## A Myriad of Obstacles

Downtown Phoenix Construction Reroute Plan

**AZTA Statewide Conference** 

April 2022





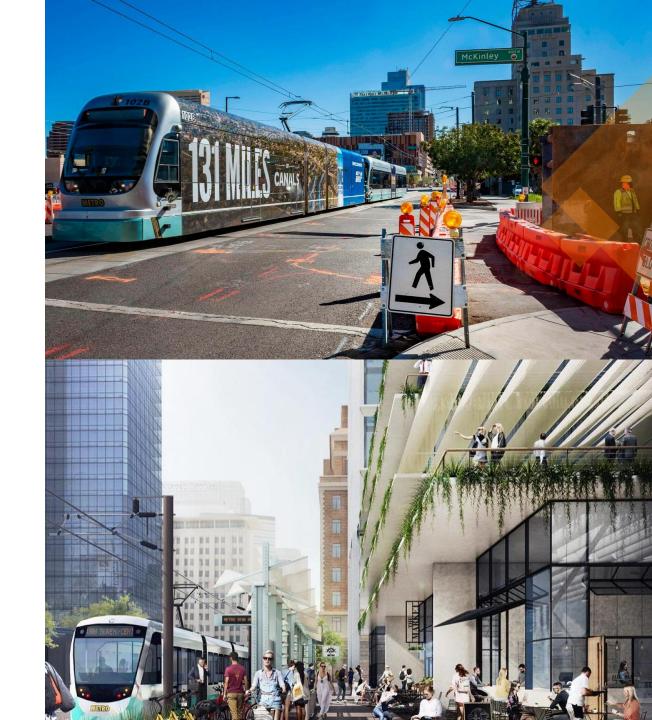


- Background
- 2019 Conditions
- Evaluation Process
- Routing Alternatives
- Implementation Needs & Challenges
- Final Routing
- Outreach
- Post-Implementation Response

### Background

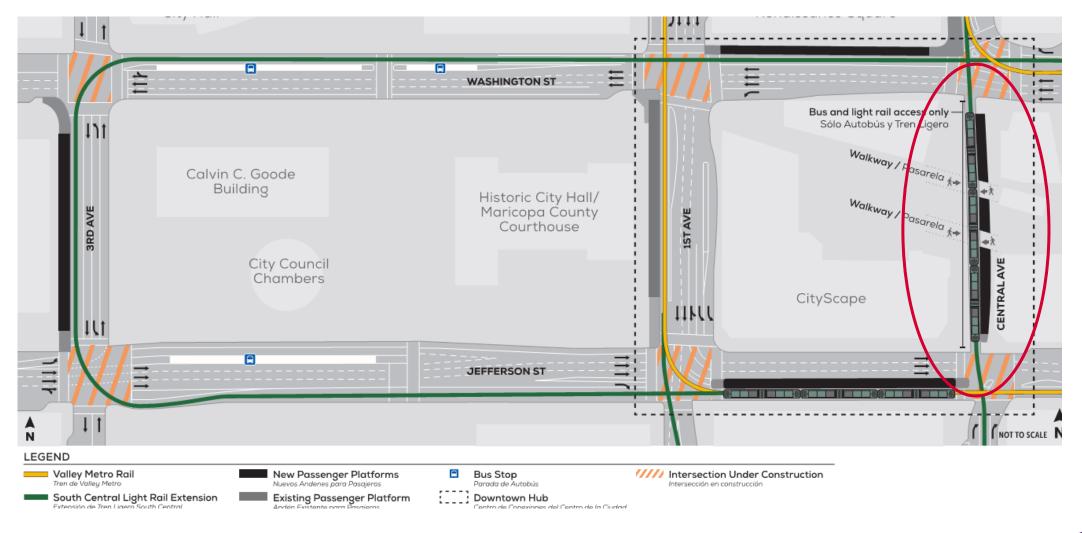
## Construction reroute plan initiated as a result of:

- South Central Light Rail Extension / Downtown Hub Project
- Central Station Redevelopment



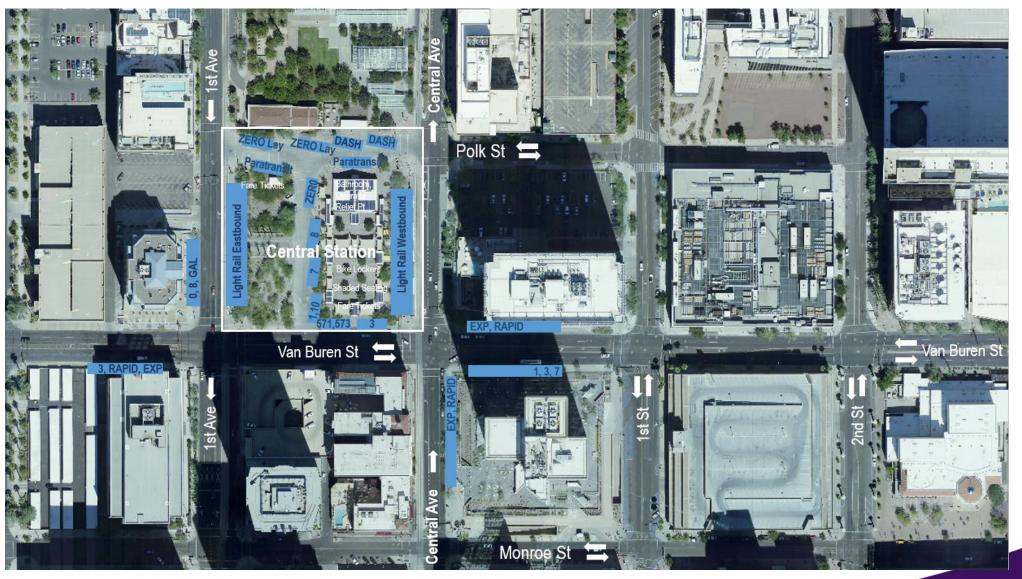






## Central Station Redevelopment Impacts





### **Total Impacts**





# Additional Project Context

- Ongoing private development construction (sidewalk closures)
- Operations service contracts (set timeframes)
- Moving timelines
  - South Central Extension closure of Central Ave
  - Central Station construction
  - 5<sup>th</sup> Avenue Redesign Project
- Downtown activity centers & events







## Service Planning Objectives

- Minimize impact to passengers
  - Keep service as close to high ridership stops/destinations
  - Maintain proximity of transfer locations
  - Maintain travel time reliability
  - Fewest number of relocations
- Avoid high construction areas
- Develop potential long-term routing solution to Central Ave closure



