


**Harris County**  
ENGINEERING DEPARTMENT




**texite**  
Houston Area Section

## Transportation in Harris County June 2023 Luncheon


Patrick Mandapaka, PhD, AICP  
Director of Community Resilience and  
Transportation Planning

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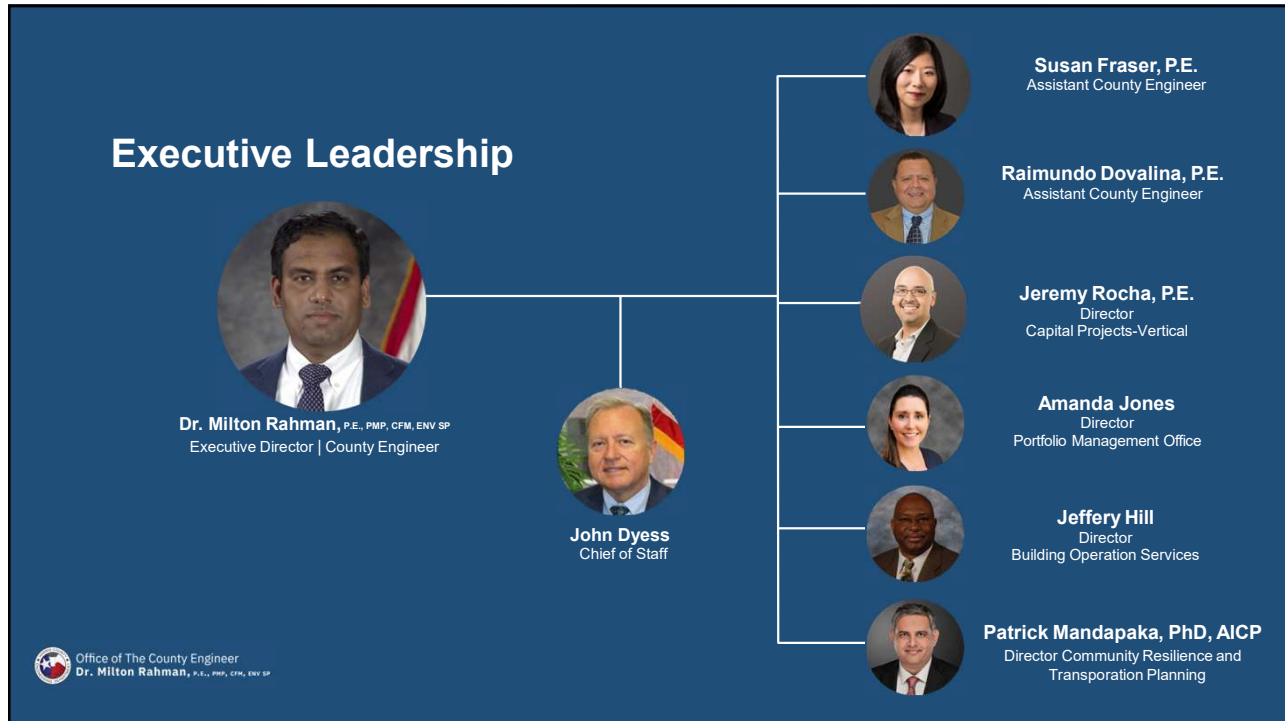
# Agenda

- ▶ Department Overview
- ▶ Portfolio Programs
- ▶ Bond
- ▶ Vision Zero
- ▶ County Transportation Plan
- ▶ Other key initiatives and projects

