

+ UTA Draft Light Rail Plan Board of Trustees Presentation



November 30, 2022

Future of Light Rail Study



- Background
- Key recommendations
- Benefits
- Funding and implementation phasing
- Next steps

Study Background





Purpose of Study



The UTA light rail network has served the community for over 20 years and is a backbone to the region's transportation service

Needs addressed:

- Comprehensive analysis of the network
- Guidance for improvements in both the short and long term

Scope Included LRT and Streetcar:

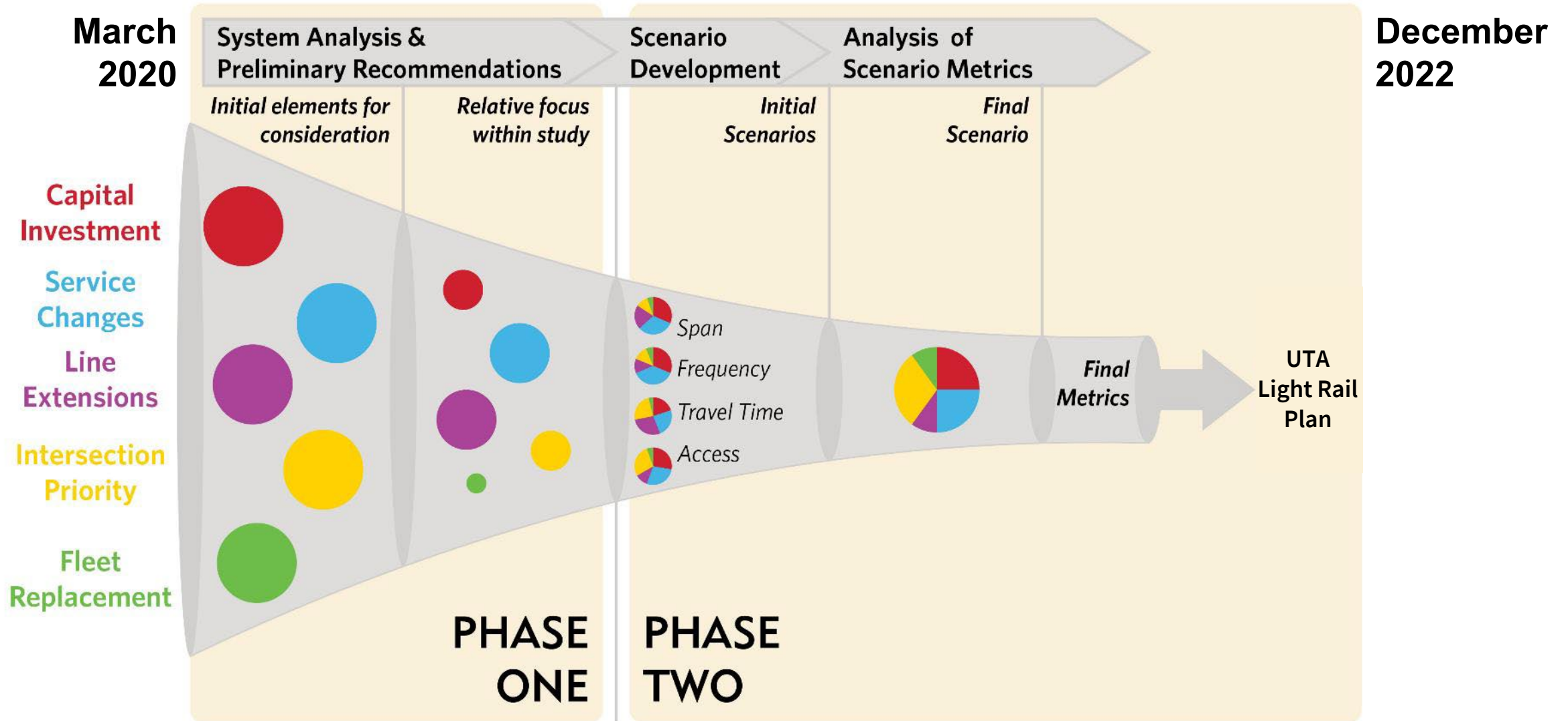
- Existing service
- Proposed expansions per 2019 MPO adopted RTPs if:
 - Shown as "funded" in RTP
 - There was not a separate study underway





Development Process

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Engagement

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Stakeholders were engaged throughout the study. A process was also in place to inform the public and solicit input at key points.

