



Chicago Transit Authority Strategic Planning
Blue Line Forest Park Branch Vision Study

Station and Station Access Alternatives

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Prepared by: WSP | Parsons Brinckerhoff, and Ross Barney Architects and Muller and Muller Architects

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INTRODUCTION

VISION

The Blue Line Forest Park Branch will be easy and a joy for customers to use. It will be easy for staff to work in and maintain. It will be integrated into the neighborhoods through which it passes, seamlessly connected to transit, pedestrian, and bicycling networks. It will support existing, and spur new, residential, commercial and institutional life at each station.

PURPOSE

The purpose of this study is to develop and evaluate station alternatives, and neighborhood connections to the stations along the Chicago Transit Authority's (CTA) Blue Line Forest Park Branch. This study includes the Blue Line from Clinton Station to Forest Park Station. This study will guide CTA's transit service, station, and neighborhood connection improvements in the near-term (2023) and long-term (2040). It will also assist CTA and the Illinois Department of Transportation (IDOT) in coordinating transit improvements associated with IDOT's Interstate 290 (I-290) multi-modal studies.

A range of alternatives were considered at each of 15 stations, three of which are currently closed. The open stations are organized into six categories based on their recommended future design. A representative station was used to evaluate alternatives and make recommendations for layout improvements and neighborhood connections. The representative stations are: Austin (double-entry, asymmetrical); Kedzie – Homan (double-entry, symmetrical); Western (double-entry, compact); Illinois Medical District (triple-entry); Clinton (subway); and Forest Park (terminal). Austin, Cicero, and Oak Park stations will be representative of how neighborhood connections can be improved.

CHALLENGES AND GOALS

The Chicago Transit Authority's mission is to "deliver quality, affordable transit services that link people, jobs and communities". Clean, well-lit, inviting stations, that are identifiable and integrated into their neighborhoods, directly affect people's sense of well-being and security and are essential to attracting riders to the system. In turn, a well-used Blue Line will stimulate economic growth in the neighborhoods that it serves.

The goals of this study flow from current challenges for the Blue Line. These goals are organized into two groups, those that will improve the station and those that will improve the connection between the station and the neighborhood.

Station:

- Reduce highway noise;
- Protect from wind and rain;
- Widen the platform to meet guidelines and improve passenger comfort;
- Maintain and improve security;
- Improve ability to assist customers;
- Improve ability to monitor the station; and
- Minimize construction and maintenance cost.

Neighborhood Connection:

- Integrate the station into neighborhood; and
- Minimize the distance to platform.

PROPOSED IMPROVEMENTS

As a result of analysis and public comment, the following are the improvements proposed to address the current challenges to both station and neighborhood environments.

Station:

- Widened platform;
- Canopy structure is located to the outside of tracks, to improve visibility and monitoring of the platform;
- Shortened distances and improved visibility to facilitate CTA assisting customers;
- Sound-absorbing concrete canopy to protect passengers from wind, rain, and noise;
- Precast, self-cleaning concrete, placed out of reach, to reduce maintenance effort and cost; and
- Precast concrete to improve constructability.

Neighborhood Connection:

- Easy to find and comfortable to access; and
- Shortened distance between the primary entry and platform.

METHODOLOGY

The recommendations in this report have been developed through site visits to stations, the surrounding neighborhoods, as well as discussions with CTA and other interested parties. The team has relied upon local, national, and international standards for guidance. We have also used the goals as criteria to make recommendations that will best allow the CTA and its partners to reach the vision of the Blue Line Forest Park Branch.

Guiding Documents

- *Design Guidelines for Stations*, Chicago Transit Authority, June 2001;
- *Design Criteria*, Chapter 8 Architecture, Chicago Transit Authority, November 1996;
- *Complete Streets Chicago*, Chicago Department of Transportation, 2013;
- *Chicago Streets for Cycling Plan 2020*, Chicago Department of Transportation, 2012;
- CTA-provided track and station drawings for all Forest Park Branch stations, 1948 – 2009;
- IDOT I-290 interchange concept drawings; and
- *Infrastructure Design Criteria Manual*, Chicago Transit Authority, Revision Level 2.3, May 27, 2013.

Standards and Codes

- Building code excerpts of the *Municipal Code of Chicago*, 2013 – for all stations in Chicago;
- *2009 International Building Code* – for Forest Park and Harlem stations;
- *2003 International Building Code* – for Oak Park and Austin stations;

- *Illinois Accessibility Code*, 1997; and
- *NFPA (National Fire Protection Association) 130: Standard for Fixed Guideway Transit and Passenger Rail Systems*.

Site Visits and Review Meetings

Site visits were primarily conducted during February and March of 2013 to evaluate current station conditions and their relationship to surrounding neighborhoods. The design team compiled *Existing Conditions Assessment Reports* for each of the twelve operating stations along the Forest Park Branch. The reports were reviewed during meetings with CTA in April and May of 2013.

During June and July of 2013, the team began to develop improvement alternatives for the five station types along the Forest Park Branch. Options for each station type were reviewed with CTA and recommendations follow. The complete set of alternatives that were prepared and reviewed has been included as an appendix.

During April of 2016 and March 2017, the team with Mueller and Mueller Architects developed 10% design concepts for three of the City of Chicago Mid Branch Stations at Western, Cicero and Pulaski.

RECOMMENDATIONS

The recommendations for Blue Line station reconstruction will result in a memorable, easy to use, easy to maintain, and budget-conscious solution. Virtually all station recommendations have certain improvements in common. They include improved overall station environment, identity, and accessibility. All recommended improvements would make stations:

- Americans with Disabilities Act (ADA) compliant;
- Precipitation, wind, and noise protected;
- Relatively inexpensive and simple to build and maintain; and
- Easy to find and comfortable to access from the neighborhoods in which they are located.

Recommendations for each station are summarized in a chart at the end of this section

STATION DESIGN

Station House Improvements

Current station houses, apart from their physical condition, are insufficient to handle passenger volumes, are difficult to monitor, and lack visibility in their neighborhoods. As they are rebuilt, the station houses will create a focal point for the neighborhood and be a fluid expression of the movement of people between the platform and street. Canopies will extend over the sidewalks, especially where transfers between bus service is expected.

Where trains berth beneath the station house, there will be an open flow of space between it and the platform below. There will be a clear line of sight from the customer assistant's kiosk down the stairs and to the platform below. Improved platform supervision from the station house will make stations feel more secure to customers.

Circulation Improvements

As stations are rebuilt, circulation will be improved for all users and be made ADA-compliant. Elevators will supplement or replace ramps. Where possible, trains will berth beneath or near the primary station house, reducing the distance to be travelled between street, fare collection, and boarding.

Platform Enclosure Improvements

Most Blue Line platforms are particularly exposed to intense wind, rain, and snow, as well as a constant barrage of noise from the expressway on both sides. During a visit to the Illinois Medical District, noise levels on the platform were measured at up to 80 decibels, long-term exposure to which could cause hearing loss. It is important for customer experience and well-being to improve weather and acoustical protection on the platform.

Sound, Wind, and Precipitation Protection

For most Blue Line stations, a tube-like canopy structure will provide protection for passengers on the platform. The structure will also reduce the noise levels on the platform by dispersing adjacent highway noise. It will act as a more complete weather barrier against wind driven rain and snow. The upper portion of the tube enclosure will have glazed openings to allow for daylighting the platform and glimpses of the sky and surroundings.



Wind, Rain, Sound Protection on Platform and Easy to See, Easy to Circulate from Station House

Wide and Clear

Most Blue Line stations have platform widths that do not meet current CTA guidelines. As stations are rebuilt, platforms will be widened, in most cases to 24 feet. Widening is particularly important where stations have mid-platform access points, which require a minimum width of 22 feet, 2 inches. An added benefit of a tube enclosure is making the platform structure-free. This design will remove the need for windbreaks and canopy columns and allow passengers use of the full width of the platform. Another benefit of a structure-free platform is improved safety and security, with nothing to block views or behind which to hide.

STATION MATERIALS AND FABRICATION

Transit environments are subject to constant and extreme use and abuse. This issue is complicated by the limited operating and maintenance funds available to CTA. Low- or no-maintenance facilities depend on good detailing and material selections. For the Blue Line, station houses and platform canopies will be constructed of concrete and glass placed, for the most part, where passengers cannot easily reach them.

Self-Cleaning Concrete

Recent advances in self-cleaning, photocatalytic coatings for concrete, glass, and metals show promise for use in transit locations, reducing the staff and resources necessary to keep facilities clean. New Blue Line station houses and platform enclosures will be made of a concrete mixture containing titanium dioxide. Using titanium dioxide, the concrete's surface becomes self-cleaning. As carbon and other polluting molecules come in contact with the surface of the concrete, titanium dioxide and photocatalytic action from the sun convert them to particles that can be washed away by rain water.

This mixture has been used with great success as building wall panels and, recently, as pavers at the Chicago Park District's Mary Bartelme Park. Two building projects using this concrete as wall materials are the Louisiana State University Basketball Practice Facility, constructed in 2009, and the Jubilee Church in Rome, constructed in 2003. Both projects have performed exceptionally well over time, and still look new today.



Jubilee Church, Rome (Freener and Reifer)

Precast and Out of Reach

In addition to reduced maintenance costs, construction time and cost will also be minimized through the use of concrete precast off-site. This building method will allow quick and low-cost assembly on-site, minimizing disruption to Blue Line service. The design of the enclosure at platform level will virtually eliminate passenger-related wear. The tube support structure is recommended to be located to the outside of the tracks. Self-supporting, eliminating columns, there will be no element of the enclosure that could be reached from the platform.



Canopy Supported from the Outside of the Tracks, Out of Reach

NEIGHBORHOOD CONNECTION IMPROVEMENTS

Part of the vision for the Blue Line is that the stations be integrated into their neighborhoods and connect with existing and proposed transportation networks, including walking, public transit, and cycling. The integration can be done at three scales: Where the station house meets the street; the pedestrian experience along the street; and the street's connection to the surrounding neighborhood. Major factors to consider are public transit transfer points, street width, and proximity to the Eisenhower Expressway and its entry and exit ramps. Four open station houses, at Des Plaines, Harlem, and Cicero Avenues and at Austin Boulevard, coincide with highway interchanges.

Pedestrian Zone: Where the Station House Meets the Street

All but one station are located along CTA and Pace bus lines and many are on bicycle routes. All stations can be reached on foot. Both for the benefit of existing passengers and to attract additional ones to CTA Blue Line service, the connection between these modes of travel should be easier and more comfortable to use. The following are recommendations for station sizing and siting, including sidewalk and other improvements to make for more seamless connections to the CTA Blue Line for pedestrians, bus passengers, bicyclists, and motorists.

Station

Based on Chicago and CTA standards, a minimum of 25' by 85' should be provided for a station house. These dimensions include the horizontal distance from the street entrance to the bottom of the stairs at platform level. While Oak Park and Forest Park are separate jurisdictions from Chicago, for ease of replication, the station sizing should be consistent.

Sidewalk

CTA Facilities Development requires a minimum 12' wide sidewalk where there is a bus shelter (June 25, 2007). Otherwise, 10' is a comfortable minimum, providing 7' for two people to pass each other and 18" of clearance on either side for buildings, barriers, or curbs (Chicago Department of Transportation, *Streetscape Guidelines for the City of Chicago Streetscape and Urban Design Program* (2003), p. 10).

Landscape

For planters, the recommended minimum width is 4' (Chicago Department of Transportation, *Streetscape Guidelines for the City of Chicago Streetscape and Urban Design Program* (2003), p. 13). The recommended minimum width for planters suitable for trees is 10'. Planters placed along the curb should be at least 18" from the curb (Federal Highway Administration).

Bicycle Parking and Bicycle Sharing Station

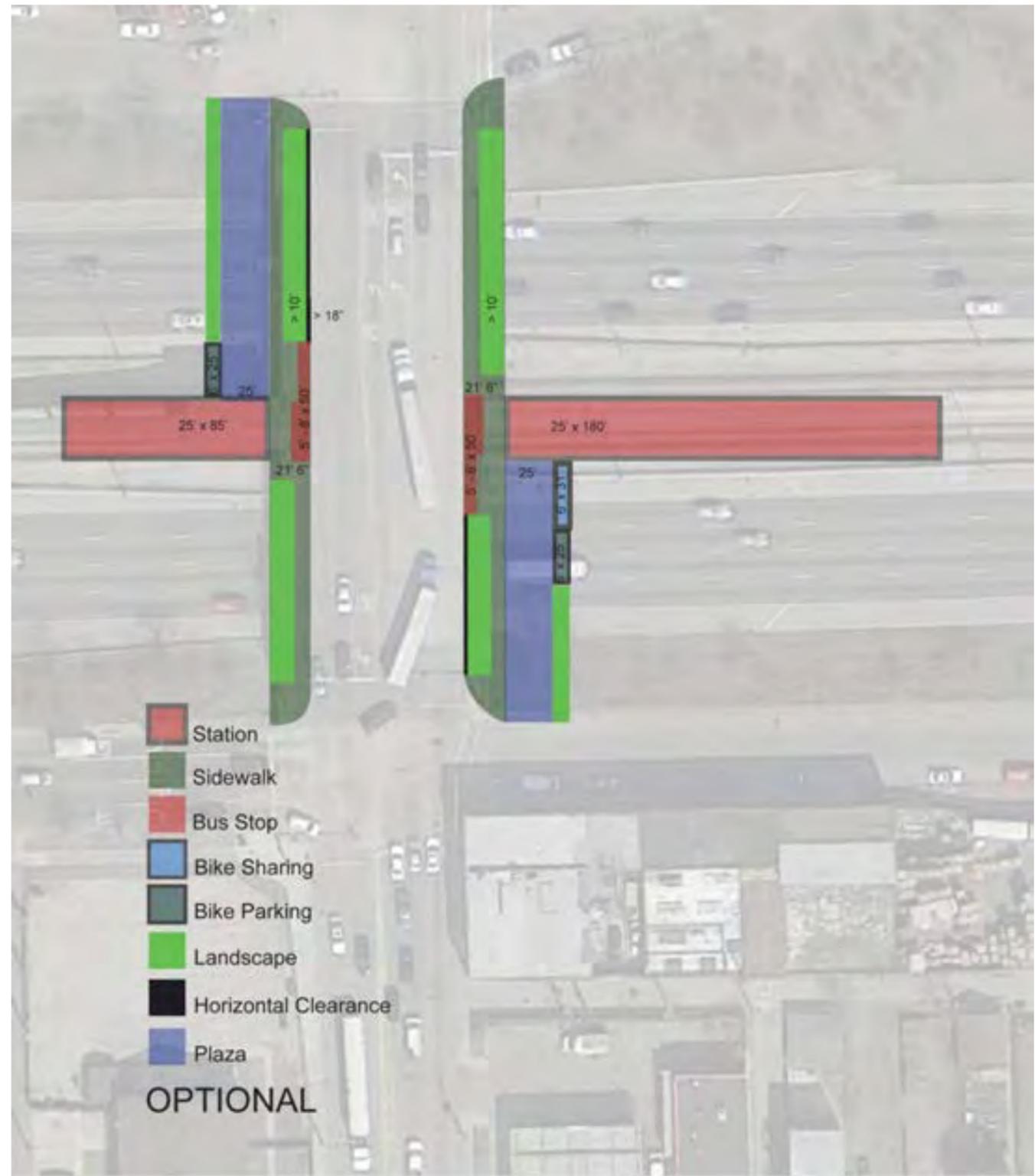
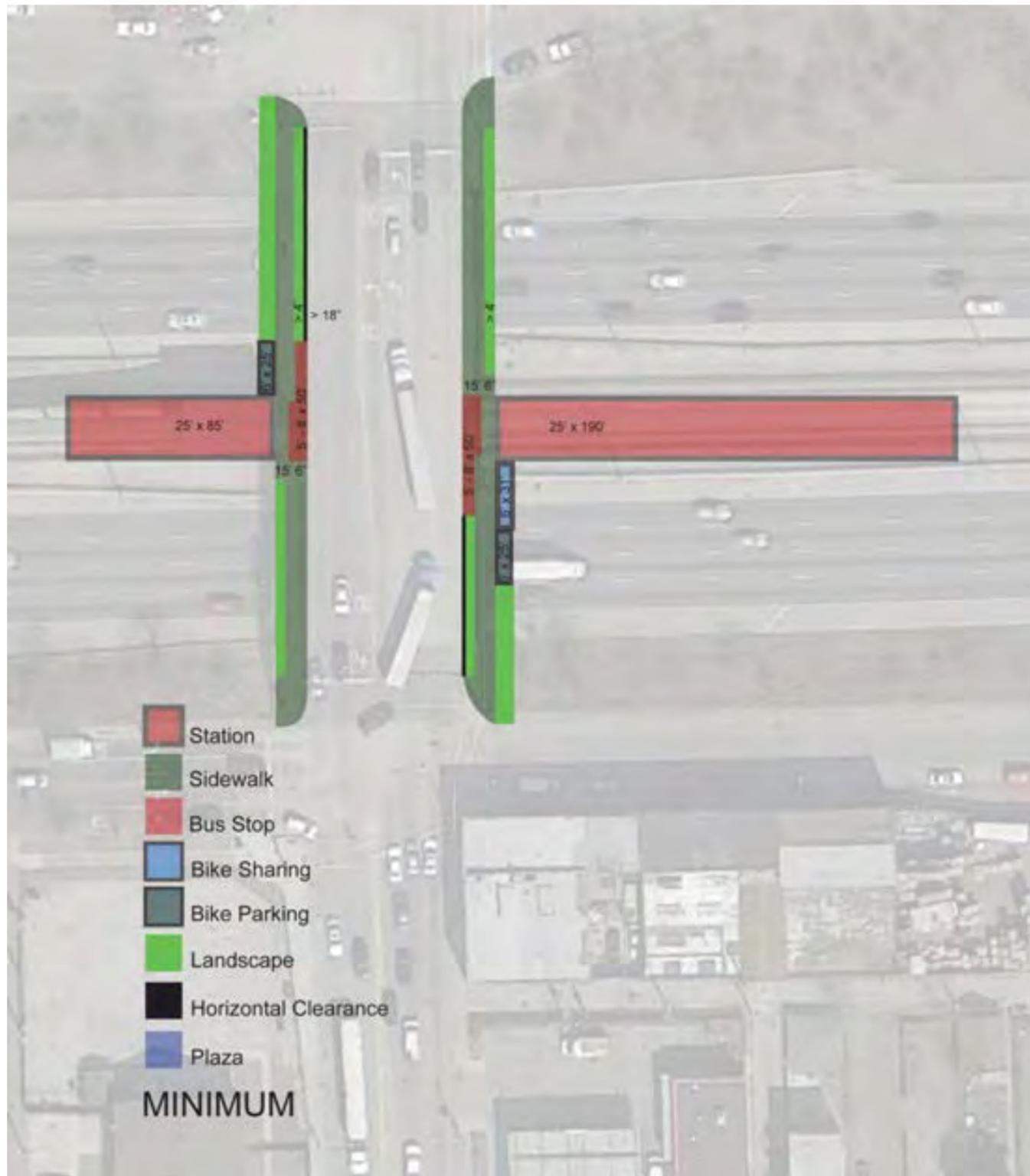
Space should be provided for any planned bicycle sharing station (6' x 31') and for bicycle parking (6' x 25' for 10 racks) (Association of Pedestrian and Bicycle Professionals, "Bicycle Parking Guidelines", p. 3 and 4).



Station House at Austin Boulevard with Plaza

Plaza (Option)

Next to the Eisenhower Expressway, a plaza should be a minimum of 25' deep and the width of the highway. This will provide an additional buffer between the pedestrian and motor vehicles, below, as well as a seamless side entry point into the station.



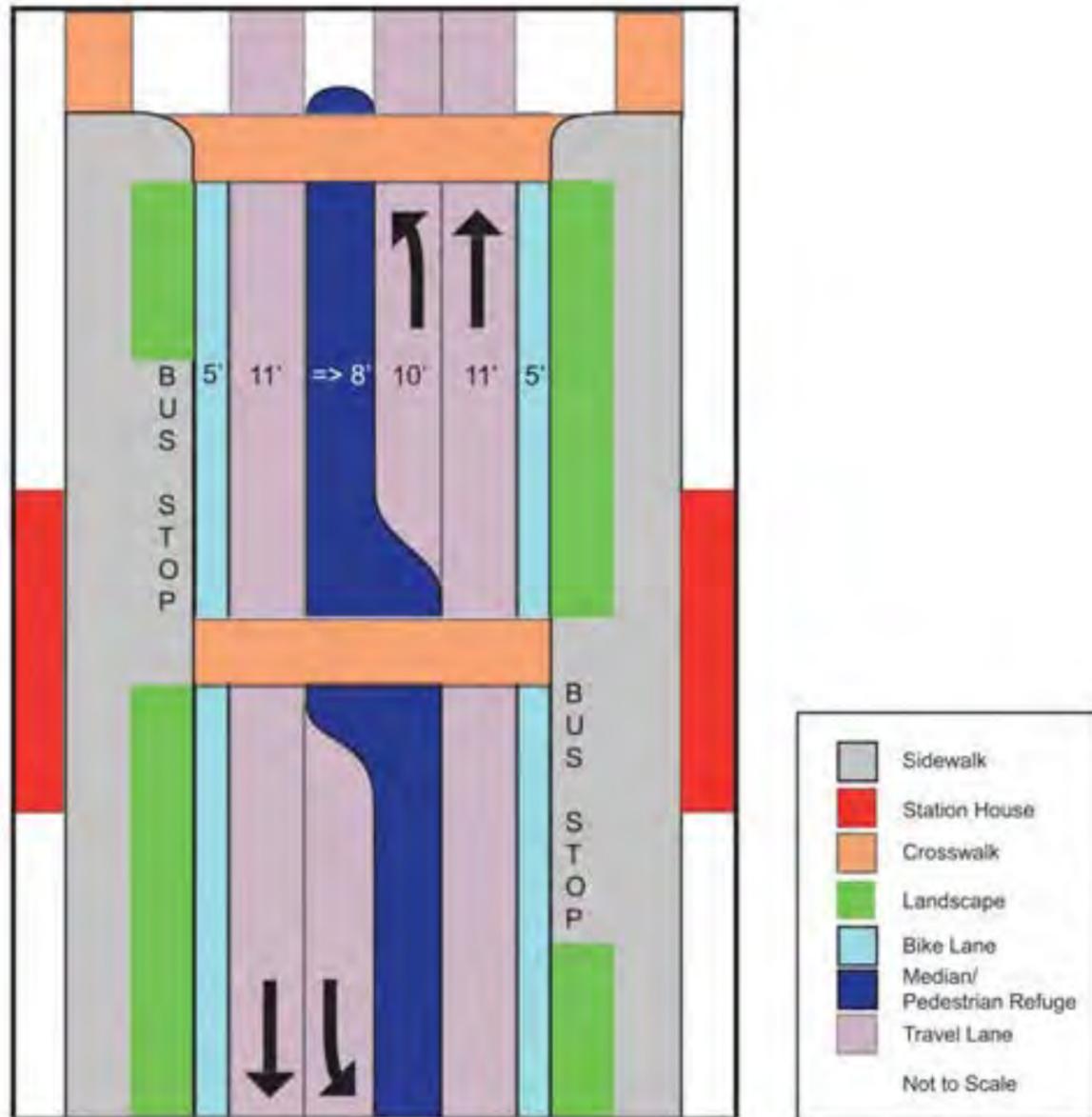
Pedestrian Zone Improvements, with at Cicero Avenue as an Example. Optional Plazas are Shown at Right

Roadway: Pedestrian Experience

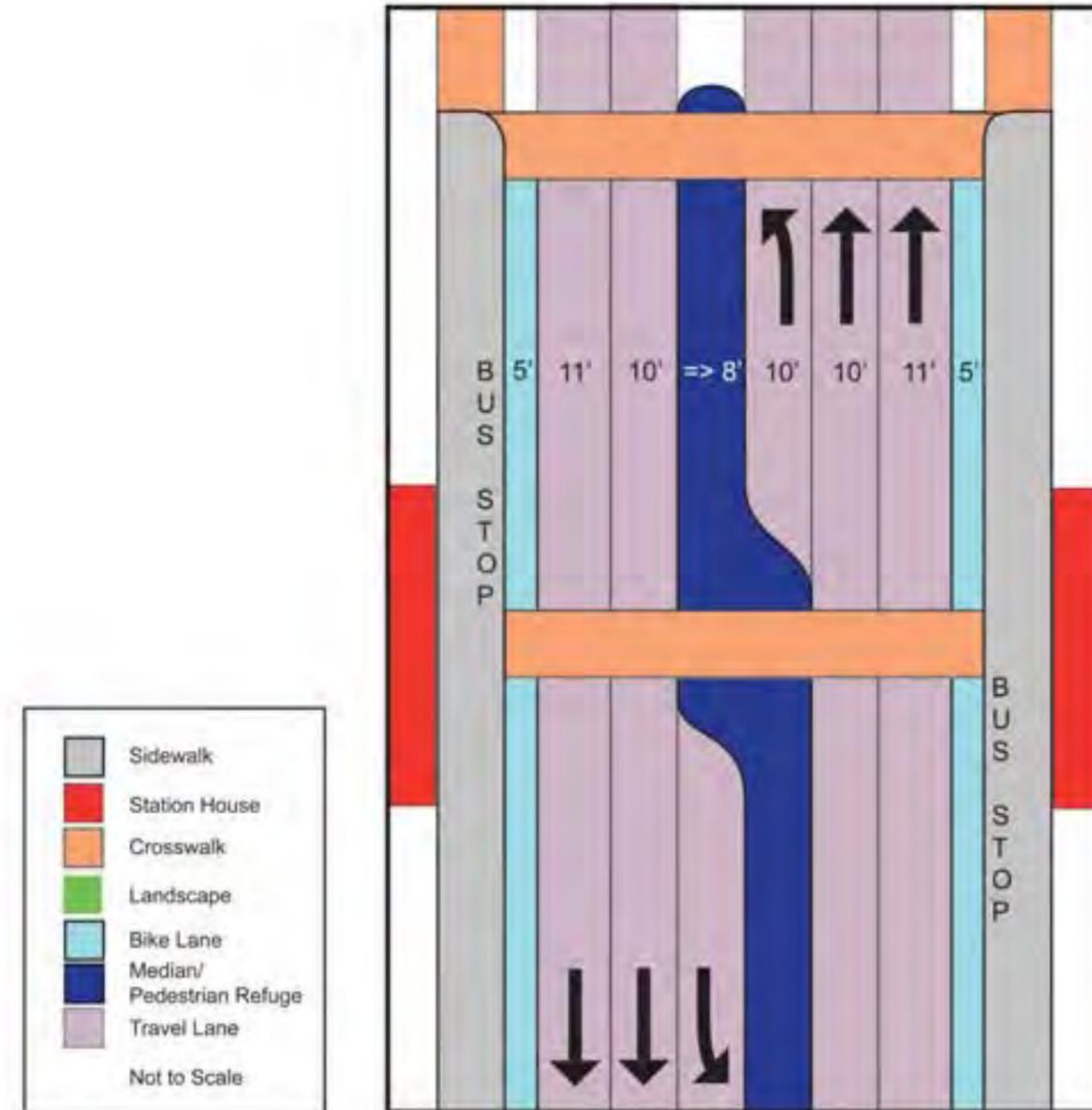
It is recommended that *Complete Streets Chicago: Design Guidelines* (Chicago Department of Transportation, 2013) is used as a model (and, in Chicago, direction) for the treatment the streets along the Blue Line. A street that is comfortable for pedestrians will be comfortable for all CTA patrons. In addition to improvements to the sidewalk, care must be taken to create a street that is and feels safe to travel along and to cross. Streets will serve, in this order: Pedestrians, public transit riders, bicyclists, motorists.

The diagrams that follow summarize *Complete Streets Chicago's* main points:

- Crosswalks will never cross more than three lanes;
- Medians will be at least 8 feet wide;
- No more than one lane in each direction will be up to 11 feet wide; and
- Remaining lanes will be no more than 10 feet wide.



Roadway Recommendation for Three-Lane Streets



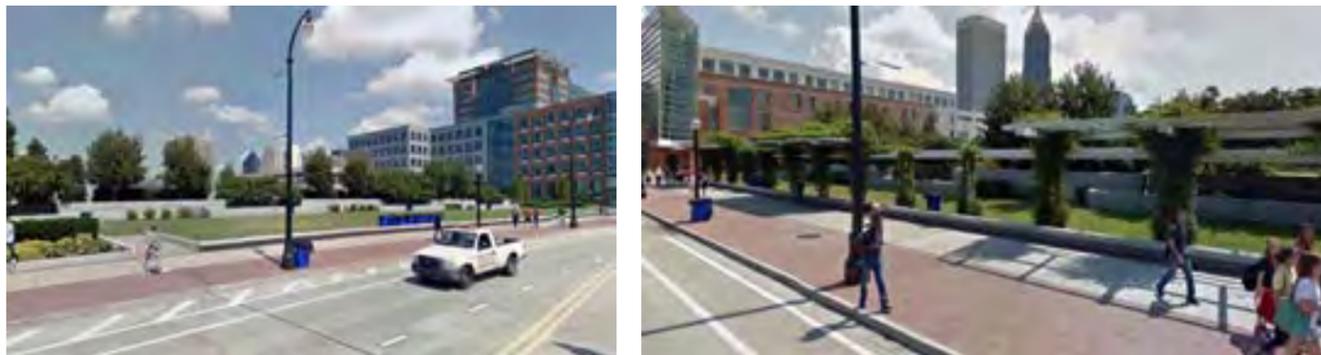
Roadway Recommendations for Streets Wider than Three Lanes

Urban Fabric: Connection to the Neighborhood

All Blue Line stations are next to, under, or otherwise very near the Eisenhower Expressway. In most instances, a below-grade highway separates stations from some of the surrounding neighborhood. This stress on the urban fabric can be alleviated through expanding or adding decks over the highway. The choice of deck uses and how extensive they are depends upon the desired goals. A minimal widening of bridges, with landscaping, will be provided at all stations, as discussed above in "Transportation Connections". An example of this type of treatment is the Fifth Street bridge over Interstate 85 in Atlanta, connecting Georgia Institute of Technology's campuses.



Landscaped Fifth Street Bridge over Interstate 85, Atlanta (Google Earth)



Fifth Street bridge, Atlanta, view north east (left) and southeast (Google Street View)

Larger Decks

Stations in commercial districts, or where there is otherwise potential for development, will have a more substantial deck. A wider deck could be used for a larger, occupiable open space or for building. A model of the latter is the Cap at Union Station, in Columbus, Ohio. Decks on both sides of a street support shallow, single story buildings with commercial tenants. The Cap successfully fills what had been a gap in a commercial strip.



View of the Cap at Union Station, Columbus, Ohio (David B. Meleca Architects)



Cap highlighted (David B. Meleca Architects)

Oak Park Avenue: Large Deck Options

Three examples of the use of larger decks to stitch together holes in the fabric follow. They vary in total width of highway covered from 220 feet to 1,550 feet. While the examples are specific to Oak Park Avenue, the concepts could be used at all stations except at Clinton and Forest Park.

Oak Park Piazza would have 80-foot wide decks flanking a 60-foot wide bridge, for a total width of highway covered of 220 feet.

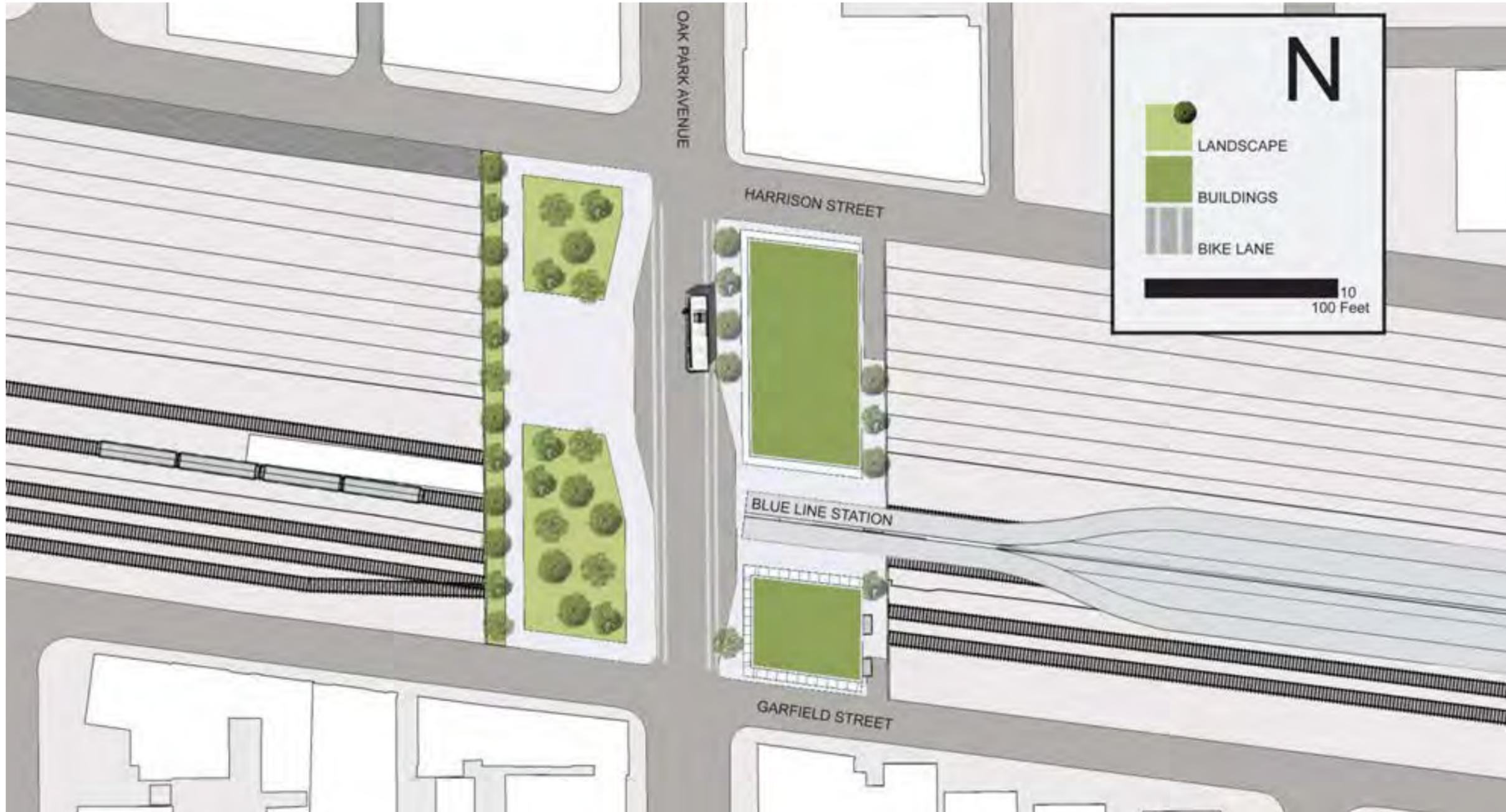
Heart of Oak Park would have approximately 145-foot wide decks, plus the 60-foot wide bridge, for a total width of 350 feet.

Oak Park Avenue – East Avenue Park's deck would extend approximately 1,550.

Oak Park Piazza

At 220 feet in width, the deck would be approximately 1.2 acres in size. Half an acre of the deck would be open space. The development shown represents approximately 36,000 square feet, approximately 9,000 square feet of which is for commercial uses and the balance, for housing. The

estimated cost to build this proposal, excluding assumed bridge replacement, would be \$34,000,000.



Oak Park Piazza, plan view



Oak Park Piazza, looking east

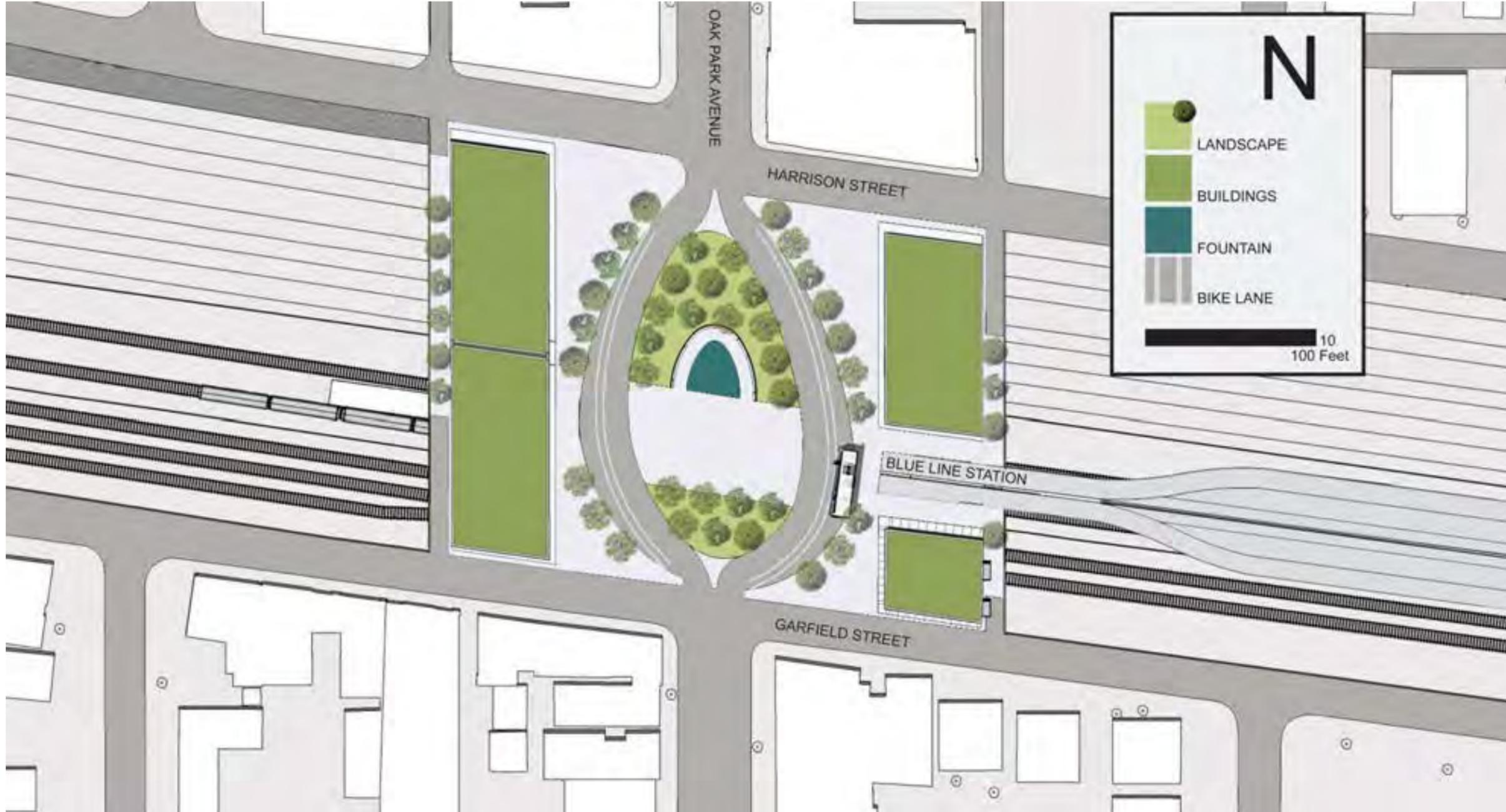


Oak Park Piazza, looking north

Heart of Oak Park

This option creates approximately two acres with 350 feet of total deck width. Six tenths of an acre of open space is included, a portion of which is hardscape that could host farmers or other markets or events. The proposed development is approximately 90,000 square feet, approximately 22,500

square feet of which would be commercial and 67,500 square feet, for housing. The estimated cost to build this proposal, excluding assumed bridge replacement, would be \$75,000,000.



Heart of Oak Park, plan view



Heart of Oak Park, looking east



Heart of Oak Park, looking east

Oak Park Avenue – East Avenue Park

The deck would span between Oak Park Avenue’s station houses, approximately 1,550 feet. It would create approximately 10 acres, 5.5 of which would be open space. The open space would be across the street from the Oak Park Conservatory and Rehm Park. 200,000 square feet of

proposed development would include 18,000 for commercial use and 182,000 for housing. The estimated cost to build this proposal, excluding assumed bridge replacement, would be \$286,000,000.



Oak Park Avenue – East Avenue Park, plan view



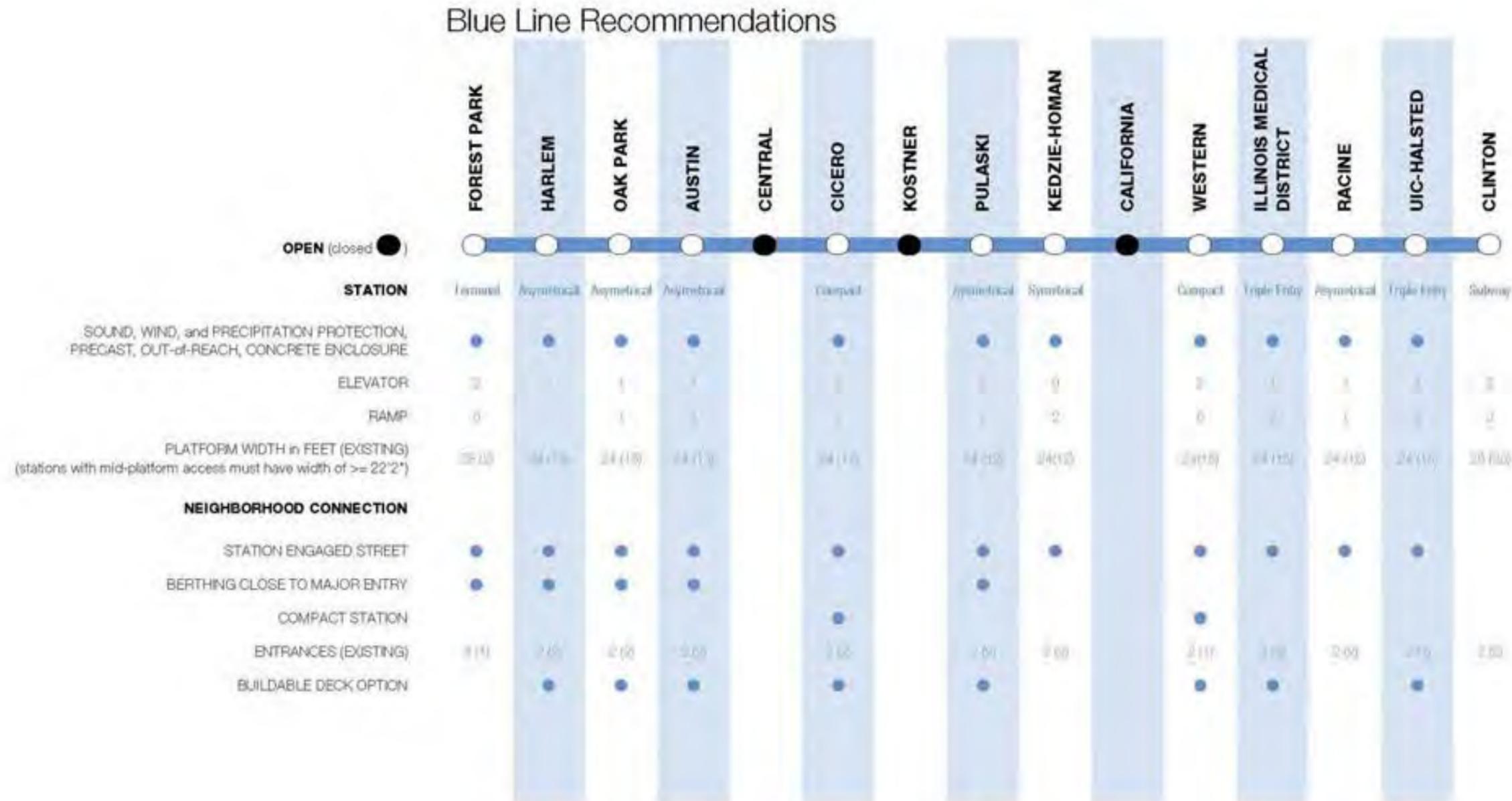
Oak Park Avenue – East Avenue Park, looking east



Oak Park Avenue – East Avenue Park, looking southwest

STATIONS SUMMARY

Recommendations for specific stations can be found in the chart below. There are six general designs proposed, primarily distinguished by whether stations are above, below, between, or next to adjacent streets. They are discussed in more detail on the pages that follow.



