

# UTA Future of Light Rail Study

#### Stakeholder Kick-Off Meeting

In Association With:

HDR • Fehr & Peers • Avenue Consultants

#### LTK ENGINEERING SERVICES Excellence in Rail Systems and Vehicle Engineering



### **Purpose and Need**

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

Includes all existing lines and all planned TRAX and Streetcar lines in 2019-2050 RTP documents.





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Study Will:

**Scope of Work** 

- Analyze and recommend service, operational, and capital improvements to the regional light rail network
- Evaluate range of short and long term improvements fleet, service characteristics, network expansion
- Evaluate existing conditions, projected changes in land use
- Consider connections and implications of other transit services
- Examine impact of each alternative on full system, including benefits/costs

Study culminates with Light Rail Strategic Plan, including timeline for implementation



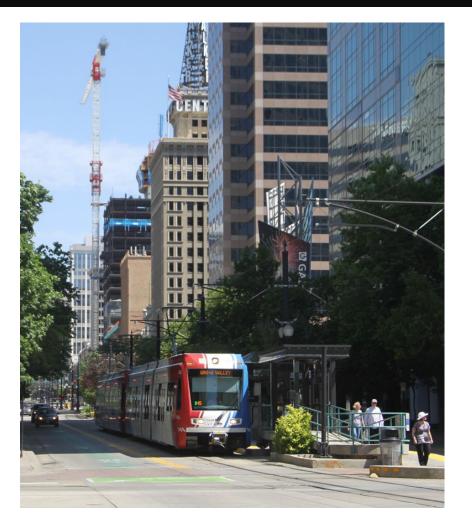


#### **Benefits**

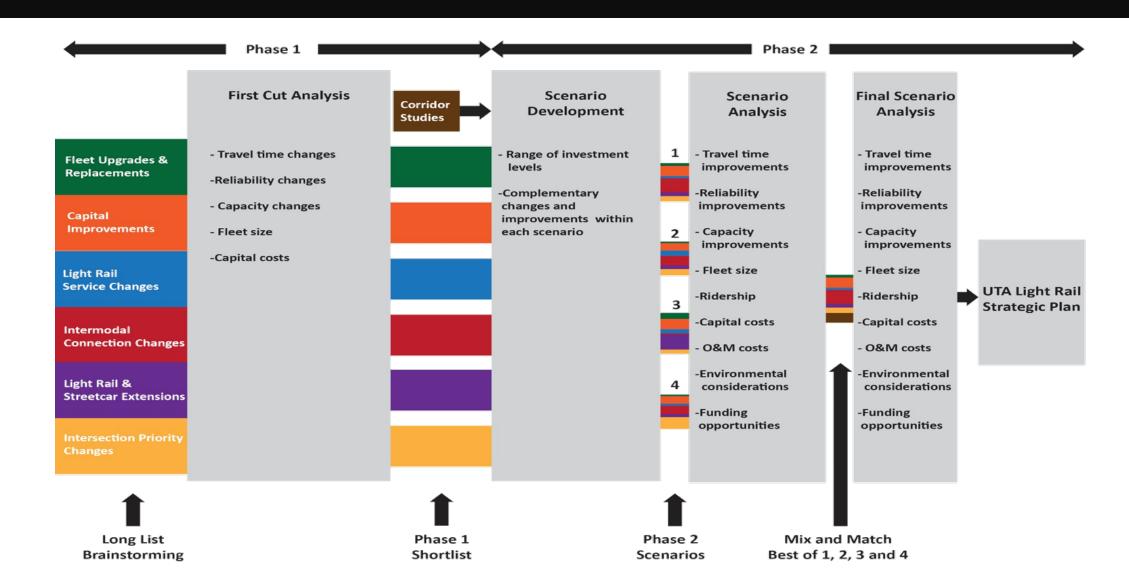


What will UTA and the community get from this study?

A realistic and phased plan for operational and capital improvements, which can be proposed for review and integration into the 2023-2050 RTP.