Engagement efforts included:

- Multiple workshops & presentations
- Online and in-person surveys
- UTA study webpage





Key Recommendations



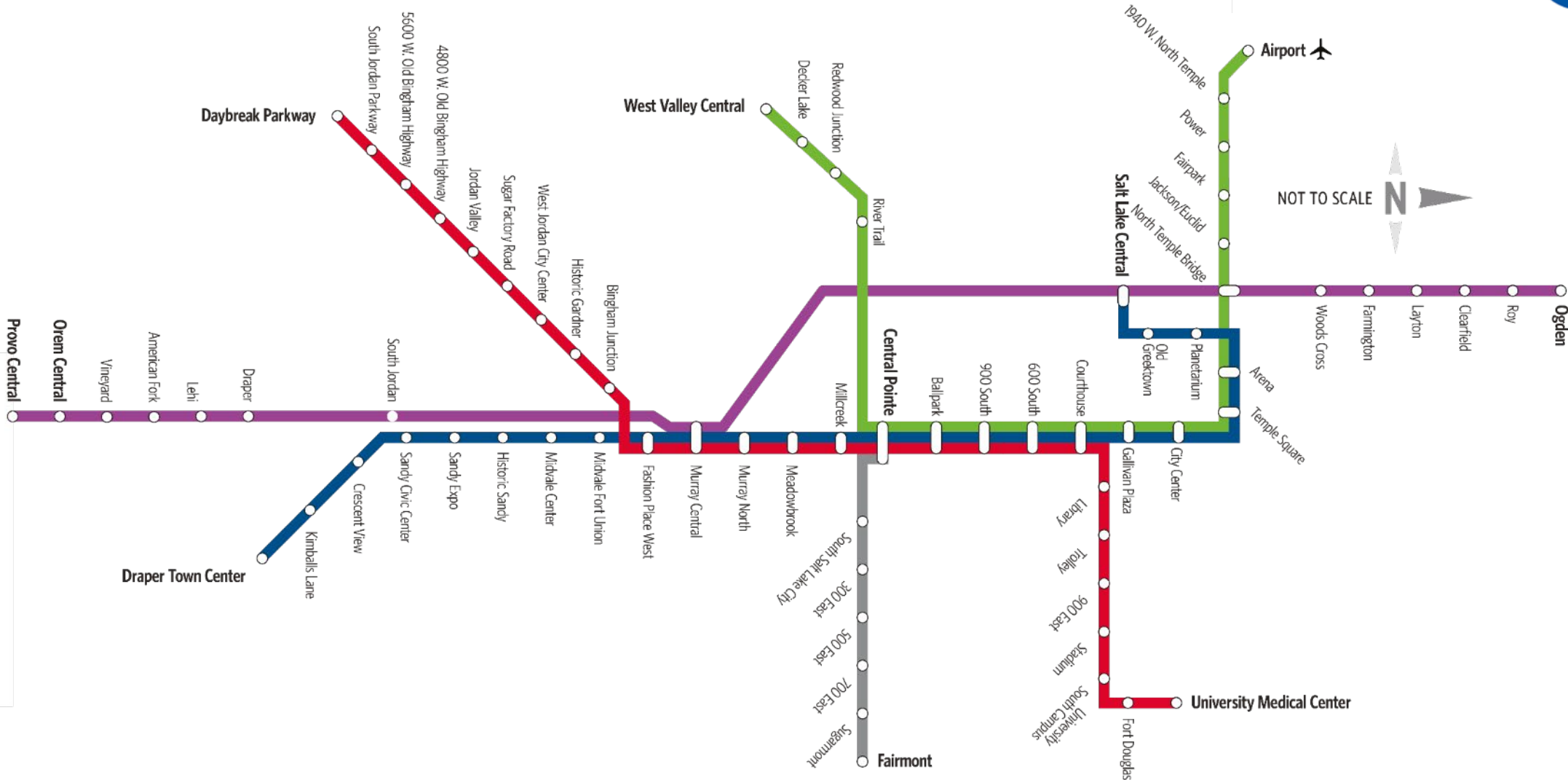
Key Recommendations

1. Plan for possible **service expansion and reconfiguration**
2. Optimize **fleet efficiency**
3. Fund and schedule key **infrastructure renewal/improvement** projects
4. Collaborate with partners to **increase transit signal priority**
5. Enhance **span of service**





