

I-45 NHHIP Segment 3C Flood Mitigation

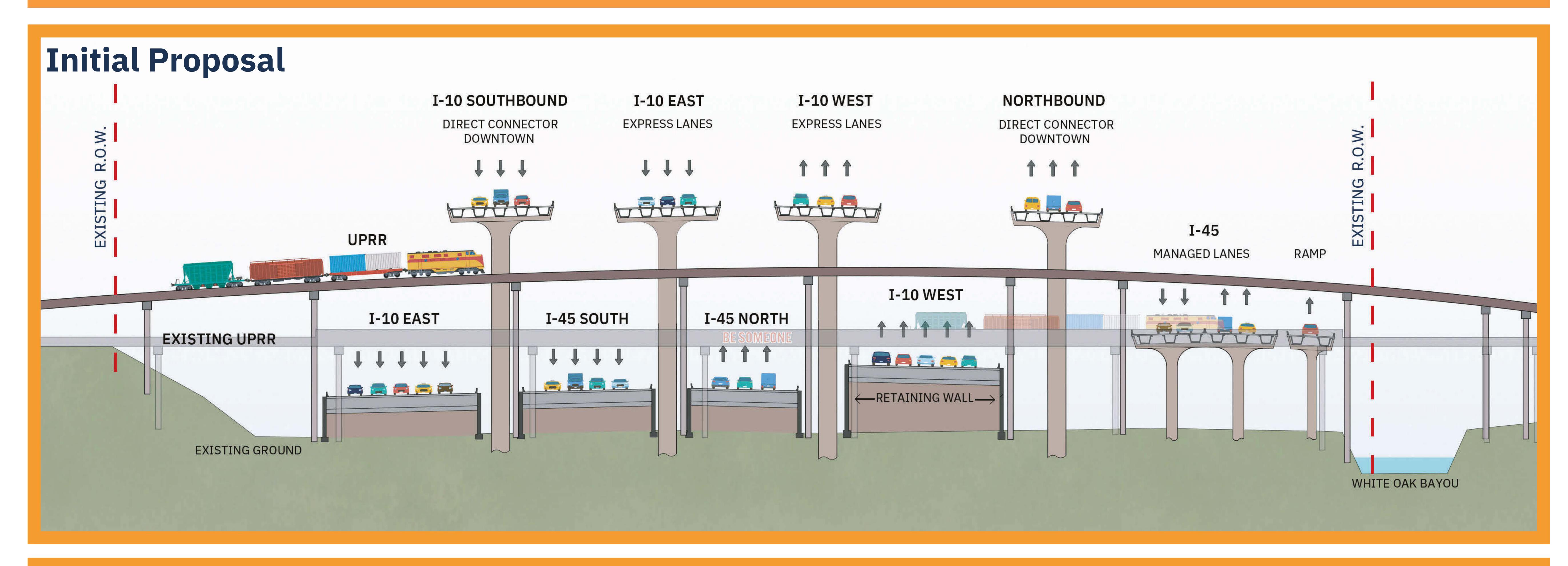
For additional information about the Project, visit us online at: www.txdot.gov/nhhip

