

ANALYSIS OF FORT BEND COUNTY  
2020 MOBILITY BOND PROJECTS FOR  
IMPACT ON EVACUATION ROUTES

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# INTRODUCTION

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- The Baker Institute for Public Policy has been engaged by Fort Bend County, Texas to conduct an evaluation of emergency evacuation routes in Fort Bend County. The scope of the assignment includes three basic components:
  - Identify projects on the upcoming 2020 Mobility Bond that will enhance the overall emergency evacuation route plan for the county
  - Help develop a comprehensive plan for future mobility projects to meet dual criteria of increasing evacuation capability and reduction of congestion
  - Research and prioritize funding methods to achieve both improved evacuation routes and less congestion

- This presentation focuses only on the first component, analyzing the 2020 Mobility Bond projects as potential parts of an improved emergency evacuation plan. The result of the bond election will influence future steps that need to be taken to develop and implement a comprehensive countywide evacuation plan and options for funding such a plan



# 2020 MOBILITY BOND OVERVIEW

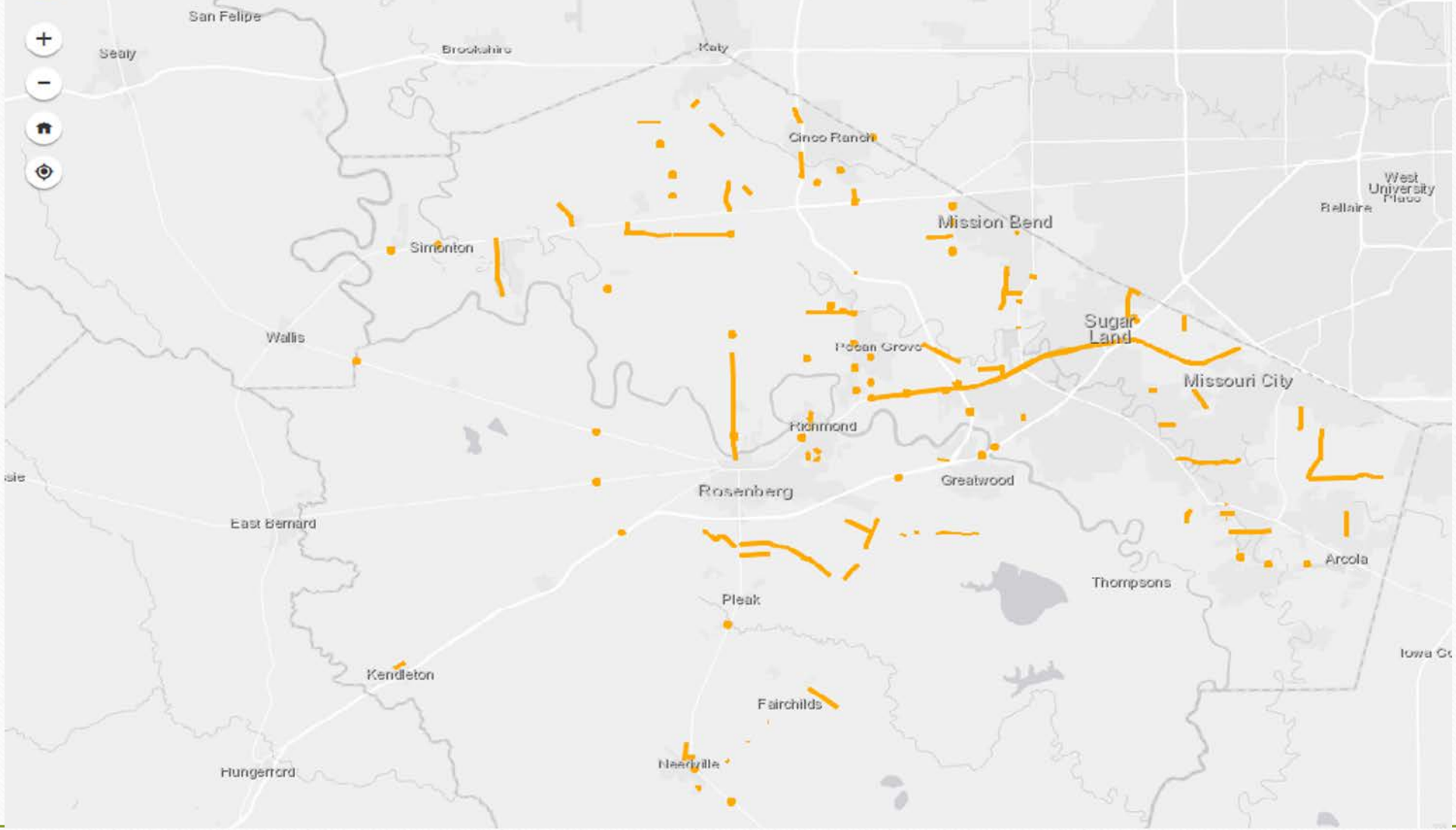
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- The Fort Bend County Commissioners Court has unanimously approved a \$218.2 million mobility bond to be submitted to the voters on November 3, 2020
- The bond proposal contains 59 separate projects spread across the county
- While the mobility bond calls for \$218.2 million to be borrowed, that money will be combined with funding from other sources such as the State of Texas and municipalities to generate a total amount of approximately \$425 million to be invested in mobility projects

