

Issued for Public Comment



Greater Denver Transit Downtown Bus Plan

March 2023

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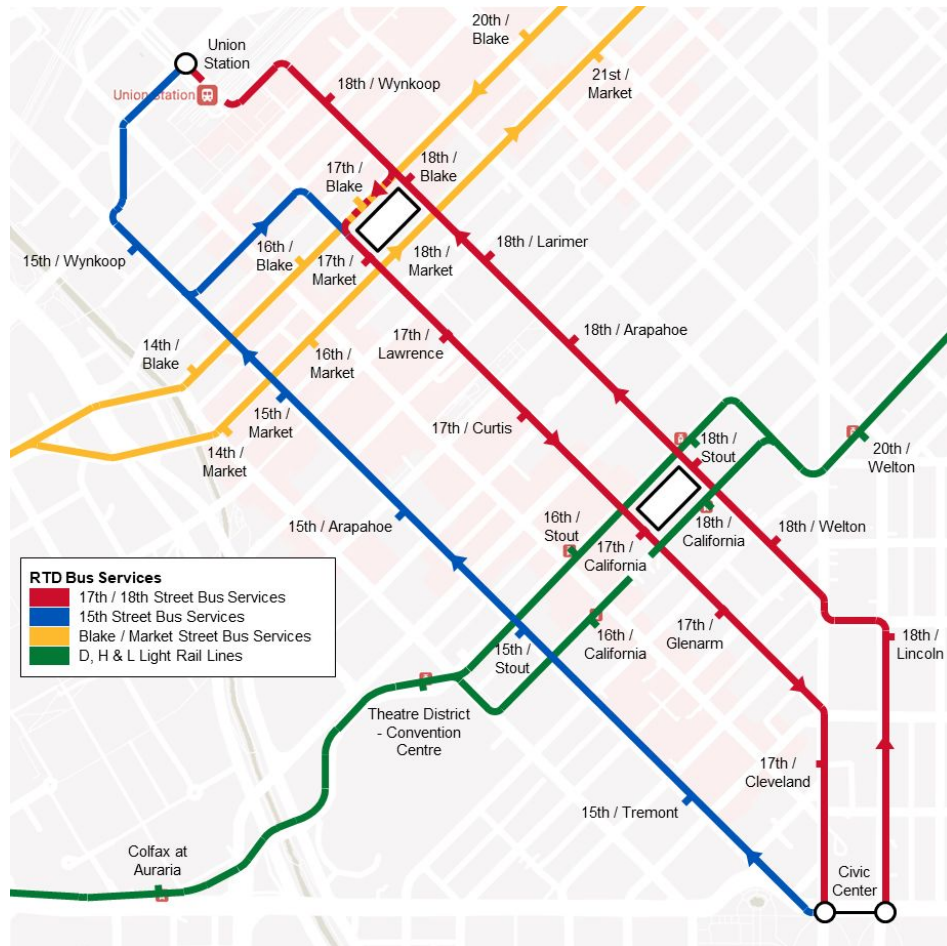


Executive Summary

Attention and Responsibility:



RTD bus journeys can be made faster with safer and easier transfer experiences in Downtown via a series of inexpensive and common-sense routing adjustments to form transit “Trunks”.



- ❑ “Trunk” lines are made up of multiple transit routes that merge together to create ultra-high frequency service over a common stretch of track/street.
- ❑ 15 existing RTD bus routes should have their Downtown “last miles” aligned between DUS and Civic Center.
- ❑ The former RTD Free MetroRide bus fleet can then be repurposed to fill Downtown’s largest transit gap: Decatur - Federal Station to 38th & Blake Station.
- ❑ The high frequency “Trunks” can be further enhanced by DOTI investment in **block-long bus stops** to make transfers safer, easier, quicker and prevent buses from bunching.

Current Downtown Bus Network

With 20 all-day bus routes and 9 train lines serving the area, **Downtown Denver is the hub of RTD's network.**

- ❑ RTD operates 7 bus routes between the hubs at Civic Center Station and Union Station, with several pre-COVID routes still suspended.
- ❑ Most buses leaving Union Station and heading through Downtown towards Civic Center Station use 17th Street.
- ❑ Most buses passing Civic Center Station & heading through Downtown towards Union Station use 15th Street.
- ❑ Last major changes were in 2014 when Union Station became the bus hub as services transferred from Market Street Bus Station.
- ❑ In the post-COVID world, RTD has an opportunity to reimagine and revitalize Downtown bus services.



