

**Joint Meeting  
Transportation Council Committee  
&  
Transportation Commission**

**Tuesday, May 22, 2012  
7:30 AM**

Tempe Center for the Arts  
700 West Rio Salado Parkway, 201 Lounge  
Tempe, Arizona

**AGENDA**

Chair: Councilmember Shana Ellis

Call to Order

1. **Public Appearances** - The committee and commission welcomes public comment. According to the Arizona Open Meeting Law, the Committee may only discuss matters listed on the agenda. Matters brought up by the public under public appearances that are not listed on the agenda cannot be discussed by the Committee. A 3-minute limit per person will be in effect.
2. Transit Fund; Service Changes/Orbit Vehicle Fleet – Greg Jordan, Public Works
3. Customer Appreciation Promotion – Sue Taaffe, Community Relations

The City of Tempe endeavors to make all public meetings accessible to persons with disabilities. With 72 hours advance notice, special assistance can also be provided for sight and/or hearing impaired persons at public meetings. Please call 350-2905 (voice) or 350-2750 (TDD) to request an accommodation to participate in this meeting.





**MEMORANDUM**

Public Works Department  
 Transportation Division

To: Council Transportation Committee  
 Transportation Commission

From: Greg Jordan, Interim Deputy Public Works Director

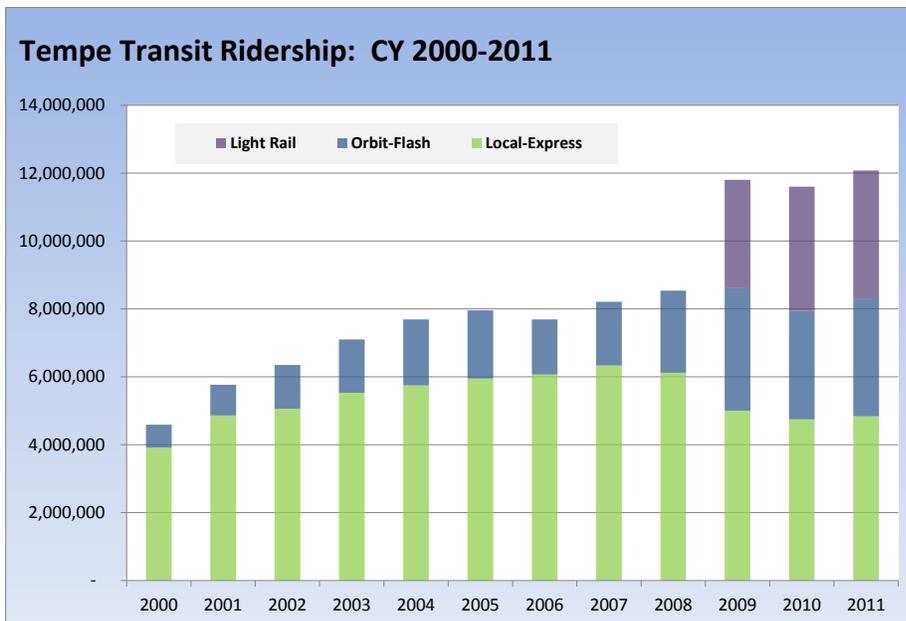
Date: May 16, 2012

Subject: **Transit Fund Update – FY 2012-13 Service Changes**  
**REVISED - This is an updated version of the document supplied on May 8**

**TRANSIT FUND OVERVIEW**

The Transit Fund Financial Balancing Plan approved by the City Council in May 2010 was aimed at resolving a \$15 million structural deficit. Phase 1 reduced the deficit by \$4.5 million in FY 2010-11 and Phase 2 reduced it by \$7.4 million in FY 2011-12. Since the beginning of the economic recession, transit service has been reduced by 25-30% while overall boardings has remained stable and is now increasing. **Graph 1** illustrates total transit boardings segmented by Local-Express Bus, Orbit-Flash, and Light Rail.

**Graph 1:**



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Figure 1 presents the updated preliminary Transit Fund Financial Forecast (FY 2013-2017). This five (5) year financial forecast indicates the remaining deficit is approximately \$2.7 million. Please refer to the numbered budget notes which provide high level explanations of major forecast assumptions and factors. The section labeled as “Potential Deficit Reductions Measures” are described in more detail below.

**Figure 1: Preliminary Transit Fund Financial Forecast (FY 2013-2017)**

	FY 12/13 Projected	FY 13/14 Projected	FY 14/15 Projected	FY 15/16 Projected	FY 16/17 Projected	Budget Notes
<b>BASE BUDGET</b>						
Revenue	\$ 49,458	\$ 51,335	\$ 53,476	\$ 56,140	\$ 57,315	1
Expenditures	\$ 52,839	\$ 55,225	\$ 56,590	\$ 57,183	\$ 59,535	2
Surplus/(Deficit)	\$ (3,382)	\$ (3,889)	\$ (3,114)	\$ (1,044)	\$ (2,220)	
<b>POTENTIAL DEFICIT REDUCTION MEASURES</b>						
Supplemental 5307/CMAQ PM Funds TEMPE	\$ 3,883	\$ 922	\$ 1,094	\$ -	\$ -	3
Supplemental 5307/CMAQ PM Funds METRO	\$ 1,002	\$ 240	\$ 234	\$ -	\$ -	3
Bus Service Changes	\$ 429	\$ 442	\$ 455	\$ 469	\$ 483	4
FY 2013 Regional Fare Increase	\$ 365	\$ 739	\$ 761	\$ 424	\$ 437	5
FY 2017 Regional Fare Increase	\$ -	\$ -	\$ -	\$ -	\$ 700	6
Tempe-RPTA Bus Unification	\$ -	\$ 400	\$ 412	\$ 424	\$ 437	7
Orbit Fleet replacement (CNG)	\$ -	\$ 473	\$ 474	\$ 528	\$ 512	8
Orbit Fare	to be determined					9
<b>Revised Surplus/(Deficit)</b>	<b>\$ 2,296</b>	<b>\$ (674)</b>	<b>\$ 316</b>	<b>\$ 801</b>	<b>\$ 349</b>	
Beginning Fund Balance	\$ 80,400	\$ 28,696	\$ 28,022	\$ 28,339	\$ 29,140	
Debt Paydown	\$ 54,000	\$ -	\$ -	\$ -	\$ -	10
Ending Fund Balance	\$ 28,696	\$ 28,022	\$ 28,339	\$ 29,140	\$ 29,489	
Approved Tentative Fund Balance Policy	\$ 19,720	\$ 20,597	\$ 21,614	\$ 22,911	\$ 23,403	11
Excess Fund Balance	\$ 8,976	\$ 7,425	\$ 6,724	\$ 6,230	\$ 6,086	12
	\$ 4,884	\$ 1,161	\$ 1,328	\$ 2,458		
<b>Budget Analysis Notes:</b>						
1	Revenues include a) increased sales tax, b) higher light rail fare revenue, and c) revenue amounts related to 7 months operation of 2.6 mile streetcar.					
2	Expenditures include a) amounts related to 7 months operation of 2.6 mile streetcar, b) revised debt service payments based on fixing remaining variable rate debt, c) program-wide minor adjustments, and d) reduced base light rail costs due to decrease to Tempe's portion of the system once the Mesa and Phoenix Northwest Extensions commence operations in 2015.					
3	CMAQ close-out funds allocated to PM have been approved by MAG's Transit Committee, Transportation Review Committee, and Management Committee; 5307 surplus allocation to PM has been approved by MAG's Transit Committee.					
4	FY 2012-13 Bus Service changes are presently going through the approval process.					
5	This forecast assumes a regional fare increase occurs in January 2013; METRO's 5 year forecast assumes a fare increase in FY 2015-16.					
6	This forecast assumes a subsequent regional fare increase occurs in FY 2016-17 which is more conservative than RPTA's assumption of FY 2014-15.					
7	Cost savings related to Tempe-RPTA Bus Unification; actual information will be available in November 2012.					
8	Cost savings related to replacement of existing 24 foot unleaded gas Orbit buses with 24 foot CNG buses.					
9	Orbit fare introduction tied to replacement Orbit fleet - requires additional regional and City Council discussion on impacts.					
10	\$54 million in paydown of Bond Debt approved by City Council on 6/16/2011.					
11	Tentative fund balance policy (6 months of revenue directly supporting Tempe based service) approved by City Council on 6/16/2011.					
12	Estimated fund balance in excess of approved tentative fund balance policy.					

Another financial component to Tempe's transit program is the program of services and projects provided by Proposition 400 funding. With the Regional Public Transportation Authority's (RPTA) Board of Director's May 17, 2012 approval of the Transit Lifecycle Program (TLCP)<sup>1</sup>, Tempe's current scope of projects and services is valued at \$150 million over the 20 years of the Regional Transportation Plan (2006-2026). However, Tempe's jurisdictional equity share of Proposition 400 revenue is \$150.9 million. This means that Tempe's portion of the regional transit program is balanced with a small surplus. The total regional Proposition 400 bus transit program is valued at \$1.4 billion.

As part of the three year plan to balance the Transit Fund, staff have continued to pursue multiple strategies to resolve the remaining deficit in Tempe's local Transit Fund without resorting to significant bus service reductions that will hurt our customers and businesses. Pursuit of these strategies is grounded in the values of equity, cost-effectiveness, an integrated approach to local-regional system performance, and long-term fiscal sustainability. General strategies include:

- **Diversify and increase revenue base** – fare policy, federal funding for preventative maintenance; transit property lease revenue;
- **Contain/Reduce costs** – Renegotiated bus contract costs, RPTA paratransit shifted to brokerage model; Convert Orbit fleet to Compressed Natural Gas (CNG)
- **Improve cost-efficiency through regional partnerships** – Tempe-RPTA Bus Unification;
- **Reduce debt repayment payments** – reduce/restructure long-term debt which frees up operating funds for service;
- **Continually improve system performance** – make adjustments to bus service that continue to optimize system performance and cost-effectiveness.

Presently, there are four major non-service strategies that are at various stages of completion, each of which has potentially significant implications for the Transit Fund's financial position. These are captured in Table 1 below. The outcome of these issues has the potential to reduce or eliminate the need for significant bus service reductions. However, the timelines for decisions on these items extends beyond the point when decisions for July 2013 service changes must be made.

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<sup>1</sup> The TLCP is the financial management tool that programs transit service and projects in the Regional Transportation Plan (RTP).

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Table 1:

ITEM	WHO DECIDES AND WHEN	REVENUE/COST SAVINGS POTENTIAL	RECURRING OR NON-RECURRING	CERTAINTY (High-Medium-Low)
Regional Fare Increase	Region (RPTA) – September 2012	\$739,000	Recurring beginning Jan 2013	High
Additional Federal Funding (Fleet Maintenance) <b>REVISED</b>	Region (MAG) – June 2012	\$4.8m in FY 2013 \$1.2m in FY 2014. \$1.3m in FY 2015	3 year period beginning with FY 2012-13	Medium - amount may reduce if regional projects identified through MAG process.
Tempe-RPTA Bus Operations Unification	Market – December 2012	\$400,000	Recurring beginning with FY 2013-14	Medium
Orbit Fleet CNG Conversion	Tempe – May 2012	\$500,000	Recurring beginning with FY 2013-14	High

**Regional Fare Increase** – The regional fare increase was approved by Valley Metro/RPTA’s Transit Management Committee for implementation in January 2013. This approval is contingent on any necessary changes stemming from additional analyses pertaining to a potential Title VI concern related to the relative price increase of the Express fare versus the Local Bus-Light Rail fare. The Valley Metro/RPTA Board of Directors will consider the fare increase for January 2013 implementation at its September 2012 meeting. There is a good probability that the fare increase will be approved along with a policy to consider fare increases every 3 years. The additional revenue to Tempe (Bus and Rail) will be approximately \$364,000 in FY 2012-13 and \$739,000 in FY 2013-14. While RPTA has assumed a subsequent fare increase will take place in FY 2015-16, Tempe’s more conservative forecast (Figure 1) assumes a subsequent fare increase in FY 2016-17.

**Federal Funding For Fleet Maintenance** – In 2011, the Maricopa Association of Governments (MAG) approved the use of federal 5307 funds for allocation to fleet preventative maintenance through FY 2015-16.<sup>2</sup> These funds are distributed to transit operators (e.g., RPTA, METRO, Phoenix, Tempe), then passed through to partner cities relative to their transit service levels. The net gain to Tempe of approximately \$1.1 million per year through FY2015-16 is already included in the Transit Fund’s financial forecast which has helped reduce the deficit to the current level.

<sup>2</sup> The Urbanized Area Formula Funding program (49 U.S.C. 5307) makes Federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning.

Presently, MAG is recommending the use of surplus federal 5307 funds (\$43 million) and *Congestion Mitigation and Air Quality (CMAQ) funding (\$25 million)* for allocation to Preventive Maintenance (PM) over a 3 year period. The following is an excerpt from April 26, 2012 meeting of MAG's Transportation Review Committee (TRC):

Each year, through the MAG Committee Process, priorities are established on the use all of the federal obligation authority for the current federal fiscal year (FFY); this is generally known as Closeout. On February 22, 2012, the MAG Regional Council recommended to approve Scenario #4 to fund projects that will obligate in FFY2012 at a 50% increase of the federal share, up to 100% of project costs, with an additional \$293,000 of federal fund to CHN12-805, and the remaining balance to be flexed to transit, with projects and priorities developed at a later time. **At the time of the recommendation, the amount to be flexed to transit was \$25,318,375 in federal Congestion Mitigation Air Quality (CMAQ) funds.** The Transit Committee met in February, March and April to discuss programming options. On April 12, 2012, the MAG Transit Committee recommended approval of programming the \$25,248,413 for bus purchases in 2013 and 2014, and then using the freed up 5307 funds for preventive maintenance.

Allocation of the *Congestion Mitigation and Air Quality (CMAQ) funding (\$25 million)* to Preventive Maintenance (PM) over a 2 year period (effectively FY 2014 and FY 2015) has been approved by MAG's Transit Committee, Transportation Review Committee, Management Committee (City Manager level), and Transportation Policy Committee (Elected Officials). MAG will seek approval by the Regional Council in June 2012. Final amounts will be determined based on overall federal funding provided to the region.

Allocation of the surplus 5307 funding (\$43 million) for effective use in FY 2013 has been approved by the Transit Committee and will be considered by the Transportation Review Committee, Management Committee, Transportation Policy Committee, and Regional Council over the next 1-2 months.

Tempe's net gain from both these sources could be up to \$4.8 million in FY 2012-13, \$1.2 million in FY 2013-14, and \$1.3 million in FY 2014-15.

Arguments supporting the use of these surplus funds for PM include:

- Addresses short-term deficits in the major transit programs across the valley by serving as a **bridge to economic recovery** and forecasted increases local and regional sales taxes – can help avoid service reductions;
- Allocates funds equitably in relation to valley cities' investments in transit services;
- Simple approach.

Arguments against the use of these surplus funds for PM:

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- Foregoes the option(s) to advance transit capital projects that may be ready to move forward and which could improve transit system performance over the long-term.

**Tempe-RPTA Bus Operations Unification** – The Tempe City Council and the Valley Metro/RPTA have approved a “scout program” to take the first steps to unify Tempe’s bus operations with the Regional Public Transportation Authority (RPTA). The intent is to operate regional bus more efficiently, achieve cost savings, and improve service to customers. Much of the savings potential stems from increasing the number of bus routes based out of the more centrally located East Valley Bus Operations Maintenance facility in Tempe, reducing duplicative contractor staff by consolidating functions, and consolidating auxiliary contracts (e.g., fuel supply, fuel station maintenance, security).

The June 2013 expiration of both agencies’ individual bus operations contracts creates an opportunity for unification. The estimated savings is in the range of \$800,000 to \$1,000,000 with Tempe’s local savings totaling about half of this amount or \$400,000 to \$500,000. Presuming the savings estimates are confirmed by the procurement and new contract, the first year that any savings may be realized is FY 2013-14.

**Orbit Fleet Conversion to Compressed Natural Gas (CNG)** – The majority of the existing Orbit fleet was purchased in 2007 when the system expanded. A small number of buses were retained from the previous Neighborhood Flash system, four (4) of which were replaced in 2009 bringing the current Orbit fleet to a total of thirty-nine (39). The current buses are rated as 7 year/200,000 miles vehicles and operate on unleaded gas.

Due to the heavy duty-cycle and high passenger volumes associated with Orbit service, the thirty-five (35) 2007 buses are hitting the 200,000 mile mark this spring at 5 years of service. Mean distance between road failures is in the range of 15,000-20,000 miles. A new replacement fleet of this vehicle type will incur failures about every 60,000 miles and a fleet with a stabilized average age will trend in the upper-middle range allowing better calibration of budgets and service protection efforts.

Staff recommend replacing the current buses with the same vehicle type (24 foot Ford Cutaway) powered by CNG instead of the unleaded gas fuel the current fleet uses. The capital cost of these vehicles is eligible for federal funding (80%) with local match (20%) currently included in RPTA’s Transit Lifecycle Model (TLCP) which programs regional Proposition 400 funds. In addition to the environmental benefits of CNG, the average annual cost savings potential associated with converting to CNG is estimated to be \$509,000 per year. **Table 2** below presents comparative lifecycle cost information for replacing the current 35 buses that are surpassing their useful life with either unleaded gas and CNG Orbit buses.