### Planning Team

#### Primary:

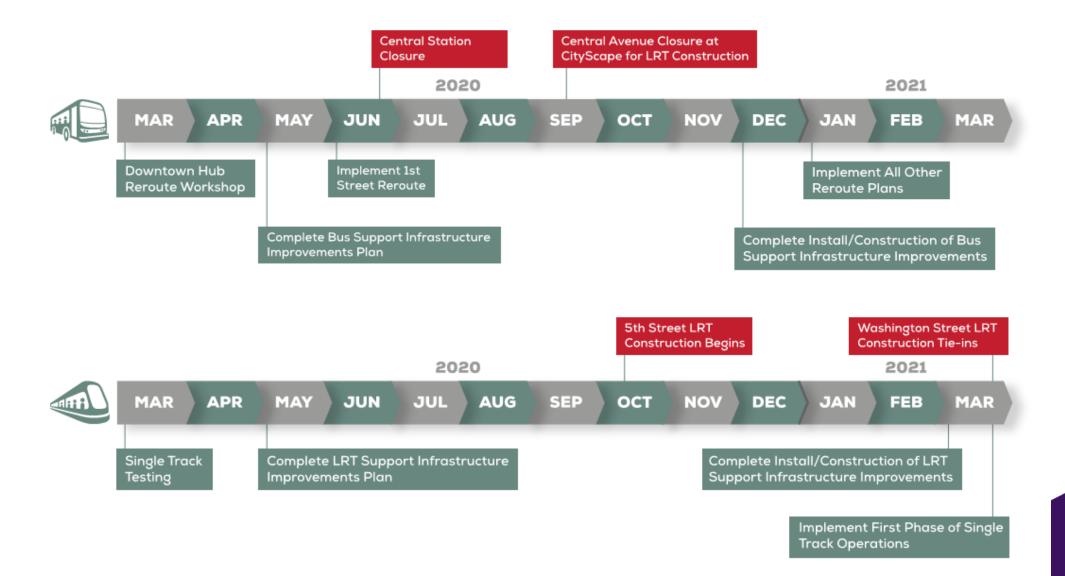
- Valley Metro Service Planning
- City of Phoenix Public Transit Department
- Valley Metro Community Relations
- Valley Metro Marketing

#### Support from:

- City of Phoenix Street Transportation Department
- City of Phoenix Community & Economic Development
- Arizona State University

## Original Timeline of Events Transit Service Plan Schedule





## 2019 Conditions



### Express Network – 2019 Inbound Routing



VALLEY

## Express Network – 2019 Outbound Routing





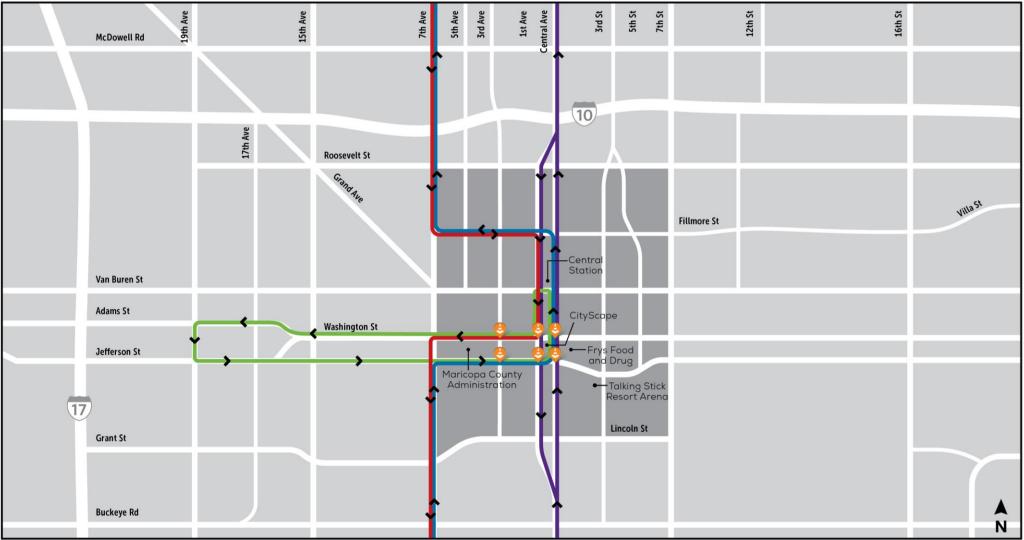
**5**14, 520, 521, 522, 531, 533, 535, 541, 542, I10E, SME, SR-51 I10W, 562, 563, 573, 571

I17, 575, GAL SMW

Major Construction Zone
Reroute Study Area

## Local Routing - April 2020







### Volume of Commuter Buses

#### **Primarily rerouting peak-period services**

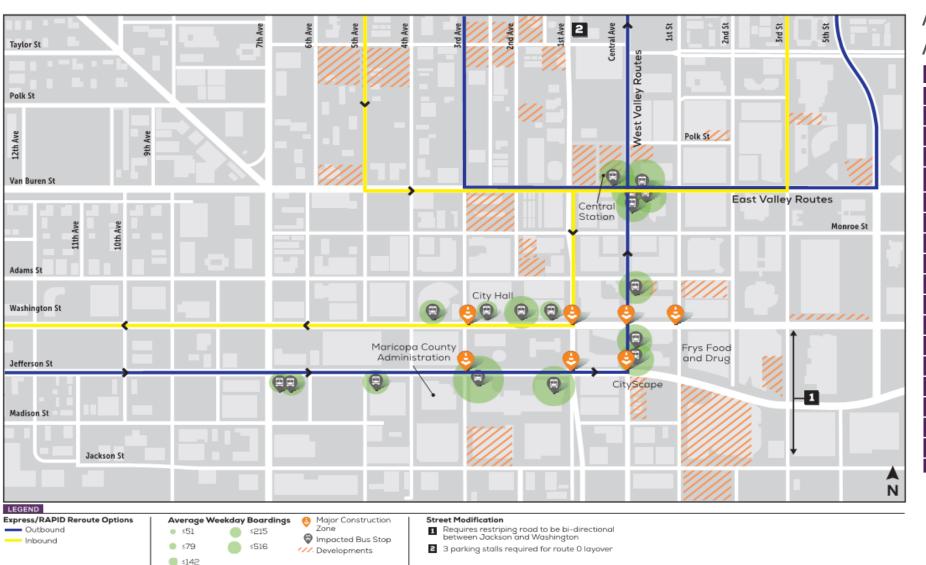
	East Valley Routes*	West Valley Routes	575 / GAL / I-17 / SMW
AM Peak (7-8 AM)	36	14	16
AM (5-9) Total	75	28	37
PM Peak (4-5 PM)	35	14	17
PM Peak (5-6 PM)	22	10	11
PM (3-7) Total	75	28	37

