

AGENDA

**RTD Accountability Committee
Finance Subcommittee
Wednesday, May 19 2021
11:00 a.m. - 12:30 p.m.
VIDEO/WEB CONFERENCE
Denver, CO**

1. Call to Order
2. May 5, 2021 Finance Subcommittee Meeting Summary (5 minutes)
(Attachment A)
3. FreeLift: Demand-driven first/last mile partnerships (25 minutes)
(Attachment B) Rutt Bridges
4. RTD Dashboard – Financial Information Recommendations (20 minutes)
(Attachment C) Rebecca White
5. Unfinished FasTracks/NW Rail Recommendations (30 minutes)
(Attachment D) Rutt Bridges
6. Member Comment/Other Matters (10 minutes)
7. Adjournment

ATTACH A

MEETING SUMMARY
RTD ACCOUNTABILITY COMMITTEE-Finance Subcommittee
Wednesday, May 5, 2021
Note: Meeting held virtually via Zoom

MEMBERS PRESENT:

Rutt Bridges
Dan Blankenship
Rebecca White
Krystin Trustman
Elise Jones
Chris Frampton
Deya Zavala
Lynn Guissinger
Troy Whitmore
Deya Zavala
Julie Mullica

Others Present: Ron Papsdorf, Doug Rex, Matthew Helfant, Natalie Shishido, Angie Rivera-Malpiede, Bill Van Meter, Bill Sirois, Doug MacLeod, Barbara McManus, Alex Hyde-Wright, Mac Callison, Luke Palmisano, Kent Moorman, Peggy Catlin, Shelley Cook, Monika Treipl-Harnke, Jordan Sanchez.

Call to Order

Rutt Bridges called the meeting to order at 11:04 a.m.

April 21, 2021 Meeting Summary

The meeting summary was accepted.

RTD Dashboard Draft Recommendation - Financial Information

Rebecca White introduced the topic, providing a general framework and a draft proposal. The intent is to provide access to RTD's financial information. Ms. White asked the subcommittee for input on how to discuss RTD's capital project expenditures.

Rutt Bridges suggested adding a reference to RTD's service performance document.

Dan Blankenship stated that he had found some good, animated videos explaining the Gallagher amendment and felt that similar tools relative to RTD's budget might be helpful.

There was a discussion about the recommendation referring to RTD convening focus groups to finalize the dashboard and its contents.

Rebecca White will incorporate the feedback and refinements into a final draft for consideration at the next subcommittee meeting.

Lynn Guissinger expressed her appreciation for the input and the direction this is heading.

NW Rail Discussion – Draft Recommendation

Rutt Bridges introduced the topic and provided a presentation about Bus Rapid Transit (BRT) opportunities to help address near-term needs.

Elise Jones stated that NW Rail and US 36 BRT were promised in FasTracks. They serve different markets. Flatiron Flyer is a good example and while waiting for NW Rail, RTD should pursue BRT projects in the area.

There was discussion about how to refine the recommendations to incorporate the BRT suggestions and other items.

Elise Jones suggested some specific refinements related to supporting the NW Rail “BNSF” alignment, ensuring the list of strategies is inclusive and also refers to grants, and a reference to the Northwest Area Mobility Study (NAMS) findings.

Finance Subcommittee Work Plan Review

Given the time, this item was deferred.

Member Comment/Other Matters

There were no further comments from the members.

The next meeting will take place on May 19, 2021.

The meeting adjourned at 12:33 p.m.

ATTACH B

To: Members of the RTD Accountability Committee Finance Subcommittee

From: Ron Papsdorf, Director, Transportation Planning and Operations
(303) 480-6747 or rpapsdorf@drcog.org

Meeting Date	Agenda Category	Agenda Item #
May 19, 2021	Action	3

SUBJECT

FreeLift: Demand-driven first/last mile partnerships

PROPOSED ACTION/RECOMMENDATIONS
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Recommend the FreeLift proposal to the full RTD Accountability Committee

ACTION BY OTHERS

N/A

SUMMARY

FreeLift is a proposal to pilot a demand-driven first and last mile transit solution in partnership with transportation network companies (TNCs) to connect people to higher frequency fixed route transit services. The pilot would focus on low-income underserved communities that are most in need of dependable access to education, training and jobs.

PREVIOUS DISCUSSIONS/ACTIONS

N/A

PROPOSED MOTION

Move to recommend the FreeLift pilot program to the RTD Accountability Committee.

ATTACHMENT

RTD FreeLift Loops: Economical demand-driven first-last mile partnerships

ADDITIONAL INFORMATION

If you need additional information, please contact Ron Papsdorf, Director, Transportation Planning and Operations, at 303-480-6747 or rpapsdorf@drcog.org.

RTD *FreeLift* Loops: Economical demand-driven first-last mile partnerships

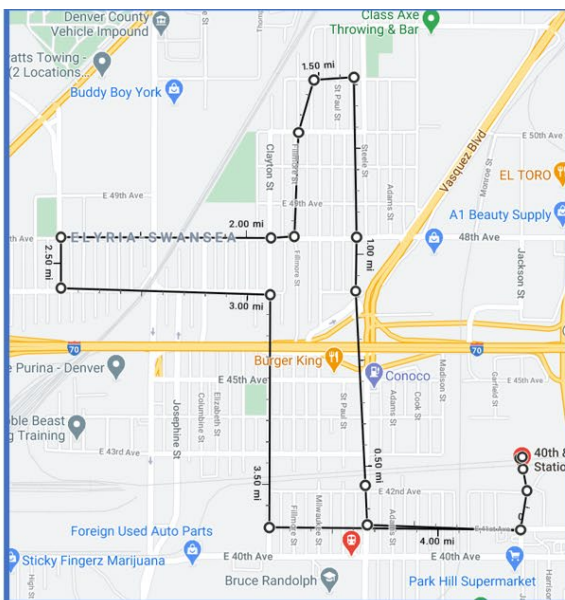
FreeLift will provide about five free shared rides to transit stations for the \$22.60 average subsidy of a single FlexRide passenger. It will focus on low-income Coloradans in underserved communities who are most in need of dependable access to education, training, and better-paying jobs. *FreeLift* is the key to restoring RTD's ridership to pre-pandemic levels while shifting commuters from SOVs to transit. It is also an ideal model for cost-sharing partnerships with local governments and employers and service delivery partnerships with transportation network companies (TNCs).

Here's how *FreeLift* works: The initial pilots serve communities more than a mile from rail stations. Only committed public transit users with RTD passes are qualified for this free benefit. Community members who wish to give RTD a try receive a free 15 or 30-day transit pass. The TNC driver's smartphone scans the pass and records the picked-up passenger's pass ID, location, date, and time, then continues on the loop to the rail station.