1. Expansion and Reconfiguration Current System



1. Expansion and Reconfiguration WFRC RTP – 2019 Adopted

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Phase 1 (2019 – 30)

- S-Line extension to Highland

Phase 2 (2031 – 40)

- Green line reconfiguration
- 400S / SL Central

Phase 3 (2041 – 50)

- POM (2 Options)
- S-Line Extension – SL Loop

Unfunded

- Black Line: U of U/Airport via Main Street
- S-Line extension to 400 S
- S-Line extension to 3900 S

1. Expansion and Reconfiguration WFRC RTP – 2023 Draft

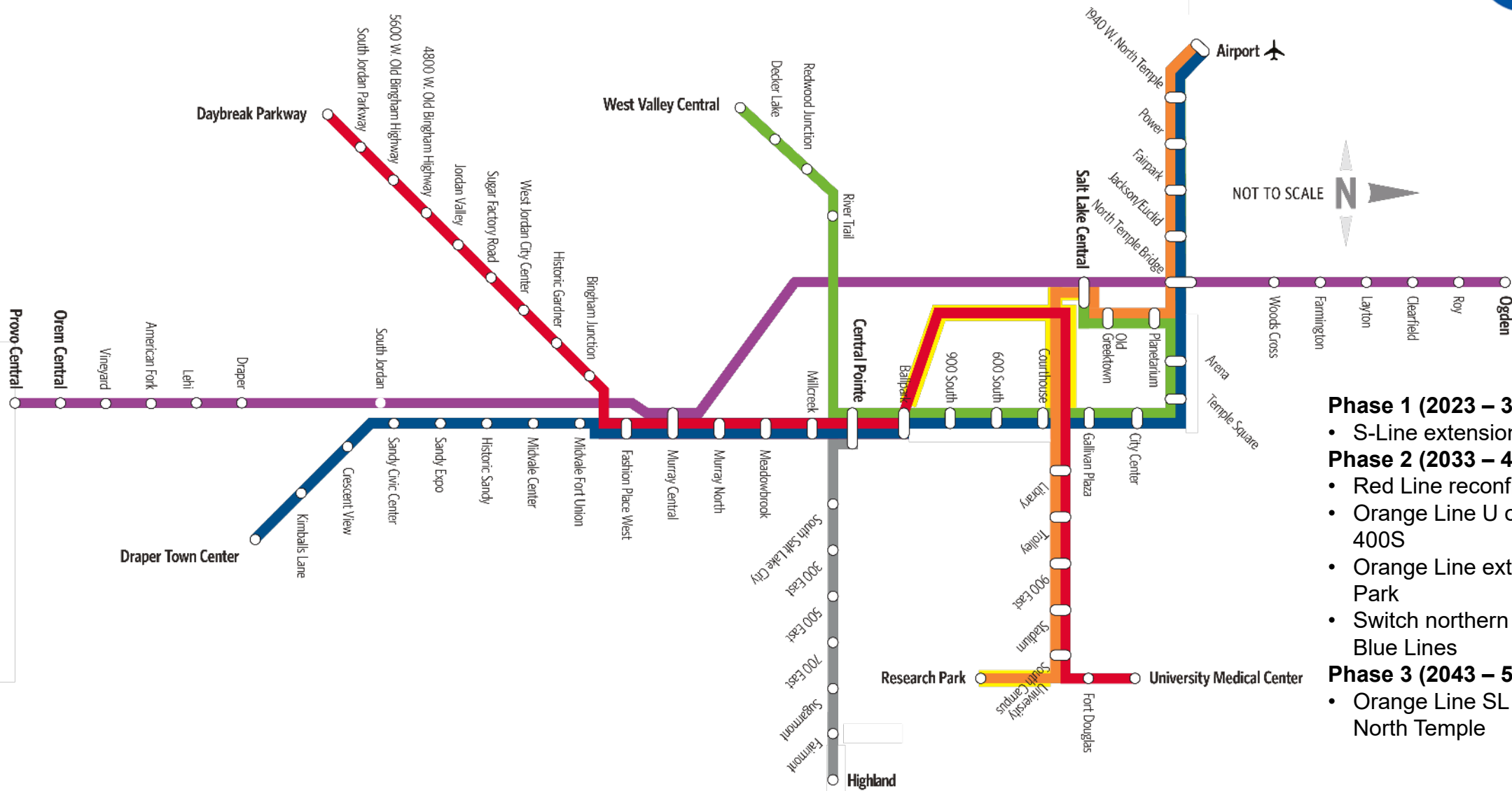
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- Phase 1 (2023 – 32)**
- S-Line extension to Highland
- Phase 2 (2033 – 42)**
- American Spur extension
 - 400S extension
- Phase 3 (2043 – 50)**
- Downtown/U of U Streetcar
- Unfunded**
- S-Line extension to 400 S
 - S-Line extension to 3900 S

