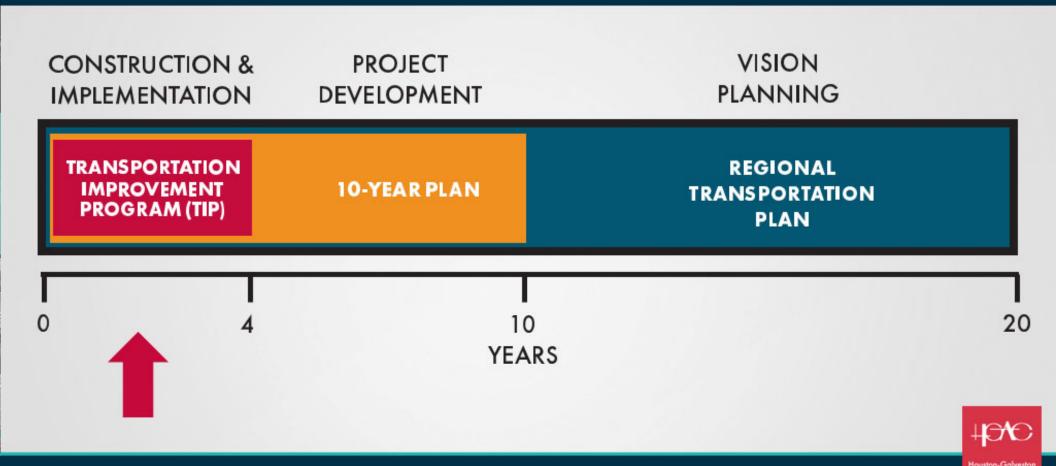
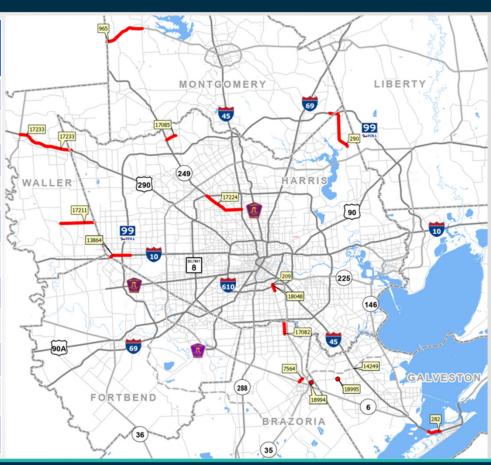


We Are Here



Delays from TIP to 10-Year Plan

| # | MPO ID | Project Description | | | | |
|----|--------|--|--|--|--|--|
| 1 | 209 | Construct SH 35/SPUR 5 on new location | | | | |
| 2 | 282 | Reconstruct and widen IH 45 S | | | | |
| 3 | 290 | Reconstruct and widen FM 2100 | | | | |
| 4 | 965 | Reconstruct and widen SH 105 | | | | |
| 5 | 7564 | Construct new location FM 528 | | | | |
| 6 | 13864 | Restripe and widen IH 10 W | | | | |
| 7 | 17082 | Widen Mykawa Rd | | | | |
| 8 | 17085 | Reconstruct FM 2920 | | | | |
| 9 | 17211 | Reconstruct and widen FM 525 | | | | |
| 10 | 17224 | Reconstruct and widen SH 249 | | | | |
| 11 | 17233 | Widen US 290 | | | | |



Delays from TIP to 10-Year Plan

| # | MPO ID | Project Description |
|----|------------------|--|
| 12 | 18033 | Widen Northpark Drive |
| 13 | 18048 | Construct 4 Direct Connectors on IH 610 S at SH 35 |
| 14 | 18156 & 18516 | Reconstruct and Widen FM 2920 |
| 15 | 18402 | Reconstruct and Widen IH 10 W |
| 16 | 18405 | Construct Inner Katy Bus Rapid Transit |
| 17 | 18981 | ROW Acquisition for IH 45 N (NHHIP Seg 1B) |
| 18 | 18982 | ROW Acquisition for IH 45 N (NHHIP Seg 1A) |
| 19 | 18978 | ROW Acquisition for IH 45 N (NHHIP Seg 2A) |
| 20 | 18979 &18983 | ROW Acquisition for IH 45 N (NHHIP Seg 2B) |
| 21 | 18980 | ROW Acquisition for IH 45 N (NHHIP Seg 1D) |



Delays from TIP to 10-Year Plan

| # | MPO ID | Project Description | | | | |
|----|-------------------------|---|--|--|--|--|
| 22 | 18514 | Reconstruct and widen FM 529 | | | | |
| 23 | 18721 | Intersection improvements on SH 6 at FM 529 | | | | |
| 24 | 18984 | ROW Acquisition for FM 521 widening | | | | |
| 25 | 18985 | ROW Acquisition for Magnolia Relief Route (FM 1488) | | | | |
| 26 | 18986 & 18988 | ROW Acquisition for SH 75 | | | | |
| 27 | 18989 | ROW Acquisition for IH 10 E | | | | |
| 28 | 18994 & 18995 | ROW Acquisition for FM 517 | | | | |
| 29 | 18996, 18997 & 18998 | ROW Acquisition for FM 529 | | | | |
| 30 | 18999 | ROW Acquisition for SH 249 | | | | |
| 31 | 19023 & 19024 | Construct new 2 lane Frontage Roads on IH 10 W | | | | |