Free MallRide Overview



RTD's Free MallRide circulator bus runs along the 16th Street Mall in Downtown Denver between Union Station and Civic Center Station with stops at every block.

- ❑ Introduced in 1982, service runs all-day, every 3-15 minutes.
- ❑ Connects with trains at Union Station and Stout / California Streets.
- ❑ Operated with a fleet of battery electric buses, introduced in 2016.
- ❑ Service is federally-funded on the condition it runs down the Mall.
- ❑ One of RTD's busiest routes, it carried 3.4M passengers in 2021.
- ❑ Because of its frequency and simplicity, significant numbers of fare paying riders use it to transfer to locations throughout Downtown.



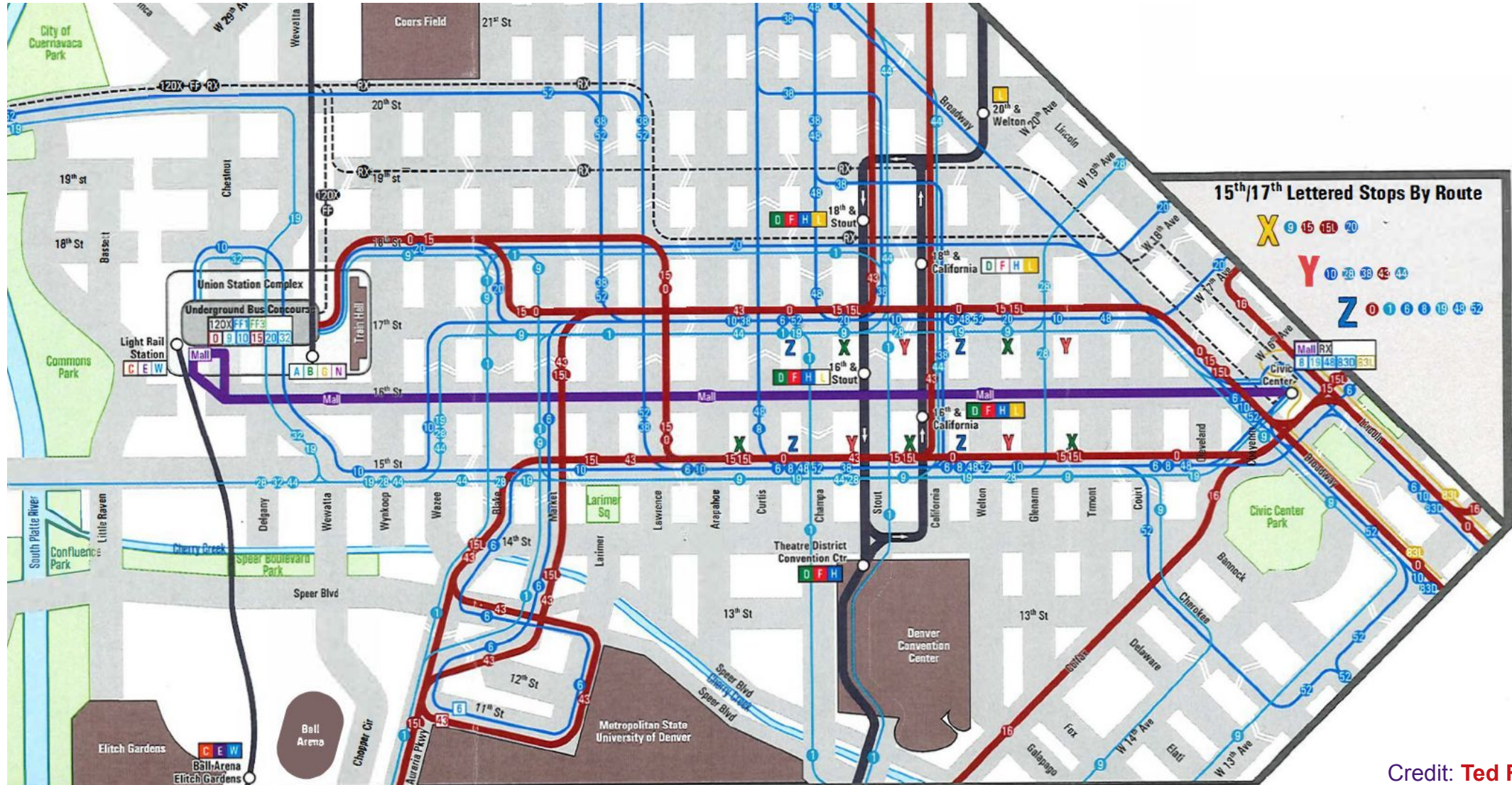
Free MetroRide Overview

Currently suspended, RTD's Free MetroRide circulator bus ran along 18th and 19th Streets in Downtown between Union Station and Civic Center Station during weekday peaks.

- ❑ Introduced in 2014 in response to projections that the Free MallRide would be unable to cope with higher levels of weekday commuter ridership once the new FasTracks rail lines were opened.
- ❑ 14 stops (7 in each direction) along 18th & 19th Streets, infrastructure project to upgrade 18th St. stops completed in 2022.
- ❑ Dedicated fleet of 60 ft articulated buses with 3 doors - they are currently idle.
- ❑ RTD plans to restore service under the System Optimization Plan.
- ❑ Aimed at riders who've already paid a fare. Could better information & education about existing bus routes fill the gap for these riders?



Current Downtown Bus Map



Credit: Ted Rosenbaum

Downtown Bus Problems

The RTD buses that operate through Downtown are **slower**, **less efficient**, and **underused** compared to what they could be.

- ❑ **None** of the 7 buses between Civic Center and Union Station operate with the most efficient routing possible on 17th/18th Streets.