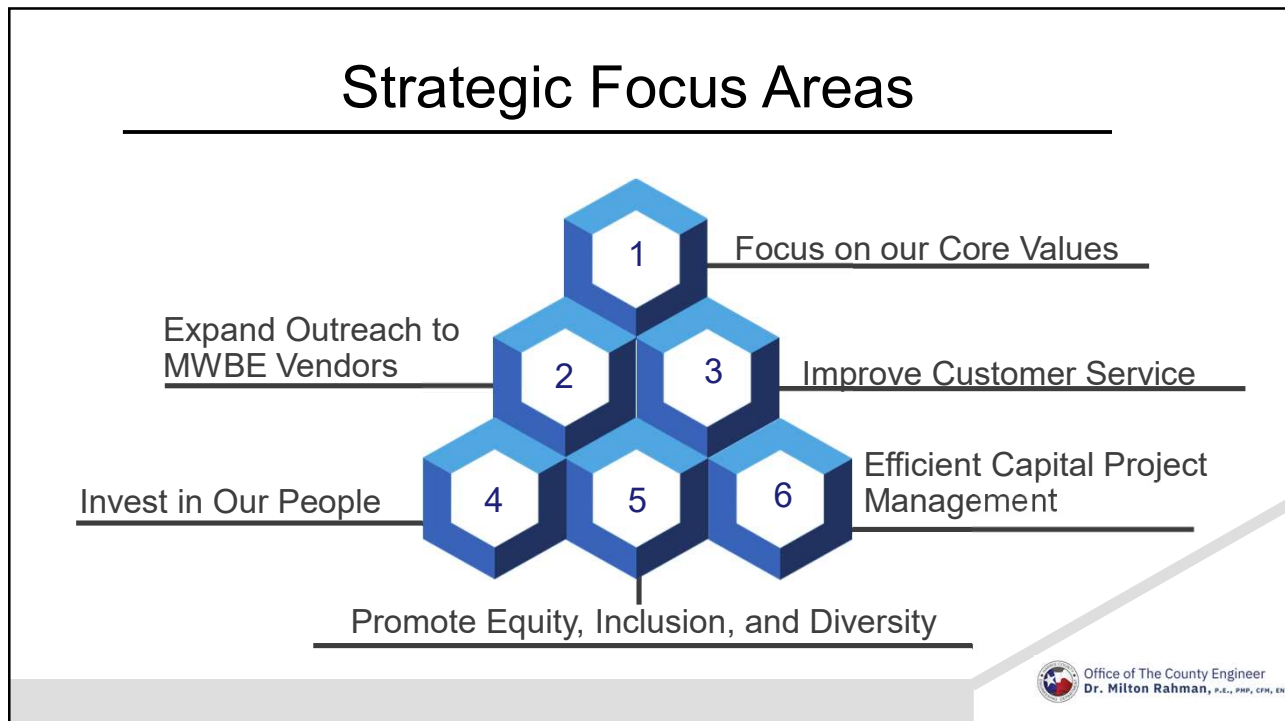


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## OUR SERVICE AREAS



### PLANNING AND DEVELOPMENT

- Plan, Review & Permitting
- Floodplain Management
- Development Inspections
- Environmental Services
- Stormwater Quality
- Wastewater Permits
- Household Hazardous Waste
- Transportation Planning



### ENGINEERING AND PROJECT DELIVERY

- Project Delivery
- Capital Project Management
- Construction Management
- Emergency Design & Repair
- Architecture Design
- Landscape Architecture
- Real Property / Survey



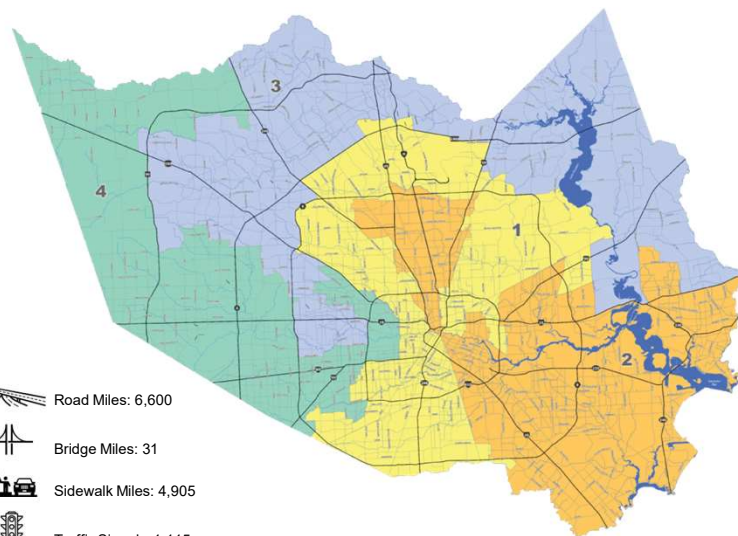
### OPERATIONS

- Building Operations Services
- Traffic
- Disaster Recovery



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## Harris County Infrastructure Snapshot



- Road Miles: 6,600
- Bridge Miles: 31
- Sidewalk Miles: 4,905
- Traffic Signals: 1,115
- 149 Facilities: 10.7 million sq. ft.
- 181 Parks: 23,000 acres



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## Transportation Progress in 2022




-  46 road rehabilitation and reconstruction projects
-  20 sidewalk and bike lane projects
-  18 traffic signal projects

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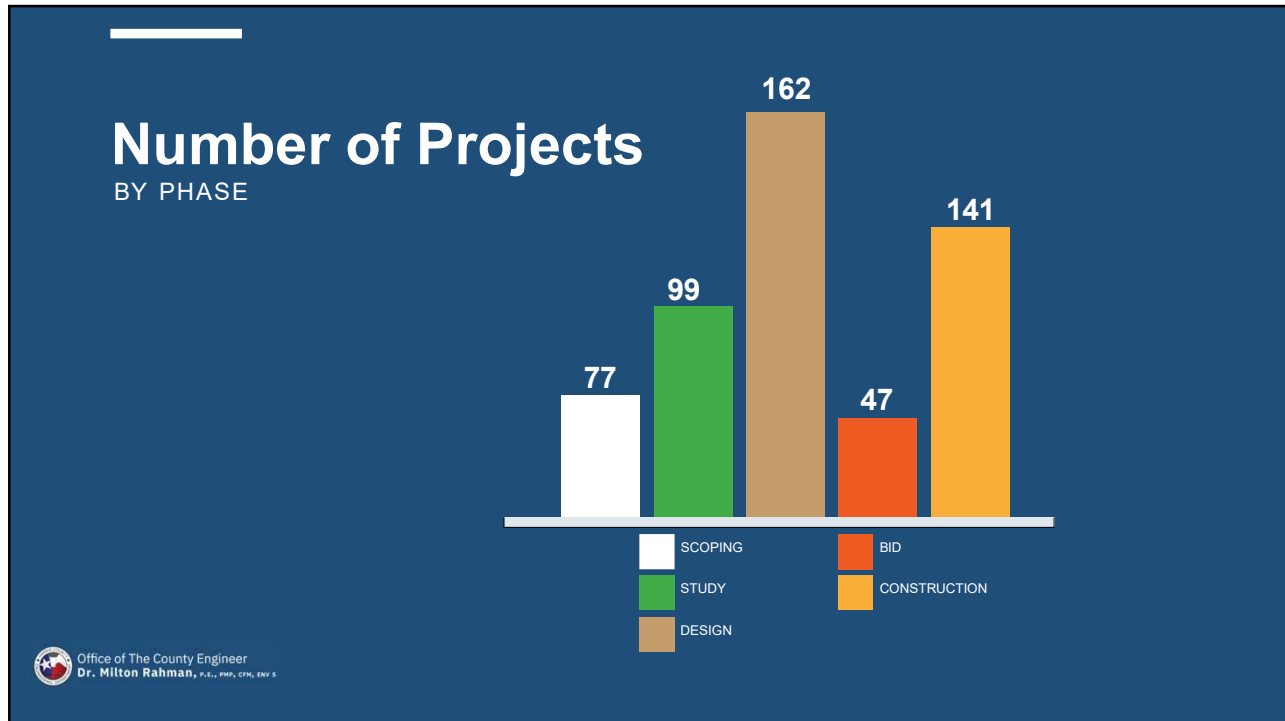
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# ACTIVE PROJECT OVERVIEW

