VALLEY METRO

Title VI Program

November 2015

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ATTACHMENTS

SECTION 1 – INTRODUCTION

TITLE VI PROGRAM OVERVIEW

The Federal Transit Administration (FTA) is responsible for ensuring that its funding recipients fully comply with Title VI of the Civil Rights Act of 1964 as well as Executive Order 12898 on Environmental Justice in their planning and implementation processes. Subsequent to issuance of the Executive Order the U.S. Department of Transportation (DOT) issued Order 5610.2(a) for implementing the Executive Order on Environmental Justice. DOT Order on Environmental Justice, establishes compliance procedures for Executive Order 12898 that further directs that federal programs, policies and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations. In addition, the DOT's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons (70 FR 74087) establishes guidance for the prohibition against national origin discrimination in Title VI of the Civil Rights Act of 1964, as it affects (denial of meaningful access to services) limited English proficient persons.

Pursuant to Title 49 U.S.C. Chapter 53, as amended, the City of Phoenix Public Transit Department is the designated recipient of funds under FTA Sections 5307 and 5309. As the designated recipient for federal funding, the City of Phoenix Public Transit Department's is responsible for providing the FTA with a Title VI Update every three years in accordance with FTA Circular 4702.1B dated October 1, 2012 and with reporting requirements detailed in 49 CFR Section 21.9(b).

As a subrecipient to the City of Phoenix Transit Department, Valley Metro is also responsible for providing the City of Phoenix with a Title VI Program as well as a Title VI update every three years at a time designated by the City of Phoenix in accordance with FTA Circular 4702.1B dated October 1, 2012. The purpose of this report is to assess the compliance of Valley Metro with the Civil Rights Act of 1964, DOT Order 5610.2, and Executive Order 12898 and 70 FR 74087.

Title VI of the Civil Rights Act of 1964, Section 601 states:

> *"No persons in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Executive Order 12898 states:

> *"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."*

VALLEY METRO BACKGROUND

In 1993, the Valley Metro Regional Public Transportation Authority (RPTA) board adopted the name Valley Metro as the identity for the regional transit system in the Phoenix metropolitan area. Under the Valley Metro brand, local governments joined to fund the Valley-wide transit system that serves more than 73 million riders annually. Valley Metro provides fixed route bus service, light rail service and complementary paratransit service across the region. Valley Metro distributes transit funds from the countywide transit sales tax to its member agencies including the cities of Tempe, Mesa, Glendale, Phoenix, Buckeye, Tolleson, Wickenburg, Surprise, Peoria, Chandler, Gilbert, El Mirage, Avondale, Goodyear, Scottsdale, and Maricopa County. For the most part, Valley Metro and its member agencies utilize service providers for operations of bus, light rail and paratransit services. The cities of Glendale, Scottsdale, Peoria, and Phoenix contract some of their service directly to service providers.

Currently, fixed route transit service in metropolitan area is operated by the City of Phoenix and Valley Metro. There are a total of 892 fixed route vehicles and 50 light rail vehicles operating in the region. 108 of these vehicles are circulators.

The regional transit system has 44 local bus routes, 15 key local bus routes, 1 limited stop peak and 2 limited stop all-day routes, 20 Express/RAPID routes, 19 community circulator routes, one rural connector route, and one light rail system for a total of 103 regional routes. Valley Metro customers made over 72,000,000 boardings during Fiscal Year 2014.

Eight regional entities provide Dial-a-Ride service for seniors and persons with disabilities, as well as ADA paratransit service for those who are unable to use fixed route bus service. Annual regional ridership for ADA paratransit and regional ridership for non ADA general Dial-a-Ride was 987,318.

In 2002, Valley Metro Rail, Inc., a non-profit agency, was created and charged with design, construction and operation of the region's 57-mile high-capacity transit system. Valley Metro Rail Board member cities include Phoenix, Tempe, Mesa, Glendale and Chandler. The Board establishes overall policies and provides general oversight of the agency and its responsibilities

In November 2004, Maricopa County voters passed Proposition 400 which provides funding from a portion of the half-cent sales tax to transit projects in the Regional Transportation Plan. The light rail system (Central Phoenix/East Valley) became operational on December 27, 2008 and is operated by Valley Metro Rail, Inc. The starter line is a 20-mile system operating within the cities of Phoenix, Tempe and Mesa. Valley Metro and the city of Mesa are currently wrapping up construction on a 3.1-mile extension that will take light rail into Downtown Mesa. In addition, Valley Metro and the City of Phoenix are constructing a 3.2-mile light rail extension on 19th Avenue.

In March 2012, the emergence of a regional transit agency in the Valley began with Steve Banta taking on the role as the single Chief Executive Officer for two very distinct transit systems: Regional Public Transportation Authority (RPTA) and Valley Metro Rail. The two Boards agreed that Banta would lead the integration of both agencies with a goal of creating new efficiencies and enhancing regional transit service. The unified, restructured Valley Metro provides benefits now for riders and their communities and accommodates future growth of the regional system. Valley Metro RPTA and Valley Metro Rail Boards of Directors and their respected management committees help guide the agency by providing transportation leadership to best serve the region and their communities. Members are represented by an elected official who is appointed by their Mayor, Councilmembers or Board of Supervisors. Table 1 below shows the current members of both Boards and Table 2 shows both Management Committees. Note that members on both Management Committees are agency staff and are appointed by their respective agency.

Table 1 – BOARD OF DIRECTORS

Valley Metro RPTA Board of Directors	
Avondale	Councilmember Jim McDonald, *Chair*
Glendale	Councilmember Gary Sherwood, *Vice Chair*
Phoenix	Councilmember Thelda Williams, *Treasurer*
Buckeye	Vice Mayor Eric Orsborn
Chandler	Vice Mayor Kevin Hartke
El Mirage	Councilmember Lynn Selby
Gilbert	Councilmember Jenn Daniels
Goodyear	Councilmember Sharolyn Hohman
Maricopa County	Supervisor Steve Gallardo
Mesa	Vice Mayor Dennis Kavanaugh
Peoria	Vice Mayor Jon Edwards
Scottsdale	Councilmember Suzanne Klapp
Surprise	Councilmember Skip Hall
Tempe	Mayor Mark Mitchell
Tolleson	Councilmember Kathie Farr
Wickenburg	Councilmember Everett Sickles

Valley Metro Rail Board of Directors	
Phoenix	Councilmember Thelda Williams, *Chair*
Tempe	Mayor Mark Mitchell, *Vice Chair*
Mesa	Vice Mayor Dennis Kavanaugh
Chandler	Councilmember Rick Heumann
Glendale	Mayor Jerry Weiers

Table 2 –MANAGEMENT COMMITTEE MEMBERSHIPS

Valley Metro RPTA Transit Management Committee	
Avondale	Kristen Sexton, *Chair*
Glendale	TBD, *Vice Chair*
Phoenix	Maria Hyatt
Buckeye	Sean Banda
Chandler	Dan Cook
El Mirage	Jorge Gastelum
Gilbert	Kristen Myers
Goodyear	Cato Esquivel
Maricopa County	Mitch Wagner
Mesa	Jodi Sorrell
Peoria	Stuart Kent
Scottsdale	Madeline Clemann
Surprise	David Kohlbeck
Tempe	Steven Methvin
Tolleson	Christine Hagen
ADOT – non-voting member	Sara Allred

Valley Metro Rail Management Committee	
Phoenix	Mario Paniagua, *Chair*
Tempe	Steven Methvin, *Vice Chair*
Mesa	Scott Butler
Chandler	Dan Cook
Glendale	TBD

To ensure compliance with the requirements of Title VI, Valley Metro is required to develop a Title VI Program and submit updates to the City of Phoenix every three years as part of their Triennial Review. The contents of this document follow the requirements and guidelines of FTA's Title VI Circular (FTA C 4702.1B), which is also meant to fulfill USDOT regulations. In October 2012, the FTA amended the previous Title VI Circular (FTA C 4702.1A) and added new requirements. The updated Valley Metro Title VI Program will be in compliance with these new regulations.

In compliance with Title VI of the Civil Rights Act of 1964, and pursuant to FTA regulations from the Title VI Circular, Valley Metro has adopted this Title VI Program and policies within to ensure that Valley Metro operates in a non-discriminatory manner and that any potential adverse impacts to minority and low-income populations, resulting from a fare or major service change, are properly identified and analyzed to ensure that such changes are implemented without discriminate intentions. The Valley Metro Rail and Valley Metro RPTA Board of Director's meeting minutes approving the Title VI Program is in Attachment F.

SECTION 2 TITLE VI COMPLAINT POLICY AND PROCEDURES

TITLE VI COMPLAINT POLICY AND NOTICE TO THE PUBLIC

Valley Metro posts the following Title VI Complaint Policy on our agency's website, printed in the Transit Book, and posted at other key locations.

Title VI of the Civil Rights Act of 1964 States the Following:

Title VI is a section of the Civil Rights Act of 1964 which requires that "no person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

Submitting a Title VI Complaint

Any person who believes that he or she has been excluded from participation in, been denied the benefits of, or otherwise subjected to unlawful discrimination under any Valley Metro service, program or activity, and believes the discrimination is based upon race, color or national origin may file a formal complaint with Valley Metro Customer Service. This anti-discrimination protection also extends to the activities and programs of Valley Metro's third party contractors. Any such complaint must be filed within 180 days of the alleged discriminatory act (or latest occurrence).

Passengers using federally funded public transportation are entitled to equal access, seating and treatment. Under Title VI of the Civil Rights Act of 1964 (as amended) and related statutes, Valley Metro must ensure that no person shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any federally funded program, activity or service it administers.

Complaints for alleged non-compliance with Title VI and related statutes may be lodged with Valley Metro Customer Service. Any such complaint must be filed within 180 days of the alleged discriminatory act (or latest occurrence).

To submit a complaint online, fill out the Online complaint form[1]

[1] Link is only available for electronic version of program; please visit: http://www.valleymetro.org/about_valleymetro/titlevi_form

To submit a claim by mail or in person, please fill out the printable complaint form and mail/take to:

Regional Public Transportation Authority
4600 E. Washington St., Suite 101
Phoenix, Arizona 85034
Email: csr@valleymetro.org
Phone: (602) 253-5000
TTY: (602) 251-2039

Individuals may also file complaints directly with the Federal Transit Administration (FTA) within the 180-day timeframe.

Federal Transit Administration (FTA)
Attention: Title VI Coordinator
East Building, 5th Floor –TCR
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Complaints received by Customer Service will be assigned to the appropriate staff member(s) for investigation in accordance with federal standards (28 CFR Part 35 and FTA Circular 4702.1B). After the complaint is processed, Customer Service will respond to the complainant and, if warranted by the investigation, take appropriate action. The City of Phoenix, as the designated recipient of federal funds for this region, is responsible for monitoring this process.

Note: To request information about Valley Metro's Title VI Policy, please send an e-mail to TitleVICoordinator@valleymetro.org. To request information in alternative formats, please contact Customer Service at csr@valleymetro.org or phone: (602) 253-5000, TTY: (602) 251-2039.

TITLE VI COMPLAINT PROCEDURES

Any person who believes she or he have been discriminated against on the basis of race, color, or national origin by Valley Metro or our transit service provider may file a Title VI complaint by completing and submitting the agency's Title VI Complaint Form[2] or by calling Valley Metro's Customer Service. All complaints are logged into Valley Metro's Customer Assistance System (CAS) and will be investigated according to federal standards.

[2] See page 13 for the complaint form in English and Spanish.

Valley Metro's Title VI Complaint Form (English and Spanish) is located on our website: (http://www.valleymetro.org/about_valleymetro/civil_rights_policy_statement). The form is available in both English and Spanish. Complaints can also be filed by contacting Valley Metro's Customer Service at:
Email: csr@valleymetro.org
Phone: (602) 253-5000
TTY: (602) 251-2039

Valley Metro has 30 days to investigate each complaint. If more information is needed to resolve the case, Valley Metro may contact the complainant. Following the investigation of the complaint, a possibility of two letters will be sent to the complainant: a closure letter or a letter of finding. A closure letter states that there was not a Title VI violation; therefore, the case will be closed. A letter of finding states that there was a Title VI violation and explains what corrective action will be taken to remedy the situation. A complainant can appeal the decision within 60 days of receiving the letter. All appeals must be submitted to Valley Metro Customer Service.

PROCEDURES FOR TRACKING AND INVESTIGATING TITLE VI COMPLAINTS

TRACKING

- Complaint comes in and is logged into the CAS system.
- The Customer Service Administrator sends the complaint to the cities/transit provider for investigation and documentation within 24 hours.
- Complaint is returned to the Customer Service Administrator to ensure the information is complete and closes the complaint.
- Each cities administrator audits the complaints as well to ensure they meet the guidelines for Title VI.
- The administrator reviews an outstanding weekly report identifying outstanding complaints. During the review process the administrator will send out notifications to the agency and a copy to the relevant city to remind the entity that the complaint is not yet resolved or closed out. This process is reinitiated each week to ensure timely compliance.
- The administrator audits all completed Title VI complaints to check for accuracy and has complaint reopened by Customer Service administrator and sent back if not completed accurately.

INVESTIGATING

Each documented Title VI investigative report must address each of the "Seven Federal Investigative" steps found in 28 CFR, Part 35 and FTA Circular 4702.IA. The seven steps are as follows:

STEP ONE: Summary of the complaint
- Completed by the Regional Services Customer Relations staff

STEP TWO: Statement of issues
- List every issue derived from the complaint summary
- Include questions raised by each issue
  - Who?
  - What?
  - When?
  - Where?
  - How?
- Add new issues that surface during investigation
- Final list of issues becomes outline for investigation

STEP THREE: Respondent's **reply** to each issue
- Obtain information from each respondent, listen to each tape, review each document
- All staff will document information collected in the customer contact (respondent area).
- After all respondent information is documented
  - Complete the documentation (remaining steps)
  - Determine the action taken
  - Follow up with the customer.

Note: "Respondent" is not confined to the transit vehicle operator. "Respondent" is defined as **any** source of information that can contribute to the investigation, such as:
- Operator (Interview / History)
- Radio/Dispatch/OCC reports
- GPS tracking software & programs
- Maintenance (Staff / Records)
- City Transit staff
- Witnesses
- Complainant (Interview / History)
- Spotter reports
- Video (camera) and/or audio recordings
- Courtesy cards
- Incident reports (supervisor, transit police, fare/security inspectors)
- Other transit employees
- Route history

STEP FOUR: Findings of fact
- Investigate every "issue" (stated in the "statement of issues noted in step two)
- Separate facts from opinions

STEP FIVE: Citations of pertinent regulations and rules

- Develop list of all regulations, rules, policies, and procedures that apply to the investigation
  - Title VI requirements
  - Company rules & procedures
  - Valley Metro policies & service standards

STEP SIX: Conclusions of law

- Compare each fact from "findings of fact" to the list of regulations, rules, etc.
- Make decision on whether violation(s) occurred
- List of violations becomes "conclusions of law"

STEP SEVEN: Description of remedy for each violation

- Specific corrective actions for each violation found
- Include plans for follow-up checks
- Do not conclude report with "no action taken"
- If no violations found, conclude the report in a positive manner
  - Review of policies & procedures
  - Review of Title VI provisions

Response to Customer:

- Detailed summary of conversation with customer
- Copy of letter to customer

Action Taken:

- Must include specific corrective action for each violation found
- Include a follow-up action plan
- If no violations found, note policies, procedures, etc. reviewed with operator
- Never state "no action taken"
- Documented information should always include initials & dates

TITLE VI COMPLAINT FORM

Any person who believes that he or she has been discriminated against by Valley Metro or any of its service providers, and believes the discrimination was based upon race, color or national origin may file a formal complaint with Valley Metro Customer Service.

Please provide the following information to process your complaint. Alternative formats and languages are available upon request. You can reach Customer Service at (602) 253-5000/TTY: (602) 251-2039, or email at csr@valleymetro.org.

Section I: Customer Information		
Name:		
Address:		
City:	State:	Zip:
Work Phone:	Home Phone:	Cell Phone:
Email Address:		

Section II: Incident Information			
Date of Incident:	Time of Incident: AM/PM		City:
Incident Location:		Direction of Travel:	
Route #:	Bus/Light Rail #:		

Service Type: ☐ Local ☐ LINK ☐ Express/RAPID ☐ Light Rail ☐ Circulator/Connector ☐ Dial-a-Ride

Operator Name:

Operator Description:

What was the discrimination based on? (Check all that apply)

☐ Race ☐ Color ☐ National Origin ☐ Limited English Proficiency ☐ Other:

Explain as clearly as possible what happened and why you believe you were discriminated against. Describe all persons who were involved. Include the name and contact information of the person(s) who discriminated against you (if known), as well as names and contact information of any witnesses. If more space is needed, please use the back of this form.

Have you filed this complaint with the Federal Transit Administration? ☐ Yes ☐ No

If yes, please provide information about a contact person at the Federal Transit Administration where the complaint was filed.

Name:	Title:
Address:	Telephone:

Have you previously filed a Title VI complaint with this agency: ☐ Yes ☐ No

You may attach any written materials or other information that you think is relevant to your complaint.

Signature and date required below:

Signature _____ Date _____

602.253.5000
TTY: 602.251.2039
valleymetro.org

RPT2143

FORMA DE QUEJAS DEL TITULO VI

Cualquier persona que crea que ha sido discriminada basándose en su raza, color u origen nacional por Valley Metro o sus proveedores de servicio puede registrar una queja del Título VI con el Servicio al Cliente de Valley Metro.

Por favor provea la siguiente información necesaria para que se procese su queja. Hay formatos e idiomas alternos disponibles si se solicitan. Llene esta forma y envíela por correo postal a o entréguela en: Regional Public Transportation Authority, 4600 E. Washington St., Suite 101, Phoenix, Arizona 85034. Usted puede comunicarse con el Servicio al Cliente llamando al (602) 253-5000/TTY: (602) 251-2039, ó por correo electrónico en *csr@valleymetro.org*.

Sección I: Información del Cliente		
Nombre:		
Domicilio:		
Ciudad:	Estado:	Código Postal:
Teléfono del Trabajo:	Teléfono del Hogar:	Teléfono Celular:
Domicilio Electrónico:		

Sección II: Información del Incidente			
Fecha del Incidente:	Hora del Incidente: AM/PM		Ciudad:
Ubicación del Incidente:		Dirección de Viaje:	
# de Ruta:	# de Autobús/Tren Ligero:		

Tipo de Servicio: ☐ Local ☐ LINK ☐ Express/RAPID ☐ Tren Ligero ☐ Circulador/Connector ☐ Dial-a-Ride

Nombre del/la Conductor/a:

Descripción del/la Conductor/a:

¿En qué se basó la discriminación? (Marque todo lo que sea aplicable)

☐ Raza ☐ Color ☐ Origen Nacional ☐ Dominio Limitado del Inglés ☐ Otro:

Explique tan claramente como sea posible lo que sucedió y por qué cree usted que se le discriminó. Describa a todas las personas que estuvieron involucradas. Incluya el nombre y la información de contacto de la/s persona/s que le discriminó/aron a usted (si los sabe), así como los nombres y la información de contacto de cualquier testigo. Si necesita más espacio, por favor use el reverso de esta forma.

¿Ha usted registrado esta queja con la Administración Federal de Tránsito? ☐ Sí ☐ No

Si contestó sí, por favor provea información sobre la persona de contacto en la Administración Federal de Tránsito donde se registró la queja:

Nombre:	Título:
Domicilio:	Teléfono:

¿Ha usted registrado previamente una queja del Título VI con esta agencia?: ☐ Sí ☐ No

Usted puede adjuntar cualquier material por escrito o cualquier otra información que crea que sea relevante a su queja.

Se requieren la firma y la fecha abajo:

_____ _____

Firma Fecha

valleymetro.org
602.253.5000
TTY: 602 251.2039

RPT2043

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SECTION 3 TITLE VI INVESTIGATIONS, COMPLAINTS, AND LAWSUITS

LIST OF TITLE VI INVESTIGATIONS, COMPLAINTS, AND LAWSUITS

There were no Title VI lawsuits files with Valley Metro or the FTA for transit services that Valley Metro provides. Valley Metro operated services and uncategorized operators received 62 complaints related to Title VI.

Table 2 – Valley Metro Title VI Complaints January 2011-December 2014

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
143615	3/3/2011	Operator	Attitude (operator)	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy
146167	4/8/2011	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
146440	4/13/2011	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
155027	8/15/2011	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
159897	10/19/2011	Operator	Attitude (operator)	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy.
162643	11/30/2011	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
165423	1/13/2012	Operator	Discrimination	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
168328	2/21/2012	Operator	Discrimination	Per information provided by customer and investigation conducted, correct operator could not be identified. No action could be taken.
168816	2/27/2012	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
169941	3/14/2012	Operator	Attitude (operator)	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy.
171375	4/5/2012	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
173170	5/1/2012	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
173907	5/12/2012	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
176499	6/19/2012	Operator	Attitude (operator)	Video reviewed and no evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
178452	7/19/2012	Fares	Fare Policy	Video was viewed and no evidence of discrimination could be determined based on investigation. No action could be taken.
180217	8/8/2012	Operator	Discrimination	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
180919	8/15/2012	Operator	Discrimination	Video was viewed and no evidence of discrimination could be determined based on investigation. Operator to be monitored
180997	8/16/2012	Operator	Pass Up	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
183235	9/11/2012	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
185131	10/3/2012	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
185259	10/4/2012	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. VIdeo was requested for further investigation. Issue addressed with operator per company policy.
186796	10/23/2012	Operator	Pass Up	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
189306	11/26/2012	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
190927	12/4/2012	Security	Police	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
192311	1/11/2013	Operator	Policy (operations)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
193491	1/29/2013	Operator	Attitude (operator)	VIdeo was reviewed and no evidence of discrimination could be found. No action could be taken.
196789	3/5/2013	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
198397	3/21/2013	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
198548	3/22/2013	Security	Security Policy	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
199954	4/9/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
201716	4/30/2013	Operator	Policy (operations)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
201963	5/2/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
202602	5/10/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
203267	5/17/2013	Operator	Pass Up	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
203507	5/19/2013	Operator	Discrimination	Video was reviewed and no evidence of discrimination could be found. No action could be taken.

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
206119	6/20/2013	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
206228	6/21/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
206507	6/25/2013	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
206884	7/1/2013	Operator	Discrimination	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
210461	8/12/2013	Maintenance	Equipment Failure	No evidence of discrimination could be determined based on investigation. Facility issue addressed per company policy.
211338	8/20/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
212885	9/5/2013	Unmapped Categories or Undefined Categories	Discrimination	Report of potential discrimination by a third party fare vendor. No action could be taken.
215378	10/2/2013	Fares	Fare Policy	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
216800	10/18/2013	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
219617	11/24/2013	Operator	Discrimination	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy.
221013	12/12/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy.
221994	12/29/2013	Security	Police	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
222053	12/28/2013	Operator	Attitude (operator)	No evidence of discrimination could be determined based on investigation. Issue addressed with operator per company policy
223010	1/10/2014	Operator	Attitude (operator)	Per information provided by customer and investigation conducted, correct operator could not be identified. No action could be taken.
225989	1/28/2014	Operator	Discrimination	Video was requested; however, there was no recording available for the date and time of the reported incident. Therefore, there was insufficient evidence to determine if discrimination took place. No action could be taken.
226665	2/24/2014	Operator	Attitude (operator)	Video review was attempted and no evidence was found to validate customer's allegations. Complaint has been turned over to the Transit police to continue the investigation.
227234	3/3/2014	Operator	Attitude (operator)	Complaint forwarded to supervisor to be addressed with operator per company policy. Operator to be monitored.
227650	3/6/2014	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
231659	4/25/2014	Operator	Discrimination	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
232912	5/12/2014	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
233503	5/20/2014	Operator	Attitude (operator)	Video was requested; however, there was no recording available for the date and time of the reported incident. Therefore, there was insufficient evidence to determine if discrimination took place. No action could be taken.
234328	5/31/2014	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.
237284	7/9/2014	Operator	Discrimination	No evidence of discrimination could be determined based on investigation. No action could be taken.
237674	7/13/2014	Operator	Attitude (operator)	Video was reviewed and no evidence of discrimination could be found. No action could be taken.

Complaint Number	Incident Date	Primary Category	Subcategory	Action Taken
238286	7/23/2014	Operator	Discrimination	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy.
238755	7/30/2014	Operator	Policy (operations)	Evidence was found to validate customer's allegations. Issue addressed with operator per company policy.
248952	11/16/2014	Security	Police	Video was reviewed and evidence was found to validate customer's allegations. Issue addressed with operator per company policy

SECTION 4 INCLUSIVE PUBLIC PARTICIPATION PLAN

VALLEY METRO PUBLIC PARTICIPATION PLAN

Introduction

The regional transit public input/outreach process is conducted by Valley Metro for various transit-related activities and actions. Throughout the year, Valley Metro conducts public outreach activities related to capital projects, transit service changes, fare changes, and other transit-related events. This Title VI Public Participation Plan was established to ensure adequate inclusion of the public throughout the Phoenix metropolitan community in accord with the content and considerations of Title VI of the Civil Rights Act of 1964. Federal regulations state that recipients of federal funding must "promote full and fair participation in public transportation decision-making without regard to race, color or national origin." Valley Metro uses this Plan to ensure adequate involvement of low-income, minority and limited English proficient (LEP) populations, following guidance from the Title VI Requirements and Guidelines for Federal Transit Administration Recipients Circular[3] (Circular).

Involving the general public in Valley Metro practices and decision-making processes provides helpful information to improve the transit system and better meet the needs of the community. Although public participation methods and extent may vary with the type of plan, program and/or service under consideration as well as the resources available, a concerted effort to involve all affected parties will be conducted in compliance with this Plan along with Federal regulations. To include effective strategies for engaging low-income, minority and LEP populations, the Circular suggests that the following may be considered:

- Scheduling meetings at times and locations that are convenient and accessible for minority and LEP communities.
- Employing different meeting sizes and formats.
- Coordinating with community- and faith-based organizations, educational institutions and other organizations to implement public engagement strategies that reach out specifically to members of affected minority and/or LEP communities.
- Considering radio, television, or newspaper ads on stations and in publications that serve LEP populations. Outreach to LEP populations could also include audio programming available on podcasts.

[3] United States Department of Transportation, Federal Transit Administration, Circular 4702.1B.

- Providing opportunities for public participation through means other than written communication, such as personal interviews or use of audio or video recording devices to capture oral comments.

Valley Metro currently practices all of these strategies, in compliance with Federal regulations, so that minority, low-income and LEP populations are informed and also have meaningful opportunities to engage in planning activities and provide input as part of the decision-making process.

Typical Public Participation Opportunities

Valley Metro provides opportunities to share information or receive public input through a variety of methods for public participation utilized to engage low-income, minority and LEP populations through many outlets.

For planning efforts, including fare and service changes, public meeting locations are held at a centralized area or near affected route areas and bilingual staff is available. Public notices and announcements are published in minority-focused publications; some examples include: the *Arizona Informant* (African American community), *Asian American Times* (Asian American community), *La Voz* and *Prensa Hispana* (Hispanic community). Press releases are also sent to these media sources regarding fare changes, service changes and other programs. Additionally, printed materials, including comment cards or surveys, are available in Spanish.

A key participation effort, the Rider Satisfaction Survey, is conducted every two years. This survey is administered on transit routes across the region, reaching transit riders that live in minority and/or low-income communities. The survey, administered in English and Spanish, measures citizen satisfaction with transit services and captures comments for improvements.

Throughout the year, minority, low-income and LEP populations have access to information via the Valley Metro Customer Service Center. The Customer Service Center is open 6 a.m. to 8 p.m., Monday through Friday; 7 a.m. to 7 p.m. on Saturdays; and 8 a.m. to 5 p.m. on Sundays and designated holidays. Customer Service staff is bilingual.

Also available is the website www.valleymetro.org. Most information including meeting announcements, meeting materials and other program information is available on the website in both English and Spanish. If users would like information in another language, Valley Metro features Google translate on its website. This allows Valley Metro to reach citizens in 91 languages with information on transportation services, proposed service changes and other programs.

Public Participation Methods

Valley Metro uses several specific public involvement techniques to ensure that minority, low-income and LEP persons are involved in transit decisions. Through the use of public involvement, media outlets and printed or electronic materials, Valley Metro disseminates information regarding planning efforts. These efforts include the activities described below.

- Public meetings, hearings and open houses are held regularly at community-familiar locations with public transportation access and at convenient times, in collaboration with our member cities. These meetings provide an opportunity to meet with citizens and receive their comments and questions on proposed service changes and other programs. For each program, Valley Metro varies its meeting format in order to best engage the targeted population.

- Valley Metro has staff available at public meetings, hearings, events and open houses to answer questions and receive comments in both English and Spanish. Valley Metro also utilizes court reporters to record verbal comments at public hearings.

- Outreach for biannual service changes and other programs are conducted at or near the affected area, for example, along an affected bus route or at an affected transfer location, thus targeting the population that may be most impacted by proposed changes to service or routes. Oftentimes, these efforts are also executed at transit stations, community centers, civic centers, or major transfer locations.

- Coordination with community- and faith-based organizations, educational institutions and other organizations occurs regularly. These coordination efforts assist Valley Metro in executing public engagement strategies that reach out to members of the population that may be impacted.

- Valley Metro conducts specially-tailored transit presentations to community groups. This includes mobility training for senior citizens and people with disabilities, as well as information on how to use the transit system for new residents and refugees. More comprehensive travel training is also conducted monthly at a regional center for customers with disabilities.

- All public meeting notices for biannual service changes and other programs are translated to Spanish. Notices regarding Valley Metro projects and programs are widely distributed to the public through multiple methods, including through community- and faith-based organizations as well as via door hangers, direct mail, newspaper advertisement, electronic messaging (email through existing database), social media, door-to-door canvassing and on-board announcements on the transit system.

- Valley Metro publishes advertisements of any proposed service or fare change in minority publications in an effort to make this information more easily available to minority populations. Additionally, Valley Metro sends press releases regarding service changes and other programs to Spanish-language media.

- Valley Metro offers online participation via social media and e-mail input as an alternative opportunity for comment.

- Major surveying efforts are conducted in both English and Spanish to ensure that the data collected is representative of the general public.

- Valley Metro Customer Service staff is multilingual.

- All comments are documented in a centralized database. For biannual service changes, comments are categorized as “in favor,” “not in favor” or “indifferent.” Comment summary information is provided to Valley Metro’s city partners for review and is also presented to the Valley Metro Board for consideration when taking action on proposed service changes.

Depending upon the type of project, program, or announcement, public participation methods may be customized to ensure that the general public is adequately involved in the decision-making process.

Conclusion

Valley Metro conducts public outreach throughout the year to involve the general public with activities and transit planning processes. Using a variety of communication techniques such as facilitating meetings at varied times and locations using multiple formats, placing printed materials at multiple outlets and providing opportunities via phone and web to share or collect information, Valley Metro ensures that outreach efforts include opportunities for minority, low-income and LEP populations that may be impacted by the activity or transit planning process under consideration. Valley Metro will continue to involve all communities in an effort to be inclusive of all populations throughout the Metropolitan Phoenix area and also to comply with Federal regulations. Valley Metro will continue to monitor and update this Inclusive Public Participation Plan as part of the Title VI Program which is updated triennially.

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SECTION 5 LANGUAGE ASSISTANCE PLAN

LANGUAGE ASSISTANCE PLAN

Federal agencies have published guidance for their respective recipients in order to assist them with their obligations to limited English proficiency (LEP) persons under Title VI. This order applies to all state and local agencies that receive federal dollars. The explanation of the required Language Assistance Plan outlined below is based on federal guidance provided in Federal Transit Administration (FTA) Circular 4702.1B.

Language Assistance Needs Assessment – Four Factor Analysis

The following outlines how to identify a person who may require language assistance, the ways in which Valley Metro and the City of Phoenix Public Transit Department, provides such assistance, any staff training that may be required to provide such services, and the resources available to reach out to the people who may need language assistance service. In order to prepare the Language Assistance Plan (LAP), a needs assessment is conducted utilizing the four factor analysis. The four factors are:

Factor 1: The number or proportion of LEP persons eligible to be served or likely to be encountered by Valley Metro and City of Phoenix Public Transit Department services and programs.

Factor 2: The frequency with which LEP persons come into contact with Valley Metro and City of Phoenix Public Transit Department services and programs.

Factor 3: The nature and importance of the Valley Metro and City of Phoenix Public Transit Department services and programs in people's lives.

Factor 4: The resources available to the Valley Metro and the City of Phoenix Public Transit Department for LEP out-reach, as well as, the costs associated with the out-reach.

The following is an explanation of what is to be included in the four factor LEP population needs assessment. In addition to the following explanation, Valley Metro has conducted a thorough LEP four factor analysis and resulting Language Access Plan to be utilized by all Valley Metro member agencies. Please refer to Attachment A for the Language Assistance Plan.

Factor 1: The number or proportion of LEP persons eligible to be served or likely to be encountered by the Valley Metro and City of Phoenix Public Transit Department services and programs.

An effective Language Assistance Plan is the preferred way of determining the extent to which the transportation needs of the LEP population mirror those of the community at large and the extent to which LEP persons have different needs that should be

addressed through the transit service planning and facilities project development process.

Demographic Profiles for Communities of Concern Communities of concern describe populations that have been determined by the federal government as benefiting from protections to ensure their meaningful involvement in planning and services. These vulnerable populations have been identified through the Civil Rights Act of 1964, Executive Or-der 12898, and Executive Order 13166 to end dis-crimination and ensure equal access to all federally funded services.

To assist with the identification of Title VI neighbor-hoods, the presence of Title VI populations is compared against the Maricopa County average for each community of concern. Linguistic isolation follows federal guidance at five percent within a census block of 1,000 people or more within a neighborhood. Based on the 2008 to 2012 American Community Survey five-year estimates, the thresh-old for each mandated community of concern is as follows:

Communities of concern are identified as those census tracts where the identified group represents a percentage of the population equal to or greater than that of the Maricopa County average. Federal guidelines state that minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent, or (b) the minority population percentage of the affected area is measurably greater than the minority population percentage in the general population or other appropriate unit of geographic analysis—in this case, Maricopa County.

Limited English Proficient (LEP) households: A person with limited English proficiency is described as a person who does not speak English as a primary language and has a limited ability to read, write, speak and understand English. An area is identified as LEP when five percent or more of the population, or 1,000 people within a neighborhood, fit this definition. The Census Bureau further defines households as linguistically isolated when there are no members aged 14 years and over who speak only English or who speak a non-English language and speak English “very well.” In other words, all members of the household ages 14 years and over have at least some difficulty with English.

Factor 2: The frequency with which LEP persons come into contact with Valley Metro and City of Phoenix Public Transit Department services and programs.

The Valley Metro Planning and Community Relations divisions have conducted a thorough analysis of the frequency with which LEP persons come into contact with the Valley Metro system through a combination of surveys to community groups serving this population, as well as demographic map-ping of service crossing census tracts with greater than average concentration of minority, low in-come and LEP populations. Please refer to the in-depth LEP analysis conducted by Valley Metro in *Attachment A:*

Valley Metro Limited English Proficiency Four Factor Analysis and Language Access Plan.

Factor 3: The nature and importance of the Valley Metro and City of Phoenix Public Transit Department services and programs in people's lives.

An analysis of benefits and burdens is a critical component of the Valley Metro and City of Phoenix Public Transit Department's Title VI Program. The Valley Metro Community Relations department, in partnership with the City of Phoenix Public Transit Department, analyzes the feedback reported by communities of concern to determine the potential benefits and burdens of a transportation service or fare change on the population. In addition, proposed transportation improvements are analyzed and documented to determine if the improvements impose a disproportionate burden on the communities of concern. This analysis, as well as the input from communities of concern, is incorporated as proposed service and fare changes advance through the Valley Metro and City of Phoenix committee, board and council processes for approval. Feedback from Title VI populations will be used to assess any enhancements to the Title VI Plan on a biennial basis.

SECTION 6 COLLECTION OF DEMOGRAPHIC DATA

OVERVIEW

This section is a demographic analysis of the population within Maricopa County and Valley Metro's Service Area, which is a one-half mile radial buffer around fixed route services. In order to be familiar with the low-income and minority demographics of the area, Valley Metro uses the most current and accurate data available from the US Census Bureau and the Valley Metro Origin and Destination Survey which is conducted every three years.

The following data for minority and low-income populations were gathered from the Census Bureau's 2013 American Community Survey (ACS) 5-year estimates. Low income is defined as the population with incomes at or below 150 percent of the Department of Health and Human Services poverty level.

This section also provides a summary of the results from the 2010-2011 On-Board Survey, which is currently the best available data to observe ridership characteristics and fare usage of minority and low income populations on fixed routes within the Valley Metro network.

CENSUS DATA

Table 3 summarizes the minority and low-income populations of all the Census Tracts within the County and Valley Metro's service area, the one-half mile buffer around fixed route transit services, based on data from the 2013 American Community Survey. Map 1 below is a map of the service area, Maricopa County.

Table 3 Minority and Low-Income Population Summary

	Total Population	Minority Population	Percent Minority	Low-Income Population	Percent Low-Income
Maricopa County	3,889,161	1,624,496	41.8%	993,917	25.5%
Service Area (1/2-mile buffer around fixed route service)	3,249,332	1,475,404	45.4%	902,415	27.8%

Table 4 summarizes the racial distribution among the population within the County and service area. The total minority population within the service area is 1,624,496, 42.1% of the total population. The three largest racial groups, other than White, are Asian, Black/African American, and American Indian/Alaskan Native. The category Two or More Races represents people who consider themselves to be any combination of races, and the other categories represent people who consider themselves to be of one race. It should be noted that the category Hispanic/Latino is an ethnicity and not a race.

Table 4 Racial and Hispanic Distribution

Total Population	White	African American	American Indian	Asian	Other Races	Two or More Races	Hispanic/ Latino (Any Race)
Maricopa County							
3,889,161	3,137,012	199,310	72,913	138,405	221,937	111,794	1,155,592
100%	80.6%	5.1%	1.9%	3.6%	5.7%	2.9%	29.7%
Service Area (1/2-mile buffer around fixed route service)							
3,249,332	2,576,408	181,225	65,879	119,649	204,000	95,519	1,060,463
100%	79.3%	5.6%	2.0%	3.7%	6.3%	2.9%	32.6%

PASSENGER SURVEY (ORIGIN AND DESTINATION SURVEY)

Between October 2010 and February 2011, Valley Metro conducted an on-board transit survey. The purpose of the survey was to better understand the travel pattern of transit users in the metropolitan Phoenix area, particularly the impact that light rail has had on regional travel patterns. The results of the survey will be used to update regional travel demand models and improve the overall quality of transit services in the region.

The survey, which included nearly 100 bus routes and all light rail stations, was the largest and most comprehensive origin and destination survey ever conducted by Valley Metro. The goal was to obtain useable surveys from approximately 13,750 passengers. The actual number of usable surveys was 15,780. Of the useable surveys, 4,732 were completed with light rail passengers and 11,048 were completed with bus passengers. The magnitude of the survey will allow regional planners to better understand the needs and travel patterns of many specialized populations. For example, the final database contains responses from:

- more than 6,600 people who do not have cars
- nearly 1,600 people under age 18
- nearly 1,000 people age 60 or older
- more than 6,000 students, including more than 4,000 college/university students
- nearly 2,000 students in grades K-12

- more than 3,300 people living in households with incomes of less than $10,000 per year
- more than 9,000 people who were employed full or part time
- nearly 3,000 people who were not employed but were seeking work

Major Findings
Some of the major findings from the survey include the following:

- **Public Transit Usage in the Metropolitan Phoenix Area Is Significant.** Ridership reports show that there are approximately 250,000 transit boardings per day or 1.25 million boardings during a typical 5-day work week. By providing residents with a reliable mode of transportation, the region's transit system is having a positive impact on traffic flow and air quality by reducing the number of trips that would have otherwise been completed by car.

- **Transit Users Are Using Public Transit More Often.** Among those who had been using public transit in the metropolitan Phoenix area at least two years, sixty one percent (61%) reported that they were using public transportation more often than they did two years ago. Among light rail users, nearly 80% reported that they were using public transit more often than they were two years ago before light rail began operations. The high percentage of light rail users who reported using public transit more often suggests that light rail has significantly enhanced the effectiveness of public transportation in the region.

- **Public Transit Is Important to the Region's Economy.** More than one-third (35%) of all transit trips represented in the survey either began or ended at work. When asked to report their employment status, more than three-fourths (78%) of those surveyed indicated that they were currently employed or seeking work. Among those seeking work, more than 30% indicated that they could not have completed their trip if public transportation were not available. Another 10% indicated that they did not know how they would have completed their trip if public transit had not been available.

- **Public Transit Is Important to Education in the Region.** Thirty-nine percent (39%) of those surveyed identified themselves as students, which explains the reason that nearly one-third (31%) of all transit trips represented in the survey either began or ended at a college/university or a K-12 school. On a typical weekday, more than 70,000 school-related trips are completed on public transportation in the metropolitan Phoenix area. If public transportation were not available, 16% of the students surveyed indicated that they would not have been able to get to school. Another 8% did not know how they would have gotten to school if public transit had not been available.

- **The Demographic Profile of Public Transit Riders Has Changed Since the Introduction of Light Rail.**

  - o Transit riders are more likely to have a driver's license. Among those who began using public transit in the Phoenix area after light rail service began, 57% have a valid driver's license compared to just 43% of those who began using public transit before light rail service was available.

  - o Transit riders are more likely to have annual household incomes above $50,000. Among those who began using public transit in the Phoenix area after light rail service began, 22% had annual household incomes above $50,000 compared to 18% of those who began using public transit before light rail service was available.

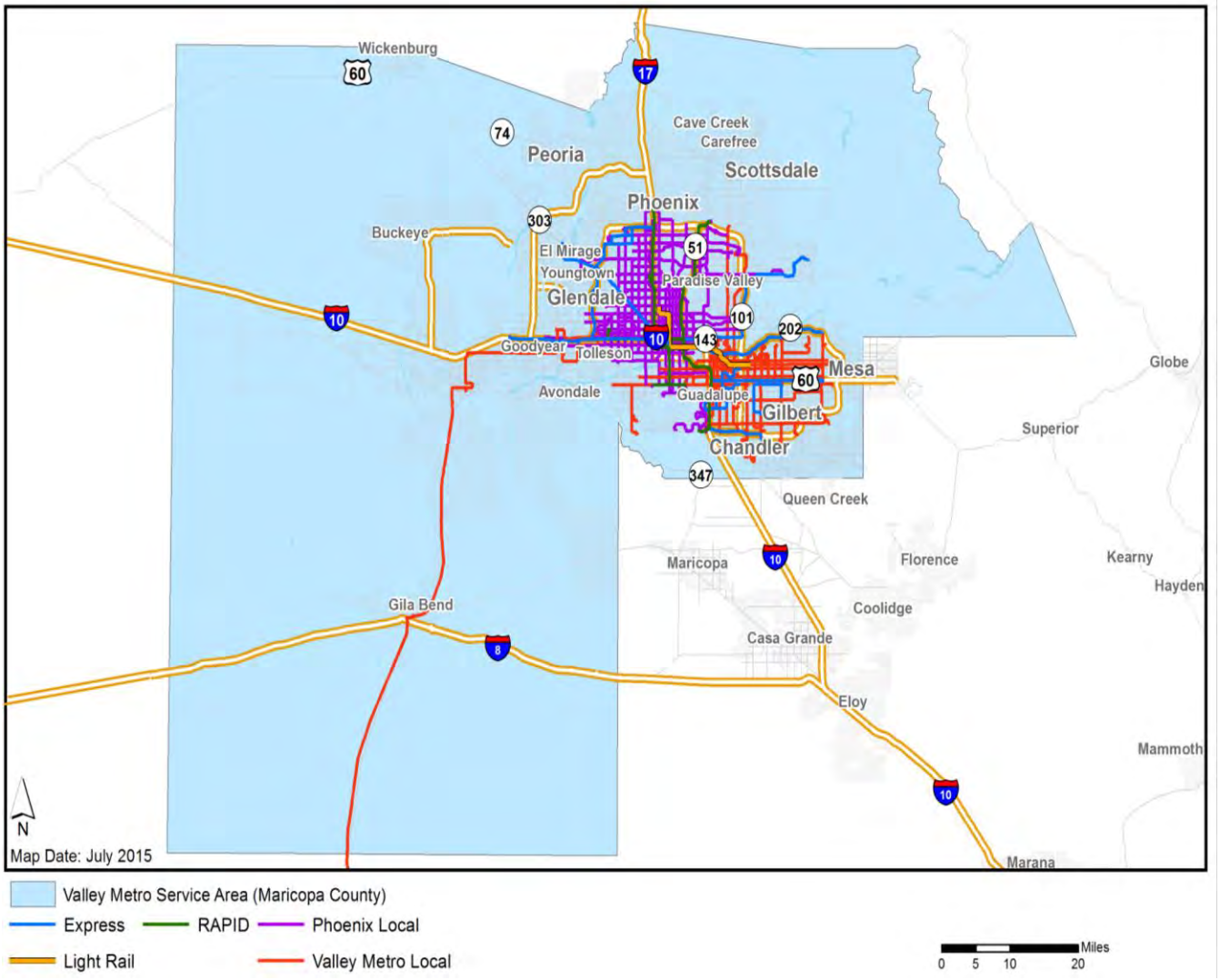
  - o Transit riders are more likely to be students. Among those who began using public transit after light rail service began, 45% were students compared to 36% of those surveyed who were using transit before light rail service began.

The full On-Board Transit Survey Report is in Attachment B.

DEMOGRAPHIC MAPS

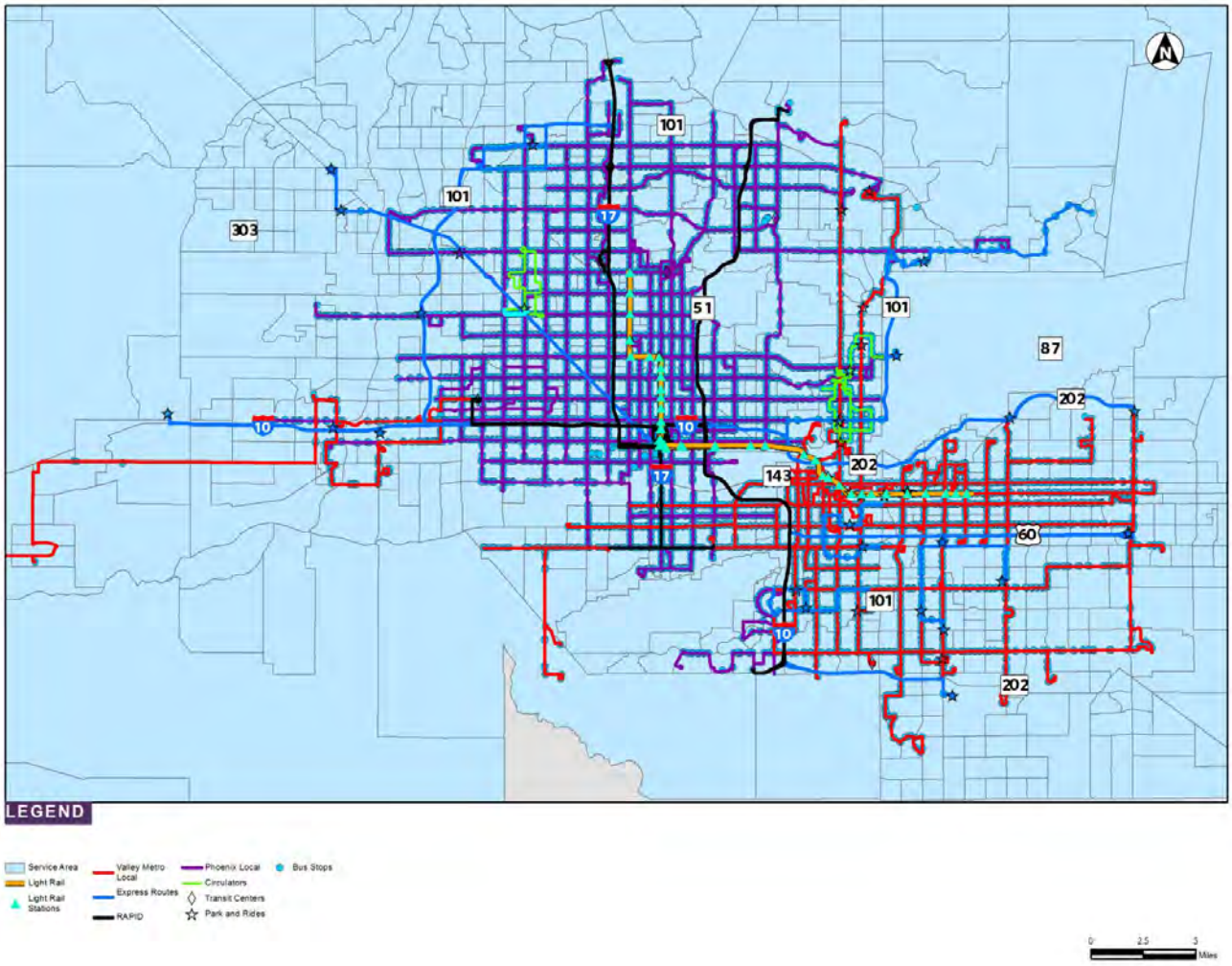
Map 1 displays all fixed bus routes and light rail transit service within the region.

