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2021 **ANNUAL REPORT**



30 YEARS
of **RESILIENCE**

E-470.COM

30 YEARS OF RESILIENCE

It started with the thought, "If you build it, they will come." When E-470's founders from Adams, Arapahoe, and Douglas counties came together in 1985 to form the E-470 Public Highway Authority, they had no state or federal funds, only a vision – to build a regional roadway that would ultimately connect the I-25 and C-470 interchange in the south to the I-25 and the Northwest Parkway interchange in the north. When people initially thought adding a beltway in this part of town would be a "road to nowhere," the Authority's founders were resilient, working together to cast their vision for the region. The more information people had about E-470, the more likely they were to vote for a bond measure to finance and build it to provide a better connection in the east Denver-Metro area. The voters approved! The first segment of E-470, connecting to I-25 on the southern end, opened to traffic on June 1, 1991, at 3:30 p.m. So, this past year marked 30 years of excellence!

The E-470 Public Highway Authority would like to thank its founders for remaining resilient on the long road of turning their vision into a reality. Thirty years later, E-470 stretches 47 miles, encompasses three counties and five municipalities, and has expanded service to over three million Coloradans annually. To celebrate this incredible achievement, the Authority marked its 30-year milestone on June 30, 2021, at 3:30 p.m. by awarding its first 30 ExpressToll customers who drove by Mile Marker 30 with a \$30 toll credit and even gave one lucky ExpressToll customer a \$300 toll credit.

While a lot has changed along the tollway over 30 years, E-470's motto remains the same: "We improve your journey." Like its founders, the Authority continues to work toward this guiding principle, as it tackled many challenges over the years which included surviving the Great Recession, becoming one of the first all-electronic toll roads in the United States with non-stop cashless tolling, and expanding its Backoffice services to other Colorado tolling facilities.

This same remarkable achievement was displayed again recently when faced with a global pandemic. In 2020 and continuing into 2021, the pandemic brought government lock downs, mandates, and business decisions that continued to keep many Coloradans from commuting to the office, while personal and business travel also remained limited. This impacted traffic volumes on E-470; however, in 2021, traffic began slowly increasing again with more than 76 million total toll transactions reported, which was 31% above 2020 levels. While other toll roads had to reconsider toll rates and prices due to the pandemic's impact on traffic volumes, in November 2021, the Authority's Board of Directors approved a new toll rate schedule policy based on the financial condition of the Authority and future planning to lower toll rates at all E-470 mainline tolling points beginning in 2022.

Traffic volumes on E-470 are projected to return to pre-pandemic levels in the near future, and the Authority will keep driving forward with accomplishments like these to continue serving as a partner for growth in the community and to provide value and savings to its customers – a pilgrimage started by its founders in 1985.



