

Comprehensive Operational Analysis

Draft Service Plan



Hello! Thank you for taking the time to watch this presentation on the Draft Service Plan for the Comprehensive Operational Analysis, or COA, a joint effort conducted by the City of Tucson and the Pima Association of Governments to improve transit service throughout greater Tucson. This presentation will walk through the draft recommendations and share some of the key highlights of the proposed plan.

The Project

The aim of this COA is to enhance the transit system to better support the needs of the community and improve the efficiency, effectiveness, and equity of current transit options.

Working within the existing operating budget, the goal is to make service improvements that address community priorities through optimizing the system and increasing efficiency.



The aim of this COA is to enhance the transit system to better support the needs of the community and improve the efficiency, effectiveness, and equity of current transit options.

Working within the existing operating budget, the goal is to make service improvements that address community priorities through optimizing the system and increasing efficiency.

We started this project with a robust data collection and community engagement effort to understand what's working well within the current system and what needs improvement. Using our findings, we developed a set of guiding principles which outlined how the proposed service plan would be designed. We are here today to share that draft plan with you and collect your feedback. We will be collecting input through September 8 and will use that input to make any necessary changes to the draft plan to present a final plan to City of Tucson Mayor and Council in November.

Engaging the Community



Summary of Outreach Activities

- Website and survey available Jan. 23 to April 19, 2023
 - Over 500 survey responses and website comments were received
- Pop-up events held Feb. 7 and Feb. 8
 - Roy Laos Transit Center
 - Tohono T'adai Transit Center
 - Ronstadt Transit Center
 - University of Arizona Mall
 - San Xavier del Bac Mission
 - Pima Community College East
- Virtual Public Meetings held on Feb. 9 and Feb. 15
- Virtual Stakeholder Meeting held on Feb. 2

In early 2023, we conducted an extensive community engagement effort to collect input on transit improvement priorities. We had an online website and survey available between the end of January and mid-April and collected over 500 responses from the community. We held pop-up events at the three major transit centers, University of Arizona, San Xavier del Bac Mission, and Pima Community College East Campus. We also held virtual public and stakeholder meetings in February.

What We Heard

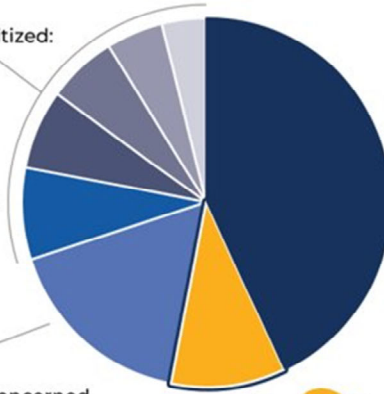
What Service Improvement is Most Important to You?

The remaining **30%** of riders prioritized:

- 8% - shorter travel times
- 7% - reliable/on-time service
- 6% - longer operating hours
- 5% - shorter walks to bus stops
- 4% - fewer transfers



17% of riders are concerned about the cost of fares



53% of riders ranked additional service as most important.



43% of riders want more frequent service



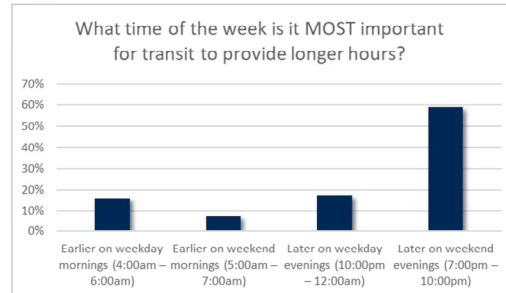
10% of riders requested more weekend service

From the outreach effort, we learned a lot of valuable information that informed the draft service plan. The chart on the slide shows how current riders answered the question asking about the service improvement that was most important to them. 53% of current riders referenced additional service and of these respondents, 43% requested more frequency, and 10% specifically requested more weekend service. For people who do not currently ride, 37% requested more frequent service, followed by 23% requesting shorter overall travel times.

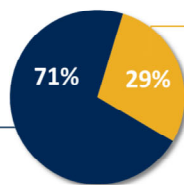
What We Heard

Key Findings from Survey

60% of respondents think later weekend evening service is the most important span improvement.



Which Would You Prefer?



An on-demand service, similar to Uber/Lyft, that can be requested on your phone with up to 30-minute wait times.

A route that comes every 30 minutes with a fixed schedule and designated stops.



Fixed-route service is still overwhelmingly preferred over on-demand alternatives.

In previous surveys, riders requested longer operating hours, specifically on weekends. In this survey, we wanted to understand which time periods were most important to have longer hours. 60% of respondents said that later weekend evening service (between 7 and 10 p.m.) is the most important time of the week for longer hours.

Sun Tran currently operates two Sun On Demand zones that act like an Uber or a Lyft where riders can request pick ups and drop offs within a specified area. When asked if they preferred traditional fixed-route service with set schedules and bus stops or on-demand service like Sun On Demand or Uber/Lyft, 71% said they preferred traditional fixed-route service. This split is consistent with feedback we've heard working in other communities as well.

