

STA Connected Mobility Guidelines, Performance  
Measures, & Benchmarks - DRAFT  
June 2022

**Solano Transportation Authority – Connected Mobility Implementation Plan**

## INTRODUCTION

### *What are Connected Mobility Guidelines, Performance Measures, and Benchmarks?*

Guidelines, performance measures, and benchmarks are the policies and parameters used to design, modify, and evaluate transit and other transportation services. Think of them like a toolbox for managing mobility programs. For the purposes of the Solano Transportation Authority's (STA's) Connected Mobility Implementation Plan, these measurement tools are key to determining the current effectiveness, efficiency, and connectedness of Solano County's mobility network.

Transportation agencies in Solano County use these guidelines and measures to optimize the efficiency and effectiveness of their programs while maintaining or improving service. Service standards are intended to serve as a decision-making tool to assist the STA and other transit agency staff, management, and Board members when considering service and programmatic changes.

### *Linking the Recommendations of MTC's Blue Ribbon Transit Recovery Task Force with Improved Connected Mobility*

As a part of its Connected Mobility Implementation Plan, STA seeks to utilize key service standards, performance measures, and benchmarks to determine the ongoing relevance, usability, adaptability, and sustainability of the mobility programs currently offered in Solano County. Specifically, the goals and objectives of the Connected Mobility Implementation Plan will support the recently-delivered recommendations of the Metropolitan Transportation Commission's (MTC's) Blue Ribbon Transit Recovery Task Force, which provide comprehensive guidance for regional mobility programs in delivering effective services in an environment shaped by the ongoing COVID-19 pandemic. By linking its assessment measurements with Task Force recommendations, STA can effectively confirm how existing mobility program availability, orientation, and performance align with what MTC has deemed essential for establishing and sustaining an effective regional transportation network. Overall, comparing its available transportation program offerings with what the Task Force recommends as necessary for provision will determine how Solano County mobility programs contribute to a greater regional connected network, and will identify STA-required system improvements and additions.

The Task Force recommendations include 27 near-term actions intended to be taken by MTC, transit operators, county transportation agencies, and other stakeholders. Of these, nine recommendations are directly actionable by STA, and another nine are relevant to current Solano County transportation program activities. The following diagram indicates how each of the below performance measures relates to an actionable or relevant Task Force recommendation.

# MTC Blue Ribbon Transit Recovery Task Force -

## Recommendations

For Actionable & Relevant Recommendations:

■ = Underway     
 ■ = Completed     
 ■ = Not Yet Started

*Related  
Measurements*

Recommendation ID	Description	Status	Related Measurements
#1	Act on recommendations of the Fare Coordination and Integration Study, including selecting and funding pilot projects	Actionable	2.1
#2	Determine whether existing authority is sufficient to support uniform implementation of these recommendations		
#3	If needed, seek state legislation for additional authority to ensure timely and uniform implementation of these recommendations		
#4	Fund & finalize regional mapping & wayfinding standards	Relevant	2.5
#5	Fund & complete up to three consistently branded mapping & wayfinding pilot projects in the North Bay & East Bay	Actionable	2.5
#6	Fund & develop a data platform for regional mapping data services to enable standardization of digital/paper maps across services.	Actionable	2.5
#7	Request action by Caltrans to expedite design exceptions that will allow for bus priority on state highways		
#8	Sponsor legislation to remove barriers to transit priority		
#9	Fund the design & delivery of near-term transit corridor projects	Relevant	2.6
#10	Select near-term carpool lane operating policies for advancement		
#11	Define a cooperative agreement process to expedite travel time improvements on arterial streets & bus rights-of-way	Actionable	2.2, 3.1-3.2
#12	Fund, develop, and adopt a transit priority policy and corridor assessment for improving bus speeds & reliability	Relevant	2.6, 3.3-3.9
#13	Fund and complete a business-case analysis of potential transit network management reforms		
#14	Establish & support an MTC advisory group to guide this analysis		
#15	Provide financial incentives for Solano and Sonoma counties to complete their transit integration initiatives	Relevant	1.6
#16	Deliver grant for Phase 1 Rail Partnership and Governance Assessment, and Final Assessment		
#17	Adopt transit equity principles and a process for applying them	Actionable	1.1
#18	Fund, develop, and adopt a Bay Area Connected Network Plan	Relevant	1.7
#19	Adopt transit hub toolkit to optimize station design & connectivity that includes coordination with local governments' access plans	Relevant	2.5
#20	Establish protocols & implement uniform real-time & transit pathway data collection to give customers consistent & accurate info	Relevant	3.10-3.12
#21	Designate a mobility manager to coordinate rides and serve as a liaison between transit agencies in each county	Actionable	2.3
#22	Fund more pilot projects for one-seat paratransit rides & develop cost-sharing policies for paratransit trips that cross jurisdictions	Relevant	3.13
#23	Identify the next steps for full integration of ADA paratransit services with the Clipper fare-payment system	Relevant	2.4
#24	Identify key paratransit challenges and recommend reforms	Actionable	3.13
#25	Adopt standardized eligibility practices for programs that benefit people with disabilities, including paratransit and Clipper RTC cards	Actionable	2.4
#26	Identify cost-saving efficiencies & funding needs for regional transit network mgmt. as part of the Business Case analysis (per #13-14)		
#27	Convene stakeholders to identify priorities & a funding framework for a future ballot measure that would include new transit funding	Actionable	1.8

