

Welcome

Community Connectors Meeting: Drainage Tunnel and Pump Station

Tuesday, May 13, 2025
Kealing Middle School

**Why am I
here
today?**

To learn about construction of the I-35 Capital Express Central drainage tunnel and pump station.

What is Community Connectors?

- Purpose:
 - Foster open dialogue between community members and the I-35 Capital Express Central project team.
- Objectives:
 - Informed community: Updates on progress, timelines and impacts. Providing contact information for neighbors.
 - Transparency: Consistent, early and accurate information.
 - Mitigation Planning: Address disruptions proactively.

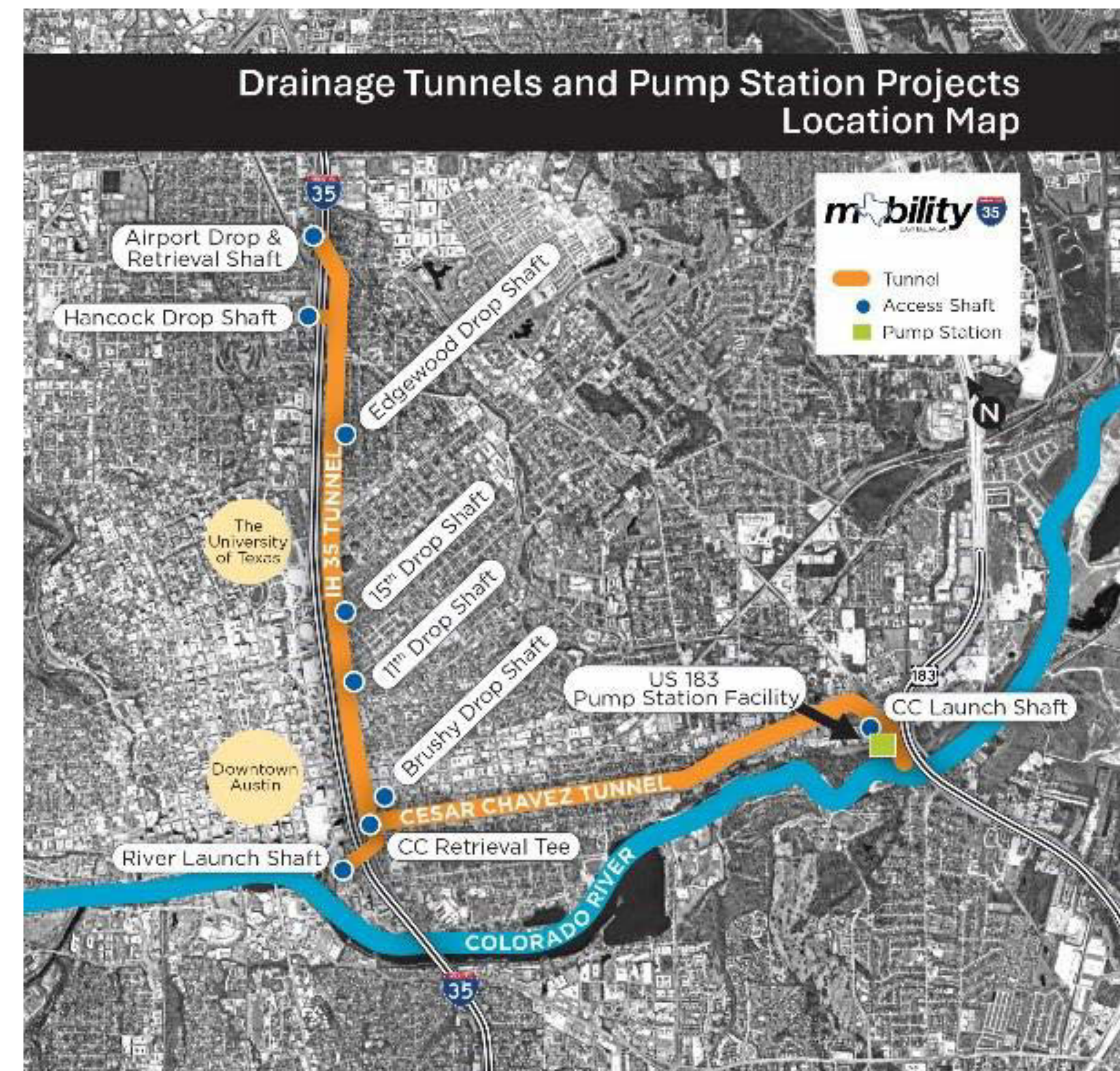


I-35 Capital Express Central: Project Phasing



Drainage Tunnel

- Limits: Airport Boulevard to Holly Street; along Cesar Chavez Street to US 183.
- Details:
 - Install and mine two drainage tunnels.
 - Depth – 70 to 200 feet.
 - Diameter – circular 22-foot interior diameter, mined by 2 shielded rock Tunnel Boring Machines (TBMs).
 - Install drop shafts along I-35 corridor.
- Construction start: Mid-2025



Drainage tunnel and pump station map

Pump Station

- Limits: At Cesar Chavez Street and US 183.
- Details:
 - 14,500 sq ft operation building.
 - 1,370 feet of 10x10 reinforced concrete tunnel providing gravity flow at high levels.
 - Capacity to move approximately 130,000 gallons of water per minute.
 - Large mechanical trash screen.
- Anticipated construction start: Mid-2025



Pump Station rendering (outside)



Pump Station rendering (inside)

Purpose of Drainage Tunnel and Pump Station

- Community feedback showed strong support to remove elevated decks, lower the highway, reconnect east Austin with downtown and accommodate potential deck plazas.
- The new lowered mainlanes would interrupt the existing drainage system.
- The drainage tunnel is intended to prevent the new lowered I-35 mainlanes from flooding.



Rendering of 8th Street, looking south



Rendering of 41st Street, looking south

Project Benefits

- Prevent lowered I-35 mainlanes from flooding.
- Partner with the City of Austin to construct a large regional water quality pond that will treat water before discharging to the Colorado River.
- Remove trash and some sediment to improve water quality.
- Reduce flood risk in the Boggy Creek and lower Waller Creek watersheds.
- Reduce runoff into the Waller Creek tunnel to ease capacity constraints and decrease maintenance on the tunnel.



Anticipated Construction Schedule

Phase One WE ARE HERE

- Site utility work at Airport Boulevard, 15th Street, Brushy Street and River Street drop shafts and the Cesar Chavez/ I-35 junction.
- Excavation of Airport Boulevard and 11th Street drop shafts and Cesar Chavez/ I-35 junction.
- Installation of geotechnical monitoring equipment.

Phase Two

- Excavation of 15th Street, Cesar Chavez Street and River Street drop shafts.

Phase Three

- Site utility work at Hancock, Edgewood Avenue and 11th Street drop shafts.
- Launch Tunnel Boring Machines.
- Excavation of Hancock, Edgewood Avenue and Brushy Street drop shafts.

Phase Four

- Tunnel connections from drop shafts.
- Restoration of project sites.
- Final tunnel lining.