Target Improvements



Realign routes to provide more direct rides to key destinations



Invest in high-frequency 15+ minute service on key corridors



Improve access and quality of service for traditionally underserved communities



Extend service hours to 11 pm on weekdays and 10 pm on weekends



Add frequency on weekends so transit is more convenient for shopping and recreation

Based on the findings from the community outreach as well as our analysis of the performance of existing services, we developed key strategies for the draft service plan. The target improvements for the bus network include: realigning or extending routes to provide more direct rides to key destinations with fewer transfers; increasing the number of routes that operate at high frequencies (at least every 15 minutes throughout the day); improving access and quality of service for traditionally underserved communities; extending service hours to 11 p.m. on weekdays and 10 p.m. on weekends for many routes, and adding frequency on weekends so transit is more convenient for trips such as shopping and recreation.

Design Strategies

Design strategies for streamlining and optimizing service in order to free up resources for the Target Improvements:



Focus on the one-mile grid, discontinuing routes through local neighborhoods



Reduce reliance on transit centers to minimize duplication and shorten running times

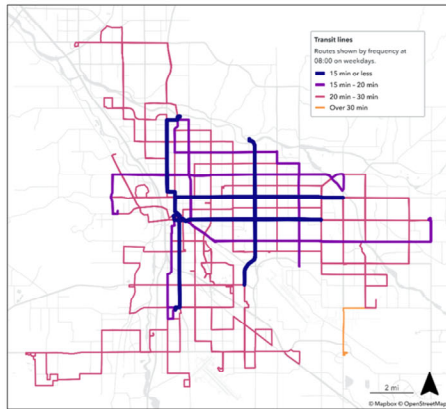


Reconfigure route alignments and frequencies to improve efficiency

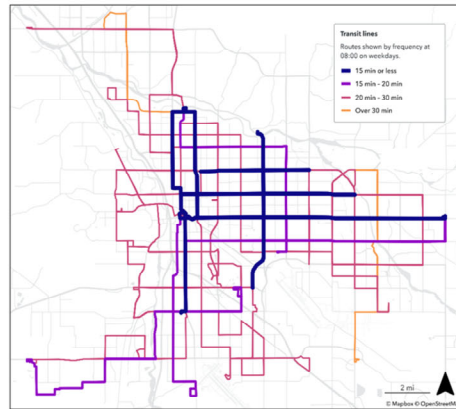
Like any organization, Sun Tran and the City of Tucson work with a limited budget. In order to have the resources available for the target improvements, we used a few design strategies to make the most efficient use of available resources. The first is focusing service on the one-mile grid, discontinuing routes through local neighborhoods, which generally carry fewer riders than the surrounding routes on major streets. This allowed us to increase frequency on major streets and speed up service by not traveling on slower neighborhood streets. Second, we reduced reliance on transit centers, which in many cases shortened route running times. Bus routes had to go out of direction to serve the transit center, adding time to the trips. Buses would also overlap one another going in and out of transit centers which is not very efficient. Finally, we restructured a number of routes and frequencies to make service more efficient – matching up different streets on different routes. Using all of these strategies, we were able to develop the service plan we will show you on the next few slides by using Sun Tran’s current bus resources.

Draft Plan – Weekday Frequency Comparison

Baseline



Proposed



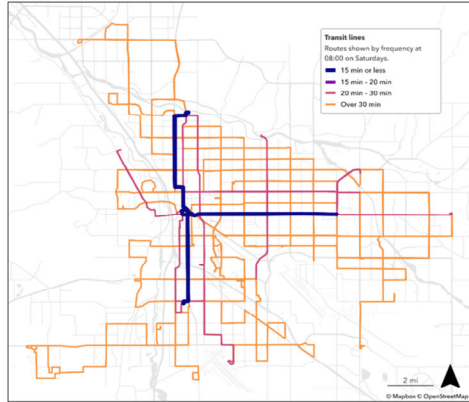
Percent within a Half-Mile Walk of 15-Minute Service

	Existing Network	Proposed Network	Percent Increase
Population	15%	22%	47%
Jobs	17%	23%	35%
Non-White Population	16%	22%	38%
Low-Income Population	23%	32%	39%

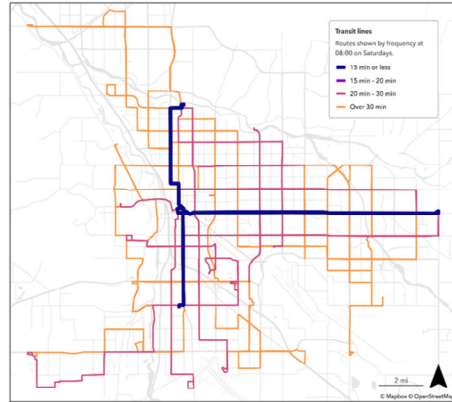
These maps compare the current and proposed Sun Tran bus networks. The lines are color-coded by frequency. Dark purple represents 15 minute or better service, light purple 20-minute service, pink 30-minute service, and orange less than 30-minute service. And as you can see from the two maps, there's a great increase in frequency in the proposed network, with more routes operating every 15 and 20 minutes throughout the day. If you look at the chart at the bottom, this shows the percent of the population that is within a half-mile walk of 15-minute service. So, for example, under the existing network, 15% of the population is within a half-mile walk of 15-minute service, and this increases to 22% under the proposed network. So overall there is a great increase in access to frequent service throughout the day.

