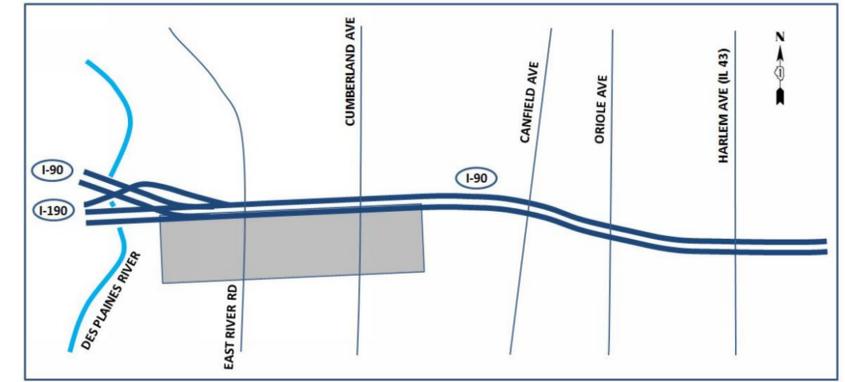
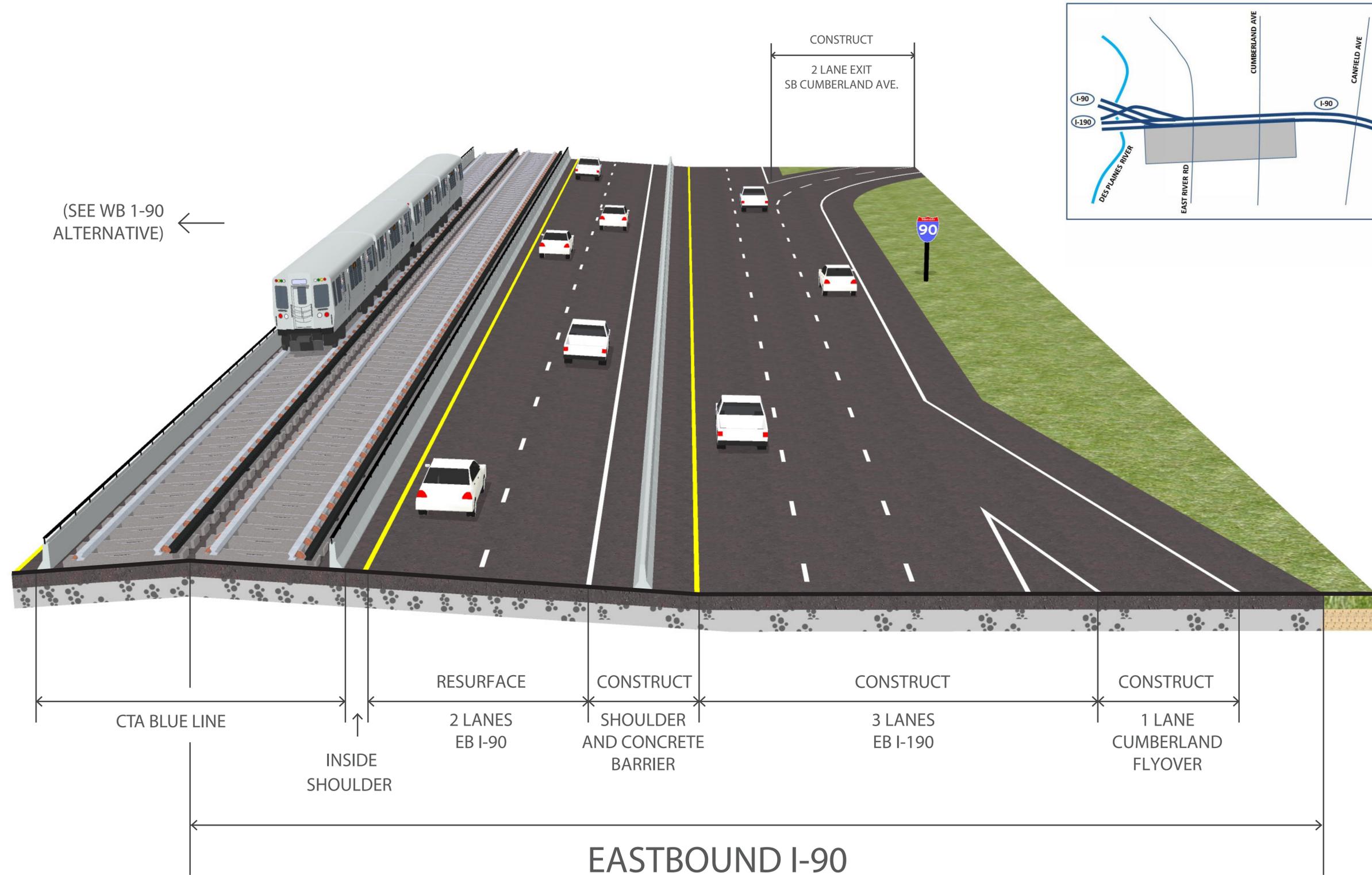