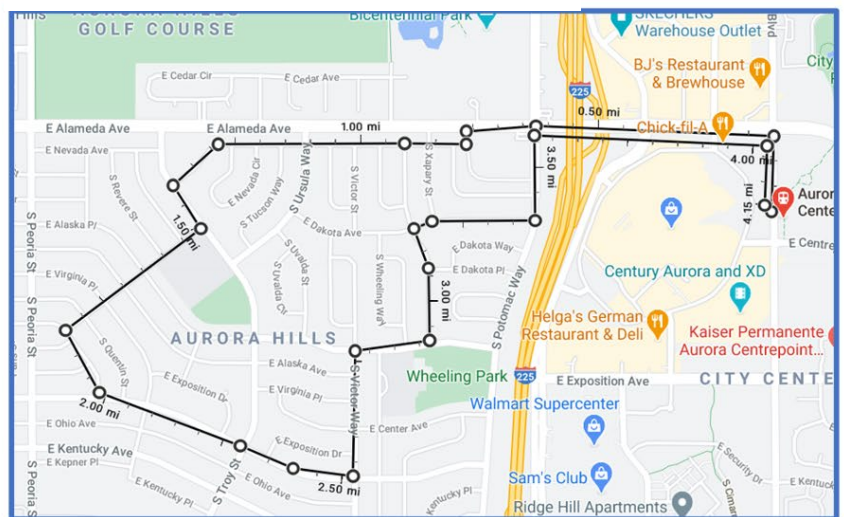
FreeLift is not a door-to-door service. Instead, drivers pick up passengers along higher population density streets or at community gathering places. RTD pass holders can request rides on the TNC app, which displays currently operating *FreeLift* vehicles on a street map or walk to a gathering place. TNCs will pick up three or more passengers along the loop for a quick ride to the rail station, then loop back for another trip, potentially carrying return fares.

Pickup/drop-off sites will be at designated locations within a few blocks of many homes. This is similar to how existing TNC rideshare programs operate and should not require excessive software development efforts by the TNC or RTD.

Elyria-Swansea *FreeLift* Loop



Aurora Hills *FreeLift* Loop



A win for customers and RTD: Let's say RTD pays a base of \$7 plus \$2 each for three passengers (or up to five in an SUV, seven in a van). That's \$13 for a four-mile trip—without having to drive around aimlessly, burning gas while waiting for a fare. RTD would provide TNC wait spaces at the rail station near clearly marked returning passenger pickup locations. If it takes 15 minutes to drive the loop, that's \$52/hour, though roughly a third goes to the TNC. Larger TNC SUVs or vans can earn significantly more. RTD pays \$4.33 per rider, less than a fifth of today's FlexRide passenger subsidy. And this is a free, market demand-driven system—no rigid

schedules, no near-empty 14-passenger buses roaming the streets. Plus, three or four passengers means far fewer stops. And RTD offers TNC drivers a “target-rich” source of riders.

There will be many other details to negotiate with the TNC—such as open access to the TNC’s driver/passenger rating system—but this proposal provides a general idea of how *FreeLift* will work. Some *FreeLift* services may also be partnerships between large employers and RTD. While it will need pilots to optimize the service efficiently, *FreeLift* will open new markets for RTD and the TNC, driving ridership while providing public transit access for underserved communities. In summary:

- *FreeLift* gives RTD market access to underserved neighborhoods, increasing ridership and equity
- Communities bypassed by station location decisions gain access to public transit
- Requiring passes, which are often discounted for low-income residents, encourages transit use
- for No significant capital costs and operating costs shared by employers and local government
- This model can focus on underperforming rail lines, underserved minorities and later expand to BRT and buses

Special *FreeLift* services for customers with moderate disabilities

Access-a-Ride will still be the best solution for RTD customers with disabilities that require heavy, non-folding motorized wheelchairs. However, many customers with more moderate disabilities who live near *FreeLift* routes may prefer the simplicity of zero-cost *FreeLift* services. Therefore, to encourage public transit use, RTD should provide these customers with free transit passes for an accompanying personal attendant. This policy is both the right thing to do and is also a more cost-effective Access-a-Ride alternative for RTD. But the choice is up to the customer: free conventional transit or scheduling an Access-a-Ride.

FreeLift drivers would pick up these customers at their residence, assist them with seating, storing, and later retrieving any walkers or folding wheelchairs. For these special services, they would receive a higher per-passenger fee of \$8 plus \$2 for the assistant, if any, plus their \$7 base fee. They could continue picking up other passengers or head to the rail station. The customer could either take a shuttle at their destination rail station or schedule an Access-a-Cab ride to their final destination.

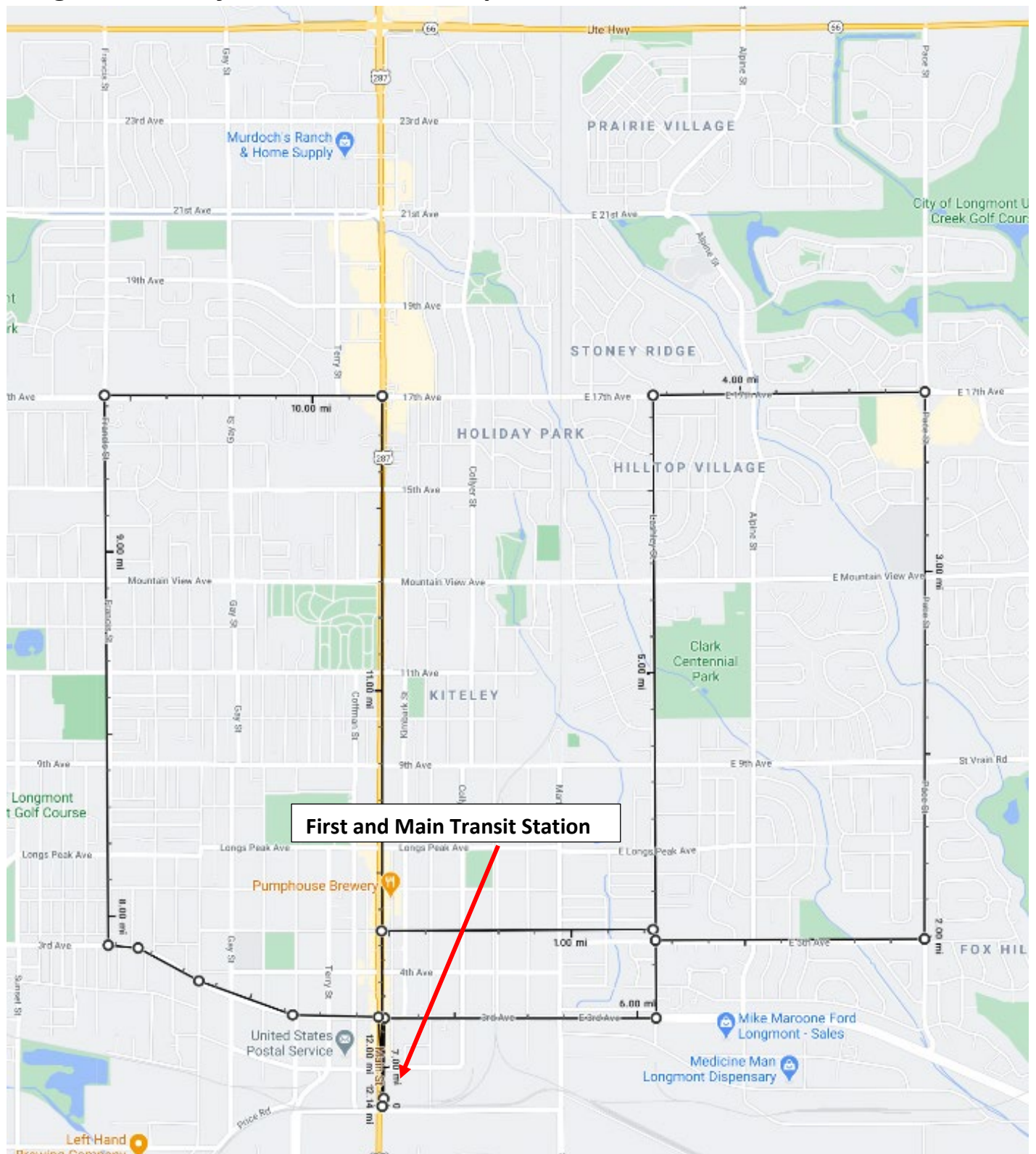
Some people might consider *FreeLift* plus free transit passes to be an overly generous benefit. However, compared to [RTD’s average 2019 Access-a-Ride subsidy of \\$54.55](#), it is a bargain for RTD—and free for the customer!