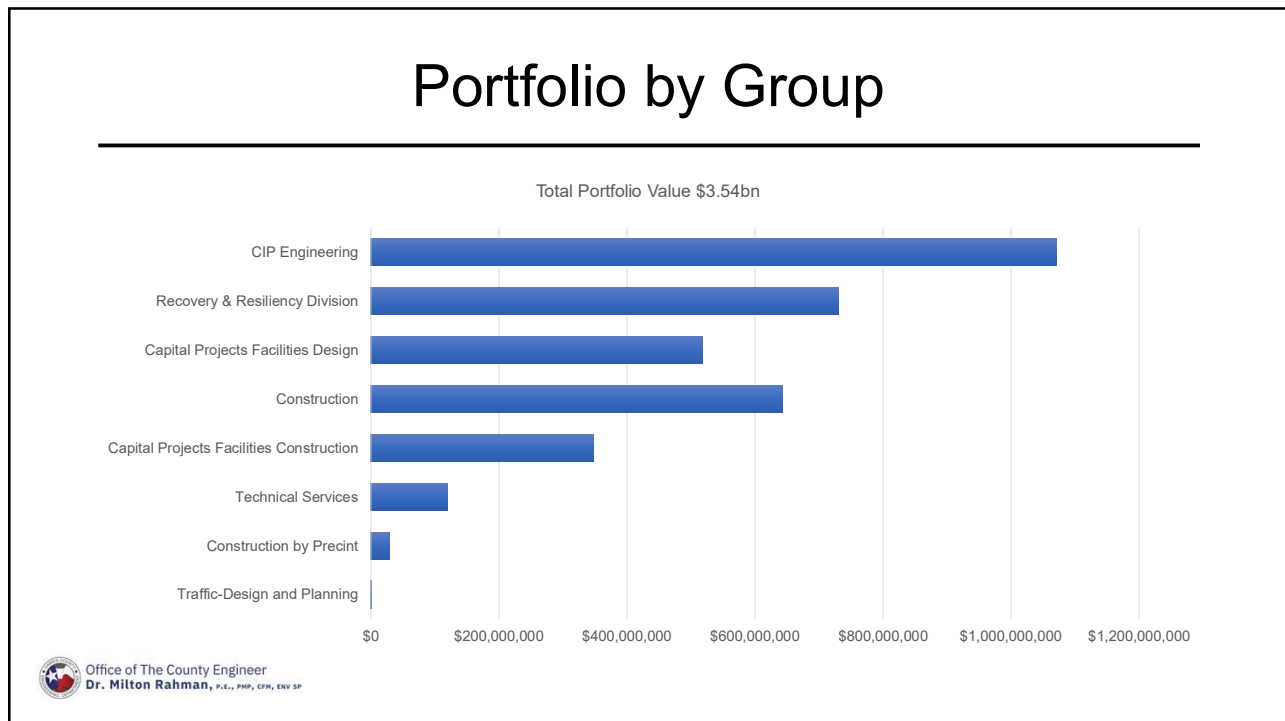
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**755**  
TOTAL ACTIVE PROJECTS
-   
**46**  
NEW PROJECTS ADDED IN 2022
-   
**\$3.54B**  
TOTAL PORTFOLIO VALUE

