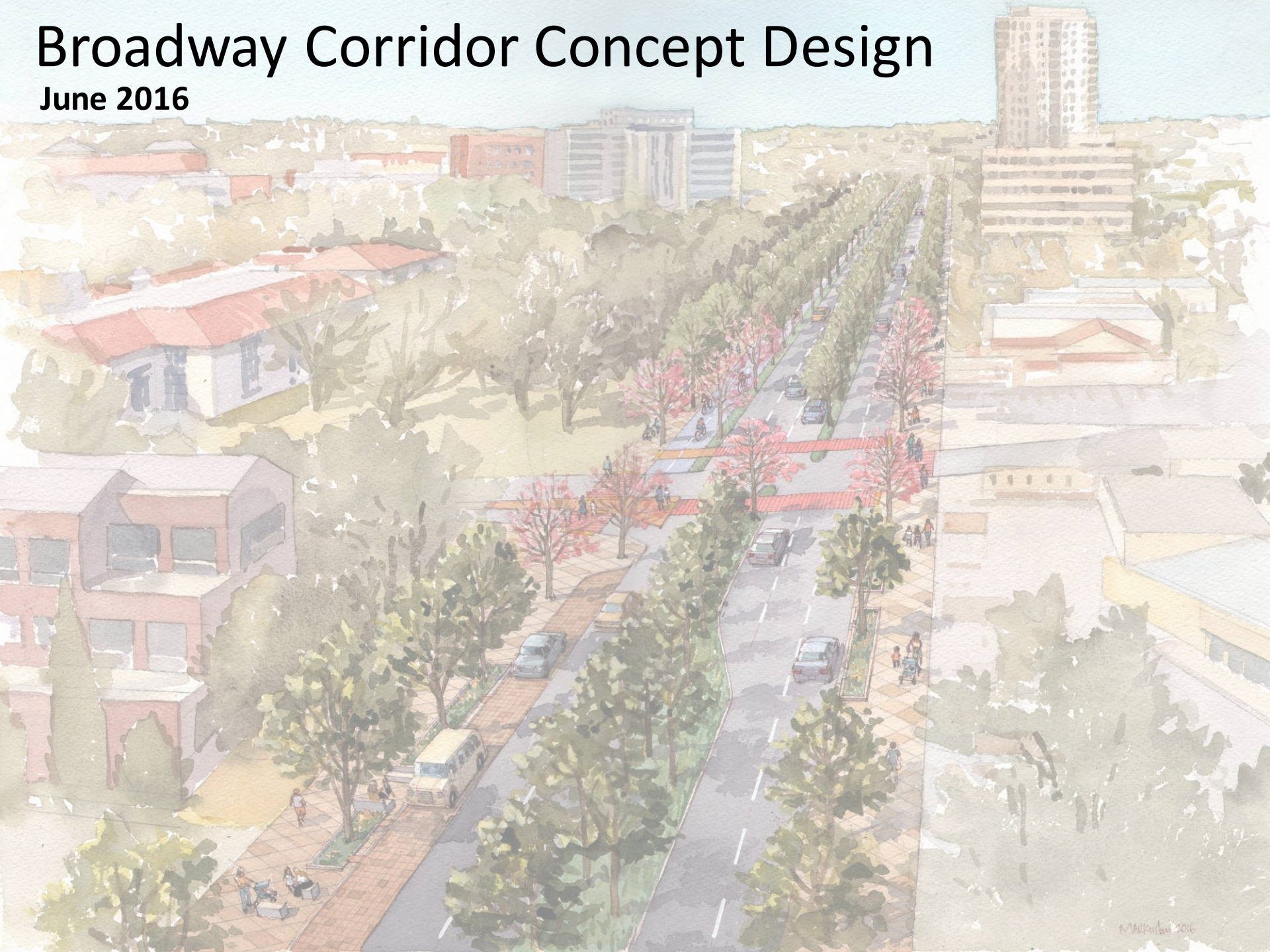
# Broadway Corridor Concept Design

**June 2016**



# Planning Team

# Project Corridor

- UPPER BROADWAY
  - **Brackenridge Park/ Cultural Corridor** (Josephine to Hildebrand)
- LOWER BROADWAY
  - **Downtown Urban Core** (Houston to I-35)
  - **Pearl** (I-35 to Josephine)

# Stakeholder / Community Leaders Feedback

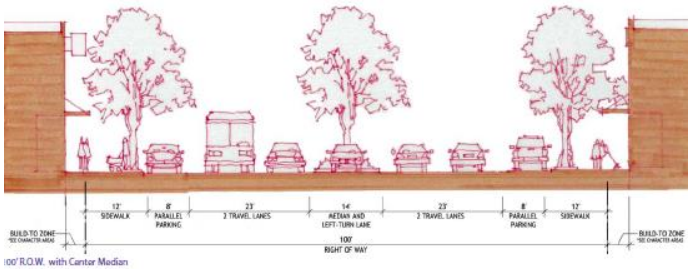
- **Cultural Institutions**
  - Witte, DoSeum, McNay, Brackenridge Park Conservancy, Botanical Gardens, San Antonio Zoo, etc
- **Public Agencies**
  - Transportation & Capital Improvements (TCI), San Antonio River Authority (SARA), VIA Transit, TxDOT, Bexar County, MidTown TIRZ
- **Private Sector**
  - Centro San Antonio, Hixon, Graystreet Partners, Silver Ventures, San Antonio Commercial Advisers, Area Real Estate

# Past & Concurrent Efforts

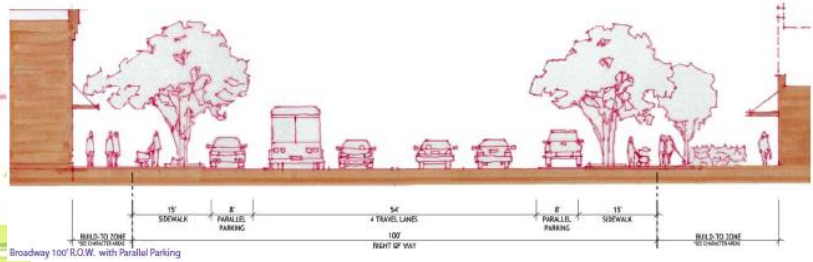
looking south from Allensworth

ual rendering looking south from Allensworth showing Retail-Ready ground floor in the Neighborhood Core.

ADWAY SUB AREA

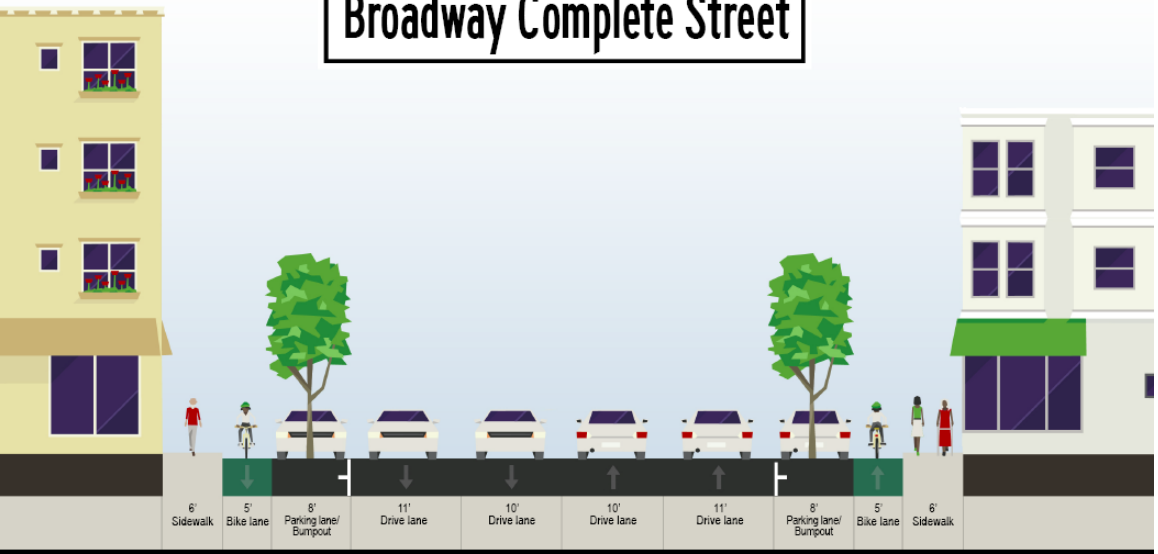


100' R.O.W. with Center Median



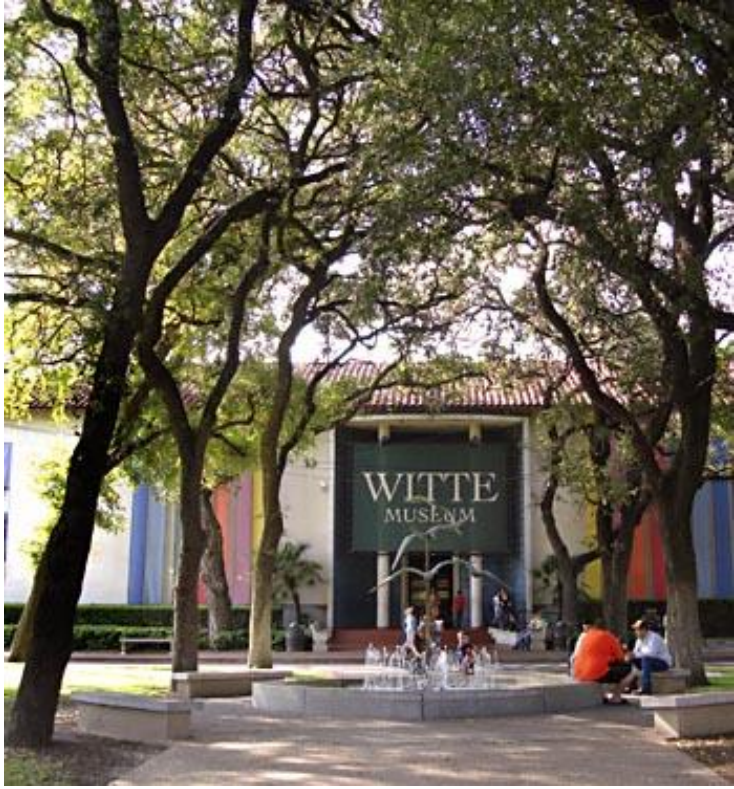
Broadway 100' R.O.W. with Parallel Parking

## Broadway Complete Street

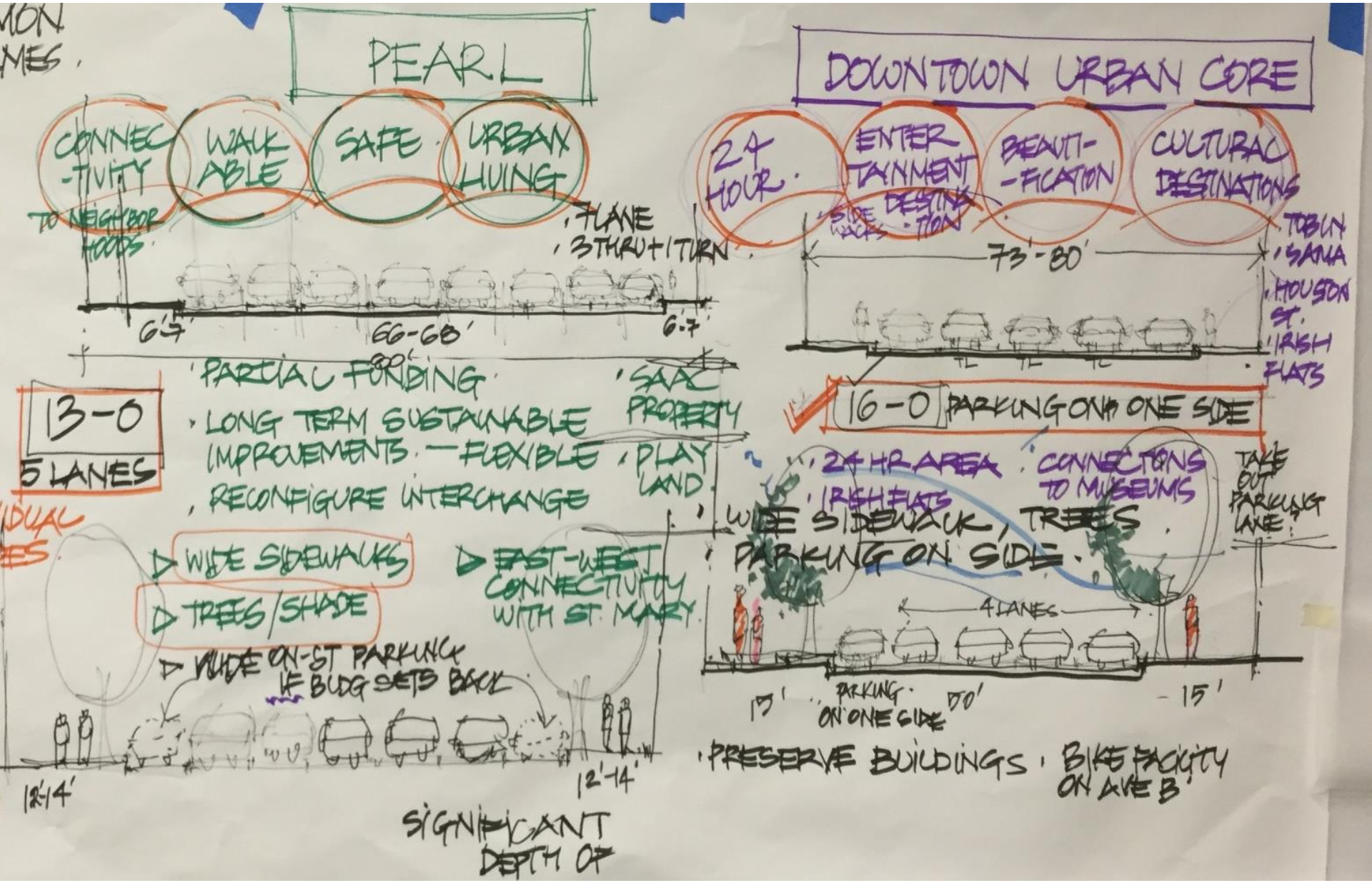



Existing conditions


PEARL


WITTE
MUSEUM

# Stakeholder / Community Leaders Feedback



# Overarching Design Criteria

- Create Tree-lined Corridor
- Ensure Comfortable Sidewalks
- Provide Viable Bicycle Connectivity
- Balance Needs of Destination & Through Traffic
- Provide Parking in Constrained Segments
- Celebrate Distinctive Segments
- Unify Corridor with Wayfinding and Signage
- Create Places for People
- Create Sustainable Places