5

Delays Within the TIP

| # | MPO ID | Project Description |
|---|------------------|--|
| 1 | 14249 | Construct 4 DCs on SH 99 Segment B |
| 2 | 18260 & 18846 | Regional Transit Fare Collection System |
| 3 | 18761 | 54 Scott BOOST Corridor |
| 4 | 18762 | 56 Airline/Montrose BOOST Corridor |
| 5 | 18977 | ROW Acquisition for IH 45 N (NHHIP Seg 3C 2) |
| 6 | 19078 | Reconstruct Hatcherville Road |



TIP Amendments

| # | MPOID | Proposed Amendment |
|---|------------------|---|
| 1 | 17113 | Add E-Phase, Delay and add Category-2 funding to FM 565 widening |
| 2 | 18031 | Add Category-5 funding to SH 105 addition of left turn bays and shoulder widening |
| 3 | 18036 | Add Category-5 funding to US 90 Grade Separation |
| 4 | 17080 | Add Category-7 funding and delay Landing Blvd widening |
| 5 | 18061 | Program E-Phase for Eagle Drive widening project to FY2027 of the TIP |
| 6 | 19546 & 19547 | Program City of Galveston's FTA 5337 State of Good Repair projects in FY 2026 |
| 7 | 19548 | Program City of Galveston's FTA 5337 State of Good Repair project in FY 2027 |
| 8 | 19549 | Program City of Galveston's FTA 5337 State of Good Repair project in FY 2028 |



Action Requested

 Transportation Advisory Committee recommendation for Transportation Policy Council approval of Resolution 2025-NN



- Delay 9 TxDOT Houston District construction projects on various roadways (MPO IDs 209, 282, 290, 17221, 17233, 18048, 18156, 18516, 18721) to FYs 2029-2033 of 10Y Plan to match the FY 2026 TxDOT Unified Transportation Program approved by Texas Transportation Commission on August 21, 2025.
- Delay 8 TxDOT Houston District construction projects on various roadways (MPO IDs 965, 7564, 14249, 17224, 18402, 18514, 19023, 19024) to FY 2028 of TIP and FYs 2029-2030 of 10Y Plan due to TxDOT's statewide level letting process.



- Delay the City of Pearland's Mykawa Road widening (MPO ID 17082) to FY 2029 the 10Y Plan due to TxDOT's statewide level letting.
- Delay METRO's Inner Katy Corridor bus rapid transit construction (MPO ID 18405) to FY 2033 of 10Y Plan due to TxDOT's statewide level letting.
- Delay Lake Houston Redevelopment Authority's Northpark Drive construction (MPO ID 18033) to FY 2029 of 10Y Plan due to TxDOT's statewide level letting.
- Delay the City of League City's Landing Blvd widening and reconstruction (MPO ID 17080) to FY 2029 in 10Y Plan due to TxDOT's statewide level letting. Add \$2.3M of federal/local STBG funds to relocate a utility tower.

- Delay 18 TxDOT Houston District Right-of-Way acquisition projects on various roadways (MPO IDs 18977, 18978, 18979, 18980, 18981, 18982, 18983, 18984, 18985, 18986, 18988, 18989, 18994, 18995, 18996, 18997, 18998, 18999) to FY 2028 and 2029-2035 of 10Y Plan due to Right-of-Way program budget constraints.
- Delay City of Tomball's FM 2920 reconstruction (MPO ID 17085) to FY 2029 of 10Y Plan per agreement between the City and TxDOT Houston District.
- Delay 4 of METRO's capital construction and system implementation projects (MPO IDs 18260, 18761, 18762, 18846) from FY 2025 to FY 2026 at METRO's request.



- Add engineering as authorized phase to TxDOT Beaumont District's FM 565 widening (MPO ID 17113) with additional \$4.3M of federal/state Cat-2 funding and delay to FY 2027 at the District's request.
- Add \$1.3M of federal/state CMAQ funding split 50/50 to TxDOT Beaumont District's FY 2023 SH 105 widening & turn bay project (MPO ID 18031).
- Add \$3.5M of federal/state CMAQ funding split 50/50 to TxDOT Beaumont District's FY 2025 US 90 grade separation construction at UP railroad (MPO ID 18036).