***FreeLift* for Bus Rapid Transit**

Here is how the *FreeRide* model applies to the future Longmont-Boulder BRT service. As shown below, two loops on either side of Main Street gather riders from surrounding neighborhoods and feed into Longmont’s [First and Main Transit Station](#). However, these longer loops are probably better for SUVs or eight-passenger vans than cars. This model can also drive BRT ridership by effectively serving Lafayette, Louisville, Broomfield, Superior, and other Northwest Corridor communities.

Note that the Longmont *FreeRide* loop layout shown below is just a rough concept and not meant to reflect any final *FreeLift* service loops. Local folks always know best what they need and how a service such as *FreeRide* will most efficiently operate. These loops will also cost RTD less than a dollar a ride when autonomous electric shuttles are more widely available in the coming years. [Google’s Waymo and GM Cruise are already seeking permits for autonomous taxi rides in San Francisco.](#)

Longmont *FreeLift* East and West Loops



ATTACH C

To: Members of the RTD Accountability Committee Finance Subcommittee

From: Ron Papsdorf, Director, Transportation Planning and Operations
(303) 480-6747 or rpapsdorf@drcog.org

Meeting Date	Agenda Category	Agenda Item #
May 19, 2021	Action	4

SUBJECT

RTD Dashboard Draft Recommendation – Financial Information

PROPOSED ACTION/RECOMMENDATIONS

Recommend to the RTD Accountability Committee that the attached financial information be incorporated into the RTD Dashboard recommendation.

ACTION BY OTHERS

N/A

SUMMARY

The Finance Subcommittee has had several conversations related to financial information to include in an RTD dashboard. The attached document captures the Financial Subcommittee's recommendations for consideration by the full RTD Accountability Committee.

PREVIOUS DISCUSSIONS/ACTIONS

[April 7, 2021](#) – Finance Subcommittee discussed the RTD dashboard
[May 5, 2021](#) – Finance Subcommittee discussed the RTD dashboard

PROPOSED MOTION

Move to recommend the Draft Financial Dashboard information to the full RTD Accountability Committee.

ATTACHMENTS

Draft Financial Dashboard Recommendation

ADDITIONAL INFORMATION

If you need additional information, please contact Ron Papsdorf, Director, Transportation Planning and Operations, at 303-480-6747 or rpapsdorf@drcog.org.

RTD Dashboard Recommendations – Financial Information

The RTD Accountability Committee recommends that RTD implement a web-based dashboard that is prominent and easily accessible to provide easy-to-understand financial and performance information for the public, stakeholders, partners, and elected officials.

1. Provide a simplified version of financial budget information that includes a simple one-sheet budget document that is more accessible to the general public and easy to follow.

Currently, RTD's website provides a great deal of financial information which is challenging to sift through and understand. While this amount of detailed financial information may be useful in some situations and should remain available for the public, RTD should create (and update quarterly) the following:

- a. A basic budget document (ideally in a one-sheet format). This should be a high-level summary document that contains revenues and expenses by category in relation to the current adopted budget. (provide link defining key terms)
- b. Capital project schedule and expenditure information, updated at least quarterly

Notes: Consider alternative formats (including videos) to explain the budget process.

2. Provide explanatory information on RTD's budget process.

Even in a basic format, financial information can be difficult to interpret. RTD should include the following in plain language:

- a. A layperson's overview of the budget itself, including available revenue streams, primary expense categories, and defining terminology such as "Base System" and "Farebox Revenue."
- b. A description of the budget adoption process and the role of the Board of Directors.
- c. A description of how the budget aligns with RTD's mission and performance objectives.

Notes: Explain that fares do not cover the full cost of a ride.

3. Include financial information on FasTracks that is easy to follow.

Given the public interest and scrutiny on this program, RTD should build on its well-developed FasTracks website by providing up-to-date financial information to create a more comprehensive representation of the program. This information should describe the FasTracks Internal Savings Account (FISA), how it is used, and any additional resources that help stakeholders and the public understand the status of FasTracks projects.

Notes: consider public awareness of terms like "FasTracks," "Base System," etcetera

4. Provide a long-term vision for the use of federal stimulus funds as they continue to flow.

To date, federal stimulus money received by RTD from the CARES Act and CRRSAA has totaled over \$430 million. The agency is expected to receive a third allotment from the most recent stimulus package. RTD should provide a quarterly report with a full accounting on the use of these funds as well as share its priorities for the third allotment, especially As these funds continue to exceed the needs to cover base operations (including personnel costs), RTD should develop an appropriate plan for spending. The RTD Accountability Committee has offered RTD recommendations regarding the use of additional federal relief funds. The financial dashboard should also provide quarterly reports on the specific use of federal stimulus funds.

Notes: Should explain restrictions on stimulus dollars (what it can and can't be used for). Should keep in mind that RTD terminology and categories are not crystal clear to most people, acknowledging that lack of clarity can lead to mistrust.

ATTACH D

To: Members of the RTD Accountability Committee Finance Subcommittee

From: Ron Papsdorf, Director, Transportation Planning and Operations
(303) 480-6747 or rpapsdorf@drcog.org

Meeting Date	Agenda Category	Agenda Item #
May 19, 2021	Action	5

SUBJECT

Unfinished FasTracks/NW Rail Recommendations

PROPOSED ACTION/RECOMMENDATIONS

Forward Unfinished FasTracks/NW Rail Recommendations to the full RTD Accountability Committee.

ACTION BY OTHERS

N/A

SUMMARY

FasTracks is RTD's voter-approved transit expansion program. Since 2004, RTD has built 25.1 miles of light rail track and 53 miles of commuter rail track, launched the Flatiron Flyer bus rapid transit service, and opened an intermodal hub at Union Station in downtown Denver. Those investments and projects represent over 75% of the FasTracks program. There are four (4) unfinished corridors in the approved FasTracks program.

Snapshot of Unfinished Corridors

Corridor	Description	Daily Ridership Opening Year	Capital Cost (2018 millions)	Annual O&M (2018 millions)
Central Rail Extension	30 th & Downing to 38 th & Blake	3,200	\$140.0	\$2.6
North metro Completion	124 th Ave to SH7	3,100	\$280.0	\$3.6
Northwest Rail, Westminster to Longmont	Peak Service Plan	800	\$708.2	\$14.0
	Full Service	4,100	\$1,500.0	\$20.6
Southwest Extension	Mineral Ave. to C-470 & Lucent Blvd	3,700	\$170.0	\$3.2

Finishing the FasTracks corridors is a significant challenge for RTD. As discussed previously, revenues have not kept pace with increasing costs and RTD is now expending about 70% of its FasTracks sales and use tax revenues on debt service – although RTD has recently completed a new round of debt refinancing that will provide some near-term relief. In addition, the NW Rail project does not appear to be highly competitive for federal Capital Improvement Grants. Finally, since RTD sales and use tax revenues continue to lag behind increasing operating costs, the operating burden of additional FasTracks corridors could create a further drag on RTD's finances.