### *A Framework for Connected Mobility-Supportive Guidelines, Benchmarks, and Measures*

Facilitated by both STA, which provides a variety of countywide mobility offerings, and multiple transit providers which provide transit services in the cities and unincorporated areas located in Solano County, transportation programs across the county are currently subject to numerous agency or program-specific sets of guidelines and measures, and are therefore measured and evaluated as separate entities and not as a part of one consolidated mobility network. Creating a defined set of guidelines, benchmarks, and measures by which all transit systems and mobility programs countywide can be assessed is essential to understanding, as a part of the Connected Mobility Implementation Plan, the existing performance, needs, and overall connectedness of the county's variety of transportation programs. Informing and framing these defined measurement bars are not only the recommendations of the aforementioned MTC Blue Ribbon Task Force, but also the relevant Equity and Performance Outcomes of Plan Bay Area 2050, and key best practices and industry standards that indicate quality transit and other mobility system performance. By defining measurements that are supportive and reflective of this framework, STA will not only be able to determine the effectiveness of mobility programs as they currently operate but can also indicate how programs should be adjusted or expanded to allow Solano County travelers a more seamless and better integrated trip experience, create better access to a wider variety of transportation modes, improve mobility program efficiency and effectiveness, and help discourage and limit single-occupancy-vehicle (SOV) use countywide.

## CONNECTED MOBILITY-SUPPORTIVE GUIDELINES, BENCHMARKS, STANDARDS, AND MEASURES

Listed below are overarching guidelines for connected mobility and mobility policy benchmarks, which not only comprise a policy framework for enhancing transportation network connectivity countywide, but also offer means of assessing the effectiveness of existing policy-level aspects of Solano County's mobility services. In addition, design standards and performance measures are discussed, providing quantitative measurement bars for assessing current Solano County transportation network performance and connectedness.

### 1. Overarching Guidelines for Connected Mobility

To achieve an improved connected mobility network, Solano County must focus on specific higher-level goals and objectives to be addressed collectively countywide, across the county's multiple jurisdictions and transportation providers. Specifically, an effective evaluation of factors such as transit equity, mobility network access, planning efforts, and funding pursuits requires application to the county as a whole, since these factors relate to connected mobility at a countywide, or even regional, level. The guidelines below, which are categorized by their orientation and are informed primarily by the Blue Ribbon Task Force and Plan Bay Area 2050's connectivity recommendations, represent measurements by which Solano County can determine whether or not it offers the conditions or is carrying out countywide the types of efforts that are supportive of improved connected mobility.

## Equity and Access

### 1.1 Solano County should have a defined set of transit equity principles and a clear process for their application.

Offering a clear and directed set of transit equity principles, as a matter of policy to be applied countywide, enables Solano County to assure consistency in the manner by which it measures and ensures equity across STA and the multiple transit providers that operate within the county. A key recommendation of the Blue Ribbon Task Force, consistent countywide equity principles would connect the standards for all county transit programs, and better standardize and connect not only the transit rider experience across the county, but also the process for assessment, monitoring, and improvement.

Evaluation Methodology:	Meets Criteria if:
Review existing STA and transit agency policies.	Transit equity policy exists with a clearly-defined application method.
<b>Relates to:</b> MTC Task Force Recommendation #17	

Guidelines 1.2 through 1.5 relate directly to the equitability and accessibility of mobility across the county. Assessing the extent to which various populations can reasonably use and afford transit, as well as access jobs via transit, biking, and walking, reveals the mobility network’s overall effectiveness and equitability. These guidelines are informed by Plan Bay Area 2050, which focuses on regional equity and performance outcomes that promote improved regional connectivity.

### 1.2 The average cost per transit trip (fares paid) is equal to or less than \$2.87 for all households, and \$1.49 for households with low incomes.

### 1.3 At least 5.1% of all Solano County residents and at least 7.9% of Solano County Communities of Concern residents should be able to access their job within 45 minutes by transit.

### 1.4 At least 2.7% of all Solano County residents and at least 3.4% of Solano County Communities of Concern residents should be able to access their job within 20 minutes by bike.

### 1.5 At least 0.2% of all Solano County residents and at least 0.4% of Solano County Communities of Concern residents should be able to access their job within 20 minutes by walking.

Evaluation Methodology (1.2-1.5):	Meets Criteria if:
Review existing transit fare structures, fare payment methods, and proximity of Communities of Concern residents’ homes to their workplaces.	Average transit trip cost is equal or less to the benchmark listed in 1.2, and Communities of Concern resident job access rates equal or exceed the benchmarks listed in 1.3, 1.4, and 1.5.
<b>Relates to:</b> Plan Bay Area 2050 “Connected” Metrics	

*Planning, Funding, and Direction*

**1.6 Ensure that transit integration initiatives are prioritized, progressing, and well-funded.**

With transit integration efforts underway, Solano County is already making strides toward improved connectivity both within the county and regionwide. The county is advised to prioritize these efforts, ensuring that they are progressing in an effective and timely manner, and are well-funded. By focusing on these aspects, the county can maintain a productive and outcome-driven process that is supported by MTC, which specifically states as a part of its Blue Ribbon Task Force recommendations that Solano County’s initiatives must continue to receive funding.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review existing transit integration initiatives, STA and transit agency programming prioritization, and funding dedication.	STA and transit agencies have included transit integration initiatives in their Capital Improvement Programs and other plans and programming efforts, with funding sources identified.
<b>Relates to:</b> MTC Task Force Recommendation #15	

**1.7 Ensure that transit integration initiatives and other connected mobility-oriented plans and exercises are regionally-focused and supportive of a future Bay Area Connected Network Plan.**

The recommendations of the Blue Ribbon Task Force call for the development of a regional Bay Area Connected Network Plan, which would likely strive to frame out and plan for a regional mobility network that reaches across separate operators and jurisdictions and generates a more seamless, usable system. While the details of this plan are not yet defined, Solano County can ensure that its current integration initiatives, as well as any other connected mobility-oriented efforts that are underway or proposed, are cognizant of the greater region and are supportive and integrable of a potential future Connected Network Plan.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Confirm that transit integration initiatives identified as a part of 1.6 are regional in nature and supportive of connectivity across the Bay Area as a whole, and not just in Solano County.	Identified transit integration initiatives reference Bay Area regional needs and are supportive of regional connectivity.
<b>Relates to:</b> MTC Task Force Recommendation #18	

**1.8 Convene stakeholders to focus on connected mobility by identifying needs, network priorities, and funding and implementation strategies/opportunities.**

To further support connected mobility efforts with essential involvement from representatives of the county’s wide array of communities and population groups, Solano County should convene a representative, connected mobility-focused stakeholder network. Having support from both users of the mobility network and residents across the county is essential to delivering a connected mobility network that is effective, need-responsive, implementable, financially-sustainable, and focused on identifying and securing funding strategies, which is identified as a key connected mobility-supportive activity of stakeholders by the Blue Ribbon Task Force recommendations.

