RESOLUTION OF THE BOARD OF TRUSTEES OF THE UTAH TRANSIT AUTHORITY ADOPTING SERVICE DESIGN STANDARDS

R2025-03-01 March 26, 2025

WHEREAS, the Utah Transit Authority (the "Authority") is a large public transit district organized under the laws of the State of Utah and created to transact and exercise all of the powers provided for in the Utah Limited Purpose Local Government Entities – Special Districts Act and the Utah Public Transit District Act (collectively the "Act"); and

WHEREAS, Board Policy 3.2, Service Planning, requires the Authority to develop Service Design Standards, which will be approved by the Board of Trustees by resolution every four years; and

WHEREAS, this policy requires the Service Design Standards to be in compliance with requirements from the Federal Transit Administration, including the FTA Title VI Circular: and

WHEREAS, the Authority has developed new Service Design Standards to establish service change standards based on best practices in the transit industry and impartial measures that guide service planning decisions that are equitable, systematic, and timely to achieve objectives in the Authority's Strategic Plan, and Long-Range Transit Plan; and

WHEREAS, Service Design Standards will establish a framework to design, monitor, and evaluate transit service to best meet customer needs; and

WHEREAS, the Board of Trustees wishes to approve and adopt the Service Design Standards.

NOW, THEREFORE, BE IT RESOLVED by the Board:

1. That the Board of Trustees hereby approves and adopts the Service Design Standards, attached as Exhibit A.

2. That the Board formally ratifies actions previously taken by the Authority, including those taken by the Executive Director, staff, and counsel that are necessary or appropriate to give effect to this Resolution.

3. That the corporate seal shall be affixed hereto.

APPROVED AND ADOPTED this 26th day of March 2025.

DocuSigned by:
Carlton Christensen
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Carlton Christensen, Chair
Board of Trustees

ATTEST:

DocuSigned by:
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Secretary of the Authority

UTAH TRANSIT AUTHORITY CORPORATE SEAL State of Utah

(Corporate Seal)

Approved as to Form:

Signed by:
David M. Wilkins
CA25CE8F60E344B...

Legal Counsel

EXHIBIT A

(Service Design Standards)

UTA

Service Design Standards

November 2024

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Chapter 1

Introduction

Utah Transit Authority maintains the Service Design Standards with the following objectives in mind, consistent with UTA Board Strategic Priorities:

- Safety and Security: UTA shall treat the safety and security of its customers, employees, and other stakeholders as the highest priority.
- Service Availability: UTA shall strive to provide mobility when and where it is needed by customers.
- Service Quality: UTA shall provide a comfortable and positive customer experience.
- Network Quality: UTA's network shall be well matched to travel demand patterns such that it is a competitive alternative to other means of travel (such as autos).
- Reliability: UTA shall strive to provide consistent service on time without interruption, delays, or varying wait times. UTA shall strive to meet customer expectations of journey travel times.
- Accessibility: UTA shall strive to ensure that its facilities, vehicles, and services are fully accessible to all customers, and shall strive to expand access to jobs, education, healthcare, and other opportunities.
- Access: UTA shall seek to expand service to all.
- Financial: UTA shall seek to provide the maximum service and quality that is warranted within its financial capacity.

This document introduces both "guidelines" and "standards". "Guidelines" refer to rules of thumb and recommended best practices but can be considered a starting point for discussion when planning future service. "Standards" outline expectations for transit service performance that shall be considered agency policy.

Chapter 2

Benefits and Key Considerations of Transit Services

Transit service provides critical access to jobs, education, recreation, economic activity, and social connections and services for residents of the Wasatch Front. Transit provides many benefits within a community, including:

- Reduced traffic
- Reduced vehicle emissions
- Increased access to opportunity for everyone, especially vulnerable populations
- Return on tax dollars
- Economic development
- Transportation choices

Some of these benefits, such as reduced traffic and emissions, are dependent on the number of passengers riding transit. For example, a ridership-focused transit service that carries many passengers will be more effective in reducing emissions than a service that carries fewer passengers. In comparison, a coverage-focused service that offers increased access simply requires the presence of a transit service but may not generate high ridership. Both ridership and coverage service help UTA meet transit-related objectives. Most transit service providers, including UTA, seek to provide some balance between ridership and coverage and prioritize their resources accordingly.

While coverage can be provided by any form of transit service, higher-capacity modes intended to carry many passengers must meet several underlying conditions to be successful:

- Density: Ridership is higher when more people and jobs are located within walking distance of transit stops and stations (based on industry standards, walking distance is identified as 1/4 mile for fixed route transit and 1/2 mile for fixed guideway transit).
- Frequency: Transit service is frequent enough that riders do not need to consult schedules or structure their day around taking transit at a particular time.
- Proximity: Transit can service destinations more efficiently when they are located near each other.
- Linearity: Linear transit routes allow more passengers to arrive at their destination in a timely manner without lengthy deviations that reduce the efficiency of the service. Proximity and linearity are connected: having more destinations along a corridor helps maintain a route's linearity, which in turn preserves the overall efficiency and timeliness of the service.
- Walkability: Ridership is higher when transit stops and stations are integrated within a gridded network of streets, supported by well-designed and maintained pedestrian and biking infrastructure. This ensures safe and convenient access to transit, enhancing the overall user experience.

These Service Design Standards outline the levels of service needed to implement UTA's preferred balance between ridership and coverage service, along with other considerations that reflect desired outcomes and best practices for riders, employees, and other stakeholders.