Typical Section

I - 190 to Cumberland | Conceptual Design

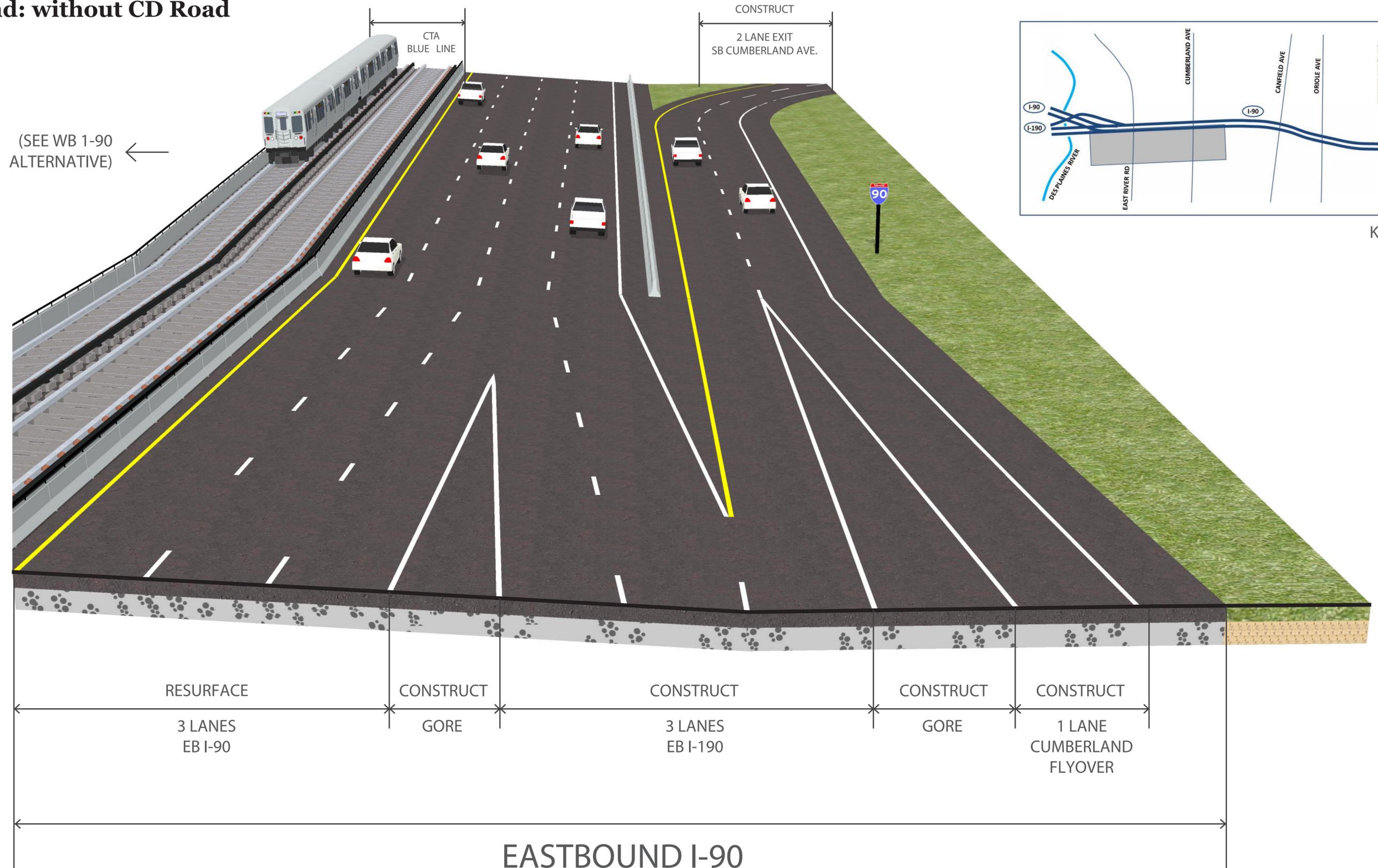
Eastbound: with CD Road



Typical Section

I - 190 to Cumberland | Conceptual Design

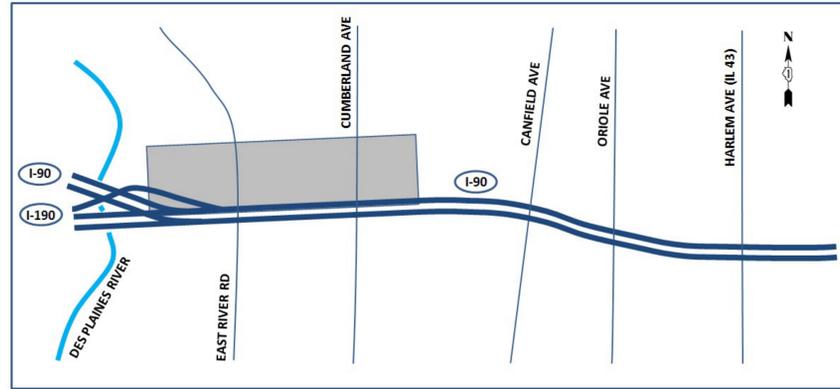
Eastbound: without CD Road



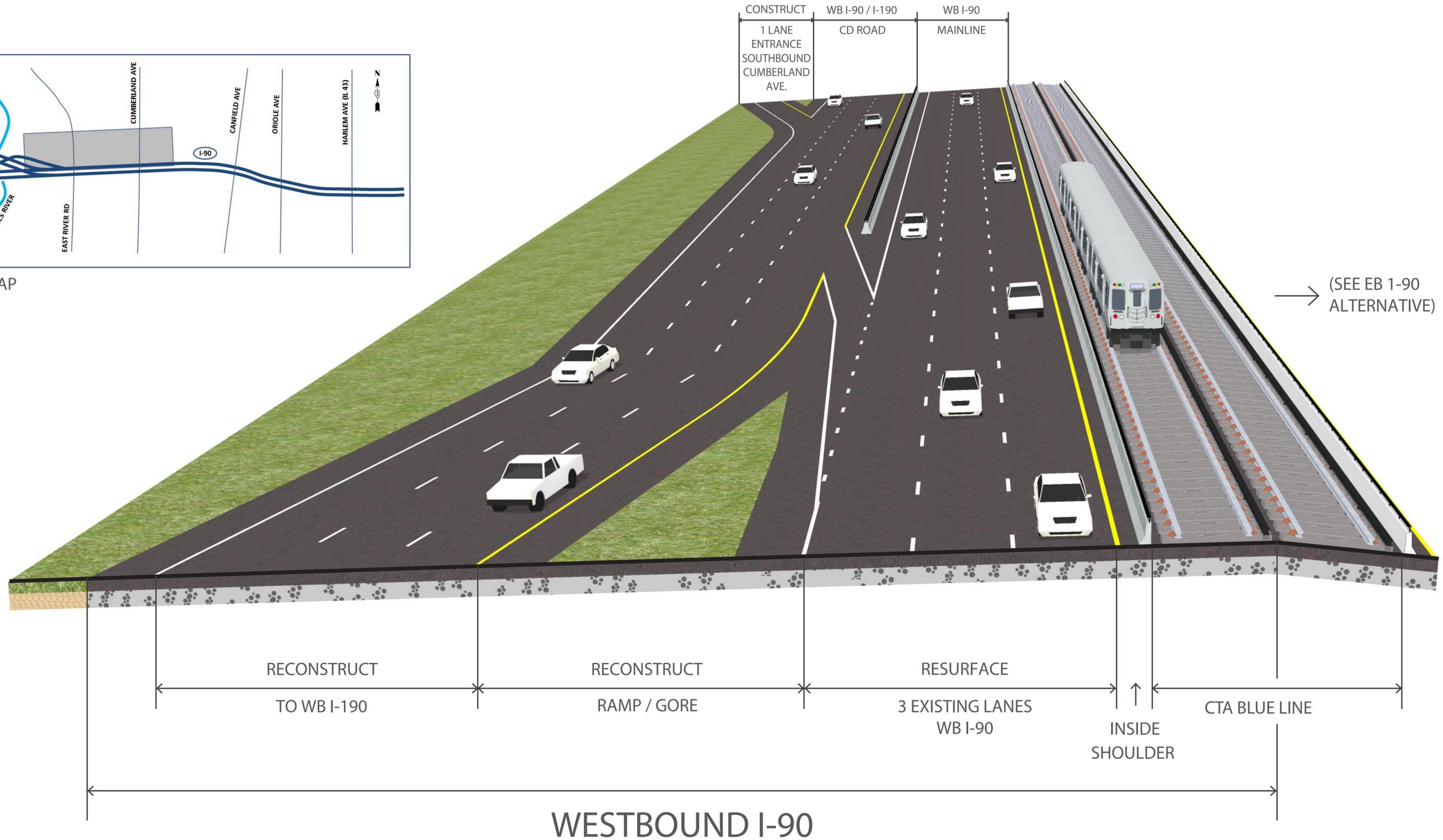
Typical Section

I - 190 to Cumberland | Conceptual Design

Westbound: with CD Road



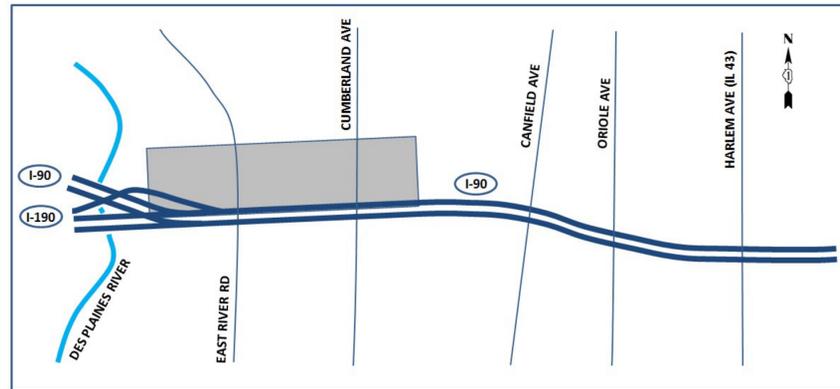
KEYMAP



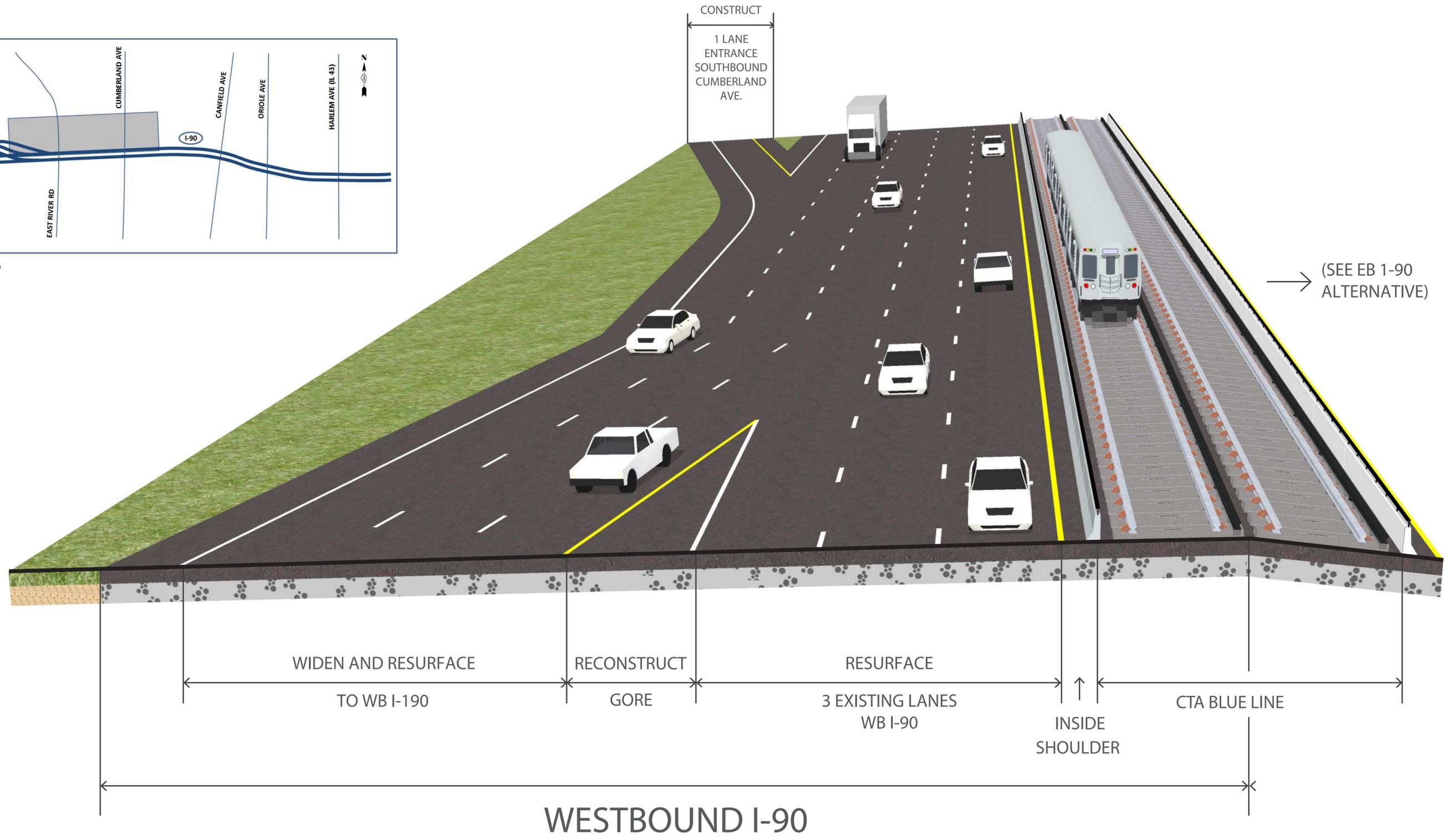
Typical Section

I - 190 to Cumberland | Conceptual Design

Westbound: without CD Road



KEYMAP



Evaluation of Reasonable Alternatives

Evaluation criteria

Purpose:

To provide an improved transportation system along I-90

Needs:

Improve safety and improve traffic operations

PWG Meeting #2:

Eastbound: Stakeholders preferred the alternative without CD road, since it improves access to Cumberland Ave southbound exit, but does not require reduced shoulders through the Cumberland CTA Station area

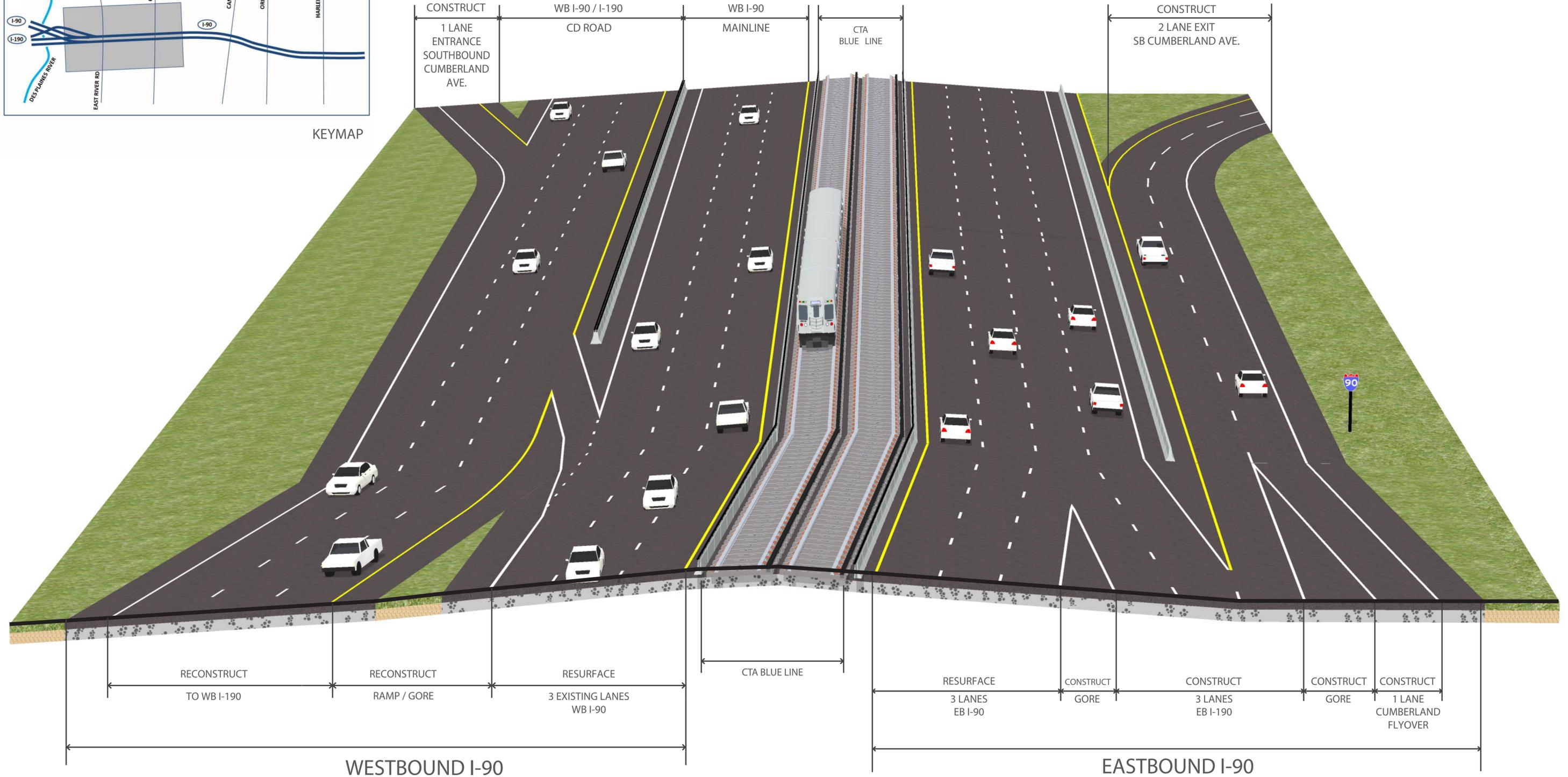
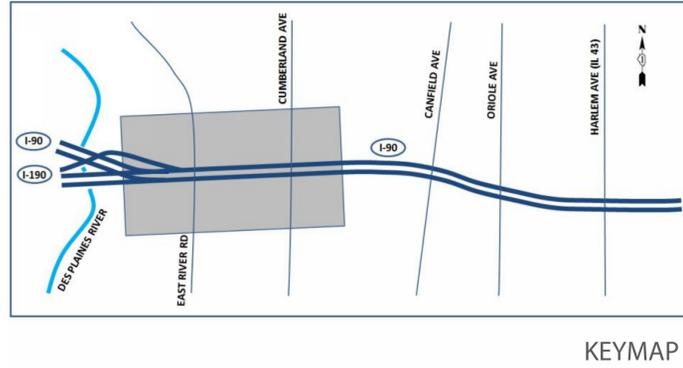
Westbound: Stakeholders preferred the CD road alternative, since it improves weaving conditions at the Cumberland Ave interchange and does not impact the pedestrian bridge at the Cumberland CTA Station



	Meets Purpose?	Improves safety?	Improves traffic operations?	Impacts?