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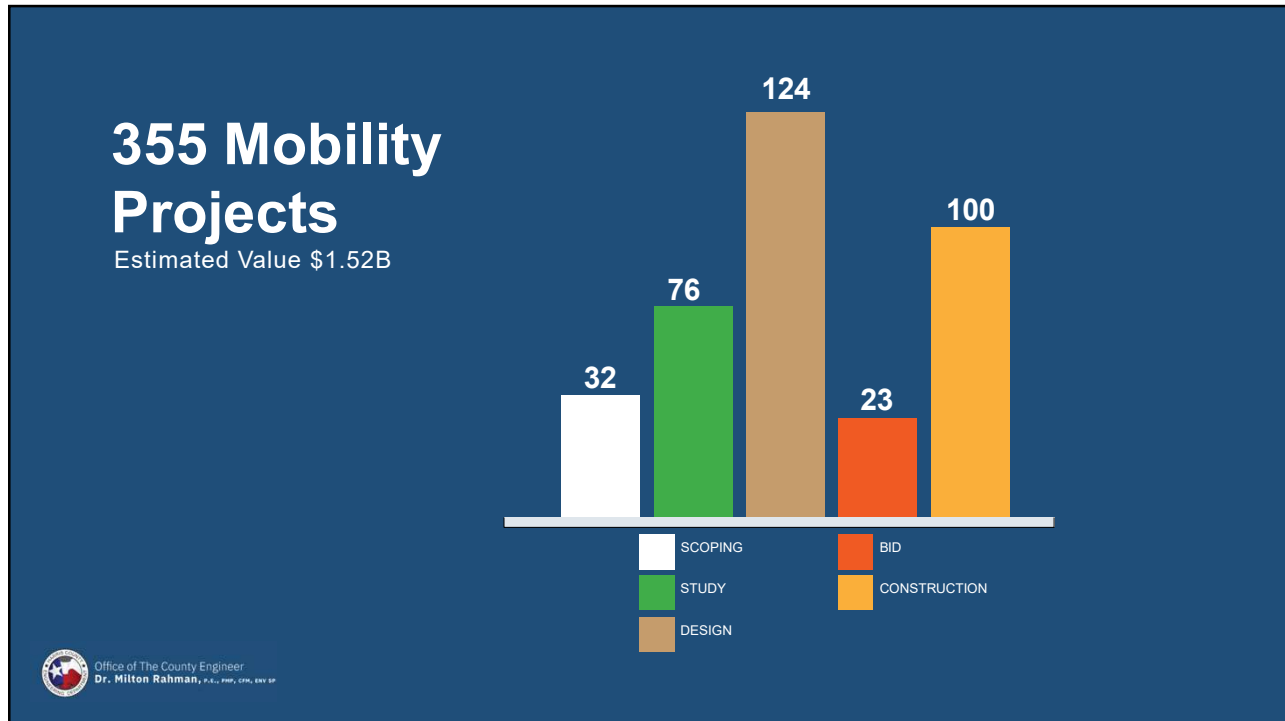
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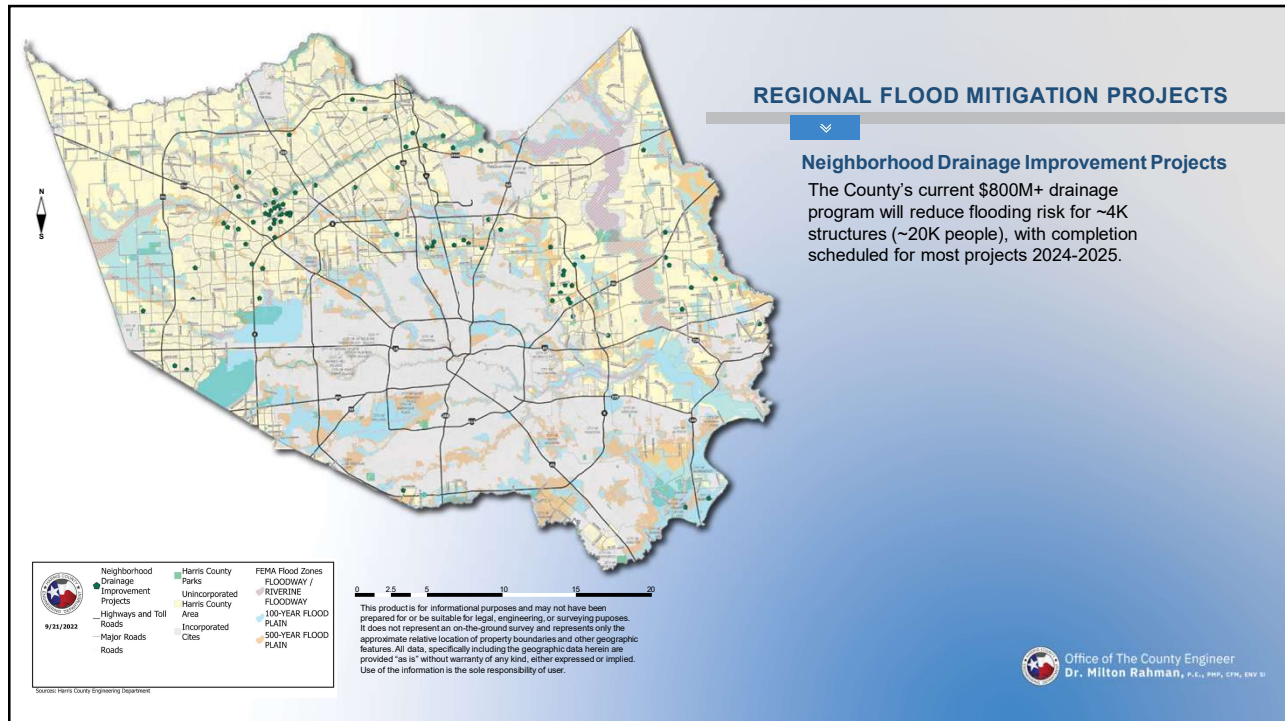
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# Key Initiatives & Programs