Evaluation Methodology:	Meets Criteria if:
Review current STA and transit agency outreach efforts to identify stakeholder groups focused on connected mobility.	STA and/or transit agencies have assembled, or are in the process of assembling, stakeholder groups focused on connected mobility.
<b>Relates to:</b> MTC Task Force Recommendation #27	

## 2. Mobility Policy Benchmarks

Improving connected mobility in Solano County also relies on the definition and enactment of targeted policy actions that work to enhance the integration, effectiveness, efficiency, and equity of the overall mobility network. These policies, can be driven and administered by regional agencies, STA, or specific mobility program providers such as transit agencies. They act as a basis for the county’s connected mobility enhancement efforts, and are essential for the delivery of meaningful, publicly, politically-supported, and sustainable improvements. To generate an effective Connected Mobility Implementation Plan, Solano County must assess the existence, direction, and stability of these policies, which serve as true benchmarks for success in better integrating mobility programs and aligning county plans and actions with the recommendations of the Blue Ribbon Task Force

### *Regional or STA-Level Benchmarks*

**2.1 Transit fare structures for all Solano County transit agencies should be integrated and coordinated.**

Currently, transit agencies across Solano County, as well as across the greater Bay Area region, offer separate fare structures with varying types of passes, discounted fares, and eligibility programs. Integrating these fare structures to generate one unified and understandable set of fare options could greatly benefit users of multiple transit agencies, improving connectivity between transit agencies and enabling easier trips that utilize multiple operators. Standardizing the fare structures of transit agencies across the greater Bay Area region is a key component of MTC’s Fare Coordination and Integration Study, which is recommended for consideration and enactment by the Blue Ribbon Task Force. In November 2021, the Fare Integration Task Force of MTC adopted the creation of an all system pass pilot to commence in 2022 and elimination of transfer penalties between all systems in 2023.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review the existing fare structures of transit agencies in Solano County, as well as those serving the greater Bay Area, to determine if they are integrated, coordinated or standardized in a way that promotes seamless interagency travel.	Transit agencies within Solano County provide integrated, seamless fare structures that offer pricing, fare and pass options, and payment methods that are coordinated with one another and with agencies serving the greater Bay Area region.
<b>Relates to:</b> MTC Task Force Recommendation #1	

**2.2 Solano County should define, or support the regional definition of, a cooperative agreement process to expedite travel time improvements on arterial streets & bus rights-of-way.**

A wide array of transit travel time improvement strategies and technologies has been embraced by transit agencies across the Bay Area, with elements in place in various forms and locations throughout the region. However, many regional transit agencies, including those in Solano County, which operate across the boundaries of separate jurisdictions with separate processes for improvement design and implementation, face challenges in implementing these travel time improvements productively across full corridors. For example, an agency that may want to implement Transit Signal Priority (TSP) across the entirety of an intercity transit corridor to improve travel times corridor-wide would likely be required to complete administrative processes with each of the cities that touches the corridor. With a clear cooperative agreement process, defined either for Solano County or the greater Bay Area, transit agencies could more easily coordinate with jurisdictions in Solano County to implement improvements equitably and effectively, and in promotion of a better connected and higher quality transit experience overall.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review existing transit improvement-oriented cooperative agreement processes offered by jurisdictions within Solano County.	Jurisdictions in Solano County offer coordinated, standardized cooperative agreement processes for transit improvements, which are ideally coordinated with other Bay Area jurisdictions.
<b>Relates to:</b> MTC Task Force Recommendation #11	

**2.3 Solano County should have a liaison to better coordinate trips for customers across multiple transit agencies and mobility programs.**

Facilitating trips that incorporate the use of multiple transit providers or mobility programs comes with a variety of coordination challenges. By designating a liaison, mobility manager, or some other figure or system to ensure that separate transit agencies and programs are coordinating their services to maximize connectivity and encourage seamless use, Solano County can enhance the connectedness of its transit and other mobility services. Since Solano County transit agencies connect with agencies in neighboring counties, this coordination may best be conducted at the regional level, which is recommended by the Blue Ribbon Task Force.



<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review STA staff roles to determine the existence of a countywide mobility manager or liaison.	STA is coordinating with MTC on identifying a mobility manager or liaison.
<b>Relates to:</b> MTC Task Force Recommendation #21	

**2.4 Solano County should adopt standardized eligibility practices for programs that benefit people with disabilities, including paratransit and Clipper RTC cards.**

Separate transit agencies frequently offer differing eligibility policies and procedures for people with disabilities who are seeking mobility benefits. By adopting a standardized set of eligibility practices, as recommended by the Blue Ribbon Task Force, Solano County would enable all transit riders, regardless of their agency, to access transit benefits via the same set of procedures, and promote improved access and better connected use of transit across multiple systems.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review Solano County transit agencies' ADA eligibility policies and practices related to transit fare payment, paratransit, and Clipper.	Solano County transit agencies offer ADA eligibility practices that are standardized with one another and with the practices provided by agencies serving the greater Bay Area region.
<b>Relates to:</b> MTC Task Force Recommendation #25	