 - ❑ Several buses that traverse most of Downtown completely miss the largest regional hub – Denver Union Station. Meanwhile, the 10 and the 32 make TWO stops at Union Station, unnecessarily adding several minutes to schedules.
- ❑ Bus service between Civic Center and Union Station features inconsistent routings which **undermines transit value**, preventing:
 - ❑ Consolidation to create very high frequency service.
 - ❑ Common knowledge about the fastest RTD service between Union Station/LoDo and Civic Center Station.



Add'l. Problems: XYZ Bus Stops

On 15th & 17th Streets, RTD uses a **confusing X, Y, and Z system** for bus stops which extend across multiple city blocks.

- ❑ Buses serve stops with same letter. E.g. 15 only calls at 'X' stops.
 - ❑ System is poorly communicated with no information or easy to remember 'rules' on which routes call at which lettered stops.
- ❑ Stops are spread out over 3 city blocks.
 - ❑ **Safety** - riders have to scramble across busy streets to transfer.
 - ❑ **Inconvenient** - walks are longer than necessary to transfer.
- ❑ This results in many riders avoiding Downtown's regular bus network & opting to use the Free MallRide instead.



What is a Bus “Trunk” Line?

A “**trunk**” line is a transit right-of-way where multiple lines merge together to create a common stretch of high-frequency service.

- ❑ **Trunks do not always require new services**, and can instead redesign and incorporate existing routes to create higher frequency.
- ❑ **Trunks improve critical connections**: more lines over the same stretch of stations shorten transfer walks.
- ❑ **Potential bus “bunching” slowdown can be alleviated by block-long bus stops** which safely spread out stopping-zones along the trunk.
- ❑ **Intersecting trunks make it possible to develop enhanced groups of stops**, either grouped around an intersection or as a “transit square” of block-long stops on all four corners of intersecting blocks.