Map 1: Maricopa County and Fixed Route Transit Service



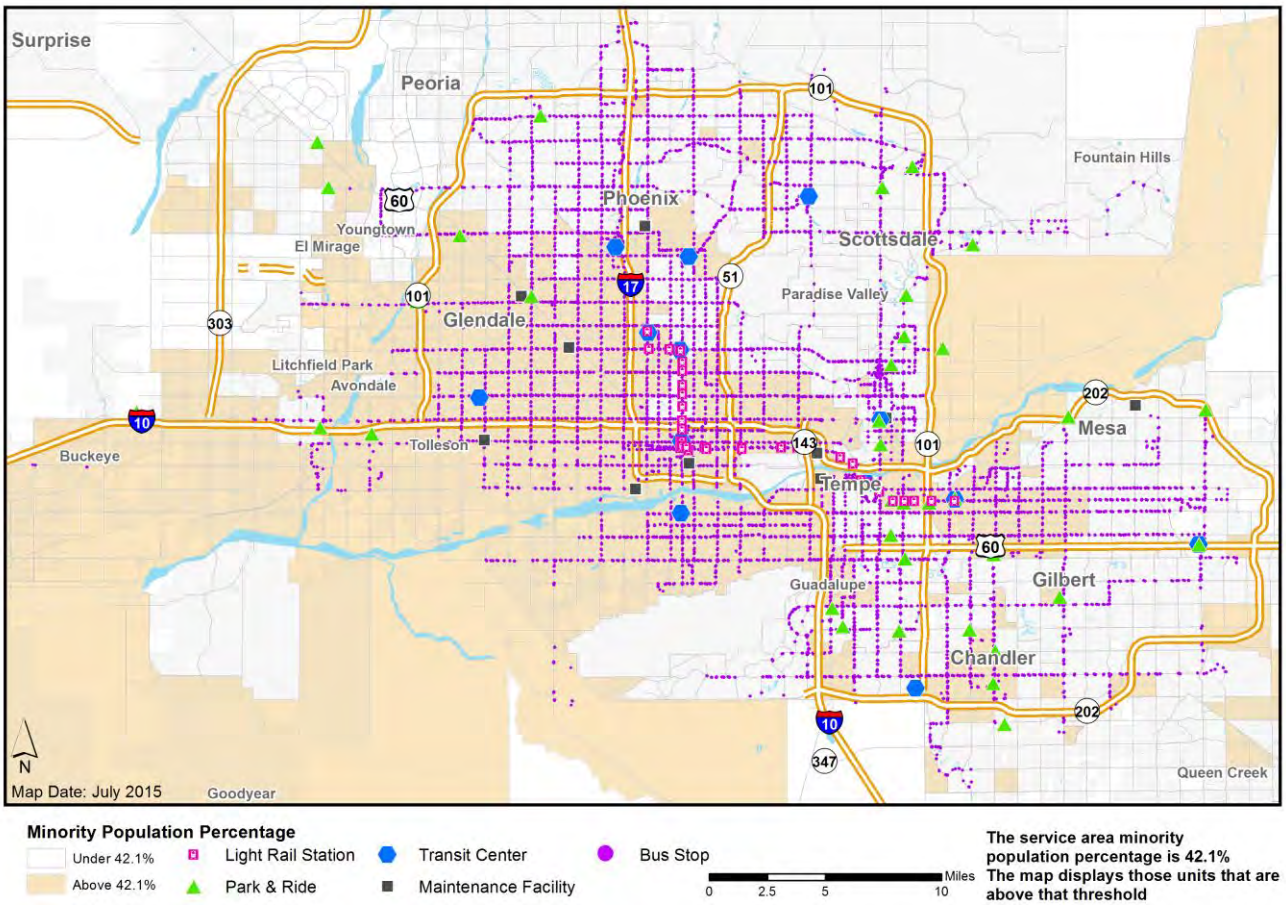
Map 2 displays a closer view of the fixed route transit service in the region. This map also includes bus stops, light rail stations, park-and-ride facilities, and transit centers.

Map 2 Fixed Route Transit Service (Zoomed View)



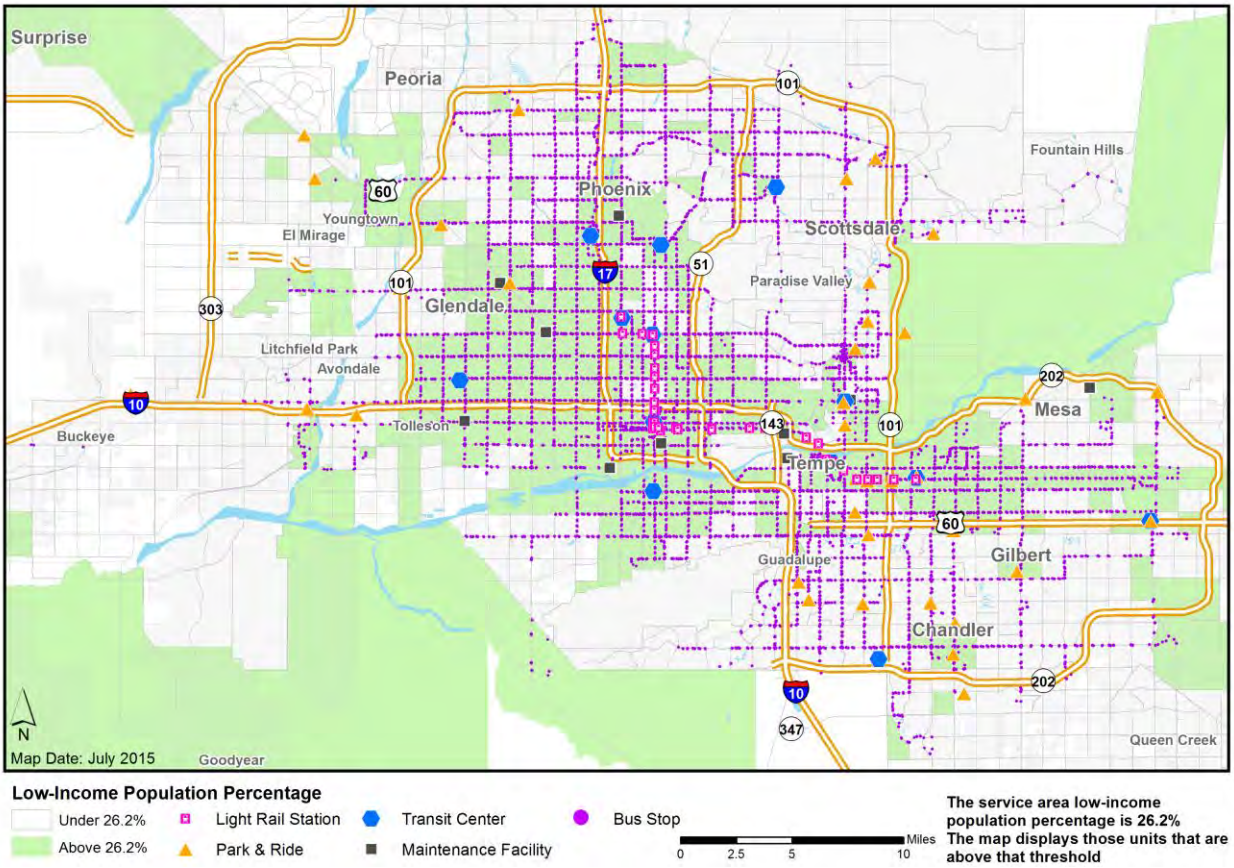
Map 3 displays a closer view of the minority population and the relation to the regional transit system amenities. This includes bus stops, light rail stations, park-and-ride facilities, maintenance facilities, and transit centers.

Map 3 Fixed Route Transit System Amenities and Minority Populations



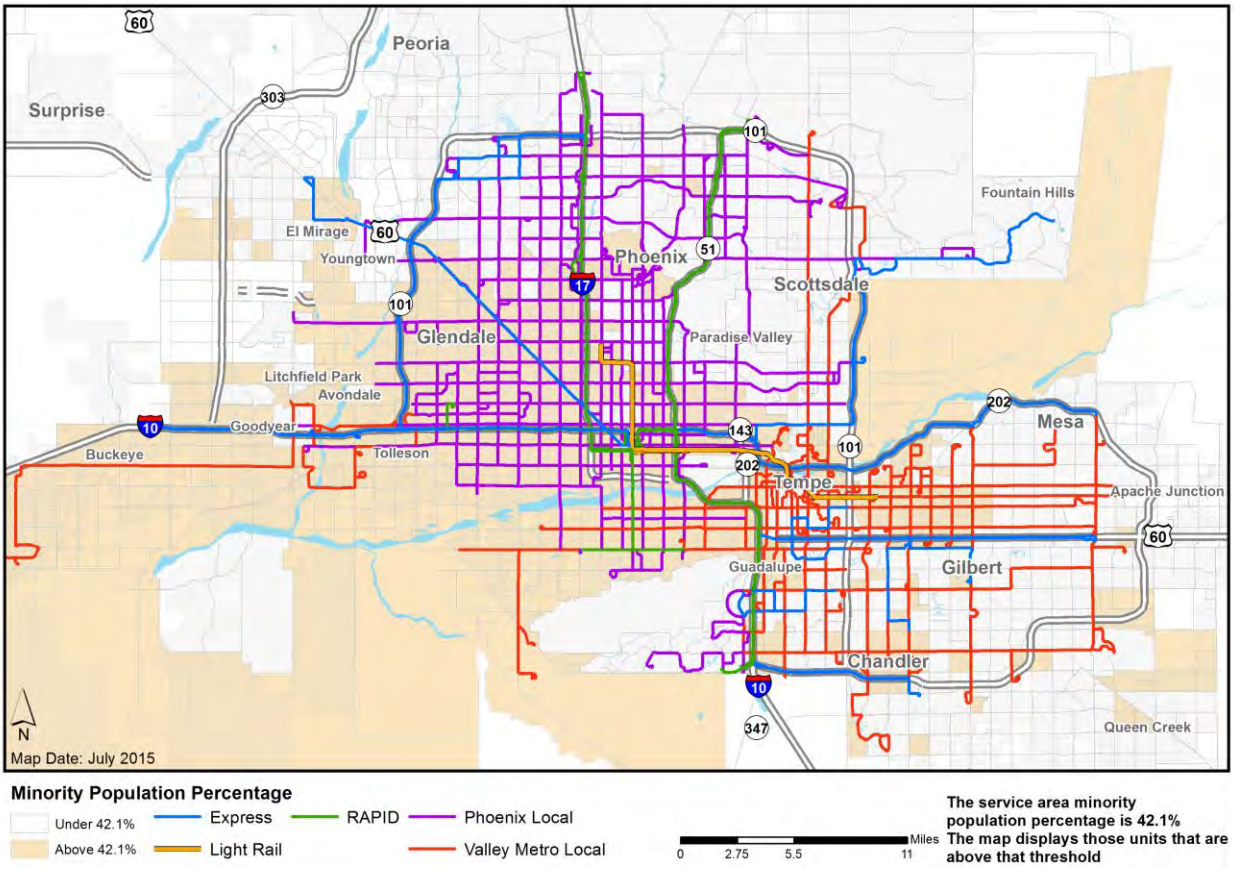
Map 3 displays a closer view of the low-income population and the relation to the regional transit system amenities. This includes bus stops, light rail stations, park-and-ride facilities, maintenance facilities, and transit centers.

Map 3 Fixed Route Transit System Amenities and Low-Income Populations



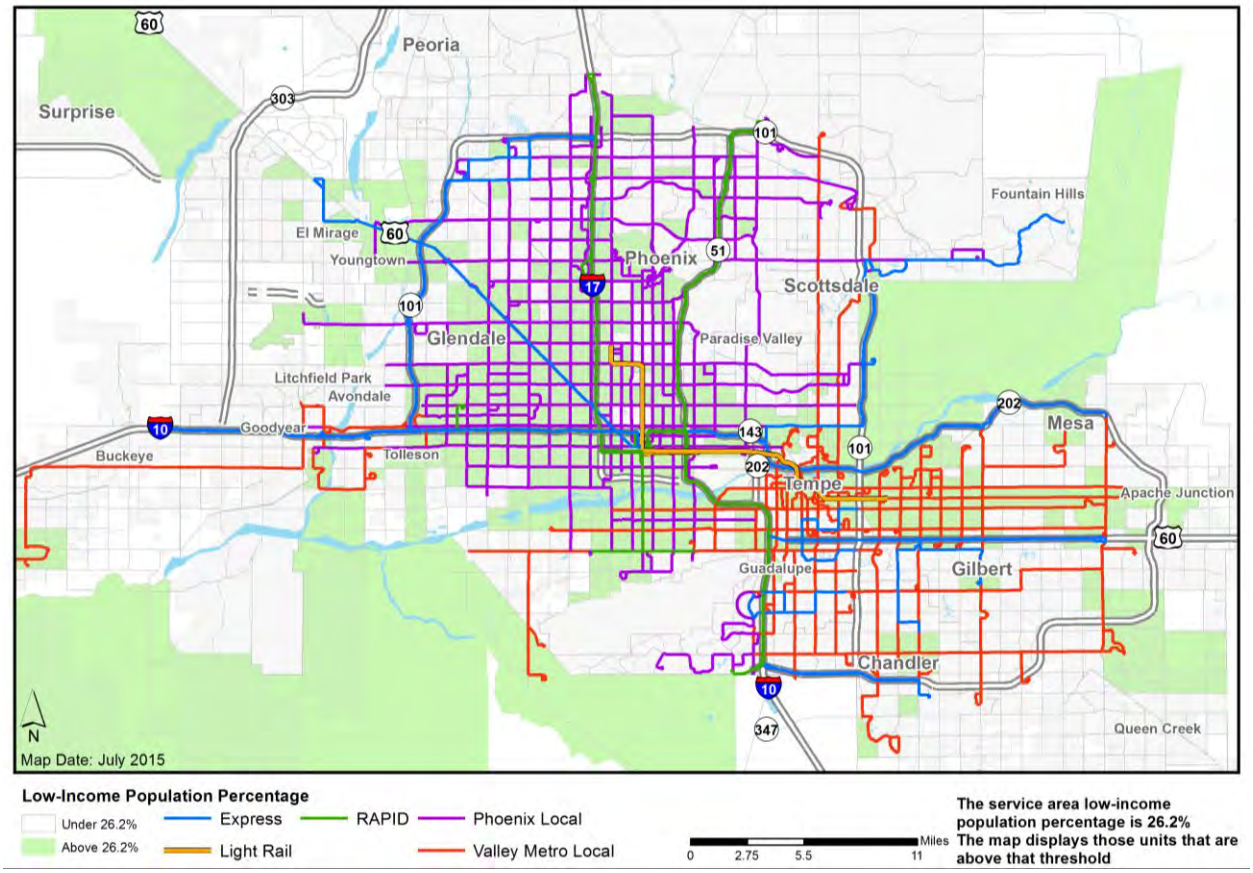
Map 4 displays the concentrations of minority populations within the fixed route transit service area by showing the census tracts that are below and above the route service area minority population average.

Map 4 Fixed Routes and Census Tracts by Minority Population



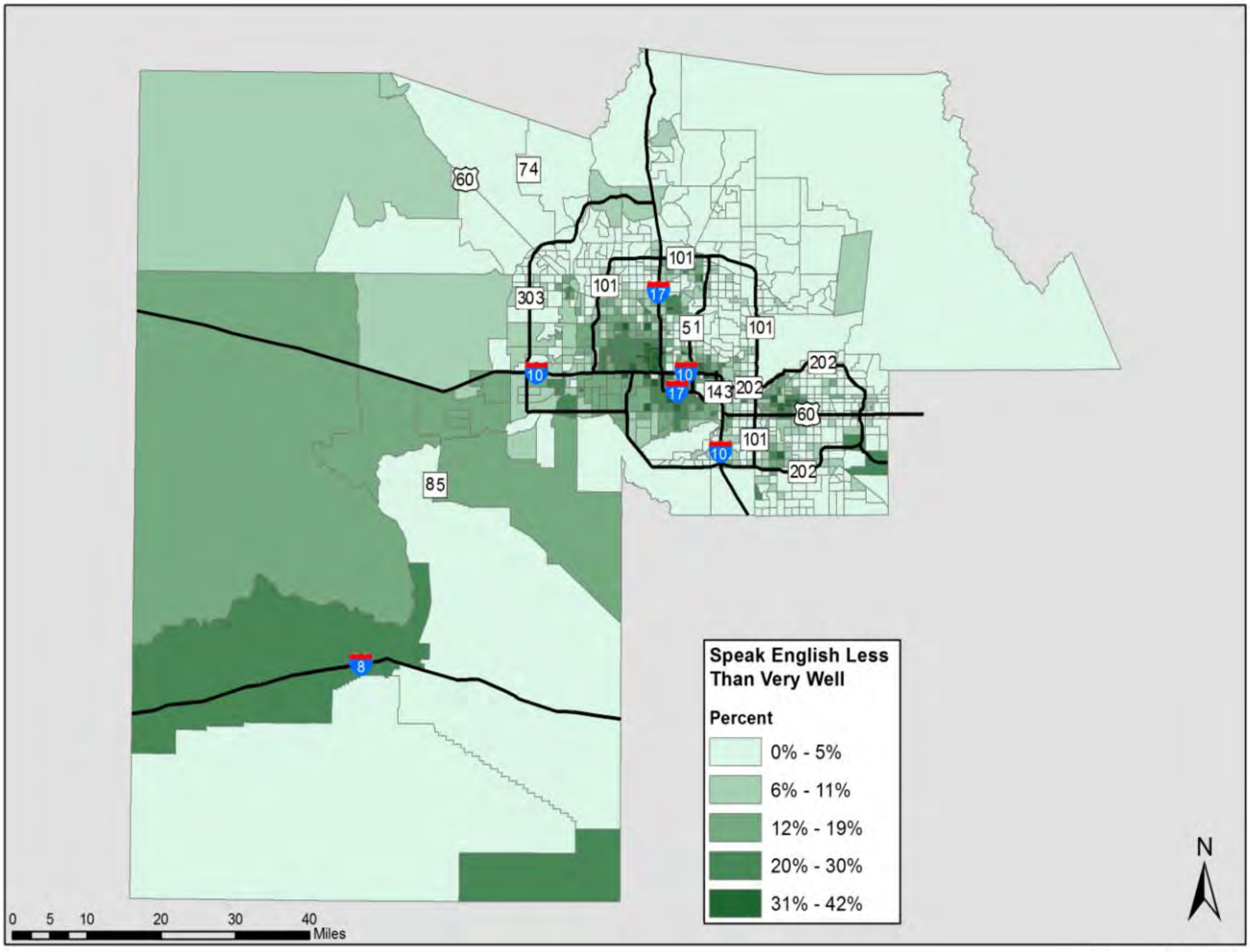
Map 5 the concentrations of low-income populations within the fixed route transit service area by showing the census tracts that are below and above the route service area low-income population average.

Map 5 Fixed Routes and Census Tracts by Low-Income Population



Map 6 displays the population within Maricopa County and the fixed route transit service area that speak English less than very well per census tracts.

Map 6 Limited English Proficiency Population – Speak English Less Than Very Well



Source: ACS 2013

SECTION 7 SYSTEM-WIDE SERVICE STANDARDS AND POLICIES

OVERVIEW

Valley Metro as the regional transit authority operates majority of the transit service in Maricopa County with the exception of the City of Phoenix, City of Glendale's local circulator, and City of Scottsdale's downtown trolley. Valley Metro coordination with the City of Phoenix to develop a Regional System-Wide Service Standards and Policies that would apply to all services that both entities provide, but also that can be adopted by the cities of Glendale and Scottsdale. Valley Metro also operates the regions light rail transit system and has developed a separate set of System-Wide Standards and Policies for light rail. Valley Metro in coordination with the cities of Phoenix and Mesa are currently constructing two light rail extensions further into their communities and will adhere to the standards and policies outlined below.

REGIONAL SERVICE POLICIES FOR BUS SERVICE

The regional service policies are meant to ensure that transit amenities are distributed fairly throughout the system and vehicles are properly assigned on a route by route basis.

1.0 VEHICLE ASSIGNMENT

1.1 Service Policy

Vehicle assignment refers to the process by which transit vehicles are placed into revenue service throughout the transit system. Vehicles will be assigned to the various depots such that the average age of the fleet serving each depot does not exceed 12 years. Low-floor buses are deployed on frequent service and other high-ridership routes, so these buses carry a higher share of ridership than their numerical proportion of the overall bus fleet. Low-floor buses are also equipped with air conditioning and automated stop announcement system.

Bus assignments take into account the performance characteristics of service types and vehicle assignments are matched to the demand (vehicle with more capacity are assigned to service types with higher ridership). Note that some service types have specific vehicle types. Other bus assignments also take into consideration branded services such as Express/RAPID and LINK routes that have specific sub fleet assignment to it. For example, LINK vehicles count with transit signal priority.

1.2 Service Policy Elements

- Vehicle age
- Vehicle assignment records (Dispatch bus pullout sheets). The contractor dispatch staff assigns buses daily based on historical knowledge of the route.

1.3 Level of Service Assessment

- Calculate the average age of the entire bus fleet.
- Calculate the average age of the buses assigned to serve minority and low-income routes and for non-minority and non-low-income routes.
- Assessment compares minority to non-minority routes and low income to non-low income routes.

2.0 DISTRIBUTION OF TRANSIT AMENITIES

Transit amenities are locally funded and fall under the responsibility of the jurisdictions within which they are sited. The service standard elements and level of service assessments will be the responsibility of the individual municipalities. Valley Metro does however provide support in the planning processes of these facilities. Valley Metro is working with the individual municipalities in developing warrants as part of the Transit Standards and Performance Measures to provide guidance on the transit amenities and is expected to be adopted in 2016.

REGIONAL SERVICE POLICIES FOR LIGHT RAIL SERVICE

1.0 VEHICLE ASSIGNMENT

1.1 Service Policy

The Vehicle Assignment service policy generally addresses the equitable assignment of transit vehicles to depots and routes throughout the entire transit system in terms of minority and low-income populations compared to non-minority and non-low-income populations. This policy measures whether transit vehicles are equitably assigned considering the age of the vehicle, type of fuel used, number of seats in the vehicle and whether or not the vehicle is high or low floor. However, Valley Metro has one light rail route with a single type of fleet. Valley Metro's light rail fleet consists of 50 vehicles of the same design, passenger load, amenities, and are the same age. The light rail vehicles are considered low floor at each of the four doors to allow level boarding at each of the 28 light rail stations. Each light rail vehicle is equipped with air conditioning and heating and automated stop announcements. Each vehicle is also equipped with a bike rack that holds four bikes and folding seats to accommodate four wheel chairs.

1.2 Service Assessment

All vehicles put into service each day run along the one light rail route and have the same amenities and quality for all passengers riding the system. Until new routes are added to the system that contains different vehicles, no assessment of vehicle assignment is warranted.

2.0 DISTRIBUTION OF TRANSIT AMENITIES

2.1 Service Standard

Transit amenities refer to items of comfort and convenience available to the general riding public. Valley Metro's *Design Criteria Manual* includes a chapter on light rail station design. This chapter provides standards for the design of each station as well as the amenities that will be incorporated into each station. Each of the 28 stations within Valley Metro's current light rail system contains the following amenities:

- shading and climate protection,
- seating,
- lighting,
- drinking fountain,
- trash receptacles,
- platform information maps,
- emergency call boxes,
- closed circuit television cameras,
- public address system/variable message boards,
- ticket vending machines, and
- all light rail station platforms should be double loading, except where adequate pedestrian crossing is not available.

In addition, a securable rack for four bicycles is located at street intersections adjoining the station entrances are provided for each station. Although the *Design Criteria Manual* has been developed as a set of general guidelines for planning and design of the light rail system, deviations from these accepted criteria may be required in specific instances based on community characteristics or other requests. Typically new development is compliant with the *Design Criteria Manual*.

2.2 Service Assessment:

Valley Metro will conduct field observations once a year to determine if each station still contains the following amenities in good operational standing:

- Information maps and public announcements at each light rail station are in English and Spanish
- Ticket vending machines at each light rail station entrance
- Seating
- Waste receptacles
- Bike racks
- Lighting

REGIONAL SERVICE STANDARDS FOR BUS SERVICE

The regional service standards are quantitative performance standards meant to ensure that fixed route services are fairly applied throughout Valley Metro's service area.

1.0 VEHICLE LOAD

1.1 Vehicle Load Standard

Vehicle Load (also known as maximum load) is the ratio of the number of passengers on a vehicle to the number of seats. Valley Metro and the City of Phoenix operates a number of local fixed routes, express routes, and circulator service in the region with a number of different bus configurations containing different number of seats and how many people can stand on the bus. The vehicle load threshold is therefore broken down to the three main types of service and is based on the average number of seats and the number of standing passengers. The load thresholds are identified below:

Local Fixed Route Service (as defined in Transit Standards and Performance Measures (TSPM) are Local Bus, Key Local Bus, Limited Stop All-Day)

Two bus types provide local fixed service in the region, a standard 40-foot bus and a 60 foot articulated bus.

For example, a 40-foot bus contains 36 seats and can hold comfortable 54 passengers. The vehicle load threshold for peak service is expressed as a ratio of 1.50. This means that all seats are filled and there are 18 standees per bus.

The 60 foot articulated bus contains 55 seats and can hold comfortably 85 passengers. The vehicle load threshold for peak service is expressed as a ratio of 1.50. This means that all seats are filled and there are 30 standees per bus.

Commuter Express / RAPID Service/Limited Stop Peak[4]

Three bus types provide Express service in the region, a standard 40-foot bus, a 45-foot bus and a 60 foot articulated bus.

For example, a 40-foot bus contains 36 seats and can hold comfortable 54 passengers. The vehicle load threshold for peak service is expressed as a ratio of 1.50. This means that all seats are filled and there are 18 standees per bus.

The 60 foot articulated bus contains 55 seats and can hold comfortably 85 passengers. The vehicle load threshold for peak service is expressed as a ratio of 1.50. This means that all seats are filled and there are 30 standees per bus.

Community Circulator Service

The buses used for the circulators on average can seat 17 passengers and hold comfortably 23 passengers. The vehicle load threshold for all day service (such as the BUZZ, ZOOM, MARY, ALEX, SMART, DASH and Orbits) is expressed as a ratio of 1.35. This means that all seats are filled and there are 6 standees per bus. All buses providing this service are ADA accessible.

Rural Connector

The buses used for the rural connector on average can seat 26 passengers and hold comfortably 35 passengers. The vehicle load threshold for all day service is expressed as a ratio of 1.35. This means that all seats are filled and there are 9 standees per bus. All buses providing this service are ADA accessible.

1.2 Vehicle Load Data Collection

To determine the vehicle load the following data is gathered:

- Annual random ride check samples or APC data
- Each ride check is one trip on a route
- AM Peak direction samples Monday through Friday
- PM Peak direction samples Monday through Friday
- Samples collected annually throughout the year

1.3 Vehicle Load Assessment

Using the data above the following analysis is done to determine the vehicle load:

Local Fixed Route Service (Local Bus, Key Local Bus, Limited Stop All-Day)

- Determine number of minority and non-minority routes that have a max load ratio of less than 1.50 for AM and PM Peak times – calculate percentage
- Repeat the calculations for low-income and non-low-income routes
- Compare level of service between minority and non-minority routes and low-income and non-low-income routes

Commuter Express / RAPID Service/Limited Stop Peak[4]

- Determine number of minority and non-minority routes that have a max load ratio of less than 1.50 for AM and PM Peak times – calculate percentage
- Repeat the calculations for low-income and non-low-income routes
- Compare level of service between minority and non-minority routes and low income and non-low-income routes

Community Circulator Service

- Determine number of minority and non-minority routes that have a max load ratio of less than 1.0 for AM and PM Non-Peak times – calculate percentage
- Determine number of minority and non-minority routes that have a max load ratio of less than 1.40 for AM and PM Peak times – calculate percentage
- Repeat the calculations for low-income and non-low-income routes
- Compare level of service between minority and non-minority routes and low income and non-low-income routes

Rural Connector

Determine number of minority and non-minority routes that have a max load ratio of less than 1.35 for all trip times – calculate percentage
Repeat the calculations for low-income and non-low-income routes
Compare level of service between minority and non-minority routes and low income and non-low-income routes

2.0 VEHICLE HEADWAY

Vehicle headway standards are based on the Transit Standards and Performance Measures[5] (TSPM) for regionally funded routes. Transit service standards and performance measures represent rules and guidelines by which the performance of the region's transit system may be evaluated, and decisions regarding transit investments may be prioritized and measured.

[4] Note that Commuter Express / RAPID Services minority and low-income routes are determined by stop location (rather than full route) since the majority of these routes travel from a park and ride location to a major employment center along a freeway or other corridor without making stops.

[5] *More information about this effort available here:* http://www.valleymetro.org/publications_reports/transit_standards_performance_measures

2.1 Vehicle Headway Standard

Vehicle headway is the time interval between two vehicles traveling in the same direction on the same route. The following are the vehicle headway standards for the region:

Table 6 – Vehicle Headway Standards

Service Type	Minimum Headway or Daily Trips	Minimum Span Week / Sat / Sun	Minimum Operating Days
Rural Connector	4 trips inbound / 4 trips outbound	NA	Mon – Fri
Community / Circulator	30 min	12 hrs. / 0 hrs. / 0 hrs.	Mon – Fri
Local Bus	30 min*	16 hrs. / 14 hrs. / 12 hrs.	Mon – Sun
Service Type	**Minimum Headway or Daily Trips**	**Minimum Span Week / Sat / Sun**	**Minimum Operating Days**
Key Local Bus	15 min peak / 30 min base*	16 hrs. / 14 hrs. / 12 hrs.	Mon – Sun
Limited Stop Peak	4 trips AM / 4 trips PM	NA	Mon – Fri
Limited Stop All-Day	Headways same as LRT, up to 2X Peak	16 hrs. / 14 hrs. / 12 hrs. (Same as LRT)	Mon – Fri
Commuter Express	4 trips AM / 4 trips PM	NA	Mon – Fri
Light Rail Transit	12 min peak / 20 min base	18 hrs. / 14 hrs. / 12 hrs.	Mon – Sun

**60 min early morning and late night*

For rural connector routes, limited stop peak, and commuter express routes, service availability is applied based on a number of daily trips rather than frequency.

2.2 Vehicle Headway Data Collection

Local Fixed Route Service (Local Bus, Key Local Bus, Limited Stop All-Day)

- Measure standard using published fixed route service schedules (no Express, RAPID, Limited Stop Peak, or circulator routes)

Commuter Express / RAPID Service / Limited Stop Peak

- Measure standard using published Express, RAPID and Limited Stop Peak service schedules

Circulator Service

- Measure standard using published circulator route service schedules

Rural Connector

- Measure standard using published Rural Connector service schedules

2.3 Vehicle Headway Assessment

- Determine number of minority and non-minority routes that have a peak headway meeting or exceeding the headway standard for each service type– calculate percentage
- Repeat the calculations for low-income and non-low-income routes
- Compare level of service between minority and non-minority routes and low income and non-low-income routes

3.0 ON TIME PERFORMANCE

3.1 On Time Performance Standard

On time performance is a measure of bus runs for a particular route completed as scheduled. The service standard threshold is defined as 90% or better of all trips on a particular route completed within the allowed on-time window (no more than 0 minutes early and 5 minutes 59 seconds late, compared to scheduled arrival/departure times at published time points).

3.2 On Time Performance Data Collection

- Measure standard using Valley Metro operated local fixed routes.
- Data reported on a monthly basis.
- Use of Vehicle Management System (VMS) data. VMS data not available for the circulators GUS I, II, III; Mesa BUZZ, ZOOM, and Tempe's Orbits

3.3 On Time Performance Assessment

- Determine number of minority and non-minority routes that have an on time performance of 90% or better on an annual basis– calculate percentage
- Repeat the calculations for low-income and non-low-income routes
- Compare level of service between minority and non-minority routes and low income and non-low-income routes

4.0 SERVICE AVAILABILITY

Transit amenities are locally funded and fall under the responsibility of the jurisdictions within which they are sited. The service availability and service availability assessments will be the responsibility of the individual municipalities.

4.1 Service Availability Standard

Service availability is measured by the distribution of bus stops within the regional service area that affords residents accessibility to transit. The service standard is consistent with the TSPM standard and has the following thresholds for each service:

Local Bus and Key Local Bus

- Bus stops are placed approximately one-quarter mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.

Limited Stop Peak and Limited Stop All-Day

- Bus stops are placed approximately one mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.

Express / RAPID Service[4]

- Express / RAPID stops are strategically placed and are generally located at park-and-ride facilities
- No more than four inbound Express bus stops
- Outbound Express / RAPID stops behave more like a local service and will pick up or drop off passengers more frequently

Community Circulator Service

- Bus stops within the designated stop area of each circulator route are placed no more than one-quarter mile apart
- In the flag stop zone area of each circulator route passengers can be picked up anywhere along the route

4.2 Service Availability Data Collection

- Bus stop database

4.3 Service Availability Assessment

- Identify number of bus stop spacing gaps on each route
- Calculate the number of bus stop spacing gaps that do not meet the standard as a percentage of the total number of bus stop spacing gaps on a given route
- Compare percentage of bus stop location gaps that do not meet the standard by minority versus non-minority routes and low income versus non-low income routes

REGIONAL SERVICE STANDARDS FOR LIGHT RAIL SERVICE

1.0 VEHICLE LOAD

1.1 Vehicle Load Standard

Vehicle Load (also known as maximum load) is the ratio of the number of passengers on a vehicle to the number of seats. For the Central Phoenix/East Valley Light Rail line (fixed route service), a single light rail vehicle contains 66 seats and can hold comfortably 140 passengers. The vehicle load threshold for peak service for comfortable accommodations is expressed as a ratio of 2.12. This means that all seats are filled and there are 74 standees per train.

A single vehicle has a maximum capacity (crush factor) of 226 passengers. The vehicle load threshold for peak service for maximum capacity is expressed as a ratio of 3.42. This means that all seats are filled and there are 160 standees per train.

Valley Metro has the ability to operate consists of up to three light rail vehicles.

1.2 Vehicle Load Data Collection

Average weekday loads on the light rail will be determined by the following:

- Ride check the light rail route using the APC data
- AM in the peak direction (6-9 a.m.) Monday through Friday
- PM in the peak direction (3-6 p.m.) Monday through Friday

Samples will be collected semi-annually during the months of April and November to determine if the standard vehicles load is exceeded.

1.3 Vehicle Load Assessment

Valley Metro currently has one light rail line operating in the region with all vehicles being exactly the same. Therefore, the data collected above will be used to determine the vehicle load.

2.0 VEHICLE HEADWAY

2.1 Vehicle Headway Standard

Vehicle headway is the time interval between two vehicles traveling in the same direction on the same line. The following are the vehicle headway thresholds for the light rail system:

Service operates regionally every 12 minutes in the peak hours (6 a.m. to 7 p.m.) each weekday, every 20 minutes in the off peak hours (4 a.m. to 6 a.m. and 7 p.m. to 12 a.m.) each weekday, and every 20 minutes all day on weekends.

Table 6 – Vehicle Headway Standards

Service Type	Headway - Peak	Headway – Off Peak
Weekday	12 minutes	20 minutes
Saturday	20 minutes	
Sunday / Holiday	20 minutes	

2.2 Vehicle Headway Data Collection and Service Assessment

Valley Metro currently has one light rail route under operation with 28 stations and the headway is monitored on a daily basis. As new extensions are added to the current light rail ends of line (extending light rail from current end-of-line at Sycamore and Montebello) the service assessment will be for this route in its entirety. As new routes to the system are brought into service, the service assessment will be by individual routes. Headways are monitored at the Operations Center and will be assessed by the following:

- AM in the peak direction (6-9 a.m.) weekdays
- PM in the peak direction (3-6 p.m.) weekdays
- AM in the peak direction (6-9 a.m.) weekends
- PM in the peak direction (3-6 p.m.) weekends

3.0 On Time Performance

3.1 On Time Performance Standard

On time performance is a measure of a light rail trip (The end-of-line Sycamore station to the end-of-line Montebello Station) completed as scheduled. Once the extensions in Mesa and Phoenix are complete and operational, the light rail trip will be measured from the end-of-line Gilbert Road Station to the end-of-line Dunlap Station. The service standard threshold is defined as 93% or better of all trips on light rail route completed

within the allowed on-time window (0 minutes early and 5 minutes late of scheduled arrival times).

3.2 On Time Performance Data Collection and Assessment

Valley Metro currently has one light rail route under operation with 28 stations. Valley Metro monitors the on-time performance on an annual basis and compares year to year. As new extensions are added to the current light rail ends of line (extending light rail from current end-of-line at Sycamore and Montebello) the service assessment will be for this route in its entirety. As new routes to the system are brought into service, the service assessment will be by individual routes. On-time performance is monitored at the Operations Center and will be assessed through the SCADA network by the following:

- AM in the peak direction (6-9 a.m.) weekdays
- PM in the peak direction (3-6 p.m.) weekdays
- AM in the peak direction (6-9 a.m.) weekends
- PM in the peak direction (3-6 p.m.) weekends

4.0 Service Availability

4.1 Service Availability Standard

Service availability measured by the distribution of light rail stations within the light rail route that affords residents accessibility to the regional transit system. The service standard has two thresholds as follows:

- Light rail stations are placed approximately one mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.
- General considerations for light rail stations are based on the following criteria:
  - Density of population and employment
  - Mix of land uses
  - Connection to other transit services
  - Pedestrian accessibility to the station
  - Planning and design characteristics that are supportive of transit oriented development and transit access

4.2 Service Availability Assessment

Valley Metro will assess the light rail service availability through the following:

- Identify light rail station to station spacing using the light rail station database

- Identify the minority and low-income populations served within 1/2 mile of each station
- Estimate the number of transit connections at each station

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SECTION 8 MONITORING TRANSIT SERVICE

OVERVIEW

Valley Metro frequently monitors its bus services and the siting of transit amenities in an objective manner to identify the potential for adverse, disproportionately high, or disparate impacts to minority populations. Per FTA requirements, the monitoring report will be utilized to provide suggested corrective actions for consideration, awareness and approval by the Valley Metro Board.

Valley Metro's Title VI Monitoring Program is guided by the FTA Circular 4702.1B, Chapters 4-9 and Valley Metro's System-Wide Standards and Policies.

Valley Metro has completed an evaluation of transit services based on the system-wide standards and policies identified in Section 7 of the report. This report is intended to monitor compliance with the Regional Standards and Policies for both bus and light rail services. The monitoring report did not identify disparities in the level and quality of Valley Metro operated transit services provided to different demographic groups. The full monitoring report is in Attachment E.

SECTION 9 TITLE VI MAJOR SERVICE CHANGE, FARE CHANGE AND IMPACT ANALYSIS POLICIES

OVERVIEW

The following Service and Fare Equity Policies were developed according to new federal requirements of Title VI as outlines in FTA Circular 4702.1B. Both policies, including the Disparate and Disproportionate Burden Policies were adopted by the Valley Metro RPTA Board and Valley Metro Rail Board on March 21, 2013. Valley Metro conducted a number of public meetings throughout the region and held a public hearing on the policies March 5, 2013. The Service Change Policy underwent a minor revision to be consistent with the FTA Circular 4702.1B in regards to the time frame in which temporary and new service would be required to undertake a Title VI analysis. The timeframe was extended to a full 365 days from the previous 180 days. In addition, the definition of low-income population and areas was changed from 80 percent or less of the national per capita income and residential land use area was changed to 150 percent or less of the national per capita income. The Board approved this change, as part of their approval of the 2015 Title VI Program Update on August 13, 2015.

MAJOR SERVICE CHANGE & SERVICE EQUITY POLICY

Purpose of the Policy

The purpose of the Major Service Change and Service Equity Policy is to define thresholds for determining major service changes and whether potential changes to existing transit services will have a disparate impact based on race, color, or national origin, or whether potential service changes will have a disproportionately high or adverse impact on minority and/or low-income populations.

Basis for Policy Standards

Federal law requires the City of Phoenix and Valley Metro to evaluate changes to transit services, as outlined in FTA Circular 4702.1B, effective October 1, 2012. In order to comply with 49 CFR Section 21.5(b)(a), 49 CFR Section 21.5 (b)(7) and Appendix C to 49 CFR part 21, recipients shall “evaluate significant system-wide service and fare changes and proposed improvements at the planning and programming stages to determine whether those changes have a discriminatory impact. For service changes, this requirement applies to ‘major service changes’ only. The recipient should have established guidelines or threshold for what it considers a ‘major’ change to be.”

Major Service Change Policy

A. Major Service Change

The following is considered a major service change (unless otherwise noted under Exemptions), and will be evaluated in accordance with the regulatory requirements set forth in FTA Circular 4702.1B:

1. **Route-Level Service Reduction or Elimination**

   - Reducing an existing route by more than 25% of weekday route revenue miles[6], or
   - Reducing an existing route by more than 25% of Saturday route revenue miles[6], or
   - Reducing an existing route by more than 25% of Sunday route revenue miles[6], or
   - Reducing the number of route directional miles more than 25%[6], or
   - A change in a route alignment resulting in a 25% or greater variance from the existing route alignment[6], or
   - In situations where service would be reduced or eliminated in jurisdictions where minority and/or low-income populations exceed the transit system service area (Maricopa County) average.

2. **Route-Level Expansion or Addition of a New Route**

   - Adding a new route, or
   - Expansion of an existing route that increases weekday route revenue miles by more than 25%[6], or
   - Expansion of an existing route that increases Saturday route revenue miles by more than 25%[6], or
   - Expansion of an existing route that increases Sunday route revenue miles by more than 25%[6], or
   - Expanding the number of route directional miles more than 25%[6], or
   - A change in a route alignment resulting in a 25%[6] or greater variance from the existing route alignment.
   -

B. Minority Disparate Impact Policy (Service Equity Analysis)

When conducting a service change equity analysis, the following thresholds will be used to determine when a service change would have a disparate impact on minority populations:

1. **Route-Level Service Reduction or Elimination**

   - Service Level and Service Area Reduction:

[6] A change of 25% in weekly route revenue miles and/or route directional miles is the current City of Phoenix threshold for determining whether a potential transit service change qualifies as a major service change (or "substantial" service change) according to the City of Phoenix resolution (1990). This percentage is generally an industry-wide percentage threshold used by peer transit systems throughout the United States. The City of Phoenix resolution also specifies that a public comment period will be initiated when a change in transit service of 25% or more is determined.

- If the percentage of minority passengers[7] on an affected route is greater than the transit system's minority ridership (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus).[8]

2. Route-Level Expansion or Addition of a New Route

- Route Level Expansion or Transit System Area Expansion (includes addition of new routes):

  - If a route level expansion or transit system area expansion is considered that coincides with a reduction in transit service on the same route or other routes, and the route(s) considered for service expansion predominantly serve non-minority and/or non-low-income geographic areas while the route(s) considered for reduction predominantly serve minority and/or low-income geographic areas, then a disproportionate burden may be determined. The determination of a disproportionate burden will be based on meeting both of the following criteria:
  -
    - If the percentage of minority passengers[7] on an affected route considered for service expansion is less than the transit system's minority ridership percentage (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus),[8] **AND**
    -
    - If the percentage of minority passengers[7] on an affected route considered for service reduction is greater than the transit system's minority ridership percentage (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus).[8]

C. Low-Income Disproportionate Burden Policy (Service Equity Analysis)

When conducting a service change equity analysis, the following thresholds will be used to determine when a service change would have a disproportionate burden on low-income populations:

[7] The determination of the transit system and an affected route's minority and/or low-income population will be derived from the most recently completed, statistically valid regional on-board origin and destination survey.

[8] Local routes include local fixed-route bus, light rail, LINK bus, local limited stop bus. Express routes include express bus and RAPID bus. Circulator routes will be evaluated similarly to local routes for fare changes and major services changes, but will be considered separately from local and express services when considered in the context of a region- or system-wide Title VI analysis. Circulator bus services are provided by the municipalities they serve and not the regional transit agency.

1. **Route-Level Service Reduction or Elimination**

   - If the percentage of low-income passengers[7] on an affected route is greater than the transit system's low-income ridership (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus).[8]

2. **Route-Level Expansion or Addition of a New Route**

   - Route Level Expansion or Transit System Area Expansion (includes addition of new routes):
   -
     - If a route level expansion or transit system area expansion is considered that coincides with a reduction in transit service on the same route or other routes, and the route(s) considered for service expansion predominantly serve non-minority and/or non-low-income geographic areas while the route(s) considered for reduction predominantly serve minority and/or low-income geographic areas, then a disproportionate burden may be determined. The determination of a disproportionate burden will be based on meeting both of the following criteria:

       - If the percentage of low-income passengers[7] on an affected route considered for service expansion is less than the transit system's low-income ridership percentage (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus),[8] **AND**

       - If the percentage of low-income passengers[7] on an affected route considered for service reduction is greater than the transit system's low-income ridership percentage (within the appropriate dataset's margin of error) by transit classification (local, express, neighborhood circulators, and rural bus).[8]

Equity Analysis Data Sources

Category	Action	Sub Action	Evaluation Method
Fare	Adjustment	N/A	O/D[a] profile data of affected fare category and/or Census Data
Service Span	Reduction	N/A	O/D[a] profile data of affected route
	Expansion	N/A	
Service Headway	Reduction	N/A	O/D[a] profile data of affected route
	Expansion	N/A	
Route Length	Reduction	N/A	O/D[a] Data
	Expansion	N/A	Census Data
Route Alignment	Reduced Alignment	N/A	O/D[a] Data
	Expanded Alignment	N/A	Census Data
	Modified Alignment	Eliminated Segment(s)	O/D[a] Data
		Segment(s) to New Areas	Census Data
New Route	New Route	N/A	Census Data

[a] Origin/Destination Survey Data

Exemptions

The major service change thresholds exclude any changes to service that are caused by the following:

- Discontinuance of Temporary or Demonstration Services – The discontinuance of a temporary transit service or demonstration service that has been in effect for less than 365 days.

- Headway Adjustments – Headways for transit routes may be adjusted up to 5 minutes during the peak hour periods, and 15 minutes during non-peak hour periods.

- New Transit Service "Break-In" Period – An adjustment to service frequencies and/or span of service for new transit routes that have been in revenue service for less than 365 days.

- Other Service Providers or Agencies – Actions of other service providers or public agencies providing/administering transit services that are not the responsibility of Valley Metro.

- Natural or Catastrophic Disasters – Forces of nature such as earthquakes, wildfires, or other natural disasters, or human-caused catastrophic disasters that may force the suspension of scheduled transit service for public safety or technical reasons.

- Auxiliary Transportation Infrastructure Failures – Failures of auxiliary transportation infrastructure such as vehicular bridges, highway bridge overpasses, tunnels, or elevated highways that force the suspension transit service.

- Overlapping Services – A reduction in revenue miles on one line that is offset by an increase in revenue miles on the overlapping section of an alternative transit route (an overlapping section is where two or more bus routes or rail lines share the same alignment, stops, or stations for a short distance).

- Seasonal Service and Special Events – Changes to bus service levels on routes which occur because of seasonal ridership changes and event activities served by dedicated temporary bus routes or increased service frequencies.

- Temporary Route Detours – A short-term change to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations, or any uncontrollable circumstance.

Public Participatory Procedures

For all proposed major service changes, City of Phoenix and/or Valley Metro will hold at least one public hearing, with a minimum of two public notices prior to the hearing in order to receive public comments on the potential service changes. The first meeting notice will occur at least 30 days prior to the scheduled hearing date, with the second notice being made at least 10 days prior to the scheduled hearing date. Public materials will be produced in English and Spanish (the metropolitan region's two primary languages), or in other languages upon request, in order to ensure Limited English Proficient (LEP) populations within the transit service area are informed of the proposed service changes and can participate in community discussions. Valley Metro and/or the City of Phoenix will conduct a service equity analysis for the Valley Metro Board of Directors, the City of Phoenix City Council, and the public's consideration prior to any public hearings associated with the proposed service changes.

Definitions

Designated Recipient – The City of Phoenix is the designated recipient for federal funds contributing to transit system capital programs and operations in the greater Phoenix metropolitan region.

Disparate Impact – A facially neutral policy or practice that has a disproportionately excluding or adverse effect on the minority riders or population of the service area.

Disparate Treatment – An action that results in a circumstance in which minority riders or populations are treated differently than others because of their race, color, national origin and/or income status.

Disproportionate Impact – A facially neutral policy or practice that has a disproportionately excluding or adverse effect on the low-income riders or population of the service area.

Express Transit Service – Includes Valley Metro designated express bus and RAPID bus services.

High-Capacity Transit (HCT) – A transit facility or service that operates at a consistent, high frequency of service.

Local Transit Service – Includes Light Rail Transit (LRT), and local fixed-route bus, local limited stop bus, LINK bus routes, and circulator/shuttle bus services.

Low-income Person - means a person whose median household income is at or below 150 percent of the U.S. Department of Health and Human Services poverty line.

Low-income Areas – A census tract or other geographic bound area that has a higher percentage of low-income persons (defined above) than the overall average percentage of low-income persons in the route-service area.

Minority Populations & Areas – Minority populations include those persons who self-identify themselves as being one or more of the following ethnic groups: American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian and Other Pacific Islander, as defined in the FTA Title VI Circular. “Minority Areas” are residential land use areas within Census tracts where the percentage of minority persons is higher than the Valley Metro service area average.

Route-Level – Refers to the geographic level of analysis at the route alignment level by which the performance of a transit route is measured for equity.

Route-Service Area – A one-half mile radial buffer on either side of a transit route's alignment. A three-quarter mile radial buffer is used to ensure compliance with the American's with Disabilities Act guidelines.

Service Level – Refers to the span of service (hours of operation), days of operation, trips, and headways (service frequencies) for a transit route or the regional transit system.

Service Area – According to 49 CFR 604.3, geographic service area means "the entire area in which a recipient is authorized to provide public transportation service under appropriate local, state, and Federal law." Valley Metro's service area is considered to be Maricopa County.

Service Span – The span of hours over which service is operated (e.g., 6 a.m. to 10 p.m.). The service span may vary by weekday, Saturday, or Sunday.

Sub-recipient – Valley Metro is a designated sub-recipient of federal funding for capital projects and service operations. Funding is passed onto Valley Metro from the designated recipient, the City of Phoenix.

System-wide – Refers to the geographic level of analysis by which the performance of the entire transit system is measured for equity.

Transit System – A coordinated urban network of scheduled public passenger modes including fixed-route local and express buses, light rail transit, bus rapid transit, and circulator bus services that provide mobility for people from one place to another.

FARE EQUITY POLICY

Purpose of the Policy

The purpose of the Fare Equity Policy is to define a threshold for determining whether potential changes to existing transit fares will have a discriminatory impact based on race, color, or national origin, or whether a potential fare adjustment will have a disproportionately high or adverse impact on minority and/or low-income populations.

Basis for Policy Standards

Periodically, the City of Phoenix and Valley Metro make adjustments to transit fares in order to generate revenues to help sustain transit service operations. Federal law requires the City of Phoenix and Valley Metro to prepare and submit fare equity analyses for all potential transit fare adjustments, as outlined in Federal Transit Administration (FTA) Circular 4702.1B, effective October 1, 2012.

Fare Equity Policy

The following are the City of Phoenix and Valley Metro policies for determining if a fare adjustment will result in a minority disparate impact or low-income disproportionate impact.

A. Minority Disparate Impact Policy (Fare Equity Analysis)

If a planned transit fare adjustment results in minority populations bearing a fare rate change of greater than 4 percentage points as compared to non-minority populations, the resulting effect will be considered a minority disparate impact.

B. Low-Income Disproportionate Burden Policy (Fare Equity Analysis)

If a planned transit fare adjustment results in low-income populations bearing a fare rate change of greater than 4 percentage points as compared to non-low-income populations, the resulting effect will be considered a low-income disproportionate burden.

