



# **Greater Cleveland Regional Transit Authority**

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## **PLANNING, DESIGN, AND CONSTRUCTION OF THE EUCLID CORRIDOR BUS RAPID TRANSIT PROJECT**

**Michael J. Schipper, P.E  
DGM- Engineering & Project  
Management**

**October 29, 2008**



# Overview

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- **Modal Considerations**
- **Geometric Design Criteria**
- **Typical Sections/Boarding Configurations**
- **Station Design and Amenities**



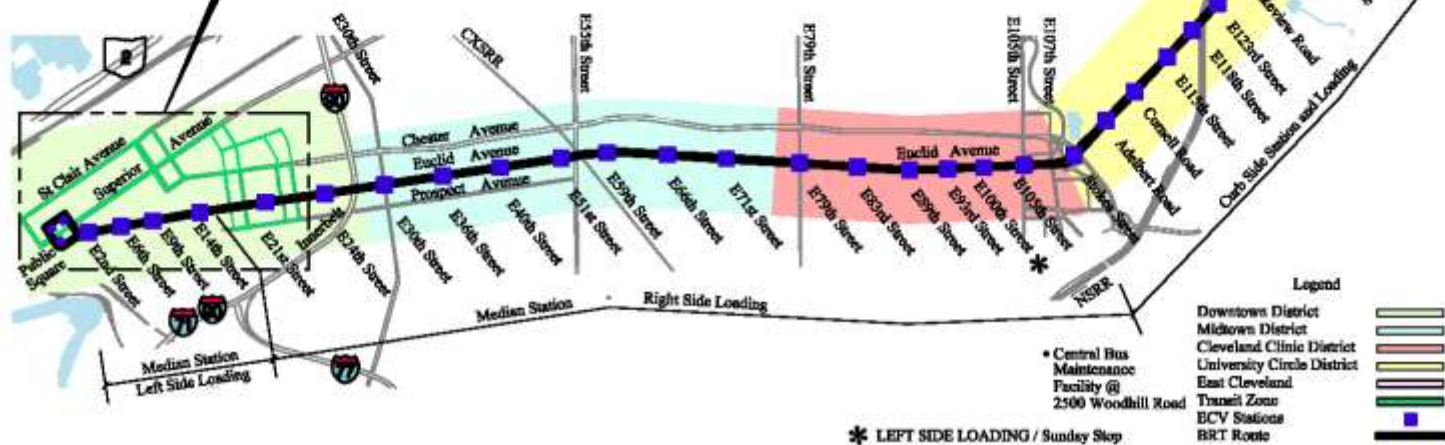
# Project Map

Greater Cleveland Regional Transit Authority (GCRTA)  
Euclid Corridor Transportation Project (BRT)