Chapter 3

UTA's Service Planning Process

UTA's Service Planning team identifies transportation needs on an ongoing basis. This includes assessing gaps in the current network, recommending strategies to serve the public more efficiently, and identifying future growth areas that will likely need improved transit service due to expected increases in population and employment. UTA service changes and resource deployment for implementation of the service are considered by the Service Planning team in the following stages: initial review, the Five-Year Service Plan, the Five-Year Capital Plan, the Ten-Year Capital Plan, and the Long Range Transit Plan. These stages are discussed more below.

Initial Review

UTA Service Planners regularly receive requests for additional service from a variety of internal and external stakeholders, including feedback from passengers, the general public, UTA Customer Service, elected officials, and interactions with communities within UTA's service area. Service Planners assess whether immediate action is needed to address an identified transit need by considering demand for service, socioeconomic conditions, potential community impact, and stakeholder input. After evaluating these elements through individual technical studies, Service Planners determine the feasibility of implementing solutions using criteria that include:

- Consistency with UTA's Transit Service Standards as outlined in these Service Design Standards.
- Adherence to the Americans with Disabilities Act of 1990 and Title VI of the Civil Rights Act of 1964.
- Availability of staff, especially operators and mechanics.
- Availability of stop amenities, such as benches and trash cans.
- Consistency with UTA's Collective Bargaining Agreement(s).
- Feasibility of operating the needed service improvement within the existing street network.
- Pedestrian access to destinations, bus stops, and crosswalks.
- Presence of end-of-line (EOL) locations that support bus layovers and offer space to turn around.
- Provide restroom access for operators during UTA operational hours.
- Impact to existing riders in the case of deviations or realignments, or elimination of segments.

Significant additions to service and/or realignment of existing routes may fall under the purview of Title VI of the Civil Rights Act, which is addressed by the Federal Transit Administration in FTA Circular 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients.

Five-Year Service Plan

The Five-Year Service Plan (FYSP) provides a short-range vision for transit over the next five years, guiding the implementation of service changes and improvements. It includes a review of current services and near-term transit needs, as identified in the Long Range Transit Plan, and UTA Comprehensive Service Analysis. The process also reviews service requests received since the previous FYSP that could not be addressed in the short term. The FYSP is updated every two years to ensure it

remains aligned with evolving transit needs and priorities as per Board of Trustees Policy No. 3.2. Proposed changes in the FYSP are prioritized using the criteria listed above for initial review, as well as near- to medium-term future developments such as the opening of new capital projects, new developments in the community, or changes to the road network.

The FYSP informs the level of staffing, vehicles, bus stop amenities, restrooms, and other resources and/or amenities needed to implement the proposed service changes. It is also an important tool for cities, business owners, service providers, and other stakeholders because it helps facilitate conversations about future expansion and improvement of the transit service.

The Annual Service Plan is developed by Service Planning in accordance with the FYSP and the annual UTA budgeting process and is approved by the Board of Trustees per Board Service Planning Policy 3.2.

UTA Long Range Transit Plan (UTA Moves)

The Long-Range Transit Plan (LRTP) provides a long-term vision for transit across the Wasatch Front, including proposed improvements to the system up to a 30-year horizon. The LRTP includes local service improvements across the region. Improvements are selected based on a combination of criteria, including projected ridership, increased access to transit, and input from stakeholders and the public. The LRTP is developed in close partnership with Metropolitan Planning Organization (MPO) partners Wasatch Front Regional Council (WFRC) and Mountainland Association of Governments (MAG). Regionally significant planned transit projects with a substantial capital investment are included in both the LRTP and in the MPO's Regional Transportation Plans (RTPs). Both UTA's LRTP and the MPO's RTPs are updated on the same four-year cycle. Planned improvements in Phase One of the LRTP move into the FYSP and, conversely, updates to the FYSP influence updates to the LRTP.

Chapter 4

UTA's Transit Service Types

UTA's transit service types include:

- Regional Rail
- Light Rail
- Streetcar
- Rapid Bus
- Enhanced Bus
- Frequent Bus
- Local Bus
- Flex Bus
- Limited Stop Bus
- Innovative Mobility Zones

These service types align with the transit definitions identified in UTA's LRTP. A primary purpose of these Service Design Standards is to provide definition to these service types, and to aid consistency throughout UTA when discussing transit service and future projects. The following sections of this document identify expectations and performance thresholds for UTA's family of transit service types. Each service type is described in more detail in Modes of Service Chapter.

Chapter 5

UTA Transit Service Standards

Tiers of Service

UTA's Service Design Standards have adopted a hierarchy of transit services, where service modes are classified into four tiers of service that convey the functional and operational standards and characteristics of the service in each tier. Transit usage and ridership will vary widely depending on the tier of service provided, as will operating costs and resource requirements. The tiers of service convey several important characteristics that include:

1. Service span
2. Headway
3. Transit propensity
4. Service productivity

The standards listed in this section are used to determine the minimum tiers for each transit mode. Generally, tiers of service should be consistent for the entire length of a route to improve service simplicity. However, in cases where ridership demand varies considerably along the route, the tiers of service can change over its length, and different segments of one route may have different tiers of service.

Service Span

Service span refers to a service's start and end times and the days of the week it operates. The Comprehensive System Analysis, Market Segmentation Study, On-Board Survey and passenger demand are key considerations that set the service span of each route. Table 1 provides the minimum period of time during which routes in different tiers should operate.