<sup>\*</sup>EV Routes includes: I-10 EAST, SME, SR-51, 514, 520, 521, 522, 531, 533, 535, 541, 542

### Stop Level Activity

3<sup>rd</sup> Ave & Jefferson, "Chase Bank Stop"



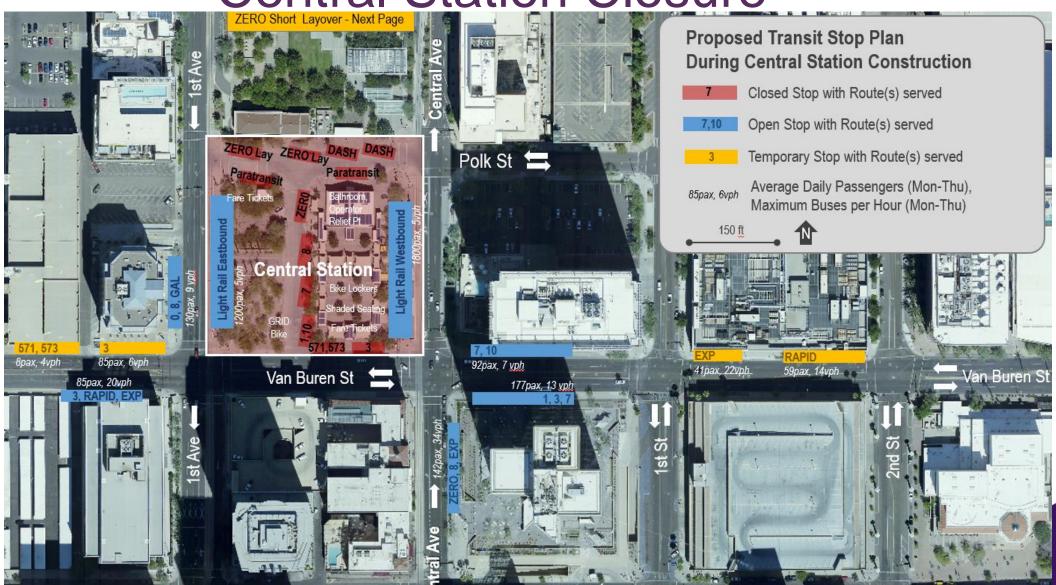


ADB By Route at Jefferson St And 3rd Ave Stop

Route	ADB		
I-10 WEST	87.1		
SR-51	84.8		
I-10 EAST	82.8		
542	36.0		
SMW	32.3		
563	21.1		
562	20.2		
531	19.8		
533	19.2		
535	18.6		
573	18.6		
522	13.0		
571	10.8		
541	9.8		
SME	7.3		
521	4.9		
514	4.6		
520	2.4		
Source: Valley Metro, April 2018			

# Early 2019 Reroute Plan for Central Station Closure



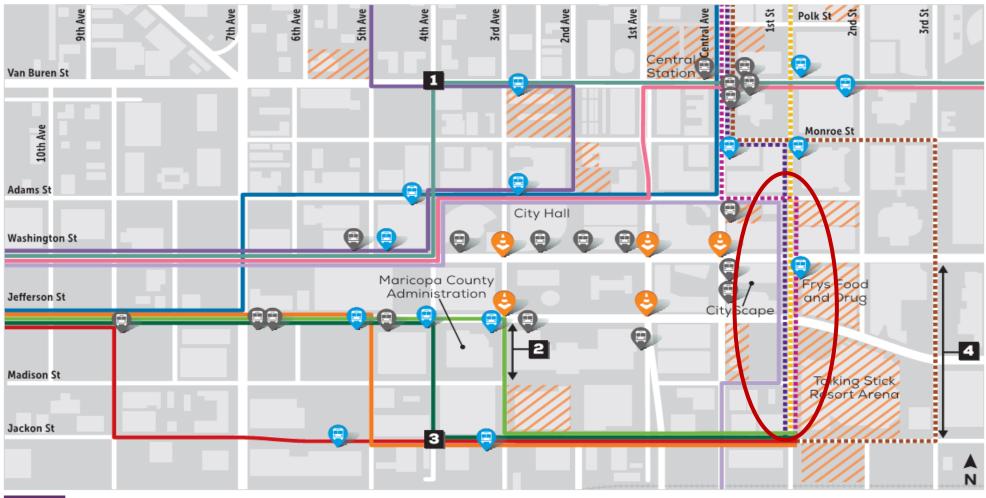


## Initial Routing Alternatives



## Initial Routing Alternatives





#### LEGEND

#### Express/RAPID Reroute Options

- 1 Outbound 2 - Outbound
- 3 Outbound 4 - Outbound 5 - Outbound
- 6A All Outbound 6B - All Outbound 6C - All Outbound •••• 6D- All Outbound
- 7 Inbound 8 - Inbound 9 - Inbound

10 - Inbound

- Major Construction Zone
- Express/RAPID Impacted Bus Stop
- Alternate Stops /// Developments

#### Street Modification

- Requires temporary or permanent traffic signal
- 2 Requires restriping road to be bi-directional between Jefferson and Madison
- Requires 4-way stop sign at 4th Ave and Jackson
- 4 Requires restriping road to be bi-directional between Jackson and Washington

## 1<sup>st</sup> Street Routing Needs 1<sup>st</sup> St – Convert to 2 Lanes Northbound



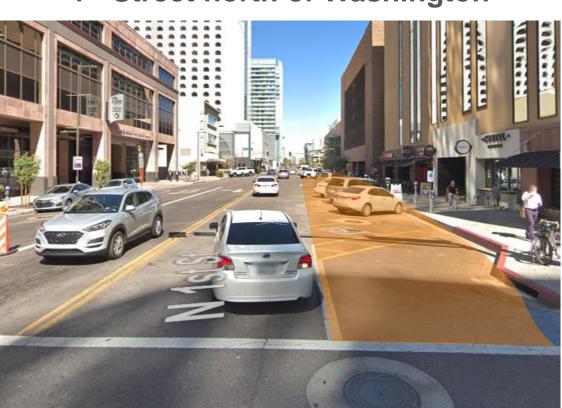
Fry's Rideshare/Click-n-Pick Loading Zone