At the same time, each of these FasTracks corridors were “promised” to the voters when they approved Referendum 4A and there are significant constituencies for each of these unfinished corridors. NW Rail has also been identified as a strategy in the

Colorado Greenhouse Gas Pollution Reduction Roadmap. There may be opportunities to leverage new partnerships to reduce costs, increase ridership, and/or increase additional resources for these projects through strategic partnerships.

The Finance Subcommittee has discussed a set of recommendations at several meetings. The attached recommendations have been prepared for consideration by the Subcommittee to forward to the full Accountability Committee.

PREVIOUS DISCUSSIONS/ACTIONS

[March 3, 2021](#) – Finance Subcommittee discussed unfinished FasTracks Corridor/NW Rail

[April 7, 2021](#) – Finance Subcommittee discussed the NW Rail project

[May 5, 2021](#) – Finance Subcommittee discussed NW Rail corridor draft recommendations

PROPOSED MOTION

Move to recommend the Draft Unfinished FasTracks/NW Rail recommendations to the full RTD Accountability Committee.

ATTACHMENTS

1. Unfinished FasTracks/NW Rail Recommendations
2. RTD-NW Rail Compromise
3. BRT Expansion

ADDITIONAL INFORMATION

If you need additional information, please contact Ron Papsdorf, Director, Transportation Planning and Operations, at 303-480-6747 or rpapsdorf@drcoq.org.

RTD Accountability Committee, Finance Subcommittee

Unfinished FasTracks/NW Rail Recommendations

The RTD Accountability Committee supports the NW Rail BNSF alignment for the Front Range Passenger Rail (FRPR) corridor and recommends RTD pursue all reasonable partnership opportunities with the FRPR project. This route not only appears to provide significant benefits for the FRPR project but also offers an opportunity to leverage investments and services to support NW Rail.

The RTD Accountability Committee recommends that RTD work with local jurisdictions and DRCOG to explore opportunities for transit-oriented development and other strategies to increase projected ridership on the unfinished corridors.

The RTD Accountability Committee recommends that RTD investigate opportunities to increase non-RTD resources for transit stations including local cost sharing, grants, tax increment financing, or public-private partnerships.

The RTD Accountability Committee recommends that RTD performs a complete and comprehensive analysis of the NW Rail project to establish a common set of assumptions and engage in a regional discussion about opportunities and alternatives, both near-term and long-term, for the corridor, including the conclusions of the Northwest Area Mobility Study (NAMS).

The RTD Accountability Committee recommends that RTD work with CDOT and DRCOG to implement Bus Rapid Transit (BRT) projects in the northwest region as identified in the DRCOG 2050 Regional Transportation Plan.

The RTD Accountability Committee recommends that RTD evaluate the validity of the suggested benefits of a Northwest Corridor BRT transit system, respond to the RTD Accountability Committee on these six points, and take action if deemed appropriate (see attached Word file).

The RTD Accountability Committee recommends that RTD consider the proposed NW Rail compromise plan to deliver expanded BRT services to the Northwest Corridor by 2026 while continuing to pursue the longer-term plans for the completion of NW Rail and take appropriate action (see attached .pdf format PowerPoint file).

Recommendation:

RTD needs to pay down its debt before building NW Rail. In the interim, RTD should negotiate with the communities of the Northwest Corridor to rapidly expand BRT while continuing to evaluate NW Rail options.

A key RTD Accountability Committee assignment from Governor Polis and the Legislature was to:

“Determine how RTD can achieve long-term financial stability and growth while still meeting its core mission.”

The Governor has also made it clear that waiting twenty years for NW Rail isn't an option, and neither is more state funding.

This presentation suggests how Bus Rapid Transit might deliver on the 2004 FasTracks promises for transit services by 2026 without threatening RTD's long-term financial stability.

Rutt Bridges, Chair
RTD AC Finance Subcommittee
May 2021

rutt@bridgesfamily.net

The RTD-NW Rail Conundrum

Since voting for FasTracks almost two decades ago, the taxpayers of the NW Corridor have watched and waited while RTD delivered 113 miles of Metro Denver light and commuter rail. This rail was mostly paid for by financing that used future revenues from the FasTracks 0.4% Sales and Use Tax to guarantee payment. However, the principal and interest payments now consume about two-thirds of RTD FasTracks' revenue while the remainder goes to operating and maintenance costs for the existing rail lines. In the 2021 budget, FasTracks expenditures exceed revenues by \$42 million. RTD's five-year FasTracks projections all have major deficits with no relief in sight.

Cutting the Gordian Knot

- No 'bus money': RTD bus services are projected to run deficits through 2049
- NW Rail costs \$1.5B to build and \$20.6M/year to maintain and operate
- Thirty-year depreciation on \$1.5B for NW Rail adds \$50M/year
- That's \$70M/year to provide 4,100 rides/day = 1.28M rides/year
- In 2019, the Flatiron Flyer (FF) delivered 3.37M rides for \$23.36M
- \$23.36M = O&M, admin, plus depreciation on all RTD assets less interest
- FF: $\$23.36 / 3.37 = \$6.93/\text{ride}$, NW Rail = $\$70 / 1.28 = \$54.69/\text{ride}$
- Why? Because BRT uses public roads while rail must build its infrastructure

Consider adding capacity to BRT until NW Rail is financially feasible

Source: [RTD Board Northwest Rail Study Session, Feb. 9, 2021, pages 50-51](#)