Table 8 – Equity Analysis Data Sources

Category	Action	Sub Action	Evaluation Method
Fare	Adjustment	N/A	O/D[a] profile data of affected fare category and/or Census Data
Service Span	Reduction	N/A	O/D[a] profile data of affected route
	Expansion	N/A	
Service Headway	Reduction	N/A	O/D[a] profile data of affected route
	Expansion	N/A	
Route Length	Reduction	N/A	O/D[a] Data
	Expansion	N/A	Census Data
Route Alignment	Reduced Alignment	N/A	O/D[a] Data
	Expanded Alignment	N/A	Census Data
	Modified Alignment	Eliminated Segment(s)	O/D[a] Data
		Segment(s) to New Areas	Census Data
New Route	New Route	N/A	Census Data

[a] Origin/Destination Survey Data

Public Participatory Procedures

For all proposed fare changes, City of Phoenix and/or Valley Metro will hold at least one public hearing, with a minimum of two public notices prior to the hearing in order to receive public comments on the proposed fare changes. The first meeting notice will occur at least 30 days prior to the scheduled hearing date, with the second notice being made at least 10 days prior to the scheduled hearing date. Public materials will be produced in English and Spanish (the metropolitan region's two primary languages), or in other languages upon request, in order to ensure Limited English Proficient (LEP) populations within the transit service area are informed of the proposed service changes and can participate in community discussions. Valley Metro and/or the City of Phoenix will conduct a fare equity analysis for the Valley Metro Board of Directors, the City of Phoenix City Council, and the public's consideration prior to any public hearings associated with the proposed fare changes.

DEFINITIONS

Designated Recipient – The City of Phoenix is the designated recipient for federal funds contributing to transit system capital programs and operations in the greater Phoenix metropolitan region.

Disparate Impact – A facially neutral policy or practice that has a disproportionately excluding or adverse effect on the minority riders or population of the service area.

Disparate Treatment – An action that results in a circumstance in which minority riders or populations are treated differently than others because of their race, color, national origin and/or income status.

Disproportionate Impact – A facially neutral policy or practice that has a disproportionately excluding or adverse effect on the low-income riders or population of the service area.

Express Transit Service – Includes Valley Metro designated express bus and RAPID bus services.

High-Capacity Transit (HCT) – A transit facility or service that operates at a consistent, high frequency of service.

Local Transit Service – Includes Light Rail Transit (LRT), and local fixed-route bus, local limited stop bus, LINK bus routes, and circulator/shuttle bus services.

Low-income Person - means a person whose median household income is at or below 150 percent of the U.S. Department of Health and Human Services poverty line.

Low-income Areas – A census tract or other geographic bound area that has a higher percentage of low-income persons (defined above) than the overall average percentage of low-income persons in the route-service area.

Minority Populations & Areas – Minority populations include those persons who self-identify themselves as being one or more of the following ethnic groups: American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian and Other Pacific Islander, as defined in the FTA Title VI Circular. "Minority Areas" are residential land use areas within Census tracts where the percentage of minority persons is higher than the Valley Metro service area average.

Route-Level – Refers to the geographic level of analysis at the route alignment level by which the performance of a transit route is measured for equity.

Route-Service Area – A one-half mile radial buffer on either side of a transit route's alignment. A three-quarter mile radial buffer is used to ensure compliance with the American's with Disabilities Act guidelines.

Service Level – Refers to the span of service (hours of operation), days of operation, trips, and headways (service frequencies) for a transit route or the regional transit system.

Service Area – According to 49 CFR 604.3, geographic service area means "the entire area in which a recipient is authorized to provide public transportation service under appropriate local, state, and Federal law."

Service Span – The span of hours over which service is operated (e.g., 6 a.m. to 10 p.m.). The service span may vary by weekday, Saturday, or Sunday.

Sub-recipient – Valley Metro is a designated sub-recipient of federal funding for capital projects and service operations. Funding is passed onto Valley Metro from the designated recipient, the City of Phoenix.

System-wide – Refers to the geographic level of analysis by which the performance of the entire transit system is measured for equity.

Transit System – A coordinated urban network of public passenger modes including fixed-route local and express buses, light rail transit, bus rapid transit, and circulator bus services that provide mobility for people from one place to another.

PUBLIC OUTREACH PROCESS FOR THE MAJOR SERVICE CHANGE AND FARE EQUITY POLICIES 2013

Valley Metro conducted a public outreach program between January 3rd and March 5th, 2013 to seek input from the public including minority and low-income populations on the proposed policies. All member agencies were offered the opportunity to participate in the public outreach program that included open dialogue sessions with local public agency committees, commissions, and special interest groups.

The first task was to engage a wide variety of stakeholders. Valley Metro presented the proposed policies to commissions and advisory boards focused on disability concerns, human relations and transportation throughout the metropolitan Phoenix area. Valley Metro also held a public meeting in a centralized location in conjunction with stakeholder outreach efforts. A presentation shared policies and meeting attendees were able to ask questions and provide comments. Information about the policies was also distributed at other Valley Metro meetings and outreach events. An open public meeting was also held to receive community input on the proposed policies. The following list of public outreach events were provided to those member agencies requesting dialogue sessions:

- January 3rd, 2013 – Phoenix Citizens'' Transit Commission
- February 7th, 2013 – Tempe Mayor's Commission on Disabilities
- February 12th, 2013 – Tempe Human Relations Commission
- February 27th, 2013 – Phoenix Mayor's Commission on Disability Issues
- March 5th, 2013 – Valley Metro Title VI Policies Public Hearing

To create awareness about the policies and the comment period, Valley Metro placed advertisements in Valley-wide and cultural media newspapers. Notification was also provided through email to Valley Metro's stakeholder database, Valley Metro's social media accounts and a news release to the local media. A fact sheet was developed with examples on how the policies would be implemented along with a comment form. These materials along with general information about this effort were placed on Valley Metro's website. Comments were accepted via mail, email, fax and phone.

SECTION 10 EVALUATION OF 2013-2015 SERVICE AND FARE CHANGES

OVERVIEW

According to the requirements of Chapter III-13 of the Title VI Circular (FTA C 4702.1B), all recipients are required to conduct a Title VI equity analysis for constructed facilities, such as a vehicle storage facility, maintenance facility, operation center, etc. The Title VI analysis should be done during the planning stage with regard to the location of the facility. Valley Metro did not construction any facilities during this reporting period; therefore, no Title VI equity analysis has been conducted for new facility.

According to the requirements of Chapter IV-10 of the Title VI Circular (FTA C 4702.1B), all transit providers that operate 50 or more fixed route vehicles in peak service and are located in an urbanized area of 200,000 or more in population "are required to prepare and submit service and fare equity analyses." Valley Metro is required to evaluate the impacts that would result from a major service change or a fare change, to ensure that minority populations are not disparately impacted from these changes and that a disproportionate burden will not be placed on low-income populations.

Valley Metro's adopted major service change and fare change policies are identified in Section 7 above. All fare changes and all service changes that meet Valley Metro's threshold of a major service change that are proposed subsequent to implementation of this Title VI program are subject to an impact analysis to determine whether a disparate impact toward minorities or a disproportionate burden toward low-income populations will occur. Valley Metro also defines its policies for what constitutes a disparate impact and a disproportionate burden (with a distinction between impacts resulting from a fare change or a major service change) in Section 7.

If disparate impacts are found to exist, FTA requires that transit agencies provide further analysis "to determine whether alternatives exist that would serve the same legitimate objectives but with less of a disparate impact." After conducting a thorough analysis, STA may determine that alternatives and mitigation measures are necessary to ensure such impacts will not disparately affect minority populations. If, however, no feasible alternatives to a service or fare change exist that would otherwise bear less of an impact to minority populations, Chapter IV-16 of the Title VI Circular states that a transit provider may implement the proposed service change if "the transit provider has a substantial legitimate justification for the proposed change" and "the transit provider can show that there are no alternatives that would have a less disparate impact on minority riders but would still accomplish the transit provider's legitimate program goals."

The following Service and Fare Equity Analyses were conducted between 2012 and 2015 and is in Attachment D:

- Title VI Assessment of the Valley Metro Fare Policy and Proposed FY 2013 Fare Change – August 2012
- Title VI Assessment of Proposed Service Changes for July 2013 – May 2013

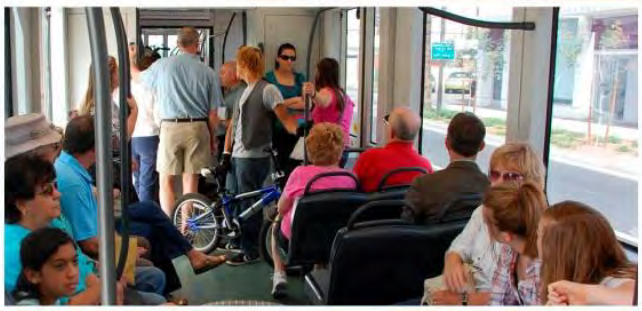
- Title VI Assessment of Proposed Service Changes for January 2014 – November 2013
- Title VI Assessment of Proposed Service Changes for October 2014 – June 2014

ATTACHMENT A – LANGUAGE ASSISTANCE PLAN

Language Assistance Plan

Title VI Program

May 2015



1.0 INTRODUCTION

In 1993, the Valley Metro Regional Public Transportation Authority (RPTA) board adopted the name Valley Metro as the identity for the regional transit system in the Phoenix metropolitan area. Under the Valley Metro brand, local governments joined to fund the Valley-wide transit system that serves more than 73 million riders annually. Valley Metro provides fixed route bus service, light rail service and complementary paratransit service across the region. Valley Metro distributes transit funds from the countywide transit sales tax to its member agencies including the cities of Tempe, Mesa, Glendale, Phoenix, Buckeye, Tolleson, Wickenburg, Surprise, Peoria, Chandler, Gilbert, El Mirage, Avondale, Goodyear, Scottsdale, and Maricopa County. For the most part, Valley Metro and its member agencies utilize service providers for operations of bus, light rail and paratransit services. The cities of Glendale, Scottsdale, Peoria, and Phoenix contract some of their service directly to service providers.

The regional transit system has 44 local bus routes, 15 key local bus routes, 1 limited stop peak and 2 limited stop all-day routes, 20 Express/RAPID routes, 19 community circulator routes, one rural connector route, and one light rail system for a total of 103 regional routes. Eight regional entities provide Dial-a-Ride service for seniors and persons with disabilities, as well as ADA paratransit service for those who are unable to use fixed route bus service.
Valley Metro and the region supports the goal of the U.S. Department of Transportation (USDOT) limited English proficient (LEP) guidance to provide meaningful access to its services by LEP persons. The Federal Transit Administration (FTA) notes that transit agencies that provide language assistance to LEP persons in a competent and effective manner will help ensure that their services are safe, reliable, convenient, and accessible to those persons. These efforts may attract riders who would otherwise be excluded from using the service because of language barriers and, ideally, will encourage riders to continue using the system after they are proficient in English and/or have more transportation options.

1.1 Regulatory Guidance

Title VI of the Civil Rights Act of 1964, provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal financial assistance.

Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency,” issued on August 11, 2000, directs each federal agency to publish guidance for its respective recipients in order to assist with its obligations to LEP persons under Title VI. The Executive Order states that recipients must take reasonable steps to ensure meaningful access to their programs and activities by LEP persons. Providing English-only services may constitute national origin discrimination in violation of Title VI and its implementing regulations.

The FTA Circular 4702.1B, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients", issued in October 2012 reiterates this requirement. Chapter III states that — FTA recipients must take responsible steps to ensure meaningful access to the benefits, services, information, and other important portions of their programs and activities for individuals who are Limited English Proficient (page III-6)."

In the Phoenix Metropolitan Area, there are over seventy different languages identified in households where English is not the predominate language. Using the "Four Factor Analysis" prescribed by the FTA, this plan was developed to ensure that all transit providers effectively communicate with all users of the public transportation agency's services provided.

1.2 Four Factor Analysis

The FTA Circular 4702.1B identifies four factors that recipients of federal funds should follow when determining what reasonable steps should be taken to ensure meaningful access for LEP persons.

The four factor analysis involved the following:

1. Identify the number or proportion of LEP persons eligible to be served or likely to be encountered with transit service.
2. Determine the frequency with which LEP individuals come in contact with transit service.
3. Determine the nature and importance of transit service provided to LEP individuals.
4. Assess the resources available to the recipient for LEP outreach, as well as costs associated with that outreach.

This document describes Valley Metro's four-factor analysis and summarizes its LEP efforts, including staff training, followed by a description of how the plan will be monitored and updated.

2.0 LIMITED ENGLISH PROFICIENT POPULATION (FACTOR 1)

The Factor 1 analysis assessed the number and proportion of persons with limited English speaking proficiency likely to be encountered within the service area, which is defined as a one-half mile radial buffer around all fixed route services. The LEP population is those individuals who reported to the Census Bureau that they speak English "less than very well."

2.1 Evaluation Methods and Data Sources

In accordance with the FTA's policy guidance, the initial step for providing meaningful access to services for LEP persons and maintaining an effective LEP program is to identify LEP populations in the service area and their language characteristics through an analysis of available data. Determining the presence of LEP populations in the Valley Metro service area was completed through an analysis of several data sources, including:

- U.S. Census Bureau, Census 2000
- U.S. Census Bureau, 2013 American Community Survey (ACS) 5-Year Sample

The U.S Decennial Census 2010 data was not used, as the 2010 Census did not include language specific information on the census forms. The Census 2000 data provides some general information about language groups that is included below; though recognized to be 15 years old. Notably the demographic landscape has transformed since 2000, though this dataset provides a historical comparison and additional insight given the long form of Census 2000 provided more detailed sampling for population characteristics like language proficiency as compared to Census 2010 and the ACS, which is more of a random sample.

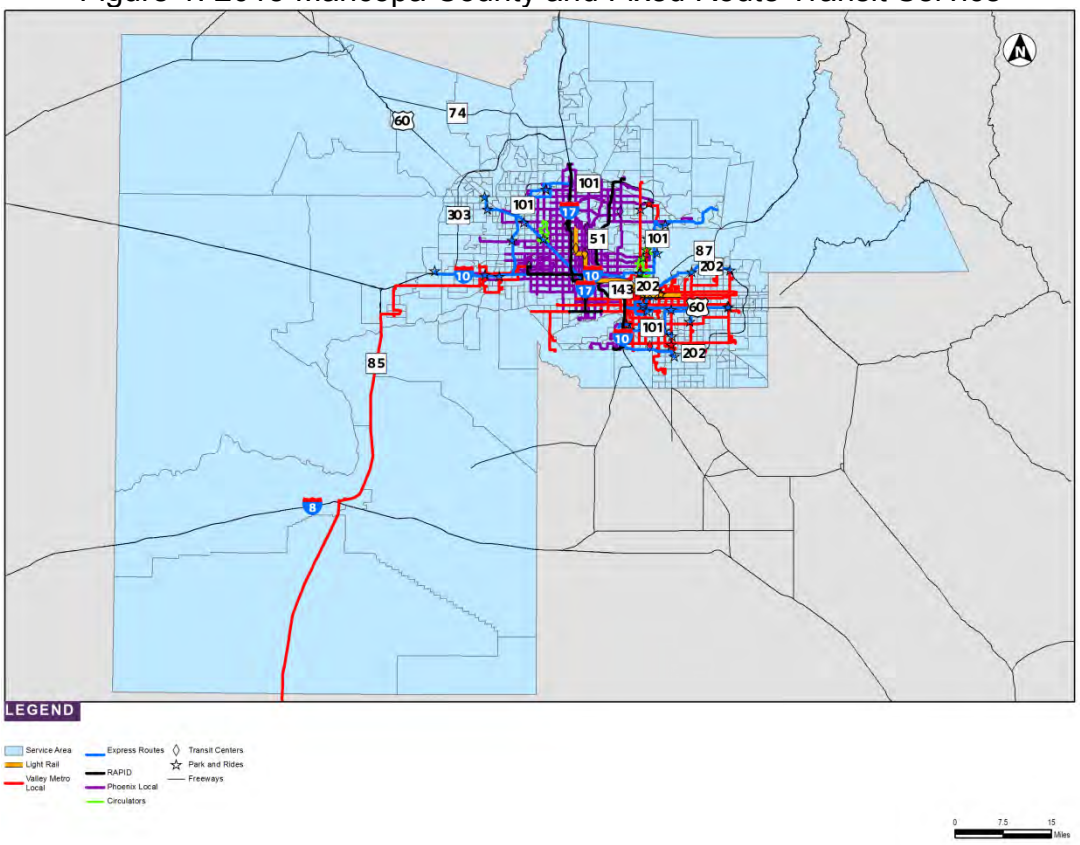
2.2 LEP Population Identification

FTA describes LEP persons as having a limited ability to read, write, speak, or understand English. For this LEP analysis, those who reported to the Census Bureau that they speak English "less than very well" were used to tabulate the LEP population for the transit service area.

Census 2000

U.S. Decennial Census 2000 provides information about English language proficiency within the Valley Metro service area. The census provides information on languages; recognizably this data is 15 years old and may not reflect the current state of the region. These data are available at the census block group and census tract level. There are 618 census tracts with one-half mile of fixed transit service. Figure 1 depicts the census tracts within the County. Census tracts encapsulated within the one-quarter mile buffer are also included in the estimates.

Figure 1: 2015 Maricopa County and Fixed Route Transit Service



The Census 2000 data include the number of persons ages 5 and above who self-identified their ability to speak English as “very well”, “well”, “not well”, and “not at all”. Table 1 shows English proficiency for the County and for Valley Metro’s service area using the Census 2000 data. The table shows that 12.1 percent of the population age 5 and over within the service area reported speaking English less than very well and is considered the overall LEP population. The census tracts within one-half mile of fixed route service have slightly higher population of LEP than Maricopa County.

Table 1: 2000 Census Data by Location

County or Area	Total Population Age 5 and Over	Speaks English Only	Speaks English		Percentage Less than Very Well
			Very Well	Less than Very Well	
Maricopa County	2,832,694	2,148,696	355,963	328,035	11.6%
Census Tracts within ½ -mile fixed routes	2,651,705	1,986,112	344,003	321,590	12.1%

Table 2 displays the data on English language proficiency for the census tracts within one-quarter mile around the fixed route service population ages 5 years and above by the linguistic categories identified by the U.S. Census Bureau, which include Spanish,

Indo-European, Asian or Pacific Islander, and All Other Languages. Predominately the population self-identified as speaking English less than "Very Well" is of Spanish language group, encompassing 10.4 percent of the total population ages 5 years and over. Indo-European, Asian or Pacific Islander, and All Other Languages groups comprised 1.7percent of the population. Of all those speaking English less than very well, the Spanish group comprises 86.0 percent of the total population over age five with limited English proficiency.

Table 2: 2000 Census Data by Language Category

Language Category	Total Population Age 5 and Over	Speaks English				Percentage Less than Very Well
		Very Well	Well	Not Well	Not At All	
Total	2,651,705	344,003	133,047	113,289	75,254	12.1%
English	1,986,112	-	-	-	-	0.0%
Spanish	528,613	252,587	103,991	99,549	72,486	10.4%
Indo-European	66,605	47,582	12,276	5,667	1,080	0.7%
Asian or Pacific Islander	44,109	24,273	12,210	6,372	1,254	0.7%
All Other Languages	26,266	19,561	4,570	1,701	434	0.3%

The Census 2000 data also provide information on linguistically isolated households. "A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English and (2) speaks a non-English language and speaks English 'very well.' In other words, all members 14 years old and over have at least some difficulty with English" (Census 2000). In total, the Census 2000 Summary File 3 data identified 1,048,128 households. The entire membership of a linguistically isolated household would be considered LEP. Table 3 details those data for linguistically and non-linguistically isolated households by language category.

Table 3: 2000 Census Data by Linguistically Isolated Households

Language Category	**Total Households**	**Isolated Households**	**Non-isolated Households**	**Percentage Isolated Households**
Census Tracts 1/2 mile fixed routes	1,053,667	62,471	201,748	5.9%
English	788,723	-	-	-
Spanish	190,507	51,213	139,294	4.9%
Indo-European	40,883	5,161	35,498	0.5%
Asian or Pacific Islander	20,853	4,744	16,109	0.5%
All Other Languages	12,701	1,405	11,296	0.1%

Within the fixed route transit area 5.9 percent of households are considered linguistically isolated. Again, these are predominately Spanish households making up 4.9percent of the total. Remaining languages comprise 1.1percent of households that are classified as linguistically isolated.

Figure 2 shows a map depicting the concentrations of linguistically isolated households in census tracts within one-quarter mile of fixed route service. Most areas throughout the region are mixed, though there are a few pockets of Census blocks that have concentrations of linguistically isolated households, thus identified as persons with limited English proficiency.

American Community Survey

The American Community Survey (ACS) is a continuous nationwide survey conducted monthly by the U.S. Census Bureau to produce annually updated estimates for the same small area (census tracts and block groups) formerly surveyed via the decennial census long-form survey. It is intended to measure changing socioeconomic characteristics and conditions of the population on a recurring basis. It is important to note that the ACS does not provide official counts of the population between each decennial census, but instead provides weighted population estimates.

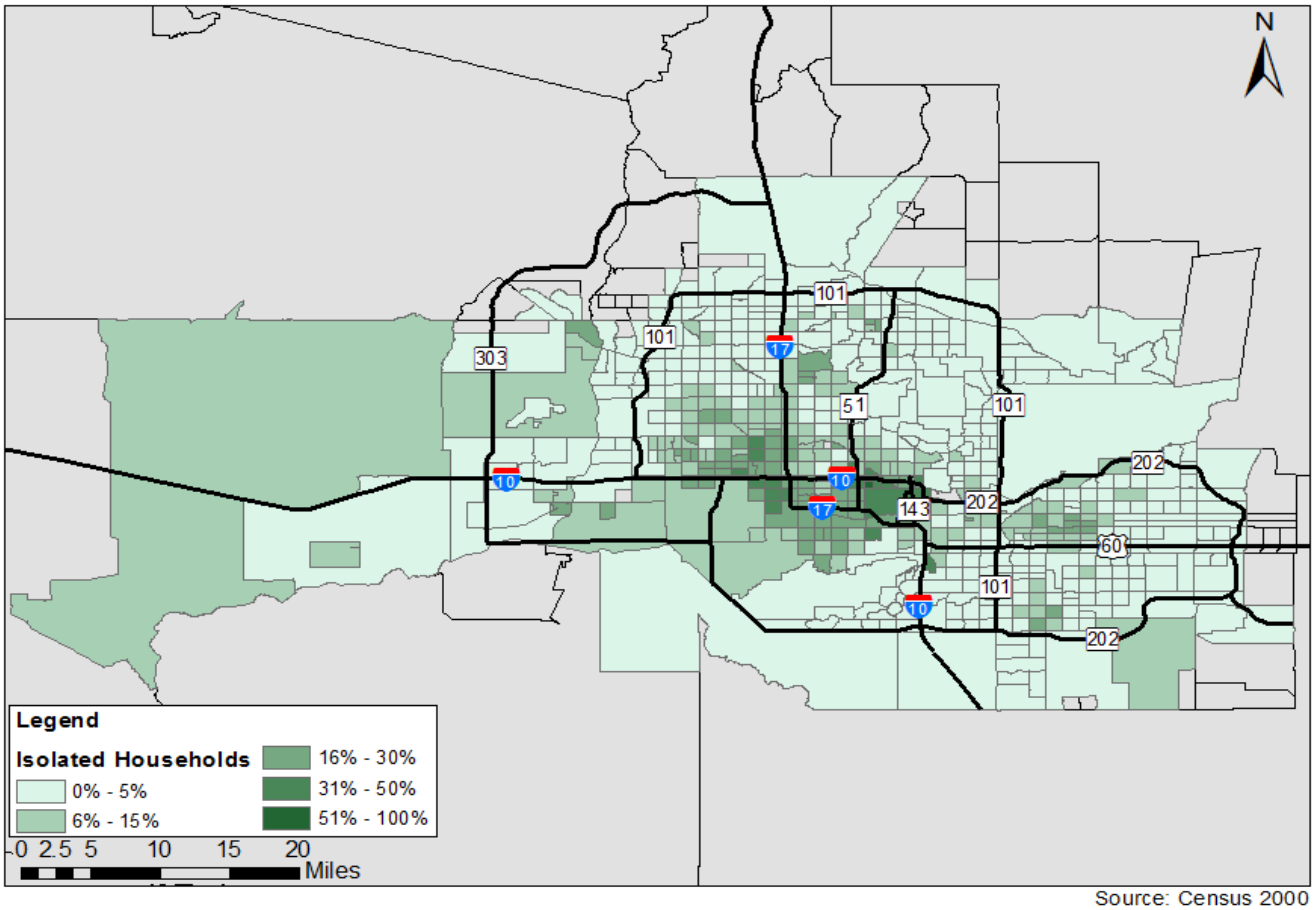
Figure 3 shows the census tracts within the ½ mile buffer of transit routes. Census tracts encapsulated within this area are included in the estimates though they may not be within a ½ mile of a fixed route.

Within this area, the most recent census data from the ACS 2013 data estimate the population age 5 years and older within the service area to be 3,051,428 with 340,076, or 11.1 percent, of the population is LEP; see Table 4.

Table 4: ACS 2013 Data by Location

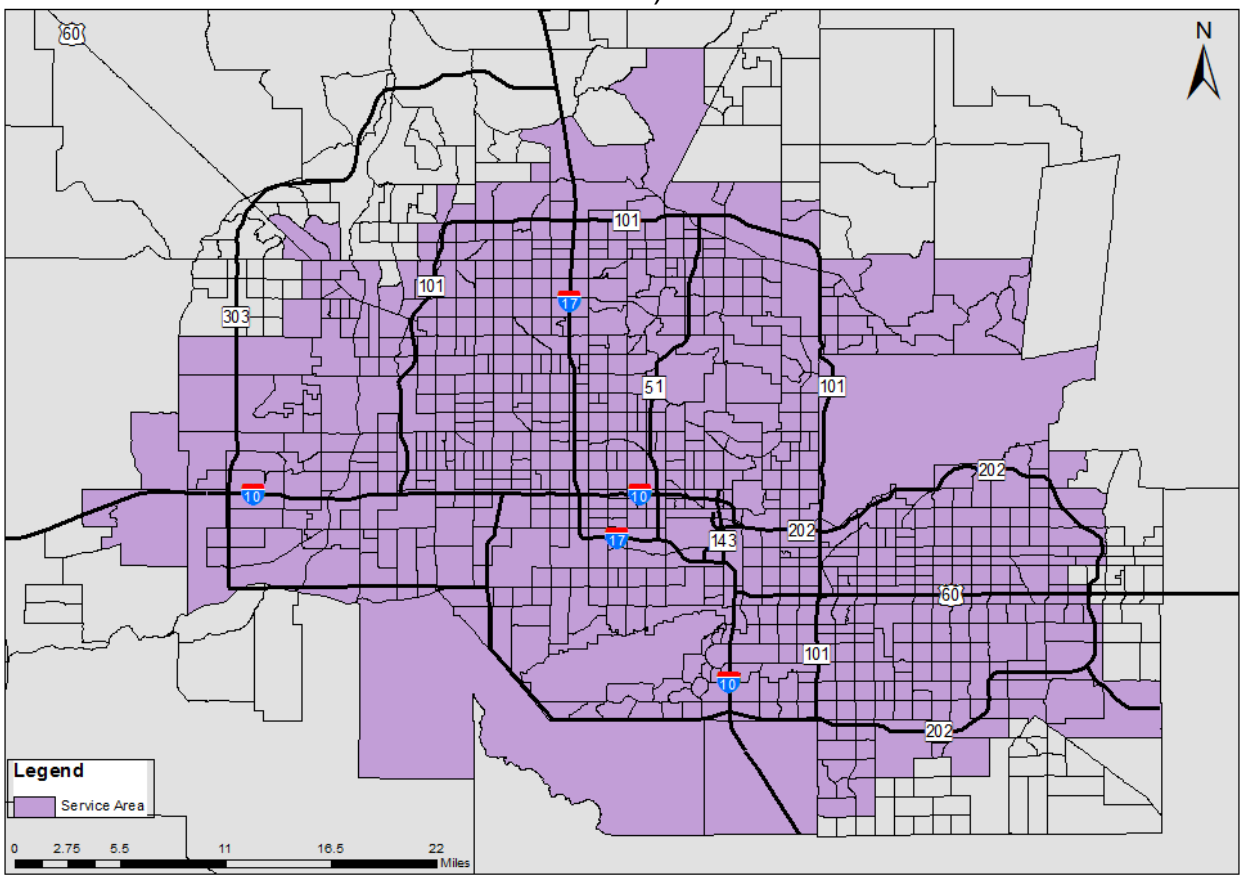
County or Area	Total Population Age 5 and Over	Speaks English Only	Speaks English		Percentage Less than Very Well
			Very Well	Less than Very Well	
Maricopa County	3,610,510	2,660,946	589,679	359,884	10.0%
Census Tracts 1/2-mile fixed routes	3,051,428	2,171,136	540,216	340,076	11.1%

Figure 2: Census tracts with Linguistically Isolated Households



Source: Census 2000

Figure 3: 2015 Census Tracts within One-Quarter Mile of Fixed Route Service (ACS 2013)



Source: ACS 2013

The ACS data show 19 languages or language groups with 1,000 or more LEP persons. However, only one LEP population exceeds 5 percent of the total population of persons eligible to be served or likely encountered. Table 5 shows the populations that meet either of these thresholds using ACS 2013 population by language and ability, sorted by percentage of LEP population.

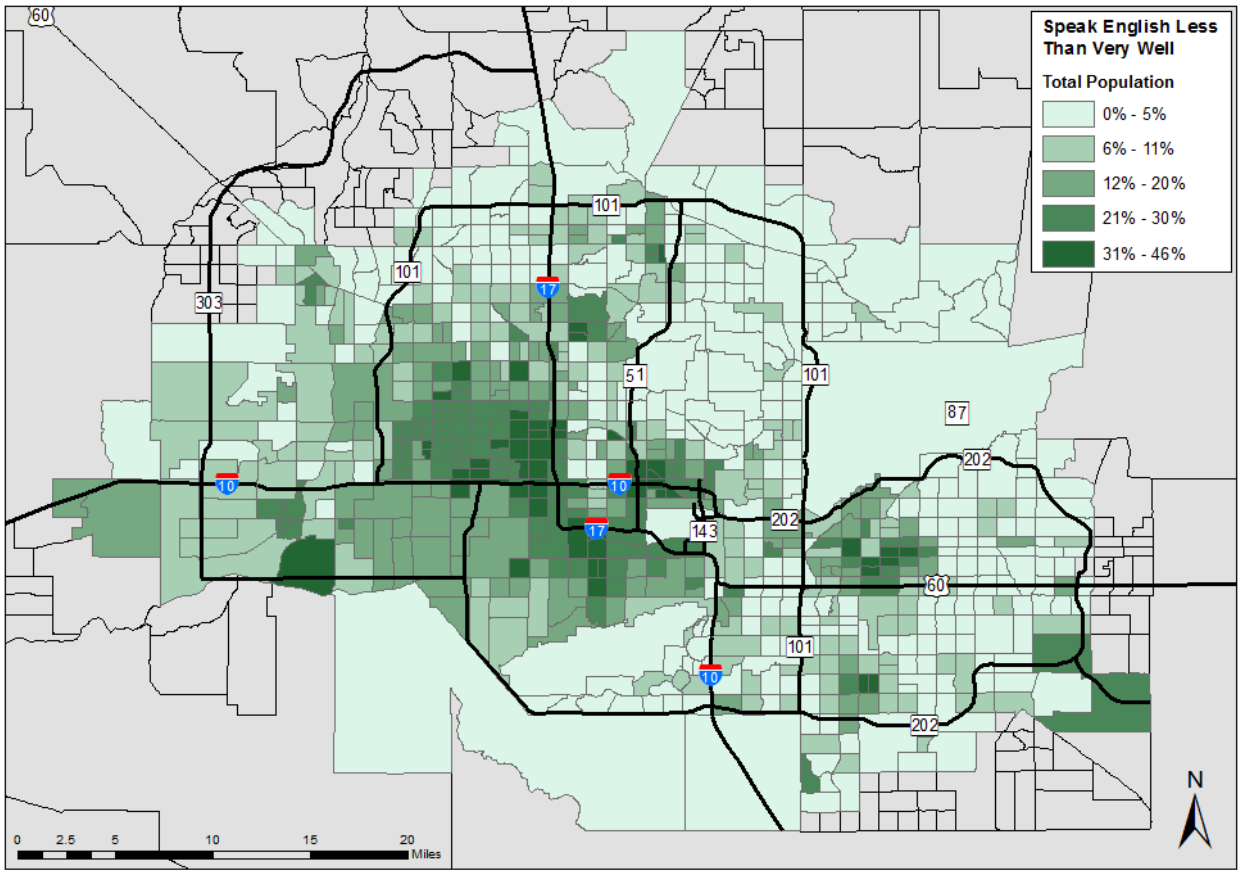
Table 5: ACS 2013 Data by Language within One-Quarter Mile of Fixed Route Service

Language	Speak English		Total Population	Percentage of Language LEP of Total LEP Population
	Less Than Very Well	Very Well		
All Languages	340,076	-	-	100%
Spanish	275,370	416,599	691,969	81.05%
Chinese	9,005	8,305	17,310	2.65%
Vietnamese	9,391	5,669	15,060	2.76%
Arabic	4,908	7,552	12,460	1.44%
Tagalog	4,114	8,918	13,032	1.21%
Other Asian	3,549	7,208	10,757	1.04%
African	3,301	4,485	7,786	0.97%
Korean	3,105	3,568	6,673	0.91%
Serbo-Croatian	2,833	4,177	7,010	0.83%
Other Languages	2,227	1,844	4,071	0.65%
Other Indo European	2,132	3,494	5,636	0.63%
Other Indic	1,894	3,989	5,883	0.56%
French	1,788	7,299	9,087	0.53%
Persian	1,788	2,821	4,609	0.53%
Other Pacific Island	1,278	3,037	4,315	0.38%
Russian	1,245	3,017	4,262	0.37%
Japanese	1,236	2,474	3,710	0.36%
Navajo	1,183	7,348	8,531	0.35%
German	1,199	9,624	10,823	0.35%

Within one-half mile of fixed route service, the majority (81%) of the LEP population is the Spanish speaking population; this is the only language group to exceed 5percent of the LEP population. The Spanish LEP population consists of 275,370 persons within the service area. Chinese and Vietnamese followed with 2.65percent and 2.76percent respectively, both were approximately 9,000 persons. There are 4,908 Arabic speaking LEP persons or 1.44percent of the LEP population. The fifth largest LEP population is Tagalog consisting of 4,114 people, or 1.21% of the LEP population within the service area.

Figure 4 shows a map depicting the concentrations of population speaking English Less than Very Well throughout the service area. Most areas throughout the region are mixed, though there are a few pockets of Census blocks that have concentrations of persons with limited English proficiency.

Figure 4: Population Speaking English "Less than Very Well"



3.0 FREQUENCY OF CONTACT WITH LIMITED ENGLISH PROFICIENT POPULATION (FACTOR 2)

The first step of the four-factor LEP needs assessment revealed that the largest language group was overwhelmingly Spanish; followed by Chinese, Vietnamese, Arabic, and Tagalog. Factor 2 is intended to assess the frequency with which LEP persons interact with Valley Metro programs, activities, or services. The USDOT "Policy Guidance Concerning Recipients 'Responsibilities to Limited English Proficient (LEP) Person" (USDOT 2005) advises that:

> *Recipients should assess, as accurately as possible, the frequency with which they have or should have contact with LEP individuals from different language groups seeking assistance, as the more frequent the contact, the more likely enhanced language services will be needed (emphasis added). The steps that are reasonable for a recipient that serves an LEP person on a one-time basis will be very different than those expected from a recipient that serves LEP persons daily.*

The frequency of use was evaluated by assessing current resources, available data, and a short survey of transit employees.

3.1 Evaluation Methods and Data Sources

In an effort to determine the frequency that LEP persons interact with the agency, both quantitative and qualitative methods were used to analyze access to services. Anecdotal information regarding interactions with LEP persons, garnered through conversations with Valley Metro employees is also included in this section. More structured analysis is included using several sources of information:

- Transit Employee Survey
- Customer Service Interactive Voice Response (IVR) Call Log
- Transit Education Program
- Valley Metro Website Translation Data

Together these sources provide a picture of the interaction of LEP persons with programs, activities, or services provided by the agency.

3.2 Frequency of Contact Analyses

With about a quarter of the region speaking more than only English, Valley Metro recognizes the value of providing convenient and efficient information to transit riders. Understanding how often LEP persons are utilizing services will assist in serving customers better in the future with quality services, programs, and activities.

Transit Employee Survey

An employee survey was performed in an effort to determine how often those employees in contact with transit riders regularly encounter LEP persons. During late March and early April 2015, a voluntary survey of customer service and transit employees was conducted regarding the interaction with LEP persons and languages spoken. A copy of the survey instrument can be found as Appendix B. The Valley Metro Customer Service Representatives provide passenger assistance most commonly through email, but also via the phone. In addition, there are several Customer Service Representatives that are dedicated for fare sales, transit information, or are stationed at transit passenger facilities[1] to provide assistance to passengers. Employees surveyed were of one of the following locations:

- Customer Service Representatives (via Customer Assistance System, letter, phone, or email)
- Central Station Transit Center
- Ed Pastor Transit Center

[1] Facilities operated by the City of Phoenix or the City of Tempe

- Metrocenter Transit Center
- Sunnyslope Transit Center
- Tempe Transportation Center

In total 26 respondents provided information about their experiences. Approximately 70% of those surveyed were Customer Service Representatives employed at the Mobility and Customer Service Center.

When asked if representatives have had any requests for materials in another language, 31% responded yes they had encountered a request; see Figure 5. Of these, most interpretation or translation requests were for Spanish.

By cross-referencing the locations of respondents with responses that language assistance had been requested, only three locations had received requests: Central Station Transit Center (50% of requests), the Mobility and Customer Service Center (38% of requests), and Ed Pastor Transit Center (13% of requests).

Languages requested were predominately Spanish (55%) followed by French (18%). See Figure 6 for a full breakdown of the languages requested, including Japanese, Swahili, and Sa'ban.

Figure 5: Requests for Information or Materials in Another Language

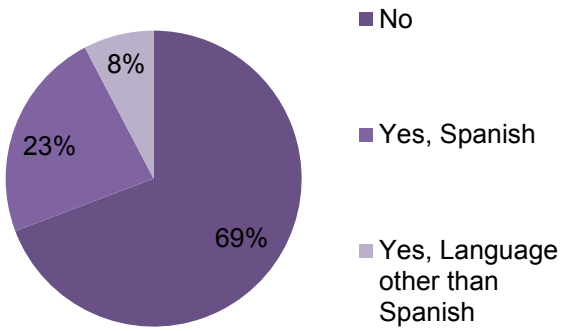
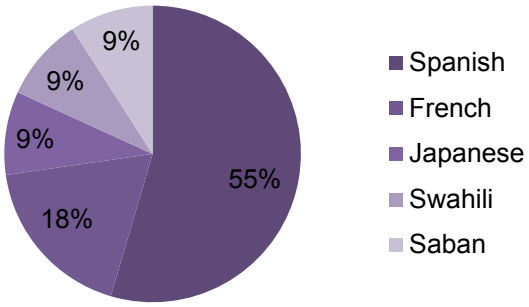


Figure 6: Chart of Requested Languages



Due to a low number of requests that had been received for materials in other languages the questions regarding frequency of requests shown in Table 6 were quite evenly spread.

Table 6: Frequency of Requests Received

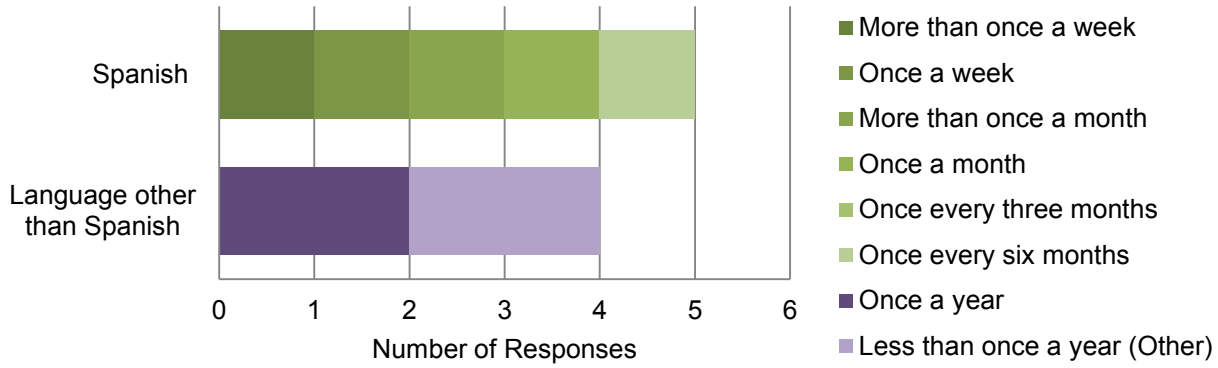
How often do you receive requests?	Number	Percentage
Once a week	1	11%
More than once a week	1	11%
Once a month	1	11%
More than once a month	1	11%
Once every six months	1	11%
Once a year	2	22%
Other	2	22%
TOTAL	9[2]	100%

Recognizing that 60% of language requests were for the Spanish language, the two write-in responses for "Other" provide some telling qualitative information. Those responses were:

- *"French-every six months, Swahili only once ever"*
- *"Once in 19 years" -for Japanese*

These responses were categorized appropriately and cross-referenced with the language requested. See Figure 7 for a comparison. Spanish was much more frequently requested than any other language. Additionally, languages other than Spanish were requested at a less frequent rate.

Figure 7: Language Requested by Frequency



This survey helped support that there are many languages encountered by transit professionals, yet Spanish is the most common and most frequent of those encountered.

Customer Service Interactive Voice Response (IVR) Call Log

The Customer Service Center updated the automated phone system mid-2014[3] to establish the Interactive Voice Response (IVR) feature. With this expansion, the new

[2] One respondent provided two responses – the second being a write in under the "Other" response.

system is able to provide a log to which line callers have requested to be transferred. Available are six topic categories, each in English and Spanish for twelve options total. The topics available include:

- Americans with Disabilities Act (ADA)
- Customer Relations (CR)
- Light Rail
- Lost and Found
- Transit Information (TI)

This system allows Spanish-speaking callers to be automatically transferred to a bilingual representative reducing the time it takes to be served in the preferred language. Beyond being more convenient and helpful, this system also is more efficient by reducing the likelihood callers may be redirected to a bilingual representative. Currently, 12 bilingual customer service representatives are employed by Valley Metro. The new phone system prioritizes selection of Spanish calls received. Acknowledging that this is a truncated data set, Table 7 below shows the distribution of calls by option selected, followed by the sum of calls by language.

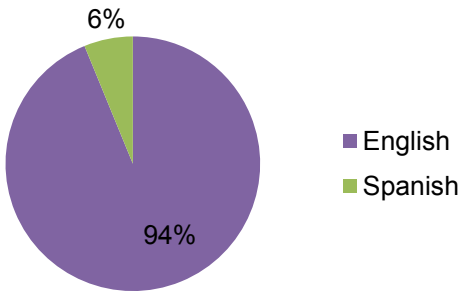
Table 7: Customer Service Call Log

	Total Calls	% of Total Calls
ADA-English	13,840	1.26%
ADA-Spanish	139	0.01%
CR-English	75,874	6.90%
CR-Spanish	371	0.03%
Light Rail-English	184	0.02%
Light Rail-Spanish	5	0.00%
Lost Found-English	5,073	0.46%
Lost Found-Spanish	22	0.00%
TI-English	936,408	85.16%
TI-Spanish	67,630	6.15%
English	1,031,379	93.8%
Spanish	68,167	6.2%
Total Calls	1,099,546	100.00%

Figure 8 shows a pie chart of the calls by language. Approximately 94% of calls were for English and 6% of calls were for Spanish. At the time of this report, 37 customer service representatives were currently on staff; of these, twelve are bilingual (32%).

When evaluating the customer service call logs, the bulk of calls received are through the

Figure 8: Customer Service Calls by Language



[3] Data available July 2014 through April 2015

English phone lines with a small portion (6%) selecting a Spanish option.

Transit Education Program

Valley Metro has a Transit Education program that presents information to various groups to teach about public transit, benefits of transit, and how to use the system. Staff visit schools, present to new residents and refugee groups, and provide mobility training for senior citizens and persons with disabilities. Additionally, transit information and assistance is provided at community or special events including environmental fairs, transportation or vehicle days, career days, and more. This team also conducts general presentations by request to any group who wants to learn more about the transit system. For more-comprehensive training, monthly sessions are held at the Disability Empowerment Center and Glendale Adult Center.

Discussions with the program staff revealed some helpful anecdotal information. Typically, persons encountered spoke English fluently or well. The second most common language encountered was Spanish. Fifty percent of this team speaks Spanish and regularly provide information in Spanish.

Occasionally, presentations are made to various refugee groups. Due to the varied backgrounds of the participants, the hosting organizations generally provide necessary interpreters. Anecdotally, predominately Arabic and less often Burmese are the languages typically encountered during these presentations. However, it was noted that languages from around the world have been encountered through these group presentations.

Website Translation

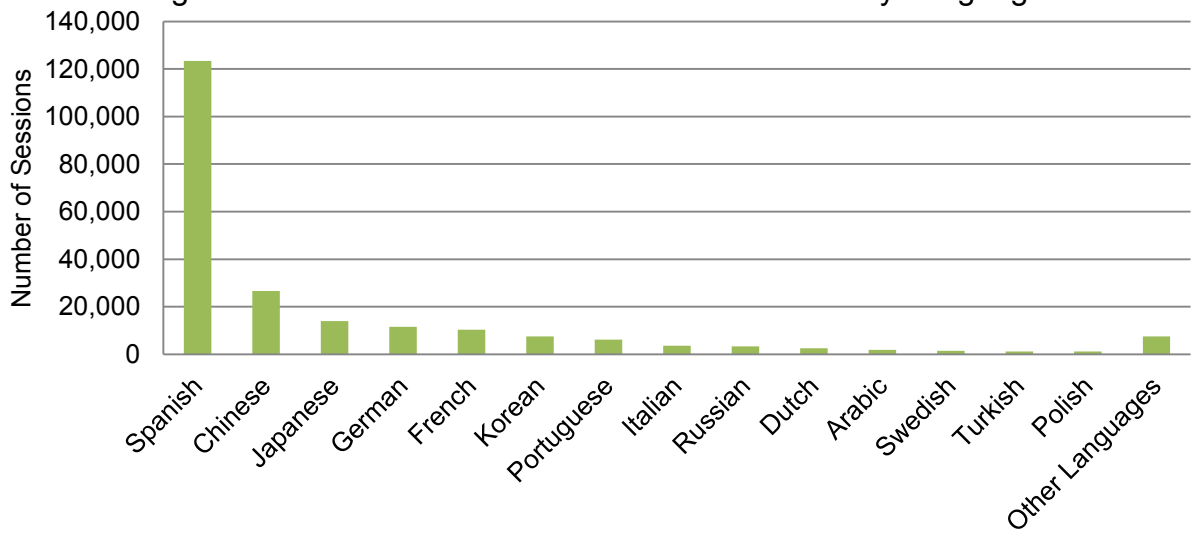
Apart from accessing information via transit employees whether by phone, email, in person or another method, many customers utilize the www.valleymetro.org website for information. The website is equipped with the Google Translate feature, which allows translation into 90 languages. Users have translated the Valley Metro website into 70 different languages using this feature. Approximately 99% of sessions were utilizing the default English setting. The remaining 1% was comprised of 69 other languages. Table 8 provides an itemization of the languages translated and the percentage of sessions. Note that only languages comprising at least 0.01% of total sessions are included below; a full table of entries is available in Appendix C.

Table 8: Website Sessions by Language[4]

Language	Number of Sessions	Percent of Total Sessions
Total	21,614,462[5]	100%
English	21,392,285	98.91%
Other Languages	222,177	1.03%
Language	Number of Sessions	Percent of Total Sessions
Spanish	123,377	0.57%
Chinese	26,684	0.12%
Japanese	13,950	0.06%
German	11,502	0.05%
French	10,316	0.05%
Korean	7,496	0.03%
Portuguese	6,225	0.03%
Italian	3,638	0.02%
Russian	3,303	0.02%
Dutch	2,576	0.01%
Arabic	1,822	0.01%
Swedish	1,483	0.01%
Turkish	1,221	0.01%
Polish	1,127	0.01%
Other Languages	7,457	0.03%

Once again, Spanish was overwhelmingly the most utilized language with the website translation service comprising 0.57% of sessions, followed by Chinese (0.12%), Japanese (0.06%), German (0.05%), and French (0.05%). See Figure 9 below for a chart of the number of translated sessions by language.

Figure 9: Number of Translated Website Sessions by Language



[4] Valley Metro. (2015). Language [Data file]. Available from http://www.google.com/analytics/ce/mws/
[5] There were 13,829 entries excluded from the analysis that did not have a valid ISO language code associated with the website visit; thus, entries were deemed invalid.

The website was translated to an additional 55 languages that each comprises less than 0.01% of the sessions; collectively these viewings attribute to 0.03% of all sessions. These languages include:

- Acoli
- Afrikaans
- Albanian
- Armenian
- Aymara
- Azerbaijani
- Bengali
- Bosnian
- Breton
- Bulgarian
- Catalan
- Croatian
- Czech
- Danish
- Esperanto
- Estonian
- Filipino
- Finnish
- Galician
- Georgian
- Greek
- Gujarati
- Hebrew
- Hindi
- Hungarian
- Icelandic
- Indonesian
- Irish
- Javanese
- Kannada
- Kanuri
- Latvian
- Lithuanian
- Macedonian
- Malay
- Malay
- Malayalam
- Marathi
- Navajo
- Norwegian
- Persian
- Pushto
- Romanian
- Serbian
- Slovak
- Slovenian
- Tagalog
- Telugu
- Thai
- Tonga
- Turkmen
- Ukrainian
- Vietnamese
- Walloon
- Welsh

Persons around the region utilize the website to gather information in languages from around the world using the Google Translate feature. The majority of translated sessions are for the Spanish language (0.57%).

Furthermore, many documents uploaded to Valley Metro's website are translated into Spanish since they are disseminated as paper materials to the public. Individuals may utilize these documents without translating the website into Spanish, but rather use the Google Translate feature. Some of these documents include project updates, route maps and schedules, instructions and applications for a Reduced Fair ID, service change information, policies, brochures, and forms.

Conclusion

The Factor 2 analysis revealed that there is regular contact between the LEP population and Valley Metro personnel. The Transit Employee Survey conducted revealed that 31% of all respondents had encountered an LEP person; of those who had encountered a request for assistance in another language, 55% of requests were for Spanish. The Customer Service Call Log, though limited, showed that a mere 6% of customers utilized one of the six Spanish options. Information from the Transit Education team qualitatively identified Spanish as the main language group, while there were also occasional encounters with Arabic-speaking populations. Finally, translation data from the Valley Metro website indicated 1.03% of sessions were translated; approximately half of which were translated to Spanish. The website was translated to 70 different languages. Overall, there is broad diversity within the Phoenix region that accesses regional transit services, however; these are predominately English and Spanish speaking individuals.