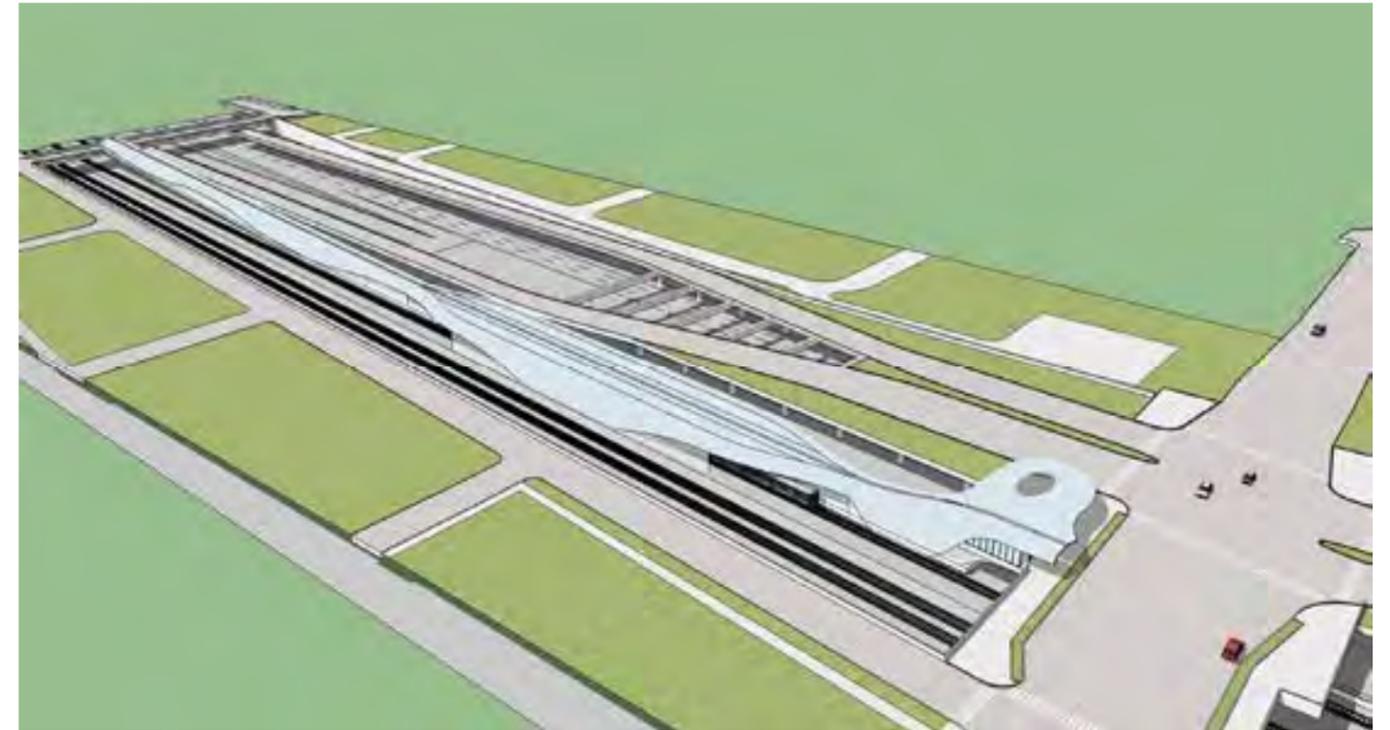
Double-Entry, Asymmetrical Stations: Racine, Pulaski, Austin, Oak Park, and Harlem

Most Forest Park branch Blue Line stations that can be accessed from two streets have one entry that is used more heavily. With the exception of Racine, these stations also have bus service on only one of the streets between which they are located. For this reason, the primary entrances will be privileged when these stations are rebuilt. Trains will berth close to the primary entrance.

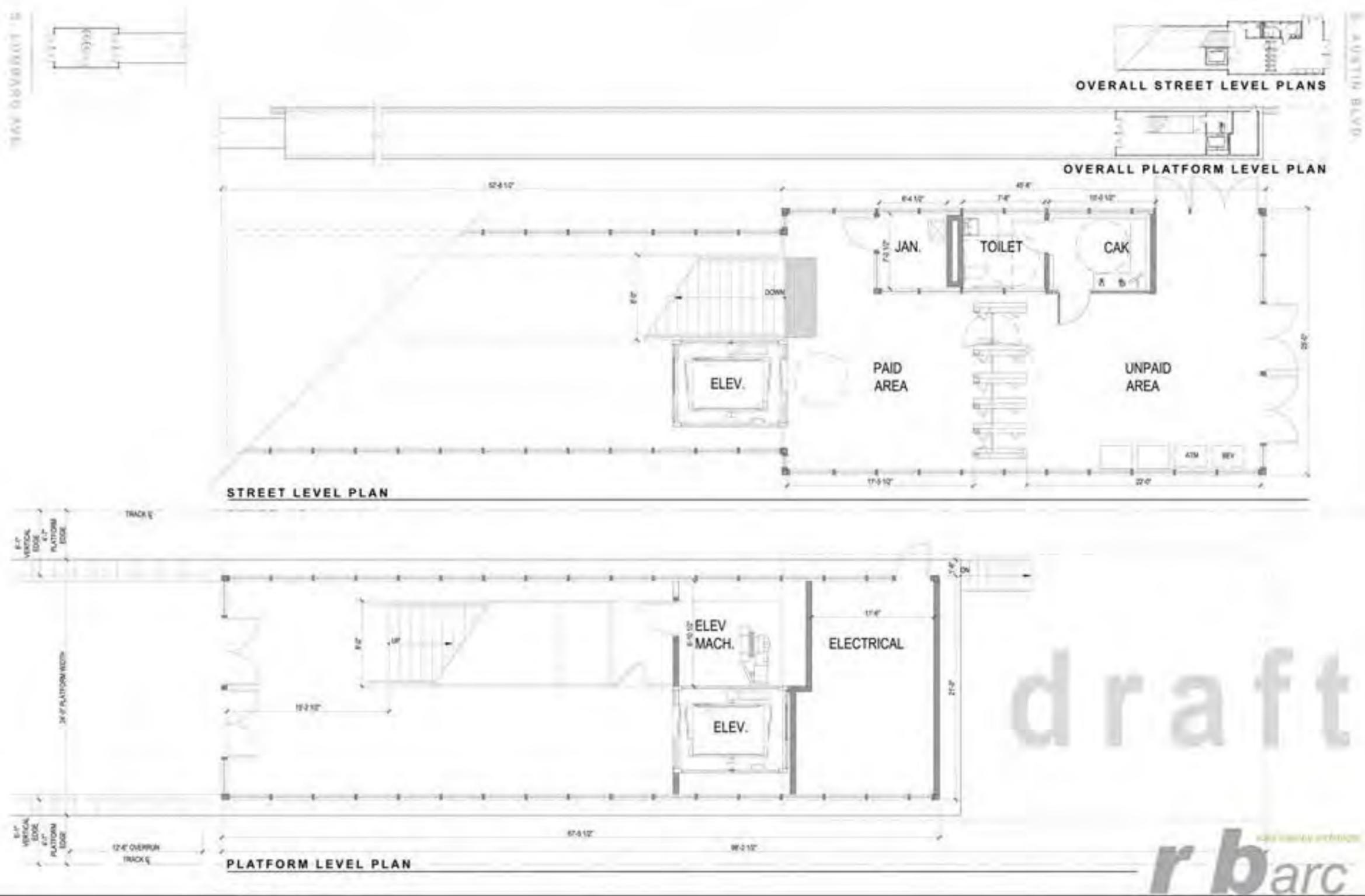
People walking and bicycling will be accommodated at both entrances. Americans with Disabilities Act access from the primary entrance will be via elevator and, from the secondary, by ramp. Bicycle racks, for parking, will be installed at both entrances.



Austin Boulevard (primary) Entrance with Plaza Option



Austin Station Berthing and Elevator Access Privileges the Austin Boulevard



Austin Boulevard Station House and Platform Plan

Double-Entry, Symmetrical Station: Kedzie - Homan

Kedzie – Homan station is unusual for the Forest Park branch of the Blue Line, in that it has two equally used entrances that both serve as transfer points for bus service. As a result, train berthing

Double-Entry, Compact Stations: Western and Cicero

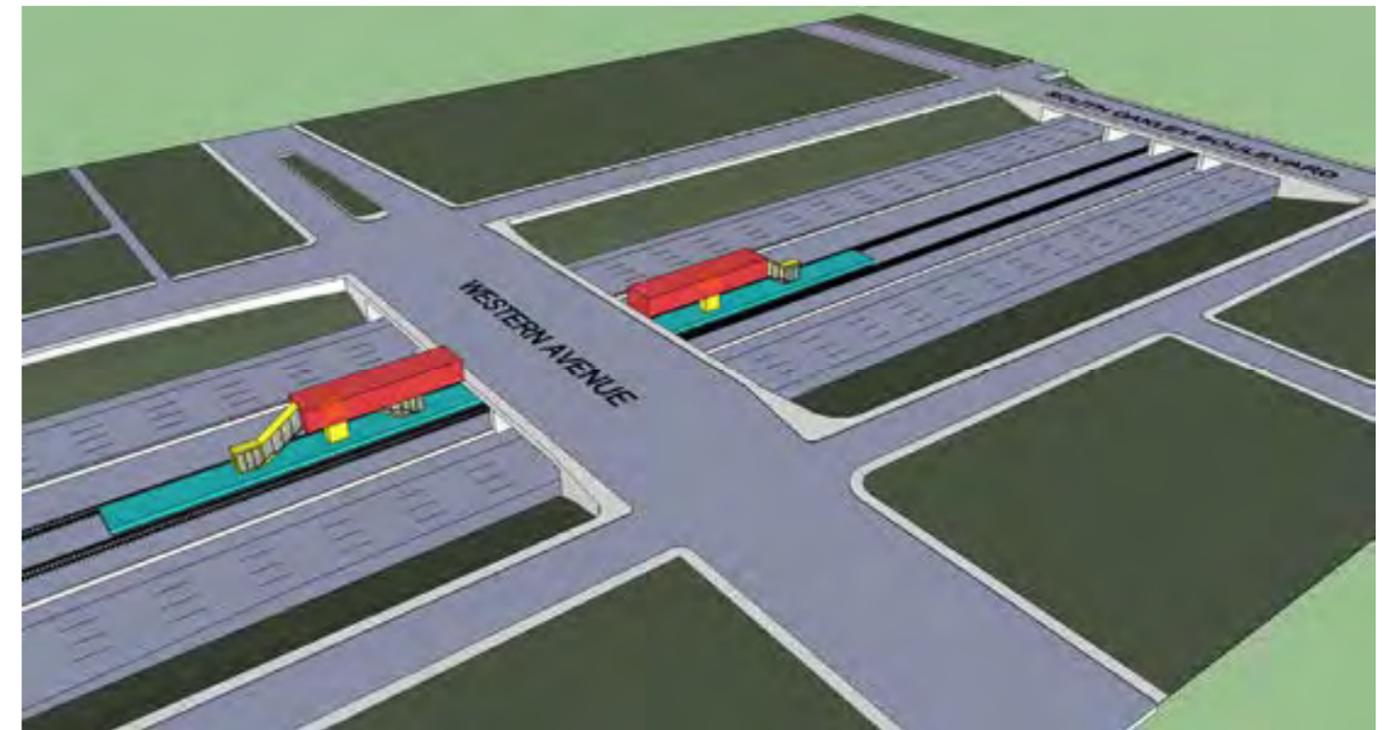
The stations at Western and Cicero Avenues, when rebuilt, will have two entrances, one on either side of the street. This will facilitate transfer between bus and train service. This is especially important at Western Avenue, which is planned to have bus rapid transit service. The stations' Americans with Disabilities Act access will consist of an elevator at both entrances. Trains will berth under the street and be as close as possible to the entrances.

The station at Cicero will not be exactly centered on the street. Twenty five feet x 85' will be provided for the west station house, to be located between Cicero Avenue and a "Texas turnaround" that is being considered as part of the reconstruction of the Eisenhower Expressway. Because of the constrained entry on the west side of Cicero Avenue and emergency egress requirements, the platform and train berthing area will be located towards the east. A minimum of 25' x 190' will be provided for the east station house. These dimensions include the horizontal distance from the street entrance to the bottom of the stairs at platform level.

will remain centered between the two streets and not privilege one or the other. Americans with Disabilities Act access between the platform and the entrances will consist of ramps.



"Compact" Station, Centered on Primary Street, Facilitating Access and Bus Transfers



Station Centered on Western Avenue

Triple-Entry, Symmetrical Stations: UIC – Halsted and Illinois Medical District

The stations at UIC – Halsted and Illinois Medical District each have three entrances. The entrance locations will remain when the stations are rebuilt. Americans with Disabilities Act access will consist of an elevator at the middle entrance and ramps at both ends. Trains will berth under the

middle entrance. The Illinois Medical District station may be rebuilt to include a transfer option to the Pink Line.



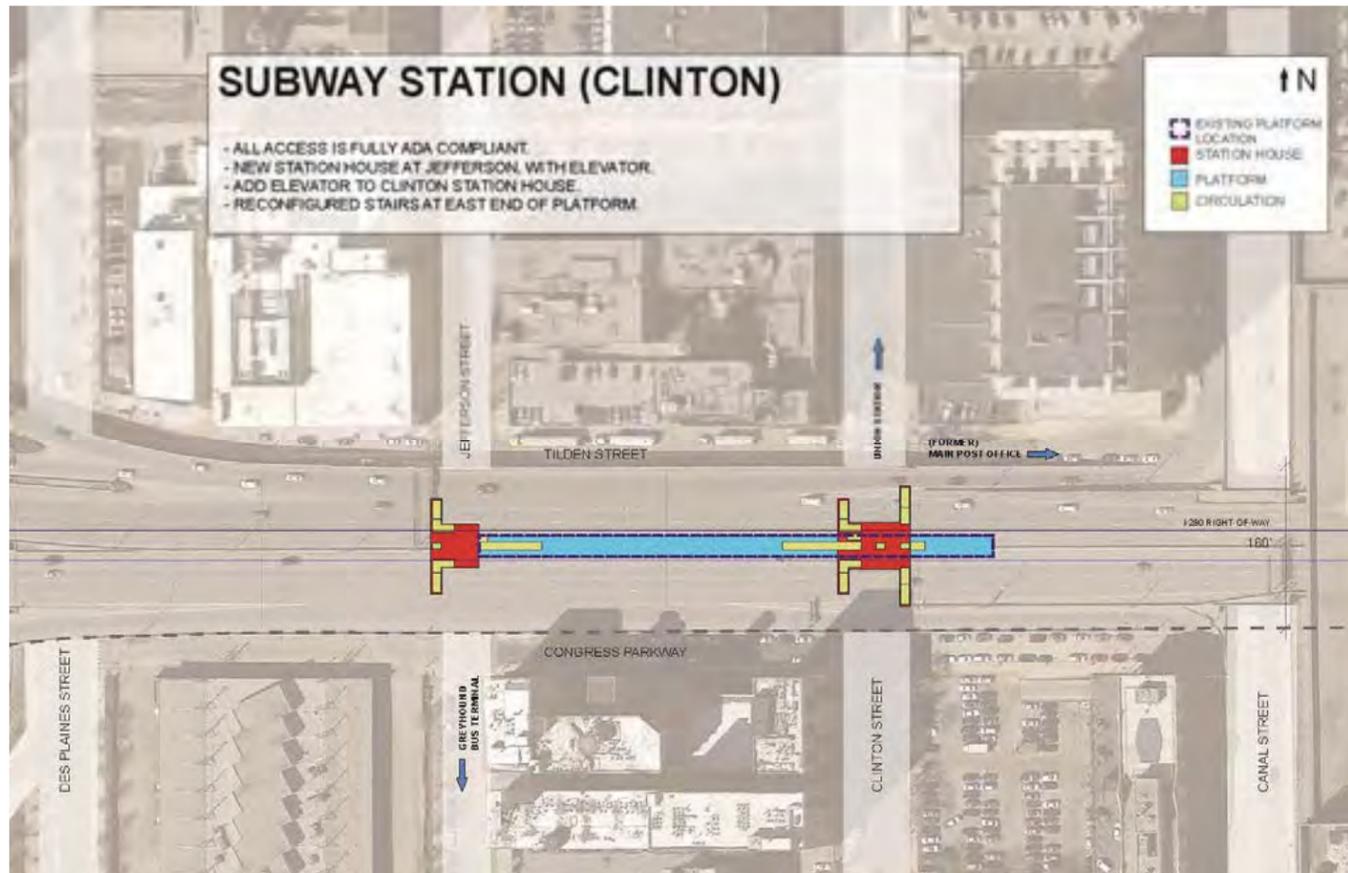
Triple-Entry, Symmetrical Station, with Elevator and Berthing at the Middle Entrance



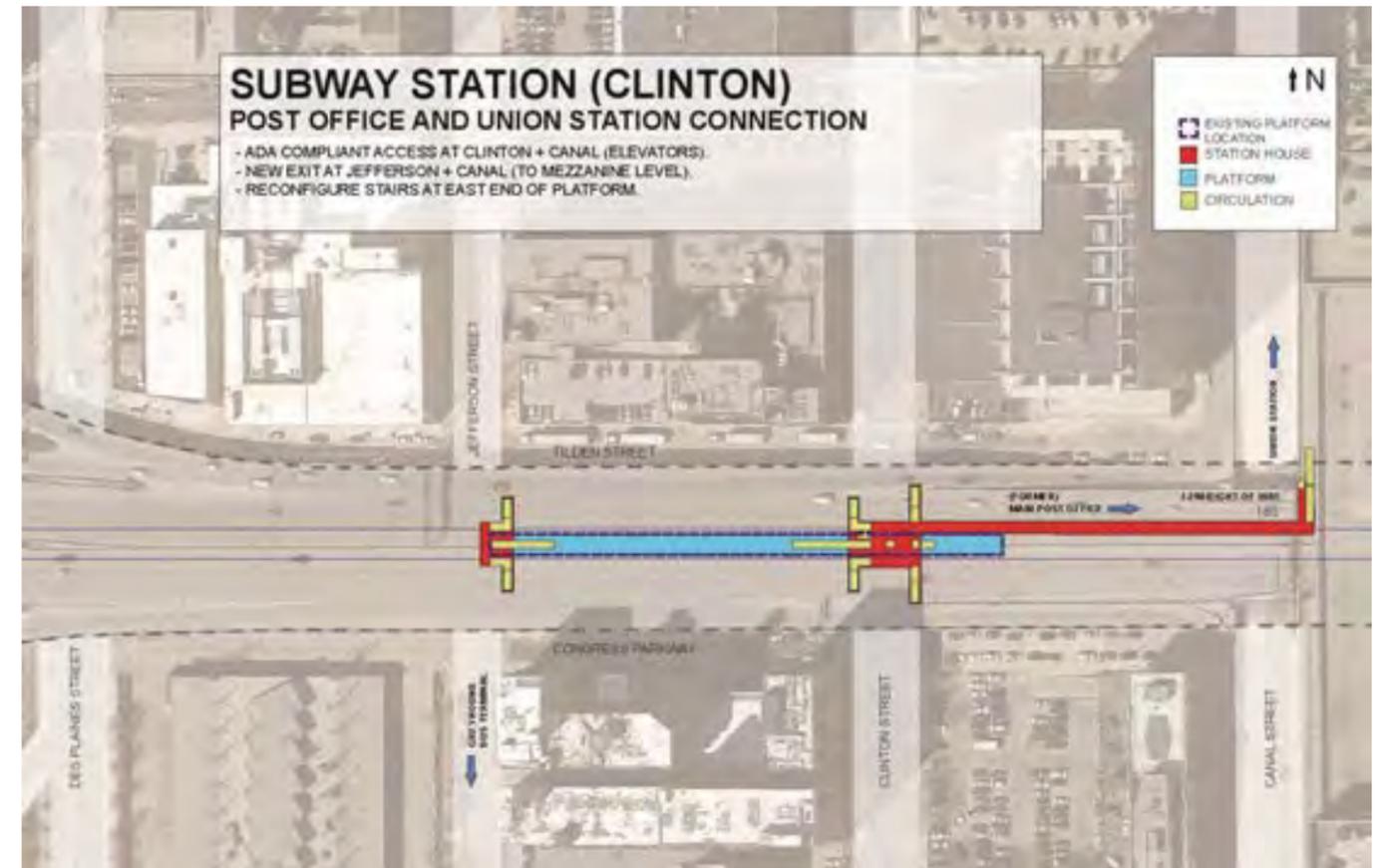
Wide Sidewalk, Planting, and Sound Barrier Take Advantage of the Eisenhower's Dynamism

Subway Station: Clinton

The primary improvements to the station at Clinton Street will be the addition of an entrance at Jefferson Street and elevators between the street, mezzanine, and platform levels at both entrances. An additional improvement that merits inclusion would be the extension of the mezzanine level to Canal Street and the installation of another elevator at that location. This will strengthen the connection to Union Station and any possible high-speed rail development at that location or at the former main US post office building on Canal Street.



Entrance Added at Jefferson Street and Elevators Added to Both Entrances



Option of Adding a Third Entrance at Canal Street to Connect to Union Station

Terminal Station: Forest Park

The Forest Park terminal will become more of a focal point of the community and more easily accessible by walking when it is rebuilt. Train berthing will be shifted to the east and an entrance will be added to the east side of DesPlaines Avenue. With elevators on both sides of the street,

Forest Park station will have Americans with Disabilities Act-compliant access without crossing DesPlaines Avenue.



Forest Park Station: Entrances on Both Sides of DesPlaines Avenue Encourage Walking

APPENDICES

STATION TYPES, EVALUATIONS, AND OPTIONS

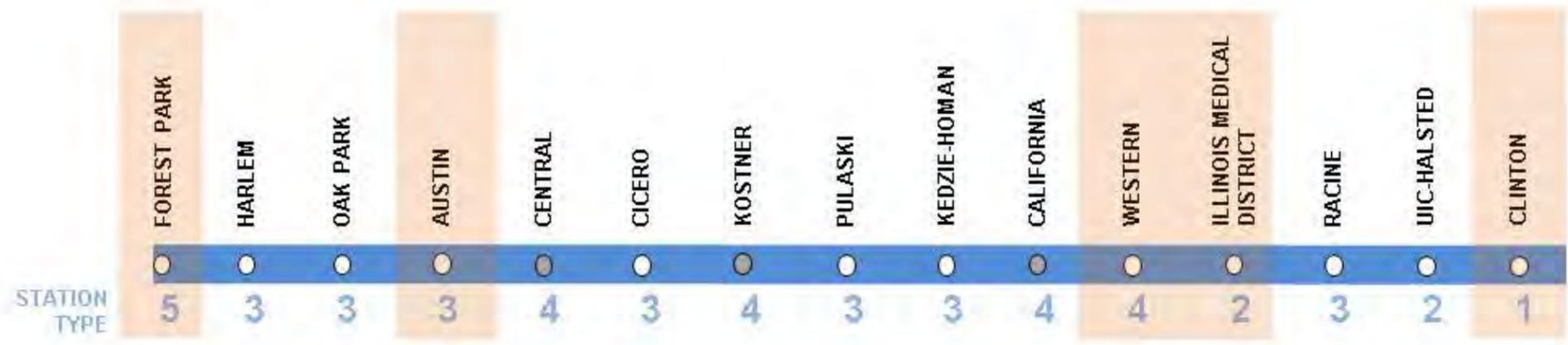
STATION TYPES

The twelve operational and three closed stations along the Blue Line Forest Park Branch have been organized into five types. One representative station of each type is explored in detail to develop a variety of improvement alternatives. Two charts are included, one showing each station and its categorization and the other, which alternatives could work with each station. Further explanation of the alternatives developed for each station type can be found in the chapter *Station Alternatives Development*.

STATION TYPES:

- 1 - SUBWAY STATION
- 2 - TRIPLE ENTRY STATION
- 3 - DOUBLE ENTRY STATION
- 4 - SINGLE ENTRY STATION
- 5 - TERMINAL STATION
- CLOSED STATION
- * STATION HOUSE ENTRY / EXIT CLOSED





STATION OPTIONS

	FOREST PARK	HARLEM	OAK PARK	AUSTIN	CENTRAL	CICERO	KOSTNER	PULASKI	KEDZIE-HOMAN	CALIFORNIA	WESTERN	ILLINOIS MEDICAL DISTRICT	RACINE	UIC-HALSTED	CLINTON
RENOVATION A	●	●	●	●		●		●	●	●		●	●	●	●
WIDER PLATFORM B		●	●	●		●		●	●	●	●	●	●	●	
COMPACT STATION C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
SIDE PLATFORMS D		●	●	●		●	●	●	●	●	●	●	●	●	
STAGGERED BERTHING E		●	●	●			●	●	●	●		●	●		
POST OFFICE AND UNION STATION CONNECTION X															●

● Closed station
 ■ Representative station

STATION ALTERNATIVES DEVELOPMENT

TYPE 1: SUBWAY STATION (CLINTON)

Clinton is the only subway station on the Forest Park Branch. It is fairly standard, with a station house (including fair control and the station agent's kiosk) located below street level. The platform is located below the station house. Stairwells are within the sidewalks, on both sides of the Clinton Street. The station house is centered below Clinton Street. From the station house, one can reach the platform either via a single stair or an escalator. There are no other entry or exit points to the platform.

CURRENT CONDITIONS

Clinton Station is located below both the elevated I-290 and street level, between Tilden Street and Congress Parkway (to the north and south, respectively), and between Clinton and Jefferson streets (east and west). The existing station can be accessed from four entry stairs located at Clinton Street. The majority of the platform lies west of Clinton Street, however approximately 100 feet are east of the station house.

Clinton is the closest station in the CTA system to a number of transportation hubs in the West Loop. Union Station, located on Jackson Boulevard, two blocks to the north, serves many Metra lines and all Amtrak trains. The Greyhound station is located one block south and one block west, with regional and national bus service.

The station may also become a transfer point to a future Clinton Street subway line. CTA and the Chicago Department of Transportation have produced conceptual plans for this new subway, and the implementation might be many years in the future. The location of this line has been shown in the following alternatives for identification purposes only.

The subway station is currently functional, but has several significant deficiencies. The station house and platform are not currently ADA accessible. This station also does not meet current code requirements for exiting. There are only one exit stair and one escalator that lead from the platform to the station house. The distance between the ends of the platform and the stair also exceed the current 75-foot maximum for dead ends.

The existing platform is approximately 20 feet wide. It does not meet current CTA design standards for a center platform. However, the platform can function adequately if required circulation elements and clearances are designed appropriately. The platform, at approximately 500 feet in length, is inadequate by CTA design standards for a 10-car train. To accommodate 10-car trains, the platform could be lengthened to the 525 feet required.

STATION ALTERNATIVES

Two options were considered for improvements to Clinton station.

Option 1A: Renovation

Option A is a renovation that includes improvements to make the station ADA compliant and meet current exiting standards. The improvements are: Elevators to the existing station house; a reconfigured exit stair at the east end of the platform; and a new station house at Jefferson Street. The elevator from the street to the unpaid station house area would be located on the east side of Clinton between the two existing stairs. A second elevator would be added within the paid side of the station house, centered on the platform and east of the existing escalators.

The changes to the Clinton station house would make this station and platform fully ADA accessible. The station house would be reconfigured to accommodate the new elevators, including the fare array, customer service kiosk, and restroom. The existing escalators from the station house to the platform would remain in the current positions. The existing stair from the station house to the platform would be reconfigured to extend to the east from the midpoint landing, in order to shorten the dead end distance to the east end of the platform.

This renovation option also adds a full station house to the west end of the platform at Jefferson Street. This new station house would have a customer service kiosk, fare array, elevators, and stairs from the street and to the west end of the platform. The addition of a station house at Jefferson would make the existing platform comply with current exiting requirements. It would also shorten the dead end distance at the west end of the platform and make the station compliant with current exiting standards. The Jefferson entry would also provide an ADA compliant connection to the Greyhound bus station, one block to the south.

Option 1X: Post Office and Union Station Connection

Option X is similar to option A, with two differences. There would be a mezzanine level connection to the east, to Canal Street, and the Jefferson Street station house would be exit-only. The connection to Canal Street would make the station easier to use by any new residents, tenants, or other visitors to a reused former main post office. Canal Street is also one block closer to the Metra and Amtrak service at Union Station. The Jefferson Street station house would be smaller than proposed in option A and be exit-only. It would have roto-gates and stairs to the street and from the west end of the platform.

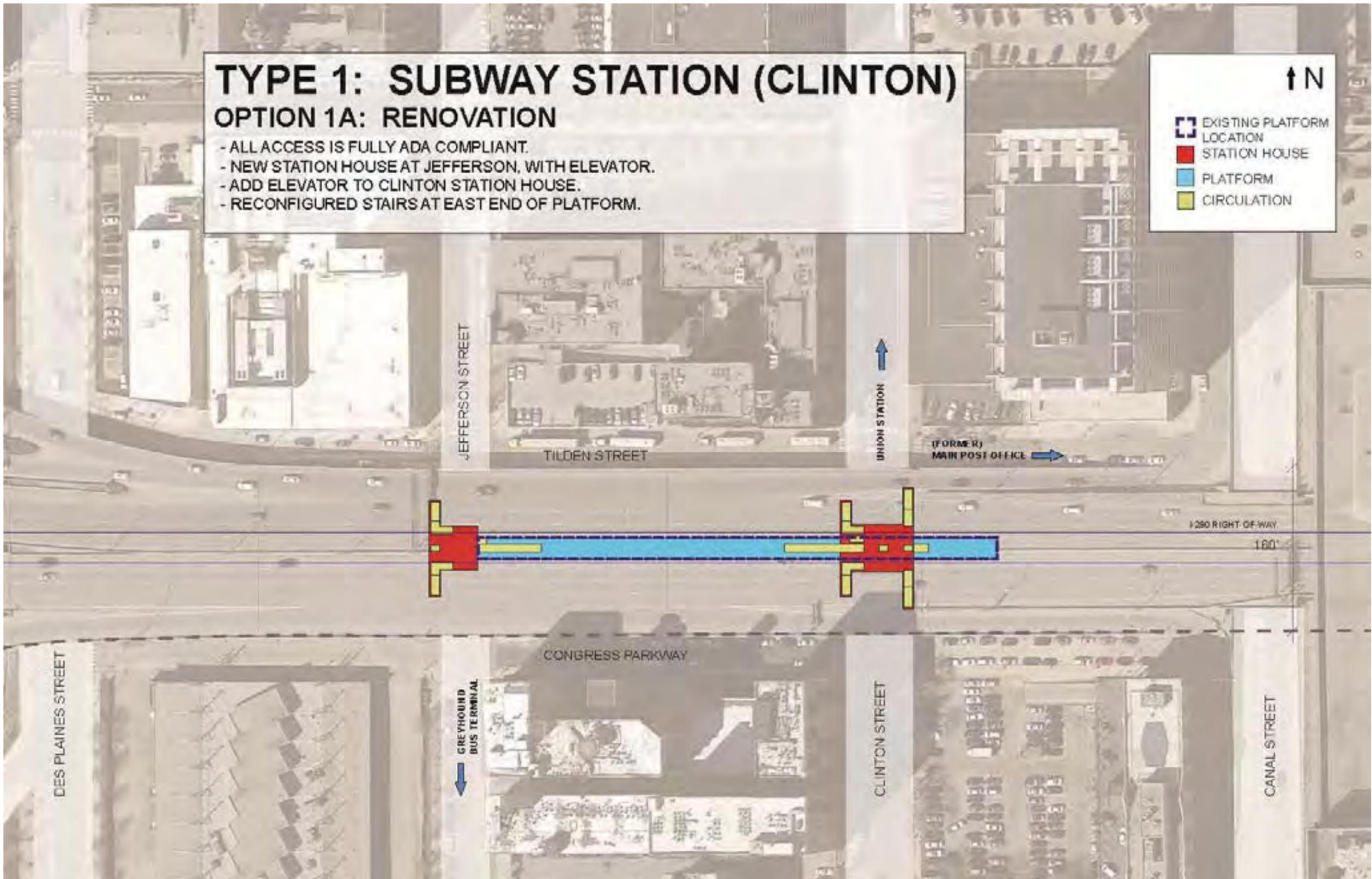
TYPE 1: SUBWAY STATION (CLINTON)

OPTION 1A: RENOVATION

- ALL ACCESS IS FULLY ADA COMPLIANT.
- NEW STATION HOUSE AT JEFFERSON, WITH ELEVATOR.
- ADD ELEVATOR TO CLINTON STATION HOUSE.
- RECONFIGURED STAIRS AT EAST END OF PLATFORM.

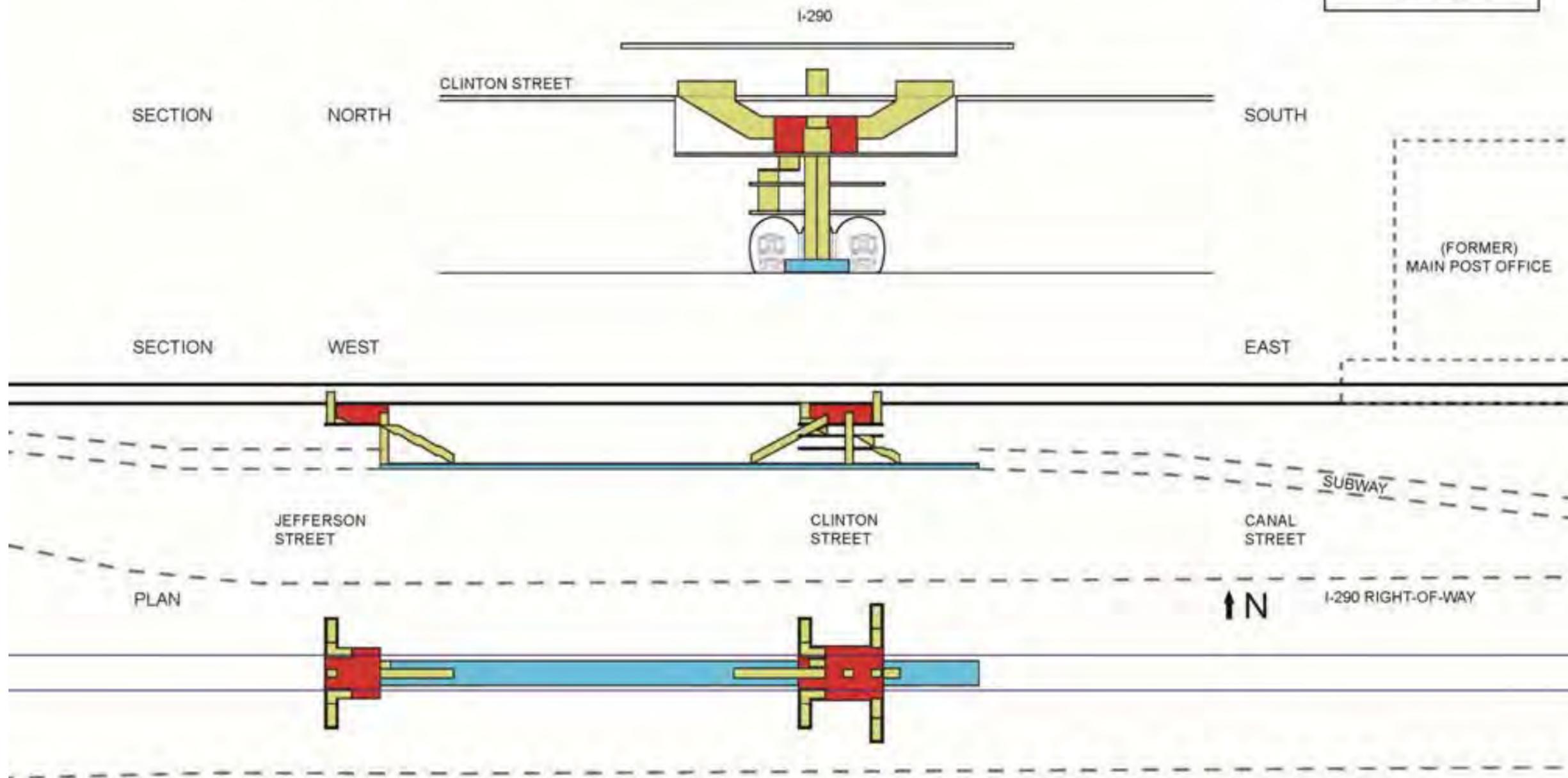
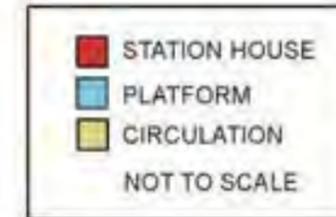
↑ N

- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION



TYPE 1: SUBWAY STATION (CLINTON)

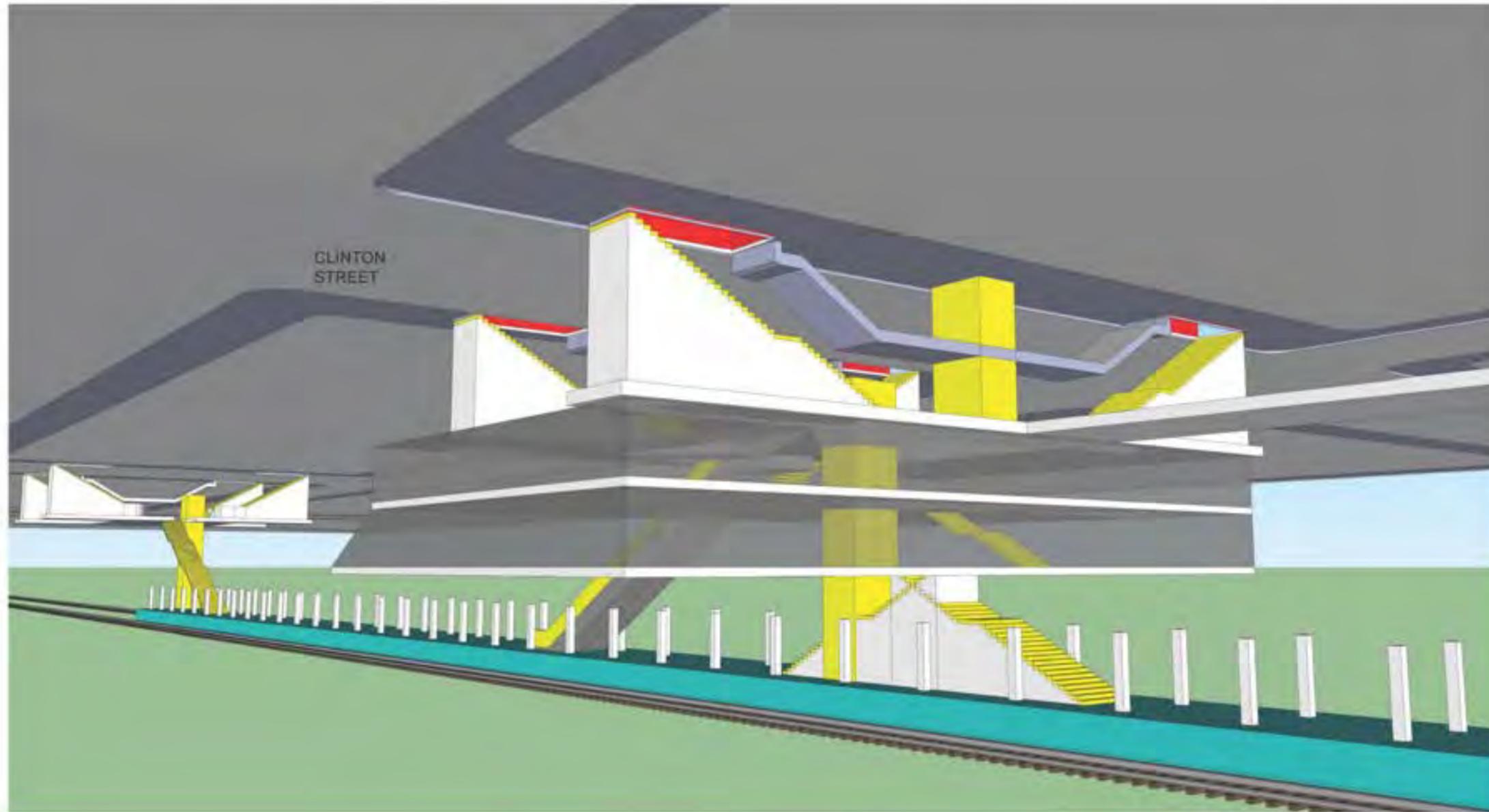
OPTION 1A: RENOVATION



TYPE 1: SUBWAY STATION (CLINTON)

OPTION 1A: RENOVATION

■ PLATFORM
■ CIRCULATION
NOT TO SCALE



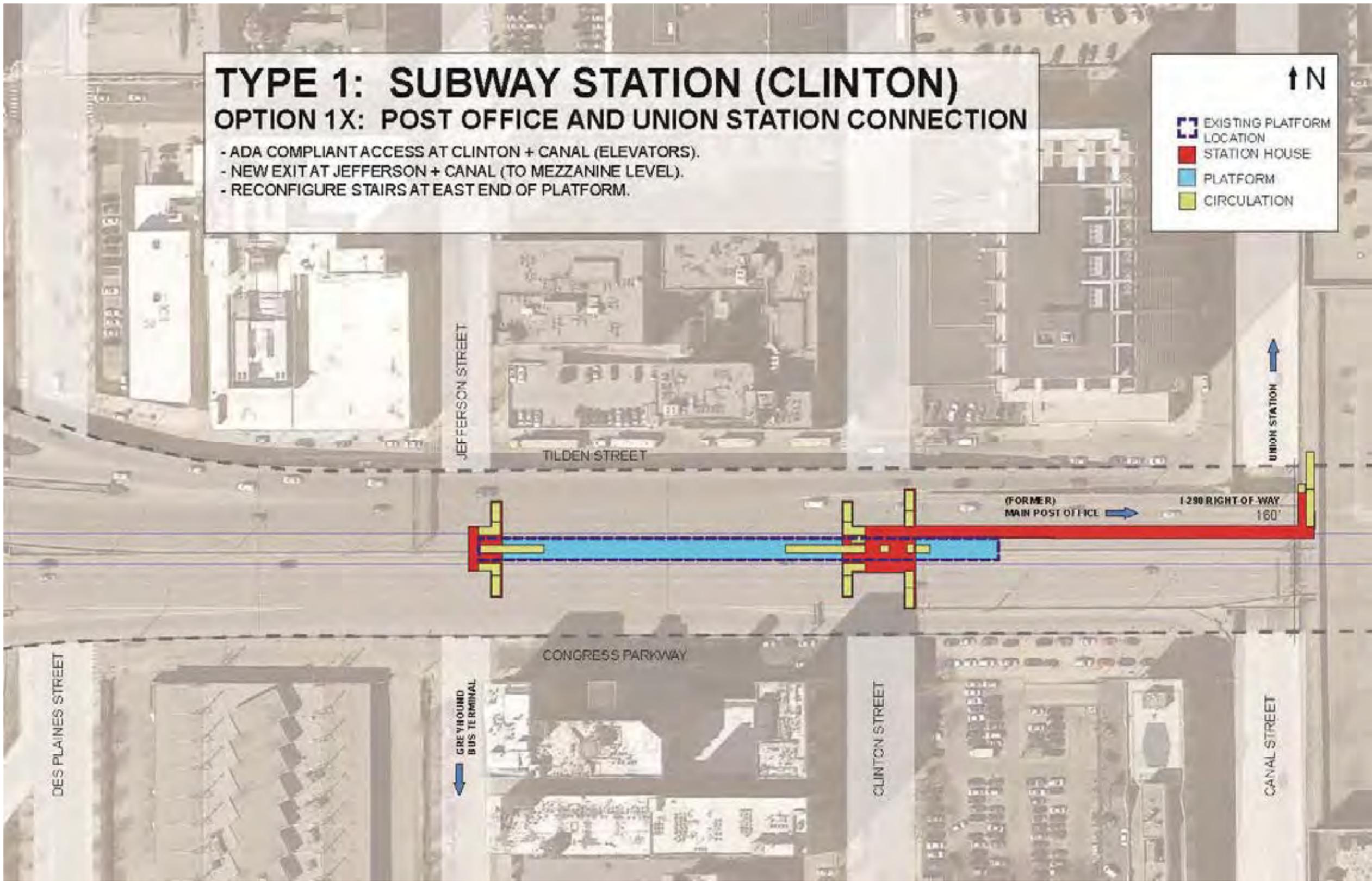
TYPE 1: SUBWAY STATION (CLINTON)

OPTION 1X: POST OFFICE AND UNION STATION CONNECTION

- ADA COMPLIANT ACCESS AT CLINTON + CANAL (ELEVATORS).
- NEW EXIT AT JEFFERSON + CANAL (TO MEZZANINE LEVEL).
- RECONFIGURE STAIRS AT EAST END OF PLATFORM.