## 1<sup>st</sup> Street Routing Needs 1<sup>st</sup> St – Convert to 2 Lanes Northbound



1<sup>st</sup> Street north of Washington



#### 1<sup>st</sup> Street north of Adams

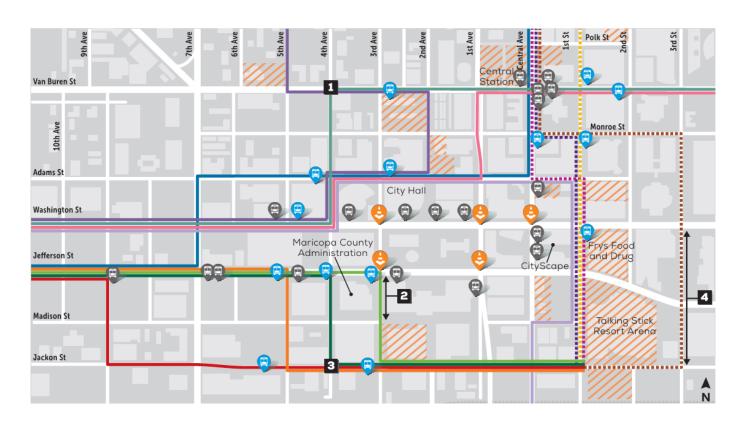




#### Consider:

- Minimizing impact to businesses (especially Fry's)
- Maintenance of Traffic (MOT)
   extends beyond 3<sup>rd</sup> Ave
- Turning radii for buses
- Options using 7<sup>th</sup> Ave & Van Buren
- Coordinating with 5<sup>th</sup> Ave project





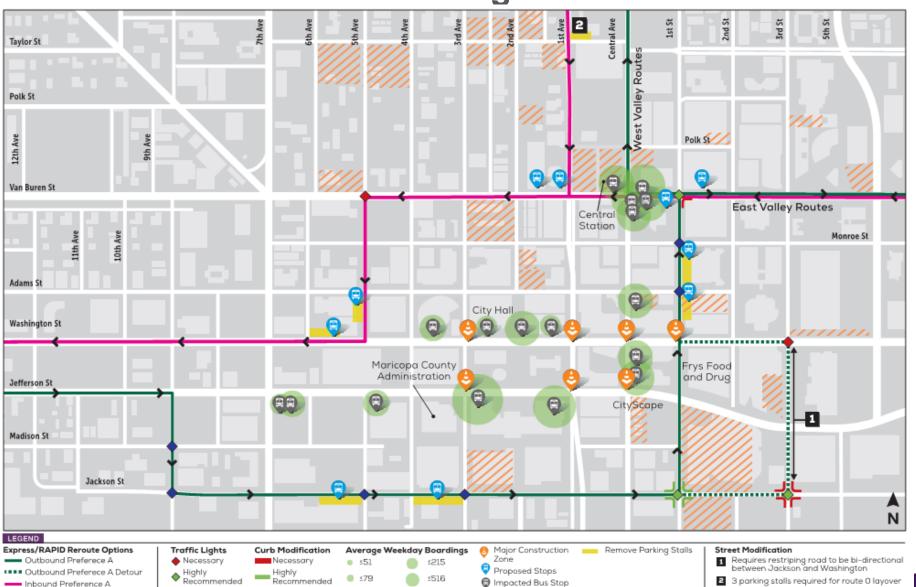
## Refined Alternatives



## Alternative A Inbound & Outbound Routing

Recommended Recommended





///. Developments

## Alternative A Van Buren & 5<sup>th</sup> Ave

VALLEY METRO

Protected Left Turn Signal Required





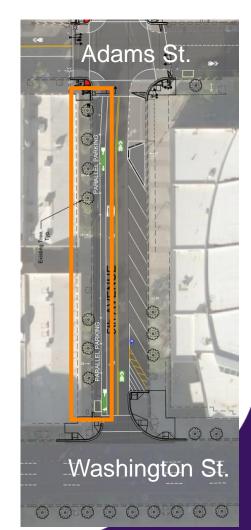


#### **Benefits**

- Avoids all construction intersections
- Proximity to existing stops (outbound)
- 1st St best option for long-term
- 5<sup>th</sup> Ave project coordination

#### **Challenges**

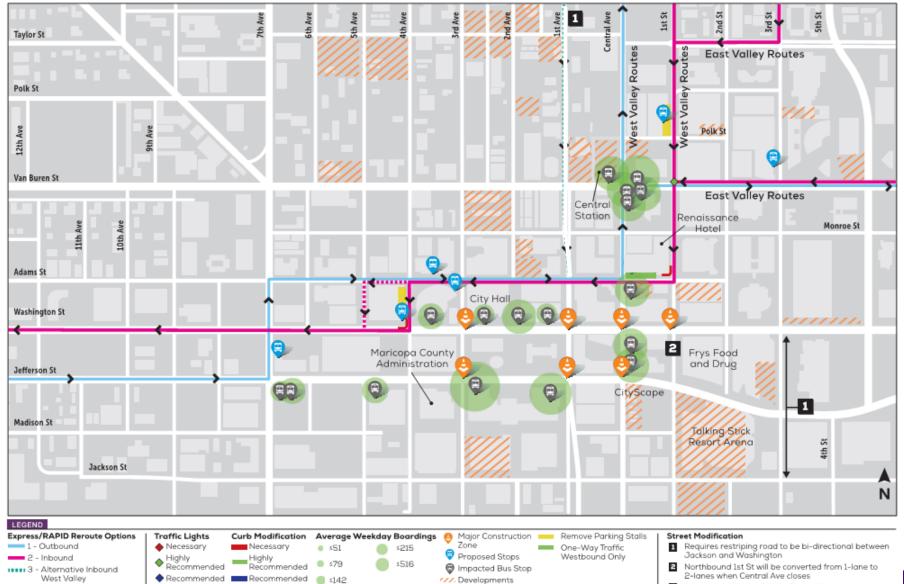
- Distance to existing stops (inbound)
- Stop needs
- 1st St event traffic
- 3<sup>rd</sup> St 2-way conversion for arena event detours
- 5<sup>th</sup> Ave project coordination