4.0 NATURE AND IMPORTANCE OF THE PROGRAM, ACTIVITY OR SERVICE PROIVDED (FACTOR 3)

The third step in the four-factor LEP needs assessment is an evaluation of the importance of Valley Metro services to persons with limited English proficiency. The first component of the Factor 3 analysis is to identify critical services. Next, input received from community organizations was used to identify ways to improve these services for LEP populations. The U.S. Department of Transportation (USDOT) "Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (USDOT 2005) advises that:

> *The more important the activity, information, service, or program, or the greater the possible consequences of the contact to the LEP individuals, the more likely language services are needed. The obligations to communicate rights to an LEP person who needs public transportation differ, for example, from those to provide recreational programming. A recipient needs to determine whether denial or delay of access to services or information could have serious or even life-threatening implications for the LEP individual . . . providing public transportation access to LEP persons is crucial. An LEP person's inability to utilize effectively public transportation may adversely affect his or her ability to obtain health care, education, or access to employment.*

With assistance from Valley Metro's Community Relations and Marketing departments, a list of services provided was prepared and prioritized. The input from community organizations and LEP persons were incorporated to ensure views of the importance of services provided are adequately prioritized.

4.1 Services Provided

In cooperation with Valley Metro's Communications and Operations departments, services currently provided to LEP persons were queried. Typically, materials in both English and Spanish are available on both bus and light rail services. Below is a list of available materials and services in Spanish that includes next bus and light rail specific services:

- Press Releases
- Public materials; including, but not limited to:
  - Route Scout (announcements on buses and light rail)
  - Ride Guide and Destinations Guide
  - Service changes materials

        - Transit book
        - Website
        - Project updates
        - Title VI forms
        - Large special events materials (e.g. Super Bowl public materials)
    - Direct mailers or door hangers for targeted outreach
    - Ticket vending machines (Spanish and Braille)
    - Bilingual customer service staff
    - Email List Serv Messages
    - Bus specific services:
        - Car cards (on-board advertisements)
        - Bus signs (i.e. priority seating, caution signs, entry/exit, etc.)
        - Variable message sign that displays announcements on buses
    - Light Rail specific services:
        - LRT vehicle signage including priority seating, manners, and other train information
        - VMS Announcements on vehicles and at stations
        - System maps and auxiliary information
        - Operator call boxes on trains
        - Emergency call box at stations
        - Safe place notices

Critical Services

Public transit is a key means of mobility for persons with limited English proficiency. Of those services identified above, a subset of critical services was prioritized to ensure that those services imperative to utilize Valley Metro public transportation options are available to all users.

Basic trip information is available both printed and electronically in Spanish, including service hours, tickets, trip planning, airport and transit connections, parking, bicycles, and services for persons with disabilities. Also available in Spanish is information regarding how to utilize transit, manners, priority seating, caution signs, and exit locations on vehicles. Ticket vending is available in both Spanish and Braille. Emergency notification measures are also translated, including audio VMS[6] Announcements on vehicles (bus and rail), operator call boxes, emergency call boxes, and Safe Place notices.

[6] Variable message signs

Bilingual customer service representatives are available during regular call center hours. Representatives use the same procedures for comments and note that the inquiry was in Spanish so that a bilingual representative is assigned in any follow-up response if needed. Outside of customer service hours, the website is available for translation to most languages at any time. For public meetings and hearings, a Spanish translator is usually available; additional translators are available upon request or appropriate context. Typically, additional translation services requested are provided for American Sign Language through an on-call contract.

Community Outreach

Valley Metro conducted interviews with six community organizations that encounter various LEP populations. The organizations interviewed range from cultural adult centers to refugee services organizations.

Key findings from outreach effort:

- Public transportation is the main form of transportation to access jobs, medical appointments, social services, grocery shopping and school.
- Many of the organizations provide an orientation to transportation services and also provide free transit passes for employment searches.
- Two primary challenges with the public transportation system were voiced, which related to route location and schedule.
    - The schedule does not accommodate early morning or late night shifts.
    - The transit system does not travel to all locations, especially those on the outer reaches of the Phoenix metropolitan region.

Community Organizations Interviews

To garner insight on the use and role of Valley Metro services to the LEP populations within the Phoenix Metropolitan region, six community organizations were interviewed:

- Catholic Charities
- Friendly House
- Refugee Focus
- Arizona Immigration Refugee Services (AIRS)
- Chinese Senior Center
- Hope VI

Organizations were identified to ensure that a wide variety of cultural and language groups were reached over large service areas. These organizations indicated that they serve populations speaking a broad range of languages, including Spanish, Arabic, Somali, Chinese, Burmese and French.

Participating agencies were asked a series of questions from the FTA handbook "Implementing the Department of Transportation's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (FTA 2007b). Organizations interviewed expressed needs of LEP populations regarding language assistance including:

- **System Map Information:** LEP populations have expressed a difficulty in understanding and familiarizing themselves with system maps.
- **On-Board Messaging:** LEP populations have expressed hardship in reading and understanding on-board signage/message boards as well as driver instructions.
- **Transit Service Information:** LEP populations have expressed the desire for information, such as how to ride and fare payment information, be communicated in an understandable format. Symbols could be used to communicate messages to a wider audience. Also, offering orientation to these populations, through their respective agencies, would familiarize them with the transit system.

5.0 CURRENT RESOURCES AVAILABLE AND THE COSTS TO PROVIDE LANGUAGE ASSISTANCE SERVICES (FACTOR 4)

The final step of the four-factor LEP analysis is an evaluation of the current and projected financial and personnel resources available to meet the current and future needs for language assistance. The first component of the Factor 4 analysis was to identify current language assistance measures and associated costs. The next step was to determine what additional services may be needed to provide meaningful access. The USDOT "Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (USDOT 2005) advises that:

> *A recipient's level of resources and the costs imposed may have an impact on the nature of the steps it should take in providing meaningful access for LEP persons. Smaller recipients with more limited budgets are not expected to provide the same level of language services as larger recipients with larger budgets. In addition, 'reasonable steps' may cease to be reasonable where the costs imposed substantially exceed the benefits.*

Valley Metro has a strong commitment to reducing the barriers encountered by LEP persons in accessing its services and benefits, to the extent resources are available. Valley Metro currently does not break down all cost expenditures related to providing language assistance. Valley Metro will evaluate how to consolidate its language assistance measures to deliver the most cost-effective services.

5.1 Current Measures and Costs

Costs incurred by Valley Metro for the language assistance measures currently being provided include:

- Translation of materials
- Printing, advertising, or other marketing costs
- Interpretation services
- Staff costs associated with Title VI efforts in adhering to language assistance measures

Typically, an amount is embedded into the project costs by activity (logged under printing or other direct expenses) for translation and production of any materials. Agency wide there is a standing on-call contract for any interpretation needs. Any production costs are included in printing and public meetings budgets. Furthermore, there are bilingual employees that provide intermittent language assistance needs as part of their other duties. Specifically, the Public Relations team has two employees (33% of the department staff) that are bilingual. These employees may be assigned to prepare press releases or media events with Spanish-speaking publications in addition to their typical duties. These soft costs are not tracked, though most of the formal interpretation services are contracted.

Interpreters are contracted for public meetings or hearings to ensure that any language assistance needs are met so that public relations staff can focus on facilitating the event. All hearings are staffed with interpreters while public meetings are staffed depending on the anticipated number of persons reached and upon request. Valley Metro's current contract for interpreters at public meetings allow for approximately $200 per meeting. Annually $5,000-$6,000 is spent for interpreters to staff meetings and public hearings for various projects and efforts. In addition, $800-$1,200 is spent annually for sign language interpreters at requested meetings and public hearings. Costs for translating and producing materials like meeting notices, display boards, news releases, and project update sheets are also budgeted annually; approximately $14,000 - $15,000. In total, approximately $20,000 - $25,000 is contracted out directly in support of language assistance services for interpreters, translation, and materials dependent on the projects and programs implemented each year.

Additional soft costs include other staff time utilized on an ad hoc or regular basis to provide translation or interpretive services. Over thirty percent of Public Relations and Customer Service Representatives are bilingual, servicing Spanish-speaking customers as well as English-speaking customers. Being bilingual is a preferred qualification when hiring customer service staff though not required. There are also bilingual employees

that may assist on an informal, ad hoc basis to communicate with LEPs in other departments.

5.2 Cost-effective Practices

Valley Metro will continue to evaluate ways to improve the cost-effectiveness and the quality of its language services. Additional strategies for saving costs or improving quality may include developing internal and external language services, with the opportunity to coordinate across multiple agencies in the region. Current measures practiced to ensure services are cost effective include:

- bilingual staff trained to act as interpreters and translators
- shared customer service center and other information for combined translation and interpretation resources
- some standardized common documents with transit and other public agencies
- translated vital documents currently posted on <valleymetro.org>

Strategies for consolidating the regional language assistance measures to achieve efficiencies may include:

- creating a one-stop LEP information center for Valley Metro employees
- surveying Valley Metro staff to determine any additional existing multilingual resources
- conducting outreach to various community organizations to secure volunteers for translation and interpretation services that are currently contracted or completed in-house
- consolidating contract services for oral and written translation to secure the most cost-effective rates

Valley Metro continues to use qualified translators and interpreters to uphold the quality of language assistance measures. Valley Metro strives to provide basic informational training for volunteer staff on its language assistance measures.

5.3 Additional Services and Budget Analysis

Valley Metro is committed to reducing the barriers encountered by LEP persons in accessing its services to the extent funding is available. While Valley Metro currently does break down contracted cost expenditures related to providing language assistance, expenditures of efforts for translation and interpretation completed in-house are less well documented. As part of the Language Assistance Plan, Valley Metro will better monitor efforts in the future. Valley Metro will further evaluate how to consolidate its language assistance measures to deliver the most cost-effective services.

The information received from community organizations provided some insight on additional services that may ease access for LEP persons to regional transit services.

The summary above portrays more insight of the interviews conducted. Services requested were centered on service expansions that included increased frequencies and later services at night. However, these would be greater improvements for consideration and prioritization of the system rather than specific services for LEP persons. Therefore, they were excluded here and assigned to the general public process for service requests.

Other requests included using more symbols to depict messaging and system routes. Audio messaging is also shown using VMS[7] that could potentially show messaging in another language as well. The light rail system VMS currently shows messages in English and Spanish. Bus messaging is typically location data and in close proximity depending on stop locations. The feasibility and helpfulness of VMS translation should be evaluated.

As applicable, through the annual budget process, additional services requested or identified may be considered for implementation. In 2015, Valley Metro has shifted to a zero based budget that is approved by two appointed boards: Valley Metro Rail Board and the Valley Metro Regional Public Transportation Authority Board of Directors. Year by year the budget is developed as appropriate to the unique needs and demands of the agency at that point in time.

5.4 Projected Costs

Requests for added services include expanded symbols to understand how to use transit services, on-board messaging, and system map information. With a commitment to providing reasonable language assistance measures, Valley Metro will assess current symbolism used on vehicles, at station locations, and elsewhere to determine the sort of improvements that could be made so that the system is more easily understood visually. With expanded symbolism, it is expected that the need for enhancing the on-board messaging and system map information may be reduced. Furthermore, these could be incorporated into the regular updates of this information and signage. Biannually in coordination with the service changes, updated system maps are produced.

Other improvements would be considered after analyzing the staff costs, third party contract costs, and costs related to volunteer or community organization coordination. These would be evaluated in comparison with anticipated benefits to the LEP population. Other considerations may include operational issues and implementation time.

[7] LINK stations, light rail stations and vehicles are equipped with VMS announcements; most fixed route vehicles are also equipped with VMS capabilities

6.0 LANGUAGE ASSISTANCE MEASURES

Valley Metro is committed to full compliance with Title VI and Executive Order 13166 to provide meaningful access and reduce barriers to services and benefits for persons with limited English proficiency.

6.1 Current Language Assistance Measures

As discussed earlier in this Language Assistance Plan, Valley Metro currently provides both oral and written language assistance. Oral language assistance includes bilingual customer service representatives, speaking Spanish. Additionally, Spanish interpreters are available at public meetings; sign language and other language interpreters are available as requested. On vehicles and at stations, VMS announcements are also in Spanish.

Written Spanish language assistance includes signage, press releases, list serv messages, service change materials, Title VI complaint forms, policies, and procedures. Additional translation of some vital documents is provided, such as schedules, maps, ride and destination guides, route scouts, and more. Meeting notices and public input surveys at public meetings are translated. The website is equipped with the Google Translate feature, which allows translation into 90 languages (www.translate.google.com). Fare vending machines provide Spanish and Braille translations as well.

Notices to the public of language assistance measures are typically provided side-by - side an English version of the document. For example, Ride Guide documents are provided in both English and Spanish and are available together wherever disseminated. Where available, documents are commonly printed on both sides with an English version and a Spanish version on each side of the paper. When calling into the customer service line, the interactive voice response system will ask if Spanish is the preferred language automatically prior to being connected with a representative.

6.2 Staff Training

Specific policies and procedures for interacting with LEP persons are not formally adopted on a standalone basis. These policies and procedures are in essence those for all customers and have been embedded into multiple documents (including the Title VI Plan, trainings, instructions, etc.).

Using the customer service center as an example, Spanish calls are assigned directly to a Spanish-speaking representative through the phone system. In the customer assistance system a note is made that the customer speaks Spanish so that if the query is not able to be responded to immediately, any response is assigned to another

bilingual representative. This training is implanted into general customer assistance staff training to ensure cost effective practices and efficient use of training resources. Title VI of the Civil Rights Act of 1964 is distributed to new employees and where applicable, employees are expected to know how to file discrimination claims based on race, color, or national origin. Additionally, there are related trainings available including quarterly Civil Rights Workshops, training sessions for conducting complaint investigations according to federal guidelines and streamlining the complaint investigative process.

Training for employees who regularly encounter the public may also include:

- Type of language services available,
- How staff and/or LEP customers can obtain these services,
- How to respond to LEP callers,
- How to respond to correspondence from LEP customers,
- How to respond to LEP customers in person, and
- How to document LEP needs.

Valley Metro continues to consider opportunities to provide quality services for LEP persons throughout the service area.

6.3 Future Language Assistance Services

With the development of subsequent Language Assistance Plans, it is expected that through the monitoring, evaluation, and update process that additional services continue to be identified and considered for feasibility of implementation. Valley Metro strives to serve LEP populations adequately with an equal opportunity to use transportation options available. Section 7 provides more information about the monitoring and update process of this plan.

7.0 MONITORING AND UPDATING THE LANGUAGE ASSISTANCE PLAN

Triennially Valley Metro will review, monitor, and update this LAP. Feedback from agency staff and community members will be accepted throughout the year at the email address: TitleVICoordinator@ValleyMetro.org. Additional community feedback may be elicited during the update process. Internal monitoring will be conducted using the template provided from the FTA handbook "Implementing the Department of Transportation's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (FTA 2007b). Using this checklist periodically, stations, vehicles, customer service, community outreach, and public relations are monitored.

Using this information, changes may be made to the language assistance plan recognizing any cost implications and resources available. Depending on this evaluation, language assistance measures may be expanded, modified or eliminated based on their effectiveness.

As the transit service area is modified through service changes, the demographics served will be reviewed to ensure that those high concentrations of LEP persons are reflected accurately in an effort to provide language assistance measures to areas with expanded transit services.

Throughout the monitoring period, Valley Metro will continue to follow the recommendations and use the resources provided by Executive Order 13166, FTA Circular 4702.1B, the USDOT "Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Person" (USDOT 2005), and the FTA handbook "Implementing the Department of Transportation's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (FTA 2007b). Valley Metro will be better able to apply the DOT LEP guidance's four-factor framework and will continue to determine an appropriate mix of language assistance in the preparation of language assistance implementation plans.

APPENDIX A – FULL LIST OF LANGUAGES

ACS 2013 population by language and ability: cells shaded purple in this table meet either the 1,000 persons threshold or the 5% threshold of the total population of persons eligible to be served or likely encountered.

Language Category Group	Total Population	Percentage of Total LEP Population
All Languages Speaks English Less Than Very Well (LEP Population within Service Area)	331,981	-
Spanish	672,220	-
Spanish Speak English Very Well	403,157	-
Spanish Speak English Less Than Very Well	269,063	81.05%
French	8,757	-
French Speak English Very Well	7,023	-
French Speak English Less Than Very Well	1,734	0.52%
French Creole	402	-
French Creole Speak English Very Well	199	-
French Creole Speak English Less Than Very Well	203	0.06%
Italian	4,038	-
Italian Speak English Very Well	3,112	-
Italian Speak English Less Than Very Well	926	0.28%
Portuguese	2,374	-
Portuguese Speak English Very Well	1,840	-
Portuguese Speak English Less Than Very Well	534	0.16%
German	10,437	-
German Speak English Very Well	9,347	-
German Speak English Less Than Very Well	1,090	0.33%
Yiddish	230	-
Yiddish Speak English Very Well	223	-
Yiddish Speak English Less Than Very Well	7	0.00%
Other West Germanic	1,242	-
Other West Germanic Speak English Very Well	1,062	-
Other West Germanic Speak English Less Than Very Well	180	0.05%
Scandinavian	1,212	-
Scandinavian Speak English Very Well	1,100	-
Scandinavian Speak English Less Than Very Well	112	0.03%
Greek	1,518	-
Greek Speak English Very Well	1,163	-
Greek Speak English Less Than Very Well	355	0.11%
Russian	4,225	-
Russian Speak English Very Well	2,996	-
Russian Speak English Less Than Very Well	1,229	0.37%
Polish	3,034	-
Polish Speak English Very Well	2,389	-
Polish Speak English Less Than Very Well	645	0.19%

Serbo-Croatian	6,967	-
Serbo-Croatian Speak English Very Well	4,142	-
Serbo-Croatian Speak English Less Than Very Well	2,825	0.85%
Other Slavic	2,458	-
Other Slavic Speak English Very Well	1,721	-
Other Slavic Speak English Less Than Very Well	737	0.22%
Armenian	798	-
Armenian Speak English Very Well	660	-
Armenian Speak English Less Than Very Well	138	0.04%
Persian	4,439	-
Persian Speak English Very Well	2,731	-
Persian Speak English Less Than Very Well	1,708	0.51%
Gujarati	2,559	-
Gujarati Speak English Very Well	1,982	-
Gujarati Speak English Less Than Very Well	577	0.17%
Hindi	6,413	-
Hindi Speak English Very Well	5,620	-
Hindi Speak English Less Than Very Well	793	0.24%
Urdu	1,445	-
Urdu Speak English Very Well	1,086	-
Urdu Speak English Less Than Very Well	359	0.11%
Other Indic	5,834	-
Other Indic Speak English Very Well	3,960	-
Other Indic Speak English Less Than Very Well	1,874	0.56%
Other Indo European	5,459	-
Other Indo European Speak English Very Well	3,389	-
Other Indo European Speak English Less Than Very Well	2,070	0.62%
Chinese	16,907	-
Chinese Speak English Very Well	8,052	-
Chinese Speak English Less Than Very Well	8,855	2.67%
Japanese	3,682	-
Japanese Speak English Very Well	2,464	-
Japanese Speak English Less Than Very Well	1,218	0.37%
Korean	6,474	-
Korean Speak English Very Well	3,485	-
Korean Speak English Less Than Very Well	2,989	0.90%
Cambodian	1,126	-
Cambodian Speak English Very Well	577	-
Cambodian Speak English Less Than Very Well	549	0.17%
Hmong	8	-
Hmong Speak English Very Well	8	-
Hmong Speak English Less Than Very Well	-	0.00%
Thai	1,424	-
Thai Speak English Very Well	547	-
Thai Speak English Less Than Very Well	877	0.26%
Laotian	580	-
Laotian Speak English Very Well	266	-
Laotian Speak English Less Than Very Well	314	0.09%
Vietnamese	13,965	-

Vietnamese Speak English Very Well	5,125	-
Vietnamese Speak English Less Than Very Well	8,840	2.66%
Other Asian	10,615	-
Other Asian Speak English Very Well	7,085	-
Other Asian Speak English Less Than Very Well	3,530	1.06%
Tagalog	12,386	-
Tagalog Speak English Very Well	8,380	-
Tagalog Speak English Less Than Very Well	4,006	1.21%
Other Pacific Island	4,162	-
Other Pacific Island Speak English Very Well	2,899	-
Other Pacific Island Speak English Less Than Very Well	1,263	0.38%
Navajo	8,257	-
Navajo Speak English Very Well	7,078	-
Navajo Speak English Less Than Very Well	1,179	0.36%
Other Native North American	2,866	-
Other Native North American Speak English Very Well	2,504	-
Other Native North American Speak English Less Than Very Well	362	0.11%
Hungarian	856	-
Hungarian Speak English Very Well	611	-
Hungarian Speak English Less Than Very Well	245	0.07%
Arabic	12,259	-
Arabic Speak English Very Well	7,400	-
Arabic Speak English Less Than Very Well	4,859	1.46%
Hebrew	1,679	-
Hebrew Speak English Very Well	1,406	-
Hebrew Speak English Less Than Very Well	273	0.08%
African	7,284	-
African Speak English Very Well	4,016	-
African Speak English Less Than Very Well	3,268	0.98%
Other Languages	4,000	-
Other Languages Speak English Very Well	1,805	-
Other Languages Speak English Less Than Very Well	2,195	0.66%

Language Assistance Program Survey 2015

*-denotes required question

*Name: _____

*Email Address: _____

*1. Location

- Customer Service Representatives (electronic, phone, email)
- Central Station Transit Center
- Ed Pastor Transit Center
- Metrocenter Transit Center
- Sunnyslope Transit Center
- Tempe Transportation Center

*2. Have you had any requests for information or materials in other languages?

- Yes
- No

If yes, please complete the remainder of the survey.

If no, thank you for your participation.

3. What language(s) have been requested?

_____

4. How often do you receive requests?

-More than once a week
-Once a week
-More than once a month
-Once a month
-Once every three months
-Once every six months
-Once a year
-Other:

_____

APPENDIX C – WEBSITE SESSIONS BY LANGUAGE

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Spanish	123,377	0.57%
Chinese	26,684	0.12%
Japanese	13,950	0.06%
German	11,502	0.05%
French	10,316	0.05%
Korean	7,496	0.03%
Portuguese	6,225	0.03%
Italian	3,638	0.02%
Russian	3,303	0.02%
Dutch	2,576	0.01%
Arabic	1,822	0.01%
Swedish	1,483	0.01%
Turkish	1,221	0.01%
Polish	1,127	0.01%
Czech	839	0.00%
Norwegian	771	0.00%
Danish	726	0.00%
Vietnamese	670	0.00%
Hebrew	645	0.00%
Hungarian	645	0.00%
Finnish	531	0.00%
Thai	335	0.00%
Slovak	309	0.00%
Greek	293	0.00%
Romanian	232	0.00%
Indonesian	217	0.00%
Bulgarian	173	0.00%
Catalan	122	0.00%
Croatian	110	0.00%
Slovenian	101	0.00%
Persian	93	0.00%
Filipino	89	0.00%
Serbian	84	0.00%
Afrikaans	76	0.00%
Lithuanian	67	0.00%
Ukrainian	66	0.00%
Latvian	53	0.00%
Icelandic	31	0.00%

[8] There were 13,829 entries included that did not have a valid ISO language code associated with the website visit; thus the sum of languages will fall short.

Estonian	24	0.00%
Marathi	16	0.00%
Kanuri	15	0.00%
Hindi	10	0.00%
Tagalog	10	0.00%
Azerbaijani	8	0.00%
Breton	8	0.00%
Malay	8	0.00%
Pushto	8	0.00%
Telugu	8	0.00%
Walloon	6	0.00%
Bengali	5	0.00%
Esperanto	5	0.00%
Macedonian	5	0.00%
Navajo	5	0.00%
Albanian	4	0.00%
Malay	4	0.00%
Acoli	3	0.00%
Georgian	3	0.00%
Kannada	3	0.00%
Tonga	3	0.00%
Armenian	2	0.00%
Bosnian	2	0.00%
Galician	2	0.00%
Gujarati	2	0.00%
Irish	2	0.00%
Javanese	2	0.00%
Malayalam	2	0.00%
Turkmen	2	0.00%
Aymara	1	0.00%
Welsh	1	0.00%

APPENDIX D – COMMUNITY ORGANIZATION INTERVIEWS

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Hope VI

Summary:

Q. What geographic area does your agency serve?

A. There are housing locations between 7th Avenue and 19th Avenue on Buckeye and at 16th Street and Van Buren.

Q. How many people does your agency provide services to?

A. Between 745-800 people.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It fluctuates.

Q. What are the countries of origin from which your population has immigrated?

A. Mexico, China, Somalia, Iraq, other Arab countries, Ukraine, other African countries.

Q. Does your population come from an urban or rural background?

A. Varies.

Q. What are the languages spoken by the population you serve?

A. Spanish, Chinese (Mandarin and Cantonese), Arabic, Somali

Q. What is the age and gender of your population?

A. The majority is female ranging from children to elderly.

Q. What is the education and literacy level of the population you serve?

A. High school diploma or less. Most read at a 5th or 6th grade level.

Q. What needs or expectations for public transportation services has this population expressed?

A. The majority use public transportation.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes. Most residents know how to use the system. Bus passes are provided for employment searches.

Q. What are the most frequently traveled destinations?

A. The most frequently traveled destinations include doctor's appointments and the grocery store.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. Yes, it can be difficult to use the transportation system, especially Dial-A-Ride, for doctor's appointments.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. Yes. School-age children use public transportation to get to school, seniors use it during the daytime, and for those that work it depends on their shift.

Q. What is the best way to obtain input from the population?

A. Emails, community events, flyers.

Q. Who would the population trust most in delivering language appropriate messages?

A. Case workers, family members, English-speaking children.

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Arizona Immigration Refugee Services (AIRS)

Summary:

Q. What geographic area does your agency serve?

A. The agency provides services across metropolitan Phoenix.

Q. How many people does your agency provide services to?

A. 180 people per year.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It has slightly increased.

Q. What are the countries of origin from which your population has immigrated?

A. Iraq, Burmese, Afghanistan, Somalia, Cuba, Congo.

Q. Does your population come from an urban or rural background?

A. It varies. The populations from Iraq and Afghanistan would have an urban background. Populations from other countries will a rural background.

Q. What are the languages spoken by the population you serve?

A. Arabic, Burmese, Spanish, French, Chin, Farsi, Somali.

Q. What is the age and gender of your population?

A. The agency serves males and females ranging from 4 months to 85 years old.

Q. What is the education and literacy level of the population you serve?

A. It varies. The average education level is early high school.

Q. What needs or expectations for public transportation services has this population expressed?

A. The population has expressed that there needs to be increased night time service as well as increased frequency of bus service. They have also expressed a safety concern with riding the bus. The population is also uncomfortable with using maps and cannot understand the signage on the bus or the bus drivers.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes. Some have training before they arrive while others learn about transportation services from their case worker.

Q. What are the most frequently traveled destinations?

A. Between home and the AIRS office or to their work location.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. Yes. There is no service to north Scottsdale resorts or to the dairies on the west side.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. The likely users are young and male. Women tend to ride with family or in groups.

Q. What is the best way to obtain input from the population?

A. One on one contact, telephone.

Q. Who would the population trust most in delivering language appropriate messages?

A. Family members, other community members who have shared the same experiences.

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Friendly House

Summary:

Q. What geographic area does your agency serve?

A. The agency provides services across Maricopa County, but mainly serves central and south Phoenix.

Q. How many people does your agency provide services to?

A. 15,000 people per year.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It has decreased slightly.

Q. What are the countries of origin from which your population has immigrated?

A. Predominately Spanish-speaking countries as well as Middle East and African countries.

Q. Does your population come from an urban or rural background?

A. Urban.

Q. What are the languages spoken by the population you serve?

A. Spanish, Arabic, Burmese.

Q. What is the age and gender of your population?

A. The agency serves males and females age three to seniors.

Q. What is the education and literacy level of the population you serve?

A. No information available.

Q. What needs or expectations for public transportation services has this population expressed?

A. The population has expressed a need to get to social services.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. No information available.

Q. What are the most frequently traveled destinations?

A. No information available.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. No information available.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. Yes. Some utilize carpooling, local buses, or walking for travel.

Q. What is the best way to obtain input from the population?

A. One on one communication, surveys.

Q. Who would the population trust most in delivering language appropriate messages?

A. Case managers, teachers, and staff.

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Chinese Senior Center

Summary:

Q. What geographic area does your agency serve?

A. Mainly about three miles around the senior center, but the center does have people come from around metro-Phoenix.

Q. How many people does your agency provide services to?

A. About 1000 members.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. Increased.

Q. What are the countries of origin from which your population has immigrated?

A. Southern Asia, China, and Taiwan.

Q. Does your population come from an urban or rural background?

A. Urban.

Q. What are the languages spoken by the population you serve?

A. Chinese/different dialects of Chinese.

Q. What is the age and gender of your population?

A. The age is over 60 and the center sees an equal mix of males and females.

Q. What is the education and literacy level of the population you serve?

A. The majority of the population is educated.

Q. What needs or expectations for public transportation services has this population expressed?

A. The population does not drive so they need public transportation services to get around.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes.

Q. What are the most frequently traveled destinations?

A. The most frequently traveled destinations are to the senior center and to home.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. Yes, it is difficult to get to doctor's appointments.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. There is no difference.

Q. What is the best way to obtain input from the population?

A. The best way to obtain input is to use surveys or make announcements.

Q. Who would the population trust most in delivering language appropriate messages?

A. Staff at the senior center.

MEETING SUMMARY

Date: 5/29/15

Re: LAP Interview – Catholic Charities

Summary:

Q. What geographic area does your agency serve?

A. The agency serves central and northern Arizona. Refugee services are focused in Maricopa County.

Q. How many people does your agency provide services to?

A. The agency provides services to 5,000 - 10,000 people per year. The refugee program serves about 1,000 people per year.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It has stayed the same.

Q. What are the countries of origin from which your population has immigrated?

A. It continually changes, but primarily the agency serves Arabic, Somali, and Spanish-speaking populations.

Q. Does your population come from an urban or rural background?

A. It is mixed. The population from Iraq has an urban background and the Somali population has a rural background.

Q. What are the languages spoken by the population you serve?

A. Spanish, Arabic, Somali, Swahili, and Burmese.

Q. What is the age and gender of your population?

A. There is a 55% male and 45% female ratio. The agency serves all ages.

Q. What is the education and literacy level of the population you serve?

A. It is mixed. The Iraqi and Cuban populations have a high school or college degree. The Somali population is less educated.

Q. What needs or expectations for public transportation services has this population expressed?

A. Public transportation is the main source of transportation for the refugee populations. One challenge is accommodating for light night shifts. It was suggested that if materials were to be translated into another language that it be Arabic.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes. The agency provides a bus and light rail orientation. It is the most popular program at the agency.

Q. What are the most frequently traveled destinations?

A. Most are traveling from the West Valley to the East Valley.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. No information available.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. No.

Q. What is the best way to obtain input from the population?

A. Community forums with professional interpreters.

Q. Who would the population trust most in delivering language appropriate messages?

A. Professionally trained interpreters.

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Arizona Immigration Refugee Services (AIRS)

Summary:

Q. What geographic area does your agency serve?

A. The agency provides services across metropolitan Phoenix.

Q. How many people does your agency provide services to?

A. 180 people per year.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It has slightly increased.

Q. What are the countries of origin from which your population has immigrated?

A. Iraq, Burmese, Afghanistan, Somalia, Cuba, Congo.

Q. Does your population come from an urban or rural background?

A. It varies. The populations from Iraq and Afghanistan would have an urban background. Populations from other countries will a rural background.

Q. What are the languages spoken by the population you serve?

A. Arabic, Burmese, Spanish, French, Chin, Farsi, Somali.

Q. What is the age and gender of your population?

A. The agency serves males and females ranging from 4 months to 85 years old.

Q. What is the education and literacy level of the population you serve?

A. It varies. The average education level is early high school.

Q. What needs or expectations for public transportation services has this population expressed?

A. The population has expressed that there needs to be increased night time service as well as increased frequency of bus service. They have also expressed a safety concern with riding the bus. The population is also uncomfortable with using maps and cannot understand the signage on the bus or the bus drivers.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes. Some have training before they arrive while others learn about transportation services from their case worker.

Q. What are the most frequently traveled destinations?

A. Between home and the AIRS office or to their work location.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. Yes. There is no service to north Scottsdale resorts or to the dairies on the west side.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. The likely users are young and male. Women tend to ride with family or in groups.

Q. What is the best way to obtain input from the population?

A. One on one contact, telephone.

Q. Who would the population trust most in delivering language appropriate messages?

A. Family members, other community members who have shared the same experiences.

MEETING SUMMARY

Date: 5/27/15

Re: LAP Interview – Refugee Focus

Summary:

Q. What geographic area does your agency serve?

A. The agency provides service across metropolitan Phoenix.

Q. How many people does your agency provide services to?

A. 800 people per year.

Q. Has the size of the population you serve increased, stayed the same, or decreased over the past five years?

A. It has stayed the same.

Q. What are the countries of origin from which your population has immigrated?

A. Afghanistan, Bhutan, Burma (Burmese, Chin, Karen), Congo, Cuba, Columbia, Eritrea, Ethiopia, Iran, Iraq, Somalia, and Sudan.

Q. Does your population come from an urban or rural background?

A. Both.

Q. What are the languages spoken by the population you serve?

A. Amharic, Arabic, Assyrian, Burmese, Chaldean, Chin (Haka, Matu, Khumi, Muzo, and Falam), Dari, Dinka, Dzongkha (Bhutanese), Farsi, French, Hindi, Karen, Kibembe, Kinya-rwanda, Kirundi, Kiswahili, Kunama, Lingala, Nepali, Oromo, Pashto, Spanish, Somali, Thai, and Tigrinya.

Q. What is the age and gender of your population?

A. The agency serves males and females from zero to 96 years old.

Q. What is the education and literacy level of the population you serve?

A. It varies. Some refugees have some schooling while others are college educated.

Q. What needs or expectations for public transportation services has this population expressed?

A. Public transportation services are needed. Free bus passes are also given out by the agency.

Q. Has the population inquired about how to access public transportation or expressed a need for public transportation service?

A. Yes.

Q. What are the most frequently traveled destinations?

A. Work, medical appointments, social services, home, grocery store, school.

Q. Are there locations that the population has expressed difficulty accessing via the public transportation system?

A. Yes. There is no access to resorts in north Scottsdale or south to the casinos. Sometimes the closest bus stop is 20 minutes away. In addition, shifts do not match with the bus schedule. Also, there is difficulty accessing Mohave and 51st Avenue. Shifts at this employment location begin at 6 a.m. The current bus system limits accessibility to employers and can also create long commutes with workers trying to get there on time.

Q. Do the transit needs and travel patterns of the population vary depending on the age or gender of the population members?

A. Yes. Some may attend school; others may work or stay at home.

Q. What is the best way to obtain input from the population?

A. From case workers.

Q. Who would the population trust most in delivering language appropriate messages?

A. Case managers, community leaders.

ATTACHMENT B – 2010-2011 ON-BOARD TRANSIT SURVEY REPORT

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Between October 2010 and February 2011, Valley Metro conducted an on-board transit survey. The purpose of the survey was to better understand the travel pattern of transit users in the metropolitan Phoenix area, particularly the impact that light rail has had on regional travel patterns. The primary objectives for the survey were to:

1. Collect data on transit ridership as part of the "Before and After Assessment of Light Rail" as required by the Federal Transit Administration (FTA) Final Rule on Major Capital Investment Projects. The "Before Survey" was conducted in 2007. This survey provided the "After" data.

2. Update travel pattern data for the region's travel demand computer model to reflect current transit system ridership.

The survey, which included nearly 100 bus routes and all light rail stations, was the largest and most comprehensive origin and destination survey ever conducted by Valley Metro. The goal was to obtain useable surveys from approximately 13,750 passengers. The actual number of usable surveys was 15,780. Of the useable surveys, 4,732 were completed with light rail passengers and 11,048 were completed with bus passengers.

The magnitude of the survey will allow regional planners to better understand the needs and travel patterns of many specialized populations. For example, the final database contains responses from:

- more than 6,600 people who do not have cars
- nearly 1,600 people under age 18
- nearly 1,000 people age 60 or older
- more than 6,000 students, including more than 4,000 college/university students
- nearly 2,000 students in grades K-12
- more than 3,300 people living in households with incomes of less than $10,000 per year
- more than 9,000 people who were employed full or part time
- nearly 3,000 people who were not employed but were seeking work

Major Findings

Ridership reports show that there are approximately 250,000 transit boardings per day or 1.25 million boardings during a typical 5-day work week. By providing residents with a reliable mode of transportation, the region's transit system is having a positive impact on

traffic flow and air quality by reducing the number of trips that would have otherwise been completed by car. Some of the major findings from the survey are described below:

- **Transit Users Are Using Public Transit More Often.** Among those who had been using public transit in the metropolitan Phoenix area at least two years, sixty-one percent (61%) reported that they were using public transportation more often than they did two years ago. Among light rail users, 80% reported that they were using public transit more often than they were two years ago before light rail began operations. The high percentage of light rail users who reported using public transit more often suggests that light rail has significantly enhanced the attractiveness of public transportation in the region.

- **Public Transit Is Important to the Region's Economy.** More than one-third (35%) of all transit trips represented in the survey either began or ended at work. When asked to report their employment status, more than three-fourths (79%) of those surveyed indicated that they were currently employed or seeking work. Among those seeking work, one-third (33%) indicated that they could not have completed their trip if public transportation were not available. Another 11% indicated that they did not know how they would have completed their trip if public transit had not been available.

- **Public Transit Is Important to Education in the Region.** Thirty-eight percent (38%) of those surveyed identified themselves as students, which explains the reason that twenty-nine percent (29%) of all transit trips represented in the survey either began or ended at a college/university or a grade school. On a typical weekday, more than 70,000 school-related trips are completed on public transportation in the metropolitan Phoenix area. If public transportation were not available, 23% of the students surveyed indicated that they would not have been able to get to school. Another 10% did not know how they would have gotten to school if public transit had not been available.

- **The Demographic Profile of Public Transit Riders Has Changed Since the Introduction of Light Rail.**

    - Transit users are more likely to live in households earning $50,000 or more per year. Before light rail service began, one in seven transit users (14%) had an annual household income of $50,000 or more. After light rail service began, nearly one in five (19%) transit users had an annual household income of $50,000 or more.

    - Transit users are more likely to own a vehicle. Before light rail service began, 49% of transit users had at least one vehicle in their household. After light rail service began, 53% had at least one vehicle.

    - Transit users are more likely to be students. Before light rail service began, 27% of the region's transit users were students. After light rail service began, 38% of the region's transit users were students.

SECTION 1: SURVEY DESIGN

Survey Development Process

Valley Metro assembled a technical advisors committee (TAC) to help guide the project to ensure that the survey design would meet a wide range of regional data needs. The TAC included representatives of the following organizations: Valley Metro, the Maricopa County Association of Governments, Metro Light Rail, the Arizona Department of Transportation, the City of Phoenix, the City of Tempe, the City of Glendale, the City of Scottsdale, and others.

The survey development process began by having members of the TAC review the content of Valley Metro's 2007 Transit On-Board Survey. Since one of the objectives for the 2011 survey was to assess changes in ridership patterns as a result of the introduction of light rail service, many of the questions from the 2007 survey were included on the 2011 survey.

After four iterations of input from members of the TAC, all members of the committee were comfortable with the content of the survey. At that point the survey instrument was shared with representatives of the Federal Transit Administration (FTA) to ensure all Federal requirements and expectations for the design of the survey were met. All of the suggestions from the FTA staff were incorporated into the final version of the survey.

Types of Data Collected

The final version of the survey was slightly longer than was originally anticipated. To ensure the length of the survey did not negatively affect the response rate, the survey questions were divided into two categories: "required" and "desired" data as described below.

Required data involved questions for which a response from a respondent was required in order for the survey to be considered complete. The data that were "required" to fulfill the contractual requirements of the project are listed below:

- Type of place where the trip began
- Address where the trip began
- Mode of access to the transit system
- Boarding location
- Alighting location
- Transfers used to get to and from the route/station where the survey was administered

- Mode of egress from the transit system
- Destination address
- Type of place where the trip ended
- The respondent's home address
- Number of operational vehicles available in the household
- Number of occupants in the respondent's household
- Number of adults in the respondent's household
- Number of workers (employed persons) in the respondent's household
- Respondent's employment status
- Respondent's student status
- Respondent's driver's license status
- Age of the respondent
- Annual household income
- Time of day the survey was completed

Desired data involved questions for which a response from a respondent was desired, but was not required in order for the survey to be considered complete. "Desired" questions were to be asked of all respondents who had time to complete the full survey. Although these questions could be skipped if a respondent did not have time to complete the full survey, more than 90% of the respondents completed all of the "desired" questions. The data that were considered to be "desired" are listed below:

- Distance walked from the origin to the transit system (if applicable)
- Distance walked from the transit system to the destination (if applicable)
- Park and ride location (if applicable) on either end of the trip
- Carpool size (if applicable) on either end of the trip
- How long the respondent had been using public transportation
- How the frequency of transit use has changed over the past two years
- Why respondents started using public transit
- How respondents get transit schedule information
- Fare payment method
- How the respondent would make the trip if public transit were not available
- The respondent's race/ethnicity
- Gender of the respondent
- Name of the school where the respondent attends college or school (if applicable)

Other data was added after the survey was administered. The most important type of data that was added following the administration of the survey involved the purpose of the respondent's trip. The purpose of the trip was determined by the types of destinations that were visited by the respondent. The purpose of the trip was classified as one of eight trip purposes that are used by the region's travel demand model:

- **Home-Based Work (HBW)**: trips that began at home and ended at work or began at work and ended at home.

- **Home-Based Shopping (HBS)**: trips that began at home and ended at a shopping area or began at a shopping area and ended at home. If the respondent worked at a shopping area, the trip was classified as a HBW trip.

- **Home-Based College (HBC)**: trips that began at home and ended at a college/university or began at a college/university and ended at home. If the respondent worked at a college/university, the trip was classified as a HBW trip

- **Home-Based School (HSL)** trips that began at home and ended at a K-12 school or began at a K-12 school and ended at home. If the respondent worked at a K-12 school, the trip was classified as a HBW trip

- **Home-Based Medical (HBM)**: trips that began at home and ended at a medical facility (hospital/doctor's office) or began at a medical facility and ended at home. If the respondent worked at a medical facility, the trip was classified as a HBW trip

- **Home-Based Airport (HBA)**: trips that began at home and ended at an airport or began at an airport and ended at home. If the respondent worked at an airport, the trip was classified as a HBW trip

- **Home-Based Other (HBO)**: trips that began at home and ended at any other location not previously listed or began at any location not previously listed and ended at home.

- **Non-Home-Based (NHB)**: trips that did not begin or end at home.

Descriptions of the Survey Instruments

The survey instrument was designed to be administered as a face-to-face interview using tablet PC's and printed surveys.

Printed surveys were printed on heavy card stock for easy distribution and completion. The printed surveys were available in both English and Spanish. Bilingual surveyors were also hired to administer the surveys on tablet PC's in Spanish.

While most respondents completed the survey during their trip, postage-paid return reply envelopes were available for riders who did not have time to complete the survey during their trip. Riders could return the survey by mail or complete the survey on the Internet by going to a website that was printed on the envelope. Each survey contained a serial number that was used by ETC Institute to track the route and sequence in which surveys were completed.

Copies of the printed survey materials are provided in Appendix C of this report.

Screen shots that show how the survey questions appeared on the tablet PCs are provided in Appendix D of this report.

SECTION 2: SAMPLING PROCEDURES

Sampling Goals

In order to ensure that the distribution of completed surveys mirrored the actual distribution of riders who use the region's transit system, Valley Metro established proportional sampling goals for each bus route and light rail station as shown below.

Figure 2.1

Type of Route	% of Riders to Be Surveyed
Local Routes	4.75%
Collector Routes	4.75%
Rural Routes	4.75%
Express Routes	15%
Rapid Routes	15%
Rail Stations	10%

The sampling goals for the survey were set by applying the sampling rates shown in the table above to the August 2010 average weekday ridership for each bus route/light rail station. The goals and the actual number of "complete and useable surveys" are provided in Figure 2.2 (see below and on the following pages).

Figure 2.2

Goal vs. Actual Number of Completed Surveys By Route/Station

Route/Station Name	Goal for Completed Surveys	Actual Number of Complete & Useable Surveys	Within 10 or 10% of the Goal
LOCAL ROUTES			
0 - Central Avenue	249	295	YES
1 - Washington Street	28	29	YES
3 - Van Buren Street	249	249	YES
7 - 7th Street	219	250	YES
8 - 7th Avenue	121	132	YES
10 - Roosevelt Street/Grant Street	140	152	YES
12 - 12th Street	100	175	YES
13 - Buckeye Road	44	46	YES
15 - 15th Avenue	150	183	YES
16 - 16th Street	188	188	YES
17 - McDowell Road	358	362	YES
17A - McDowell Road/Avondale Boulevard	25	52	YES
19 - 19th Avenue	429	488	YES
27 - 27th Avenue	206	215	YES
29 - Thomas Road	502	514	YES
30 - University Drive	130	132	YES
35 - 35th Avenue	302	378	YES
39 - 40th Street	44	69	YES

Figure 2.2 (continued)

Goal vs. Actual Number of Completed Surveys By Route/Station

Route/Station Name	Goal for Completed Surveys	Actual Number of Complete & Useable Surveys	Within 10 or 10% of the Goal
LOCAL ROUTES (continued)			
40 - Main Street	99	242	YES
41 - Indian School Road	423	492	YES
43 - 43rd Avenue	127	132	YES
44 - 44th Street/Tatum Road	92	92	YES
45 - Broadway Road	218	219	YES
48 - 48th Street/Rio Salado Parkway	30	58	YES
50 - Camelback Road	286	293	YES
51 - 51st Avenue	53	62	YES
52 - Roeser Road	38	61	YES
56 - Priest Drive	100	103	YES
59 - 59th Avenue	128	147	YES
60 - Bethany Home Road	128	161	YES
61 - Southern Avenue	277	292	YES
62 - Hardy Drive/Guadalupe Road	77	116	YES
65 - Mill Road/Kyrene Road	54	55	YES
66 - Mill Road/68th Street	52	78	YES
67 - 67th Avenue	117	145	YES
70 - Glendale Avenue/24th Street	341	372	YES
72 - Scottsdale Road/Rural Road	234	251	YES
76 - Miller Road	25	34	YES
77 - Baseline Road	124	125	YES
80 - Northern Avenue	75	75	YES
81 - Hayden Boulevard/McClintock Drive	140	154	YES
90 - Dunlap Avenue/Cave Creek Road	145	183	YES
96 - Dobson Road	107	144	YES
104 - Alma School Road	72	89	YES
106 - Peoria Avenue/Shea Boulevard	169	202	YES
108 - Elliot Road	34	38	YES
112 - Country Club Drive/Arizona Avenue	68	70	YES
120 - Mesa Drive	25	23	YES
122 - Cactus Road	25	25	YES
128 - Stapley Drive	25	30	YES
131 - START	25	28	YES
136 - Gilbert Road	35	35	YES
138 - Thunderbird Road	68	70	YES
154 - Greenway Road	48	48	YES
156 - Chandler Boulevard/Williams Field Road	52	58	YES
170 - Bell Road	124	127	YES
186 - Union Hills Drive	81	81	YES

Figure 2.2 (continued)

Goal vs. Actual Number of Completed Surveys By Route/Station

Route/Station Name	Goal for Completed Surveys	Actual Number of Complete & Useable Surveys	Within 10 or 10% of the Goal
EXPRESS ROUTES			
510 - Scottsdale Express	12	37	YES
511 - Tempe/Scottsdale Airpark Express	8	8	YES
512 - Scottsdale Express	11	22	YES
520 - Tempe Express	13	29	YES
521 - Tempe Express	29	32	YES
531 - Mesa/Gilbert Express	45	56	YES
532 - Mesa Express	21	26	YES
533 - Mesa Express	45	75	YES
535 - Northeast Mesa/Downtown Express	10	12	YES
540 - Chandler Express	25	28	YES
541 - Chandler Express	33	65	YES
542 - Chandler/Downtown Express	32	59	YES
560 - Avondale Express	8	9	YES
562 - Goodyear/Downtown Express	19	19	YES
571 - Surprise Express	20	27	YES
573 - Northwest Valley/Downtown Express	26	29	YES
575 - Northwest Valley Downtown Express	23	28	YES
581 - North Mountain Express	14	14	YES
NEIGHBORHOOD CIRCULATORS/COLLECTOR ROUTES			
Phoenix ALEX	49	49	YES
Phoenix DASH	105	110	YES
Tempe FLASH McCallister	132	134	YES
Glendale Urban Shuttle (GUS) 1, 2, & 3	25	28	YES
Grand Ave Limited	max possible	44	YES
Phoenix MARY	144	151	YES
Mesa Downtown BUZZ	34	35	YES
Tempe Orbit Earth EW Circulator	80	96	YES
Tempe Orbit Jupiter	90	110	YES
Tempe Orbit Mars	88	89	YES
Tempe Orbit Mercury	112	113	YES
Tempe Orbit Venus	87	87	YES
Phoenix Free Airport Shuttle	25	36	YES
SMART Circulator	105	110	YES
Scottsdale Downtown Trolley	25	25	YES
Scottsdale Neighborhood Trolley	82	82	YES
OTHER BUS ROUTES (RURAL, RAPID AND LINK ROUTES)			
660 - Wickenburg Connector	max possible	7	YES
685 - Phoenix/Gila Bend Regional Connector	max possible	8	YES
I-10 East RAPID	113	116	YES
I-17 RAPID	50	53	YES
LINK-Main Street	71	71	YES

Figure 2.2 (continued)

Goal vs. Actual Number of Completed Surveys By Route/Station

Route/Station Name	Goal for Completed Surveys	Actual Number of Complete & Useable Surveys	Within 10 or 10% of the Goal
RAIL STATIONS			
1 - Montebello Avenue & 19th Avenue	323	343	YES
2 - 19th Avenue & Camelback Road	154	264	YES
3 - 7th Avenue & Camelback Road	80	80	YES
4 - Central Avenue & Camelback Road	48	55	YES
5 - Campbell Avenue & Central Avenue	135	136	YES
6 - Indian School Road & Central Avenue	144	148	YES
7 - Osborne Road & Central Avenue	87	83	YES
8 - Thomas Road & Central Avenue	161	178	YES
9 - Encanto Boulevard & Central Avenue	52	52	YES
10 - McDowell Road & Central Avenue	167	183	YES
11 - Roosevelt Street & Central Avenue	205	187	YES
12a - Van Buren Street & Central Avenue	117	133	YES
12b - Van Buren Street & 1st Avenue	88	123	YES
13a - Jefferson Street & 1st Avenue	173	158	YES
13b - Washington Street & Central Avenue	51	72	YES
14A - 3rd Street & Washington Street	86	84	YES
14B - 3rd Street & Jefferson Street	89	96	YES
15a - 12th Street & Washington Street	38	42	YES
15b - 12th Street & Jefferson Street	22	20	YES
16a - 24th Street & Jefferson Street	43	51	YES
16b - 24th Street & Washington Street	38	36	YES
17 - 38th Street & Washington Street	28	41	YES
18 - 44th Street & Washington Street	172	160	YES
19 - Priest Drive & Washington Street	121	124	YES
20 - Center Parkway & Washington Street	34	40	YES
21 - Mill Avenue & Third Street	122	170	YES
22- Veterans Way & College Avenue	211	237	YES
23 - University Drive & Rural Road	310	334	YES
24 - Dorsey Lane & Apache Boulevard	93	100	YES
25 - McClintock Drive & Apache Boulevard	151	184	YES
26 - Smith-Martin Lane & Apache Boulevard	34	30	YES
27 - Price-101 Freeway & Apache Boulevard	153	336	YES
28 - Sycamore & Main Street	386	462	YES
TOTAL	**13750**	**15790**	**YES**

Sampling Goals Were Met On All Routes. The number of complete and useable surveys was within 10% of the goal (or 10 if the sampling goal was less than 100) on all bus routes and all light rail stations that were included in the survey. A survey was considered "complete" if all of the contractually required information was collected. A survey was considered "useable" if it met 100% of the quality assurance and quality control tests that were applied to each record. Overall, the total number of "complete and useable surveys" exceeded the contractual requirements by more than 2,000 surveys.