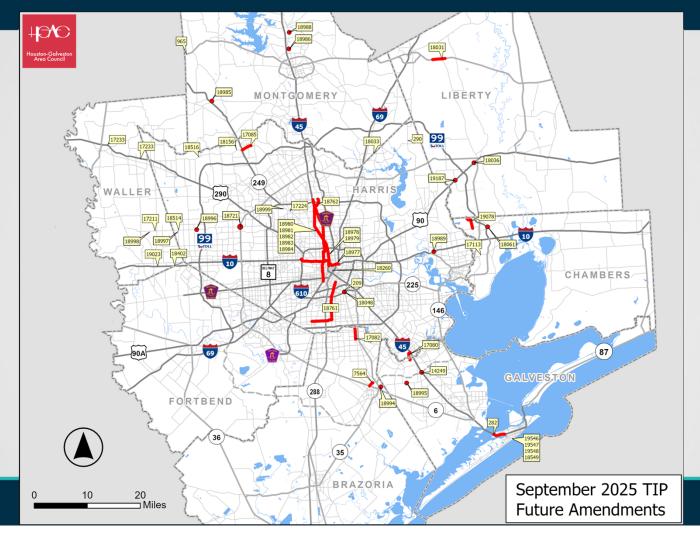
- Add \$2.3M of federal/state CMAQ funds to TxDOT Beaumont District's FY 2026 US 90 grade separation construction at FM 1413 (MPO ID 19187) to cover increased costs due to inflation.
- Add \$2.5M of federal STBG funds to Chambers County's CR 486 reconstruction (MPO ID 19078) to cover increased cost due to inflation. Add 550K TDCs in lieu of matching funds.
- Program engineering phase for City of Mont Belvieu's Eagle Drive reconstruction & widening (MPO ID 18061) with \$4.5M of federal/local STBG funds in FY 2027. Construction phase (MPO ID 19410) awarded in Project Selection Process for FY 2030.



Program 4 City of Galveston/Island Transit FFY 2024 and 2025 apportionments of Federal Transit Administration Section 5337, State of Good Repair Program, in FYs 2026-2028 with local matching funds (MPO IDs 19546, 19547, 19548, 19549).



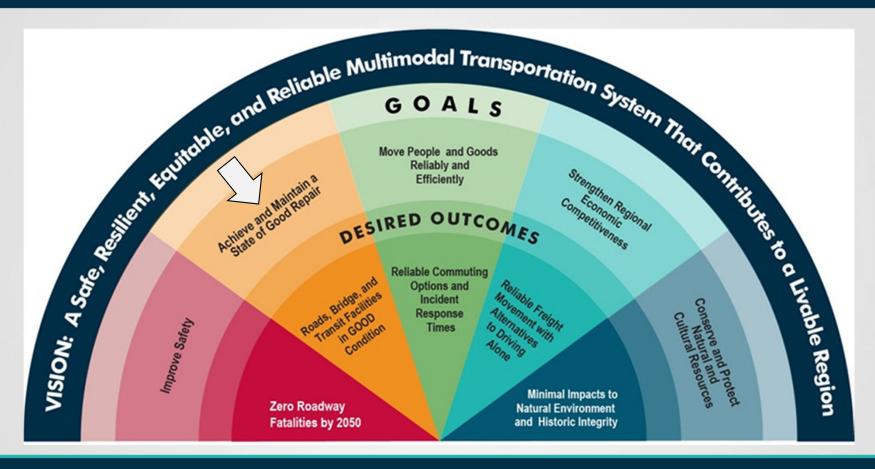
Future TIP Amendments



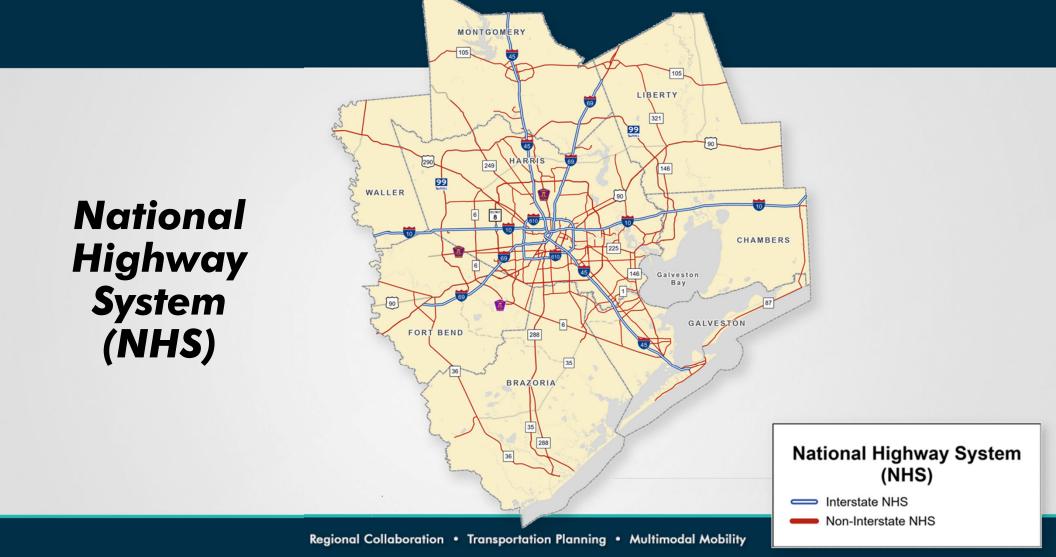




RTP Vision, Goals & Outcomes







Performance Measures

- Pavement Condition of Interstates & Non-Interstate NHS Roadways
 - International Roughness Index, Cracking, and Rutting or Faulting
- Bridge Condition of all NHS bridges ratings
 - Deck
 - Superstructure
 - Substructure
 - Culvert
- Reporting of 2024 Targets & Adjusting 2026 Targets