**Table 2:**

<b>Cost Categories &amp; Vehicle Features</b>	<b>Unleaded Gas (35 Buses)</b>	<b>CNG (40 Buses)*</b>
Total Capital Cost	\$2.9 million	\$4.4 million
Annualized Capital Cost (5 Years)	\$574,000	\$882,000
Average Annual Maintenance Cost	\$473,000	\$550,000
Average Annual Fuel Cost	\$1.1 million	\$521,000
Average Annual Operating Cost Total	\$1.58 million	\$1.07 million
Capital + Operating (Annualized)	\$2.24 million	\$1.95 million
Capital + Operating (Total)	\$10.79 million	\$9.78 million
Passenger Capacity	17 Seated (24 Total)	17 Seated (22 Total)
Wheelchair positions	2	2
Electronic Fare Collection Equipment	Yes	Yes

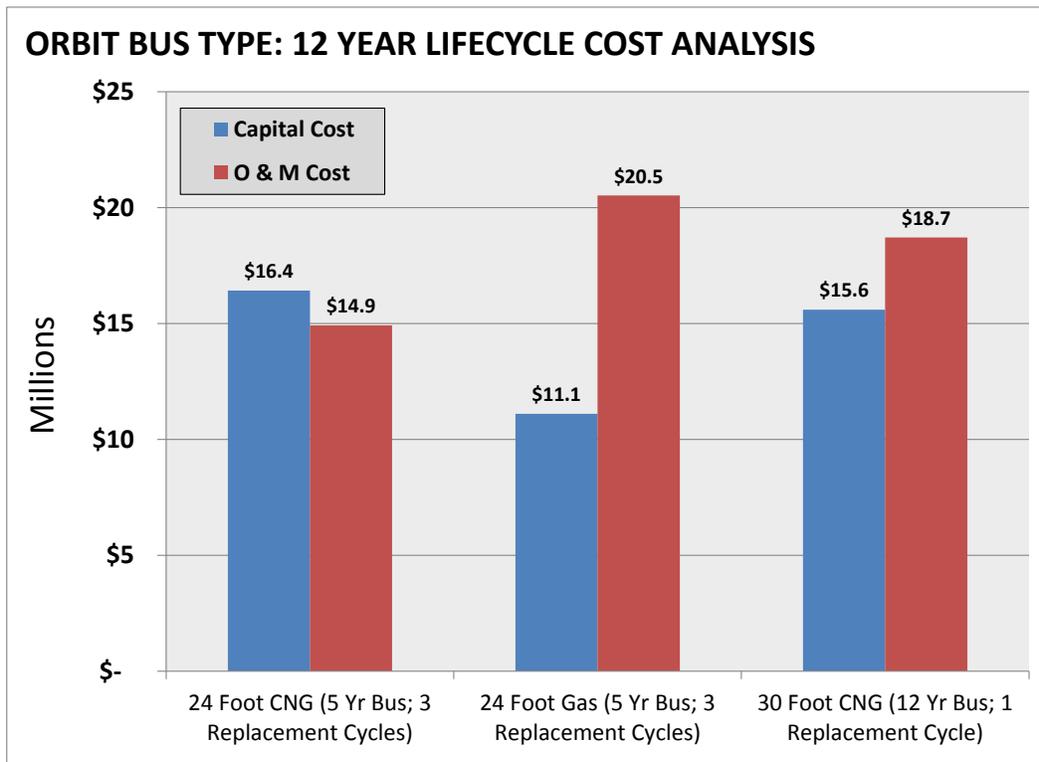
\* With CNG, 38-42 buses instead of 35 may be needed due to potential service range limits.

**Graph 2** on page 7 illustrates a comparison of the lifecycle costs associated with a 24 foot medium-duty cutaway style bus (Unleaded Gas; 5-6 year useful life), a 24 foot medium-duty cutaway style bus (CNG; 5-6 year useful life), and a 30 foot heavy-duty transit style bus (CNG; 12 year useful life). This snapshot examines the capital and operating costs for the entire fleet (39).

The illustration indicates that the combined operating and capital cost of the 30 foot heavy-duty bus is nearly \$3 million higher than the other bus types. Although the combined operating and capital costs of the two 24 foot cutaway models are about equal, the 24 foot CNG model offers an operating cost that is \$5.6 million lower over the 12 year period or about \$500,000 per year. These estimates are based on today's difference in the base prices of unleaded gas and CNG but equal growth rates for both commodities. The model does not attempt to predict changes in the structural economic factors (e.g., growth in CNG demand; instability in world oil markets) which may drive differential price fluctuations.

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Graph 2: Orbit Bus Type: 12 Year Lifecycle Cost Analysis



### BUS SERVICE CHANGES

Since the beginning of the Transit Fund Financial Balancing Plan in 2010, the goal has been to identify an acceptable package of service adjustments and reductions that combine with internal cost savings/additional revenue in order to balance the Transit Fund goal, achieve long-term fiscal sustainability, and maintain an effective and high performing transit system in a state of good repair. All modes (Local Bus, Express, Orbit, and Light Rail) have been under continuous evaluation for possible adjustment to optimize each element in the Total Transit Network. Major objectives associated with this effort included:

- Maximizing public transit use
- Increasing system efficiency
- Maintaining regional connections
- Upholding system-wide service equity
- Minimizing deterioration of service consistency (e.g., limiting different frequencies/spans of service across routes)

A public and stakeholder involvement process was implemented during the spring of 2012 to consider bus service and fare policy changes designed to assist with resolving the remaining deficit and improve

overall transit system performance. **Attachment A** includes an overview of the original set of proposed changes along with associated maps.

The Transit Program's public involvement process was designed to be open, equitable, and aimed at generating reliable and actionable information on public/stakeholder opinion. The process provided community members with an opportunity to learn about potential service changes, interact with city staff and neighbors to raise questions and concerns, and provide input on service change options. All input received was recorded, analyzed and considered seriously, but also weighed in relation to key performance indicators at the mode and route level.

**Public Involvement** - Tempe residents and Valley transit users were encouraged to attend Tempe's public meetings to learn about and provide input on potential service adjustments that could occur in July 2012 and/or January 2013. Most system modifications will be made in July 2012, but fare policy items or items requiring regional coordination may occur in January 2013.

- Local Public meetings:
  - Feb. 25 at 9 a.m. at the Tempe History Museum, 809 E. Southern Ave.
  - Feb. 28 at 6 p.m. at the Tempe Transportation Center, 200 E. Fifth St.
  - Mar. 1 at 6 p.m. at the Tempe History Museum, 809 E. Southern Ave.
- 520 surveys and public comments received which aided in understanding the public impact of the various proposals. The following methods were used to receive completed survey/comment forms:
  - Distribution at all public meetings
  - Intercept surveys at major transit centers
  - Targeted surveys on Express Bus Trips
  - Distribution at meetings of stakeholder groups and neighborhood associations
  - Website from Feb. 24 through March 29 at [www.tempe.gov/tim](http://www.tempe.gov/tim)
- Express Rider Focus Group on March 31

**Public Communication** - Methods used to communicate public meetings and online comment included:

- Press releases
- Facebook, Twitter
- Ads on azcentral.com
- Web site (TIM, Valley Metro)
- Tempe 11
- Tempe Today Waterbill
- ASU and School District notification
- Boards and Commission presentations
- Neigh. & Homeowner Assoc. notification
- Posters on local and express buses
- Friendship Village presentation
- Intercept surveys on buses and transit centers and available at multi-generational centers

**Approval Process** - The decision making process for service changes or fare policy includes:

- Discussion with Citizen Advisory Transportation Commission on February 14, March 20, May 8, and May 22;
- Discussion with Council Transportation Committee on May 8 and May 22;

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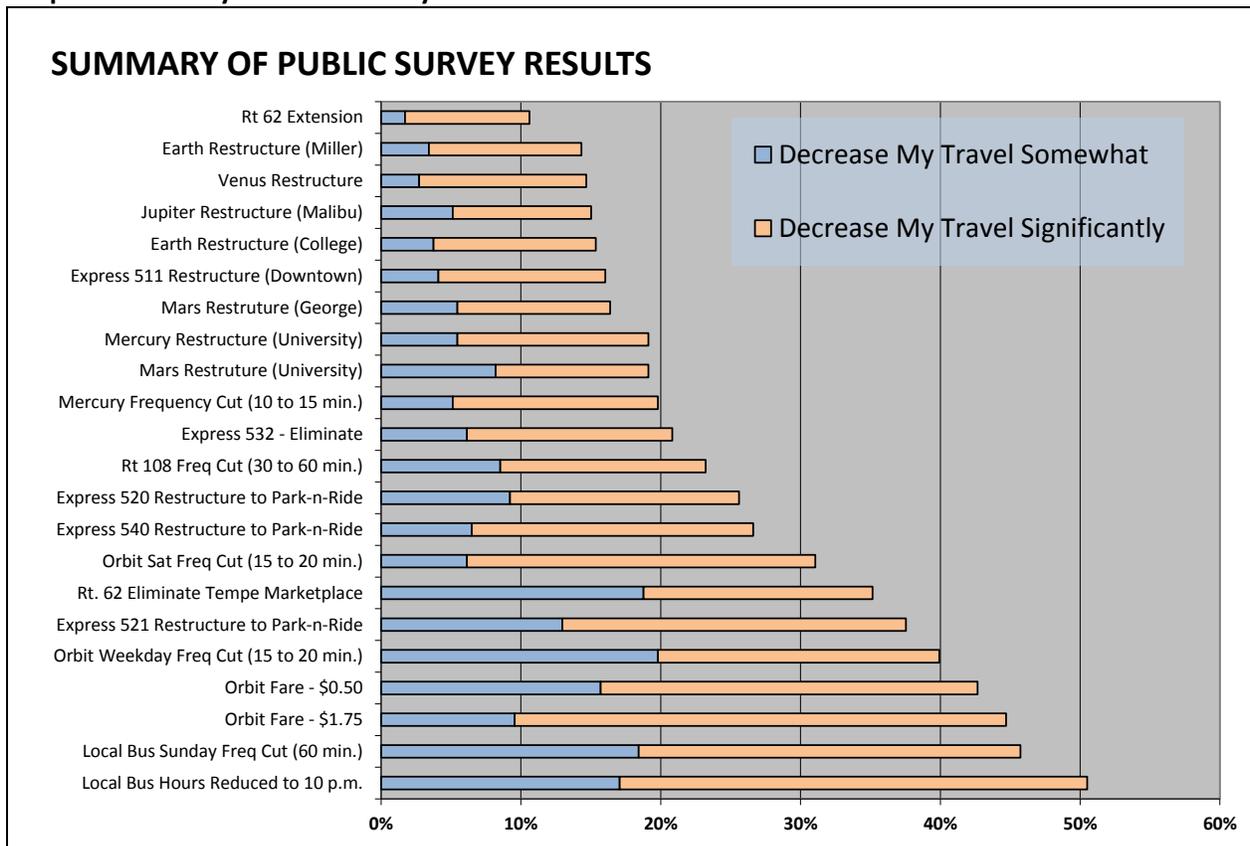
- Valley Metro Board of Directors on May 17;
- Tempe City Council on May 31;

Comments received at the public meetings were recorded by a court reporter as well as a petition related to the Orbit fare were provided to the Transportation Commission and Council Transportation Committee at their respective meetings on May 8, 2012.

**Survey Instrument** - Transit staff developed a survey to assess the public impact of the proposed service changes. 520 were received and analyzed. A copy of the survey is provided under **Attachment B**. The intent of the survey was to provide those most likely affected by the potential changes the opportunity to have their opinions heard. Although the survey results are not intended to be statistically significant or generalized beyond those who responded, city staff made efforts to ensure a broad-based and equitable rate of response. For example, given the significant proposed changes to the Express Bus System, staff distributed surveys on board most Express Bus trips for a full week.

**Graph 3** presents a stacked bar chart that illustrates the results of the “impact” portion of the survey. Respondents were asked whether the potential service changes would increase, decrease or have no impact on their travel. The results are ordered from lowest public impact to highest.

**Graph 3: Summary of Public Survey Results**



**Ranking the Options** - A ranking of the alternatives was developed based on a synthesis of system and route level performance and public opinion data. In addition, a “no alternatives” factor was included to raise the importance of alternatives which, if implemented, would mean no transit service would be available in the affected area. The only option that benefits from this factor is the option to eliminate bus service after 10 p.m. In short, higher performance and greater adverse public impact suggests the option should be avoided.

**Table 3** presents the ranking on a scale beginning with Low Performing-Low Impact and increasing to High Performing-High Impact. The table is intended indicate cost savings that directly impact Tempe’s local transit tax and budget. Express service is funded entirely by regional Proposition 400 funds, which is managed by the Regional Public Transportation Authority (RPTA). Changes to Express bus routes must take into account the city’s 20 year allocation of Proposition 400 funds and RPTA Board approved policies on annual cash flow, cost allocation methods, and jurisdictional equity.

**Table 3: Bus Service Changes Ranking**

RANK	MODE	ROUTE	OPTION	ESTIMATED SAVINGS	CUMULATIVE SAVINGS	IMPLEMENTATION	NOTES
1	Express	540	Express 540 Restructure to Park-n-Ride	\$ -	\$ -	July 2012	Proposed Express System Restructure Cost Neutral
2	Express	511	Express 511 Restructure (Downtown)	\$ -	\$ -	July 2012	Proposed Express System Restructure Cost Neutral
3	Orbit	Jupiter	Jupiter Restructure (Malibu)	\$ 88,937	\$ 88,937	January 2012	Additional outreach for use of new residential street
4	Local	108	Rt 108 Freq Cut (30 to 60 min.)	\$ 239,372	\$ 328,309	MAINTAIN	Multi-jurisdiction restructure in FY 2013-14
5	Orbit	Earth	Earth Restructure (Miller)	\$ 113,398	\$ 441,707	July 2012	Maintain service to North Tempe Multi-Gen Center
6	Express	532	Express 532 - Eliminate	\$ -	\$ 441,707	July 2012	Proposed Express System Restructure Cost Neutral
7	Express	520	Express 520 Restructure to Park-n-Ride	\$ -	\$ 441,707	July 2012	Proposed Express System Restructure Cost Neutral
8	Orbit	Mars	Mars Restructure (Southeast Loop)	\$ 90,708	\$ 532,415	July 2012	Eliminate the loop north of Southern, east of Price
9	Orbit	Earth	Earth Restructure (College)	\$ 136,066	\$ 668,481	July 2012	Eliminate service on Weber, McKellips
10	Orbit	Venus	Venus Restructure	\$ 223,479	\$ 891,960	MAINTAIN	Preserve connection to Broadway; Tempe High School
11	Express	521	Express 521 Restructure to Park-n-Ride	\$ -	\$ 891,960	July 2011	Proposed Express System Restructure Cost Neutral
12	Local	Local System	Local Bus Sunday Freq Cut (60 min.)	\$ 402,883	\$ 1,294,843	MAINTAIN	
13	Orbit	Orbit System	Orbit Sat Freq Cut (15 to 20 min.)	\$ 192,333	\$ 1,487,176	MAINTAIN	
14	Local	62	Rt. 62 Eliminate Tempe Marketplace	\$ 294,704	\$ 1,781,880	MAINTAIN	
15	Orbit	Mercury	Mercury Frequency Cut (10 to 15 min.)	\$ 81,086	\$ 1,862,966	MAINTAIN	
16	Orbit	Orbit System	Orbit Fare - \$0.50	\$ 700,000	\$ 2,562,966	Defer Decision	Defer Decision to December 2012
17	Orbit	Orbit System	Orbit Fare - \$1.75	\$ 850,000	\$ 2,712,966	Defer Decision	Defer Decision to December 2012
18	Orbit	Orbit System	Orbit Weekday Freq Cut (15 to 20 min.)	\$ 1,126,132	\$ 3,839,098	MAINTAIN	
19	Local	Local System	Local Bus Hours Reduced to 10 p.m.	\$ 848,504	\$ 4,687,602	MAINTAIN	
BLUE - IMPLEMENT IN FY 2011-12				\$ 429,109		Options 1-3; 5-9; 11	
ORANGE - EVALUATE FOR FY 2013-14				\$ 775,000		Options 16, 17	

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### Express Bus System Changes

Express service is funded entirely by regional Proposition 400 funds which are managed by RPTA. Changes to Tempe express service must be viewed in the context of Tempe's allocation of these funds which is \$6.8 million per year (annual average) through FY 2026 and includes allocations for regional-local bus service, Express service, ADA Dial-a-Ride costs, regional security, fleet replacement, and various capital projects. Funding for Express Bus Services is about 7% of Tempe's total 20 year \$150 million Proposition 400 allocation. The total regional Proposition 400 bus transit program is valued at \$1.4 billion over 20 years.

There are five (5) express bus routes that serve Tempe today. The original proposals presented to the public in February and the Transportation Commission in March are stated below. **Attachment A** includes more information and maps of the current routes and the ORIGINAL proposed changes presented during the initial public meetings.

- 511 (Scottsdale-Tempe via US 101) - Re-route Tempe portion of route to ASU & Tempe Transportation Center via Loop 202 & Rural. Route would no longer serve Price/Apache light rail station.
- 520 (Tempe-Phoenix via I-10) - Start/End route at Tempe Public Library park-n-ride. Route would no longer operate on neighborhood streets.
- 521 (Tempe-Phoenix via I-10) - Start/End route at Tempe Sports Complex and Kiwanis Park park-n-ride locations. Route would no longer operate on neighborhood streets, but would serve selected boarding points at major intersections.
- 532 (Mesa, Scottsdale, Tempe, Phoenix via US 202) - Eliminate route in all cities. Passengers in the 532 service area (north Tempe) would be encouraged to make use of light rail for trips to downtown Phoenix.
- 540 (Chandler, Tempe, Phoenix via I-10) - Eliminate route in all cities. Passengers in the 540 service area (Warner Rd. corridor) would be encouraged to make use of an alternative 521 from a park and ride location at Hardy and Warner.

Valley Metro/RPTA is coordinating an effort to improve the performance and cost-effectiveness of the regional express bus system while also reducing cost. In Tempe's case, changes to the Express bus service are driven by a need to improve boardings and route performance up to a point where the taxpayer investment in these routes is generating sufficient returns. Although certain trips may have sufficient riders, the overall Express system is operating below capacity.

**Table 4** provides FY 2010-11 ridership statistics for all regional express routes that continue to operate today. Tempe's Express routes are highlighted in green. Information on whether the route is primarily

park and ride or arterial based is provided on the right as well as estimates of average trip distance from the routes origin point to the end of the line (typically in the Arizona Capital District).