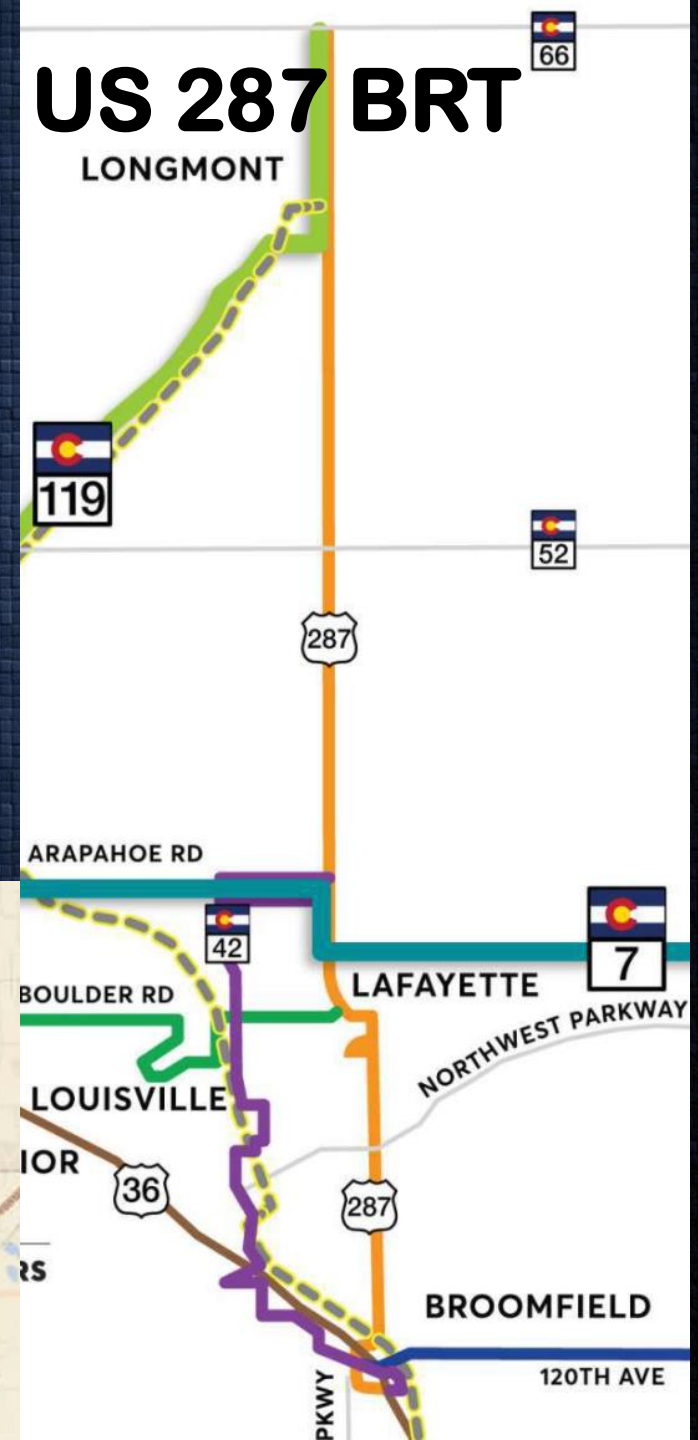
Source: [RTD Service Performance 2019, Page 19, Route FF](#)

Proposed RTD-NW Rail Compromise

1. RTD will restore all six Flatiron Flyer (FF) routes within 12 months
2. Within five years, RTD will increase BRT capacity within the NW Corridor from 3.37 million to 5 million rides/year (FF 2019 rides plus all of NW Rail's projected 2035 rides)
3. RTD will provide the final \$175M needed to complete Longmont BRT, which if financed at 2% interest over 30 years would cost RTD \$9.3M/year
4. RTD will sell all monthly passes, including discounted passes, at half price to residents of the NW Corridor until NW Rail construction begins
5. All parties agree that BRT expansion and the completion of RTD's other three unfinished corridors would have priority over NW Rail

And also...

1. RTD will work closely with CDOT to help ensure that the SH 119 Longmont BRT is completed by 2026
2. RTD will provide BRT service access for Louisville, Lafayette, Broomfield, and Westminster by 2026, with first/last mile *FreeRide* Loops where appropriate and some express Boulder or Denver BRT routes originating in those communities
3. RTD will endorse and encourage completion of US 287 BRT and SH 7 BRT, though this is not a hard commitment for financial support



The Flatiron Flyer service frequency already far exceeds the NW Rail 30-min peak/one-hour off-peak promise, and also supports more express services

Bus Rapid Transit Route		Eastbound to Denver			Westbound to Boulder		
		AM Peak	Midday	PM Peak	AM Peak	Midday	PM Peak
FF1	Union Station and Downtown Boulder Station	15 min	15 min	15 min	15 min	15 min	15 min
FF2	Express Union Station and Downtown Boulder Station	10 min	--	10 min	10 min	--	10 min
FF3	Union Station and US 36 & Broomfield Station	15 min	--	--	--	--	15 min
FF4	Boulder Junction at Depot Square and Civic Center Station	15 min	--	15 min	15 min	--	15 min
FF5	Downtown Boulder Station and Anschutz Medical Campus	30 min	--	3 trips	3 trips	--	30 min
FF6	Boulder Junction at Depot Square Station and Union Station	--	--	3 trips	3 trips	--	--
FF7	US 36 & Sheridan Station and Civic Center Station	20 min	--	--	--	--	20 min

Other advantages of this compromise

- BRT allows for far more growth, since rail frequency is limited to every 30 minutes due to Union Station's narrow "station throat"
- Unlike rail, BRT service levels can be demand-driven and incrementally increased at a reasonable cost
- NW Rail as planned would require an additional 46 diesel trains, adding noise, crossings delays, and environmental and air quality impacts
- The cost of electric buses will decline due to rapidly falling battery costs, improving air quality while lowering maintenance costs
- ~\$50 monthly passes for seniors, low-income, youth, students is a bargain that will help grow transit ridership, RTD's new success criteria

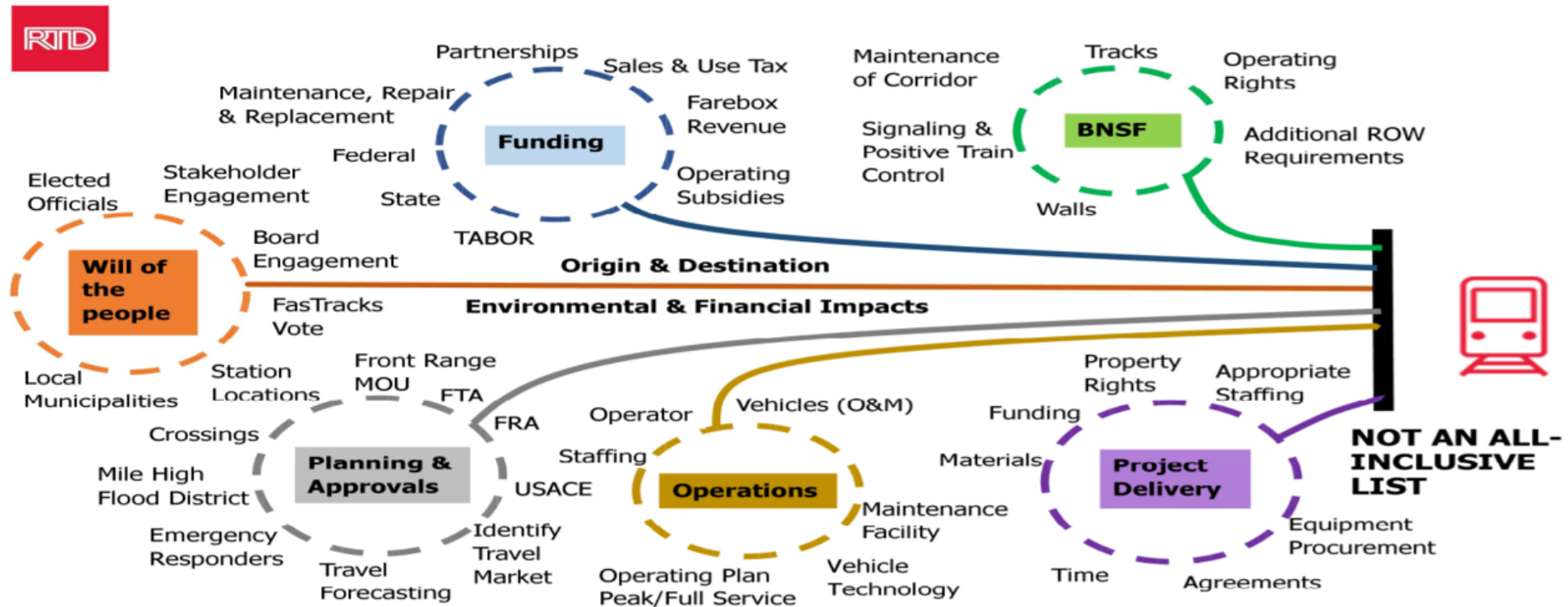
Can RTD afford half-price passes?