# Overarching Design Criteria

- Create Tree-lined  Corridor

# Overarching Design Criteria

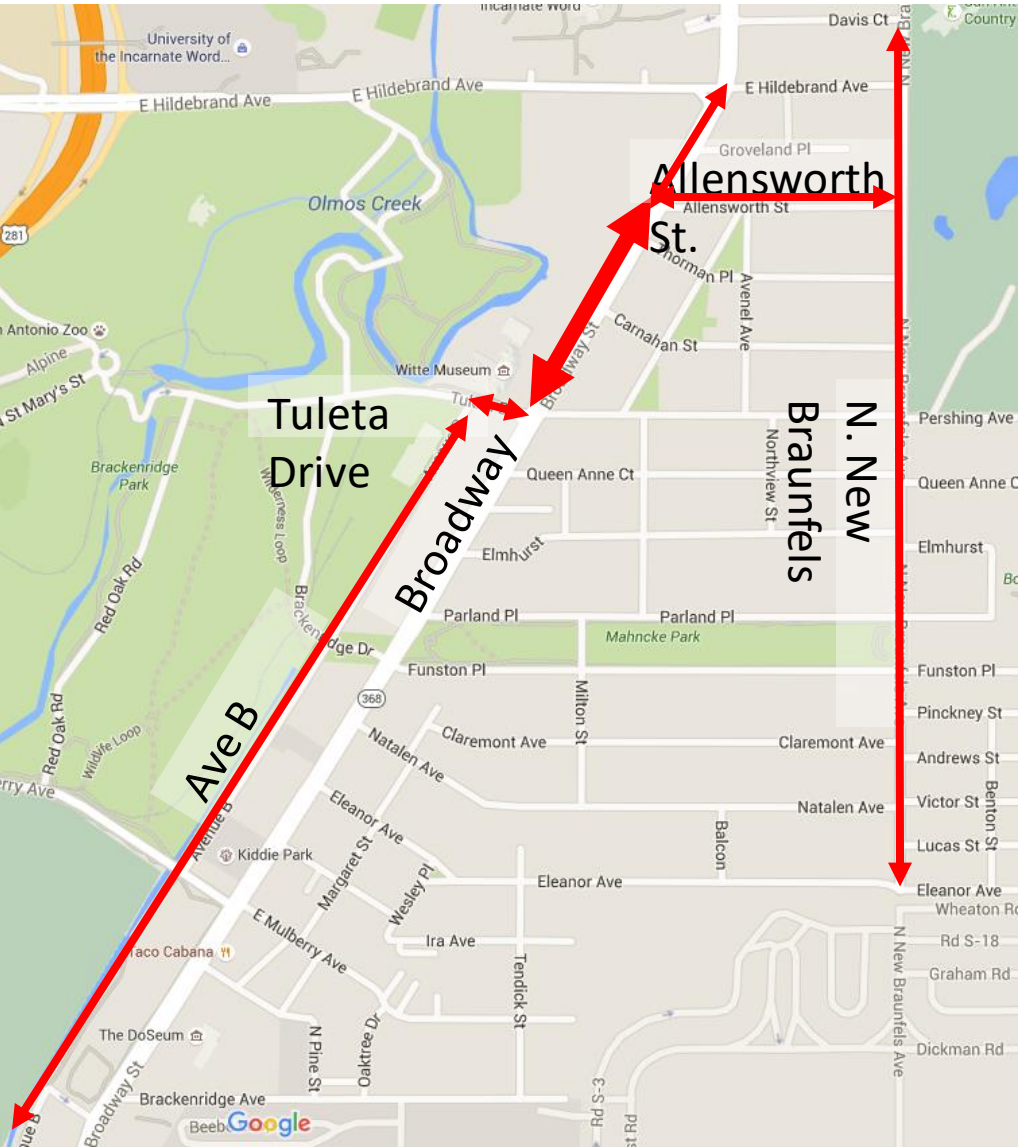
- Ensure Comfortable Sidewalks

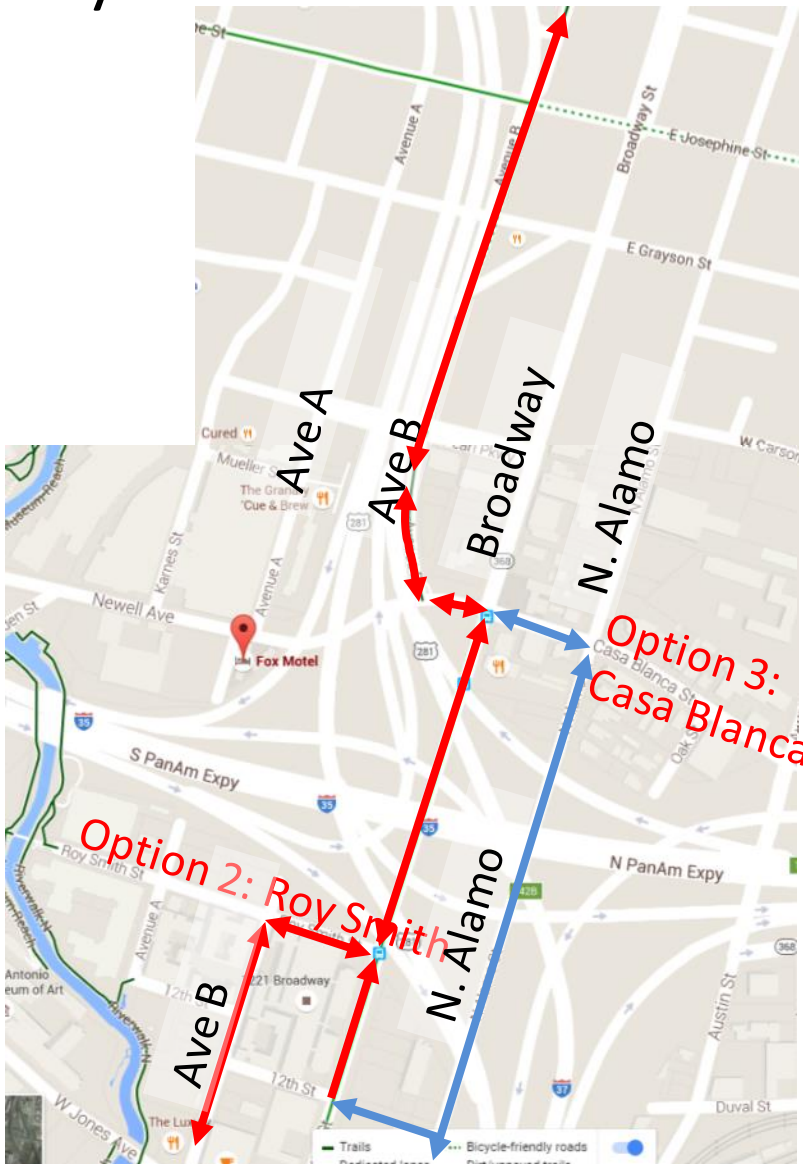
# Overarching Design Criteria

- Ensure Comfortable Crosswalks

# Overarching Design Criteria

- Provide Viable Bicycle Connectivity



# Overarching Design Criteria

- Balance Needs of Destination and Through Traffic

# Overarching Design Criteria

- Provide Parking in Constrained Segments

# Overarching Design Criteria

- Celebrate Distinctive Segments

# Overarching Design Criteria

- Celebrate Distinctive Segments

# Overarching Design Criteria

- Unify Corridor with Placemaking, Wayfinding & Signage

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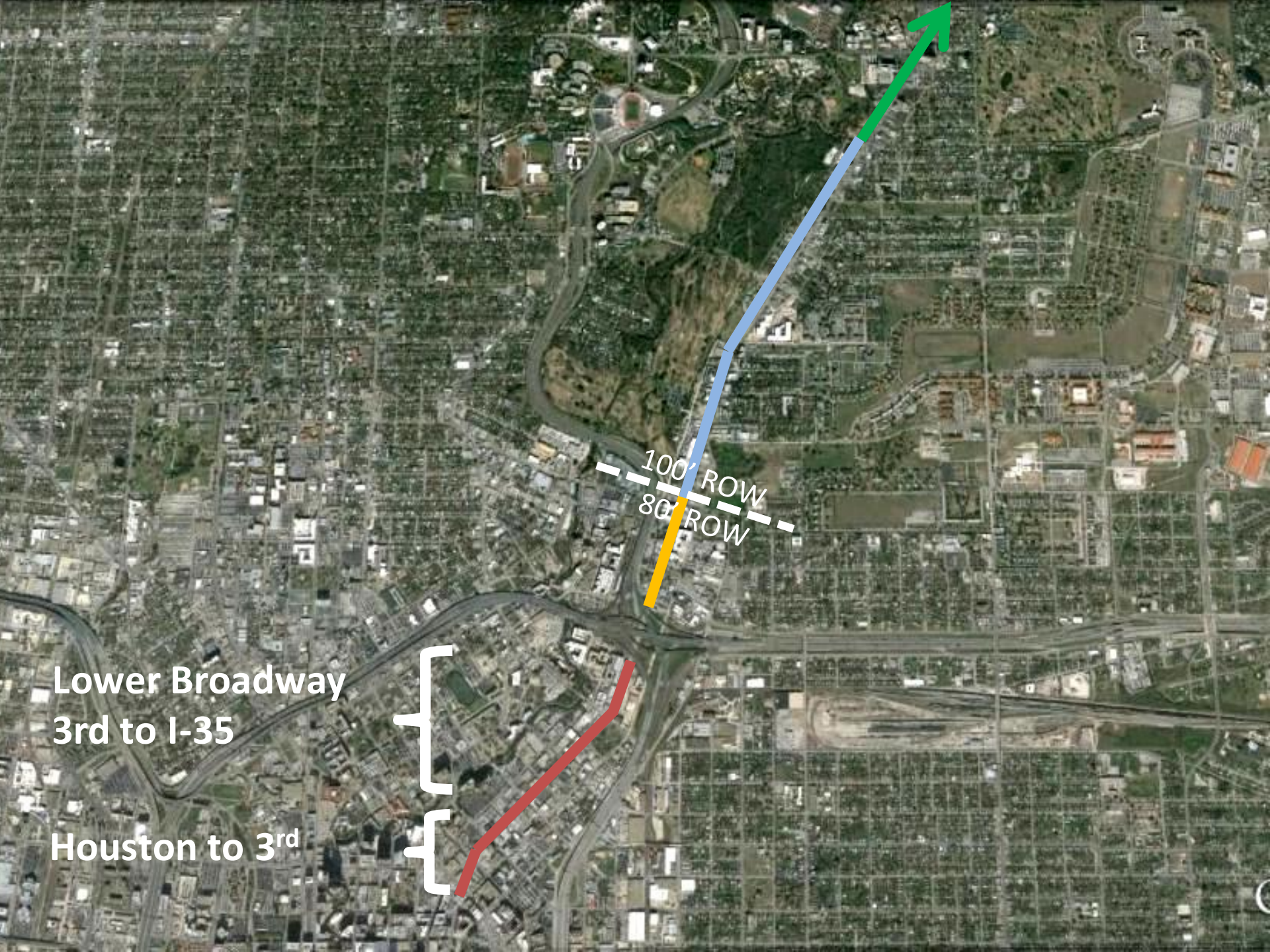
- Unify Corridor with Placemaking, Wayfinding & Signage

# Overarching Design Criteria

- Create Places for People

# Overarching Design Criteria

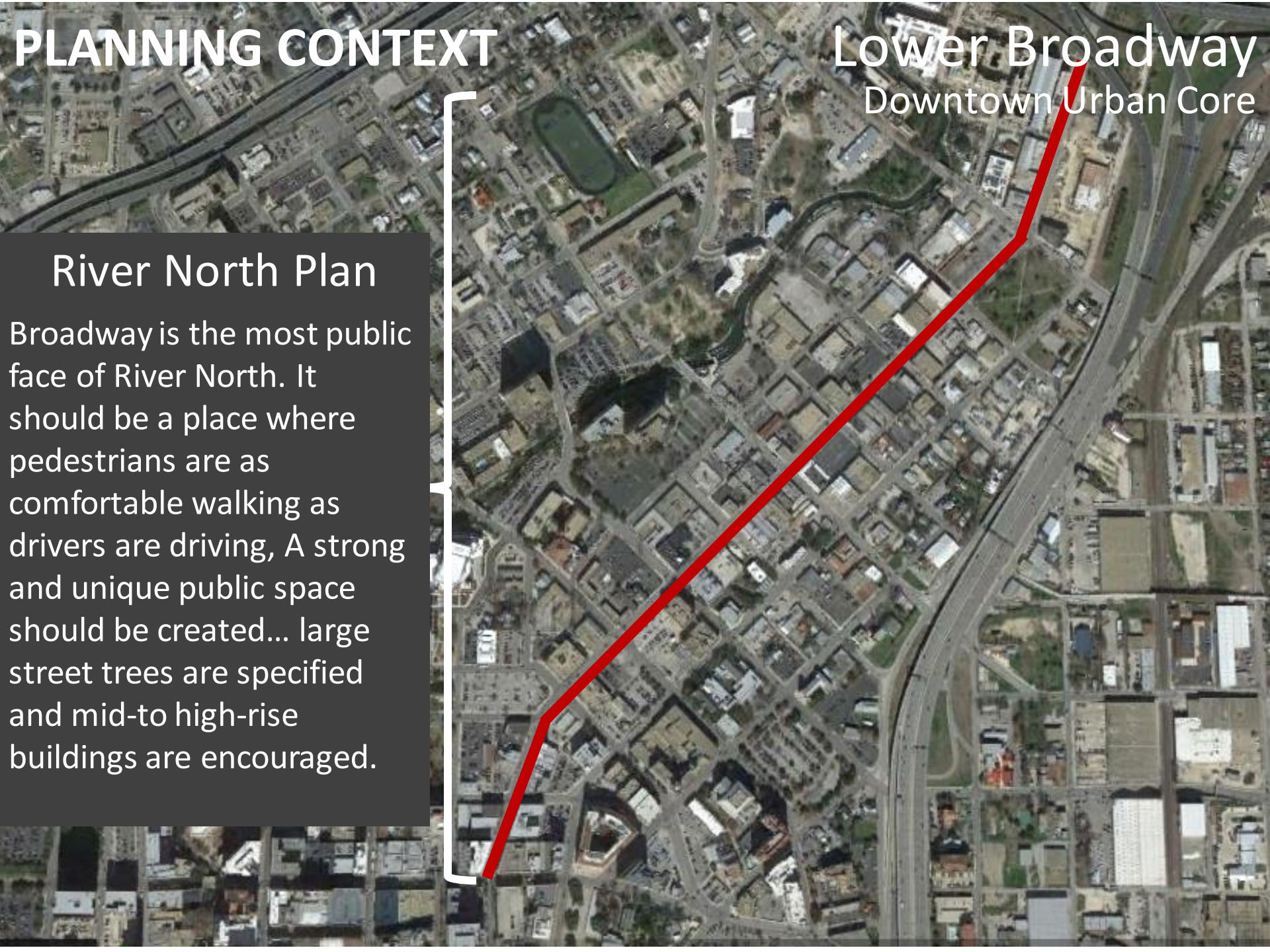
- Create Sustainable  Places


100' ROW
80' ROW
Lower Broadway
3rd to I-35
Houston to 3rd

# PLANNING CONTEXT

## Lower Broadway

Downtown Urban Core



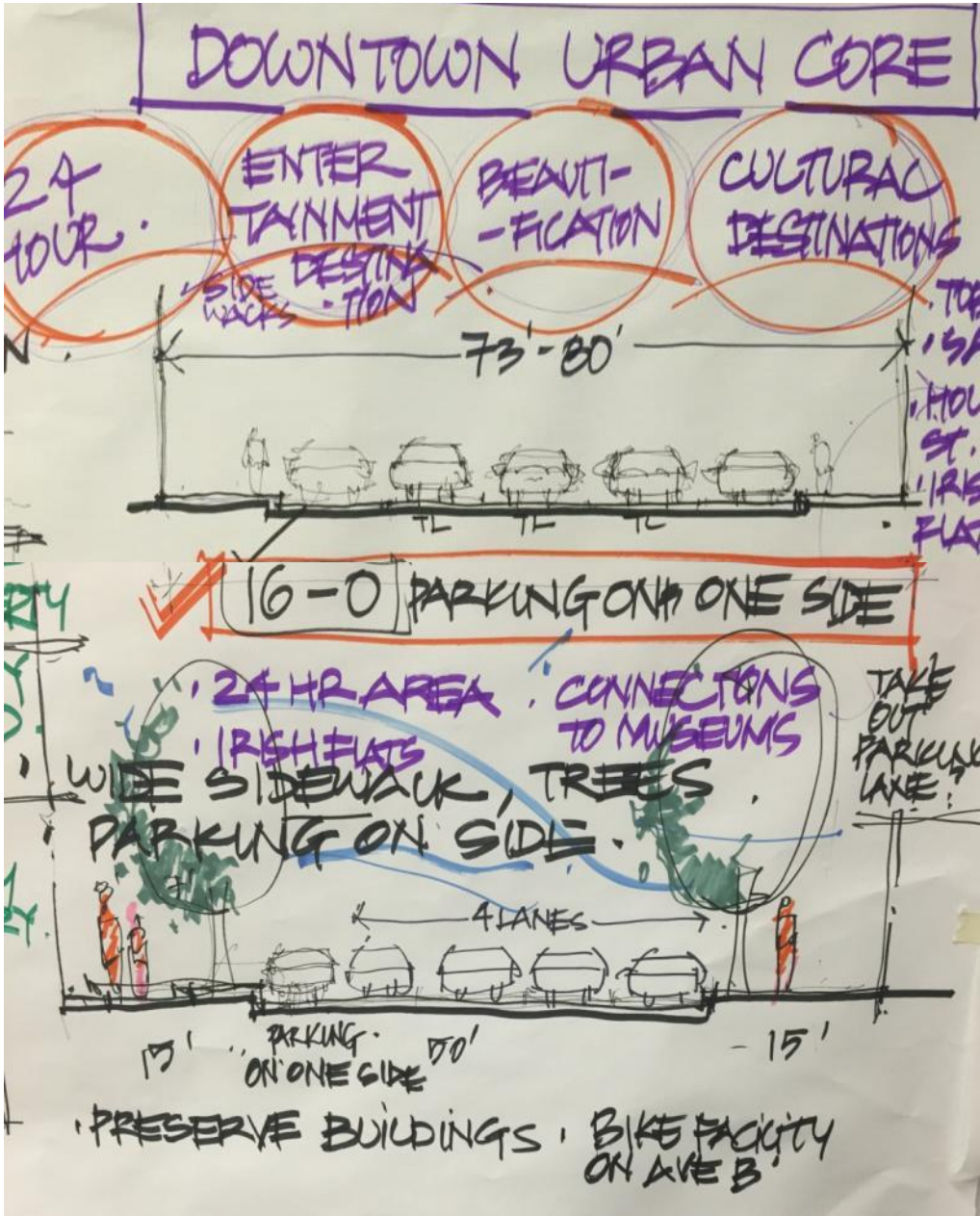
### River North Plan

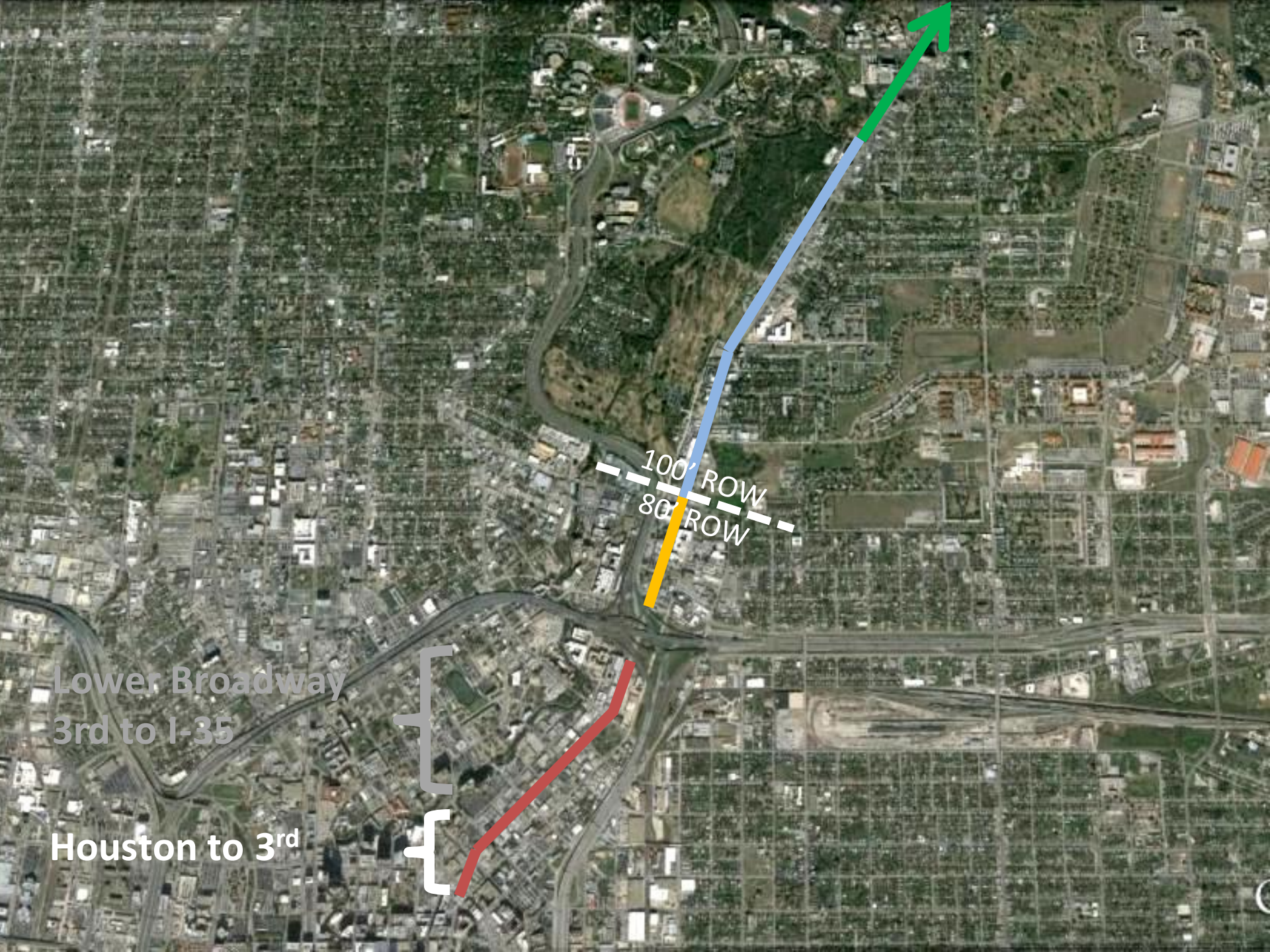
Broadway is the most public face of River North. It should be a place where pedestrians are as comfortable walking as drivers are driving, A strong and unique public space should be created… large street trees are specified and mid-to high-rise buildings are encouraged.

# Lower Broadway

## Downtown Urban Core

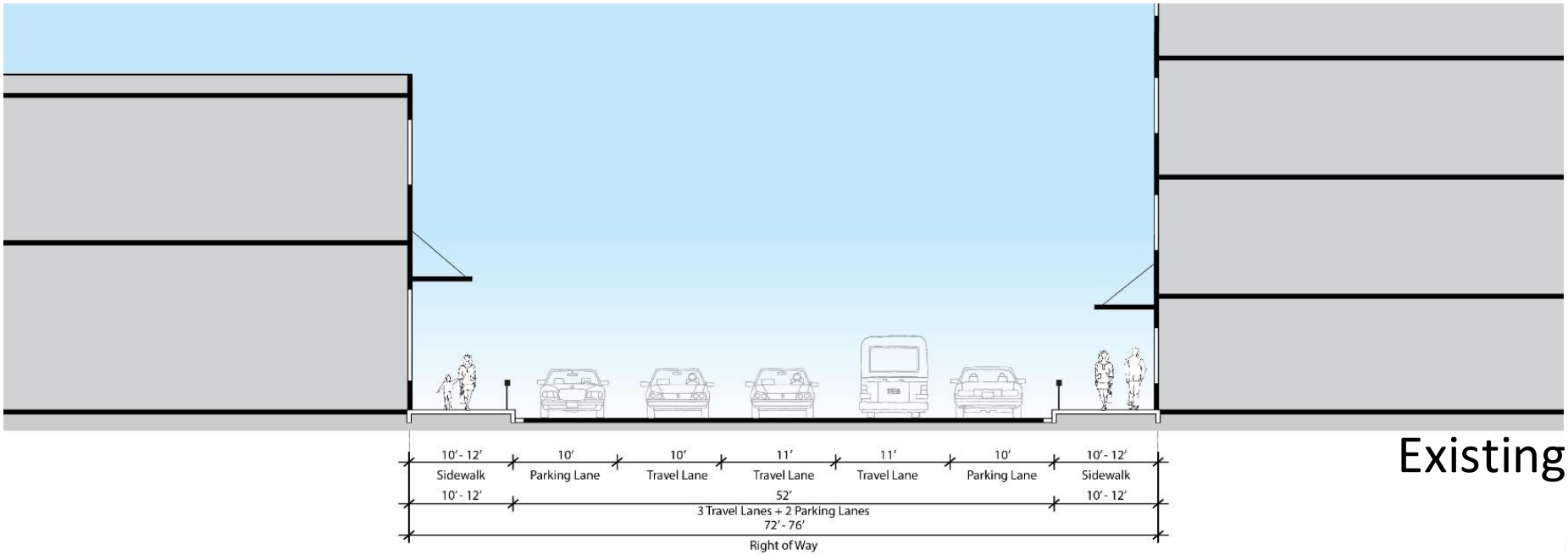
- Houston to I-35
- ROW: 73’ to 80’
- Overarching
  - Create a 24 Hour Entertainment District
  - Enhance Connections to Diverse Cultural and Entertainment Destinations
  - Beautify
- Design Interventions
  - Maintain Through Lanes & Parking On One Side
  - Remove Left Turn Lanes