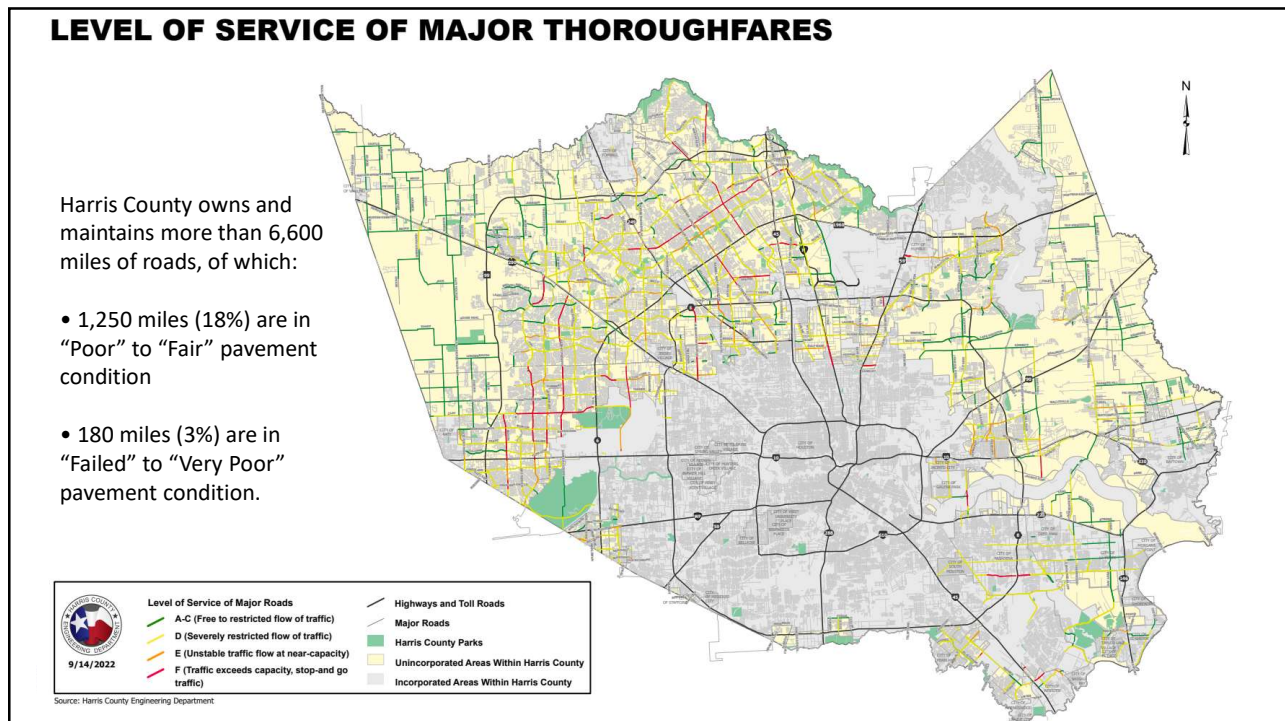
- 2022 Bond Program
- Flood Mitigation
- County Transportation Plan
- MWBE Program
- Permitting and Customer Service
- Vision Zero and Multimodal Transportation
- Resiliency and Green Infrastructure

