

Mobility Report

2017

Rebuilding the I-69/I-610 Interchange

TxDOT begins work on one of
the state's worst bottlenecks.



Photo: Smiley N. Pool/@Houston Chronicle. Used with permission.

TRENDS in the REGION

94,000

**MORE PEOPLE
IN REGION**

↑1% 6,862,500 in 2017
6,768,500 in 2016

Source: U.S. Census 2017



53,000

**NEW JOBS
CREATED**

↑2% 3,048,200 in 2017¹
2,995,200 in 2016

Source: Texas Workforce Commission 2017
¹ Seasonally adjusted



179 MILLION

**MILES DRIVEN
EACH DAY**

↑2% in 2017²
175 million in 2016

Source: TxDOT 2017
² Estimated for population growth

The 2017 Mobility Report summarizes key economic and transportation performance indicators that reflect the region's progress toward achieving a safe, reliable, multimodal transportation system. This year we introduce new safety performance measures in the report to meet Fixing America's Surface Transportation (FAST) Act requirements. The FAST Act builds on previous legislation, MAP-21, to make surface transportation more streamlined, performance-based, and multimodal. H-GAC is working with the U.S. Department of Transportation, Texas Department of Transportation (TxDOT), and regional transit providers to identify new performance measures and targets that will guide policymakers with investment decisions. These and other performance measures will be used in the development of the 2045 Regional Transportation Plan (RTP).

IMPROVING SAFETY

The new safety performance measures focus on the number and rate of fatalities and injuries for drivers and occupants, bicyclists, and pedestrians. In 2017, the number of fatalities dropped slightly to 713 and serious injuries dropped 2% to 3,321. Non-motorized fatalities are down 15% to 178 and non-motorized serious injuries dropped 8% to 422.

H-GAC continues to work with local governments to improve safety through law enforcement, public outreach, education, and the management of high-volume roadways.

ASSET MANAGEMENT AND OPERATIONS

TxDOT continues to make improvements to its roadway system. The overall condition of the region's infrastructure has remained stable over the past few years. The percentage

Improving Safety

FATALITIES

Number of Fatalities (Rate)
Per year (Per 100 million VMT)

713 (1.09)



↔ SLIGHT CHANGE (↓1%) in 2017
715 (1.12) fatalities in 2016

Source: TxDOT 2017

SERIOUS INJURIES

Number of Serious Injuries (Rate)
Per year (Per 100 million VMT)

3,321 (5.10)



↓2% (↓4%) in 2017*
3,390 (5.31) serious injuries in 2016

Source: TxDOT 2017

*Includes only incapacitating injuries

NON-MOTORIZED FATALITIES

Number of Fatalities
(Per year)

178



↓15% in 2017
210 fatalities in 2016

Source: TxDOT 2017

NON-MOTORIZED SERIOUS INJURIES

Number of Serious Injuries
(Per year)

422



↓8% in 2017*
448 serious injuries in 2016

Source: TxDOT 2017

*Includes only incapacitating injuries

of TxDOT roadways rated "good or better" decreased 3% to 80% in 2017. Bridge conditions are reported biannually and remain at 83%.

The response time needed to clear a major incident on area freeways increased slightly from 32.5 minutes to 33.3 minutes, as reported

Asset Management and Operations

PAVEMENT CONDITION

Percent of Lane Miles
(Rated Good or Better)

81% of TxDOT Roads



↓3% in 2017
84% in 2016

Source: TxDOT 2017

BRIDGE CONDITION

Percent of Bridges
(Rated Good or Better)

83% of TxDOT Bridges



↔ NO NEW DATA in 2017
83% in 2016

Source: TxDOT 2016

INCIDENT RESPONSE

Time to Clear a Traffic Incident
(In minutes, excluding heavy trucks)

33.3



↑2% in 2017
32.5 minutes in 2016

Source: Houston TranStar 2017

BUS VEHICLE RELIABILITY

METRO Buses (Mean distance between mechanical failures in miles)

10,790



↑12% in 2017
9,608 miles in 2016

Source: METRO 2017

by Houston TranStar.

Bus vehicle reliability, which measures the average distance between mechanical breakdowns, improved 12% in 2017 to 10,790 miles.