Analysis & Agency Coordination



- H-GAC analysis of regional data
- Pavement condition review by owners of Non-interstate NHS
 - City of Houston
 - Fort Bend County Toll Road Authority
 - Harris County Toll Road Authority
 - Harris County
- TxDOT Houston & Beaumont Districts maintenance investments



Bridge Targets & Conditions

| Percent of Bridge Deck Area | | | | | | | | |
|-----------------------------|------------------|--------------------|---------------|-----------------------|-------------------------------|--|--|--|
| Condition | Desired Trend | 24 & 26 Targets | 24 Actuals | 24 Targets Met? | Delta Percentage Points | | | |
| Good | 1 | 49.9% | 51.9% | ✓ | 2.0 | | | |
| Fair | 1 | 48.8% | 47.7% | ✓ | 1.1 | | | |
| Poor | 1 | 1.3% | 0.4% | ✓ | 0.9 | | | |

24 Targets – 4-year moving averages 26 Targets – held flat



Pavement Targets & Conditions

| PAVEMENT | | Interstate | | | | Non-Interstate | | | |
|-----------|------------------|--------------------|---------------|----------------------|-------------------------------|--------------------|---------------|----------------------|-------------------------------|
| Condition | Desired Trend | 24 & 26 Targets | 24 Actuals | 24 Target Met? | Delta Percentage Points | 24 & 26 Targets | 24 Actuals | 24 Target Met? | Delta Percentage Points |
| Good | 1 | 45.7% | 43.6% | No | 2.1 | 34.7% | 35.5% | ✓ | 0.8 |
| Fair | 1 | 54.2% | 56.3% | No | 2.1 | 62.1% | 60.1% | ✓ | 2.0 |
| Poor | 1 | 0.1% | 0.1% | ✓ | 0 | 3.2% | 4.4% | No | 1.2 |

24 Targets – 4-year moving averages

26 Targets – held flat



Addressing the Needs

Continue Pavement & Bridge Management Systems to identify needs

Scheduled maintenance & reconstructions are addressing worst conditions Roadway investments have positive impacts to State of Good Repair



Regional Investments

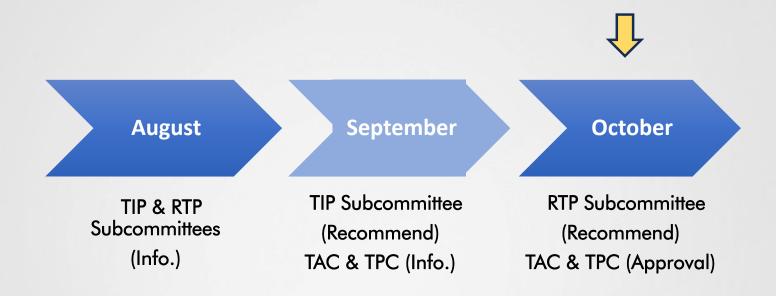
TxDOT Dedicated Funding

| FY 2025 - 2028 | NHS | Not on the NHS | Total |
|-----------------------|----------|-------------------|----------|
| Pavement (Category 1) | \$ 442 M | \$ 315 M | \$ 757 M |
| Bridge (Category 6) | \$ 55 M | \$ 82 M | \$ 137 M |
| Total | \$ 497 M | \$ 397 M | \$ 894 M |

- H-GAC's Project Selection Process State of Good Repair & Resiliency
- TxDOT's Unified Transportation Plan (UTP) 10-Year Plan



Timeline



TIP – Transportation Improvement Program Subcommittee

RTP – Regional Transportation Plan Subcommittee

TAC – Transportation Advisory Committee

TPC – Transportation Policy Council



Recommendation

Recommendation of Resolution 2025-25 to the Transportation Policy Council

- Reporting 2024 target progress
- No adjustments to 2026 targets



Contact Information



Karen Owen

Senior Planner

Project Programming & Development

karen.owen@h-gac.com

832-681-2614





CMP Background



Systematic approach for managing congestion

Application of Travel Demand Management

Maximize use of capital improvements

Goals & Objectives based on 2045 Updated RTP

Updated 2015, 2021, and Interim/Administrative Update 2025



Summary of Changes in 2025 Interim Update



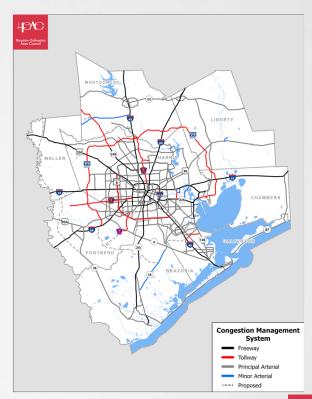
- Brings up to date the Congestion Management Network maps (extension of SH99, transit lines, bikeways)
- Adds three missing Congestion Management Analysis questions.
- Adds link to a new online Congestion Management Analysis Form. No more PDFs.
- Application link is: https://www.h-gac.com/congestion-management/cmp-analysis-request-submission
- Removes discontinued software



Congestion Management Process and Plan



- The Federal Highway Administration (FHWA) defines congestion as:
 - The level at which the transportation system performance is no longer acceptable due to traffic interference.
- The Congestion Management Process describes the overall effort to manage congestion
- The Congestion Management Plan addresses congestion moving forward
- Metropolitan Planning Organizations are required to update the Congestion Management Process periodically.