Draft Plan – Saturday Frequency Comparison

Baseline



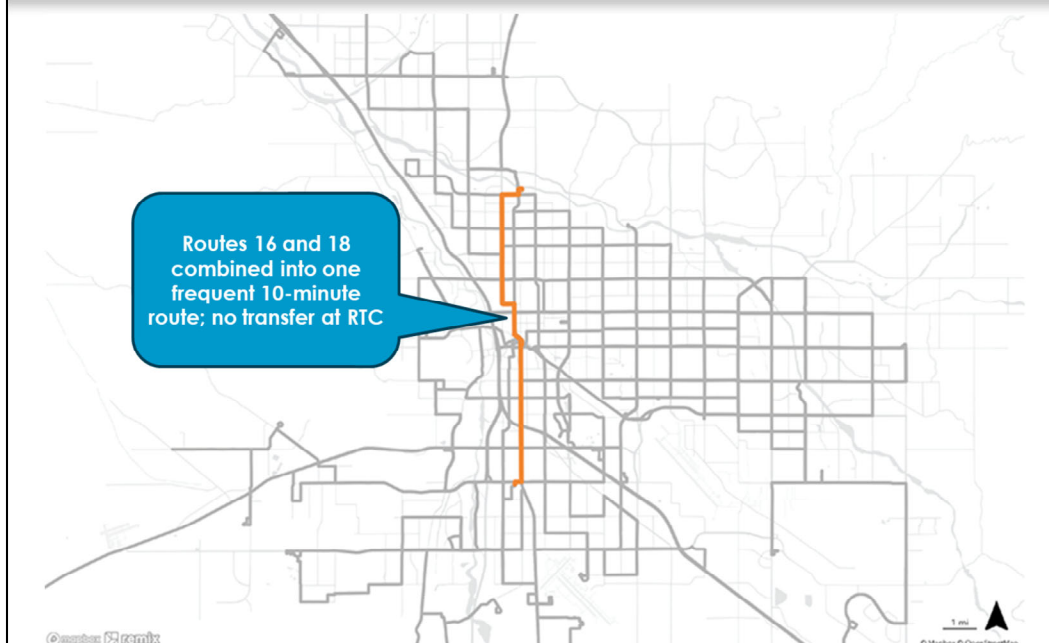
Proposed



Percent within a Half-Mile Walk of 30-Minute Service	Existing Network	Proposed Network	Percent Increase
	Population	16%	26%
Jobs	18%	24%	33%
Non-White Population	30%	47%	57%
Low-Income Population	37%	54%	46%

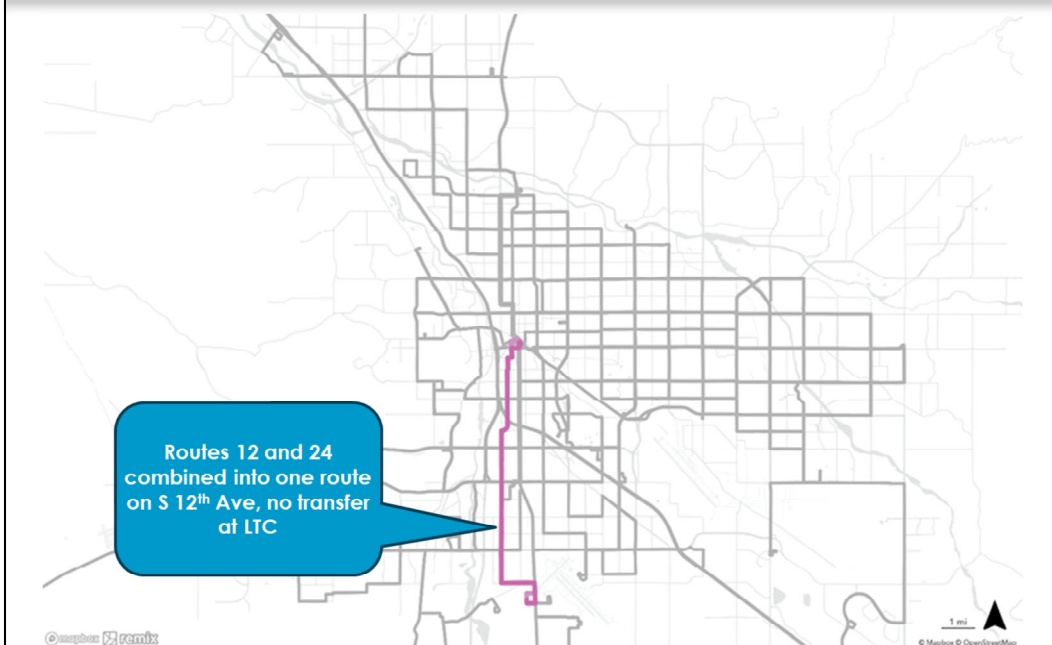
This slide shows the frequency comparison for Saturday service, and you can see that there's been a significant increase in the number of routes operating every 30 minutes on weekends. This was one of the main things that we heard during the public outreach process, with people wanting more service on weekends that more closely matches with the service that's being provided on weekdays. Similar to weekdays, the chart at the bottom shows the percent of the population within a half-mile walk of 30-minute service. Under the existing network, 16% of the population is within a half-mile walk of 30-minute service, and this increases to 26% under the proposed network.

