

# ALTERNATIVES TO BE CONSIDERED

## EXISTING CONDITIONS (BASE CASE)

In order to evaluate and understand the potential benefits and impacts of introducing downtown transit improvements in Providence, a Base Case alternative has been defined. This Base Case assumes RIPTA bus service would operate as planned for summer 2014, following the continued implementation of COA improvements. The downtown system map for RIPTA service as planned for implementation in September 2014 is shown in Figure 1.

In addition to the COA service improvements, this alternative also assumes that Kennedy Plaza will be reconfigured to operate using 15 regular RIPTA berths, including eight around the central plaza and seven located around Burnside Park. Two additional park-ride/express berths will be located adjacent to Parcel 12 off Exchange Street. A concept design plan for Kennedy Plaza is shown in Figure 2.

## DEFINITION OF ALTERNATIVES

Three different scenarios for improved downtown Providence bus service were considered as part of this study and are described below. Each alternative is designed to bring riders from outside Providence to downtown destinations more directly, and to make bus service in and around downtown more convenient. Each alternative would focus service around two or more transit centers, providing RIPTA with additional capacity to continue to accommodate growing ridership.

RIPTA routes that operate to or via Kennedy Plaza today would continue to do so, but fewer routes would terminate there. Many would instead continue on to either Providence Station or Garrahy Courthouse, providing direct service to these locations and also provide more de-centralized locations to terminate buses.

and use high-frequency transit emphasis corridors to make it easier to board buses at many downtown locations.

Under each alternative, RIPTA and the City would also designate certain streets as Transit Emphasis Corridors providing: 1) very frequent service between transit centers and within downtown; and 2) more locations where it is easy to find and use transit, and to make transfers. For example, the East Side Tunnel serves as a Transit Emphasis Corridor today, providing frequent service between South Main Street and the top of College Hill. Riders traveling between these two destinations know that service operates frequently and they will not need to wait very long for the next bus to arrive.

### **Alternative 1 – Kennedy Plaza and Providence Station**

#### ***Transit Centers***

This alternative considers the introduction of a new RIPTA transit center at the Providence MBTA/Amtrak Station. The new transit center could be located on Parcel 6, directly northeast of the station, on a structure built over the railroad right-of-way (ROW), or a combination of both.

Parcel is privately-owned, with future development subject to guidelines established by the Capital Center District Commission. These guidelines allow for future access/egress from Parcel 6 to Park Row, across the Moshassuck River to Canal Street, and across the rail right-of-way (ROW) to Gaspee Street. Construction over the railroad ROW would require coordination with Amtrak.