Phase 1: DUS-Civic Center Trunks



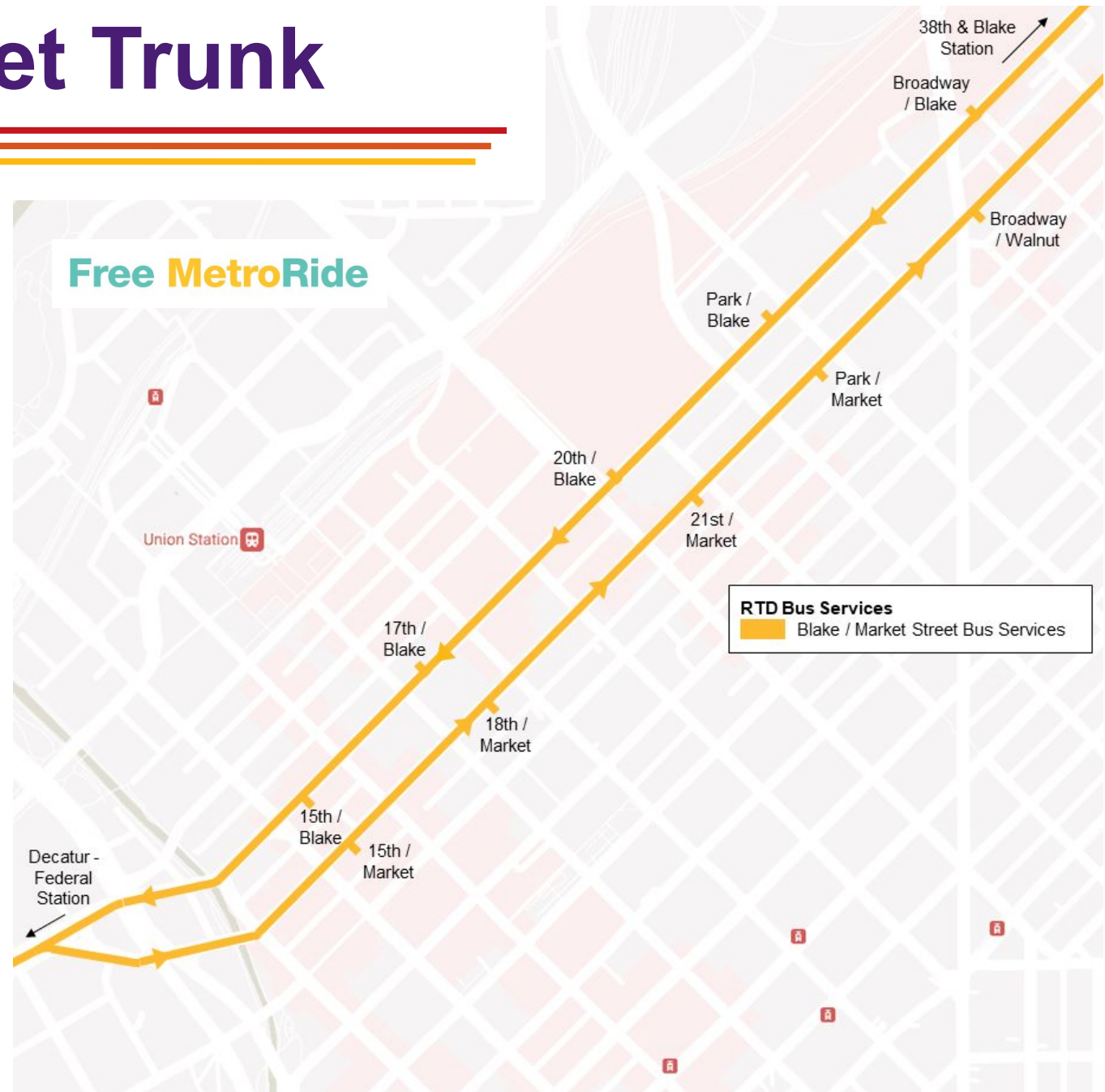
The DUS - Civic Center Trunks will consolidate 15 Downtown bus routes.

- ❑ The 17th/18th Trunk will include the 0, 6, 9, 10, 15, 15L, 20, 43, and 120X.
- ❑ The 20 only runs on part of the trunk.
- ❑ The 6 and 43 are rerouted to DUS.
- ❑ The 15th/17th Trunk will include the 8, 19, 28, 32, 38 and 44 buses.
- ❑ The 8, 19, 38 and 44 will serve DUS via Wewatta Street.
- ❑ The 28 and 32 will stop at 15th / Wynkoop, two blocks from DUS.
- ❑ The 120X and 122X should be merged to form a single route.

Phase 2: Blake / Market Trunk

The Blake/Market Trunk, running from Decatur - Federal Station to 38th & Blake Station, fills in a glaring hole in Downtown Denver transit service.