↑ N

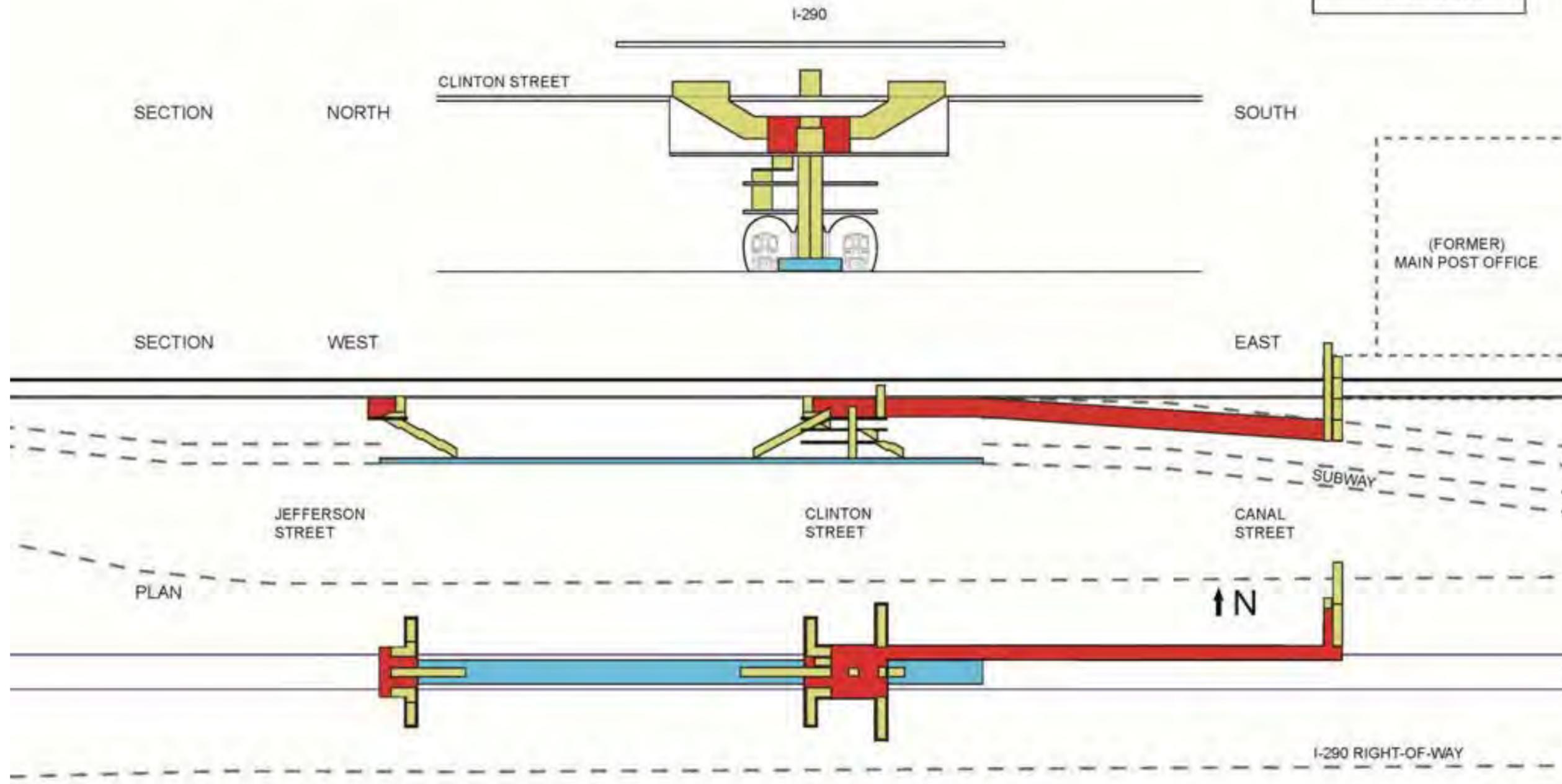
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION



TYPE 1: SUBWAY STATION (CLINTON)

OPTION 1X: POST OFFICE AND UNION STATION CONNECTION

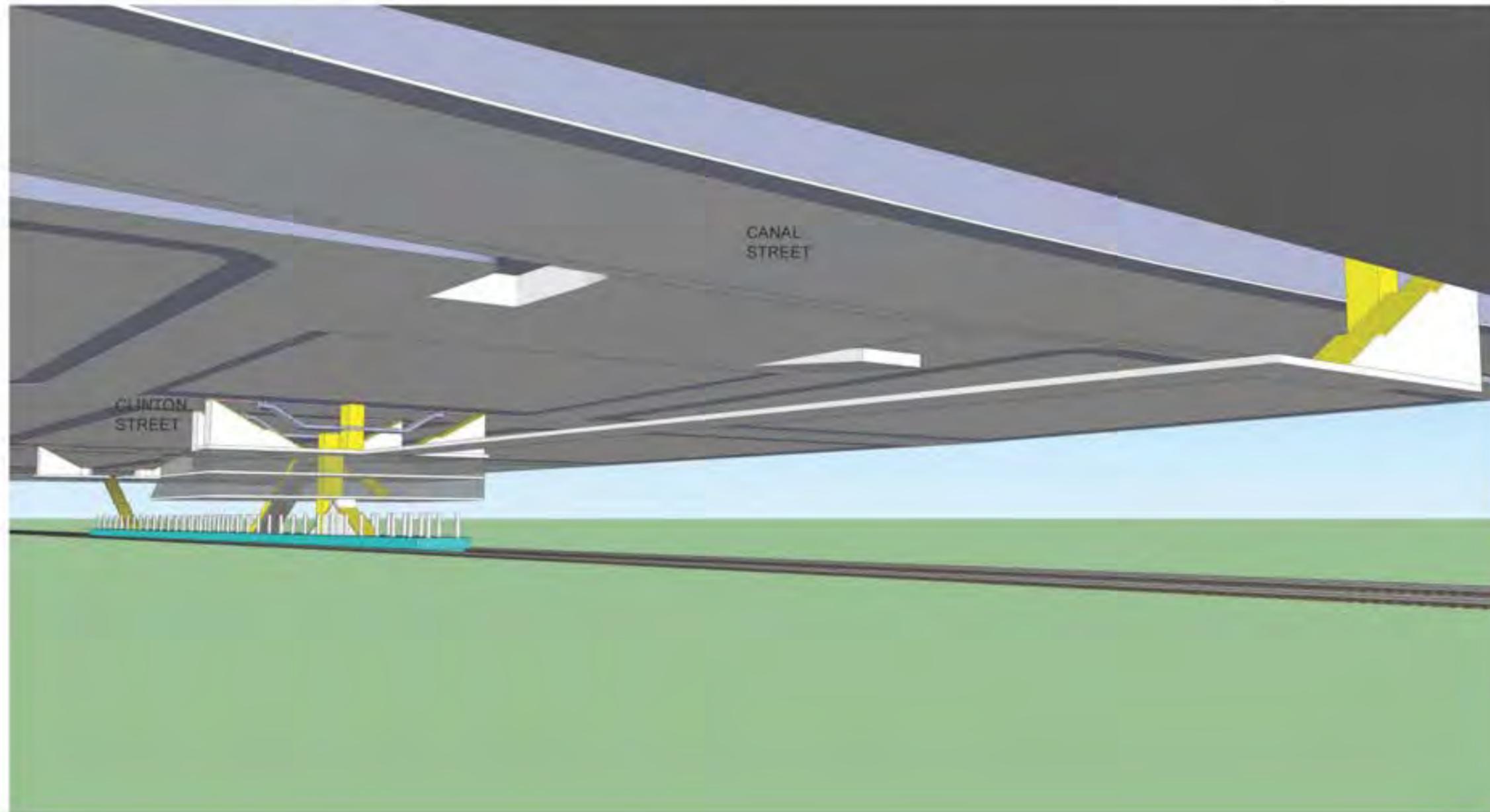
■	STATION HOUSE
■	PLATFORM
■	CIRCULATION
	NOT TO SCALE



TYPE 1: SUBWAY STATION (CLINTON)

OPTION 1X: POST OFFICE AND UNION STATION CONNECTION

■ PLATFORM
■ CIRCULATION
NOT TO SCALE



TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)

During the course of the evaluation of the Blue Line, renovations have started on the two triple entry stations, those at UIC-Halsted and Illinois Medical District. Both stations will have elevator access at the center station house and train berthing will be shifted on the platform. The following is the evaluation of alternatives that were prepared prior to the decision to renovate these two stations.

Illinois Medical District Station was chosen as representative of the type since it may require more work. The platform is located below a middle bridge, where one can also find the center station house. The two other stations houses are located beyond either end of the platform, at two bridges that also cross I-290. Customers entering through the center station house can descend by stair to the platform, directly below. Entering through the station houses at either end, customers must descend using long ramps to reach each end of the platform.

CURRENT CONDITIONS

Illinois Medical District station has been chosen to be the representative of Type 2, triple entry stations. UIC-Halsted is also a Type 2 station, and most of the options presented here can be applied to that site as well. The existing station can be accessed from three station houses, one near the center of the platform and one beyond each end. Customers can reach the platform via stair, from the center station house, and lengthy ramps, from the east and west ones.

This station serves major employment centers and destinations within and near the Illinois Medical District, such as the John H. Stroger, Jr., Hospital of Cook County, Rush University Medical Center, and the United Center. The station is one block west of, although not currently planned to coincide with, the planned Ashland bus rapid transit line. There is also the potential to make a future transfer station with the Pink Line, which crosses above the Blue Line tracks near the Paulina Street station house.

The station is currently functional, but has several deficiencies. The Damen Avenue station house is the only ADA accessible entry. A patron with limited mobility attempting to enter the station at Paulina would have to travel one-third of a mile to Damen in order to access the platform. The existing platform is approximately 15 feet wide and does not meet the current CTA design guidelines for a center platform. Because of its width and the placement of certain elements, wheelchair users do not have sufficient clearance to travel along the platform safely.

STATION ALTERNATIVES

Five renovation and replacement options are evaluated for use at the Illinois Medical District station. All but the last option could also apply to the UIC-Halsted station.

Option 2A: Renovation

This renovation would keep the existing platform and station house locations and make improvements to identity and safety and for the comfort of passengers. A pedestrian crossing would be added to Damen Avenue at the station house. The crossing, along with relocating the southbound Damen bus stop, would improve transfers within the CTA system and reduce the

danger of crossing this high traffic volume street. All three station houses would be largely renovated to improve their identity and the flow of passengers. New platform canopies, wind breaks, and benches would further enhance customers' experience.

The station's access would be made ADA compliant. An elevator would be added to the center station house, and the existing stairs would be reconfigured to gain proper clearances at the platform. The ramp to the Paulina station house could be reconstructed to provide wider ADA compliant access.

Option 2B: Wider Platform

This option is similar to 2A: Renovation, but with an addition of a wider center platform. The north track would be relocated further north to widen the platform to comply with current CTA design guidelines. The ramps to the east and west station houses could also be reconstructed to provide wider ADA compliant access. All entries would be made ADA compliant.

Option 2C: Compact

Option 2C is similar to 2B, but with two differences that would make it easy for customers and staff to use. The platform would be centered on Damen Avenue and the station would be reached through two entrances on either side of that street. The placement of the two station houses would make crossing the street to reach a bus stop unnecessary, simplifying transfers. Access would be fully ADA compliant, with both station houses having an elevator. Damen Avenue was chosen because buses run on this street. Option 2C could also work at Ogden, assuming buses would be rerouted.

Option 2D: Side Platforms

Both tracks would be moved closer together to make room for two platforms, to be located between Ogden and Damen. Station houses would be rebuilt at those locations and would include elevators, making the station compact and access fully ADA compliant. The width of the side platforms would comply with CTA design guidelines and they could provide continuous wind breaks and canopies, improving the weather protection of, and noise reduction for, customers. Option 2D could also be sited between Ogden and Paulina, assuming buses are rerouted to Ogden from Damen.

Option 2E: Staggered Berthing

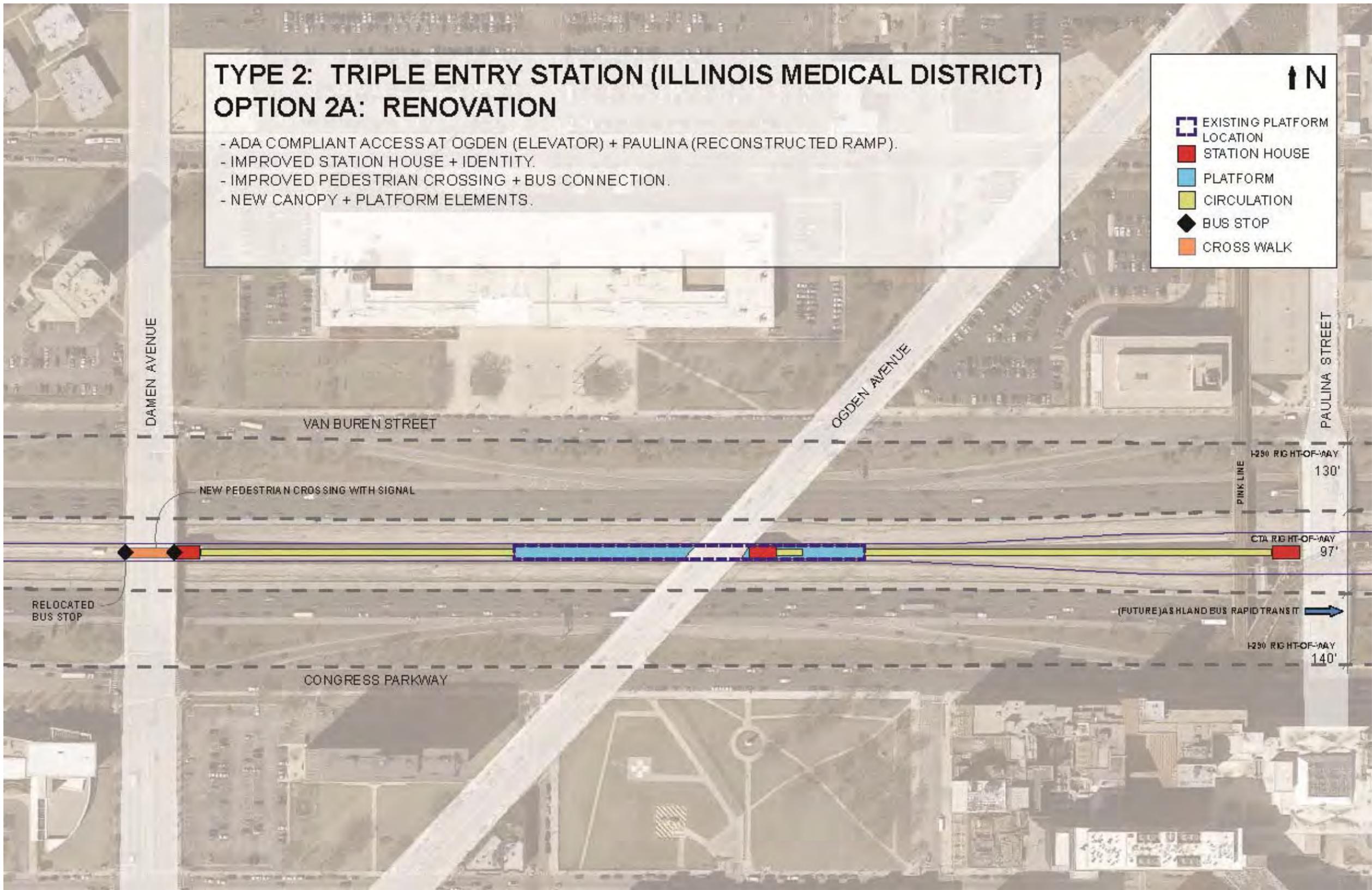
Option 2E would retain the existing platform and three station house locations. The platform would be extended to accommodate staggered berthing. Since trains would only stop on one side of the platform at any particular point, it would meet CTA's design guidelines for width. This option would have ADA compliant entrances with elevators added to all three station houses.

TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2A: RENOVATION

- ADA COMPLIANT ACCESS AT OGDEN (ELEVATOR) + PAULINA (RECONSTRUCTED RAMP).
- IMPROVED STATION HOUSE + IDENTITY.
- IMPROVED PEDESTRIAN CROSSING + BUS CONNECTION.
- NEW CANOPY + PLATFORM ELEMENTS.

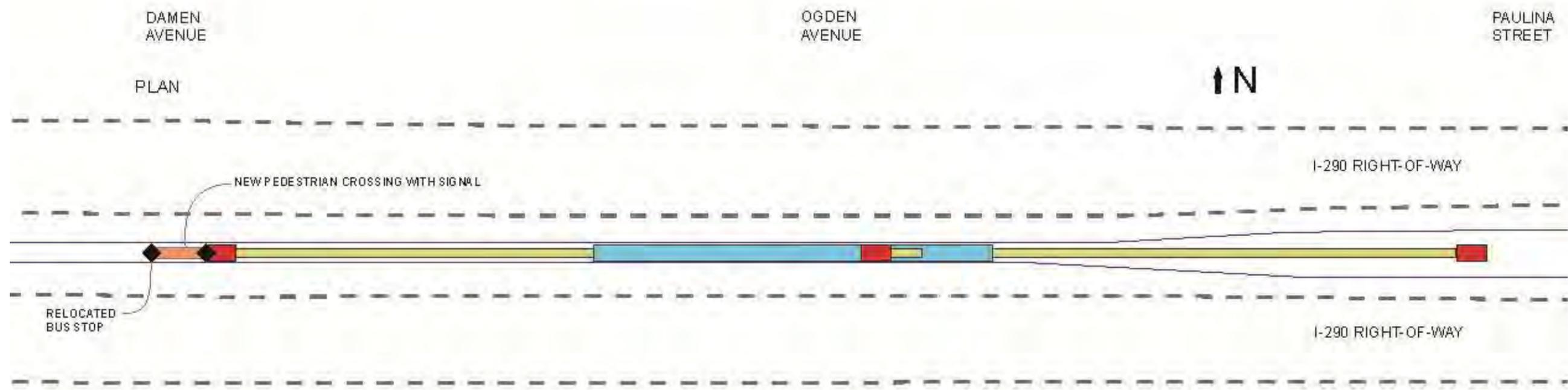
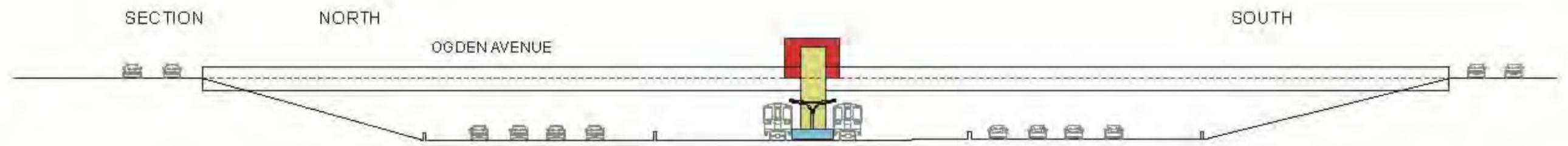
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- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



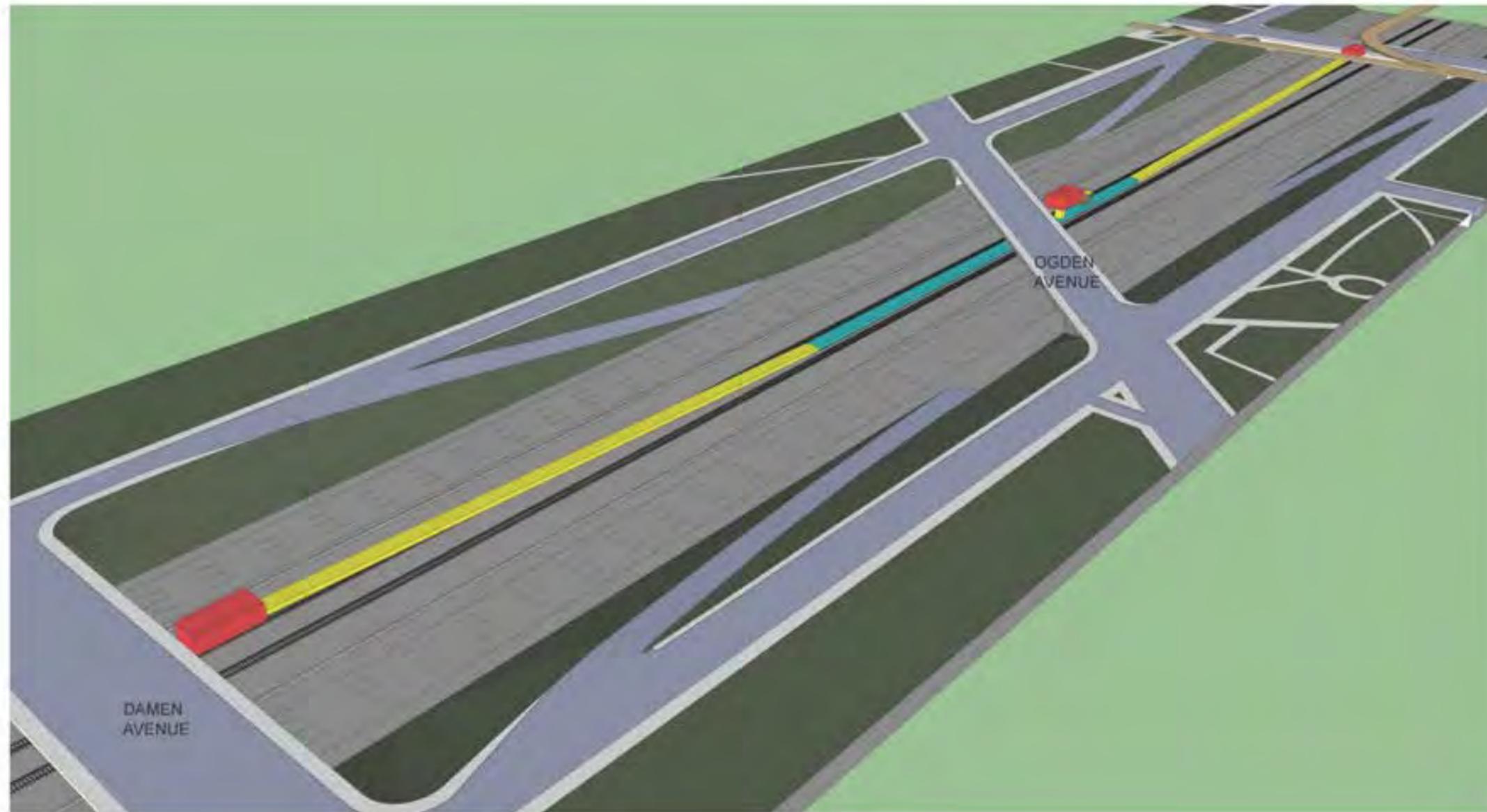
TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2A: RENOVATION

■	STATION HOUSE
■	PLATFORM
■	CIRCULATION
◆	BUS STOP
■	CROSS WALK
	NOT TO SCALE



TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)
OPTION 2A: RENOVATION

	STATION HOUSE
	PLATFORM
	CIRCULATION
NOT TO SCALE	

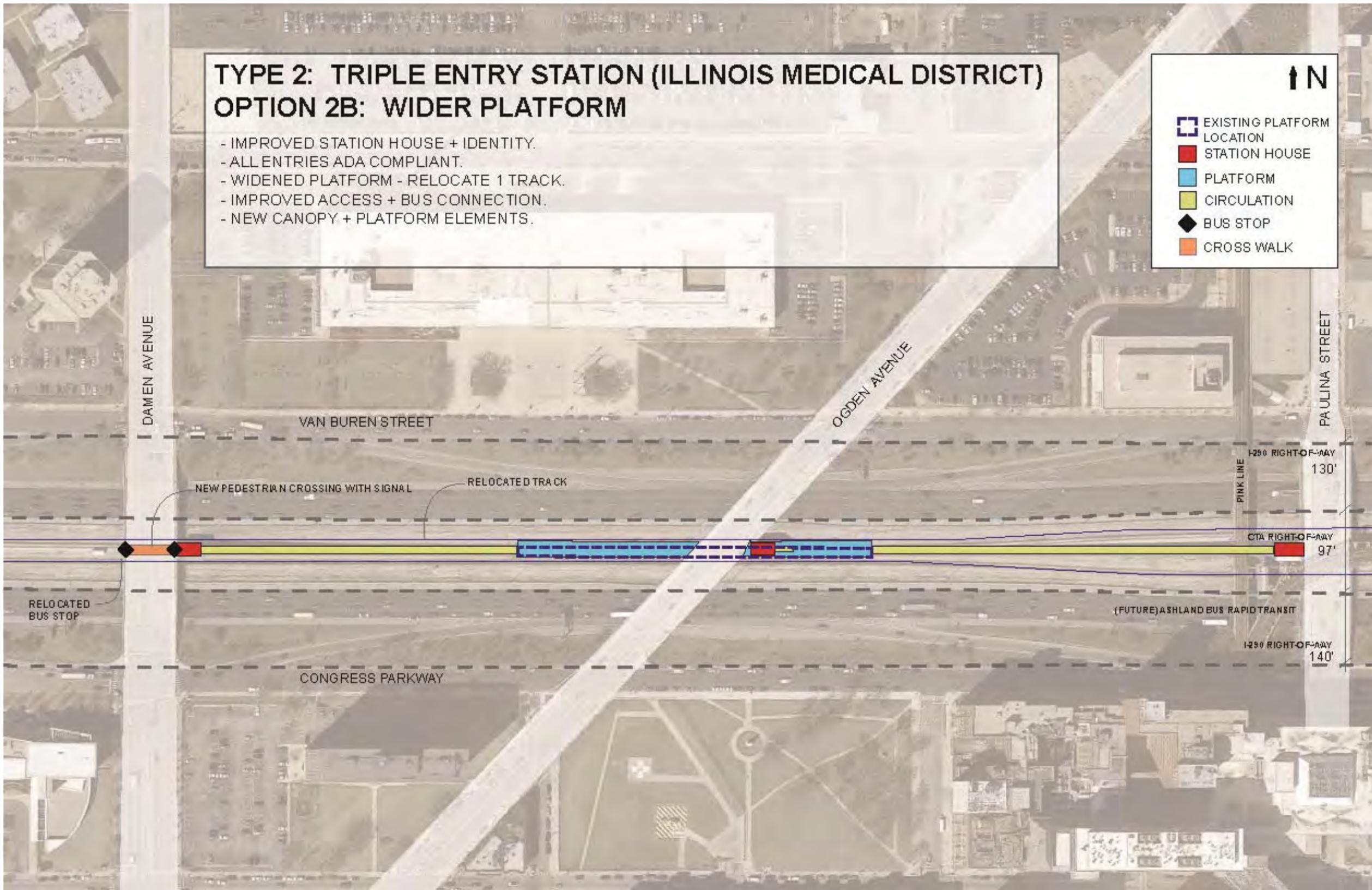


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2B: WIDER PLATFORM

- IMPROVED STATION HOUSE + IDENTITY.
- ALL ENTRIES ADA COMPLIANT.
- WIDENED PLATFORM - RELOCATE 1 TRACK.
- IMPROVED ACCESS + BUS CONNECTION.
- NEW CANOPY + PLATFORM ELEMENTS.

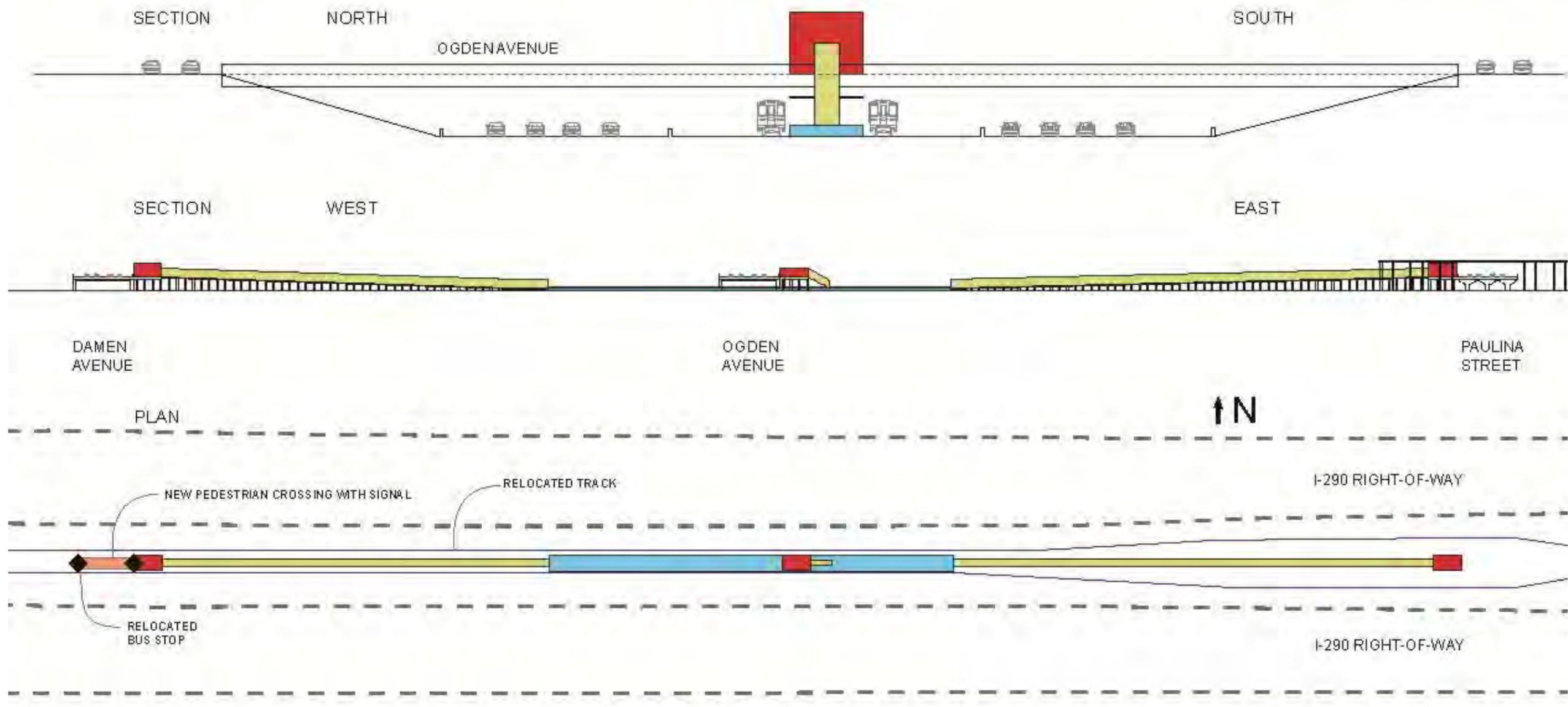
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- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



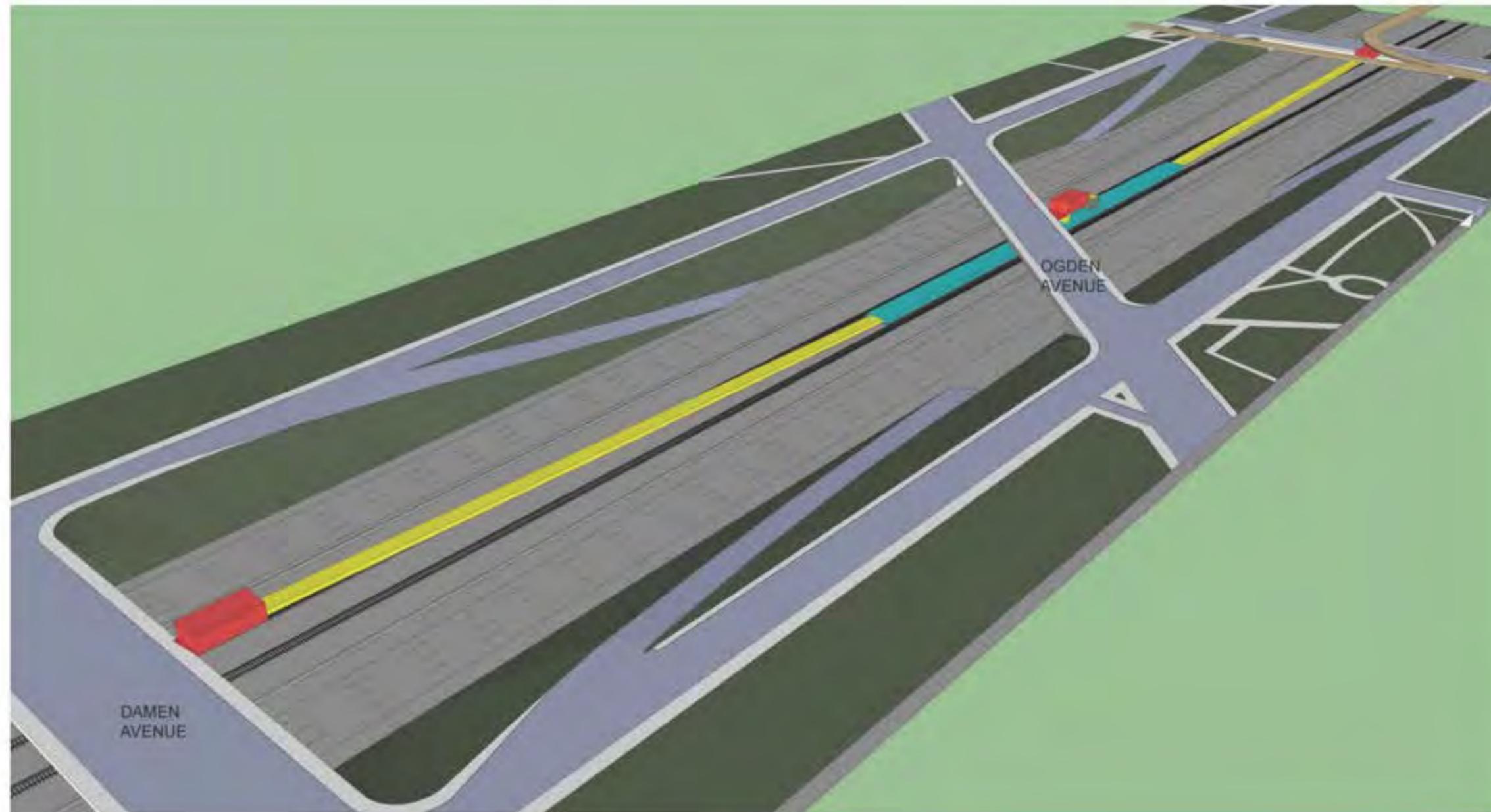
TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2B: WIDER PLATFORM

■	STATION HOUSE
■	PLATFORM
■	CIRCULATION
◆	BUS STOP
■	CROSS WALK
	NOT TO SCALE



TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)
OPTION 2B: WIDER PLATFORM

	STATION HOUSE
	PLATFORM
	CIRCULATION
	NOT TO SCALE

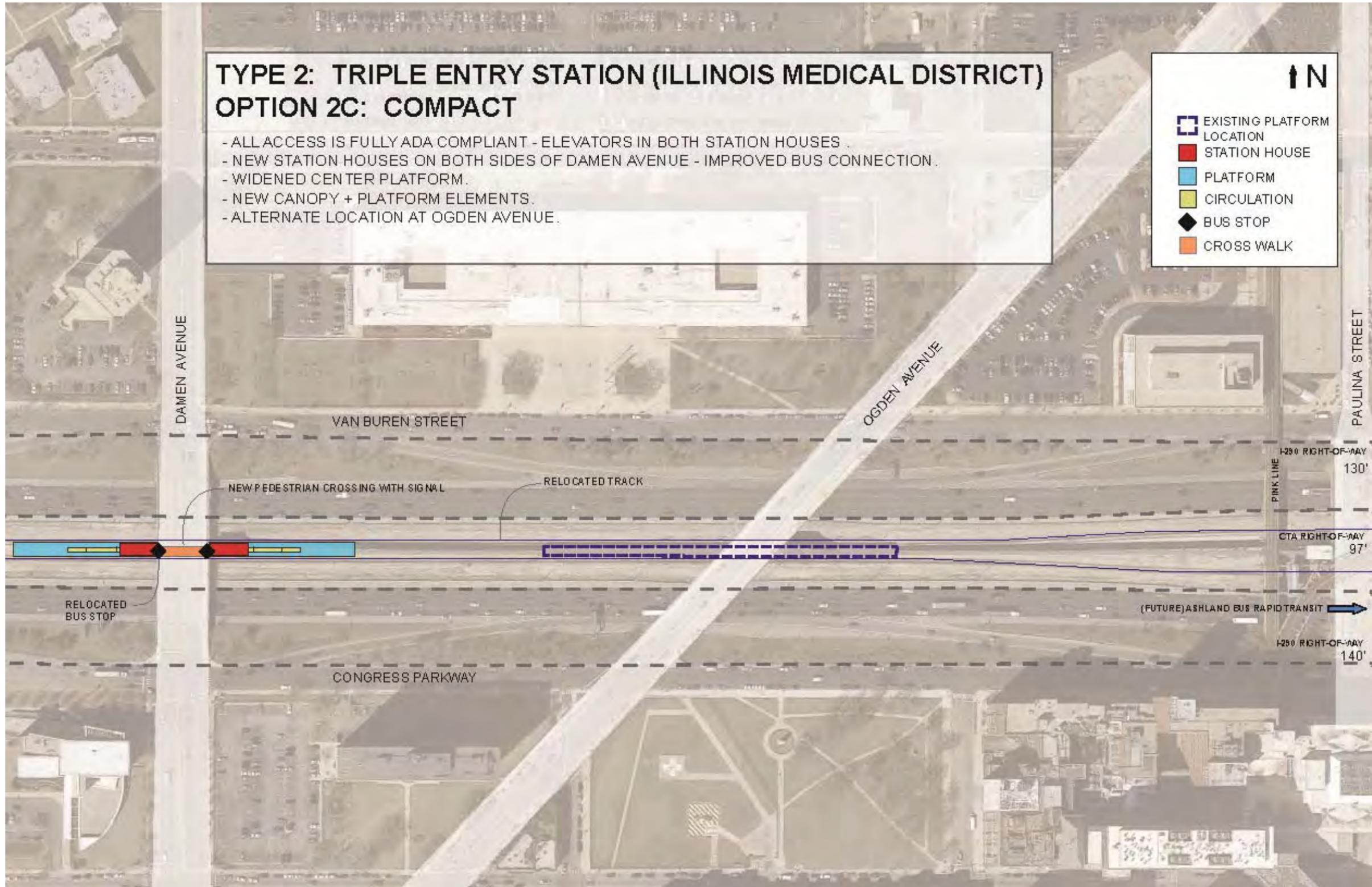


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2C: COMPACT

- ALL ACCESS IS FULLY ADA COMPLIANT - ELEVATORS IN BOTH STATION HOUSES .
- NEW STATION HOUSES ON BOTH SIDES OF DAMEN AVENUE - IMPROVED BUS CONNECTION .
- WIDENED CENTER PLATFORM .
- NEW CANOPY + PLATFORM ELEMENTS .
- ALTERNATE LOCATION AT OGDEN AVENUE .