*Transit Agency-Level Benchmarks*

**2.5 – All Solano County transit facilities should feature standardized maps and wayfinding materials, transit hubs should feature optimized station design and connectivity, and MTC and transit agencies regionwide should collaborate to identify funding opportunities and provide funding for related systems.**

Planning transit trips that use the services of multiple agencies can be difficult when the agencies' system maps and other materials have very different appearances, level of detail, and accuracy. In addition, the ride experience of these types of trips can be degraded when facilities, such as transit hubs, vary widely in quality, comfort, and accessibility from agency to agency. Therefore, in developing a better-connected mobility network, Solano County would benefit from ensuring that all of the transit agencies that serve its residents provide the same types and quality of facilities and trip planning materials. Overall, MTC and transit agencies across the region should collaborate together for the purpose of identifying and facilitating funding for the systems that may be required for tools such as dynamic maps, wayfinding tools, and signage.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
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Review the current design of, and the amenities currently provided at, existing transit facilities in Solano County.	Transit facilities are designed in a way that promotes inter-route, interagency, and intermodal connectivity, and are equipped with upgraded, standardized amenities that enhance the rider experience of transferring customers. First-time users should be able to easily navigate the facility when making connections.
<b>Relates to:</b> MTC Task Force Recommendations #4, #5, #6, and #19	

**2.6 – Solano County should fund, develop, and adopt a transit priority policy and corridor assessment for improving bus speeds & reliability, and Solano County transit operators should have the same process and policies for transit priority in all jurisdictions countywide.**

The Blue Ribbon Task Force recommends that transit agencies focus on transit corridor-based improvements, with a supportive transit priority policy and corridor assessment procedure that work to enhance bus speeds and reliability. With a corridor-based approach, as opposed to an approach confined by jurisdictional boundaries or agency service areas, Solano County can improve transit effectiveness, usability, and connectedness for corridors that feature consolidated mobility needs. By focusing on corridors, which may run through multiple jurisdictions, Solano County transit operators can benefit from one standardized process and set of policies for transit priority that apply countywide, regardless of jurisdiction. For example, an agency that may want to implement Transit Signal Priority (TSP) across the entirety of an intercity transit corridor to improve travel times corridor-wide would likely be required to address separate processes and policies for each of the cities that touches the corridor. With one clear standardized countywide process, the transit agency could more easily coordinate across Solano County jurisdictions to implement TSP equitably and effectively for an entire corridor.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review STA and transit agency policies and policy plans to identify efforts related to transit priority and corridor assessment.	STA and/or transit agencies have adopted or are in the process of funding, developing, and adopting a transit priority policy and corridor assessment program.
<b>Relates to:</b> MTC Task Force Recommendations #9 and #12	

### 3. Mobility Program Design Standards and Performance Measures

Mobility program design standards and performance measures provide the framework for evaluating service and informing management of transportation programs in Solano County. The service standards and performance measures, detailed in the following pages, help define service delivery levels for transit, including different transit tiers, modes, and types, as well as for other mobility programs, based on various criteria. Furthermore, they facilitate consistent service design and identify standards for modifying service. Assessing service standards and performance measures allows Solano County to ensure that current mobility program performance is consistent with regional connected mobility goals and is aligned with the Blue Ribbon Task Force recommendations.

For transit agencies, performance measures and design standards are oriented around the types of transit services and route tiers that Solano County-based agencies offer or can offer. These are applied to transit services and routes based on characteristics and are not agency specific. Together, these measurements enable STA to evaluate transit services countywide and as part of one connected network. The current and potential service tiers and route types found across the County include the following:

### Intercity Express Bus

#### **Fast, Frequent Regional Bus Service:**

- Offers higher capacity, higher speed service, with the purpose of connecting different cities and transit markets, both within and beyond Solano County's borders.
- Utilizes freeways, high-occupancy vehicle (HOV) and High Occupancy Toll (HOT) lanes where available, and other priority infrastructure (e.g., traffic signal priority, optimized stops/stations, etc.).
- Service span (peak only or all day) and direction of travel (peak direction only or bi-directional) may vary depending on market served.
- Crosses city and county boundaries, with a significant portion of passengers traveling between jurisdictions.
- Connects passengers to regional and intercity rail, ferries, other express buses, and local service networks.

Existing Solano County-based transit services that meet this criteria include the SolanoExpress network, which provides freeway-based connections between cities in the County and to other major transportation connection points in the Bay Area and Sacramento regions.

### Rural Intercity Bus

#### **Longer-Distance Bus Connections to Rural Communities:**

- Offers lower-frequency, fixed-route service, with the purpose of connecting rural communities with nearby cities and interregional transit connection points.
- Utilizes major corridors that connect towns, often across rural or sparsely-developed areas.
- Crosses city and county boundaries, with a significant portion of passengers traveling between jurisdictions.
- Connects passengers to regional and intercity rail, other express buses, and local service networks.

Existing Solano County-based transit services that meet this criteria include the Rio Vista Delta Breeze network, which connects the rural community of Rio Vista with the nearby larger cities of Fairfield and Antioch.

### Bus Rapid Transit (BRT) and Rapid Bus

#### High Frequency Corridor Service

- Offers high frequency, higher speed service, in corridors that can support high frequency (minimum 15 minute) all day service.
- Greater spacing between stops compared to local service, incorporates, priority infrastructure (e.g., traffic signal priority, optimized stops/stations, etc.)
- Utilizes exclusive lanes where feasible and may utilize freeways, high-occupancy vehicle (HOV) and High Occupancy Toll (HOT) lanes where available.
- Operates in both directions throughout the day and week.
- May cross city and county boundaries.
- Connects passengers to regional and intercity rail, ferries, other express buses, and local service networks.