Table 1 Service Span Standards

	Weekdays	Saturdays	Sundays
Tier 1	4 am to 12 am	4 am to 12 am	6 am to 9 pm
Tier 2	6 am to 9 pm	6 am to 9 pm	-
Tier 3	6 am to 9 pm	-	-
Tier 4	Varies based on desired service		

Headway

Headway refers to the time interval between two vehicles traveling in the same direction on the same route. Headway reflects the frequency of transit services and has a major influence on transit usefulness and its ridership. Table 2 provides the minimum headway for different tiers. Similar to service span, headway can be increased in response to demand and available budgetary resources.

Table 2 Headway Standards

	Weekdays	Saturdays	Sundays
Tier 1	15 minutes from 6 am to 7 pm; 30 minutes for other time periods	15 minutes from 6 am to 7 pm; 30 minutes for other time periods	30 minutes
Tier 2	30 minutes	60 minutes	-
Tier 3	60 minutes	-	-
Tier 4	Varies based on desired service		

The tiers of service are UTA's current best practice for span and headway to guarantee a high number of straight shifts for operators. To preserve blocks and runs within the tiers of service, service level adjustments are made from one tier to another, rather than on the basis of individual trips. Blocking is not materially affected by route length, but routes will generally not have a cycle time greater than three hours to preserve operator access to restrooms.

Transit Propensity

Transit propensity refers to the likelihood or potential of people in a specific area to use public transportation. UTA measures transit propensity using the Transit Propensity Index (TPI), which currently ranges from 0 (very low transit propensity) to approximately 700 (very high transit propensity) for UTA routes. This helps UTA identify areas where public transit investments can most effectively meet demand and improve mobility. TPI is calculated geospatially for each route based on the following characteristics:

- Population and employment density near the route
- Presence of vulnerable populations (low-income, communities of color, people over the age of 65, limited English proficiency) near the route
- Zero-car households near the route

Service Productivity

Service productivity refers to the efficiency and effectiveness of transit services in delivering passenger trips. It is a key criterion for evaluating transit services and guiding transit investments. UTA measures service productivity using passengers per hour (PPH), which is calculated by dividing the average daily boardings for each route by the daily revenue hours. This standard aligns with the most widely used transit productivity metric in the industry. Table 3 shows the minimum TPI and PPH requirements for each tier of service. Note that if either condition is met, that route will be considered for the corresponding tier.

Table 3 TPI and PPH Standards

	TPI	PPH
Tier 1	300	20
Tier 2	200	10
Tier 3	100	10 (fixed-route); 5 (flex-route)
Tier 4	100	20

Routes whose TPI or PPH qualifies for a higher tier of service will be considered for service improvements in the FYSP. Routes with a high enough TPI but not PPH will be considered for adjustments to align service with existing and potential travel markets. Routes that do not have a high enough TPI or PPH to justify their existing level of service will be considered for adjustments or reductions in the level of service. Routes may run additional frequency or hours of service (including Saturday and Sunday service) above the minimum level of service for their designated tier if the route has high enough PPH for these times. Additionally, routes can be sponsored by a third party to provide a higher level of service than is shown in these standards. Such arrangements follow the standards set in UTA's Additional Services Requests Policy (No. UTA.04.02), which outlines the review process and conditions.

Service Performance Standards

UTA regularly evaluates the performance of all services using the criteria described below, and considers adjustments as part of the FYSP development process (Chapter 3) when certain criteria are met.

On-Time Performance

On-time performance refers to the average delay of a transit service. This guideline is determined by industry standards and UTA's operational experiences. Operations Planners will make targeted schedule adjustments to improve on-time performance as part of routine operations. These changes typically do not affect the overall service plan. However, changes to any route to improve on-time performance will be considered as part of the FYSP development process when:

- The on-time performance for the entire route is consistently below 88%; or
- Running time adjustments to individual trips are so significant that they disrupt the cycle time of the whole route.

To maintain on-time performance, the same trip may have different travel times at different times of day. Headways may vary from the posted headway as follows to accommodate travel time differences:

Table 4 On-Time Performance Standards for Different Headways

Posted Headway	Minimum Scheduled Headway	Maximum Scheduled Headway
15 min	10 min	20 min
30 min	20 min	40 min
60 min	50 min	70 min

In addition to on-time reliability, UTA tracks other operational performance metrics such as miles per service interruption, and avoidable accidents. Performance in these metrics is not typically affected by the design of the service; however, in special cases UTA may evaluate whether changes to the service plan are necessary to improve operational performance without negatively impacting the riding customer.

Transit Load

Transit load specifies the average number of passengers on a transit vehicle that is considered acceptable. This guideline is based on UTA vehicle capacities and transit industry standards to balance safety, passenger comfort, and operating efficiency. UTA uses transit load data to monitor service performance and make informed decisions about service adjustments, such as adding or removing vehicles, altering schedules, or adjusting route frequencies, to ensure that the service meets demand while maintaining operational efficiency. Transit load is measured by dividing the number of passengers onboard by the seated capacity of the vehicle.

Emergency Service Changes/Long Terms Detours or Deviations

Temporary service reductions that last 12 months or less are exempt from Title VI service equity analysis requirements. However, if a temporary service change lasts longer than 12 months, the Federal Transit Administration (FTA) considers it permanent and requires a service equity analysis.

Short-term detours are minor route deviations due to construction, road closures, accidents, utility breaks, etc., that occur between change days. Short-term detours or deviations may be implemented by operations to maintain defined service as close as possible to the published plan.