- In 2019, with pass discounts the average Flatiron Flyer fare was \$2.05
- Five million fare discounts at \$1.03 = \$5M/year—a fourth as much as NW Rail's estimated annual \$20.6M O&M cost for 1.28M rides/year
- This year's ridership is down by half due to the pandemic, so the actual 2020 cost would have been $\$1.03/\text{ride} \times 0.5 \times 3.366 \text{ million rides} = \$1.7\text{M}/\text{year}$
- *Question: Should discounted passes only be valid on RTD's NW Corridor bus and BRT services? There are lots of details to be negotiated...*

This is a win-win for the communities of the Northwest Corridor and for RTD—especially since services can be delivered decades sooner

The implementation of NW Rail is relatively complex, while the expansion of BRT is incremental and predictable.

NW RAIL IMPLEMENTATION NEEDS SUMMARY

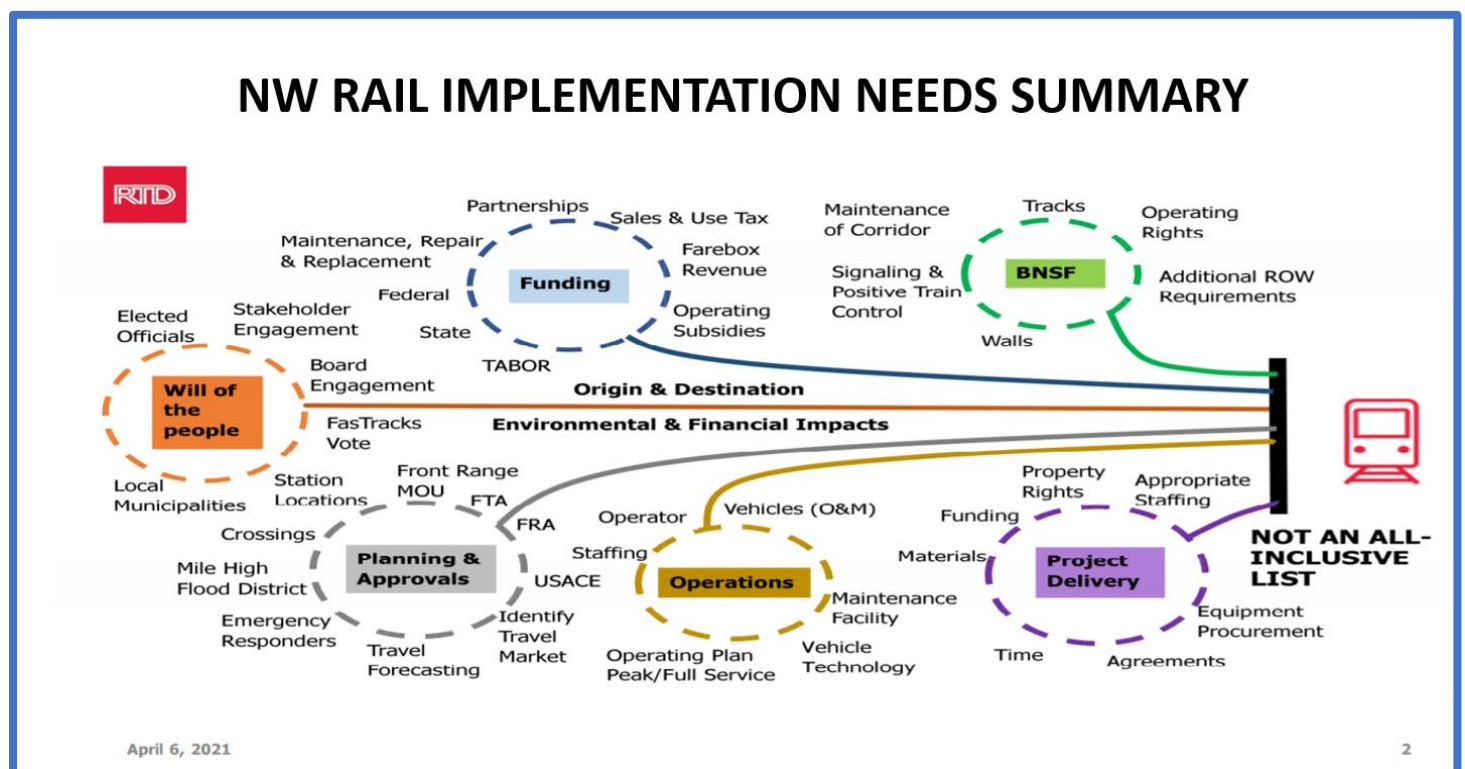


Recommendation: RTD should evaluate the validity of the suggested benefits of a BRT solution and respond to the RTD Accountability Committee.

There are encouraging signs that NW Rail may benefit from a partnership with Front Range Passenger Rail (FRPR). FRPR hopes to obtain a significant part of the project cost from US DOT/Amtrak for train service from Trinidad to Fort Collins and beyond. A bill in the Legislature is also seeking to create a special taxing district along the planned path of FRPR to seek funding through a ballot initiative—a process similar to FasTracks. The goal is a 100+ mph train costing between \$8 to \$14 billion, though it may begin with a smaller-scale proof of concept. The hope is that this would be a Denver-Boulder-Longmont rail line. This choice could potentially accelerate the delivery of NW Rail. The BNSF (Burlington Northern Santa Fe) right-of-way would be used, with BNSF building the rail at a cost yet to be determined.

If built, it will hopefully follow a path along the planned route of NW Rail. If so, RTD might be able to use the same tracks for NW Rail. However, FRPR would only stop at Union Station, Boulder, and Longmont. RTD would need to pay to add railroad sidings at five other stations along the way: Westminster, Church Ranch, Flatiron, Louisville, and Gunbarrel.

As an interim step in the process, the RTD Board has approved an \$8M study of a rush-hour-only service. This study will begin at the end of 2021 and should be completed by 2024. This initial study would need to be followed by a complete Environmental Impact Statement before final construction design, leasing, and planning. The eventual rail project would be a partnership among FRPR, BNSF, CDOT, Amtrak, RTD, Army Corps of Engineers, Federal Railroad Administration, Federal Transit Administration, and Northwest Corridor communities. Here is a flow chart of RTD's Implementation Needs Summary for the NW Rail Project:



However, given the operational, political, economic, and other risks inherent to a complex project such as this, it is difficult to estimate the date at which NW Rail passenger service might begin. Given the time frame, it

seems prudent to consider and evaluate the alternative option of expanding existing Bus Rapid Transit (BRT) services while pursuing developments on NW Rail. Note that the recommended BRT solutions are based on the [Northwest Area Mobility Study](#) and the work of subsequent groups such as [Commuting Solutions](#) and the [Northwest Mayors and Commissioners Coalition](#).

We request that RTD specifically respond to each of the following claims. Then, if enough of the claims have merit, the RTD Board, in partnership with the Governor, CDOT, and various communities and organizations representing the Northwest Corridor, can decide whether to pursue a BRT solution while awaiting developments on NW Rail.