Draft Plan – Key Route Change Highlights



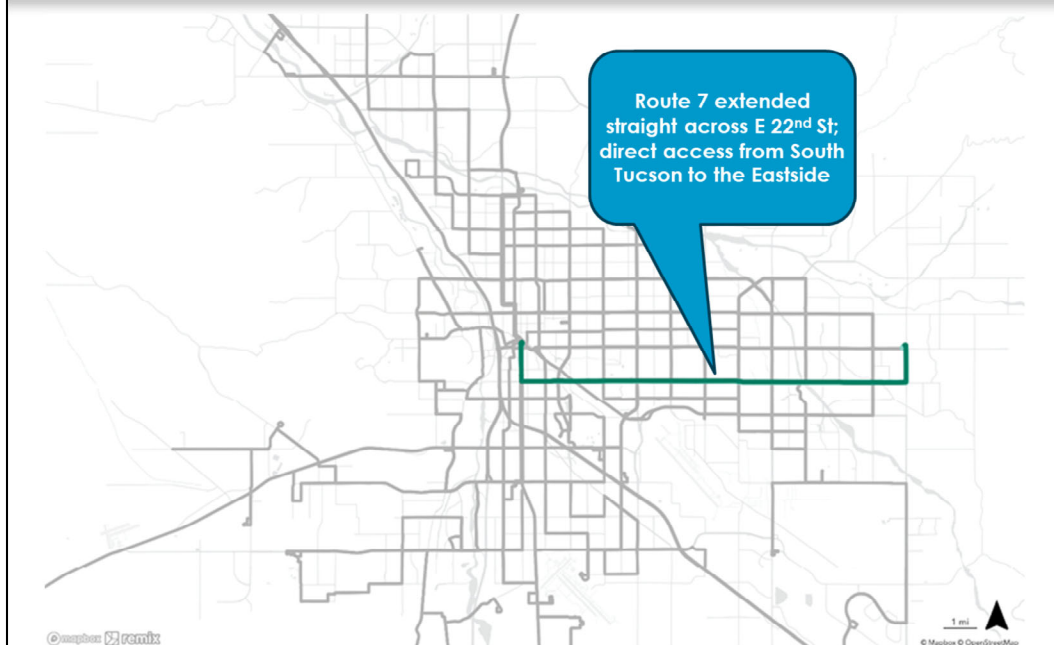
We now want to walk through just a few of the key route changes. You can view details for all of the routes in the Individual Route Recommendations tab of the tucsoncoa.com website. First, Route 16 (Oracle Rd.) and Route 18 (S 6th Ave) will be combined to create one continuous north-south corridor between Tohono T'adai and Roy Laos Transit Centers. This route would operate every 10 minutes on weekdays between 6 a.m. and 6 p.m., becoming the most frequent bus route in the entire system. These routes currently have the highest number of daily transfers between them, and riders would no longer need to transfer downtown at the Ronstadt Transit Center.

Draft Plan – Key Route Change Highlights



Similarly, Routes 12 and 24 would be combined into one continuous north-south corridor along S 10th Ave and S 12th Ave without forcing riders to transfer at Roy Laos Transit Center, greatly shortening travel times for riders traveling along this corridor. This route would operate every 20 minutes.

Draft Plan – Key Route Change Highlights



- Route 7 will be extended straight across E 22nd St, providing direct access from South Tucson to the eastside without forcing riders to transfer in Downtown.

Draft Plan – Key Route Change Highlights



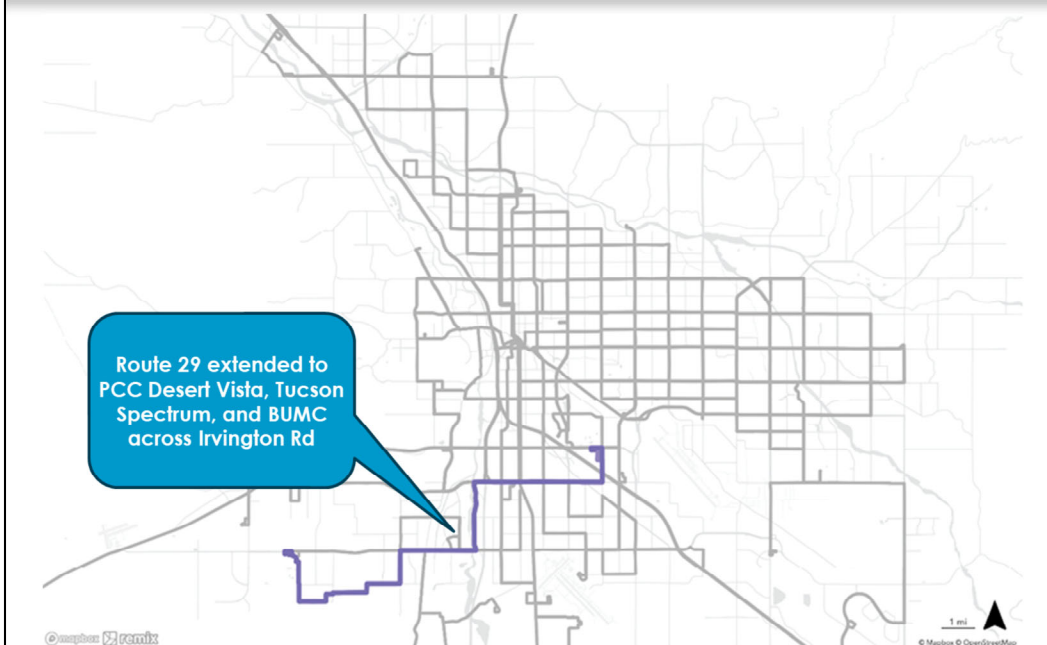
- Route 8 will be extended west past Downtown Tucson to Pima Community College West, providing continuous service east and west of Downtown without requiring a transfer. There is also a proposal to increase frequency on the eastern portion of the route, and service is proposed to operate every 15 minutes on weekdays the entire way between the Ronstadt Transit Center Downtown and the Houghton Park & Ride