#### **Project Phases**



# **Study Engagement**



- Target Audiences Include:
- Technical Advisory Committee
- Stakeholder Group
- Community Leaders
- General Public



Planned Engagement Activities Include:

- Meetings
- Open House (phase II)
- Online Engagement
- Public Survey

# **Stakeholder Engagement**

# FUTURE OF LIGHT RAIL STUDY

#### Representatives from:

- Cities along alignment
- Cities where a study with a possible LRT extension is currently underway
- University of Utah
- Partner Agencies

#### Roles and responsibilities:

- Meet 4 6 times throughout the study (phases I & II)
- Provide critical local input
  - Land use & transportation
  - Local decision making
- Advise, guide, collaborate
  - Act as champions
  - Help achieve eventual buy-in

# **Potential Capital Improvements**

# FUTURE OF LIGHT RAIL STUDY

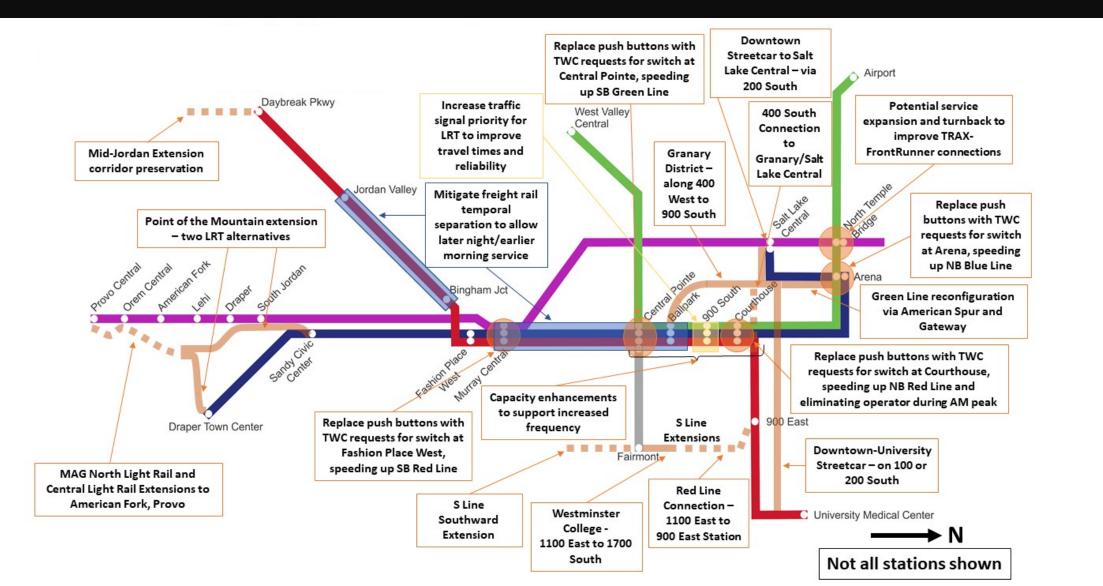
Examples of capital improvements to be investigated:

- Improve traffic signal priority at intersections
- Automatic route selection at junctions
- New in-line turnback locations
- Signal and power upgrades to support higher frequencies

- Freight rail upgrades to allow increased span of service (where light rail and freight share tracks)
- Line extensions
- New lines
- Replacement/expanded fleet and support facilities