Project Map

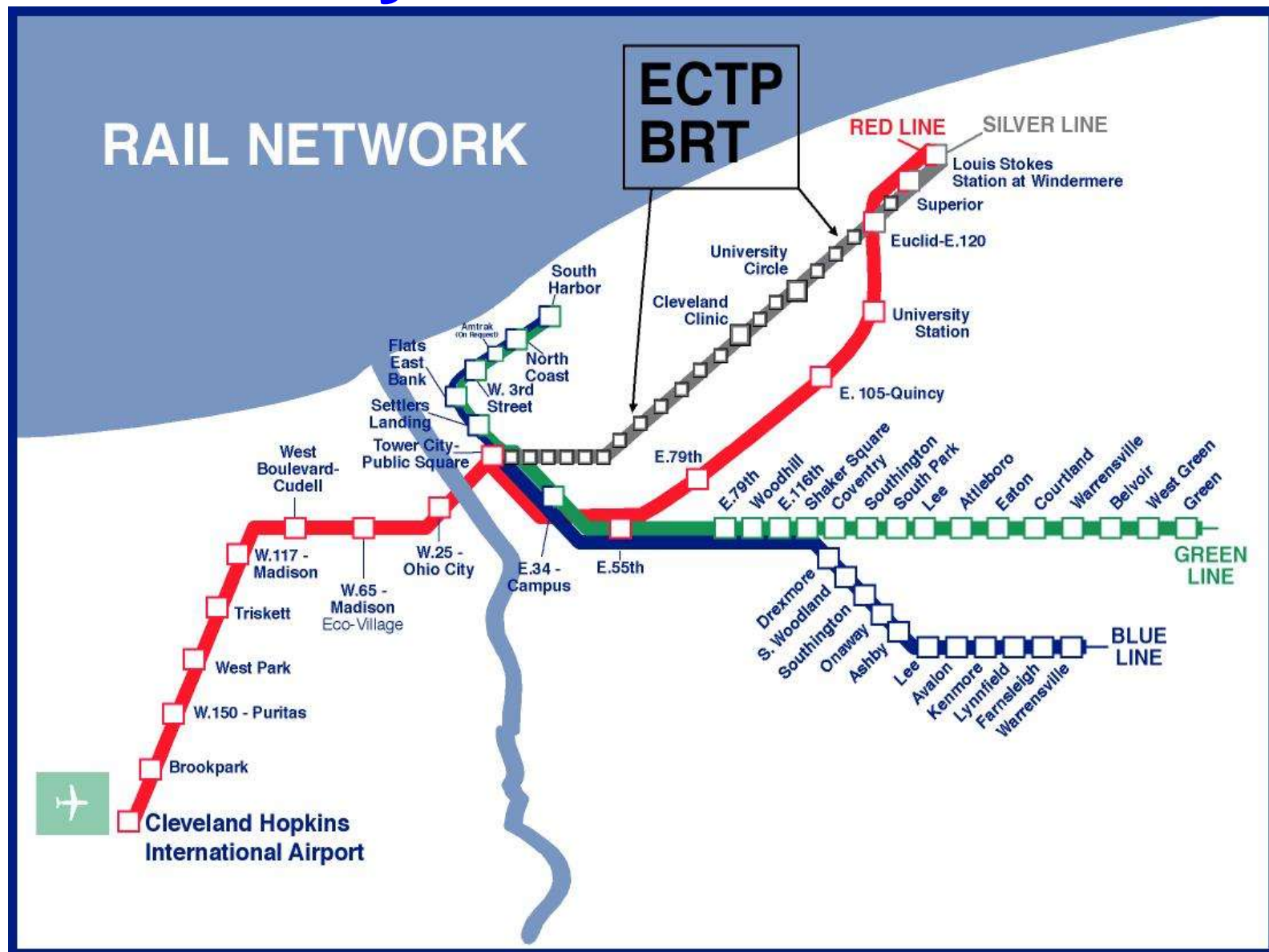


Roadway	Description	Length (Miles)	Exclusive/ Peak Busway (Miles)
<b>Euclid Avenue BRT</b>			
Public Square	Public Square	0.41	0.25
Euclid Avenue	East Roadway to Inerbert	1.25	1.25
Euclid Avenue	Inerbert to E 79th St	1.79	1.79
Euclid Avenue	E 79th St to E 107th St	1.08	1.08
Euclid Avenue	E 107th St to Lakewood Ave	1.28	0.00
Euclid Avenue	Lakewood Ave to Station	1.25	0.00
Euclid Avenue	Windermere RTA Station	1.25	0.00
<b>Euclid Avenue BRT Total</b>		<b>7.07</b>	<b>4.37</b>
<b>Transit Zone</b>			
St. Clair Ave	W 3rd St. to E 13th St.	0.67	0.00 / 0.67
Superior Ave	W 3rd St. to E 18th St.	0.00	0.93
E 12th St	Chester Ave. to Superior Ave.	0.11	0.00
E 13th St	Chester Ave. to Superior Ave.	0.10	0.00
E 17th St	Prospect Ave. to Euclid Ave.	0.09	0.00
E 17th St	Euclid Ave. to Chester Ave.	0.14	0.00
Chester Avenue	E 12th St. to E 13th St.	0.27	0.00
<b>Transit Zone Total</b>		<b>2.31</b>	<b>0.93 / 0.67</b>
<b>PROJECT TOTAL</b>		<b>8.38</b>	<b>5.30 / 0.67</b>



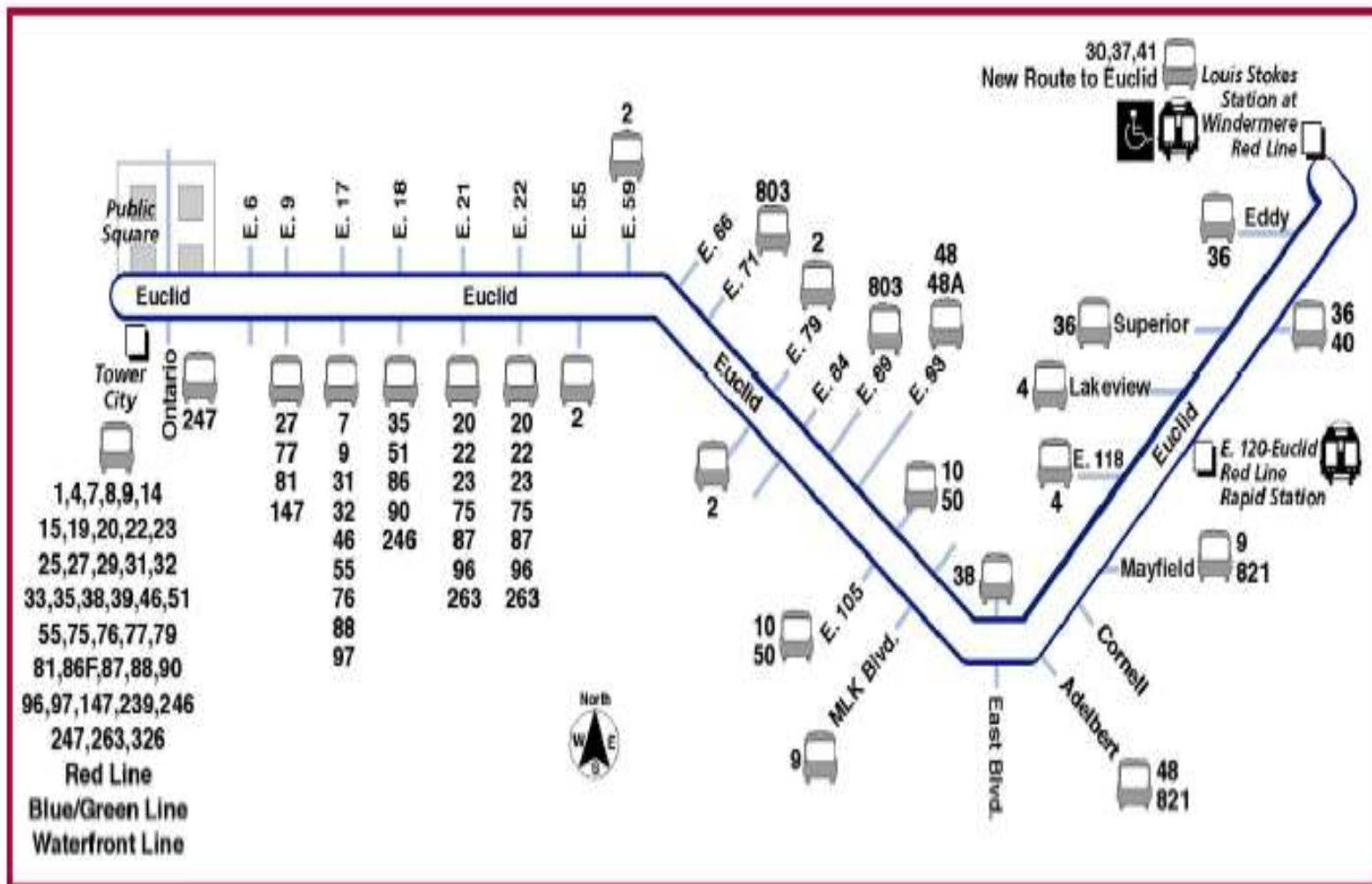


# Transit System Connections





# Transit System Connections





# Modal Considerations

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- **Bus Rapid Transit**
- **General Use Vehicles**
- **Bicycles**
- **Pedestrians**
- **Parking and Deliveries**



# Bus Rapid Transit Features

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- **Near Level Boarding**
- **Enhanced Service Frequency**
- **Off-board Fare Collection**
- **Unique Vehicles**
- **Real-time Passenger Information**
- **Passenger Friendly Waiting Environment**