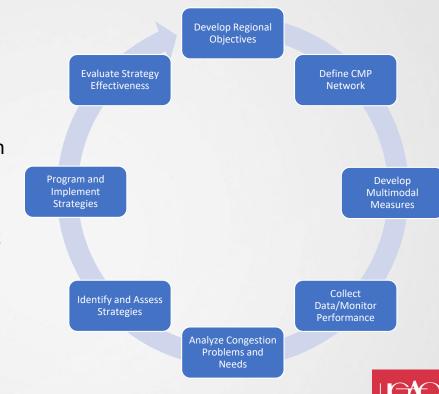
CMP Process



Provides a means to develop strategies and address the region's congestion challenges

CMP feeds into the long-term and short-term surface transportation plans:

- Long-Term Regional Transportation Plan (RTP)
- ✓ Ten-Year Plan
- Short-Term Transportation Improvement Program (TIP)
- The process improves regional strategic decision-making and encourages project design to mitigate the conditions impacting congestion.



PLANNING ORGANIZATION

Congestion Management Strategies



Intelligent Transportation Systems

Freight

Bicycle and Pedestrian

Land-Use

Transportation Demand Management

Public Transportation

Roadway/Mobility

Roadway - Capacity Expansion

*Updated in 2021 to include freight, additional ped bike strategies Not updated in 2025



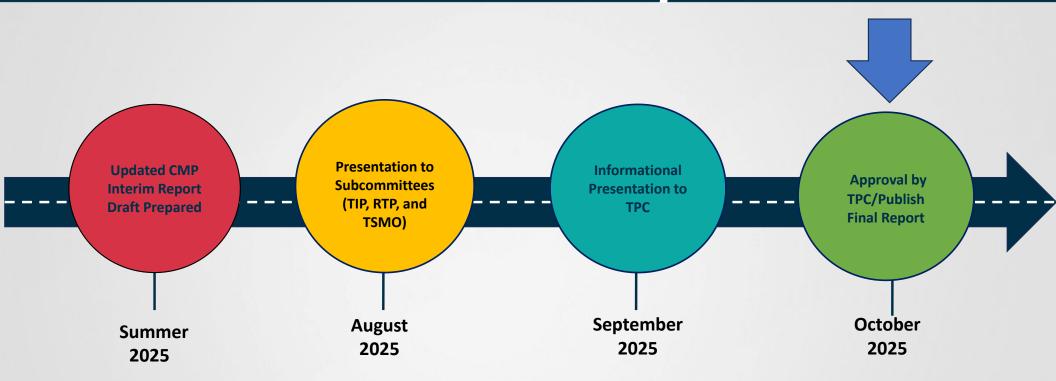
2025 Development Process



- Internal Workgroup to Develop Interim Update
- Presentation to Subcommittees
 - o TIP
 - o RTP
 - TSMO
- Informational Reviews and Approval by the TAC/TPC in October 2025



Congestion Management Plan 2025 – Interim Update





CMP Update 2021 and 2025 Interim Update



2025 Interim Plan Update

https://www.h-gac.com/getmedia/9bfd9842-62b1-4bce-a4d8-6e0392997f93/Draft-Congestion-Management-Process-Interim-Update-2025

2021 Plan Update

https://h-gac.com/getmedia/bca62e52-8f2f-445a-85e4-686c8f942a2c/2021-congestion-management-process

2021 Public Comments

https://h-gac.com/getmedia/fe71bb9e-19af-47bc-abbd-0c799c5ab036/Public-Comments-Summary-CMP-2021



Questions?

THANK YOU

Alan Rodenstein
Principal Planner | Congestion Management

alan.rodenstein@h-gac.com

713-993-2407





2045 RTP Update - Amendment Details



- Fiscally Constrained Project List
 - Expenditures = \$131 billion
 - Revenues = \$141 billion
- Addition of Projects
 - Project Selection Process (PSP)
 - Project Development Process (PDP)
- Removal of Projects
 - Completed
 - Let
 - Removed
 - Cancelled