#### **Other Ideas?**

# **Capital Improvement Opportunities**



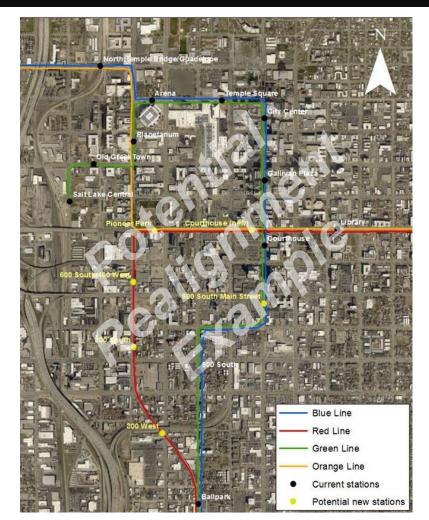
# **Potential Service Realignments**

# FUTURE OF LIGHT RAIL STUDY

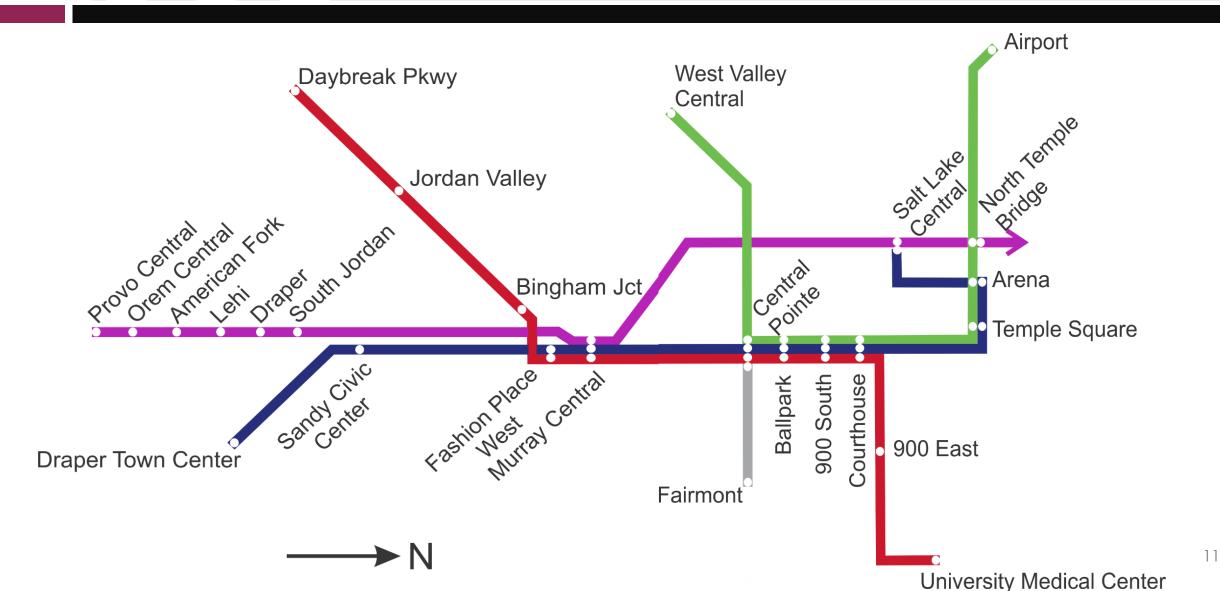
Examples of service realignments to be investigated:

- Pairing branches of each line to match ridership
- Line turnbacks so frequency could be improved in the core, where ridership is highest
- Realignment of service in the Downtown SLC area
- Direct service between UMC and SLC airport
- Additional service along 400 South