FIGURE 1 – DOWNTOWN PROVIDENCE RIPTA SERVICE, AS PLANNED FOR SEPTEMBER 2014

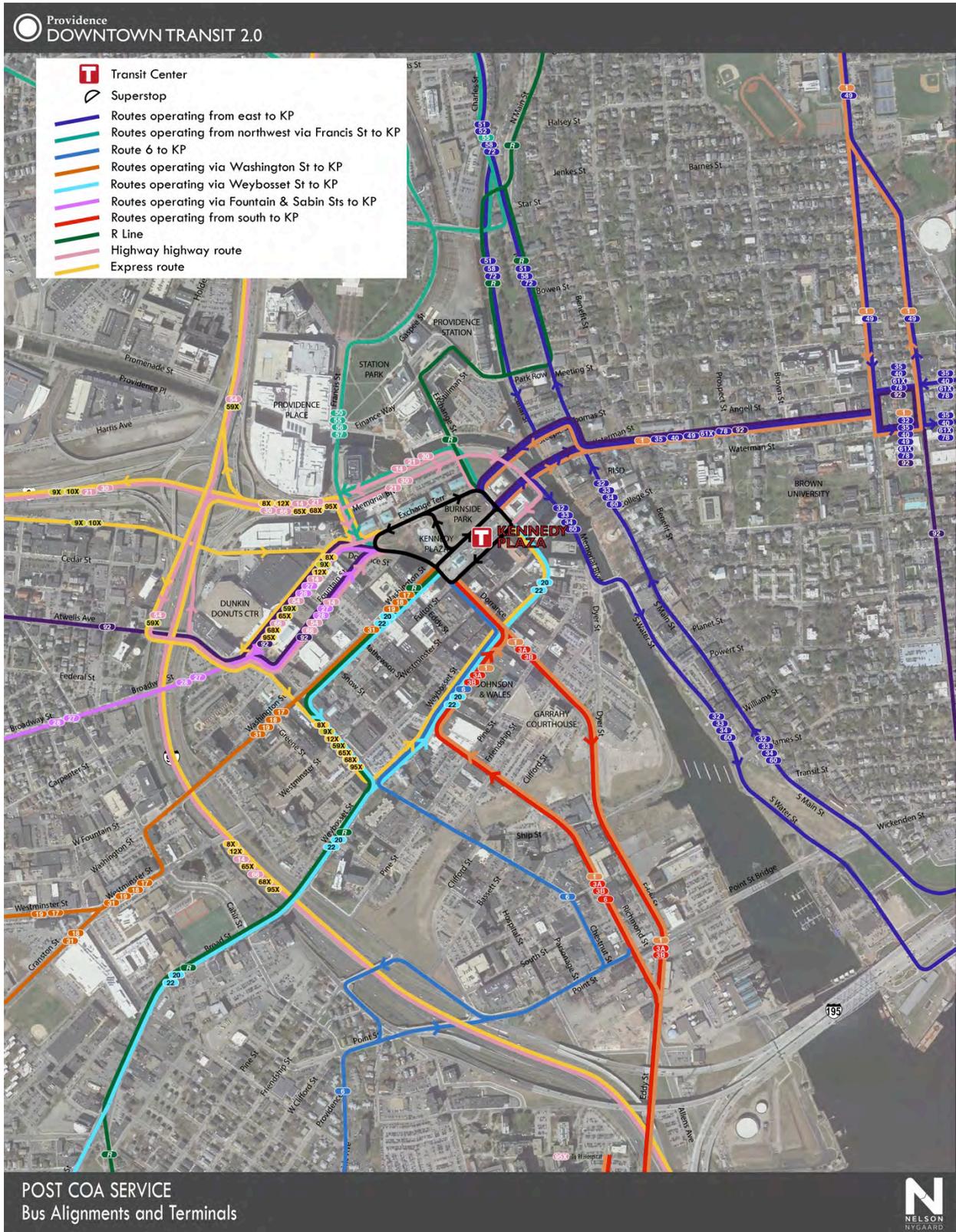


FIGURE 2 – CONCEPT PLAN FOR KENNEDY PLAZA, SEPTEMBER 2014



A total of 34 RIPTA routes would serve Providence Station. Buses coming from the north would access the Station via Gaspee Street and a deck over the ROW. From Kennedy Plaza, buses would travel via Exchange Street and use Stillman or Finance Way to access the Station via Park Row.

Bus routes entering downtown Providence from the west and south would continue to serve Kennedy Plaza, but would be extended beyond the Plaza to the train station. These include certain highway and express routes from I-95 south that would be redirected to travel via Point and Dorrance streets to Kennedy Plaza, then to the train station.

Bus routes entering downtown via Charles Street and North Main Street would also be redirected to serve the train station via Gaspee Street on their way to Kennedy Plaza. R-Line stops would be relocated from Finance Way into the transit center. However, three Gaspee Street routes (Routes 50, 56 and 57) would continue to stay on Gaspee Street and serve the Providence Place Mall.

East Side and East Bay routes would continue to terminate at Kennedy Plaza or operate through to other destinations without serving the new Providence Station hub. These include RIPTA's Route 1, which travels between Warwick and Pawtucket (and eventually the South Attleboro MBTA Station) via College Hill, and Route 92, which operates from RI College to the East Side Market.

There would be no change in the total number of bus routes or trips serving Kennedy Plaza.

The proposed downtown system plan for RIPTA service under Alternative 1 is shown in Figure 3. This map also includes a future streetcar route, and the connections that could be made between a streetcar stop in Kennedy Plaza and high frequency bus service to Providence Station.

### ***Transit Emphasis Corridors***

As part of the realignment to serve two downtown transit centers, RIPTA services would be focused along three key Transit Emphasis Corridors: 1) The East Side Tunnel; 2) Washington Street; and, 3) Exchange Street. Transit signal priority, bus stop consolidation and other improvements in these corridors would help the flow of bus service, which would operate at high frequency. Due to the realignment of express service, Dorrance and Eddy streets would also have high levels of service, but only during peak periods.