88 MILLION

PASSENGER BOARDINGS

↓2% in 2017
90 million in 2016

Source: Regional Transit Agencies 2017



319 MILLION

SHORT TONS OF PORT CARGO

↑1% in 2016
315 million in 2015

Source: U.S. Army Corps of Engineers 2016



54 MILLION

AIRPORT PASSENGERS

↓1% in 2017
55 million in 2016

Source: Houston Airport System 2017



Congestion Mitigation

PLANNING TIME INDEX

80th Percentile
(Late one day a week)

1.58



↔ NO NEW DATA in 2017

Baseline year in 2014
Source: Texas A&M Transportation Institute 2015

BUS ON-TIME PERFORMANCE

METRO Local Bus/Park & Ride Bus
(Percent of bus trips)

76.6%



↑3% in 2017
74.4% in 2016
Source: METRO 2017

Economic Competitiveness

TRUCK CONGESTION

Annual Cost
(In billions)

\$1.12B



↔ NO NEW DATA in 2016

Baseline year in 2014
Source: Texas A&M Transportation Institute 2015

COMMUTE CHOICE

Use of Alternative Transportation
(Percent of regional commuters)

20%



↔ NO CHANGE in 2016

20% in 2015
Source: American Community Survey 2016

Natural and Cultural Resources

AIR QUALITY

NOx Emission Reductions
(In tons per year)

281.2



↑5% in 2017*

267.2 tons in 2016
Source: H-GAC 2017

*Preliminary estimate

AIR QUALITY

Ozone Level
(In parts per billion)

81



↑2% in 2017

79 ppb in 2016
Source: Texas Council on Environmental Quality 2017

CONGESTION MITIGATION

Travel on the roadway system increased 2% to an estimated 179 million vehicle miles per weekday. This corresponds with growth in the region's population of 94,000 people and 53,000 jobs in 2017.

The Planning Time Index (PTI) measures system reliability by estimating how much extra time travelers need to make a normal trip as a result of traffic congestion. The most recent PTI for the region is 1.58, which means a trip that normally takes 30 minutes may take up to 47 minutes.

Transit ridership in the region decreased 2% with 88 million passenger boardings in 2017 due to a drop in park-and-ride usage and the impacts of Hurricane Harvey. Bus on-time performance increased 3% to 77%.

ECONOMIC COMPETITIVENESS

The 2040 RTP identifies truck congestion levels and commute

alternative usage as two indicators of economic competitiveness. Truck congestion measures the annual cost of fuel and travel delay for moving goods within the region. The most recent cost of truck congestion is \$1.12 billion per year.

The percentage of the region's commuters who use an alternative mode of transportation to work at least once a week remains unchanged at 20%. This includes transit, van-pool, carpool, biking, walking, and teleworking.

NATURAL AND CULTURAL RESOURCES

H-GAC supports the reduction of vehicle emissions through the funding and promotion of alternative commute options and the accelerated replacement of older diesel vehicles with newer, cleaner models. In 2017, these programs reduced 281.2 tons of NOx. This figure is 5% higher than in 2016 due to new participation in the Clean Vehicles Program.

