

Providence Downtown Transit Connector PUBLIC MEETING



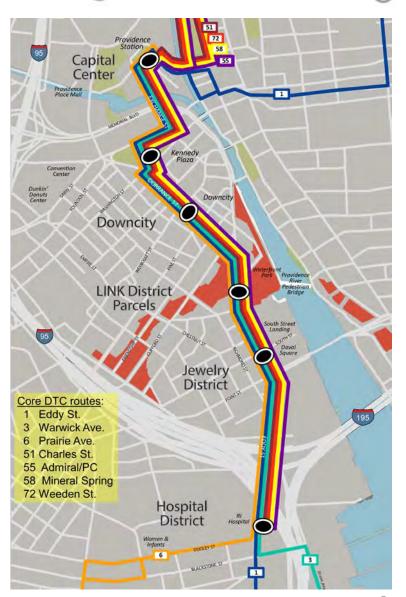
**RHODE ISLAND PUBLIC TRANSIT AUTHORITY** 

December 2016



### WHAT IS THE DTC?

- Enhanced transit corridor will provide fast, frequent connections through downtown Providence
- Align seven existing bus routes
- Range of enhanced bus features creates faster, more reliable, more appealing service
- Six stations at major nodes in downtown





### WHAT IS THE DTC?

#### The DTC is...

# The DTC is not...

Service enhancements to existing RIPTA routes

- A new bus circulator route in downtown
- ✓ Infrastructure improvements✓ within the existing street network
- A separate exclusive guideway for buses

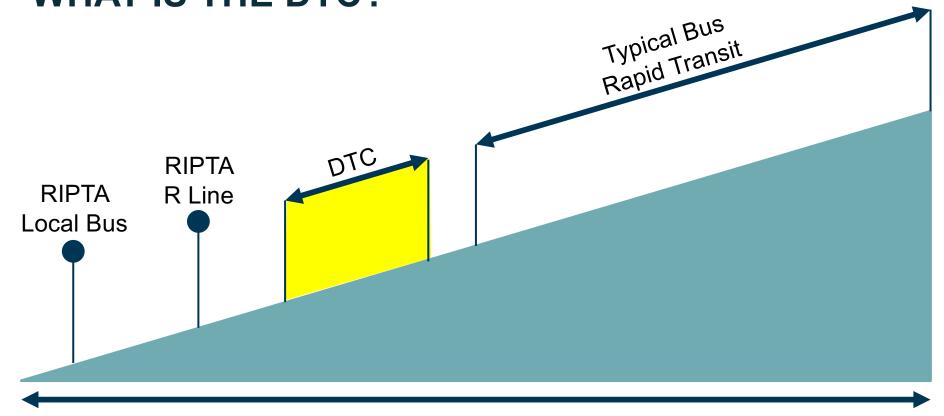
A series of "stations" with ✓ enhanced passenger amenities Large-scale hubs that do not fit the scale of the surrounding urban form

✓ An opportunity to advance transit and placemaking goals together

- A streetscape project with
- transit as a secondary consideration



### WHAT IS THE DTC?



Less intensive infrastructure

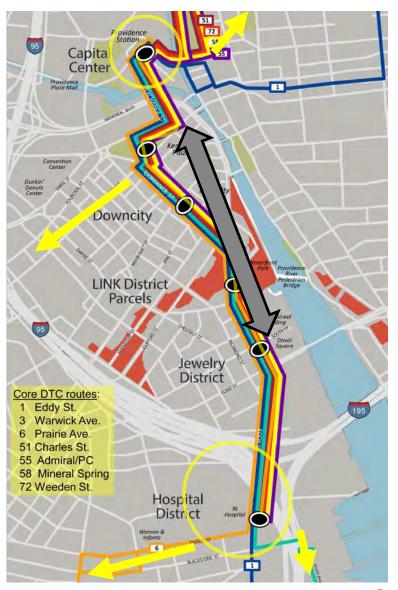
Dedicated guideway
Substantive stations
Off-board fare collection
High-capacity vehicles
Prominent brand
Prioritization at intersections