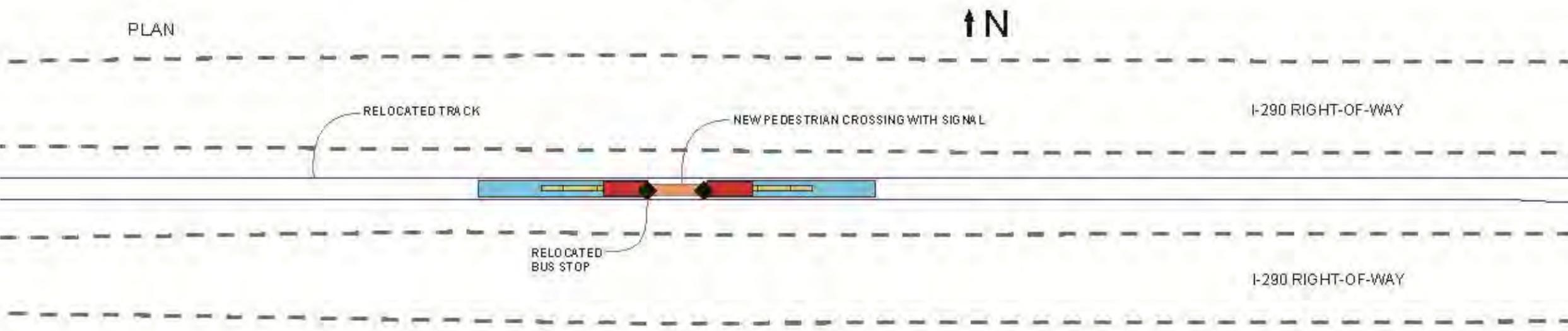
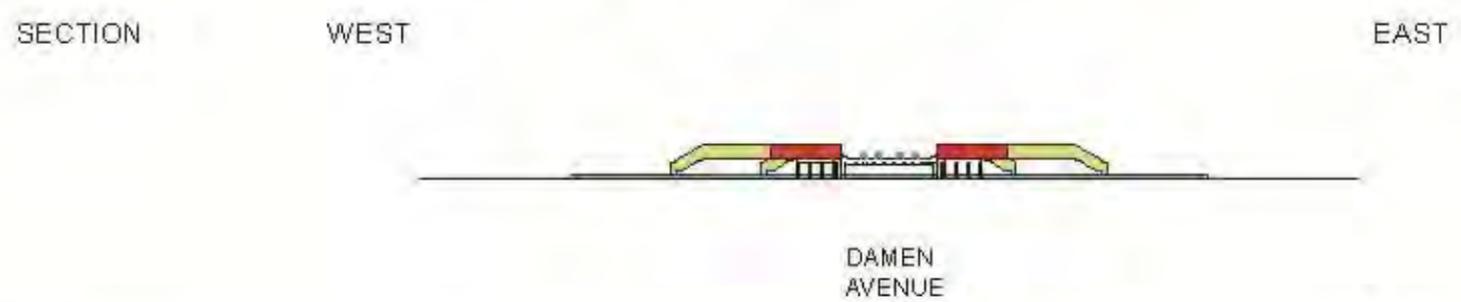
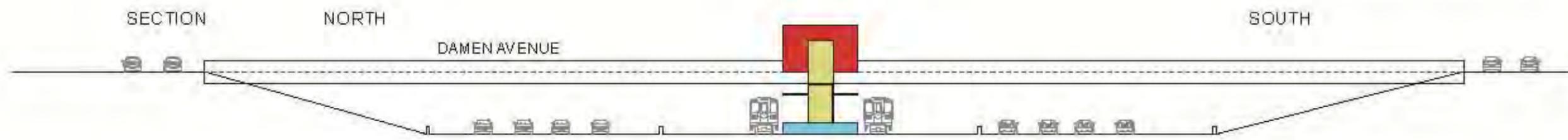
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- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



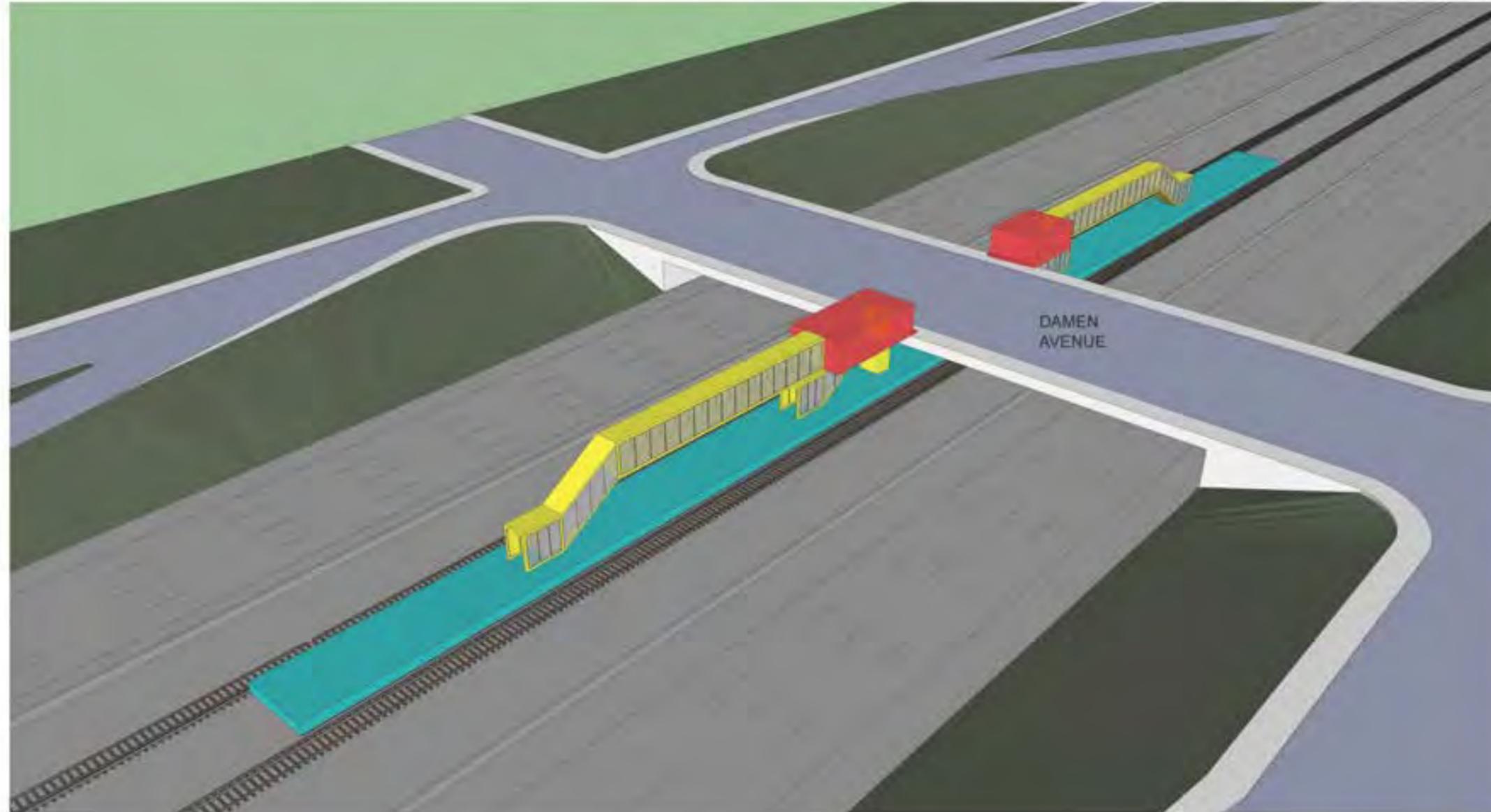
TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2C: COMPACT

- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



**TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)
OPTION 2C: COMPACT**

- STATION HOUSE
- PLATFORM
- CIRCULATION
- NOT TO SCALE

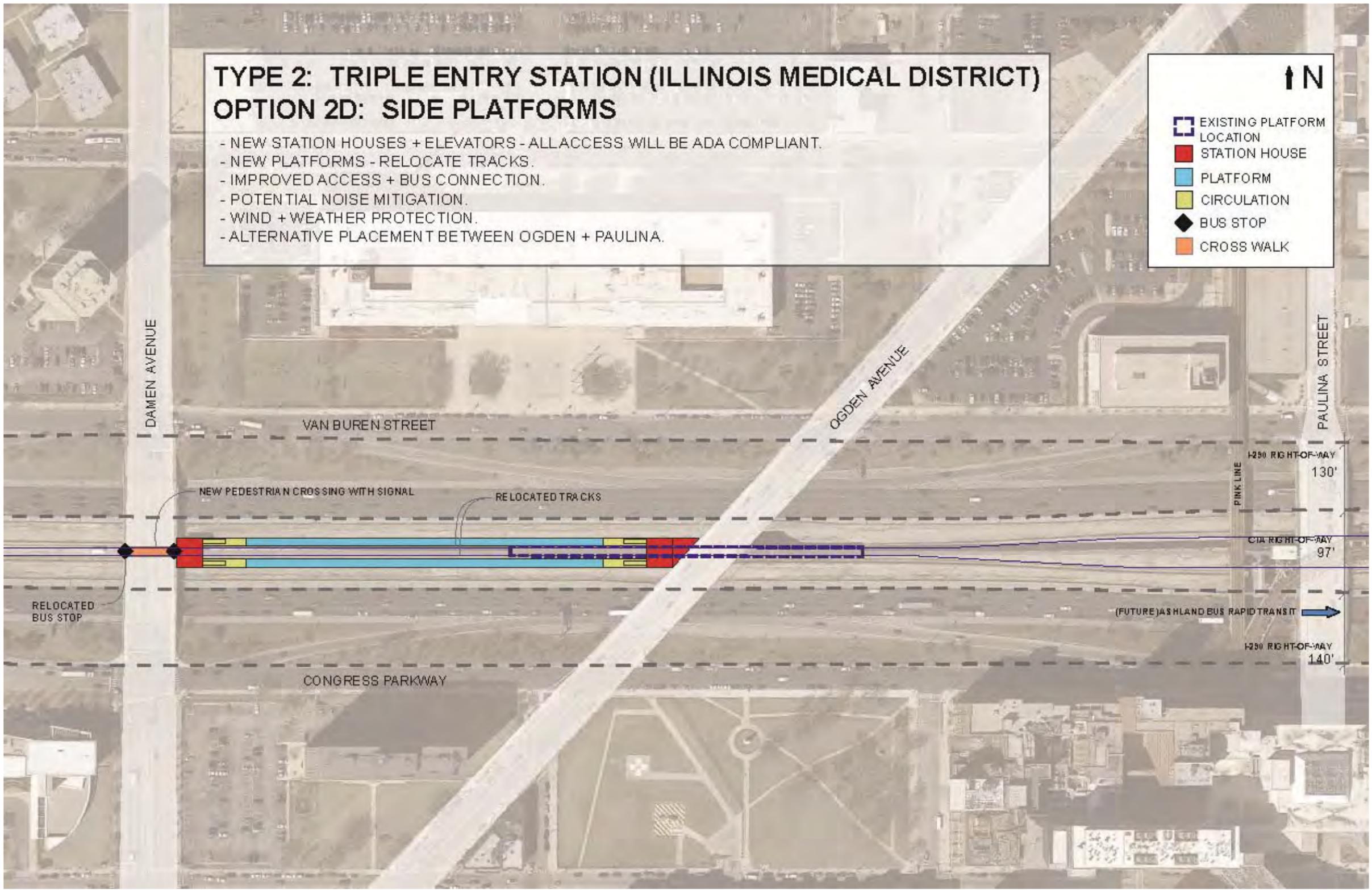


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2D: SIDE PLATFORMS

- NEW STATION HOUSES + ELEVATORS - ALL ACCESS WILL BE ADA COMPLIANT.
- NEW PLATFORMS - RELOCATE TRACKS.
- IMPROVED ACCESS + BUS CONNECTION.
- POTENTIAL NOISE MITIGATION.
- WIND + WEATHER PROTECTION.
- ALTERNATIVE PLACEMENT BETWEEN OGDEN + PAULINA.

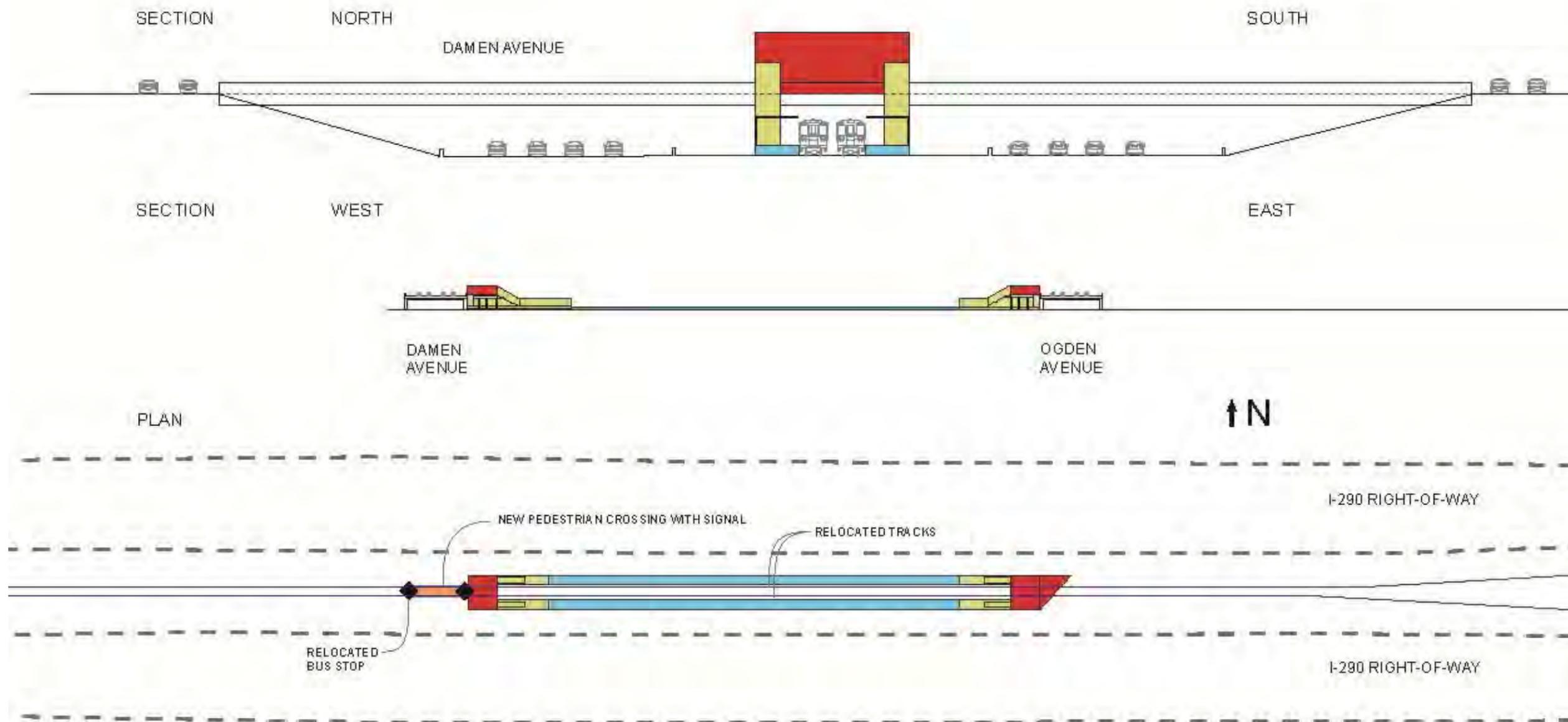
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- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



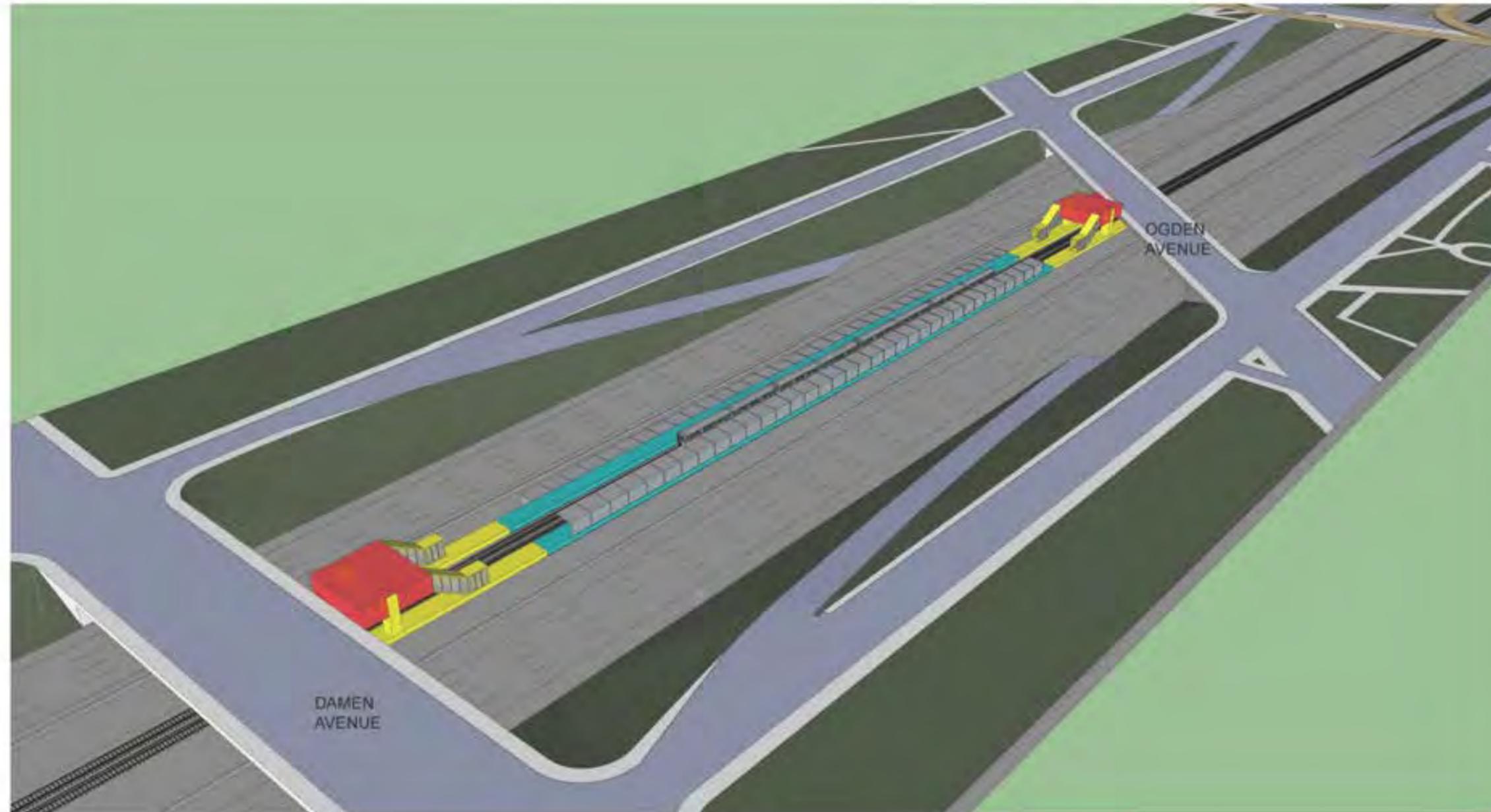
TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2D: SIDE PLATFORMS

- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



**TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)
OPTION 2D: SIDE PLATFORMS**

	STATION HOUSE
	PLATFORM
	CIRCULATION
	NOT TO SCALE

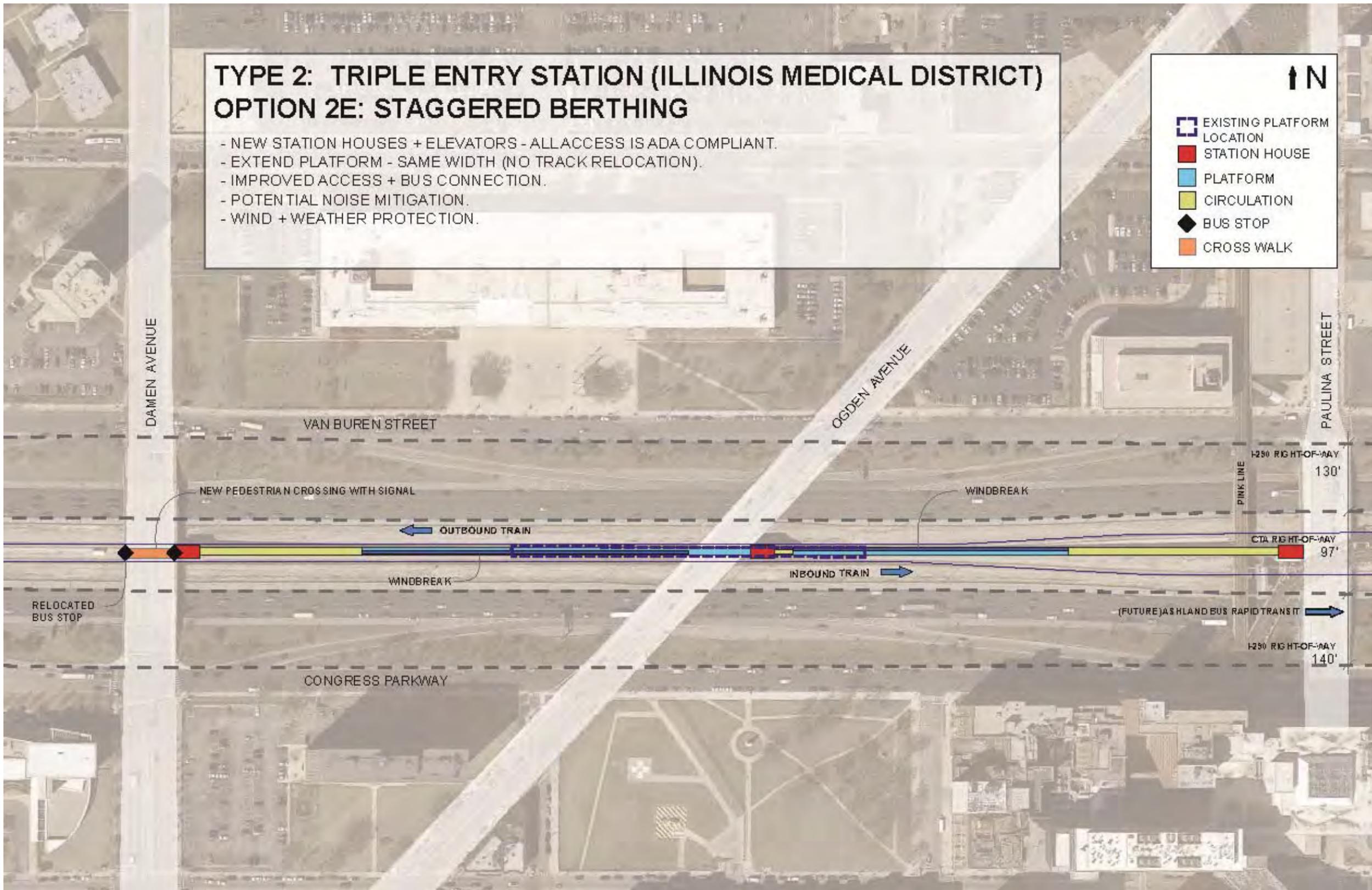


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2E: STAGGERED BERTHING

- NEW STATION HOUSES + ELEVATORS - ALL ACCESS IS ADA COMPLIANT.
- EXTEND PLATFORM - SAME WIDTH (NO TRACK RELOCATION).
- IMPROVED ACCESS + BUS CONNECTION.
- POTENTIAL NOISE MITIGATION.
- WIND + WEATHER PROTECTION.

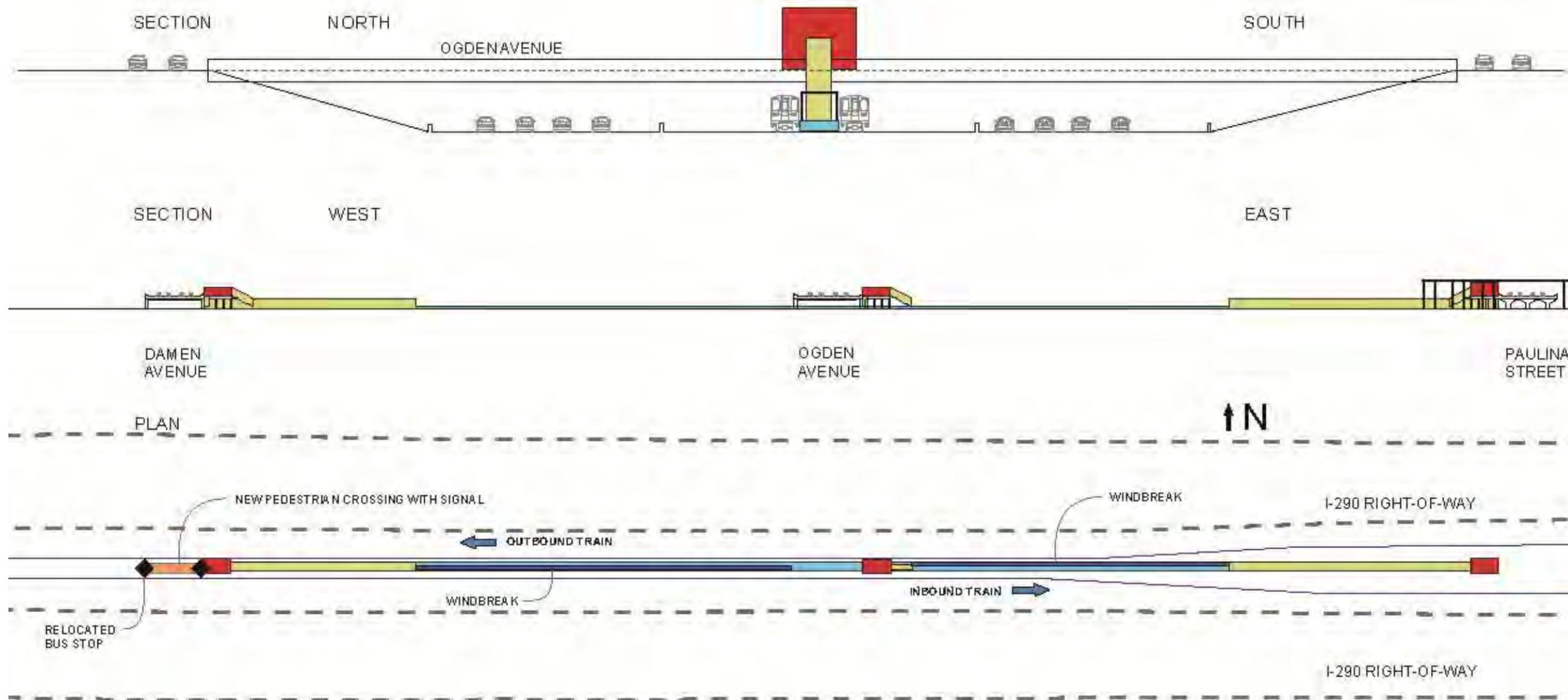
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- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



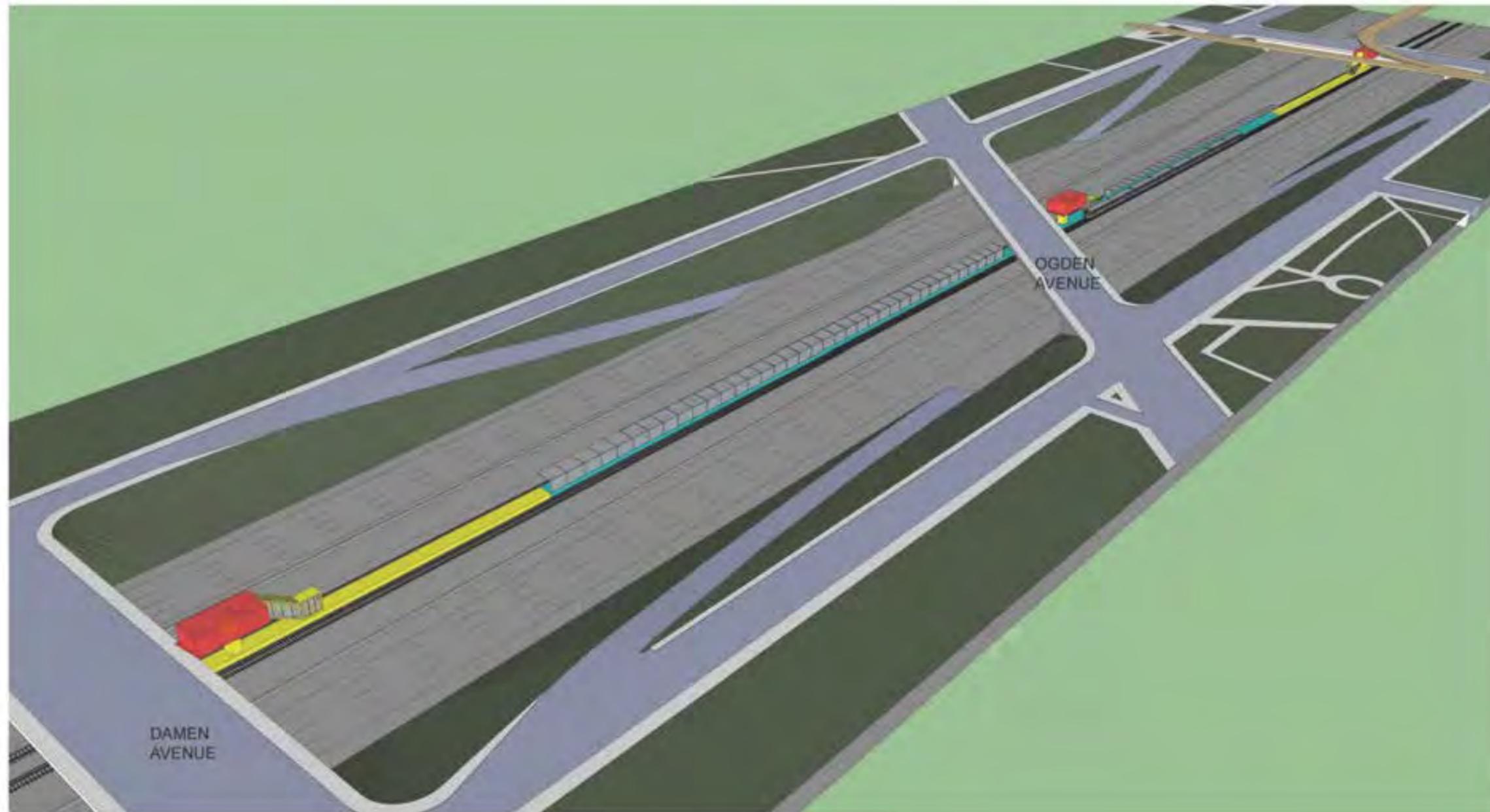
TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION 2E: STAGGERED BERTHING

- STATION HOUSE
- PLATFORM
- CIRCULATION
- ◆ BUS STOP
- CROSS WALK
- NOT TO SCALE

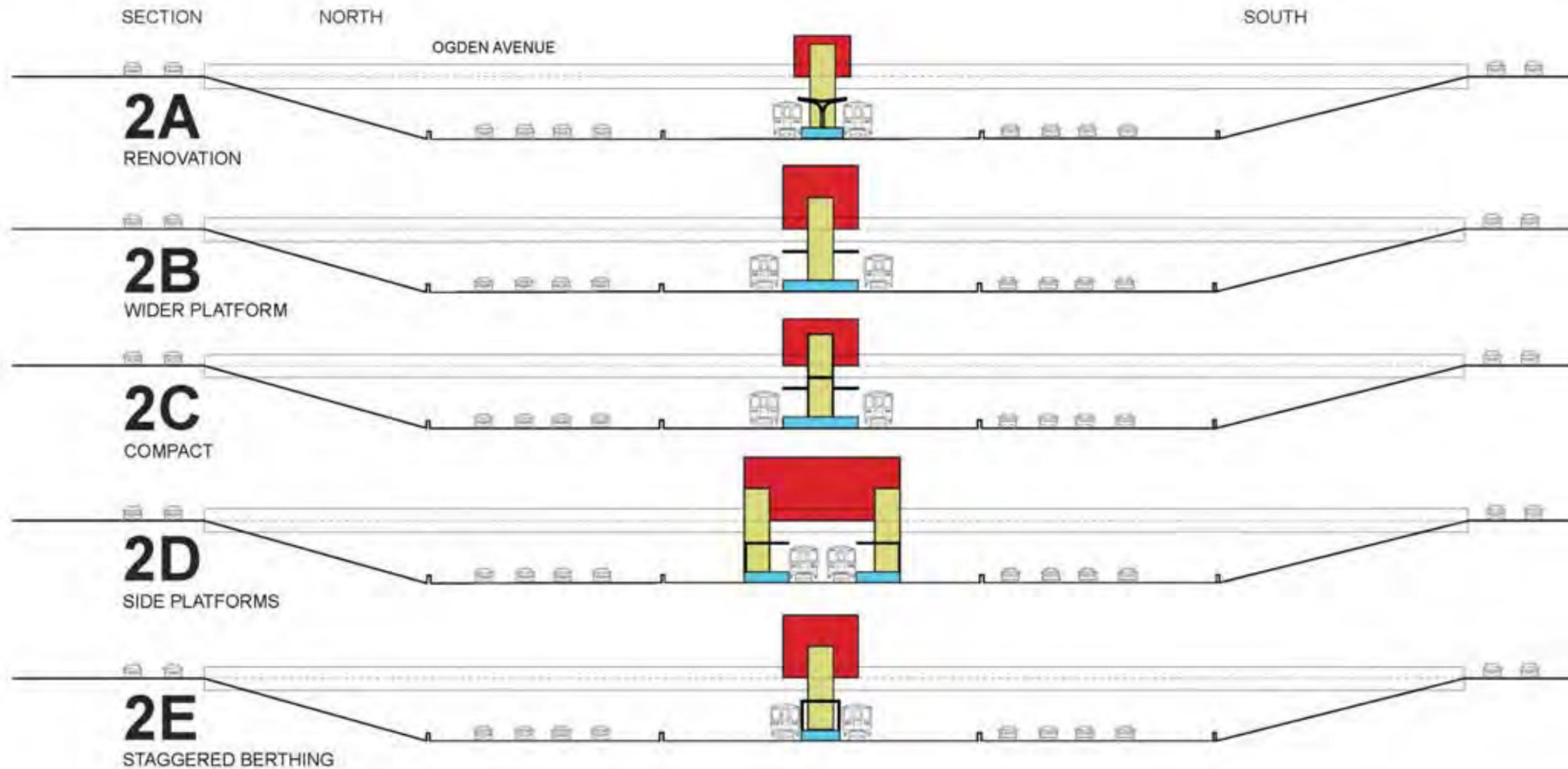
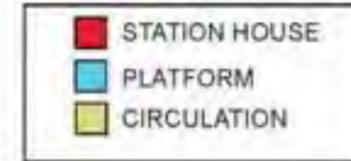


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT)
OPTION 2E: STAGGERED BERTHING

	STATION HOUSE
	PLATFORM
	CIRCULATION
NOT TO SCALE	

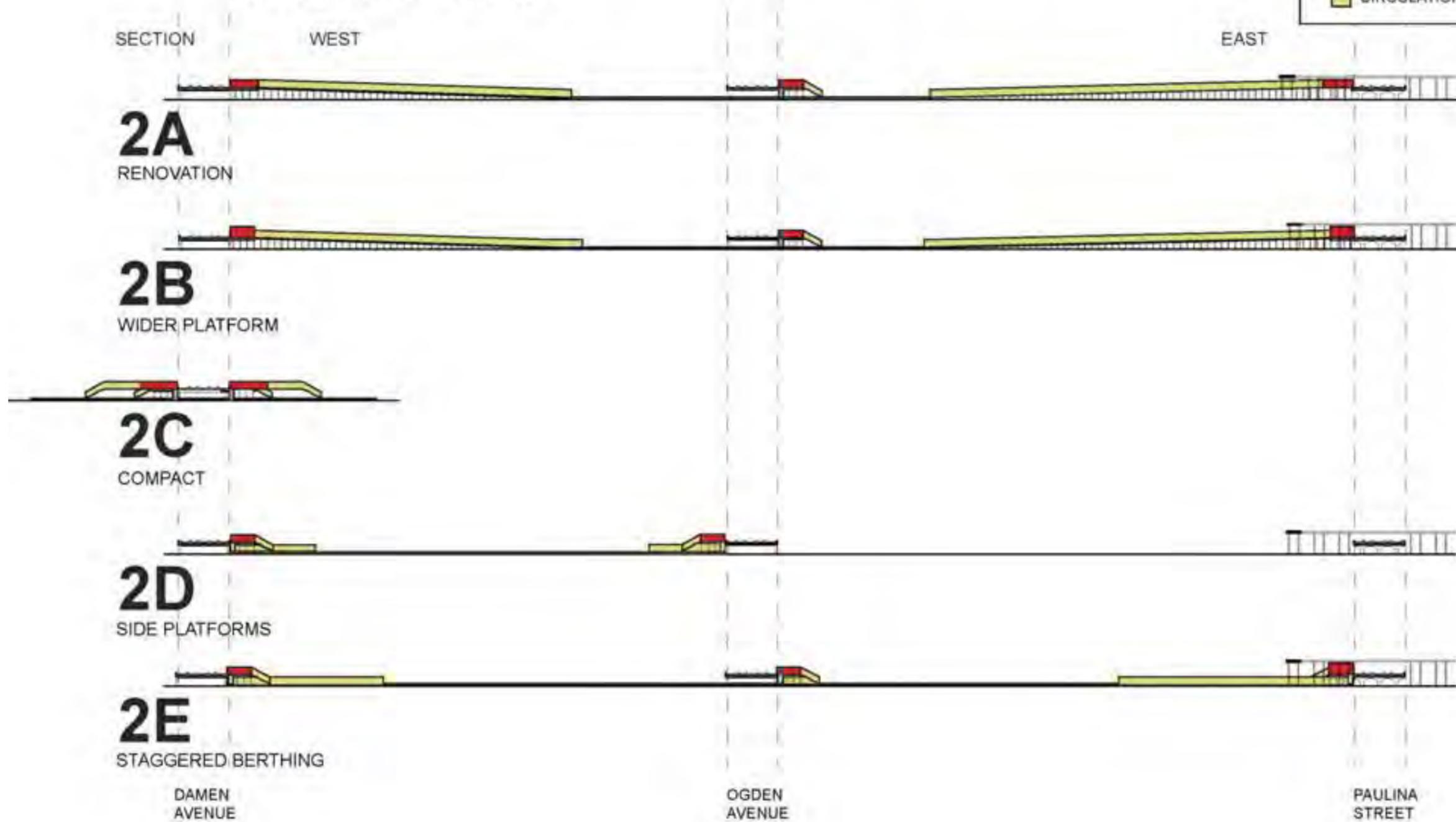


TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION COMPARISON



TYPE 2: TRIPLE ENTRY STATION (ILLINOIS MEDICAL DISTRICT) OPTION COMPARISON

■	STATION HOUSE
■	PLATFORM
■	CIRCULATION



TYPE 3: DOUBLE-ENTRY STATION (AUSTIN)

There are seven stations on the Forest Park Branch that are double entry stations. These are Racine, Kedzie/Homan, Pulaski, Cicero, Austin, Oak Park, and Harlem stations. Pulaski and Cicero's secondary station houses are closed at this time. Austin was chosen as representative of the type because it is located adjacent to one of the I-290 interchanges. The double entry station platform is centered between two bridges that cross over I-290. The station houses are located on the bridges, allowing customers to enter from either end of the platform. One station house is the primary entry and has bus connections available at the street. A long ramp provides access to the platform. The secondary station house connects customers to the platform via a stair and walkway.

CURRENT CONDITIONS

Austin station has been chosen to be representative of Type 3, double entry stations. There are six other double entry stations: Racine, Kedzie/Homan, Pulaski, Cicero, Oak Park, and Harlem. Austin was chosen as representative of the type because, like Cicero and Harlem, it is further complicated by being adjacent to one of the I-290 interchanges. One station house is the primary entry and has bus connections available at the street. A long ramp provides access to the platform. The secondary station house connects customers to the platform via a stair and walkway.

Austin station is located on the border of the Austin neighborhood in Chicago and the village of Oak Park. With the notable exceptions of I-290 and Columbus Parks, the immediate vicinity of the station is largely residential. The Austin station house is a transfer point for CTA and Pace buses.

The station is currently functional, but has several deficiencies. The Austin station house is uncomfortable to reach from the north, due to the presence, design, and maintenance of the I-290 interchange. The crossing is wide, there is no phase in the stop control for pedestrians, and sidewalks are narrow. Access to the platform is also not ADA compliant. There are stairs, only, between the Lombard station house and the platform. The ramp from Austin to the platform also appears not to meet current standards. The platform itself is approximately 13 feet wide, much narrower than recommended by CTA design guidelines.

STATION ALTERNATIVES

Five renovation and replacement options are evaluated for use at Austin station. With the exception of 2E: Staggered Berthing at Cicero, all of these options could work at all double entry stations.

OPTION 3A: RENOVATION

This renovation would keep the existing platform and station house locations and make improvements to identity and safety and for the comfort of passengers. The station's access would be made ADA compliant with reconstructed ramps. Both station houses would be renovated to improve their identity and the flow of passengers. New platform canopies, wind breaks, and benches would further enhance customers' experience. A pedestrian crossing would be added to Austin Boulevard at the station house. The crossing, along with relocating the northbound Austin bus stop, would improve transfers and reduce the danger of crossing this high traffic volume street.

OPTION 3B: WIDER PLATFORM

This option adds a third station house to the middle of a widened platform. The station house would be reached by pedestrian bridges from the north and south. The platform would be widened to meet CTA design guidelines by relocating the north track northward. A ramp would be added to the west station house and the east ramp would be reconstructed to meet ADA access requirements. With an elevator in the middle station house, all three would provide ADA compliant access.

OPTION 3C: COMPACT

This option would provide a widened platform, as in 3B, but centered on Austin Boulevard. Two station houses, one on either side of this busy street, would provide ADA compliant access to the platform by elevator. The placement of the station houses would make crossing the street to reach a bus stop unnecessary, simplifying transfers. Austin Boulevard was chosen because buses run on this street. Option 3C could also work at Lombard, assuming buses could be rerouted there.

OPTION 3D: SIDE PLATFORMS

Both tracks would be moved closer together to make room for two platforms, to be located between the existing station houses. The station houses would be rebuilt and both would include ADA compliant ramps. The width of the side platforms would comply with CTA design guidelines and they could provide continuous wind breaks and canopies, improving the weather protection and sound experience of customers.

OPTION 3E: STAGGERED BERTHING

Option 3E would retain the existing platform location, but be extended to accommodate staggered berthing. Since trains would only stop on one side of the platform at any particular point, it would meet CTA's design guidelines for width. Two of the three station houses would have ADA compliant access: Elevators would be added to the mid-platform location and at Austin.

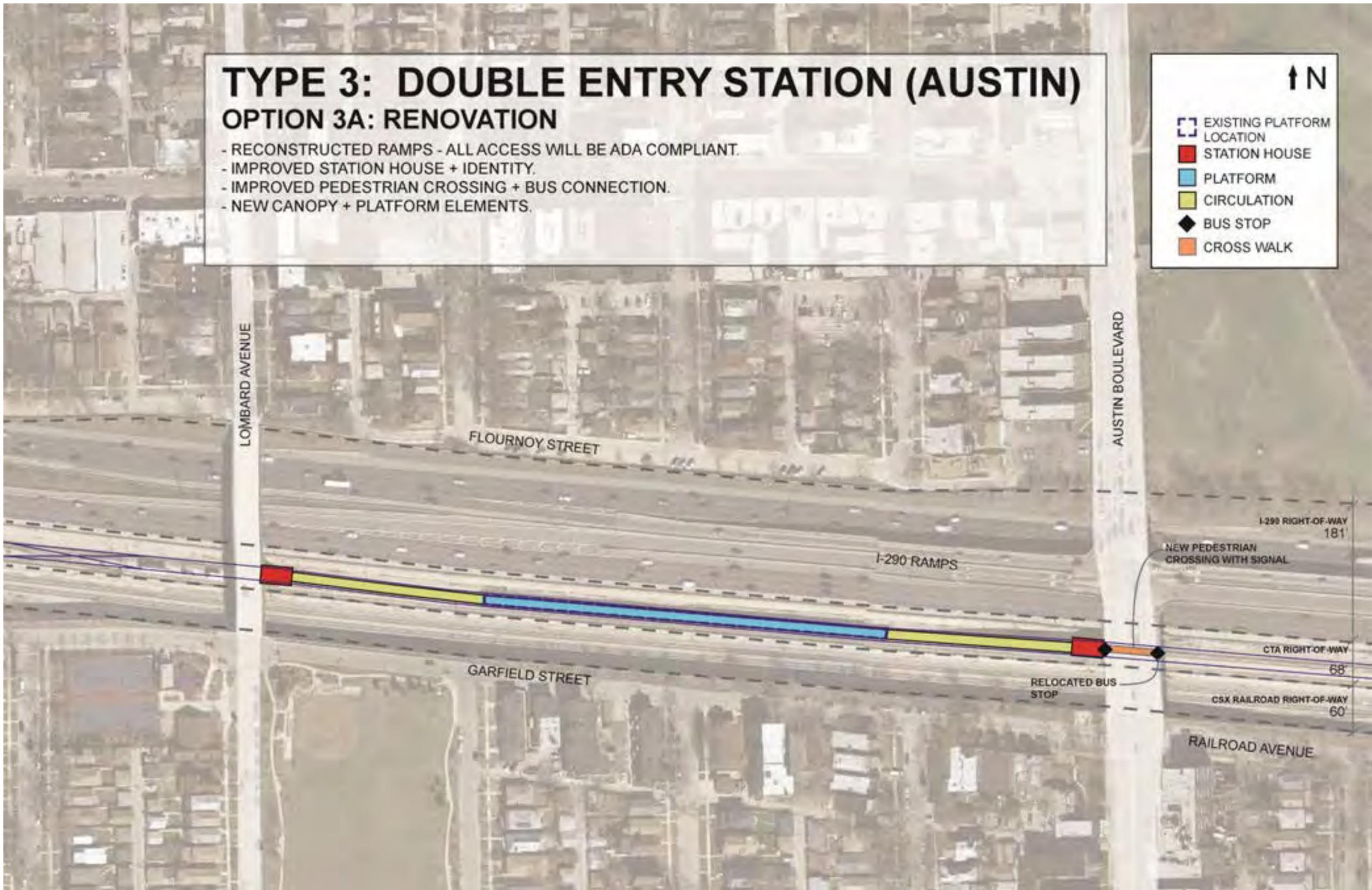
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3A: RENOVATION

- RECONSTRUCTED RAMPS - ALL ACCESS WILL BE ADA COMPLIANT.
- IMPROVED STATION HOUSE + IDENTITY.
- IMPROVED PEDESTRIAN CROSSING + BUS CONNECTION.
- NEW CANOPY + PLATFORM ELEMENTS.