Long-term detours or deviations are route deviations due to planned long-term construction, utility work, or road closures lasting longer than the following change day. These detours or deviations will be included in the service change process, including detour maps, presentations, and information provided at existing and temporary stops. Long-term detours or deviations will be implemented in a manner that preserves existing travel patterns as much as possible within operational and/or resource constraints.

Chapter 6

UTA Route and Station Design Guidelines

This section provides guidelines for designing transit routes and stations for all types of UTA transit services. These guidelines aim to ensure and improve the high quality of UTA's transit services by providing objective and consistent criteria for service expansion and changes. Based on UTA's experiences and best practices across the transit industry, these guidelines are intended to enhance the design of all UTA services. However, exceptions may be justified based on local context and for coverage-oriented routes. The guidelines cover the following aspects:

1. Stop spacing
2. Route spacing
3. Percent exclusivity
4. Intersection priority treatment
5. Station amenities

Stop Spacing

Stop spacing refers to the distance between stops. It balances faster transit service, walking accessibility, and transit-supportive land use. While stop spacing guidelines provide a general target for spacing along transit routes, the actual placement of stops will vary based on localized conditions. See the Bus Stop Placement Chapter for more information.

Route Spacing

Route spacing refers to the distance between routes of the same type of transit service. Similar to stop spacing, route spacing depends largely on land use and environmental factors. Exceptions to route spacing guidelines may be justified to accommodate street grid patterns or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

Percent Exclusivity

Percent exclusivity refers to the proportion of a transit route that has exclusive lanes, calculated by dividing the miles of exclusive lanes by the total length of the route. Exclusive lanes enhance transit service quality by reducing delays but require higher investment and consideration of local land use and roadway conditions. Exclusivity is negotiated on a case-by-case basis with the agencies controlling individual roadways, such as local jurisdictions or UDOT. Increasing percent exclusivity for existing and new UTA transit services is a goal of UTA's LRTP.

Intersection Priority Treatment

Intersection priority treatment refers to strategies that minimize red-light delays, such as queue jumps and transit signal priority. These treatments will be considered based on local traffic conditions and policies, with input from local jurisdictions and Utah Department of Transportation (UDOT). UTA maintains an internal Bus Speed and Reliability Program that identifies strategic routes that may benefit

from intersection priority interventions, combining internal and external comments with performance data to develop solutions that improve transit speed and reliability.

Station Amenities

"Transit amenities" refers to items of comfort, convenience, and safety available to the general riding public. UTA's Design Criteria provides guidelines for rail service station amenities, while the Bus Stop Master Plan establishes a policy for installing transit amenities at bus stops.

Rail Station Amenities

UTA's Design Criteria offers a uniform basis for designing regional rail, light rail, and streetcar systems. These criteria apply to all UTA rail projects, including new construction, remodels, rehabilitations, and state-of-good-repair projects. They serve as guidelines and do not replace engineering judgment and sound engineering practice.

Bus Stop Amenities

UTA's Bus Stop Master Plan recommends transit amenities at bus stops based on transit frequency and ridership thresholds. Amenities listed in the Bus Stop Master Plan include, but are not limited to, items such as seating, shelters, signage, provisional information, and waste receptacles. Additionally, UTA is upgrading existing stops to meet Americans with Disabilities Act (ADA) guidance. For the purpose of these Service Design Standards, it is assumed that Bus Stop Master Plan transit amenity levels align with transit service types as follows:

- Level IA and IB transit amenities align with Local Bus and Limited Stop Bus.
- Level IIIA, IIIB, IVA, IVB, and VA transit amenities align with Frequent Bus.
- Level VIA transit amenities align with Enhanced Bus.
- Level VIIA transit amenities align with Rapid Bus.

When prioritizing bus stop improvements, UTA may apply prioritization criteria to individual stops or to key corridors with large numbers of stops to be improved. In cases where it is necessary for UTA to obtain property to implement the desired level of improvement, a stop may be temporarily improved to Level I to achieve ADA compliance.

Future revisions of the Bus Stop Master Plan should include a clear delineation of transit amenities to the transit service types identified in these Service Design Standards.

Chapter 7

Modes of Service

This section introduces the details of UTA's modes of service. These modes align with the transit types defined in UTA's LRTP.

Regional Rail

Introduction

FrontRunner is UTA's regional rail service. Regional rail, which falls under FTA's definition of commuter rail, is a high-capacity rail service that connects urban and suburban centers. Regional rail links multiple train cars, and stations are the farthest apart of all types of transit service. Spacing is typically five miles or more, although spacing may occasionally be closer in dense urban areas. Stations offer connections to other modes.

Service Standards

Table 5 Regional Rail Service Standards

Tiers of Service: Tier 2			
	Weekdays	Saturdays	Sundays
Service Span	5 am to 10 pm	8 am to 12 am	NA
Headway	30 minutes	60 minutes	NA
Transit Propensity	200		
Service Productivity	10		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed 150% of the seating capacity.		

Route and Station Design Guidelines

- Stop Spacing: Regional rail is a complex system that is dependent on train timing and system meets. Regional rail station requests require an in-depth additional analysis to determine the feasibility of the requested location and the impact on the rest of the system.
- Route Spacing: The route spacing guidelines are not applicable to the regional rail, as regional rail is limited to a primary north-south corridor and is not intended to be a network at this time.
- Percent Exclusivity: Regional rail is fully exclusive, operating in its own fixed guideway, and does not share space with other modes other than at-grade crossings.
- Intersection Priority Treatment: Regional rail receives the highest level of signal priority among transit services, with a preference for grade-separated crossings, and automated gated crossings where grade-separated crossings are infeasible.