More intensive infrastructure



### WHY IS THE DTC NEEDED?

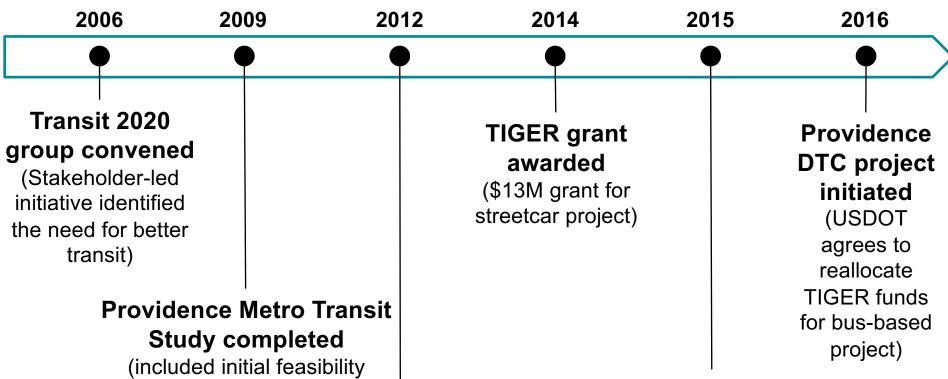
- A frequent and reliable transit connection is needed to increase the attractiveness of rail and circulate rail passengers through downtown.
- Traditional footprint of downtown continues to shift south, and a strong transit corridor is needed to bridge the gaps between activity centers.
- Increased RIPTA service will provide better mobility options for the Hospital District.
- Transit priority and enhanced stations provide better service for customers traveling beyond downtown.





### PROJECT EVOLUTION

assessment of streetcar)



Providence Core Connector Study completed

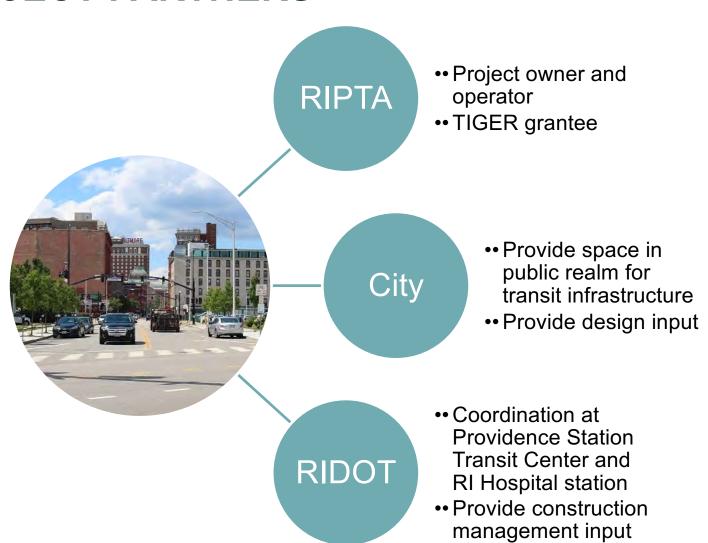
(Streetcar project identified as preferred alternative)

# Decision to seek enhanced bus project

(funding plan for streetcar deemed to be unsustainable)