Draft Plan – Key Route Change Highlights



- Route 11 will extend the Ajo Way branch further west to S Cook St, providing continuous east/west service along Ajo Way. With this change, Route 50 would be discontinued, but riders can benefit from continuous service along Ajo Way without required transfers.

Draft Plan – Key Route Change Highlights



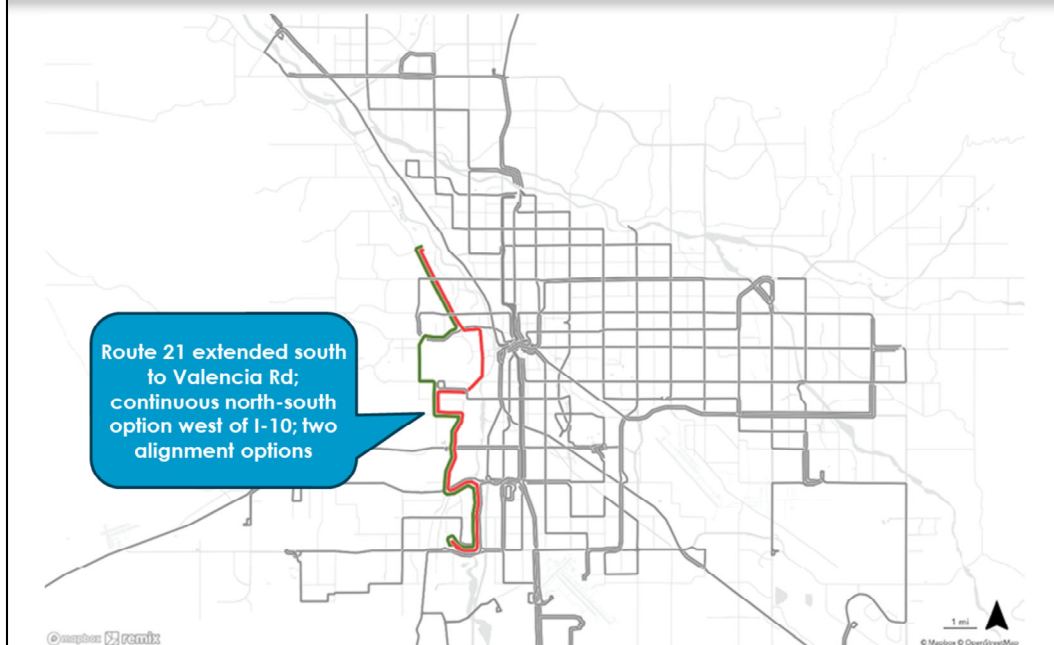
- Route 29 will extend east past Roy Laos Transit Center along Irvington Rd to Banner University Medical Center (BUMC). This will provide continuous east/west service along Irvington Rd and new direct connections for residents to Tucson Spectrum, BUMC, and additional shopping centers.

Draft Plan – Key Route Change Highlights



- The new Route 33 provides continuous service on Wilmot Rd between Udall Station and Pima Community College East Campus. Service on Wilmot Rd is currently split between Route 3 and Route 8, and now riders can travel along the entire corridor without having to transfer.

Draft Plan – Key Route Change Highlights



- Route 21 will extend south to Valencia Rd, providing a continuous north-south route along the west side of I-10, allowing for direct connections without having to transfer in Downtown. This will connect Route 21 with major shopping destinations (Tucson Spectrum, Walmart) and education centers (PCC West, PCC Desert Vista, Cholla High School). There are currently two options being proposed for this route, one shown in green that would serve PCC West and Greasewood Rd, and one shown in red that would serve residential neighborhoods along Grande Ave. If this is a route you would ride, please fill out our survey and provide feedback on which alignment you prefer.