Groundbreaking for the first segment of E-470 on December 14, 1988



E-470 PUBLIC HIGHWAY AUTHORITY LEADERSHIP

BOARD OF DIRECTORS



JOHN DIAK
Chair
Council Member,
Town of Parker



FRANÇOISE BERGAN
Vice Chair
Mayor Pro Tem,
City of Aurora



JAN PAWLOWSKI
Treasurer
Council Member,
City of Brighton



CRAIG HURST
Secretary
Council Member,
Commerce City



BILL HOLEN
Commissioner,
Arapahoe County



JESSICA SANDGREN
Mayor Pro Tem,
City of Thornton



GEORGE TEAL
Commissioner,
Douglas County



CHAZ TEDESCO
Commissioner,
Adams County

E-470 EXECUTIVE LEADERSHIP



BEAU MEMORY
Executive Director



JESSICA CARSON
Director of Tolling
Operations



KEN SMITH
Director of Information
Technology

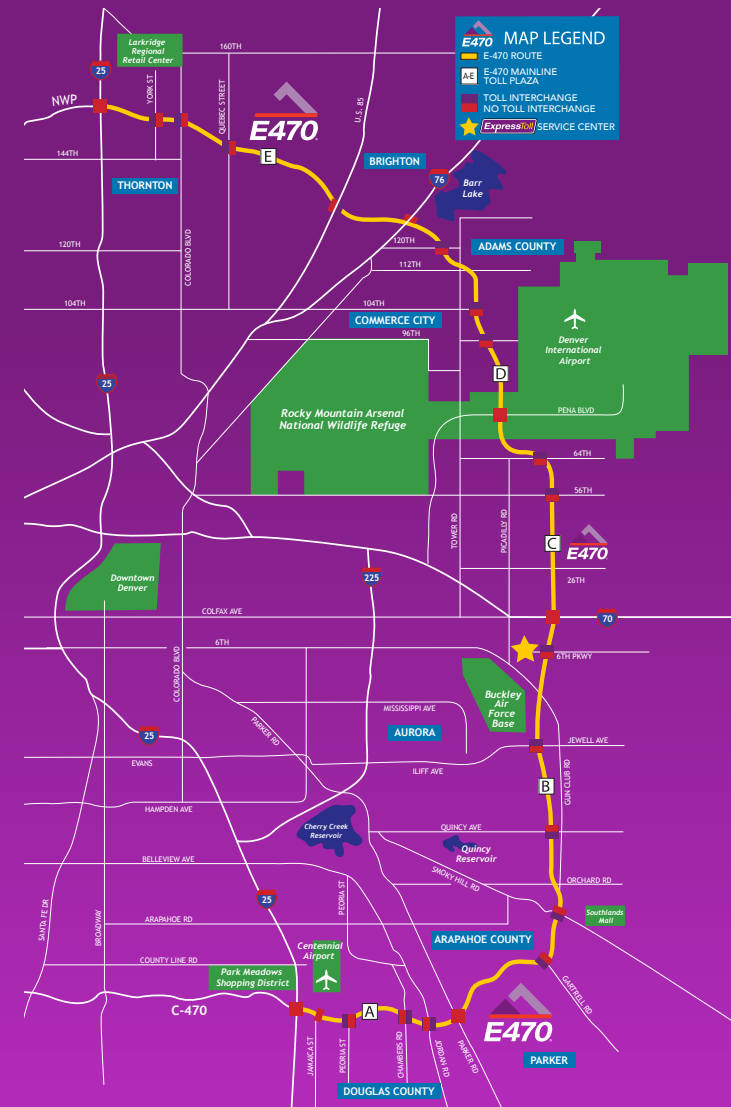


JASON MYERS
Director of Finance
and Administrative
Services



NEIL THOMSON
Director of
Engineering and
Roadway Maintenance

E-470 ROUTE



TRANSITION IN E-470 LEADERSHIP

During his six years as the Authority's Executive Director, Tim Stewart seized opportunities to make E-470 more than just a tollway, leveraging the Authority to serve as a partner in the community and a pillar of the region. At the end of 2021, Stewart made a difficult decision and announced he was stepping away from his role to move back home to Oklahoma and tend to family matters.

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It has been such an honor to work with a very collaborative and supportive Board, dynamic and extremely talented staff, engaged and progressive leaders in the

region, tolling and business partners in the region and industry professionals from around the world. I am thankful, working with these great contributors, that we have continued to collectively improve Colorado, the region we serve and most importantly the journey for the many customers that choose E-470.

– TIM STEWART,
former E-470 Executive Director

To continue guiding E-470 on the path Stewart set forward, E-470's Board of Directors conducted a nationwide search in 2021 and selected **Beau Memory** to continue leading the Authority on its mission to “improve your journey” while embracing the rapidly evolving transportation landscape in Colorado. Memory joins the Authority from North Carolina where he served as the Chief Operating Officer and Chief Deputy Secretary of the Department of Transportation (NCDOT), overseeing one of the largest state-maintained highway systems in the nation with an annual operation and construction budget of more than \$4 billion. Memory spent his career in the transportation industry, serving in leadership roles in the public and private sectors. From 2015 to 2019, he served as the Executive Director of the N.C. Turnpike Authority where he oversaw the construction, completion, and successful opening of the Monroe Bypass. In addition, Memory was twice awarded the International Bridge, Tunnel and Turnpike Association's President's Award, the highest recognition in the tolling industry. His extensive experience will build upon the successes E-470 is nationally known for, such as becoming one of the first all-electronic, non-stop tollways in the country.