**Table 4: Regional Express Statistics (FY 2010-11)**

Route	Total	Revenue	Passgrs			FY 2009-2010		% Difference	Park & Ride (PR) or Arterial (A)**	Estimated Distance**
	Passgrs	Miles	Per Mile	Bikes	W/C	Total Passgrs				
I-10 West Rapid	151,134	82,660	1.8	607	86	164,764	-8%	PR	13	
I-17 Rapid	329,052	211,637	1.6	3,668	499	285,897	15%	PR	21	
562	40,492	27,703	1.5	156	6	34,077	19%	PR	28	
SR51 Rapid	161,421	117,657	1.4	1,702	77	164,918	-2%	PR	21	
I-10 East Rapid	191,288	149,948	1.3	971	36	197,443	-3%	PR	21	
575	44,811	39,819	1.1	308	2	38,563	16%	PR	27	
533	85,413	80,285	1.1	547	7	87,881	-3%	A+PR	32	
571	36,737	35,500	1.0	839	211	36,633	0%	PR	24	
542	64,963	69,045	0.9	535	6	53,916	20%	PR	28	
510	16,054	18,423	0.9	203	176	18,792	-15%	A+PR	18	
535	36,211	41,640	0.9	453	3	28,770	26%	PR	21	
581*	14,945	18,387	0.8	667	291	22,725	-34%	A+PR	n/a	
541	56,984	70,697	0.8	901	13	56,649	1%	A+PR	31	
531	73,808	98,741	0.7	1,406	8	71,505	3%	A+PR	26	
540	37,996	51,260	0.7	438	4	43,327	-12%	A+PR	26	
560	18,618	25,830	0.7	162	13	14,798	26%	A+PR	26	
521	44,639	63,127	0.7	1,383	20	48,676	-8%	A+PR	19	
573	44,646	63,440	0.7	448	7	44,636	0%	PR	32	
532	32,668	58,061	0.6	899	167	34,307	-5%	A+PR	39	
520	20,917	37,650	0.6	320	7	21,690	-4%	A+PR	19	
512	17,050	33,634	0.5	290	6	19,322	-12%	A+PR	34	
511*	4,479	50,567	0.1	289	4	11,383	-61%	A+PR	n/a	
<b>TOTAL EXPRESS</b>	<b>1,556,376</b>	<b>1,511,217</b>	<b>1.0</b>	<b>17,858</b>	<b>1,656</b>	<b>1,594,969</b>	<b>-2%</b>			

Source: Valley Metro Annual Ridership Report (FY 2010-11)

Data are sorted by Passengers per mile.

\* 511 and 581 do not operate to downtown Phoenix.

\*\* The designation as Park and Ride or Arterial and the estimated distance per trip are not data sets included in Valley Metro's Annual Ridership Report

With the majority of Tempe residents expressing concern about changes to Express Routes 520 and 521, Table 5 provides data on average boardings for each trip during the month of February 2012.

## Agenda Item 2.

**Table 5: Boardings per Trip (February 2012)**

520	Start	End	Feb Average	Seated Capacity	AVG Utilization
520 - Tempe	542a	633a	10	41	24%
520 - Tempe	627a	719a	12	41	29%
520 - Tempe	653a	745a	23	41	57%
520 - Tempe	736a	828a	13	41	32%
520 - Tempe	404p	511p	13	41	31%
520 - Tempe	435p	542p	13	41	32%
520 - Tempe	510p	614p	13	41	32%
520 - Tempe	604p	657p	4	41	9%
<b>Total</b>			<b>101</b>	<b>328</b>	<b>31%</b>

521	Start	End	Feb Average	Seated Capacity	AVG Utilization
521 - Tempe	538a	624a	11	41	26%
521 - Tempe	601a	652a	15	41	37%
521 - Tempe	637a	730a	18	41	43%
521 - Tempe	647a	740a	15	41	36%
521 - Tempe	657a	750a	15	41	37%
521 - Tempe	712a	805a	19	41	46%
521 - Tempe	727a	820a	19	41	46%
521 - Tempe	405p	508p	26	41	63%
521 - Tempe	415p	518p	10	41	24%
521 - Tempe	438p	541p	17	41	42%
521 - Tempe	452p	555p	17	41	41%
521 - Tempe	512p	614p	18	41	43%
521 - Tempe	605p	658p	8	41	19%
<b>Total</b>			<b>196</b>	<b>492</b>	<b>40%</b>

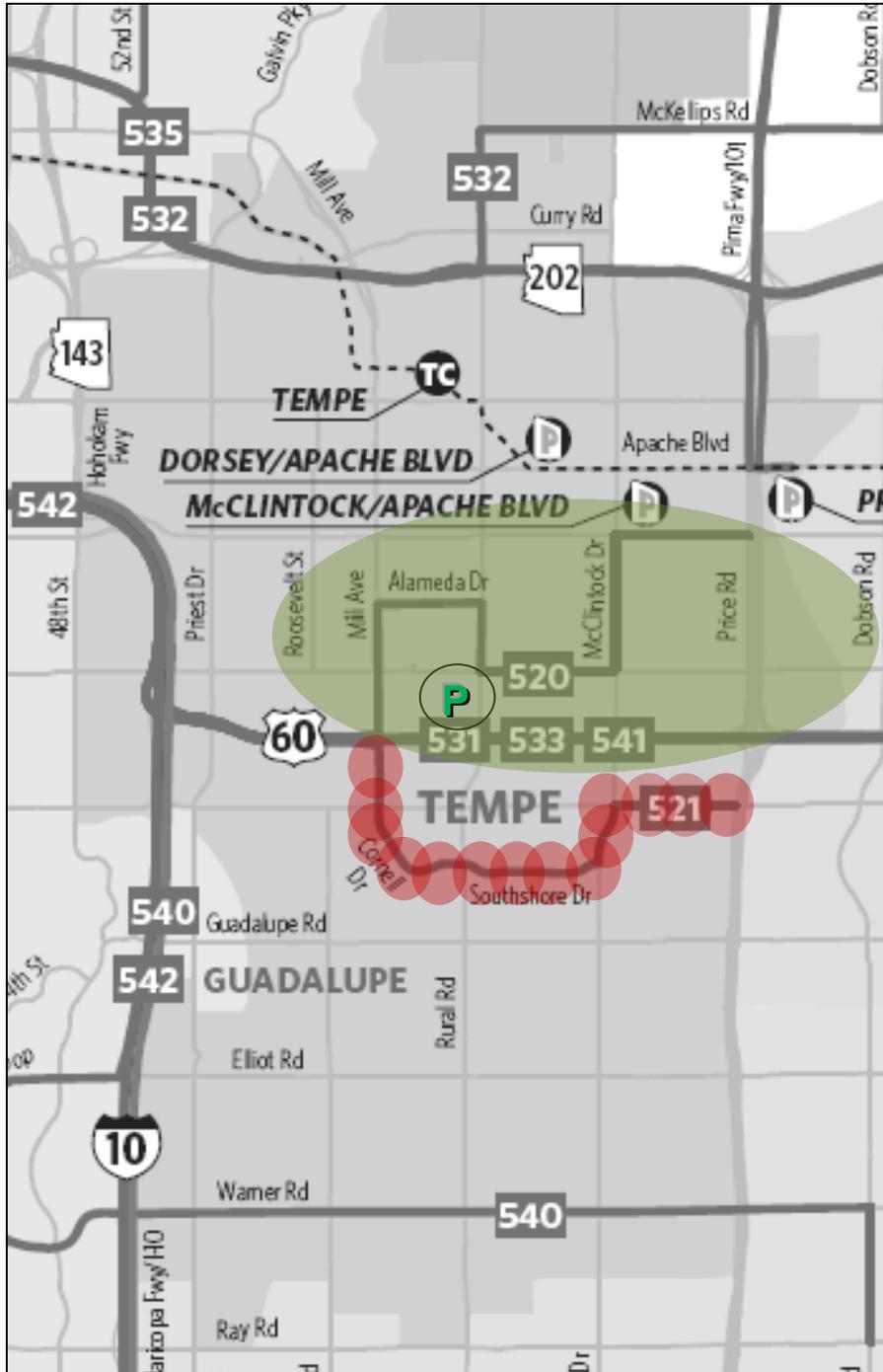
Source: City of Tempe, Fare Collection and Ridership Reporting System

Valley Metro/RPTA is heavily emphasizing park-and-ride based Express Bus service over arterial-neighborhood based service. In general, due to faster travel time and wider passenger capture areas, park and ride oriented express bus services have been shown to outperform arterial based service. But there are trade-offs to consider, particularly in Tempe's case:

- **The arterial based approach** allows for convenient walk access within ¼ mile of the route corridor, limits auto use on local streets, and is well suited to areas with high residential density. However, operation in mixed-traffic combined frequent stops increases distance and overall travel time making the system less attractive to those that do not live within ¼ mile of the route. Existing park and ride lots along the current routes are generally small, informal, and/or at the middle or beginning of the route. Figure 1 attempts to illustrate the
- **The park and ride approach** offers a wider passenger capture area and reduces overall travel time. Travel time has been shown to be the most important factor in building express bus ridership. Moving to this approach would increase auto use on local streets as a portion of existing access the sites and other choose to drive. This may be offset by the potential of new riders parking and riding instead of driving to Phoenix. However, the incentive to use park and ride based service may be lower the closer the origin points (Central and south Tempe) are to the downtown district (Downtown Phoenix), meaning once a person is in their car, it may be easier to simply drive the rest of the way. The incentive to access park-and-ride based service increases the farther away the origin points are from the downtown destination.

Figure 1 illustrates the different capture areas of both the arterial model and park and ride model.

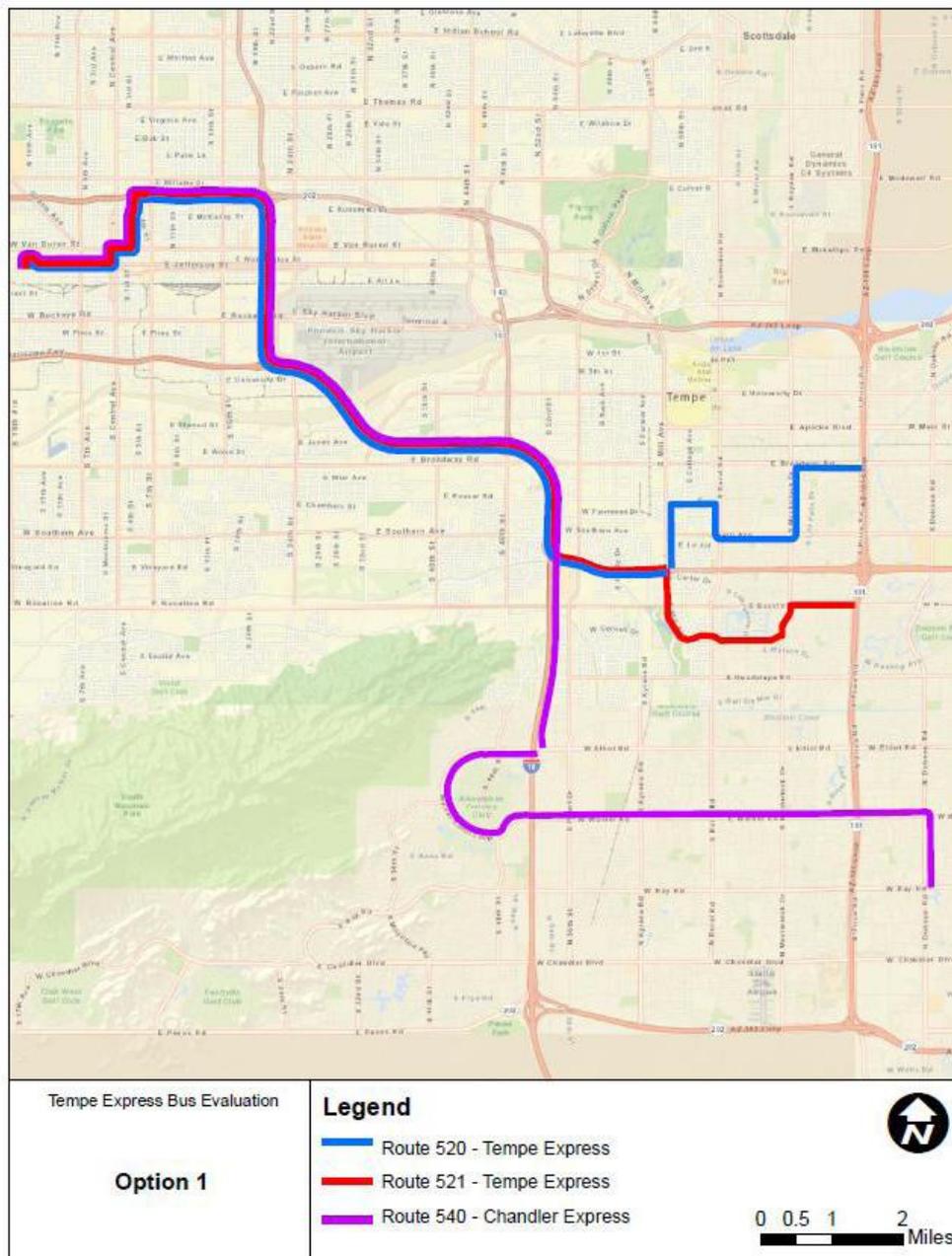
Figure 1: Illustration of Arterial Based Service (521) and Park and Ride Based Service (520 Area)



## Agenda Item 2.

Since the beginning of the public process in February 2012, 5 options restructuring options have been evaluated to improve the performance of Express Bus Routes 520, 521, and 540. Each of these varies in their emphasis on park and ride service or arterial based service, but all are intended to improve the performance of the routes. These are summarized below. Maps for options 1, 2, 3, 3A, and 4 were developed by HDR Engineering.

**Option 1 – Maintains today’s existing arterial based service but reduces existing service levels for Routes 520, 521, and 540.** This option was not presented during formal public meetings, but was a response to concerns raised at the meetings. This option was presented to the Express Rider Focus Group, the Transportation Commission, and Council Transportation Committee.

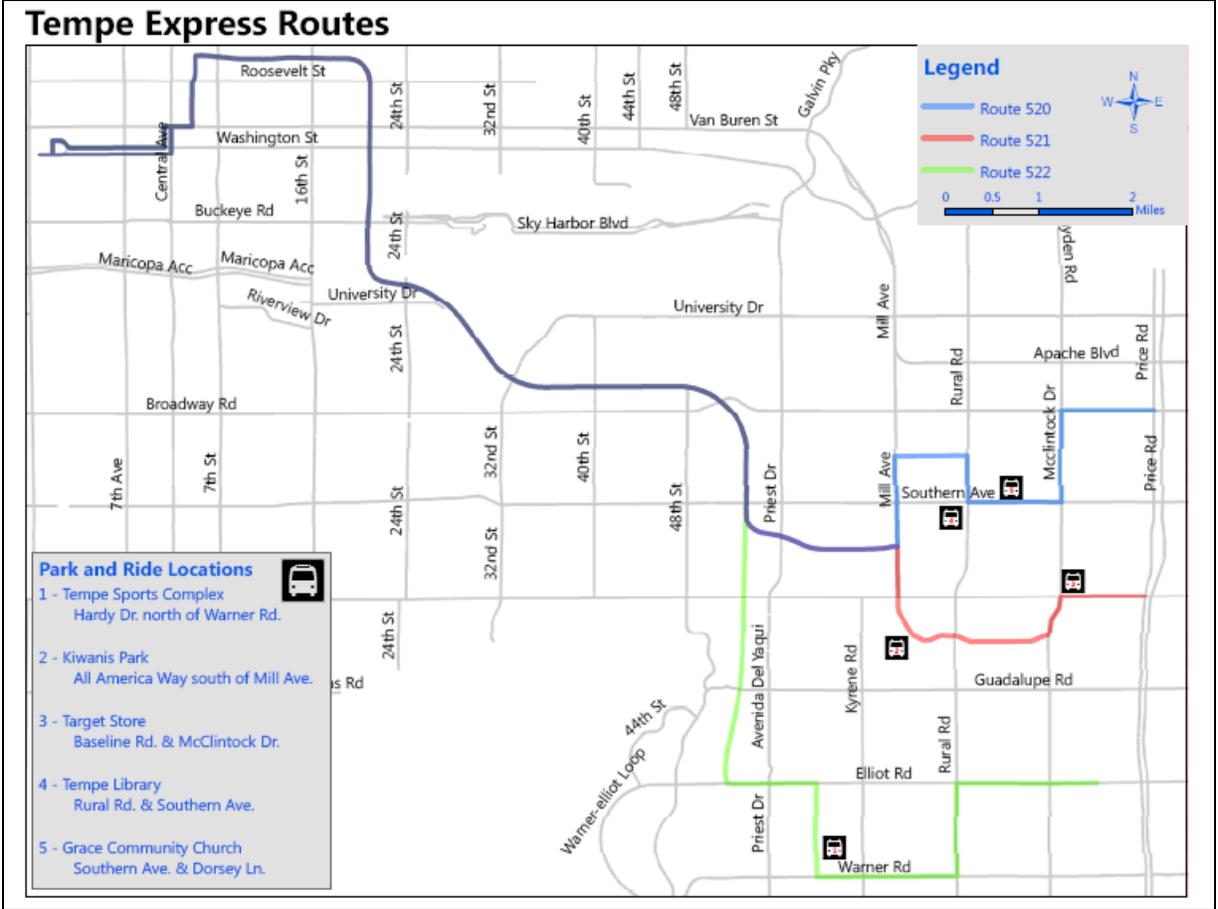


Option 1A: Balanced Approach - **Maintains today's existing arterial based service on Route 520 and 521, but reduces trip levels but reduces trip levels. Modifies Route 540 to operate a long-short trip pattern with direct service to the Tempe Sports Complex Park and Ride.** This is a new option developed based on a balanced assessment of Tempe's transportation priorities with regional goals for the regional Express Bus System, performance statistics, public comments and discussion at the May 8 meetings of the Transportation Commission and Council Transportation Committee, and public comments and discussion at the May 17 meeting of the RPTA Board of Directors.