Eastbound: CD Road	Yes, separates NB and SB Cumberland exiting traffic from I-90/I-190 traffic. Adds additional capacity east of Cumberland to Harlem.	Yes, additional capacity helps reduce the high number of rear-end and sideswipe crashes caused by traffic congestion. However, reduced width shoulders are necessary along Cumberland CTA Station, providing less space for emergency needs.	Yes: CD Road simplifies merging of I-90 and I-190, separates Cumberland interchange traffic from mainline	Reduced width shoulders necessary along Cumberland CTA Station
Eastbound: No CD Road <i>(Alternative carried forward)</i>	Yes, separates NB and SB Cumberland exiting traffic from I-90/I-190 traffic. Adds additional capacity east of Cumberland to Harlem.	Yes, weaving to SB Cumberland eliminated with CD road. Additional capacity helps reduce the high number of rear-end and sideswipe crashes caused by traffic congestions. Shoulders at Cumberland CTA Station remain at existing width for emergency needs.	Yes, SB Cumberland interchange traffic is separated from mainline traffic.	
Westbound: CD Road <i>(Alternative carried forward)</i>	Yes, separates Cumberland and I-190 traffic from I-90. Adds capacity from Harlem to I-190.	Yes, CD road separates high volume of traffic and allows SB Cumberland entrance weave with a lower through volume.	Yes, Cumberland interchange traffic and I-190 traffic are separated from I-90 through traffic.	
Westbound: No CD Road	Yes, adds capacity from Harlem to I-190.	Yes, additional capacity helps reduce the high number of rear-end and sideswipe crashes caused by traffic congestion.	Yes, additional lane provides more capacity and helps to improve SB Cumberland to WB I-90 weave from existing.	Would impact the pedestrian bridge at the CTA Cumberland Station