### **PROJECT PARTNERS**



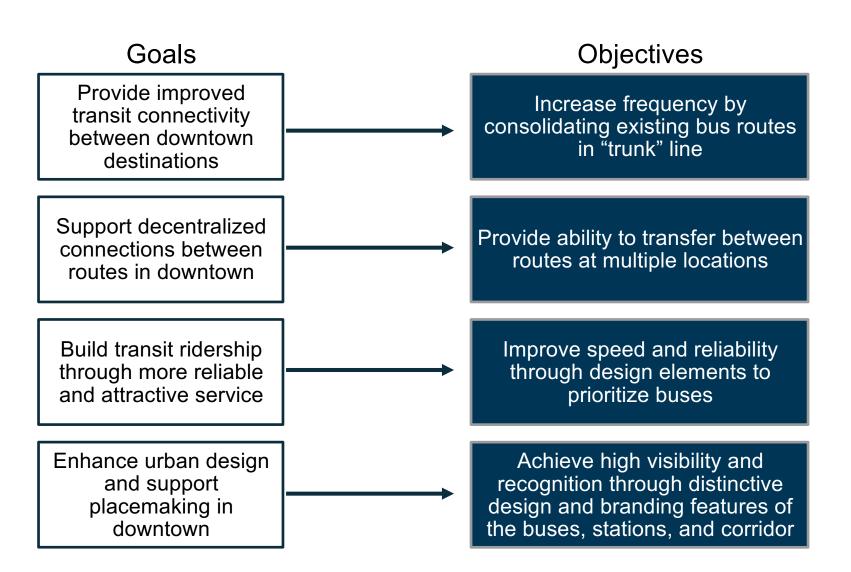


# **DTC PROJECT BUDGET**

CATEGORY	DESCRIPTION	COST (\$2016)
Roadway Infrastructure	<ul><li>Exclusive bus lanes within existing profile</li><li>Portions of the corridor</li></ul>	\$3,200,000
Sitework & Geometric Improvements	<ul> <li>Modify some existing cross-sections</li> <li>Ped/Bike/ADA safety and access improvements</li> </ul>	\$1,000,000
Bus Stations & Related Infrastructure	<ul> <li>Sheltered seating with lighting and signage</li> <li>WiFi and real-time arrival information</li> <li>Off-board fare collection vending machines</li> <li>Integrated bike share stations</li> </ul>	\$2,800,000
Systems	Implement Transit Signal Priority and modify signals	\$1,500,000
	CONSTRUCTION SUBTOTAL	\$8,500,000
Vehicles	6 new buses	\$4,400,000
Professional Services	30% of Construction Cost	\$2,550,000
Unallocated Contingency	10% of all costs	\$1,545,000
	NON-CONSTRUCTION SUBTOTAL	\$8,495,000
	TOTAL COST	\$16,995,000



#### OVERALL PROJECT GOALS AND OBJECTIVES





# **INTEGRATION WITH OTHER PROJECTS**





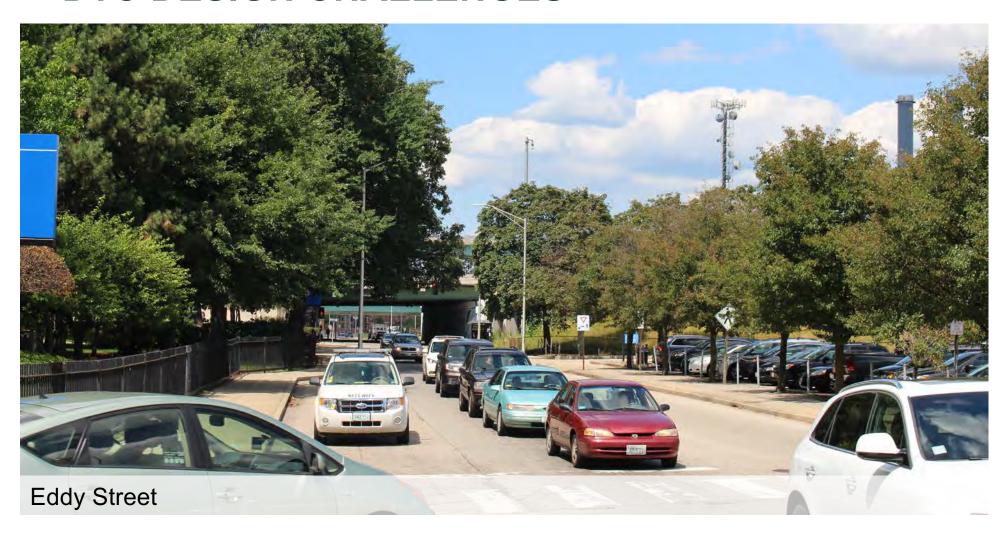
# **DTC DESIGN CHALLENGES**

- Narrow roadways
- Narrow sidewalks along corridor with buildings to back-ofsidewalk
- Limited opportunities to repurpose street space
- Traffic congestion during peak periods





# **DTC DESIGN CHALLENGES**



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# **DTC PROJECT COMPONENTS**