- Station Amenities: Platform, shelter, emergency communication, seating, trash can, signage, bicycle access, car sharing, lighting, branding, and digital signage.

Infill Stations

UTA defines specific evaluation criteria and procedures for considering requests to add new infill stations between existing stations on an established corridor for regional rail, light rail, rapid bus, and enhanced bus services. These are outlined in Station Addition Policy AGCY.07.01. Such requests require a comprehensive project study that includes criteria such as the purpose and need for the station, projected ridership, cost estimates, funding potential, and land use considerations, among others. The rail ridership goal for adding new regional rail stations is as follows*:

Table 6 Ridership Goal for Regional Rail Service Expansion

Environment	Ridership Goal for New Regional Rail Stations (net added weekday boardings)
Urban	2,100
Suburban	1,100

**Ridership goals were determined using 2019 average weekday ridership data for existing stations.*

Light Rail

Introduction

TRAX is UTA's light rail service. Light rail provides frequent, high-capacity electric train service, typically operating within a compact urban center or utilized to connect centers in a region. Light rail systems often link multiple train cars, operate in median or curb-running right of way, and stop less frequently than buses (typically 1/2 to 1 mile or more station spacing).

Service Standards

Table 7 Light Rail Service Standards

Tiers of Service: Tier 1			
	Weekdays	Saturdays	Sundays
Service Span	4 am to 12 am	4 am to 12 am	5 am to 12 am
Headway	15 minutes	15 minutes	30 minutes
Transit Propensity	300		
Service Productivity	20		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	Average weekly loads on regularly scheduled trips should not exceed 100% of the seating capacity. If the loads regularly exceed capacity, then vehicles will be added to the consist until the maximum size is reached. Thereafter loads should not exceed 150% of seating capacity.		

Route and Station Design Guidelines

- Station Spacing:

Table 8 Light Rail Station Spacing Guidelines

Environment	Station Spacing Guidelines (miles)
Urban	0.25 - 0.5
Suburban	0.75 - 1

- Route Spacing: The route spacing guidelines are not applicable to light rail.
- Percent Exclusivity: Light rail is almost entirely in an exclusive lane, with very limited exceptions.
- Intersection Priority Treatment: Intersection priority is typically high but will vary depending on the context. In urban contexts where the vehicles are in an exclusive lane within a roadway footprint, transit signal priority or preemption should be applied if available. In suburban contexts where the vehicles are in an exclusive guideway and travel at higher speeds when crossing major roadways, then automated gates are the typical intersection treatment.
- Station Amenities: Platform, shelter, emergency communication, seating, trash can, signage, bicycle access, car sharing, lighting, branding, and digital signage.

Infill Stations

UTA defines specific evaluation criteria and procedures for considering requests to add a new station between two existing stations on an established corridor for regional rail, light rail, rapid bus, and enhanced bus services. Such requests require a comprehensive project study that includes criteria such as the purpose and need for the station, projected ridership, cost estimates, funding potential, and land use considerations, among others. UTA's light rail ridership goal for adding new stations is as follows*:

Table 9 Ridership Goal for Light Rail Service Expansion

Environment	Ridership Goal for Added Light Rail Stations (net added weekday boardings)
Urban	1,400
Suburban	700

**Ridership goals were determined using 2019 average weekday ridership data for existing stations.*

Streetcar

Introduction

S-Line is UTA's only streetcar mode. Streetcars provide local train service at low speeds (about 15 miles per hour). Streetcars have single-car vehicles and operate on tracks embedded in the street that are powered by an electric overhead catenary system. Streetcars may share the automobile travel lane or operate in a dedicated right of way. They provide neighborhood access by stopping frequently.

Service Standards & Route and Station Guidelines

Streetcars generally share the same service criteria as light rail, but their stop spacing is closer due to the streetcar's goal of providing neighborhood access through more frequent stops. There are no additional streetcars proposed at this time.

Rapid Bus

Introduction

Rapid bus is one of UTA's types of bus service that typically includes features associated with bus rapid transit (BRT). BRT service provides a substantial investment in a defined corridor including features that seek to emulate the services available on rail fixed guideway public transportation systems. BRT is defined by the Federal Transit Administration (FTA) as having at a minimum the following characteristics:

- Frequent bidirectional weekday service that operates from early in the morning to late at night.
- Defined stations which provide shelter from the weather and information on schedules and routes.
- Investment to provide travel time savings, which could include elements such as dedicated lanes, queue jumps, and signal priority.
- Consistent vehicle and station branding to differentiate from other bus services.

Rapid bus service is frequent (15 minutes or better), has a moderate to high level of investment in speed and reliability improvements, and typically has a longer distance between stations or stops than other bus services. A BRT service with a higher level of investment, such as UVX, would be considered rapid bus. Enhanced bus, another UTA category of bus service that may include features associated with BRT, is described in more detail later in this section.

Service Standards

Table 10 Rapid Bus Service Standards for OGX and UVX

Tiers of Service: Tier 1, 2			
	Weekdays	Saturdays	Sundays
Service Span	4 am to 12 am	9 am to 11 pm	9 am to 6 pm
Headway	15 minutes (OGX) 30 minutes (UVX)	15 minutes (OGX) 30 minutes (UVX)	30 minutes
Transit Propensity	300		
Service Productivity	20		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed the vehicle seating capacity.		