Methods for Selecting Survey Participants

In addition to setting specific goals for the number of surveys that were completed on each route/station, the consultant, in coordination with Valley Metro developed specific guidelines for selecting survey participants to ensure that the participants would be randomly selected. The processes for selecting survey participants at light rail stations and on bus routes are described below:

- **Light Rail System.** Interviewers were positioned at the entry areas to the fare zones of the light rail stations. As passengers approached the entry areas, every third person was asked to participate in the survey. This was done to ensure that participants were selected at random. If a passenger agreed to participate in the survey, the interviewer would administer the survey. When needed, the interviewer would walk with the passenger and even board the train until the survey was completed. If the survey was not completed before the train departed, the interviewer would ride the train with the passenger until the survey was completed.

- **Bus System.** A random number generator was used to determine which passengers were asked to participate in the survey after boarding a bus. If four people boarded a bus, the tablet PC randomly generated a number from 1 to 4. If the answer was 2, the second person who boarded the bus was asked to participate in the survey. If the answer was 1, the first person was asked to participate in the survey, and so forth. The selection was limited to the first four people who boarded a bus at any given stop to ensure the interviewer could keep track of the passengers as they boarded. For example, if 20 people boarded a bus, the tablet PC program would randomly pick one of the first four people for the survey.

Other Techniques that Were Used to Manage the Sample

Some of the other techniques that were used to manage the sample are described below and on the following page:

- **Daily Reviews of Interviewer Performance.** At the end of each day, the research team evaluated the performance of each interviewer. This included a review of the characteristics of the passengers that were interviewed with regard to age, gender, race, the number of reported transfers, the number of "required data" fields that were completed, the number of "desired data" fields that were completed, and the average length of each interview. These daily reviews allowed the research team to provide immediate feedback to interviewers to improve their overall performance. It also allowed the research team to quickly identify and remove interviewers who were not conducting the survey properly.

- **Oversampling of High Volume Bus Stops.** Valley Metro identified high volume boarding locations along each route (such as schools and major employment centers) prior to conducting the survey on each route. To ensure that these locations were not under-represented during the on-board survey, the Valley Metro consultant had interviewers conduct surveys at these stops while passengers were waiting to board the bus. The sample selection procedures that were used for surveys that were conducted at bus stops were the same as those used at rail stations.

- **Management of the Sample by Time of Day.** In addition to managing the total number of surveys that were completed for each route/station, the Valley Metro consultant also managed the number of surveys that were completed during each of the following four time periods: AM Peak (6am-10am), Midday (10am-2pm), PM Peak (2pm-6pm), and all other hours (before 6am and after 6pm). These four time periods correspond to time periods that are used for regional travel demand forecasting. This was done to ensure that the number of completed surveys for each time period would adequately support data expansion requirements for travel demand modeling. The data expansion process is described in Section 7 of this report.

SECTION 3: PILOT TEST

ETC Institute conducted a pilot test of the Valley Metro Regional On-Board Transit Survey in late September 2010. The purpose of the pilot test was to assess all aspects of the survey including: survey design, sampling methodology, survey implementation, and data processing tasks.

Routes/Stations Involved

The pilot test was administered on eight bus routes and at two light rail stations from 7am to 5pm. The routes and stations that were included in the pilot test are listed below:

Bus Routes
- Route 0 (Central)
- Route 3 (Van Buren)
- Route 40 (Apache-Main)
- Route 62 (Hardy-Guadalupe)
- Route 72 (Scottsdale-Rural)
- DASH Circulator
- Orbit Earth Circulator
- Route 521 (Tempe Express)

Light Rail Stations
- Central Station
- Tempe Transit Center

Personnel and Training

A team of 16 personnel administered the Pilot Test. This included three senior managers: the Project Manager (Chris Tatham) and two field supervisors (Aaron Hekele and Andrew Kolcz). The other positions and number of personnel that were included on the survey team during the pilot test are listed below:

Position	Number of Personnel
Project Team Leader	1
Assistant Team Leader	1
Team Data Specialist	1
Interviewers/Counters	10
Total Personnel	13

Training

All interviewers who conducted the pilot test participated in two days of training prior to the pilot test. The training activities that were covered included:

- An introduction to the project (purpose, scope, etc.).
- Training to use the tablet PCs.
- On-site reconnaissance of the routes and stations that were included in the pilot test. Team members rode each bus route that was included in the pilot test multiple times. Team members recorded all possible stops for each route and developed/tested templates for collecting ridership data.
- Survey administration and sampling procedures.
- Practical exercises to ensure that all interviewers were technically competent to perform all tasks that would be required in the field.

Results of the Pilot Test

The pilot test was administered to a total of 410 riders. Of these 322 completed the survey on tablet PCs. The remaining 88 surveys were completed on paper surveys. Each of the aspects of the pilot test that were assessed is described below.

Assessment of Staff

The overall quality of the staff for the pilot test was excellent. Approximately half of the people who participated in the pilot test had prior experience with the administration of on-board surveys. Of the 17 interviewers who were initially recruited for the pilot test, only one was dismissed for not being technically competent. The remaining 16 people were able to quickly understand and demonstrate the ability to perform the tasks required.

Assessment of Survey Design

Based on the results of the pilot test, a few revisions to the survey instrument were recommended. The most significant revisions are listed below and on the following page:

1) The questions to capture the respondents name and phone number were moved to the end of the survey on the tablet PC version of the survey. This information was initially captured at the beginning of the survey, but interviewers found themselves spending too much time explaining the reason they needed the person's name and phone number, which reduced the amount of time available to administer the survey.

2) The questions about the person's usage of transit in the Phoenix area were reworded. The original question asked if the respondent had started using transit during the past two years. Since many people (especially students) were new to the area, this question was confusing since they had not lived in the area at least two years. The question was changed to "how many years have you been using transit in the Phoenix area?" to improve the quality of the responses to the question.

3) Response choices for the reason riders started using public transit during the past two years were added to the survey because some of the reasons that were mentioned during the pilot test were not originally included on the survey. The reasons that were added included:

   - Started going to school
   - Lost my job
   - Lost my car

4) A question was added to the end of the survey to see if the person had made or will make the same trip in exactly the opposite direction at another time during the day. Respondents who had completed the survey previously in the day did not want to complete the survey again during their return trip, so this question was added to capture trips that would otherwise not be reported.

Assessment of Sampling Procedures
There were no problems with the sampling procedures. The process for randomly selecting riders on buses and at light rail stations as described in Section 2 worked very well.

Assessment of Ridership Counts
As part of the pilot test, ETC Institute tested the manual counting units that were to be used on buses to count boardings and alightings along each route. GPS enabled tablet PCs were used to record the following information each time a bus stopped: the location (latitude/longitude coordinates), time of day, number of boardings, and number of alightings. The accuracy of the counts by location was very good based on a review of the locations that were plotted on maps at the completion of the pilot test. Based on the results of the pilot test, the research team concluded that the GPS enabled tablet PCs would be an accurate method of tracking boarding and alighting counts for the main survey.

Assessment of Survey Length
The survey length was assessed for both the tablet PC and printed versions of the survey. The findings for each version are described below:

- **Tablet PC.** The time it took survey participants to fully complete the survey on a tablet PC ranged from a minimum of 2 minutes and 47 seconds to a maximum of 12 minutes and 16 seconds. The average time was 4 minutes and 38 seconds.

- **Printed Survey.** Two versions of the printed surveys were developed. A four-page version that had more white space and a two-page version printed on legal-sized paper.

    - Of the 50 persons who were given the **four-page** printed version of the survey, only 2 people completed the survey in less than 5 minutes. The average respondent completed the survey in 10 minutes and 21 seconds.

    - Of the 50 persons who were given the **two-page** printed version of the survey, five people completed the survey in less than 5 minutes. The average respondent completed the survey in 8 minutes and 17 seconds.

    The two-page version seemed to work better because it appeared to be shorter to respondents. For this reason, Valley Metro decided to use the two-page version of the survey.

Assessment of Survey Participation.
Overall, 86% of the riders who were asked to complete a survey agreed to participate. Among those who agreed to complete the survey, 92% indicated they had time to complete the full version of the survey; 8% indicated that they did not have time to complete the full version of the survey.

Assessment of Survey Quality
The survey database from the pilot test contained a total of 410 records that were substantially completed and geocoded to X, Y coordinates. The quality of survey data obtained through different methods is compared in Figure 3.1 below.

Figure 3.1

Method of Administration	# Who Started the Survey	# Who Had Time to Complete the Survey	# Surveys that were Fully Useable	% of Complete Surveys that Were Fully Useable
Tablet PC	372	344	322	94%
Paper (administered on board)	100	86	79	92%
Paper (returned by mail)	43	10	9	90%

SECTION 4: SURVEY ADMINISTRATION

Recruiting and Training Interviewers

Assembling a team of high quality interviewers was one of the most important steps in the survey administration process. For this project, ETC Institute complemented its team of professional interviewers with temporary interviewers who were recruited by a local staffing agency in the Phoenix area.

Surveyors were required to have a familiarity with the service area, a solid work history, ability to work with the public, a professional attitude and appearance, and an ability to operate a tablet PC. Each surveyor was required to attend ETC Institute's two-day training session. During these training sessions, surveyors were taught how to operate the tablet PCs and GPS-based ridership counters, how to approach riders, sampling procedures, survey etiquette, and how to deal with various situations that could be encountered during a survey. The training included role-playing and one-on-one tutoring with ETC Institute team leaders. Once the initial training was complete, surveyors spent several days under the supervision of a team leader, who assessed each surveyor's ability to properly conduct surveys. Surveyors who did not demonstrate proficiency in all of the required tasks were released.

Organization of the Survey Team

The survey was administered by five teams who were directly supervised by the project manager. The key individuals who oversaw data collection in the field are listed below. All of these people had at least three years of experience managing on-board surveys in the field.

- Leadership Team:
  - Project Manager – Chris Tatham
  - Assistant Project Manager – Andrew Kolcz
- Team Leader (Bus) – Grace Grimm
- Team Leader (Bus) – MG Casey
- Team Leader (Bus) – Laurel Vine
- Team Leader (Rail) – Aaron Hekele

The organizational structure of each team is described below.

Leadership Team. The leadership team consisted of the project manager, assistant project manager, and 2-3 support personnel. The leadership group was responsible for reviewing the performance of each team and ensuring that the sampling goals for each route/station were met. The leadership team operated from centralized locations, such as a rail station or transit center, so that the performance of all teams could be evaluated.

The selection of bus routes and rail stations to be surveyed each week was carefully planned to ensure the leadership group could directly interface with all routes as they were being surveyed.

Bus Teams. Teams 1, 2, and 3 focused their efforts on the administration of surveys on an average of two bus routes per day.

Each of the bus team leaders supervised a group of approximately 10 surveyors per day. Interviewers were typically deployed on at least two buses running in opposite directions as shown in Figure 4.1 below.

Figure 4.1

Typical Deployment of Bus Survey Teams

Route 1

Bus 1 (Northbound then Southbound):
- Lead interviewer
- Support interviewer
- Boarding/alighting counter

Bus 2 (Southbound then Northbound):
- Lead interviewer
- Support interviewer

Route 2

Bus 1 (Eastbound then Westbound):
- Lead interviewer
- Support interviewer
- Boarding/alighting counter

Bus 2 (Westbound then Eastbound):
- Lead interviewer
- Support interviewer

On high volume routes, interviewers may have been deployed on up to four buses on a route. On low volume routes, interviewers may have been deployed on just one bus serving the route. One person on each route was assigned to record boarding and alighting data.

The responsibilities for each of the positions on the bus team are described below.

- The **team leader** was responsible for ensuring that interviewers were properly trained, equipping interviewers to conduct surveys, scheduling interviewers, inspecting work, and reviewing the data collected before submitting the data to the leadership team at the end of the day.

- The **lead interviewer** was responsible for administering surveys and overseeing survey operations on his/her assigned bus. This included downloading the data from tablet PCs and submitting the data to the Team Leader.

- The **support interviewer** was responsible for conducting interviews. Most of the support interviewers spoke both English and Spanish.

- One person was assigned to conduct boarding and alighting counts on each route. The **boarding / alighting counter** used a GPS equipped tablet PC to record the number of riders who boarded and alighted the bus at each stop. A screen shot of the tablet PC program that was used to record the information is shown in Figure 4.2 to the right. The results of the boarding and alighting counts were used to support the expansion of the data as described in Section 7 of this report.

Figure 4.2

Light Rail Team. The rail team leader supervised a group of approximately 12 surveyors per day. The rail team typically administered the survey to passengers traveling in both directions at two stations per day as shown in Figure 4.3 below.

Figure 4.3

Typical Deployment of Rail Survey Team

Station 1

Eastbound:
- Lead interviewer
- Support interviewer
- Support interviewer

Westbound:
- Lead interviewer
- Support interviewer
- Support interviewer

Station 1

Eastbound:
- Lead interviewer
- Support interviewer
- Support interviewer

Westbound:
- Lead interviewer
- Support interviewer
- Support interviewer

At high volume stations, as many as 12 interviewers may have been used. At low volume stations as few as 3 interviewers may have been used. The responsibilities for each of the positions on the rail team are described below and on the following page:

- The **team leader** was responsible for ensuring that interviewers were properly trained, equipping interviewers to conduct surveys, scheduling interviewers, inspecting work, and reviewing the data collected before submitting the data to the leadership team at the end of the day.

- The **lead interviewer** was responsible for administering surveys and overseeing survey operations at his/her her assigned location. This included downloading the data from tablet PCs and submitting the data to the Team Leader.

- The **support interviewer** was responsible for conducting interviews. Most of the support interviewers spoke both English and Spanish.

Survey Administration Procedures

Timing of the Survey. The survey was administered during weekdays (Tuesday-Thursday) from October 4, 2010 thru February 17, 2011 with the exception of Veterans Day, Thanksgiving, and winter breaks for colleges/schools from December 15, 2010 - January 24, 2011.

The survey was administered at the time of day that coincided with the hours that each route was operational. This was to ensure that the administration of the survey began prior to peak ridership levels in the morning and continued after peak ridership levels in the evening. Although the administration of the survey began as early as 5am and continued as late as 9pm on some routes, most surveys were administered between the hours of 6:00am – 7:00pm.

The project manager coordinated with each transit agency to verify the hours of operation for each route. One week before the survey was scheduled to be conducted, the number of buses to be ridden were assigned to each route. Final staffing assignments were made at that time to ensure that an adequate number of interviewers were assigned.

The procedures for administering the survey are listed below:

- **Prior to the Administration of the Survey**:

  Route Reconnaissance. The team leader for each route conducted a physical reconnaissance of the route. This review included:

  - Ensuring that the stops previously identified matched the route actually being driven. This was done to ensure boarding and alighting data at each stop along the route were being recorded correctly.
  - Identifying large employers and schools along the route, which may have impacted ridership patterns at certain times of the day.
  - Assessing whether a high percentage of the riders did not speak English; if more than 10% of the riders did not speak English, provisions were made to have bilingual interviewers on the route.

  Education/Public Awareness. In order to increase participation in the survey, Valley Metro posted signs and recorded announcements on buses and at rail stations that explained the importance of the survey. The signs were posted on buses, and at light rail stations one week before the survey was conducted. A website was also created to provide riders with more information about the survey.

- **During the Administration of the Survey.** Interviewers selected people for the survey in accordance with the sampling procedures that are described in Section 2 of this report. Once a surveyor had selected a person for the survey, the surveyor did the following:

    - Approached the person who was selected and asked him or her to participate in the survey.

    - If the person refused, the interviewer ended the survey, but the refusal was recorded on the tablet PC so Valley Metro could assess the overall response rate to the survey**.**

    - If the person agreed to participate, the interviewer asked the respondent if he/she had at least five minutes to complete the survey.

        - **If the person did NOT have at least five minutes,** the surveyor asked the person to provide his/her boarding location, alighting location, name, and phone number. The surveyor then gave the respondent a printed copy of the survey with a return reply envelope. The interviewer told the respondent to return the survey by mail or on-line at the survey website within the next two days. A serial number that was printed on the survey was entered into the tablet PC to allow the research team to track whether or not the respondent completed the survey. If the survey was not returned to ETC Institute by mail or on-line within five days, a phone interviewer from ETC Institute's call center contacted the respondent and asked him/her to provide the information by phone. This methodology ensured that people who completed "short-trips" on public transit were well represented.

        - **If the person had at least five minutes,** the surveyor began administering the survey to the respondent as a face-to-face interview using a tablet PC. After all of the "required" questions had been answered, the interviewer asked the respondent if he or she had 2-3 more minutes to complete the "desired" questions. If the respondent agreed, the surveyor then asked the remaining questions on the survey. In situations where the administration of the survey by tablet PC was not practicable, a printed copy of the survey was used. When a printed copy of the survey was completed, the interviewer still conducted a face-to-face interview with the respondent after the respondent had filled out the questionnaire. During the interview, the surveyor reviewed all answers that were provided by the respondent to ensure the information was legible, accurate, and complete. If the surveyor noticed that the respondent did not properly complete one or more questions, the interviewer made the appropriate corrections to the survey. The completed survey was then entered into the tablet PC later that day.

- **After the Administration of the Survey.** After the surveys were administered, the team leaders for each team consolidated the survey data that was collected by their team and forwarded the data to the Leadership Team. The Leadership Team then reviewed each survey record to ensure that the following information had been provided.

    - Type of place where the trip began
    - Complete address where the trip began
    - Mode of access to the transit system
    - Boarding location
    - Alighting location
    - Mode of egress from the transit system
    - Complete destination address
    - Type of place where the trip ended
    - The respondent's home address
    - Number of operational vehicles available in the household
    - Number of occupants in the respondent's household
    - Number of adults in the respondent's household
    - Number of workers (employed persons) in the respondent's household
    - Respondent's employment status
    - Respondent's student status
    - Respondent's driver's license status
    - Age of the respondent
    - Annual household income
    - Time of day the survey was completed

  If any of the information listed above was missing or incomplete, the Leadership Team forwarded the survey record and corresponding name and phone number of the survey respondent to ETC Institute's call center. Interviewers working in ETC Institute's call center then called respondents who had provided their name and phone number to retrieve the missing information by phone.

  Once survey records were classified as "complete" meaning all of the "required" information had been collected, the records were forwarded to ETC Institute's geocoding manager, who then geocoded the home, origin, boarding, alighting, and destination addresses. The geocoding process is described in detail in the following section (Section 5) of this report.

Survey Response Rate

The overall response rate to the survey was very high. More than ninety percent (90.8%) of the passengers who were asked to participate in the survey agreed to complete the survey. Factors that may have contributed to the high response rate included:

- **Use of Bi-lingual Interviewers**. More than 1,000 surveys were completed in Spanish.

- **Use of Incentives**. A total of $5000 worth of incentives were given to nearly 200 people who were randomly selected from all participants in the survey. The incentives included cash awards of $100 and gift certificates to restaurants and retail stores valued at $10, $25, and $50.

- **Use of Tablet PCs**. Unlike paper surveys which require the respondent to fill out a form, tablet PCs do not require the respondent to do anything other than respond to the question. By reducing the burden on the respondent to participate in the survey, more people were willing to participate. The tablet PCs also caused some passengers to be more curious about the survey, which may have aided the response rate.

- **Effective Pre-Survey Communication By Transit Agencies**. All of the participating transit operators did a good job of informing passengers about the survey. Since most passengers were aware of the survey before they were asked to participate, the overall response rate was probably higher because passengers understood the importance of the survey.

Figure 4.4 (below and on the following pages) shows the actual response rate for each route/station.

Figure 4.4

Response Rate By Route/Station

Route/Station Name	Total Number of People Who Were Asked to Participate in the Survey	Number Who Participated in the Survey	Response Rate
LOCAL ROUTES			
0 - Central Avenue	372	343	92%
1 - Washington Street	36	33	92%
3 - Van Buren Street	273	254	93%
7 - 7th Street	329	313	95%
8 - 7th Avenue	161	145	90%
10 - Roosevelt Street/Grant Street	183	163	89%
12 - 12th Street	250	238	95%
13 - Buckeye Road	52	48	92%
15 - 15th Avenue	264	249	94%
16 - 16th Street	225	198	88%
17 - McDowell Road	377	362	96%
17A - McDowell Road/Avondale Boulevard	61	55	90%
19 - 19th Avenue	567	499	88%
27 - 27th Avenue	233	215	92%
29 - Thomas Road	578	526	91%
30 - University Drive	161	142	88%
35 - 35th Avenue	482	429	89%
39 - 40th Street	84	79	94%
40 - Main Street	328	309	94%
41 - Indian School Road	636	605	95%
43 - 43rd Avenue	151	135	89%
44 - 44th Street/Tatum Road	114	101	89%
45 - Broadway Road	272	234	86%
48 - 48th Street/Rio Salado Parkway	101	94	93%

Figure 4.4 (continued)

Response Rate By Route/Station

Route/Station Name	Total Number of People Who Were Asked to Participate in the Survey	Number Who Participated in the Survey	Response Rate
LOCAL ROUTES (continued)			
50 - Camelback Road	331	295	89%
51 - 51st Avenue	75	66	88%
52 - Roeser Road	79	74	94%
56 - Priest Drive	111	103	93%
59 - 59th Avenue	189	165	87%
60 - Bethany Home Road	206	178	86%
61 - Southern Avenue	340	300	88%
62 - Hardy Drive/Guadalupe Road	158	146	92%
65 - Mill Road/Kyrene Road	77	74	96%
66 - Mill Road/68th Street	118	111	94%
67 - 67th Avenue	190	166	87%
70 - Glendale Avenue/24th Street	431	384	89%
72 - Scottsdale Road/Rural Road	337	314	93%
76 - Miller Road	44	38	86%
77 - Baseline Road	150	132	88%
80 - Northern Avenue	93	80	86%
81 - Hayden Boulevard/McClintock Drive	172	159	92%
90 - Dunlap Avenue/Cave Creek Road	265	247	93%
96 - Dobson Road	224	211	94%
104 - Alma School Road	134	128	96%
106 - Peoria Avenue/Shea Boulevard	239	211	88%
108 - Elliot Road	51	47	92%
112 - Country Club Drive/Arizona Avenue	93	80	86%
120 - Mesa Drive	31	28	90%
122 - Cactus Road	27	25	93%
128 - Stapley Drive	39	35	90%
131 - START	30	28	93%
136 - Gilbert Road	44	38	86%
138 - Thunderbird Road	83	73	88%
154 - Greenway Road	60	52	87%
156 - Chandler Boulevard/Williams Field Road	65	60	92%
170 - Bell Road	145	128	88%
186 - Union Hills Drive	110	99	90%
EXPRESS ROUTES			
510 - Scottsdale Express	41	39	95%
511 - Tempe/Scottsdale Airpark Express	8	8	100%
512 - Scottsdale Express	26	24	92%
520 - Tempe Express	32	30	94%
521 - Tempe Express	35	34	97%
531 - Mesa/Gilbert Express	68	61	90%
532 - Mesa Express	38	37	97%
533 - Mesa Express	88	78	89%
535 - Northeast Mesa/Downtown Express	14	14	100%
540 - Chandler Express	35	32	91%
541 - Chandler Express	74	67	91%
542 - Chandler/Downtown Express	64	60	94%
560 - Avondale Express	10	10	100%

Figure 4.4 (continued)

Response Rate By Route/Station

Route/Station Name	Total Number of People Who Were Asked to Participate in the Survey	Number Who Participated in the Survey	Response Rate
EXPRESS ROUTES (continued)			
562 - Goodyear/Downtown Express	21	20	95%
571 - Surprise Express	33	30	91%
573 - Northwest Valley/Downtown Express	31	29	94%
575 - Northwest Valley Downtown Express	29	28	97%
581 - North Mountain Express	15	14	93%
NEIGHBORHOOD CIRCULATORS/COLLECTOR ROUTES			
Phoenix ALEX	57	51	89%
Phoenix DASH	151	135	89%
Tempe FLASH McCallister	158	135	85%
Glendale Urban Shuttle (GUS) 1, 2, & 3	35	30	86%
Grand Ave Limited	51	46	90%
Phoenix MARY	176	152	86%
Mesa Downtown BUZZ	38	35	92%
Tempe Orbit Earth EW Circulator	113	100	88%
Tempe Orbit Jupiter	143	132	92%
Tempe Orbit Mars	106	93	88%
Tempe Orbit Mercury	161	139	86%
Tempe Orbit Venus	115	105	91%
Phoenix Free Airport Shuttle	63	58	92%
SMART Circulator	127	111	87%
Scottsdale Downtown Trolley	34	30	88%
Scottsdale Neighborhood Trolley	103	93	90%
OTHER BUS ROUTES (RURAL, RAPID AND LINK ROUTES)			
660 - Wickenburg Connector	7	7	100%
685 - Phoenix/Gila Bend Regional Connector	8	8	100%
I-10 East RAPID	130	116	89%
I-17 RAPID	59	55	93%
LINK-Main Street	81	71	88%
RAIL STATIONS			
1 - Montebello Avenue & 19th Avenue	422	389	92%
2 - 19th Avenue & Camelback Road	356	314	88%
3 - 7th Avenue & Camelback Road	101	91	90%
4 - Central Avenue & Camelback Road	70	61	87%
5 - Campbell Avenue & Central Avenue	163	142	87%
6 - Indian School Road & Central Avenue	176	166	94%
7 - Osborne Road & Central Avenue	92	84	91%
8 - Thomas Road & Central Avenue	205	181	88%
9 - Encanto Boulevard & Central Avenue	67	63	94%
10 - McDowell Road & Central Avenue	215	190	88%
11 - Roosevelt Street & Central Avenue	221	197	89%
12a - Van Buren Street & Central Avenue	175	165	94%
12b - Van Buren Street & 1st Avenue	172	159	92%
13a - Jefferson Street & 1st Avenue	194	169	87%
13b - Washington Street & Central Avenue	100	84	84%
14a - 3rd Street & Washington Street	102	88	86%
14b - 3rd Street & Jefferson Street	113	99	88%

Figure 4.4 (continued)

Response Rate By Route/Station

Route/Station Name	Total Number of People Who Were Asked to Participate in the Survey	Number Who Participated in the Survey	Response Rate
RAIL STATIONS (continued)			
15a - 12th Street & Washington Street	46	43	93%
15b - 12th Street & Jefferson Street	23	21	91%
16a - 24th Street & Jefferson Street	65	62	95%
16b - 24th Street & Washington Street	59	55	93%
17 - 38th Street & Washington Street	54	50	93%
18 - 44th Street & Washington Street	197	168	85%
19 - Priest Drive & Washington Street	143	132	92%
20 - Center Parkway & Washington Street	49	45	92%
21 - Mill Avenue & Third Street	214	189	88%
22- Veterans Way & College Avenue	378	348	92%
23 - University Drive & Rural Road	398	355	89%
24 - Dorsey Lane & Apache Boulevard	118	108	92%
25 - McClintock Drive & Apache Boulevard	268	247	92%
26 - Smith-Martin Lane & Apache Boulevard	39	35	90%
27 - Price-101 Freeway & Apache Boulevard	431	397	92%
28 - Sycamore & Main Street	552	519	94%
TOTAL	**19587**	**17777**	**90.8%**

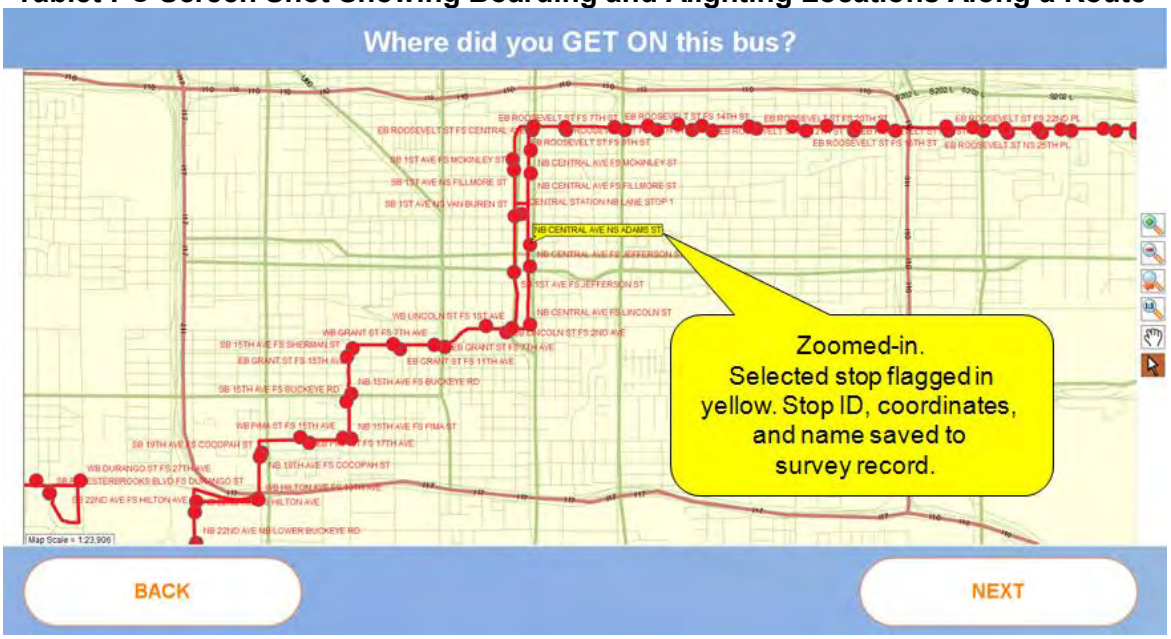
SECTION 5: GEOCODING PROCESS

Process for Geocoding Address Records

Each Valley Metro transit survey record attempted to descriptively convey information about five physical locations: trip origin, trip destination, where the transit user boarded the transit vehicle, where he or she exited the bus or train, and the home/residence location of the transit user. Where locations were reported as intersections, the intersection corner associated with the reported location was also recorded. For the survey to be of use to the underlying transit system modeling effort, the geographic coordinates of all five locations were determined through geocoding.

Effective geocoding depends mainly on the initial quality of the location data. Opportunities for spelling errors in field-recorded addresses were minimized in order to achieve high hit rates and credible geocoding results. The survey instrument, which was set up on a portable tablet PC, was configured with lists of place names relevant to the study area, which were instantly accessible during survey acquisition. These pre-configured lists contained city names, street names, bus route numbers, bus stop names, and train station names. Figure 5.1 (below) shows a screen shot from the tablet PC that allowed interviewers to precisely record boarding and alighting locations while the survey was being administered.

Figure 5.1
Tablet PC Screen Shot Showing Boarding and Alighting Locations Along a Route

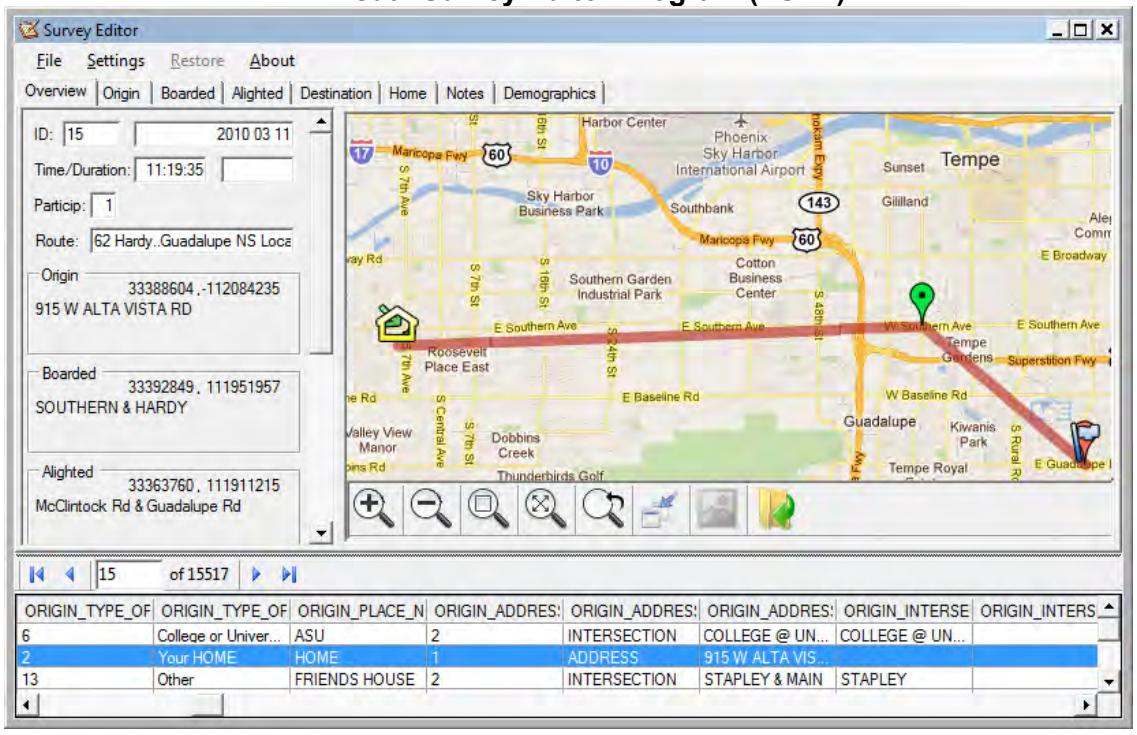


Each inventoried stop on the list was linked to its own unique System ID number which was captured automatically during the survey. The System ID was subsequently used in post-processing to automatically retrieve pre-recorded geographic coordinates of the stop. The coordinates of intersection-based locations were shifted in post-processing approximately 300 feet in the direction of the reported intersection corner to ensure correct TAZ assignment of the reported locations.

Survey records were geocoded in batches as they arrived from the field, after initial high-level cleanup and file formatting. The geocoding process was comprised of several steps which were followed both sequentially and iteratively, based on quality checks. Both automated and manual processes were used to identify the coordinates of reported locations. After the initial cleanup of location data, addresses were geocoded using the TransCAD GIS geocoding routines and Caliper's latest available nationwide street centerlines. Addresses which failed to geocode in this step were subsequently processed inside a geocoding utility published by a commercial mapping provider, using their up-to-date street centerlines.

The remaining non-decodable addresses were then manually corrected and geocoded using ETC Institute's Visual Survey Editor Program (VSEP), depicted in Figure 5-2. This program connects in real-time to an online mapping system and provides address auto-complete and instant map preview of candidate locations to help identify and fix addresses. VSEP allows the editor to view all five points concurrently and to manually adjust point positions on the map to better match their physical locations. This program helps to significantly speed up the survey record review and editing process and helps reduce error rates.

Figure 5.2
Visual Survey Editor Program (VSEP)



Other online mapping resources that were used to edit survey records when the locations could not be found using VSEP included:

- MapQuest
- Yahoo Maps
- Bing Maps
- the United States Geological Survey Geographic Names Information System (USGS GNIS)
- custom web-based geocoding routines such as GetLatLon.com or Geocode.com

The geocoded results were checked for errors recursively, until all five locations within a record were completely geocoded or until a record was declared unfit for further processing. Error checks included comparing attributes derived from the geocoded coordinates to those recorded during the field survey, e.g. city name. Quality checks also comprised proximity tests between the geocoded boarding or alighting locations and the known bus stop locations or line segment representing the bus route. Some of the proximity tests and corrections were performed within TransCAD using custom scripts developed for this project in Geographic Information System Developer's Kit (GISDK). Distances between each consecutive pair of trip points were also computed as a basis of logic checks used to flag records for further (typically manual) verification and correction.

All recorded geographic coordinates were converted to the State Plane Coordinate System (NAD83, AZ Central, feet, HARN datum), before submitting to Valley Metro.

Results of Geocoding Efforts

Figure 5.3 (below) shows that 100% of the records in the final survey database were geocoded to each of the five critical address locations: home, origin, boarding, alighting, and destination.

Figure 5.3

Type of Address	Number of Addresses	Addresses Geocoded to X,Y Coordinates	Percentage of Addresses Ending Inside the Metropolitan Phoenix Area that Were Geocoded to X,Y coordinates
Home Address	15780	15780	100%
Origin Address	15780	15780	100%
Boarding Address	15780	15780	100%
Alighting Address	15780	15780	100%
Destination Address	15780	15780	100%
Percentage of All Addresses	15780	15780	100%

SECTION 6: DATA REVIEW PROCESS (QA/QC)

Many of the processes that were described in the first five sections of this report were essential elements of the overall quality assurance/quality control (QA/QC) process that was implemented throughout the survey administration process. The involvement of the Technical Advisory Committee (TAC) and the FTA in the development of survey questions contributed to the quality of the survey instrument. The establishment of specific sampling goals and the procedures for managing these goals ensured that a representative sample was obtained from each bus route and light rail station. The training of surveyors and the high levels of oversight provided by team leaders and the project manager ensured that the survey was administered properly. Also, the use of the latest geocoding tools contributed to the high quality of geocoding accuracy that was achieved.

This section of the report describes the QA/QC processes that were implemented after the data was collected.

Process for Identifying "Complete and Useable" Surveys

Once a survey had been classified as being "complete", meaning all of the "required data" were provided, the next phase of the QA/QC process was designed to determine the usability of each survey record. The term "useable" was used to identify records that passed all of the QA/QC tests that were applied to a record after it was classified as being "complete." [Note: a list of "required" data that were needed to meet the contractual requirements for completeness is provided in Section 1.]

Pre-Processing Tests

The first step in this process involved the application of a series of QA/QC tests that were conducted before the address fields were processed for geocoding. Some of the specific checks that were conducted during the pre-processing phase included:

- Checking for valid home street names, city names, and zip codes.
- Checking for valid origin street names, city names, and zip codes.
- Checking for valid destination street names, city names, and zip codes.
- Checking for origin place names that could be matched to a pre-existing list of major destinations that had been previously geocoded.
- Checking for destination place names that could be matched to a pre-existing list of major destinations that had been previously geocoded.

- Ensuring the number of household occupants was greater than or equal to the number of employed members of the household.
- Ensuring the number of household occupants was greater than or equal to number of adults in the household.
- Ensuring the respondents who indicated that they were employed also reported that at least one member of their household was employed.
- Ensuring that bus route names and rail station names were consistently spelled and coded correctly.
- Ensuring that the report dates on which the survey was administered were on a Tuesday, Wednesday, or Thursday.
- Ensuring that transfers to a bus route or rail station were possible.
- Ensuring that transfers from a bus route or rail station were possible.
- Ensuring that the number of vehicles available to a respondent's household were consistent with the respondent's reported annual household income.
- Ensuring the time of day a survey was completed was reasonable given the published operating schedule for the route.
- Ensuring the origin type of place code matched the type of place reported by the respondent.
- Ensuring the destination type of place code matched the type of place reported by the respondent.
- Ensuring the station name for the rail station matched the place where the respondent indicated he/she boarded the train.

Records that passed all of the QA/QC tests described above were forwarded to ETC Institute's geocoding section. Records that did not pass all of the tests were sent to ETC Institute's Survey Records Review Team (SRRT) for further review. The SRRT then took one of the following actions:

- They corrected the deficiency in record.
- They directed ETC Institute's call center to contact the respondent by phone (if a phone number were available) to retrieve additional information.
- They reclassified the record as "incomplete" by assigning a value of "3" for the record's Quality Control Flag. This assignment removed the record from further consideration for the final survey database.

Post-Processing Tests

The next step in this process involved the application of a series of QA/QC tests that were conducted after all five addresses were successfully geocoded.

Once all five addresses had been geocoded, the following QA/QC checks were performed to assess the logic and other attributes of the reported trip.

- Ensuring the origin and destination addresses were not the same.
- Ensuring that the boarding and alighting addresses were not the same.
- Ensuring that the respondent did not list the same route as both a "transfer from" and a "transfer to" during their one-way trip.
- Checking to be sure the access mode was appropriate given the distance of travel from the trip origin to place where the respondent initially accessed transit. For example, if a passenger reported that they accessed transit by car but the distance from their origin to the entry point for transit was less than 0.25 miles, the record would have been flagged for further review. Similarly, if a respondent reported that they walked to transit but the distance from the origin to transit was more than 2 miles, the record would have been flagged to check for a missing transfer.
- Checking to be sure the egress mode was appropriate given the distance of travel from place where the respondent exited the transit system to his/her destination.
- Reviewing the total distance the respondent traveled on transit compared to the distance the respondent traveled from the origin to the destination for their trip. For example, if a respondent reported traveling six miles on transit in order to travel 0.5 miles from the origin to the destination for their trip, the record would have been flagged for further review. Similarly, if a respondent reported traveling just 1 mile on transit to complete a 10 mile trip, the records would have been flagged to check for a missing transfer.
- Checking the station where rail passengers boarded the train to see if the direction of travel was possible from the reported boarding location.

Records that passed all of the QA/QC tests described above were forwarded to ETC Institute's Survey Records Review Team (SRRT) for a final visual review of the trip using Visual Survey Editor Program (VSEP), which was described on page 28 in Section 5.

Records that were flagged for further review were forwarded to the appropriate section based on the nature of the flag.

- Issues that involved address geocoding assignments were referred to ETC Institute's geocoding section.
- Issues that needed clarification of data were directed to ETC Institute's call center (if a phone number was available). The call center then contacted the respondent to retrieve additional information as needed.
- All other issues were directed to the ETC Institute's Survey Records Review Team (SRRT).

Records that were corrected were then forwarded to the SRRT for a final visual inspection using the Visual Survey Editor Program (VSEP).

Records that were complete but could have problems with the trip logic or other attributes of the trip were reclassified as "problematic" by assigning a value of "2" as the record's Quality Control Flag. This assignment removed the record from further consideration for the final survey database.

Visual Inspection

The final step of the QA/QC data review process involved a visual inspection of the trip record using the Visual Survey Editor Program (VSEP). The key tasks that were conducted as part of this visual inspection included the following:

- Visually inspecting and examining key variables of survey trips with very short distances (less than 1.0 miles for local bus and light rail trips and less than 4 miles for express and rapid bus trips).
- Visually inspecting the sensibility of trips with zero transfers given the relative location of the boarding and alighting locations relative to the origin and destination.
- Visually inspecting the sensibility of trips that reported three or more transfers.
- Visually inspecting the sensibility of drive access/egress trips given the distance traveled by car relative to the distance traveled by bus or light rail.
- Visually inspecting the sensibility of drive access/egress trips with more than one transfer.
- Visually inspecting sensibility of the origin-to-destination path with respect to the survey route that was used for the trip.

If a record passed all of the visual checks listed above, the record was classified as "useable" and tagged for inclusion in the final survey database by assigning a value of "1" for the records Quality Control Flag.

If a record did not pass all of the visual checks, the record was sent back to the SRRT for further review. If the SRRT was not able to resolve the problem that was identified, the record was reclassified as "problematic" by assigning a value of "2" as the record's Quality Control Flag. This assignment removed the record from further consideration for the final survey database.

Summary of the Data Review QA/QC Process

Among the 17,777 surveys that were originally administered, 16,892 met the contractual requirements for completeness. Of those that were classified as "complete", 15,780 passed all of the QA/QC tests and were subsequently classified as "useable" records. Only the "useable" records (those with a Quality Control Flag of "1") were included in the final survey database that was expanded and used for the analysis in this report. The results of the QA/QC review are shown in Figure 6.1.

Figure 6.1

Data Review QA/QC Summary

Classification	Quality Control Flag Value	Description	# of Surveys	% of All Surveys Administered
Not Complete	3	Missing one or more pieces of required data	885	5%
Problematic	2	All required data was provided but there was a problem with the trip logic or other attribute of the trip	1112	6%
Useable	1	Record passed all QA/QC tests	15780	89%
Total			**17777**	**100%**

SECTION 7: DATA EXPANSION PROCESS

This section describes the process for developing the weighting factors that were used to expand the survey database to the total transit ridership in the region. Two types of expansion factors were developed.

- **Unlinked trip weighting factors** were developed to expand the total number of completed surveys to the actual number of transit boardings in the region.

- **Linked trip weighting factors** were developed to adjust the total number of boardings to one-way trips. The linked trip weighting factor accounts for multiple boardings that would occur when a passenger transfers during his/her one-way trip.

Unlinked Trip Weighting Factors for Light Rail

A total of 4,732 surveys were completed with light rail passengers. The number of completed surveys represented 10.5% of the average weekday boardings on METRO Light Rail during the month of April 2011 (44,394 boardings). In order to ensure that the survey data accurately represented the travel patterns of the 44,394 passengers who use light rail service in the region on a typical weekday, weighting factors for unlinked trips were prepared for each survey record based on the direction of travel, time of day, and the path of the trip between the boarding and alighting station.

Estimating Ridership Between Stations

Although METRO Light Rail maintains daily ridership by direction and time of day, METRO Light Rail does not currently maintain data tracking the number of light rail trips that begin and end at each station. The Metro maintains boarding and/or alighting information.

In order to estimate actual ridership between stations, at least one interviewer was assigned the responsibility of administering a boarding/alighting survey to as many light rail passengers as possible at each station. The boarding/alighting survey was administered in conjunction with the main surveying effort, but the survey only included a single question: "At which station will you be getting off the train?" A total of 8,212 light rail passengers completed the boarding/alighting survey.

The station-to-station flows that were captured in the boarding/alighting survey were applied to the actual number of boardings at each station to provide an estimate of the station-to-station ridership in each direction for each of four time periods: AM Peak (6am-9:59am), Midday (10am-1:59pm), PM Peak (2pm-5:59pm), and All Other Hours (6pm-5:59am).

The research team then compared the estimated number of alightings at each station to the actual number of alightings at each station. The actual alighting data was used as a control total to ensure that the estimated ridership between stations was reasonable. If the difference between the estimated number of alightings and the actual number of alightings for any station was more than 10%, the research team applied an iterative balancing process that adjusted the distribution of trips between stations until the difference between the estimated number of boardings and alightings and the actual number of boardings and alightings was nearly zero.

Calculating the Weighting Factors

Once the research team had estimated the actual ridership between stations, the next step was to calculate weighting factors for unlinked trips. This was done by developing three sets of matrices that showed boardings for all 28 light rail stations on one axis and alightings for all 28 stations on the other axis. An example of this process for just three stations is shown in Figure 7.1 below (and at the top of the following page). The first matrix (Step 1) shows the estimated ridership between stations ("NA" indicates that the trip was not possible since table shows eastbound ridership). The second matrix (Step 2) shows the number of completed surveys for each boarding/alighting combination in the matrix. The third matrix (Step 3 – on the following page) shows the weighting factors for unlinked trips which were calculated by dividing the estimated ridership in Step 1 by the number of completed surveys in Step 2.

Figure 7.1

EXAMPLE OF THE METHODOLOGY FOR GENERATING UNLINKED TRIP WEIGHTING FACTORS FOR LIGHT RAIL

EASTBOUND AM

Step 1: Estimated Ridership

BOARDING STATION	ALIGHTING STATION: Montebello & 19th Avenue	19th Avenue & Camelback	7th Ave & Camelback
Montebello & 19th Avenue	NA	23	53
19th Avenue & Camelback	NA	NA	34
7th Ave & Camelback	NA	NA	NA

Step 2: Number of Completed Surveys

BOARDING STATION	ALIGHTING STATION: Montebello & 19th Avenue	19th Avenue & Camelback	7th Ave & Camelback
Montebello & 19th Avenue	NA	4	7
19th Avenue & Camelback	NA	NA	5
7th Ave & Camelback	NA	NA	NA

Step 3: Unlinked Trip Weighting Factors

BOARDING STATION	ALIGHTING STATION: Montebello & 19th Avenue	19th Avenue & Camelback	7th Ave & Camelback
Montebello & 19th Avenue	NA	5.75	7.57
19th Avenue & Camelback	NA	NA	6.80
7th Ave & Camelback	NA	NA	NA

Note: The weighting factors shown in Step 3 were calculated by dividing the estimated ridership in Step 1 by the actual number of completed surveys in Step 2.

The process shown in Figure 7.1 was completed for each of the following eight types of trips:

- Eastbound Trips during the AM Peak (6am-9:59am)
- Eastbound Trips during the Midday (10am-1:59pm)
- Eastbound Trips during the PM Peak (2pm-5:59pm)
- Eastbound Trips during All Other Hours (6pm-5:59am)
- Westbound Trips during the AM Peak (6am-9:59am)
- Westbound Trips during the Midday (10am-1:59pm)
- Westbound Trips during the PM Peak (2pm-5:59pm)
- Westbound Trips during All Other Hours (6pm-5:59am)

Unlinked Trip Weighting Factors for Bus Routes

A total of 11,048 surveys were completed with bus passengers. The number of completed bus surveys represented 5.5% of the average weekday boardings on the region's bus system during the month of April 2011 (198,947 boardings). In order to ensure that the survey data accurately represented the travel patterns of the 198,947 passengers who use bus service in the region on a typical weekday, unlinked trip weighting factors were prepared for each bus survey record in one of the following two ways:

- **High Volume Routes.** Bus routes with average weekday boardings of 4,000 passengers or more were expanded by direction, time of day, and boarding location. There were a total of 15 routes in this category. The total boardings on these routes was 100,015, which was 50.3% of the region's average weekday bus ridership

- **All Other Routes.** Bus routes with average weekday boardings of less than 4,000 passengers were expanded by direction and time of day. There were a total of 83 routes in this category. The total boardings on these routes was 98,932, which was 49.7% of the region's average weekday bus ridership.