What to Expect

- Construction work during the day, at night and on weekends to reduce length and traffic impacts.
- Lane shifts, closures and detours.
- Increase in noise, vibration, dust and lighting (including during night work).
- Potential increase in traffic on frontage roads and neighborhood streets.
- Shifts in the schedule due to weather.



Drop Shaft Overview

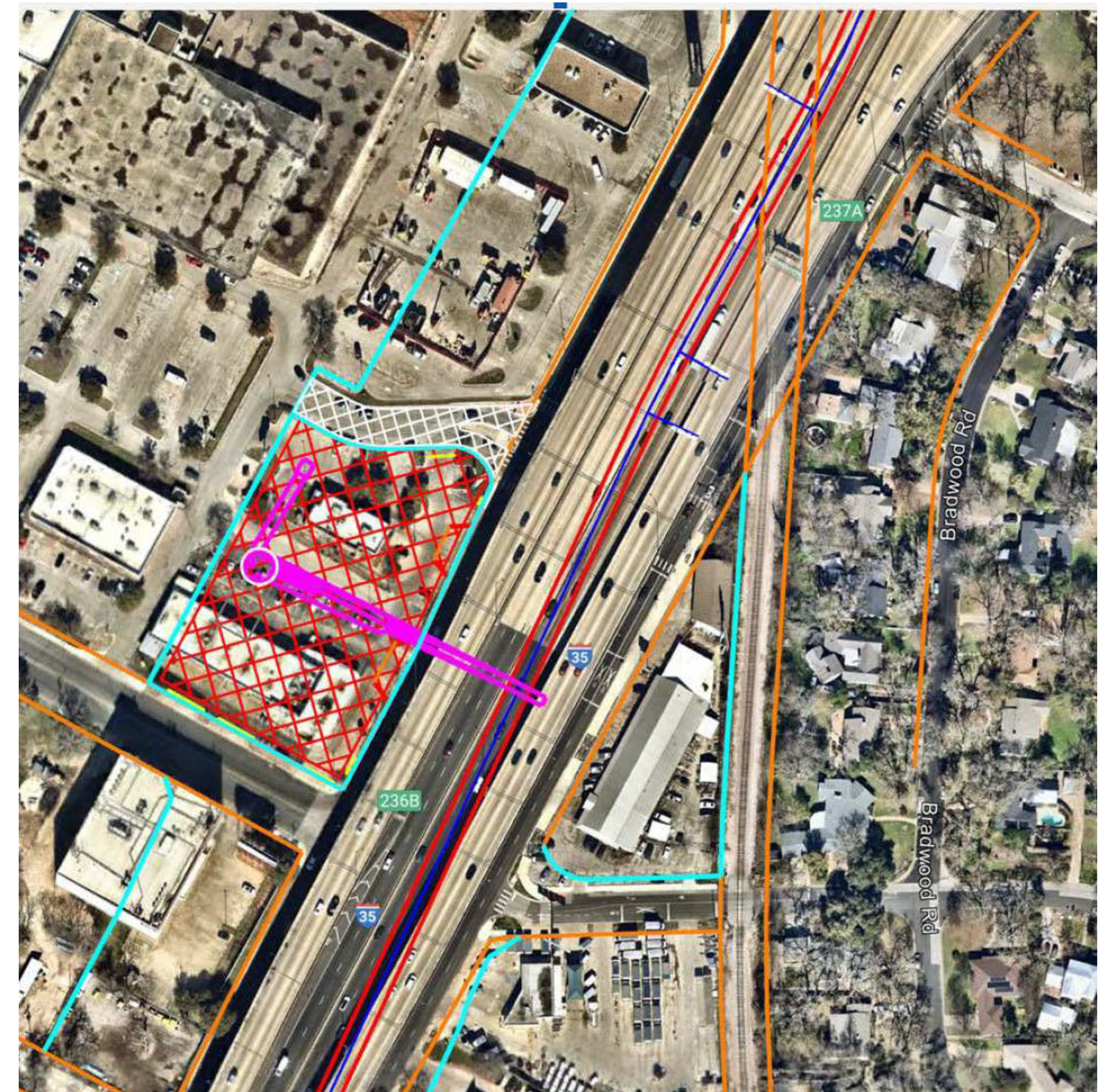
- TxDOT will drill and excavate nine 70-200-foot-deep shafts.
- Drop shafts provide maintenance and operational access to the drainage tunnel.
- The Cesar Chavez (CC)/I-35 Junction is temporary for connecting the tunnels, retrieving the TBM and installing ventilation.
- Shaft sites:
 - Nine locations along corridor.
 - Surrounded by temporary fencing and noise barriers.

| Drop Shaft Location | Shaft Diameter (ft) | Shaft Depth (ft) |
|---------------------|---------------------|------------------|
| Airport Boulevard | 40 | 187 |
| Hancock | 33 | 187 |
| Edgewood Avenue | 28 | 198 |
| 15th Street | 33 | 147 |
| 11th Street | 28 | 115 |
| CC/I-35 Junction | 60 | 70 |
| Brushy Street | 33 | 91 |
| Cesar Chavez Street | 40 | 93 |
| River Street | 40 | 78 |