FIGURE 3 – ALTERNATIVE 1: TRANSIT CENTERS AT KENNEDY PLAZA & TRAIN STATION



## **Alternative 2 – Kennedy Plaza and Courthouse Station**

### ***Transit Centers***

This alternative considers the introduction of a new RIPTA transit center in Providence’s Jewelry District at the Garrahy Courthouse. For the purposes of this study, it is assumed that a new RIPTA transit center would be located on the existing surface lot to the west of the Courthouse. This lot is currently owned by the State of Rhode Island. Alternatively, buses could serve on-street berths located around the perimeter of the lot, on the block bounded by Friendship, Richmond and Clifford streets. If the new transit center were built on the surface lot, it could potentially be integrated into potential future redevelopment of this parcel as a parking garage.

Access to the new transit center would be via Dorrance and Clifford streets from the north, and via Richmond and Friendship streets from the south.

A total of 33 RIPTA routes would serve the new Courthouse transit center, including the three routes (Routes 1, 3A and 3B) that serve this area today. However, all routes would use Richmond Street in both the north and southbound directions, as a more direct route of travel.

With the exception of the R-Line and Route 92, bus routes entering downtown from the north and east would be extended beyond Kennedy Plaza to terminate at the new Courthouse transit center. Park-ride and express routes entering the City from I-95 south would be redirected to exit at Point Street and follow the Richmond Street corridor, serving the Courthouse transit center on their way to Kennedy Plaza. Route 6 would also follow this path.

West Side service would be realigned and focused on Washington Street, but would continue to terminate at Kennedy Plaza. More direct connections to the Jewelry District could be made via streetcar connections on Empire or Washington Street. There would be no change in the number of bus routes or daily trips serving Kennedy Plaza.

The proposed downtown system plan for RIPTA service under Alternative 2 is shown in Figure 4.

### ***Transit Emphasis Corridors***

As part of the realignment to serve two downtown transit centers, RIPTA services would be focused along three key Transit Emphasis Corridors: 1) The East Side Tunnel; 2) Washington Street; and, 3) Dorrance/Richmond Streets. Transit signal priority, bus stop consolidation and other improvements in these corridors would help the flow of bus service, which would operate at high frequency. A limited number of key “super-stops,” with higher levels of passenger amenities, would be located in these corridors.