↑ N

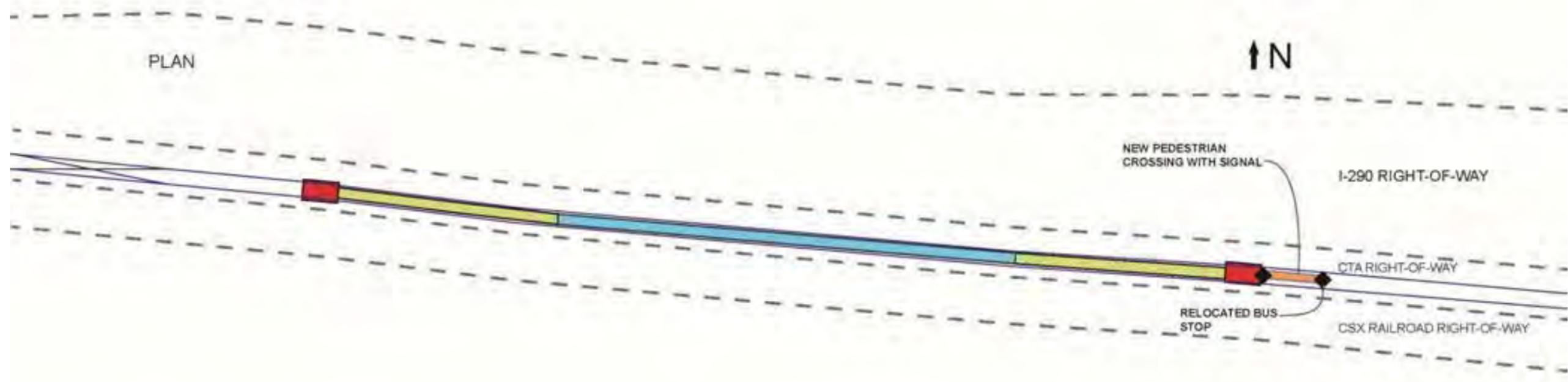
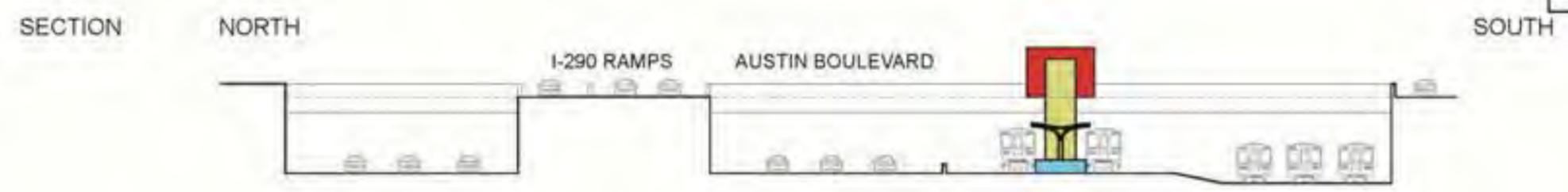
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3A: RENOVATION

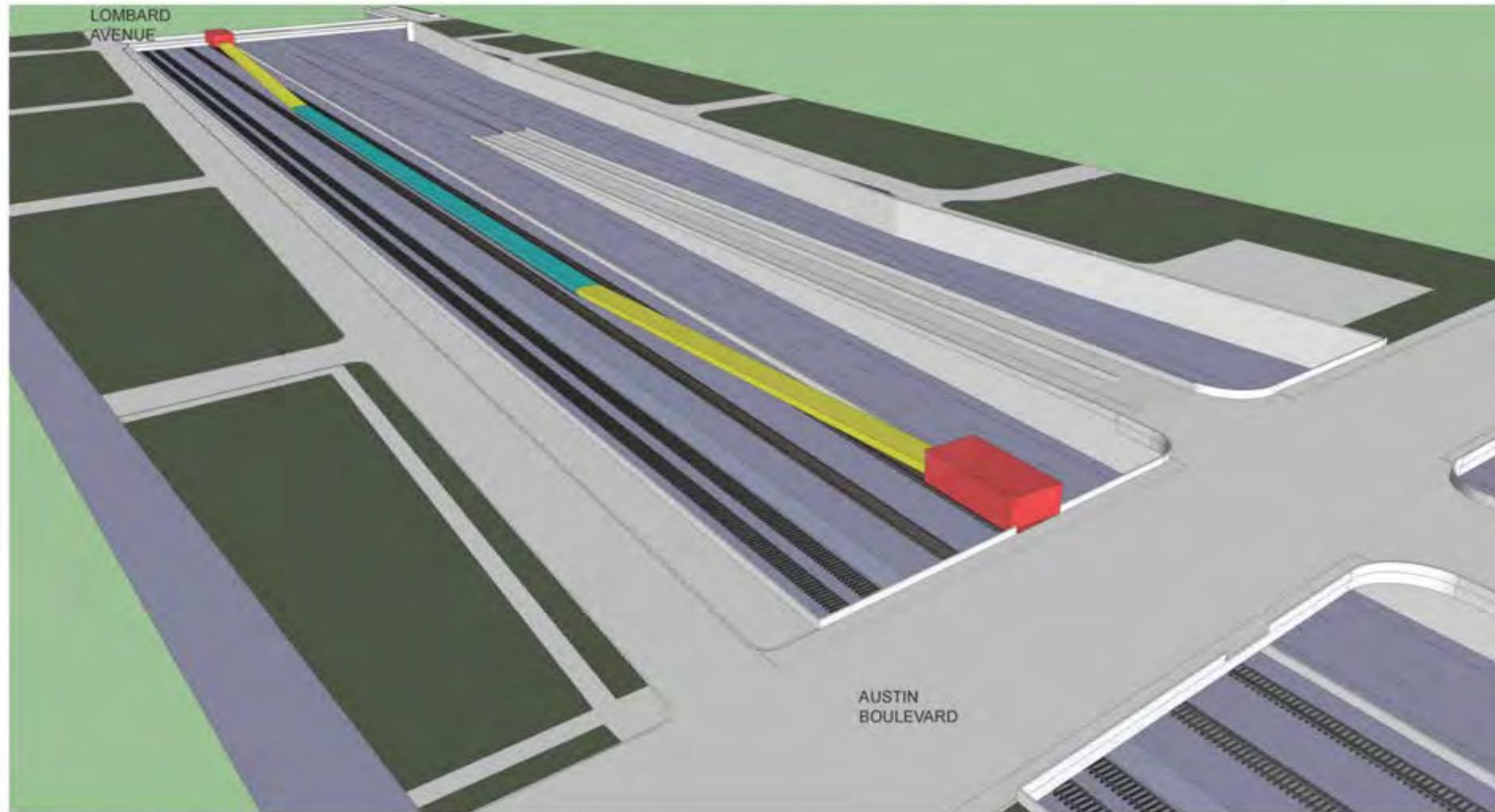
- STATION HOUSE
- PLATFORM
- CIRCULATION
- ◆ BUS STOP
- CROSS WALK
- NOT TO SCALE



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3A: RENOVATION

	STATION HOUSE
	PLATFORM
	CIRCULATION
NOT TO SCALE	



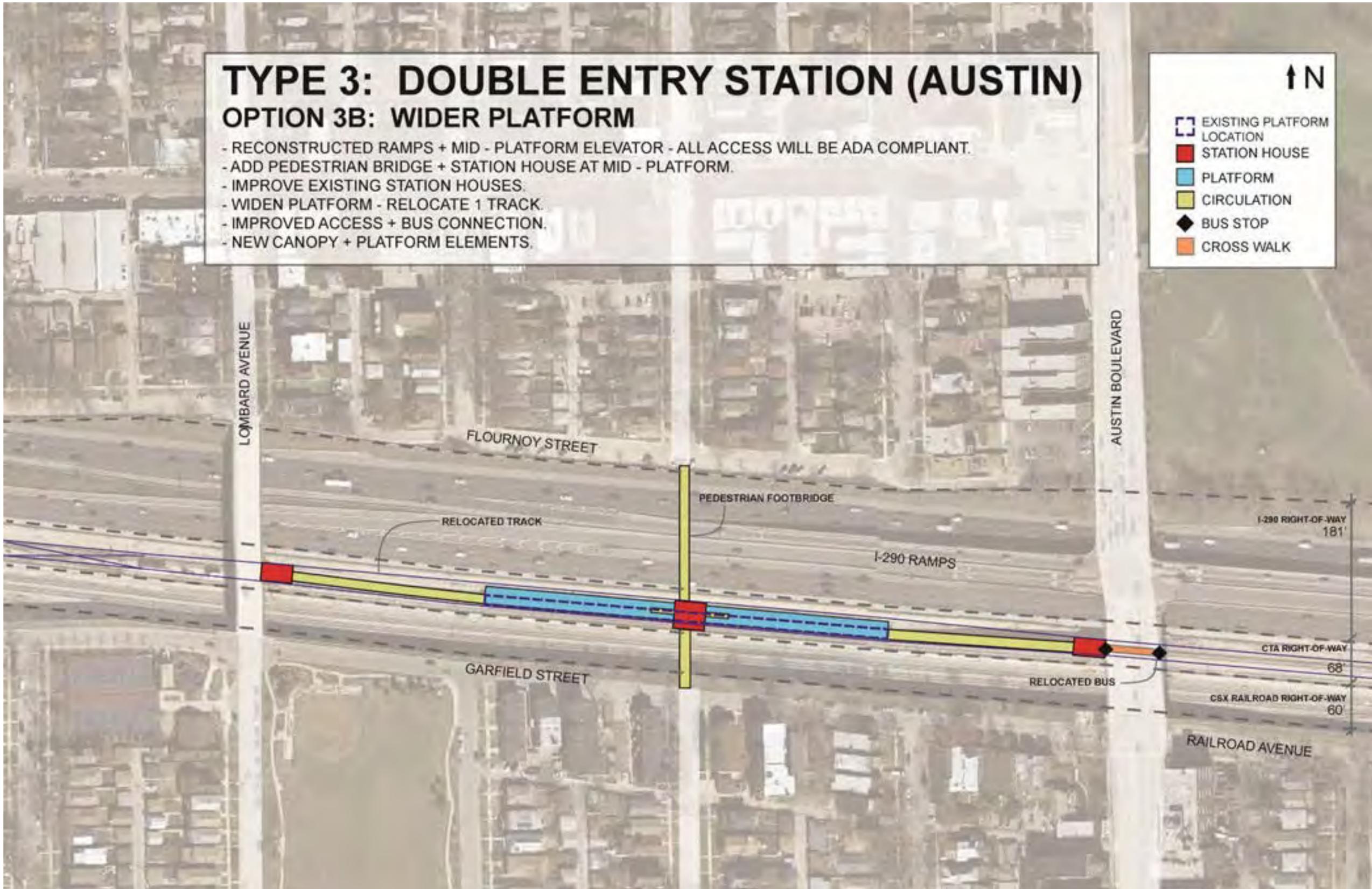
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3B: WIDER PLATFORM

- RECONSTRUCTED RAMPS + MID - PLATFORM ELEVATOR - ALL ACCESS WILL BE ADA COMPLIANT.
- ADD PEDESTRIAN BRIDGE + STATION HOUSE AT MID - PLATFORM.
- IMPROVE EXISTING STATION HOUSES.
- WIDEN PLATFORM - RELOCATE 1 TRACK.
- IMPROVED ACCESS + BUS CONNECTION.
- NEW CANOPY + PLATFORM ELEMENTS.

↑ N

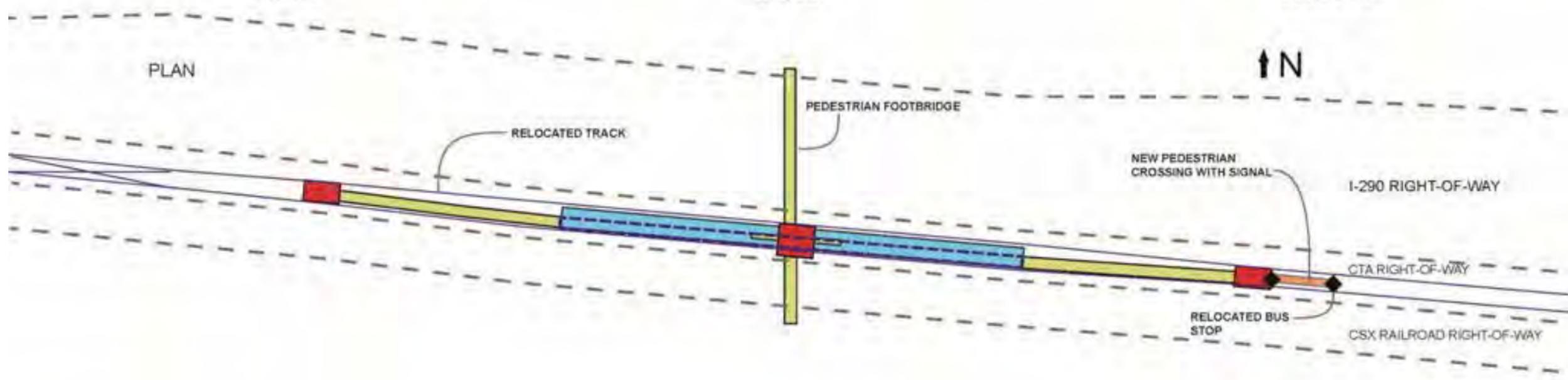
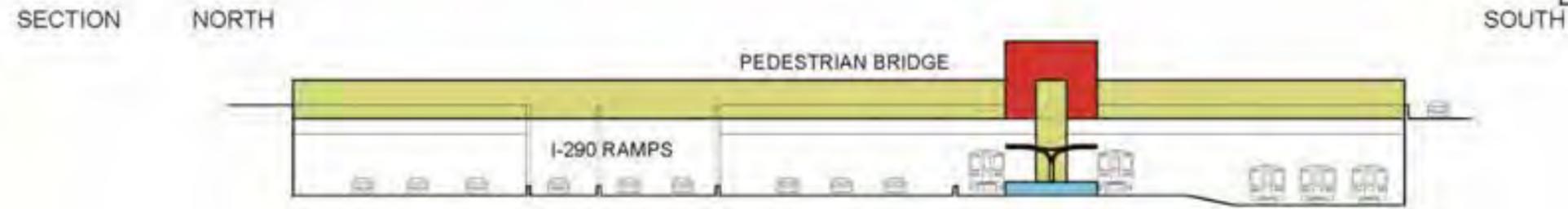
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3B: WIDER PLATFORM

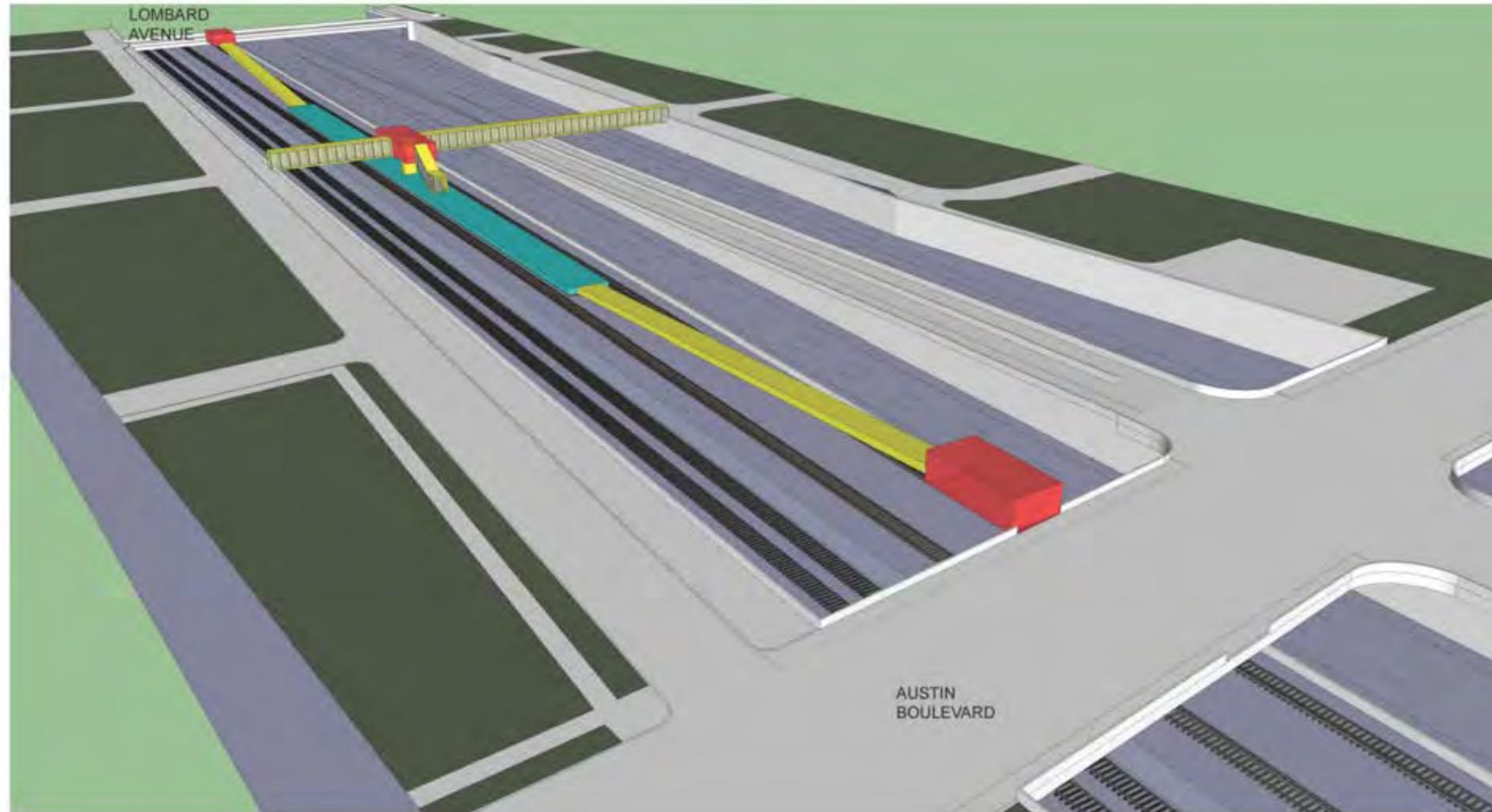
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3B: WIDER PLATFORM

	STATION HOUSE
	PLATFORM
	CIRCULATION
	NOT TO SCALE



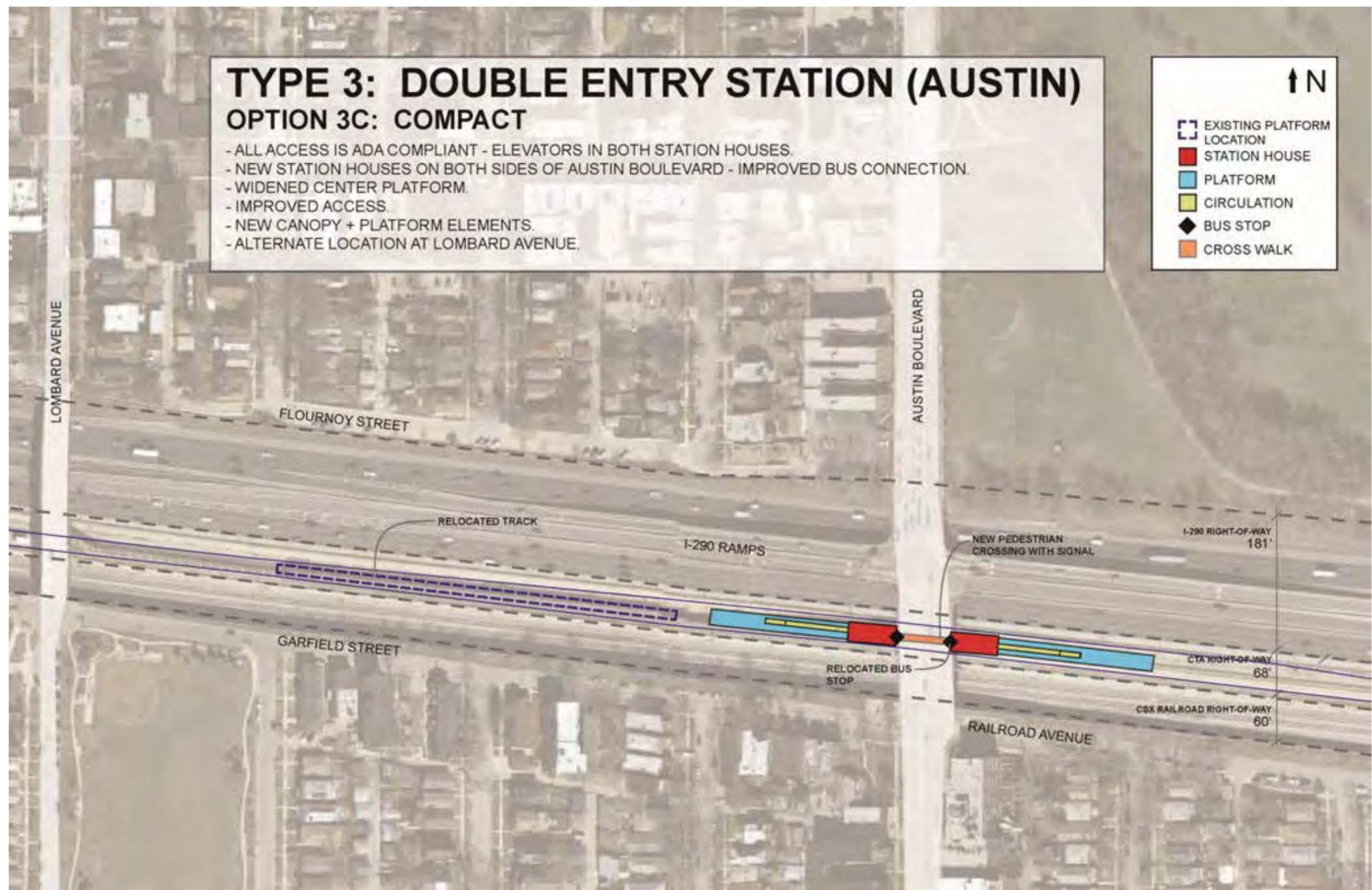
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3C: COMPACT

- ALL ACCESS IS ADA COMPLIANT - ELEVATORS IN BOTH STATION HOUSES.
- NEW STATION HOUSES ON BOTH SIDES OF AUSTIN BOULEVARD - IMPROVED BUS CONNECTION.
- WIDENED CENTER PLATFORM.
- IMPROVED ACCESS.
- NEW CANOPY + PLATFORM ELEMENTS.
- ALTERNATE LOCATION AT LOMBARD AVENUE.

↑ N

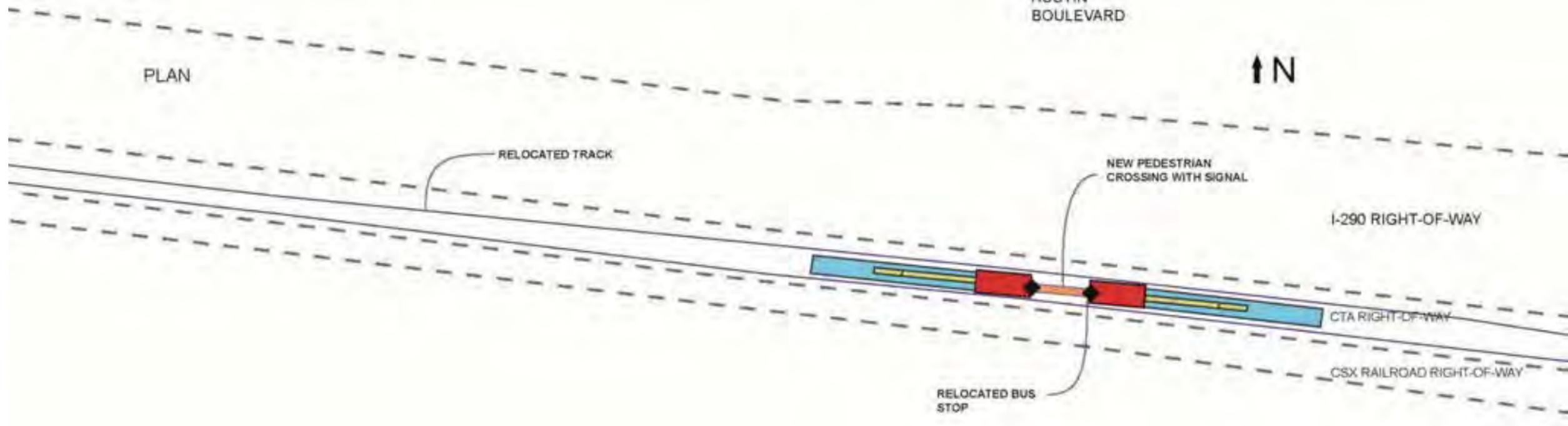
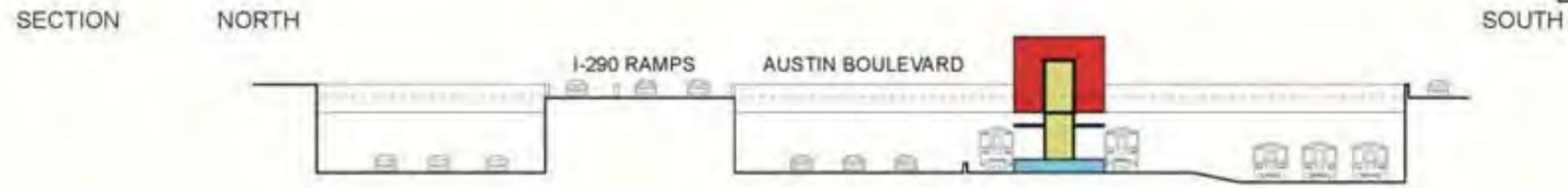
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3C: COMPACT

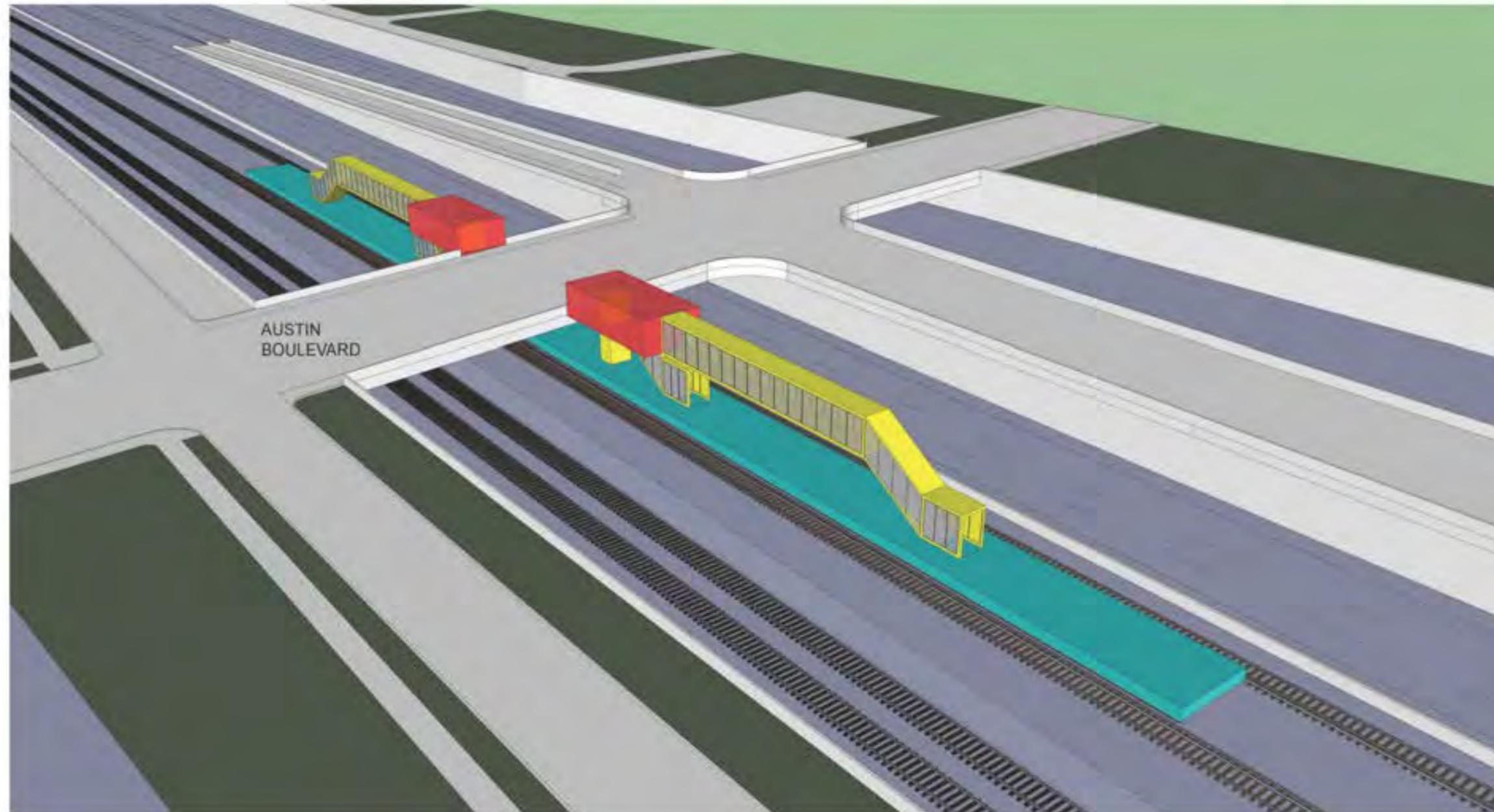
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3C: COMPACT

- STATION HOUSE
- PLATFORM
- CIRCULATION
- NOT TO SCALE



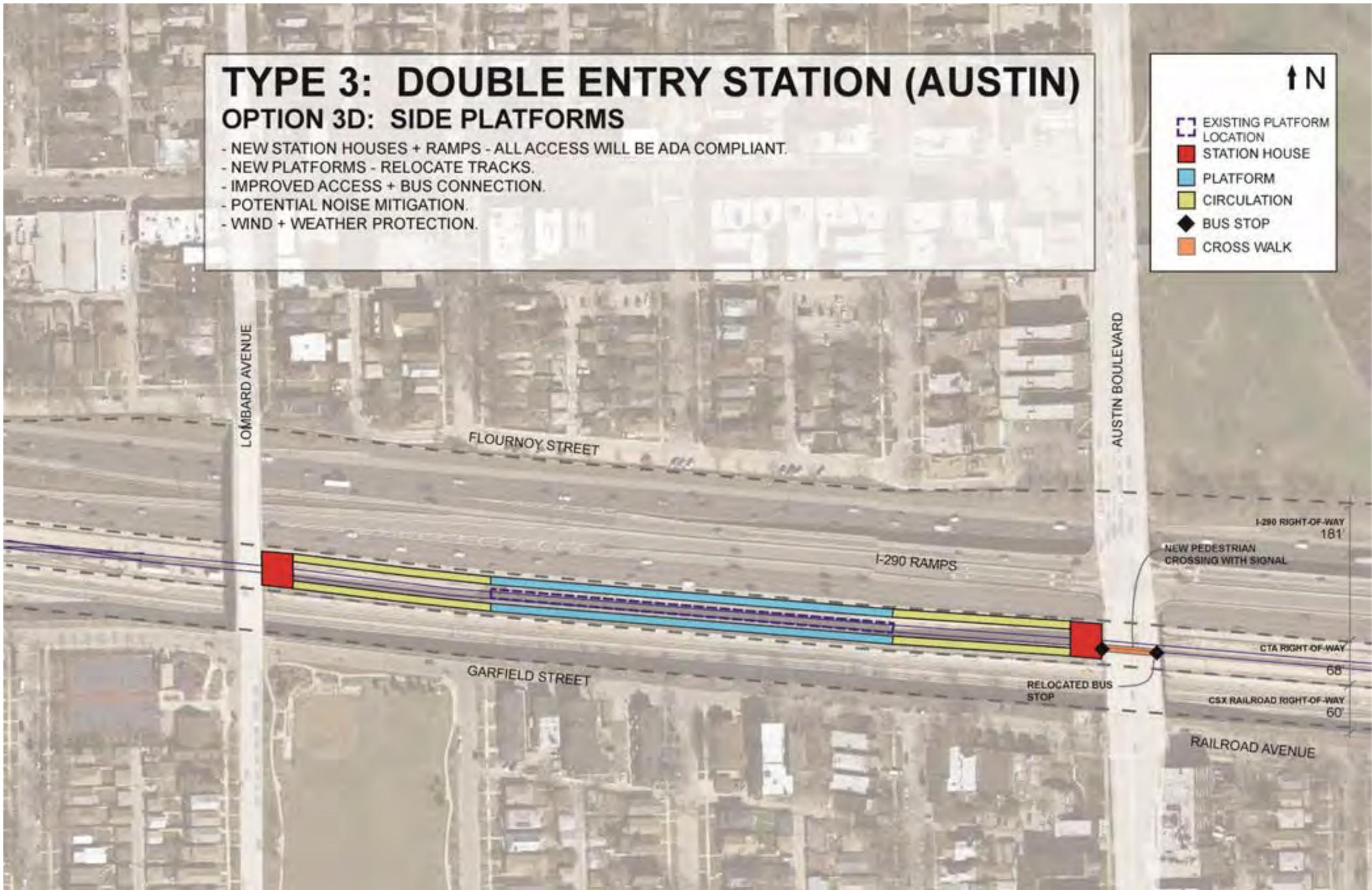
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3D: SIDE PLATFORMS

- NEW STATION HOUSES + RAMPS - ALL ACCESS WILL BE ADA COMPLIANT.
- NEW PLATFORMS - RELOCATE TRACKS.
- IMPROVED ACCESS + BUS CONNECTION.
- POTENTIAL NOISE MITIGATION.
- WIND + WEATHER PROTECTION.

↑ N

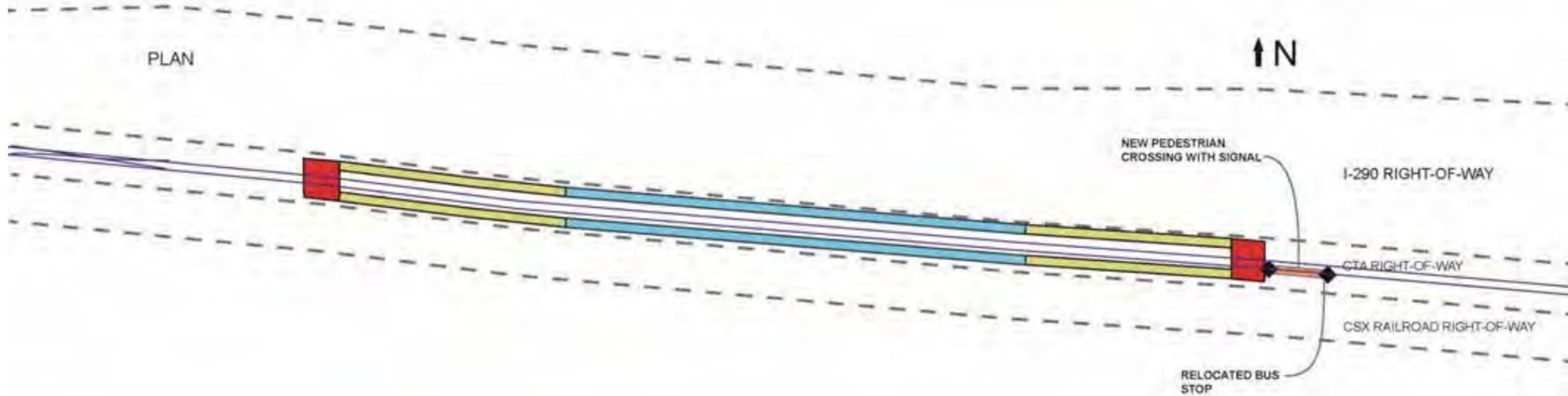
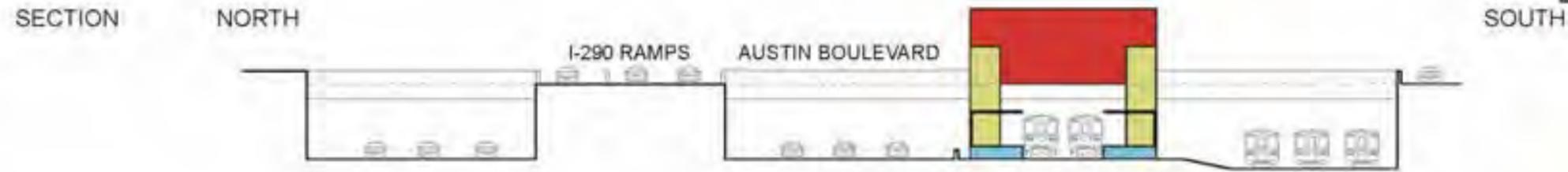
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3D: SIDE PLATFORMS

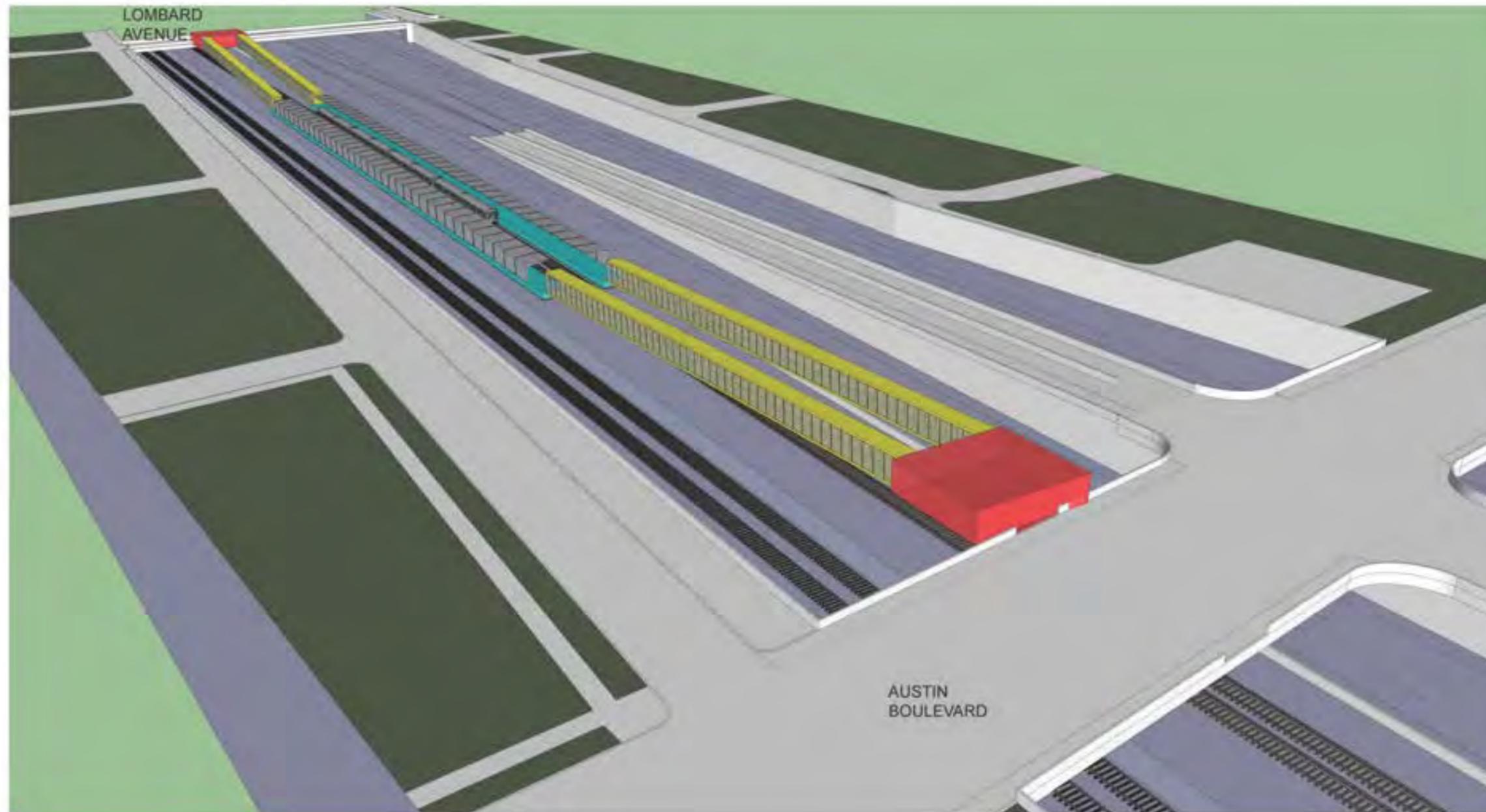
- STATION HOUSE
- PLATFORM
- CIRCULATION
- ◆ BUS STOP
- CROSS WALK
- NOT TO SCALE



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3D: SIDE PLATFORMS

	STATION HOUSE
	PLATFORM
	CIRCULATION
NOT TO SCALE	



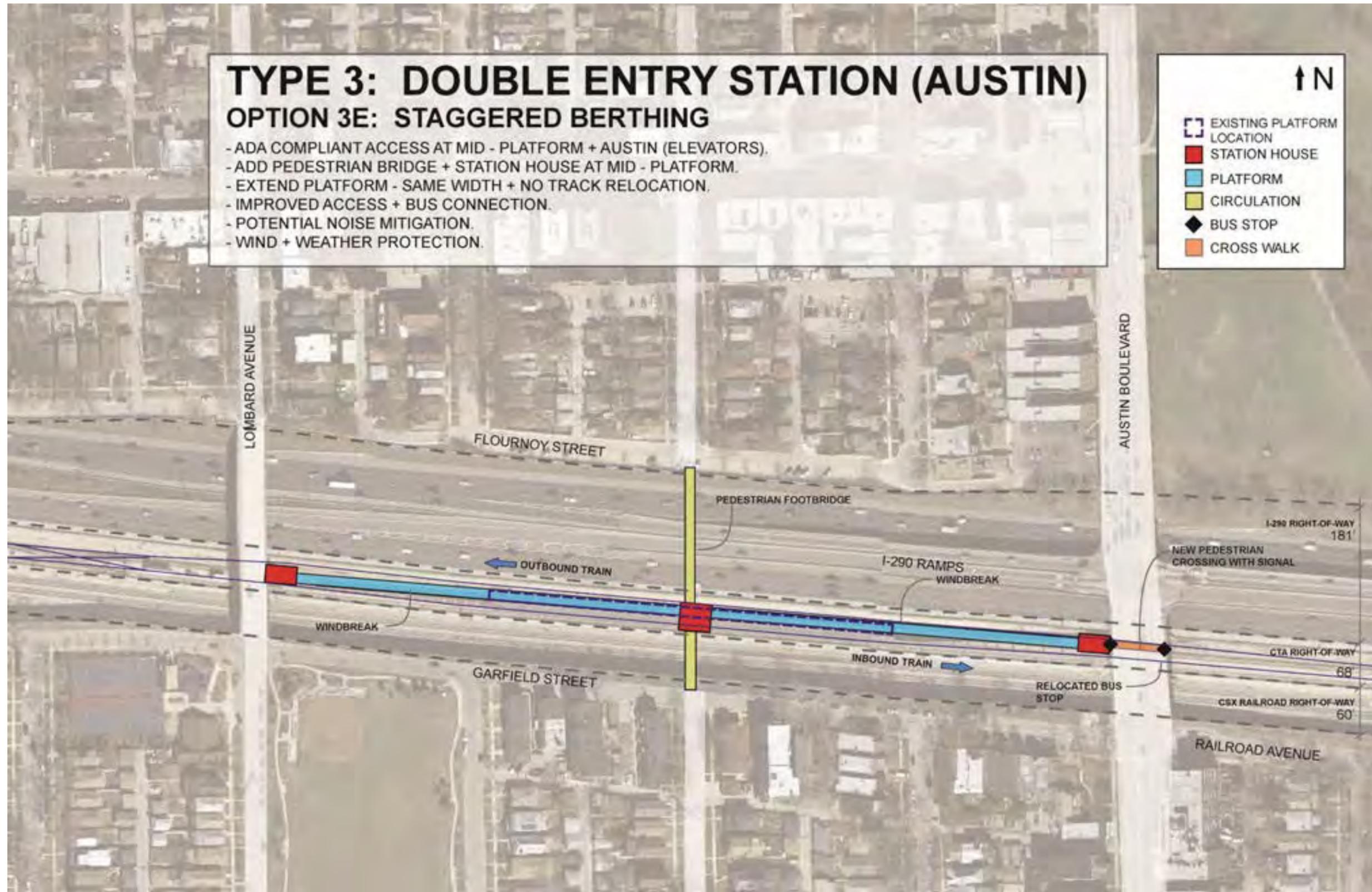
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3E: STAGGERED BERTHING

- ADA COMPLIANT ACCESS AT MID - PLATFORM + AUSTIN (ELEVATORS).
- ADD PEDESTRIAN BRIDGE + STATION HOUSE AT MID - PLATFORM.
- EXTEND PLATFORM - SAME WIDTH + NO TRACK RELOCATION.
- IMPROVED ACCESS + BUS CONNECTION.
- POTENTIAL NOISE MITIGATION.
- WIND + WEATHER PROTECTION.