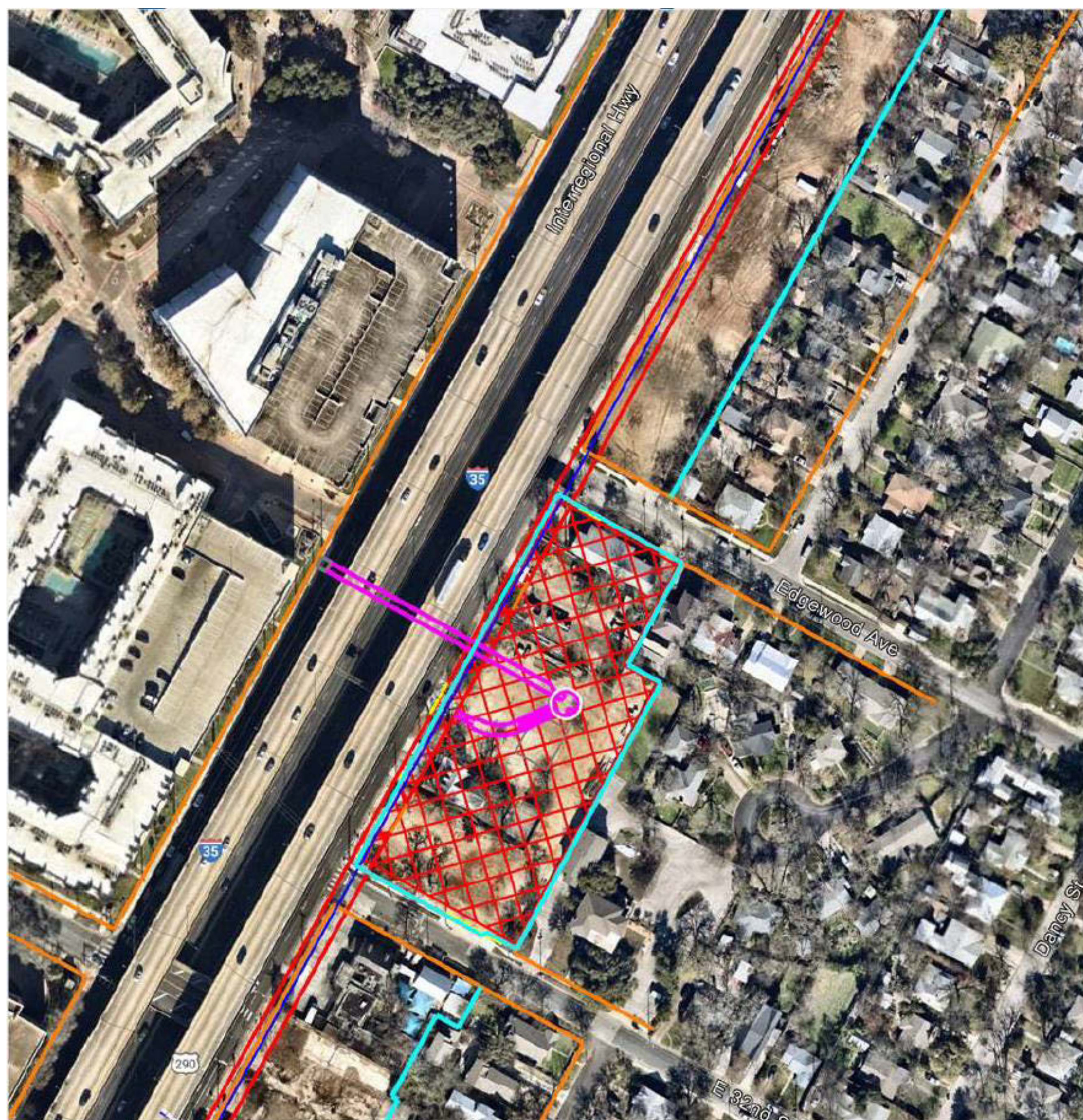
Airport Boulevard Drop Shaft



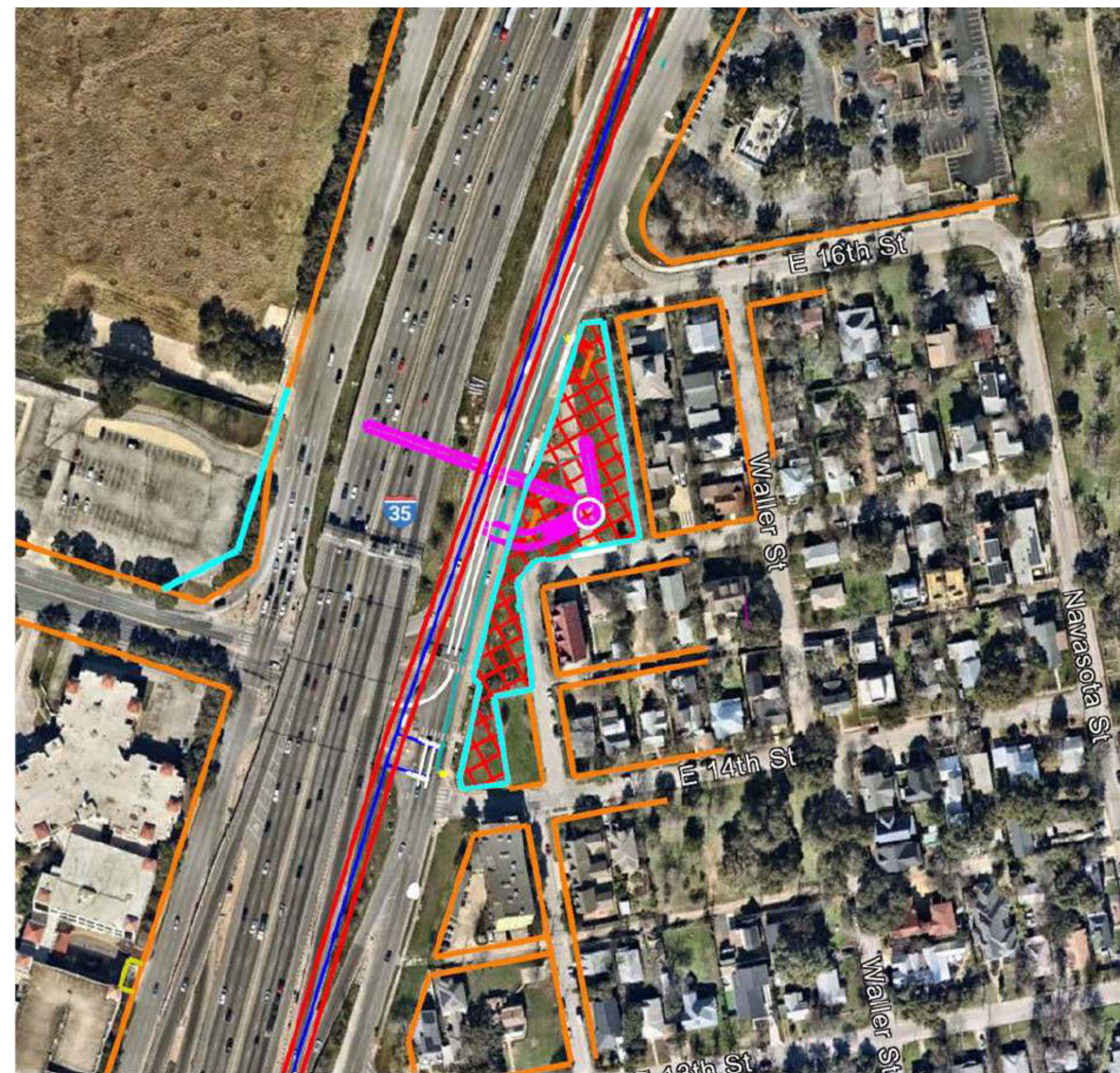
Hancock Drop Shaft