# Design Criteria

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- **Federal – ADA, Safety Certification, Security Standards**
- **State – ODOT Geometric Design and Construction Specifications**
- **City – Traffic, Lighting, Design Review and Planning Commission, and Other Local Standards**



# Design Criteria

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- **Typical ROW Width – 99 ft**
- **Vehicles Lanes – 12 ft**
- **Transit Lanes – 11 ft**
- **Left Turn Lanes – 10 ft**
- **Shy Distance – 1 ft**
- **Median Width – 4 ft min, 12 ft max**



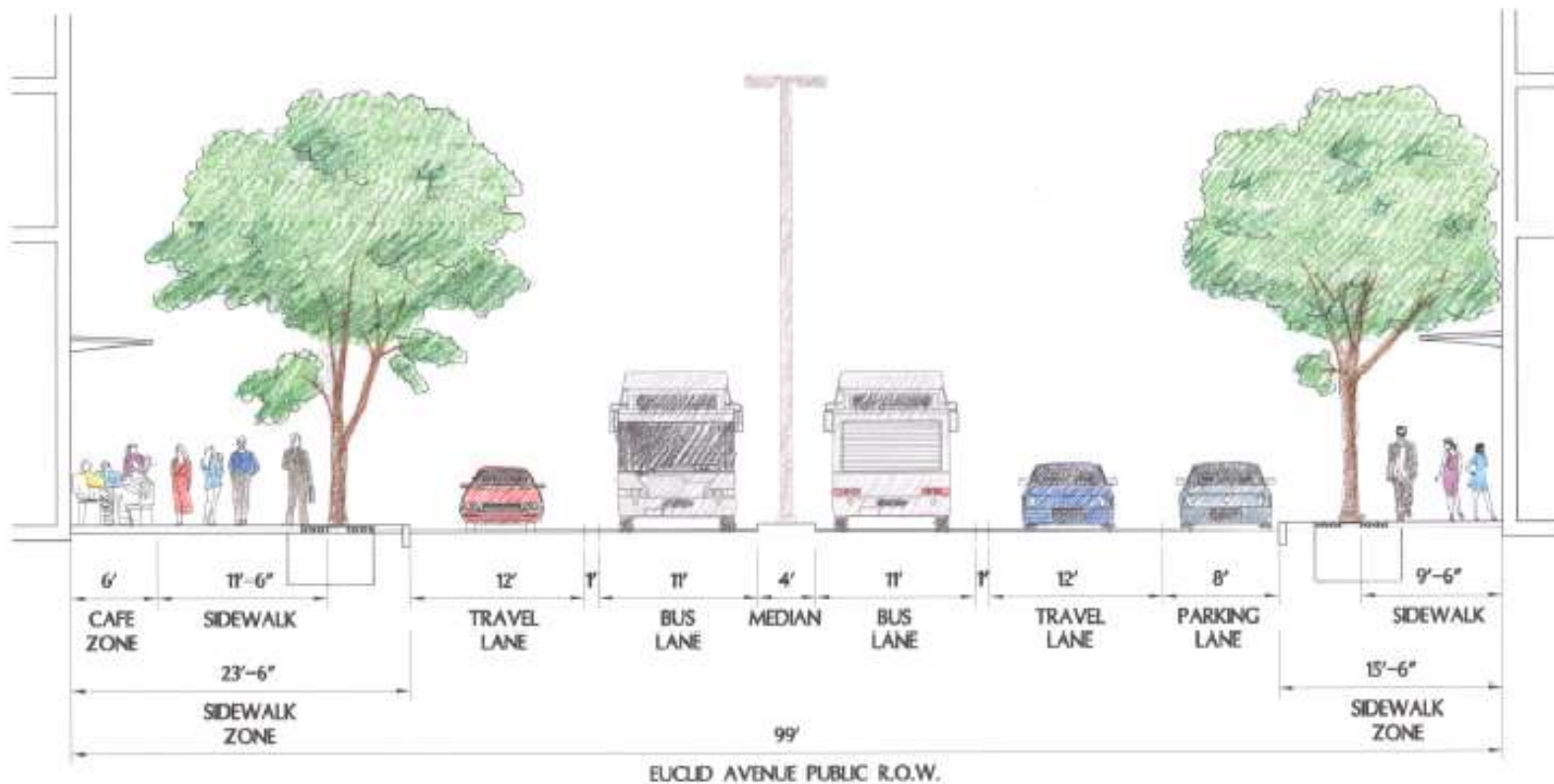
# Design Criteria

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- **Curb to ROW – 11 ft min, 23.5 ft max**
- **Sidewalk Pedestrian Zone – 6 ft min**
- **Parking Bay Width – 8 ft**
- **Bike Lanes – 5 ft**
- **Platform Width – 12 ft**