#### Alternative B

#### **Inbound & Outbound Routing**





3 parking stalls needed for Route 0 layover location

#### Alternative B

#### **Adams St – Central Ave to 1st St Conditions**

Convert to one-way westbound





#### Alternative B

#### Adams St – 4<sup>th</sup> Ave to 3<sup>rd</sup> Ave Conditions

Potential tree & landscaping removal









#### **Benefits**

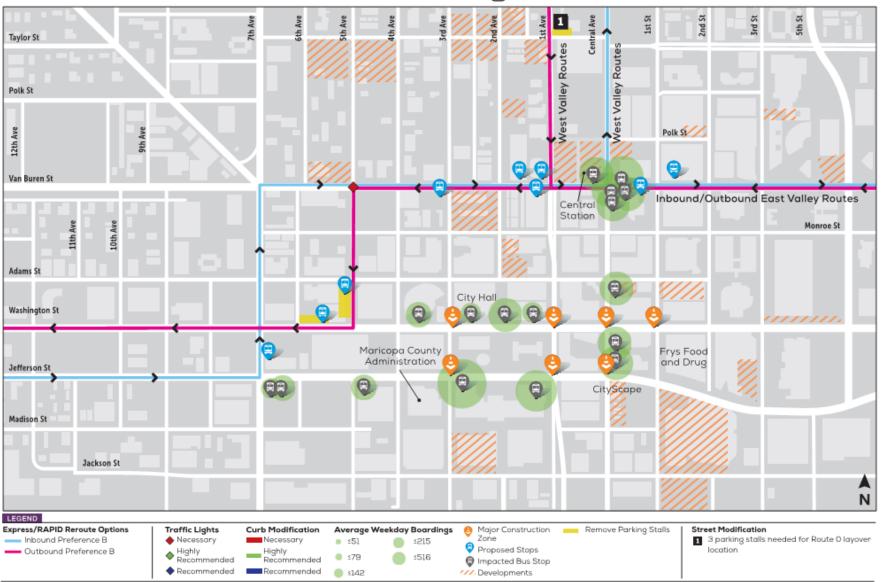
- Creates transit corridor
  - Simplicity for users
  - Avoids primary thoroughfares
- Close to existing bus stops
- Avoids all construction intersections

#### **Challenges**

- Agreement with Renaissance
- Roadway/streetscape/parking modifications for bus stops
  - Parking removal outside Arizona Federal Theater
  - Possible curb modification(s)
- Traffic from Orpheum Theater events

## Alternative C Inbound & Outbound Routing





<sup>\*</sup>Average Weekday Boardings from April 2018





#### **Benefits**

- Creates transit corridor
  - Simplicity for users
  - Avoids primary thoroughfares
- Close to existing bus stops
- Avoids all construction intersections
- Minimal infrastructure needs
- 5<sup>th</sup> Ave coordination

#### **Challenges**

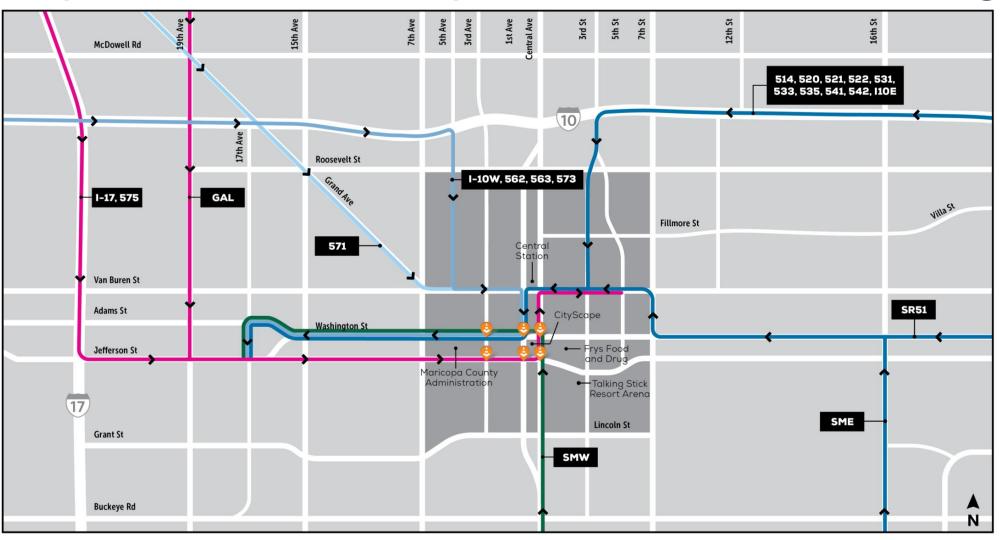
- Furthest from existing stops
- 5<sup>th</sup> Ave coordination

## Selected Routing



### Express Network – April 2020 Inbound Routing





I10W, 562, 563, 573
571 (follows other routes at 1st Ave)