## **Alternative 3 – Three Downtown Hubs: KP, Train Station & Jewelry District**

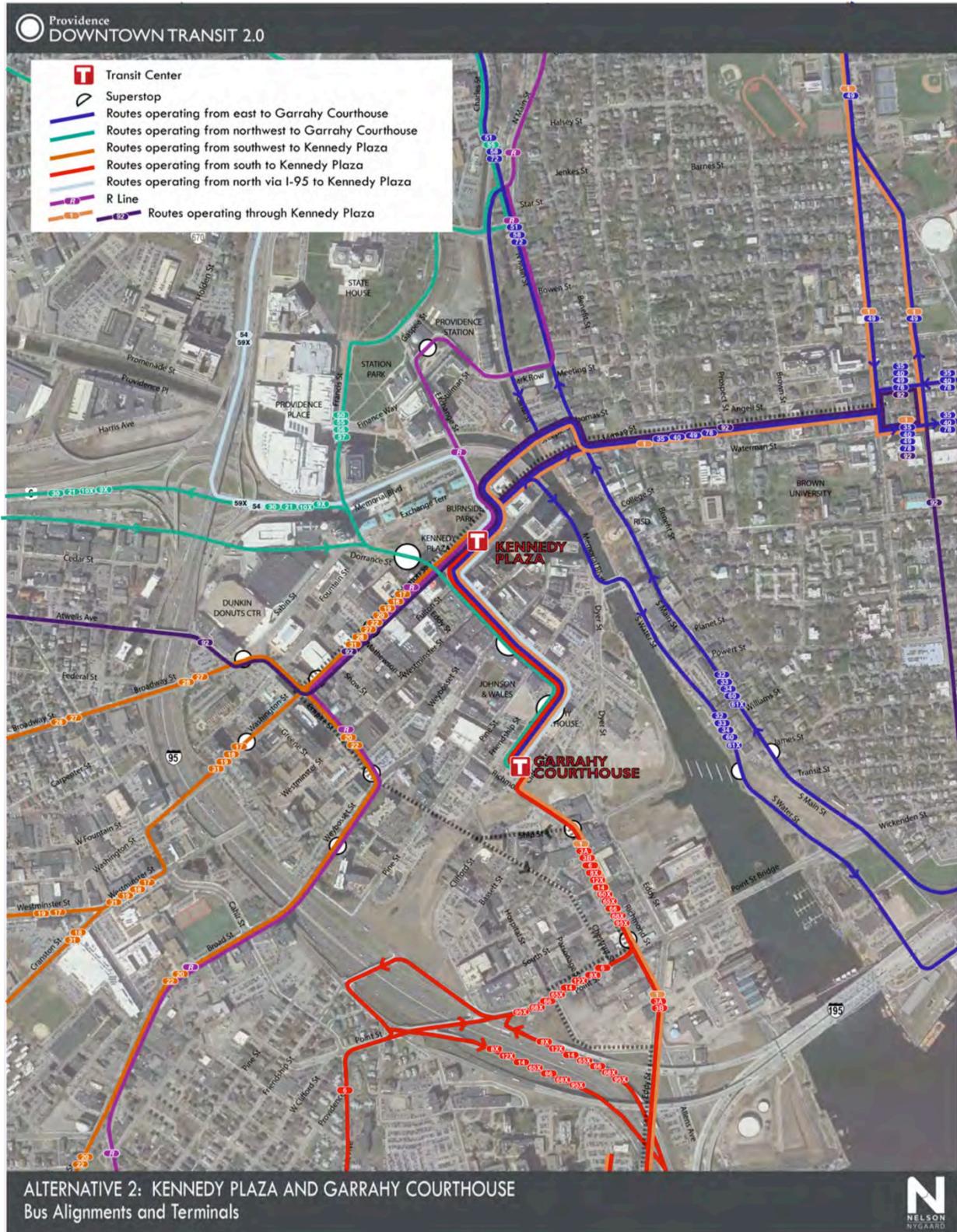
### ***Transit Centers***

This alternative considers the introduction of new RIPTA transit centers at both Providence Station and the Garrahy Courthouse, as described in Alternatives 1 and 2.

A total of 27 RIPTA routes would serve the new Providence Station transit center. These would include the R-Line, Charles Street routes, and service extended from the West Side and south.

A total of 34 routes would serve the new Courthouse transit center. These would include existing Dorrance Street services (Routes 1, 3A and 3B), along with highway express routes from I-95 south and Route 6 redirected via Point Street. Routes from the East Side, Charles Street, Gaspee Street, and highway express service coming in via I-95 north and the 6/10 Connector would also be extended via Kennedy Plaza to the Courthouse.

FIGURE 4 – ALTERNATIVE 2: TRANSIT CENTERS AT KENNEDY PLAZA & COURTHOUSE



All RIPTA routes would serve at least two downtown transit centers, and some would serve all three. There would be no change in the number of RIPTA routes serving Kennedy Plaza.

The proposed downtown system plan for RIPTA service under Alternative 3 is shown in Figure 5.

### ***Transit Emphasis Corridors***

Four transit emphasis corridors would be identified in downtown Providence: 1) the East Side Tunnel, 2) Washington Street; 3) Exchange Street; and, 4) Dorrance/Richmond Streets.

## **TRANSIT EMPHASIS CORRIDORS**

As described, each of the alternatives would involve the designation of several Transit Emphasis Corridors for bus service leading into and out of downtown. With high-levels of bus service focused within each these corridors, it would provide RIPTA customers with a number of locations to board buses and access other downtown locations without having to walk to a transit hub. These corridors include:

**Alternative 1:** East Side Bus Tunnel, Washington St. and Exchange St

**Alternative 2:** East Side Bus Tunnel, Washington St. and Dorrance/Richmond Sts.

**Alternative 3:** East Side Bus Tunnel, Washington St., Exchange St. and Dorrance/Richmond

In order to speed the flow of bus service through these corridors, Transit Signal Priority would be installed at key intersections. This technology, currently installed along the future R-Line route, would extend green lights for approaching buses, making RIPTA service faster and more convenient in these corridors.