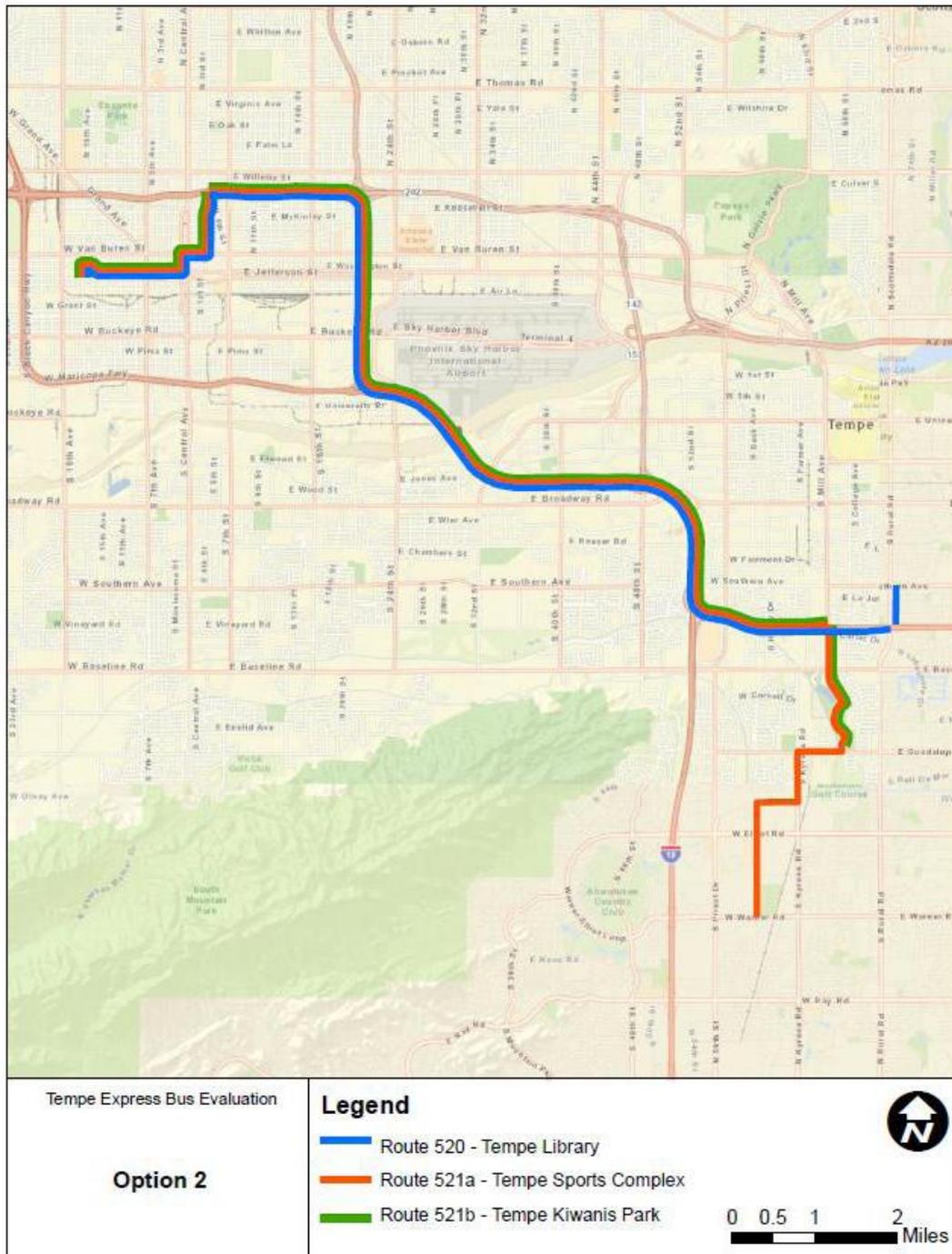
This is option has the following features (MAP provided on page 18):

- 520 - Maintains today's walk-access based routing but reduces trips from 4 morning inbound and 4 afternoon outbound trips to 2 morning inbound and 2 afternoon outbound trips; adds the Tempe Public Library Complex as a park and ride option.
- 521 - Maintains today's walk-access based routing but reduces trips from 7 morning inbound and 6 afternoon outbound trips to 4 morning inbound and 4 afternoon outbound trips; formalizes a park and ride location at the north end of Kiwanis Park.
- 540 (Renamed 522) – Modifies today's routing to provide 2 morning inbound trips from a new park and ride location at the Tempe Sports Complex (Warner and Hardy) and 2 afternoon outbound trips. In addition, 2 morning inbound trips (and 2 afternoon outbound trips) would provide walk-access service on Elliot Rd, Rural Rd., and Warner Rd. before stopping at the Tempe Sport Complex also. The re-routing of the walk-access trips from the present configuration of the 540 is due to the higher residential densities that exist adjacent to Elliot Rd. and Rural Rd. in contrast to Warner Rd in eastern Tempe. Bus stops will be efficiently cited and schedules developed to maximize speeds to Phoenix.

# Agenda Item 2.

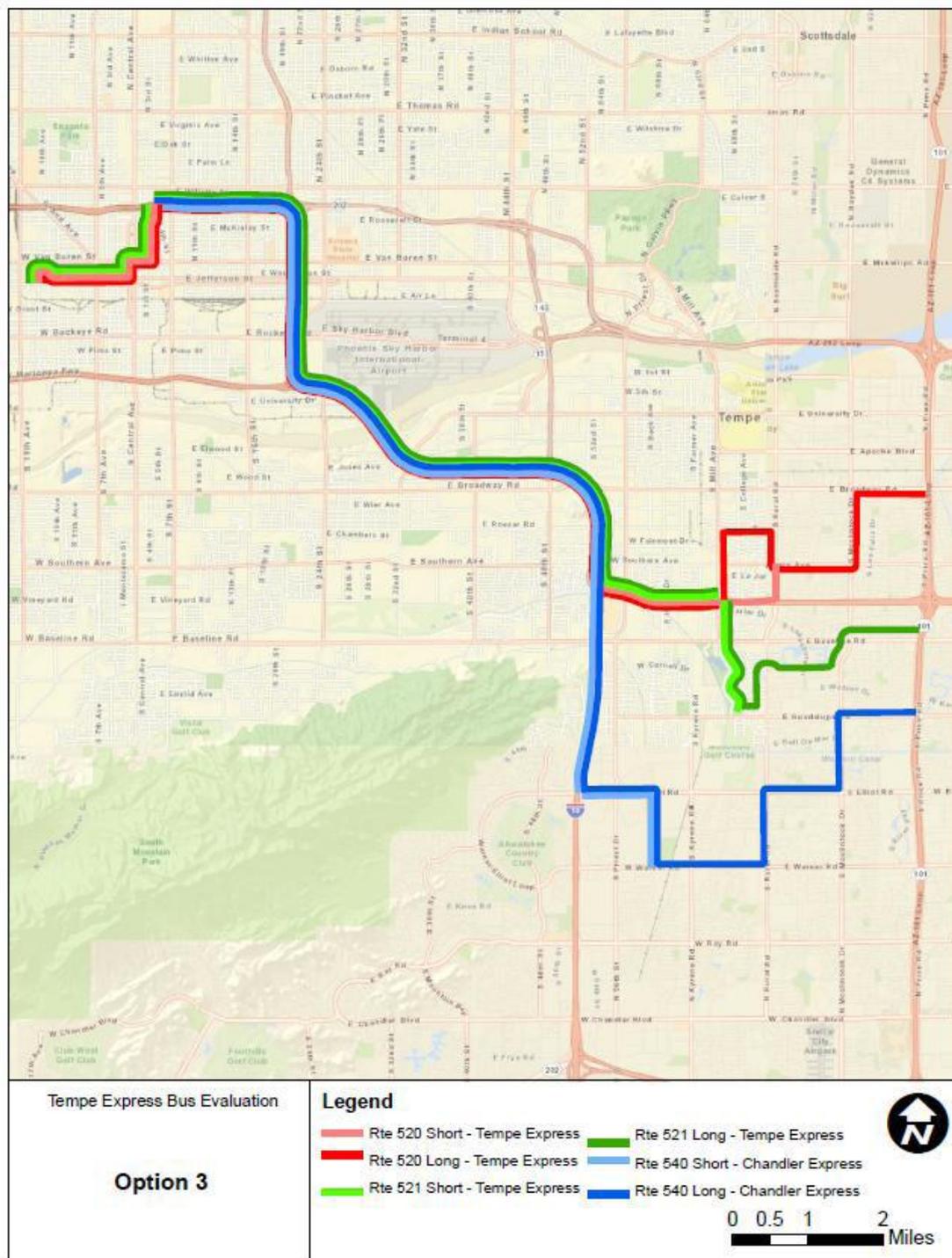


**Option 2 – Implements a Park-and-Ride based system with parking located at the Tempe Sports Complex located at Hardy and Warner, Kiwanis Park, and Tempe Library.** One route would serve the park-and-rides south of US-60, with fewer trips serving Warner/Kyrene park-and-ride than the Kiwanis park-and-ride. Finally, one route would serve the Park-and-ride north of US-60. This option was the original proposal provided as part of the public involvement process which began in February 2012. It was also discussed with the Express Rider Focus Group on March 31 and in subsequent meetings of the Transportation Commission and Council Transportation Committee.

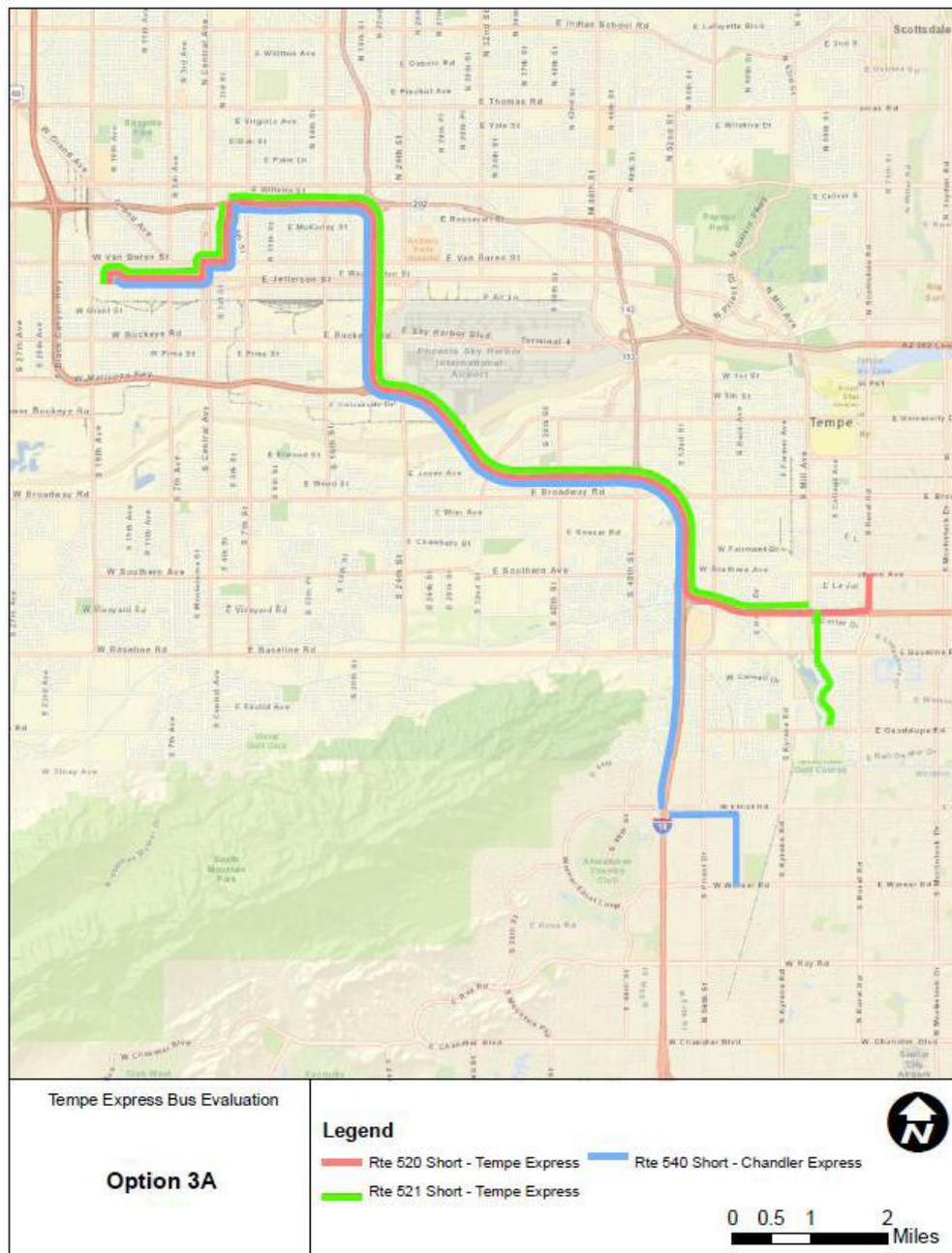


## Agenda Item 2.

**Option 3 – Implements three (3) sets of Long-Short trip patterns that would provide both walk-access and expanded park-and-ride access at the Tempe Library Complex, Kiwanis Park, and the Tempe Sports Complex.** This option was not discussed during the initial public involvement process which began in February 2012, but represents a response to concerns raised at the original public meetings. It was discussed with the Express Rider Focus Group on March 31 and in subsequent meetings of the Transportation Commission and Council Transportation Committee.



**Option 3A – Implements three (3) park and rides sites at the Tempe Library Complex, Kiwanis Park, and the Tempe Sports Complex, but in contrast to option 2, the sites would be served by 3 separate routes instead of 2.** This option was not discussed during the initial public involvement process which began in February 2012, nor was it discussed at the Express Rider Focus Group on March 31. This option’s development was intended to combine elements of options 2 and 3, meet regional goals to expand park and ride facilities and reduce travel time, and improve performance without significantly reducing capacity. This option has been discussed in meetings of the Transportation Commission and Council Transportation Committee, both of which were attended by representatives of the Express Rider Focus Group.



## Agenda Item 2.

**Option 4 – Implements a feeder and trunk system with a centralized park and ride at Kiwanis Park. This option maintains walk-access but requires a transfer. It does not actually expand park and ride capacity, but seeks to operate more efficiently by increasing utilization of the trunk trips into downtown Phoenix which represents the longest and most expensive portion of the route. This option was not discussed during the initial public involvement process which began in February 2012, but represents a response to concerns raised at the original public meetings. It was discussed with the Express Rider Focus Group on March 31 and in subsequent meetings of the Transportation Commission and Council Transportation Committee.**

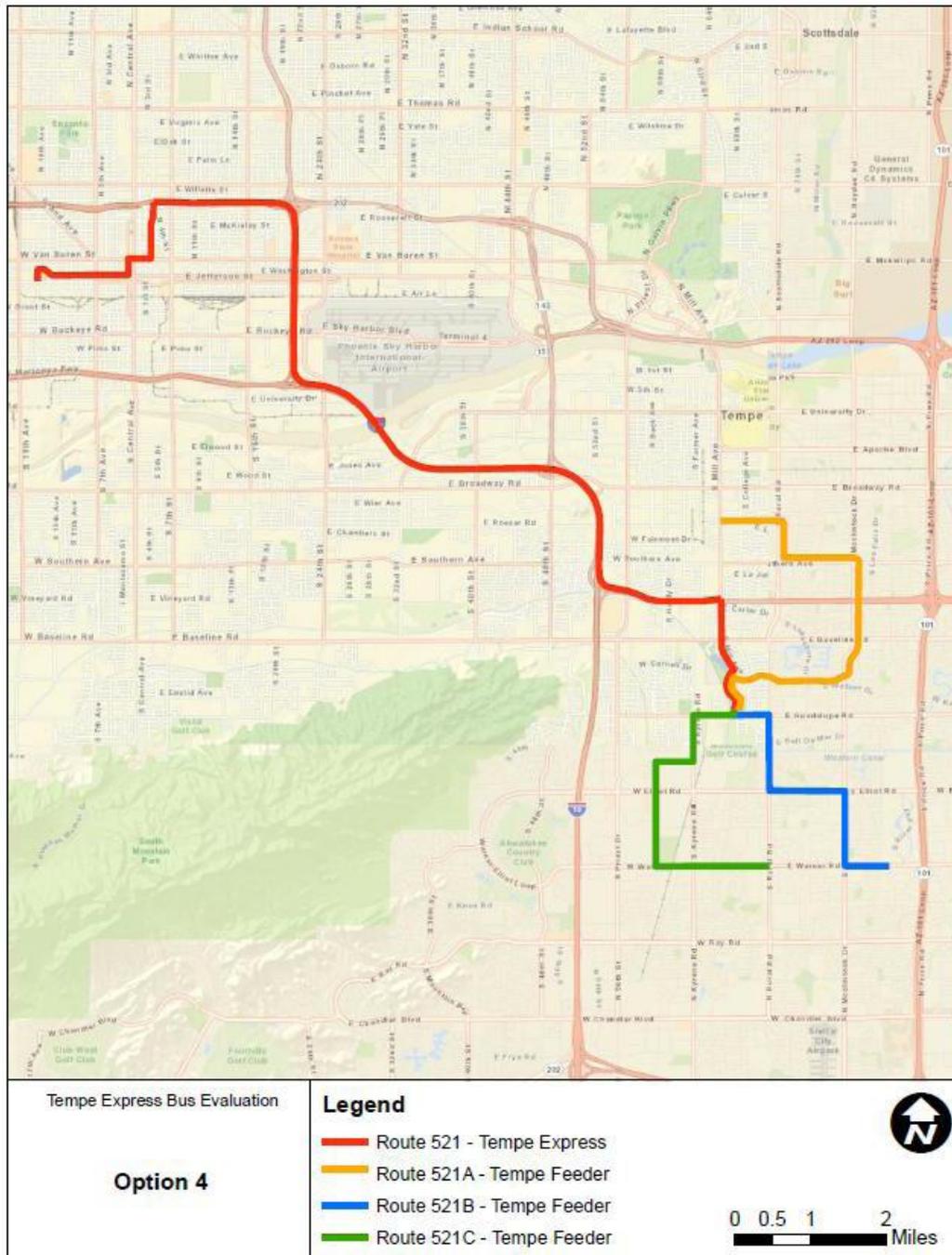


Table 6 presents cost, boardings, and performance data associated with all the options discussed to date. Option 1A emerges as an approach that reasonably balances walk-access and park-and-ride access while also improving performance and cost-effectiveness, and reducing overall cost.