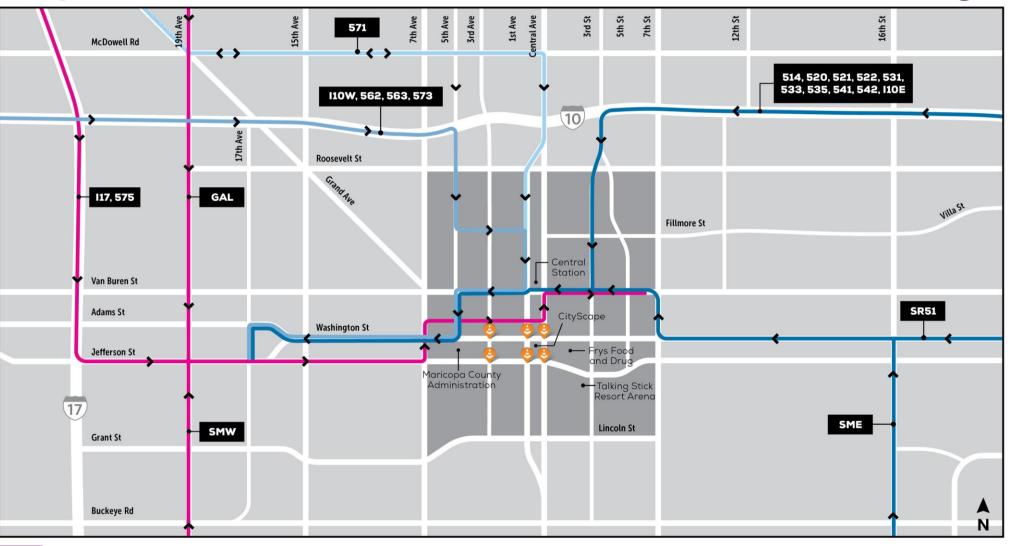
I17, 575, GAL

514, 520, 521, 522, 531, 533, 535, 541, 542, 110E, SME, SR-51

Major Construction Zone
Reroute Study Area

### Express Network – Oct 2020 Inbound Routing

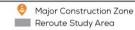




I10W, 562, 563, 573

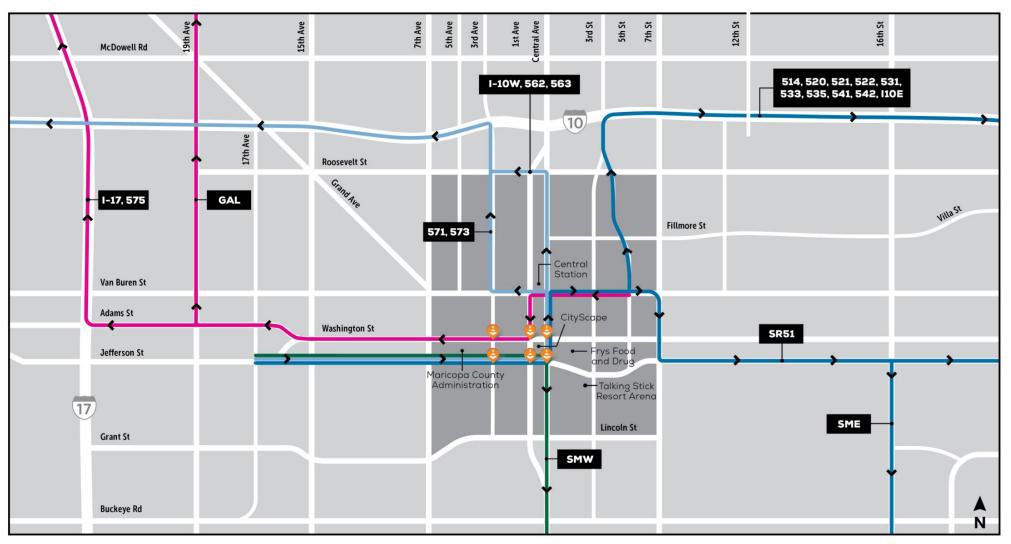
571 (follows I10W, 562, 563, 573 routing at 1st Ave/Fillmore St)

I17, 575, SMW (SMW starting fall 2020), GAL 514, 520, 521, 522, 531, 533, 535, 541, 542, 110E, SME, SR-51



### Express Network – April 2020 Outbound Routing

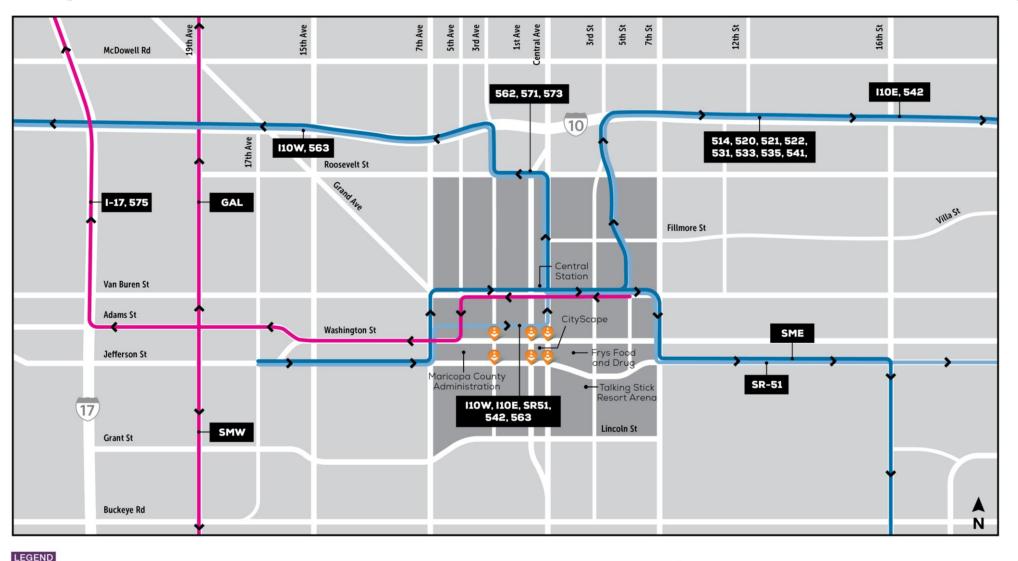




LEGEND

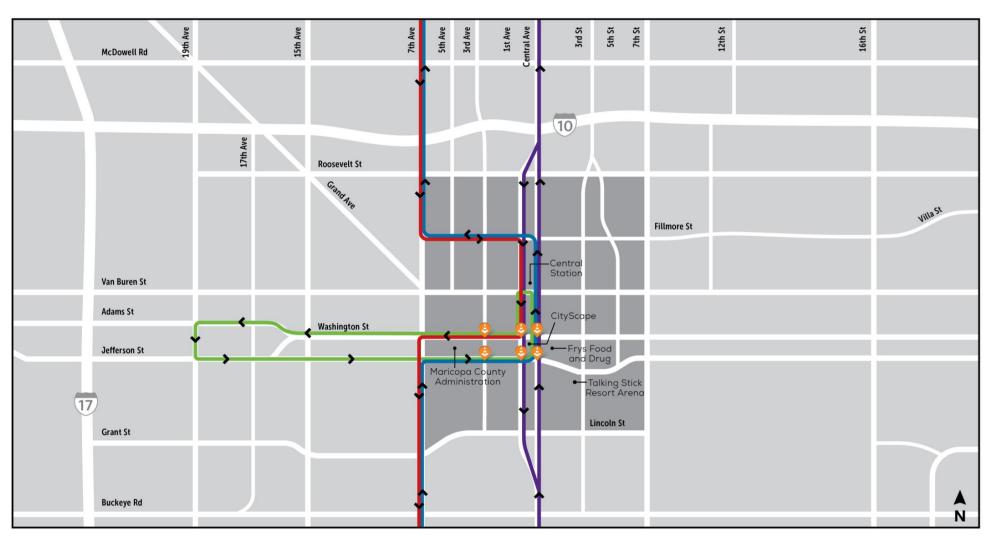
### Express Network – Oct. 2020 Outbound Routing