- ❑ Despite relentless growth in the area, Coors Field, the Ballpark Neighborhood and RiNo are poorly served.
- ❑ Replacement service is needed to Decatur - Federal Station when the 15L is rerouted to Union Station per the SOP.
- ❑ The Blake/Market Trunk will include the 1 and a repurposed **Free MetroRide** route.
 - ❑ 1 is rerouted to 38th & Blake Station.
 - ❑ The current **Free MetroRide** bus fleet could be redeployed on this trunk.



Previous & Current City Plans

Proposed Transit Improvements



The Blake / Market Trunk delivers transit improvements between Auraria and RiNo that have been laid out in several recent Denver transportation plans.

- ❑ The [Denver Downtown Area Plan \(2007\)](#) proposes ‘streetcar-style transit’ connecting the Auraria campus to the Ballpark neighborhood.
- ❑ The [Northeast Neighborhoods Plan \(2011\)](#) proposes a new transit route running along Blake & Larimer Streets in RiNo.
- ❑ [DenverMoves: Downtown \(2020\)](#) proposes a ‘Larimer Street Transitway’ running from Speer Blvd to Broadway.
- ❑ [Denver Moves Everyone 2050 \(2023\)](#) proposes a ‘Bus Priority Corridor’ on Larimer Street, running from Speer Blvd to Broadway.
- ❑ [Larimer Street](#) is currently being considered as a candidate for the permanent version of Denver’s [Shared Streets Program](#).

Benefits of Bus Trunks



The consolidated “Trunks” offer increased bus speeds, more frequent services, and transfers that are easier and safer.

- ❑ A Downtown Trunk would benefit every Downtown route:

Downtown Denver Bus Trunk Summary		
Bus Routes	Change vs. System Optimization Plan (SOP) w/ Trunk Adoption	Key Rider Benefit
0	17th / 18th Trunk	Nearly 3 minutes saved
6	Extend to DUS via 17th/18th Trunk	DUS access - connections multiplied
8	15th / 17th Trunk	DUS access - connections multiplied
9	17th / 18th Trunk	Nearly 4 minutes saved
10	17th / 18th Trunk	Nearly 4 minutes saved
15	17th / 18th Trunk	Over 2 minutes saved
15L	17th / 18th Trunk	Over 2 minutes saved
19	Unchanged	Downtown-area route frequency increases
20	Unchanged	Downtown-area route frequency increases
28	Unchanged	Downtown-area route frequency increases
32	Unchanged	Downtown-area route frequency increases
38	15th / 17th Trunk	DUS + Civic Ctr. access - connections multiplied
43	Extend to DUS via 17th/18th Trunk	DUS access - connections multiplied
44	15th / 17th Trunk	Over 2 minutes saved
120X / 122X	Merge via 17th/18th Trunk	Higher frequency AND operational savings

- ❑ A crosstown E/W trunk could optimally connect RiNo with LoDo and Auraria for the first time: a huge hole in service.



Downtown Transit Squares



The intersections of the new “Trunks” will become transfer points called “Transit Squares” which enhance safety and efficiency of transfers.

- ❑ A “**Transit Square**” is a cluster of four block-long transit stops (one per street).
- ❑ Follows best practices learned in Portland and other peer US cities.
- ❑ This allows for intuitive and safe connections between any combination of direction changes.
- ❑ This addresses weaknesses in the X, Y, Z structure of today.
- ❑ Other Trunk stops will be incrementally extended to block-long, “**Super**” stops.

Enhanced Safety of Bike Lanes

The rebalancing of buses in Downtown opens up the opportunity to upgrade bike infrastructure for safety as well:

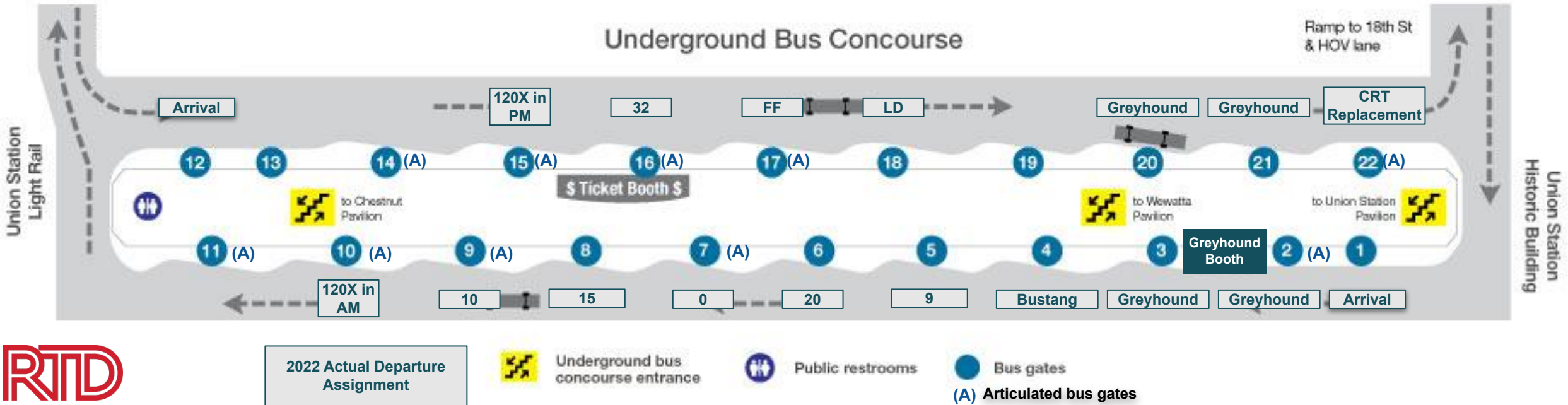
- ❑ Existing left-sided bike lanes on 15th and 19th Streets should be upgraded for safety.
 - ❑ Raise them to sidewalk-level with physical barriers, Lane on 15th Street to be extended north to Central St per DOTI plans.
 - ❑ Install dedicated left-turn turn signals at vehicle lane conflicts.
- ❑ The 18th Street nested bike lane should be studied for upgrades.
 - ❑ Bikes should be better-insulated from the heavier bus flow and higher volume boarding/disembarking transit riders.
- ❑ 16th and 17th Streets to be upgraded per DOTI's existing plans.
 - ❑ 17th Street is planned to have a new bike lane.
 - ❑ The 16th Street Mall remains a pedestrian mall.



Getting the “Runaround” at DUS

Today, gate assignments at Denver Union Station Bus Concourse are inefficient and can add over a minute to travel times for some routes.

- ❑ It is not uncommon for arriving buses to arrive at one end of the concourse, traverse the entire length of the concourse, round the horseshoe curve on the opposite side, and only THEN let passengers off.
- ❑ While DUS is the main transfer point on the system, bus boarding/disembarking zones do not appear to be designed to minimize transfer distances to/from rail for journeys that continue in the same direction of travel.



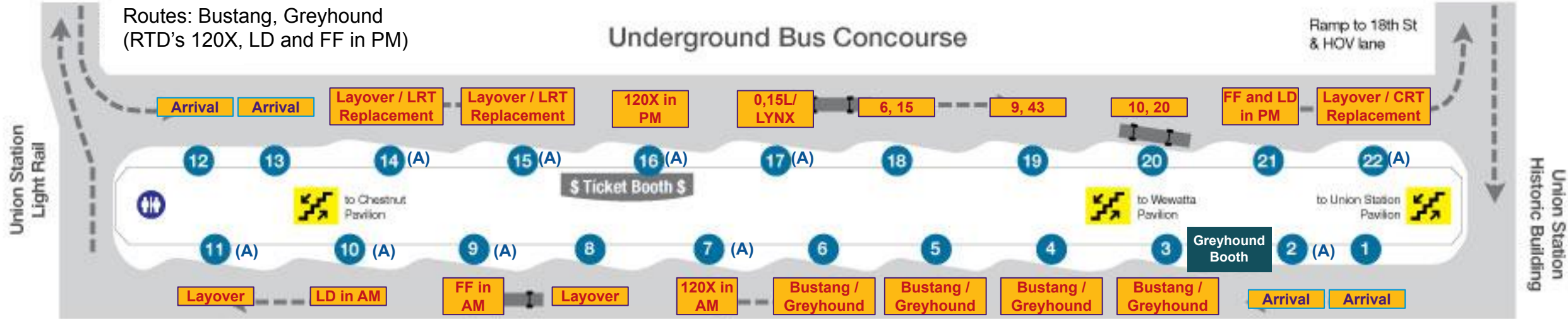
DUS Bus Bay Optimization

RTD can also shave off time from bus journeys by optimizing DUS gate assignments to decrease time spent traversing the concourse via bus while also lining up easy transfers to rail.