# Typical Section Lower Euclid

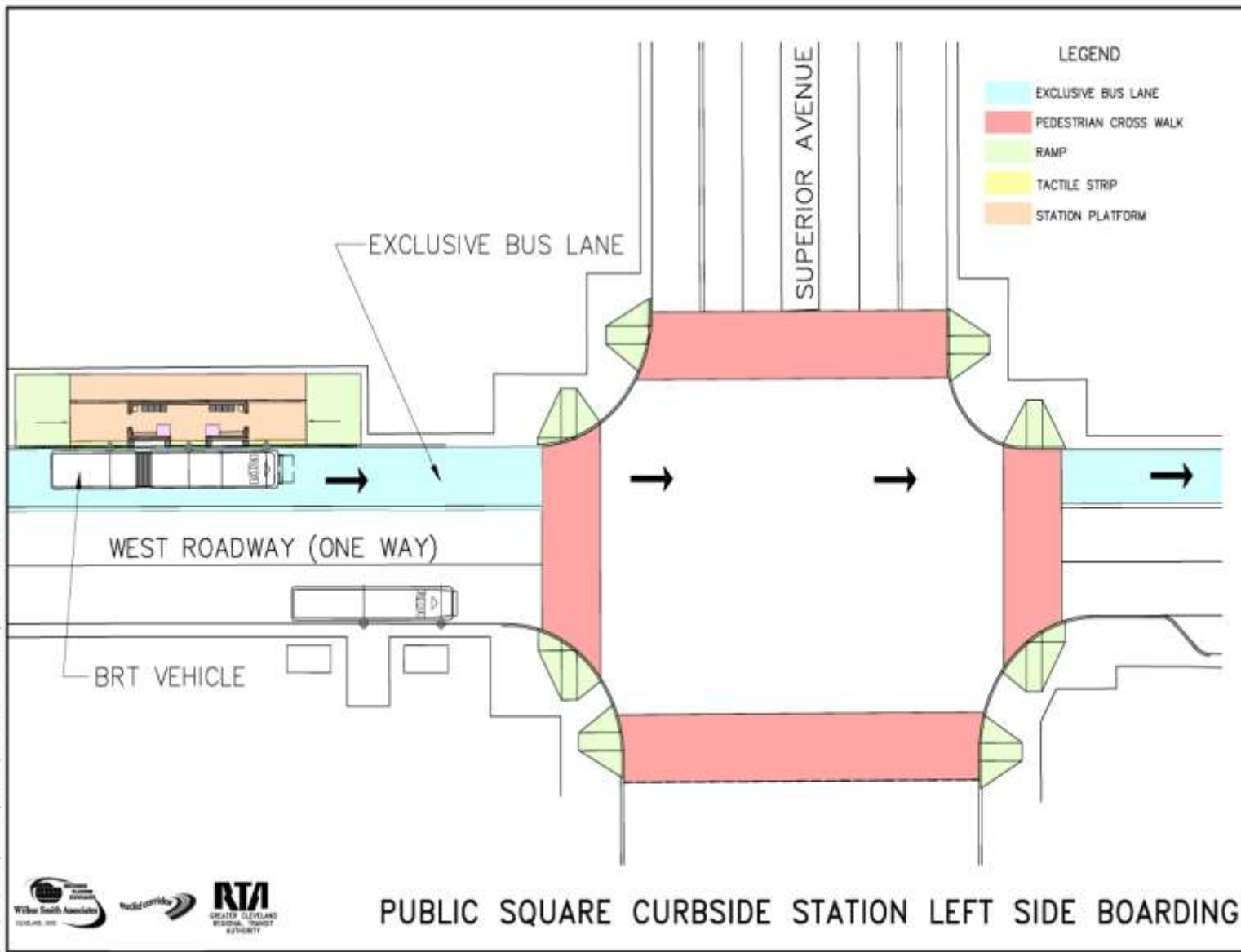


DOWNTOWN/CSU DISTRICT  
SECTION WITH ONE-SIDE PARKING

4 Scale: 1/8"=7'-0"



# Public Square Left Side



12 - 6130041/0000000/0000000/0000000/0000000 - Rev. 12 Jul 2020 - 10:00



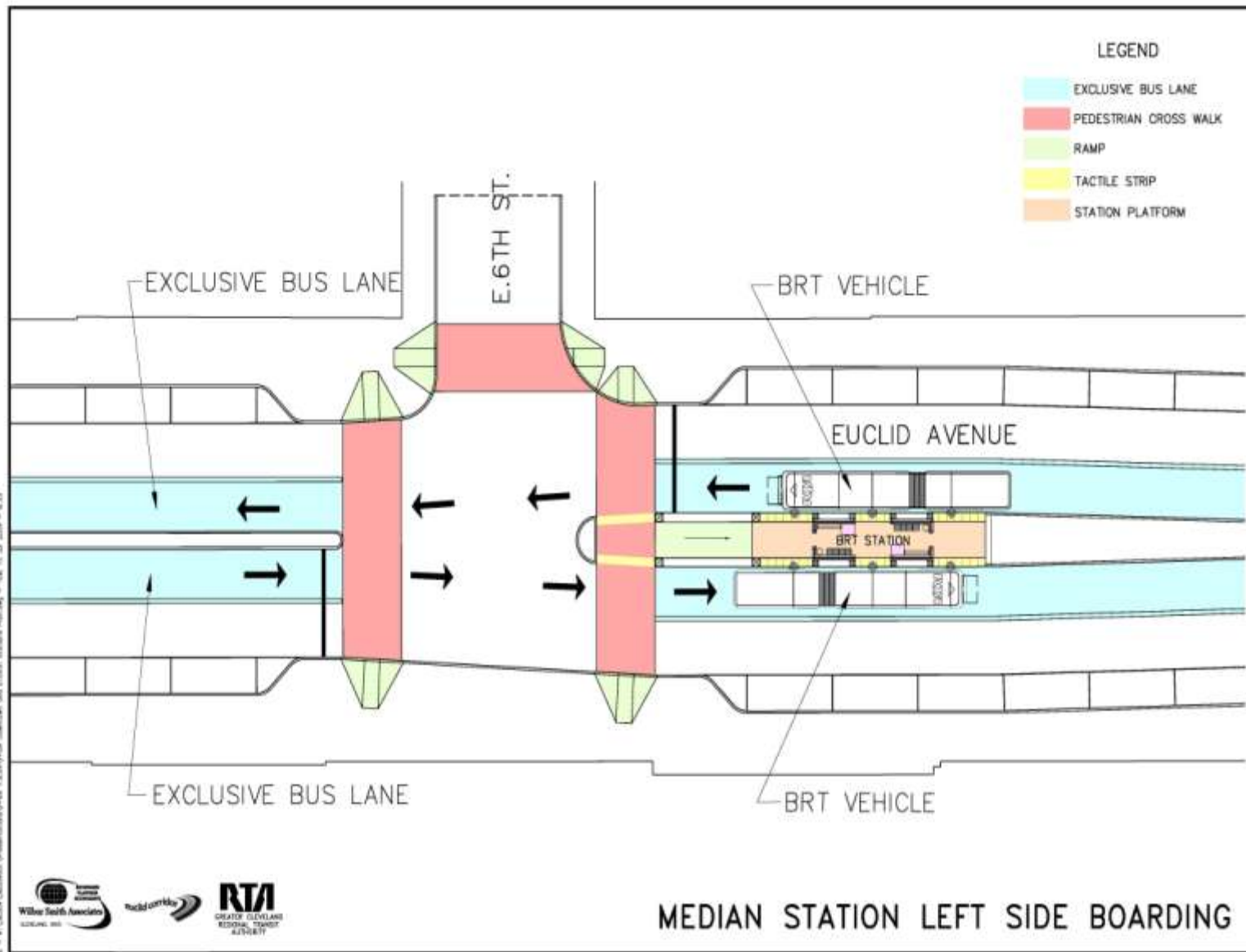


# Public Square/Lower Euclid





# Median Station Left Side





# Lower Euclid





# Lower Euclid





# Lower Euclid





# Lower Euclid



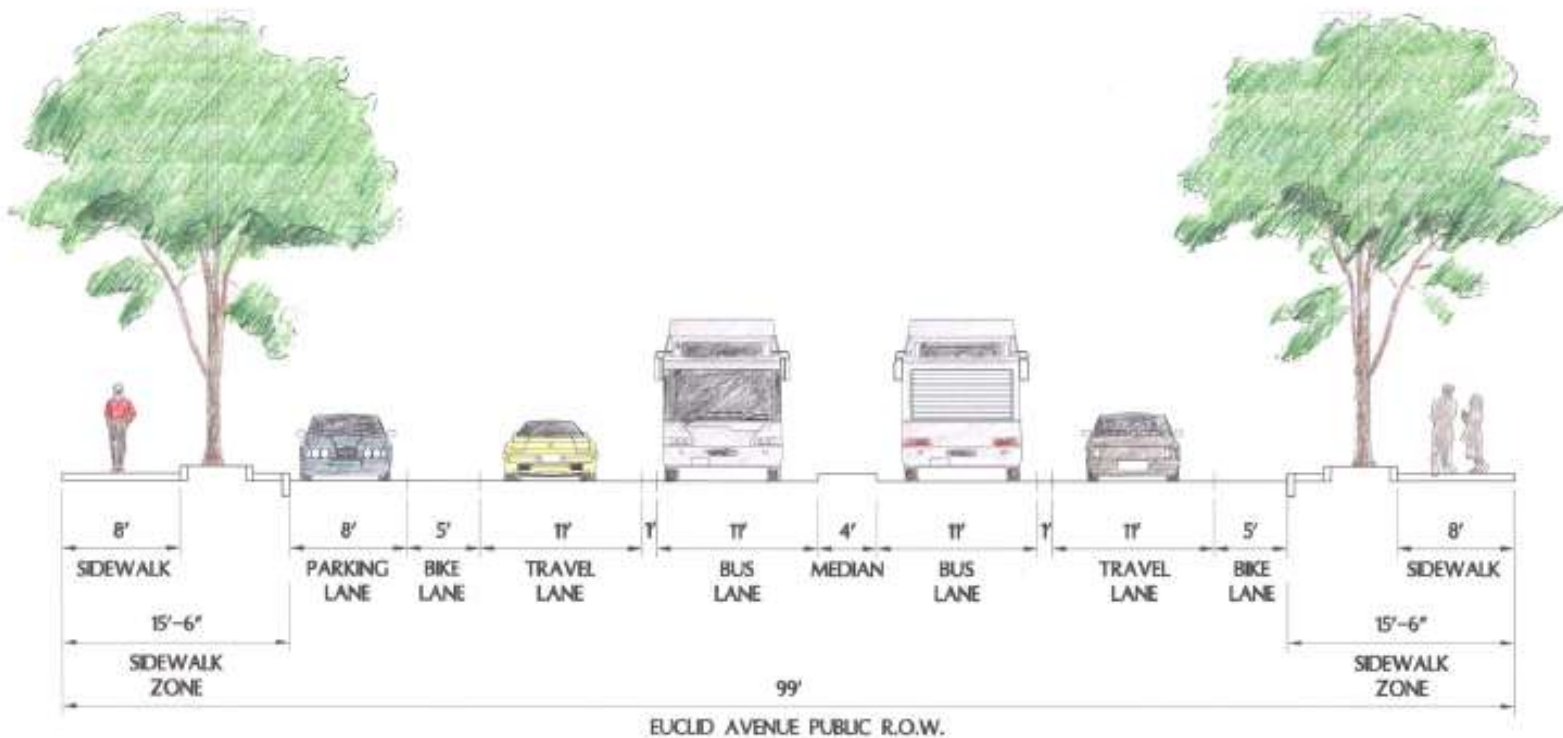


