staff volunteer group, assisted a wide variety of nonprofit organizations, ranging from the Food Bank of the Rockies to Colorado State Patrol Family Foundation and more than ten others. The Good Guys also conducted several events throughout the year to raise funds that were donated to local charities. These events included pizza and burrito fundraising, a chili cook-off, a bake sale and many more.

#### CUSTOMER EDUCATION PROGRAM LAUNCHES STATEWIDE

E-470 launched a statewide educational program in 2017 after receiving feedback from stakeholders that ExpressToll—Colorado's "One Stop Toll Shop"—and its foundation in interoperability are not widely understood or known among Colorado drivers. The program is aimed at educating Colorado drivers about mobility solutions and options, including the benefits of tolling and how they can best utilize E-470 and ExpressToll services.

As part of the program, E-470 distributed thousands of brochures to Colorado's welcome centers, rental car agencies, Denver International Airport and other business partners. E-470 took the program live by making presentations to local chambers of commerce, rotary clubs, real estate groups, transportation organizations and other stakeholders. The successful customer education program will continue through 2018.



## **TOLLING SERVICES PUTTING COLORADO DRIVERS FIRST**

E-470 is committed to advancing improvements that make using toll facilities easier and more accessible for Colorado drivers, and ensuring that those toll facilities are providing valuable connectivity across Colorado's transportation system.

#### **NEW EXPRESSTOLL ACCOUNT TYPE CREATED**

In the spring of 2017, ExpressToll, powered by E-470, worked with CDOT and HPTE to create a new HOV-only account type within the toll collection system. The need for the new account type was a result of the April 2016 Colorado House Transportation and Energy Committee vote on Senate Bill 16-123 (SB 123), which proposed eliminating a requirement for Switchable HOV Transponders on HOV lanes.

The Committee's vote prompted the creation of an account type for motorists, which allows access to HOV Express Lanes without having to purchase a Switchable HOV Transponder or pay the \$35 in prepaid

tolls for an ExpressToll account. CDOT and HPTE now offer the Switchable HOV Transponders at no cost to drivers who are planning to only carpool in the HOV Express Lanes. Drivers who had already purchased a Switchable HOV Transponder and only used it in carpool mode were issued a refund.

In addition, motorcycles are no longer required to have a transponder or an ExpressToll account to use the HOV Express Lanes for free.

#### **EXPRESS LANE EXPANSIONS FROM THE NORTH AND SOUTH**

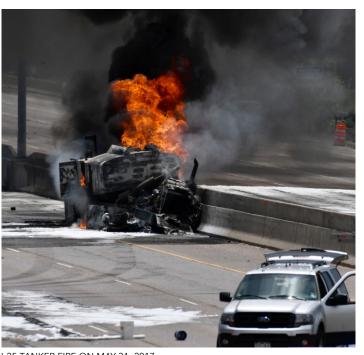
As the footprint for tolling expands on the north and south end of the Denver Metropolitan region, E-470 is committed to supporting statewide mobility and transportation solutions with CDOT's Express Lanes expansion efforts.

E-470 signed two task orders with CDOT and HPTE in 2017 for the North I-25 Segment III Express Lanes and the C-470 Express Lanes to improve safety and capacity, and to enhance driver choice. Both of these projects have direct connectivity to the E-470 roadway. Once completed, ExpressToll will provide tolling services and customer support for these toll facilities as it does for all Colorado Express Lanes.

#### **TOLLS DISMISSED DURING I-25 TANKER FIRE**

For close to 17 hours from May 31 to June 1, 2017, traffic was optionally detoured to E-470 while CDOT and emergency crews responded to a fuel tanker fire on I-25 near the Arapahoe Road exit. Tolls were waived on E-470 during this time for all customers in both northbound and southbound directions to help keep traffic flowing safely. E-470 appreciated the opportunity to partner with CDOT on assisting them with the emergency and helping relieve congestion in the Denver Metro area.





CDOT'S US 36 EXPRESS LANES

I-25 TANKER FIRE ON MAY 31, 2017

## **EXPRESSTOLL BY NUMBERS**

ExpressToll accounts opened in 2017: 128.000

Total active ExpressToll accounts in 2017: 822.000

Total outstanding ExpressToll transponders: 1,635,940

Total HOV transponders distributed: 163,309

Inbound customer service calls: 919,000 (up 3% from 2016)

Image transactions processed: 73,000,000 (up 23% from 2016)

# ANNUAL CUSTOMER SERVICE EXPERIENCE SURVEY

Nearly 69,000 customers responded to E-470's 2017 Annual Customer Experience Survey, up from 57,000 in 2016.

The questions cover customer demographics, communication channels, payment methods, road conditions, technical topics and satisfaction with E-470 and ExpressToll.

#### **SURVEY HIGHLIGHTS:**

**ExpressToll service satisfaction rating:** 

4.5 (out of a possible five)

License Plate Toll service satisfaction rating:
4.7 (out of a possible five)

Road conditions satisfaction rating:

4.5 (out of a possible five)

The most important item to customers: Safety

The #1 reason customers choose E-470:
Saves Travel Time

ives fraver rime