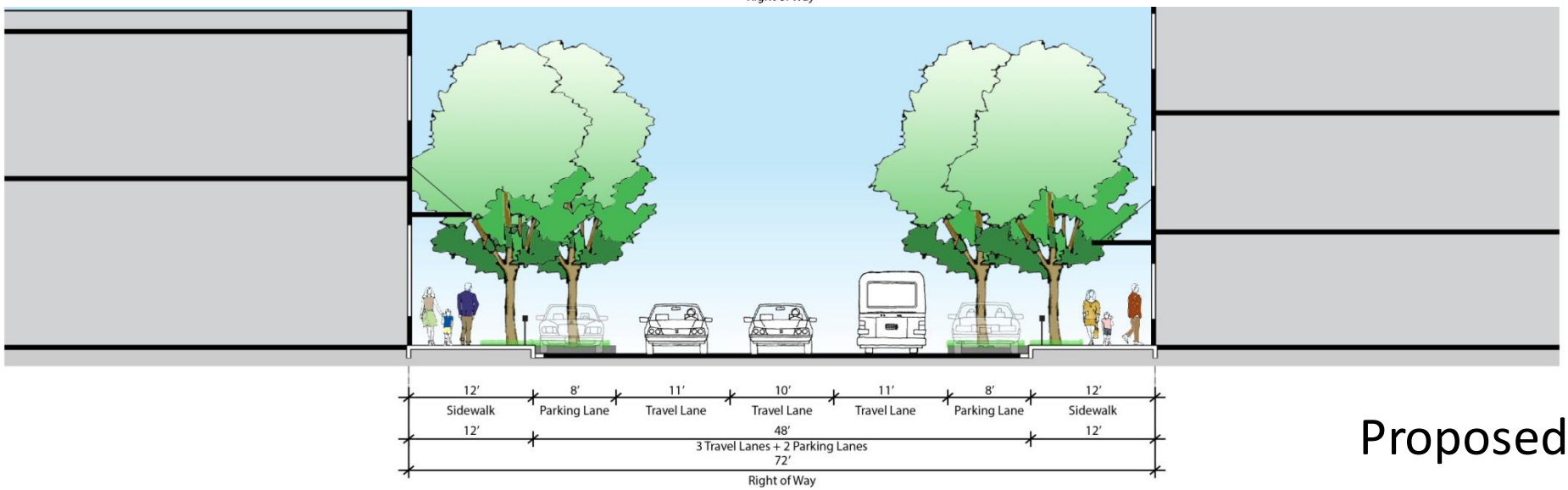

100' ROW
80' ROW
Lower Broadway
3rd to I-35
Houston to 3rd

# Lower Broadway

## Houston to 3rd




Existing




Proposed

# Lower Broadway

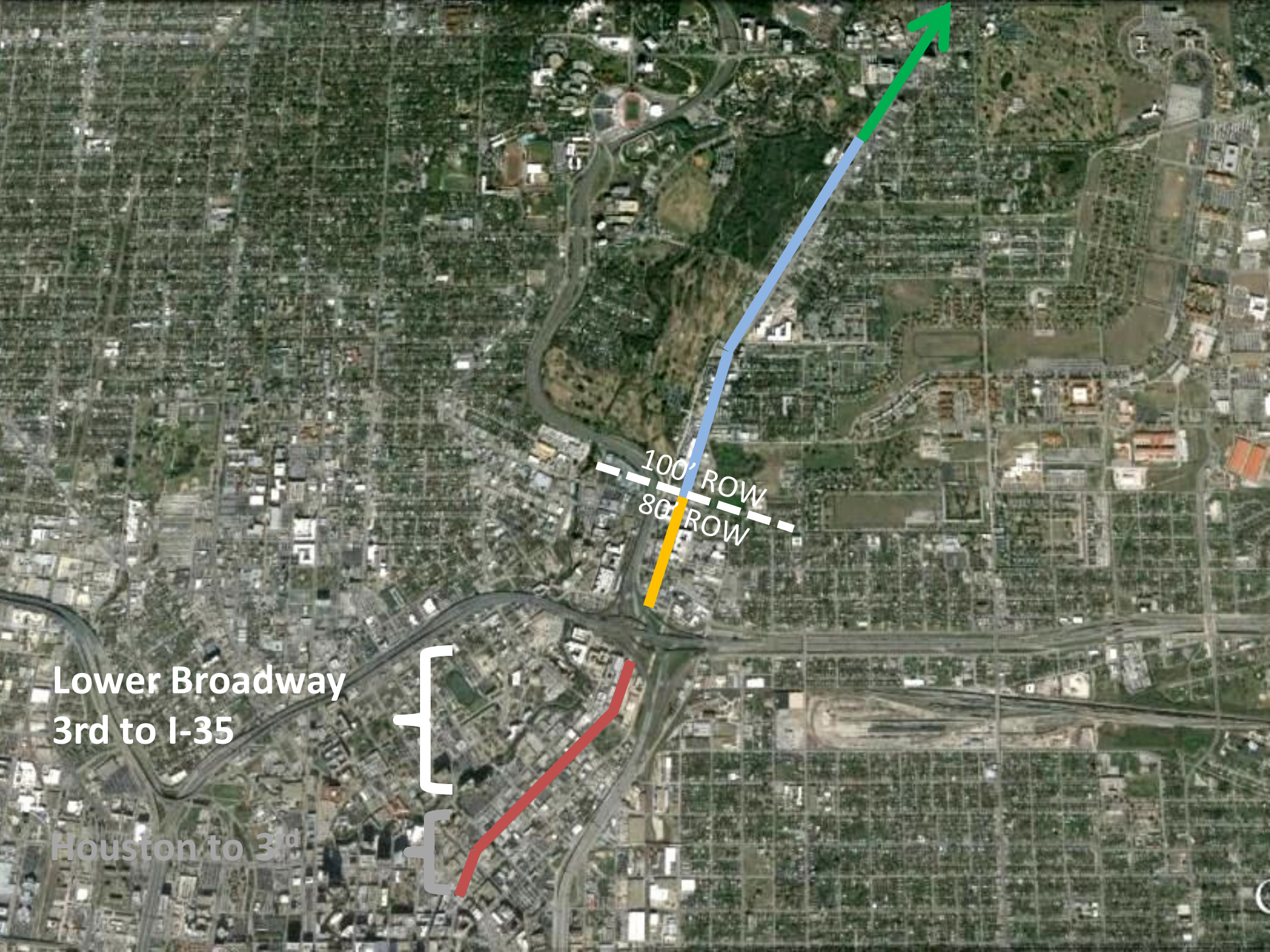
## Houston to 3rd - Proposed

# Lower Broadway

## At 3rd St looking south - Existing

# Lower Broadway

## At 3rd St looking south - Proposed

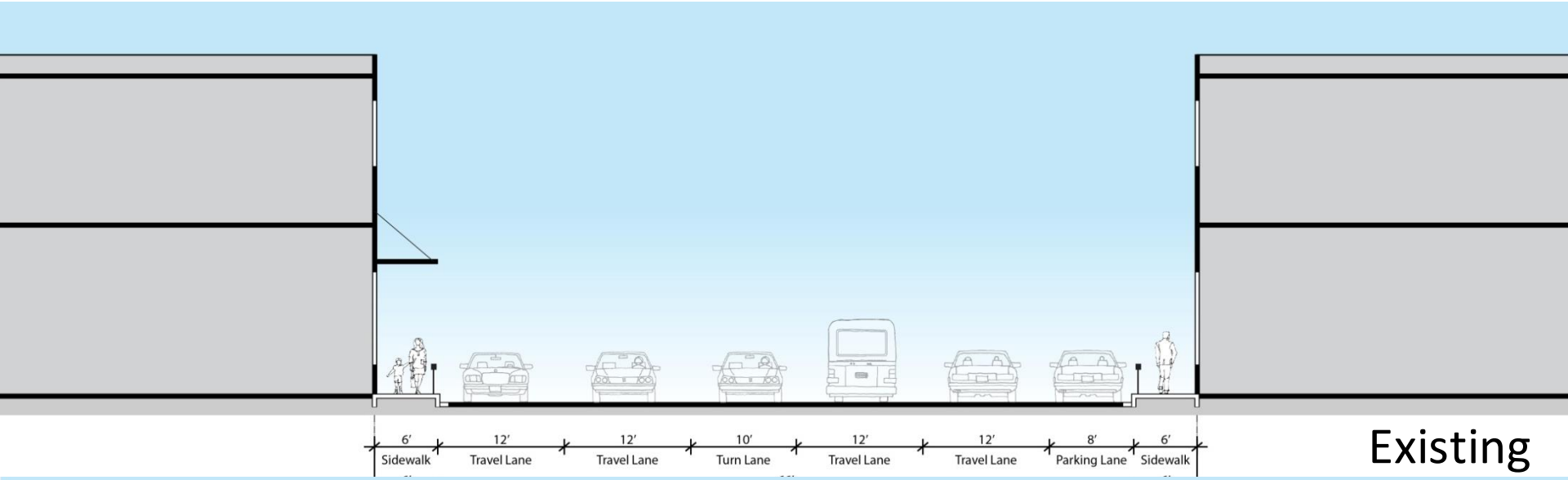

100' ROW
80' ROW
Lower Broadway
3rd to I-35
Houston to 3rd

# Lower Broadway

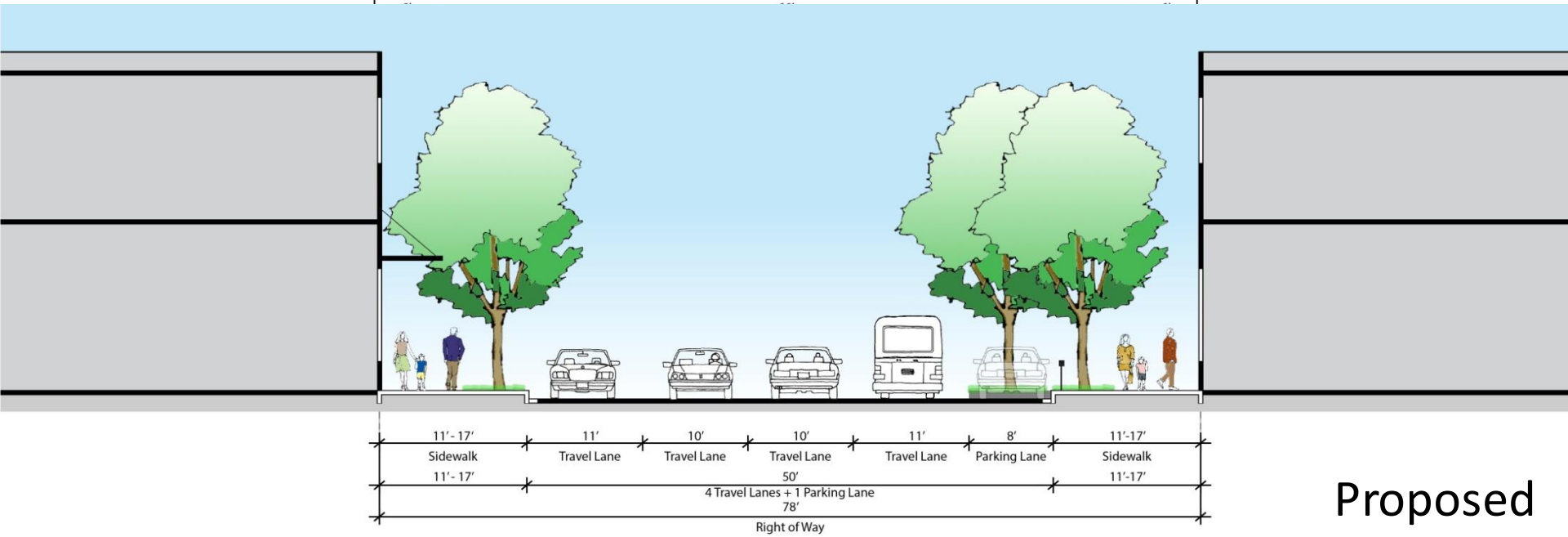
## 3rd St to I-35 - Existing

# Lower Broadway

## 3rd to I-35

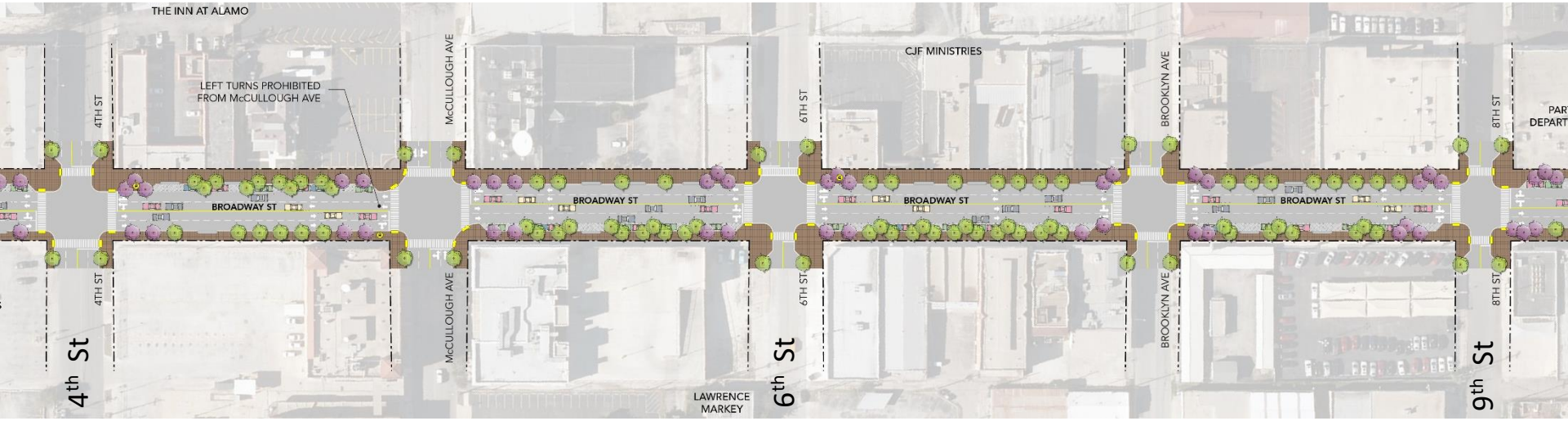


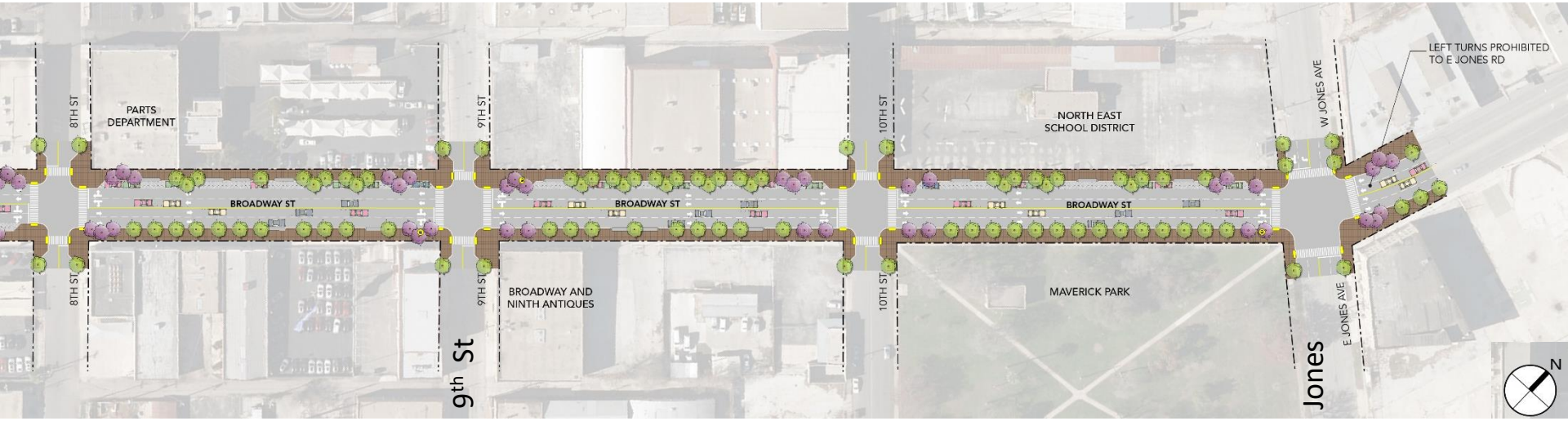

Existing




Proposed

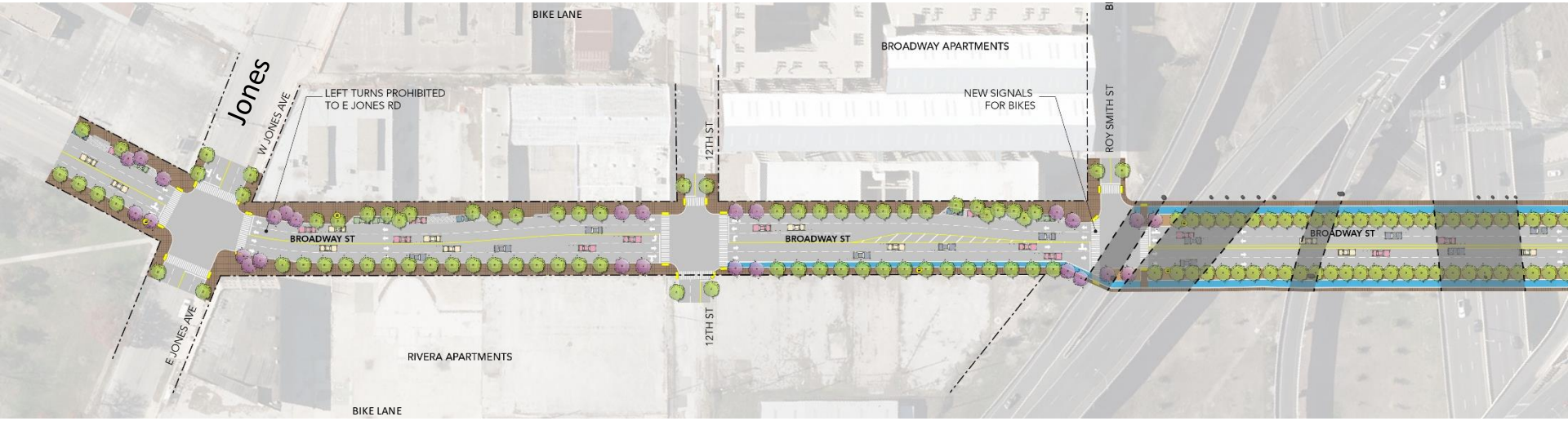
# Lower Broadway
## 3rd to I-35 - Proposed



# Lower Broadway

## Houston St to I-35 - Proposed



# Lower Broadway

## At 6th Street, looking north - Existing

# Lower Broadway

## At 6th Street, looking north - Proposed

# Lower Broadway

## Broadway at Jones, looking south - Existing

# Lower Broadway

## Broadway at Jones, looking south - Proposed

# Lower Broadway

## Broadway at Jones, looking south - Proposed


Lower Broadway
I-35 to Josephine
100' ROW
80' ROW

# PLANNING CONTEXT

## Lower Broadway
I-35 to Josephine

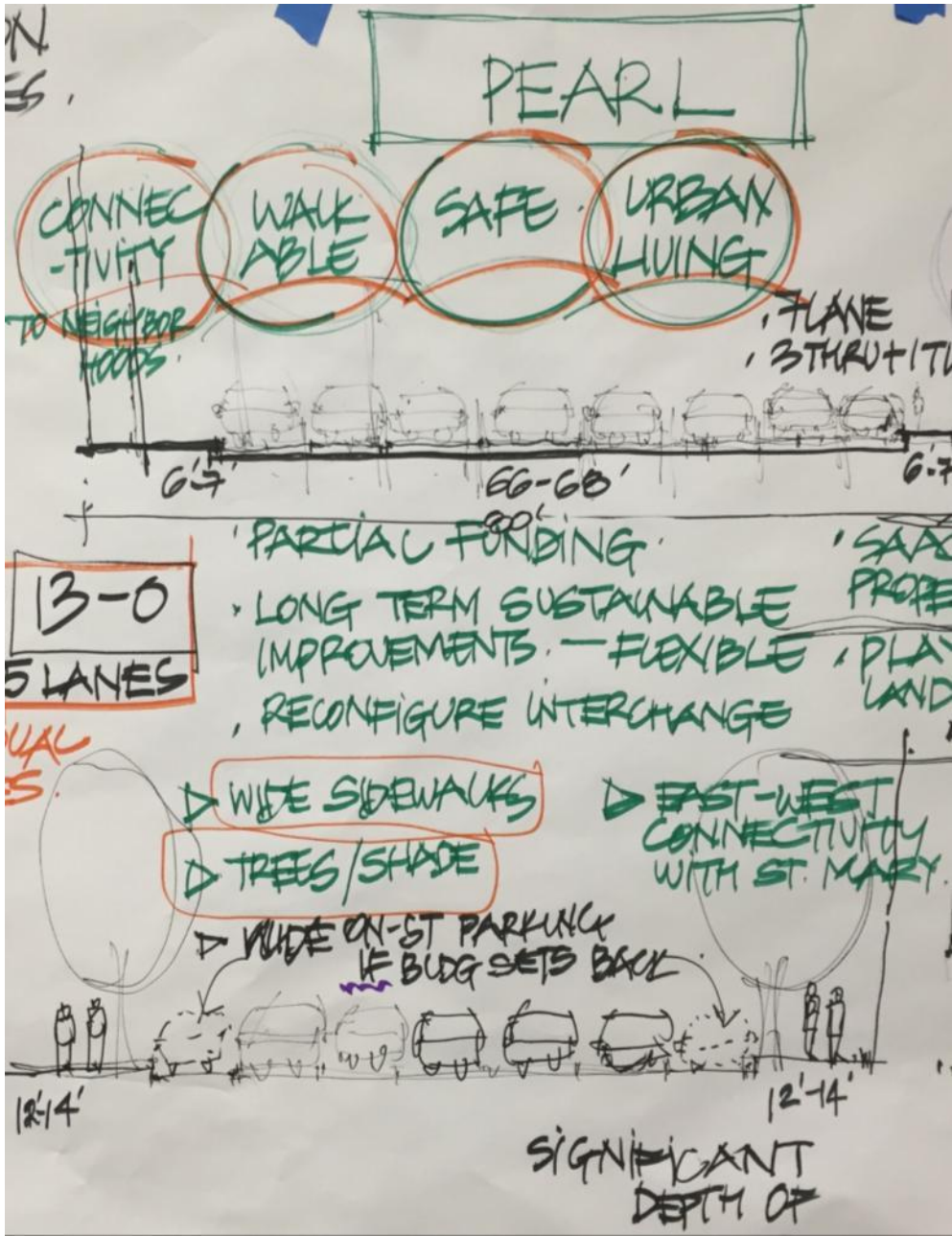
MIDTOWN Brackenridge
SAN ANTONIO, TEXAS

## "Urban Core"

From I-35 to Josephine, the curb-to-curb dimension should be narrow, encouraging activity on one side of the street to positively influence activity on the opposite side.