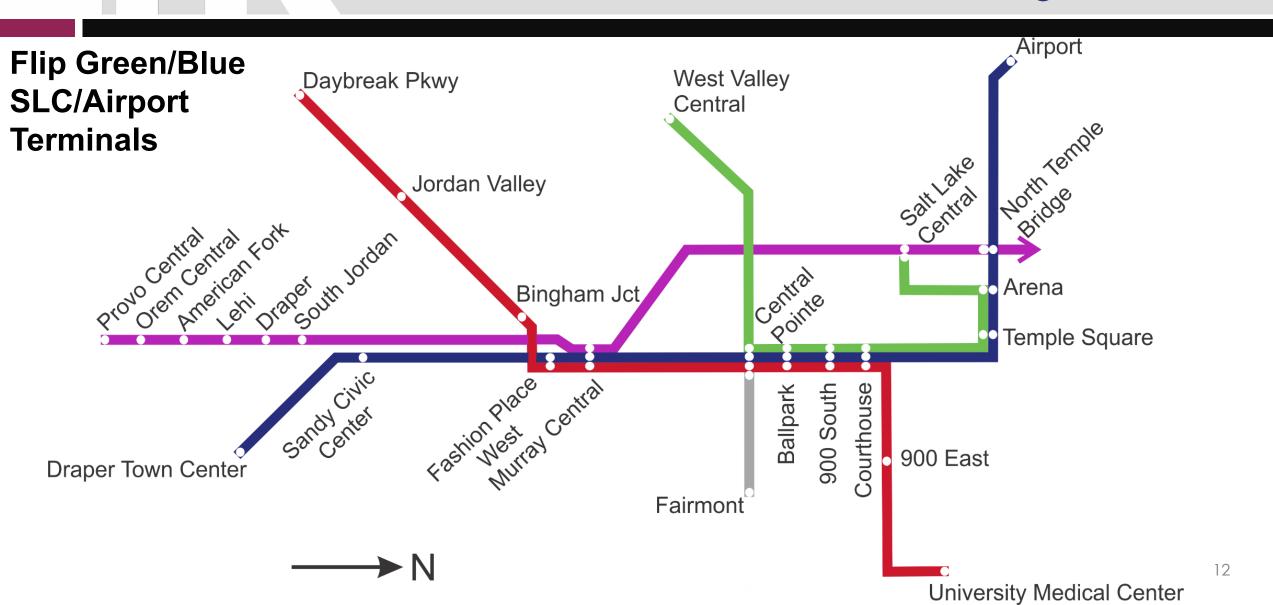
#### **Other Ideas?**



### **Possible Light Rail Service Realignments** Existing Service



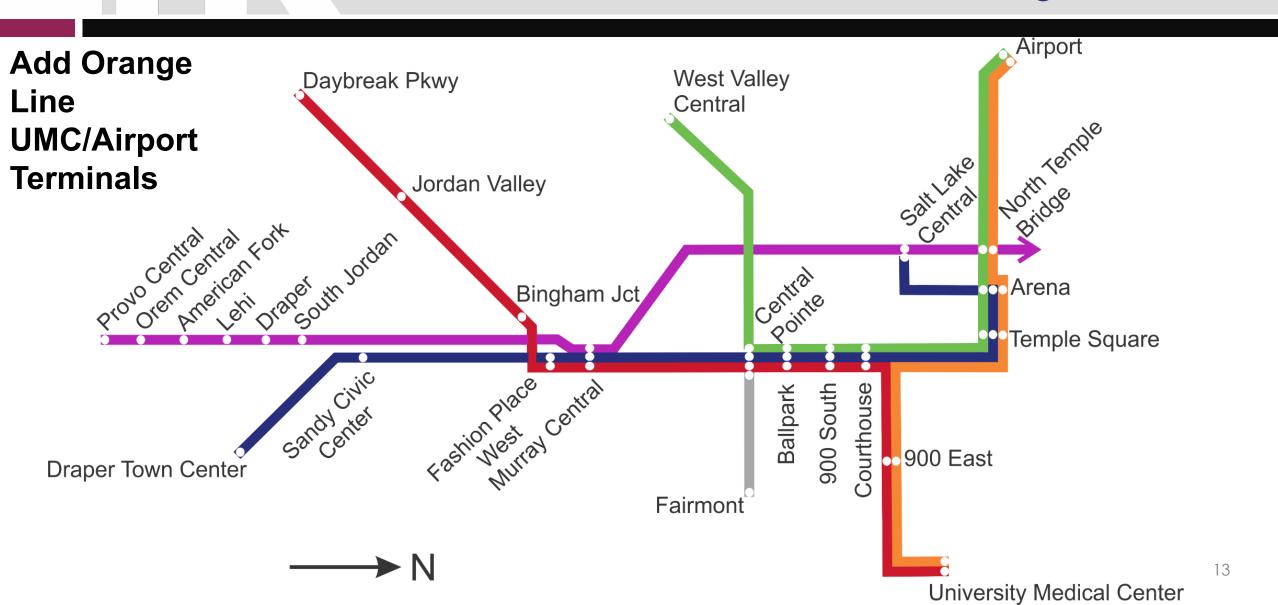
# **Possible Service Realignments: Example 1**