Bus stops in these corridors would be consolidated, and limited to a few high profile and high ridership locations. Improvements to enhance customer convenience and comfort at these stops are described below. The two exceptions are Exchange Street and the East Side Bus Tunnel: while these corridors would provide fast, frequent bus service throughout the day, there would no stops on Exchange Street between Kennedy Plaza and Providence Station, or in the East Side Bus Tunnel between South Main and Thayer Street.

## **“SUPERSTOPS ”AND OTHER DOWNTOWN STOP ENHANCEMENTS**

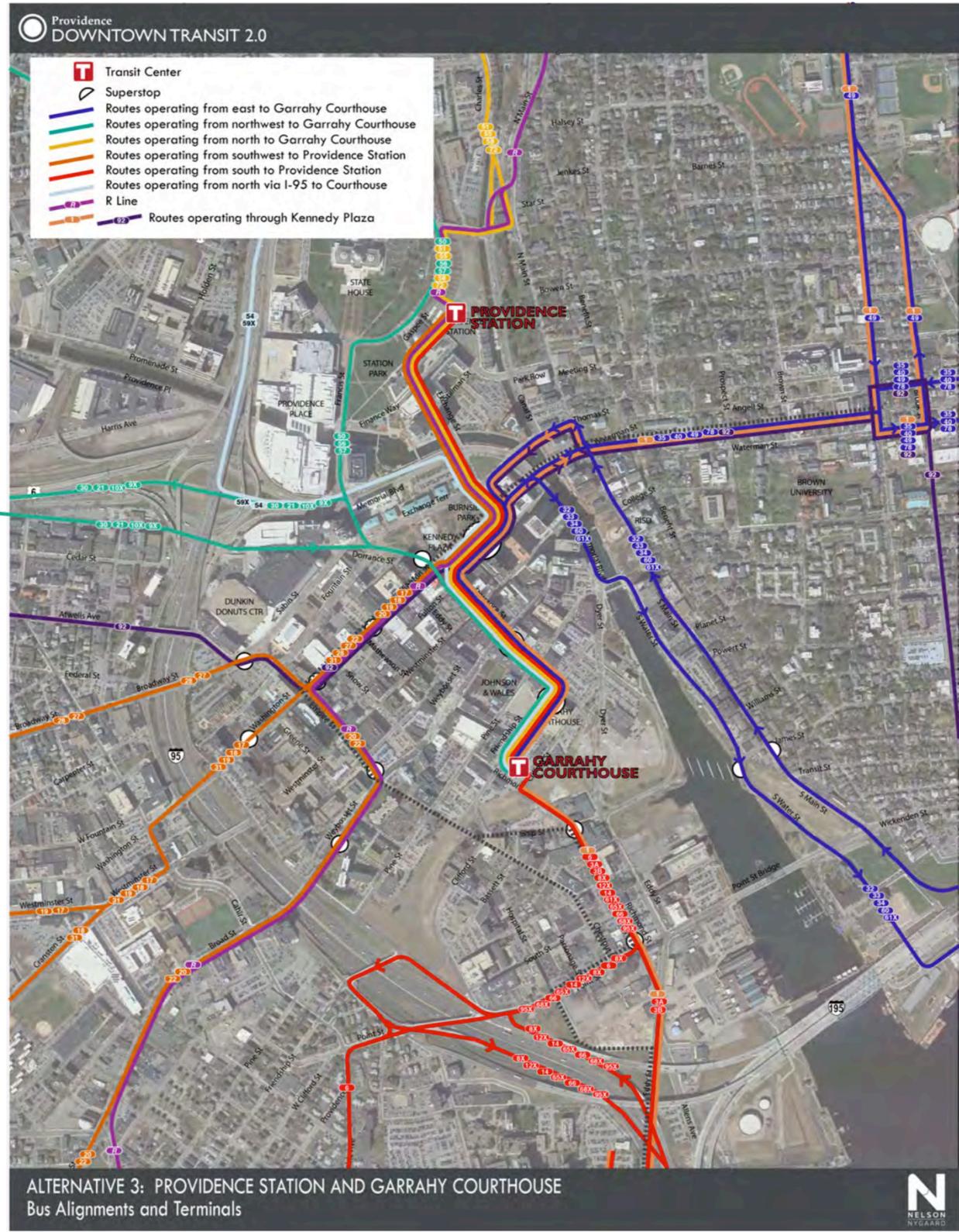
A limited number of highly-visible downtown bus stops would be located along each Transit Emphasis Corridor and at other key locations downtown as highlighted in Figures 3 – 5.