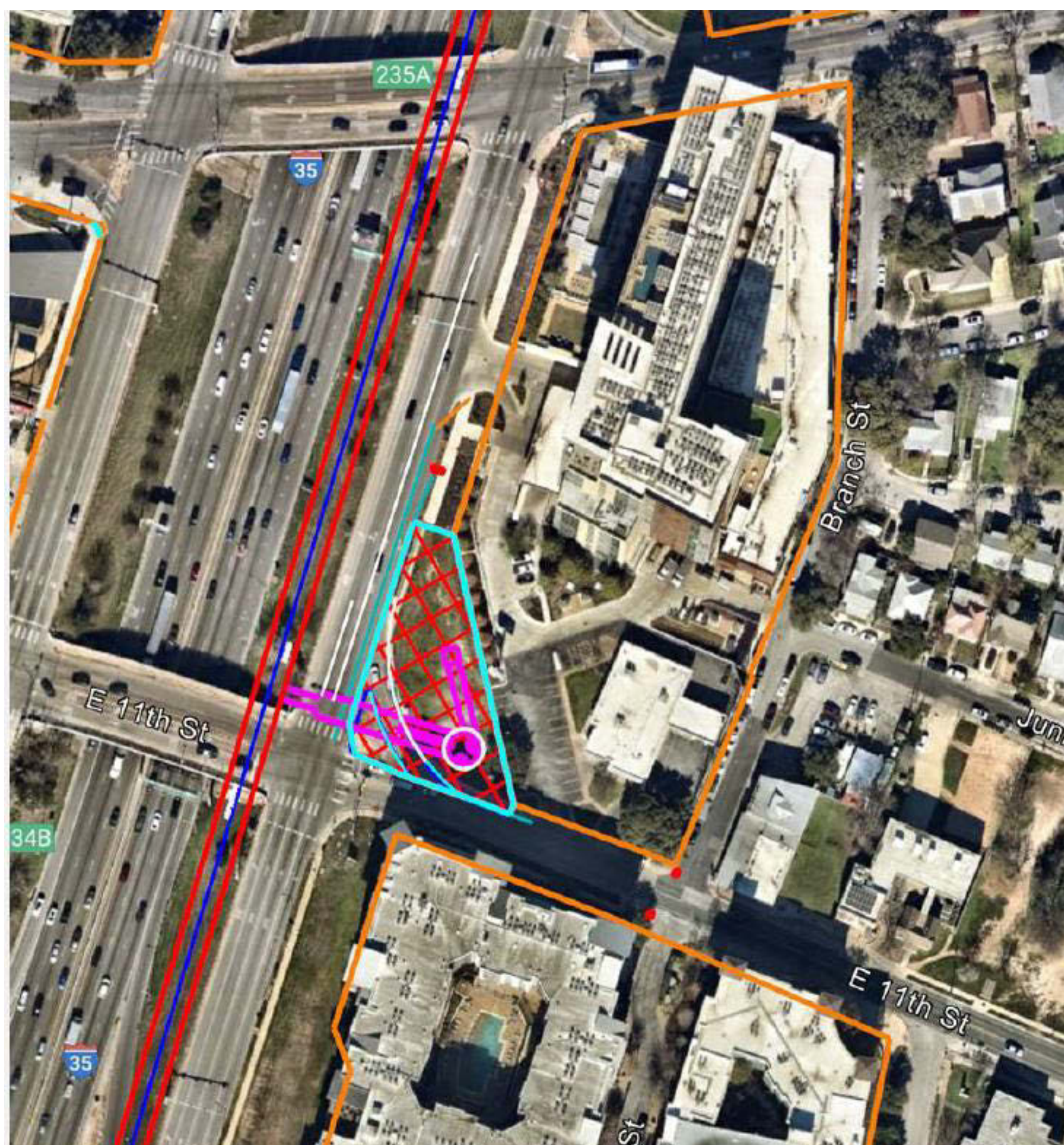
Edgewood Avenue Drop Shaft



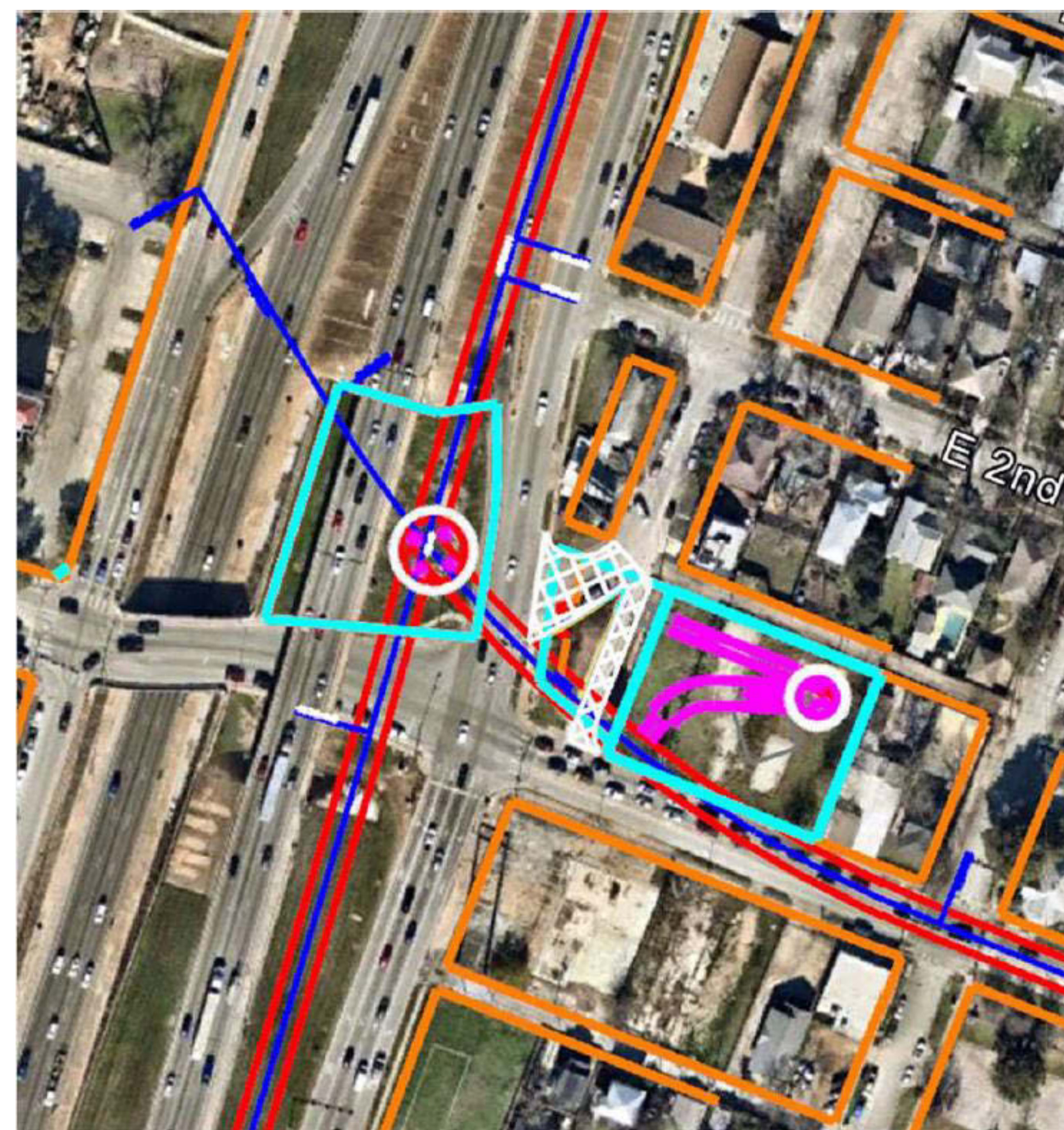
15th Street Drop Shaft