**Table 6: Express Bus Options (520, 521, 540): Cost, Boardings, and Performance Data**

	A.M. Trips	P.M. Trips	Boardings per Trip	Boardings per Mile	Annual Cost	Fare Rec %	Net Cost	Subsidy per Boarding
<b>Status Quo - Today's Routes and Trips</b>								
520	4	4	11	0.56	\$ 245,478	11%	\$ 218,178	\$ 10.39
521	7	6	14	0.71	\$ 411,585	14%	\$ 353,410	\$ 7.90
540	4	4	19	0.74	\$ 334,217	15%	\$ 284,817	\$ 7.50
<b>Total</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>0.68</b>	<b>\$ 991,279</b>	<b>14%</b>	<b>\$ 856,404</b>	<b>\$ 8.25</b>
<b>Option 1 - Today's Routes; Reduced Trips</b>								
520	3	3	17	0.86	\$ 188,461	17%	\$ 155,961	\$ 6.24
521	5	4	16	0.90	\$ 262,723	18%	\$ 215,598	\$ 5.95
540	3	3	20	0.79	\$ 246,065	16%	\$ 207,065	\$ 6.90
<b>Total</b>	<b>11</b>	<b>10</b>	<b>17</b>	<b>0.85</b>	<b>\$ 697,249</b>	<b>17%</b>	<b>\$ 578,624</b>	<b>\$ 6.34</b>
<b>Option 1A - Balanced Approach: Modified 540; Reduced Trips on 520 and 521</b>								
520	2	2	19	1.00	\$ 122,739	20%	\$ 98,169	\$ 5.19
521	4	4	20	1.04	\$ 253,289	21%	\$ 200,932	\$ 4.99
540	4	4	15	0.81	\$ 241,240	16%	\$ 202,240	\$ 6.74
<b>Total</b>	<b>10</b>	<b>10</b>	<b>18</b>	<b>0.94</b>	<b>\$ 617,268</b>	<b>19%</b>	<b>\$ 501,341</b>	<b>\$ 5.62</b>
<b>Option 2 - Original Park-and-Ride Proposal</b>								
520 - Tempe Library Complex	4	4	14	0.90	\$ 199,007	18%	\$ 163,257	\$ 5.94
521a - Tempe Sports Complex	3	3	15	0.80	\$ 183,228	16%	\$ 153,978	\$ 6.84
521b - Kiwanis Park	4	4	14	0.88	\$ 203,897	18%	\$ 168,147	\$ 6.11
<b>Total</b>	<b>11</b>	<b>11</b>	<b>14</b>	<b>0.86</b>	<b>\$ 586,132</b>	<b>17%</b>	<b>\$ 485,382</b>	<b>\$ 6.26</b>
<b>Option 3 - Long-Short Approach</b>								
520	4	4	13	0.72	\$ 225,103	14%	\$ 192,603	\$ 7.70
521	7	7	15	0.86	\$ 390,760	17%	\$ 324,135	\$ 6.32
540	4	4	15	0.75	\$ 259,496	15%	\$ 220,496	\$ 7.35
<b>Total</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>0.79</b>	<b>\$ 875,359</b>	<b>16%</b>	<b>\$ 737,234</b>	<b>\$ 6.94</b>
<b>Option 3A - Revised Park-and-Ride Proposal</b>								
520 - Tempe Library Complex	4	4	14	0.90	\$ 199,007	18%	\$ 163,257	\$ 5.94
521 - Kiwanis Park	7	7	14	0.91	\$ 356,416	18%	\$ 291,416	\$ 5.83
540 - Tempe Sports Complex	4	4	15	0.87	\$ 223,636	17%	\$ 184,636	\$ 6.15
<b>Total</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>0.90</b>	<b>\$ 779,059</b>	<b>18%</b>	<b>\$ 639,309</b>	<b>\$ 5.95</b>
<b>Option 4 - Feeder System</b>								
Combined Feeders + Trunk	12	12	14	0.88	\$ 601,128	18%	\$ 495,503	\$ 6.10
<b>Notes:</b>								
Green shaded cels indicate best performance in that cost, revenue or performance category.								
Boardings statistics for options 1, 2, 3, 3A and 4 developed by HDR, 2012								
Boardings statistics for option 1A based on current performance of 520 and 521; 540 based on HDR, 2012								
An average fare assumption of \$1.30 is used for all options to generate fare revenue								
Cost per revenue mile is assumed to be \$6.52; not revenue credits assumed (i.e., federal PM)								
All data are for the total route, not just Tempe's portion.								

## Agenda Item 2.

The Express Rider Focus Group reviewed options 1-4 at its March 31 focus group meeting. Participants favored maintaining the existing walk-access based routes with fewer trips as a way to maintain access for existing users. Options 2, 3 and 4 provide alternatives intended to assess different levels of emphasis on walk-access vs. park and ride access based services. Participants generally favored options 1 and 3 over options 2 and 4 as the ranking below indicates.

**Table 4: Express Bus Rider Ranking of Options**

	Worst	Weight (1-4)			Best
	1	2	3	4	
	Raw Votes				
Alt 1 (Existing-Cut)	0	1	2	7	
Alt 2 (Park-n-Ride)	5	5	0	0	
Alt 3 (Long-Short)	0	0	7	3	
Alt 4 (Feeder)	6	1	3	0	
	Weighted				
					Total
Alt 1 (Existing-Cut)	0	2	6	28	36
Alt 2 (Park-n-Ride)	5	10	0	0	15
Alt 3 (Long-Short)	0	0	21	12	33
Alt 4 (Feeder)	6	2	9	0	17

Option 1A described earlier may be considered a hybrid of options 1 and 3.

### RECOMMENDATIONS

Given the magnitude of potential revenue and/or cost savings associated with the foregoing items (Regional Fare Increase, Federal Funding, Bus Unification, and Orbit Fleet CNG Conversion) and the timing for decisions, staff recommend the following set of service changes:

**Performance-Efficiency Improvements (\$429,000)** – As indicated in *Table 3 - Bus Service Changes Ranking* above, implement minor route changes to Orbit Earth, Mars and Jupiter. These changes are designed to reduce less productive segments, improve efficiency, decrease overall travel time, and reduce cost.

**Orbit Fleet Replacement (500,000)** – Replace 35 existing Orbit buses (24 foot cutaway style; unleaded gas) which have surpassed their useful life with 24 foot cutaway style buses that utilize CNG. With respect to discussions on the testing of a larger bus with better design features, staff recommend deferring the public involvement process and vehicle prototype evaluation until a vehicle type and technology emerge (e.g., pure electric with sufficient range, inductive charging) which can compete with the 24 foot cutaway CNG on the economics as presented on page 8. In addition, this process would be timed to coincide with the next cycle of fleet replacements beginning in 2014-15 and extending to 2019 to achieve better fleet age stratification.

**Express Route Recommendations:**

- Implement originally proposed modifications to Express Bus Route 511 (See Attachment A);
- Eliminate 532 as originally proposed (see Attachment A);
- Restructure routes 520, 521, and 540 in accordance with **Option 1A** presented on pages 17 and 18;
- Develop a targeted marketing plan to promote use of Express Bus service;
- Evaluate performance after 12 months of service; evaluate during summer of 2013; present additional modifications if necessary for public input during the fall of 2013; implement any necessary changes in January 2014.

**ATTACHMENTS:**

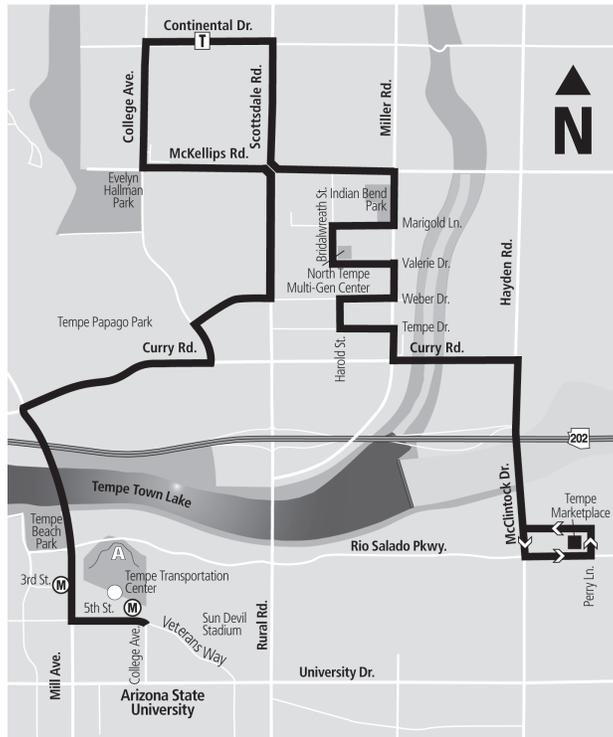
Attachment A – Overview of Service Change Proposals and Maps

Attachment B – Survey Instrument

Attachment C – Tempe Ridership Statistics

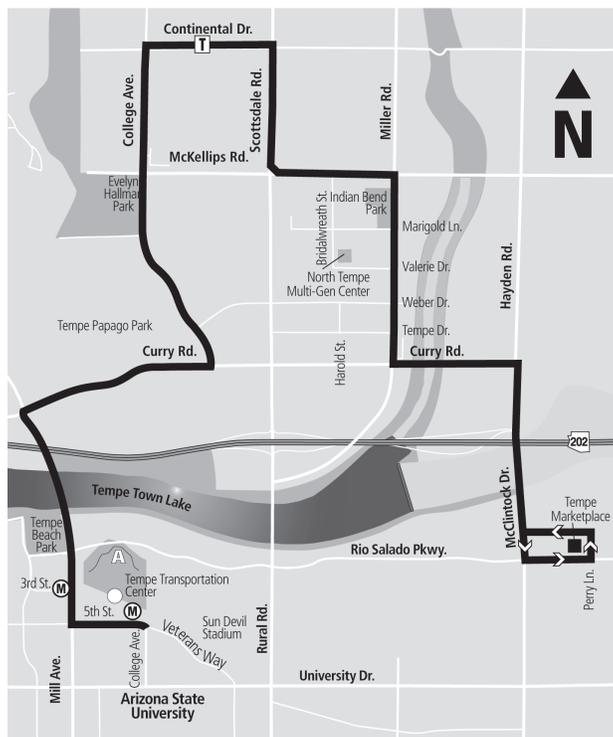
Attachment D – Marketing Plan

## Current Route



Ⓜ Metro Light Rail stop

## Proposed Changes



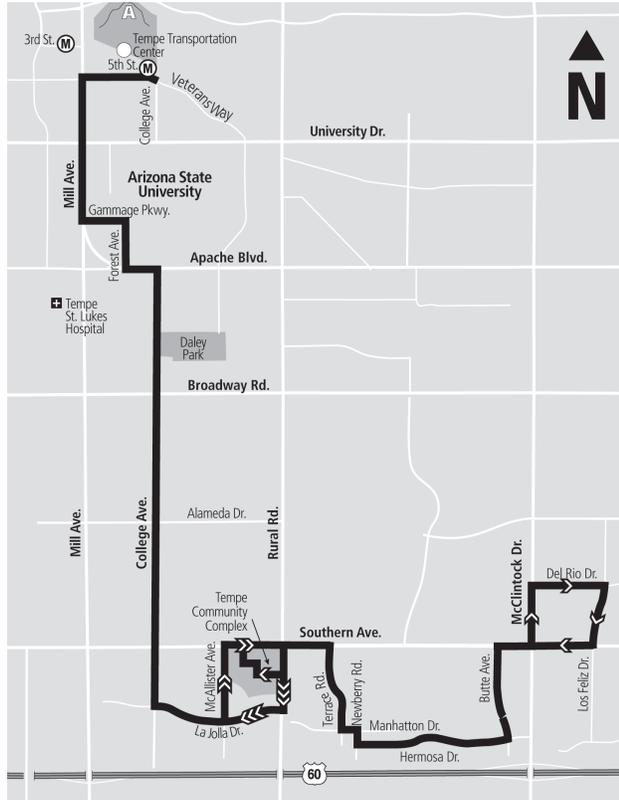
Ⓜ Metro Light Rail stop



# Orbit - Jupiter

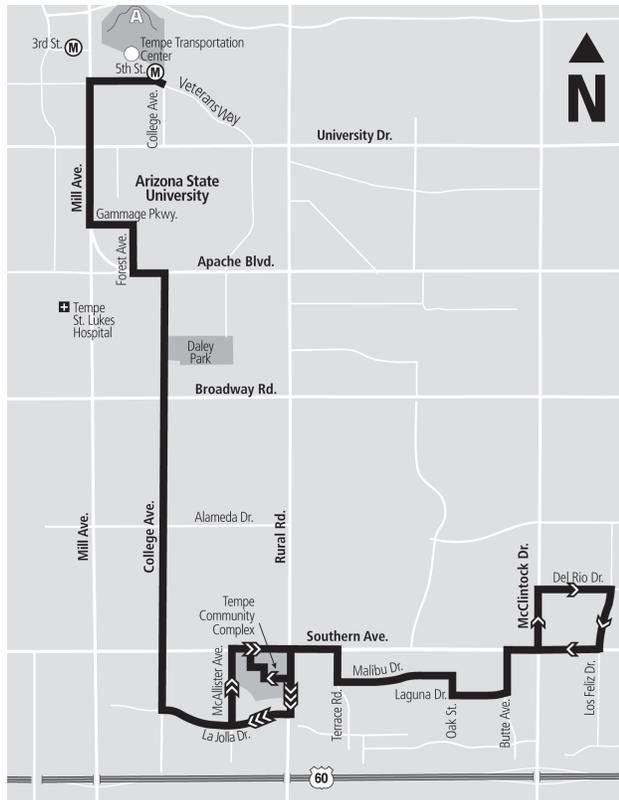
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## Current Route



M Metro Light Rail stop

## Proposed Changes



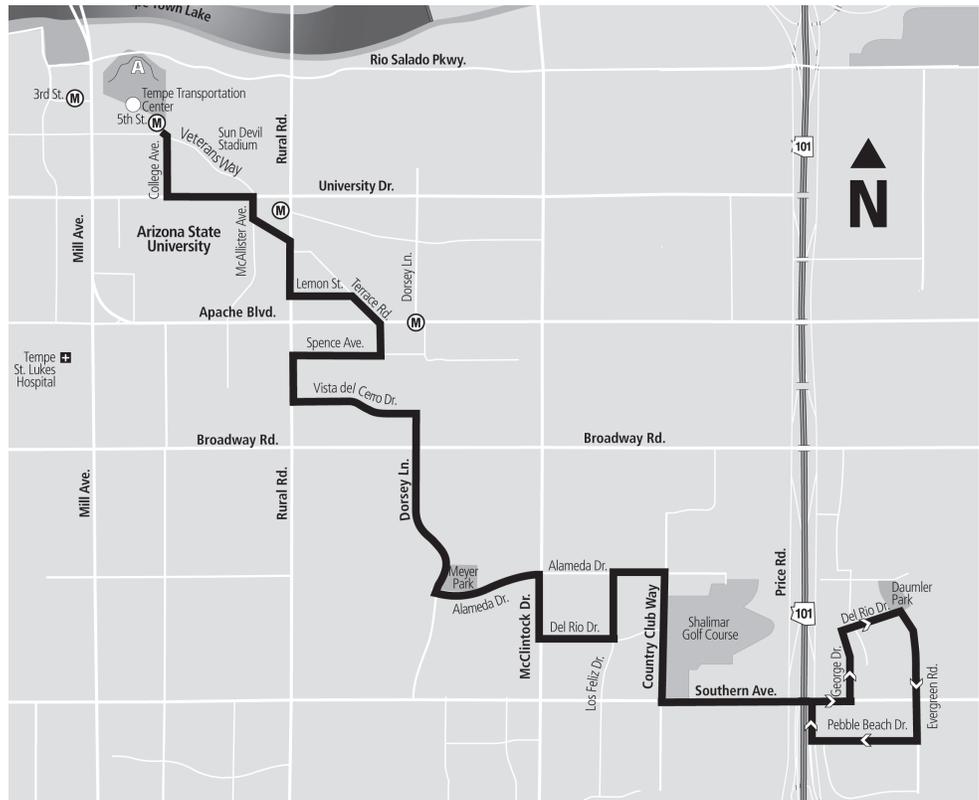
M Metro Light Rail stop

# Agenda Item 2. Orbit - Mars

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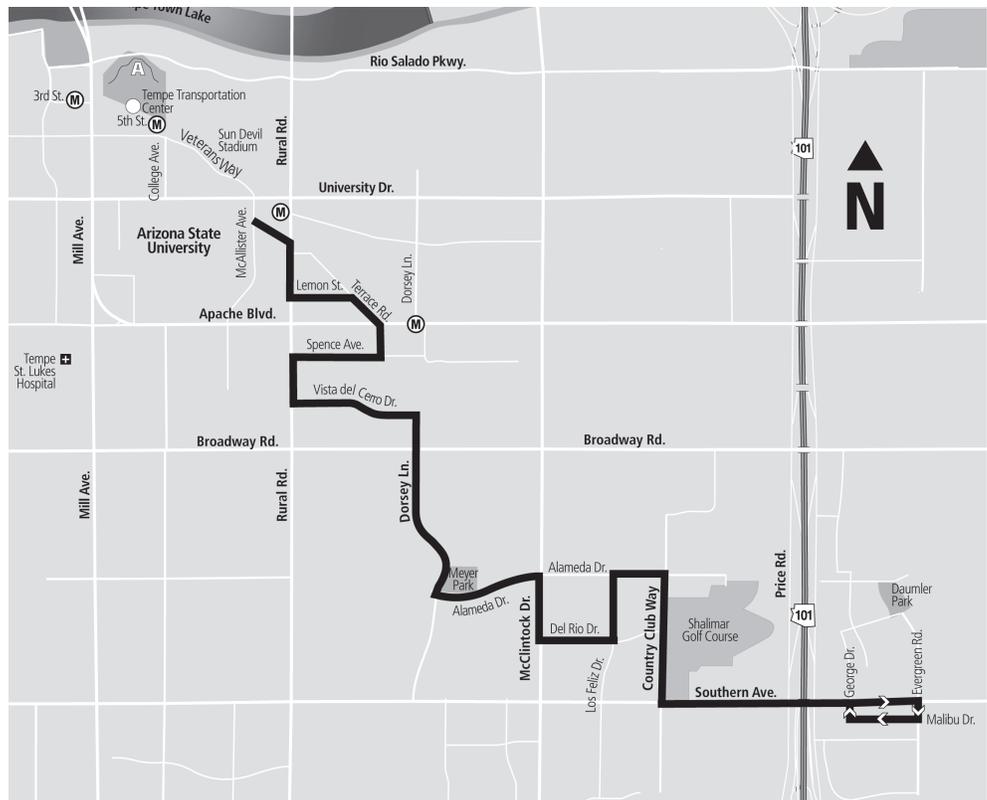