Route and Station Design Guidelines

- Stop Spacing:

Table 11 Rapid Bus Stop Spacing Guidelines

Environment	Stop Spacing Guidelines (miles)
Urban	0.25 - 0.5
Suburban	0.5 - 1

- Route Spacing:

Table 12 Rapid Bus Route Spacing Guidelines

Environment	Route Spacing
*Central Business District	1/8 mile to 1/4 mile
Urban	1/4 mile to 1/2 mile
Suburban	1/2 mile to 1 mile
Rural	(as needed based on surrounding development and activities)

**Within UTA's service area, Central Business District refers to downtown Salt Lake City.*

Note: Exceptions to route spacing guidelines may be justified to accommodate street grid patterns and/or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

- Percent Exclusivity: The preferred rapid bus running way is an exclusive center running way with two lanes. Use of a single/shared lane in the running way will be considered if dictated by economics and if operations of the corridor are acceptable. UTA rapid bus exclusivity varies depending on the project.
- Intersection Priority Treatment: The rapid bus route should ensure faster passenger travel time through congested intersections by using active signal priority in separated guideways and either queue-jump lanes or active signal priority in non-separated guideways.
- Station Amenities: Pole, ADA pad, signage, seating, trash can, shelter, lighting, and digital signage.

Enhanced Bus

Introduction

Enhanced bus is frequent bus service that typically runs seven days a week and, on most days, operates every 15 minutes or better from morning to evening. These routes will often have increased amenities at bus stops, particularly in locations of high ridership and/or frequent transfers. While these routes generally operate in mixed traffic, some future enhanced bus routes will include capital investment in the form of infrastructure and technology improvements to improve travel times while maintaining reliability. A BRT service with a lower level of investment, such as the Davis-SLC Community Connector, would be considered enhanced bus.

Service Standards

Table 13 Enhanced Bus Service Standards

Tiers of Service: Tier 1			
	Weekdays	Saturdays	Sundays
Service Span	4 am to 12 am	4 am to 12 am	7 am to 9 pm
Headway	15 minutes from 6 am to 7 pm, 30 minutes for other time periods	15 minutes from 6 am to 7 pm, 30 minutes for other time periods	30 minutes
Transit Propensity	300		
Service Productivity	20		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed the vehicle seating capacity.		

Route and Station Design Guidelines

- Stop Spacing:

Table 14 Enhanced Bus Spacing Guidelines

Environment	Stop Spacing Guidelines (miles)
Urban	0.25 - 0.5
Suburban	0.5 - 1

- Route Spacing:

Table 15 Enhanced Bus Route Spacing Guidelines

Environment	Route Spacing
*Central Business District	1/8 mile to 1/4 mile
Urban	1/4 mile to 1/2 mile

Suburban	1/2 mile to 1 mile
Rural	(as needed based on surrounding development and activities)

**Within UTA's service area, Central Business District refers to downtown Salt Lake City.*

Note: Exceptions to route spacing guidelines may be justified to accommodate street grid patterns and/or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

- Percent Exclusivity: Enhanced bus can have up to 50% exclusivity but may have no sections of exclusive lanes, depending on the project.
- Intersection Priority Treatment: Intersection priority treatments are encouraged, but not required.
- Station Amenities: Pole, ADA pad, signage, seating, trash can, shelter, and lighting.

Frequent Bus

Introduction

Frequent bus typically runs bidirectional service seven days a week and, on most days, operates every 15 minutes or better from morning to evening.

Service Standards

Table 16 Frequent Bus Service Standards

Tiers of Service: Tier 1			
	Weekdays	Saturdays	Sundays
Service Span	4 am to 12 am	4 am to 12 am	7 am to 9 pm
Headway	15 minutes from 6 am to 7 pm, 30 minutes for other time periods	15 minutes from 6 am to 7 pm, 30 minutes for other time periods	30 minutes
Transit Propensity	300		
Service Productivity	20		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed the vehicle seating capacity.		

Route and Station Design Guidelines

- Stop Spacing: No closer than 1/8-mile (660 feet) and no further apart than 1/3-mile (1760 feet).
- Route Spacing:

Table 17 Frequent Bus Route Spacing Guidelines

Environment	Route Spacing
*Central Business District	1/8 mile to 1/4 mile
Urban	1/4 mile to 1/2 mile
Suburban	1/2 mile to 1 mile
Rural	(as needed based on surrounding development and activities)

**Within UTA's service area, Central Business District refers to downtown Salt Lake City.*

Note: Exceptions to route spacing guidelines may be justified to accommodate street grid patterns and/or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

- Percent Exclusivity: Exclusive lanes are preferred for frequent buses, but they are not required.
- Intersection Priority Treatment: Intersection priority treatments are preferred for frequent buses, but they are not required.
- Station Amenities: Pole, ADA pad, signage, seating, trash can, and shelter.

Local Bus

Introduction

Local bus routes typically run bidirectional service seven days a week and operate every 30 to 60 minutes from morning to evening.

Service Standards

Table 18 Local Bus Service Standards

Tiers of Service: Tier 2, 3, 4			
	Weekdays	Saturdays	Sundays
Service Span	6 am to 9 am	6 am to 9 am*	
Headway	30 minutes or 60 minutes	60 minutes*	
Transit Propensity	100-200		
Service Productivity	5-10		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed the vehicle seating capacity.		