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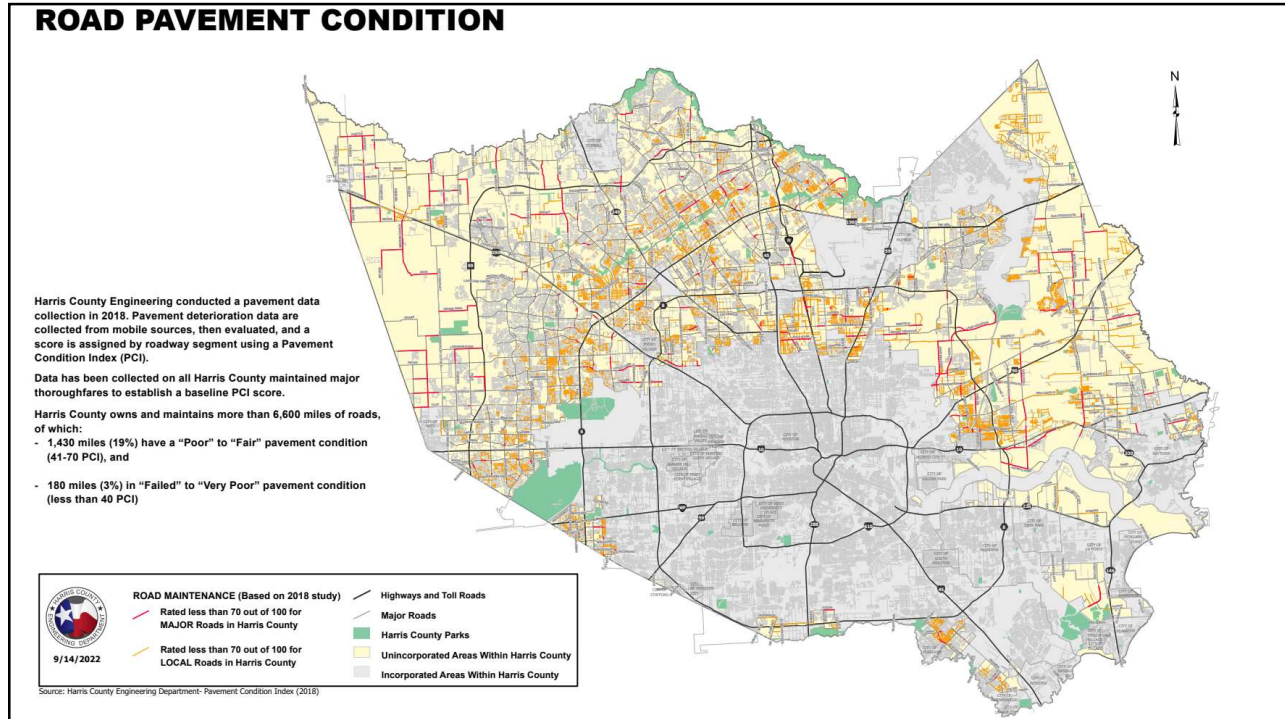
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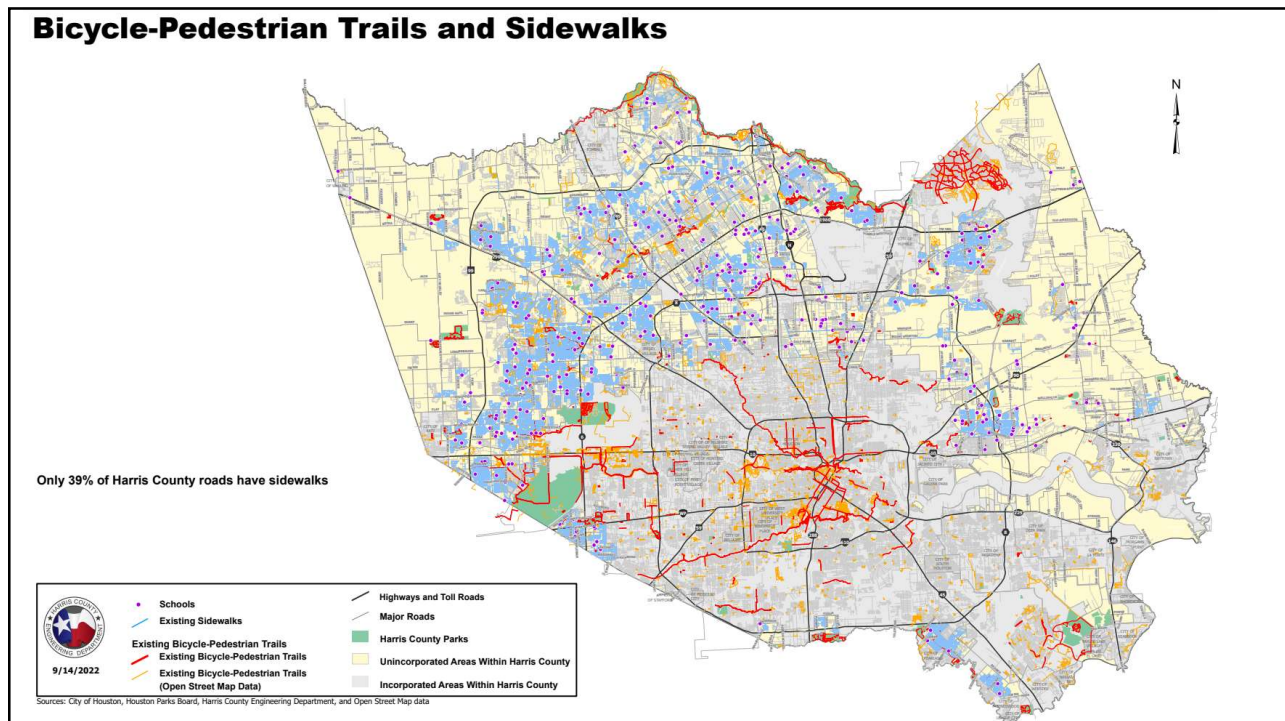
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**2022 HARRIS COUNTY BOND**

Each Precinct Receives \$175M from Proposition B and C.

Remaining funds get distributed based on population with SVI>0.75

\$110M Bond Process reserved for Management and Administration of the Bond Program.

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**Harris County VISION ZERO**

Safer Streets. Safer You.


**PROPOSITION B - TRANSPORTATION**  
**Vision Zero (Roadway Safety)**

- \$50 million would be invested in Vision Zero.
- **Qualifying Criteria:** Included in the court-adopted Vision Zero Action Plan Addendum as top 20% or 33 corridors in the High Injury Network
- **Additional Consideration:** Areas with Social Vulnerability Index of 0.5 or above


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**GRADIENT**



Harris County  
**VISION ZERO**  
ACTION PLAN  
Safer Streets. Safer You.