**FUTURE OF LIGHT** 

**RAIL STUDY** 

# **Possible Service Realignments: Example 2**

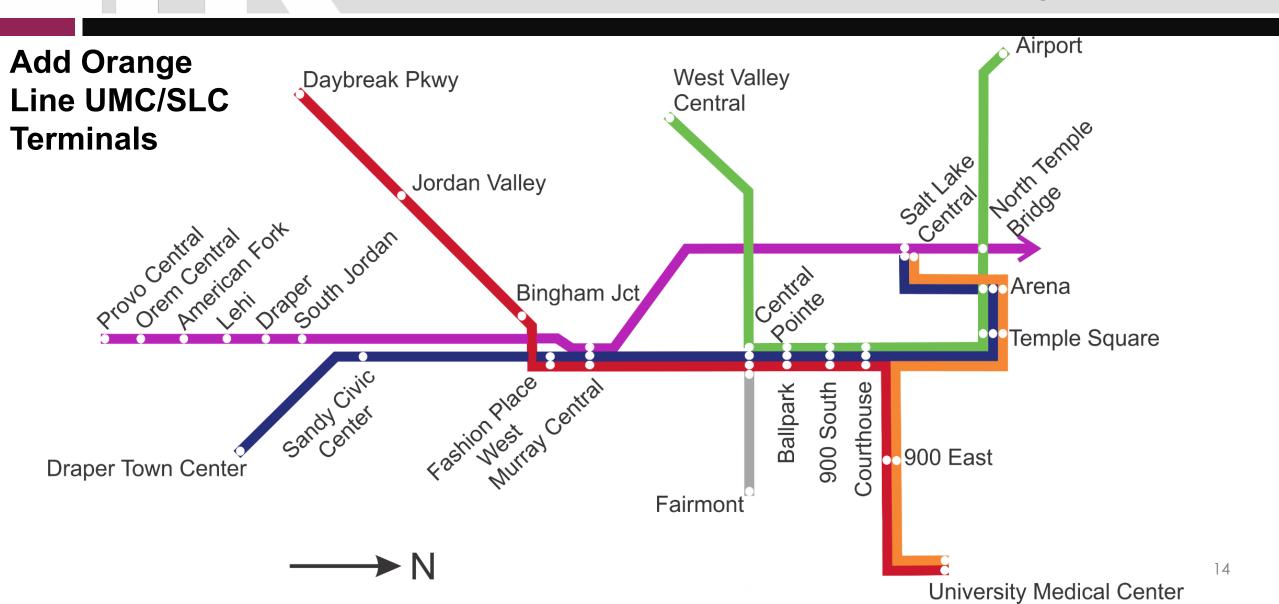


**FUTURE OF LIGHT** 

**RAIL STUDY** 

# Possible Service Realignments: Example 3

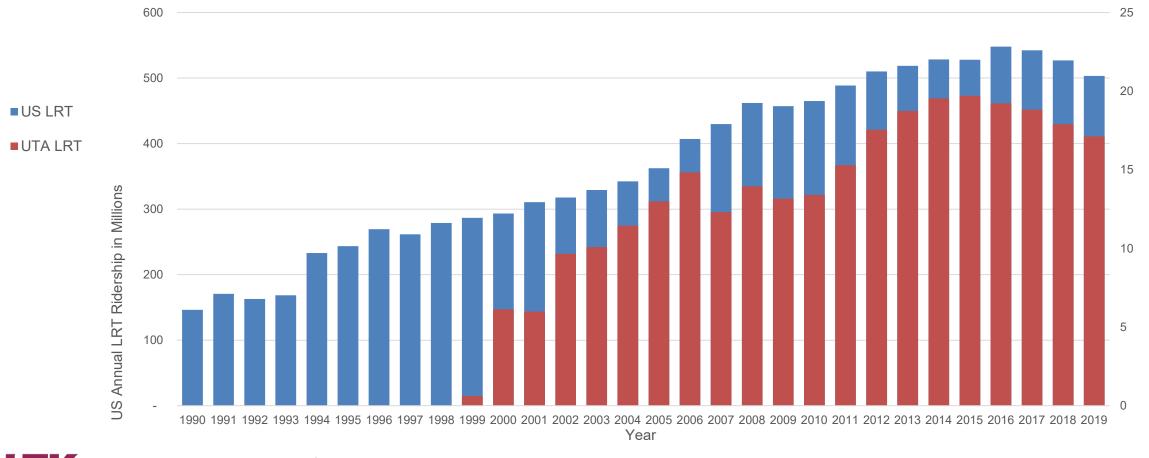
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### **Ridership Trends**



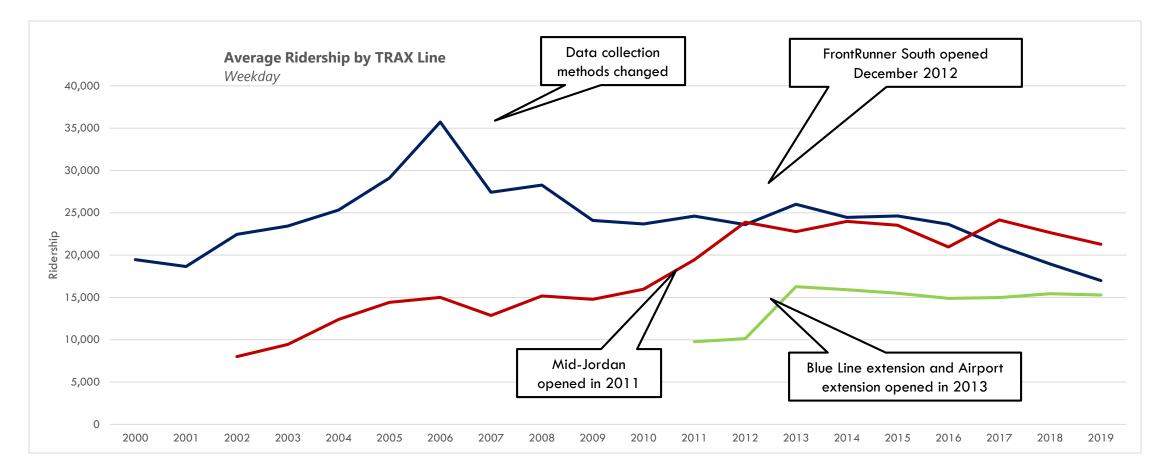
#### Comparison of total US annual LRT ridership with UTA annual LRT ridership 1990 - 2019