↑ N

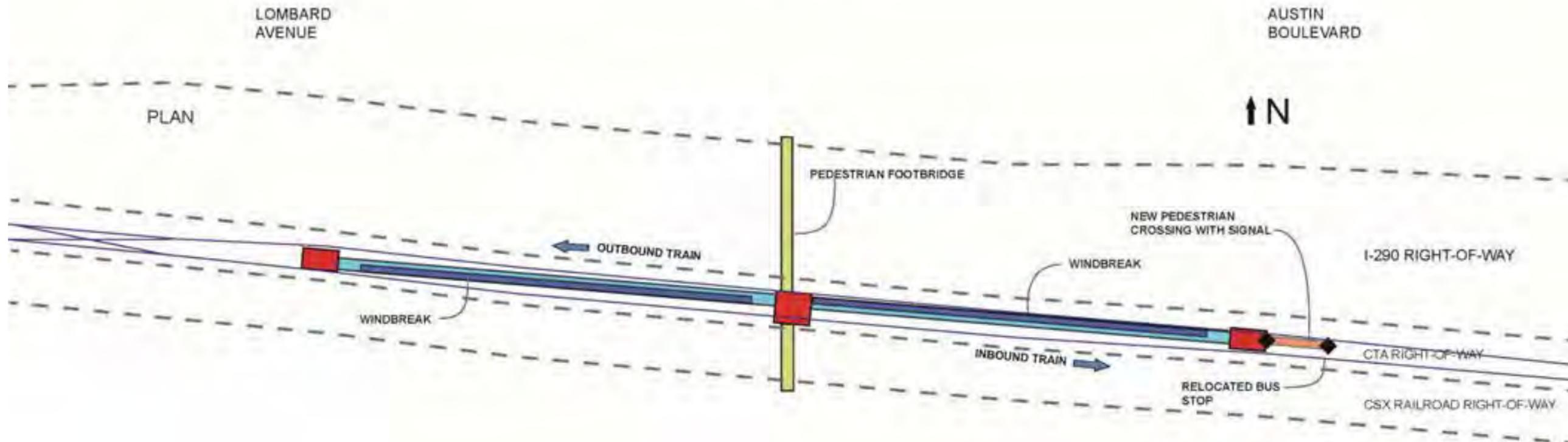
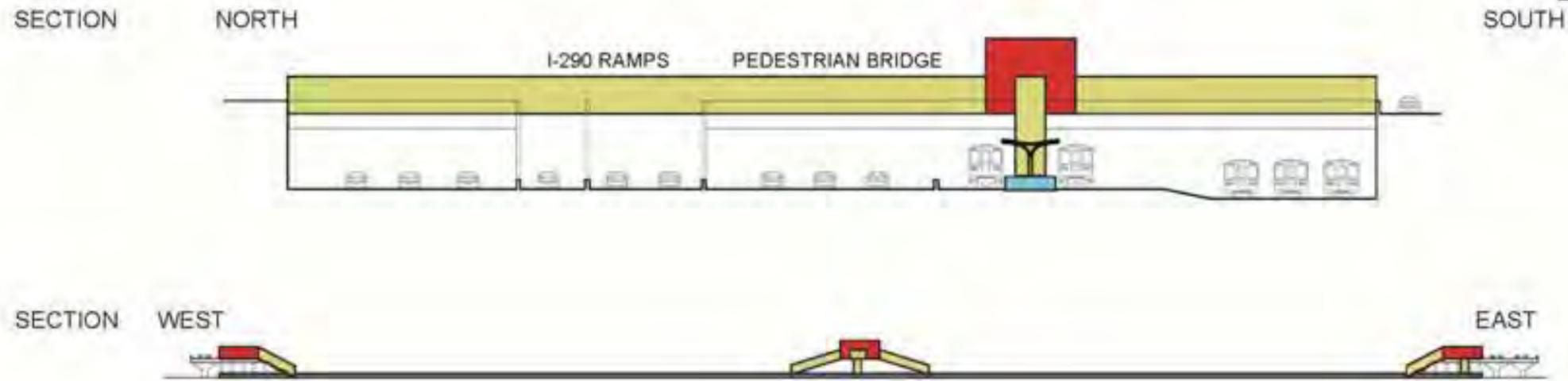
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3E: STAGGERED BERTHING

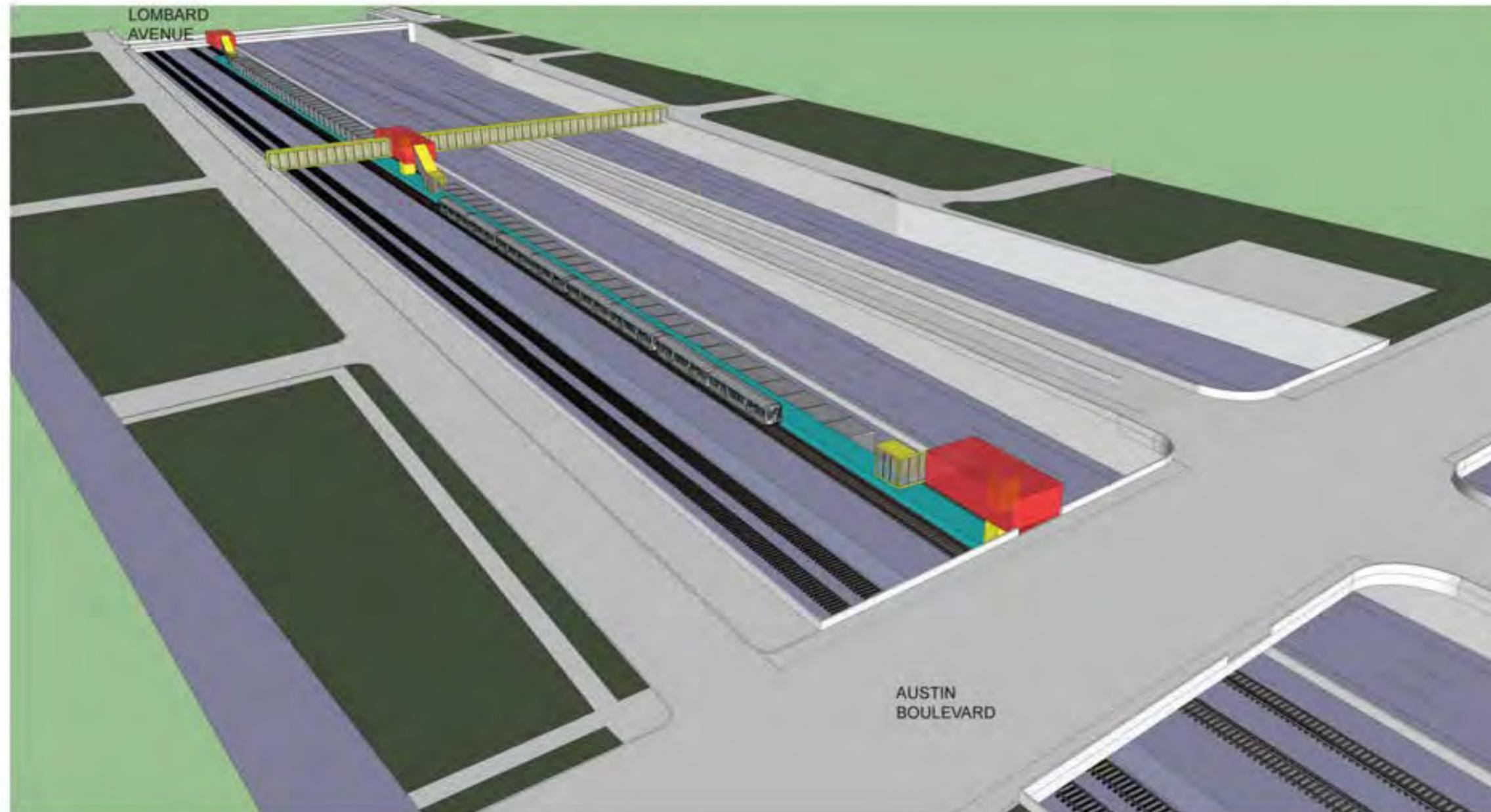
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



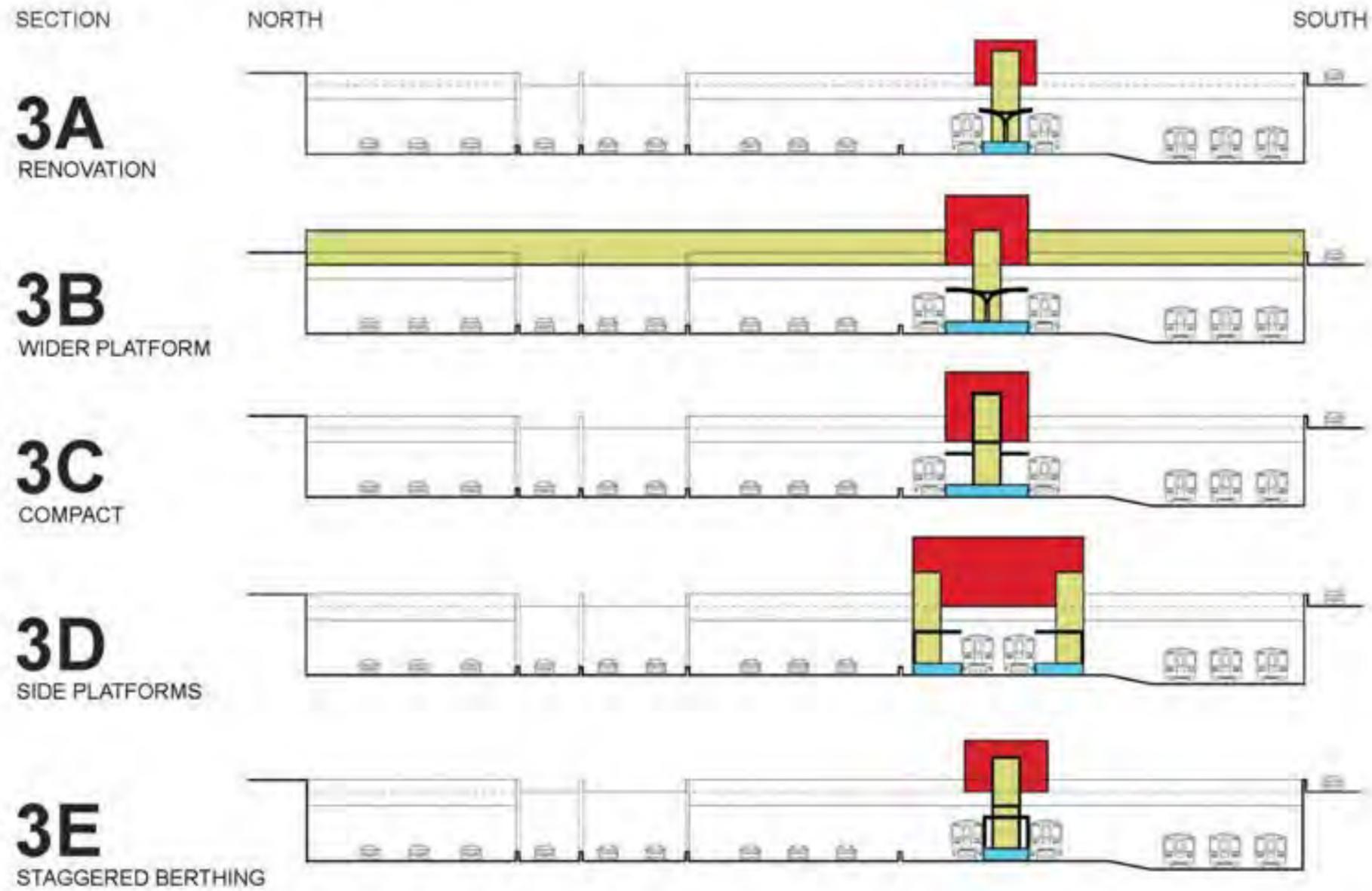
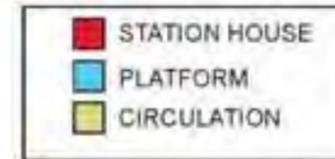
TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION 3E: STAGGERED BERTHING

	STATION HOUSE
	PLATFORM
	CIRCULATION
NOT TO SCALE	



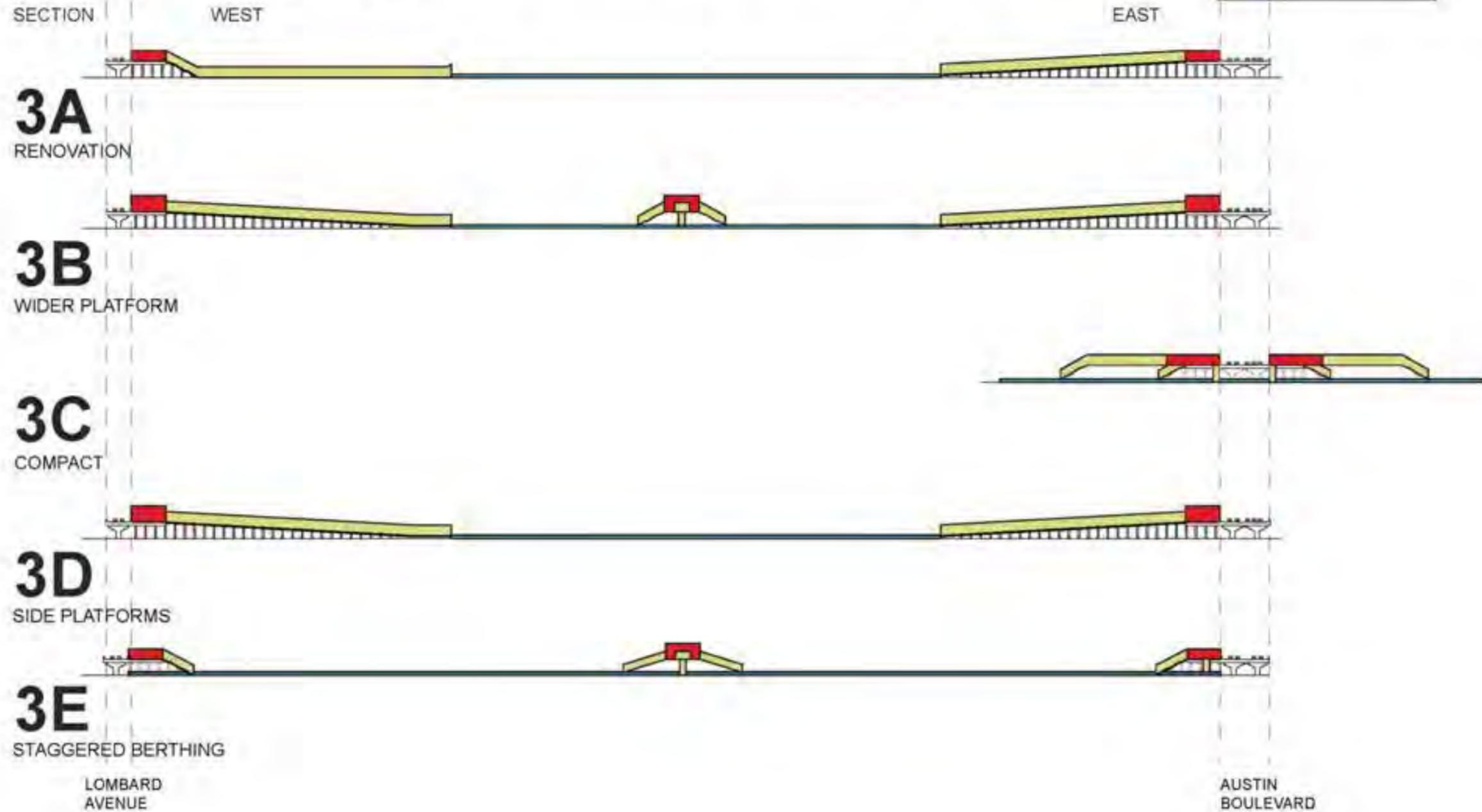
TYPE 3: DOUBLE ENTRY STATION (AUSTIN) OPTION COMPARISON



TYPE 3: DOUBLE ENTRY STATION (AUSTIN)

OPTION COMPARISON

■	STATION HOUSE
■	PLATFORM
■	CIRCULATION



TYPE 4: SINGLE ENTRY STATION (WESTERN)

There are four stations on the Forest Park Branch that were designed as single entry. These are Western, California, Kostner, and Central stations. Western was chosen as representative of this type because it is the only single entry station that is in operation during the time of this report. The single station house is located on one of the bridges that cross I-290, allowing customers to enter and exit at only one location. Bus connections are available on the street adjacent to the station house. A long ramp provides access to the platform.

CURRENT CONDITIONS

Western station is the representative of Type 4, single entry stations. It is the only of the type that is open. Three others, California, Kostner, and Central, are currently closed.

Western station is located in a largely residential area, to the west of the United Center and the Illinois Medical District. The station house is at Western Avenue, home to a CTA bus line. This station is planned to be a transfer point for the future Western bus rapid transit line. A non-ADA compliant ramp provides access to the platform.

The station is currently functional, but has several significant deficiencies. As mentioned above, Western lacks ADA compliant access, which is more or less common to almost all of the Forest Park Branch stations. The platform itself is approximately 15 feet wide, narrower than recommended by CTA design guidelines. By definition, a single entry station fails to provide adequate emergency egress.

STATION ALTERNATIVES

Three replacement options are evaluated for use at Western station. Since all improvements to Western would require the addition of a station house, no "renovation" option is considered. For this reason, as well as the lack of an existing lengthy and substandard (for a center) platform, a staggered berthing option is also not being considered.

OPTION 4B: WIDER PLATFORM

This option makes improvements to station identity and safety and for the comfort of passengers. The platform would be widened to meet CTA design guidelines by relocating the north track northward. A second station house would be added at Oakley Boulevard and the one at Western would be relocated to the east side of the street. All access would be made ADA compliant with elevators at both station houses. New platform canopies, wind breaks, and benches would further enhance customers' experience. A new pedestrian crossing would be added in front of the Western station house. The crossing, along with relocating the northbound Western bus stop, would improve transfers and reduce the danger of crossing the street.

OPTION 4C: COMPACT

This option would provide a widened platform, as in 4B, but centered on Western Avenue. Two station houses, one on either side of this busy street, would provide ADA compliant access to the platform by elevator. The placement of the station houses would make crossing the street to reach a bus stop unnecessary, simplifying transfers. This is especially important since the Western station has been identified as a transfer point to future bus rapid transit service.

OPTION 4D: SIDE PLATFORMS

Both tracks would be moved closer together to make room for two platforms. As in 4B, the platforms could be located between Western Avenue and Oakley Boulevard. ADA compliant access would be provided by elevators from both station houses. The width of the side platforms would comply with CTA design guidelines and they could provide continuous wind breaks and canopies, improving the weather protection for, and sound experience of, customers. The platforms could also be located between Western and a pedestrian bridge to the west (alternative not shown).

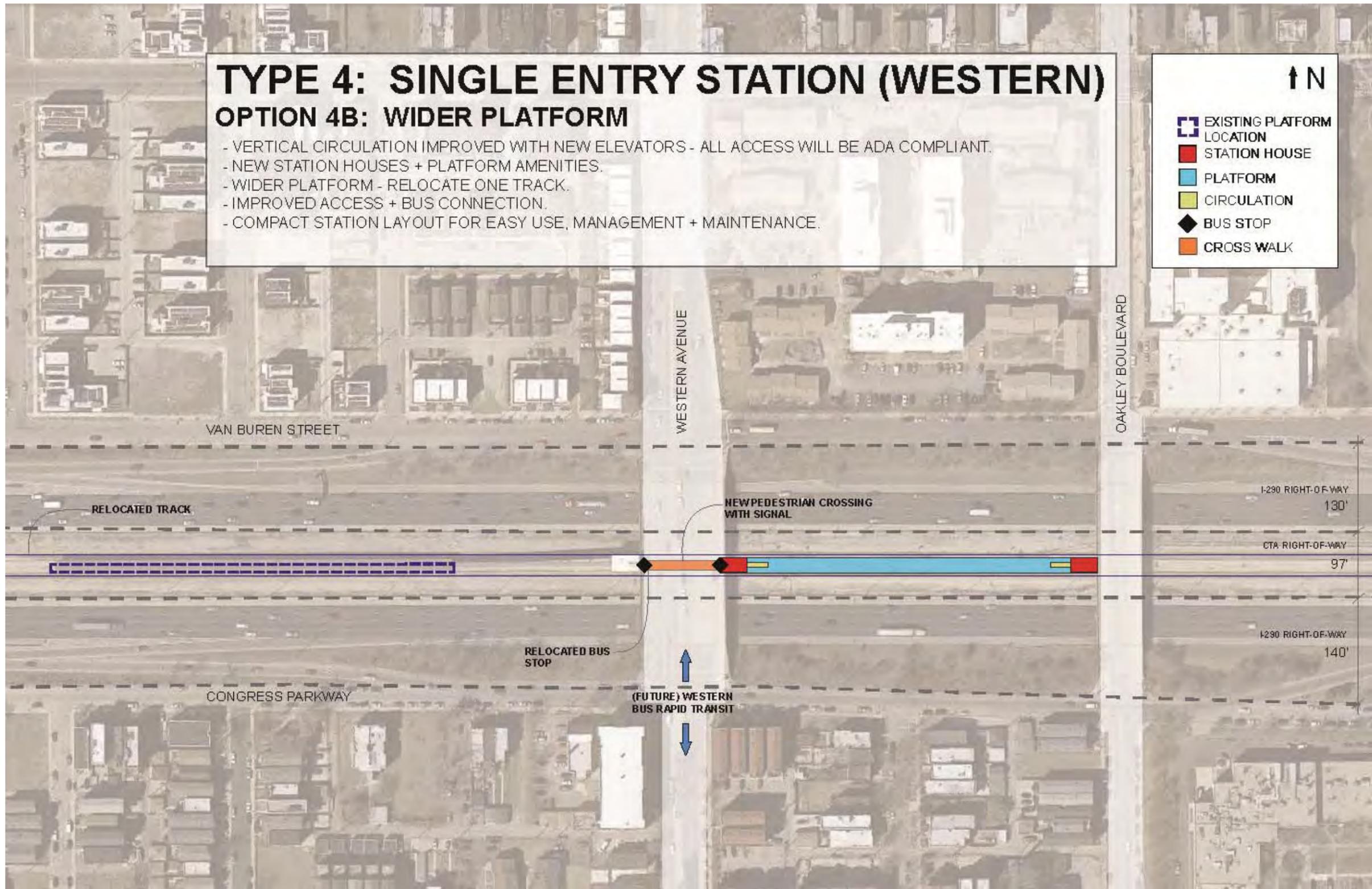
TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4B: WIDER PLATFORM

- VERTICAL CIRCULATION IMPROVED WITH NEW ELEVATORS - ALL ACCESS WILL BE ADA COMPLIANT.
- NEW STATION HOUSES + PLATFORM AMENITIES.
- WIDER PLATFORM - RELOCATE ONE TRACK.
- IMPROVED ACCESS + BUS CONNECTION.
- COMPACT STATION LAYOUT FOR EASY USE, MANAGEMENT + MAINTENANCE.

↑ N

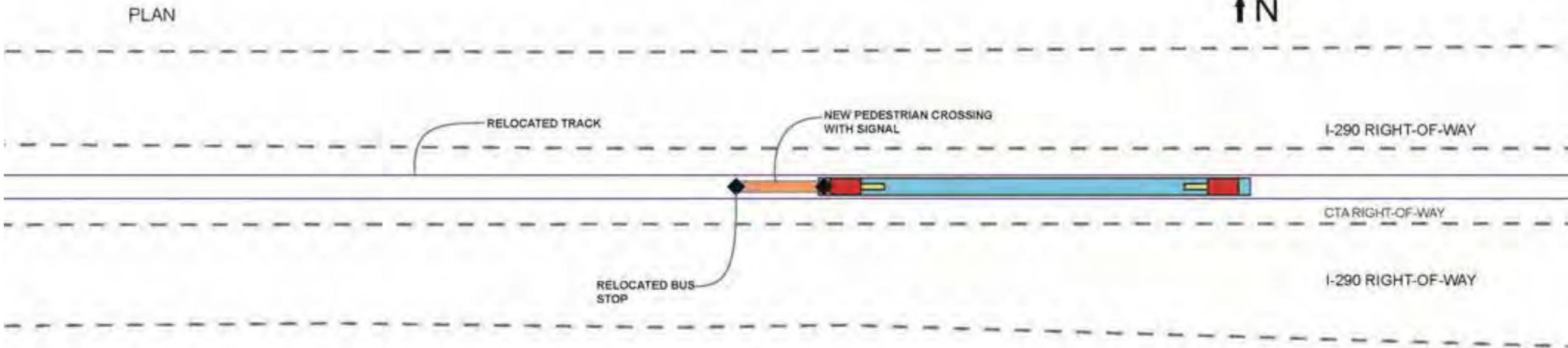
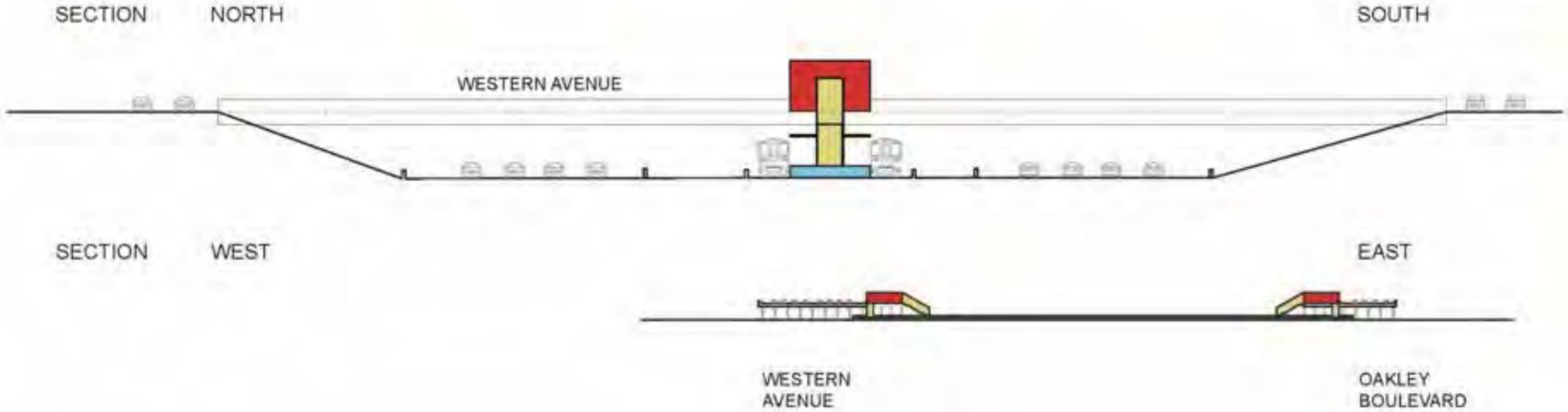
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4B: WIDER PLATFORM

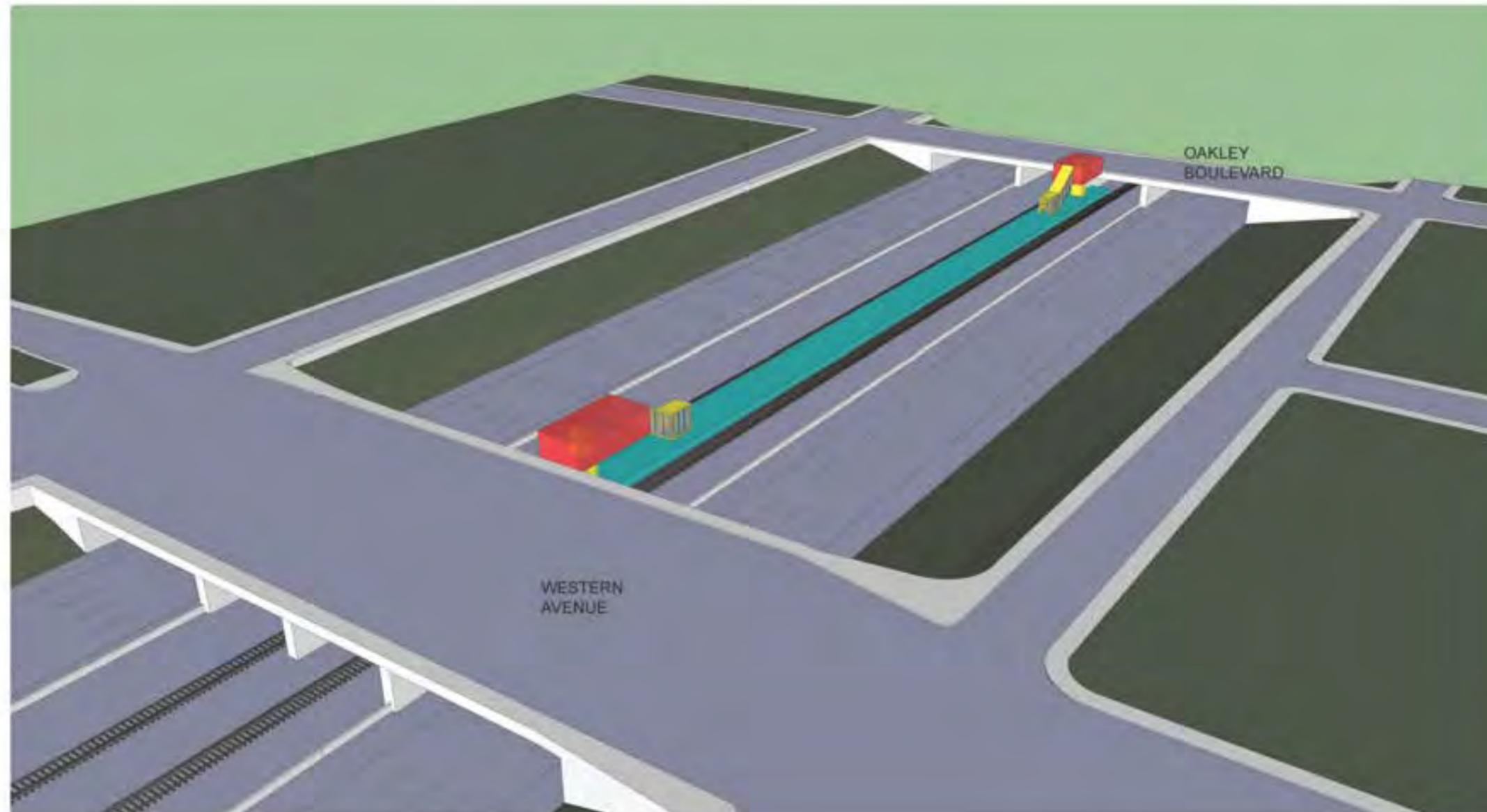
■	STATION HOUSE
■	PLATFORM
■	CIRCULATION
◆	BUS STOP
■	CROSS WALK
NOT TO SCALE	



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4B: WIDER PLATFORM

- STATION HOUSE
- PLATFORM
- CIRCULATION
- NOT TO SCALE



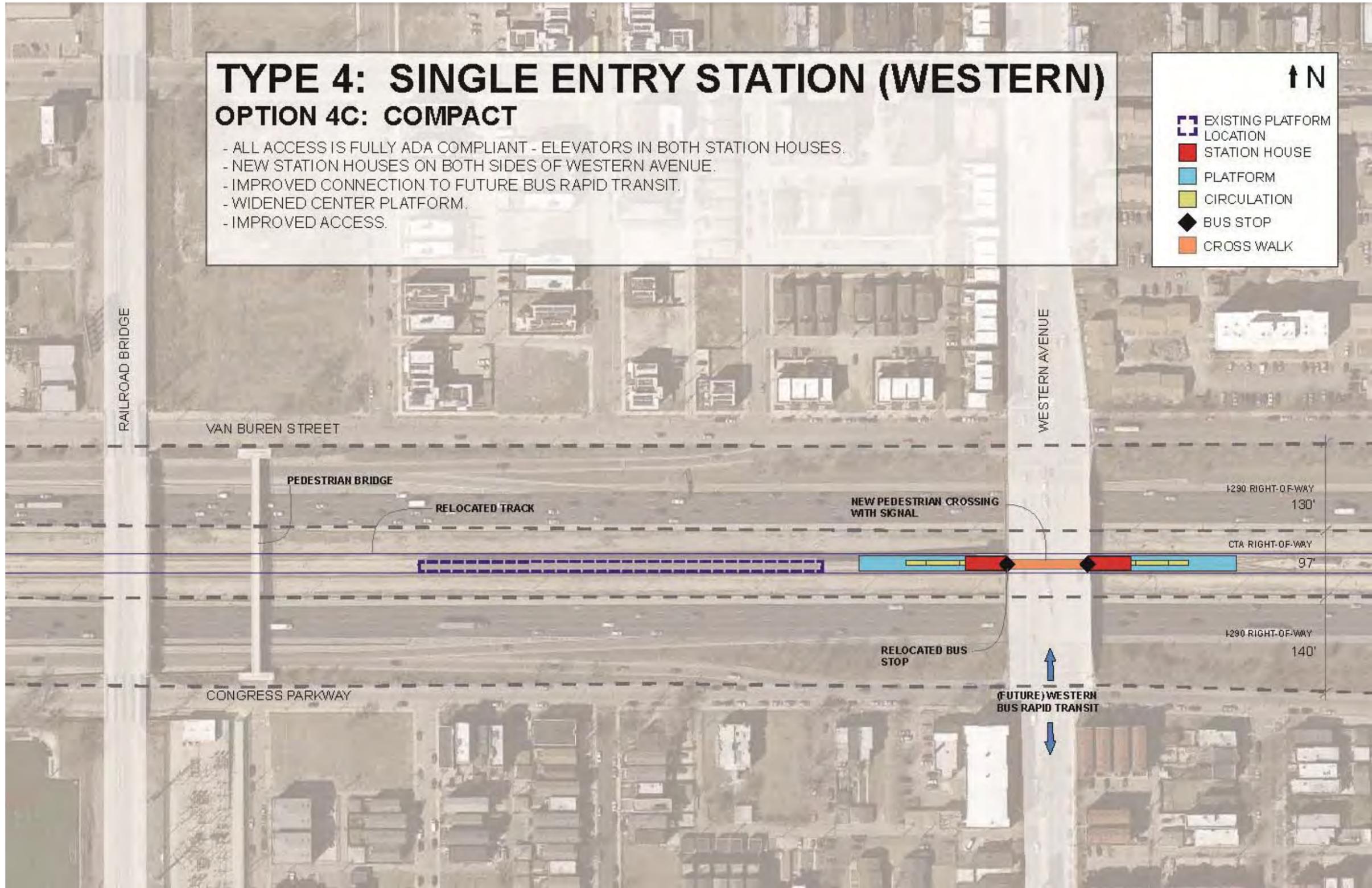
TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4C: COMPACT

- ALL ACCESS IS FULLY ADA COMPLIANT - ELEVATORS IN BOTH STATION HOUSES.
- NEW STATION HOUSES ON BOTH SIDES OF WESTERN AVENUE.
- IMPROVED CONNECTION TO FUTURE BUS RAPID TRANSIT.
- WIDENED CENTER PLATFORM.
- IMPROVED ACCESS.

↑ N

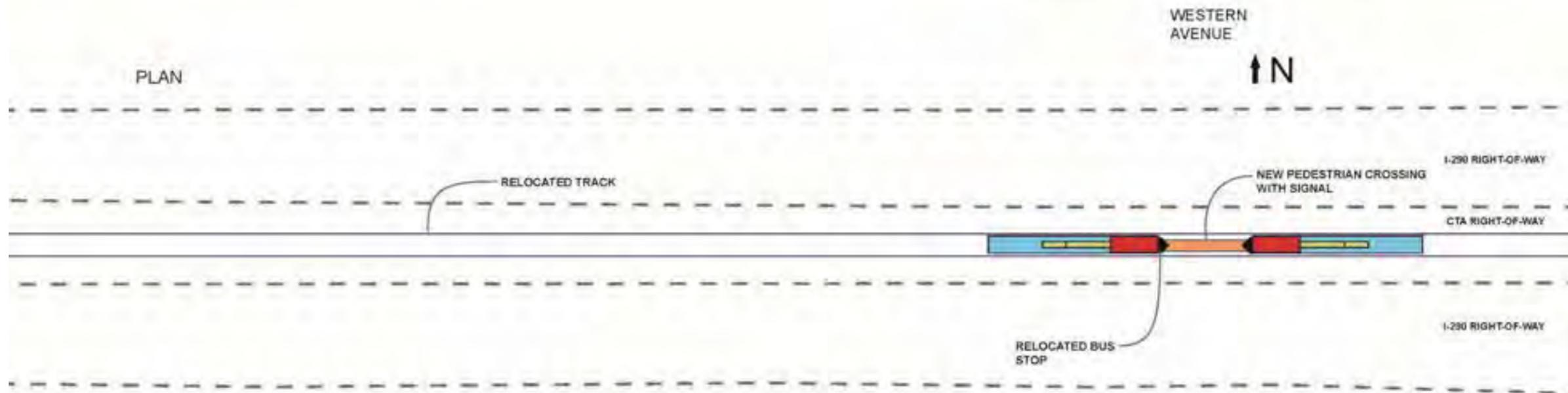
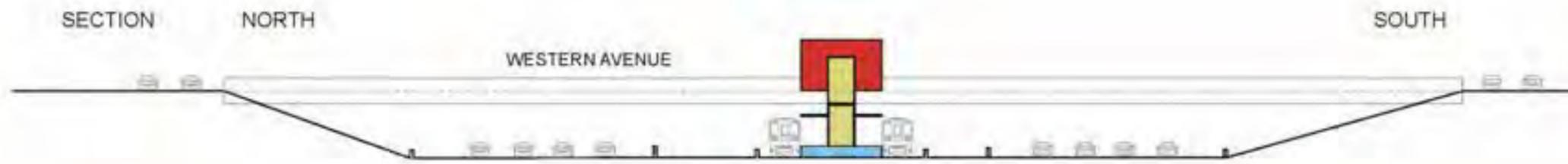
- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4C: COMPACT

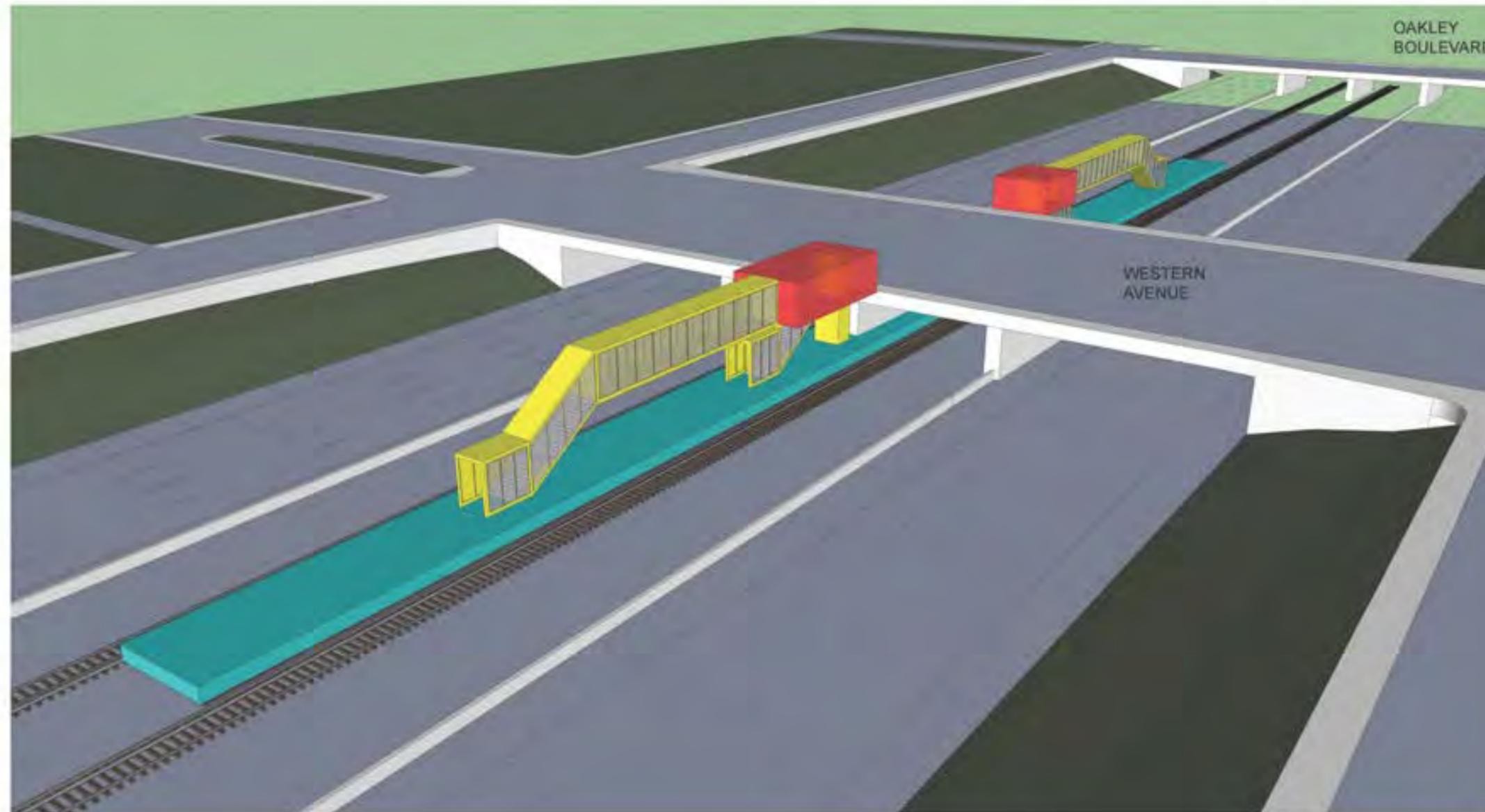
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK
- NOT TO SCALE



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4C: COMPACT

- STATION HOUSE
- PLATFORM
- CIRCULATION
- NOT TO SCALE



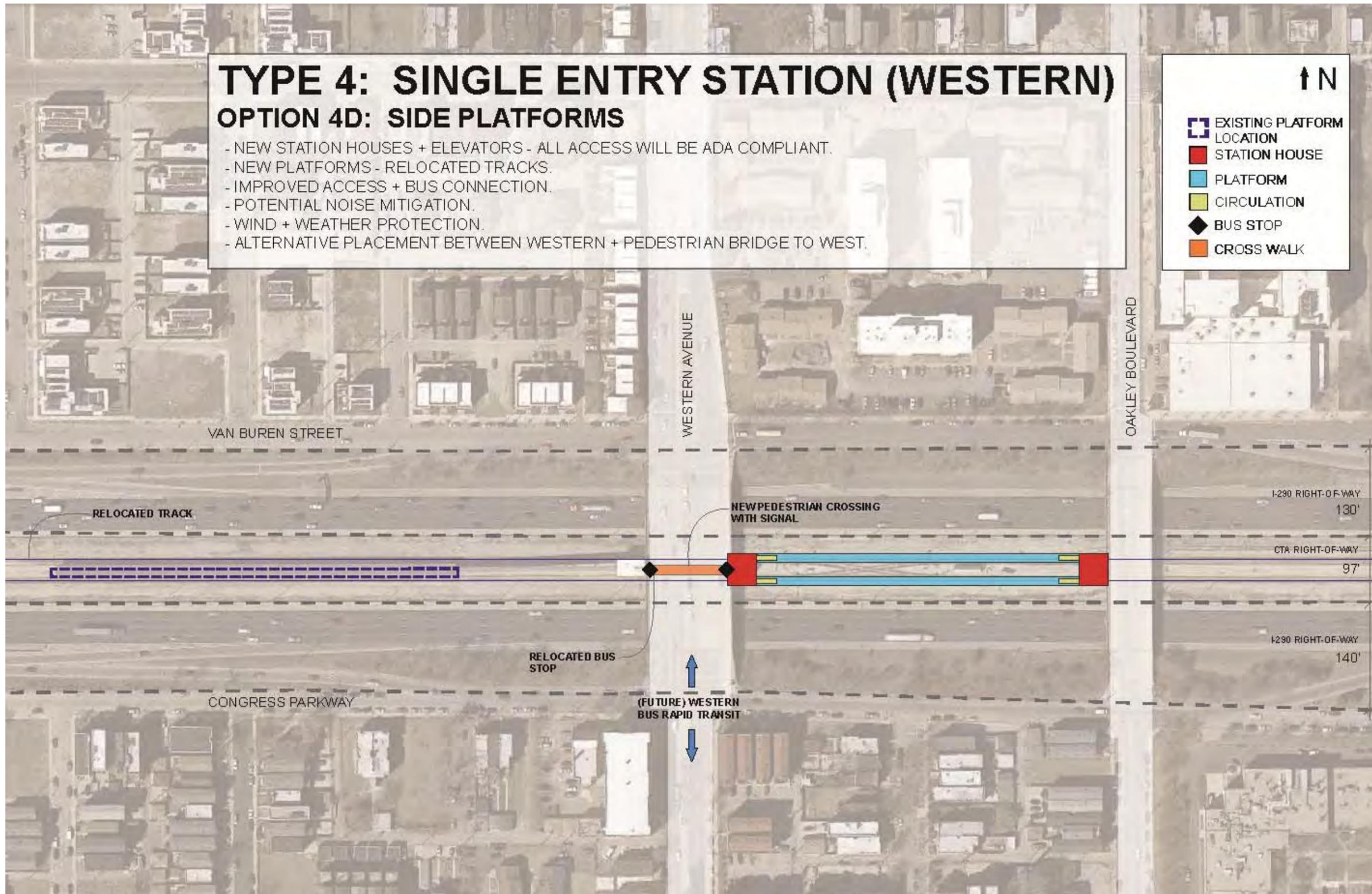
TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4D: SIDE PLATFORMS

- NEW STATION HOUSES + ELEVATORS - ALL ACCESS WILL BE ADA COMPLIANT.
- NEW PLATFORMS - RELOCATED TRACKS.
- IMPROVED ACCESS + BUS CONNECTION.
- POTENTIAL NOISE MITIGATION.
- WIND + WEATHER PROTECTION.
- ALTERNATIVE PLACEMENT BETWEEN WESTERN + PEDESTRIAN BRIDGE TO WEST.