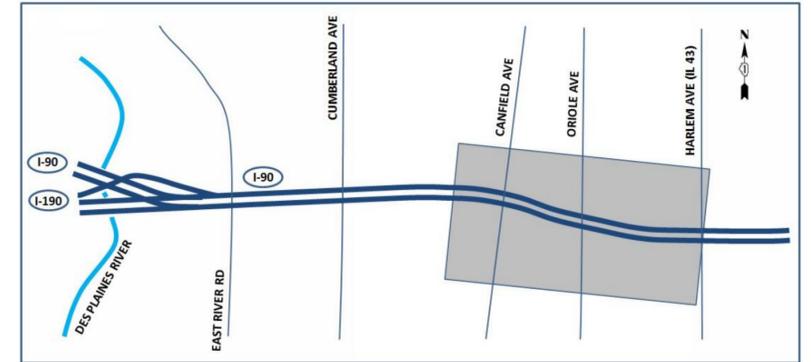
Preferred Alternative Typical Section

I-190 to Cumberland | Proposed Design

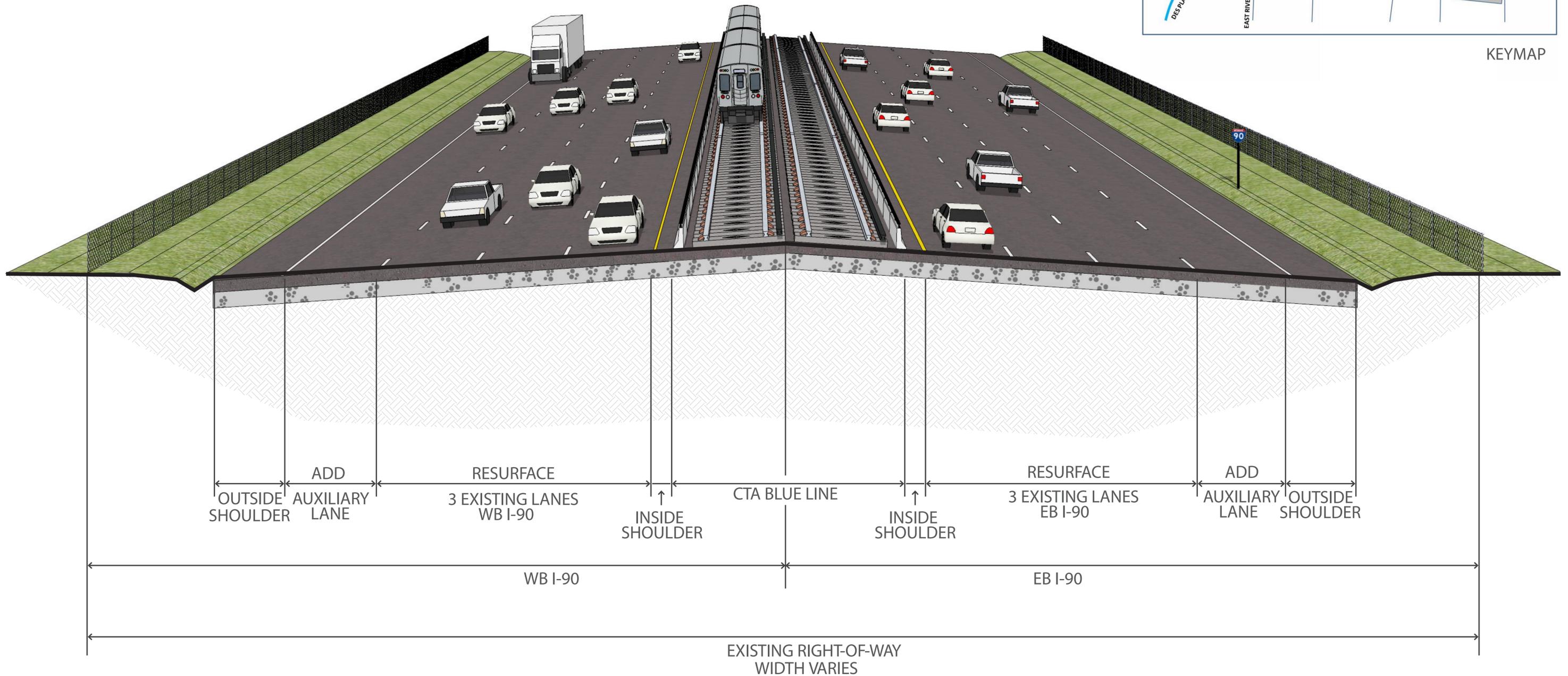


Typical Section

Canfield to Harlem | Proposed Design

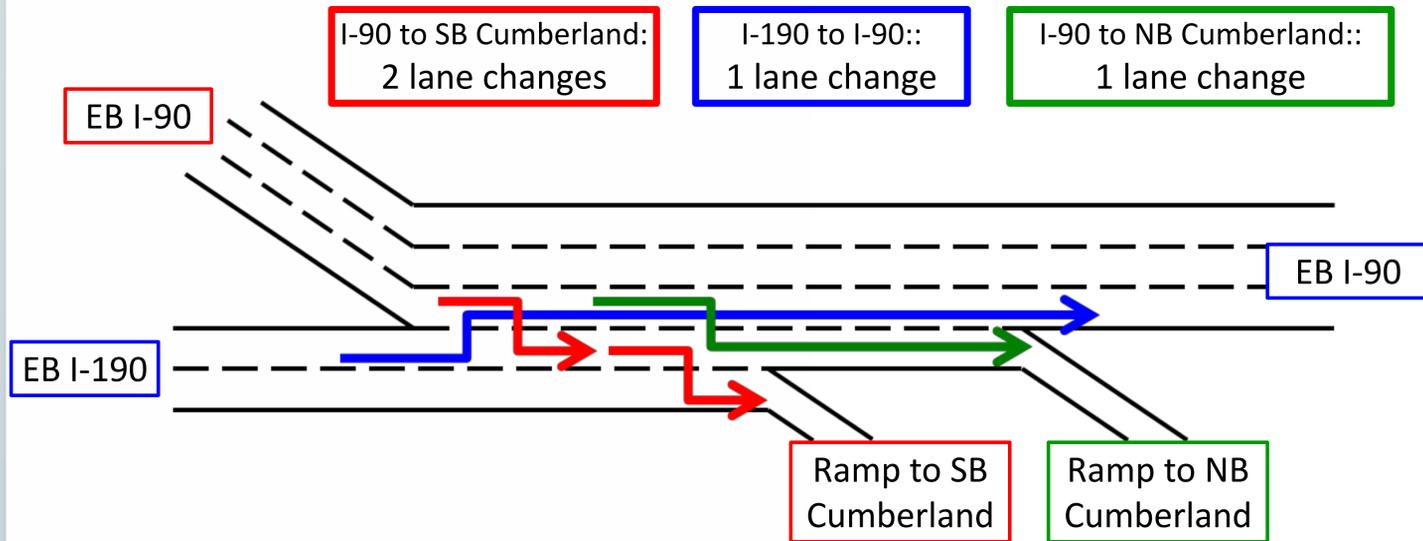


KEYMAP

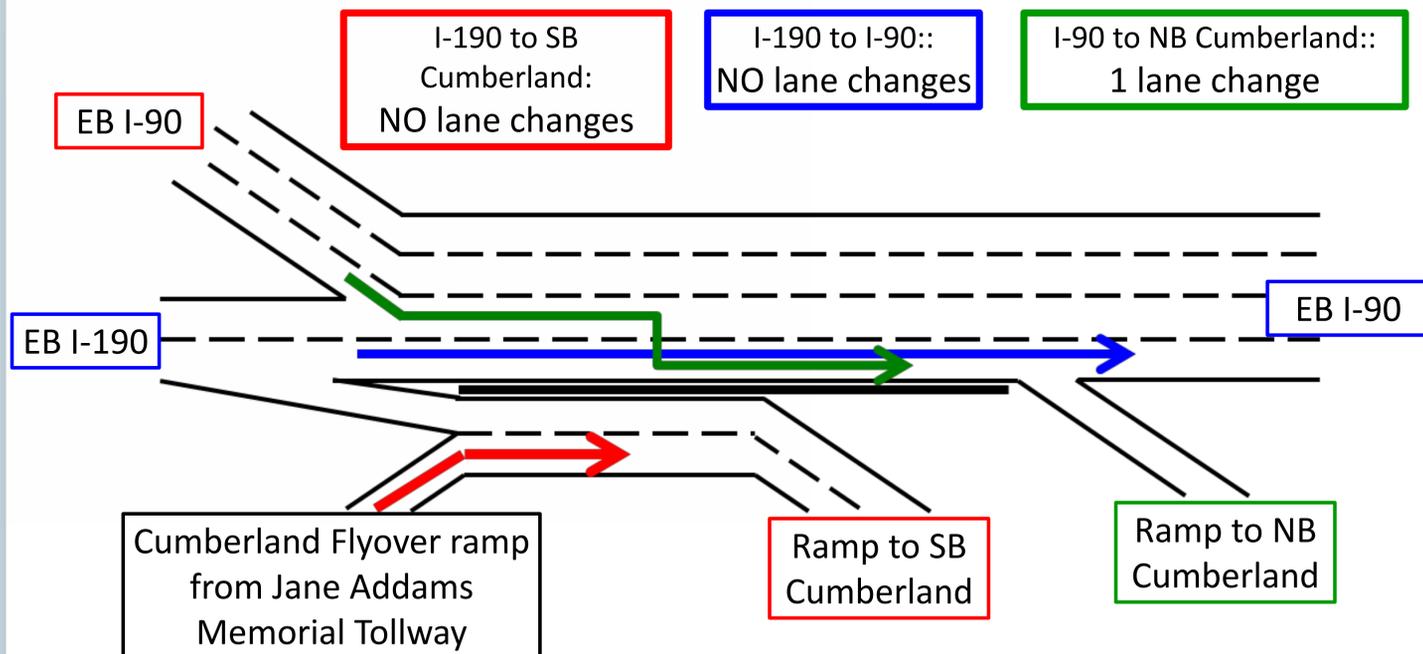