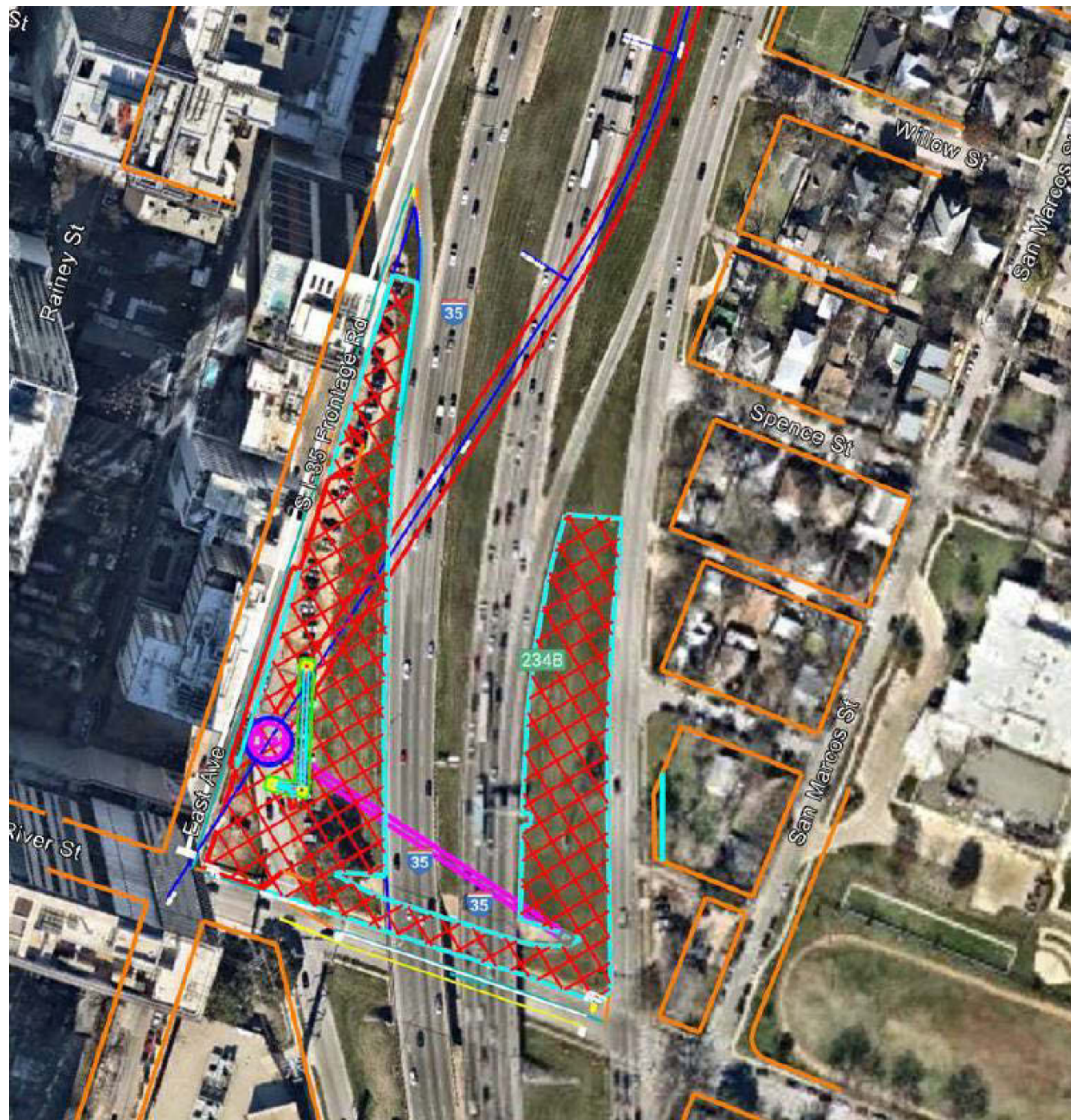
11th Street Drop Shaft



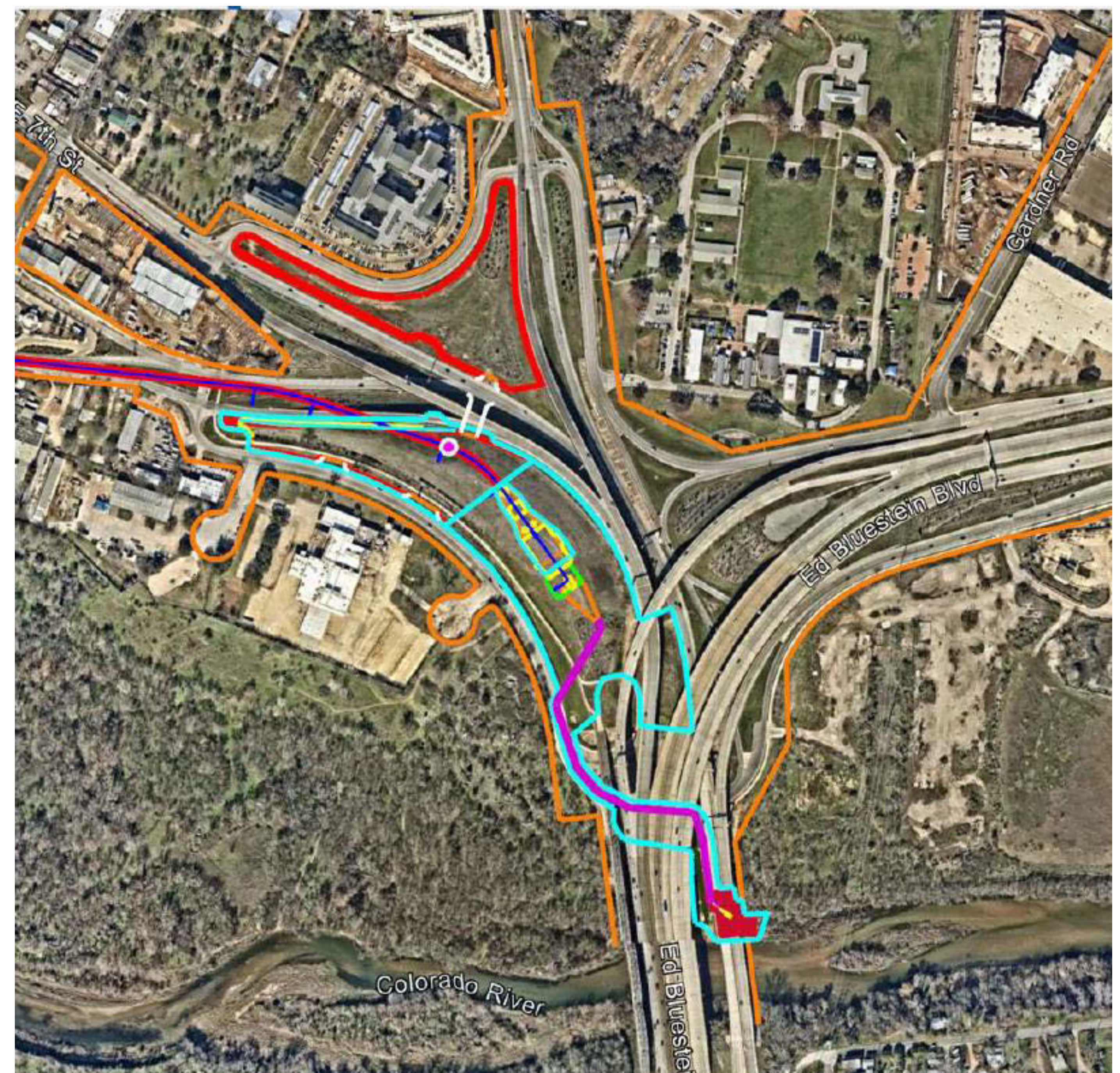
CC/I-35 Junction & Brushy Street Drop Shaft