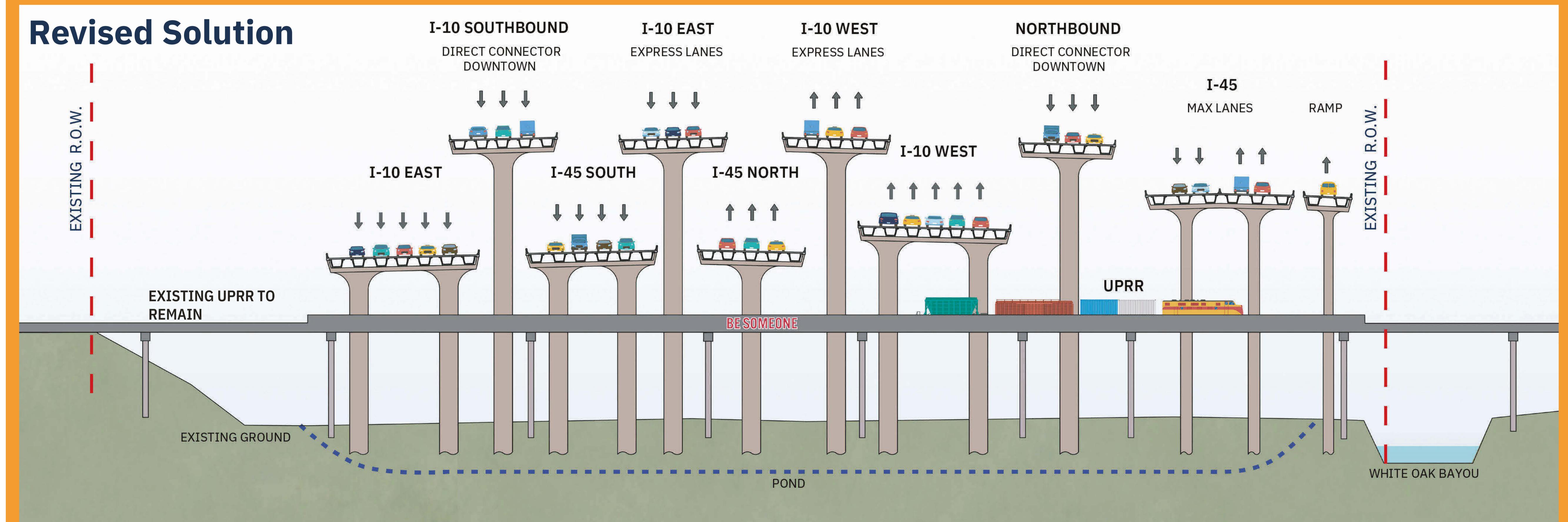
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FLOOD MITIGATION THROUGH RAISING THE MAINLANES (3C-4)





Design Update: I-45 and I-10 Mainlane Elevation and UPRR Bridge Coordination

- Initial Proposal: The original design proposed keeping the I-45 and I-10 mainlanes at-grade and elevated just above the 100-year Atlas 14 water surface elevation.
 - UPRR Bridge Impact: This approach would have required the removal and elevation of the existing Union Pacific Raliroad (UPRR) bridge widely recognized for the "Be Someone" grafitti-by approximately 12 feet.
 - Rail Network Disruption: Elevating the railroad would significantly disrupt UPRR operations and surrounding local streets, necessitating longer rail transitions and extended closures.
- Revised Solution: The updated design now elevates all roadways above the existing UPRR bridge, offering several key advantages:
 - Preserves UPRR Operations: Avoids disruption to active rail service and maintains continuity for surrounding streets.
 - Enhances Drainage and Flood Resilience: Elevating the roadways improves water flow and increases stormwater detention capacity beneath the structures.
 - Supports Future Rail Realignment: Accomodates potential realignment plans requested by the City of Houston.

SEGMENT 3C FLOOD MITIGATION IMPROVEMENTS

DETENTION PONDS

6 proposed detention ponds

FLOOD REDUCTION BENEFIT

I-45/I-69/I-10 to remain passable in 100-year Atlas 14 storm event.

NORTH & SOUTH CANAL PROJECTS

Enhanced flow capacity along Buffalo Bayou between I-69 and Main Street.

FLOOD REDUCTION BENEFIT

1.5 to 3-foot decrease in 100 year Atlas-14 floodwater surface elevations along Buffalo Bayou in downtown.

PUMP STATIONS 2 proposed pump stations

MAPLEGEND



The numbered markers on the map below correspond to the major improvements described.

The blue striped boxes indicate the locations of the North Canal and South Canal projects along White Oak Bayou and Buffalo Bayou.