Weekday Frequency and Span Improvements



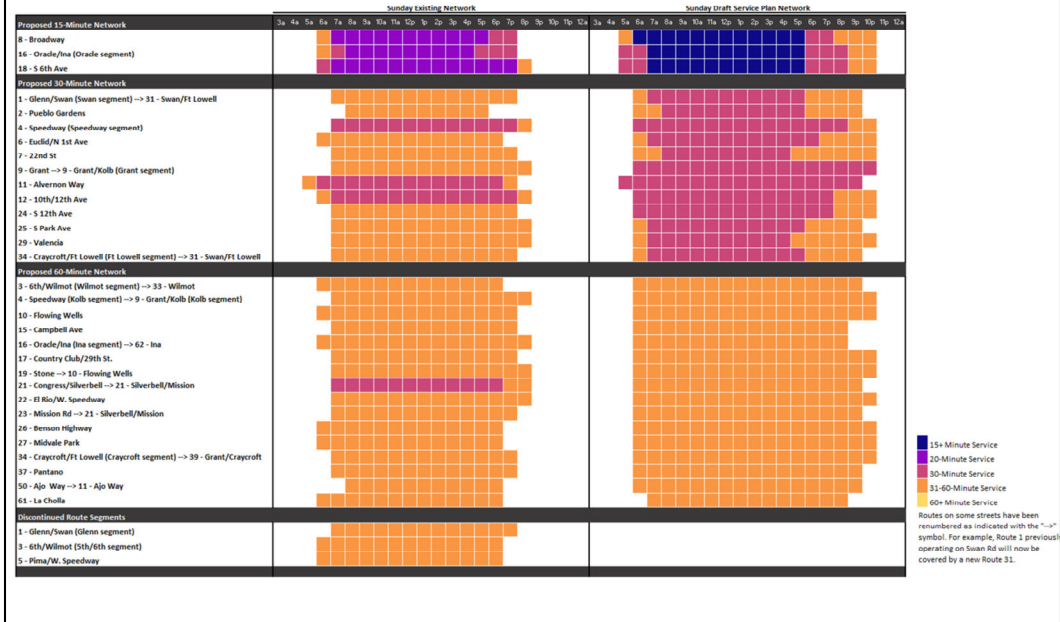
The charts on the next three slides show the proposed frequency for each route by hour of the day. The chart on this slide shows proposed weekday service. Each hour of the day is color-coded by the proposed frequency of service, with darker colors representing higher frequencies and lighter colors representing lower frequencies. The dark blue represents 15 minute or better service, purple 20-minute service, pink 30-minute service, orange 31-60-minute service, and light yellow less than 60-minute service. You can see from the chart that there is more service later in the evenings – 18 routes will have extended service hours. There is also an increase in the number of routes operating every 15 minutes (Euclid Ave and portions of Grant Rd) and every 20 minutes (Swan Rd, S 12th Ave, and Valencia Rd).

Saturday Frequency and Span Improvements



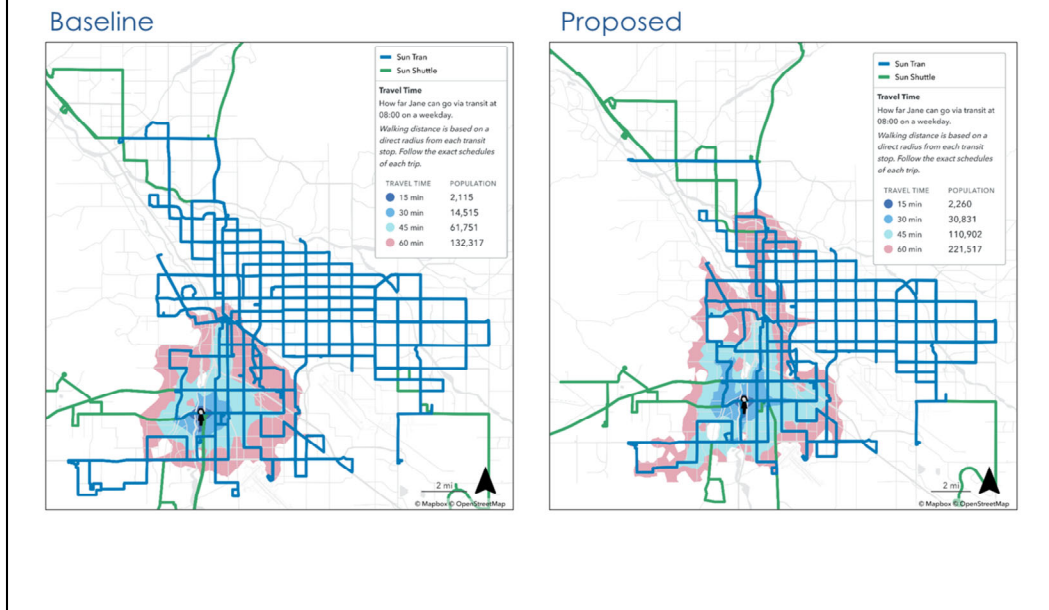
On Saturdays, 27 routes will have extended service hours, starting both earlier in the morning and ending later at night. There are also twice as many routes operating every 30 minutes on Saturdays compared to current service.

Sunday Frequency and Span Improvements



On Sundays, 29 routes will have extended service hours. The number of routes operating every 30 minutes more than triples, and the key corridors – Broadway, Oracle, and S 6th Ave will have 15-minute instead of 20-minute service.

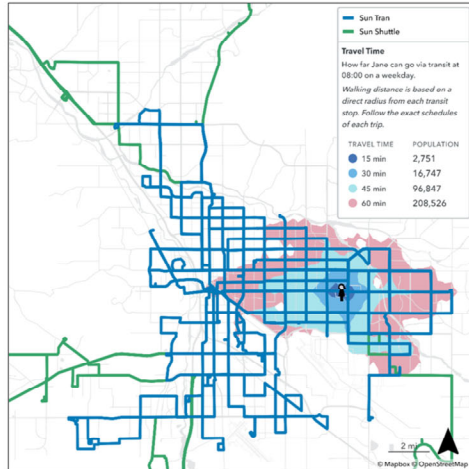
Change in 60-Min Access - Tucson Spectrum