Each of these two methods is described in more detail on the following pages.

Calculating Unlinked Trip Weighting Factors for High Volume Bus Routes

The process for calculating unlinked trip weighting factors for high volume bus routes involved several activities that are described below and on the following pages.

- **Collecting Boarding/Alighting Counts.** Since ridership data at the stop level was not available, the research team conducting boarding and alighting counts on at least one bus that was operating on each route while the survey was being administered.

- **Segmenting Routes Based on the Observed Distribution of Boardings and Alightings.** The boarding and alighting data from the on-board counts were reviewed in GIS to assess the general distribution of ridership along each route by time of day. Based on the observed distribution, the research team divided each route into at least three but no more than six segments. The purpose of the segmentation was to control the expansion of the sample with regard to the location of boardings along a route. The number of segments per route was related to the number of completed surveys along the route and the presence of major ridership generators, such as light rail stations and park and ride lots. Since the sample size was limited to approximately 5% of the total ridership on each route, the number of segments was limited to ensure that most expansion factors would have a value of 40 or less, which was double the value of the average weighting factor. [Note the average weighting factor was 20 since 1 in 20 (or 5%) of the ridership was surveyed]. A list routes that were expanded using this method is provided in Appendix G.

- **Estimating the Total Number of Boardings for Each Segment.** Once each route had been segmented, the percentage of all boardings that were observed in each segment (based on the results of the boarding/alighting counts) was multiplied by the total number of boardings on the route in each direction for each of four time periods: AM Peak (6am-9:59am), Midday (10am-1:59pm), PM Peak (2pm-5:59pm), and All Other Hours (6pm-5:59am). The result of this process was an estimate for the total number of boardings within each segment by direction and time of day.

- **Calculating the Weighting Factors.** Once the total boardings for each segment had been estimated by time of day and direction, weighting factors for each segment were calculated by dividing the estimated number of boardings on each segment by the total number of completed surveys for each segment. A unique set of weighting factors was created for each segment on a route for each of the following types of trips.

    - East or Northbound Trips during the AM Peak (6am-9:59am)
    - East or Northbound Trips during the Midday (10am-1:59pm)
    - East or Northbound Trips during the PM Peak (2pm-5:59pm)
    - East or Northbound Trips during All Other Hours (6pm-5:59am)
    - West or Southbound Trips during the AM Peak (6am-9:59am)

- West or Southbound Trips during the Midday (10am-1:59pm)
- West or Southbound Trips during the PM Peak (2pm-5:59pm)
- West or Southbound Trips during All Other Hours (6pm-5:59am)

A route with three segments would have had 24 unique weighting factors. While a route with five segments would have had 40 unique weighting factors.

Calculating Unlinked Trip Weighting Factors for All Other Bus Routes

The process for calculating unlinked trip weighting factors for other bus routes simply involved dividing the number of boardings in each direction by time of day on each route by the number of surveys that were completed. For most routes, expansion factors were developed for the following eight types of trips. An example of the calculation from Route 62 is shown in Figure 7.2 below:

- East or Northbound Trips during the AM Peak (6am-9:59am)
- East or Northbound Trips during the Midday (10am-1:59pm)
- East or Northbound Trips during the PM Peak (2pm-5:59pm)
- East or Northbound Trips during All Other Hours (6pm-5:59am)
- West or Southbound Trips during the AM Peak (6am-9:59am)
- West or Southbound Trips during the Midday (10am-1:59pm)
- West or Southbound Trips during the PM Peak (2pm-5:59pm)
- West or Southbound Trips during All Other Hours (6pm-5:59am)

Figure 7.2
Unlinked Trip Weighting Factors for Route 62

Direction	Time of Day	Actual Boardings	# Completed Surveys	Expansion Factor
North	AM	216	15	14.38
North	Midday	181	19	9.52
North	PM	291	18	16.15
North	Other	129	6	21.48
South	AM	194	23	8.41
South	Midday	103	9	11.40
South	PM	215	17	12.62
South	Other	175	9	19.44

Linked Trip Weighting Factors for All Records

The linked trip weighting factor adjusts the total number of boardings to one-way trips by accounting for the number of transfers that were completed by each passenger.

The equation that was used to calculate the linked trip weighting factor is shown below:

Linked Trip Weighting Factor = [1 / (1 + # of transfers)]

If a passenger did not make a transfer, the linked trip weighting factor would be 1.0 because the person would have only boarded one vehicle. If a person made two transfers, the linked trip weighting factor would be 0.33 because the person would have boarded three transit vehicle during his/her one-way trip. An example of how the linked trip weighting were calculated is provided in Figure 7.3 below.

Figure 7.3
Sample Calculations of Linked Trip Weighting Factors
+[1/(1+# of transfers)]

Number of Transfers	Calculation	Linked Trip Weighting Factor
None	[1/(1+**0**)]	1.00
One	[1/(1+**1**)]	0.50
Two	[1/(1+**2**)]	0.33
Thee	[1/(1+**3**)]	0.25

Use of "Dummy" Variables

The final database contains 13 "dummy" variables. These "dummy" variables account for 387 trips that occurred between two rails stations for which no corresponding survey data was collected. For example, ridership data shows that 3 trips per day involve a boarding at Priest Drive & Washington and a alighting at Indian School & Central during the hours of 2pm-6pm on an average weekday. Since none of the completed surveys involved a boarding at Priest Drive & Washington and a alighting at Indian School & Central during the hours of 2pm-6pm, a "dummy" variable was create to capture this trip. Dummy variables account for fewer than 1% of all rail trips, and they are identified with "2011Dummy" in the YEAR field of the database.

Routes that Were Not Included in the 2010-11 Survey

Given the limitation on resources for the project, two rapid routes were not included in the 2011 survey: SR-51 and I-10W. These two routes were not included because ridership levels on these routes have changed by less than 10% since 2007 and there was no reason to suspect that these routes were significantly affected by the introduction of light rail to the region. Although data from these routes was not included in the analysis provided in this report, the 2007 survey data for these routes was added to 2010-11 survey database to ensure that these routes would be accounted for in the database that will be used for regional travel demand modeling,. These records are identified with "2007" in the YEAR field of the database.

SECTION 8: SELECTED FINDINGS

This section highlights selected demographic and trip-related findings from the survey. The results for all questions on the survey based on the mode of travel (bus only vs. light rail only vs. bus/light rail) are provided in Appendix A. The results for all questions on the survey based on the type of service (local, express, circulator, etc.) are provided in Appendix B.

Vehicle Availability

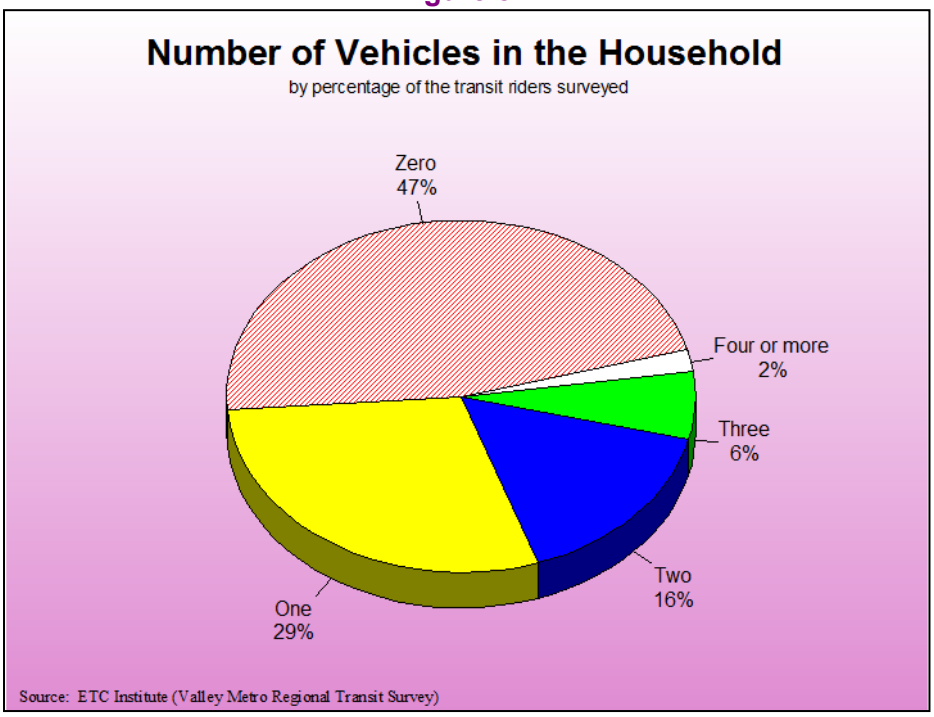
Forty-seven percent (47%) of all transit passengers indicated that they do not have a vehicle available to their household. Light rail passengers were significantly more likely to have a vehicle available to their household than bus passengers (70% light rail only vs. 52% bus only). Light rail passengers were also more than twice as likely to have three or more vehicles available to their household (16% light rail only vs. 7% bus only).

Figure 8.1

Number of Vehicles in the Household

Vehicles	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Zero	48%	30%	52%	47%
One	29%	33%	27%	29%
Two	16%	21%	13%	16%
Three	5%	11%	6%	6%
Four or more	2%	5%	2%	2%

Figure 8.2



Household Size

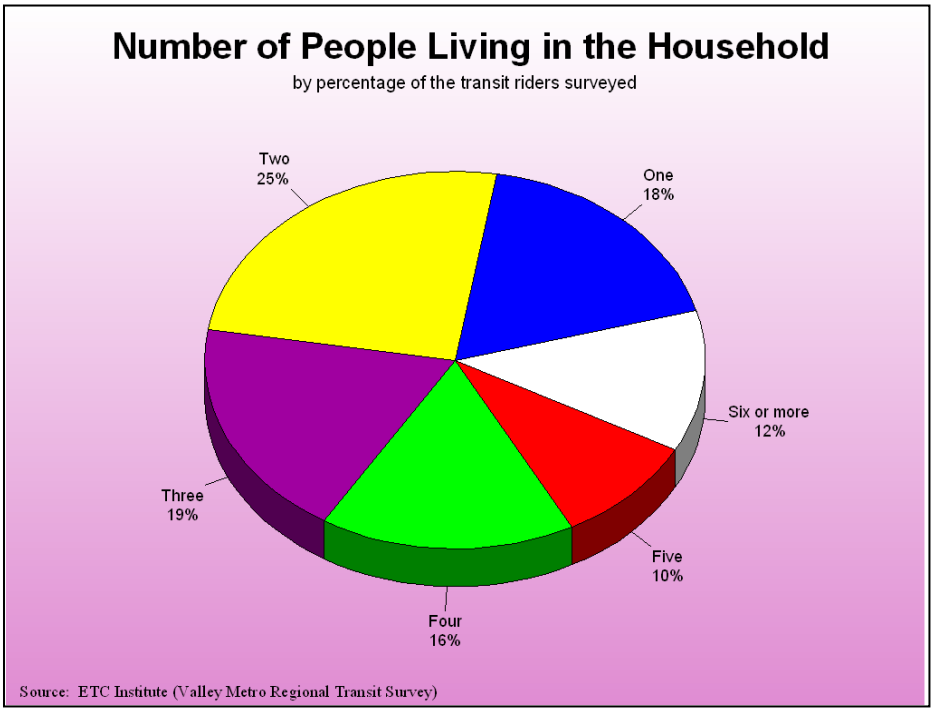
Twenty-two percent (22%) of all transit passengers indicated that they live in households with at least five occupants; 18% reported that they live alone. Bus passengers were significantly more likely to live in households with five or more occupants than light rail passengers (24% bus only vs. 13% light rail only).

Figure 8.3

Number of People Living in the Household

Persons	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
One	17%	20%	21%	18%
Two	24%	30%	26%	25%
Three	19%	20%	18%	19%
Four	16%	18%	15%	16%
Five	11%	5%	8%	10%
Six or more	13%	8%	12%	12%

Figure 8.4



Employed Persons per Household

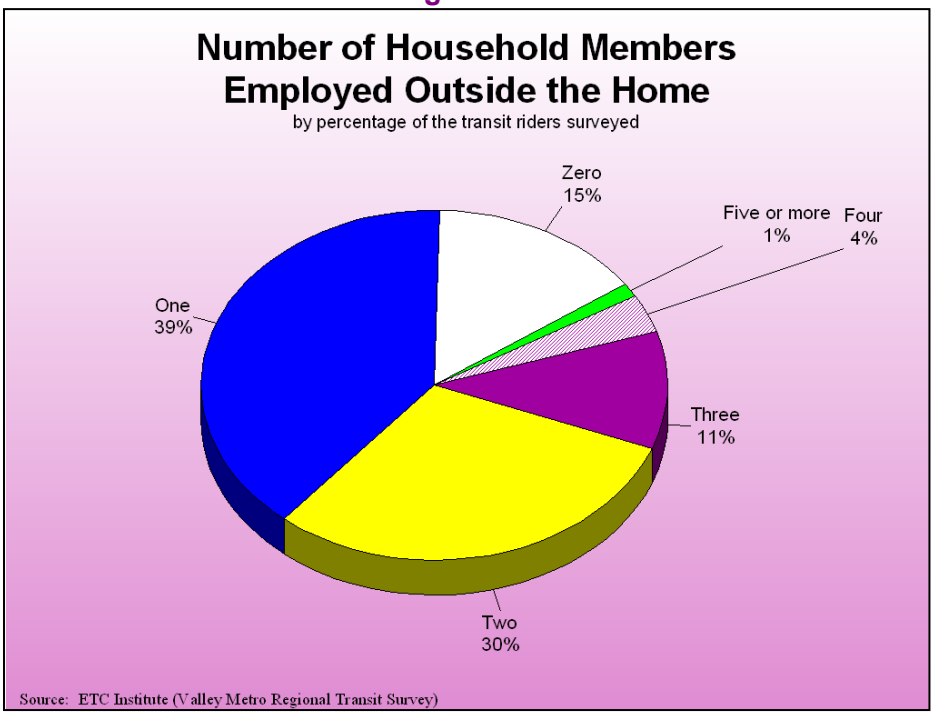
Most (85%) transit passengers reported that they live in households where at least one person is employed. There were no significant differences in the number of employed persons per household based on the mode of travel as shown in Figure 8.5 below.

Figure 8.5

Number of Employed Persons in the Home

Employed Persons	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Zero	15%	14%	15%	15%
One	39%	37%	43%	39%
Two	30%	35%	27%	30%
Three	11%	10%	11%	11%
Four	4%	3%	3%	4%
Five or more	1%	1%	1%	1%

Figure 8.6



Student Status

Thirty-eight percent (38%) of all transit passengers indicated that they were students. Light rail passengers were more likely to be enrolled in a college or university than bus passengers (48% light rail only vs. 21% bus only). Bus passengers were twice as likely to be students in grades K-12 than light rail passengers (14% bus only vs. 7% light rail only).

Figure 8.7

Student Status

Student Status	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Not a Student	63%	45%	66%	62%
Yes-student thru 12th grade	14%	7%	10%	13%
Yes-college/university	21%	48%	22%	24%
Yes-other	1%	0%	2%	1%

Employment Status

More than three-fourths (79%) of all transit passengers indicated that they were employed or seeking work. Bus passengers were more likely to be employed full time than light rail only passengers (38% bus only vs. 34% light rail only). Light rail passengers were more likely to be employed part-time (25% light rail only vs. 20% bus only). The higher percentage of part-time employment among light rail passengers may be related to the fact that a higher percentage of light rail users are college students (as shown in Figure 8.7 above).

Figure 8.8

Employment Status

Employment Status	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Employed full-time	38%	34%	41%	38%
Employed part time	20%	25%	17%	20%
Not currently employed but seeking work	22%	12%	22%	21%
Not currently employed and NOT seeking work	17%	26%	18%	18%
Not employed – retired	3%	3%	3%	3%
Not provided	0%	0%	0%	0%

Driver's License

More than half (53%) of all transit passengers indicated that they do not have a driver's license. Light rail passengers were significantly more likely to have a driver's license than bus passengers (72% light rail only vs. 44% bus only) as shown in Figure 8.9 below.

Figure 8.9

Driver's License Status

Driver's License Status	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Yes	44%	72%	47%	48%
No	56%	28%	53%	53%

Age

Nearly two-thirds (65%) of all transit riders indicated that they were between the ages of 18 and 44; 11% were under age 18, and 23% were age 45 or older. Bus passengers were more likely to be under age 18 than light rail passengers (12% bus only vs. 7% light rail only). Bus passengers were also more likely to be age 45 or older (25% bus only vs. 15% light rail only). Light rail users were more likely to be between the ages of 18-24 than bus passengers (41% light rail only vs. 28% bus only).

Figure 8.10

Ages of Transit Users

Age Range	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Under 18	12%	7%	9%	11%
18-24	28%	41%	25%	29%
25-34	20%	26%	21%	21%
35-44	15%	11%	18%	15%
45-54	15%	7%	17%	14%
55-64	7%	6%	8%	7%
65 or older	3%	2%	2%	2%

Income

More than one-third (34%) of all transit passengers reported annual household incomes below $15,000. Less than one-fifth (19%) indicated they had an annual household income of $50,000 or more, and only 4% reported an annual household income of $100,000 or more. Light rail passengers were more likely to report annual household incomes above $50,000 than bus passengers (28% light rail only vs. 17% bus only) as shown in Figure 8.11 below.

Figure 8.11

Annual Household Income

Annual Income Range	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Below $5,000	16%	9%	15%	15%
$5,000-$9,999	9%	7%	9%	9%
$10,000-$14,999	10%	8%	9%	10%
$15,000-$19,999	8%	6%	8%	8%
$20,000-$24,999	10%	7%	9%	10%
$25,000-$29,999	9%	8%	10%	9%
$30,000-$34,999	7%	9%	9%	8%
$35,000-$39,999	6%	10%	5%	6%
$40,000-$49,999	7%	9%	8%	7%
$50,000-$59,999	5%	7%	6%	6%
$60,000-$69,999	4%	5%	4%	4%
$70,000-$79,999	2%	4%	2%	2%
$80,000-$89,999	2%	3%	2%	2%
$90,000-$99,999	1%	3%	1%	1%
$100,000-$119,999	1%	3%	2%	2%
$120,000 or more	2%	3%	2%	2%
Don't Know	0%	1%	0%	0%

Gender

Fifty two percent (52%) of all transit passengers were male; 48% were female. There were no significant differences with regard to gender based on the mode of travel as shown in Figure 8.12 below.

Figure 8.12

Gender

Gender	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Male	51%	51%	55%	52%
Female	49%	49%	45%	48%

Race/Ethnicity

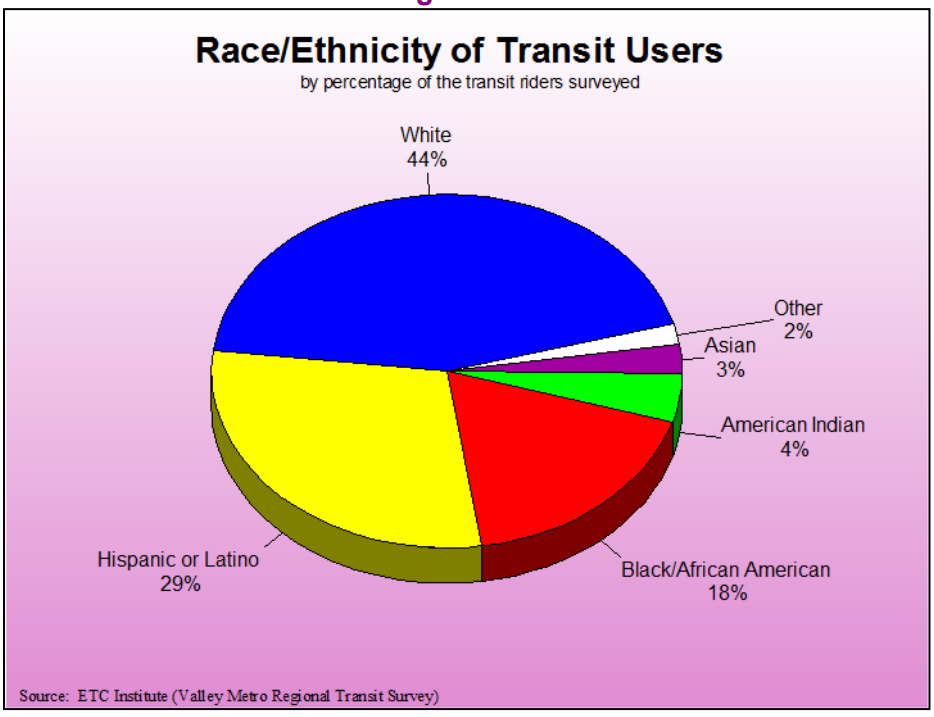
More than 40% of transit riders identified themselves as White; 29% identified themselves as Hispanic or Latino, and 18% identified themselves as Black or African American. Bus passengers were more likely to be Hispanic than light rail passengers (31% bus only vs. 22% light rail only) as shown in Figure 8.13 below.

Figure 8.13

Race/Ethnicity

Race/Ethnicity	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
White	44%	49%	40%	44%
Hispanic or Latino	31%	22%	28%	29%
Black or African American	18%	15%	22%	18%
American Indian	4%	5%	7%	4%
Asian	2%	6%	2%	3%
Other	2%	3%	2%	2%

Figure 8.14



Necessity of Transit Service

More than one-fourth (26%) of all transit passengers reported that they would not have been able to make their trip if public transit were not available. Another ten percent (10%) did not know how they would have made their trip without public transit.

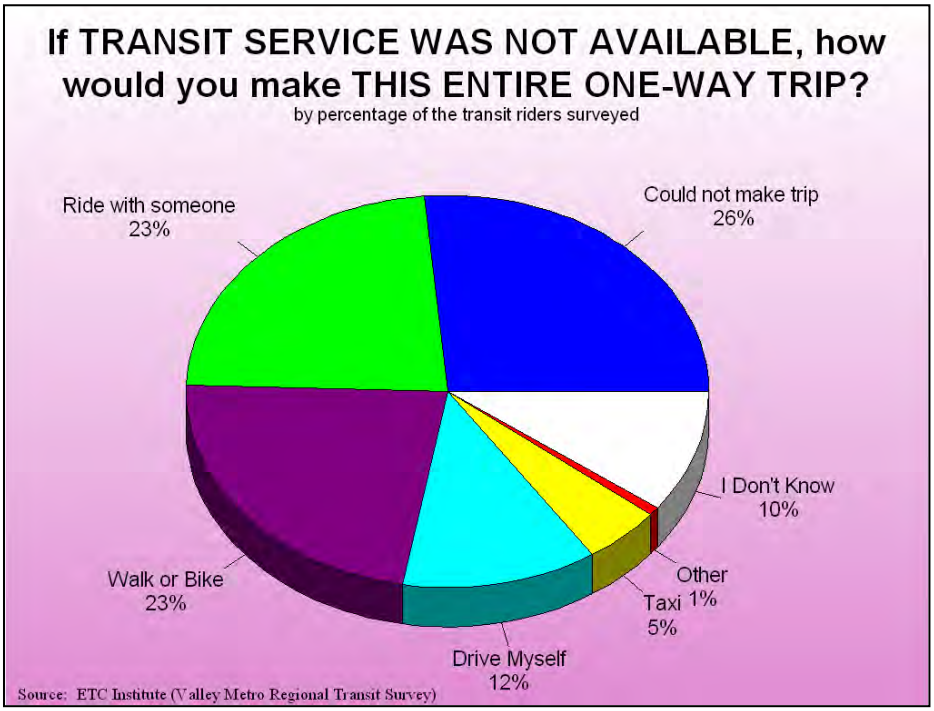
Bus passengers were significantly more likely to be dependent on public transit than light rail passengers. Twenty-nine percent (29%) of bus passengers indicated that they would not have been able to make their trip compared to just 8% of light rail passengers. Light rail passengers were more than four times as likely as bus passengers to report that they would have driven themselves if public transit had not been available (33% light rail only vs. 8% bus only).

Figure 8.15

How Would You Make This Trip If Public Transit Was Not Available?

Mode of Travel Without Transit	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
I could not make this trip	29%	8%	28%	26%
Drive with someone else	23%	23%	24%	23%
Walk or Bike	24%	22%	17%	23%
Drive Myself	8%	33%	14%	12%
Taxi	6%	3%	4%	5%
Other	1%	0%	1%	1%
I Don't Know	10%	10%	12%	10%

Figure 8.16



How Long Passengers Have Been Using Public Transit in the Phoenix Area

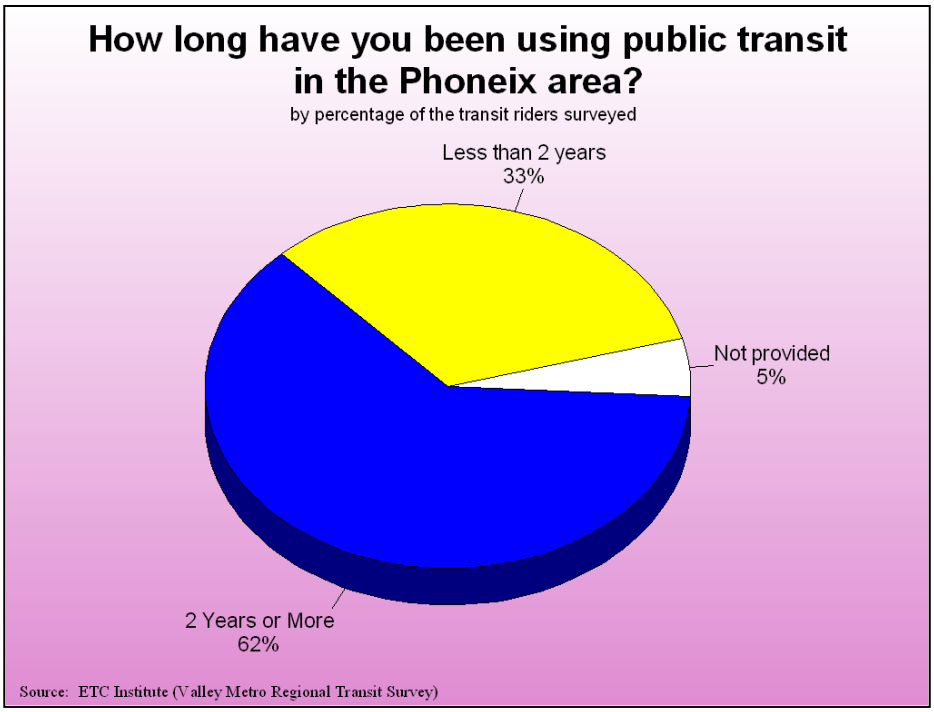
Nearly two-thirds (62%) of all transit passengers indicated that they have been using public transit in the Phoenix area for at least two years. Bus passengers were more likely to have been using public transit for at least two years than light rail passengers (63% bus only vs. 53% light rail only).

Figure 8.17

Length of Time Using Public Transit

Answer	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Less than 2 years	31%	44%	34%	33%
2 Years or More	63%	53%	61%	62%
Don't Know	6%	3%	5%	5%

Figure 8.18



Reasons Passengers Started Using Public Transit During the Past 2 Years

The major reasons that transit passengers started using public transit in the Phoenix area during the past 2 years were: 1) to save money (21%), 2) because they had moved to the area within the last 2 years (16%) and 3) because they had lost their car (16%).

Light rail passengers were nearly four times as likely as bus passengers to report they started using public transit in the last 2 years to save money (44% light rail only vs. 12% bus only). Light rail passengers were also significantly more likely than bus passengers to report that they started using public transit because light rail service began (16% light rail only vs. 1% bus only). Bus passengers were seven times as likely as rail passengers to report they started using public transit because they had lost their car (21% bus only vs. 3% light rail only). Bus passengers were also significantly more likely to report they started using public transit because they had moved to the area within the last 2 years (19% bus only vs. 7% light rail only).

Figure 8.19

Why New Passengers Started Using Public Transit

Answer	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
To save money	12%	44%	29%	21%
Moved to the area within the last 2 years	19%	7%	17%	16%
Lost my car	21%	3%	12%	16%
Started going to school	13%	17%	10%	13%
Do not have a car	14%	5%	13%	12%
Other	9%	4%	7%	8%
Light rail service began	1%	16%	6%	5%
Started a new job	5%	1%	4%	4%
No reason	4%	1%	2%	3%
Employer offered incentives	1%	2%	1%	1%
Lost my job	1%	0%	0%	1%

Frequency of Transit Use Compared to Two Years Ago

Compared to two years ago, sixty-one percent (61%) of riders reported using public transit "much more often" or "more often"; 24% reported using it about the same, 7% were using it less often and 8% did not know how their usage had changed.

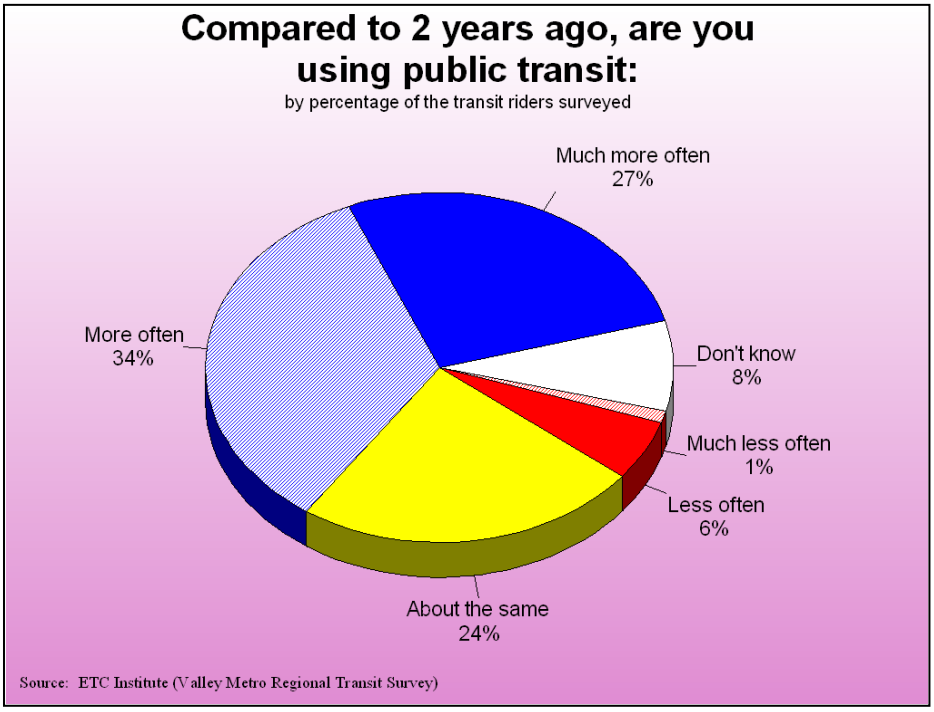
Light rail users were significantly more likely to report that they were using public transit more often than bus passengers. Eighty percent (80%) of light rail only users indicated that they were using public transit "much more often" or "more often" than they were two years ago compared to 57% of bus only users.

Figure 8.20

Frequency of Transit Use Compared to 2 Years Ago

Change in Frequency	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Much more often	24%	38%	31%	27%
More often	33%	42%	38%	34%
About the same	26%	14%	20%	24%
Less often	7%	2%	3%	6%
Much less often	1%	0%	1%	1%
Don't know	9%	4%	7%	8%

Figure 8.21



How Transit Riders Typically Get Transit Schedule Information

The most common ways that all transit riders indicated that they get transit schedule information were: the transit schedule book (32%), the Valley Metro Website (30%) and the customer service telephone number (16%).

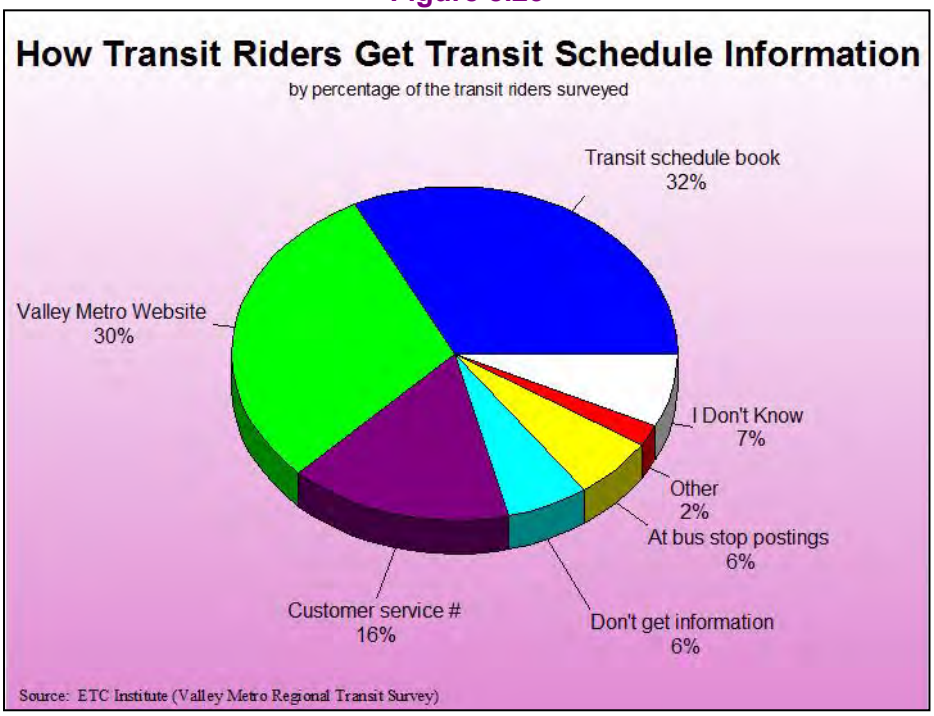
Bus passengers were significantly more likely to use the transit schedule book than light rail passengers (33% bus only vs. 22% light rail only). Light rail passengers were significantly more likely to use the Valley Metro website (51% light rail only vs. 27% bus only).

Figure 8.22

How Transit Riders Get Transit Schedule Information

Source of Information	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Transit schedule book	33%	20%	32%	32%
Valley Metro Website	27%	51%	31%	30%
Customer service telephone number	18%	3%	16%	16%
I Don't get schedule information	5%	16%	7%	6%
Posted schedule at bus stop	7%	4%	6%	6%
Other	3%	2%	2%	2%
I Don't Know	8%	4%	6%	7%

Figure 8.23



Travel Characteristics

Trip Purpose

Home-based work trips accounted for nearly one-third (31%) of all trips completed on public transit. Fifteen percent (15%) of all trips were home-based college trips, 13% were non-home based trips, and 10% were home based-school trips.

Light rail passengers were significantly more likely to complete home-based college trips than bus passengers (34% light rail only vs. 12% bus only). Bus passengers were significantly more likely to use public transit to complete home-based work trips (33% bus only vs. 17% light rail only).

Figure 8.24

Trip Purpose

Trip Purpose	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Home-Based Work Trip (HBW)	33%	17%	33%	31%
Home-Based Other Trip (HBO)	19%	18%	24%	19%
Home-Based College Trip (HBC)	12%	34%	11%	15%
Non-Home Based (NHB)	12%	17%	14%	13%
Home-Based School Trip (HSL)	11%	6%	8%	10%
Home-Based Shopping Trip (HBS)	8%	6%	5%	8%
Home-Based Medical Trip (HBM)	5%	1%	4%	4%
Home-Based Airport Trip (HBA)	0%	1%	1%	0%

Types of Destinations Visited By Transit Users

Forty percent (40%) of all transit trips ended at a person's home. Nearly one in five trips (19%) ended at a passenger's workplace, 10% ended at a social/personal location and 9% ended at college/university.

Light rail passengers were three times more likely than bus passengers to end their trip at a college or university (23% light rail only vs. 8% bus only). Bus passengers were nearly twice as likely as light rail passengers to end their trip at work (20% bus only vs. 11% light rail only).

Figure 8.25

Types of Destinations Visited By Transit Users

Type of Destination	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Home	40%	38%	42%	40%
Workplace	20%	11%	18%	19%
Social/Church/Personal/Friend's House	11%	4%	11%	10%
College/University (Students Only)	8%	23%	7%	9%
Shopping	7%	5%	5%	6%
High School (grades 9-12)	5%	4%	4%	5%
Medical Appointment/Doctor's Visit	3%	1%	3%	3%
Recreation/Sightseeing	1%	3%	2%	1%
Elementary School (grades K-5)	0%	0%	0%	0%
Middle School (grades 6-8)	0%	0%	0%	0%
Hotel	0%	0%	0%	0%
Airport (Air Passengers Only)	0%	1%	1%	0%
Other	5%	11%	8%	6%

How Passengers Access Public Transit

Most (89%) transit passengers indicated that they accessed public transit by walking. Bus passengers were significantly more likely to report walking to public transit than light rail passengers (91% bus only vs. 70% light rail only). Light rail passengers were nearly six times more likely than bus passengers to access public transit by driving alone (11% light rail only vs. 2% bus only). Light rail passengers were also significantly more likely to access public transit by being dropped off by someone else (10% light rail only vs. 3% bus only).

Figure 8.26

Access Mode to Transit System

Access Mode	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Walk	91%	70%	89%	89%
Dropped off by someone else	3%	10%	5%	4%
Bike	3%	8%	4%	4%
Drove alone	2%	11%	2%	3%
Other	0%	1%	1%	1%
Carpooled or vanpooled with others	0%	0%	0%	0%

Riders who indicated that they had walked to the transit system were asked how far they had to walk. More than three-fourths (77%) of those who walked indicated that they walked up to a one-quarter mile. Fourteen percent (14%) reported that they walked between one-quarter and one-half mile. Only 10% indicated that they walked more than one-half mile. Light rail passengers were significantly more likely to report walking between one-fourth and one-half a mile to access transit compared to bus passengers (20% light rail only vs. 13% bus only).

Among those who carpooled/vanpooled to access transit, more than half (59%) indicated there were two people in the carpool/vanpool; 41% reported that there were three or more people in the carpool/vanpool. Rail passengers were significantly more likely to carpool/vanpool in groups of three or more (58% light rail only vs. 35% bus only).

Figure 8.27

Number of People in Carpool/Vanpool (TO TRANSIT)

Carpool Size	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Two	65%	42%	48%	59%
Three or More	35%	58%	52%	41%

How Passengers Traveled From Transit to Their Final Destination

The majority of transit passengers (91%) indicated that they walk to their final destination after using public transit. Bus passengers were more likely to walk than light rail passengers (93% bus only vs. 77% light rail only). Light rail passengers were more than four times as likely as bus passengers to drive to their destination (9% light rail only vs. 2% bus only). Light rail passengers were also three times as likely to be picked up by someone else (6% light rail only vs. 2% bus only).

Figure 8.28

Egress Mode to Destination

Egress Mode	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Walk	93%	77%	92%	91%
Bike	3%	7%	4%	4%
Picked up by someone	2%	6%	3%	3%
Drive alone	2%	9%	1%	2%
Other	0%	0%	1%	0%
Carpool/Vanpool	0%	0%	0%	0%

Riders who indicated that they would walk to their destination were asked how far they would walk. More than three-fourths (77%) of those who would walk to their destination indicated that they would walk up to a one-quarter mile. Fifteen percent (15%) reported that they would walk between one-quarter and one-half mile. Only 10% indicated that they would walk more than one-half mile. There were no significant differences in the distances reported based on the mode of travel (bus only vs. light rail only).

Among those who indicated they would carpool/vanpool to their destination, most (73%) indicated there would be two people in the carpool/vanpool. Twenty-eight percent (27%) indicated there would be three or more. Light rail passengers were significantly more likely to carpool/vanpool in groups of three or more (49% light rail only vs. 15% bus only).

Figure 8.29

Number of People in Carpool/Vanpool (FROM Transit)

Carpool Size	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
Two	85%	51%	52%	73%
Three or More	15%	49%	48%	27%

Transfers

More than half (52%) of public transit users made at least one transfer during their trip. Thirteen percent (13%) made two or more transfers. Passengers who used both a bus and light rail were more likely to make three or more transfers during their trip compared to bus only users (6% bus/light rail vs. 1% bus only).

Figure 8.30

Total Transfers

# of Transfers	Bus Only	Lt. Rail Only	Bus/Lt. Rail	Overall
None	49%	100%	0%	48%
One	42%	0%	61%	39%
Two	9%	0%	33%	11%
Three or more	1%	0%	6%	2%

Trip Distance by Trip Purpose

The mean trip distance (in miles) was calculated in GIS using the straight line distance between the trip origin and destination. Nearly half (49%) of all transit trips were less than five miles. One third (33%) of all trips were between five and ten miles.

Figure 8.31 shows the trip distances by trip purpose. The types of trips with the longest trip distance were: home-based work trips and home-based airport trips. Home-based shopping trips and home-based school trips had the shortest trip distances.

Figure 8.31

Trip Distance by Purpose

Distance	HBW	HBS	HBC	HSL	HBM	HBA	HBO	NHB	Overall
<.5 Mile	0%	1%	1%	1%	0%	0%	2%	2%	1%
0.50-0.99	1%	10%	3%	5%	3%	0%	4%	6%	4%
1.00-4.99	31%	60%	45%	64%	53%	33%	47%	46%	44%
5.00-9.99	38%	22%	33%	26%	35%	41%	31%	33%	33%
10.00-15.99	20%	5%	14%	3%	6%	20%	12%	10%	13%
16.00-19.99	5%	1%	2%	1%	2%	7%	4%	2%	3%
20.00-24.99	3%	0%	1%	0%	1%	0%	1%	1%	1%
> 24.99 Miles	1%	0%	0%	0%	1%	0%	1%	0%	1%
Mean Trip Distance (miles)	8.11	4.05	6.34	4.22	5.65	7.58	6.22	5.54	6.38

Notes: HBW=Home-Based Work Trip; HBS=Home-Based Shopping Trip; HBC=Home-Based College Trip; HSL=Home-Based School Trip; HBM=Home-Based Medical Trip; HBA=Home-Based Airport Trip; HBO=Home-Based Other Trip; NHB= Non-Home Based Trip.

Where Transit Users Live

The table in Figure 8.32 (below) shows the zip codes where the greatest number of surveyed transit users live. Zip codes 85281, 85015 and 85008 were home to the greatest number of transit users in the region. Eight percent (8%) of all transit users in the region live in zip code 85281, 4% of all transit users in the region live in zip code 85015 and 4% live in zip code 85008.

The map in Figure 8.33 (top of the following page) shows where transit users in the region live. The home addresses are plotted as black dots on the map.

The map in Figure 8.34 (bottom of the following page), shows the density of home address by zip code. Zip codes that are home to the most transit users are shaded in dark blue.

Figure 8.32

Where Transit Users Live

Home Zip Code	% of all Home Addresses in Zip Code
85281	8%
85015	4%
85008	4%
85282	3%
85013	2%
85007	2%
85202	2%
85021	2%
85014	2%
85201	2%
85041	2%
85301	2%
85006	2%
85017	2%
85033	2%
85009	2%
85016	2%

Figure 8.33

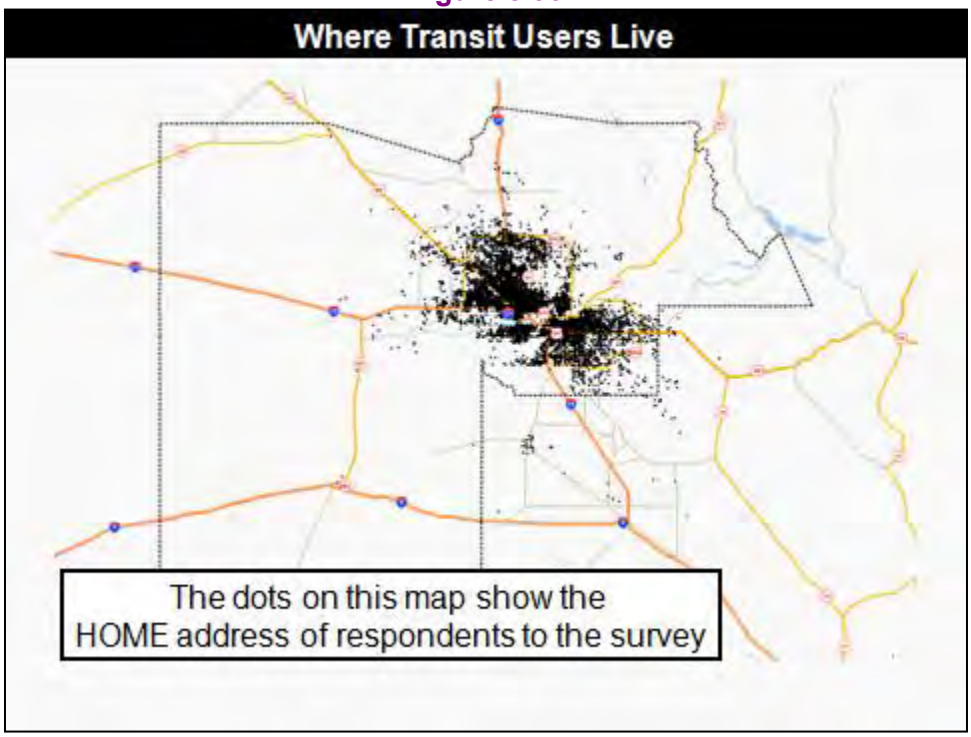
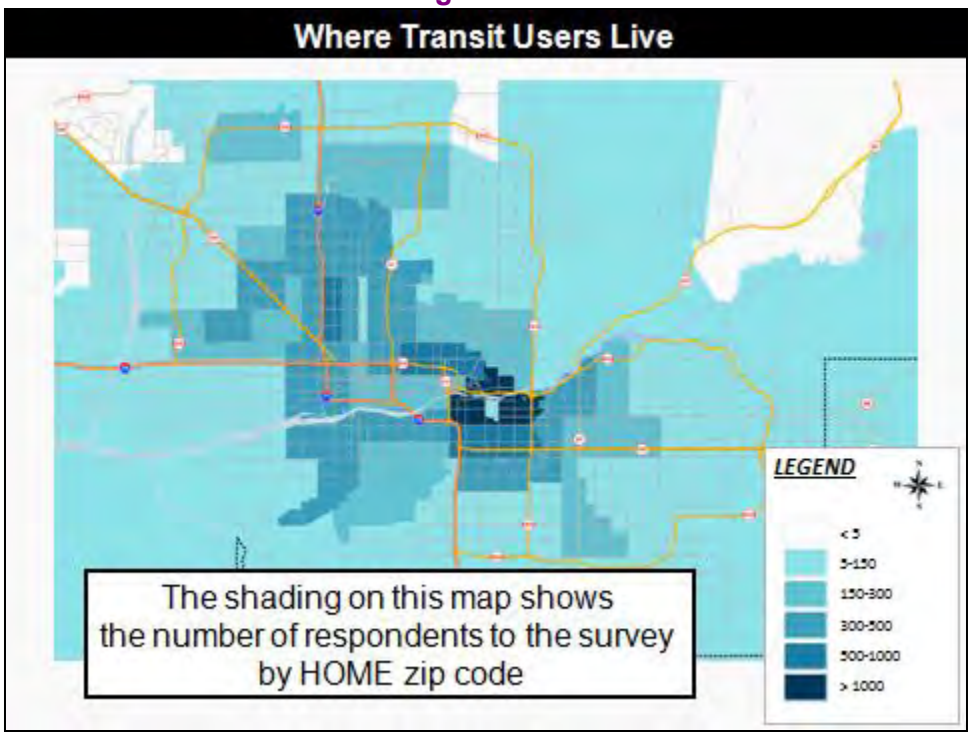


Figure 8.34



Where Transit Trips Began

The table in Figure 8.35 (below) shows the zip codes where the greatest number of transit trips began. Zip code 85281 had the most trip origins for transit in the region. Eight percent (8%) of all transit trips in the region began in zip code 85281. Some of the other prominent zip codes were transit trips began were: 85004 (4%), 85015 (4%), 85003 (4%) and 85287 (4%).

The map in Figure 8.36 (top of the following page) shows where all transit trips in the region began. The origin addresses are plotted as black dots on the map.

The map in Figure 8.37 (bottom of the following page), shows the density of trip origins by zip code. Zip codes with the most trip origins are shaded in dark blue.

Figure 8.35

Where Transit Trips Began

ORIGIN Zip Code	% of all ORIGIN Addresses in Zip Code
85281	8%
85004	4%
85015	4%
85003	4%
85287	4%
85008	3%
85013	3%
85282	3%
85034	2%
85007	2%
85201	2%
85202	2%
85006	2%
85021	2%
85009	2%
85283	2%
85012	2%
85301	2%
85016	2%

Figure 8.36

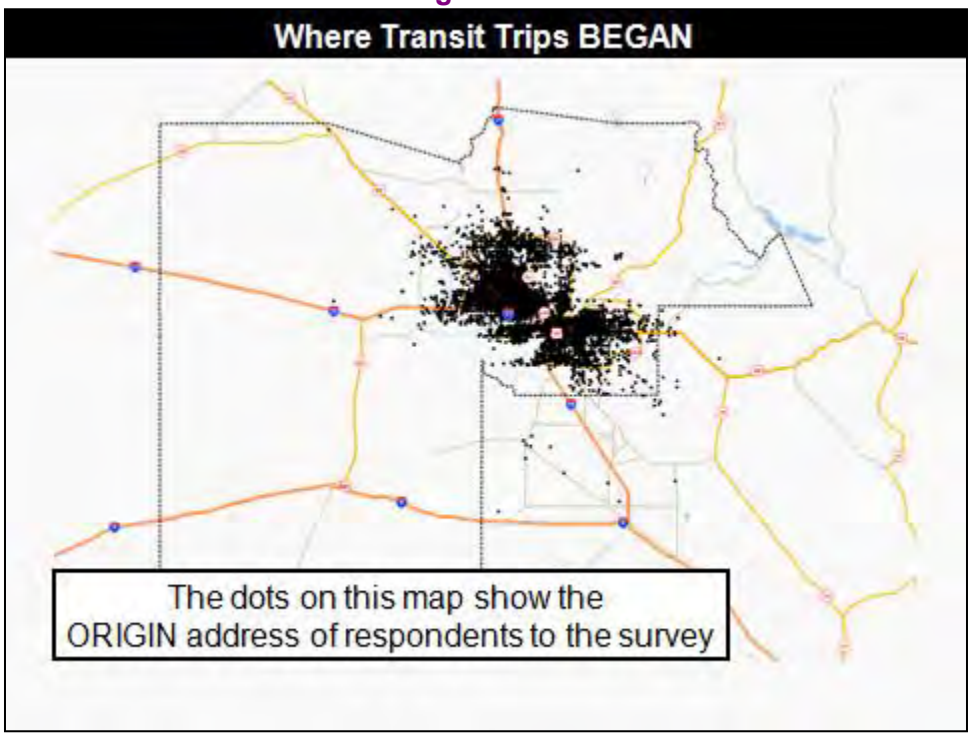
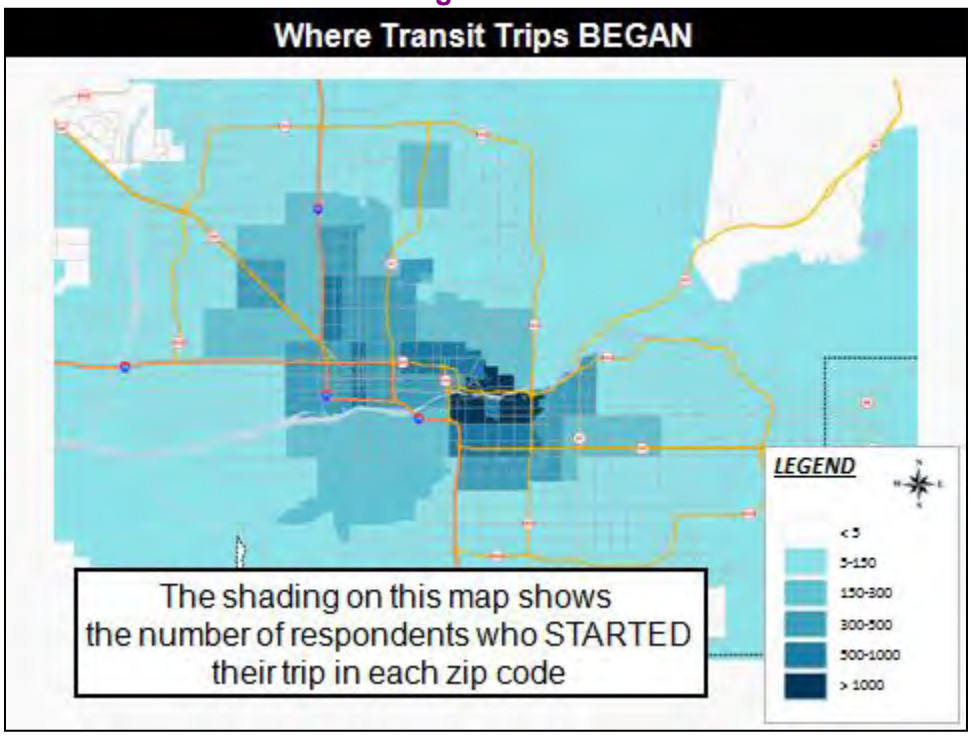


Figure 8.37



Where Transit Trips Ended

The table in Figure 8.38 (below) shows the zip codes where the greatest number of transit trips ended. Zip codes 85281, 85004 and 85287 had the most trip destinations for transit in the region. Eight percent (8%) of all transit trips in the region ended in zip code 85281. Six percent (6%) of all transit trips in the region ended in zip code 85004 and 5% ended in zip code 85287.