River Street Drop Shaft



Cesar Chavez Street Drop Shaft & Pump Station

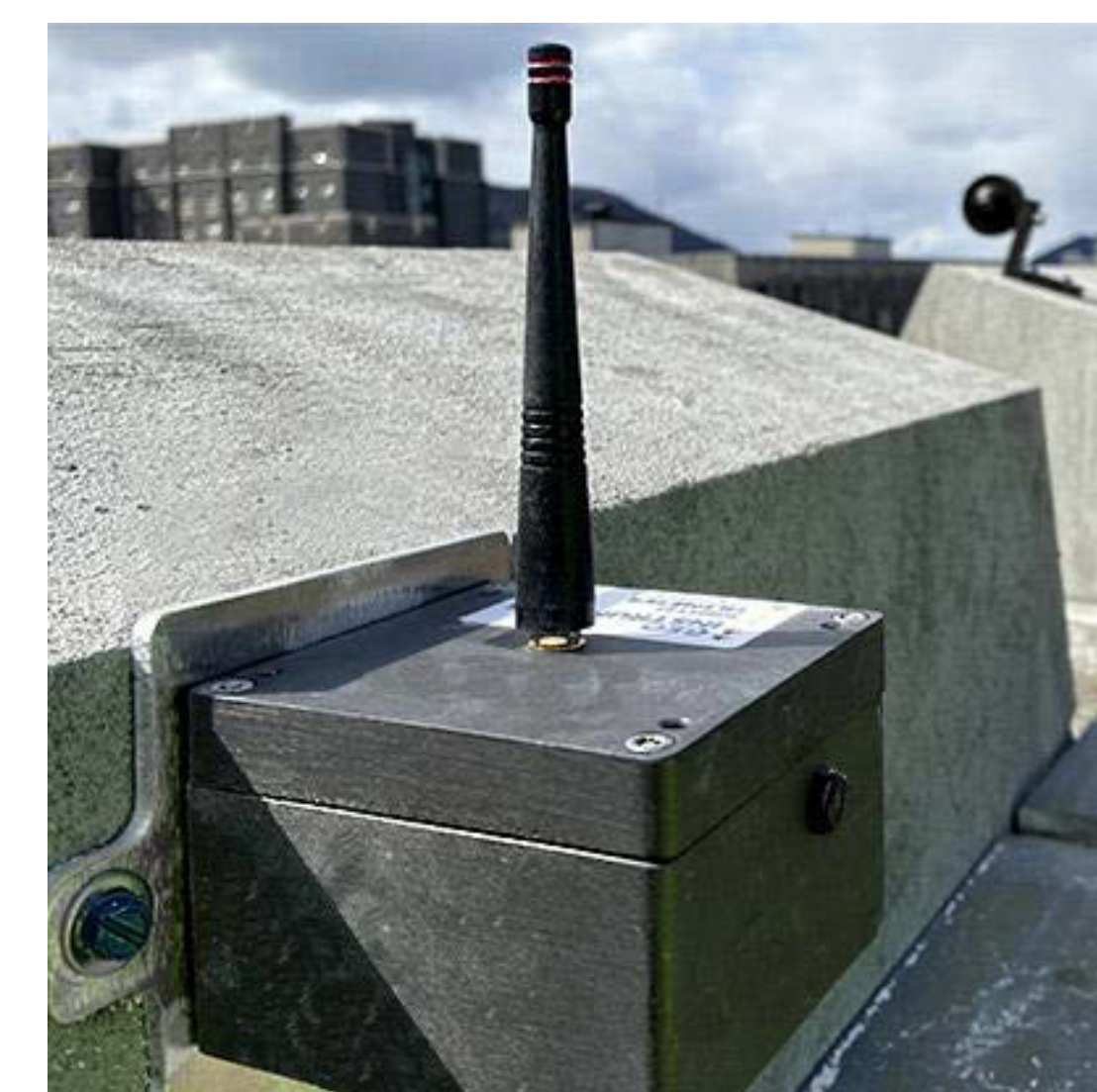


Vibration and Settlement Mitigation

- Sources of potential vibration:
 - Excavation of drop shafts, installation of geotechnical monitoring devices and tunneling.
- TxDOT will mitigate vibration impacts by:
 - Offering pre-construction and post-construction surveys to any property within a 100-foot radius of a drop shaft.
 - Provide ongoing monitoring during activities.
 - TxDOT will halt activities if unsafe levels are detected and until mitigation measures can be implemented.
- It is possible you may feel some level of vibration.
 - The intensity of the vibrations will depend on your distance from the activities.
 - Activities that cause vibrations may last several months.