## Current Route



Metro Light Rail stop

## Proposed Changes



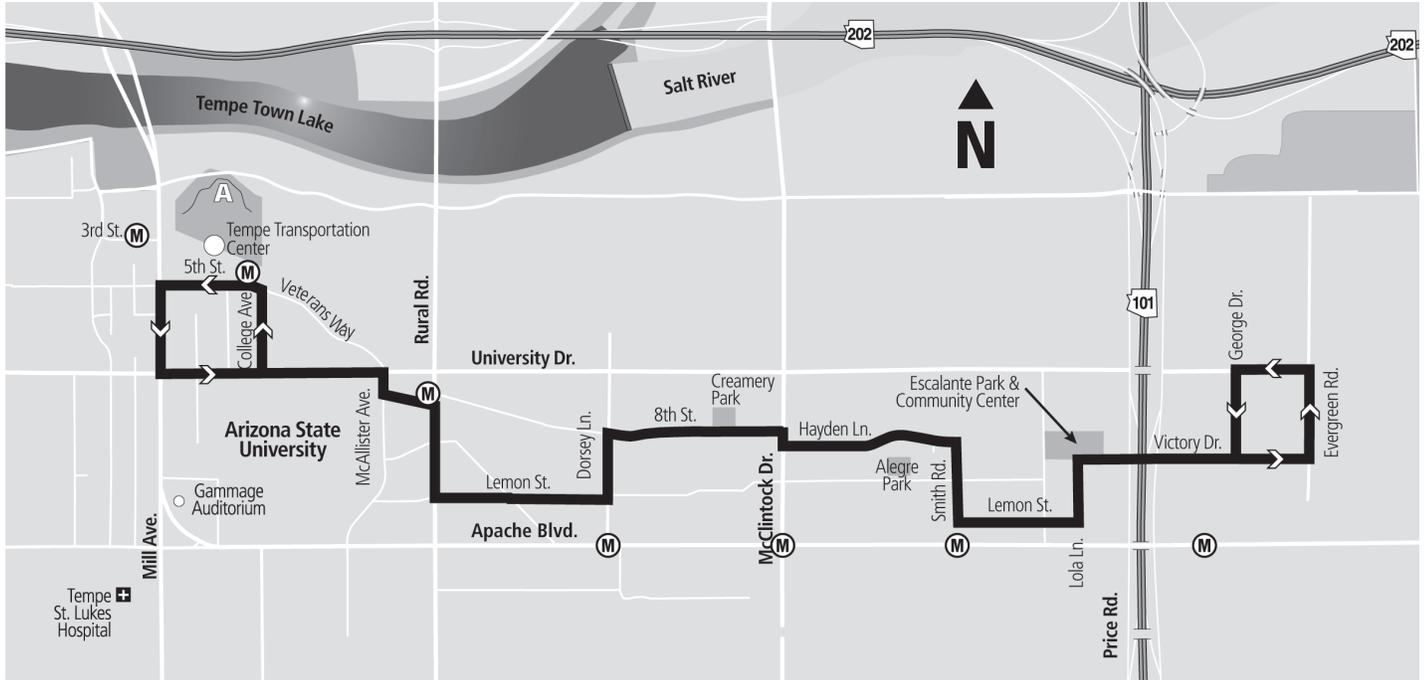
Metro Light Rail stop



# Orbit - Mercury

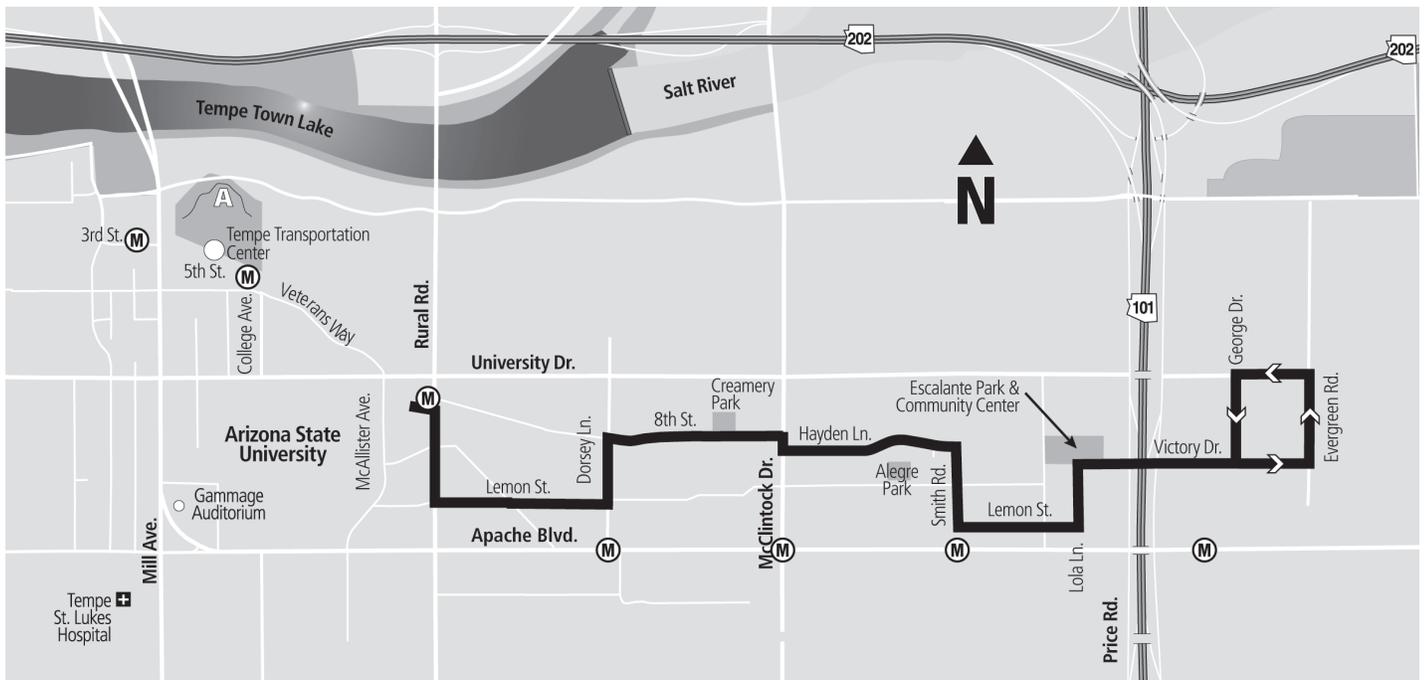
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## Current Route



M Metro Light Rail stop

## Proposed Changes



M Metro Light Rail stop

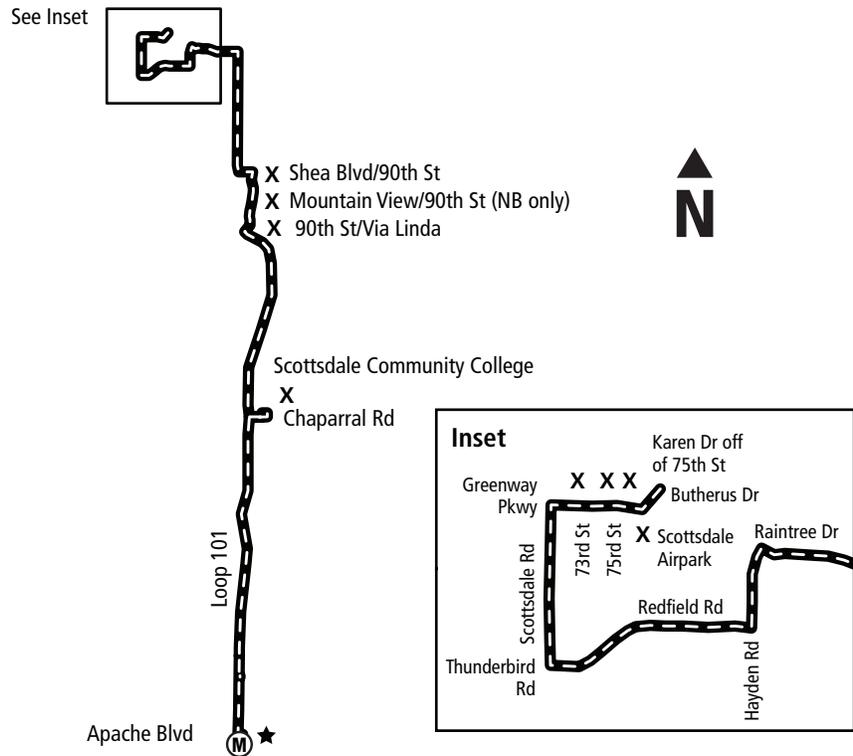
# Agenda Item 2. Express 511

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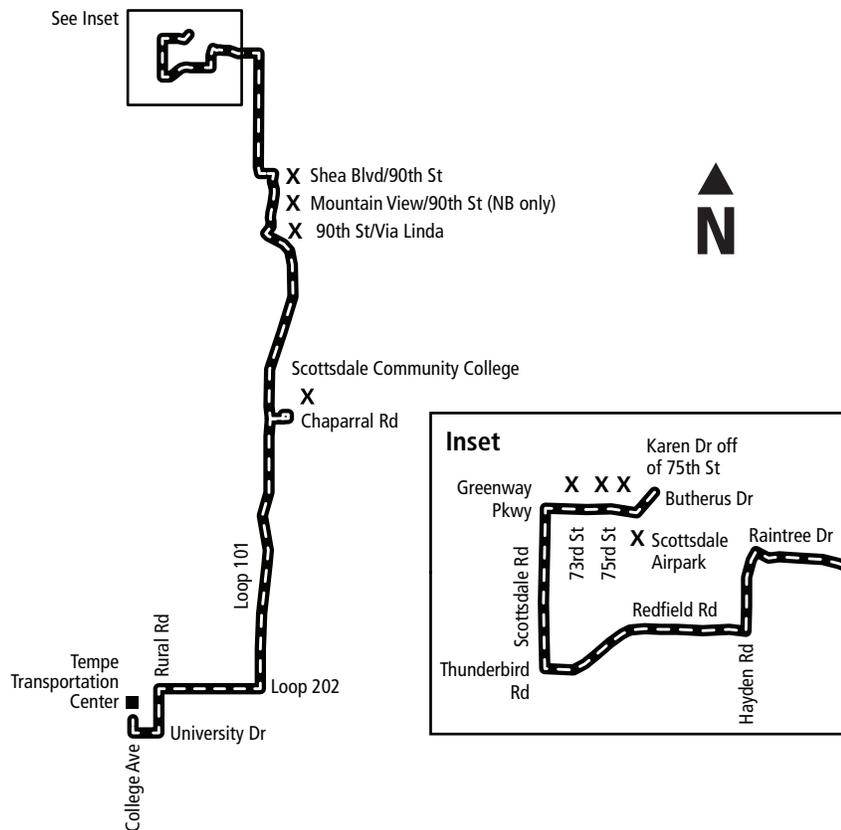
## Current Route

- ★ Park and Ride
- Nonstop Express
- X Indicates an "exception stop;" a bus stop along an Express route at which passengers may board or deboard
- Metro Light Rail stop



## Proposed Changes

- Nonstop Express
- X Indicates an "exception stop;" a bus stop along an Express route at which passengers may board or deboard



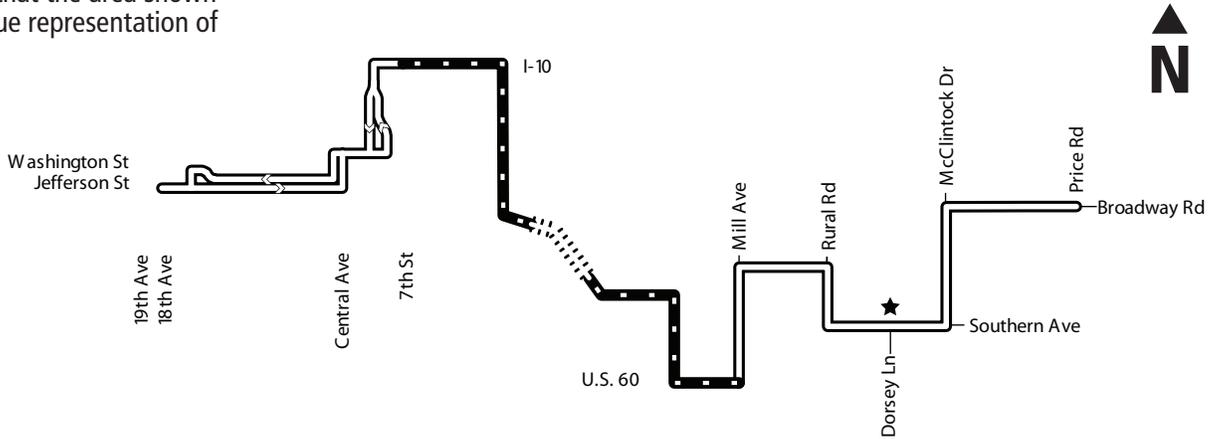


# Express 520

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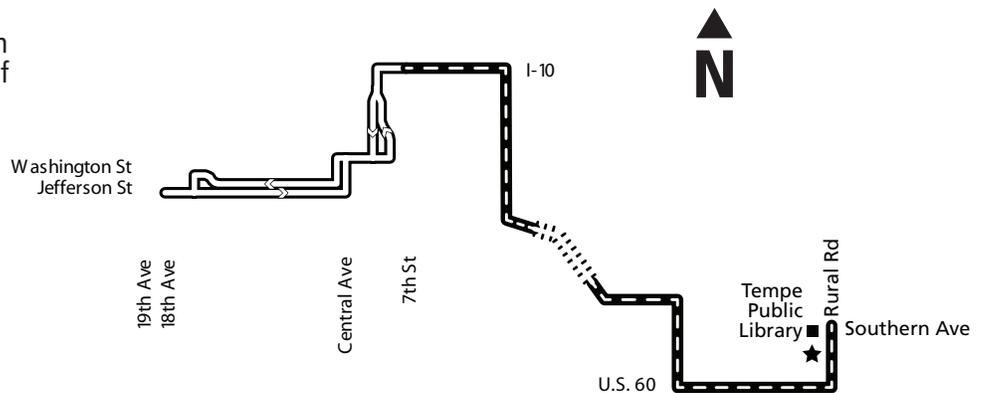
## Current Route

- ★ Park and Ride
- == Weekday Service only
- ≡ Nonstop Express
- ⋯⋯⋯ Indicates that the area shown is not a true representation of distance



## Proposed Changes

- ★ Park and Ride
- == Weekday Service only
- ≡ Nonstop Express
- ⋯⋯⋯ Indicates that the area shown is not a true representation of distance