Currently, no services in Solano County meet this criteria. However, the Connected Mobility Implementation Plan may identify opportunities for this type of service and develop specific recommendations for implementation.

### Local Bus

#### Local Fixed-Route Bus Service

- Offers local, usually intracity service at a range of frequencies, fulfilling standard transit-based mobility needs for members of a community.
- Utilizes major corridors and local streets.
- Operates in both directions on weekdays and on weekends.
- Primarily serves passengers traveling within a city or fulfilling connections to other service tiers or mobility programs.
- Connects passengers to regional and intercity rail, ferries, other express buses, and local service networks.

This service tier includes the majority of Solano County's existing transit offerings, such as the local routes operated by SolTrans, FAST, and Vacaville City Coach.

### Mobility-on-Demand

#### Microtransit Service

- Offers area-based mobility-on-demand service, supplementing the fixed-route transit network.
- Areas are typically around six square miles to balance wait and travel times, and ensure efficient, effective use of resources.
- May provide community and neighborhood circulation and/or first/last mile service focused on regional mobility hubs.

This service tier includes the Dixon Redit-Ride system, as well as Vacaville's City Coach Direct on-demand service, Suisun City's microtransit service, and Rio Vista Delta Breeze.

### *Transit Design Standards*

The transit agency service standards outlined in this document are primarily oriented toward ensuring quality service design, which informs the operating parameters and service characteristics of Solano County transit agencies’ range of offerings. The standards support service continuity and integration within each offering and ensure that these services come together as a connected network. Specifically, the standards are included and discussed below for the purpose of serving as indicators of quality connected mobility practices. Assessing whether or not transit agencies in Solano County are meeting these standards will help determine the overall effectiveness, efficiency, and usability of the transit network, as well as how current transit service delivery integrates with a better connected regional mobility system.

**3.1 Routing: To provide efficient and effective service that offers competitive travel times, routes across Solano County in different service tiers should be strategically aligned on corridors that support tier-specific purposes, based on the following criteria:**

- **Intercity Express, BRT/Rapid Bus and Rural Intercity** routes should run on rights-of-way less prone to delays, including: freeways, HOV lanes, High Occupancy Toll (HOT) lanes, Business Access and Transit (BAT) lanes, and HOV direct access ramps. When operating in mixed traffic, routes should use designated limited access highways and major regional arterials. Express routes should avoid operating on secondary arterials and collector/distributor streets, except when necessary to access transit centers, HOV facilities, significant trip generators, or turnaround loops.
- **Local** routes should run on a variety of right-of-way types to fulfill community-based service needs but should maximize service directness and be oriented around transit-supportive corridors wherever possible, such as those that minimize delay with fewer traffic signals or with transit signal priority infrastructure to provide competitive travel times.
- **Microtransit** should provide service to neighborhoods that have densities to justify providing transit service (at least four dwelling units per acre)<sup>1</sup> but either have street patterns that prohibit efficient fixed route alignments or densities that can’t support minimum fixed route productivity standards.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review the current system maps and route alignments for SolanoExpress routes, as well as for other Solano County transit agencies.	Intercity Express, BRT/Rapid Bus, Rural Intercity, and Local routes are strategically and primarily aligned on the roadway types specified above. Microtransit provides service to areas warranting transit service that can’t be served by fixed routes meeting the criteria specified above.
<b>Relates to:</b> MTC Task Force Recommendation #11	

**3.2 Key Connecting Points: Across Solano County, the service network should be coordinated through key mobility hubs to provide efficient and effective transfers between regional and community service tiers.**

<sup>1</sup> TCRP Report 165 Transit Capacity and Quality of Service Manual

Intercity Express, BRT/Rapid, and Rural Intercity routes should be coordinated with other transit services to facilitate connections at transit centers and key transfer points. Local routes should also be oriented to serve transit centers and key transfer points, or facilitate easy local connections to those locations.

To the greatest extent possible, schedules should minimize connection time while maintaining reliability at transfer points, where a high volume of passengers are transferring to and from intercity express service. Ideally, all routes and connecting transit service should operate at frequencies that allow for spontaneous customer transfers without schedule timing.

Strategies to minimize wait time include:

- Prioritize each location based on actual or projected number of boardings and alightings.
- Offset the intercity express route schedules, where feasible, to distribute wait time equitably among transfer locations
- Provide more frequent service (i.e. 15-minute headways or better) at key times when transfer volumes are greatest, such as weekday peak periods.
- To the greatest extent possible, schedules should minimize connection time

Evaluation Methodology:	Meets Criteria if:
Review the current route alignments and schedules for SolanoExpress routes, as well as for other Solano County transit agencies.	Transit centers and key transfer points are strategically located on Intercity Express, BRT/Rapid, and Rural Intercity routes to avoid compromising both customer travel time and operating resources on those service types.
<b>Relates to:</b> MTC Task Force Recommendation #11	

**3.3 Service Span: The service span for all routes in Solano County should be coordinated with passenger activity and demand and with local transit networks, based on the following criteria for different route types:**

- **Intercity Express** service span may vary between routes based on passenger demand and route performance.
- **BRT/Rapid** service should operate at least 16 hours per day on weekdays and 12 hours per day on weekends
- **Rural Intercity** service span may be sharply limited to community demand in rural areas, which is more confined than in areas of greater population.

Evaluation Methodology:	Meets Criteria if:
Review the current route schedules for SolanoExpress routes, as well as for other Solano County transit agencies.	Intercity Express, BRT/Rapid, and Rural Intercity service spans meet the criteria specified above.
<b>Relates to:</b> MTC Task Force Recommendation #12	

**3.4 Service Frequency and Headway: Frequencies for routes in Solano County should be based on demand, clock-face scheduling, and the maximum headway guideline for corresponding service tiers:**

- **Intercity Express** – 30 minutes during peak periods and 60 minutes during off-peak periods.
- **BRT/Rapid** – 15 minutes on weekdays and 20 minutes on weekends.
- **Rural Intercity** – 60 minutes during peak periods. 60 to 120 minutes during off peak periods based on demand.