- Stations
- Streetscape
- Signals
- Vehicles

Service Plan
 Fare Policy

Fare Policy

Layover Sites

Branding



### **INFRASTRUCTURE ELEMENTS - STATIONS**

- Six stations at major nodes
- Paired stations one in each direction on opposite sides of the street
- Spacing balances travel time and access to destinations

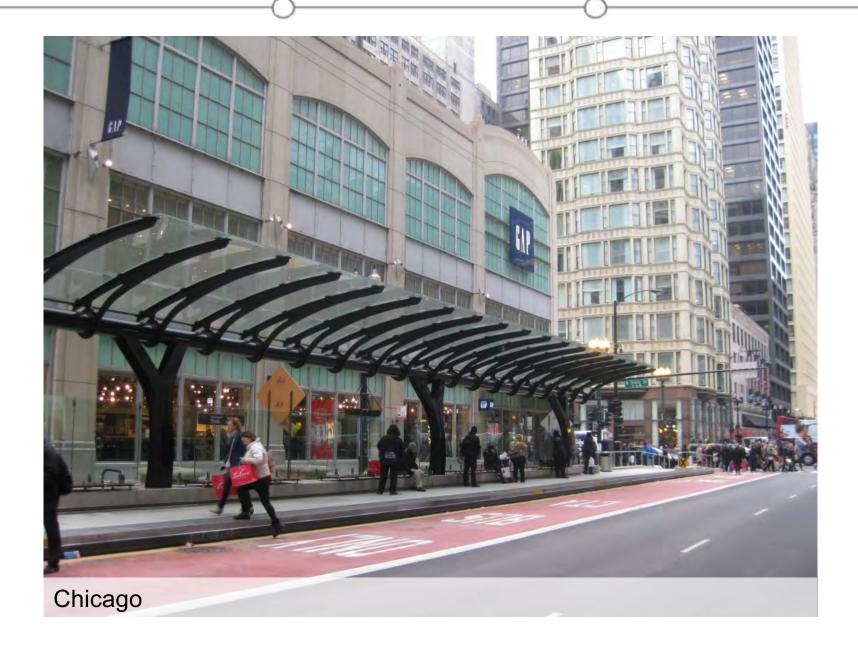




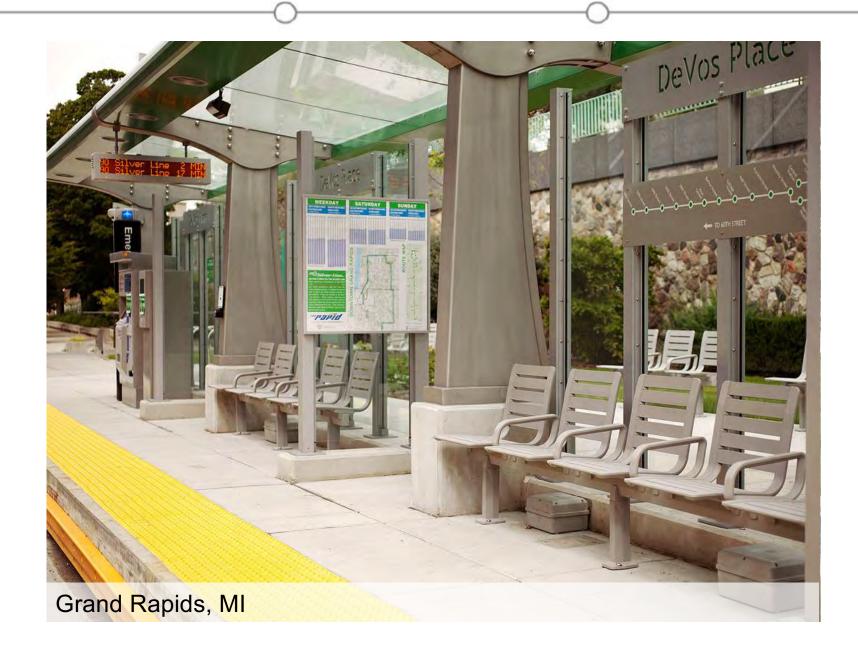
### **INFRASTRUCTURE ELEMENTS - STATIONS**