Preferred Alternative – Weaving Diagrams

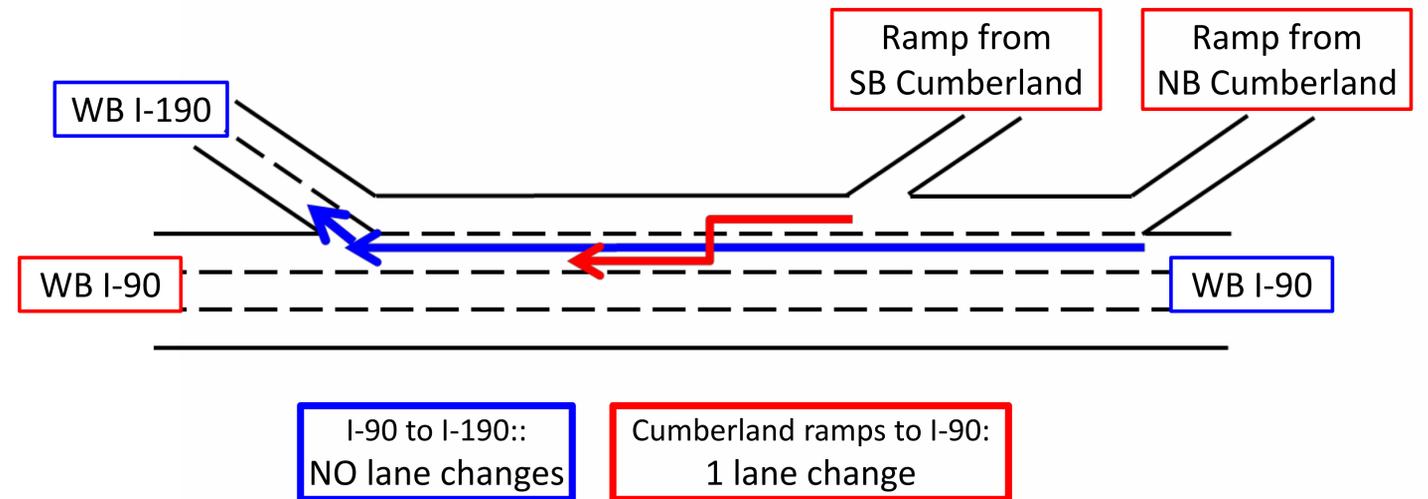
Eastbound Existing Conditions



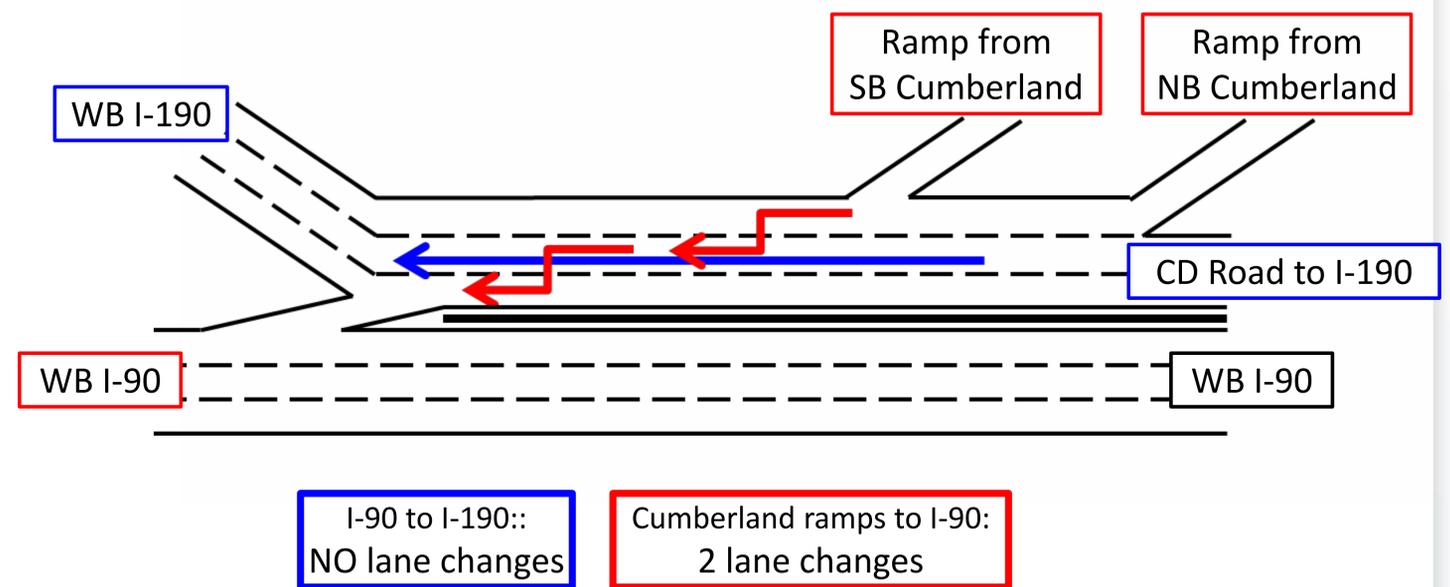
Eastbound Preferred Alternative



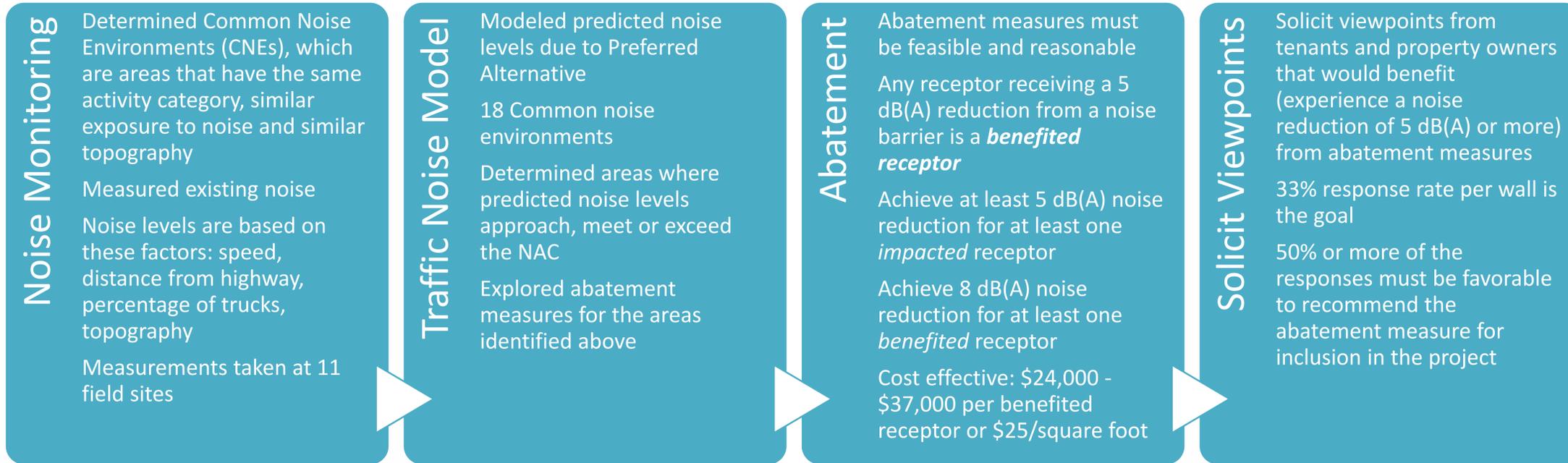
Westbound Existing Conditions



Westbound Preferred Alternative



Noise Analysis Process:



Noise Monitoring

- Determined Common Noise Environments (CNEs), which are areas that have the same activity category, similar exposure to noise and similar topography
- Measured existing noise
- Noise levels are based on these factors: speed, distance from highway, percentage of trucks, topography
- Measurements taken at 11 field sites

Traffic Noise Model

- Modeled predicted noise levels due to Preferred Alternative
- 18 Common noise environments
- Determined areas where predicted noise levels approach, meet or exceed the NAC
- Explored abatement measures for the areas identified above

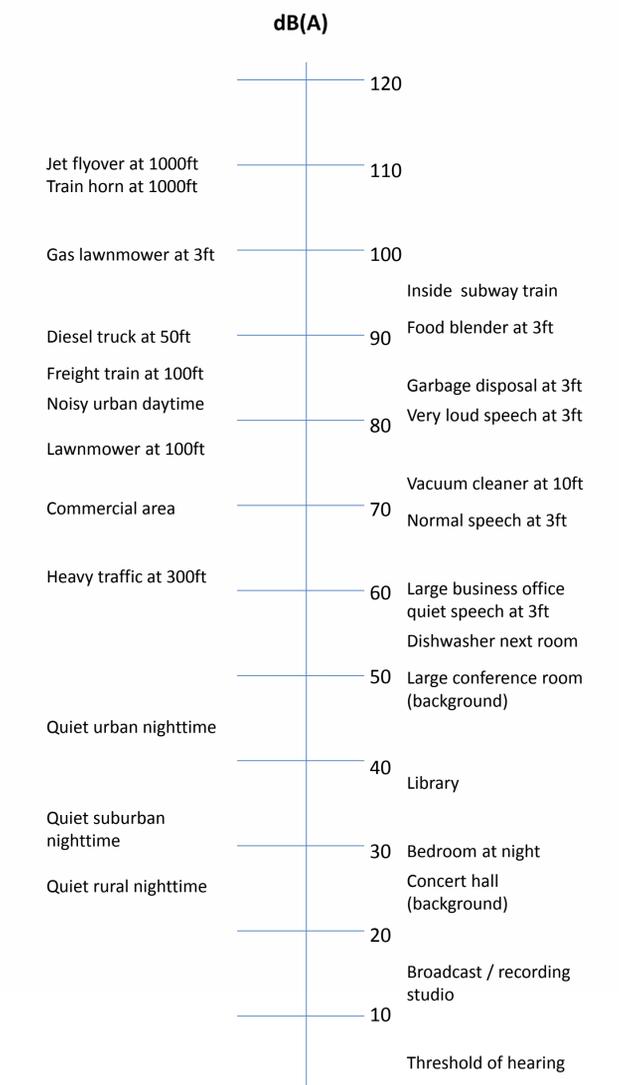
Abatement

- Abatement measures must be feasible and reasonable
- Any receptor receiving a 5 dB(A) reduction from a noise barrier is a **benefited receptor**
- Achieve at least 5 dB(A) noise reduction for at least one **impacted** receptor
- Achieve 8 dB(A) noise reduction for at least one **benefited** receptor
- Cost effective: \$24,000 - \$37,000 per benefited receptor or \$25/square foot

Solicit Viewpoints

- Solicit viewpoints from tenants and property owners that would benefit (experience a noise reduction of 5 dB(A) or more) from abatement measures
- 33% response rate per wall is the goal
- 50% or more of the responses must be favorable to recommend the abatement measure for inclusion in the project

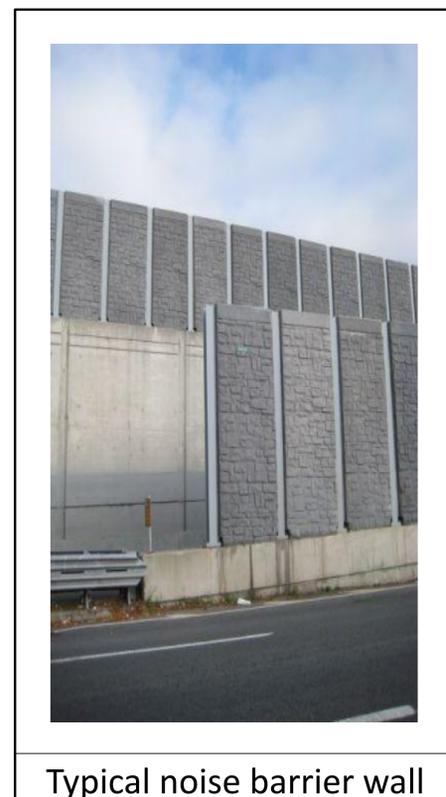
Common Outdoor Sound Levels	Common Indoor Sound Levels
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IDOT Policy follows FHWA Noise Abatement Criteria (NAC)

An impact occurs when the predicted noise levels approach, meet or exceed the NAC for exterior uses:

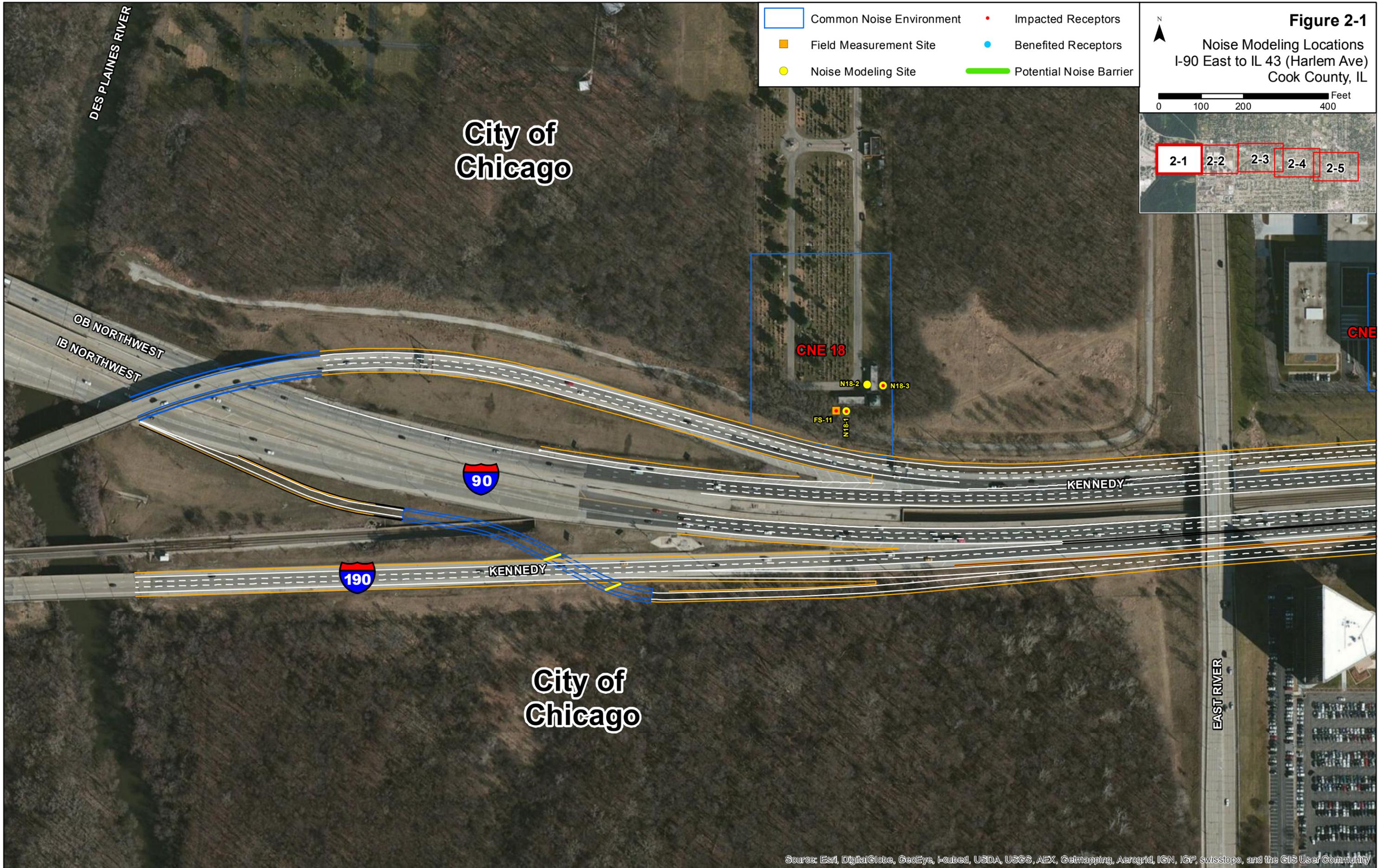
- 66 dB(A)**
 - Residential
 - Schools
 - Parks & Playgrounds
 - Cemeteries
- 72 dB(A)**
 - Offices
 - Hotels
 - Restaurants



Types of noise abatement:

- Noise barrier walls
- Traffic management measures
- Alteration of horizontal and/or vertical alignment
- Buffer zones
- Noise insulation

Noise barrier walls are the only viable abatement measure for the I-90 Improvements Study





- Common Noise Environment
- Field Measurement Site
- Noise Modeling Site
- Impacted Receptors
- Benefited Receptors
- Potential Noise Barrier

Figure 2-2
 Noise Modeling Locations
 I-90 East to IL 43 (Harlem Ave)
 Cook County, IL

0 100 200 400 Feet

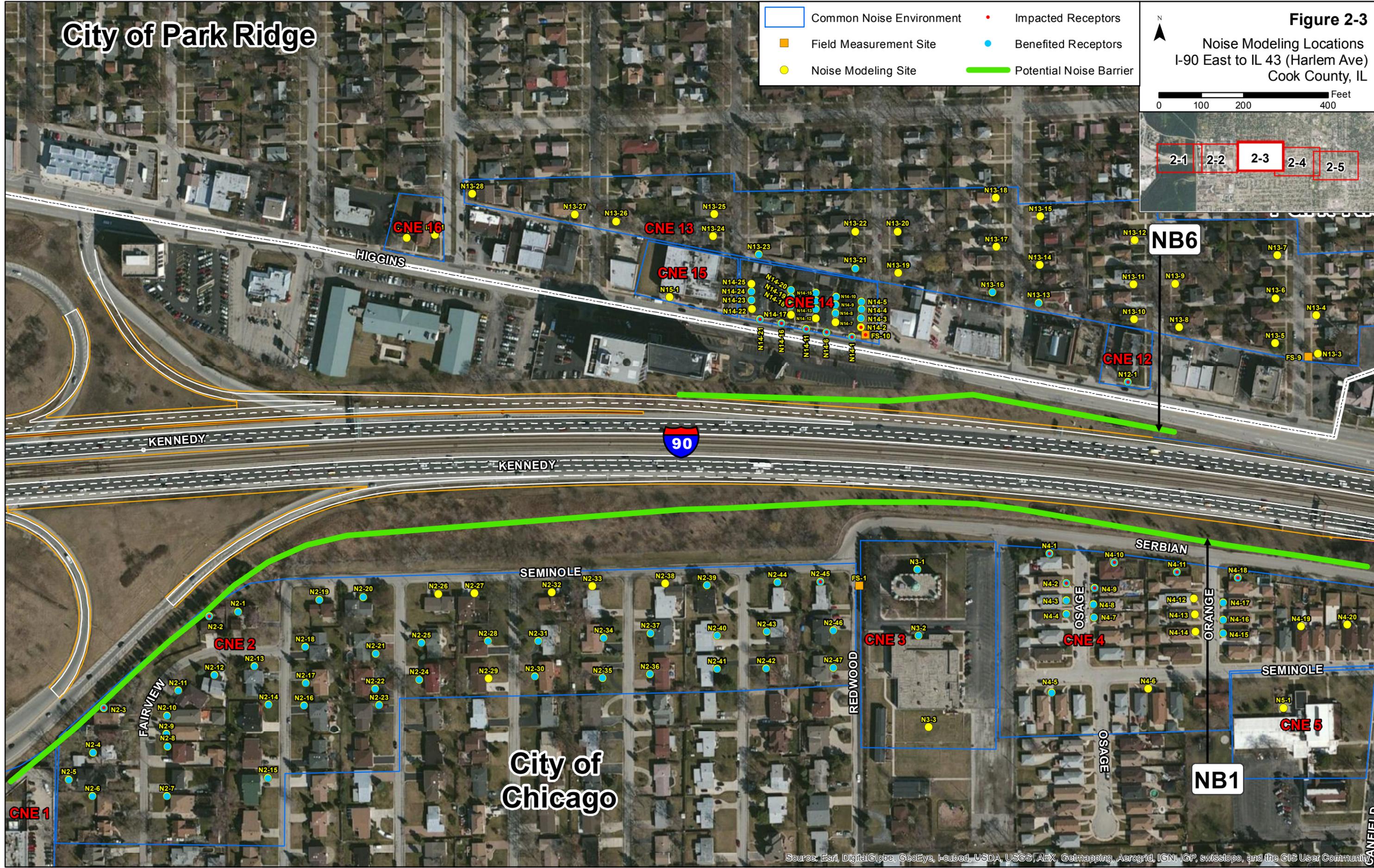
City of Park Ridge

- Common Noise Environment
- Field Measurement Site
- Noise Modeling Site
- Impacted Receptors
- Benefited Receptors
- Potential Noise Barrier

Figure 2-3
Noise Modeling Locations
I-90 East to IL 43 (Harlem Ave)
Cook County, IL

North Arrow

0 100 200 400 Feet



City of Chicago

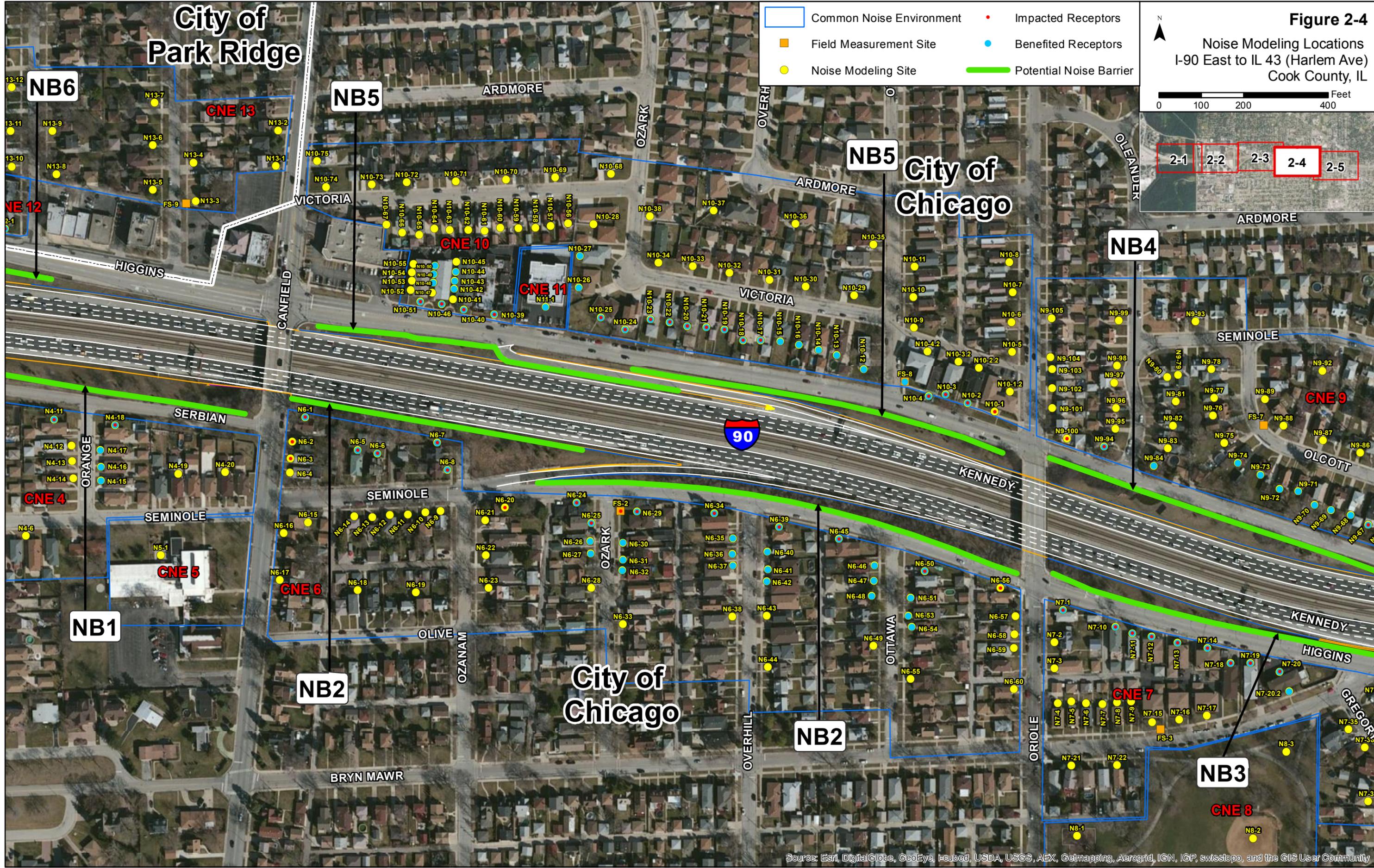
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, ALEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