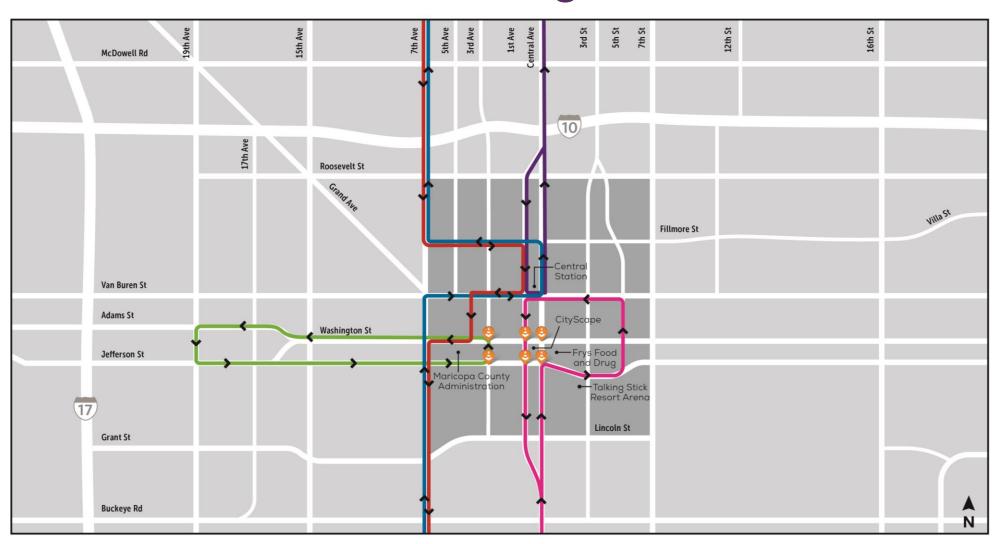
### April 2020 Local Routing

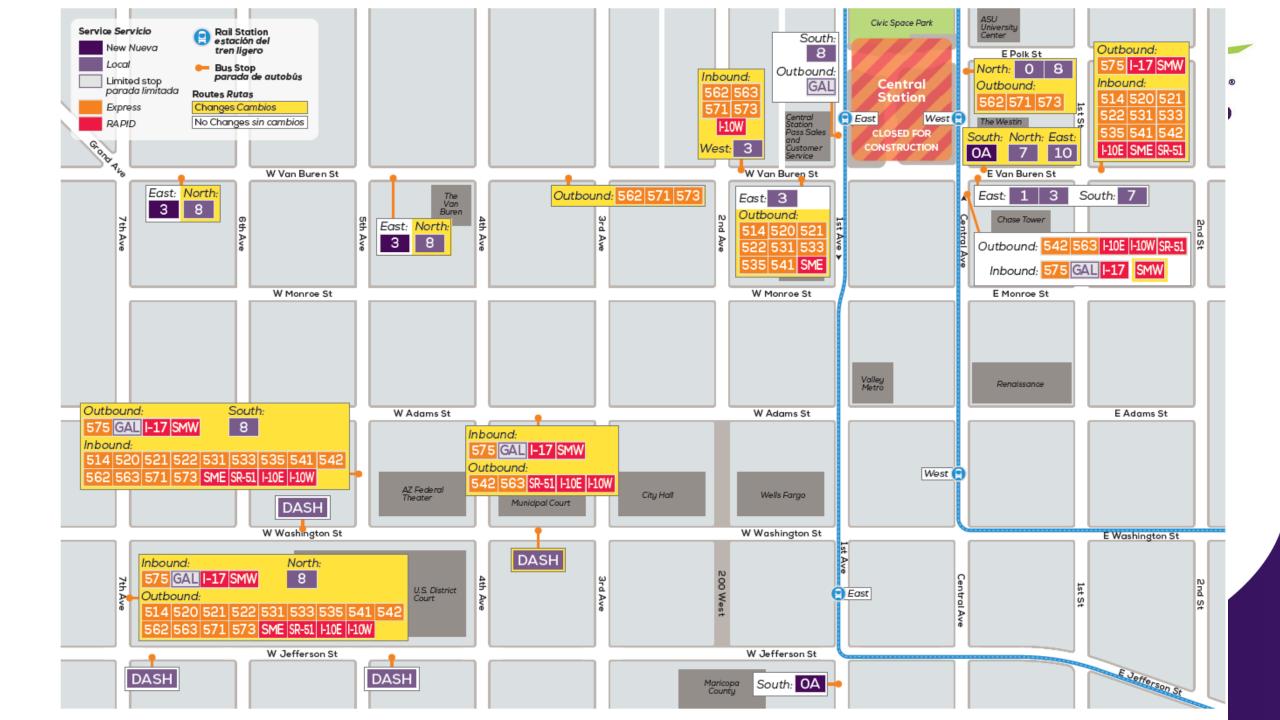




### Oct. 2020 Local Routing









### Objectives achieved

### **Original Goals:**

- Maintain travel time reliability and minimize impact to passengers
- Avoid high construction areas
- Develop potential long-term routing solution

### Additional accomplishments:

- Avoids Footprint Center (55+ basketball games, plus concerts & shows)
- Minimized implementation costs
- Coordinated with 5<sup>th</sup> Ave project

# Implementation







## Reroute plan outreach with current passengers, businesses, and residents in downtown Phoenix:

- Transit vehicle announcements (Route Scout)
- A-frame signage, bus signs or City of Phoenix Guide-a-Ride signs at all impacted transit locations
- Week of implementation field volunteers
- Email notices to riders and Trip Reduction Program employers
- Press release resulting in news coverage
- Social media posts
- Website (valleymetro.org/service changes)

# Community Outreach



# Bus stop closed

**EFFECTIVE OCTOBER 26, 2020** 

Due to construction, beginning Monday, October 26, this stop will not have any bus service. Please refer to the map for additional pick-up and drop-off locations for all routes in downtown Phoenix.

#### Parada de autobús cerrada A PARTIR EL 26 DE OCTUBRE DE 2020

Debido a la construcción, a partir del lunes 26 de octubre, esta parada no proveerá servicio a autobús alguno. Por favor consulte el mapa para ver las ubicaciones adicionales de las paradas de todas las rutas en el centro de la ciudad de Phoenix.





### New Bus Stop

Pardon our

Progress CENTRAL STATION

Starting Monday, October 26, 2020 this stop will serve the following routes:

Nueva ubicación de la parada de autobús. A partir del lunes 26 de octubre de 2020 esta parada ser virá las siguientes rutas:

Drop-off Stop for Routes Parada de entrega para rutas	Pick-up Stop for Routes Paradas de recogida para rutas
514	575
520	I-17
521	South Mountain West (SMW)
522	
531	
533	
535	
541	
542	
I-10 East	
SR-51	
South Mountain East (SME)	
City of Phonals	valleymetro.org/pop



# Bus transfer in downtown Phoenix



#### **EFFECTIVE OCTOBER 26, 2020**

Beginning Monday, October 26, if you are traveling south of downtown Phoenix you will need to transfer from Route O-Central Ave bus to the new Route OA-South Central Shuttle on Van Buren St. Please refer to the map for transfer points to continue to your destination.