1. Expansion and Reconfiguration Plan

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Phase 1 (2023 – 32)

- S-Line extension to Highland

Phase 2 (2033 – 42)

- Red Line reconfiguration
- Orange Line U of U/SL Central via 400S
- Orange Line extension to Research Park
- Switch northern terminus of Green and Blue Lines

Phase 3 (2043 – 50)

- Orange Line SL Central/Airport via North Temple



- Replace original fleet with new low floor cars
 - Approaching end of useful life
 - Limited accessibility
 - 55mph speed constraint
- Optimize fleet size
 - 3 car standard train
 - Consistent with existing UTA service standards for passenger space/comfort
 - Reduction in spare ratio
 - Maintains UTA spare ratio standard



3: Infrastructure



- Trunk line speed improvements
 - Increases Trunk Line max speed
 - Increase other curve speeds
- Service reliability improvements
 - Central Pointe Union interlocking turnback
 - 400W (Pioneer Park) Connector
 - Improves ability to handle special events and system failures
- Traction power upgrades
 - Critical for continued system reliability





4: Priority

Improve Transit Signal Priority across system

- Reduce delay through 19 critical intersections
- Speeds LRT trips while supporting efficient use of intersections by all users
- Requires UDOT and Salt Lake City coordination





- Extend span of service across all lines
 - Add up to 2 hours of service/day by renegotiating for reduced freight window (where feasible)
- Possible late/early airport service
 - Requires additional study to assess demand



HATCH LTK

Plan Benefits





Reliability

Future Baseline (2050) vs. Light Rail Plan (2050) Simulated On-Time Performance					
	TRAX Train Line				Combined Average
	Blue Line	Red Line	Green Line	Orange Line	
Future Baseline (2050)	96.0%	89.1%	92.6%		92.5%
Light Rail Plan (2050)	95.0%	99.0%	93.5%	97.3%	96.4%



Higher Ridership



Metric	Future Baseline (2050)	Increase from 2019	Light Rail Plan (2050)	Plan Change from Future Baseline	Plan Change from 2019
Daily Total TRAX Boardings	95,500	+63%	102,800	+8%	+71%
Daily Total Transit Boardings	232,800	+50%	237,600	+2%	+52%