The map in Figure 8.39 (top of the following page) shows where all transit trips in the region ended. The destination addresses are plotted as black dots on the map.

The map in Figure 8.40 (bottom of the following page), shows the density of trip destinations by zip code. Zip codes with the most trip destinations are shaded in dark blue.

Figure 8.38

Where Transit Trips Ended

Destination Zip Code	% of all Destination Addresses in Zip Code
85281	8%
85004	6%
85287	5%
85003	4%
85015	4%
85013	3%
85282	3%
85007	3%
85034	3%
85008	2%
85202	2%
85021	2%
85014	2%
85016	2%
85006	2%
85009	2%
85012	2%

Figure 8.39

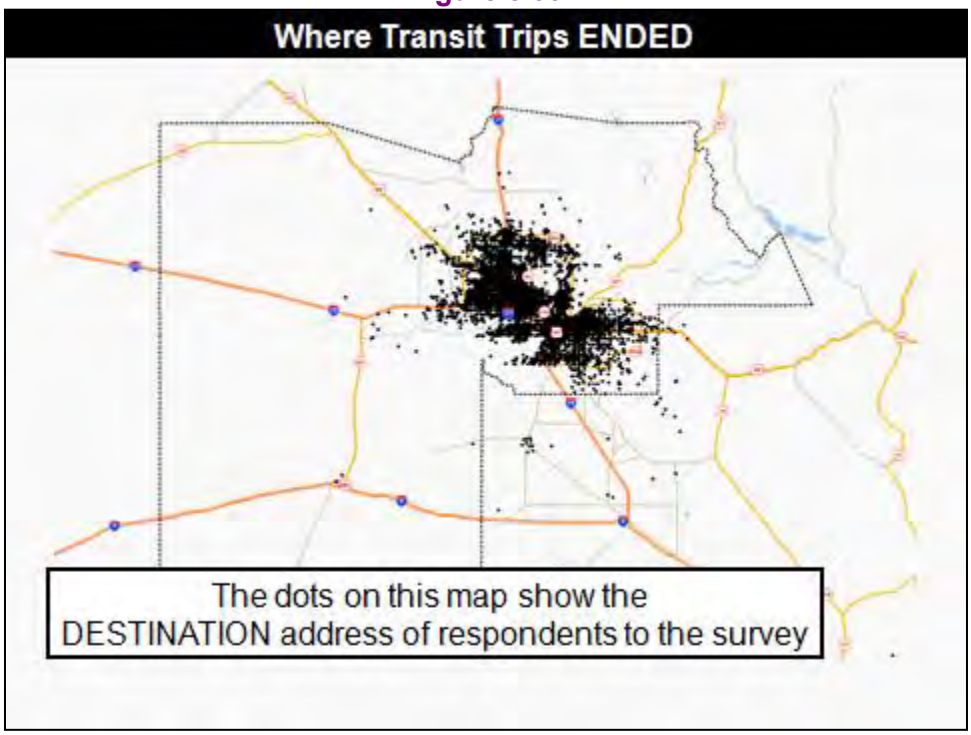
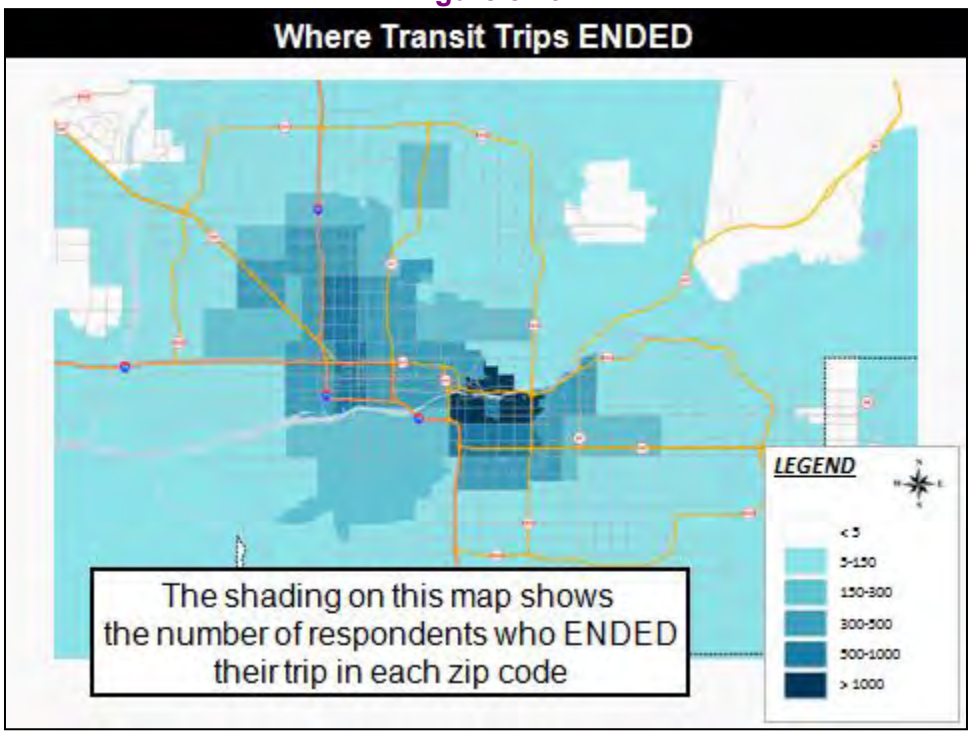


Figure 8.40



Where Transit Riders Boarded

The table in Figure 8.41 (below) shows the zip codes where the greatest number of transit boardings occurred. Zip codes 85281, 85003 and 85287 had the most transit boardings in the region. Nine percent (9%) of all transit boardings in the region occurred in zip code 85281. Eight percent (8%) of all transit boardings in the region occurred in zip code 85003 and 6% of all transit boardings occurred in zip code 85287.

The map in Figure 8.42 (top of the following page) shows where all transit boardings in the region occurred. The boarding locations are plotted as black dots on the map.

The map in Figure 8.43 (bottom of the following page), shows the density of trip boardings by zip code. Zip codes with the most boardings are shaded in dark blue.

Figure 8.41

Where Transit Riders Boarded

ON Zip Code	% of all ON Addresses in Zip Code
85281	9%
85003	8%
85287	6%
85015	5%
85202	4%
85013	4%
85034	4%
85004	3%
85009	2%
85282	2%
85021	2%
85051	2%
85020	2%

Figure 8.42

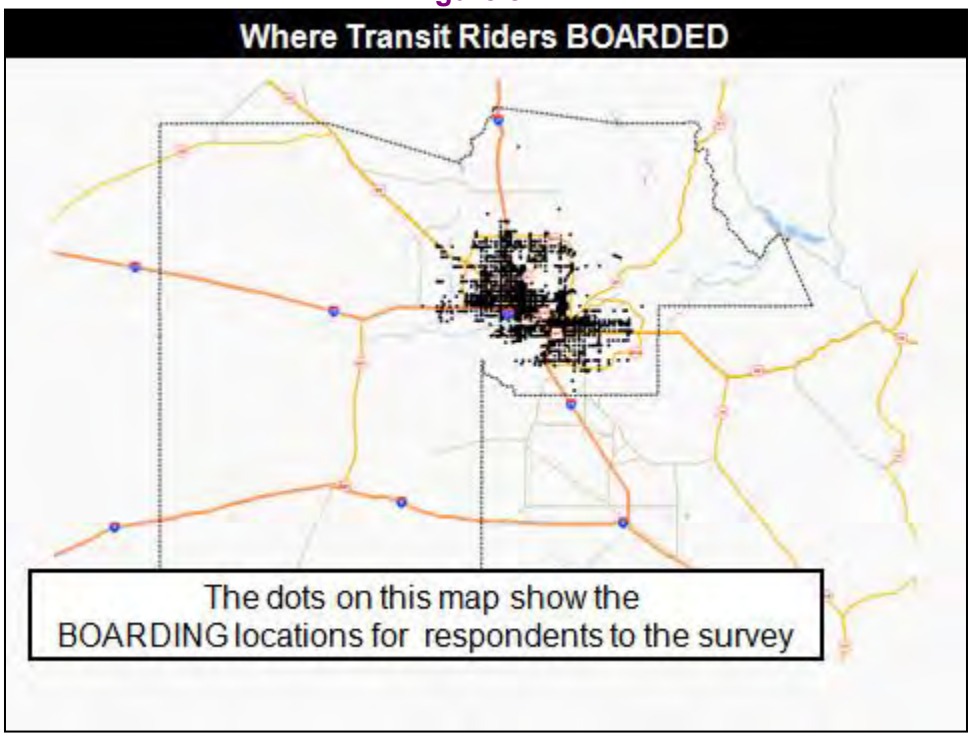
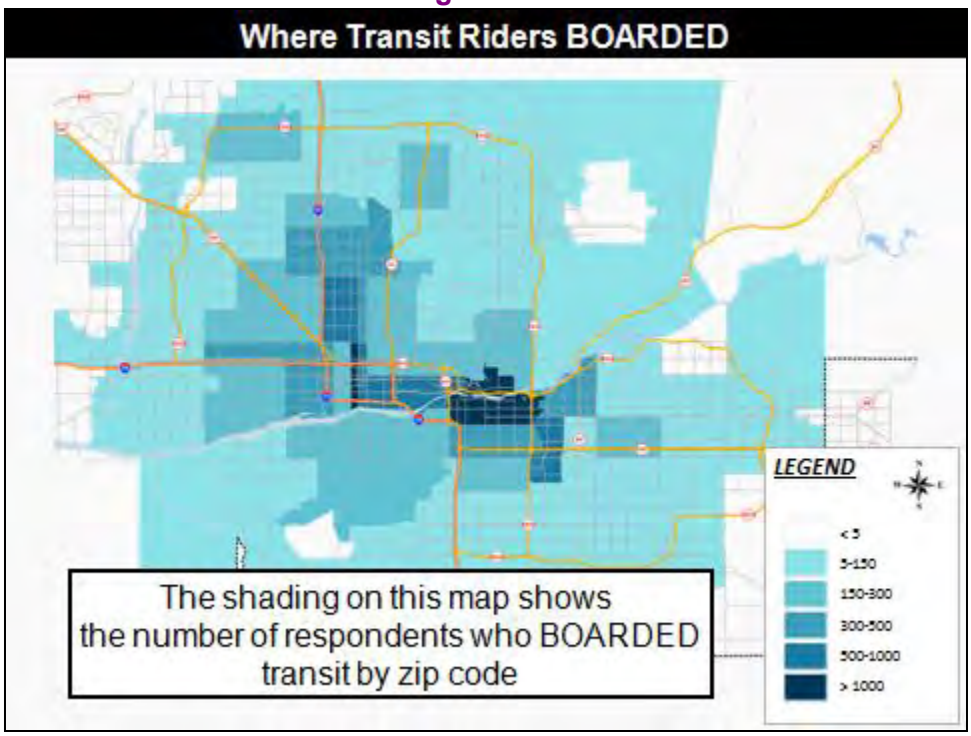


Figure 8.43



Where Transit Riders Alighted

The table in Figure 8.44 (below) shows the zip codes where the greatest number of transit alightings occurred. Zip codes 85003, 85287 and 85281 had the most alightings in the region. Ten percent (10%) of all transit alightings in the region occurred in zip code 85003. Nine percent (9%) of all transit alightings in the region occurred in zip code 85287 and 7% of all transit alightings occurred in zip code 85281.

The map in Figure 8.45 (top of the following page) shows where all transit alightings in the region occurred. The alighting locations are plotted as black dots on the map.

The map in Figure 8.46 (bottom of the following page), shows the density of trip alightings by zip code. Zip codes with the most alighting are shaded in dark blue.

Figure 8.44

Where Transit Riders Alighted

OFF Zip Code	% of all OFF Addresses in Zip Code
85003	10%
85287	9%
85281	7%
85015	5%
85013	5%
85034	4%
85202	3%
85004	3%
85282	2%
85009	2%
85021	2%
85051	2%
85006	2%
85007	2%

Figure 8.45

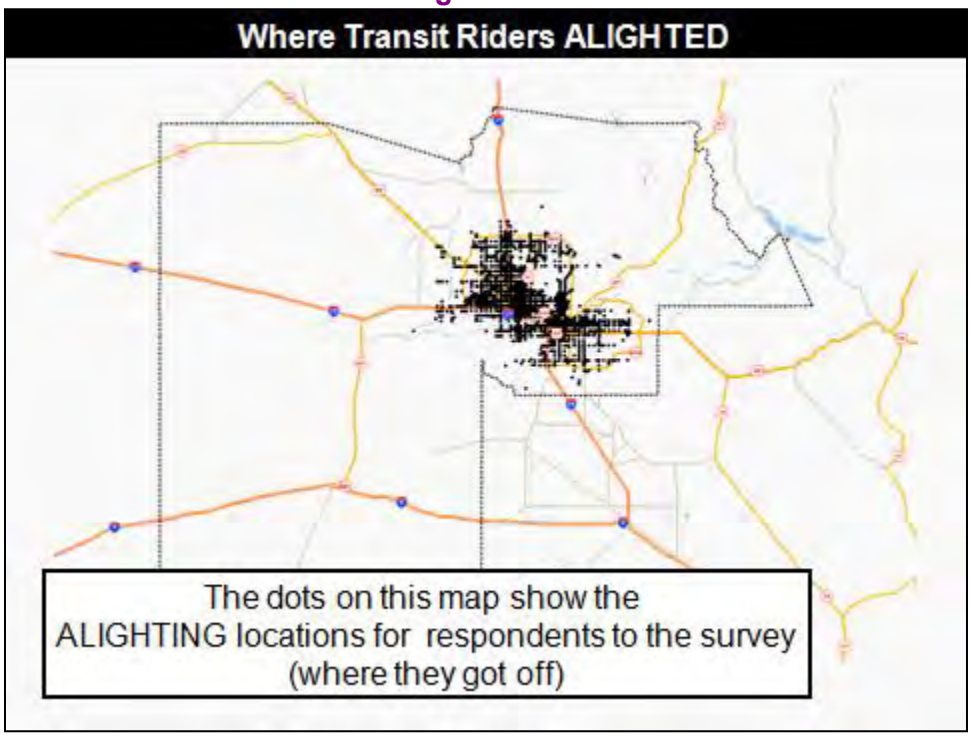
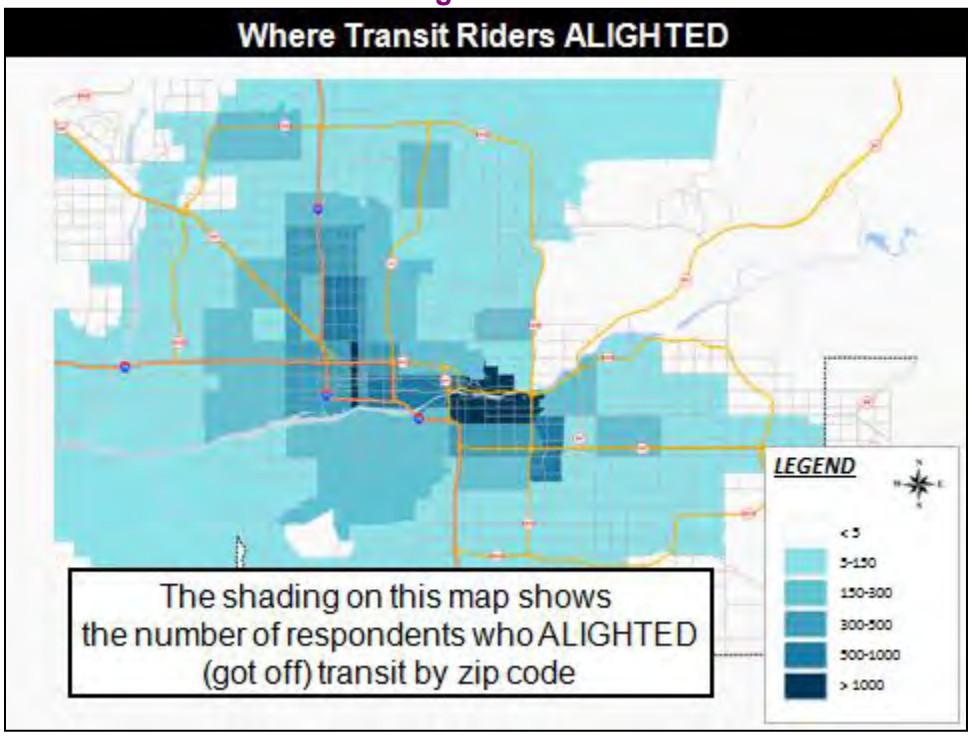


Figure 8.46



SECTION 9: ANALYSIS OF TRENDS (2007-2011)

This section of the report presents a comparative analysis of the data collected in the 2010-2011 on-board transit survey with the data collected in the 2007 on-board transit survey.

Comparison of the 2007 Survey to the 2011 Survey

While most of the survey questions were the same in 2007 and 2011, there were some differences in the sample size and survey administration methodology. Some of these differences are noted below:

- **Sample Size.** In 2007, the survey goal was to obtain 9,700 completed surveys. The actual number of completed surveys was 7,600. In 2011, the survey goal was to obtain 13,750 completed surveys. Of these, 9,635 were to be completed with bus passengers and 4,115 were to be completed with rail passengers. The actual number of completed surveys was 15,780. Of these, 11,048 were completed with bus passengers and 4,732 were completed with rail passengers.

- **Method of Administration**. In 2007, surveys were self-administered. Respondents were given paper surveys and asked to complete them while they were on the bus. In 2011, the survey was conducted as a face-to-face interview, and tablet PCs were the primary method of collecting the data.

- **Timing of Survey Administration.** Both the 2007 and 2011 surveys were administered in the fall season. In addition, both the 2007 and 2011 surveys were not administered on weekends, holidays or after 7 p.m.

- **Participant Selection**. In 2007, all boarding passengers were asked to participate in the survey. Those that agreed to participate were given a paper copy of the survey as described above. In 2011, riders were selected at random to participate using the sampling procedure described in Section 2.

- **Incentives**. In 2007, each rider who completed a survey was given a free-ride ticket. There was also small drawing to encourage participation. In 2011, transit riders were not given tickets for a free ride, but the amount of the incentives was substantially greater. In 2011, $5000 worth of incentives were distributed to survey participants in the form of cash, Visa gift cards, and gift cards to retail stores and restaurants.

- **Response Rate.** In 2007, the response rate to the survey was 17%. In 2011, the response rate to the survey was 91%.

Demographic Characteristics

Household Size

Household size among transit users has generally stayed the same since 2007 as shown in Figure 9.1 (below). Transit users tend to live in larger households than the typical resident of Maricopa County. Thirty-eight percent (38%) of the transit users in the 2011 survey lived in households with four or more occupants compared to 25% of all households in Maricopa County.

Figure 9.1
Household Size

Persons	2011	2007	2009 U.S. Census Estimate Maricopa County (American Community Survey)
One	18%	18%	27%
Two or Three	44%	45%	48%
Four or more	38%	37%	25%

Vehicle Availability

The percentage of transit users that reported having at least one vehicle available to their household increased from 2007 to 2011 as shown in Figure 9.2 below. In 2007, 49% of transit users indicated that they had one or more vehicles in their household. In 2011, 53% indicated that they had one or more vehicles. The percentage with zero vehicles decreased from 51% in 2007 to 47% in 2011.

Figure 9.2
Vehicle Availability

Vehicles	2011	2007
Zero	47%	51%
One	29%	27%
Two	16%	15%
Three	6%	5%
Four or more	2%	2%

Household Income

The percentage of transit users living in households earning $50,000 or more per year increased from 2007 to 2011. In 2007, one in seven transit users (14%) had an annual household income of $50,000 or more. In 2011, nearly one in five (19%) transit users had an annual household income of $50,000 or more. The percentage of transit users earning less than $10,000 per year declined from 27% in 2007 to 24% in 2011.

Figure 9.3

Annual Household Income

Annual Income Range	2011	2007
Less than $10,000	24%	27%
$10,000–$19,999	18%	19%
$20,000–$34,999	27%	24%
$35,000–$49,999	13%	15%
$50,000 or more	19%	14%

Transit users were significantly more likely to live in low income households than the typical resident of Maricopa County. Transit users were four times as likely as the typical resident in Maricopa County to have an annual household income of less than $10,000 (24% transit users vs. 6% Maricopa County). Transit users were nearly three times less likely than the typical resident of Maricopa County to have an annual household income of $50,000 or more (19% transit users vs. 55% Maricopa County).

Figure 9.4

Annual Household Income

Annual Income Range	2011	2009 U.S. Census Estimate Maricopa County (American Community Survey)
Less than $10,000	24%	6%
$10,000–$14,999	10%	4%
$15,000–$34,999	35%	20%
$35,000–$49,999	13%	15%
$50,000 or more	19%	55%

Age

The percentage of transit users who are under age 25 increased from 2007 to 2011. In 2007, 33% of transit users were under age 25. In 2011, 40% were under age 25. Transit users were also typically younger than the general population. Only 2% of transit users were age 65 or older compared to 14% of all residents of Maricopa County. The percentage of transit users who were age 65 and older did not change from 2007 to 2011.

Figure 9.5
Age of Transit Users

Age Range	2011	2007	2009 U.S. Census Estimate Maricopa County (American Community Survey)
Under 25 Years	40%	33%	25%
25-54 Years	50%	57%	51%
55-64 Years	7%	8%	11%
65+ Years	2%	2%	14%

Travel Characteristics

In addition to reviewing changes in demographics, changes in travel characteristics from 2007 to 2011 were also assessed, including the types of places where trips began, trip purpose, modes of access and egress, and sources of bus schedule information.

Types of Places Where Transit Trips Began

Although the percentage of trips that began at home did not change from 2007 to 2011, the percentage of trips that began at work declined from 25% in 2007 to 17% in 2011. The decrease in the percentage of trips that began at work was offset by an increase in the percentage of trips that began at all other types of places. The increase in the percentage of trips that began at non-work locations and the high number of light rail boarding during hours other than the a.m. and p.m. peak travel periods may suggest that transit users are more likely to use transit for non-work trips as a result of the introduction of light rail service to the region.

Figure 9.6

Where Transit Trips Began

	2011	2007
Home	47%	47%
Work	17%	25%
Recreation/Sightseeing/Social /Personal places/Church	9%	7%
College/University (Students Only)	8%	6%
School (K-12) (Student Only)	6%	5%
Shopping Places	5%	4%
Medical Appointment/Doctor's Visit	3%	2%
Other	5%	4%

Trip Purpose

As figure 9.7 shows, there was a significant decrease in the percent of passengers who used public transit to make home-based work trips from 44% in 2007 to 31% in 2011. There was a significant increase in the percent of passengers who used public transit to make home-based other trips from 33% in 2007 to 41% in 2011 and an increase in the percent of passengers making home-based college trips from 7% in 2007 to 15% in 2011. Much like the above findings, these results suggest that the introduction of light rail increased the use of public transit to make trips outside of just work.

Figure 9.7

Trip Purpose

Trip Purpose	2011	2007
Home-Based Other Trip (HBO)	41%	33%
Home-Based Work Trip (HBW)	31%	44%
Home-Based College Trip (HBC)	15%	7%
Non-Home Based (NHB)	13%	16%

Mode of Access to Transit

There were no significant differences in the modes of access to transit from 2007 to 2011. In 2007, 85% of transit users accessed transit by walking. In 2011, 89% indicated that they accessed transit by walking. The percentage who drove alone or biked did not change. The change in the percentage of transit users who used all other modes of access was 2% or less.

Figure 9.8

Access Mode to Transit System

Access Mode	2011	2007
Walk	89%	85%
Dropped off by someone else	4%	6%
Bike	4%	4%
Drove alone	3%	3%
Other	1%	0%
Carpooled or vanpooled with others	0%	2%

Mode of Egress from Transit

There were no significant differences in the modes of egress from 2007 to 2011. In 2007, 90% of transit users egressed transit by walking to their destination. In 2011, 91% indicated that they egressed transit by walking to their destination. The changes in the percentage of transit users who used all other modes of egress was 2% or less.

Figure 9.9

Egress Mode to Transit System

Egress Mode	2011	2007
Walk	91%	90%
Bike	4%	3%
Picked up by someone	3%	4%
Drive alone	2%	1%
Other	0%	0%
Carpool/Vanpool	0%	2%

Dependence on Public Transit

The percentage of transit users who would not have been able to complete their trip if public transit were not available did not change significantly from 2007 to 2011. In 2007, 30% of transit users reported that they would not have been able to complete their trip if transit were not available. In 2011, 29% reported that they could not complete their trip if transit were not available.

Although most of the responses to this question did not change significantly, there was a notable increase in the percentage of transit users who indicated that they would drive themselves to their destination if transit were not available. In 2007, one in twelve (8%) transit users indicated that they would drive themself. In 2011, one in eight (13%) indicated they would drive themself.

Figure 9.10

How Transit Users Would Complete Their Trip If Transit Were Not Available

How Would You Make the Trip	2011	2007
I could not make this trip	29%	30%
Drive with someone else	26%	26%
Walk or Bike	26%	25%
Taxi	6%	9%
Drive Myself	13%	8%
Other	1%	2%

Source of Bus Schedule Information

The percentage of transit users who rely on the Valley Metro schedule book has declined significantly since 2007. In 2007, 65% of transit users relied on the transit book as their primary source of schedule information. In 2011, 37% indicated that they relied on the transit schedule book.

Transit users were significantly more likely to rely on the Valley Metro website in 2011 than in 2007. The percentage of transit users who reported using the website as their primary source of schedule information more than doubled from 17% in 2007 to 35% in 2011.

Figure 9.11
Where Transit Users Get Schedule Information

Source of Information	2011	2007
Transit schedule book	37%	65%
Valley Metro Website	35%	17%
Customer service telephone number	19%	13%
Posted schedule at bus stop	7%	3%
Other	2%	2%

SECTION 10: LESSONS LEARNED AND OPPORTUNITIES FOR IMPROVEMENT

Although the number of completed surveys and the quality of the survey data exceeded the contractual requirements for the project, the research team identified a few opportunities for improvement to enhance the quality of future surveys based on lessons learned from the 2010-11 On-Board Survey. The opportunities are briefly described below and on the following page.

1) **If resources are available, a full stop inventory should be conducted before the administration of future surveys.** During the administration of the 2010-11 survey, it became apparent that the list of bus stops along some routes was not complete. In order to ensure that the list of stops on each route was as complete as possible, the research team had interviewers ride each route and mark the location of bus stops using GPS devices. Since this issue was not identified until after the administration of the survey began, manual geocoding of some bus stops was required on routes for which the stop inventory was not completed prior to the start of survey. If a stop inventory had been completed before the survey began, the location of all bus stops on each route could have been included in the tablet PC survey program, which would have minimized the number of boarding and alighting locations that had to be manually geocoded after the survey was administered.

2) **If resources are available, the sample size for future surveys should be increased.** Although nearly twice as many surveys were collected in 2011 as 2007, the sample was still not large enough to conduct data expansion for all bus routes by direction, time of day, and boarding location. For example, nearly half of the bus routes included in the survey had an average daily ridership of less than 1,000 riders per day. Given the sampling rate of 4.75%, fewer than 50 surveys were collected on routes with an average ridership of less than 1,000 per day. When a sample of fewer than 50 completed surveys was divided in half (to account for the direction of travel), there were typically fewer than 25 surveys available in each direction. When the sample was further divided by four (to account for the four time of day periods), there were typically fewer than 7 surveys available in a given direction for a specific time period, which was not adequate to perform data expansion by boarding location. For this reason, data expansion by boarding location was only performed on 15 routes with an average ridership of at least 4,000 per day. The good news is that these 15 routes accounted for more than 50% of the overall bus ridership in the region, so the majority of the survey records from the 2010-11 survey were expanded by boarding location. If the sample size for bus routes had been increased to 10% of the average daily ridership, data expansion by boarding location could have been completed on nearly three times as many routes.

3) **If resources are available, the sample size for future surveys should be increased to include weekend riders.** One of the original goals for the survey was to gather data about weekend ridership in the region. Unfortunately, the sample size was not sufficient to adequately capture data for weekend ridership without compromising the quality of the data collected on weekdays. In order to ensure that the sample for weekday ridership was sufficient, the resources that were originally allocated for weekend surveys were shifted to weekday surveys to increase the number of surveys that were completed on weekdays. As a result, no weekend ridership data was collected during this survey.

4) **If resources are available, a boarding and alighting count should be completed on all bus routes prior to the administration of future surveys.** Although ridership data for most bus routes was available by direction and time of day, stop level ridership data was limited to the data collected by the survey team. The survey team conducted boarding/alighting counts on at least one bus on each route, but the overall quality of the ridership data to which the survey was expanded would have been improved if boarding and alighting data were available for all buses operating on each route.

5) **A question asking whether or not the respondent has a disability should be included on future surveys.** Since there were concerns that respondents would not have time to finish the survey, the research team eliminated a question that asked the respondent if he/she had a physical disability. Instead of directly asking this question, the research team had planned to identify persons with disabilities based on the fare category selected. Unfortunately, most of the respondents to the survey who had disabilities did not select "person with disability fare." Instead, most persons with disabilities simply reported their general fare category (e.g., day pass or 31-day pass). As a result, the ability to perform analysis of the 2010-11 survey data for persons with disabilities will be limited.

ATTCHMENT C – PUBLIC INVOLVEMENT ACTIVITIES

Public Outreach and Involvement Activities Summary for Fare Changes (FC) and Service Changes (SC);

January 1, 2012 – December 31, 2014

Date/Time	Venue	Type
September 20, 2012	Valley Metro RPTA Board of Directors 101 N. 1st Avenue, Phoenix	Public Board Meeting (FC)
September 20, 2012	Valley Metro Rail Board of Directors 101 N. 1st Avenue, Phoenix	Public Board Meeting (FC)
September 21, 2012	Palomino's Parent Group 15815 N. 29th Street, Phoenix	Presentation (FC)
September 22, 2012	APS Back to School Resource Fair 600 E. Washington Street, Phoenix	Information Table (FC)
September 24, 2012	Lifewell Behavioral Wellness Center 2505 W. Beryl Avenue, Phoenix	Presentation (FC)
September 25, 2012	Freescale Health Expo 1300 N. Alma School Road, Chandler	Information Table (FC)
September 25, 2012	MAG Transportation Ambassador Program 10101 N. 90th Street, Scottsdale	Presentation (FC)
September 26, 2012	Freescale Health Expo 2100 E. Elliot Road, Tempe	Information Table (FC)
September 27, 2012	City of Chandler Library 22 S. Delaware, Chandler	Presentation (FC)
October 3, 2012	Transportation Coordinator Association Meeting 2200 S. 75th Avenue, Phoenix	Presentation (FC)
October 5, 2012	ABIL I Am Active Expo 5025 E. Washington Street, Phoenix	Information Table (FC)
October 5, 2012	Hayden Flour Mill Green Space Grand Opening 119 S. Mill Avenue, Tempe	Information Table (FC)(TS)
October 6, 2012	ABIL I Am Active Expo 5025 E. Washington Street, Phoenix	Information Table (FC)
October 8, 2012	Golden Gate Parents Group 1625 N. 39th Avenue, Phoenix	Presentation (FC)
October 9, 2012	City of Tempe Transportation Commission 200 E. Fifth Street, Tempe	Public Committee Meeting (FC)
October 9, 2012	Transportation Coordinator Association Meeting 6401 E. Lincoln Drive, Paradise Valley	Presentation (FC)
October 10, 2012	Veteran's Association White Cane Event 650 E. Indian School Road, Phoenix	Information Table (FC)
October 10, 2012	East Valley Brain Injury Support Group 3201 S. Evergreen, Tempe	Presentation (FC)
October 12, 2012	STAR West w/ MAG 605 N. Central Avenue, Avondale	Presentation (FC)
October 12, 2012	City of Avondale Resident Appreciation Night Western Avenue, Avondale	Information Table (FC)
October 14, 2012	Tempe Tardeada 3500 S. Rural Road, Tempe	Information Table (FC)(TS)
October 16, 2012	ABIL Education Fair 5025 E. Washington Street, Phoenix	Presentation (FC)
October 16, 2012	City of Mesa Transportation Advisory Board 57 E. 1st Street, Mesa	Public Committee Meeting (FC)
October 17, 2012	ABIL 5025 E. Washington Street, Phoenix	Presentation (FC)

Date/Time	Venue	Type
October 17, 2012	Transportation Coordinator Association Meeting 6150 W. Thunderbird, Glendale	Presentation (FC)
October 18, 2012	Transportation Coordinator Association Meeting 175 S. Arizona Avenue, Chandler	Presentation (FC)
October 19, 2012	United Health Care 5025 E. Washington Street, Phoenix	Presentation (FC)
October 22, 2012	Tempe Transportation Center 200 E. Fifth Street, Tempe	Open House (FC)
October 23, 2012	Valley Forward EarthFest Educators Night 455 N. Galvin Parkway, Phoenix	Information Table (FC)
October 23, 2012	Online Webinar	Webinar (FC)
October 23, 2012	Cesar Chavez Library 3635 W. Baseline Road, Laveen	Open House (FC)
October 23, 2012	City of Chandler Council Chambers 88 E. Chicago Street, Chandler	Open House (FC)
October 24, 2012	Transportation Coordinator Association Meeting Online Webinar	Presentation (FC)
October 24, 2012	Valley Metro 101 N. 1st Avenue, Phoenix	Open House (FC)
October 24, 2012	Cholla Library 10050 Metro Parkway N., Phoenix	Open House (FC)
October 24, 2012	City of Glendale Council Chambers 5850 W. Glendale Avenue, Glendale	Open House (FC)
October 25, 2012	City of Glendale BAGIT 5970 W. Brown Road, Glendale	Presentation (FC)
October 25, 2012	Transportation Coordinator Association 1625 N. Central Avenue, Phoenix	Presentation (FC)
October 25, 2012	City of Mesa Utility Conference Room 640 N. Mesa Drive, Mesa	Open House (FC)
October 25, 2012	Arcadia High School 4703 E. Indian School Road, Phoenix	Open House (FC)
October 27, 2012	Hall of Flame Museum Fire House Fun Day 6101 E. Van Buren Street, Phoenix	Information Table (FC)
October 27, 2012	Granite Reef Senior Center 1700 N. Granite Reef, Scottsdale	Open House (FC)
October 29, 2012	Tweet Chat	Twitter (FC)
October 29, 2012	South Mountain Community Center 212 E. Alta Vista Road, Phoenix	Information Table (FC)
October 29, 2012	Pecos Community Center 17010 S. 48th Street, Phoenix	Open House (FC)
October 30, 2012	Desert Sage Library 7602 W. Encanto Boulevard, Phoenix	Open House (FC)
October 31, 2012	Red Mountain Multigenerational Center 7550 E. Adobe, Mesa	Information Table (FC)
October 31, 2012	Pyle Adult Center 655 E. Southern Avenue, Tempe	Information Table (FC)
November 1, 2012	Save the Family Foundation 450 W. 4th Place, Mesa	Presentation (FC)
November 1, 2012	Valley Metro 101 N. 1st Avenue, Phoenix	Public Hearing (FC)
November 4, 2012	Mesa Public Schools 4th Annual (CHECK) Fair 855 W. 8th Avenue, Mesa	Information Table (FC)
November 8, 2012	City of Phoenix Citizen's Transit Commission 302 N. 1st Avenue, Phoenix	Public Committee Meeting (FC)

Date/Time	Venue	Type
November 13, 2012	City of Phoenix Transportation and Infrastructure Committee 200 W. Washington Street, Phoenix	Public Committee Meeting (FC)
December 13, 2012	Valley Metro RPTA Board of Directors 101 N. 1st Avenue, Phoenix	Public Board Meeting (FC)
January 23, 2013	City of Surprise Disability Advisory Committee 16000 N. Civic Center Plaza, Surprise	Public Committee Meeting (Title VI)
February 7, 2013	City of Tempe Commission on Disability Concerns 3500 S. Rural Road, Tempe	Public Committee Meeting (Title VI)
February 12, 2013	City of Tempe Human Relations Commission 31 E. Fifth Street, Tempe	Public Committee Meeting (Title VI)
February 19, 2013	City of Mesa Transportation Advisory Board 57 E. 1st Street, Mesa	Public Committee Meeting (Title VI)
February 27, 2013	City of Mesa Human Relations Board 57 E. 1st Street, Mesa	Public Committee Meeting (Title VI)
March 5, 2013	Valley Metro 101 N. 1st Avenue, Phoenix	Public Meeting (Title VI)
March 6, 2013	Valley Metro Transportation Management Committee 101 N. 1st Avenue, Phoenix	Public Committee Meeting (Title VI)
March 6, 2013	Valley Metro Rail Management Committee 101 N. 1st Avenue, Phoenix	Public Committee Meeting (Title VI)
March 7, 2013	City of Phoenix Citizen's Transit Commission 302 N. 1st Avenue, Phoenix	Public Committee Meeting (Title VI)
March 11, 2013	City of Scottsdale Human Relations Commission 7575 E. Main Street, Scottsdale	Public Committee Meeting (Title VI)
March 14, 2013	MAG Human Services Technical Committee 302 N. 1st Avenue, Phoenix	Public Committee Meeting (Title VI)
March 18, 2013	City of Phoenix Human Relations Commission 150 S. 12 Street, Phoenix	Public Committee Meeting (Title VI)
March 20, 2013	City of Chandler Senior Expo 125 E. Commonwealth Avenue, Chandler	Information Table (FC)
March 20, 2013	ABIL 5025 E. Washington Street, Phoenix	Presentation (FC)
March 21, 2013	Valley Metro RPTA Board of Directors 101 N. 1st Avenue, Phoenix	Public Board Meeting (Title VI)
March 21, 2013	Valley Metro Rail Board of Directors 101 N. 1st Avenue, Phoenix	Public Board Meeting (Title VI)
March 21, 2013	City of Scottsdale Transportation Commission 3939 N. Drinkwater Boulevard, Scottsdale	Public Committee Meeting (FC)
April 2, 2013	2013 East Valley Transition Expo 2700 E. Brown Road, Mesa	Information Table (FC)
April 11, 2013	Pyle Senior Center 655 E. Southern Avenue, Tempe	Information Table (FC)(TS)
April 15, 2013	Sunbird Golf Resort 6250 S. Sunbird Boulevard, Chandler	Public Meeting (FC)
April 16, 2013	City of Chandler Council Chambers 88 E. Chicago Street, Chandler	Public Meeting (FC)
April 17, 2013	ABIL 5025 E. Washington Street, Phoenix	Presentation (FC)
April 17, 2013	City of Chandler Senior Center 202 E. Boston, Chandler	Presentation (FC)

Date/Time	Venue	Type
April 18, 2013	City of Chandler Transportation Commission 215 E. Buffalo Street, Chandler	Public Committee Meeting (FC)
April 26, 2013	ABIL Health and Wellness Fair 5025 E. Washington Street, Phoenix	Presentation/Information Table (FC)
April 27, 2013	ABIL Health and Wellness Fair 5025 E. Washington Street, Phoenix	Information Table (FC)
May 6, 2013	MAG Transportation Ambassador Program 301 N. 1st Avenue, Phoenix	Presentation (FC)
May 8, 2013	Foundation for Blind Children 1235 E. Harmont, Phoenix	Presentation (FC)
May 14, 2013	VOICE 5959 W. Brown, Glendale	Presentation (FC)
May 15, 2013	ASL Apartments 2428 E. Apache Boulevard, Tempe	Information Table (FC)
May 28, 2013	Via Linda Senior Center 10440 E. Via Linda, Scottsdale	Information Table (FC)
May 29, 2013	Surprise City Hall 16000 N. Civic Center Circle, Surprise	Public Meeting (SC)
June 11, 2013	City of Tempe Transportation Commission 200 E. Fifth Street, Tempe	Public Committee Meeting (FC)
June 11, 2013	Hopekeepers Mesa	Presentation (FC)
September 5, 2013	Tempe Transportation Center 200 E. 5th Street, Tempe	Public Meeting (FC)
September 9, 2013	Chandler Senior Center 202 E. Boston Street, Chandler	Public Meeting (FC)
September 12, 2013	Via Linda Senior Center 10440 E. Via Linda, Scottsdale	Public Meeting (FC)
September 16, 2013	Town of Buckeye Public Library 310 N. 6th Street, Buckeye	Open House (SC)
September 18, 2013	City of Glendale Council Chambers 5850 W. Glendale Avenue, Glendale	Open House (SC)
September 19, 2013	City of Tempe City Council 31 E. Fifth Street, Tempe	Public Committee Meeting (FC)
September 19, 2013	City of Chandler Council Chambers 88 E. Chicago Street, Chandler	Open House (SC)
September 24, 2013	City of Scottsdale One Civic Center Building 7447 E. Indian School Road, Scottsdale	Open House (SC)
September 25, 2013	City of Phoenix Burton Barr Library 1221 N. Central Avenue, Phoenix	Open House (SC)
September 25, 2013	Online Webinar	Webinar (SC)
October 8, 2013	Tweet Chat	Twitter (SC)
October 8, 2013	Valley Metro 101 N. 1st Avenue, Phoenix	Public Hearing (SC)
April 16, 2014	Webinar	Webinar (SC)
April 21, 2014	Tempe Transportation Center 200 E. 5th Street, Tempe	Information Table (SC)
April 22, 2014	Scottsdale Road & Frank Lloyd Wright Bus Stop Scottsdale	Information Table (SC)
April 22, 2014	Scottsdale Road & McDowell Road Bus Stop Scottsdale	Information Table (SC)
April 22, 2014	City of Avondale Council Chambers 11465 W. Civic Center Drive, Avondale	Public Meeting (SC)
April 23, 2014	Burton Barr Library	Public Meeting (SC)

Date/Time	Venue	Type
	1221 N. Central Avenue, Phoenix	
April 23, 2014	Glendale Transportation Open House 5750 W. Glenn Drive, Glendale	Information Table (WPCG)
April 23, 2014	Scottsdale Road & Camelback Road Bus Stop Scottsdale	Information Table (SC)
April 23, 2014	Scottsdale Road & Thomas Road Bus Stop Scottsdale	Information Table (SC)
April 23, 2014	Buckeye Park-and-Ride Buckeye	Information Table (SC)
April 24, 2014	Goodyear Park-and-Ride Goodyear	Information Table (SC)
April 24, 2014	Pecos Road & Dobson Road Bus Stop Chandler	Information Table (SC)
April 25, 2014	Arrowhead Towne Center Transit Center Glendale	Information Table (SC)
April 29, 2014	Scottsdale Road & Camelback Road Bus Stop Scottsdale	Information Table (SC)
April 29, 2014	Avondale City Hall 11465 Civic Center Drive, Avondale	Information Table (SC)
April 29, 2014	Valley Metro 101 N. 1st Avenue, Phoenix	Public Meeting (SC)
April 30, 2014	Tweet Chat	Twitter (SC)
April 30, 2014	Scottsdale Road & McDowell Road Bus Stop Scottsdale	Information Table (SC)
April 30, 2014	Buckeye Park-and-Ride Buckeye	Information Table (SC)
April 30, 2014	67th Avenue & Glendale Avenue Bus Stop Glendale	Information Table (SC)
October 21, 2014	Central and Van Buren Bus Stop Phoenix	Information Table (SC)
October 23, 2014	Central and Van Buren Bus Stop Phoenix	Information table (SC)
November 13, 2014	Price Road & Queen Creek Bus Stop Chandler	Information Table (SC)
November 18, 2014	Scottsdale Fashion Square Mall Scottsdale	Information Table (SC)
November 18, 2014	Packard Drive & Rio Salado Parkway Bus Stop Tempe	Information Table (SC)
November 19, 2014	Webinar	Webinar (SC)
November 20, 2014	McAllister & Apache Boulevard Bus Stop Tempe	Information Table (SC)
December 2, 2014	Valley Metro 101 N. 1st Avenue, Phoenix	Public Meeting (SC)

Note that the public could also provide input in the following manner (press release is in Attachment B):

- Email comments to fares@valleymetro.org
- Provide input via an electronic survey at www.ValleyMetro.org beginning November 28
- Send comments by mail to:
  Valley Metro RPTA
  Attn: Fare Program Manager
  101 N. 1st Ave., Ste. 1100
  Phoenix, AZ 85003
- Phone call comments to Customer Service at 602.253.5000

Notification for public hearings included advertisements in local newspapers. In addition postcards and flyers were distributed on dial-a-ride vehicles during March 2009. Valley Metro also sent email notices to member of the Regional Paratransit Stakeholders Group, and the notice was reprinted in publications of disability advocacy groups such as the Arizona Bridge to Independent Living (ABIL) and the Maricopa Association of Governments. Notification for public meetings was handled through the notification processes of the meeting at which presentations were made.