Overall, this standard is designed to keep wait times reasonable for passengers who require a transfer. Once service is in place, headways may be improved to provide more frequent service if route productivity consistently exceeds 150% of the system average within its tier or if passenger loads exceed service standards.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review the current route schedules for SolanoExpress routes, as well as for other Solano County transit agencies.	Intercity Express, BRT/Rapid, and Rural Intercity route frequencies and headways meet the criteria specified above.
<b>Relates to:</b> MTC Task Force Recommendation #12	

**3.5 Coordination of Corridor Service: Operation of more than one route of the same tier on the same street (or a closely parallel corridor) should be avoided, except where there is a high demand, an HOV lane, or special transit priority treatment.**

Schedules of routes operating on the same corridor should be coordinated to optimize service headways for customers first and service travel times second, where feasible. For example, where multiple routes serve the same stops for a distance where transit customers could use any of the services, even headways should be maintained across all routes to provide an adequate and consistent level of service for intra-corridor travel.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review the current route alignments for SolanoExpress routes, as well as for other Solano County transit agencies.	Intercity Express, BRT/Rapid, Rural Intercity, and Local routes are aligned to minimize duplication and optimize service headways within corridors.
<b>Relates to:</b> MTC Task Force Recommendation #12	

**3.6 Route Anchors: All Intercity Express, BRT/Rapid, and Rural Intercity Local routes and microtransit, should be anchored at current and planned key transit generators.**

Transit routes should first facilitate network travel by terminating at or serving major multi-modal service hubs. Secondly, where these hubs are contiguous to major demand generators, transit experiences even greater benefit. When not connecting with a hub, route termini should be at ridership generators like shopping malls, community colleges, medical centers, etc. STA and its

member agencies should work with jurisdictions to coordinate land use planning and development to ensure that equity populations and destinations are well served with high quality mobility options and that major transit corridors serve areas of high transit propensity (dense, diverse, mixed use, walkable).

Evaluation Methodology:	Meets Criteria if:
Review the current route alignments for SolanoExpress routes, as well as for other Solano County transit agencies.	All Intercity Express, BRT/Rapid, Rural Intercity Routes, and Local routes, as well as microtransit services, are aligned to originate and terminate at or close to locations of high transit propensity.
<b>Relates to:</b> MTC Task Force Recommendation #12	

### Transit Performance Measures

Service performance measures provide the framework for evaluating service. For Solano County’s transit agencies, the recommended framework is primarily oriented around service effectiveness (productivity), service quality (customer experience), and service efficiency (resource utilization), which should each be analyzed and evaluated to determine system performance levels and their supportiveness for incorporation into a greater regional connected network.

Through its partner agencies, STA should monitor annually all ongoing transit and microtransit services at a network and individual level (routes and zones) to assure that performance objectives are being met. First, overall performance targets (key performance indicator or KPI) will be set for each service tier based on current performance and STA goals and objectives. Second, STA should evaluate each transit service tier to assess ongoing trends for each KPI including identifying those routes and services that were more the 150% more productive than the tier standard or less than 50% of the tier standard for detailed analysis and potential action. Where possible, KPIs should be included that allow for comparison across different service tiers.

### 3.7 Productivity: Routes across Solano County should meet the productivity levels listed below.

Productivity is determined based on boardings per trip, boardings per revenue hour or mile, and passenger miles per total mile, as defined earlier in *Section 1: Introduction to Service Standards and Performance Measures*. Productivity is a key indicator of service effectiveness, particularly for Intercity Express and BRT/Rapid routes, and helps determine whether or not existing mode and route types are appropriate for a certain market or location.

- **Intercity Express** – 15 Boardings Per Trip
- **BRT/Rapid** – 20 Boardings Per Hour

Evaluation Methodology:	Meets Criteria if:
Review the most recent SRTPs for Solano Express and for other Solano County transit	Productivity rates for Intercity Express and BRT/Rapid meet the levels specified above.



agencies to determine route-based productivity rates.	
<b>Relates to:</b> MTC Task Force Recommendation #12	

**3.8 On-Time Performance: Routes across Solano County should meet the following on-time performance rates:**

- **Intercity Express** – 75 percent depart no more than five minutes late and zero minutes early
- **Local** – 80 percent depart no more than five minutes late and zero minutes early

For transit agencies to be successful, they must provide convenient and reliable service and follow the published schedules to meet consumer expectations especially for travel that involves transfers. To ensure reliable and predictable service, Solano County transit agencies should facilitate periodic assessment of on-time performance using automatic vehicle location (AVL) or automatic passenger counter (APC) data. In addition, real-time transit service delivery data should be available for all routes and service electronically via APP, tablet, computer and via dynamic signage at major transit hubs.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Review the most recent SRTPs for Solano Express and for other Solano County transit agencies to determine route and agency-based on-time performance rates.	Intercity Express and Local route on-time performance rates meet the levels specified above.
<b>Relates to:</b> MTC Task Force Recommendation #12	

**3.9 Customer Complaints: Transit agencies in Solano County should not receive more than 2 complaints per 10,000 boardings, and initial responses to valid complaints should be submitted within one business day of complaint receipt.**

Customer complaints can relate to on-time performance, crowding, or amenities, among other things. Transit agencies should be receptive to rider feedback and track customer complaints in order to generate important context for staff to further investigate any service issues, potentially leading to service changes.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with STA to determine the number of complaints received in relation to SolanoExpress and all other Solano County transit agency service.	Complaints received do not exceed the rate specified above and are issued responses within one business day of receipt.
<b>Relates to:</b> MTC Task Force Recommendation #20	

**3.10 Operated as Scheduled: Transit agencies in Solano County should deliver no less than 99.8 percent of its trips as published.**

STA and Solano County transit agencies should track the percentage of scheduled trips for all routes operated as listed in the published timetable, another key performance indicator related to service quality. On average, 99.8 percent of scheduled trips should be operated as published.