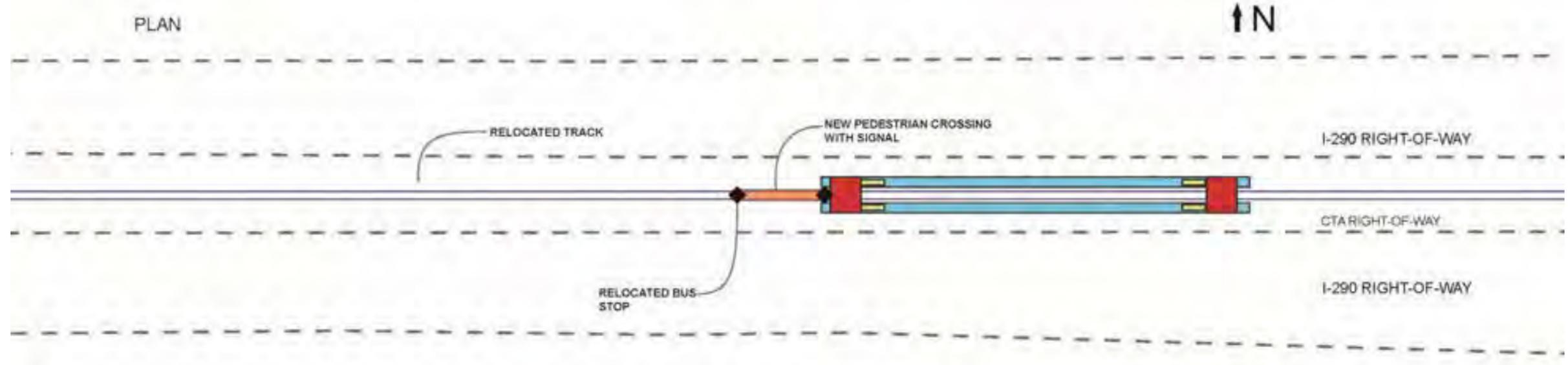
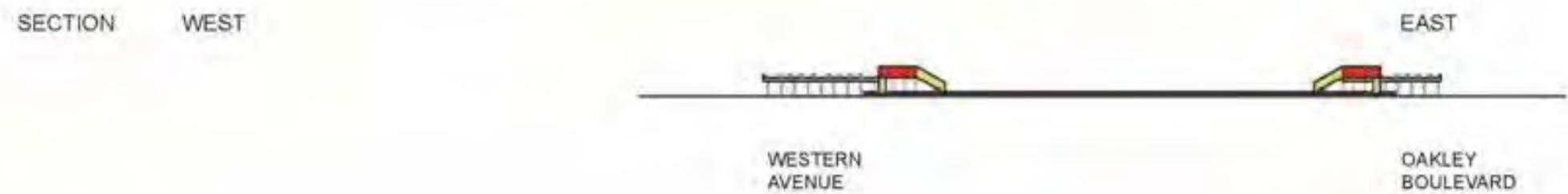
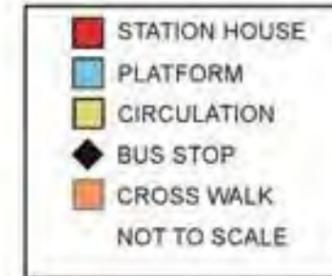
↑ N

- EXISTING PLATFORM LOCATION
- STATION HOUSE
- PLATFORM
- CIRCULATION
- BUS STOP
- CROSS WALK



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION 4D: SIDE PLATFORMS



TYPE 4: SINGLE ENTRY STATION (WESTERN)

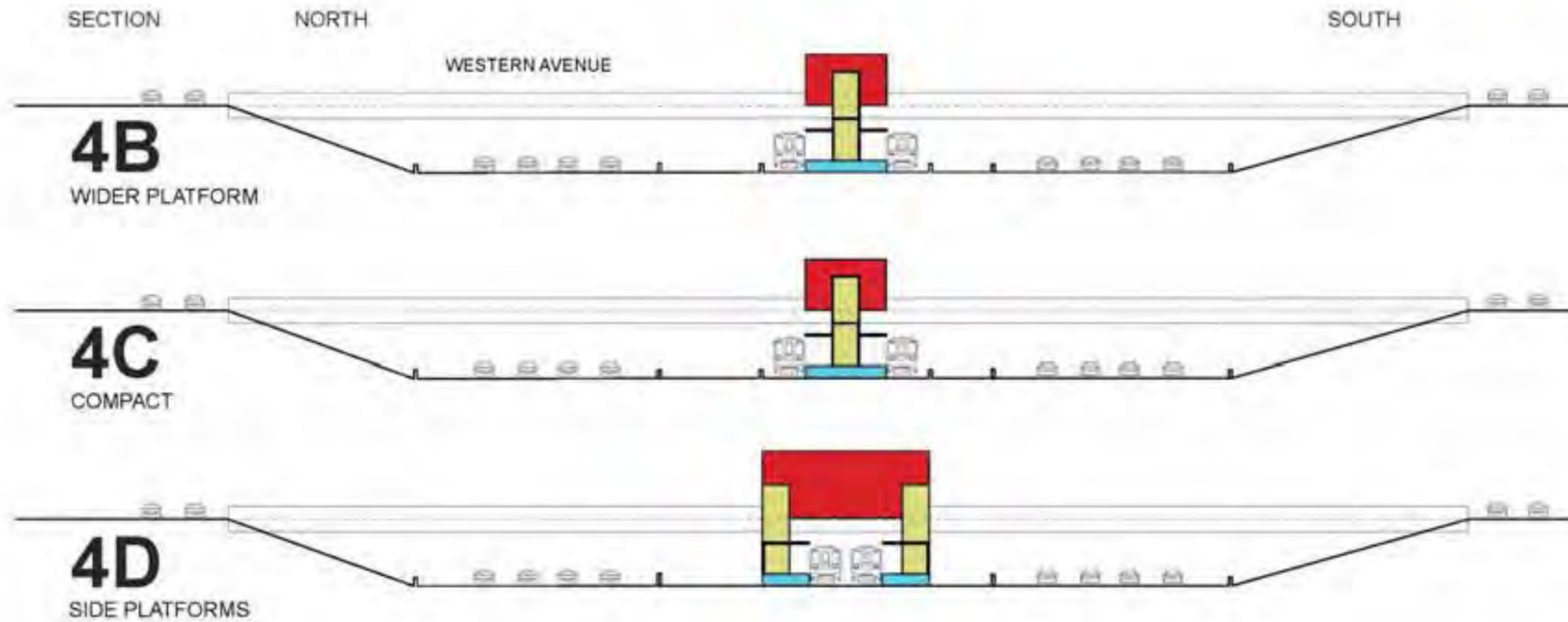
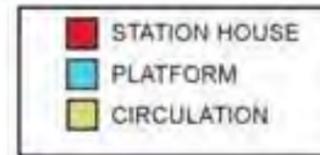
OPTION 4D: SIDE PLATFORMS

- STATION HOUSE
- PLATFORM
- CIRCULATION
- NOT TO SCALE



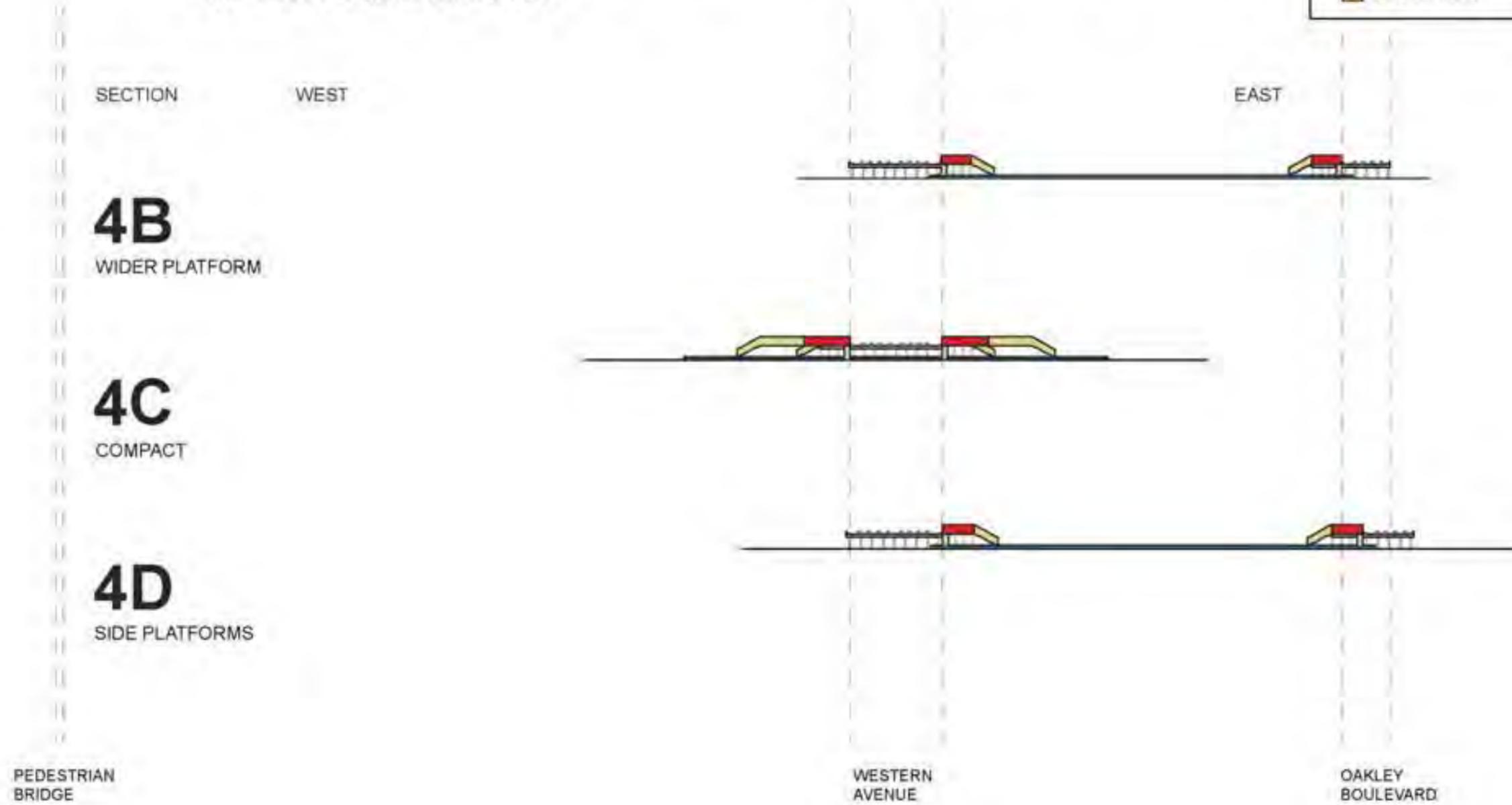
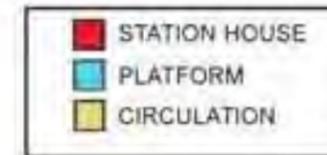
TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION COMPARISON



TYPE 4: SINGLE ENTRY STATION (WESTERN)

OPTION COMPARISON



TYPE 5: TERMINAL STATION (FOREST PARK)

Forest Park is the line's terminal station. The station house is located at grade, with the platform and tracks elevated. Stairs, escalators and elevator within the station house provide customers access to the platform level. The Forest Park station also accommodates busses, with off-street bays, and motorists.

CURRENT CONDITIONS

Forest Park is the terminal station of this branch and, like Clinton, the only representative of its category. It is located in the village of Forest Park, west of Des Plaines Avenue, south of Van Buren Street, and north of I-290. There are residences to the east, north, and south and cemeteries to the west.

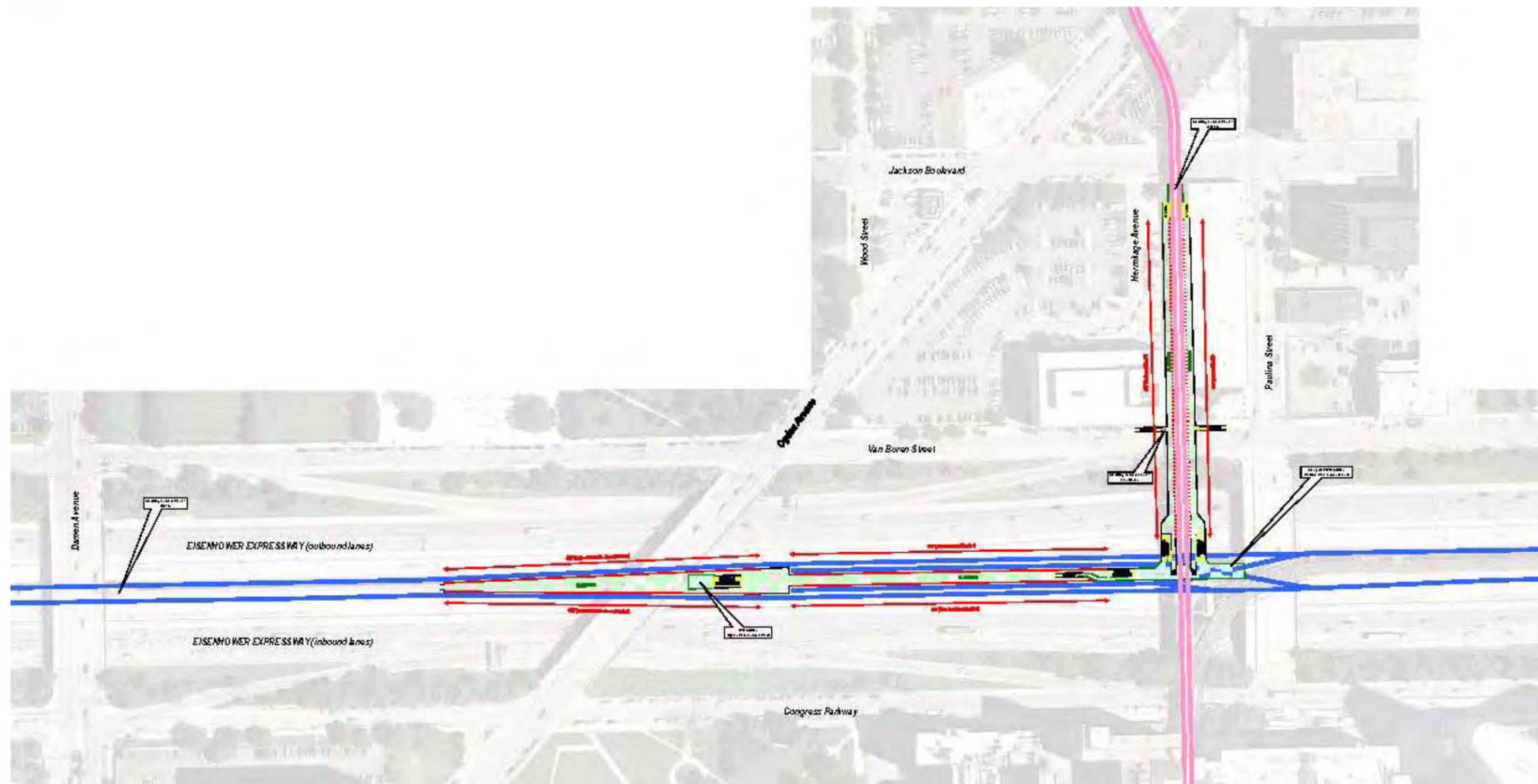
Of all the stations, Forest Park is the most "suburban" in character, surrounded by commuter "park-and-ride" lots and set-back from Des Plaines Avenue. There is a private vehicle drop-off and pick-up area ("kiss-and-ride") to the south of the station house. To the north, there are bays that are used by Pace buses. The station house can be entered on the ground level from the north and south sides. The platform is located one level above grade and can be reached by stair, elevator, or escalator.

While serviceable, Forest Park station is in poor to fair condition. The station appears not to meet egress requirements: There is only one set of stairs that can be used to exit the platform. In addition, the position of the stairs makes for excessively long distances between them and the platform ends. Reaching the station on foot is also difficult. In addition to the distance between the station house and the street, reaching Forest Park requires crossing several driveways and, coming from the south, an I-290 entrance ramp.

CTA IMD-CONGRESS BLUE/PINK LINE TRANSFER STATION – CONCEPT PLAN

KEY FEATURES:

- Four berths on Blue Line platform (two for through trains and two for turn-back trains) allow peak period service to be allocated more efficiently between O’Hare and Forest Park branches
- Minimum 6’ width for all stair, elevator, and escalator openings; ADA access is provided via elevator
- Main entrances/exits on west side of Paulina Street (reconfigured existing station house) and south/east side of Ogden Avenue (existing station house)
- Auxiliary entrances/exits on south side of Jackson Boulevard (new), north side of Van Buren Street (new), and east side of Damen Avenue (existing)
- Two new elevators at Paulina station house connect all three levels: elevated (Pink Line) platforms, street-level station house, and expressway-level (Blue Line) platform



CICERO, PULASKI AND WESTERN: 10% DESIGN

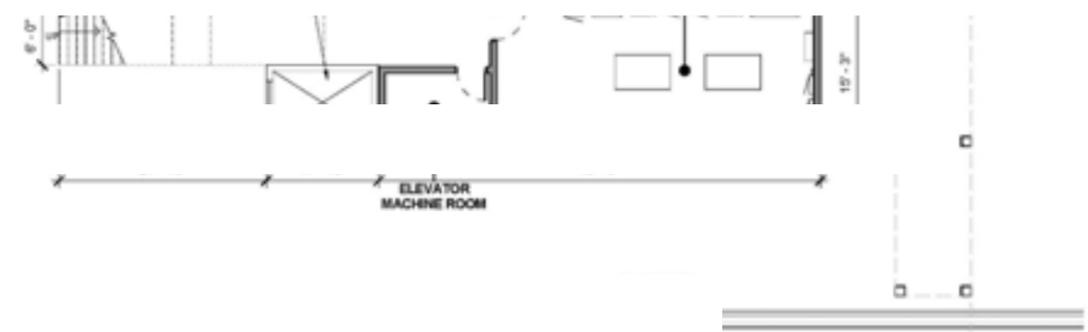
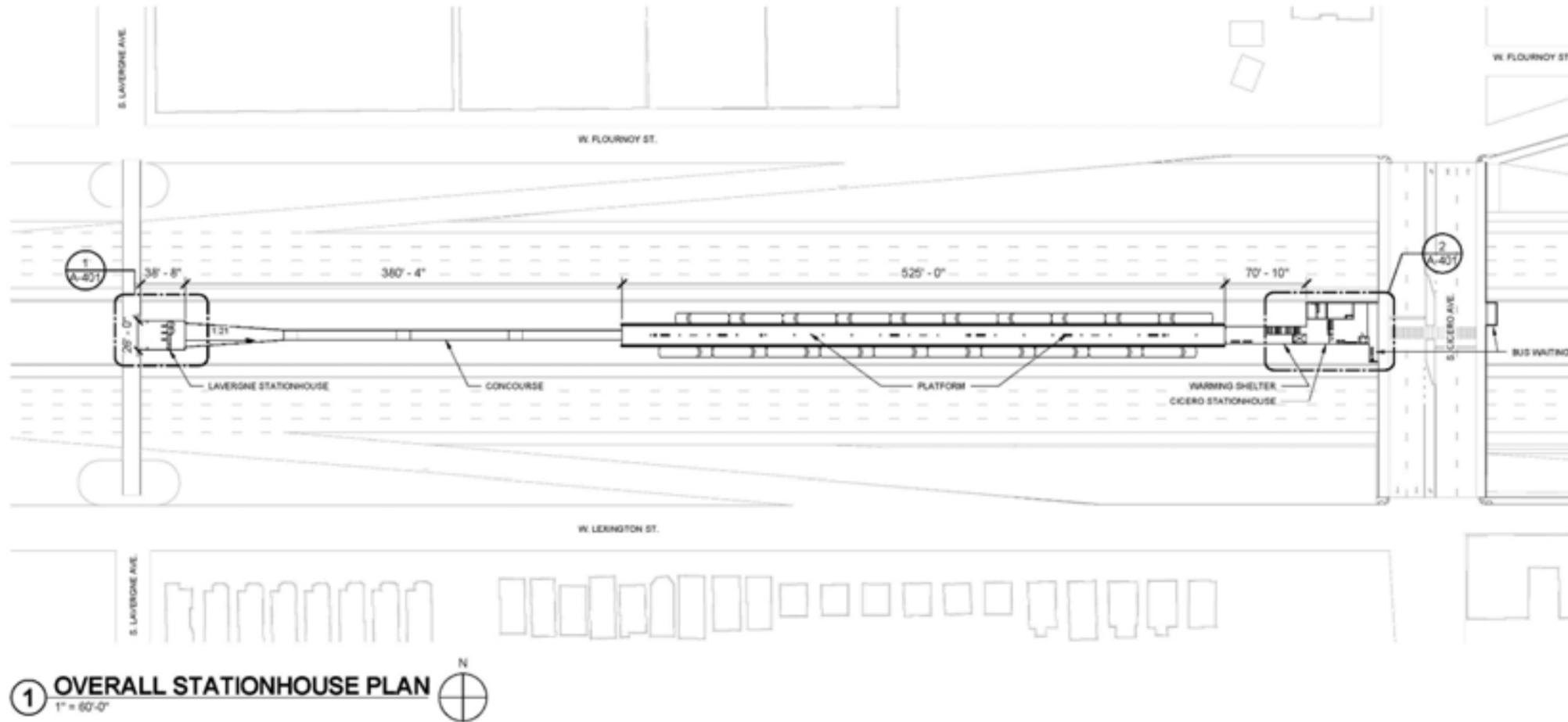
This project is part of the Blue Line Visioning Study of the Forest Park Branch of the Blue Line, focusing on replacing the stations in the central portion of the branch in the City of Chicago, including Cicero, Pulaski, and Western Stations. All existing station and platform structures will be demolished and replaced with new stations and repositioned platforms that meet ADA and Chicago Building Code requirements, and improve access, comfort, and usability for passengers. This project will provide preliminary floor plan layouts for all three stations, including all programmatic elements required by CTA Design Guidelines. All stations will have two access points that will meet ADA requirements and NFPA-130 Exiting Requirements. Conceptual renderings for the Pulaski Avenue Station are shown below.



CICERO STATION: 10% DESIGN PLANS

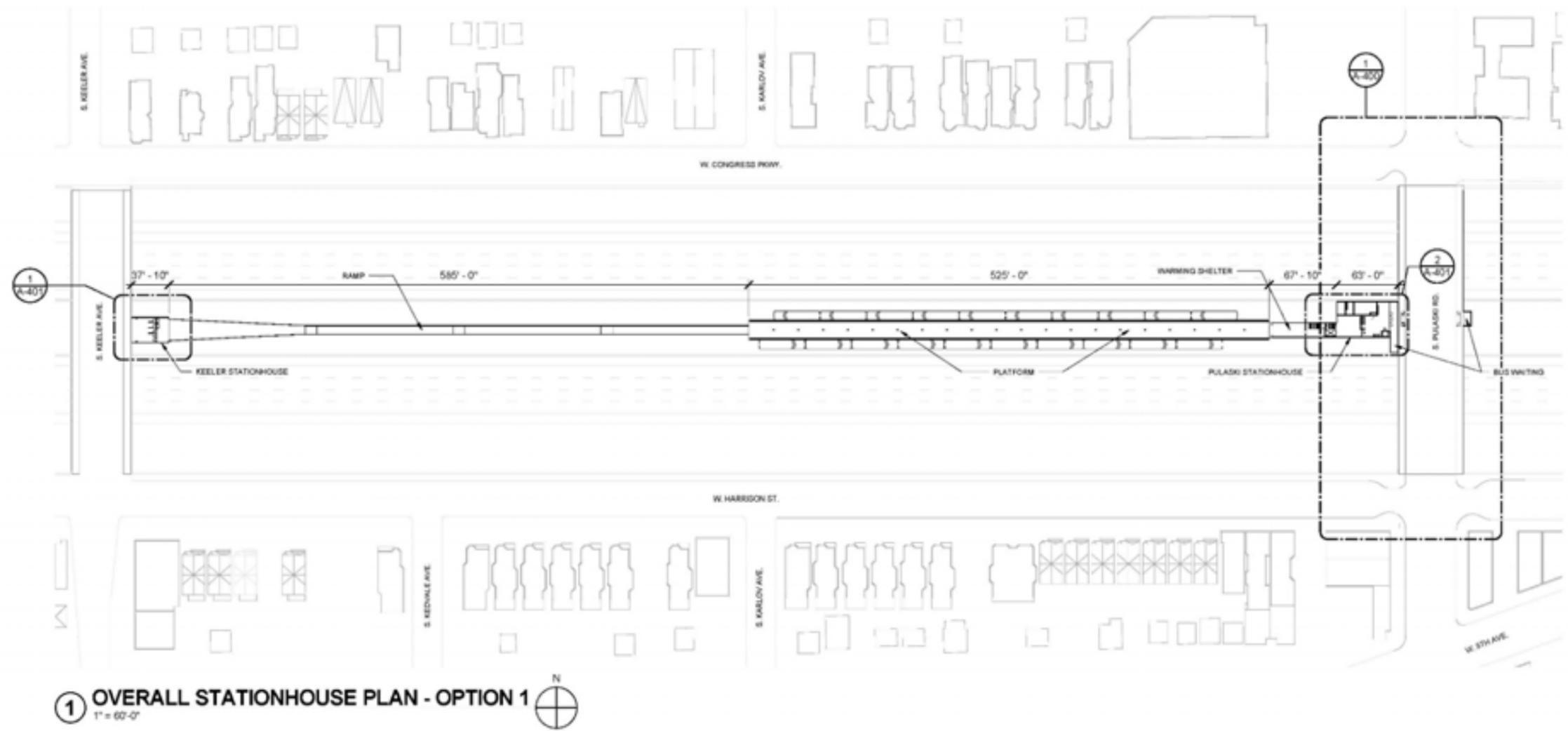
**CICERO
10%
PLANS**

**STATION:
DESIGN**



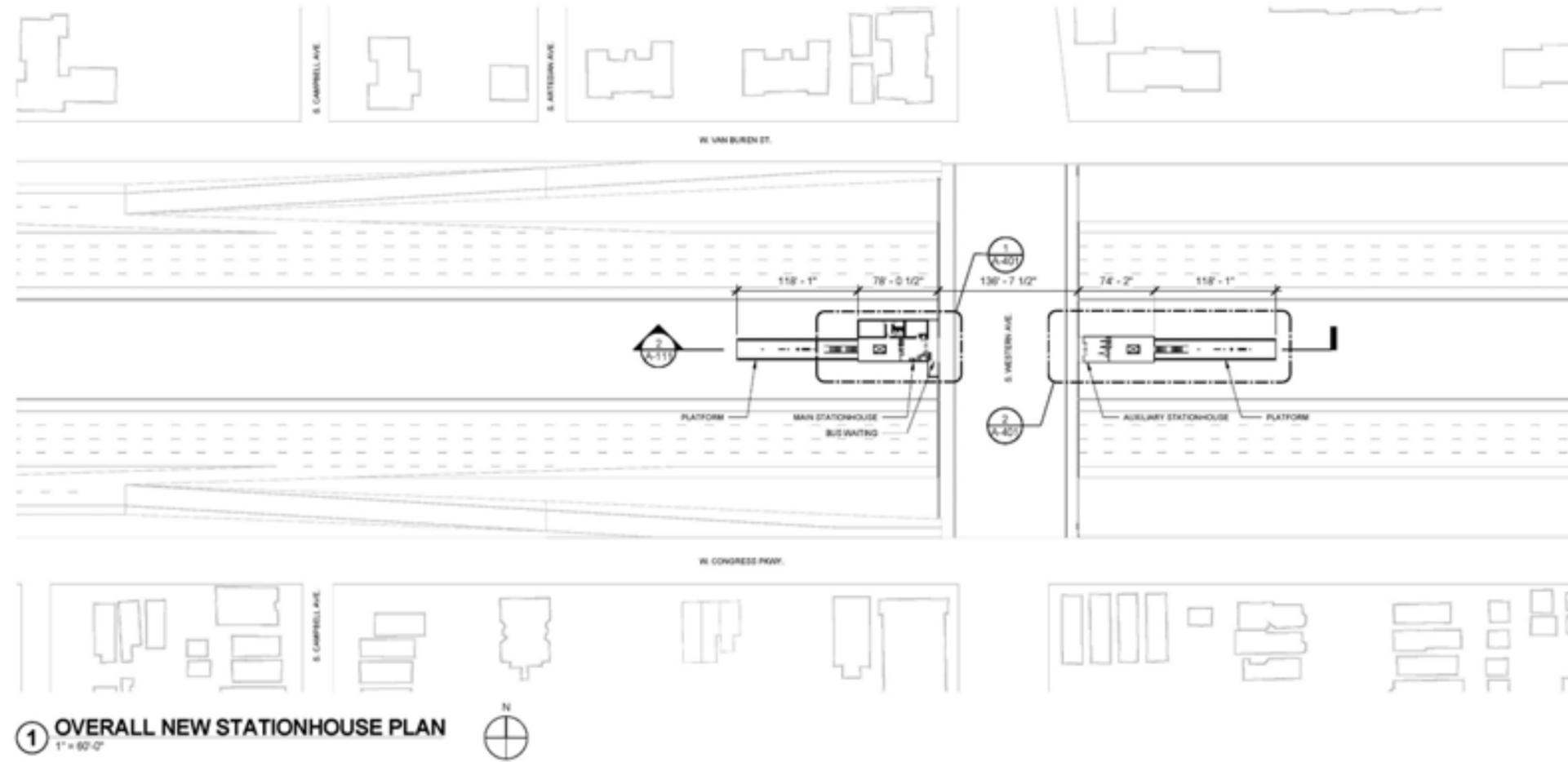
Cicero Avenue Station House and Platform Plan

PULASKI STATION: 10% DESIGN PLANS



Pulaski Avenue Station House and Platform Plan

PULASKI STATION: 10% DESIGN PLANS



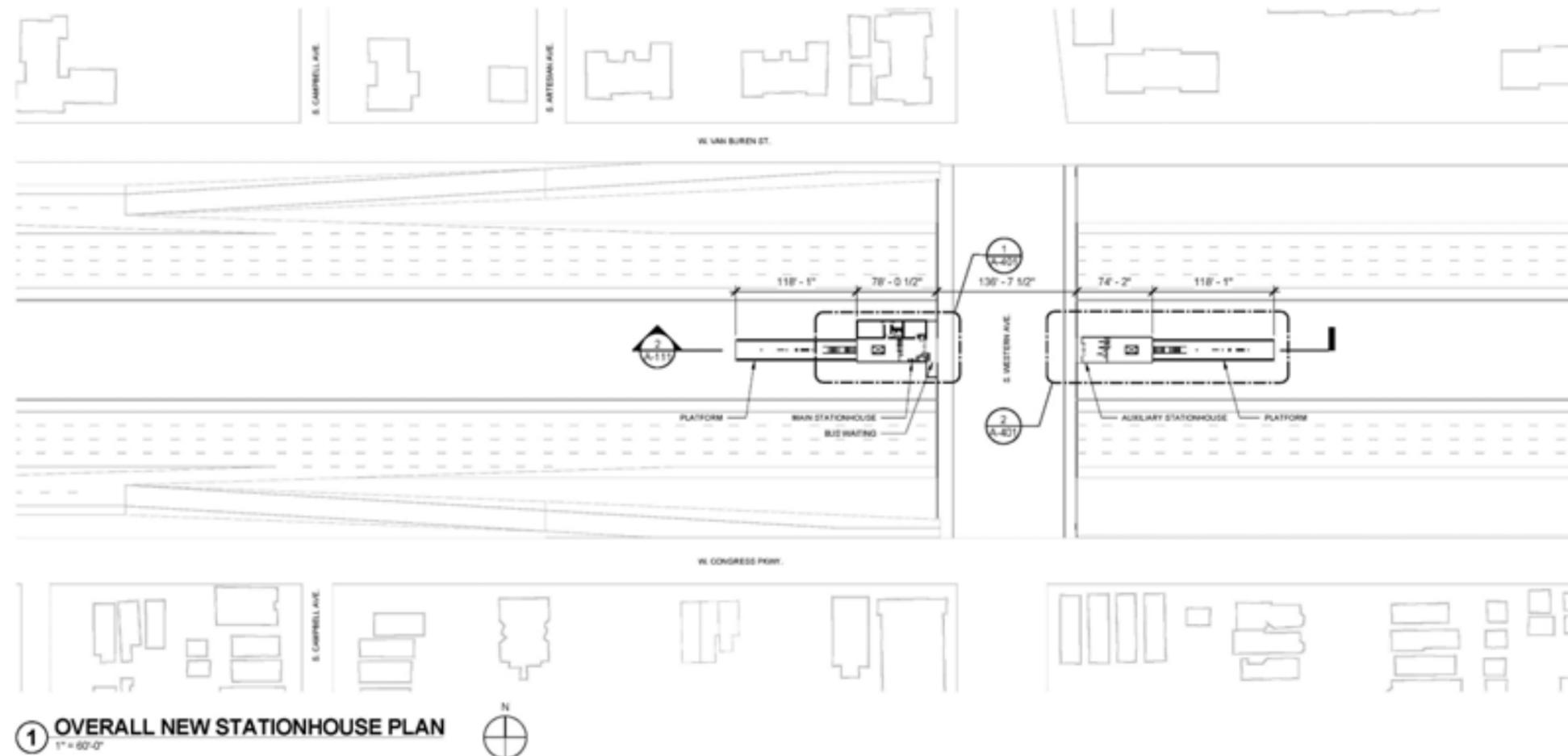
① OVERALL NEW STATIONHOUSE PLAN
1" = 60'-0"



② OVERALL NEW STATIONHOUSE SECTION
1" = 60'-0"

Pulaski Avenue Station House and Platform Plan

WESTERN STATION: 10% DESIGN PLANS



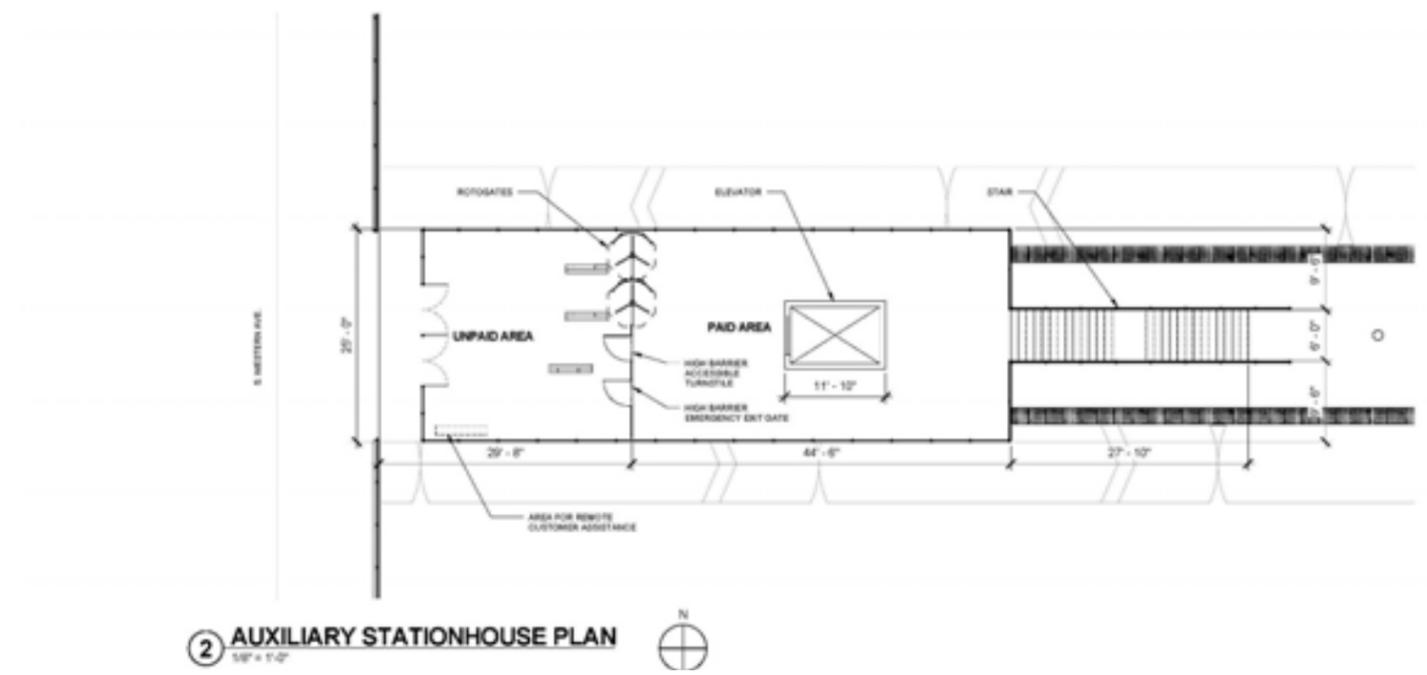
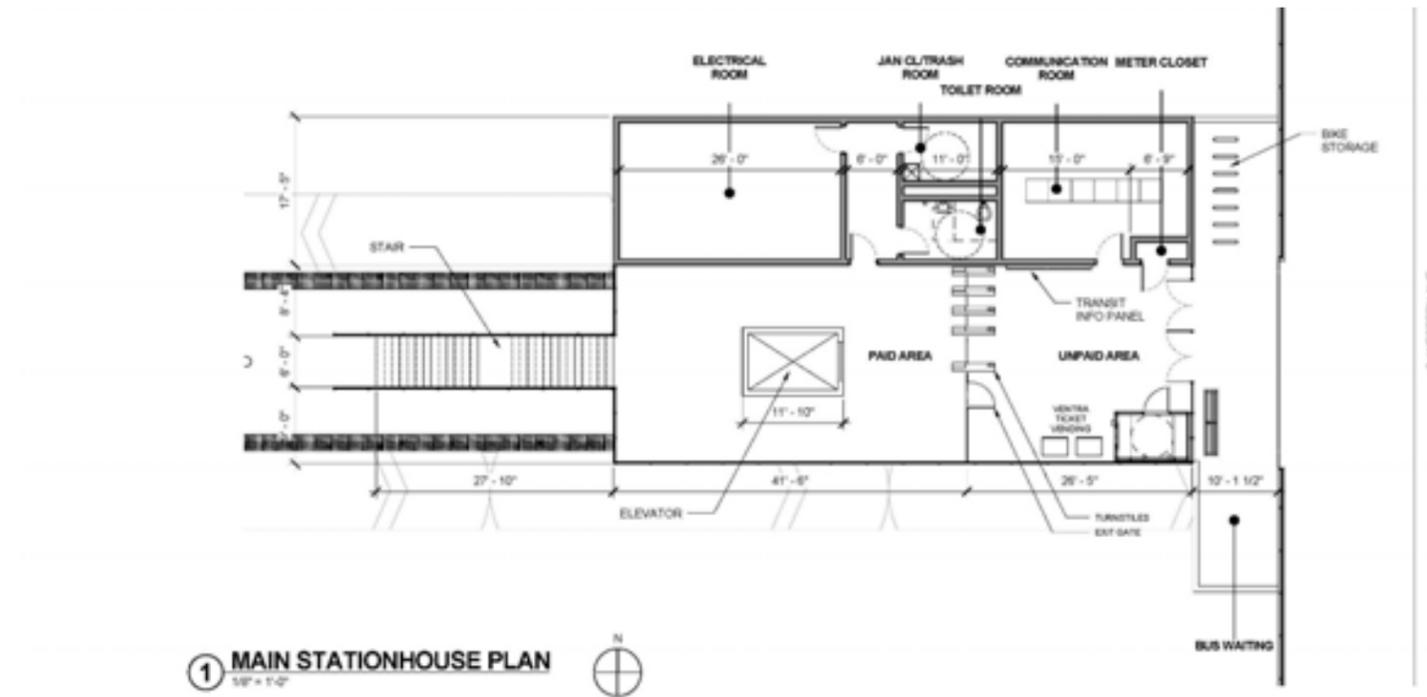
① OVERALL NEW STATIONHOUSE PLAN
1" = 60'-0"



② OVERALL NEW STATIONHOUSE SECTION
1" = 60'-0"

Western Avenue Station House and Platform Plan

WESTERN STATION: 10% DESIGN PLANS



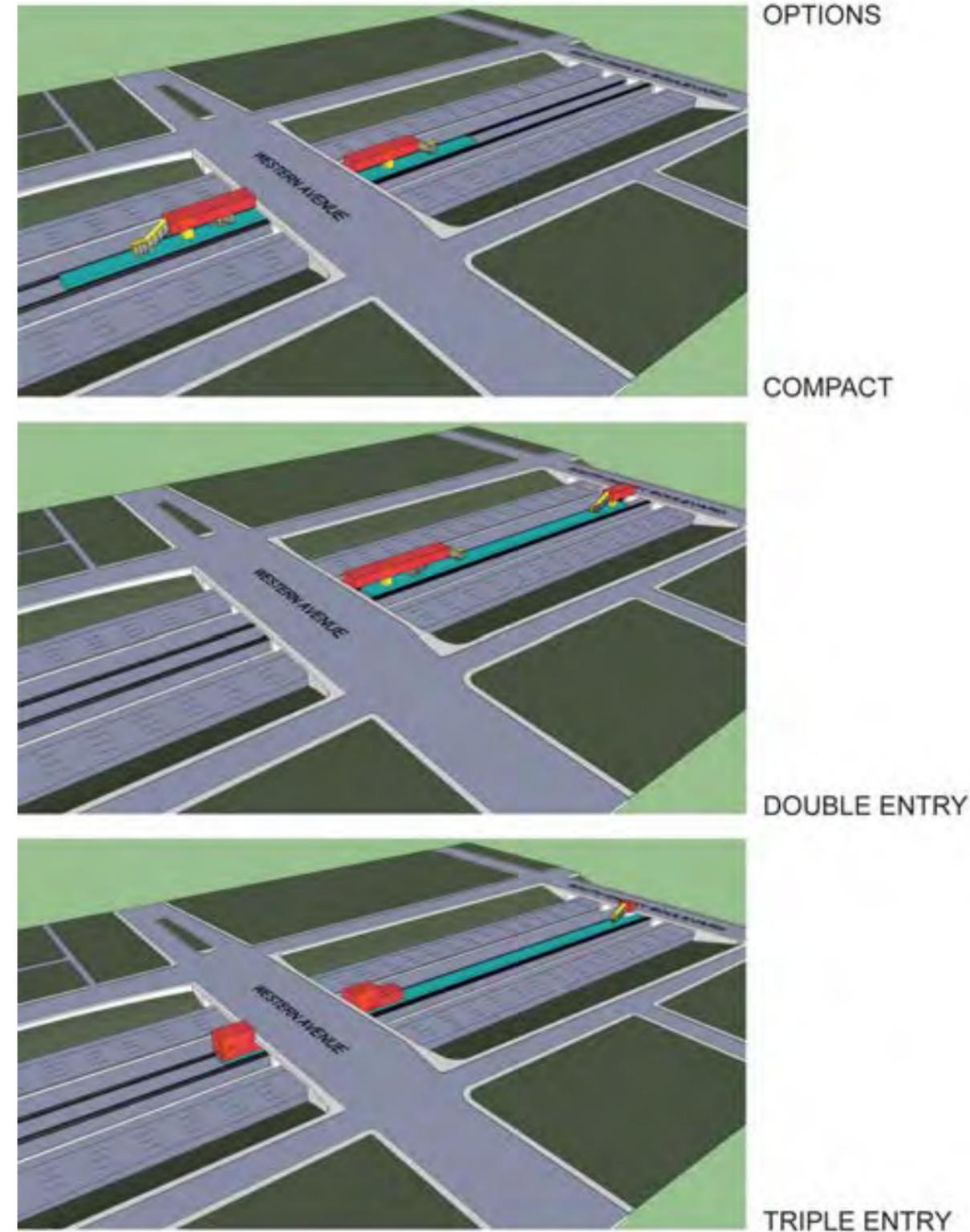
Western Avenue Station House and Platform Plan

WESTERN STATION: ADDITIONAL ANALYSIS

The minimum platform width, 22' 2", is determined by the dimension of the largest structure plus 7' clearances on both sides (CTA Infrastructure Design Criteria Manual, Revision Level 2.3, March 27, 2013, Section 8.3.8.2). The largest structure is the elevator, the minimum dimension of which is 8.2". The CTA's right-of-way width at Western Avenue is 95', which could accommodate all three options.