City of Park Ridge

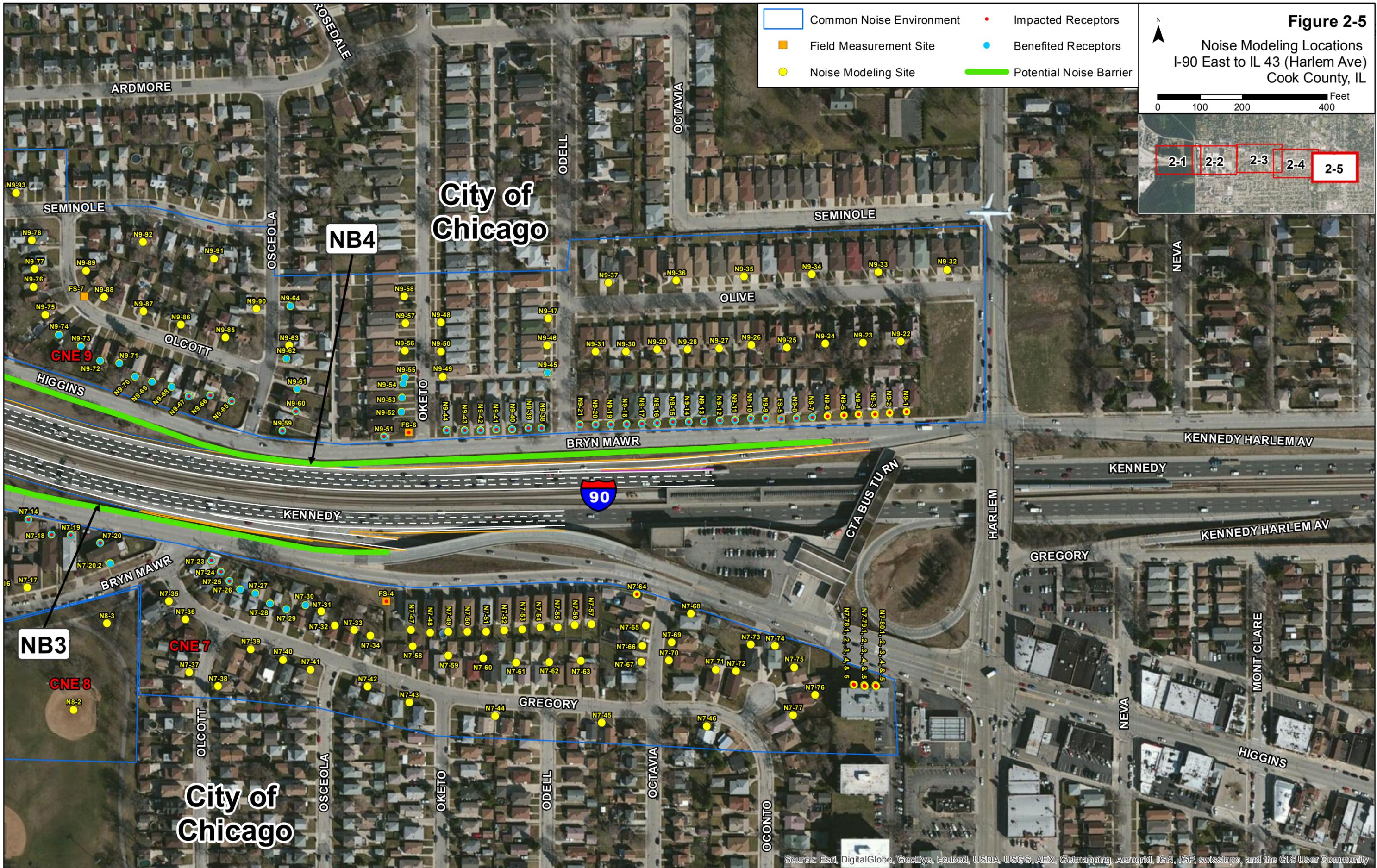
- Common Noise Environment
- Impacted Receptors
- Field Measurement Site
- Benefited Receptors
- Noise Modeling Site
- Potential Noise Barrier

Figure 2-4
Noise Modeling Locations
I-90 East to IL 43 (Harlem Ave)
Cook County, IL

0 100 200 400 Feet



Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the ©IS User Community

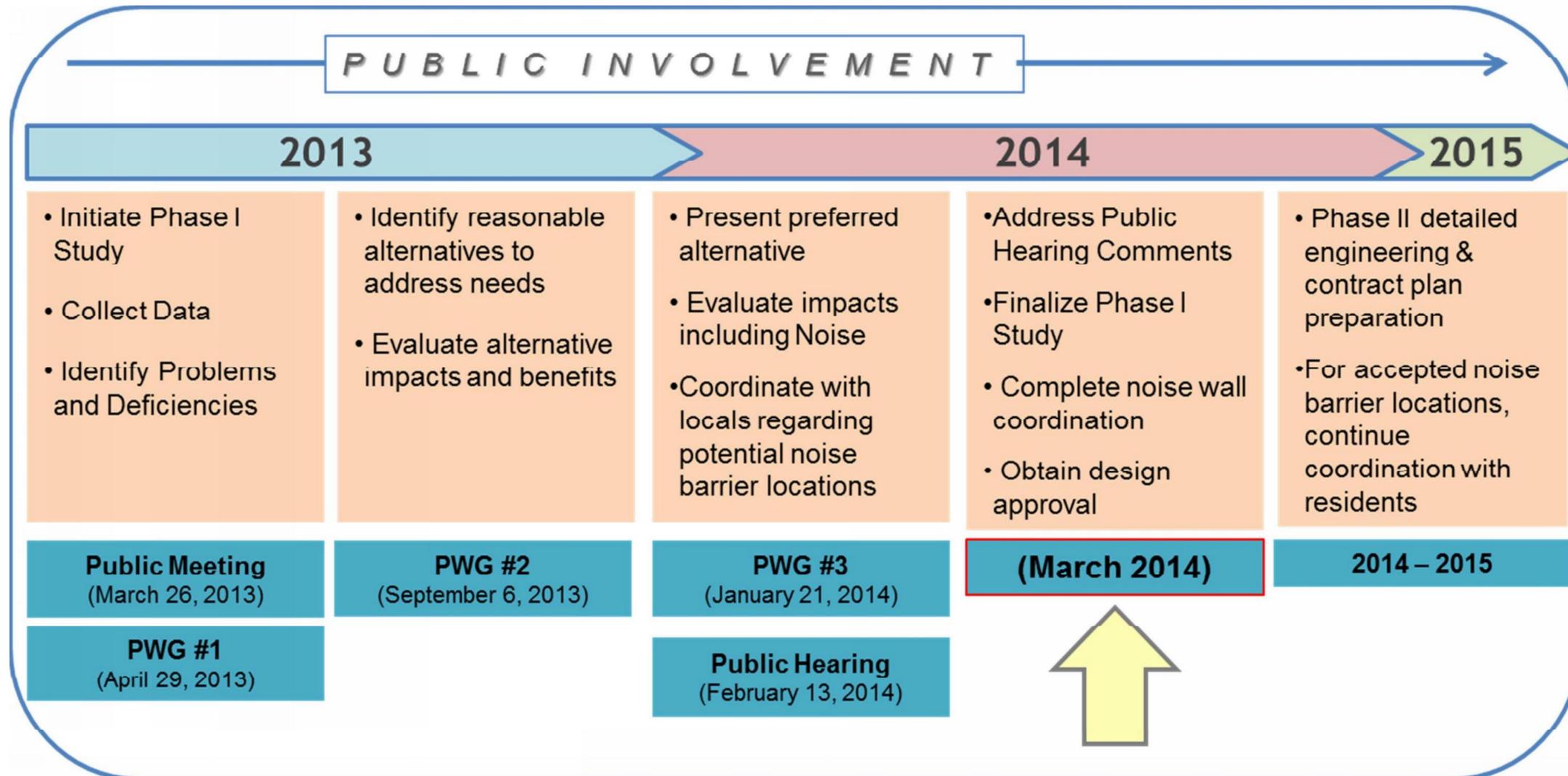
Temporary Construction Impacts

What types of temporary construction impacts can be expected?

- Temporary ramp closures
- Milling and resurfacing work (lane closures) at night
- Construction of the CD road and auxiliary lane during the daytime
- Reconstruction of the East River Road bridge (detours will be posted)
- Temporary closure of the Des Plaines River trail on the East River Road bridge during reconstruction of the bridge
- No impacts to the Cumberland CTA Station pedestrian bridge are anticipated

A work zone Transportation Management Plan (TMP) has been developed to maintain safety and mobility within the construction zone.





Here is how to contact IDOT with project input:

- Fill out a comment form and drop in the comment box
 - Submit verbal comments to the court reporter
 - Send an email to: Marie.Glynn@illinois.gov
 - Call (847) 705-4073
- Mail to: Marie Glynn, P.E.
IDOT District 1
201 West Center Court
Schaumburg, IL 60196

However you choose, your comments will become part of the public record.

Please submit comments by **February 27, 2014**.