# Lower Euclid





# Typical Section Midtown

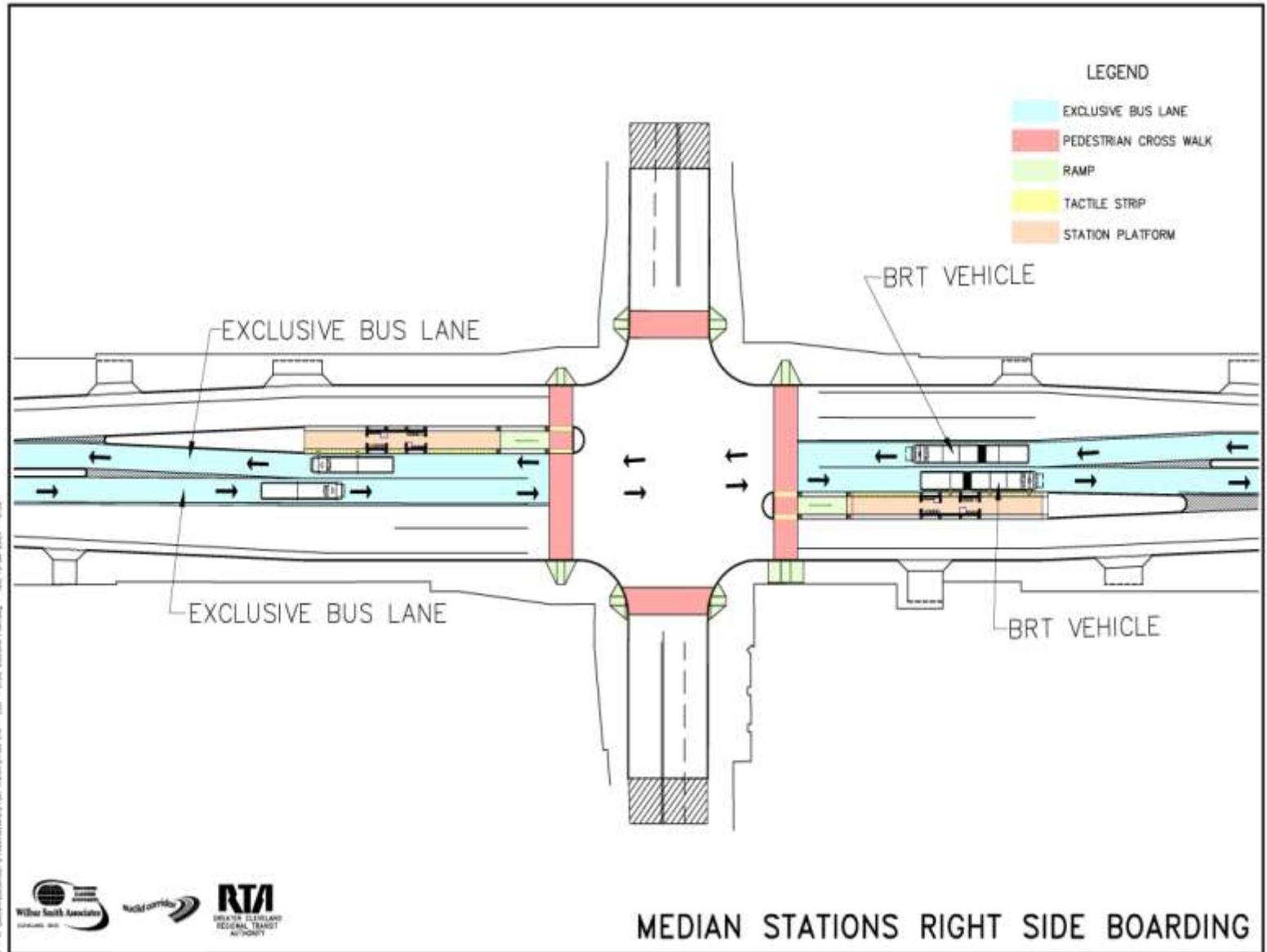


MIDTOWN WEST DISTRICT  
SECTION WITH ONE-SIDE PARKING

5 Scale: 1/8"=1'-0"



# Median Station Right Side





# Midtown



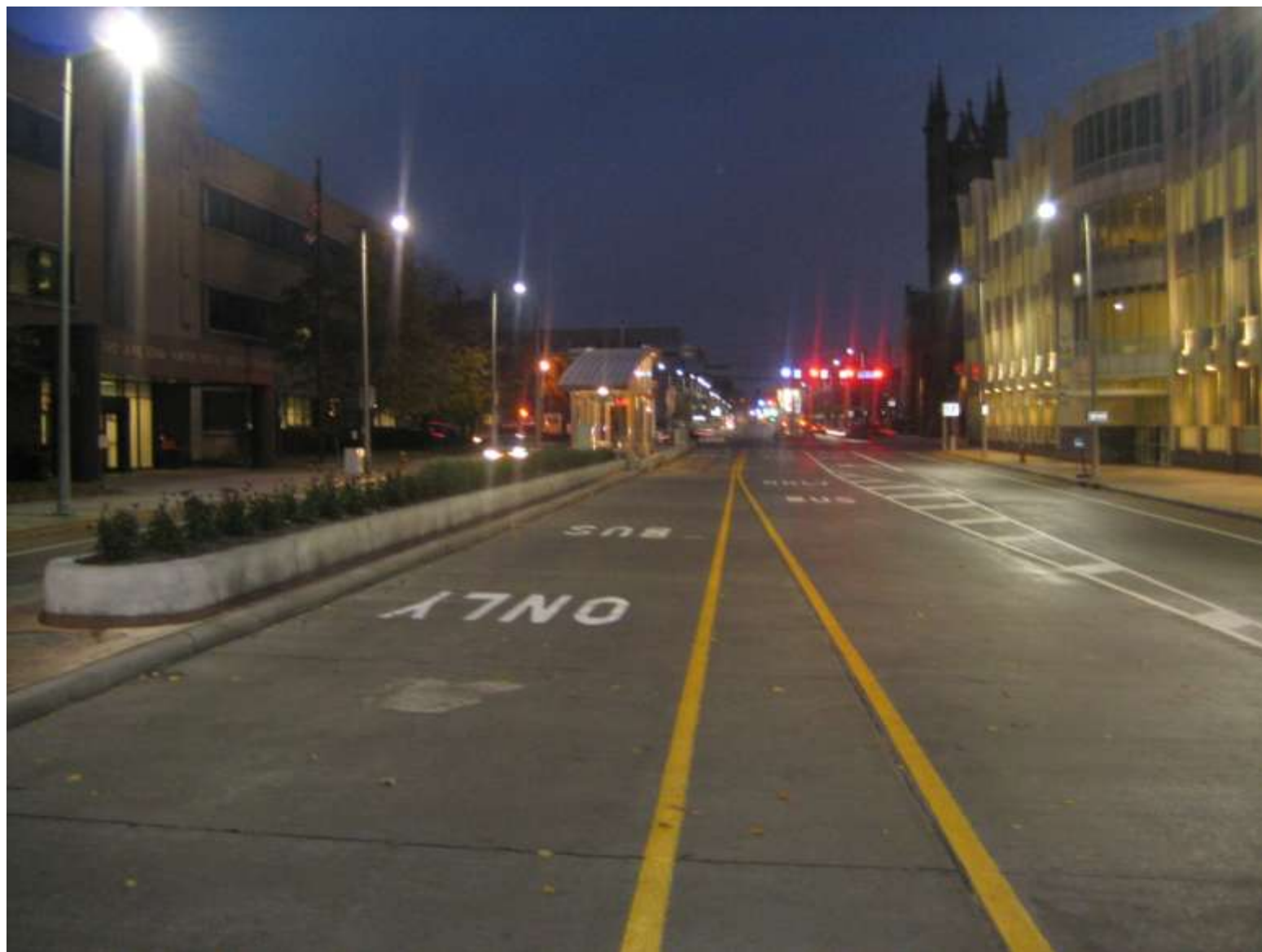


# Midtown





# Midtown





# Midtown





# Midtown



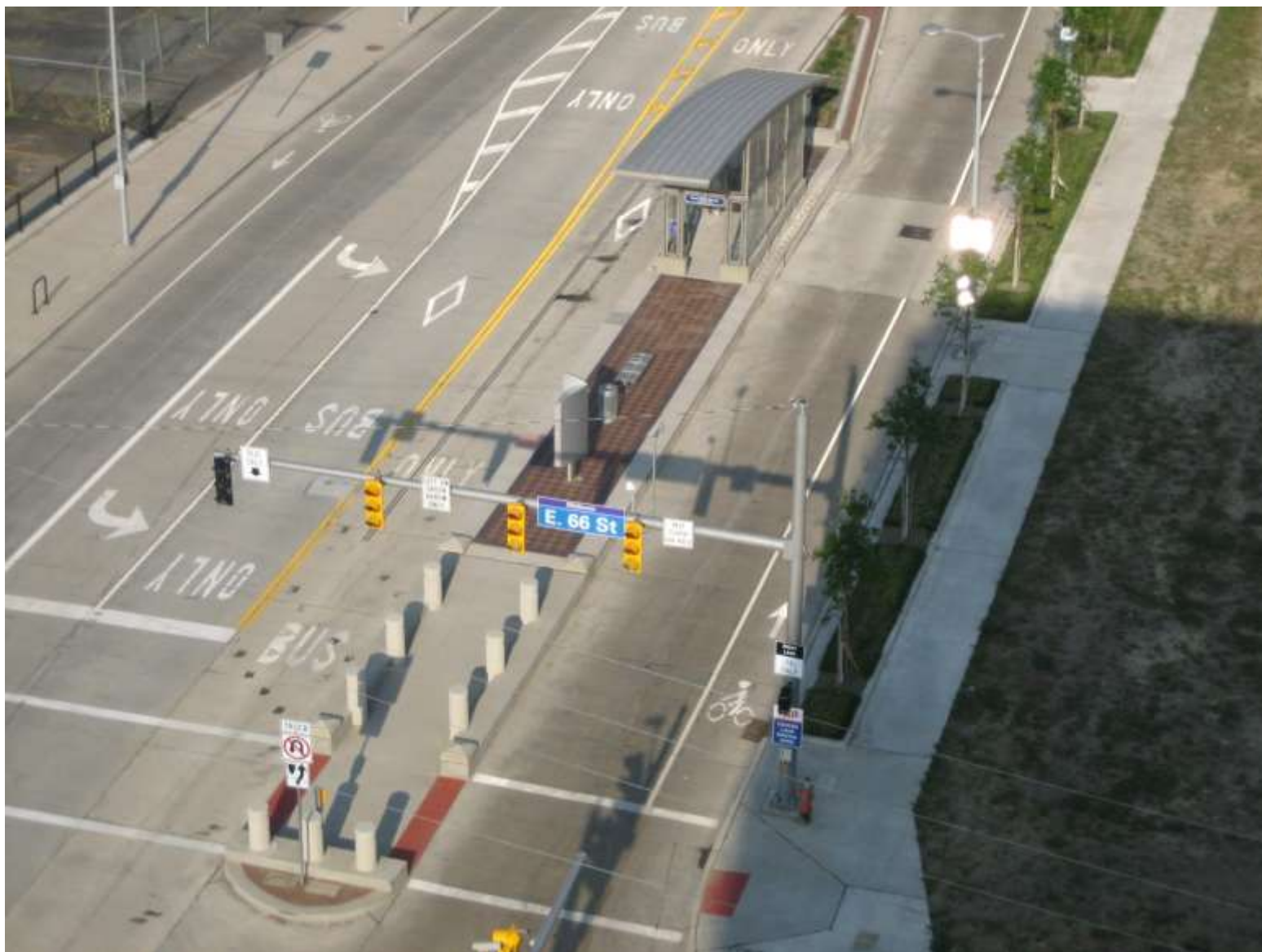