- The primary purpose of the 59 mobility bond projects is, as the name states, to provide better mobility in one of the nation's fastest growing counties
- According to the analysis, the majority of the projects that will be funded by the bond have no direct impact on designated evacuation routes, but anything that improves traffic circulation, removes roadways from the risk of flooding or improves general drainage is a plus for overall mobility, including during times of evacuation



LOCATIONS FOR PROPOSED 2020  
MOBILITY PROJECTS



# HURRICANE EVACUATION

- When the term evacuation route is used in the Texas Gulf Coast region, it usually refers to evacuation in advance of a hurricane making landfall. During such a hurricane evacuation, Fort Bend County is what is known as a “pass through” county
- Since Fort Bend County has no coastline, none of its residents should have to evacuate in the event of a hurricane. Fort Bend County residents are expected to allow those people from Brazoria and Galveston counties to have unfettered access to the three major designated hurricane evacuation routes



- State Highways 6 and 36 are maintained by the Texas Department of Transportation. The third designated hurricane evacuation route is State Highway 99, known as the Grand Parkway, and even though it is operated by the Fort Bend County Toll Road Authority, it is not considered a county road for bond purposes
- Since none of the three designated hurricane evacuation routes are Fort Bend County roads, they are not included in the mobility bond projects. However, several of the 59 proposed bond projects have a positive impact on traffic flow on the three evacuation routes



# BOND PROJECTS THAT HAVE POSITIVE IMPACT ON EVACUATION ROUTES

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- Project 20102 – Improvements to Ransom Road around the intersection of SH99 and I-69. The intersection of these two major thoroughfares needs to be as free flowing as possible and this project enhances that flow
- Project 20307 – Construction of new frontage roads on the Grand Parkway between Westheimer Road and Fry Road increase capacity
- Projects 20401, 20402, 20403, 20404 – These projects all involve improvements in turning lanes at various intersections of arterial roads with SH6 and with the Grand Parkway. Intersections involving evacuation routes are particularly vulnerable during an evacuation
- Project 20410 – Drainage improvements affecting the intersection of the Grand Parkway and US 90A are an obvious positive for improved evacuation, since the Grand Parkway is a designated hurricane evacuation route and US 90A is one of the county's busiest roads that feeds into the Grand Parkway



- By completing these projects and, perhaps, some others on the mobility bond, Fort Bend County will be assisting the State of Texas and its neighbors in Brazoria and Galveston Counties to flee in advance of hurricanes

# GENERAL EVACUATION

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- Even though evacuation from hurricanes is the dominant focus in this region, the torrential rains of Harvey, industrial fires, chemical spills and other events have shown the importance of evacuation capability beyond that required for hurricanes
- For that reason, an analysis of the mobility bond projects was done with an eye toward more general evacuations that are less predictable than those caused by hurricanes
- Many of the projects included in the mobility bond will give access to safety, but some of the specific projects analyzed have particular significance



**Be Prepared  
Be Aware  
Be Ready**

# BOND PROJECTS THAT HAVE POSITIVE IMPACT ON GENERAL MOBILITY AND EVACUATION

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- Project 20001 – Improvements to the emergency network infrastructure monitoring system are vital to safe evacuations. Anyone who remembers the evacuation for Hurricane Rita in 2005 knows the potential for disaster is an evacuation is not properly managed. Better flood monitoring and more effective traffic signal control is the foundation for safe future evacuations from all parts of Fort Bend County
- Project 20103 – Several of the projects funded by the mobility bond will make roadways less susceptible to flooding, the biggest impediment to safe evacuations. This project is, perhaps, the best example. FM 723 is a critical north/south thoroughfare that is currently below the base flood elevation. Fort Bend County is contributing \$5 million to a \$57 million TxDOT project
- Projects 20105, 20117, 20202, 20303, 20408 – These projects, in all four commissioner precincts, are some examples of how the bond will alleviate localized flooding problems and allow neighborhoods better access to evacuation routes

# CONCLUSION

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- Viewed through the lens of transportation needs, the Fort Bend County 2020 Mobility Bond is a step toward addressing the mobility issues faced by Fort Bend County residents and to removing traffic congestion that could hamper future growth of the county
- Analyzed for their impact on potential evacuations and emergency management, the bond projects, if completed, will make a more solid foundation upon which to design and build a comprehensive plan that will enhance mobility and provide even more alternatives for evacuation routes in what is projected to be a much more densely populated county