2045 RTP Listing

Part I: Non-Exempt Projects

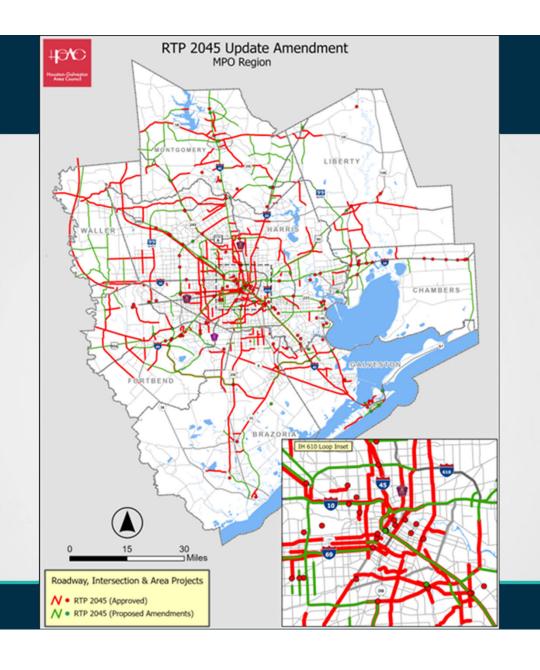
Part II: Non-Regionally Significant (NRS) or Exempt

from Regional Emissions Analysis Projects (EREA)

Part III: Exempt Projects

Part IV: Let Projects

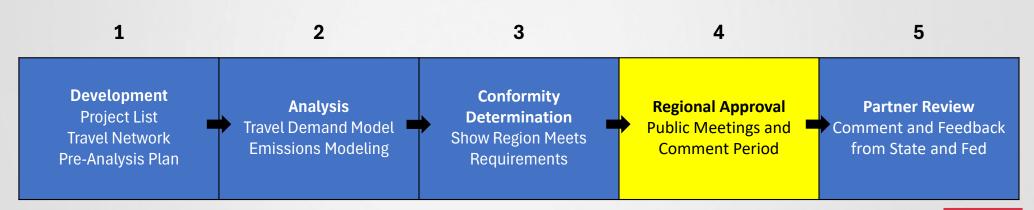






Transportation Conformity

- A Federal statutory requirement that links the federal air quality regulations with regional roadway planning
- Required when new regionally significant projects are added to a TIP or RTP





Transportation Conformity Results



Conformity Analysis Results versus Motor Vehicle Emission Budgets Derived from State Implementation Plans for the 2008 & 2015 8-hour Ozone Standards

| Year | NOx Budgets 2008/2015 (tons/day) | NOx Emissions (tons/day) | VOC Budgets 2008/2015 (tons/day) | VOC Emissions (tons/day) | VMT |
|------|--|--------------------------------|--|--------------------------------|-------|
| 2023 | 87.69 / 67.77 | 62.07✓ | 57.70 / 37.27 | 35.42√ | 195 M |
| 2026 | 87.69 / 56.12 | 49.60√ | 57.70 / 31.88 | 29.89✓ | 205 M |
| 2030 | 87.69 / 56.12 | 42.36✓ | 57.70 / 31.88 | 25.91√ | 221 M |
| 2040 | 87.69 / 56.12 | 41.41✓ | 57.70 / 31.88 | 22.68✓ | 261 M |
| 2045 | 87.69 / 56.12 | 43.86✓ | 57.70 / 31.88 | 22.80√ | 280 M |

NOx: Nitrogen Oxides | VOC: Volatile Organic Compounds | VMT: Vehicle Miles Traveled



Public Comment Period Summary



- Public Meeting Held On 9/17. Received two questions:
 - Regarding the nature of the emissions data presented in the conformity documentation and location of previous years data.
 - Availability of modeling data for previous years.
- Public Comment Period Open 9/10 10/10. Received one comment:
 - Port Houston reached out about project submission scheduling concerns.



Staff Request



 Requesting recommendation to approve UPWP Resolution No. UPWP2025-27 to the TPC.



Thank you!