- Provide amenities and ample waiting room
- Consider fare policy to enable faster boarding
- Facilitate efficient transfers
- Enhance pedestrian and bicycle connections
- Minimize conflicts between buses and other traffic
- Integrate with adjacent development (if possible)
- Provide for future service expansion and layovers





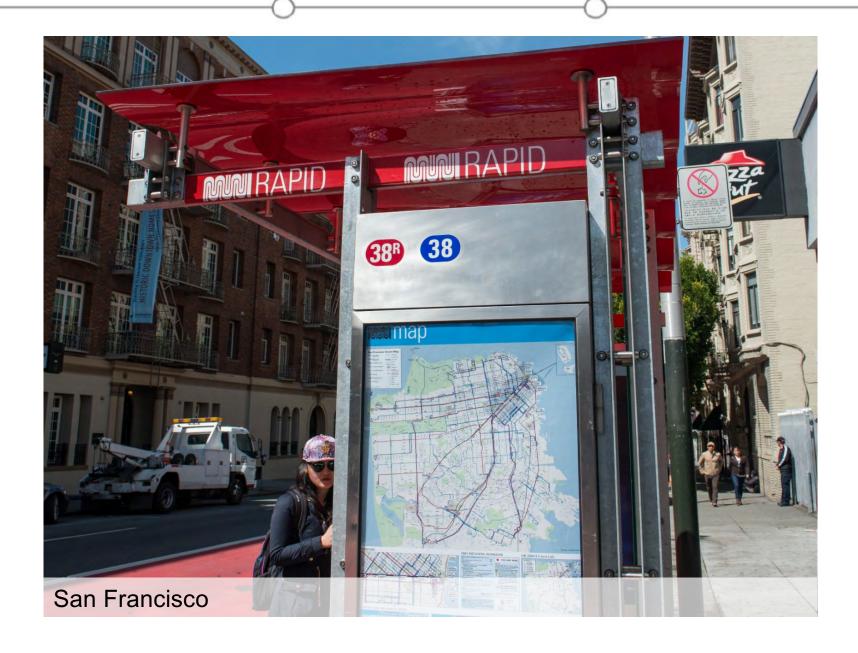




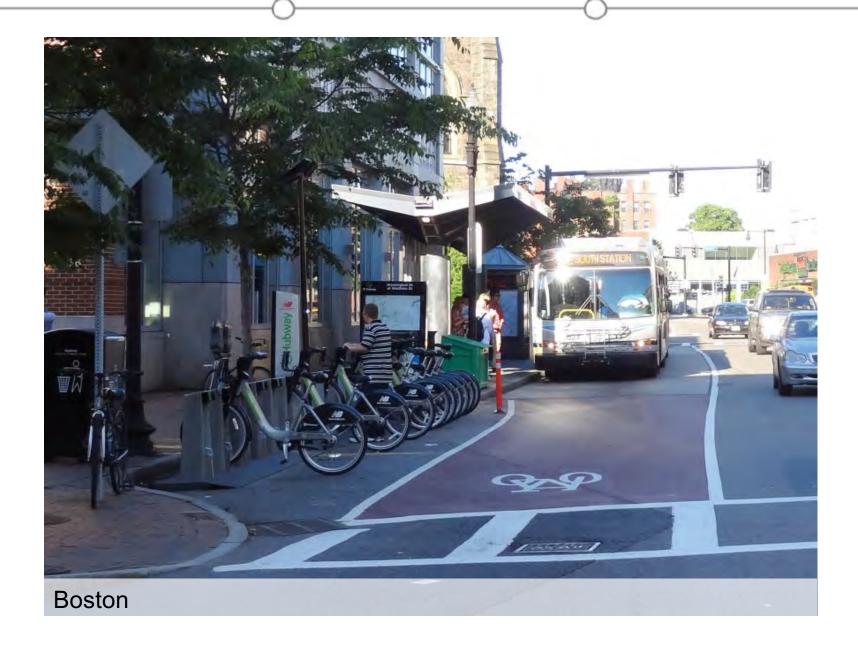










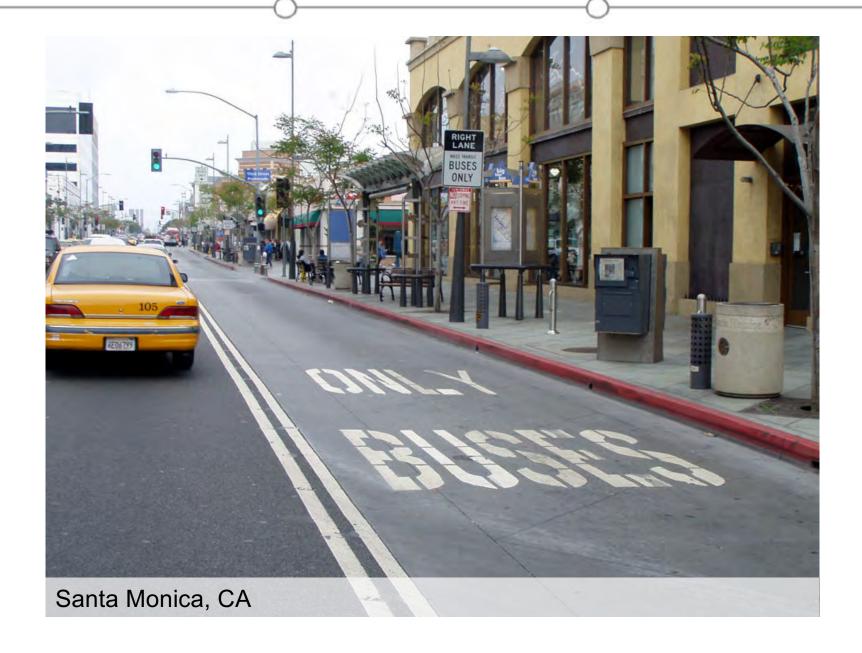




### **INFRASTRUCTURE ELEMENTS - STREETSCAPE**

- Dedicated space for buses where feasible, especially along the most congested segments
- Safe and convenient access both along AND across the corridor for pedestrians and bicyclists
- Minimize conflicts between buses and pedestrians, especially for turns
- Consider on-street parking needs and re-allocating space for buses











### **INFRASTRUCTURE ELEMENTS - SIGNALS**

- Modify signal phasing to provide operational advantage for buses
- Use advanced signal equipment to provide maximum flexibility and responsiveness for buses
- Maximize operational efficiency of signals in the corridor