OPPORTUNITIES FOR SAVINGS

Even with less traffic in 2021, the Authority was still able to address financial challenges without impacting toll rates. In 2021, rates remained frozen to continue providing customers with cost-effective rates while fulfilling its obligations and planning for the future.

BOARD OF DIRECTORS APPROVED TOLL RATE REDUCTIONS BEGINNING IN 2022

In November 2021, E-470's Board of Directors approved toll rate reductions that now provide a \$0.05 decrease at all E-470 mainline plazas except for Toll Plaza A, which was decreased by \$0.10 on the southern end of the tollway in Douglas County. Customers may see another \$0.05 and \$0.10 reduction in 2023 and 2024, pending staff review and board approval each year. With recovery from the pandemic ongoing, gradually decreasing toll rates over a potential three-year period allows the Authority to reassess rates and cash flows annually and adjust as needed due to recovery impacts.



DISCOUNTS FOR VEHICLES WITH THREE OR MORE AXLES EXTENDED THROUGH END OF 2022

The new toll rate policy also laid the groundwork to help Colorado businesses continue to grow and strengthen. The policy package included the extension of a two-year pilot program E-470 developed in partnership with the Colorado Motor Carriers Association which began in 2020. The program offers additional discounted toll rates on E-470 for vehicles carrying extra weight from cargo (three or more axles) with an ExpressToll account. The toll rate structure for these customers includes a 5% discount on multi-axle rates on all E-470 mainline tolling points (excluding ramps) and an additional 20% discount between 9 a.m. to 12 p.m. These rates were adjusted in 2022 with the new baseline two-axle toll rates from the November Board approved policy and will be reassessed for continued reduction in 2023 and 2024.



PARTNERSHIP FOR GROWTH

With many new developments popping up along the tollway, E-470 continues to invest in the communities it serves to support growth in the region.

ROADWAY WIDENING COMPLETED: QUINCY AVENUE TO I-70

In 2021, E-470 completed a cash funded roadway widening project from Quincy Avenue to I-70, which added a third travel lane in each direction to help move more people in this growing part of the region. The project also added new on/off ramps, new traffic signals, widened bridges, improved storm water drainage, and a freshly paved asphalt surface to provide a smoother ride. In addition, the widening included a six-mile extension to the High Plains Trail that runs along the west side of the tollway. A 10-foot-wide multi-use path was added for people on bikes and on foot, which now serves as a north-south connection for residents in Arapahoe and neighboring counties. The project spanned over two years for a total cost of \$94.4 million, which was under budget and funded from Authority capital reserves as planned.



From left: Arapahoe County Commissioner Jeff Baker, Aurora Mayor Mike Coffman, Arapahoe County Commissioner Bill Holen, and former E-470 Executive Director Tim Stewart.