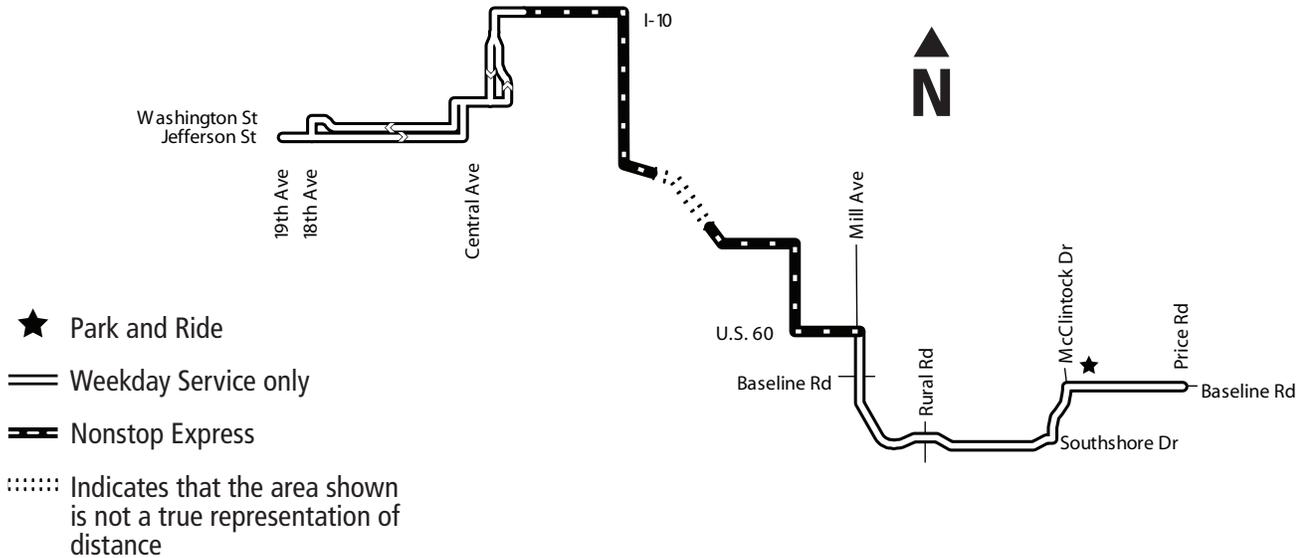


# Agenda Item 2. Express 521

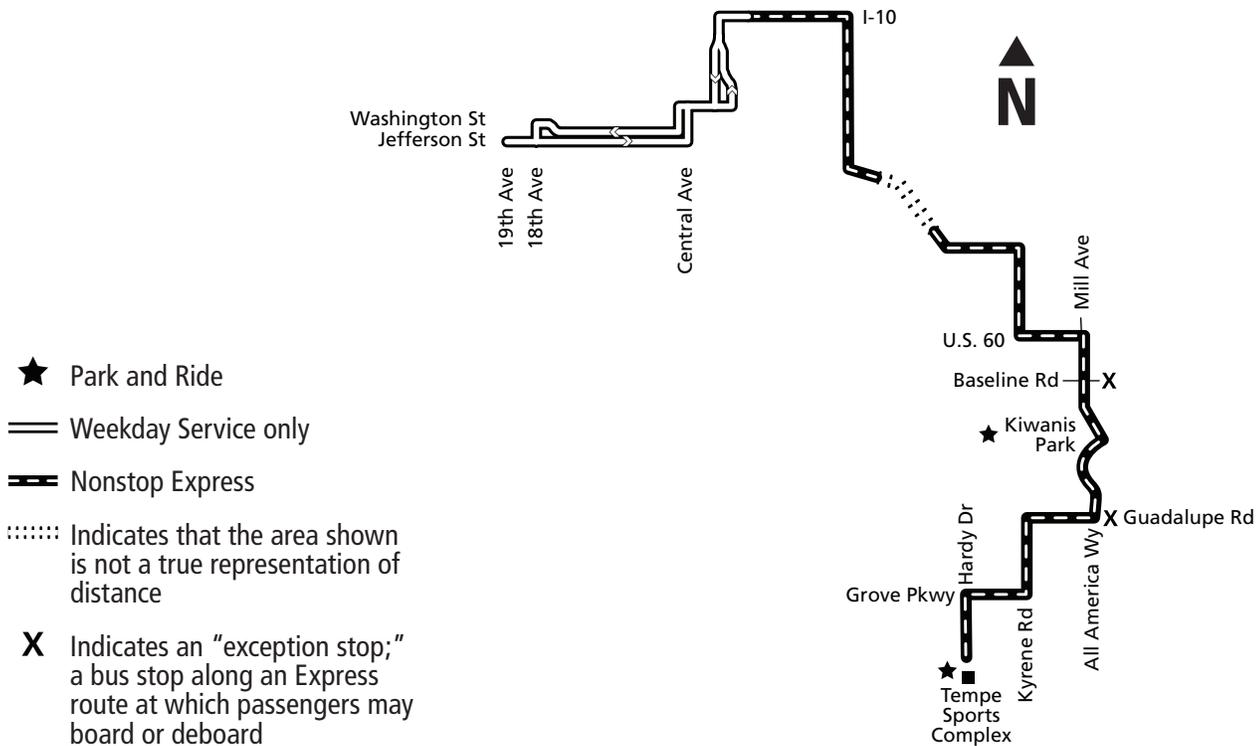
for July 2012 · [www.tempe.gov/tim](http://www.tempe.gov/tim)



## Current Route



## Proposed Changes

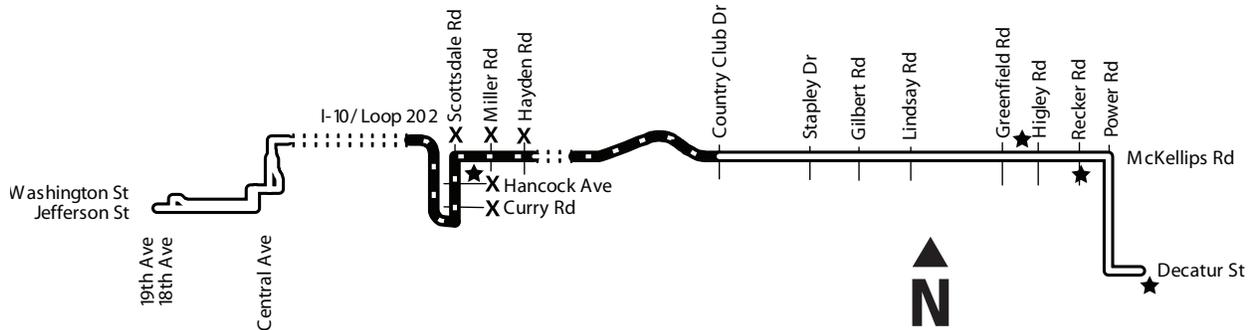




# Express 532

for July 2012 · [www.tempe.gov/tim](http://www.tempe.gov/tim)

## Current Route



- ★ Park and Ride
- == Weekday Service only
- ≡ Nonstop Express
- ⋯⋯⋯ Indicates that the area shown is not a true representation of distance
- X Indicates an "exception stop;" a bus stop along an Express route at which passengers may board or deboard

## Proposed Changes

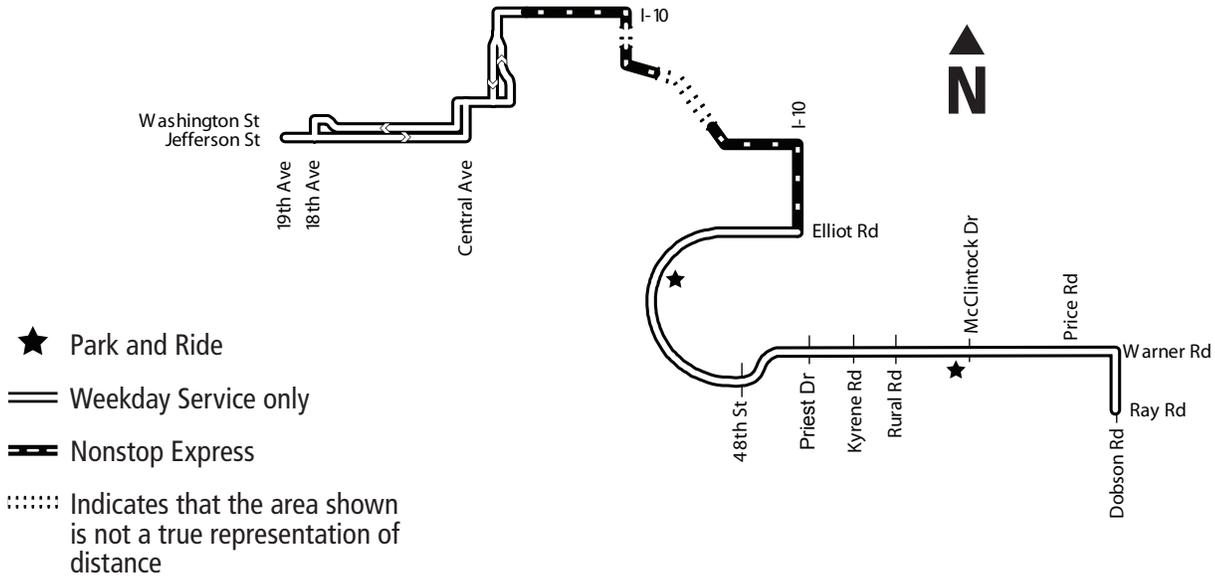
- Entire route eliminated
- Current Express riders are encouraged to use Route 72 or Orbit Earth to connect with light rail.

# Agenda Item 2. Express 540

for July 2012 · [www.tempe.gov/tim](http://www.tempe.gov/tim)

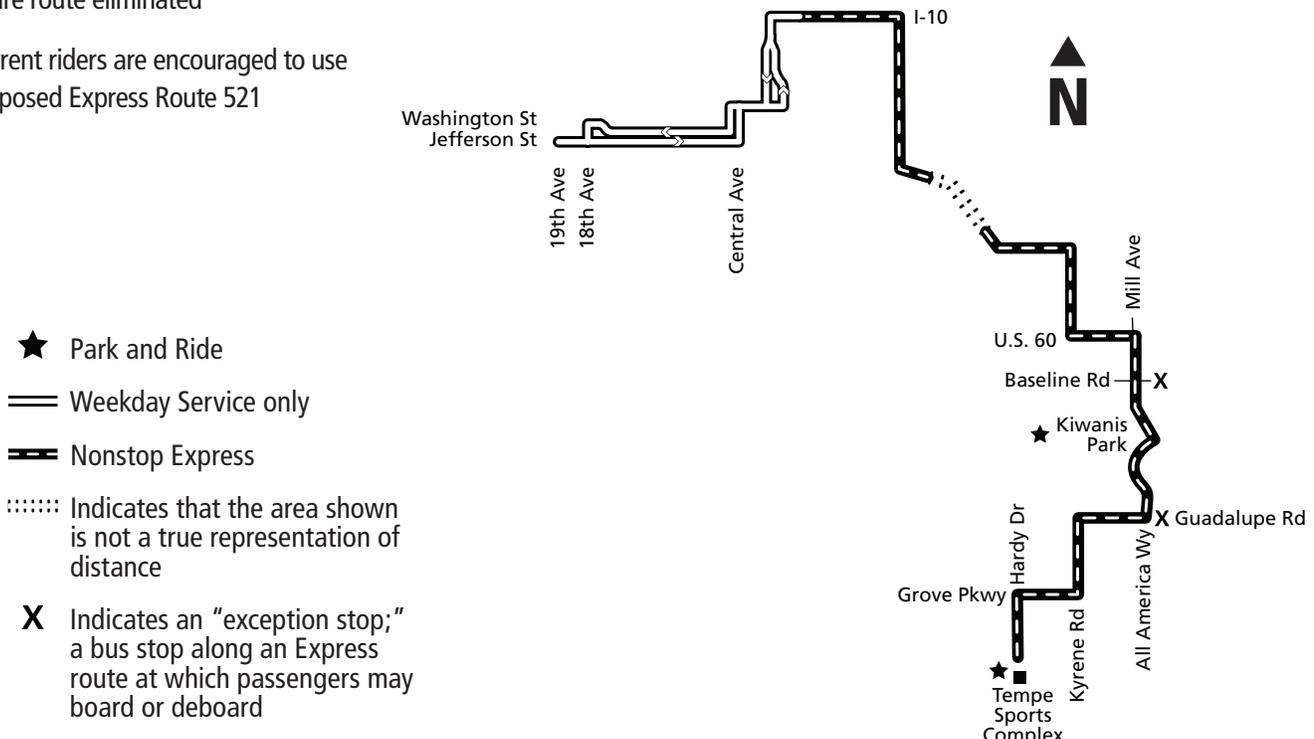


## Current Route



## Proposed Changes

- Entire route eliminated
- Current riders are encouraged to use proposed Express Route 521

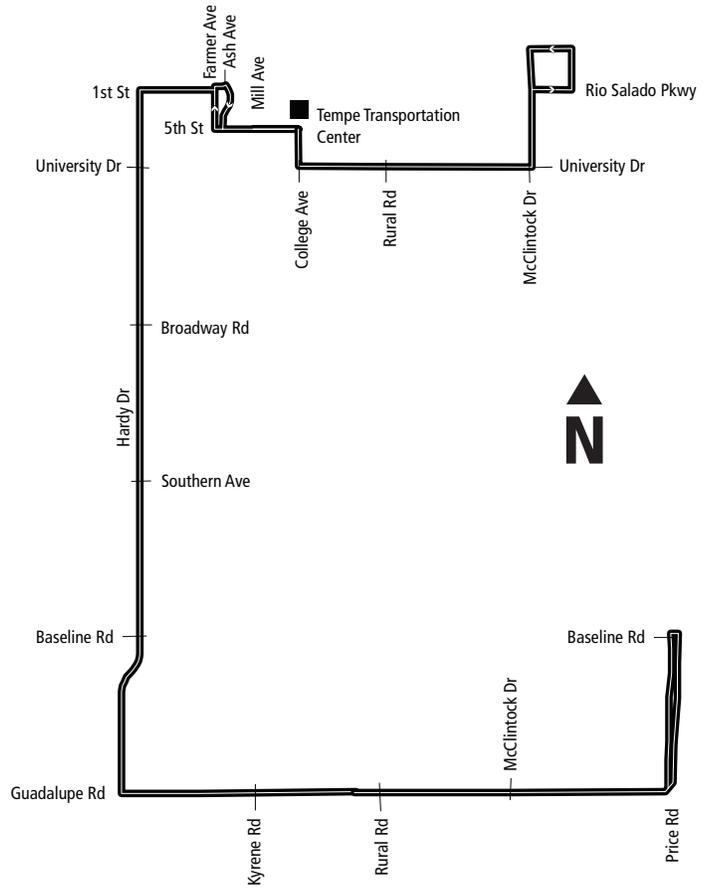


# Route 62 - Hardy/Guadalupe - Extension to Country Club Dr

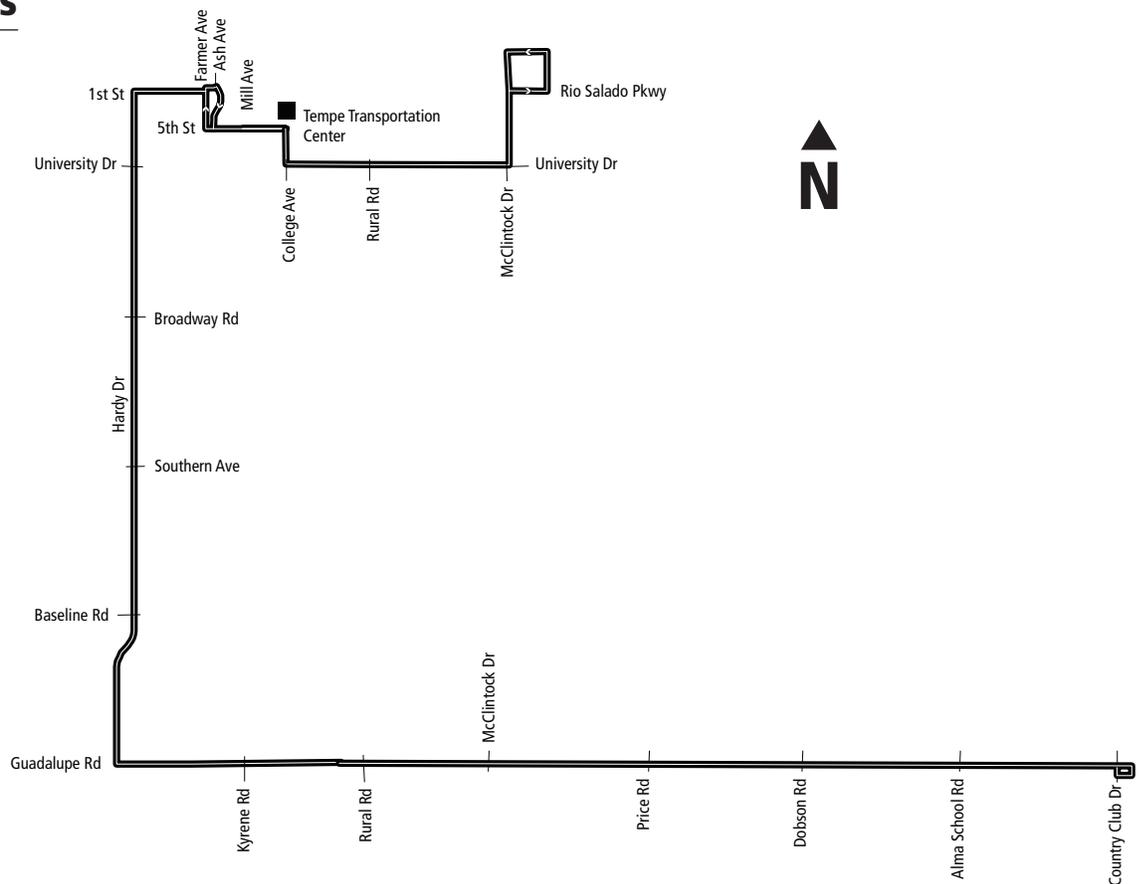
for July 2012 · [www.tempe.gov/tim](http://www.tempe.gov/tim)