- Maximize travel speeds for all corridor traffic to minimize congestion for buses



# **INFRASTRUCTURE ELEMENTS - VEHICLES**

- Size
- Power Source
- Wraps
- Colors
- Lighting





### **OPERATIONS ELEMENTS – SERVICE PLAN**

- Routes Affected
  - 1, 3, 6, 51, 55, 58 & 72
- Number of loading areas required per station?
- Transfer activity anticipated?





#### **OPERATIONS ELEMENTS – FARE PAYMENT**

- Desire to provide reduced fare for short trips
- Desire to facilitate all-door boarding
  - To reduce dwell time at stations
- Fare payment options to enable all-door boarding
  - Prepaid boarding area
  - Proof of payment
  - Pay upon exit
  - Fare-free zone







### **OPERATIONS ELEMENTS – BRANDING**

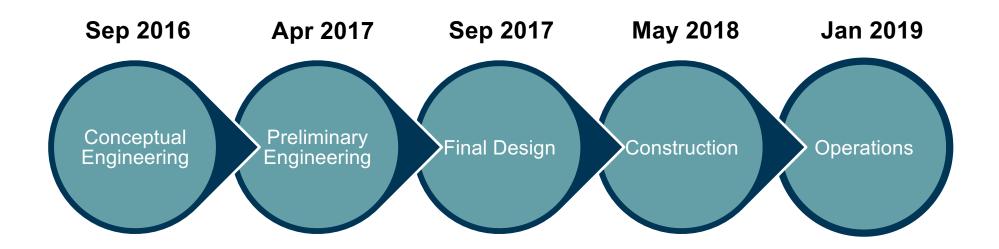
- Primary issue: what are we branding?
  - Service? Infrastructure?
  - DTC is not a stand-alone transit service; the routes serving the DTC also serve areas beyond the DTC
  - How should branding relate to the rest of the RIPTA system?







# PROJECT DEVELOPMENT SCHEDULE





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