MOVING MORE PEOPLE AT INTERCHANGES

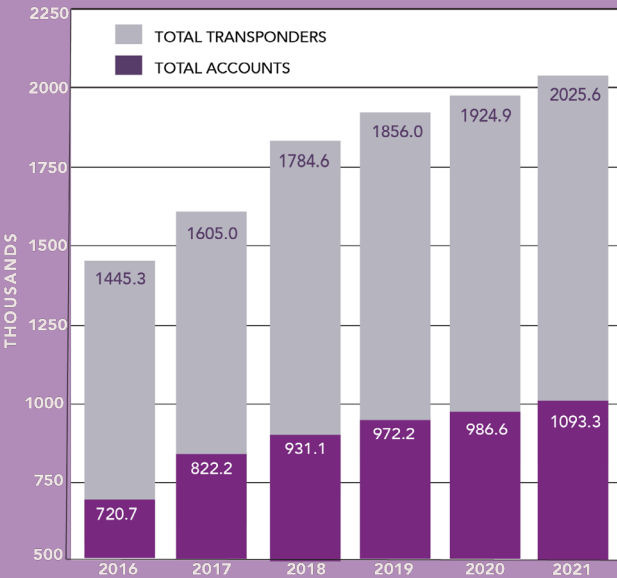
As part of the roadway widening project, E-470 partnered with Arapahoe County and the City of Aurora to help ease congestion at the intersection of Quincy Avenue and Gun Club Road. In the summer of 2021, E-470 joined local leaders from its member jurisdictions for a ribbon-cutting ceremony - a symbol of a true collaboration. E-470 relocated its on/off ramps at Quincy Avenue to help improve traffic flow, while the City of Aurora and Arapahoe County reconstructed the intersection at Quincy Avenue and Gun Club Road, providing capacity to handle this larger volume of traffic.

ROAD WIDENING AWARDED "BEST PROJECT"

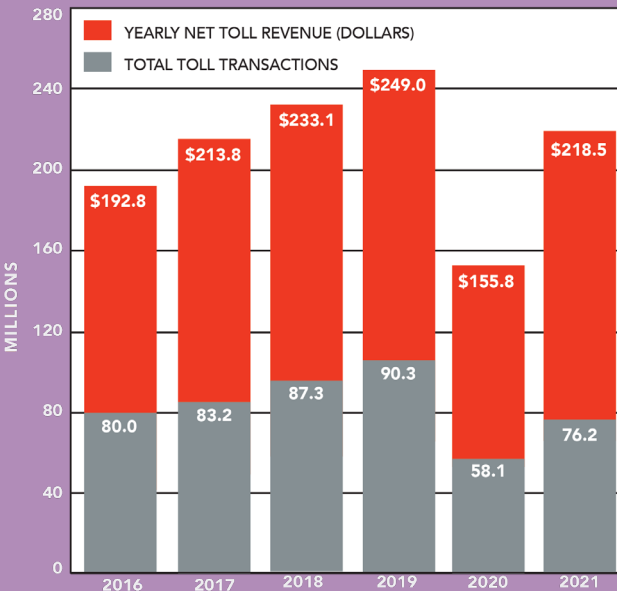
In the summer of 2021, Engineering News-Record (ENR) awarded E-470's road widening project the "2021 Best Project" in the highway and bridge category. *"This was a great example of a 'Project First' collaborative approach to a successful high-quality project delivered on time and below budget,"* said Neil Thomson, E-470 Engineering and Roadway Maintenance Director. *"All stakeholders worked together to quickly resolve inevitable issues that arose during this complex project."* The competition for this prestigious honor from ENR spanned a seven-state region with E-470 beating out 108 entries.