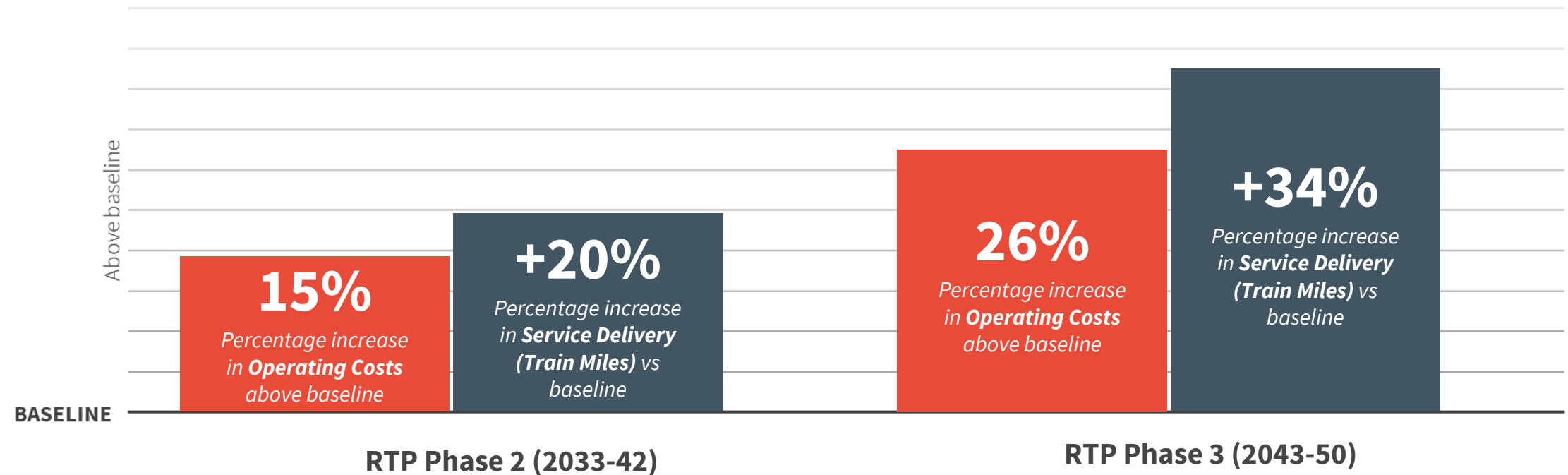


Delivering Service More Efficiently

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Operating costs for 2033 and for 2043 increase, but the region sees a **bigger increase in service delivered**

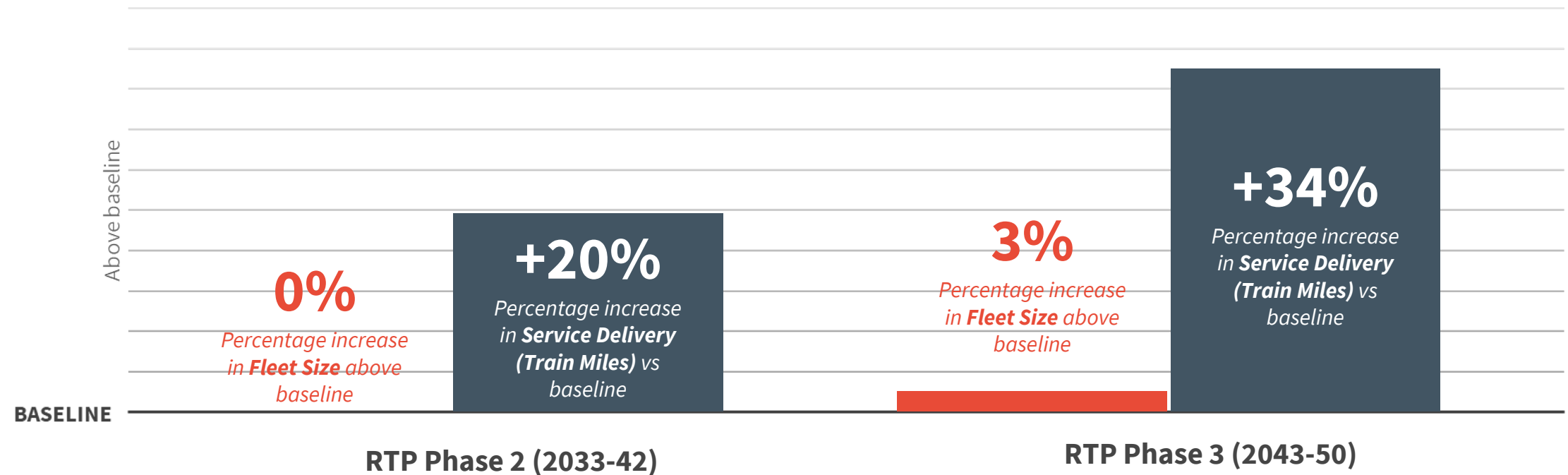




Using the Fleet More Efficiently



The Plan for 2033 requires no new fleet and yet delivers **+20% more service**.
The Plan for 2043 requires only 4 new cars (an increase of 3%) while providing **+34% more service**.