Vibration Monitor



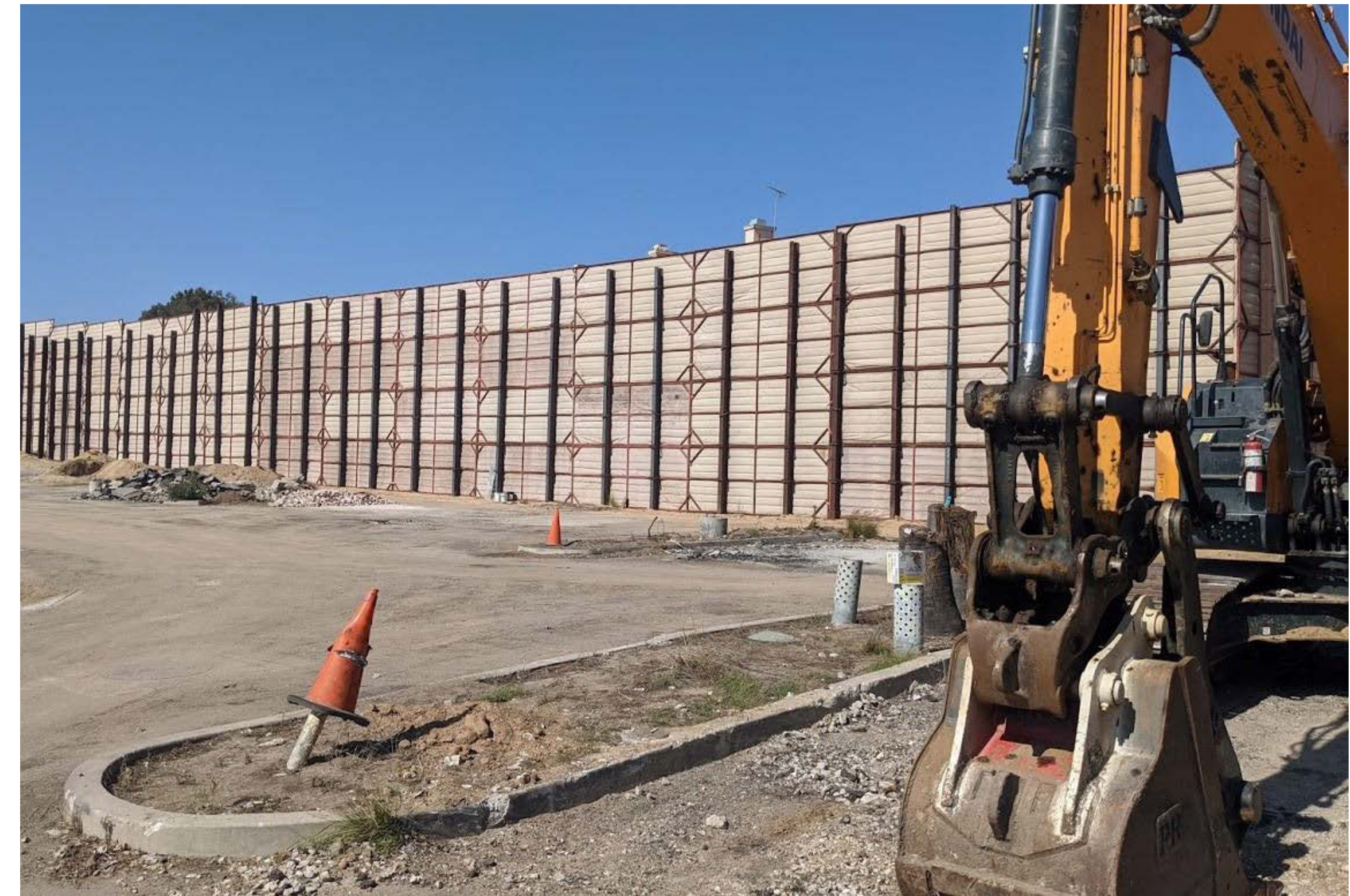
Tiltmeter



Survey Prism

Noise Mitigation

- Sources of potential construction noise:
 - Drilling, generators, ventilation fans and trucks.
- TxDOT will mitigate noise impacts by:
 - Installing temporary noise barriers at each boring and drop-shaft site.
 - Establish noise abatement plan.
 - Hire an acoustical consultant to monitor project site.



Example temporary noise barrier

Dust Mitigation

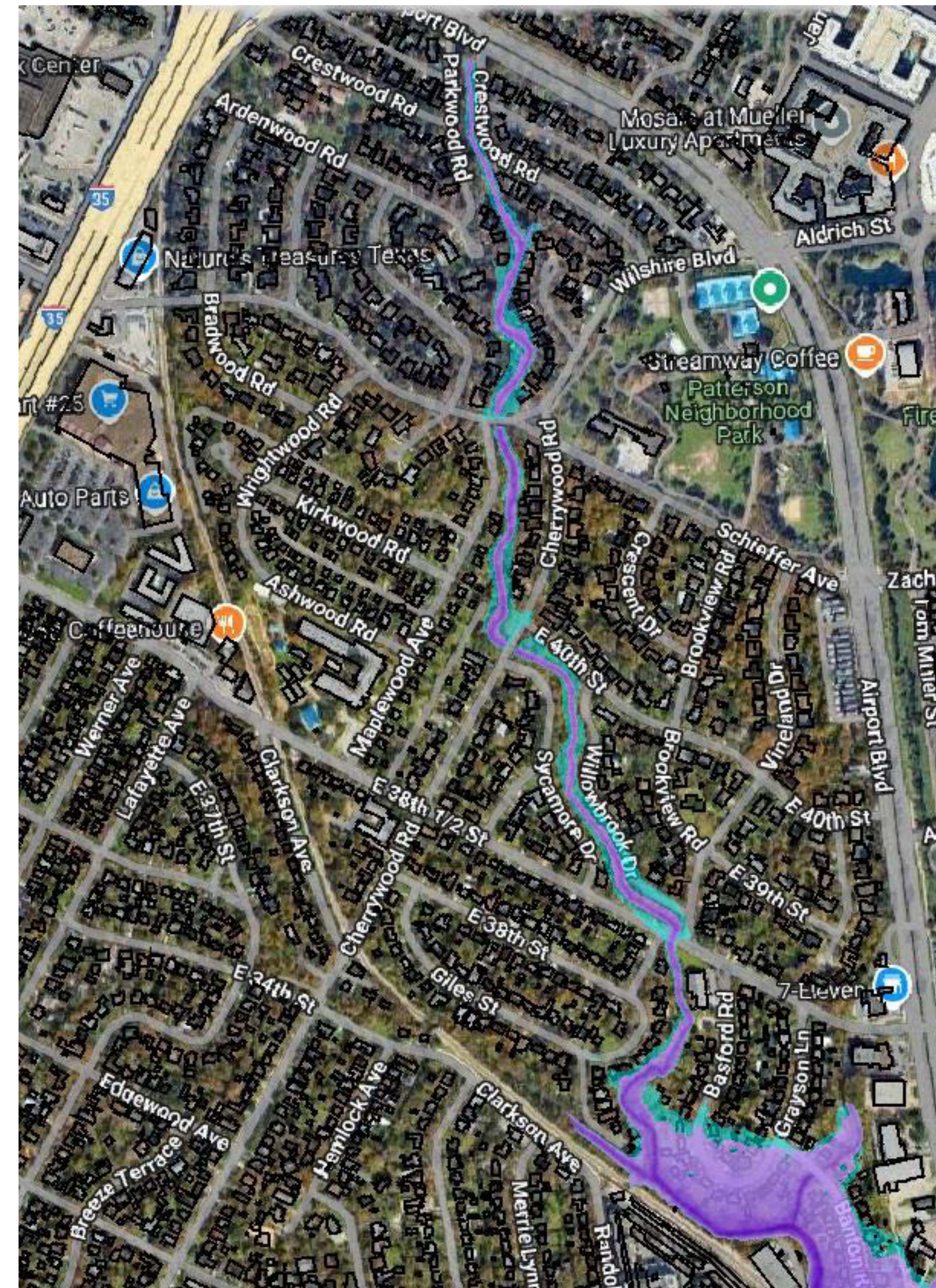
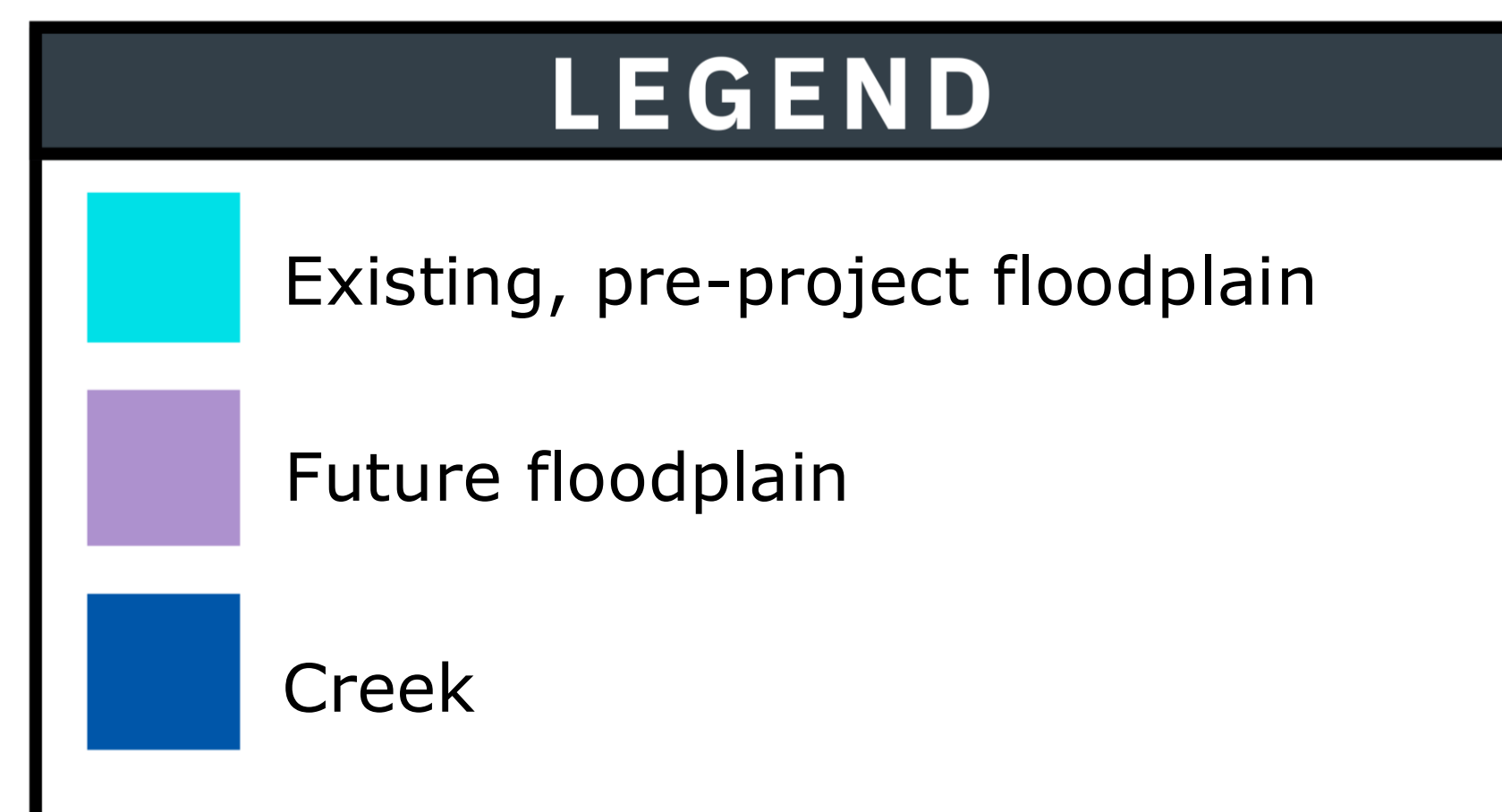
- Sources of potential dust:
 - Drilling, excavation and loading of trucks to remove construction debris.
- TxDOT will mitigate dust impacts by:
 - Employing a process known as “sprinkling” which involves a street sweeper with a water tank, dust control spray, broom and debris hopper to remove debris from the project site.