**Tier 3 local buses do not operate on Saturdays*

Route and Station Design Guidelines

- Stop Spacing: No closer than 1/8-mile (660 feet) and no further apart than 1/3-mile (1760 feet).
- Route Spacing:

Table 19 Bus Route Spacing Guidelines

Environment	Route Spacing
*Central Business District	1/8 mile to 1/4 mile
Urban	1/4 mile to 1/2 mile
Suburban	1/2 mile to 1 mile
Rural	(as needed based on surrounding development and activities)

**Within UTA's service area, Central Business District refers to downtown Salt Lake City.*

Note: Exceptions to route spacing guidelines may be justified to accommodate street grid patterns and/or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

- Percent Exclusivity: Exclusive lanes are not required for local buses.
- Intersection Priority Treatment: Intersection priority treatments are not required for local buses.
- Station Furniture and Amenities: Pole, ADA pad, and signage.

Limited Stop Bus

Introduction

Limited stop bus routes have stops 1 to 2 miles or more apart to improve travel times, and portions of the route may operate on freeways. Stop locations are selected to connect residential areas either directly or via park and rides and attraction sites, such as job centers. UTA currently has some legacy limited stop routes that run limited peak direction service. New limited stop bus service will typically run all-day bidirectional service seven days a week. Legacy routes will either be upgraded or modified based on demand and other existing services.

Service Standards

Table 20 Limited Stop Bus Service Standards

Tiers of Service: Tier 2, 3			
	Weekdays	Saturdays	Sundays
Service Span	6 am to 9 am	6 am to 9 am *	
Headway	30 minutes or 60 minutes	60 minutes *	
Transit Propensity	100-200		
Service Productivity	5-10		
On Time Performance	Departing stops or stations 0 seconds early and less than 5 minutes late.		
Transit Load	The median maximum load on a trip should not exceed the vehicle seating capacity.		

**Tier 3 limited stop buses do not operate during Saturday*

Route and Station Design Guidelines

- Stop Spacing: Limited stop bus service has fewer stops than other bus services, with stop placement highly dependent on the bus's purpose. Therefore, bus stop spacing guidelines are not applicable to limited stop bus services.
- Route Spacing:

Table 21 Limited Stop Bus Route Spacing Guidelines

Environment	Route Spacing
*Central Business District	1/8 mile to 1/4 mile
Urban	1/4 mile to 1/2 mile
Suburban	1/2 mile to 1 mile
Rural	(as needed based on surrounding development and activities)

**Within UTA's service area, Central Business District refers to downtown Salt Lake City.*

Note: Exceptions to route spacing guidelines may be justified to accommodate street grid patterns and/or preserve access to major destinations. Where routes converge on a major destination or transfer point, a small amount of duplication may be necessary.

- Percent Exclusivity: Exclusive lanes are not required.
- Intersection Priority Treatment: Intersection priority treatments are not required.
- Station Furniture and Amenities: Pole, ADA pad, and signage.

Innovative Mobility Zones

Innovative Mobility Zones could include a variety of first and last mile solutions including, but not limited to, on-demand service, autonomous shuttles on a fixed guideway, bike share, and partnerships with private Transportation Network Companies, such as Uber and Lyft. Funding could come from a variety of sources including private funding and public private partnerships.

These guidelines apply primarily to on-demand service, which connects riders to other transit services like TRAX, FrontRunner, or buses, as well as to community destinations. The app-based technology can match multiple riders heading in a similar direction into a single vehicle, enabling quick and efficient shared trips. UTA's on-demand service is scheduled based on hours and days of service rather than frequency, because it does not run on a defined schedule. For more information regarding on-demand service points, please see the Bus Stop Placement chapter of this document. Requests for improvements to on-demand service points will be considered on a case-by-case basis.

Other Services

In addition to the primary transit modes described above, UTA also provides holiday, seasonal, and supplemental services, as well as the Paratransit Service ADA (Americans with Disabilities Act) program. These services are tailored to meet specific needs that arise due to special events, seasonal demand fluctuations, or the unique requirements of passengers with disabilities. While the standards and guidelines outlined above do not directly apply to these services, they will serve as valuable references during the service planning process to ensure that these special services are effectively integrated and aligned with UTA's overall operational goals.

Paratransit Service ADA Program

UTA's Paratransit Service ADA program is a service for people with physical, cognitive or visual disabilities who are functionally unable to independently use the UTA fixed route bus service either all the time, temporarily or only under certain circumstances.

Service Types and Accessibility

UTA provides complementary paratransit service as an origin-to-destination service. The base level of service is curb-to-curb, where customers are responsible for getting to and from the curb at the pick-up and drop-off locations themselves. Additionally, UTA offers beyond-the-curb service, which includes assistance from the vehicle to the first exterior door at the rider's pick-up and/or drop-off location. This service may not always be feasible or safe and requires extra coordination with UTA.

In accordance with the ADA guidelines, UTA's policy is to provide reasonable service modifications upon request for individuals with disabilities who would otherwise be unable to fully use UTA services, programs, or activities for their intended purpose.

Service Area and Eligibility

UTA provides paratransit service within ¾-mile of all bi-directional services, including all bus routes and rail stations. Paratransit service is not provided for flex routes, UTA On Demand, or for peak-hour bus routes that only operate in one direction at a time. To utilize paratransit services, riders must be approved through an in-person interview and abilities assessment.

On-Time Performance Standards

On-time performance standards for paratransit are as follows:

- At least 90% of customers are picked up within 10 minutes before to 20 minutes after the stated pick-up time.
- 90% of customers dropped off within 30 minutes of any stated appointment time.