LEGEND

GREEN - Positive Effect

RED - Negative Effect

ORANGE - No Discernible Effect

↑ Net Increase

↓ Net Decrease

↔ Slight or No Net Change

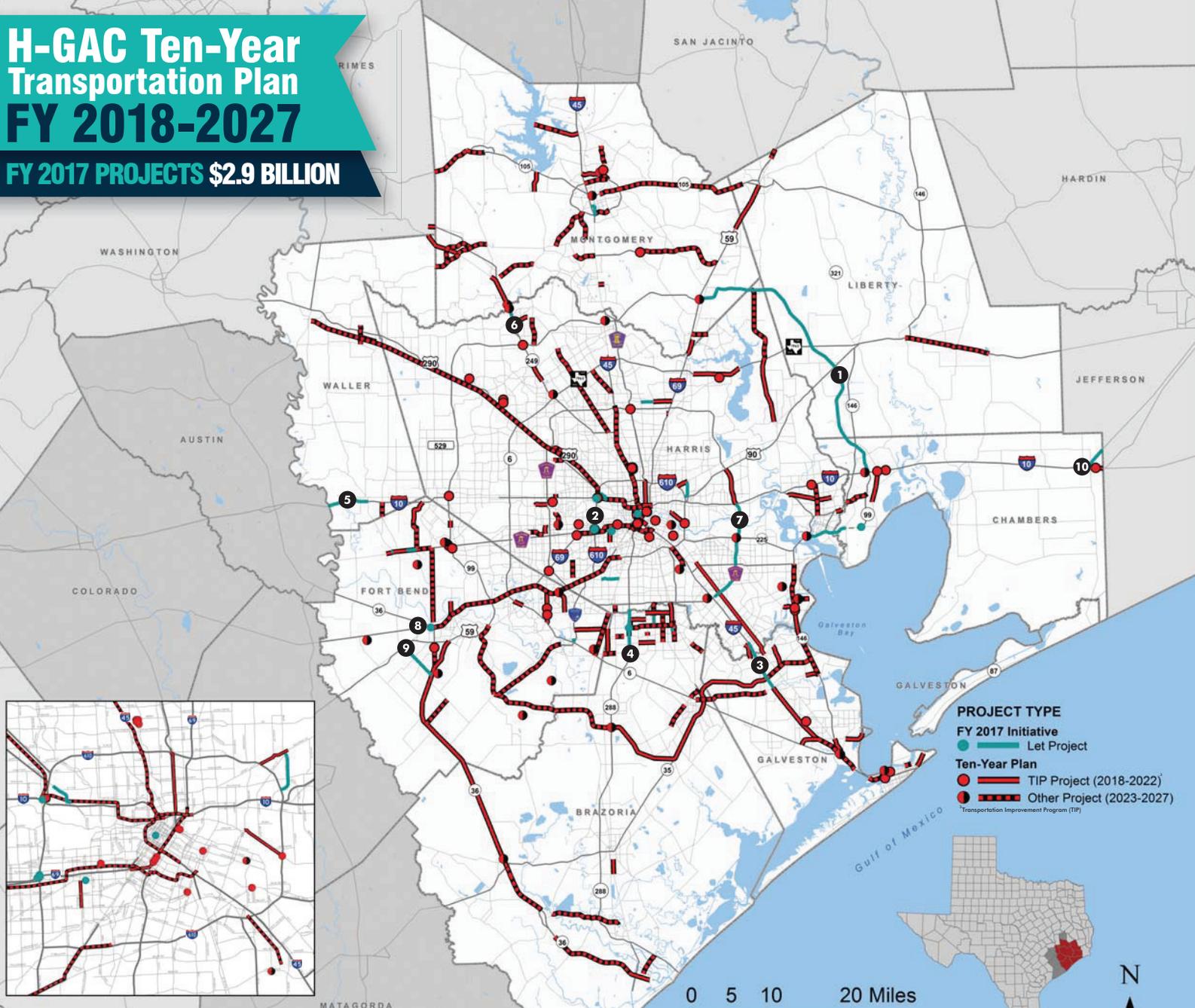
The region's three-year average of the ozone level increased 2% to 81 parts per billion (ppb) which remains above the new national ambient air quality standard of 70 ppb.

SUMMARY

The Houston-Galveston region depends on a safe, efficient, and reliable transportation system to maintain its economic success and overall quality of life. This report provides a snapshot of the performance information available. For additional transportation performance measures, visit www.h-gac.com/taq/regional-mobility-report.

H-GAC Ten-Year Transportation Plan FY 2018-2027

FY 2017 PROJECTS \$2.9 BILLION



PROJECT TYPE
 FY 2017 Initiative
 Let Project
 Ten-Year Plan
 TIP Project (2018-2022)
 Other Project (2023-2027)
*Transportation Improvement Program (TIP)

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FOR MORE INFORMATION
h-gac.com/taq/regional-mobility-report
h-gac.com/ten-year-plan