Example of sprinkling

Flood Mitigation

- Project would lower the 100-year floodplain, reducing the risk of flooding for those in the Waller Creek and Boggy Creek watersheds.
- More than 190 acres of floodplain reduction.

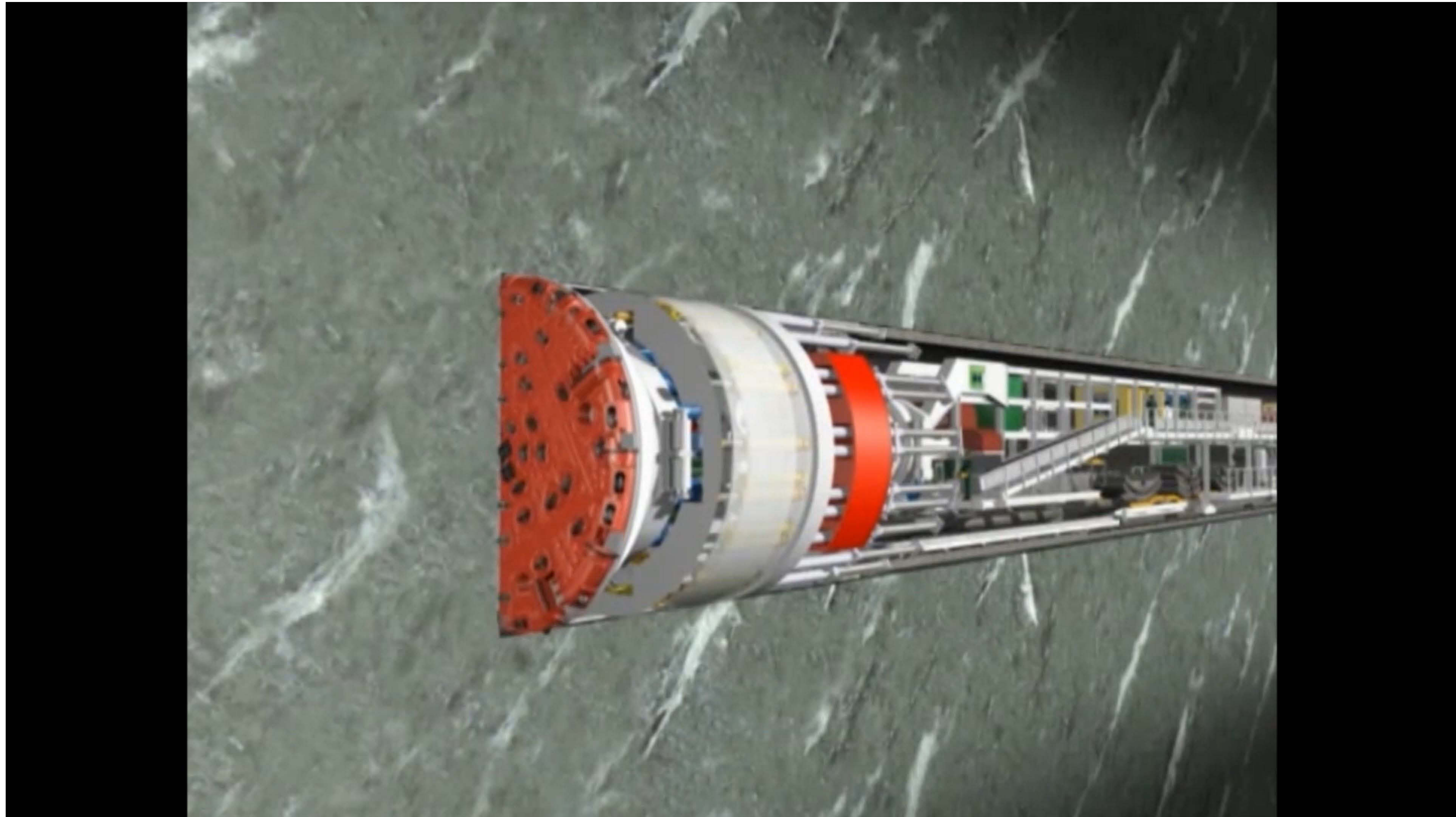


**The floodplain maps are subject to change.*

Tunnel Boring Machine



Tunnel Boring Machine Model



Stay Connected!



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