Sponsored Services

Additional services are provided in agreement with agency policy UTA.04.02 and include the following types of service:

Event service: Service above baseline service to provide additional capacity for events or increase general capacity demand on a temporary basis in accordance with UTA Policy 04.02. Requests for additional service are considered on a case-by-case basis and may include the deployment of additional vehicles, the extension of service hours, or the implementation of alternative routing or scheduling. However, UTA reserves the right to decline any request that may disrupt baseline service, exceed available resources, be inconsistent with UTA or local or regional service or transit plans, or be inconsistent with UTA's mission.

Sponsored service: Service provided by UTA that is funded in whole or in part by a third-party sponsor for the purpose of improving public transit availability in a specific area. UTA reviews each sponsored service request and determines the feasibility of providing sponsored service based on available resources, the FYSP, regional and local transit plans, and the sponsor's willingness to enter into a sponsored service agreement. Sponsored service agreements are approved by the Board of Trustees, and UTA reserves the right to decline any request that may disrupt baseline service, exceed available resources, be inconsistent with UTA or local or regional service plans, or be inconsistent with UTA's mission.

Others

Areas that do not have sufficient TPI, productivity, or sponsorship to qualify for any of the tiers of service will not be served by fixed-route or flex-route transit. UTA will work with local communities and stakeholders to implement other mobility solutions. Other mobility solutions include (but are not limited to):

- Partnership with a Transportation Network Company (TNC)
- Employer-sponsored shuttles
- Transportation Management Associations

Chapter 8

Bus Stop Placement

Placement Principles

Bus stop placement and spacing is undertaken with the following goals in mind:

- Provide safe, pleasant waiting and boarding experiences for riders.
- Provide optimal access to destinations and neighborhoods along the route.
- Optimize travel time on the route by preventing excessive stopping and dwelling.

UTA's preference is to locate bus stops in locations where riders can safely cross the street. Preferred crossing treatments include:

- Signalized, marked, and/or grade-separated crossings (such as traffic lights, crosswalks, and pedestrian bridges)
- For locations without a signalized, marked, and/or grade-separated crossing:
    - Roads with a cross-section of three lanes (one travel lane in each direction and a center turn lane) or fewer and a speed limit of 35 mph or less.
    - Appropriate traffic volumes for pedestrians to safely cross, in agreement with applicable jurisdictions.

Roads with a cross section of four lanes or more and/or a speed limit of 40 mph or greater should only have stops at signalized or grade-separated crossings. UTA will work with cities and other local jurisdictions to establish safe crossings at good points of access along transit corridors as warranted. UTA considers good points of access to include the following:

- Sidewalk access from trip origin to bus stop.
- A pedestrian-oriented, connected street network.
- Permeable pedestrian access to neighborhoods or apartment complexes.

Having safe crossings, good points of access, or transit supportive land uses (for instance, high-density mixed-use development, hospitals, schools, universities, and human service providers) does not guarantee that a bus route or stop will be located adjacent to a given facility, only that such locations are where bus stops could be located if needed.

UTA may preserve existing stops that do not meet these guidelines in order to preserve service to existing markets but will not improve these stops until the conditions in this guideline are met.

On Demand Service Points

When UTA On Demand service is implemented in an area that was previously served by fixed-route bus or flex bus service, UTA may elect to retain select stops as service points, provided the following conditions are met:

- The stop meets ADA accessibility guidelines.

- There is a no-parking zone at the stop.
- The stop serves a transit-supportive land use as defined in the previous section.

Stops that do not serve a particular destination will not generally be considered for service points, as the current service model for UTA On Demand involves the use of virtual stops for general coverage purposes.

If fixed bus or flex bus service is introduced in an area served by UTA On Demand, existing on demand service points may be converted to fixed stops, or retained as on demand service points if the new route does not serve the service point location, or the service point location is not operationally feasible. If on demand service is discontinued in an area and other services are not implemented, on demand service points will also be discontinued.

Requests for improvements to on demand service points will be considered on a case-by-case basis.

Chapter 9

Title VI Compliance

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. The Utah Transit Authority has committed to the FTA's Title VI objectives set forth in Circular 4702.1B by ensuring that UTA's services are equitably offered, and resources distributed without regard to race, color, or national origin.

The Title VI analysis, in accordance with FTA requirements, is conducted to ensure that changes will not have disproportionately negative impact on minority and low-income populations within UTA's service area. If changes are found to be potentially discriminatory, UTA will take all prescribed and prudent steps to ensure services are equitable and compliant with federal guidelines and requirements.

For additional details, see UTA's Title VI program.

Vehicle Assignment

Service Planning ensures that the appropriate type and number of vehicles are allocated based on route characteristics, passenger demand, and operational efficiency. UTA's Planning Division reviews the "Vehicle Assignment Plan" annually to ensure all federal regulation are met. By aligning vehicle assignments with the overall service plan, UTA can optimize service delivery, improve rider experience, and effectively manage resources. The standards that UTA uses in assigning vehicles to routes are as follows:

- Fleet assignments do not violate Title VI or federal regulations.
- The quantity of buses in each service unit is determined by the demand, which is the peak pull-out for the calendar year.
- The operations planners from each service unit generate information regarding routes and schedules, which is then cut into runs and blocks for operators to work. This information is shared with the respective service units' maintenance departments.
- Buses are assigned within a service area according to the characteristics of the transit service type, passenger loads, and topography of the service area. Specially equipped canyon buses have different specifications than buses that operate in regular transit service in the valley.

UTA