- RTD buses departing to/arriving from south of Downtown should board and disembark to optimize transfers to commuter rail lines which mainly go north and east of Downtown.
- RTD buses departing to/arriving from north of Downtown should board and disembark to optimize transfers to light rail lines which mainly operate south and west of Downtown.

Gates 12 and 13: Arrival Gates

Routes: Bustang, Greyhound
(RTD's 120X, LD and FF in PM)



Gates 1 and 2: Arrival Gates

Routes: RTD's 0, 6, 9, 10, 15/15L/LYNX, 20, 43 (120X, LD and FF in AM)

Information and Rider Education

To inform existing riders and attract new ridership, a comprehensive information campaign should be launched to explain the changes to bus service in Downtown.

- ❑ New map, schedule and information posters should be developed.
 - ❑ Maps should show how the trunk system connects Downtown and how bus routes combine to provide high frequency service.
 - ❑ Schedules should be summarized for periods of the day where service repeats (e.g. 10, 25, 40 and 55 minutes past the hour).
 - ❑ Posters should be displayed at every stop.
- ❑ An outreach campaign should be launched to educate riders.
 - ❑ Posters, billboards, TV, radio and social media should be used.
 - ❑ Rider outreach sessions should be held at key locations Downtown.



Asks for RTD

RTD and DOTI should collaborate to address the low-hanging fruit of the current out-of-date Downtown bus operations.

- ❑ We call on RTD to implement the following services by 2024:
 - ❑ Establish the 17th/18th Street Trunk by routing the 0, 6, 9, 10, 15, 15L, 20, 43, and 120X/122X between Civic Center and the Union Station Bus Concourse.
 - ❑ Establish the 15th/17th Trunk by merging the 8, 19, 28, 32, 38, and 44 buses between Civic Center and Union Station's at-grade Wewatta Street stop.
 - ❑ Establish the Blake/Market Trunk by re-deploying the Free MetroRide between Decatur - Federal and 38th / Blake Stations and re-routing the 1 to 38th & Blake Station.
 - ❑ Reassign bus gates at Union Station to improve rider transfer experience.



Asks for DOTI

RTD and DOTI should collaborate to address the low-hanging fruit of the current out-of-date Downtown bus operations.

- ❑ We call on DOTI to invest in block-long bus stops and transit squares which are ADA compliant and feature amenities similar to light rail platforms.
- ❑ RTD's existing out-of-service MetroRide stops along 18th Street can be reused and extended with former 19th Street stops being recycled to save on cost.



Community Outreach

GDT's Downtown Bus Plan has been shared with a robust swath of Denver's advocacy and civic communities who have provided essential feedback to shape our proposal:



CoPIRG



CU Denver's Urban Planning Department



Denver Bicycle Lobby



Denver Inter-Neighborhood Cooperation



Denver Streets Partnership



Denver University's Urban Planning Department



Downtown Denver Partnership



RTD Board of Directors



YIMBY Denver



Web: Reddit and Twitter



Conclusion

By adopting this plan, RTD and DOTI will greatly enhance journeys that pass through and connect in Downtown Denver.

- ❑ Ridership on Downtown bus routes will expand as every line gets accelerated, better-connected, or upgraded frequencies.
- ❑ Riders will save between between 3-5 minutes per trip on cross-Downtown journeys that use the 17th / 18th Street trunk route.
- ❑ Riders will enjoy enhanced capacity and improved bus stops along the 15th / 17th Street trunk routes.
- ❑ Single-transfer connections will multiply across the District, simplifying journeys that used to require two transfers.
- ❑ Development of a transit culture in Denver will accelerate as far more riders will try new journeys that include a bus transfer.





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Thank You!

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