## Current Route



## Proposed Changes



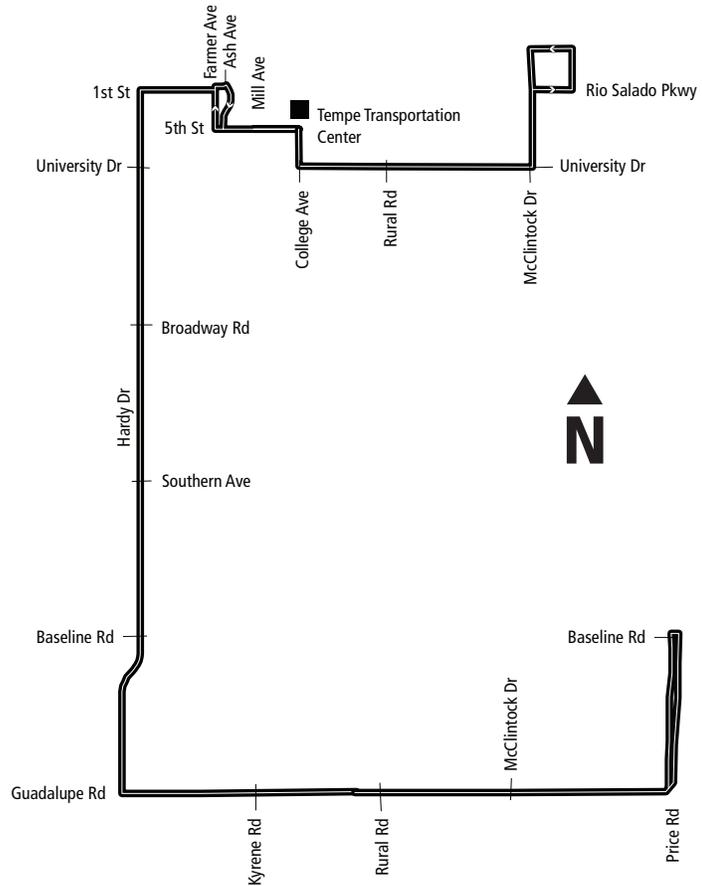
**Agenda Item 2.**

# Route 62 - Hardy/Guadalupe - Elimination of segment between Tempe Transportation Center and Tempe Marketplace

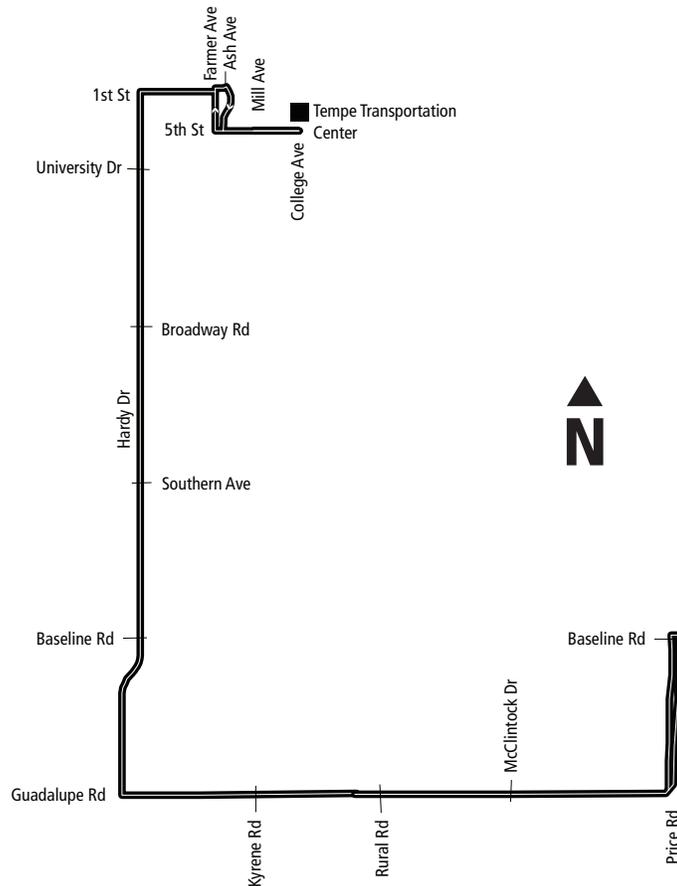
for July 2012 · [www.tempe.gov/tim](http://www.tempe.gov/tim)



## Current Route



## Proposed Changes

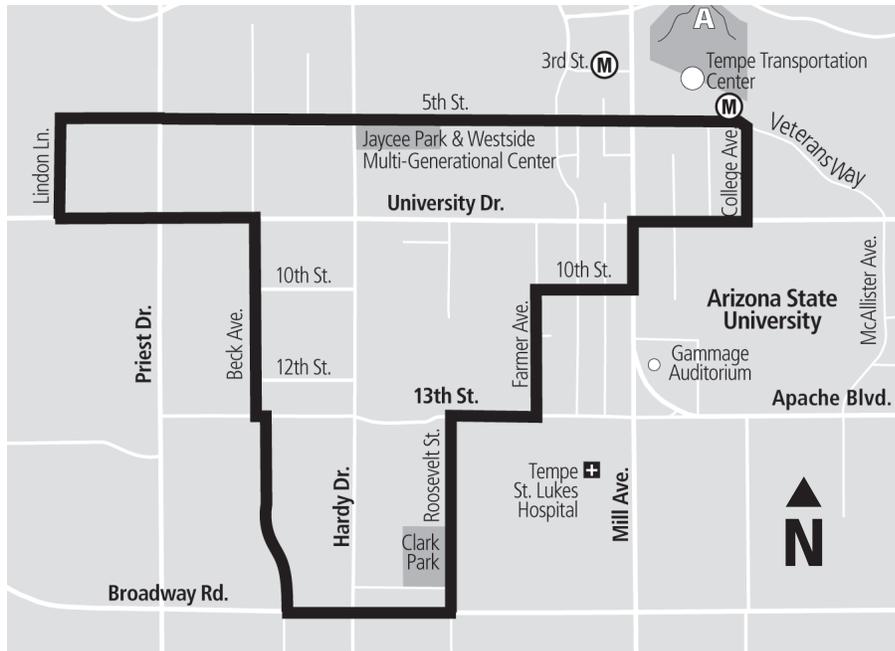




# Orbit - Venus

for July 2012 · www.tempe.gov/tim

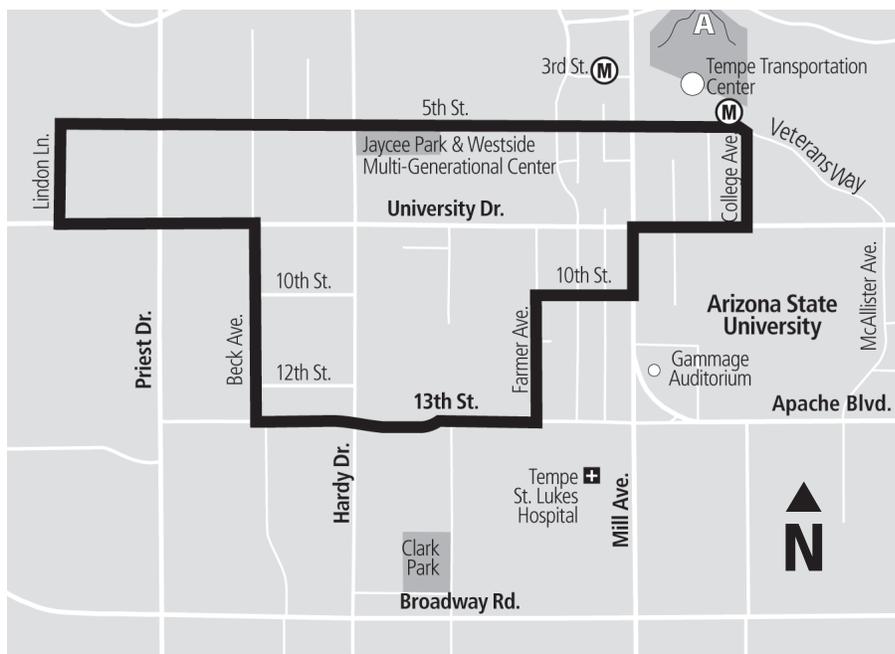
## Current Route



Ⓜ Metro Light Rail stop

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## Proposed Changes



Ⓜ Metro Light Rail stop



## Tempe Transit Service Priority Survey – Spring 2012

Below is a list of possible Tempe transit service adjustments to address an estimated \$3 million deficit. Please indicate how these possible changes would affect your travel. This information will help city staff prioritize and recommend service reductions to the City Council. Approved service changes may be implemented in July 2012 (or possibly in January 2013 depending on any necessary regional coordination). If approved, an Orbit fare program would be implemented no earlier than January 2013. Please mark an "X" in one box per row only. Only complete surveys will be accepted and your name and address must be included.

MODE	SERVICE CHANGE DESCRIPTION	DECREASE my transit options SIGNIFICANTLY	DECREASE my transit options SOMEWHAT	NO IMPACT	INCREASE my transit options SOMEWHAT	INCREASE my transit options SIGNIFICANTLY	Estimated Cost Savings/ (Cost)
<b>EFFICIENCY IMPROVEMENTS (Balancing route efficiency (faster travel times) with residential access (minimizing walk distance))</b>							
1	ORBIT Restructure Orbit Earth to operate on College Ave. between Weber Dr. and McKellips Rd.						\$136,066
2	ORBIT Restructure Orbit Earth to operate on Miller Rd. without deviation between McKellips Rd. and Curry Rd.						\$226,795
3	ORBIT Restructure Orbit Venus to operate on 13th St. between Beck Ave. and Roosevelt St.						\$223,479
4	ORBIT Restructure Orbit Mars to stop operating on George Dr., Del Rio Dr., and Evergreen Rd. north of Southern Avenue.						\$90,708
5	ORBIT Restructure Orbit Jupiter to operate on Terrace Rd., Malibu Dr., Laguna Dr. and Butte Ave. between Rural Rd and McClintock Dr.						\$88,937
6	ORBIT Revise Orbit Mercury route so that its western end is the University and Rural LRT station (would not go to Tempe Transportation Center).						\$231,058
7	ORBIT Revise Orbit Mars route so that its northern end is the University and Rural LRT station (would not go to Tempe Transportation Center).						\$136,066
<b>SYSTEM RESTRUCTURING (Repositioning routes to do more with less, improving regional connections, or changing service delivery model)</b>							
8	EXPRESS BUS 511 - Re-route Tempe portion of route to ASU & Tempe Transportation Center via Loop 202 and Rural Rd. Route would no longer serve Apache/Price LRT.						(\$23,476)
9	EXPRESS BUS 520 - Start/End route at Tempe Public Library park-n-ride. Route would no longer operate on neighborhood streets.						\$48,540
10	EXPRESS BUS 521 - Start/End route at Tempe Sports Complex and Kiwanis Park park-n-ride locations. Route would no longer operate on neighborhood streets.						\$20,952
11	EXPRESS BUS 532 - Eliminate route in all cities (Mesa, Scottsdale, Tempe, Phoenix).						\$32,245
12	EXPRESS BUS 540 - Eliminate route in all cities (Chandler, Tempe, Phoenix).						\$53,573
<b>STRATEGIC EXPANSION (Cost balanced with potentially strong long-term gains in ridership, revenue and regional connectivity)</b>							
13	LOCAL BUS Extend Route 62 (Hardy/Guadalupe) on Guadalupe Rd. to Country Club Dr. <i>Implementation date to be determined</i> based on City of Mesa's ability to provide long-term funding.						\$0
<b>GENERAL REDUCTIONS (System or route level decreases to frequency or hours of operation)</b>							
14	LOCAL BUS Reduce Sunday LOCAL service to 60 minutes on all bus routes in Tempe.						\$402,883
15	LOCAL BUS Eliminate LOCAL bus service AFTER 10 p.m. in Tempe.						\$848,504
16	LOCAL BUS Reduce Route 108 (Elliot) from 30 to 60 minutes on weekdays (In Tempe).						\$239,372
17	LOCAL BUS Terminate Route 62 (Hardy/Guadalupe) at Tempe Transportation Center. Eliminate segment between downtown Tempe & Tempe Marketplace.						\$294,704
18	ORBIT Reduce weekday Orbit Mercury service frequency from 10 to 15 minutes. Add extra trips west of McClintock Dr. during peak travel periods.						\$81,086
19	ORBIT Reduce Saturday ORBIT service from 15 to 20 minutes.						\$192,333
20	ORBIT Reduce weekday ORBIT frequency from 15 to 20 minutes ALL DAY.						\$1,126,132
<b>ORBIT FARE POLICY (Options for an Orbit Fare Policy)</b>							
21	ORBIT Achieve 20-25% fare recovery by setting the value of an Orbit trip equal to local bus and light rail. Regular one-ride cash fare would be \$1.75 (reduced fare \$0.85) and all passes would be accepted.						\$850,000 - \$1,300,000
22	ORBIT Achieve 10-15% fare recovery by setting the value of an Orbit trip to \$0.50. All passengers would be required to pay the \$0.50 cash fare including pass holders.						\$700,000 - \$800,000

**ATTACHMENT C  
CITY OF TEMPE TRANSIT PROGRAM: TRANSIT PERFORMANCE STATISTICS  
(Sept.-Nov. 2011)**

**Explanation of Rank**

<b>4.0-5.0</b>	High: Route is very productive and cost effective.
<b>3.0-3.9</b>	Good: Route is generally productive and cost effective; pursue long-term strategies.
<b>2.0-2.9</b>	Fair - Evaluate short/long-term options for changes to frequency, hours, routing, marketing, other variables.
<b>1.0-1.9</b>	Low - Changes necessary to frequency, hours, routing, marketing, other variables.

		<b>WEEKDAY</b>				
<b>Mode</b>	<b>Local Bus Service</b>	<b>Average Daily</b>	<b>Boardings per Hour<sup>1</sup></b>	<b>Subsidy per Boarding<sup>2</sup></b>	<b>Boardings per Mile<sup>3</sup></b>	<b>Rank<sup>4</sup></b>
Local Bus	30 - University	1,039	31	\$ 1.85	2.29	2.5
Local Bus	40 - Apache	52	20	\$ 2.95	1.63	1.5
Local Bus	45 - Broadway	1,421	39	\$ 1.41	2.74	3.5
Local Bus	48 - 48th/Rio Salado	990	30	\$ 3.25	1.59	2.0
Local Bus	56 - Priest	1,797	36	\$ 1.63	2.58	3.5
Local Bus	61 - Southern	1,735	45	\$ 1.22	2.99	3.5
Local Bus	62 - Hardy/Guadalupe	1,422	21	\$ 3.36	1.50	2.5
Local Bus	65 - Mill/Kyrene	1,265	31	\$ 2.09	2.16	2.5
Local Bus	66 - Mill/Kyrene	1,034	29	\$ 2.29	2.03	2.5
Local Bus	72 - Rural/Scottsdale	2,756	31	\$ 1.74	2.45	4.5
Local Bus	77 - Baseline	1,386	40	\$ 1.35	2.96	3.5
Local Bus	81 - Hayden/McClintock	1,926	32	\$ 2.20	2.09	3.0
Local Bus	108 - Elliot	290	19	\$ 7.28	0.79	1.0
Express	511 - Scottsdale/Tempe <sup>5</sup>	9	19	\$ 7.49	0.71	1.5
Express	520 - Tempe/Phoenix	48	13	\$ 8.30	0.67	2.0
Express	521 - Tempe/Phoenix	96	17	\$ 5.31	0.98	2.5
Express	532 - Mes/Tem/Sco/Phx	15	12	\$ 13.16	0.43	1.0
Express	540 - Chandler/Tempe/Phx	18	7	\$ 19.80	0.29	1.0
	<b>Regional Average</b>	<b>50</b>			<b>0.75</b>	
ORBIT	EARTH	1,967	24	\$ 3.64	1.75	2.5
ORBIT	JUPITER	2,044	29	\$ 2.48	2.57	4.0
ORBIT	MARS	2,342	30	\$ 2.43	2.62	4.0
ORBIT	MERCURY	3,146	36	\$ 1.67	3.82	5.0
ORBIT	VENUS	2,120	27	\$ 2.20	2.90	4.0
FLASH	Flash	2,639	27	\$ 1.37	4.64	N/A
LRT	Light Rail	12,834	93	\$ 1.71	6.50	N/A

**Notes**

1. Boardings per hour (productivity) is a reflection of ridership per unit of time or an index of service utilization.
2. Subsidy per boarding refers to the local-regional investment (net of passenger revenue) made in the route.
3. Boardings per mile (productivity) is a reflection of ridership per unit of distance and is an indicator of service utilization.
4. Performance rank reflects a composite assessment of average daily boardings and boardings per mile.

## Agenda Item 2.

### ATTACHMENT D



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#### Memorandum

DATE: May 8, 2012  
TO: Transportation Commission  
FROM: Sue Taaffe, Community Outreach/Marketing Coordinator  
SUBJECT: Transportation Marketing Plan

The purpose of this memo is to provide historic information related to marketing the Express bus system in Tempe along with the marketing plan for FY 2012/13. The marketing budget for FY 2012/13 to promote all elements of the Tempe in Motion program is \$50,000.

Key messages, as outlined in the TIM marketing plan, include promoting:

- bike events (Tour de Tempe and Bike to Work Day) and public meetings
- youth transit pass and ASU U-Pass programs
- Adopt-A-Path and Street programs
- riding the bus, Orbit, Express and light rail
- bike safety education

Key audiences include:

- ASU & High School students
- Tempe residents and professionals

Mediums are based on target ability, efficiency, cost and relevance to the audience. They include:

- Light pole banners
- Azcentral.com
- statepress.com
- azfamily.com
- Corona del Sol Sunrise newspaper and web site
- Tempe High Buffalo web site
- Marcos de Niza Padre Press newspaper
- McClintock High School Guidon newspaper
- Tempe Opportunities
- Twitter, Facebook
- Tempe Today newsletter
- Tempe 11 cable station

Other mediums considered, but not recommended due to budget and spill-over include:

- Outdoor/Billboards
- Television
- Radio
- Movie Theatre Slides

- ASU Sports

In FY 2011/12, staff promoted Express route 540 by producing door hangers that were distributed to all homes and multi-family complexes a quarter mile along the route. In addition, posts were made on Facebook and Twitter about the transit system which included the Express bus system.

For FY 2012/13, staff plans to do the following to promote the Express bus system:

- Twitter, Facebook posts
- Azcentral and azfamily web ads
- Door hangers along routes 520, 521 and 540





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**Memorandum**

DATE: May 16, 2012  
TO: Transportation Commission  
FROM: Sue Taaffe, Community Outreach/Marketing Coordinator  
SUBJECT: Valley-wide Customer Appreciation Promotion

The purpose of this memo is to provide information on a Valley-wide Customer Appreciation promotion tentatively scheduled for late September 2012.

In conjunction with National Try Transit Week, Valley cities have tentatively agreed on having free ride days on a Friday and Saturday in late September. The goal of the promotion is to attract new transit riders while thanking those existing riders for using the transit system. Tempe’s estimated revenue loss for those two days is approximately \$43,000.

The marketing budget for the promotion is \$75,000 and will be paid for by Veolia Transportation. Marketing tools include:

- Videos
- A Radio Spot
- Twitter
- Facebook
- Bus and rail posters
- Web site postings
- Exterior bus and train ads (in permitted cities)
- Brochures
- Banners
- On board bus and rail announcements
- Newsletters

The campaign will launch in late summer and continue through the end of September.