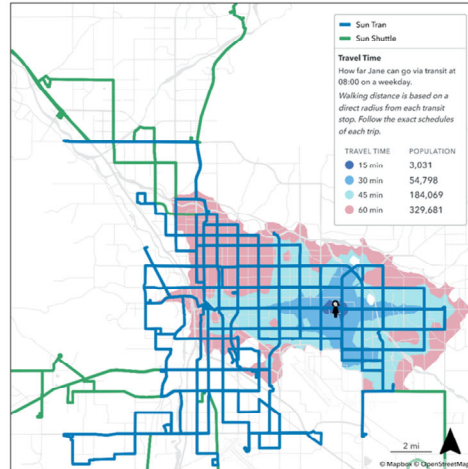
The next few slides show how general access on the bus system is proposed to change with the draft recommendations. The colors show how far you can travel in a certain amount of time from a set starting point. Dark blue shows how far you can travel in 15 minutes, medium blue in 30 minutes, light blue in 45 minutes, and pink in 60 minutes. On this map, there are 132,000 people within a 60-minute trip on transit from the Tucson Spectrum. Under the proposed plan, the number of people increases by 20% to 221,000. Specifically, you can see that Oracle Rd on Route 16 shows up on the proposed map. Riders can now travel farther in an hour because service operates more frequently (every 10 minutes), and they do not need to transfer at Ronstadt Transit Center.

Change in 60-Min Access – Park Place Mall

Baseline

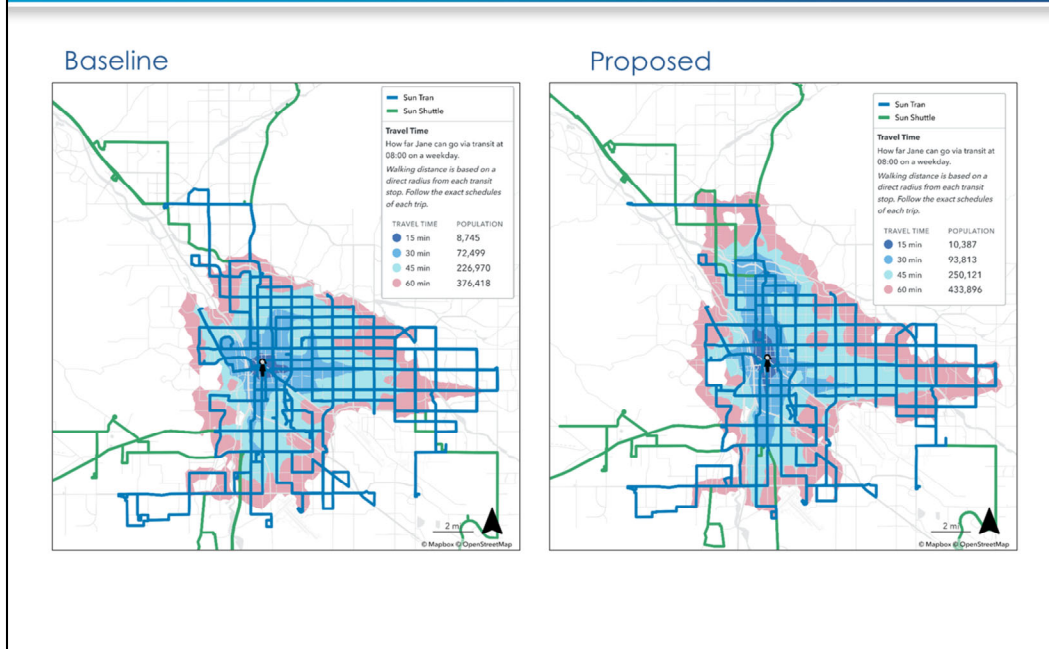


Proposed



In this map, there is a 24% increase in the number of people who can access Park Place Mall within a 60-minute trip on transit

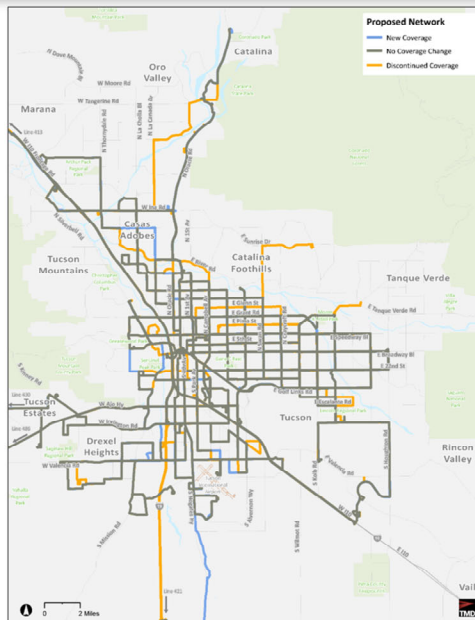
Change in 60-Min Access – Downtown



Finally, this example shows the increase in access from Downtown Tucson, specifically the Ronstadt Transit Center. Due to the investment in 15-minute service on major corridors, there is a 101% increase in the number of people accessible within a 15-minute trip.