FY 2017 Initiatives in the H-GAC Region

CORRIDOR / INITIATIVE	SUMMARY OF MAJOR INVESTMENTS IN FY 2017	TOTAL
1 SH 99	Construct segments H, I-1, I-2, 4-lane tollway with interchanges and two non-continuous 2-lane frontage roads.	\$1,147,410,000
2 I-610	Construct direct connectors IH 610 to IH 69 and HOV access to Uptown Transit Center. Reconstruct I-69 to I-610 connector and IH 610 main lane bridge within the interchange.	\$271,375,000
3 I-45 S.	Widen existing freeway to ten main lanes, two 3-lane frontage roads and access into two diamond lanes.	\$246,755,000
4 SH 288	Construct four toll lanes with grade separations. Reconstruct intersection on FM 518 and additional turn lanes on SH 288 frontage roads.	\$231,710,420
5 I-10 W.	Construct one additional main lane in each direction. Entrance and exit ramps relocation, extend frontage road and convert frontage road to one-way (westbound only).	\$228,879,035
6 SH 249	Construct 6-lane tollway with grade separations at Brown, Baker, and Zion roads. Construct two 3-lane frontage roads.	\$200,170,000
7 BW 8	Widen existing tollway from four to eight main lanes in sections.	\$200,000,000
8 Southwest Corridor	Railroad underpass replacement on SH 36/US 90A, widen and realign SP 529.	\$47,856,000
9 SH 36	Widen existing roadway to 4-lane divided rural roadway with intersection improvements and bicycle accommodations.	\$26,624,000
10 I-10 E.	Widen existing freeway from four lanes to six lanes from SH 73 to Jefferson County Line.	\$26,549,623
- Thoroughfare Development	Implement roadway construction, reconstruction, and widening projects on smaller state, county, and city roadways.	\$91,612,055
- Other Major Roadway	Implement roadway construction, reconstruction, and widening projects on principal arterial roadways outside of the 13 major travel corridors.	\$56,499,000
- ITS/Safety	Further implementation of regional Intelligent Transportation System (ITS) equipment and infrastructure, Motorist Assistance Program, and regional freeway towing program.	\$19,909,772
- Air Quality Related	Fund activities for regional programs including Commute Solutions, Clean Vehicles, Clean Cities, Rideshare, and METROStar Vanpool.	\$16,712,000
- Pedestrian/Bicycle	Construction and enhancement of bicycle and pedestrian facilities throughout the region.	\$15,278,220
- Local High Capacity Transit	Design and construct Uptown multimodal transit center/park-and-ride terminal and bus access enhancements (Year 3).	\$14,625,000
- Freight	Construct railroad grade separation with median and sidewalks on Federal Rd. at PTR A railroad.	\$14,622,000
- Transit Capital	Fund capital expenditures for public transportation, including terminal facilities, transit centers, park-and-ride modifications, maintenance, and replacement buses.	\$14,117,303
- Transit Other	Fund operating and planning expenditures for smaller transit agencies and METRO ADA paratransit services.	\$2,152,577
Total Funded in FY 2017:		\$2,872,857,005



In 2017, H-GAC worked with TxDOT and regional partners to advance projects addressing some of the most severely congested roadways in Texas. The I-69/I-610 interchange, often identified as part of the state’s most congested roadway segment, began construction in 2017. Other 2017 regional mobility projects include the reconstruction and widening of I-45 South in Galveston County, I-10 West in Fort Bend and Chambers Counties, and Beltway 8 (Sam Houston Tollway) in southeast Harris County. Each of these will bring relief to congested corridors serving commuters and trucks vital to our regional and state economy.

As the 2017 Mobility Report shows, during the next few years we will see the delivery of transportation projects that will soon become essential to travel and economic development in the Houston-Galveston region. New travel corridors such as the Grand Parkway (SH 99) Segments H and I-1 will support rapidly growing residential and industrial development occurring in northeast Harris and western Liberty and Chambers Counties.

We will be catching up with the explosive growth in Montgomery County with improvements to SH 105, SH 242, SH 249, FM 197, and FM 1488. Similarly, construction of Segment B of the Grand Parkway will address existing congestion in the Alvin area of Brazoria County. Segment B will also serve rapidly developing commercial and residential areas west of I-45 in League City. Improvements to SH 35 will strengthen one of the region’s major trade corridors by improving access to the Port of Freeport which has our region’s best access to deep water in the Gulf of Mexico. SH 35 will also provide a key link to rapidly growing southwest Fort Bend County.

Public safety is always a priority of the Transportation Policy Council. The 2017 Mobility Report shows a year-over-year reduction in serious injuries and fatalities with motorists, bicyclists, and pedestrians, but as recent headlines describe, we have seen an outbreak of bicycle-related fatalities in 2018. It is clear that our work to reduce bicycle and pedestrian-related vehicle crashes has far to go.

Other performance measures such as transit reliability and on-time transit performance demonstrated year-over-year improvement in 2017. Given the congestion and construction on our major roadways, this is no small feat for our transit providers.

Congratulations to all who made 2017 such an excellent year for transportation investment, operations, and safety.

Alan C. Clark
Transportation Director
Houston-Galveston Area Council



The Houston-Galveston Area Council (H-GAC) is a voluntary association of local governments and local elected officials in the 13-county Gulf Coast Planning Region. The Gulf Coast Planning Region consists of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton counties. Organized in 1966, H-GAC provides a forum for the discussion of area-wide concerns, promoting regional cooperation through comprehensive planning and services to local governments.

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