Any station at Western Avenue would likely need approximately 21' of stair exiting width. This is best accommodated by using three 7' wide stairs. Using only two stairs would result in midpoint handrails and platforms widened by 3' 6" to 25' 8".

Of the three, the compact station option is the best one, considering bus/train transfers, neighborhood connections, initial costs, monitoring, and maintenance. The compact station's higher operating cost (assuming that there would be two station agents) may be justified given the cost of monitoring remote entrances that are part of the other two options. The compact station may also attract higher levels of ridership, assuming better connections with future bus rapid transit service and a greater perception of safety.

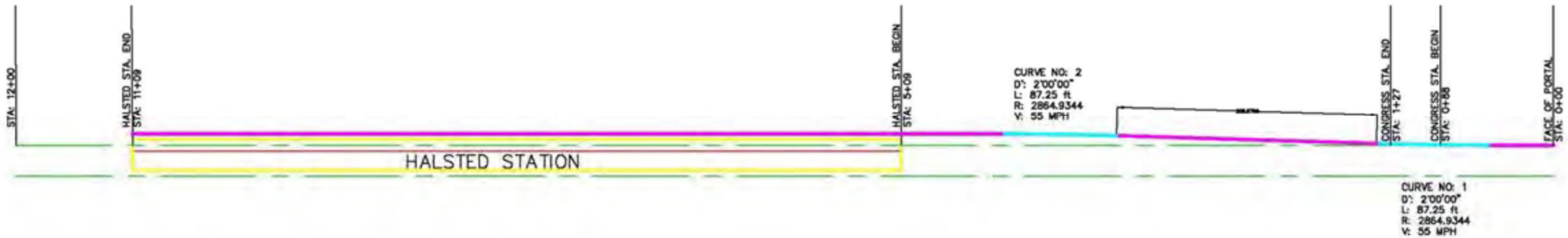


OPTIONS	STREET/BUS CONNECTION	ENTRIES	FARE COLLECTION	ELEVATORS	PLATFORM WIDTH	PLATFORM LENGTH
COMPACT	GOOD	2	2	2	22' 2"	525'
DOUBLE ENTRY	FAIR	2	1	2	22' 2"	525'
TRIPLE ENTRY	POOR	1	1	2	22' 2"	765'



UIC HALSTED STATION: ADDITIONAL ANALYSIS

Analysis was performed to determine track geometry modifications necessary to support widening of the UIC-Halsted platform. Due to the proximity of the east (north) end of the platform to the Dearborn Subway south portal, analysis was performed assuming installation of a 24' wide platform. Approximately 509 feet of track exist between the subway portal and the end of the station platform. Using CTA design guidelines, it appears as though track centers can be widened from 24' 4" (existing) to 33' 2" (to support a 24' platform) by inserting reverse curves with 2,864' radii. These curves, with a design speed of 55 mph, would not reduce allowable train speed in the area. The exercise concluded that track centers could be modified to allow for a 24' wide platform without having a negative impact on train operating speed.



STATION MATERIALS



Jubilee Church, Rome, 2003, Richard Meier & Partners

Precast, Post-Tensioned, Self-Cleaning Concrete:

- 13' x 13' panels
- Installation by crane
- Self-cleaning with photocatalytic titanium oxide
- Lightweight
- Essroc TX Active can be regionally sourced



Italcementi i.lab, Bergamo, Italy, 2012, Richard Meier & Partners

Self-Cleaning Concrete:

- Partially precast
- Self-cleaning with photocatalytic titanium oxide
- Lightweight
- Essroc TX Active can be regionally sourced



Perot Museum of Nature and Science, Dallas, 2013, Morphosis

Precast Concrete Cladding, Structural Steel:

- 8' x 30' panels
- Incorporates recycled material
- Lightweight
- Low-cost maintenance and long service life



Absorbing/Attenuating Sound with Concrete:

- Concrete can act as an acoustic barrier
- With increased porosity, i.e., if sandblasted, concrete can absorb noise
- Concrete can also absorb noise with surface modulations, such as ribs



Sound-Absorbing Concrete:

SoundSorb is integrated with structural precast concrete during production
Concrete Solutions' SoundSorb - can be regionally sourced



St. Pancras International, London, Renovation 2007

Self-Cleaning Glass:

Titanium dioxide degrades organic material through photocatalysis
Titanium dioxide causes water to sheet, evenly removing dirt



Robson Square Ice Rink, Vancouver, Renovation 2010, Clive Grout Architects

Self-Cleaning Glass:

Up to 6' wide
Titanium dioxide degrades organic material through photocatalysis
Titanium dioxide causes water to sheet, evenly removing dirt
Pilkington Activ can be regionally sourced

NEIGHBORHOOD CONNECTIONS

Part of the vision for the Blue Line is that the stations be integrated into their neighborhoods and connect with existing and proposed transportation networks, including public transit and cycling. In this section, the networks are identified, as are different typical street conditions (see the diagram, *Street Types/Neighborhood Connections*, below). Proposed alternative improvements for each condition are developed below.

Existing Conditions

Transportation Networks: Buses, Trains, Pedestrians, Bicycles, and Cars

Eight of the twelve open stations (Oak Park, Austin, Pulaski, Kedzie-Homan, Western, Illinois Medical District, UIC-Halsted, and Clinton) connect to the current or proposed bicycle network and to other public transit lines. Of course, all Blue Line stations, open or closed, can be reached by foot or private motor vehicle.

All stations, open or closed, except Racine, cross bus lines. Western Avenue's line is planned to be upgraded to "bus rapid transit" (BRT), a faster service that could include fewer stops, signal prioritization, dedicated travel lanes, and/or fare prepayment. While not currently served by a station, the Blue Line crosses Ashland Avenue (between Illinois Medical District and Racine stations), which is also planned to have BRT.

The Blue Line crosses the Pink at the Illinois Medical District station. This could be the location of a future transfer point between the two lines. Clinton Station also crosses what could be a future subway line running along that street.

Of the 12 open stations, nine (Oak Park, Austin, Pulaski, Kedzie-Homan, Western, Illinois Medical District, Racine, UIC-Halsted, and Clinton) open onto current or future bicycle routes and lanes. Of these, four (Illinois Medical District, Racine, UIC-Halsted, and Clinton) are also near current or planned Divvy locations (Chicago's bicycle sharing system).

Street Conditions

The primary differences between the stations' siting, especially for the 13 (including the three closed ones) that are located next to the I-290 right-of-way, are the width of streets and the presence of a highway interchange.

Two Lane Streets or Bridges

Four stations (Austin, Cicero, Pulaski, and UIC-Halsted) have secondary station houses fronting on a bridge (Cicero and UIC-Halsted) or a two lane street. These conditions would be the easiest for pedestrians to navigate. In all four cases, these station houses do not connect to bus lines. Three of them (all but Cicero) connect to a bike lane, route, or sharing system. At two locations (Cicero and Pulaski), the secondary station houses are closed.

Four and Five Lane Streets away from Interchanges

The primary station house at six locations (Oak Park, Pulaski, Kedzie-Homan, California, Illinois Medical District, and Clinton) front on streets that are four or five lanes wide. This category does not include streets of this width that also have highway exits or entrances. Streets of this width, while typical for arterials in Chicago, are not optimal for pedestrian use.

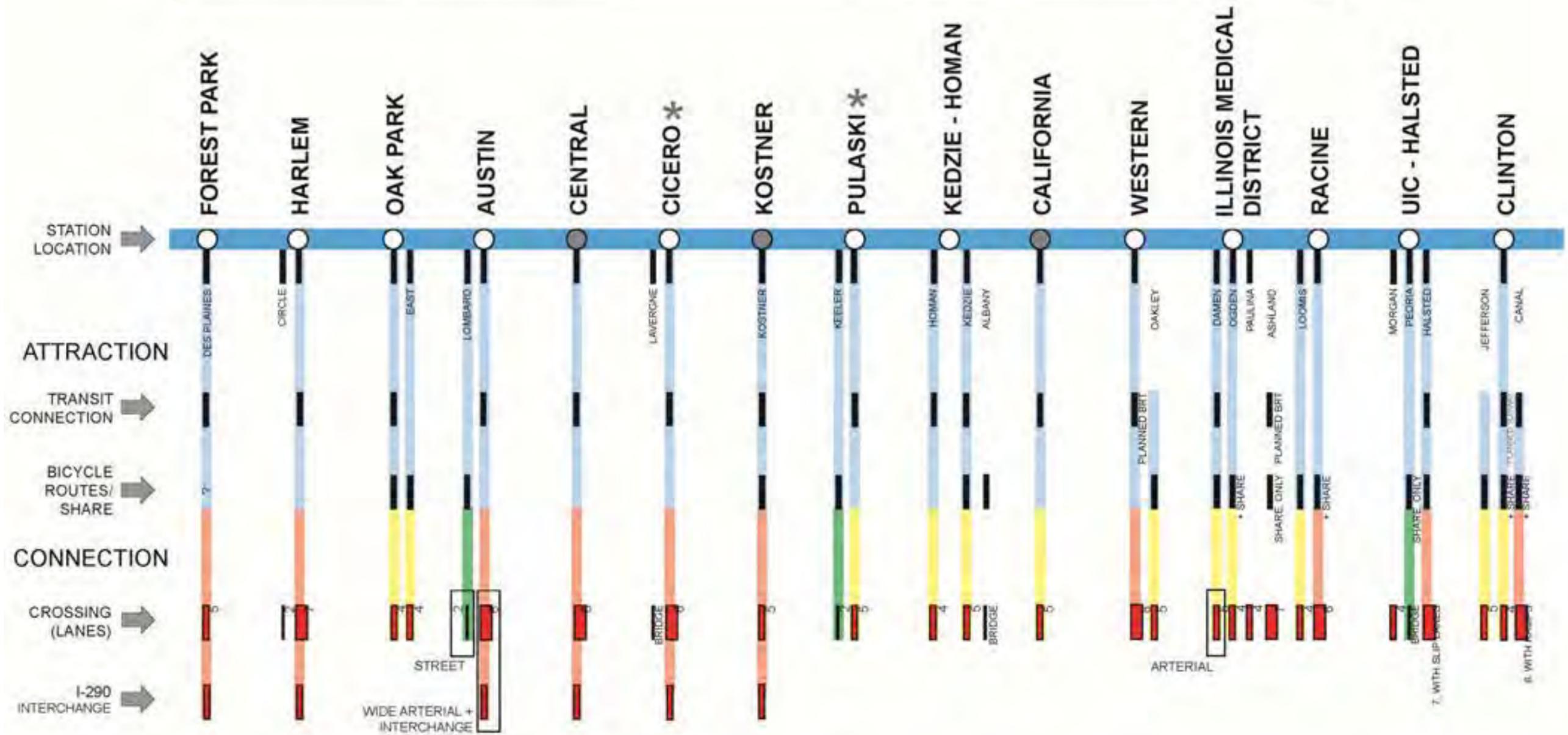
Wider Streets and Five Lane Streets Near Interchanges

The primary entrance for nine stations (Forest Park, Harlem, Austin, Central, Cicero, Kostner, Western, Racine, and UIC-Halsted) is on streets that are at least five lanes wide. Six of these (all but Western, Racine, and UIC-Halsted) require crossing a highway entrance or exit ramp to reach the station.

Special care must be taken to accommodate pedestrians where street widths, traffic volumes, or turning speeds may be great. People walking and bicycling will be accommodated at all entrances. Bicycle racks, for parking, will be installed at all entrances. Bus transfers will continue to be accommodated at the primary entrances.

STREET TYPES/NEIGHBORHOOD CONNECTIONS:

- ATTRACTION
- BARRIER
- IMPROVE (MOST)
- IMPROVE
- REASONABLE
- CLOSED STATION
- * STATION HOUSE ENTRY / EXIT CLOSED



Highway Decking and Urban Fabric

Highways, such as the Eisenhower, routed through existing neighborhoods can degrade the urban environment, especially at crossing points. A way to improve the environment is to expand or add decks over the highway. The choice of deck uses and how extensive they are depends upon the desired goals. Are they: Improving the experience for passers-by? Providing more commercial or other built space? Providing parks or other outdoor space? Providing parking?

Deck Size

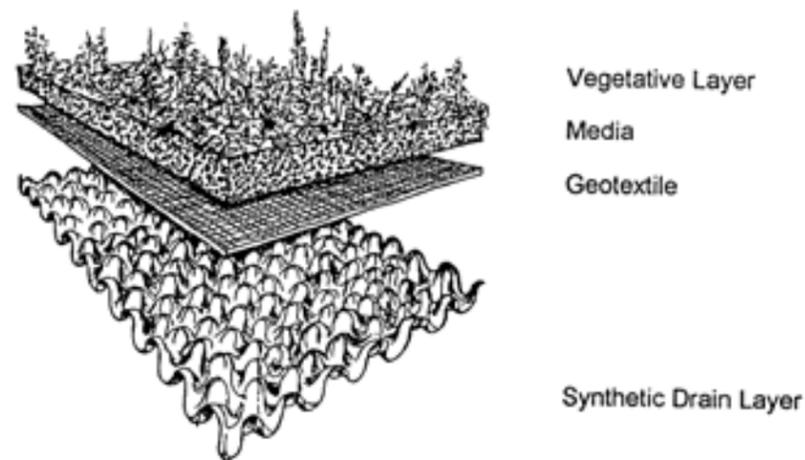
Optimal uses for decks depend upon their size and deck size is affected by the constraints of the highway below and available funding. A 15 – 20 foot wide area would be acceptable for minimal landscaping and urban design improvements. For structures, a 50 foot wide area seems to be the minimum required. For usable and programmable outdoor space, a full city block (approximately 300 feet) is desirable. Space much narrower than this may result in an area that is too small to be pleasant or adequately removed from the highway (Mark Banta, Amber Hawkes, and Michael Nilsson, "The ABCs of Cap (Lid) Parks" (presented at the American Planning Association national conference, Atlanta, Georgia, April 28, 2014).

Deck Uses

Beyond transportation, there are three potential uses for a deck over a highway: **Landscaping and park space**; **buildings**, whether for commercial or other uses; and **parking**. The most significant differences between the three uses are the effect they have on the urban fabric and the cost of construction. Higher load uses (such as buildings) would require more robust structure than lower load uses (landscaping).

Landscaping and Park Space

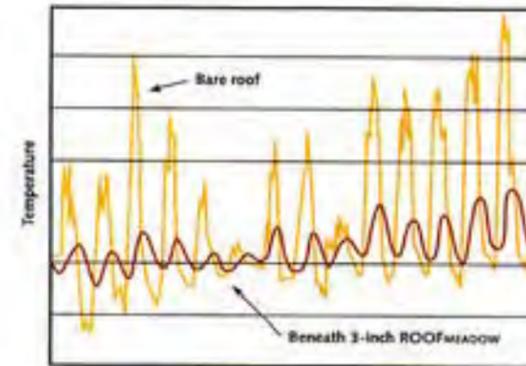
A landscaped deck is comparable to a green roof. It consists of three layers: A subsurface drainage system; growth media; and plant material. The weight of the system is based on the desired type of landscaping.



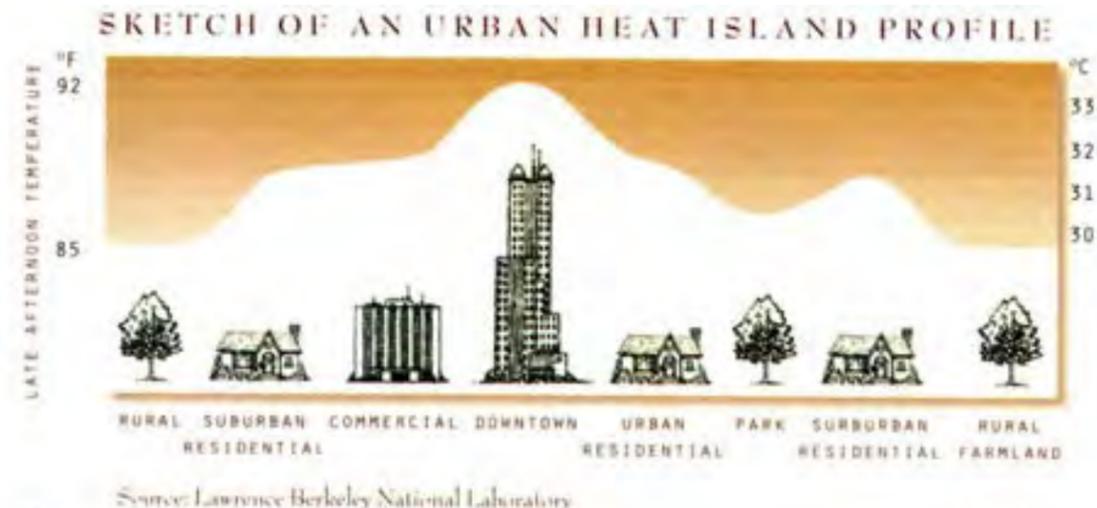
There are four general landscape options:

- Light-weight, no traffic landscaping, 2 – 6” of media, 15 lbs. saturated. Native, drought-tolerant, low-maintenance plants can be used;
- Lawn, 6” medium, 15-20 lbs. saturated;
- Perennials, grasses, 25-35 lbs. saturated. This type of landscape may require irrigation, weeding, and a more robust structural system; and
- Trees. Especially to maintain a shallow profile with increased weight, the structure may include pre-stressed concrete.

Benefits: In contrast to a traditional deck, a landscaped deck can improve drainage for the highway below. The planting media absorbs storm water, then releases it slowly. This reduces the peak flow from a storm. Compared to a typical highway deck, landscaping reduces damage that can result from temperature extremes.



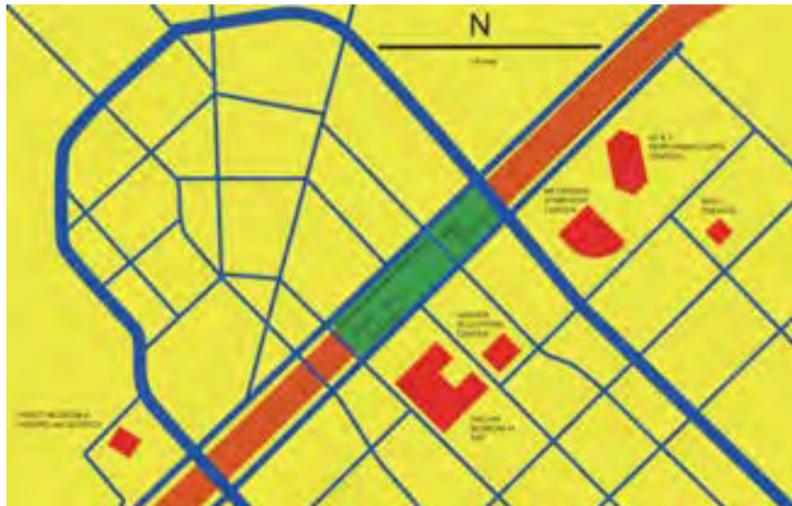
A related benefit that would be of value to residents and CTA customers is the reduction of the heat-island effect that results from a concentration of hardscapes.



Precedents

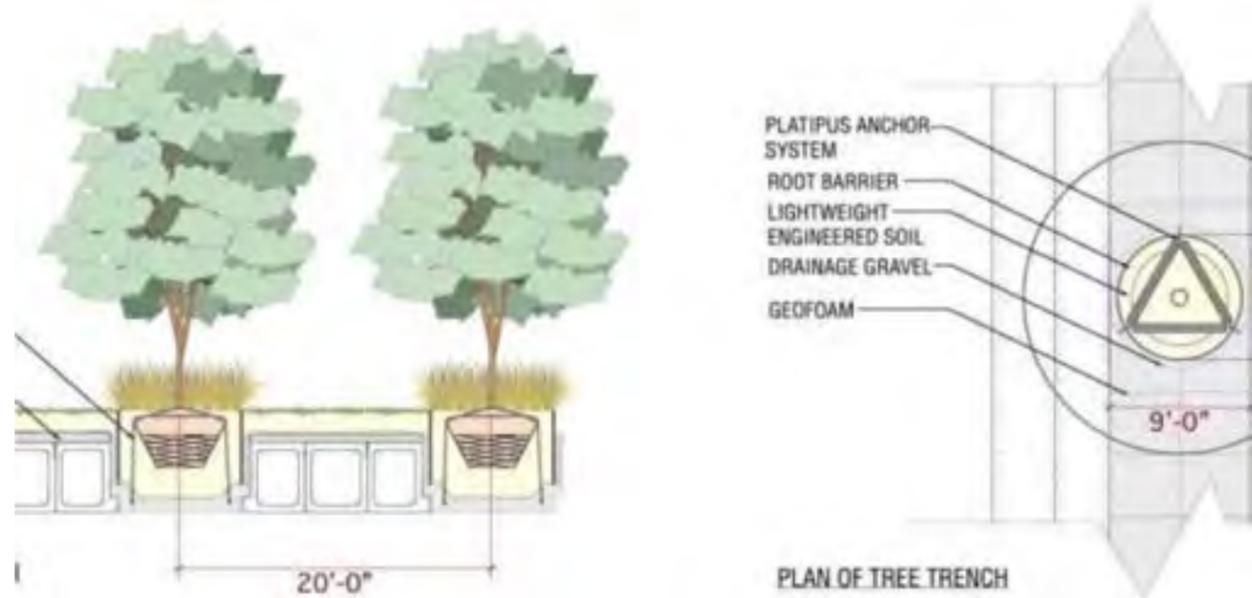
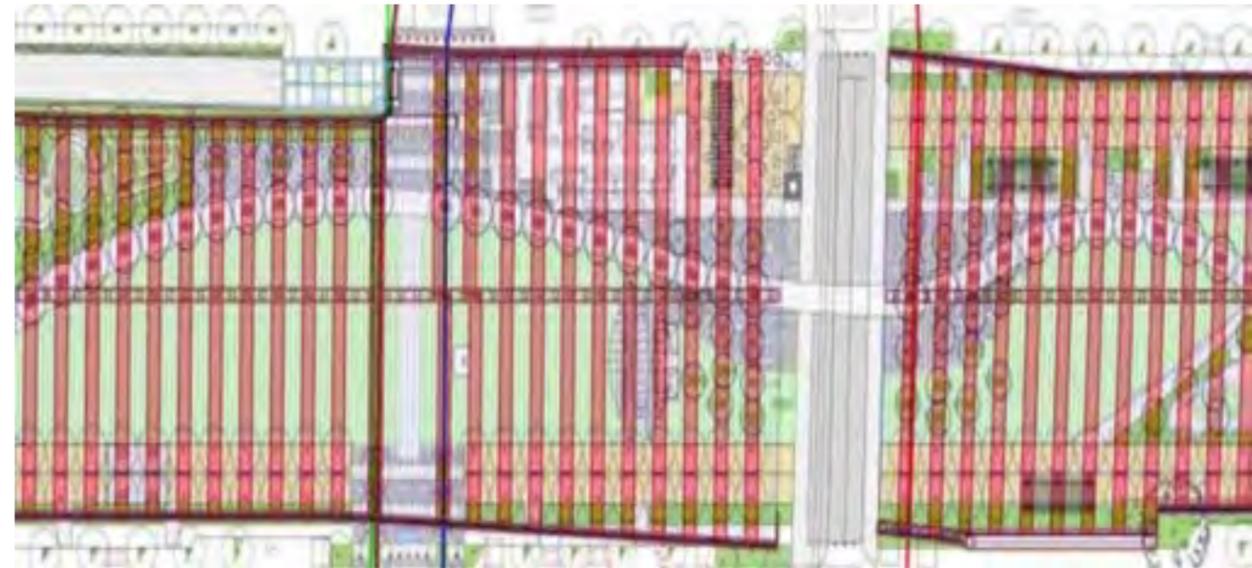
Klyde Warren Park, Dallas
Large deck; primarily landscaped
Completed: 2012
Cost: \$110million/total
\$22 million/acre

The Woodall Rodgers Freeway makes an edge along Dallas’ central business district, separating the architecturally and urbanistically noteworthy Arts District from Uptown and other mixed-use neighborhoods to the north. Klyde Warren Park is, in part, an attempt to mend the city’s fabric. Opened in late 2012, the park covers three blocks of below-grade limited-access highway. More than 1,000 feet in length, Klyde Warren Park is landscaped and has mostly incidental structures. The one notable exception is an approximately 200 foot by 70 foot one-story restaurant that lines one side of one block of the park.

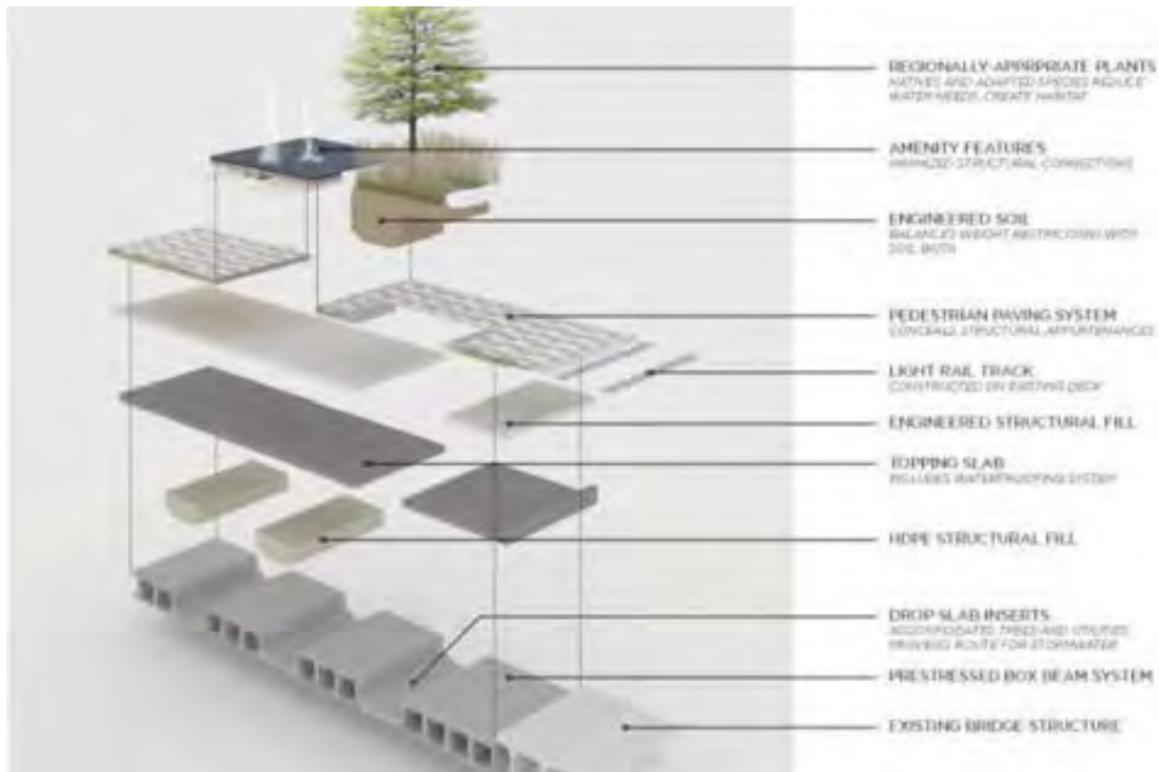


Klyde Warren Park in Dallas (above) and looking northeast (Andrew Vesselinovitch)

With a goal of supporting trees, the depth of the structure was minimized and the volume of media maximized. Klyde Warren Park uses a beam – trench system, combining prestressed concrete box beams with drop slab inserts. The trenches are approximately 5 feet in depth.



Concrete beams and planting troughs in plan (above) and detail (“The ABCs of Cap (Lid) Parks”)



Klyde Warren Park deck structure ("The ABCs of Cap (Lid) Parks")

Southfield and Oak Park, Michigan, Decks over I-696
Large deck; landscaped
Completed: 1991

Three landscaped caps cover I-696 in Southfield and Oak Park, Michigan. Each extends along approximately 700 feet of the interstate.



Landscaped caps in Southfield (on the left) and Oak Park (center and right), Michigan (Google Earth).



View on cap from Church Street, Oak Park, Michigan (Google Street View)

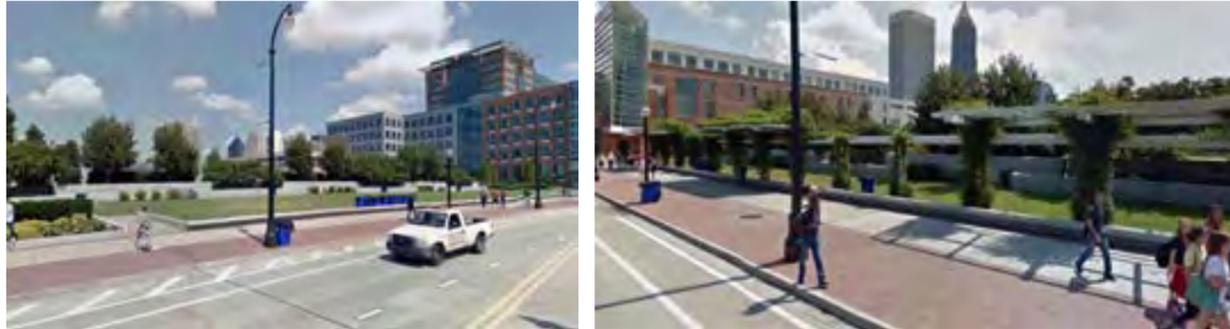
Fifth Street Bridge, Atlanta
Medium deck; landscaped
Completed: 2006
Cost: \$10 million/total
\$7.7 million/acre (gross), \$13 million/\$9.8 acre (net sidewalk and landscaping)



Fifth Street bridge over I-85, Atlanta (Google Earth)

The Fifth Street Bridge crosses over I-85 and connects the Georgia Institute of Technology's main with its east campus, as well as with Atlanta's Midtown. The bridge, which is approximately 223 feet wide, consists of a 48 foot wide roadway, 24 foot wide sidewalks on both sides, as well as approximately 75 feet of landscape to the north and 50' to the south. In addition to seating and

planting, the planting beds are elevated to block views of the highway. The beds range in height from 18 inches to 9 feet. (Jim Aitken, Clements, Mike, and Schmitz Tim, "Fifth Street Pedestrian Plaza Bridge", *Aspire*, Winter 2008). The structure used is 74 inch deep prestressed concrete beams. The Fifth Street is a two-span bridge.



Fifth Street bridge, view north east (left) and southeast (Google Street View)

Buildings

One could build adequately large structures to be reasonably usable on decks 50' deep or deeper. The deck supporting the structure could be separate from the one carrying motor vehicle traffic and pedestrians.

Benefits: There are three reasons to add buildings to a deck over a highway. One may be a high demand for buildable land. The additional cost of building a deck over a highway that can support buildings may be financially justified where there is little available vacant land. The second and third reasons are related. The addition of buildings along the path to a transit station may improve the experience for pedestrians and prospective riders. Urban fabric that predates the building of highways, as is the case in Oak Park and Chicago, can feel "torn" when they are added. The addition of buildings over a highway can mend the tear, improve the environment for residents, and encourage social interaction between people on either side of the road.

Precedents

Cap at Union Station, Columbus, Ohio

Medium deck; built upon

Completed: 2004

Cost: \$7.8 million/total

\$7 million/acre (gross), \$13 million/acre (net leasable space)

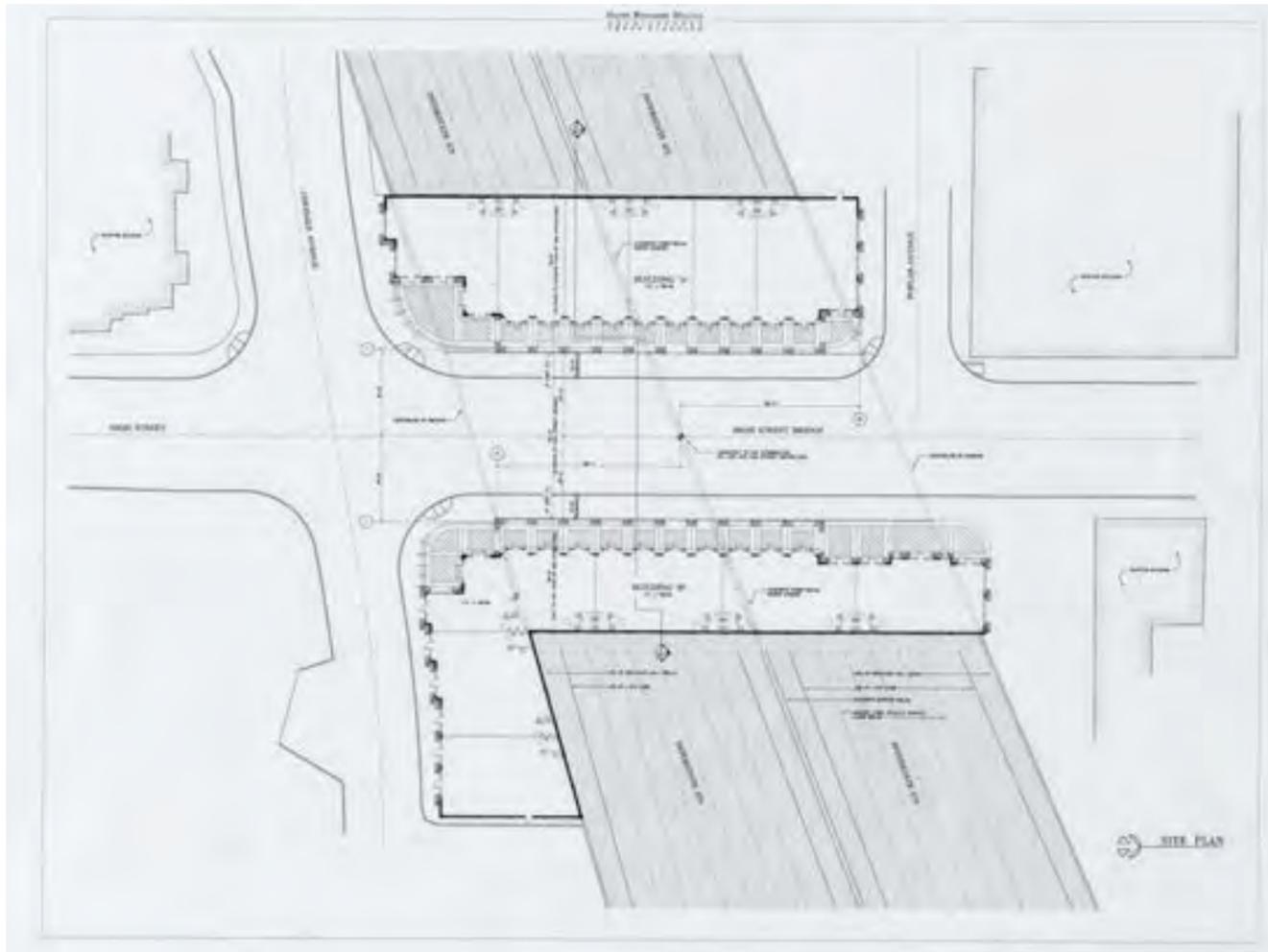
The Cap at Union Station fills a gap in a commercial strip between downtown Columbus and Short North, over I-670. Approximately 50 feet wide to the east and 70 feet to the west of High Street, the decks' dimensions were limited by the changing elevation of the highway below and required minimum clearances. Unlike the Fifth Street bridge in Atlanta, which is one structure, the decks supporting the commercial structures and High Street itself are three separate structures, each able to move independently. The buildings are single floor and have retail tenants. These two retail "bridges" were paid for by a private developer who was able to finance their construction (Urban Land Institute, "Development Case Study C035010: The Cap at Union Station", April – June, 2005).



View along High Street. Sidewalks are a minimum of 12 feet wide (David B. Meleca Architects)



Cap at Union Station is highlighted in red (image, minus highlighting, David B. Meleca Architects)

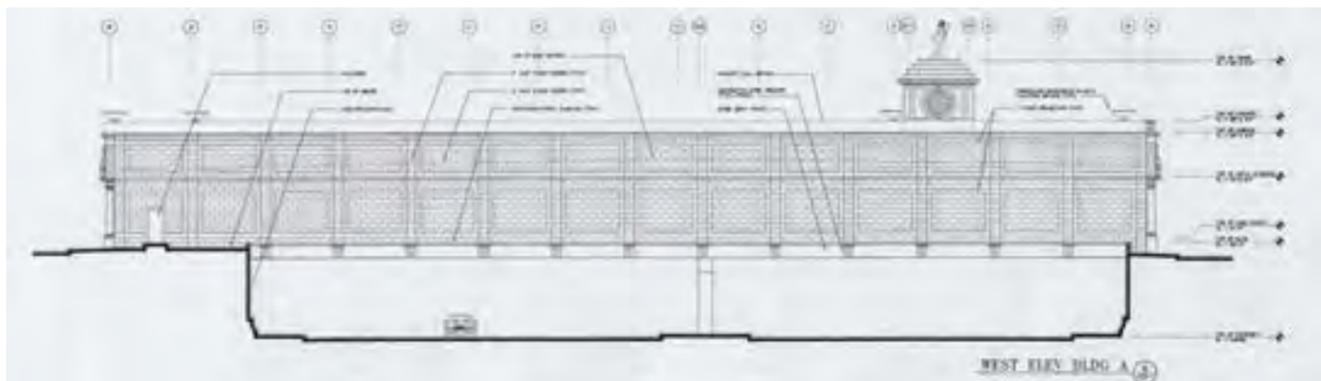


Lytle Park, Cincinnati
Large deck; built upon and landscaped
Completed: 1970

Lytle Park and several buildings occupy a deck over I-71 in Cincinnati. The deck varies in length and is a minimum of approximately 750 feet long. The decking was paid for privately. At the time of completion, Lytle Park was the only park on top of an interstate highway (Kevin Osborne, "Repairs, Enhancements Coming to Lytle Tunnel, Lytle Park in Downtown Cincinnati", *WCPO Digital*, April 12, 2013).



Lytle Park and buildings over I-71, Cincinnati (Google Earth)



Cap at Union Station plan (top) and elevation (David B. Meleca Architects)



Lytle Park and residential building (in middle ground, obscured by trees) over I-71 tunnel (Google Street View)

Parking

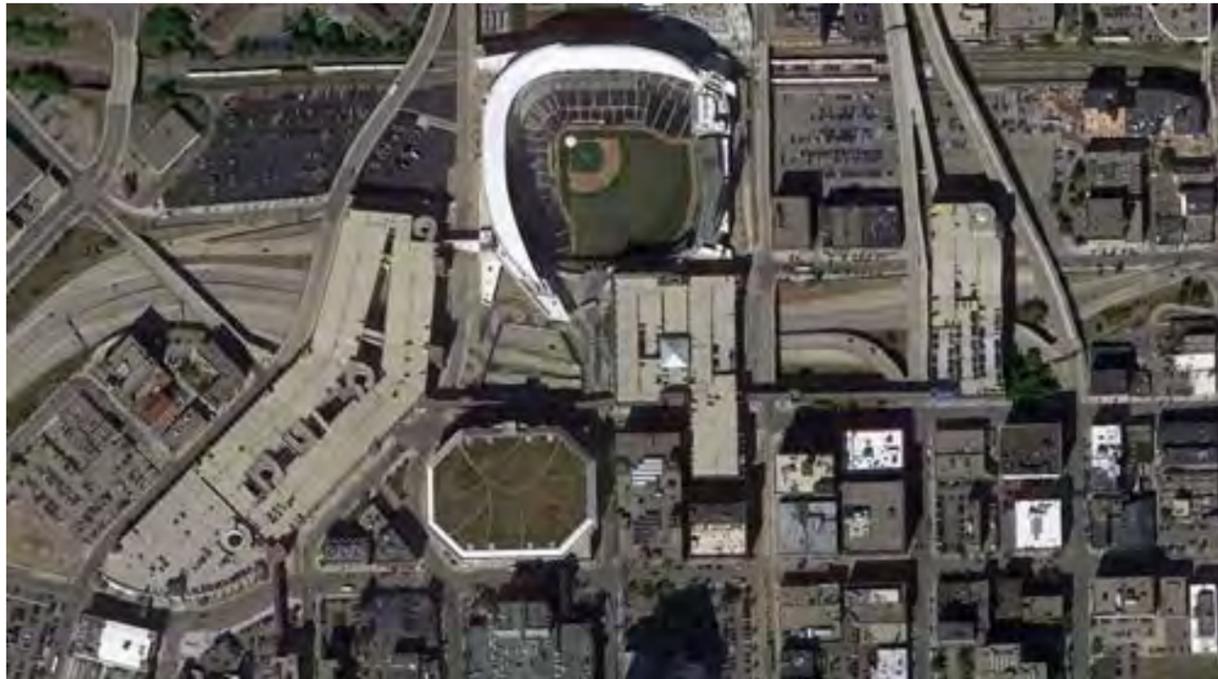
Parking, either surface or in a structure, could be added to a deck over the Eisenhower Expressway.

Benefits: Parking could provide support existing and new transit riders and neighborhood customers.

Precedent:

A, B, and C Ramps Parking, Minneapolis Large deck; built upon

Three parking garages are built over I-394 in Minneapolis, the largest of which covers approximately 8 acres. The smallest covers approximately 200' in addition to the width of the roadway.



From left to right, Ramp A, B, and C parking structures over I-394 (Google Earth)



Ramp C parking structure, which covers the least amount of roadway, looking northeast (Google Street View)

OCTOBER 2013 PUBLIC MEETINGS COMMENTS

Commentator	Comment	Response
1	Reposition Blue Line entrances and stations where passenger capacity exists or can be generated by transit oriented development.	Entrances at Cicero Avenue, Pulaski Road, and, maybe, Western Avenue will be on both sides of those streets to make transfers easier between the Blue Line and bus lines. With the possible exception of Forest Park, the remaining entrances will remain where they are currently located.
2	I like the "compact" station alternative.	The compact station is recommended to be used at Cicero Avenue, Pulaski Road, and Western Avenue to make transfers easier between the Blue Line and bus lines.
	I like the outdoor canopy type like Sox 35 th Street Red Line station.	This type of canopy could be used at Western Avenue if a "double-entry" station is built at that location. It would allow people to cross mid-block on a street that may have bus rapid transit service in the future.
3	Village of Oak Park bridges should be expanded to 300' wide ... best to address bus/car drop off ... safer pedestrian access to stations, and make stations fully Americans with Disabilities Act (ADA) -compliant.	Pedestrians would be better served by the narrowest bridges that can be built. While a wide bridge may be able to provide room for a buffer, it will also likely encourage increased driving speeds. Decks, for park or building use, are being considered at these locations.
4	Have ADA-accessible gates (not rotogates) at unmanned entrances.	ADA-accessible entries should be provided at all rebuilt station entrances.
5	Widen platforms.	Platforms are recommended to be widened at most locations.
	Add a second entrance to the Western Avenue station.	A second entrance is recommended for Western Avenue, both for the convenience of passengers and to improve emergency exiting.
6	Reopen Central Avenue station.	No previously closed stations are recommended to be reopened.
7	Make platforms "wide and ADA accessible".	All rebuilt stations will have ADA-accessible entrances. Platforms are recommended to be widened at most locations.
8	Add park and ride facilities.	Park and ride facilities are available at Forest Park station.
9	At Harlem Avenue, walking should be the highest priority, then biking, then bus access.	This ranking of priorities is generally recommended for all stations.
10	Do not have "compact" stations – they are unsafe	Compact stations are recommended for Cicero Avenue, Pulaski Road, and Western Avenue stations and would be designed to meet emergency exiting requirements. In addition, safety would be improved by having customer traffic concentrated on one street and on shorter platforms. Transfers between the Blue Line and bus lines would also be made easier.
	Add mid-platform pedestrian bridge for "double-entry" stations.	This will not be done due to cost and, more importantly, the creation of long expanses of difficult-to-monitor entrances.
	"Compact" stations: "Eliminating these secondary entrances would increase the distance between station entrances from one-half mile to one mile".	The walking distance between any given point in a neighborhood and a train on the platform is approximately the same for either a "compact" or "double-entry" station. For safety and interest, it would be better to concentrate the approach to the train on the major public right-of-way.