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## Vision Zero Action Plan

**Vision Zero Resolution** adopted in August 2020


- Zero traffic fatalities and serious injuries in Harris County by 2030

**Vision Zero Action Plan** adopted in September 2022

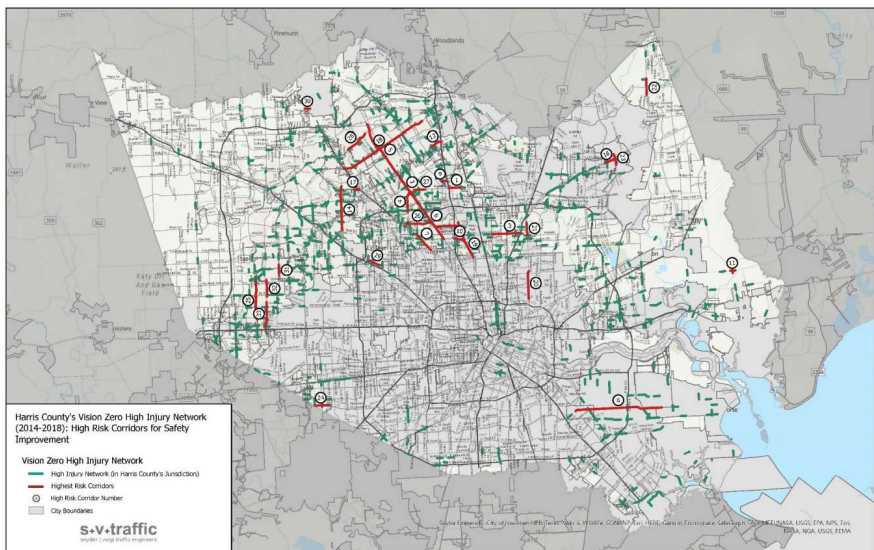
- Crash Trends & Causative Factors
- Vision Zero Goals, Priorities, and Strategies
- Addendum with High Injury Network Corridors and safety improvement action steps

ZERO TRAFFIC FATALITIES AND SEVERE INJURIES IN HARRIS COUNTY BY 2030.

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## High Injury Network



Harris County's Vision Zero High Injury Network (2014-2019): High Risk Corridors for Safety Improvement

Vision Zero High Injury Network

- High Injury Network (in Harris County's Jurisdiction)
- Highest Risk Corridors
- High Risk Corridor Number
- City Boundaries

s+v-traffic

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## Vision Zero Strategies

- Education: Develop training and education resources
- Engineering: Establish guidelines for safety improvements
- Enforcement: Encourage & collaborate with law enforcement to focus on violations impacting all modes
- Encouragement: Collaborate with HGAC & local agencies on regional safety campaigns
- Evaluation: Publish annual report, conduct studies, update HIN every three years
- Equity: Include community leaders, establish funding source for implementation, ensure bike-ped improvements in socially vulnerable communities

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## Next Steps

### Establish

- Establish Vision Zero Implementation Committee
  - Guide safety program and initiatives
  - Communicate key messages to stakeholders
  - Help update design guidelines and standards

### Conduct

- Conduct safety audits on high injury corridors

### Develop

- Develop safety outreach campaign

### Allocate

- Allocate funding and implement safety infrastructure projects

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# Countywide Transportation Plans

- Resilience Plan
- Park Infrastructure and ADA Assessment
- Emergency Measures Study
- Harris County Imagination Zones
- Traffic Calming Study
- Country Transportation Plan





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## Harris County Transportation Plan



- Harris County experienced 2<sup>nd</sup> highest population growth in the U.S., between 2021 and 2022 (increase of 45,626 people) to 4.8 million
- Guides future transportation policies, programs and projects for unincorporated harris County through 2050
- Provides a strategic vision to address mobility needs of the county
- Identifies strategic opportunities and recommendations to improve mobility
- Compliment and support existing transportation plans and goalsa from cities and other agencies.





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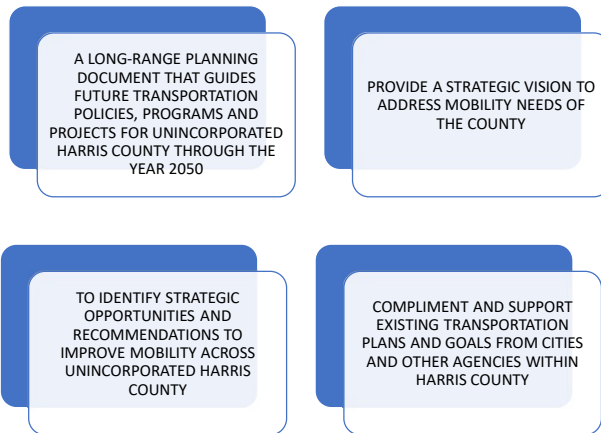
# Harris County Transportation Plan & Regional Mobility



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## Harris County Transportation Plan Goals



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## Harris County Transportation Plan Next Steps in 2023

- Strategic Planning sessions within Harris County
- Begin meeting with external stakeholders
- Develop scope of work for the HCTP incorporating the feedback from the initial outreach
- Consultant Procurement
- Initiate planning project

## Draft Standard Specifications

### Fix Known Issues & Gaps

- Lessons Learned From Past Capital & Maintenance Projects

### Improve Consistency

- Document Originates from the 1980s
- Previous Updates Completed in Piecemeal Fashion
- Mirror Specifications Found in Other Local Jurisdictions