Here are the six specific claims, followed by the supporting documentation for each:

Compared to NW Rail, a BRT solution will:

- 1. Deliver services a decade or more sooner than rail.**
- 2. Better accommodate future growth than rail.**
- 3. Be far less expensive to *implement* than rail.**
- 4. Be far less expensive to *operate* than rail.**
- 5. Be far less expensive to *maintain* than rail.**
- 6. Be far less of a threat to RTD's future financial stability.**

Of course, if everything goes smoothly with FRPR, NW Rail might also be available within the next decade or so. But BRT is *now* and is low risk.

Here is a brief discussion of the justification for each of these claims.

1. A BRT solution will deliver services a decade or more sooner than rail.

Claim: Already done, since RTD's Flatiron Flyer BRT (FF BRT) began operations January 3, 2016, and has already served millions of riders a year.

In 2019, the **FF BRT** provided 3.366 million rides, which is [twice RTD's projected 2035 NW Rail ridership](#). Before the pandemic, **FF BRT** offered seven Boulder-Denver routes. In addition to express buses, some routes provided stops serving Table Mesa, McCaslin, Flatiron, Broomfield, Church Ranch, and Sheridan. Service intervals ranged from 10 to 30 minutes, depending on the route and time of day. However, since the 2020 pandemic, four routes were suspended, and only three of the seven routes are still operating.

2. A BRT solution will better accommodate future growth than rail.

Claim: The FF BRT configuration can expand to accommodate twice the total projected 2035 NW Rail ridership.

Using the CARES funding, RTD has already brought back many of the bus operators and maintenance and support personnel needed to restore Flatiron Flyer service to pre-pandemic levels. There are also buses in storage from the 2020 service cuts. Given the popularity of the Flatiron Flyer buses—as demonstrated by its past high ridership—RTD should prioritize rapid restoration of all seven routes to 2019 schedules. As the economy continues to recover, RTD could selectively expand services on popular routes. For example, if a bus

pulls out of the station and averages 60 mph, and the next one leaves ten minutes later, the first one is already ten miles down the road.

Doubling the bus frequency would have little impact on US 36 traffic but would add twice the capacity needed to serve all of RTD's projected 2035 NW Rail riders. Moreover, since these buses would be carrying far more passengers than the average vehicle, they would also significantly reduce rather than add to congestion. And though the capacity of stations might have to be expanded as BRT ridership grew, the expansion would be gradual and demand-driven. If the ridership didn't grow as expected, less expansion would be needed.

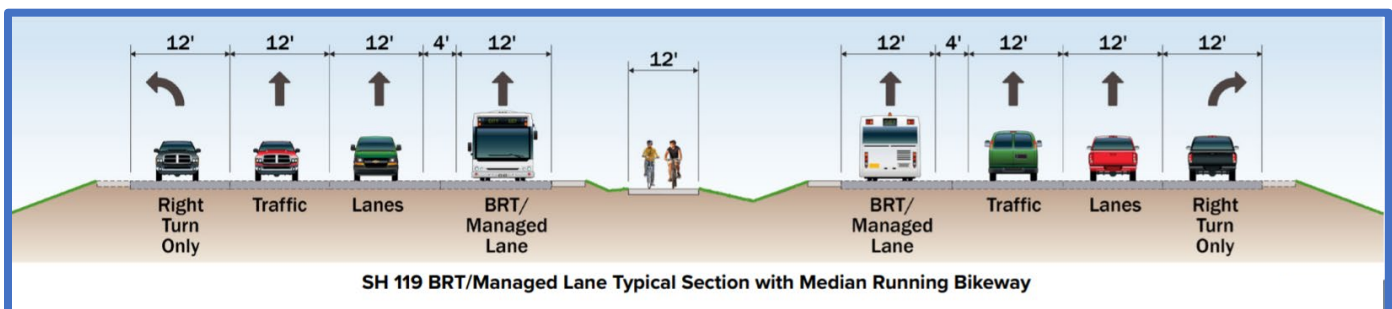
Growth by rail: RTD's planned schedule for Line B/NW Rail is "[30 minutes peak \(6-9 am, 3-6 pm\) / 60 minutes off-peak service](#)." That implies $7 + 5 + 7 + 4 = 23$ round trips, or a weekday extra 46 trains on the tracks. BNSF, which owns the rails and right-of-way, currently [runs 10 to 17 freight trains per day over this route](#). With NW Rail, that's about four times as many trains, each of which stops traffic both ways. These delays annoy the folks stalled at RR crossings, worried about being late for work, while commuters' idling cars and the diesel trains kick up our ozone levels. And that's before Amtrak/FRPR adds their rolling stock.

Are we confident that this expansion will not be an issue for BNSF's freight operations? Whoever writes the rail lease contracts must ensure that more trains can be added at a reasonable cost as Colorado's Front Range grows. According to CDOT, Colorado's population may [increase by 1.69 million](#) over the next 20 years, mainly along the Front Range.

3. A BRT solution will be far less expensive to *implement* than rail.

Claim: The US 36 FF BRT managed lanes and transit stations are already in place, and the Boulder-Longmont SH 119 BRT is planned, could begin final design and construction within a year, and be completed within five years.

[While an additional \\$135 million in funding](#) and a high implementation priority is needed for this project, \$115 million has already been committed by RTD, DRCOG, CDOT, Boulder, and Longmont. This project was a key priority of the 2014 [Northwest Area Mobility Study](#) (NAMS) group and has broad support within the NW Corridor, including the [Northwest Mayors and Commissioners Coalition](#). Compared to the [\\$1.5 billion \(2018 dollars\) for NW Rail](#), this is a modest investment. It is estimated to reduce RTD's BOLT line Boulder-Longmont travel time from 66 minutes to 38 minutes. Given the number of Longmont residents who can't afford Boulder housing costs, this route is critical to both local economies. The extra lanes, including turn lanes, inside managed lanes, and cycle paths will ensure free-flowing traffic for personal autos, heavy trucks, transit customers, and cyclists for years to come.



4. A BRT solution will be far less expensive to *operate* than rail.

Claim: The US 36 FF BRT managed lanes and transit stations are already in place, and the Boulder-Longmont managed lanes will be free for BRT buses.

The cost per boarding for NW Rail must include the cost of building and maintaining the rail. But since BRT buses have free access to public highway's managed lanes, they don't bear this burden. Why? CDOT isn't building managed lanes just for a public bus that comes along every few miles. The managed lanes are for all vehicular traffic, though single-occupancy vehicles are often restricted or required to pay tolls. But BRT buses carry numerous commuters, thus *reducing* the other vehicular traffic. And so, CDOT lets RTD buses use the lanes for free. CDOT pays the construction and maintenance costs of BRT's managed lanes.

NW Rail will share new tracks which are to be built by the BNSF Railroad on the right-of-way owned by BNSF. While it is not yet known what BNSF will charge for access to these tracks, the total project cost for NW Rail is estimated to be \$1.5 billion (2018 dollars). Assuming [30-year financing at 2% interest, the total cost with interest would be \\$2.4 billion](#), or \$80 million per year. Add RTD's estimated \$20.6 million per year operating and maintenance cost, and RTD's total annual cost is about \$100 million.

[RTD's estimated NW Rail initial weekday ridership is 4,100](#) (in RTD-speak, "boardings"). With half that on less busy weekends and ignoring holidays, that is equivalent to 1.28 million boardings per year, at the cost of \$78 per ride.