Evaluation Methodology:	Meets Criteria if:
Coordinate with STA and all other Solano County transit agencies to determine current service fulfillment rates by agency.	The service fulfillment rates for SolanoExpress and all other Solano County transit agencies meet the criteria specified above.
<b>Relates to:</b> MTC Task Force Recommendation #20	

### *Performance Measures for Other Mobility Programs*

In addition to assessing the performance of its transit systems, Solano County must evaluate the quality, effectiveness, and efficiency of its other mobility programs, which span the ADA, TDM, and alternative mobility program spectrum. Recognizing the Connected Mobility Network Implementation Plan’s goal of developing a singular complimentary, intermodal, multi-program mobility network for all of Solano County that links seamlessly with the larger regional network, non-transit mobility offerings are essential to delivering added first/last mile and other benefits within the greater transportation system. By evaluating their performance, using the measures below that are oriented around assessing how well each program addresses its mobility goals, Solano County can better establish a comprehensive understanding of how its full slate of transportation offerings are operating, as well as the potential for all of them to function collectively as an integrated network.

Each of the below measures is related to a separate existing Solano County mobility program.

#### **3.11 Solano County ADA Eligibility Program: The ADA eligibility process should be standardized for countywide use and should adhere to industrywide best practices.**

Solano County should offer a clear, understandable, and accessible ADA eligibility program that is standardized for use by all county residents, regardless of their jurisdiction of residence. To ensure that the program is effective, management of the process should adhere to various industrywide best practices. These include:

- Accommodating accessibility as a part of the ADA assessment process, with various accessible over-the-phone and online opportunities available.
- Issuing clear communications about the program and about all accessible transportation services offered, with information that is readily available, issued in accessible formats and in relevant foreign languages, and easily understandable.
- Accommodating applicant needs by providing transportation to and from interviews and functional assessments, as well as interpretation in sign language.
- Administering interviews and assessments effectively, with ample time provided for applicants to complete necessary processes, adequately preparing applicants for these sessions, and allowing applicants to provide consent for information collection.
- Effectively communicating eligibility decisions by providing responses listing applicant name, agency name, eligibility status, agency contact information, any conditions that may be placed on an individual’s eligibility, an eligibility expiration date if applicable, and information about how to appeal the decision.

Evaluation Methodology:	Meets Criteria if:
Coordinate with STA to review existing ADA eligibility processes in Solano County.	Solano County’s ADA eligibility program is available and standardized on a countywide basis and meets the conditions listed above.

**3.12 Solano County Older Adults Medical Trip Concierge Service: The service should be available for use by older adults countywide, including veterans, and should adhere to industrywide best practices.**

Solano County’s Older Adults Medical Trip Concierge Service should be oriented for access by all older adult residents in the county, including veterans, regardless of their jurisdiction of residence. To ensure that the program is effective, management and delivery of the service should adhere to various industrywide best practices. These include:

- Adequately informing recipients and other stakeholders about the availability of the service, eligibility for use, the service authorization process, and how to access the service. This should include a variety of informational materials for distribution that accommodates Limited English Proficiency (LEP) individuals.
- Operating a toll-free telephone contact center that allows recipients to request services. The contact center should accommodate recipients with disabilities and/or who are hearing impaired.
- Managing the program to ensure that cost-effective and appropriate services are delivered, with collection and distribution of monthly trip level data reports that indicate performance levels.
- Coordinating with local stakeholders to maximize service cost-effectiveness and quality. This includes collaboration with public transit programs, public welfare programs, and aging services where appropriate, and linkages/integrations with existing older adult medical transportation services.
- Verifying recipient eligibility and need in a clear and standardized way, with a clearly-defined and mutually-accessible application process.

Evaluation Methodology:	Meets Criteria if:
Coordinate with STA to review the existing management and administration process for the Older Adults Medical Trip Concierge Service.	Solano County’s Older Adults Medical Trip Concierge Service is available to older adults countywide, including veterans, and meets the conditions listed above.

**3.13 Travel Training: The program should be available to participants countywide, adhere to industrywide best practices, and conduct at least two trainings per month.**

Solano Mobility’s Travel Training program currently provides educational resources and direct training for individuals using public transit and other county mobility programs. To ensure its effectiveness, the program must cover industrywide standard elements of educational content, which are considered essential for successful travel training. These topics include:

- Understanding trip planning software
- Reading route maps and schedules
- Locating transit stops
- Flagging-down buses, where applicable
- Calculating and paying fares
- Obtaining and using transit passes
- Recognizing when the desired stop has been reached
- Indicating to bus drivers when to stop
- Obtaining service updates
- Using mobility devices safely on vehicles
- Determining if a vehicle is equipped with mobility devices
- Completion of training is determined by trainee being able to travel safely and independently

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review Travel Training course content and overall curriculum.	Solano Mobility Travel Training program covers the education topics listed above and provides at least two trainings per month.

**3.14 Solano Mobility Call Center: Inquiries and requests are handled clearly and responsively in a way that enhances mobility program usability and accessibility, and in a manner that meets the quantifiable conditions listed below.**

Overall, Solano Mobility’s call center should be oriented around customer service quality, with a focus on effective responsiveness to caller inquiries. To ensure quality, the program should have customer service standards that detail methods of effectively handling responses, as well as detailing acceptable answer speeds or hold times. These conditions include the following:

- Consistent communication with partnered agencies to keep up to date with relevant information. Fully staffed call center to ensure little to no hold times between the hours of 8-5pm M-F.
- Average call answer time is less than 20 seconds
- Average call hold time is less than 30 seconds
- Return messages within one business day of message receipt
- Respond to valid complaints within 48 hours of complaint receipt
- Five percent increase in program participation annually.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review Call Center policies and processes.	Solano Mobility Call Center program has clearly-defined customer service standards that meet the conditions listed above and are oriented to ensure quality, effectiveness, and efficiency of responsiveness.