EXPRESSTOLL ACCOUNTS AND TRANSPONDERS



E-470 YEARLY TOLL REVENUE AND TRANSACTIONS



2021 FINANCIAL OVERVIEW

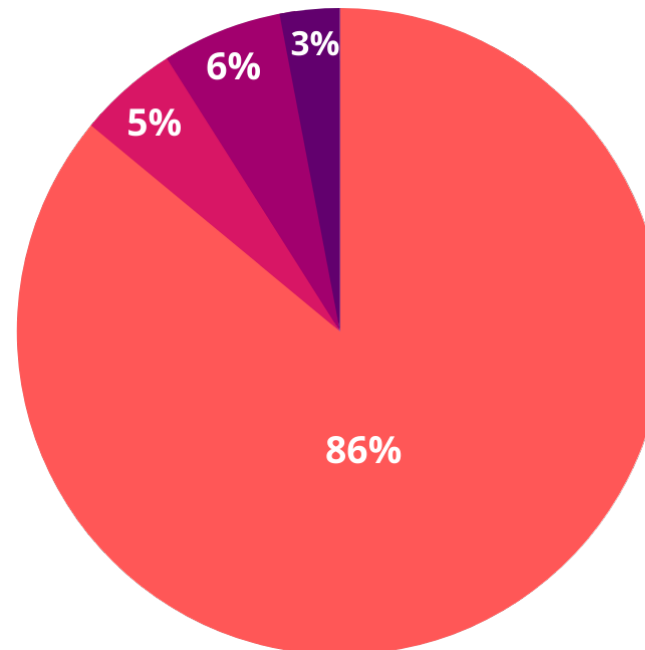
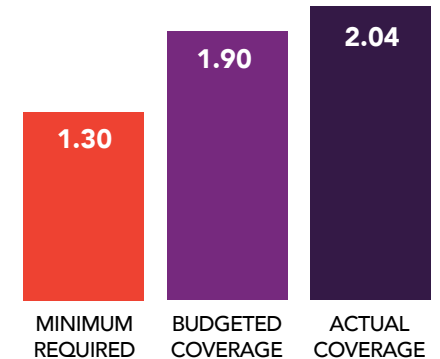
2021 OPERATING REVENUES

	2021 BUDGET	2021 ACTUAL
Tolls	\$ 215,287,000	\$ 218,543,865
Other fees	9,750,000	13,193,049
Unrestricted Investment Income	8,500,000	8,050,187
Other Income	9,966,000	13,946,449
TOTAL	\$243,503,000	\$253,733,550

2021 OPERATING BUDGET

	2021 BUDGET	2021 ACTUAL
Operating Revenues	243,503,000	253,733,550
Operating Expenses	(55,660,700)	(53,075,181)
Net Income Available for Senior Debt Service	187,842,300	200,658,369
Aggregate Senior Bonds Debt Service, Net	99,014,000	98,601,671
Senior Bonds Debt Service Coverage Ratio	1.90	2.04

2021 DEBT SERVICE COVERAGE



2021 REVENUES: \$254 MILLION

- 86% Tolls
- 5% Other fees
- 6% Other income
- 3% Unrestricted investment income

As reported in the audited financial statements by the Authority on April 15, 2022.

2021 FINANCIAL STATEMENTS

STATEMENT OF REVENUES, EXPENSES & CHANGES IN NET POSITION

Operating revenues	Year ended Dec. 31, 2021
Tolls	\$ 218,543,865
Other fees	13,193,049
Tolling services	8,962,348
Total operating revenues	240,699,262
Operating expenses	
Toll road operations	43,800,527
Salaries and benefits	8,707,943
General and administrative	3,962,270
Total operating expenses before depreciation	56,470,740
Depreciation	41,928,584
Total operating expenses	98,399,324
Operating income	142,299,938
Nonoperating revenues (expenses)	
Investment income	7,908,081
Change in fair value of derivative instruments and investments	2,452,251
Interest expenses	(79,350,123)
Intergovernmental revenue	238,965
Other income	5,009,389
Total nonoperating expenses, net	(63,741,437)
Income before intergovernmental expense	78,558,501
Intergovernmental Expense	(619,548)
Change in net position	77,938,953
Net position, beginning of year	(259,473,543)
Net position, end of year	\$ (181,534,590)

STATEMENT OF NET POSITION

Assets	As of December 31, 2021
Current unrestricted assets	\$ 236,861,113
Current restricted assets	58,877,020
Capital assets (net of accumulated depreciation)	580,916,489
Other noncurrent assets	326,004,908
Total assets	1,202,659,530
Deferred outflows of resources	46,755,475
Total assets and deferred outflows of resources	1,249,415,005
Liabilities	
Other current liabilities	52,665,225
Current bonds payable	84,200,000
Other noncurrent liabilities	49,834,405
Noncurrent bonds payable	1,242,036,997
Total liabilities	1,428,736,627
Deferred inflows of resources	2,212,968
Net Position	
Net investment in capital assets	62,560,079
Unrestricted deficit	(244,094,669)
Total net position	(181,534,590)
Total liabilities and deferred inflows of resources and net position	\$1,249,415,005