In 2019, the Flatiron Flyer BRT provided [3.37 million boardings at the cost of \\$23.36 million](#), or \$6.93 per boarding. And if you adjust for the \$6.74 million in fares, the net expense to RTD was \$4.93 per boarding. So BRT is like getting the rails for free, and then some.

5. A BRT solution will be far less expensive to *maintain* than rail.

Claim: The "tracks" of BRT are managed lanes built and maintained by CDOT. Maintaining buses is something at which RTD excels. RTD has people with extensive experience and skills in this discipline.

Unlike trains, BRT buses operate on public highways. Therefore, there is no repair and maintenance as there would be with rails, railroad switches, and crossings. However, the buses and occasionally the stations need maintenance.

The 2019 Flatiron Flyer BRT's total cost for operations and maintenance plus a share of RTD's administrative costs and depreciation on all assets was \$6.93 per boarding. At RTD's estimated \$20.6 million for operations and maintenance, based on 1.28 million boardings per year, the boarding cost is \$16.09. And that may not include the 30-year depreciation on the \$1.5 billion asset, which would add another \$39. But either way, BRT is a relative bargain.

RTD is very knowledgeable about the maintenance and repair of conventional buses. However, if RTD chooses electric buses, there will be some significant upfront costs in retraining technicians. However, since there are so few moving parts in electric vehicle drivetrains, the maintenance costs will be far lower over the long term.

Conventional buses have internal combustion engines and complex transmissions, both with thousands of moving parts. Electric motors have less than ten moving parts—though there will typically be multiple drive motors. They also have no transmissions: more current and the bus goes faster, less current and the bus goes

slower, no current and regenerative braking slows the bus and recharges the battery. Reverse the current polarity, and the bus backs up.

Most electric vehicles also do not require conventional lubrication or oil changes. And though they cost more to purchase, those costs are recovered by very long useful lives and lower maintenance costs.

The price of diesel emissions, however, is paid in asthma attacks, premature deaths, and a warming planet.

In evaluating conventional versus electric transit buses, we encourage a careful read of NREL's 2020 research report, "[Financial Analysis of Battery Electric Transit Buses](#)."

6. A BRT solution will be far less of a threat to RTD's future financial stability.

Claim: RTD struggles to meet its existing debt obligations while managing its current bus and rail transit operation deficits. The risk will be far greater if it attempts to build NW Rail before substantially reducing its long-term debt—which will likely take over two decades. A BRT solution can be delivered 15 years sooner than NW Rail while minimizing the threat to the future financial stability of RTD.

Note: Except where otherwise incorporating a link or other reference, comments below that include page numbers are excerpts from the [RTD Board Northwest Rail Study Session, Feb.9, 2021](#)

RTD's FasTracks (RTD-speak for rail) debt service consumes 65-70% of its annual Sales and Use Tax revenue. Operating costs for the existing rail lines are estimated to result in deficits for five of the next six years and are being covered by drawing down cash reserves—which may run dry. The 2021 deficit is projected to be \$42 million. (p. 54)

There are no Base System (RTD-speak for Bus Services) funds available to support FasTrack operations or Unfinished Corridors since the Base System (bus services) unrestricted fund balance is projected to be negative through 2049. The cost of build-out of the FasTracks Unfinished Corridors, including NW Rail, is \$2.09 billion (2018 dollars), with additional operations and maintenance costs of \$30 million/year. (p. 50-51)

The conclusion is that without additional sales tax revenue, NW Rail service could not be provided before 2046. (p.53)

For reference, here is the 2004 FasTracks NW Rail Plan (p. 30)

- Estimated completion date: 2015
- Cost estimate: \$565 million
- Denver to Boulder service frequency: 15-minute peak/30-minute off-peak
- Longmont to Boulder service: 30-minute all-day
- Double-track rail corridor, Denver to Boulder
- Single-track rail corridor, Boulder to Longmont
- Technology: Diesel locomotive-hauled coaches

A 2010 evaluation raised the cost estimate to \$1 billion (2010 dollars), with double-track throughout. However, recognizing the constraints of Denver's Union Station, they were forced to reduce the train frequency to a 30-minute peak, one hour off-peak (55 trains per day, bi-directional service). (p. 33)

Note that the frequency of service has a significant impact on people’s willingness to use transit (“How long do I have to wait for the next train?”). By comparison, here are the scheduled Flatiron Flyer bus frequency schedules before the 2020 elimination of four of the routes:

Bus Rapid Transit Route		Eastbound to Denver			Westbound to Boulder		
		AM Peak	Midday	PM Peak	AM Peak	Midday	PM Peak
FF1	Union Station and Downtown Boulder Station	15 min	15 min	15 min	15 min	15 min	15 min
FF2	Express Union Station and Downtown Boulder Station	10 min	--	10 min	10 min	--	10 min
FF3	Union Station and US 36 & Broomfield Station	15 min	--	--	--	--	15 min
FF4	Boulder Junction at Depot Square and Civic Center Station	15 min	--	15 min	15 min	--	15 min
FF5	Downtown Boulder Station and Anschutz Medical Campus	30 min	--	3 trips	3 trips	--	30 min
FF6	Boulder Junction at Depot Square Station and Union Station	--	--	3 trips	3 trips	--	--
FF7	US 36 & Sheridan Station and Civic Center Station	20 min	--	--	--	--	20 min

It is no wonder that this BRT service attracted 3.37 million riders in 2019. And by increasing the bus service frequency, RTD could expand the FF BRT to support all the projected 1.28 million additional NW Rail boardings for a good deal less than \$1.5 billion. Thus, BRT can exceed the 2004 FasTracks promises at a fraction of the cost of rail.

Despite the hundreds of millions of dollars received from the CARES and CRRSSA grants, RTD continues to operate at a significant loss. These are grants that RTD cannot rely on in the future.

It will be many years before RTD can pay off the debt it incurred by building rail projects. Until then, RTD cannot build NW Rail and come close to supporting the operating losses of the current rail lines. But by choosing BRT, RTD can exceed FasTracks’ promises without further risk to RTD’s long-term financial stability.

Closing notes

While financial and operational analyses don’t make for great reading, their understanding is essential to RTD’s ability to deliver the transit services Colorado needs to grow and thrive. Budgets are moral documents, and unless RTD is financially sustainable, many Coloradans who live paycheck to paycheck will lose those paychecks. As a result, families will suffer, and small and large businesses dependent on a stable workforce will either fail or leave our state.

Those who can afford it will often resort to single occupancy used vehicles chosen for low price rather than efficiency, further clogging our highways and adding to a growing brown cloud and warming planet. We need transit solutions that move as many folks as possible out of these single-occupancy gasoline vehicles and into efficient, safe, and affordable transit—and renewably-powered electric buses, not diesel locomotive trains.

The time has come to find solutions that meet the needs of all the people of the Northwest Corridor—not just Boulder and Denver but with additional BRT or bus connections among Longmont, Louisville, Lafayette, Broomfield, and the smaller communities in the Corridor. Bus Rapid Transit is a practical and cost-effective way to meet those needs without waiting decades. And by avoiding the high cost of NW Rail, there

will be more resources available to address the remaining unfinished FasTracks routes. All have paid their taxes, and it is time to deliver on FasTracks's 2004 transit promises. BRT can meet and exceed those promises.