# Lower Broadway – Pearl District

- I-35 to Josephine
- ROW: 80’
- Overarching
  - A walkable, safe, connected district for shopping and dining
  - Create a new standard for Urban Living
- Design Interventions
  - 4 lanes plus turn lane
  - On-street parking only with developer setback
  - Priority on wide sidewalks Trees and shade

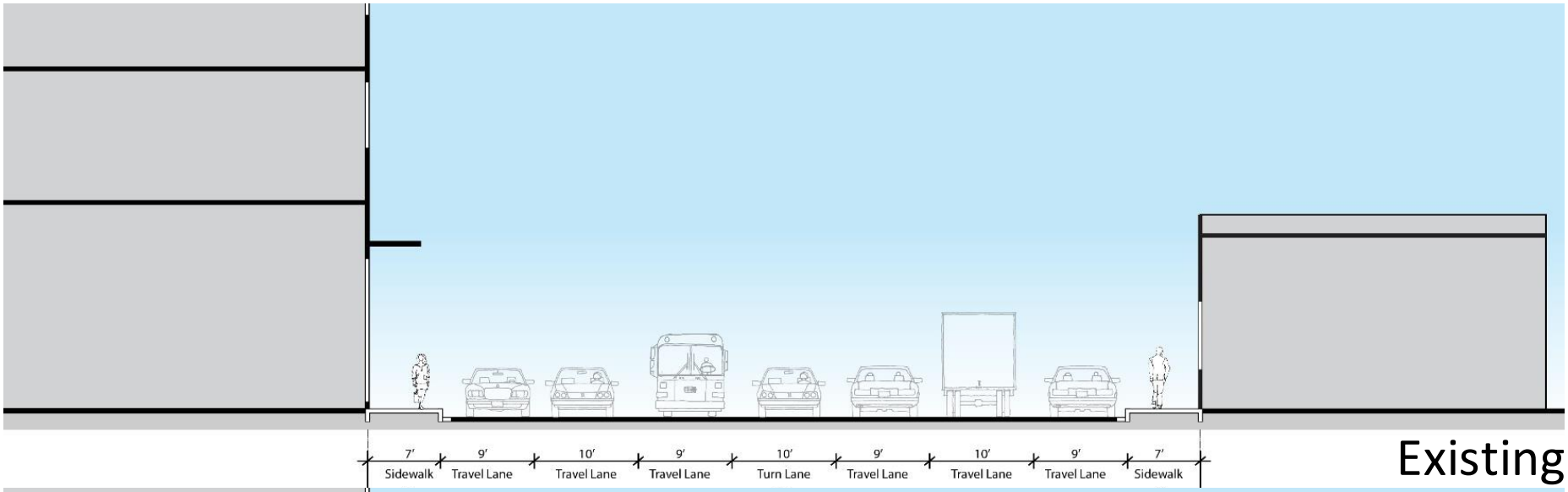


# Lower Broadway

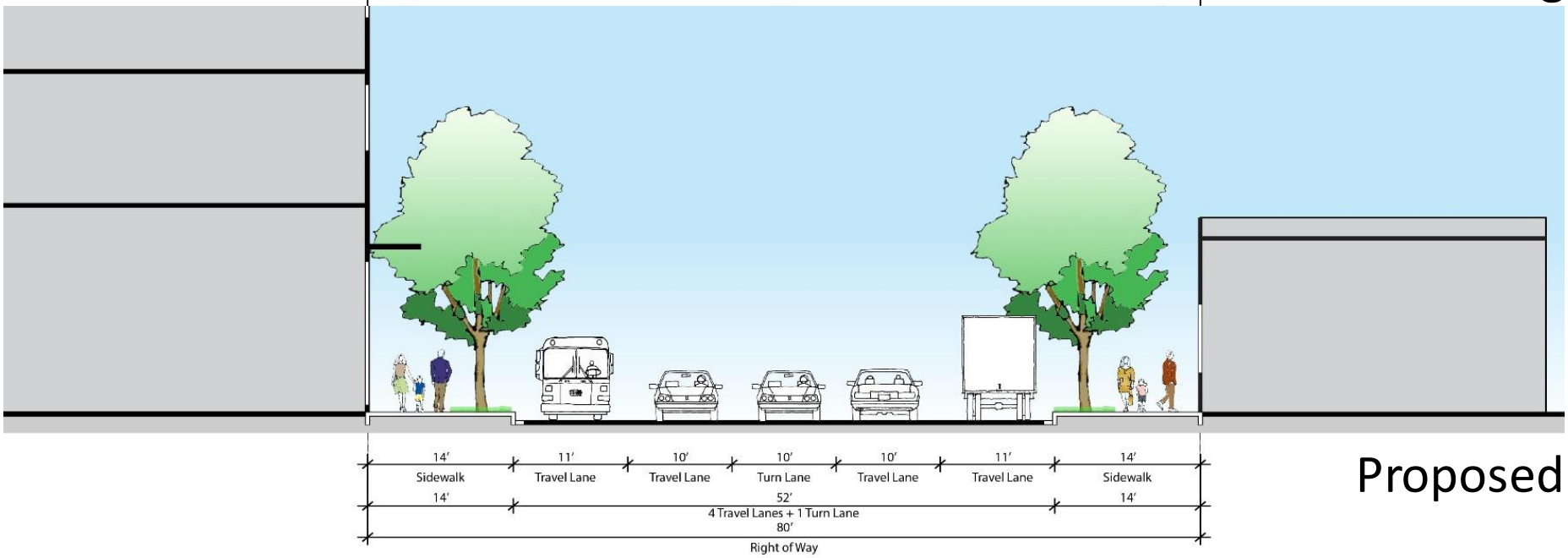
## I-35 to Josephine - Existing

# Lower Broadway

## I-35 to Josephine



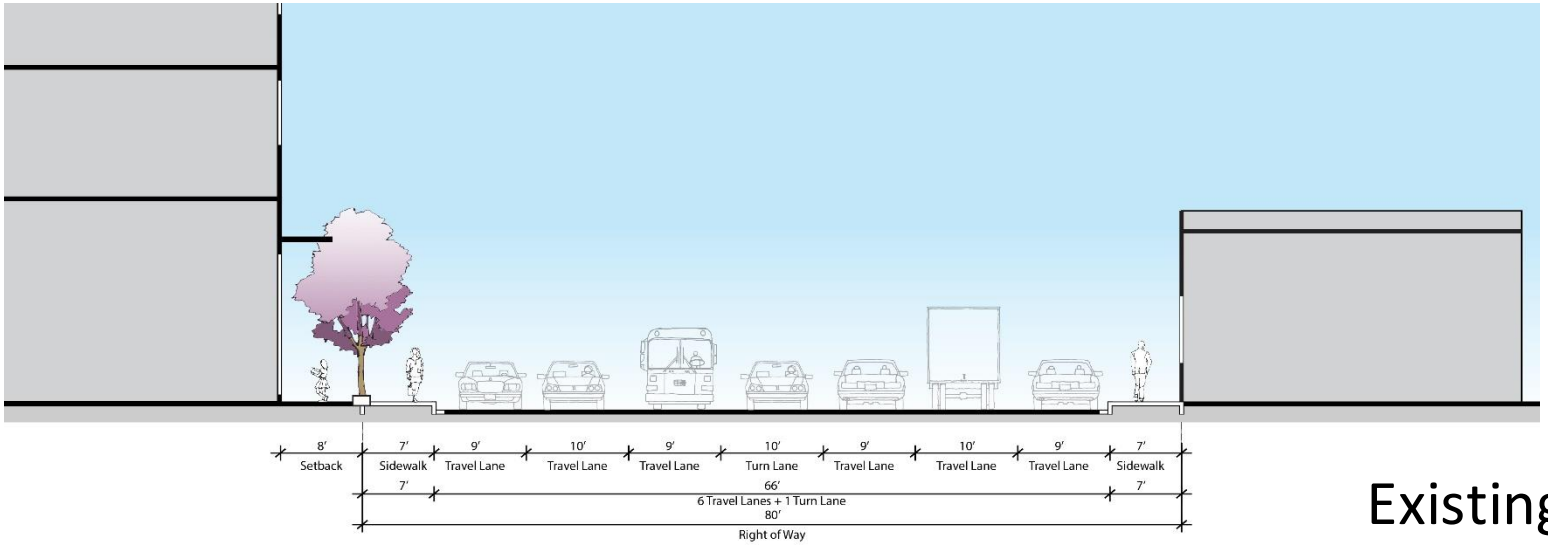

Existing



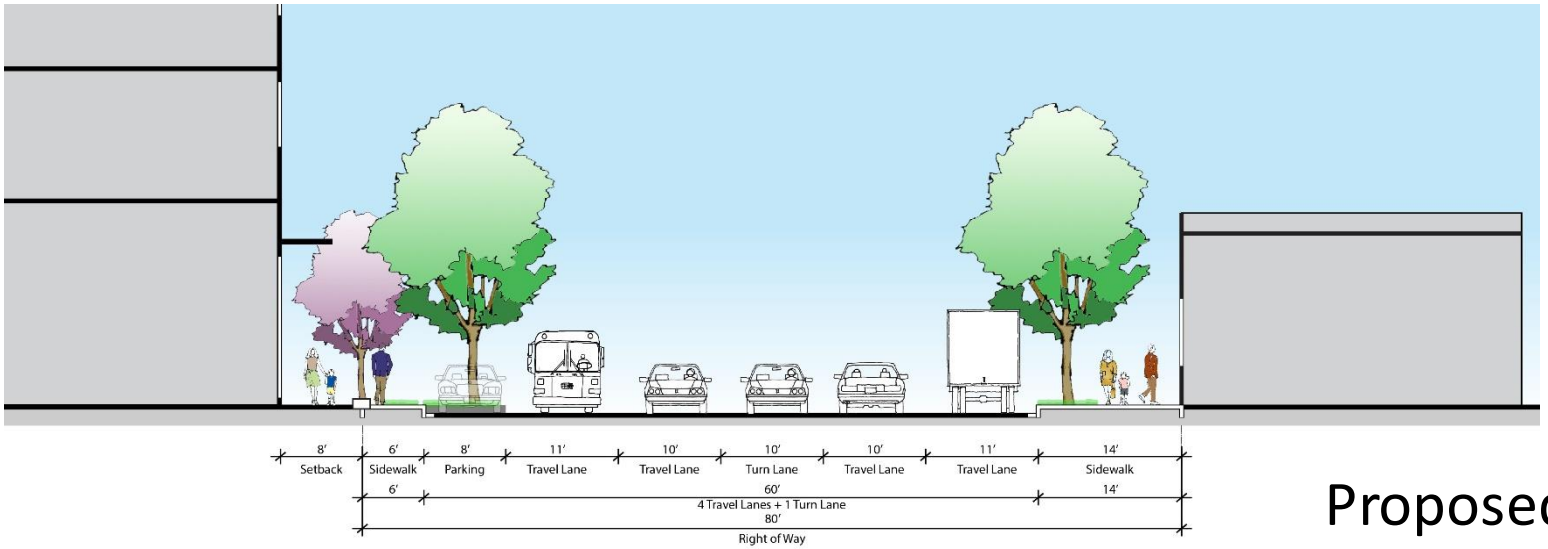

Proposed

# Lower Broadway

## I-35 to Josephine – Alternative with building setback



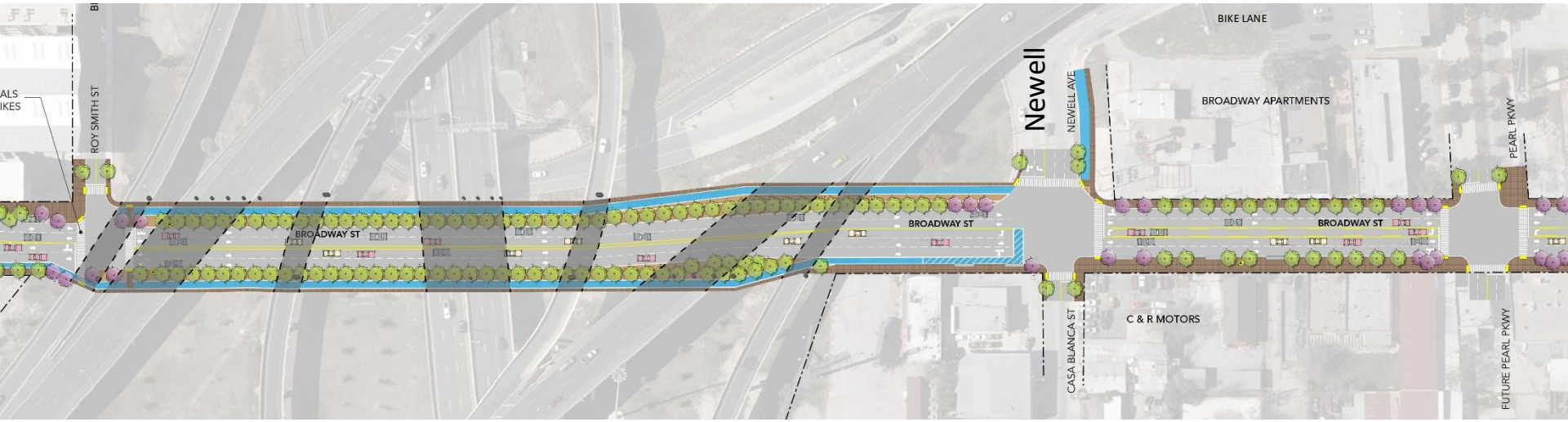

Existing




Proposed

# Lower Broadway

## I-35 to Josephine - Proposed




# Lower Broadway

## Looking south to Pearl Parkway - Existing

# Lower Broadway

## Looking south to Pearl Parkway - Proposed


Upper Broadway
Josephine to
Hildebrand
100' ROW
80' ROW


Upper Broadway
Josephine to Tuleta
100' ROW
80' ROW

# PLANNING CONTEXT

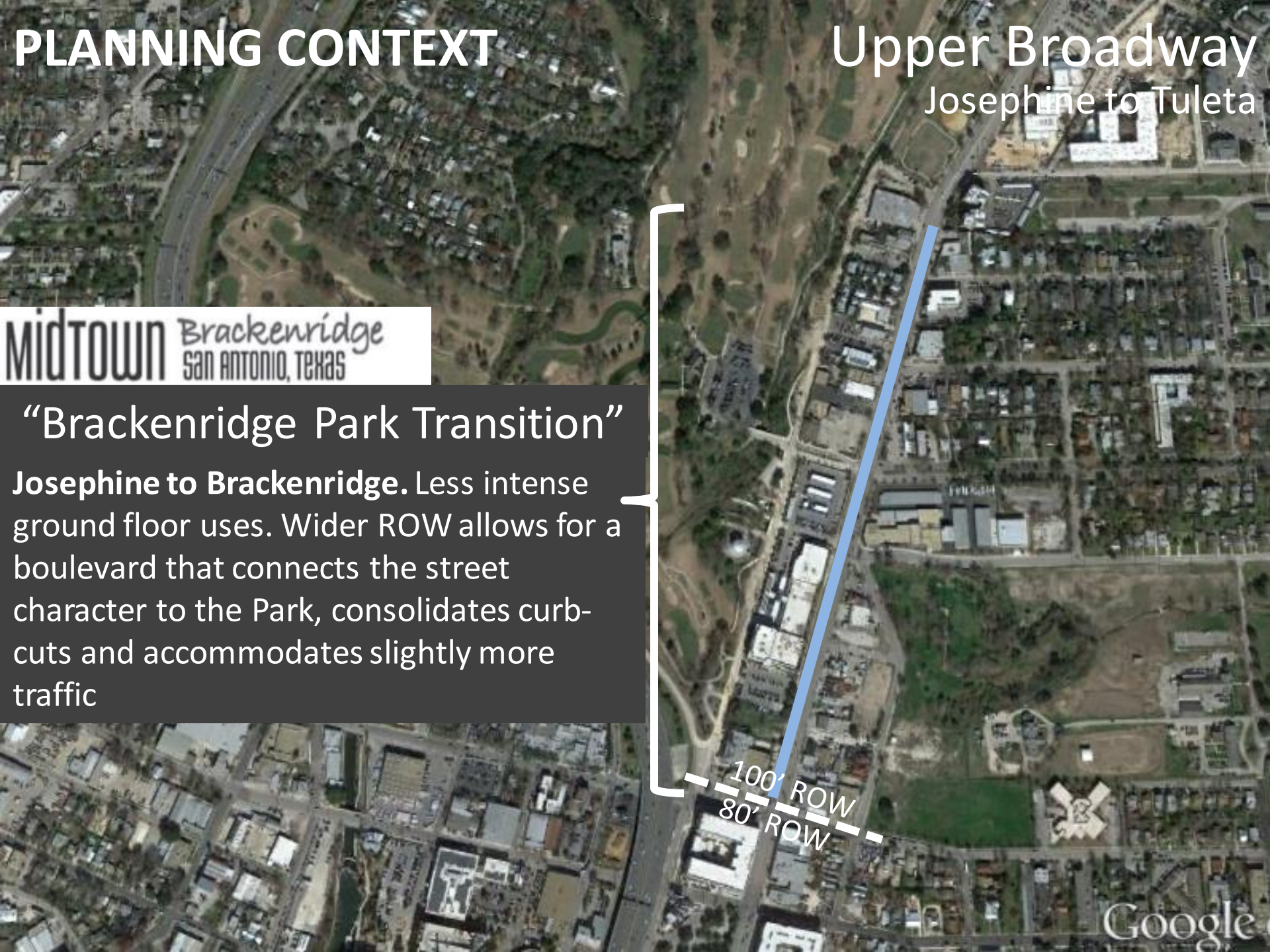
## Upper Broadway

Josephine to Tuleta

MIDTOWN Brackenridge
SAN ANTONIO, TEXAS

## "Brackenridge Park Transition"

**Josephine to Brackenridge.** Less intense ground floor uses. Wider ROW allows for a boulevard that connects the street character to the Park, consolidates curb-cuts and accommodates slightly more traffic