**3.15 Solano Mobility Vanpool Program: The program should sustain 90% of its existing vanpools annually, grow at least five vanpools per year, and be managed, funded, operated, marketed, priced, and evaluated in adherence to industrywide best practices.**

Solano Mobility’s Vanpooling is oriented to provide transportation to work services to individuals who live at least 15 miles from their workplaces. To ensure its effectiveness, the program must be administered in a way that aligns with the industrywide standards generally recognized as encouraging success. Currently the program is partnered with Commute by Enterprise to provide outreach support and additional subsidies to Solano County employers. Key program aspects include:

- Ensuring broad service coverage with an established, consistent turnkey agreement process between STA and long-serving contractors and vendors.
- Establishing meeting structures that encourage collaboration and idea-sharing between among contractors and vendors.
- Ensuring strategic oversight of program services and delivery and clear definition of agency and vendor responsibilities.
- Delivering consistent program administration with clear billing/invoicing, outreach, and customer service practices.
- Maintaining a single source of vanpooling information that is easily communicated, marketed, and promoted to customers, and that enhances public understandability of the program.
- Conducting incentive programs to encourage participation and use.
- Collecting program use data for performance monitoring purposes.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review Vanpool program policies and processes.	Solano Mobility Vanpool program sustains 90% of existing vanpools annually, grows at least five vanpools per year, and meets the conditions listed above.
<b>Relates to:</b> MTC Task Force Recommendation #17	

**3.16 Solano Mobility Intercity Taxi (ITX) Card Program: The program should adhere to industrywide best practices that ensure service quality, stakeholder participation, and safety compliance.**

Solano Mobility’s ITX Card program enables qualified ADA-certified Solano County residents, including veterans, to use local taxis as a form of paratransit, accommodating subsidized rides between separate jurisdictions/transit service areas. To ensure its effectiveness, the program must be administered in a way that aligns with the industrywide standards generally recognized as encouraging success. Key program aspects include:

- Ensuring quality services from taxi companies with an established agreement/commitment from taxi company owners or managers to provide optimal service to ADA paratransit customers, defined customer service standards, an extensive and meaningful driver training program, sufficient driver compensation that is processed in a timely manner, a complaint processing and response program, and ongoing performance monitoring.

- Maintaining regular communications between Solano Mobility, taxi company management, taxi drivers, and customers that establish a good working relationship between all involved parties and mutually benefits all stakeholders.
- Participating with multiple taxi providers and allowing riders to select their provider of choice.
- Ensuring taxi company and driver compliance with regulations.
- Responding to valid complaints within 48 hours of complaint receipt.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review ITX Card program policies and processes.	Solano Mobility ITX Card program meets the conditions listed above.
<b>Relates to:</b> MTC Task Force Recommendations #22 and #24	

**3.17 Solano Mobility Guaranteed Ride Home Program: The program should be accessible to all Solano County employees, should be administered in adherence to industrywide best practices, and should meet the quantifiable service goals listed below.**

Solano Mobility’s Guaranteed Ride Home program provides a free ride home from workplaces for individuals who do not drive alone to work, serving as a lifeline for transit and other mobility program commuters and enabling greater access to the mobility system in general. To ensure its effectiveness, the program must be administered in a way that aligns with the industrywide standards generally recognized as encouraging success. Key program aspects and service goals include:

- Allowing all permanent part-time or full-time employees who work to or from Solano County eligibility to participate.
- Defining the qualifying emergency situations during which registered employees can request service.
- Defining the alternative transportation modes that registered employees must have used on the day of requested service to qualify the Guaranteed Ride Home reimbursement.
- Defining the extents of the service, including the types of trips eligible for reimbursement, trip maximum distances from Solano County employment locations, eligible expenses, and both annual and per-trip reimbursement amount limits.
- Administering a clear and accessible registration process, with registration forms available for completion and submission both online and via mail.
- Responding to initial program applications within two business days of application receipt.
- Responding to initial request for guaranteed ride home reimbursement within two business days of request receipt.
- Processing reimbursements to riders within 45 days of receiving the guaranteed ride home request.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review Guaranteed Ride Home program policies and processes.	Solano Mobility Guaranteed Ride Home program meets the conditions listed above.
<b>Relates to:</b> MTC Task Force Recommendation #17	

**3.18 Solano Mobility Bucks for Bikes Program: The program should be administered in adherence to industrywide best practices.**

Solano Mobility’s Bucks for Bikes program incentivizes bicycling as a mode of transportation for commuting to work by reimbursing a portion of the cost of a bicycle for any Solano County resident, employee, or college student who will use the bicycle for commuting purposes. To ensure its effectiveness, the program is administered in a way that aligns with industrywide standards generally recognized as encouraging success. Key aspects include:

- Clearly defining participant eligibility, program requirements, and program policies and procedures.
- Requiring participants to provide feedback in three surveys at three-month intervals after receiving the incentive.
- Encouraging Commute Solano on the Ride Amigos platform.
- An increase in program participation with participants from each city in the county.

<b>Evaluation Methodology:</b>	<b>Meets Criteria if:</b>
Coordinate with Solano Mobility to review Bucks for Bikes program policies and processes.	Solano Mobility Bucks for Bikes program meets the conditions listed above.
<b>Relates to:</b> MTC Task Force Recommendation #17	