2021 FINANCIAL HIGHLIGHTS

SELF-SUSTAINING OPERATION AND PANDEMIC CHALLENGES

E-470 is self-funded and financed, and does not currently use any local, state, or federal funding. It is a financially stable roadway that is actively paying down its debts and expanding services to meet the continually growing demand of the communities it serves. The pandemic and related government lock downs, mandates, as well as shifts to how people traveled, worked, and attended school continued in 2021, which impacted the Authority's budget and financial planning during the year. However, the Authority finished the year at 104% of budgeted revenues and 95% of operating expenses with a debt service coverage ratio of 2.04 (well above the required 1.30 times). When compared to previous years, the pandemic significantly changed the Authority's 2020 and 2021 financial results, however, leadership remained proactive to successfully manage its operations, budget, capital projects, financial position, liquidity, and key financial metrics including debt service coverage. During this expected recessionary period and recovery, the Authority also conducted two debt refinancing transactions, which provided debt relief and reduction.

While traffic slowly started to normalize in 2021, future impacts to the Authority's traffic levels and operations are still unknown. The Authority's current traffic and revenue analysis and studies examined and estimated the pandemic's longer-term impacts to travel along E-470.



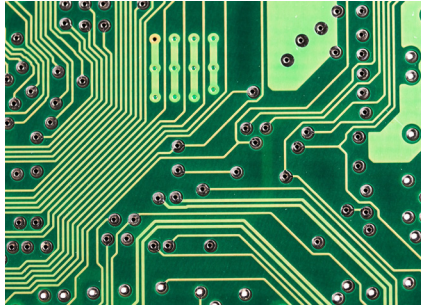
BOND DEAL AND RATINGS

In June 2021, the Authority refinanced approximately \$138.6 million of its variable-rate bonds and was one of the first toll roads in the nation to convert the floating rate notes to the Secured Overnight Financing Rate (SOFR). The Authority's bonds remained in high demand during the sale, and the Authority was able to tighten the pricing and achieved a net present value savings of \$2.3 million over the next three years. In addition, the Authority maintained its "A" bond rating from S&P and "A2" rating from Moody's during the ongoing pandemic and its challenges. The Authority also maintained compliance with its debt management plan, which includes financial goals for year-end results and achieving savings on debt transactions and structure, which will allow the Authority to continue to invest in future phases of expansion, technology, and infrastructure improvements.



IMPROVING THE CUSTOMER EXPERIENCE

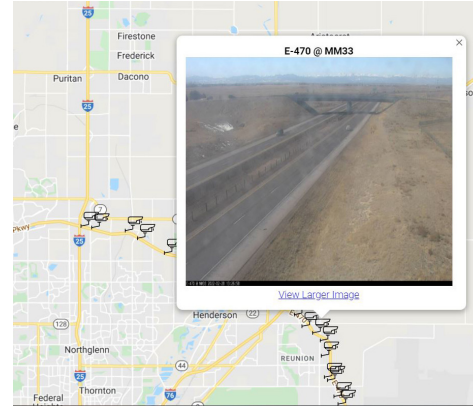
Being responsive to rapid changes in the tolling industry to continue to improve the journey for customers.



BACKOFFICE REDEVELOPMENT BEGINS

For tolling agencies around the world, the Backoffice is the brain of the operation. It's designed to take data from the roadside lane system and then bill and track the customer information for a seamless experience. After completing its Backoffice Blueprint Discovery planning effort, in 2021, E-470 kicked-off its Backoffice Redevelopment Project, which will rebuild the Authority's tolling software to improve

the customer experience even more. The new Backoffice will provide customers with self-service tools, as well as many other benefits including increased security and more efficient toll collections. It will also allow E-470 to be more flexible and adaptable to new technology and business partners as well as provide operational and cost efficiencies. The Backoffice project is currently underway and will take several years to complete.