Locations with relatively high levels of ridership and where there is sufficient room to install passenger amenities, would be designed as superstops – or highly visible, attractive and convenient locations for passengers to board buses. These facilities would provide more comfortable facilities for waiting passengers and other amenities, as demonstrated by the examples shown in Figures 6.

A list of the superstops to be constructed and installed as part of other downtown Providence transit improvements is shown in Table 1. In some instances, R-Line stops would be shared with other RIPTA routes and would also function as superstops (e.g. on Broad, Empire and North Main Streets).

Other stops in the downtown area would be limited to approximately one every 900 feet (or about six stops per mile) in order to speed the flow of service. At these locations, minor improvements would be made as needed to remove parking meters and other obstructions, and to add pavement markings and signage as appropriate.

FIGURE 5 – ALTERNATIVE 3: TRANSIT CENTERS AT KENNEDY PLAZA, TRAIN STATION & COURTHOUSE



## Super Stops

Transit "Super Stops" are locations where multiple transit services meet that provide for a pleasant and convenient transfer between services and that connect passengers with community activity centers. These key locations will often require greater amenities than bus stops, but do not require the level of investment of stations. Super stops could include amenities for transferring transit customers (such as shelter, seating, schedule information, fare payment systems, supporting retail, etc.) and quality connections to important community destinations (such as improved roadway crossings, multi-paths, pedestrian connections, signage and wayfinding systems).



### Upgraded Bus Shelters

Upgraded bus stop shelters with improved lighting, weather protection, seating, and trash receptacles make the wait for transit more appealing.

### Bus Bulbouts

Bus bulbouts move passenger shelters or queuing areas away from the pedestrian zone and reduce pedestrian crossing distances.

### Accessible Curb Ramps

Curb ramps safely and seamlessly connect mobility impaired individuals between the sidewalk and street. Curb ramps are tactile to ensure legibility for site-impaired users.

### Crosswalks

Highly visible and defined crosswalk facilities ensure safe and comfortable crossings.



### Super Stops...

- ✓ Improve the pedestrian environment
- ✓ Add significant value for low cost
- ✓ Improve the experience of transfers
- ✓ Improve safety
- ✓ Create a sense of place for the intersection area
- ✓ Improve the visibility of transit service
- ✓ Improve accessibility
- ✓ Broadens transit's appeal to new market segments

### Curb Extensions

Curb extensions continue the sidewalk into the parking lane at intersections or mid-block locations to improve visibility of pedestrians waiting to cross, reduce crossing distances, and provide additional space for placemaking features.



FIGURE 6 – POTENTIAL AMENITIES & FEATURES TO BE PROVIDED AT SUPERSTOPS

**TABLE 1 – SUPERSTOP LOCATIONS IN DOWNTOWN PROVIDENCE**

Street	Superstop
<b>All Alternatives</b>	
Washington	@ Matthewson (outbound) @ Empire (outbound) @ Greene (inbound)
Dorrance/Francis	@ JWU Library (outbound) @ Providene G (inbound) @ Providence Place Mall (outbound)
Empire Street	@ Westminster (inbound/outbound)*
Broad Street	@ Fenner Street (inbound/outbound)* @ Chestnut Street/JWU (outbound)
Broadway	@ Atwells Avenue (inbound/outbound)
N. Main Street	@ S. Court (outbound)*
East Side Tunnel	@ S. Main Street @ Thayer Street
<b>Alternative 1 only</b>	
Eddy/Dyer Street	@ Ship Street (inbound/outbound)
<b>Alternatives 2 &amp; 3 only</b>	
Richmond Street	Between Elm/South Streets (inbound and outbound)

- R-Line stop location, shared as superstop