# PLANNING CONTEXT

## Upper Broadway
Josephine to Tuleta

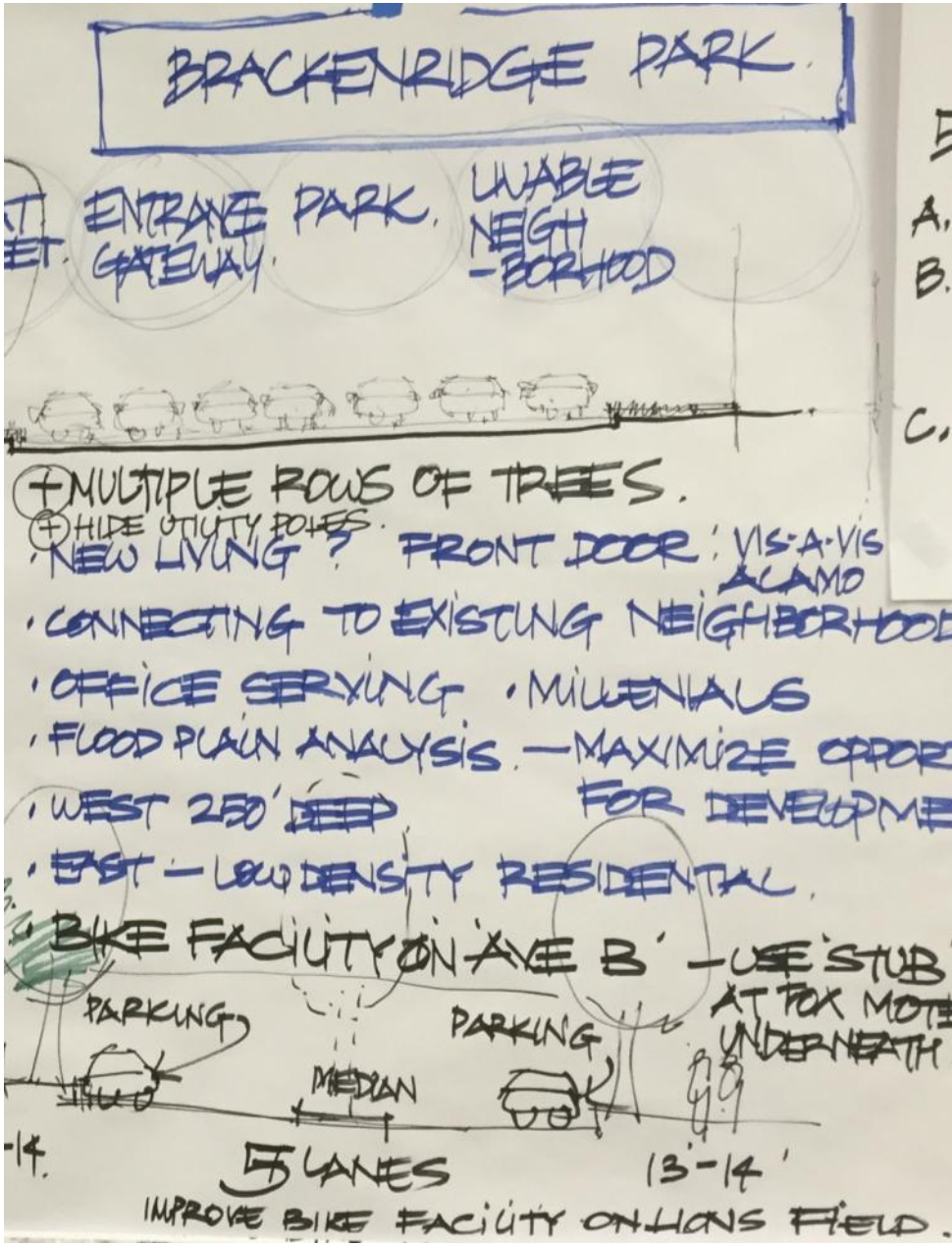
MIDTOWN Brackenridge
SAN ANTONIO, TEXAS

**MIDTOWN TIRZ:**

…an active commercial strip with successful small businesses and in a variety of building types. Using an urban street cross section will encourage incremental redevelopment …. provide a better pedestrian environment and increase the quantity of on-street parking.

# Upper Broadway-Brackenridge Park/Cultural Corridor

- Josephine to Tuleta
- ROW: 100’
- Overarching
  - Create a **Great Street** worthy of Park & Museums
  - Urban living with all the amenities, but less dense
  - Connect to surrounding neighborhoods and park
  - Maximize opportunity for redevelopment
- Design Interventions
  - 4 lanes + median/turn lane
  - Parking both sides

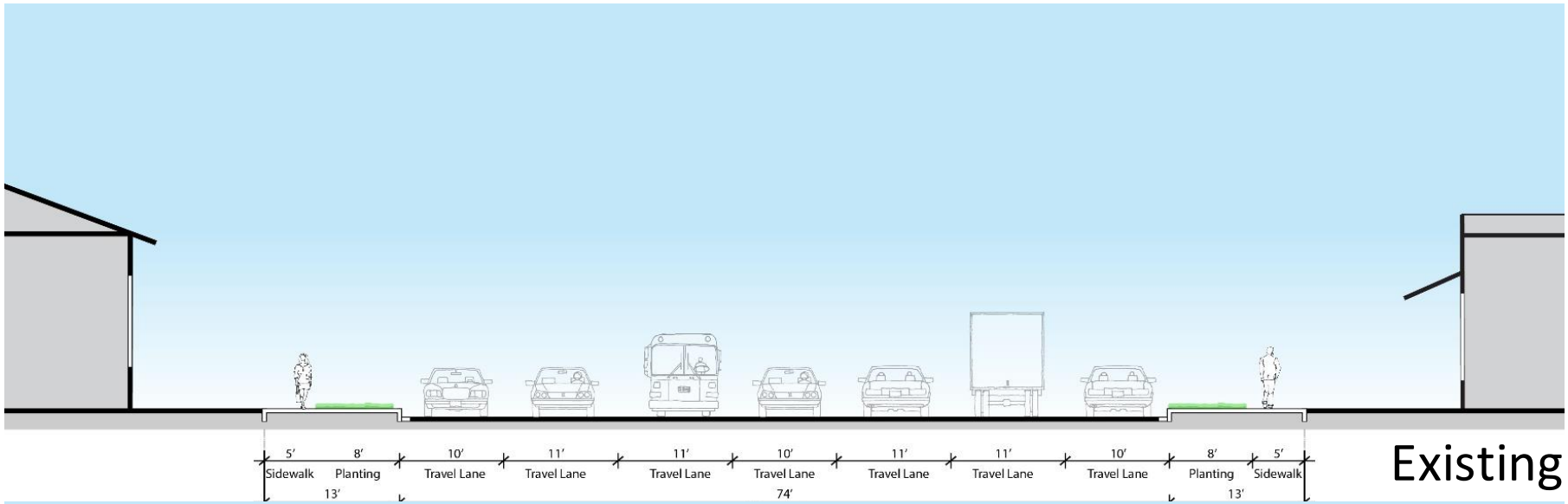


# Upper Broadway Cultural Corridor

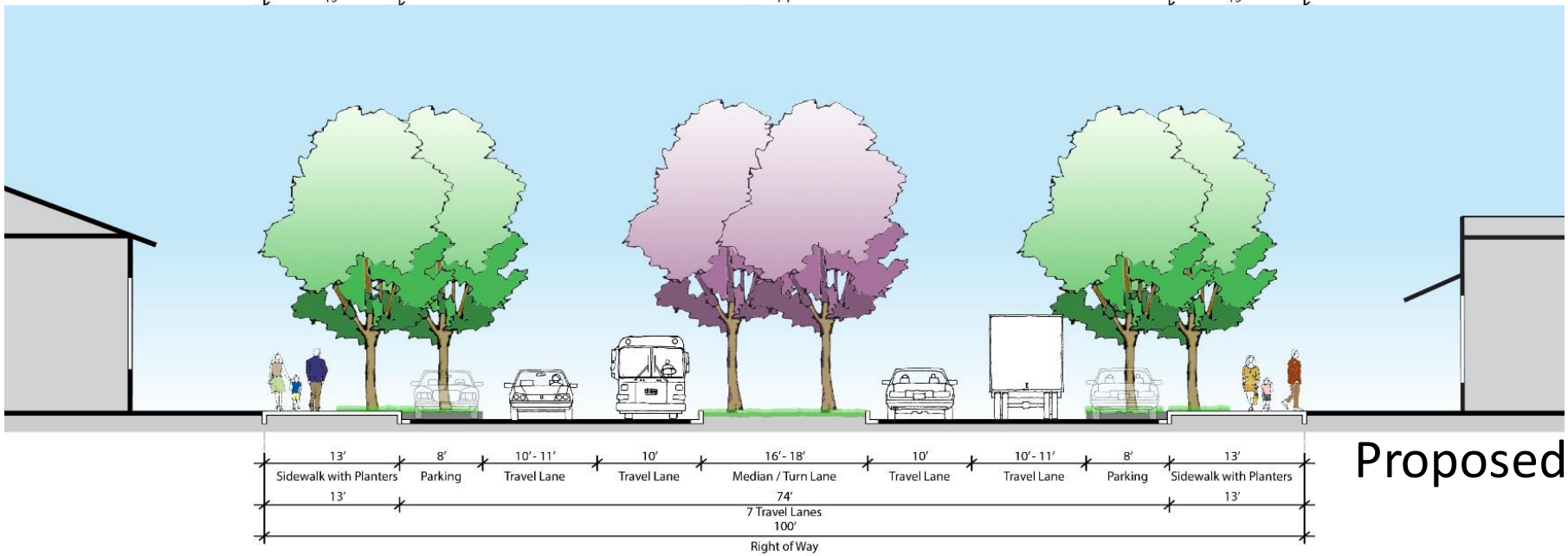
## Josephine to Tuleta - Existing

# Upper Broadway Cultural Corridor

## Josephine to Tuleta




Existing



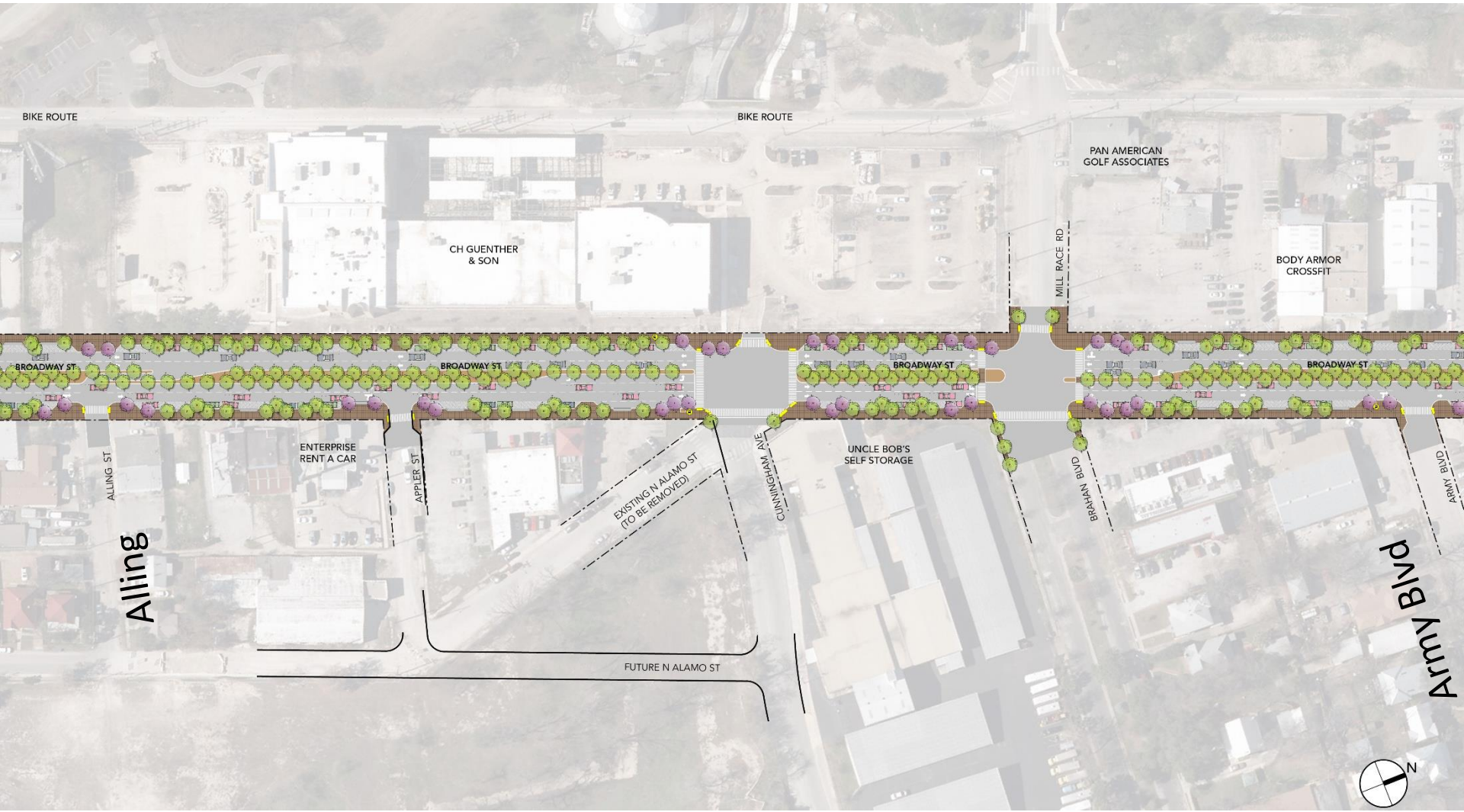

Proposed

# Upper Broadway Cultural Corridor

## Josephine to Tuleta - Proposed


# Upper Broadway

## Josephine to Tuleta - Proposed



# Upper Broadway

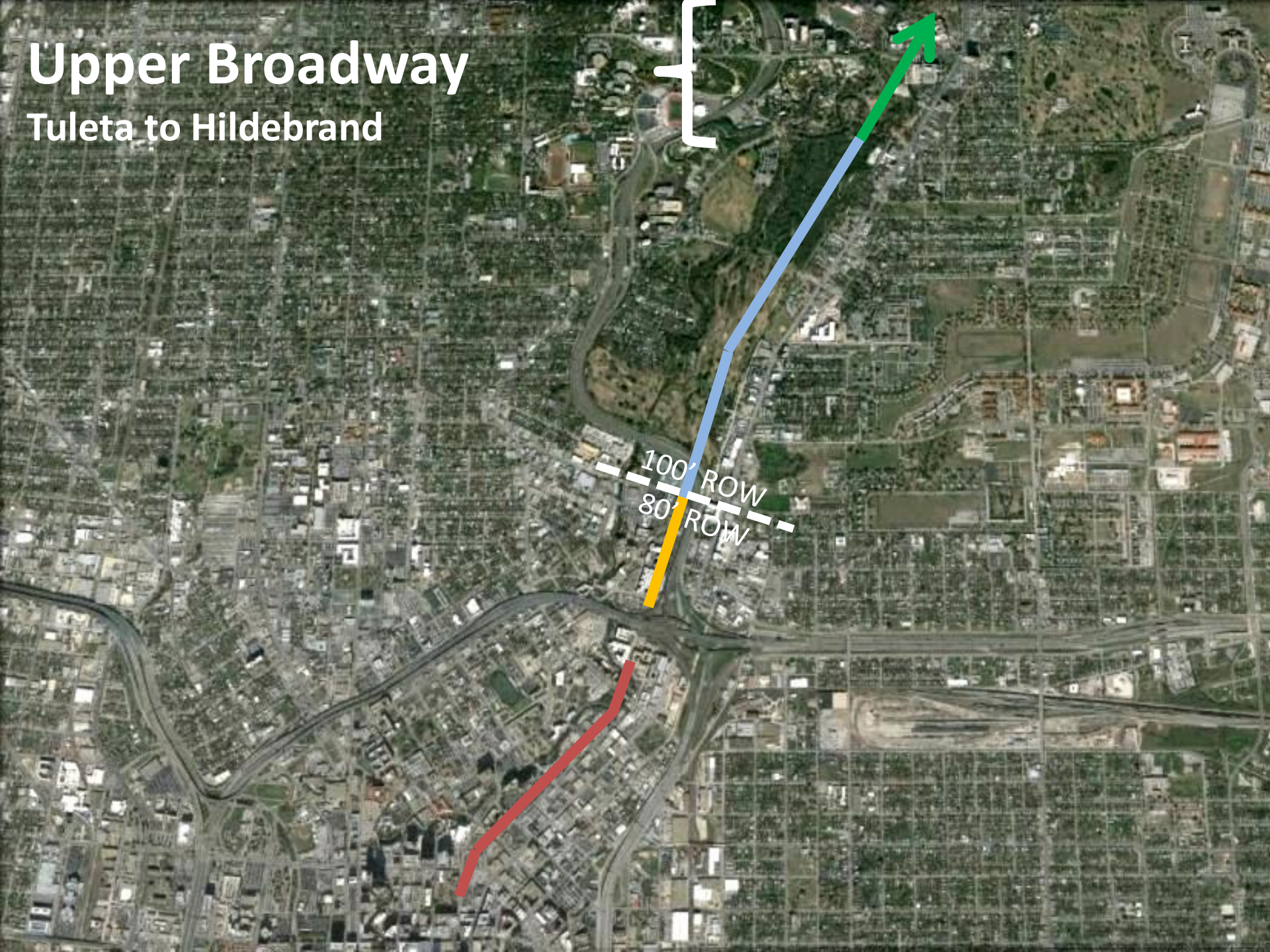
## Josephine to Tuleta - Proposed


# Upper Broadway Cultural Corridor

## At Brackenridge, looking north- Existing

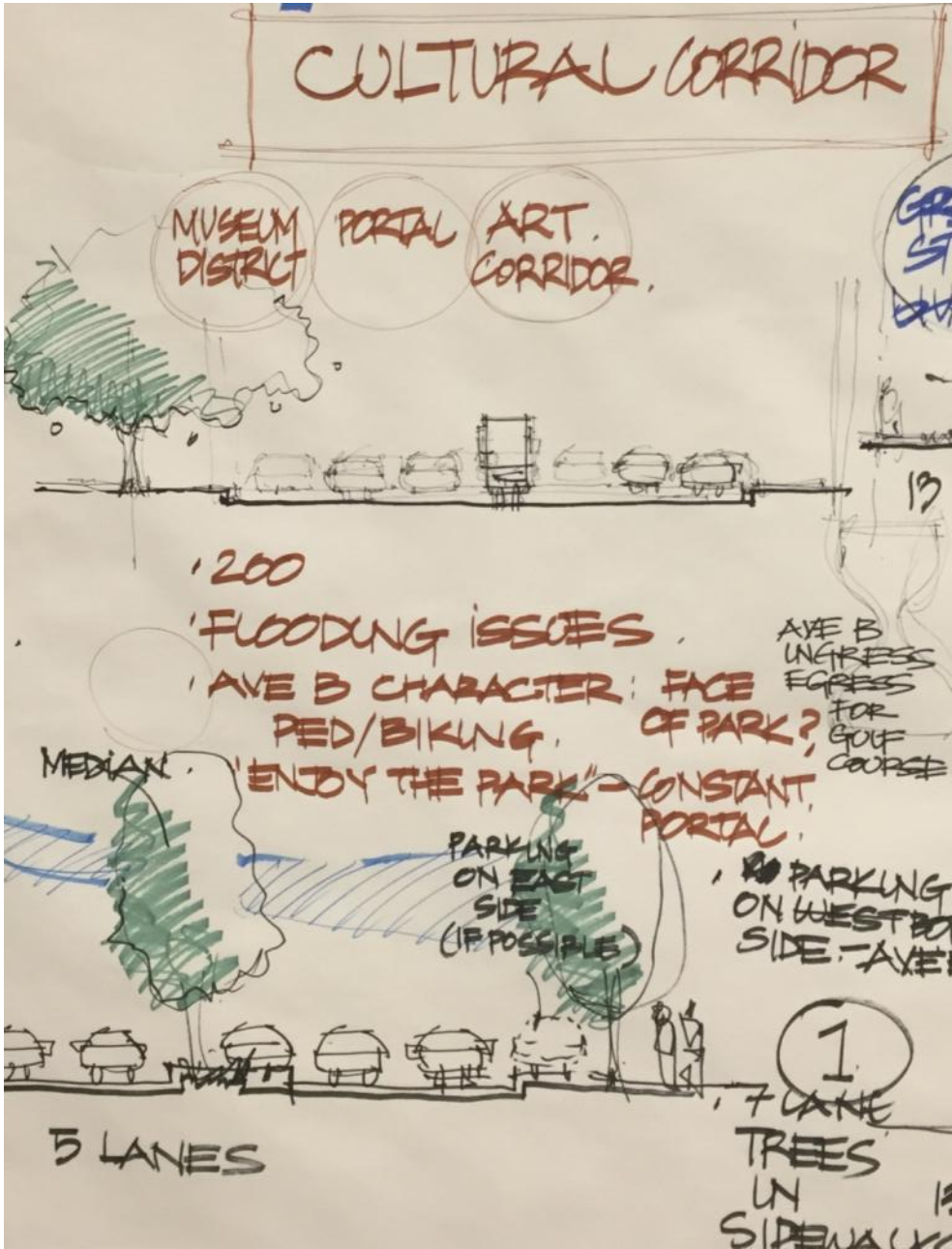
# Upper Broadway Cultural Corridor

## At Brackenridge, looking north - Proposed


Upper Broadway
Tuleta to Hildebrand
100' ROW
80' ROW

# Upper Broadway - Cultural Corridor Gateway

- Tuleta to Hildebrand
- ROW: 100’
- Overarching
  - Distinguish, beautify and brand the Museum District
  - Provide portals to and connections between cultural destinations
- Design Interventions
  - Planted median
  - Comfortable sidewalks and branded multi-use path
  - On-street parking only with developer setback