Rider Impacts and Route Discontinuations

- Route 1 – Glenn/Swan
- Route 3 – 6th St/Wilmot
- Route 5 – Pima/W. Speedway
- Route 19 – Stone
- Route 23 – Mission
- Route 34 – Craycroft/Fort Lowell
- Discontinued Sun Express routes due to low ridership and performance – 102X, 103X, 104X, 105X, 107X, 108X, and 203X



With all of the proposed improvements, there are also some major route changes that may affect your trip. The following route numbers are proposed to be discontinued. While the route number may no longer exist, in most cases, there is a route with a different number operating on the same street, so there is no loss of coverage. In the map to the right, the orange segments are those that would be completely discontinued while the blue segments show brand new service coverage.

For Route 1 – service on Swan would be served by the new Route 31. Service on Glenn is discontinued due to the focus on the one-mile grid.

For Route 3 - Wilmot will be served by new Route 33; 6th St will be served only by select trips on 109X timed with school bell schedules.

Route 5 will no longer operate on Pima St due to the focus on the one-mile grid.

Route 19 will no longer operate, but the entire alignment is covered by other routes, primarily Routes 10 and 17.

Route 23 will be discontinued, but the alignment is predominantly covered by other routes, primarily Routes 2 and the new extended 21.

Route 34 – Service on Fort Lowell will be covered by the new Route 31 while service on Craycroft will be covered by a modified Route 9.

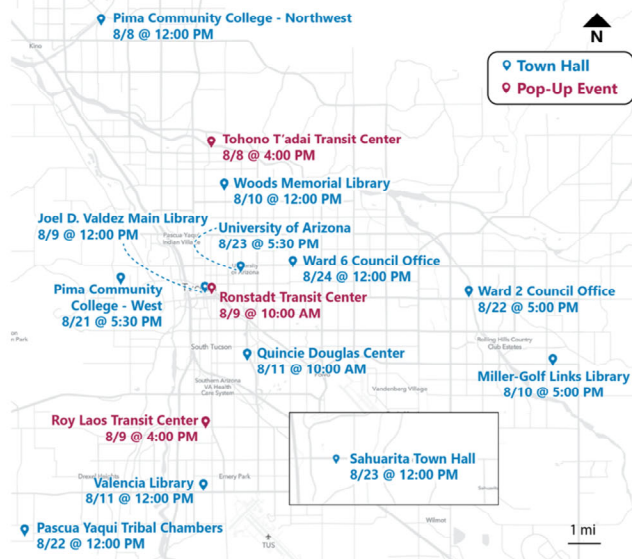
The following **Sun Express** routes are proposed to be discontinued due to low

ridership and performance – 102X, 103X, 104X, 105X, 107X, 108X, and 203X

Planned Outreach Activities and Next Steps

Town Hall Events Aug. 8 to 24

- Pima Community College - Northwest Campus
- Joel D. Valdez Main Library
- Woods Memorial Library
- Miller-Golf Links Library
- Quincie Douglas Recreation Center
- Valencia Library
- Pima Community College - West Campus
- Pascua Yaqui Tribal Chambers
- Tucson City Council Ward 2 Office
- Sahuarita Town Hall - Council Chambers
- University of Arizona
- Tucson City Council Ward 6 Office



So how can you provide feedback? Over the next few months until September 8, we will be collecting comments through a number of different forums. First, we will be out at 12 different town hall meetings between August 8 and August 24. Please see more information on the map.

Planned Outreach Activities and Next Steps

- **Website and survey available July 25 – Sept. 8**
- **Pop-up events Aug. 8 and 9**
 - Roy Laos Transit Center
 - Tohono T'adai Transit Center
 - Ronstadt Transit Center
- **Virtual Public Meetings Aug. 16 and 30**

- **September/October** – update the Draft Service Plan incorporating public and stakeholder feedback; conduct a Title VI analysis to ensure there are no adverse impacts to disadvantaged communities
- **November** – present the Final Service Plan to City Council

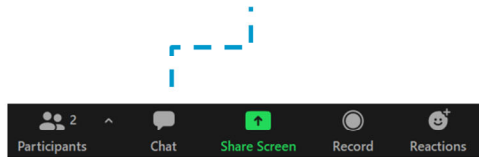
Visit www.tucsoncoa.com to learn more and take the survey through Sept. 8!

In addition to the in-person meetings, we also have information online at tucsoncoa.com where you can take a survey and leave your feedback on the plan. We will also be hosting a pop-up event at each of the three major transit centers on August 8th and 9th. Finally, we will be hosting virtual public meetings at 5:30 PM on August 16 and 30. Please go to tucsoncoa.com to learn more and get the link to the webinar.

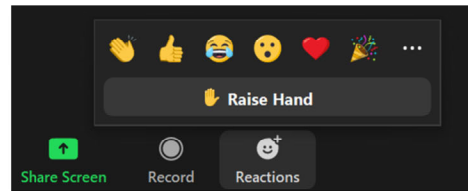
After September 8, we will be reviewing all comments we receive and using *use* them to make any necessary changes to the draft service plan. We will conduct a Title VI analysis to ensure there are no adverse impacts to disadvantaged communities resulting from the plan. Finally, we will be presenting a final service plan to Tucson City Council in November.


Zoom instructions

Please use the **chat feature** to share any questions you have during this presentation.



Today's virtual meeting will include a discussion.



To participate, select the **“reactions”** button and then select 



Thank you so much for taking the time to watch this presentation and learn about the draft service plan. Please visit the website www.tucsoncoa.com and take our survey to leave your comments. Have a great day!