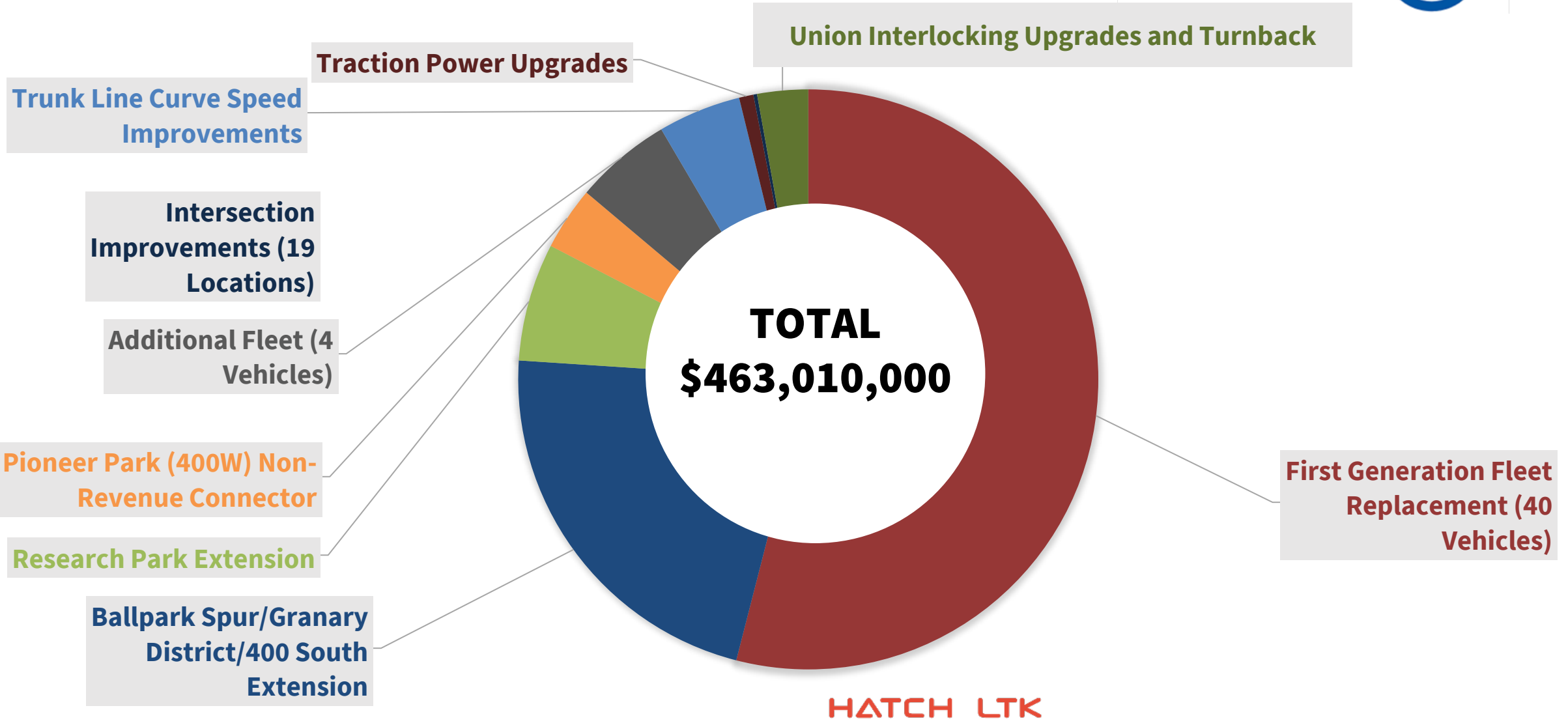
Plan Funding and Implementation





Capital Cost Estimates - RTP Phases 2 and 3

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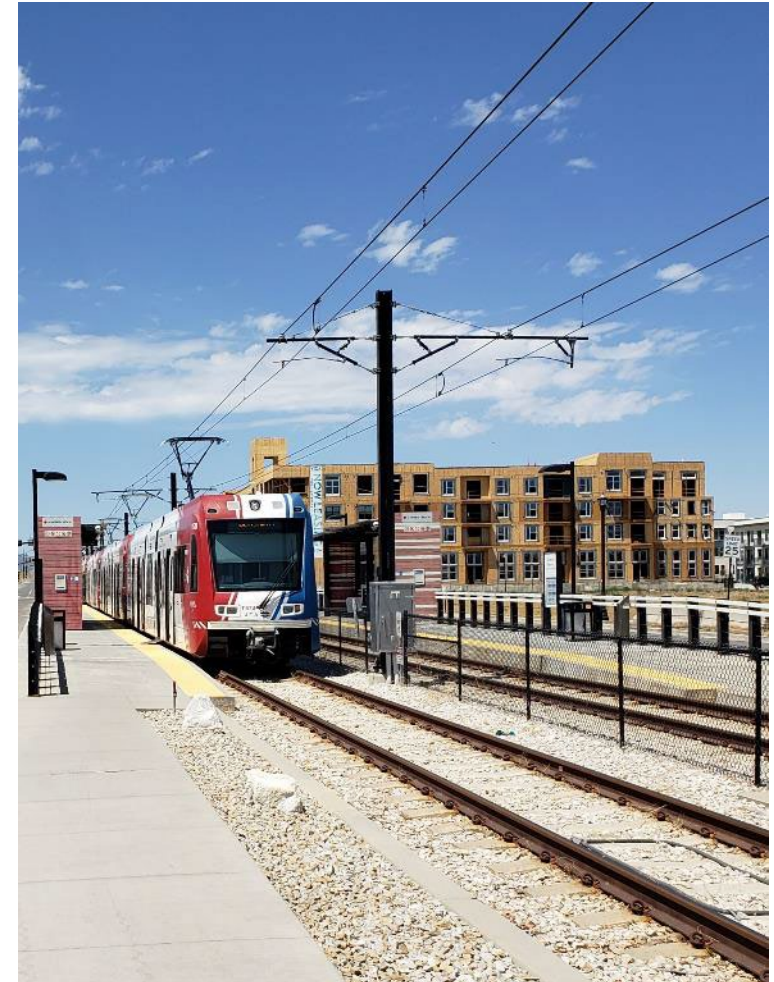


Funding Opportunities

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- State and local funding
- FTA funding
 - RAISE Grants
 - Capital Investment Grants (Section 5309)
 - Surface Transportation Block Grants
 - Grant Program for Rail Vehicle Replacement
- Value capture strategies
 - Tax Increment Financing
 - Station joint development (public/private partnerships)





Recommended Plan Implementation Phasing

Improvement	Near Term UTA Actions	Possible Implementation Timeframe
Intersection Transit Priority Improvements	Engage Salt Lake City, UDOT	2023-24
Trunk Line Speed Improvements	Initiate Design	2024-26
Start Service Earlier, End Later	Initiate Freight Rail Negotiations	2026-27
Operate Late Night/Early Morning Airport Service	Requires Further Demand Study and Analysis of Regional ROI	2026-27
Service Reliability Improvements – Union Turnback	Initiate Design	2027-28
Replace First Generation Fleet	Complete Specification, RFP	2027-30
Research Park TRAX Extension	Proceed with TechLink Study, Refine Concepts, Station Locations, Service Strategy, Funding	2033-34
Granary District TRAX Expansion		2035-45
Service Reliability Improvements – 400W Connector		2035-45

Next Steps



Next Steps



- Finalize plan document
- Plan dissemination:
 - TechLink data handoff to inform study
 - Recommended capital improvements to UTA Cap Dev team
 - Fleet plan assumptions
 - Continue discussions with UDOT and SLC on TSP improvements
- Incorporation of recommendations into Regional Transportation Plans



Thank You! Questions?