#### Transbordo de autobús en el centro de la ciudad

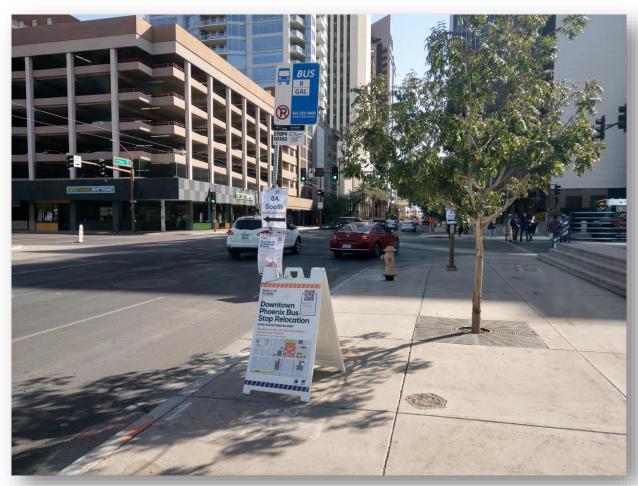
#### A PARTIR EL 26 DE OCTUBRE DE 2020

A partir del lunes 26 de octubre, si usted estará viajando hacia el sur del centro de la ciudad de Phoenix, tendrá que transbordar del autobús de la Ruta O-Central Ave a la nueva Ruta OA-South Central Shuttle en Van Buren St. Por favor encuentre en el mapa los puntos de transbordo para continuar a su destino.











# Post-Implementation Response



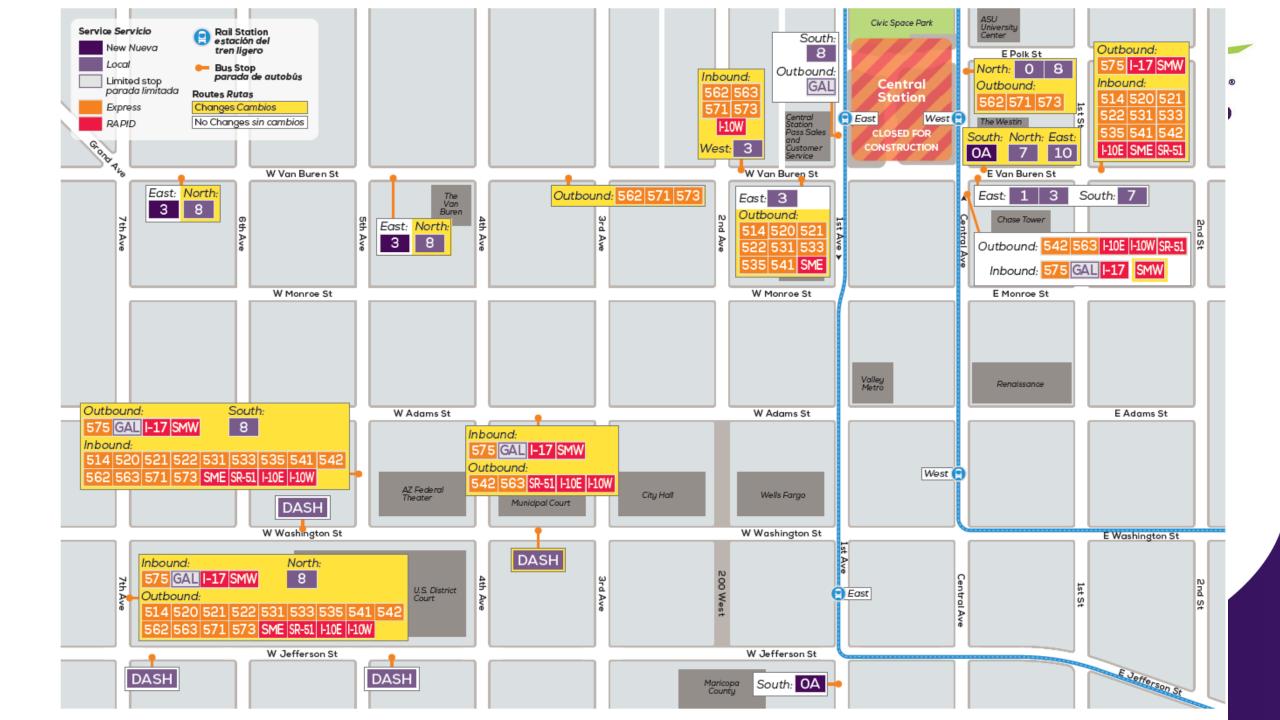




- Reroute in effect for 1.5 years
- Minimal customer complaints
  - Occasional confusion on bus stop location
  - Complaints on the use of Van Buren Street vs Adams Street
- Minimal neighborhood complaints
  - Coordinate ASU and transit bus pick up locations
  - Hotel concern over higher-than-expected transit volume
    - Revised bus stop location implemented June 2021
- Additional revisions
  - RAPID/Express trip restoration
  - October 2021- Local frequency adjustments

# Thank you!

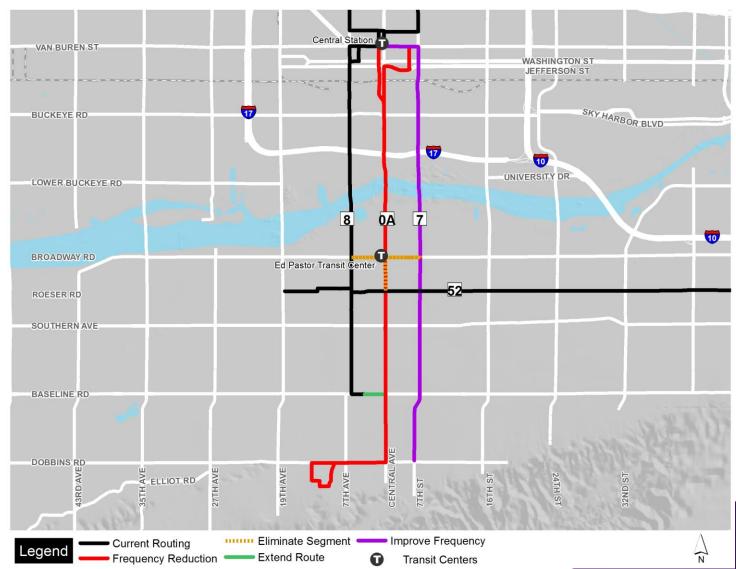






### Further Adjustments Planned in October 2021

- Reduce Route 0A trips and dwell opportunity.
- Frequency and runtime adjustments on Route 7- potentially reduce loading time and dwell time



### Relocation Plan

Relocate Routes 1/10 and 7 to NB Central & Polk (Akara Stop)





#### Routing considerations:

Routes 1/10 and 7: No Change in routing- Currently bus travels on WB Van Buren St to NB Central.

#### **Option requirement:**

Routes 0 and 8 continues to use ASU

- Maintains close distance between most local route transfers (especially between Route 0 and 0A) for ease of transfers.
- No Cost Option- 0A routing remains most
- (For Westin)- Reduces local activity
  - Reduces from 169 trips servicing to 81