Stephen Keen, Transportation Principal Planner

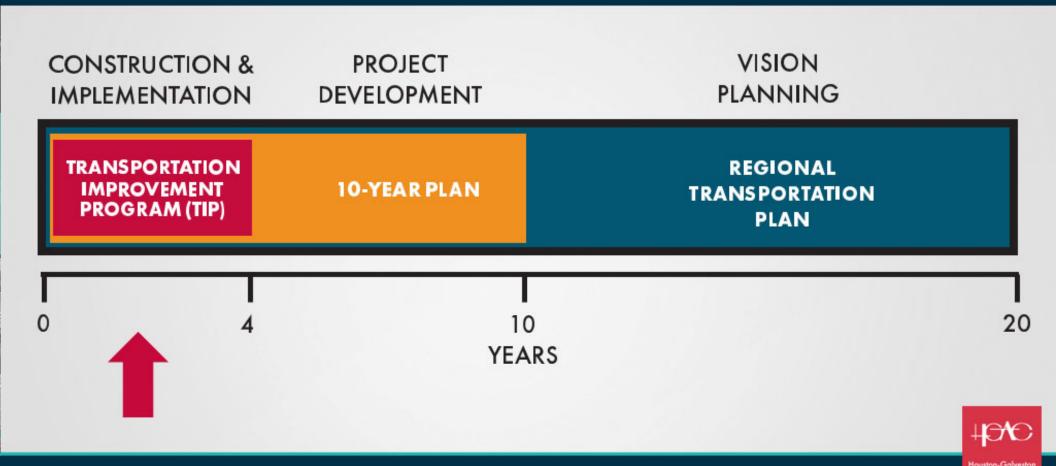
<u>Stephen.Keen@h-gac.com</u>

Andrew DeCandis, Manager, Air Quality Andrew.DeCandis@h-gac.com





We Are Here



Future 2025-2028 TIP Amendments

- Remove all Categories 2 and 4 funding from TxDOT HOU's IH 69 S reconstruction and widening (MPO ID 155), add \$234M of state Category 12 'Clear Lanes' funds, and delay it to FY 2028 to match the FY 2026 UTP.
- Remove all Categories 2 and 4 funding from TxDOT HOU's SH 35 frontage road construction (MPO ID 210) and add \$50M of federal/state Category 12 'Strategic Priority' funds to match the FY 2026 UTP.
- Delay TxDOT HOU's FM 523 reconstruction and widening (MPO ID 512) to FY 2030 due to the District's 'Budget Leveling' process.



Future 2025-2028 TIP Amendments

- Remove all Category 2 funding from TxDOT HOU's SH 332 widening (MPO ID 525) and delay it from FY 2028 to FY 2037 to match the FY 2026 UTP.
- Remove all Category-4 funding and adjust the amounts of Category-2 and Category-12 'Strategic Priority' funds of TxDOT HOU's IH 10 W reconstruction and widening (MPO ID 10334) to match the FY 2026 UTP.
- Add \$30M of federal/state Category-4 funding to TxDOT HOU's IH 10 reconstruction (MPO ID 19025) to match the FY 2026 UTP.

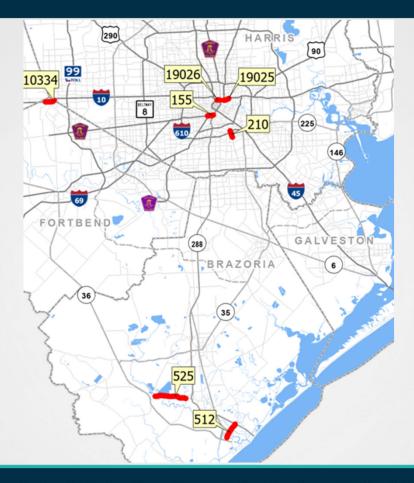


Future 2025-2028 TIP Amendments

- Add \$23.2M of federal/state Category 4 funding to TxDOT HOU's IH 10 realignment and reconstruction (MPO ID 19026) to match the FY 2026 UTP.
- Program the NCTCOG's construction and operation of the Texas Hydrogen Freight Truck Refueling Station in FY 2027 (MPO ID 19555) on IH-10 W in Brookshire, Texas with \$13.0M of federal Category-10 and matching funds from Pilot Travel Centers, LLC.



Future TIP Amendments



Action Requested

Review and discussion only





H-GAC Scenario Planning Study Overview



- Support the **H-GAC MPO region** in successfully hosting FIFA World Cup 2026.
- Develop data-driven traffic scenarios and traffic models for event and background traffic.
- Provide insights and solutions to support agency planning and stakeholder coordination (with TranStar).
- Deliver a comprehensive post-event summary with key findings, lessons learned, and recommendations.
- Create a tool/data management plan and guidance report to support future large-scale event planning









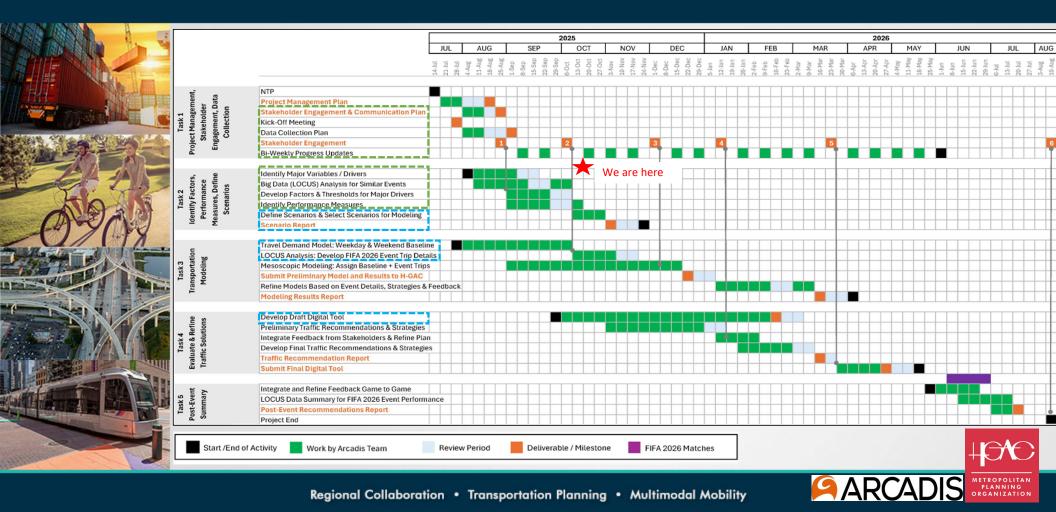
Data Collection

Define Scenarios

Model Scenarios Share Recommendations



Project Overview & Schedule



Stakeholder Engagement



- Houston Host Committee
- Houston Airport System (HAS)
- Houston METRO
- Houston TranStar
- NRG Stadium
- TxDOT Houston District
- City of Houston
- Houston Police Department
- Harris County Sheriff's Office
- Harris County
- Fort Bend County
- Brazoria county