# Midtown





# Midtown





# Median Station Right Side



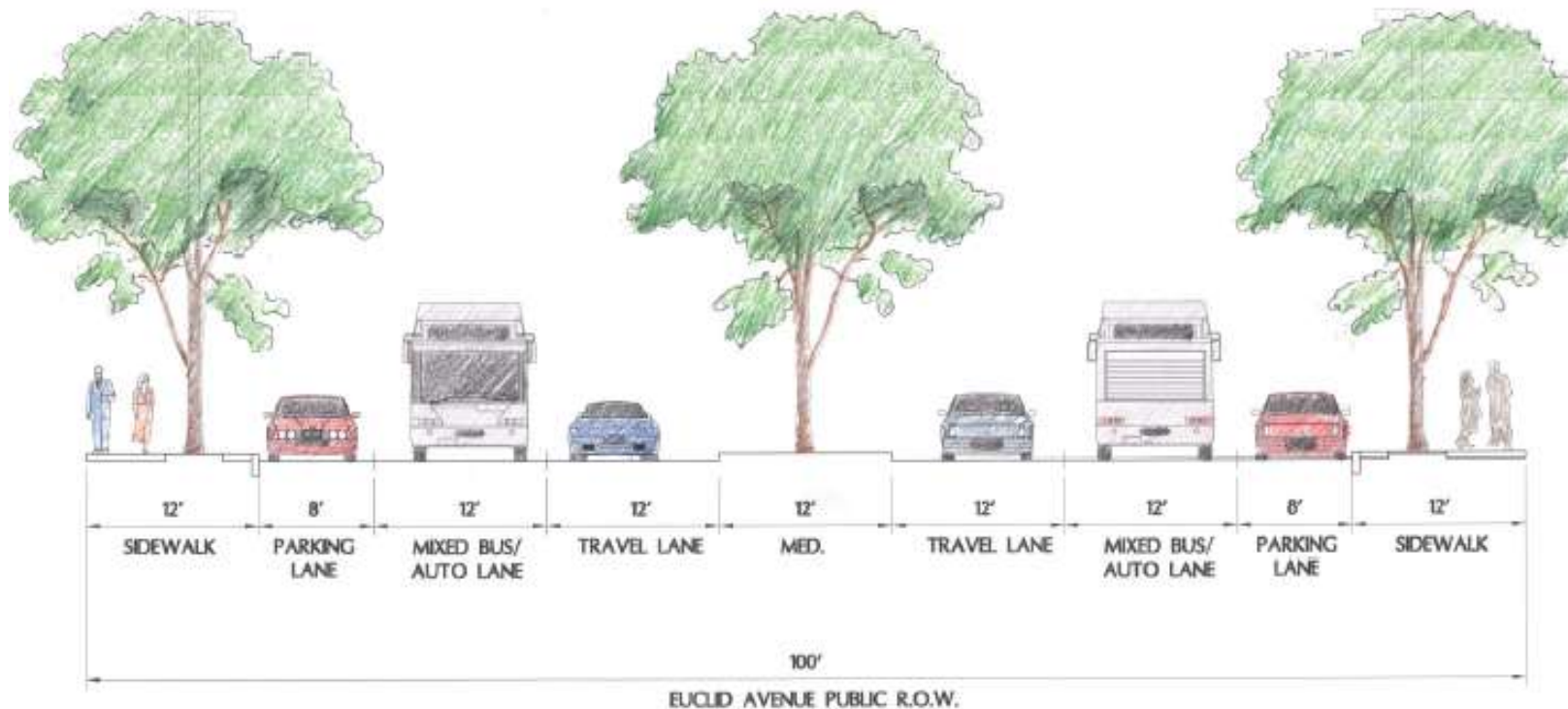


# Median Station Right Side





# Typical Section University Cir.

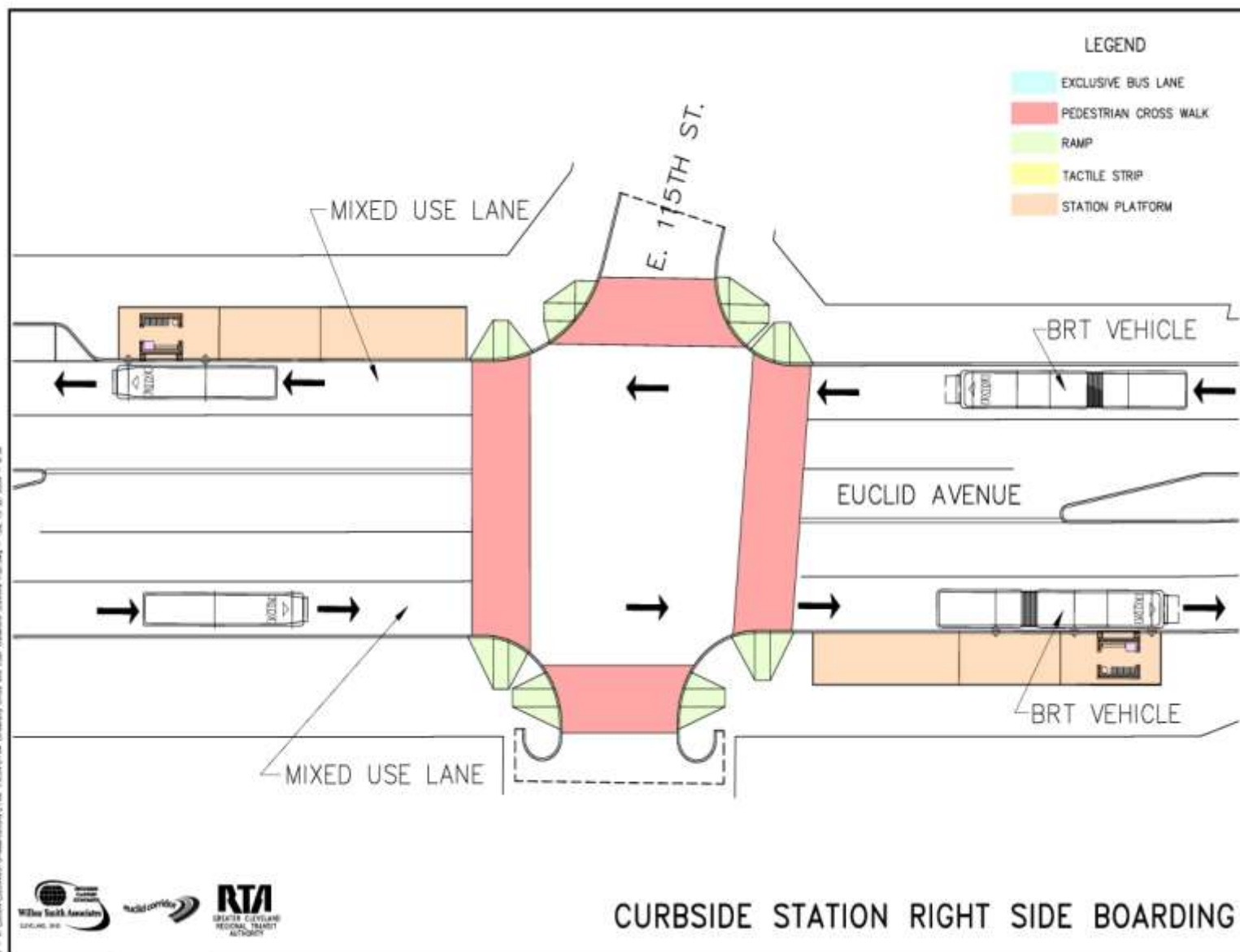


UNIVERSITY CIRCLE DISTRICT  
SECTION WITH ON-STREET PARKING BOTH SIDES

15 Scale: 1/8"=1'-0"



# Curbside Right Side





# University Circle





# University Circle





# Station Design

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- **62 Stops @ 36 Stations**
- **3 Unique Station Designs**
- **Public Square/Lower Euclid**
- **Midtown**
- **University Circle/East Cleveland**
- **A316 Stainless Steel and Glass**
- **Modular Base Design**



# Station Features

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- **Attractive**
- **Easily Accessible Fast-Loading**
- **Near Level Boarding**
- **ADA Compliant**
- **Conveniently Located**
- **Integrated Into The Community**



# Station Features

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- **Fare Vending Machines**
- **Emergency Phones**
- **CCTV**
- **Real-time Passenger Information**
- **Passenger-Friendly Waiting Environment**
- **Benches and Lean Bars**



# Public Square/Lower Euclid





# Public Square/Lower Euclid





# Midtown Stations





# Midtown Stations





# Curbside Stations





# Curbside Stations





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