### Material Availability Changes

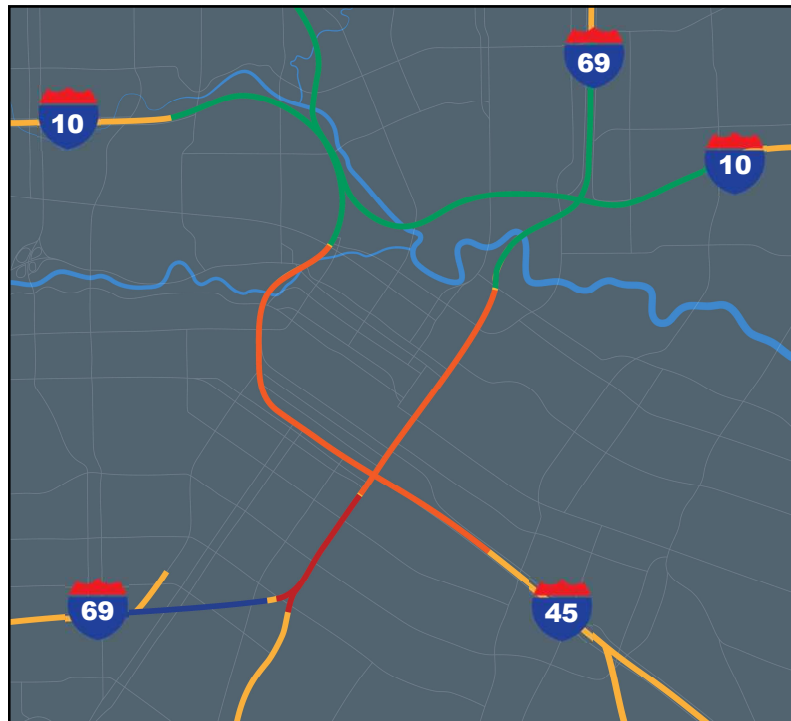
- Evolution of Industry Standards & Practices

# Community and Transportation Plans



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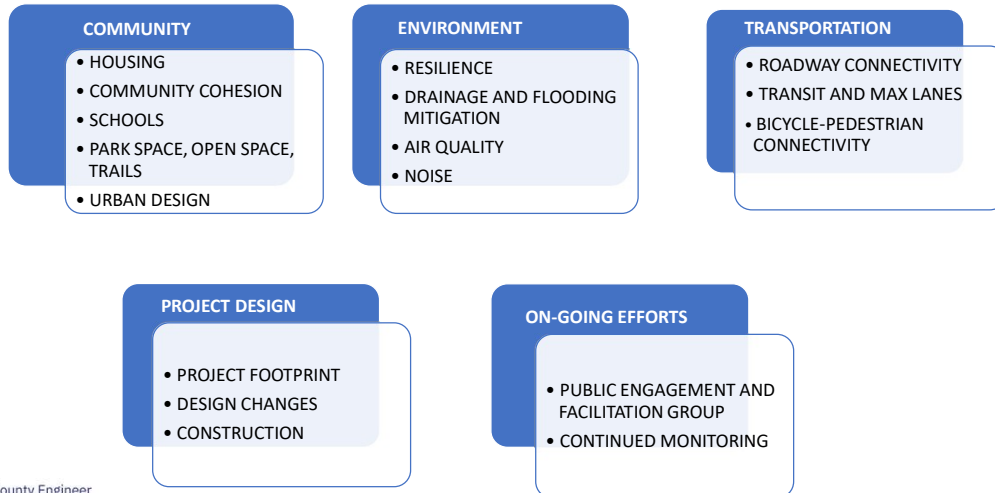
## NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT (NHHIP)

- Reconstruction of I-45 North between downtown Houston and the North Sam Houston Tollway (Beltway 8)
- Includes segments of connecting freeways I-10, I-69, and SH-288.
- MOUs executed between TxDOT and Harris County and the City of Houston
- Design of Segment 3 (freeway segments around downtown) underway
- Construction planned to begin in 2024

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## NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT (NHHIP) Memorandum of Understanding (MOU)



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## NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT (NHHIP) Next Steps

- MOU Partners track commitments
- Design Coordination with TxDOT
- Opportunities to enhance recreational use of open detention areas
- Collaboration on bicycle-pedestrian trails crossing NHHIP/Operation and maintenance of trails
- Identification of parks mitigation projects
- Coordination on housing and business displacement issues
- Coordination on stormwater and flood control

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# M/WBE PROGRAM



**Aspirational Goal:**  
30%



**Contract Goals:**  
25%-30%  
for Civil Work



**Good Faith Effort**  
Required



**Certifications:** City of  
Houston, HUB, TxDOT,  
SBA 8(a)




HARRIS COUNTY  
JEDO  
DEPARTMENT OF  
ECONOMIC EQUITY  
AND OPPORTUNITY




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## M/WBE Program



- 19.5 % Utilization of M/WBEs in County procurements over the program's first 16 months
- OCE awarded \$17.5M, 45% of our Professional Services Contract to M/WBE firms



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## Upcoming Bid Opportunities

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Expected \$900M bid award in 2023

- \$445M Est. Value of Neighborhood Drainage Projects
- \$175M Est. Value of Mobility Projects
- \$280M Est. Value of Facility Projects

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### How To Do Business with HCED

## Procurement Methods

- Pre-qualification for Professional Services
- Advertised Bids
- Request for Qualifications (RFQ)
- Informal Solicitations (under \$50K)
- Request for Proposals (RFP)

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# Professional Services Registry

Firms interested in providing professional services to HCED should visit the link below and submit the following documentation

- Standard Form 330 Part I and II
- Verification of state firm registered with the Texas Board of Professional Engineers (TBPE) or Texas Board of Architectural Examiners (TBAE)
- Firm's Proof of Compliance with Tax Policy as adopted by Commissioners Court on June 15, 2004

<https://www.eng.hctx.net/Professional-Services-Registry>

Questions should be forwarded to:

[HCPIDRegistry@hcpid.org](mailto:HCPIDRegistry@hcpid.org) | 713-274-3600 | 713-274-3652



# Thanks!

 [hcedcommunications@harriscountytexas.gov](mailto:hcedcommunications@harriscountytexas.gov)