LIVE TRAFFIC CAMERAS LAUNCH ON E-470.COM

Providing customers with a dependable mobility choice is a mission of the Authority, and one that people can now see for themselves. In September 2021, E-470 launched a new feature on its website, www.E-470.com, that allows people to access its traffic cameras to see live roadway conditions before heading out the door. Images on the tollway's cameras are updated every minute.

NEXT GENERATION LANE TOLL SYSTEM TESTING GETS UNDERWAY

Toll collection systems and services are considered critical business functions of E-470 and the foundation of customer communications that must be maintained at the highest standards without interruption. E-470's current lane toll system is over a decade old and has limited abilities for future improvements. In 2021, E-470 began planning, designing, and testing a next generation lane (NGL) toll system along the roadway. The NGL toll system allows for improvements in accuracy, reliability, and efficiency for customers and provides the following benefits:

- Technology changes to support future revisions, efficiencies, cloud, and US tolling interoperability including multi-protocol readers and enhanced interfaces. These innovative features will allow a customer's transponder to be utilized on other tollways around the country and linked back to their ExpressToll account.
- Migration paths to support future technology innovations such as connected and autonomous vehicles, electric vehicles, as well as artificial learning systems.
- Increased bandwidth to remain adaptable to new technologies and provide options for long-term maintenance solutions for lane software and equipment.

Testing will continue along the tollway with the new system anticipated to be fully operational by the end of 2023/early 2024.



E-470 GOOD GUYS

The E-470 Good Guys are a team of E-470 and WSP employees who charitably give back, fundraise, and volunteer time to serve neighbors and support local nonprofit organizations.

2021 HIGHLIGHTS:

- Organized several blood drives, which resulted in 17 pints of blood donated to Vitalant.
- Donated 55 Halloween treat bags to the Denver Children's Home and provided supplies to fill 258 treat bags at Ronald McDonald House in Aurora.
- Provided over 100 Christmas presents to 40 families in need through the Salvation Army.
- Adopted a military family at Fort Carson through Operation Help a Hero and gave them 14 presents and a \$250 gift card during the holiday season.
- Boxed over 30,000 meals at Food Bank of the Rockies.

2021 E-470 TRANSPORTATION SAFETY FOUNDATION GRANT RECIPIENTS

E-470's charitable arm, the Transportation Safety Foundation (TSF), is a separate organization from the Authority that gives back to the region without utilizing toll revenue. Each year, the TSF awards up to eight \$2,500 grants as approved by the TSF Board of Directors. Below were the 2021 grant recipients:

- Arapahoe County Early Childhood Council
- The Castle Rock Senior Activity Center
- Children's Hospital Colorado Foundation
- Cultivate
- Save Our Youth
- South Metro Safety Foundation
- Thriving Families
- WeeCycle

To provide a safe and fun activity for students to attend on prom night each year, the TSF also grants \$200 to selected high schools in the area to help fund their after-prom events. These were the 2021 recipients:

- Centaurus High School
- Douglas County High School
- Chaparral High School
- Elizabeth High School

2021 SPONSORSHIPS IN THE COMMUNITY

Being an active part of the community remains a critical part of the Authority's mission.

- Summerfest - Brighton
- Armed Forces Luncheon - Aurora
- 4th of July Festival - Thornton
- Oktoberfest - Town of Parker
- Adams County Fair
- Douglas County Fair
- Arapahoe County Fair
- Board & Barrel - Arapahoe County



COMMITMENT TO SUSTAINABILITY AND ENVIRONMENTAL STEWARDSHIP

E-470 follows policies to protect the environment.

In 2021, E-470 went the "extra mile" in its long-term commitment to regional environmental stewardship and sustainability. The Authority coordinated with the U.S. Army Corps of Engineers to preserve wetlands along the corridor, renewed its permit with the state to keep waters clean for recreational use and aquatic life, and purchased a solar farm to continue reducing its carbon footprint in the region.