UTA Annual LRT Ridership in Millions

# **Ridership Trends by TRAX Line**

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# **Ridership Trends Nationally**



Transit ridership was down nationally, even prior to COVID-19

Why?

- Reduction in overall trips per household, regardless of mode
- Increased access to autos
- Low gas prices
- New alternatives, such as ridesharing
- Decreases in transit service due to funding limitations

# **Ridership Trends Nationally**

# FUTURE OF LIGHT RAIL STUDY

#### Who's bucking the trend?

Houston

• Restructured to a high-frequency system, saw a 10% ridership bump



#### Seattle

 Access to transit improvements made 15minute service accessible to 80% of residents within a ¼-mile walk



### **Ridership Trends Locally**



For this study, we will evaluate:

- Local effects of factors known to influence transit ridership, such as:
  - Household income

• Service levels

• Auto ownership

• Transit speeds

• Transit costs

• Rider perceptions

• Transit access

- Disruptive technologies
- Role of land use changes and contribution to expected ridership

# Future of Light Rail Study

#### **Review of Schedule/Forthcoming Meetings**

Apr-20 May-20 Jul-20 Jul-20 Aug-20 Sep-20 Oct-20 Doc-20 Jan-20   Phase 1: Existing Conditions and Performance Analysis and Preliminary Considerations Image: Constant of the second se				i	1						Jail-22
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Task 1.2: Public and Stakeholder Engagement (Fehr & Peers, LTK)											
Stakeholder Meeting: Kickoff webmeeting											
TAC/Stakeholder Meeting: Review system performance, validate expectations											
TAC/Stakeholder Meeting: Define boundaries for scenarios											
Task 1.3.1 Existing TRAX System Performance (LTK)											
Task 1.3.2 Existing TRAX System Ridership and Recent Trends (Avenue, Fehr & Peers)											
Task 1.3.3 Existing TRAX Infrastructure (HDR, LTK)											
Task 1.3.4 Existing TRAX Fleet (LTK)											
Task 1.4: Summary of Findings and Preliminary Considerations (LTK, HDR, Fehr & Peers, Avenue)											
Draft Summary of Findings Report											
Final Summary of Findings Report	$\geq$										
UTA Leadership Team Presentation											
Public Outreach	$\geq$										
Phase II: Project screening, Selection and Implementation Plan											
Task 2.1: Scenario development (LTK, HDR, Fehr & Peers)											
TAC/Stakeholder Meeting: Establish consensus on goals and screening criteria for scenarios	-	$\bigcirc$									
TAC Meeting: Collaborate on scenario development			$\bigcirc$								
Stakeholder Meeting: Introduce scenarios			<	>							
TAC/Stakeholder Meeting: Land use/connectivity/accessibility workshop				$\sim$	$\geq$						
Task 2.2: Scenario Screening (LTK, HDR, Fehr & Peers, Avenue)											
TAC Scenario Evaluation Workshop					$\sim$	>					
Public Outreach						$\bigcirc$	•				
Task 2.3: Project Identification and Implementation Plan (LTK, HDR, Fehr & Peers)											
TAC Meeting: Develop recommendations for short and long term investments								$\bigcirc$	>		
Draft Light Rail Strategic Plan									$\bigcirc$		
Final Light Rail Strategic Plan											$\bigcirc$
UTA Leadership Team Presentation										$\bigcirc$	

#### **Next Steps**

FUTURE OF LIGHT RAIL STUDY

Continue study focus areas:

- Fleet strategy
- Improving service reliability and travel times
  - Greater intersection priority
  - Increasing trunk line to 65 MPH
  - More efficient and universal boarding
- Lengthening span of service
- Increasing service coverage
- Improving connections





# **Questions?**

LTK Engineering Services

A Tradition of Excellence