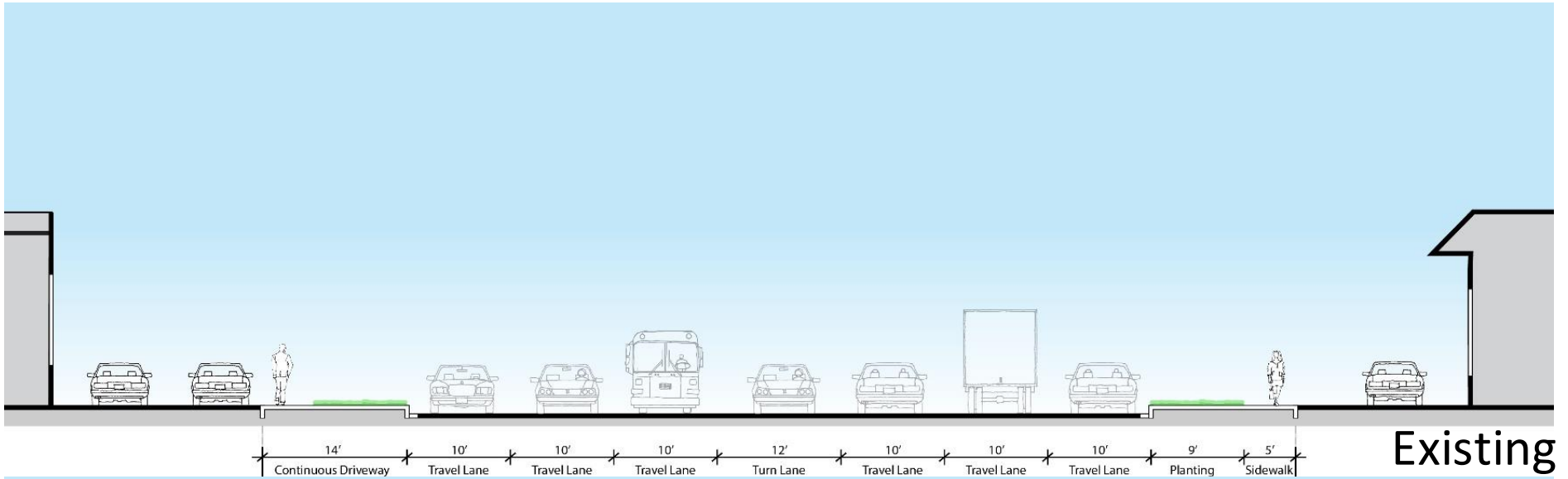


# Upper Broadway Cultural Corridor

## Tuleta to Hildebrand - Existing

# Upper Broadway Cultural Corridor

## Tuleta to Allensworth

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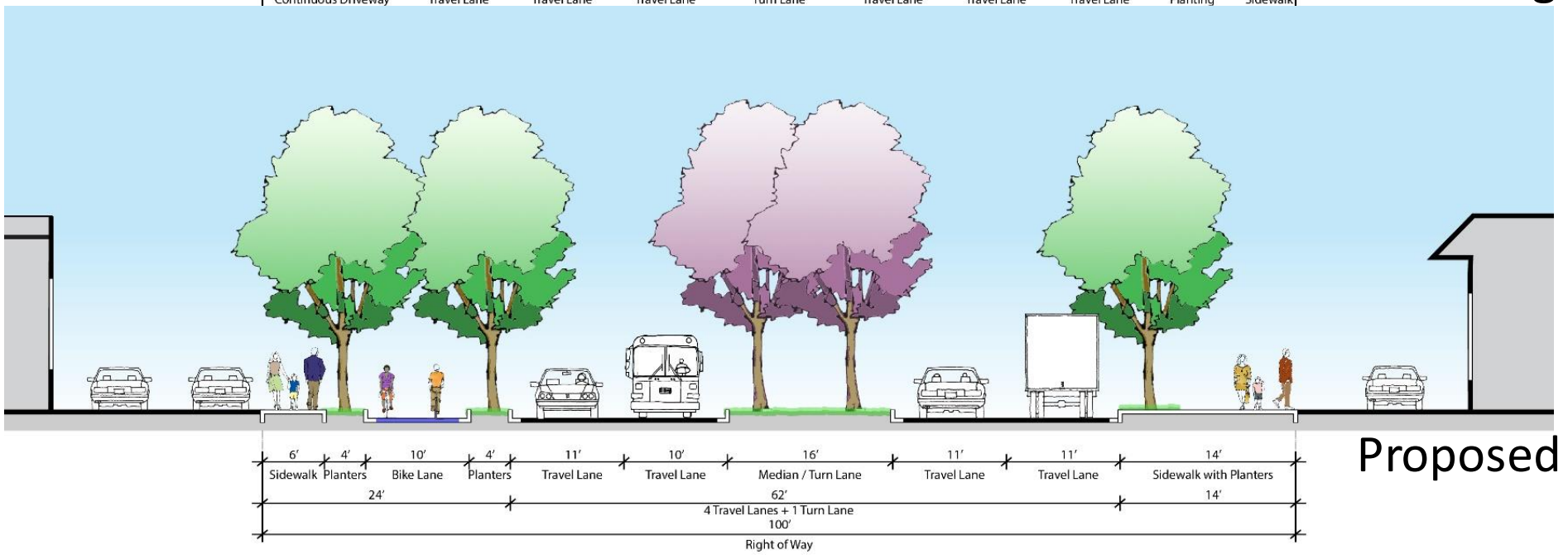



Proposed

# Upper Broadway Cultural Corridor

## Tuleta to Allensworth

# Upper Broadway Cultural Corridor

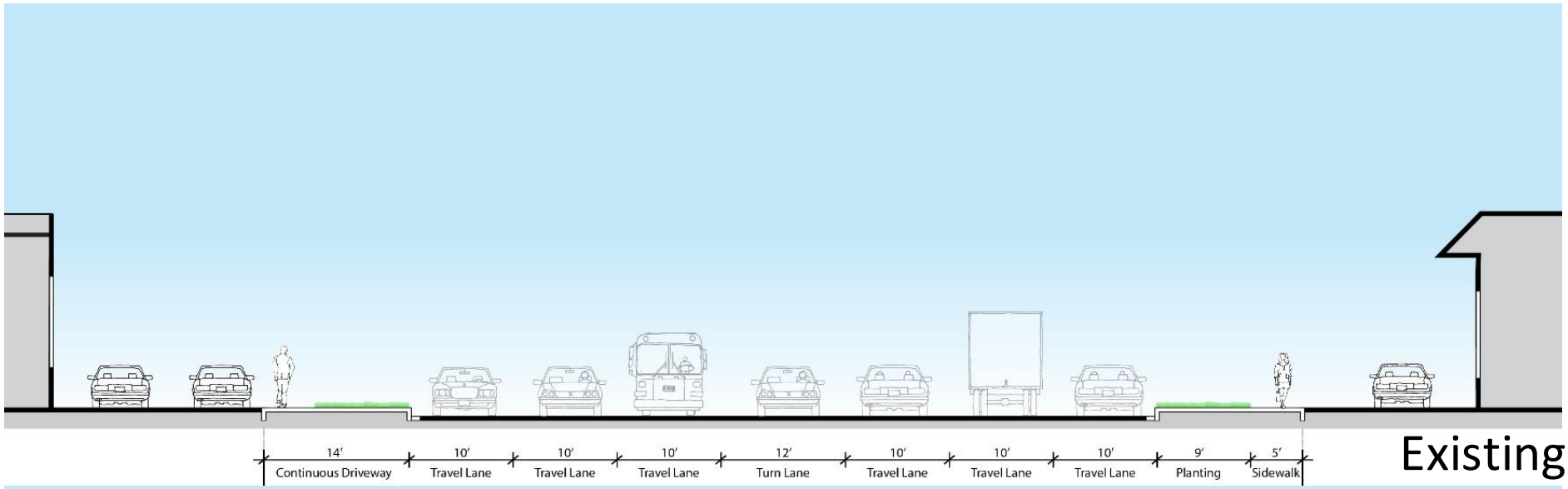
## At Witte looking south - Existing

# Upper Broadway Cultural Corridor

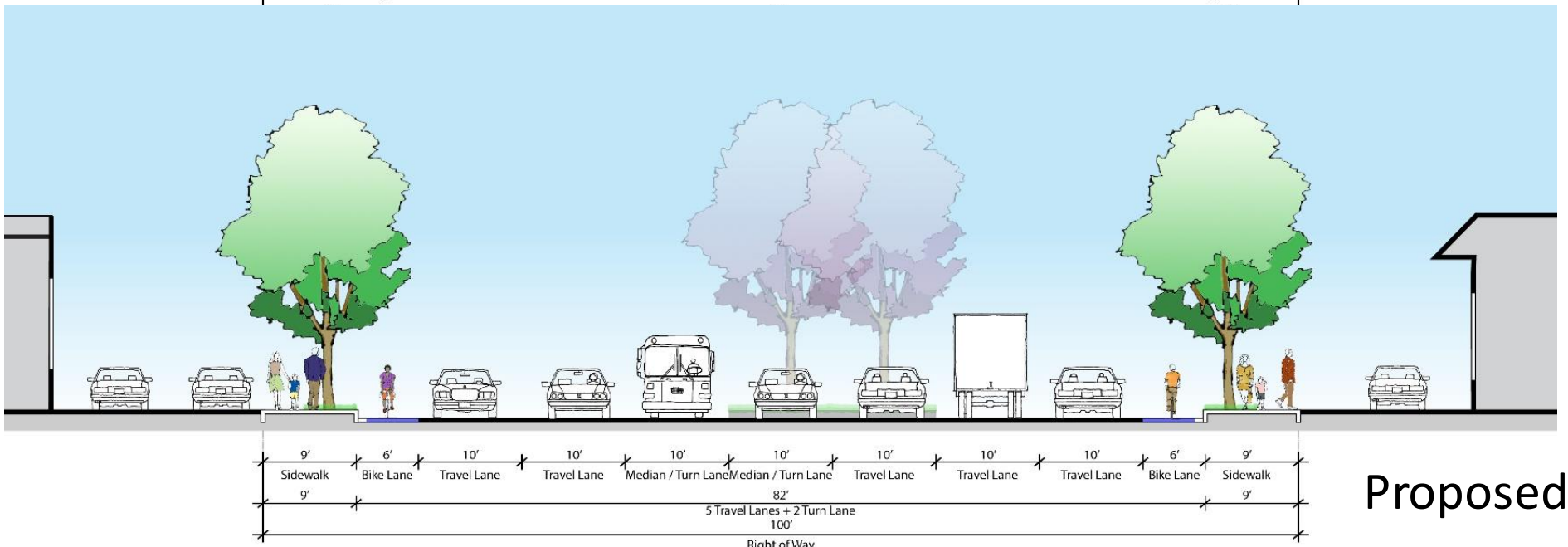
## At Witte looking south - Proposed

# Upper Broadway Cultural Corridor

## Allensworth to Hildebrand




Existing



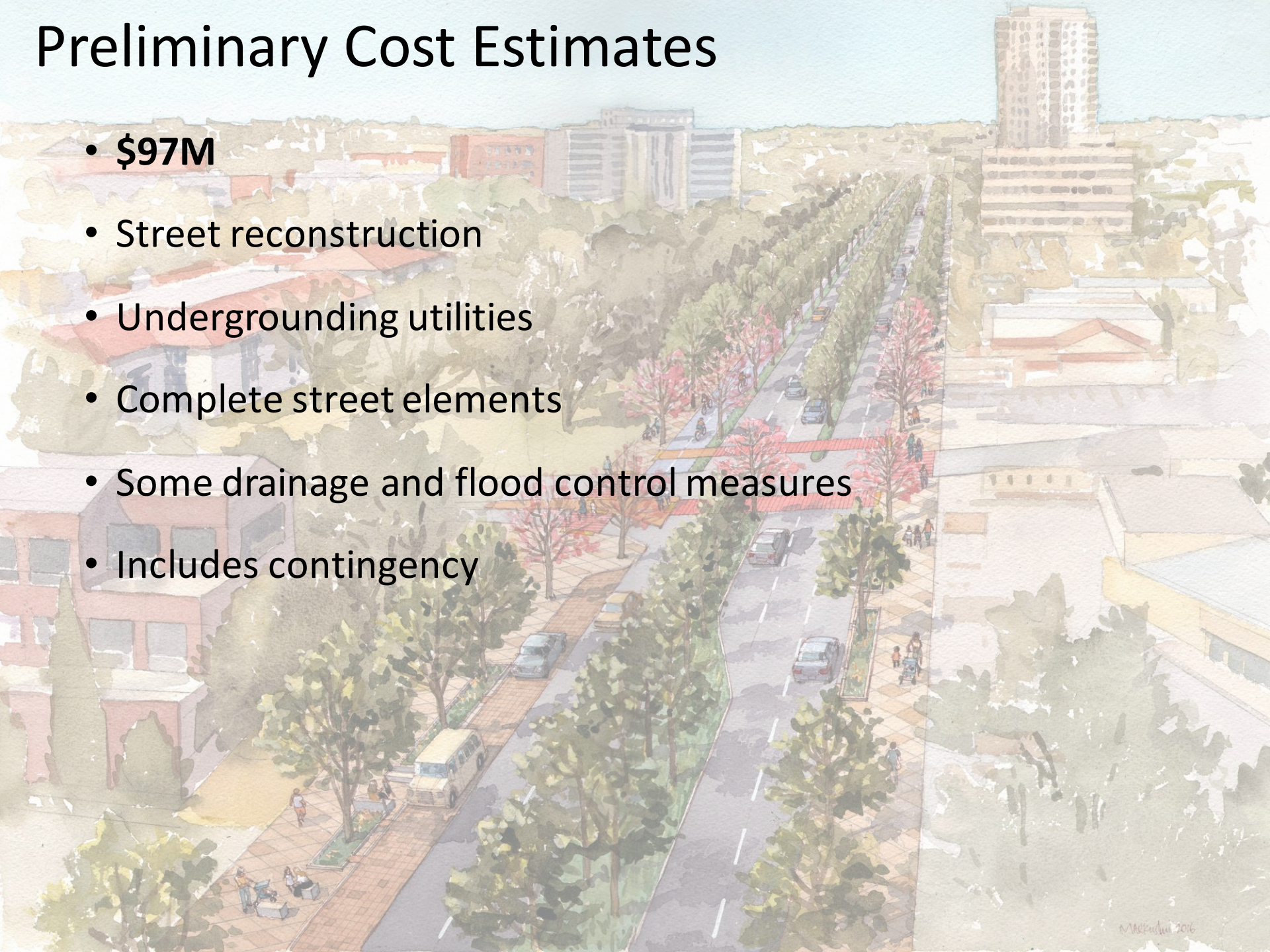

Proposed

# Upper Broadway Cultural Corridor

## Allensworth to Hildebrand - Proposed


Image Landsat
2004
Imagery Date: 2/3/2016 29°27'41.50" N 98°28'00.01" W elev 678 f

# Preliminary Cost Estimates



- **$97M**
- Street reconstruction
- Undergrounding utilities
- Complete street elements
- Some drainage and flood control measures
- Includes contingency

# Cost Estimates

- **$97M**

ASSUMPTIONS

- **Common:**
  - Street reconstruction
  - Undergrounding utilities
  - Complete street elements
  - Some drainage and flood control measures
- **Lower Broadway Corridor:**
  - Houston to 3rd: Curb bulbouts and streetscaping only
  - 3rd to Mulbery: Full depth pavement reconstruction & reconstruction of parkways
- **Upper Corridor:**
  - Mulberry to Allensworth: Full depth pavement reconstruction & reconstruction of parkways
  - Allensworth to Hildebrand: Minor pavement widening, streetscaping and parkway reconstruction

# Cost Estimates: Upper Broadway

| DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | 2016 COST | 2018 COST |
|---|---|---|---|---|---|
| Mobilization (10%) | LS | 1 | $ 3,120,000 | $ 3,120,000 | $ 3,374,592 |
| Insurance & Bonding (2%) | LS | 1 | $ 630,000 | $ 630,000 | $ 681,408 |
| | | | | | |
| Prep ROW | STA | 55 | $ 2,000 | $ 110,000 | $ 118,976 |
| | | | | | |
| Remove Old Concrete | SY | 15,500 | $ 13 | $ 193,750 | $ 209,560 |
| | | | | | |
| Street Excavation | CY | 12,400 | $ 15 | $ 186,000 | $ 201,178 |
| | | | | | |
| Geogrid (Subgrade Reinforcement) | SY | 32,700 | $ 4 | $ 130,800 | $ 141,473 |
| 12" Ty B (Base) HMAC (keep Hildebrand new pavement) | TONS | 21,580 | $ 75 | $ 1,618,492 | $ 1,750,561 |
| 3" Ty C (Surface) HMAC (keep Hildebrand new pavement) | TONS | 5,200 | $ 85 | $ 442,000 | $ 478,067 |
| | | | | | |
| Concrete Curb | LF | 13,200 | $ 12 | $ 158,400 | $ 171,325 |
| Flatwork (sdwk, drwy, bike path, lndscp pavers)-east & west pkwys | SY | 15,500 | $ 60 | $ 930,000 | $ 1,005,888 |
| Curb Ramps | EA | 90 | $ 1,500 | $ 135,000 | $ 146,016 |
| | | | | | |
| Landscape Center Median | SY | 7,900 | $ 30 | $ 237,000 | $ 256,339 |
| Landscape Bike Buffer | SY | 0 | $ 30 | $ - | $ - |
| Streetscaping (benches, lighting, trees, lansdscaping, etc.) - east & west pkwys | STA | 55 | $ 25,000 | $ 1,375,000 | $ 1,487,200 |
| | | | | | |
| Placemaking Design Elements | EA | 4 | $ 100,000 | $ 400,000 | $ 432,640 |
| | | | | | |
| Storm Drainage System | LS | 1 | $ 884,000 | $ 884,000 | $ 956,134 |
| LID Stormwater Plantings | SY | 5,850 | $ 50 | $ 292,500 | $ 316,368 |
| Drainage Outfall (from SARA) | LS | 1 | $ 9,500,000 | $ 9,500,000 | $ 10,275,200 |
| | | | | | |
| Small Signing | LS | 1 | $ 23,000 | $ 23,000 | $ 24,877 |
| Pavement Markings (4", 8", solid, broken, words, arrows) | LS | 1 | $ 71,000 | $ 71,000 | $ 76,794 |
| | | | | | |
| Traffic Signals | EA | 6 | $ 200,000 | $ 1,200,000 | $ 1,297,920 |
| | | | | | |
| Barricades & Temp Traffic Handling | LS | 1 | $ 440,000 | $ 440,000 | $ 475,904 |
| SW3P | LS | 1 | $ 20,000 | $ 20,000 | $ 21,632 |
| | | | | | |
| Bury OH Electric Utilities | LF | 10,900 | $ 800 | $ 8,720,000 | $ 9,431,552 |
| | | | | | |
| | | | Subtotal = | $ 30,816,942 | $ 33,331,604 |
| | | | 15% Construction Contingency = | $ 4,623,000 | $ 5,000,237 |
| | | | Estimated Construction Cost = | $ 35,439,942 | $ 38,331,841 |
| | | | Engineering & Environmental Permitting (20%) = | $ 7,087,988 | $ 7,666,368 |
| | | | **TOTAL =** | **$ 42,527,930** | **$ 45,998,209** |