- Montgomery County
- The Woodlands Township
- City of Conroe
- Harris County Toll Road Authority
- City of Sugar Land
- Greater Houston Partnership
- Downtown Houston Management District
- East End District
- Uptown Houston District
- H-GAC
- Private Sector (Uber and Lyft)



Engaging Regional Transit Agencies



- Galveston Island Transit
- Harris County Transit
- Houston METRO
- Brazos Transit
- Conroe Transit

- Colorado Valley Transit
- Gulf Coast Transit District
- Fort Bend Transit
- Woodlands Township



Stakeholder Workshop – Quick Hits



Regional approach to managing special events

42 participants

19 agencies

and
TranStar
Activities

Host

Stakeholder Engagement Reflections Past Events
Insights –
Locus and
INRIX Data

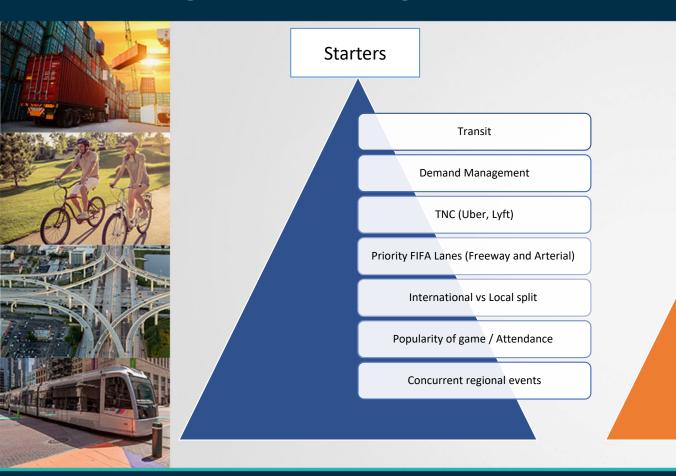
Defined FIFA Event Baseline Scenario

Scenario
Co-Creation





Setting the Stage for Scenarios



Combined Regional Transit

Weather

Incidents

Road Closures

July 4th

Fan Marches

Disruptions to Red Line

Concurrent Regional Events

Security / Threats / Evacuation

Fan Culture

Telecommute

Teams / Country



Scenario Development



Scenario: Weekday Game + Major Crash Incident: Fatal crash at I-610 & Main Street.



Scenario: Red Line Rail Disruption
Red Line train breaks down

Scenario: Multi-Event Day

Astros game, Independence Day celebration, and FIFA Round of 16 match



Scenario: Rain Event (6 inch) + Flooding
Heavy rainfall during FIFA activities
Flooding in known hotspots

Scenario: All Aboard

Well connected, high frequency regional transit with sufficient fleets and drivers that discourages driving



Scenario: TNC Hubs
TNC for short-trips Hubs

Scenario: Regional Mobility Fusion

Transit (factored with resource constraints, leverage school infrastructure for buses and parking)



Scenario: Connected Mobility Nodes sit (factored with resource constraints)

TNC for short-trips Hubs plus Transit (factored with resource constraints) plus leverage school infrastructure for buses and parking)





Scenario to Strategies Journey



Universe of **Scenarios**

Build upon scenario cocreation and formulate the universe of scenarios

Short-list Scenarios

Short-list scenarios based on H-GAC feedback

Scenarios -**Mapping**

Develop a matrix of short-list scenarios vs relevant stakeholders.

Scenarios for Strategic **Planning**

Stakeholder-driven qualitative scenario assessments to inform strategic planning, enabling crossstakeholder collaboration where appropriate

Scenarios for Modeling

Quantitative assessment: Apply travel demand and mesoscopic modeling to targeted scenarios, capturing multimodal performance metrics, bottlenecks, and roadway network demand. Share insights with stakeholders to refine event-day operational plans.

Event Planning -Mobility

Combines insights and intelligence from qualitative and quantitative assessments.



Stakeholder



Immediate Next Steps



- Finalize and shortlist scenarios for qualitative and quantitative assessments
- Refine travel demand models for event and background traffic for baseline and shortlisted scenarios
- Continue stakeholder engagement for inputs and insights
- Digital tool development for FIFA World Cup Scenario Planning
- Stakeholder workshop #2 to discuss model insights and preliminary strategies –
 Planned around mid third week of December (Final Draw for the FIFA World Cup 26 will take place in Washington DC on 5 December)



Questions / Comments



Project Manager

Arcadis US Inc.

Koushik.Arunachalam@arcadis.com

Michael Onuogu Project Manager H-GAC

michael.onuogu@h-gac.com