SUPPORTING THE BROADER COMMUNITY

E-470 Transportation Safety Foundation 2021 golf tournament raised record proceeds.

The TSF raises funds through an annual summer golf tournament, which in turn provides grants to nonprofit organizations for transportation safety promotion and education such as child safety seat inspections, driver's education classes, and high school after prom support. The 2021 golf tournament brought in the highest amount of proceeds ever raised – around \$73,000! The funds will be distributed through grants, as approved by the TSF Board, in 2022 and 2023 as well as support future program expenses.



COMMITMENT TO KEEPING PEOPLE SAFE

E-470's roadway enhancements and maintenance efforts continue to provide people with a safe journey.

In 2021, the Authority increased the width of roadway striping to help make pavement markings easier to see at night and started using reflective tape instead of paint, which is brighter and lasts longer. On the shoulders, rumble strips were added to alert inattentive drivers, while faded street signs were replaced with ones that are more reflective, which improves their visibility at night and during inclement weather. New speed radar signs were also added north of 64th Avenue to alert drivers of their speed while navigating curves. The Authority also partnered with Commerce City to install new traffic signals at E-470 and East 120th Avenue to enhance safety for all turning movements at the ramp intersections.

LOOKING TO THE FUTURE

The operation of E-470 and improvements to the roadway are funded primarily through toll revenue to provide people with value on their journey.



INSTALLATION OF SAFETY ENHANCEMENTS TO E-470 RAMP AND INTERCHANGES

Over the next two years, the Authority will focus on adding cable barrier at eight locations along E-470 – mostly a mix of interchanges and ramps – where crash trends are starting to emerge, as identified in a previous Safety Assessment Report. This low-cost safety treatment can help prevent vehicles from going off the roadway and reduce the severity of those crashes. Over a decade ago, the Authority installed cable barrier in the median along all 47-miles of E-470, which has been effective in preventing cross-over crashes.



ROADWAY WIDENING: I-70 TO 104TH AVENUE

Construction on the next phase of road widening is anticipated to begin in summer 2022 and will continue from I-70 to 104th Avenue to prepare for growth in this part of the region. The large capital project will add a third travel lane in each direction along this 11-mile stretch and will extend the High Plains Trail for pedestrians and people on bikes. Additionally, E-470 will partner with member jurisdictions to add and expand interchanges at several locations to improve connectivity and traffic flow with new developments planned. The project is anticipated to be complete at the end of 2024.



TOLL PLAZA REDEVELOPMENT

Customers who want to make a “pit stop” on E-470 for food, fuel, or flight information will soon be in luck! In early 2023, the Authority is anticipated to begin repurposing four E-470 toll plaza locations – one in Parker, one in Aurora and two in Commerce City – to provide customers with new services and amenities including:

- Electric Car Charging
- Food & Beverage Options
- Amazon Lockers
- Food Trucks
- Play Area
- Real-Time Flight Information
- Fuel Stations
- Free Wi-Fi
- Seasonal Farmer's Market
- Patio Seating
- Meeting Space
- Safety Pull-Off Area

The Parker (southbound) and Aurora (northbound) locations are anticipated to open first, in late 2023.



BUILDING OUT THE TRAIL SYSTEM

In conjunction with road widening projects, the Authority has funded and extended more than 12 miles of the High Plains Trail to provide better connections for people on foot and on bikes in the region. In 2022 and 2023, the Authority will partner with the Town of Parker, the City of Aurora, and Adams County to create more trail connections in the area.

IMPROVING RAMP INTERSECTIONS AT GARTRELL ROAD

After listening to the community's concerns, the Authority will partner with the City of Aurora to improve visibility and facilitate safer left turns from the E-470 ramp intersections at Gartrell Road. In early 2023, temporary traffic signals are scheduled to be installed at these intersections with the Authority funding about \$1.2M for construction.



Public Highway Authority

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