# Cost Estimates: Lower Broadway

| DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | 2016 COST | 2018 COST |
|---|---|---|---|---|---|
| Mobilization (10%) | LS | 1 | $ 3,440,000 | $ 3,440,000 | $ 3,720,704 |
| Insurance & Bonding (2%) | LS | 1 | $ 690,000 | $ 690,000 | $ 746,304 |
| | | | | | |
| Prep ROW | STA | 123 | $ 2,000 | $ 246,000 | $ 266,074 |
| | | | | | |
| Remove Old Concrete | SY | 30,300 | $ 13 | $ 378,750 | $ 409,656 |
| | | | | | |
| Street Excavation | CY | 36,100 | $ 15 | $ 541,500 | $ 585,686 |
| | | | | | |
| Geogrid (Subgrade Reinforcement) | SY | 86,600 | $ 4 | $ 346,400 | $ 374,666 |
| 12" Ty B (Base) HMAC (keep Hildebrand new pavement) | TONS | 57,300 | $ 75 | $ 4,297,500 | $ 4,648,176 |
| 3" Ty C (Surface) HMAC (keep Hildebrand new pavement) | TONS | 13,500 | $ 85 | $ 1,147,500 | $ 1,241,136 |
| | | | | | |
| Concrete Curb | LF | 39,700 | $ 12 | $ 476,400 | $ 515,274 |
| Flatwork (sdwk, drwy, bike path, lndscp pavers)-east & west pkwys | SY | 30,300 | $ 60 | $ 1,818,000 | $ 1,966,349 |
| Curb Ramps | EA | 166 | $ 1,500 | $ 249,000 | $ 269,318 |
| | | | | | |
| Landscape Center Median | SY | 5,700 | $ 30 | $ 171,000 | $ 184,954 |
| Landscape Bike Buffer | SY | 700 | $ 30 | $ 21,000 | $ 22,714 |
| Streetscaping (benches, lighting, trees, lansdscaping, etc.) - east & west pkwys | STA | 133 | $ 25,000 | $ 3,325,000 | $ 3,596,320 |
| | | | | | |
| Placemaking Design Elements | EA | 6 | $ 100,000 | $ 600,000 | $ 648,960 |
| | | | | | |
| Storm Drainage System | LS | 1 | $ 2,295,000 | $ 2,295,000 | $ 2,482,272 |
| LID Stormwater Plantings | SY | 9,000 | $ 50 | $ 450,000 | $ 486,720 |
| Drainage Outfall (assume outfalls for existing system adequate for proposed) | LS | 0 | $ - | $ - | $ - |
| | | | | | |
| Small Signing | LS | 1 | $ 58,000 | $ 58,000 | $ 62,733 |
| Pavement Markings (4", 8", solid, broken, words, arrows) | LS | 1 | $ 184,000 | $ 184,000 | $ 199,014 |
| | | | | | |
| Traffic Signals | EA | 13 | $ 200,000 | $ 2,600,000 | $ 2,812,160 |
| | | | | | |
| Barricades & Temp Traffic Handling | LS | 1 | $ 1,170,000 | $ 1,170,000 | $ 1,265,472 |
| SW3P | LS | 1 | $ 52,000 | $ 52,000 | $ 56,243 |
| | | | | | |
| Bury OH Electric Utilities | LF | 11,800 | $ 800 | $ 9,440,000 | $ 10,210,304 |
| | | | | | |
| | | | Subtotal = | $ 33,997,050 | $ 36,771,209 |
| | | | 15% Construction Contingency = | $ 5,100,000 | $ 5,516,160 |
| | | | Estimated Construction Cost = | $ 39,097,050 | $ 42,287,369 |
| | | | Engineering & Environmental Permitting (20%) = | $ 7,819,410 | $ 8,457,474 |
| | | | **TOTAL =** | **$ 46,916,460** | **$ 50,744,843** |

# Traffic Analysis

- Lower Broadway - Updated Traffic Analysis

| Intersection | Existing | No Build 2040 |
|---|---|---|
| 3rd | B | B |
| 4th | A | A |
| McCullough | C | **F** |
| Brooklyn | B | B |
| 8th | A | A |
| 9th | A | A |
| Jones | A | C |
| Newell/Casablanca | D | **F** |
| Grayson | A | E |
| Josephine | B | C |
| Alamo/Cunningham | C | **F** |
| Brackenridge | A | B |

# Traffic Analysis

- Lower Broadway - Updated Traffic Analysis

| Intersection | Existing | No Build 2040 | Repurposed w/ Improvements 2040 |
|---|---|---|---|
| 3rd | B | B | C |
| 4th | A | A | B |
| McCullough | C | **F** | E |
| Brooklyn | B | B | D |
| 8th | A | A | A |
| 9th | A | A | A |
| Jones | A | C | C |
| Newell/Casablanca | D | **F** | **F** |
| Grayson | A | E | **F** |
| Josephine | B | C | **F** |
| Alamo/Cunningham | C | **F** | E |
| Brackenridge | A | B | E |

# Traffic Analysis

- Lower Broadway - Updated Traffic Analysis

| Intersection | Existing | No Build 2040 | Repurposed w/ Improvements 2040 | 2040 Mode Shift[+] |
|---|---|---|---|---|
| 3rd | B | B | C | B |
| 4th | A | A | B | B |
| McCullough | C | **F** | E | C |
| Brooklyn | B | B | D | C |
| 8th | A | A | A | A |
| 9th | A | A | A | A |
| Jones | A | C | C | B |
| Newell/Casablanca | D | **F** | **F** | **F** |
| Grayson | A | E | **F** | E |
| Josephine | B | C | **F** | D |
| Alamo/Cunningham | C | **F** | E | C |
| Brackenridge | A | B | E | B |

[+] 15% mode shift assumed

# Traffic Analysis

- Upper Broadway - New Traffic Analysis

| Intersection | Existing | No Build 2040 |
|---|---|---|
| Mulberry | D | **F** |
| Eleanor | A | D |
| Funston | C | **F** |
| Tuleta | D | **F** |
| Allensworth | A | D |
| Hildebrand | E | **F** |

Delay exceeds 5 minutes.

# Traffic Analysis

- Upper Broadway - New Traffic Analysis

| Intersection | Existing | No Build 2040 | Repurposed w/ Improvements 2040 |
|---|---|---|---|
| Mulberry | D | **F** | **F** |
| Eleanor | A | D | D |
| Funston | C | **F** | **F** |
| Tuleta | D | **F** | **F** |
| Allensworth | A | D | **F** |
| Hildebrand | E | **F** | **F** |

Delay exceeds 5 minutes.

# Traffic Analysis

- Upper Broadway - New Traffic Analysis

| Intersection | Existing | No Build 2040 | Repurposed w/ Improvements 2040 | 2040 Mode Shift[+] |
|---|---|---|---|---|
| Mulberry | D | **F** | **F** | F |
| Eleanor | A | D | D | A |
| Funston | C | **F** | **F** | D |
| Tuleta | D | **F** | **F** | D |
| Allensworth | A | D | **F** | C |
| Hildebrand | E | **F** | **F** | **F** |

Delay exceeds 5 minutes.

40% mode shift assumed

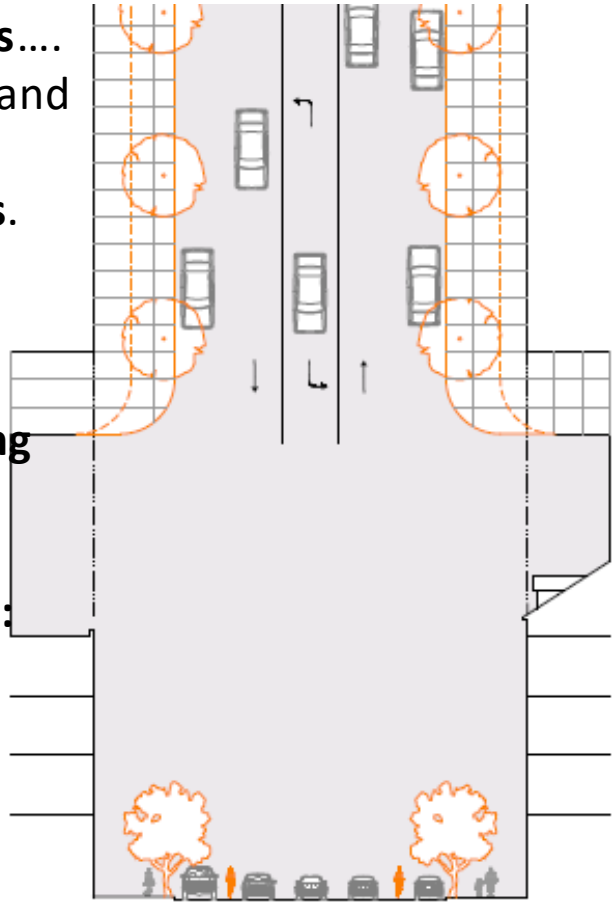
# Recent History of Concept Design

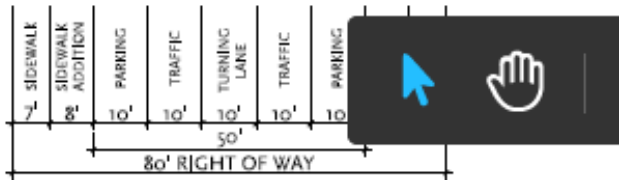
Lower Bway

# River North Master Plan

In implementing the Broadway improvements, an engineering / urban design plan must carefully consider the following elements:

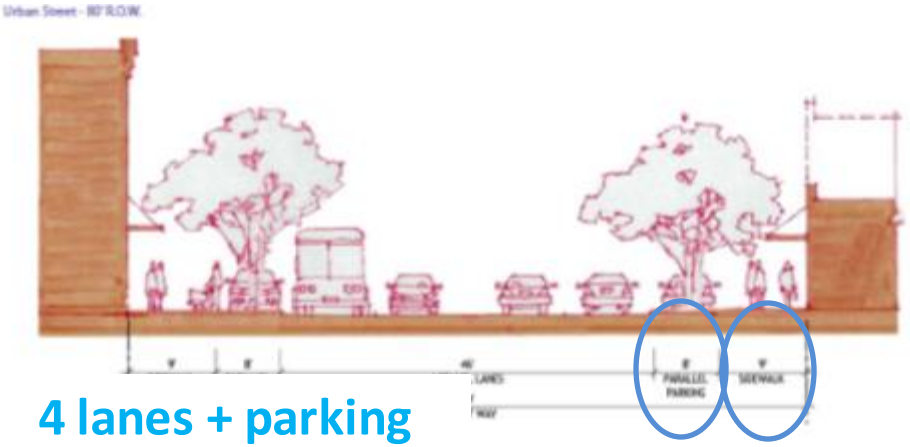
1. **Alignment of the 5 proposed travel lanes**….
2. ..new urban **sidewalks**, and the location and alignment of **crosswalks**.
3. … modifications to **traffic control devices**.
4. new **street trees and street lights**, benches...
5. **clearances for parade floats**.
6. a more permanent and attractive **marking of the parade route**, to replace the existing painted stripe.
7. **unit pavers for the sidewalks would give:**
   a. A higher quality appearance.
   b. Rainwater infiltration
   c. Simplifies disruption of sidewalks when new buildings are constructed
   d. If a new building project proposed a special type of sidewalk along its frontage, pavers can be pulled up for reuse elsewhere



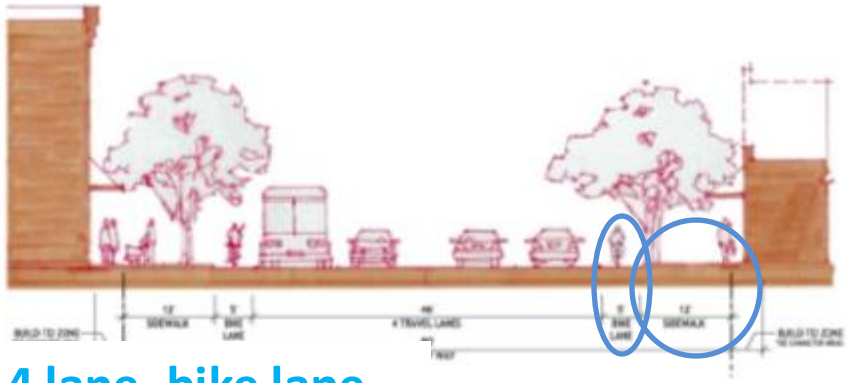


# Midtown Brackenridge Plan

Lower Bway



4 lanes + parking



4 lane, bike lane



way Sub Area

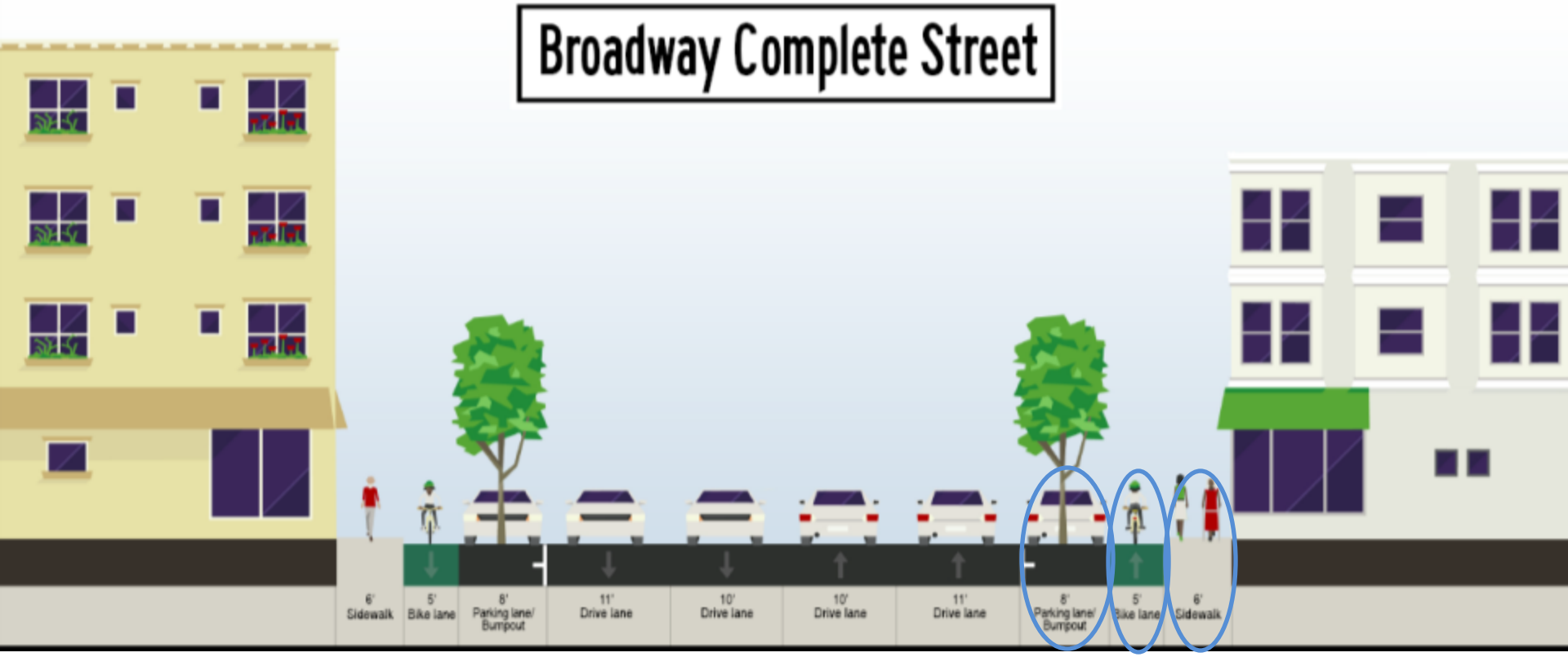
Existing conditions

Conceptual rendering street section

Lower Bway

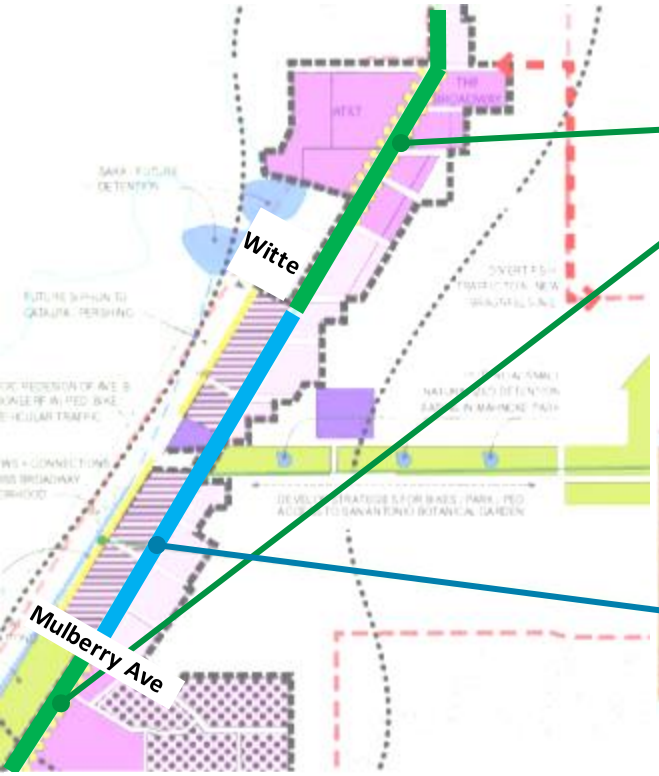
# City Complete Street study

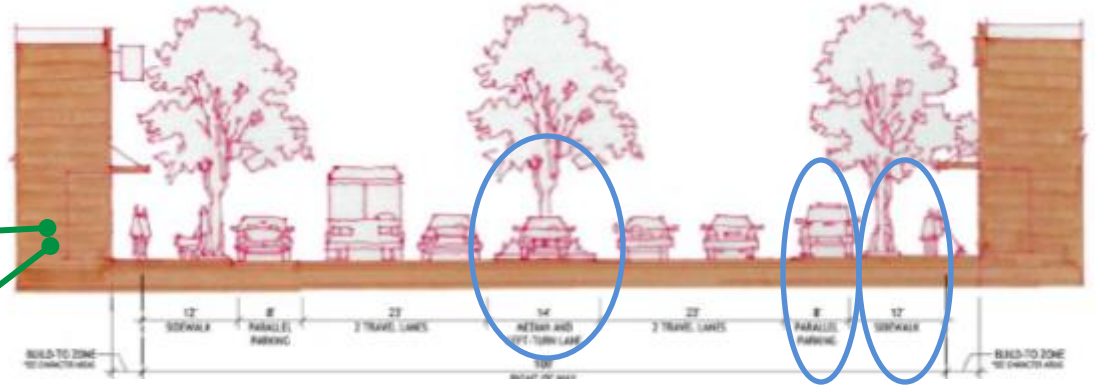
Without left turn lanes



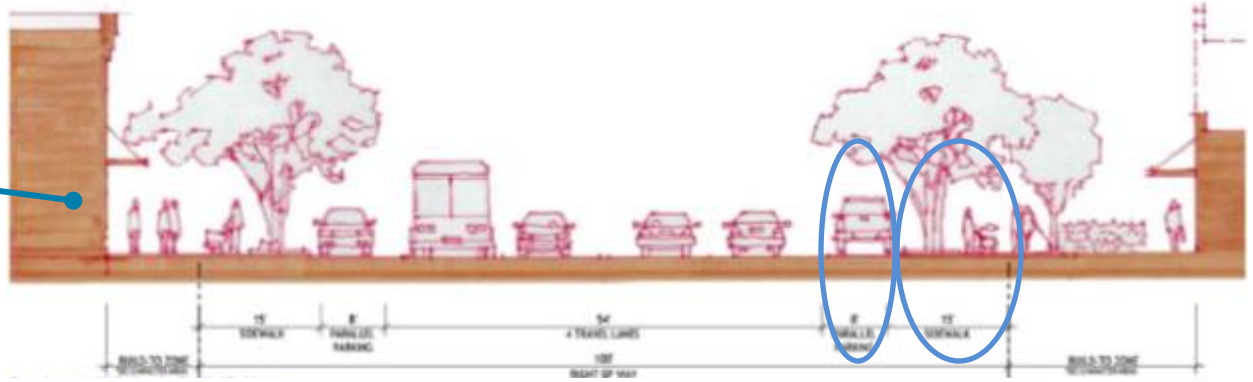
# Midtown Brackenridge Plan

Upper Bway



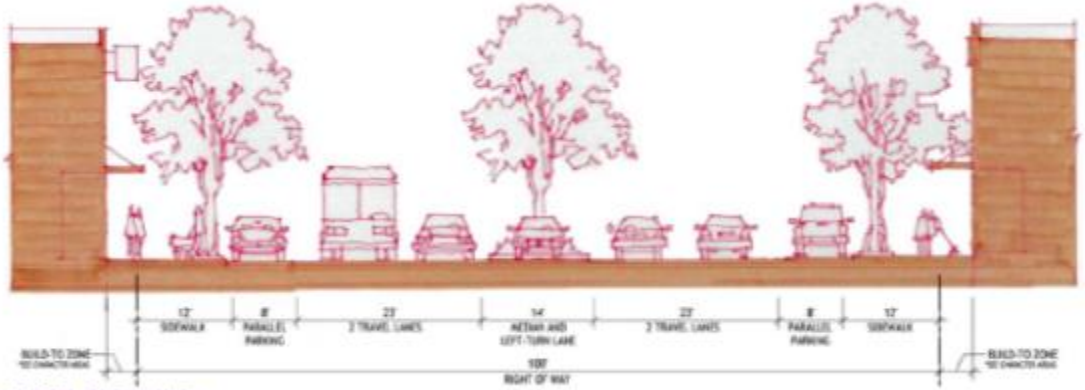



**Boulevard treatment – 5 lanes + parking**



**“Urban” treatment – 4 lanes + parking**

100’ ROW




Broadway 100' R.O.W. with Center Median

isting looking south from Allensworth

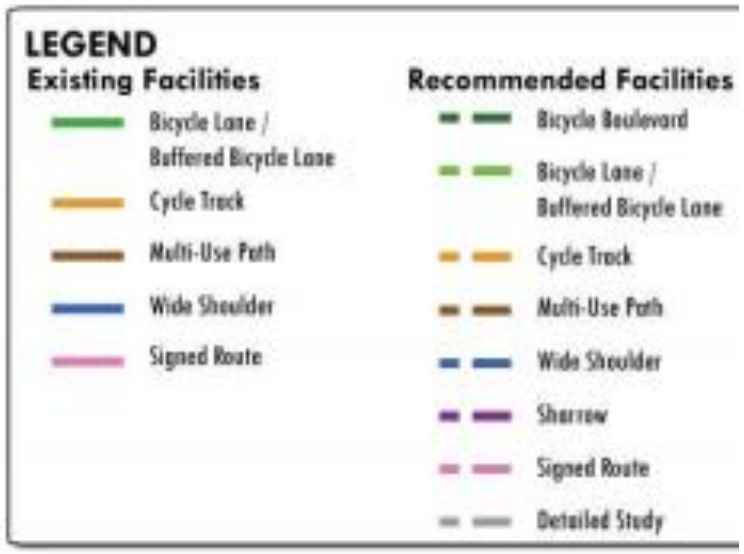
Existing looking north toward the Witte Museum at Queen Anne Ct.

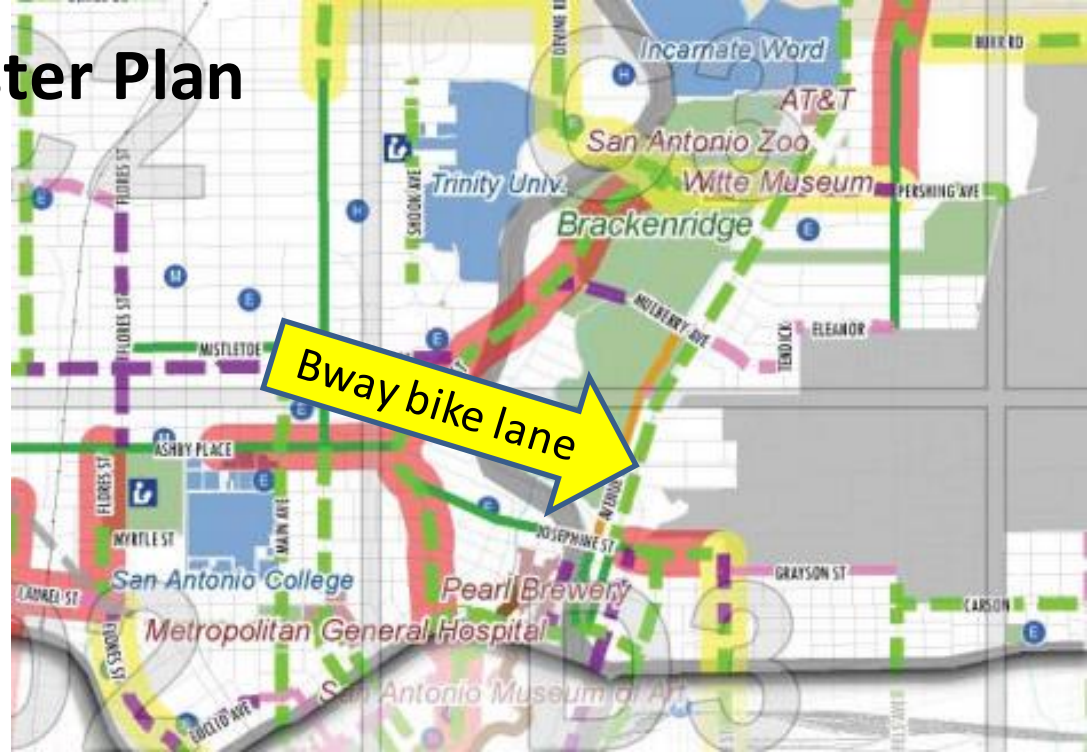
onceptual rendering looking south from Allensworth showing Retail-Ready ground floor in the Neighborhood Core.

Conceptual rendering looking north toward the Witte Museum at Queen Anne Ct.

# Recent History of Bicycle Planning

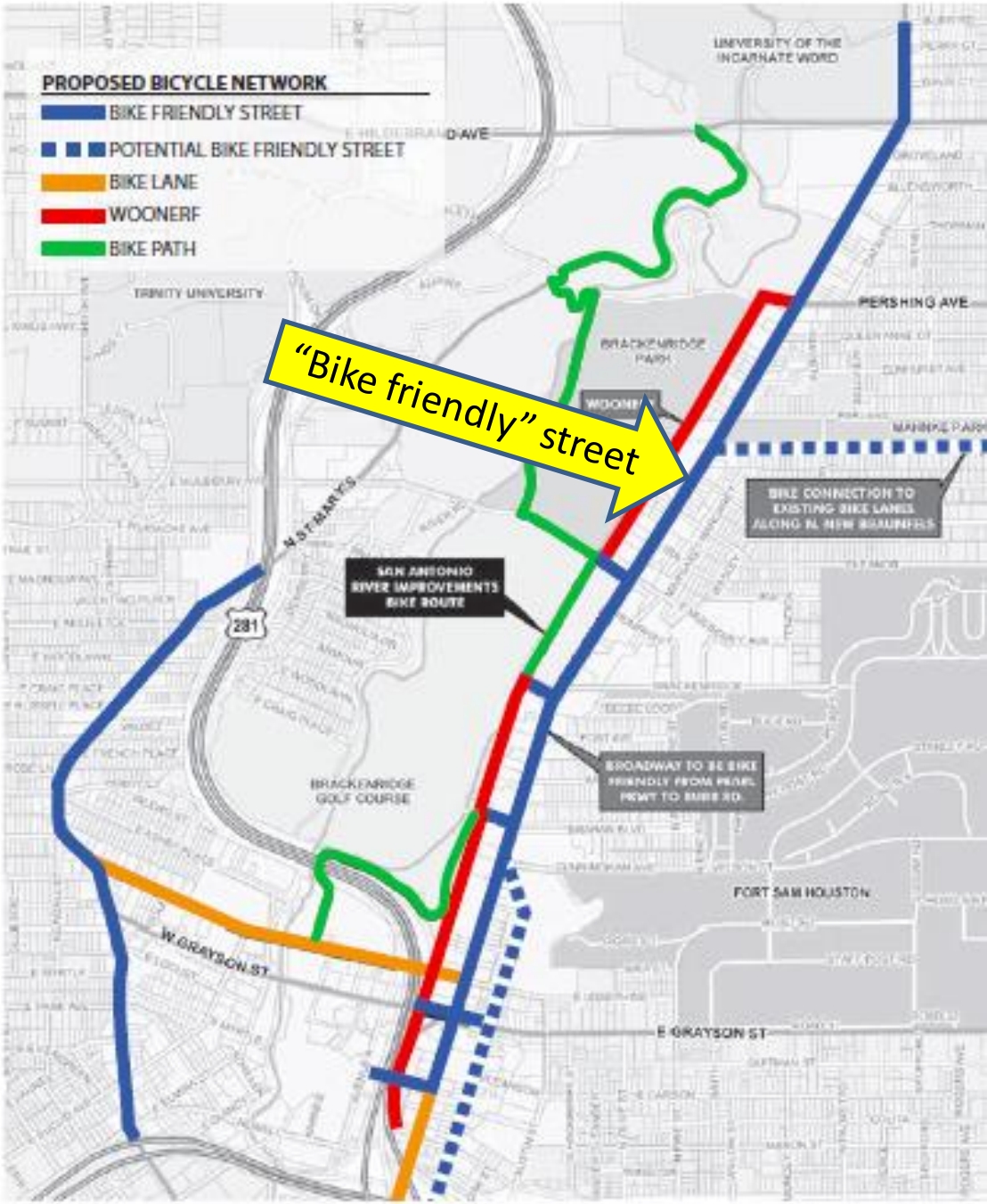
# San Antonio Bicycle Master Plan




MidTown Brackenridge
San Antonio, Texas

"The San Antonio Bicycle Master Plan Update and Implementation Plan should guide the planning of any street improvements in MidTown Brackenridge."




Proposed bike transportation network in MidTown Brackenridge

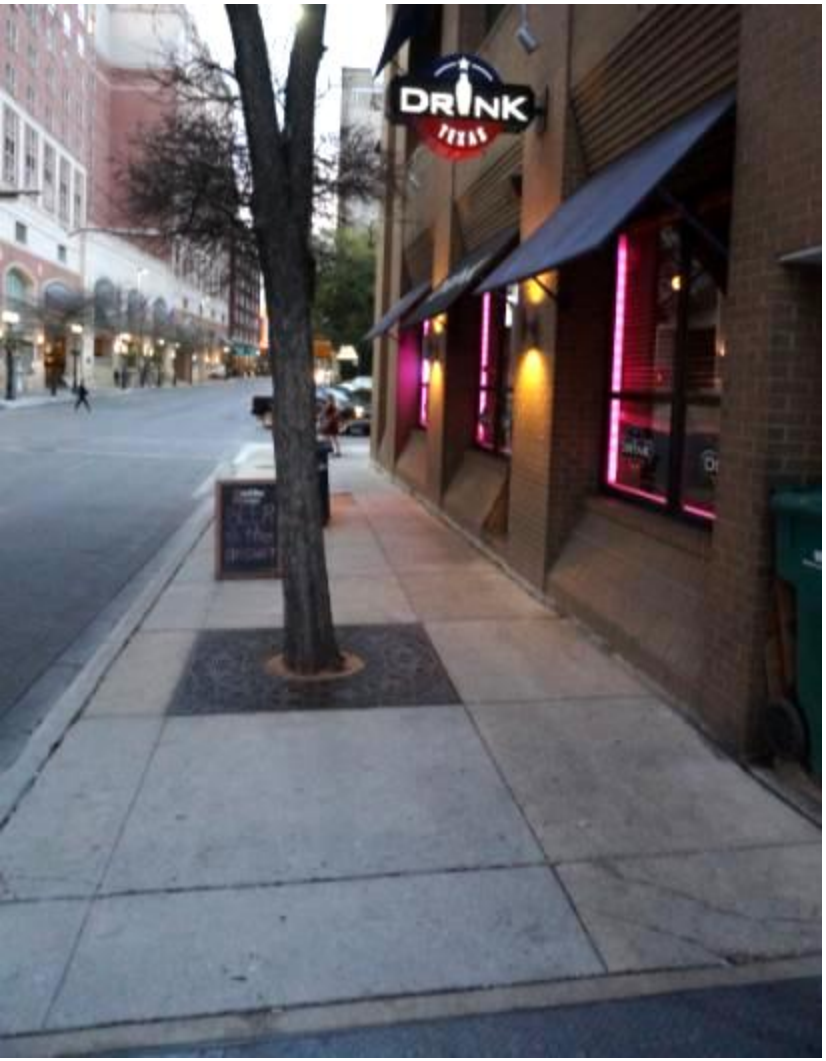
# Comparable Sidewalk Widths

# Sidewalk widths

8 feet


19 feet

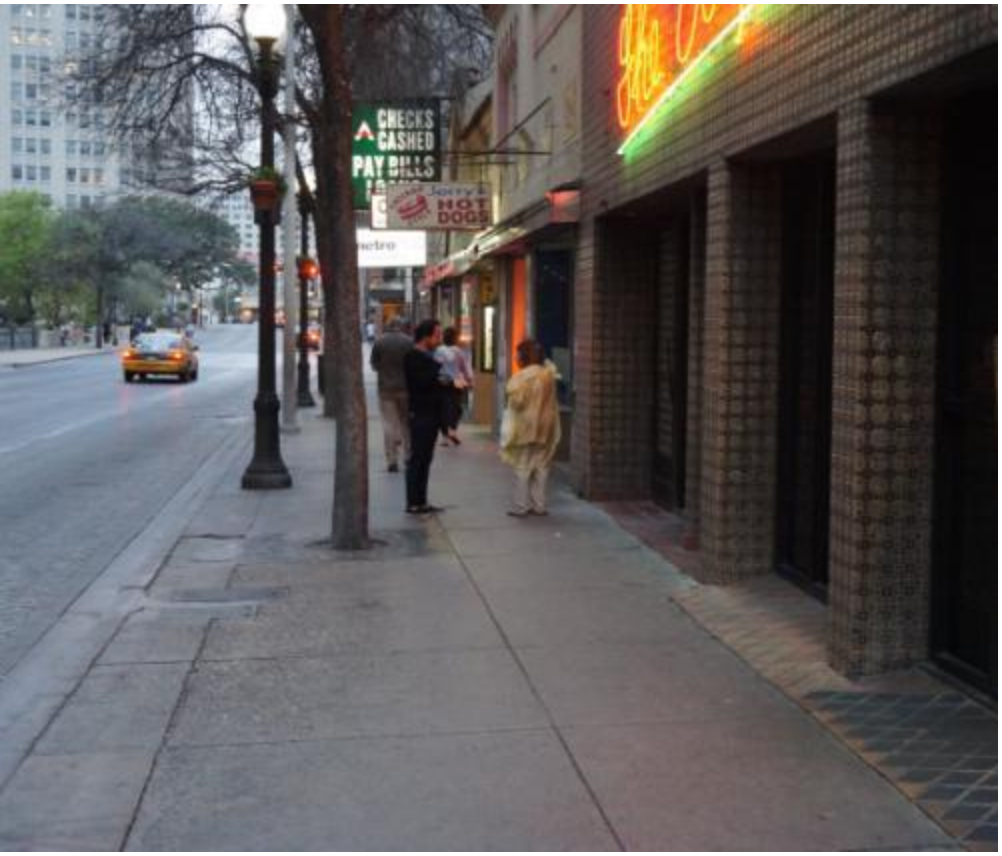
# Sidewalk widths





10 feet

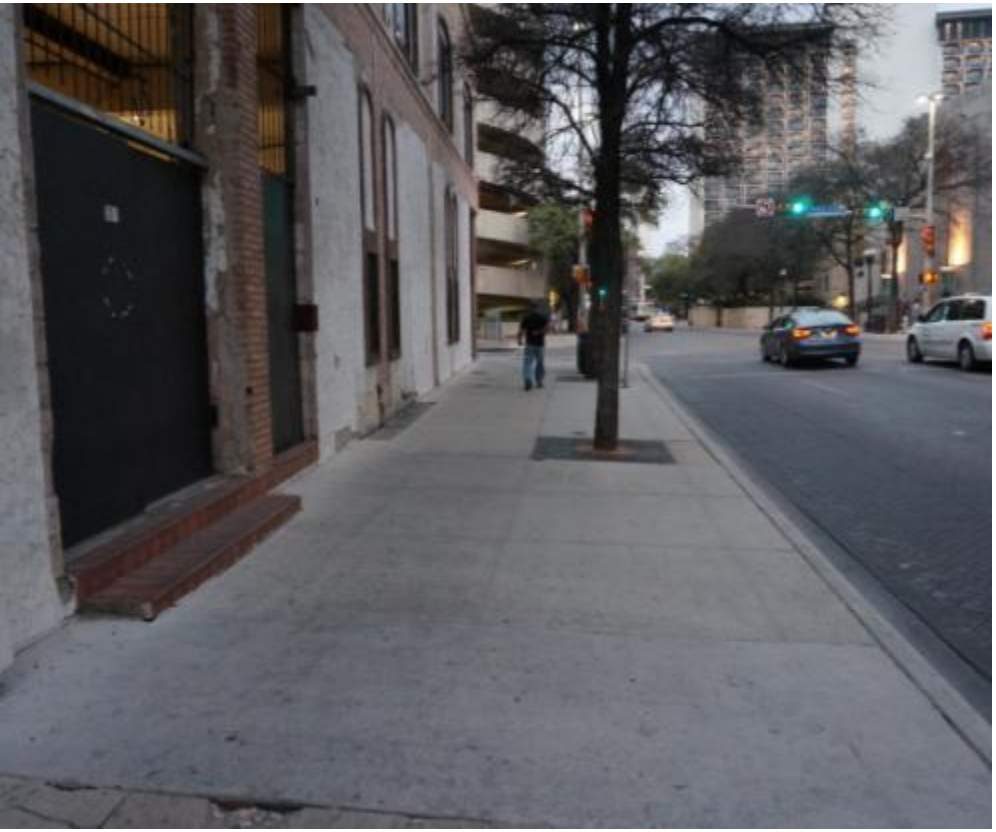
# Sidewalk widths




11 feet


12 feet

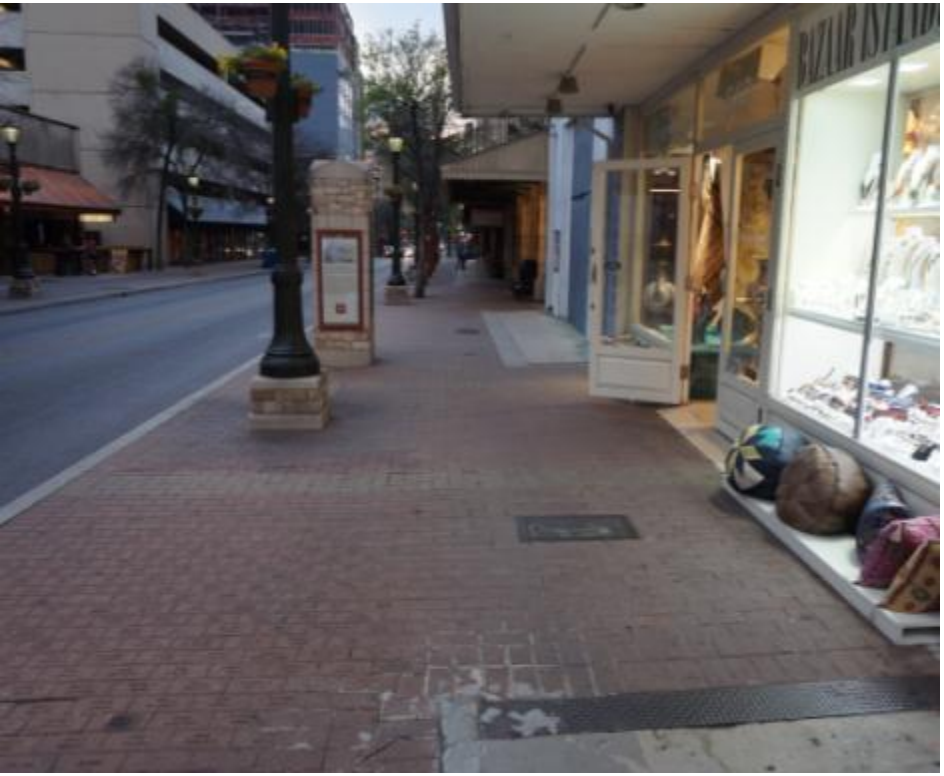
# Sidewalk widths



13 feet

14 feet

# Sidewalk widths



15 feet

16 feet

# Case Study: Indy Cultural Trail

- **$63 million investment = $1 billion ROI**
  - in increased property value and other economic benefits since 2008
- **One investment, multiple outcomes**
  - Placemaking and and beautification
  - Economic
  - Lifestyle and fitness
  - Environmental



Connecting institutions (physically, programmatically)



Branded wayfinding

Safe for all users

Innovative and Artistic


Serves all kinds of development