Public Outreach and Involvement Activities For Valley Metro Planning Projects

Date	Venue	Type	
	St. Matthew's Light Rail Working Group		
January 10, 2012	1918 W. Van Buren, Phoenix	Presentation (CAP/I-10)	CAP/I-10 - Capitol I-10 Corridor
	Downtown Mesa Association		
January 11, 2012	100 N. Center Street, Mesa	Stakeholder Meeting (CME)	CME- Central Mesa Extension
	Downtown Voices Coalition Meeting		
January 14, 2012	825 N. 6th Avenue, Phoenix	Presentation (CAP/I-10)	FC - Fare Change
	St. Matthews Neighborhood Community Action Meeting		
January 17, 2012	1918 W. Van Buren Street, Phoenix	Presentation (CAP/I-10)	FH - Fountain Hills Transit Study
	Downtown Mesa Association		
January 24, 2012	100 N. Center Street, Mesa	Presentation (CME)	GRE - Gilbert Road Extension
	Tempe Streetcar Community Working Group Meeting 200 E.		
January 31, 2012	5th Street, Tempe	Public Meeting (TS)	NWE - Northwest Extension
	Mesa Rotary Club		
February 1, 2012	1011 W. Holmes Avenue, Mesa	Presentation (CME)	NWE II - Northwest Extension Phase II
	City of Tempe Transportation Center		
February 8, 2012	200 E. Fifth Street, Tempe	Public Meeting (TS)	QC - Queen Creek Transit Study
	East Valley Institute of Technology		
February 16, 2012	1601 W. Main Street, Mesa	Public Meeting (CME)	S. Central- South Central
	Governor's Office, ADOA & DPS Meeting 2102		
February 17, 2012	W. Encanto, Phoenix	Stakeholder Meeting (CAP/I-10)	SC - Service Change
	St. Matthews Neighborhood Community Action Meeting		
February 21, 2012	1918 W. Van Buren Street, Phoenix	Presentation (CAP/I-10)	SEVTS - Southeast Valley Transit Study
	Capitol Neighborhoods Coalition		
March 6, 2012	747 W. Van Buren, Phoenix	Presentation (CAP/I-10)	SFS - Station Feasibility Study
	Institute of Transportation Engineers Conference		
March 7, 2012	9440 N 25th Ave, Phoenix	Presentation (TS)	SSR - Scottsdale/Rural Road LINK
	City of Phoenix Citizen's Transit Commission		
March 8, 2012	302 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central)	TAG - Route 685/563 Transit Advisory Group
	Downtown Voices Coalition Meeting		
March 10, 2012	825 N. 6th Avenue, Phoenix	Presentation (CAP/I-10)	Title VI - Title VI Fare and Service Equity Policies
	Central City Village Planning Committee		
March 12, 2012	619 N. 7th Avenue, Phoenix	Public Committee Meeting (S. Central)	TS - Tempe Streetcar
	South Mountain Village Planning Committee 7050		
March 13, 2012	S. 24th Street, Phoenix	Public Committee Meeting (S. Central)	WPCG - West Phoenix/Central Glendale
March 15, 2012	Phoenix Historic Neighborhoods Coalition Phoenix	Presentation (CAP/I-10)	
	City of Phoenix Historic Preservation Commission		
March 19, 2012	200 W. Washington Street, Phoenix	Public Committee Meeting (CAP/I-10)	
	Quality Bumper 405		
March 28, 2012	E. Main Street, Mesa	Stakeholder Meeting (CME)	
	Capitol Neighborhoods Coalition		
April 3, 2012	330 N. 16th Avenue, Phoenix	Presentation (CAP/I-10)	
	Adelante Healthcare		
April 10, 2012	9520 W. Palm Lane, Phoenix	Stakeholder Meeting (CME)	
	Sherwood Neighborhood Association		
April 11, 2012	1334 E. 1st Place, Mesa	Presentation (GRE)	
	METRO Max Kick-Off Event		
April 13, 2012	Mesa	Public Meeting (CME)	
	Downtown Voices Coalition		
April 14, 2012	825 N. 6th Avenue, Phoenix	Presentation (S. Central)	
	Dairy Queen		
April 16, 2012	200 S. Center Street, Mesa	Stakeholder Meeting (CME)	
	Phoenix Historic Neighborhoods Coalition		
April 19, 2012	915 E. Palm Lane, Phoenix	Presentation (CAP/I-10)	
	Del Rio Area Brownfields		
April 24, 2012	3131 S. Central Avenue, Phoenix	Presentation (S. Central)	
	Central Mesa Community Working Group		
April 24, 2012	200 S. Center Street, Mesa	Public Meeting (CME)	
	South Mountain Target Area B		
April 25, 2012	4732 S. Central Avenue, Phoenix	Presentation (S. Central)	
	Adelante Healthcare		
April 25, 2012	200 S. Center Street, Mesa	Stakeholder Meeting (CME)	
	East Valley Institute of Technology		
April 25, 2012	1601 W. Main Street, Mesa	Public Meeting (CME)	
	Grandma's Kitchen		
May 1, 2012	405 W. Main Street, Mesa	Stakeholder Meeting (CME)	
	Capitol Neighborhoods Coalition		
May 1. 2012	330 N. 16th Avenue, Phoenix	Presentation (CAP/I-10)	
	Downtown Mesa Association Mixer		
May 3, 2012	53 N. Macdonald, Mesa	Information Table (CME)	
	St. Matthew Catholic Church and School		
May 3, 2012	320 N. 20th Drive, Phoenix	Public Meeting (CAP/I-10)	
	Jane Jacobs Walk		
May 5, 2012	Tempe/Mesa	Presentation (TS)(CME)	
	St. Peter Lutheran Church		
May 8, 2012	1844 E. Dana Avenue, Mesa	Presentation (GRE)	
	Friends of Frasier Fields		
May 8, 2012	68 Fraser Drive West, Mesa	Presentation (GRE)	
	Church of Jesus Christ of Latter Day Saints		
May 9, 2012	101 S. LeSueur, Mesa	Presentation (GRE)	
	Phoenix Community Alliance		
May 9, 2012	234 N. Central Avenue, Phoenix	Presentation (S. Central)	
	City of Phoenix Planning Commission		
May 9, 2012	200 W. Jefferson Street, Phoenix	Presentation (CAP/I-10)	
	City of Mesa City Council 57 E.		
May 10,2012	1st Street, Mesa	Public Committee Meeting (CME)	
	City of Phoenix Citizen's Transit Commission		
May 10, 2012	302 N. 1st Avenue, Phoenix	Public Committee Meeting (CAP/I-10)	
	Mesa West Rotary Club		
May 10, 2012	1011 W. Holmes Avenue, Mesa	Presentation (GRE)(CME)	
	Harrison Acres Neighborhood Association		
May 10, 2012	1042 E. 3rd Street, Mesa	Presentation (GRE)	
	Phoenix Revitalization Corporation		
May 10, 2012	1122 E. Buckeye Road, Phoenix	Presentation (S. Central)	

	Downtown Voices Coalition	
May 12, 2012	825 N. 6th Avenue, Phoenix	Presentation (S. Central)(CAP/I-10)
	Friendly House	
May 14, 2012	802 S. First Avenue, Phoenix	Presentation (S. Central)
	Central City Village Planning Committee	
May 14, 2012	619 N. 7th Avenue, Phoenix	Public Committee Meeting (CAP/I-10)
	City of Phoenix Council Meeting 200	
May 15, 2012	W. Jefferson Street, Phoenix	Public Committee Meeting (CAP/I-10)
	Golden Gate Community Group	
May 15, 2012	1625 N. 39th Avenue, Phoenix	Presentation (CAP/I-10)
	Chicanos Por La Causa	
May 18, 2012	1112 E. Buckeye Road, Phoenix	Presentation (S. Central)
	Valle del Sol	
May 21, 2012	3807 N. 7th Street, Phoenix	Presentation (S. Central)
	Mesa Arts Center 1	
May 21, 2012	E. Main Street, Mesa	Stakeholder Meeting (CME)
	Susan Tibshraeny's Office	
May 22, 2012	130 W. Pepper Place, Mesa	Stakeholder Meeting (CME)
	Central Mesa Extension Groundbreaking Event	
May 30, 2012	Mesa	Public Meeting (CME)
	South Mountain/Laveen Chamber of Commerce	
June 4, 2012	7050 S. 24th Street, Phoenix	Presentation (S. Central)
	Sustainable Communities Working Group	
June 5, 2012	234 N. Central Avenue, Phoenix	Presentation (S. Central)
	Academia Del Pueblo	
June 5, 2012	201 E Durango, Phoenix	Public Meeting (S. Central)
	Washington Neighborhood Meeting	
June 5, 2012	2240 W. Citrus Way, Phoenix	Presentation (NWE)
	Phoenix Community Alliance	
June 6, 2012	234 N. Central Avenue, Phoenix	Presentation (S. Central)(CAP/I-10)
	South Mountain Community Center	
June 7, 2013	212 E. Alta Vista, Phoenix	Public Meeting (S. Central)
	Food City	
June 9, 2012	1342 E. Main Street, Mesa	Information Table (GRE)
	Phoenix Revitalization Corporation Strategy Steward Meeting	
June 14, 2012	1150 S. 7th Avenue, Phoenix	Presentation (S. Central)
	City of Phoenix Union High School District	
June 14, 2012	4502 N. Central Ave, Phoenix	Presentation (S. Central)
	Juneteenth	
June 16, 2012	7050 S. 24th Street, Phoenix	Information Table (S. Central)
	2nd Friday Night Out	
June 18, 2012	101 W. Main Street, Mesa	Stakeholder Meeting (CME)
	City of Phoenix Historic Preservation Commission	
June 18, 2012	200 W. Washington Street, Phoenix	Public Committee Meeting (CAP/I-10)
	Isaac Neighborhood Initiative Area Community Meeting	
June 19, 2012	1516 N. 35th Avenue, Phoenix	Presentation (CAP/I-10)
	City of Mesa Transportation Advisory Board	
June 19, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (GRE)
	Downtown Mesa Association Light Rail Task Force Meeting 18	
June 20, 2012	W. Main Street, Mesa	Public Meeting (CME)
	Phoenix Revitalization Corporation	
June 22, 2012	1122 E. Buckeye Road, Phoenix	Presentation (S. Central)
	Food City	
June 23, 2012	1342 E. Main Street, Mesa	Information Table (GRE)
	Central Mesa Community Advisory Board Training	
June 25, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	Central Mesa Community Advisory Board Training	
June 28, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	City of Mesa Celebration of Freedom Event Main	
June 29, 2012	Street, Mesa	Information Table (CME)(GRE)
	Food City	
June 30, 2012	1342 E. Main Street, Mesa	Information Table (GRE)
	City of Mesa Celebration of Freedom Event Main	
June 30, 2012	Street, Mesa	Information Table (CME)(GRE)
	Grant Park Neighborhood Association	
July 10, 2012	117 W Grant, Phoenix	Presentation (S. Central)
	Maryvale Village Planning Committee	
July 11, 2012	7611 W. Thomas Road, Phoenix	Presentation (CAP/I-10)
	Maricopa Association of Governments Transit Committee 302	
July 12, 2012	N. 1st Avenue, Phoenix	Presentation (S. Central)
	Floating Lotus 202	
July 13, 2012	W. Main Street, Mesa	Stakeholder Meeting (CME)
	Latino Institute Back to School Fair	
July 14, 2012	735 E Fillmore, Phoenix	Information Table (S. Central)
	Los Olivos Apartments	
July 18, 2012	7625 North 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	St. Matthews Light Rail Working Group	
July 19, 2012	1918 W. Van Buren, Phoenix	Presentation (CAP/I-10)
	Central Mesa Community Advisory Board	
July 26, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	East Valley Institute of Technology Enrollment Day	
July 31, 2012	1601 W. Main Street, Mesa	Information Table (CME)
	2nd Friday Night Out Event	
August 10, 2012	Mesa	Information Table (CME)
	Downtown Voices Coalition	
August 11, 2012	825 N. 6th Avenue, Phoenix	Presentation (S. Central)(CAP/I-10)
	Central City Village Planning Committee	
August 13, 2012	640 N. 1st Ave, Phoenix	Presentation (CAP/I-10)
	CTOC Meeting	
August 14, 2012	57 E. 1st Avenue, Mesa	Presentation (CME)(GRE)
	East Valley Institute of Technology	
August 16, 2012	1601 W. Main Street, Mesa	Stakeholder Meeting (CME)

	District 8 Community Meeting	
August 16, 2012	1310 S. 15th Avenue, Phoenix	Presentation (S. Central)
	Summer Business Expo and Mixer	
August 21, 2012	263 N. Center Street, Mesa	Information Table (CME)
	PRC Business and Faith Based Community Luncheon 1325 S.	
August 23, 2012	5th Avenue, Phoenix	Presentation (S. Central)
	Central Mesa Community Advisory Board	
August 23, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	St. Matthews Neighborhood Meeting	
August 29, 2012	1918 W. Van Buren, Phoenix	Presentation (CAP/I-10)
	Northwest Extension Future Light Rail Route Sign Unveiling 19th Ave. and Montebello Park-and-Ride, Phoenix	
August 30, 2012		Public Meeting (NWE)
	New Heights Realty	
September 6, 2012	6427 S. Central Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Central City Village Planning Committee	
September 10, 2012	619 N. 7th Avenue, Phoenix	Public Committee Meeting (S. Central)(CAP/I-10)
	Mesa Church of Christ	
September 11, 2012	1223 E. Dana Avenue, Mesa	Public Meeting (GRE)
	South Mountain Village Planning Committee 7050	
September 11, 2012	S. 24th Street, Phoenix	Public Committee Meeting (S. Central)
	Royal Palm Mobile Home Park	
September 14, 2012	2050 W. Dunlap Avenue, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out	
September 14, 2012	Mesa	Information Table (CME)
	Orangewood Elementary School	
September 18, 2012	7337 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Building Strong Neighborhoods	
September 18, 2012	1 E. Main Street, Mesa	Information Table (CME)
	APWA 2901 N.	
September 19, 2012	7th Street, Phoenix	Presentation (CME)(NWE)
	City of Tempe City Council	
September 20, 2012	31 E. Fifth Street, Tempe	Presentation (TS)
	Mobile 1 Gas Station	
September 26, 2012	1902 W. Dunlap, Phoenix	Stakeholder Meeting (NWE)
	Food Bank Operations	
September 26, 2012	764 W. Main Street, Mesa	Stakeholder Meeting (CME)
	Central Mesa Community Advisory Board	
September 27, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	East Valley Business Expo	
October 3, 2012	263 N. Center Street, Mesa	Information Table (CME)
	City of Phoenix Citizen's Transit Commission	
October 4, 2012	302 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central)
	Hayden Flour Mill Green Space Grand Opening	
October 5, 2012	119 S. Mill Avenue, Tempe	Information Table (TS)
	Washington Park GAIN Event	
October 9, 2012	2240 W. Citrus Way, Phoenix	Information Table (NWE)
	City of Mesa Council Meeting	
October 11, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (CME)
	Central Mesa Project Construction Grant Agreement Event 1 E. Main	
October 12, 2012	Street, Mesa	Public Meeting (CME)
	2nd Friday Night Out Main	
October 12, 2012	Street, Mesa	Information Table (CME)(GRE)
	Downtown Voices Coalition	
October 13, 2012	825 N. 6th Avenue, Phoenix	Presentation (S. Central)(CAP/I-10)
	Tempe Tardeada	
October 14, 2012	3500 S. Rural Road, Tempe	Information Table (TS)
	City of Mesa City Council Study Session	
October 15, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (GRE)
	South Mountain Community Center	
October 18, 2012	212 E. Alta Vista Road, Phoenix	Public Meeting (S. Central)
	Academia Del Pueblo	
October 23, 2012	201 E. Durango, Phoenix	Public Meeting (S. Central)
	Denny's Restaurant	
October 24, 2012	1210 E. Main Street, Mesa	Stakeholder Meeting (GRE)
	PRC/Central City South Tour	
October 25, 2012	Phoenix	Presentation (S. Central)
	Central Mesa Community Advisory Board	
October 25, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	Denny's Restaurant	
October 26, 2012	1210 E. Main Street, Mesa	Stakeholder Meeting (GRE)
	St. Luke Lutheran Church	
October 30, 2012	1844 E. Dana Avenue, Mesa	Public Meeting (GRE)
	South Mountain Festival of Thanksgiving and Parade 502 E.	
November 3, 2012	Alta Vista Road, Phoenix	Information Table (S. Central)
	City of Mesa Economic Development Advisory Board	
November 6, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (GRE)
	Denny's Restaurant	
November 7, 2012	1210 E. Main Street, Mesa	Public Meeting (GRE)
	Hope VI/PRC Community Action Team Meeting	
November 8, 2012	1150 S. 7th Avenue, Phoenix	Presentation (S. Central)
	Denny's Restaurant	
November 8, 2012	1210 E. Main Street, Mesa	Public Meeting (GRE)
	City of Mesa Council Meeting	
November 8, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (CME)
	Washington Park Adult Activity Center	
November 8, 2012	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out	
November 9, 2012	Mesa	Information Table (CME)
	Downtown Voices Coalition	
November 10, 2012	825 N. 6th Avenue, Phoenix	Presentation (S. Central)
	Denny's Restaurant	
November 13, 2012	1210 E. Main Street, Mesa	Public Meeting (GRE)
	Washington Park Neighborhood Association 2240	
November 13, 2012	W. Citrus Way, Phoenix	Presentation (NWE)
	Chris Ridge Retirement Community	
November 14, 2012	Conference Call	Stakeholder Meeting (NWE)

	Maricopa County Board of Supervisors	
November 14, 2012	205 W. Jefferson Street, Phoenix	Public Committee Meeting (GRE)
	East Valley Institute of Technology 1601	
November 14, 2012	W. Main Street, Mesa	Public Meeting (CME)
	City of Mesa Chamber of Commerce	
November 15, 2012	4136 E. McDowell Road, Mesa	Presentation (GRE)
	Valley Metro RPTA Board of Directors	
November 15, 2012	101 N. 1st Avenue, Phoenix	Public Board Meeting (GRE)
	Valley Metro Rail Board of Directors	
November 15, 2012	101 N. 1st Avenue, Phoenix	Public Board Meeting (GRE)
	City of Scottsdale Transportation Commission	
November 15, 2012	7575 E. Main Street, Scottsdale	Public Committee Meeting (SSR)
	State Transportation Board	
November 16, 2012	44150 W. Maricopa, Maricopa	Public Committee Meeting (GRE)
	Surgical Specialty Hospital of AZ	
November 16, 2012	6501 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Washington School Superintendent	
November 16, 2012	4650 W. Sweetwater Ave, Glendale	Stakeholder Meeting (NWE)
	Phoenix Revitalization Corporation	
November 17, 2012	1122 E. Buckeye Road, Phoenix	Presentation (S. Central)
	West Mesa CDC Board 567	
November 21, 2012	W. 10th Street, Mesa	Presentation (GRE)
	East Valley Institute of Technology	
November 21, 2012	1601 W. Main Street, Mesa	Stakeholder Meeting (CME)
	Orangewood Elementary School	
November 27, 2012	7337 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	South Mountain Target Area B	
November 28, 2012	4732 S. Central Avenue, Phoenix	Presentation (S. Central)
	City of Mesa Historic Preservation Board	
November 29, 2012	20 E. Main Street, Mesa	Public Committee Meeting (GRE)
	Richard E. Miller	
November 29, 2012	2021 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Jeff Cooley 2357 E.	
November 30, 2012	Floomoor Circle, Mesa	Stakeholder Meeting (GRE)
	Grant Park Holiday Celebration 701 S.	
December 1, 2012	3rd Avenue, Phoenix	Information Table (S. Central)
	Chris Ridge Retirement Community	
December 5, 2012	6250 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Church of Jesus Christ of Latter Day Saints	
December 5, 2012	200 S. Center Street, Mesa	Stakeholder Meeting (CME)
	Richard E. Miller School	
December 5, 2012	2021 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Washington School Superintendent	
December 6, 2012	4650 W. Sweetwater Ave, Glendale	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
December 6, 2012	200 S. Center Street, Mesa	Public Meeting (CME)
	Northwest Extension B2D Meeting	
December 6, 2012	6027 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Oasis Insurance 30	
December 10, 2012	N. Gilbert Road, Mesa	Stakeholder Meeting (GRE)
	Longfellow Elementary School	
December 11, 2012	345 S. Hall, Mesa	Presentation (GRE)
	Washington Adult Activity Center 2240	
December 12, 2012	W. Citrus Way, Phoenix	Public Meeting (NWE)
	Orangewood Elementary School	
December 12, 2012	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Tempe City Council	
December 13, 2012	31 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	Lowell Elementary School PTO Meeting	
December 13, 2012	920 E. Broadway Road, Mesa	Presentation (GRE)
	2nd Friday Night Out	
December 14, 2012	Mesa	Information Table (CME)
	City of Mesa Transportation Advisory Board	
December 18, 2012	57 E. 1st Street, Mesa	Public Committee Meeting (GRE)
	Taco Bell	
January 3, 2013	9019 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Washington Park Neighborhood Association 2240	
January 8, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	City of Tempe Chamber of Commerce	
January 9, 2013	909 E. Apache Boulevard, Tempe	Presentation (TS)
	Northwest Extension B2D Meeting	
January 9, 2013	7830 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Phoenix Baptist Hospital 2000	
January 11, 2013	W. Bethany Home Road, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension Groundbreaking Event 19th	
January 12, 2013	Avenue and Dunlap, Phoenix	Public Meeting (NWE)
	Route 685/563 Transit Advisory Group 303 E.	
January 15, 2013	Pima Street, Gila Bend	Public Meeting (TAG)
	Richard E. Miller School	
January 16, 2013	2021 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Chase Bank	
January 18, 2013	201 N. Central Avenue, Phoenix	Stakeholder Meeting (NWE)
	Phoenix Day School for the Deaf	
January 18, 2013	7654 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	RE/MAX New Heights Realty	
January 24, 2013	6427 S. Central Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Washington Governing Board	
January 24, 2013	4650 W. Sweetwater Avenue, Glendale	Presentation (NWE)
	Central Mesa Community Advisory Board	
January 24, 2013	200 S. Center Street, Mesa	Public Meeting (CME)
	Chase Bank	
January 28, 2013	19th Avenue and Augusta, Phoenix	Stakeholder Meeting (NWE)
	Mesa Grande Community Alliance	
January 29, 2013	567 W. 10th Street, Mesa	Presentation (GRE)
	Washington Elementary School District Business	
	Advisory Team 4650 W.	
January 30, 2013	Sweetwater Avenue, Glendale	Presentation (NWE)
	Dr. William Gioia	
January 30, 2013	7550 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)

	Washington Park Neighborhood Association 2240	
February 5, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Faith Methodist Church	
February 7, 2013	8640 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension B2D Meeting 6027	
February 7, 2013	N. 19th Avenue, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
February 8, 2013	Mesa	Information Table (CME)
	City of Tempe Economic, Lake, Downtown, Advanced Transportation Council Subcommittee 31	
February 19, 2013	E. Fifth Street, Tempe	Public Committee Meeting (TS)
	Chris Ridge Retirement Community	
February 21, 2013	6250 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Great Fair	
February 22, 2013	Avenue of the Fountains, Fountain Hills	Information Table (FH)
	El Monte Shopping Plaza	
February 26, 2013	2101 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
February 28, 2013	200 S. Center Street, Mesa	Public Meeting (CME)
	Central City South Community Connection Fair 840	
March 2, 2013	W. Tonto, Phoenix	Information Table (S. Central)
	Washington Park Neighborhood Association 2240	
March 5, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	South Mountain Community Center	
March 6, 2013	212 E. Alta Vista Road, Phoenix	Public Meeting (S. Central)
	Continental Villas	
March 6, 2013	1745 W. Stella Lane, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension B2D Meeting	
March 6, 2013	2101 W. Alice, Phoenix	Public Meeting (NWE)
	Academia Del Pueblo	
March 7, 2013	201 E. Durango, Phoenix	Public Meeting (S. Central)
	City of Tempe City Council	
March 7, 2013	31 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	Southwest Therapy Specialists	
March 7, 2013	7540 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Orangewood Elementary School	
March 7, 2013	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
March 8, 2013	Mesa	Information Table (CME)
	APTA Streetcar Tour	
March 9, 2013	Tempe	Presentation (TS)
	City of Tempe Transportation Commission	
March 12, 2013	200 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	South Mountain Village Planning Committee 7050	
March 12, 2013	S. 24th Street, Phoenix	Public Committee Meeting (S. Central)
	Hope VI/PRC Community Action Team Meeting	
March 14, 2013	1150 S. 7th Avenue, Phoenix	Presentation (S. Central)
	Continental Villas	
March 18, 2013	1745 W. Stella Lane, Phoenix	Presentation (NWE)
	Phoenix Vice Mayor Gates Briefing	
March 19, 2013	Phoenix	Presentation (NWE)
	Northwest Extension Community Advisory Board Training	
March 19, 2013	2101 W. Alice, Phoenix	Public Meeting (NWE)
	North Mountain Village Planning Committee 9202	
March 20, 2013	N. 2nd Street, Phoenix	Presentation (NWE)
	PRC Business and Faith Based Community Luncheon 1101	
March 20, 2013	W. Tonto Street, Phoenix	Presentation (S. Central)
	Phoenix Baptist Hospital	
March 21, 2013	2000 W. Bethany Home Road, Phoenix	Stakeholder Meeting (NWE)
	21st Century Family Medicine	
March 21, 2013	6707 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Phoenix Transportation and Infrastructure Committee 200 W.	
March 26, 2013	Washington Street, Phoenix	Public Committee Meeting (Title VI)(WPCG)
	Fountain Hills Community Center	
March 26, 2013	13001 N. La Montana Drive, Fountain Hills	Information Table (FH)
	South Mountain Target Area B	
March 27, 2013	4732 S. Central Avenue, Phoenix	Presentation (S. Central)
	Chris Ridge Retirement Community	
March 27, 2013	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	Richard E. Miller School	
March 27, 2013	2021 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Northwest Extension Community Advisory Board Training	
March 27, 2013	2101 W. Alice, Phoenix	Public Meeting (NWE)
	City of Mesa City Council 57 E.	
March 28, 2013	1st Street, Mesa	Public Committee Meeting (GRE)
	Central Mesa Community Advisory Board	
March 28, 2013	200 S. Center Street, Mesa	Public Meeting (CME)
	Bashas 16605 E.	
March 30, 2013	Palisades, Fountain Hills	Information Table (FH)
	Mesa Back Door Tour	
March 30, 2013	Mesa	Presentation (CME)
	LVA Urban Design Studio 120	
April 2, 2013	S. Ash Avenue, Tempe	Stakeholder Meeting (TS)
	Orangewood Elementary School	
April 2, 2013	7337 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Luxor Auto	
April 2, 2013	909 W. Main Street, Mesa	Stakeholder Meeting (CME)
	Washington Park Neighborhood Association 2240	
April 2, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Downtown Tempe Community Board	
April 3, 2013	310 S. Mill Avenue, Tempe	Presentation (TS)
	Adelante Healthcare	
April 3, 2013	1701 W. Main Street, Mesa	Stakeholder Meeting (CME)
	City of Glendale Citizens Transportation Oversight Commission	
April 4, 2013	Central/Camelback Park-and-Ride	Presentation (WPCG)

	Congressman Pastor Briefing	
April 4, 2013	411 N. Central Avenue, Phoenix	Presentation (S. Central)
	Northwest Extension B2D Meeting	
April 4, 2013	1919 W. Bethany Home Road, Phoenix	Public Meeting (NWE)
	City of Tempe Transportation Commission	
April 9, 2013	200 E. Fifth Street, Tempe	Public Committee Meeting (SSR)
	City of Phoenix Transportation and Infrastructure Committee 200 W.	
April 9, 2013	Washington Street, Phoenix	Public Committee Meeting (S. Central)
	Downtown Merchants' Meeting	
April 9, 2013	124 W. Main Street, Mesa	Presentation (CME)
	El Tango Shopping Center	
April 10, 2013	7835 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Broadway Community Outreach Group	
April 11, 2013	212 E. Alta Vista Road, Phoenix	Presentation (S. Central)
	Pyle Senior Center	
April 11, 2013	655 E. Southern Avenue, Tempe	Information Table (TS)
	Mesa Morning Live	
April 12, 2013	1640 Broadway Road, Mesa	Presentation (CME)
	Dan French 8902	
April 12, 2013	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Maya Linda Apartments	
April 12, 2013	8222 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
April 12, 2013	Mesa	Information Table (CME)
	Downtown Voices Coalition	
April 13, 2013	825 N. 6th Avenue, Phoenix	Presentation (S. Central)
	City of Glendale Family Bike Ride	
April 14, 2013	9802 N. 59th Avenue, Glendale	Information Table (WPCG)
	City of Mesa Transportation Advisory Board	
April 16, 2013	57 E. 1st Street, Mesa	Public Committee Meeting (CME)(GRE)
	South Central Community Working Group Meeting	
April 17, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Mesa Chamber of Commerce: Mesa Young Professionals 6542	
April 17, 2013	E. Baseline Road, Mesa	Presentation (CME)
	Bristol Court Condos	
April 19, 2013	19th Avenue and Augusta, Phoenix	Stakeholder Meeting (NWE)
	Celebrate Mesa in the Park	
April 20, 2013	600 E. Main Street, Mesa	Information Table (CME)
	Wells Fargo	
April 22, 2013	5815 N. 19th Avenue	Stakeholder Meeting (NWE)
	NEDCO	
April 23, 2013	100 N. Center Street, Mesa	Presentation (CME)
	Washington Elementary School District Business Advisory Team 4650 W.	
April 24, 2013	Sweetwater Avenue, Glendale	Presentation (NWE)
	Christown Spectrum Mall	
April 24, 2013	1703 W. Bethany Home Road, Phoenix	Stakeholder Meeting (NWE)
	GO Glendale Transportation Open House	
April 24, 2013	5750 W. Glenn Drive, Glendale	Information Table (WPCG)
	Central Mesa Community Advisory Board	
April 25, 2013	200 S. Center Street, Mesa	Public Meeting (CME)
	Northwest Extension METRO Max Rewards Launch	
April 26, 2013	19th Avenue and Northern, Phoenix	Public Meeting (NWE)
	Friendly House Market On the Move 802	
April 27, 2013	S. 1st Avenue, Phoenix	Information Table (S. Central)
	Chris-Town YMCA	
April 27, 2013	5517 N. 17th Avenue, Phoenix	Information Table (NWE)
	Marcos de Niza Tenant Council Meeting	
April 29, 2013	301 W. Pima Street, Phoenix	Presentation (S. Central)
	Route 685/563 Transit Advisory Group	
April 30, 2013	508 E. Monroe Avenue, Buckeye	Public Meeting (TAG)
	Casa del Pueblo	
May 1, 2013	7126 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Chris Ridge Retirement Community	
May 1, 2013	6250 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Phoenix Citizen's Transit Commission	
May 2, 2013	302 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central)(WPCG)(NWE II)
	Dan French 8902	
May 3, 2013	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Glendale Civic Center	
May 6, 2013	5750 W. Glenn Drive, Glendale	Public Meeting (WPCG)
	Washington Park Neighborhood Association 2240	
May 7, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Phoenix Community Alliance	
May 8, 2013	234 N. Central Avenue, Phoenix	Presentation (S. Central)
	Northwest Extension Community Advisory Board	
May 9, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Northwest Extension B2D Meeting	
May 9, 2013	6027 N 19th Avenue, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
May 10, 2013	Mesa	Information Table (CME)
	Central City Village Planning Committee	
May 13, 2013	619 N. 7th Avenue, Phoenix	Public Committee Meeting (S. Central)
	Mr. Tolasee	
May 14, 2013	7234 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	South Central Community Working Group Meeting	
May 15, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Grand Canyon University	
May 16, 2013	3300 W. Camelback Road, Phoenix	Public Meeting (WPCG)
	Royal Palms Mobile Home Park HOA	
May 18, 2013	2050 W. Dunlap Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Tempe Transportation Center	
May 21, 2013	200 E. Fifth Street, Tempe	Public Meeting (TS)
	Disability Empowerment Center	
May 21, 2013	5025 E. Washington Street, Phoenix	Public Meeting (SFS)

	Eastlake Community Center	
May 22, 2013	1549 E. Jefferson Street, Phoenix	Public Meeting (SFS)
	Isaac Middle School	
May 23, 2013	3402 W. McDowell Road, Phoenix	Public Meeting (CAP/I-10)
	Central Phoenix Brain Injury Support Group 350 W.	
May 23, 2013	Thomas Road, Phoenix	Presentation (SFS)
	Alhambra Village Planning Committee	
May 28, 2013	2240 W. Citrus Way, Phoenix	Public Committee Meeting (WPCG)(CAP/I-10)
	Eastlake Park Neighborhood Association	
May 28, 2013	1549 E. Jefferson Street, Phoenix	Presentation (SFS)
	Yerberia San Judas	
June 4, 2013	9024 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Washington Park Neighborhood Association 2240	
June 4, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Golden Gate	
June 4, 2013	1625 N. 39th Avenue, Phoenix	Presentation (CAP/I-10)
	Northwest Extension B2D Meeting	
June 5, 2013	2101 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	City of Glendale Neighborhood Commission 5850	
June 5, 2013	W. Glendale Avenue, Glendale	Public Committee Meeting (WPCG)
	North Mountain Business Alliance	
June 6, 2013	1951 W. North Lane, Phoenix	Presentation (NWE)
	Town of Queen Creek Ice Cream Social Event	
June 8, 2013	21802 S. Ellsworth Road, Queen Creek	Information Table (QC)
	Canyon Corridor Neighborhood Alliance	
June 11, 2013	3300 W. Camelback Road, Phoenix	Presentation (WPCG)
	Mesa Church of Christ	
June 13, 2013	1223 E. Dana Avenue, Mesa	Public Meeting (GRE)
	Pilgrim Rest Baptist Church 1401	
June 13, 2013	E. Jefferson Street, Phoenix	Stakeholder Meeting (S. Central)
	Northwest Extension Community Advisory Board	
June 13, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Stakeholder's Residence	
June 13, 2013	5538 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
June 14, 2013	Mesa	Information Table (CME)
	Juneteenth	
June 15, 2013	7050 S. 24th Street, Phoenix	Information Table (S. Central)
	St. Catherine of Sienna/St. Anthony's Churches	
June 17, 2013	Phoenix	Stakeholder Meeting (S. Central)
	City of Phoenix Economic Development	
	Management Committee	
June 17, 2013	200 W. Washington Street, Phoenix	Presentation (SFS)
	Audubon Society	
June 17, 2013	3131 S. Central Ave, Phoenix	Stakeholder Meeting (S. Central)
	Lowell Elementary School	
June 18, 2013	1121 S. 3rd Avenue, Phoenix	Stakeholder Meeting (S. Central)
	YMCA	
June 18, 2013	Phoenix	Stakeholder Meeting (S. Central)
	Tahitian Village	
June 19, 2013	6565 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	South Central Community Working Group Meeting	
June 19, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	City of Phoenix Transportation & Infrastructure	
	Council Subcommittee 200	
June 19, 2013	W. Washington Street, Phoenix	Public Committee Meeting (SFS)
	Northern Avenue Business Alliance	
June 26, 2013	2350 W. Northern Avenue, Phoenix	Presentation (NWE)
	City of Phoenix Mayor's Commission on Disability	
	Issues 150 S.	
June 26, 2013	12th Street, Phoenix	Public Committee Meeting (SFS)
	Central Mesa Community Advisory Board	
June 27, 2013	200 S. Center Street, Mesa	Public Meeting (CME)
	Downtown Phoenix Inc.	
June 28, 2013	101 N. 1st Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Celebration of Freedom Event	
June 29, 2013	Main Street, Mesa	Information Table (CME)
	Arizona Hispanic Chamber of Commerce	
July 1, 2013	225 E. Osborn Road, Phoenix	Stakeholder Meeting (S. Central)
	Washington Park Neighborhood Association 2240	
July 2, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	LVA Urban Design Studio 120	
July 9, 2013	S. Ash Avenue, Tempe	Stakeholder Meeting (TS)
	Maryvale Village Planning Committee	
July 10, 2013	7611 W. Thomas Road, Phoenix	Public Committee Meeting (WPCG)(CAP/I-10)
	Arizona State University	
July 10, 2013	1151 S. Forest Avenue, Tempe	Stakeholder Meeting (TS)
	Hope VI 1150	
July 11, 2013	S. 7th Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Northwest Extension Community Advisory Board	
July 11, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Northwest Extension B2D Meeting	
July 11, 2013	6027 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
July 12, 2013	Mesa	Information Table (CME)
	Friendly House	
July 16, 2013	802 S. First Avenue, Phoenix	Presentation (S. Central)
	Chris Ridge Retirement Community	
July 17, 2013	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	Chicanos Por La Causa	
July 17, 2013	1112 E. Buckeye Road, Phoenix	Presentation (S. Central)
	South Central Community Working Group Meeting	
July 17, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	UMOM 3333 E.	
July 18, 2013	Van Buren, Phoenix	Stakeholder Meeting (CAP/I-10)
	Historic Glendale Christmas in July	
July 20, 2013	5800 W. Glenn Drive, Glendale	Information Table (WPCG)
	Royal Palms Mobile Home Park HOA	
July 20, 2013	2050 W. Dunlap Avenue, Phoenix	Presentation (NWE)

	East Valley Institute of Technology Enrollment Day	
July 24, 2013	1601 W. Main Street, Mesa	Information Table (CME)
	Central Mesa Community Advisory Board	
July 25, 2013	200 S. Center Street, Mesa	Public Meeting (CME)_
	Christmas In July Event	
July 27, 2013	6805 N. 19th Avenue, Phoenix	Information Table (NWE)
	Back to School and Health Fair	
July 27, 2013	9617 N. Metro Parkway West, Phoenix	Information Table (NWE)
	Washington Elementary School District	
July 30, 2013	4650 W. Sweetwater Avenue, Glendale	Stakeholder Meeting (NWE)
	Back to School Celebration	
August 2, 2013	9511 N. 16th Avenue, Phoenix	Information Table (NWE)
August 6, 2013	Route 685/563 Transit Advisory Group	Webinar (TAG)
	Washington Park Neighborhood Association 2240	
August 6, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Dunlap Automotive	
August 8, 2013	1902 W. Dunlap, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension Community Advisory Board	
August 8, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Orangewood Elementary School Back to School Open House	
August 8, 2013	7337 N. 19th Avenue, Phoenix	Information Table (NWE)
	Kiwanis Meeting	
August 8, 2013	802 E. Vogel Avenue, Phoenix	Stakeholder Meeting (NWE)
	Dunlap Automotive	
August 9, 2013	1902 W. Dunlap, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
August 9, 2013	Mesa	Information Table (CME)
	Cardinals Academy Business Meeting	
August 14, 2013	7835 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Valley Eye Care	
August 15, 2013	6701 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Scottsdale Transportation Commission 3939	
August 15, 2013	N. Drinkwater Boulevard, Scottsdale	Public Committee Meeting (SSR)
	Royal Palms Baptist Church Back to School Splash Event 8802	
August 18, 2013	N. 19th Avenue, Phoenix	Information Table (NWE)
	City of Tempe Mayor's Community Roundtable	
August 20, 2013	200 E. Fifth Street, Tempe	Presentation (TS)
	Estrella Village Planning Committee	
August 20, 2013	1617 S. 67th Avenue, Phoenix	Presentation (CAP/I-10)
	South Central Community Working Group Meeting	
August 21, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Chris Ridge Retirement Community	
August 21, 2013	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	El Monte Plaza	
August 28, 2013	8841 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Mesa Chamber of Commerce - Fiesta Network Referral Group	
August 28, 2013	1601 W. Main Street, Mesa	Presentation (CME)
	Cactus Park Community Alliance Meeting	
August 28, 2013	1915 W. Thunderbird Road, Phoenix	Presentation (NWE)
	Glendale Rotary Club 8066	
August 29, 2013	N. 49th Avenue, Glendale	Presentation (WPCG)
	Arizona State University	
August 29, 2013	1151 S. Forest Avenue, Tempe	Stakeholder Meeting (TS)
	Washington Park Neighborhood Association 2240	
September 3, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Glendale West Rotary Club	
September 4, 2013	9425 W. Coyotes Boulevard, Glendale	Presentation (WPCG)
	City of Tempe Chamber of Commerce	
September 4, 2013	909 E. Apache Boulevard, Tempe	Presentation (TS)
	Sunnyslope Kiwanis Meeting	
September 5, 2013	35 W. Dunlap Avenue, Phoenix	Presentation (NWE)
	City of Glendale Planning Commission Workshop	
September 5, 2013	5850 W. Glendale Avenue, Glendale	Presentation (WPCG)
	Old Navy Back to School Safety Event	
September 7, 2013	5000 S. Arizona Mills Circle, Tempe	Information Table (TS)
	Glen Canyon Vista Community Alliance Meeting	
September 10, 2013	27th Avenue and Belmont Avenue, Phoenix	Presentation (NWE)
	Christown Spectrum Mall	
September 12, 2013	1703 W. Bethany Home Road, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension Community Advisory Board	
September 12, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
September 13, 2013	Mesa	Information Table (CME)
	City of Glendale Downtown Merchants Meeting	
September 17, 2013	5735 W. Glendale Avenue, Glendale	Presentation (WPCG)
	Heart of Glendale Neighborhood Group Leader	
September 18, 2013	4915 W. Glendale Avenue, Glendale	Stakeholder Meeting (WPCG)
	University Park Neighborhood Association	
September 18, 2013	23 E. 15th Street, Tempe	Presentation (TS)
	South Central Community Working Group Meeting	
September 18, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Manzanita Block Watch Meeting	
September 19, 2013	8430 N. 39th Avenue, Phoenix	Presentation (NWE)
	Town of Fountain Hills Council Meeting	
September 19, 2013	16705 E. Avenue Of The Fountains, Fountain Hills	Presentation (FH)
	Stakeholder Meeting 101 N.	
September 24, 2013	1st Avenue, Phoenix	Stakeholder Meeting (CAP/I-10)
	Chris Ridge Retirement Community	
September 25, 2013	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	Central Mesa Community Advisory Board 200 S.	
September 26, 2013	Center Street, Mesa	Public Meeting (CME)
	The Surgical Hospital	
September 26, 2013	6501 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)

	Washington Park Neighborhood Association 2240	
September 27, 2013	W. Citrus Way, Phoenix	Stakeholder Meeting (NWE)
	Orangewood Elementary PTA Meeting	
October 1, 2013	7337 N. 19th Avenue, Phoenix	Presentation (WPCG)
	Washington Park Neighborhood Association 2240	
October 1, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Phoenix Day School for the Deaf	
October 2, 2013	7654 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Phoenix Citizen's Transit Commission	
October 3, 2013	302 N. 1st Avenue, Phoenix	Public Committee Meeting (SFS)
	Washington Park Neighborhood Association 2240	
October 4, 2013	W. Citrus Way, Phoenix	Stakeholder Meeting (NWE)
	Public Safety Day	
October 5, 2013	2840 E. Main Street, Mesa	Information Table (GRE)
	City of Glendale Touch A Truck Event	
October 5, 2013	6751 N. Sunset Boulevard, Glendale	Information Table (WPCG)
	City of Phoenix G.A.I.N Kick Off Event	
October 5, 2013	9617 N. Metro Parkway West, Phoenix	Information Table (NWE)
	Tempe Tardeada	
October 6, 2013	3500 S. Rural Road, Tempe	Information Table (TS)
	Jokake Real Estate 5013	
October 9, 2013	E. Washington Street, Phoenix	Stakeholder Meeting (SFS)
	Councilmember Williams Briefing	
October 10, 2013	Phoenix	Presentation (NWE II)(SO. C)
	Northwest Extension Community Advisory Board	
October 10, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Town of Queen Creek Transportation Advisory Committee	
October 10, 2013	22358 S. Ellsworth Road, Queen Creek	Presentation (QC)
	2nd Friday Night Out Event	
October 11, 2013	Mesa	Information Table (CME)
	Canyon Corridor Neighborhood Alliance	
October 12, 2013	3402 W. Campbell Avenue, Phoenix	Information Table (WPCG)
	East Valley Institute of Technology Board Meeting	
October 14, 2013	1601 W. Main Street, Mesa	Presentation (CME)
October 15, 2013	City of Phoenix Councilmember Briefings Phoenix	Presentation (WPCG)(S. Central)(CAP/I-10)(NWE II)
	City of Glendale City Council Workshop	
October 15, 2013	5850 W. Glendale Avenue, Glendale	Presentation (WPCG)
	South Mountain Community Center 212	
October 15, 2013	E. Alta Vista, Phoenix	Public Meeting (S. Central)
	Washington Park Neighborhood Association 2240	
October 15, 2013	W. Citrus Way, Phoenix	Stakeholder Meeting (NWE)
	Washington Elementary School District Business Advisory Team 4650 W.	
October 16, 2013	Sweetwater Avenue, Glendale	Presentation (NWE)
	West Phoenix Revitalization Community Advisory Board 3300 W.	
October 16, 2013	Camelback Road, Phoenix	Presentation (WPCG)(CAP/I-10)
	Baptist Medical Center	
October 16, 2013	6036 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	West Phoenix Revitalization Community Advisory Board 3300	
October 17, 2013	W. Camelback Road, Phoenix	Presentation (CAP/I-10)(WPCG)
	North Mountain Business Alliance Meeting 1951	
October 17, 2013	W. North Lane, Phoenix	Presentation (NWE)
	Arizona State University Homecoming	
October 19, 2013	University Drive, Tempe	Information Table (TS)
	West Plaza Neighborhood Association	
October 19, 2013	6830 N. 39th Avenue, Phoenix	Information Table (WPCG)
	Ocotillo Glen Neighborhood Association	
October 19, 2013	3225 W. Ocotillo Road, Phoenix	Information Table (WPCG)
	South Central GAIN Event	
October 19, 2013	1239 S. 5th Avenue, Phoenix	Information Table (S. Central)
	Washington Park Neighborhood Association GAIN Event	
October 19, 2013	2240 W. Citrus Way, Phoenix	Information Table (NWE)
	Chris Ridge Retirement Community	
October 19, 2013	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	Neighborhood Meeting with Councilman Valenzuela	
October 22, 2013	7337 N. 19th Avenue, Phoenix	Information Table (NWE)
	Downtown Mesa Association Board of Directors	
October 23, 2013	100 N. Center Street, Mesa	Presentation (CME)
	City of Glendale Women's Club	
October 23, 2013	7032 N. 56th Avenue, Glendale	Presentation (WPCG)
	Grand Canyon University Annual Fall Festival 3300	
October 24, 2013	W. Camelback Road, Phoenix	Information Table (WPCG)
	Carlyle Development Group	
October 24, 2013	101 N. 1st Avenue, Phoenix	Stakeholder Meeting (NWE II)
	Academia Del Pueblo	
October 24, 2013	201 E. Durango, Phoenix	Public Meeting (S. Central)
	Central Mesa Community Advisory Board 200	
October 24, 2013	S. Center Street, Mesa	Public Meeting (CME)
	Chamber 201	
October 25, 2013	4136 E. McDowell Road, Mesa	Information Table (CME)
	City of Glendale Police Department GAIN Events	
October 26, 2013	Glendale	Information (WPCG)
	City of Glendale Council Chambers 5850	
October 28, 2013	W. Glendale Avenue, Glendale	Public Meeting (WPCG)
	Route 685/563 Transit Advisory Group	
October 29, 2013	195 N. 145th Avenue, Goodyear	Public Meeting (TAG)
	Alhambra High School Library	
October 29, 2013	3839 W. Camelback Road, Phoenix	Public Meeting (WPCG)
	Richard E. Miller Fall Festival Event	
October 30, 2013	2021 W. Alice, Phoenix	Information Table (NWE)
	Twillingate Apartments	
October 31, 2013	7141 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Royal Palms Baptist Church Rock the Block Event	
October 31, 2013	8802 N. 19th Avenue, Phoenix	Information Table (NWE)

	South Mountain Festival of Thanksgiving and Parade 212 E.	
November 2, 2013	Alta Vista Road, Phoenix	Information Table (S. Central)
	Orangewood Elementary School	
November 4, 2013	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central City Village Planning Committee	
November 4, 2013	619 N. 7th Avenue, Phoenix	Public Committee Meeting (S. Central)
	Washington Park Neighborhood Association 2240	
November 5, 2013	W. Citrus Way, Phoenix	Presentation (NWE)
	Mesa Arts Center 1	
November 5, 2013	E. Main Street, Mesa	Public Meeting (CME)
	City of Phoenix Council Meeting 200	
November 6, 2013	W. Jefferson Street, Phoenix	Public Committee Meeting (SFS)
	City of Glendale Citizens Transportation Oversight Commission 5850 W.	
November 7, 2013	Glendale Avenue, Glendale	Public Committee Meeting (WPCG)
	City of Phoenix Citizen's Transit Commission	
November 7, 2013	302 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central)
	Faith United Methodist Church	
November 7, 2013	8640 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
November 8, 2013	Mesa	Information Table (CME)
	Downtown Voices Coalition	
November 9, 2013	825 N. 6th Avenue, Phoenix	Presentation (S. Central)
	Glen Canyon Vista Neighborhood Association 27th	
November 12, 2013	Avenue and Belmont, Phoenix	Presentation (WPCG)
	South Mountain Village Planning Committee 7050	
November 12, 2013	S. 24th Street, Phoenix	Public Committee Meeting (S. Central)
	City of Glendale Women's Club	
November 13, 2013	7032 N. 56th Avenue, Glendale	Presentation (WPCG)
	Northwest Extension B2D Chair Meeting	
November 13, 2013	6027 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Villa Ventura Apartments	
November 13, 2013	7125 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Hope VI/PRC Community Action Team Meeting	
November 14, 2013	1150 S. 7th Avenue, Phoenix	Presentation (S. Central)
	Northwest Extension Community Advisory Board	
November 14, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	NFL Yet Academy	
November 15, 2013	4848 S. 2nd St, Phoenix	Stakeholder Meeting (S. Central)
	Richard E. Miller Elementary School	
November 15, 2013	2021 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Health, Wellness & Safety Fair	
November 16, 2013	6503 N. 21st Avenue, Phoenix	Information Table (NWE)
	Disability Empowerment Center	
November 18, 2013	5025 E. Washington Street, Phoenix	Public Meeting (SFS)
	Eastlake Community Center	
November 19, 2013	1549 E. Jefferson Street, Phoenix	Public Meeting (SFS)
	City of Phoenix Transportation and Infrastructure Committee 200 W.	
November 19, 2013	Washington Street, Phoenix	Public Committee Meeting (S. Central)
	After 5 Mixer	
November 19, 2013	2233 W. Dunlap Avenue, Phoenix	Information Table (NWE)
	Business Outreach Meeting	
November 20, 2013	4732 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Villa Ventura Apartments	
November 20, 2013	7125 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Open Door Fellowship Church	
November 21, 2013	8301 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	First Southern Baptist Church of Glendale Seniors Group 10250 N.	
November 22, 2013	59th Avenue, Glendale	Presentation (WPCG)
	Richard E. Miller School	
November 22, 2013	2021 E. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Phoenix Community Alliance	
November 25, 2013	101 N. 1st Avenue, Phoenix	Stakeholder Meeting (SFS)
	Orangewood Elementary School Muffins for Mom	
December 3, 2013	7337 N. 19th Avenue, Phoenix	Presentation (NWE)
	Orangewood Elementary School PTA Meeting	
December 3, 2013	7337 N. 19th Avenue, Phoenix	Presentation (NWE)
	South Mountain Target Area B	
December 4, 2013	4732 S. Central Avenue, Phoenix	Presentation (S. Central)
	Metro Business Alliance Leaders	
December 5, 2013	9645 N. Black Canyon Highway, Phoenix	Stakeholder Meeting (NWE II)
	Metrocenter Property Management	
December 5, 2013	9617 N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	Montessori Center School	
December 5, 2013	8625 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board 200	
December 5, 2013	S. Center Street, Mesa	Public Meeting (CME)
	City of Glendale Spirit of Giving Event	
December 6, 2013	7010 N. 58th Avenue, Glendale	Information Table (WPCG)
	City of Glendale Spirit of Giving Event	
December 7, 2013	7010 N. 58th Avenue, Glendale	Information Table (WPCG)
	Grant Park Holiday Celebration 331 W.	
December 7, 2013	Grant Street, Phoenix	Information Table (S. Central)
	Eastlake Garfield Steering Committee	
December 10, 2013	1549 E. Jefferson Street, Phoenix	Presentation (SFS)
	Maryland Elementary School	
December 10, 2013	6503 N. 21st Avenue, Phoenix	Stakeholder Meeting (NWE)
	South Mountain Village Planning Committee	
December 10, 2013	7050 S. 24th Street, Phoenix	Presentation (S. Central)
	City of Phoenix Council Meeting 200	
December 10, 2013	W. Jefferson Street, Phoenix	Public Committee Meeting (S. Central)
	Northwest Extension Community Advisory Board	
December 12, 2013	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
December 13, 2013	Mesa	Information Table (CME)
	Washington Park Neighborhood Association Holiday Pot Luck	
December 13, 2013	1825 W. Marlette Avenue, Phoenix	Information Table (NWE)

	South Mountain/Laveen Fun Fest	
December 14, 2013	Phoenix	Information Table (S. Central)
	Phoenix Day School for the Deaf	
December 16, 2013	7654 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Open Door Fellowship Church	
December 17, 2013	8301 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Richard E. Miller Elementary School Sights & Sounds of the Season Holiday Event	
December 17, 2013	2021 W. Alice Avenue, Phoenix	Information Table (NWE)
	Northwest Extension B2D Mixer	
December 19, 2013	8034 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Metro Business Alliance	
January 6, 2014	10220 N. Metro Parkway East, Phoenix	Presentation (NWE II)
	Metro Block Watch	
January 6, 2014	10220 N. Metro Parkway East, Phoenix	Presentation (NWE II)
	North Mountain Business Alliance	
January 7, 2014	1951 W. North Lane, Phoenix	Presentation (NWE II)
	City of Phoenix Citizen's Transit Commission	
January 9, 2014	302 N. 1st Avenue, Phoenix	Public Committee Meeting (SFS)
	Northwest Extension Community Advisory Board	
January 9, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Northwest Extension B2D Meeting 6027	
January 9, 2014	N. 19th Avenue, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
January 10, 2013	Mesa	Information Table (CME)
	City of Phoenix North Mountain Redevelopment Area Property Owner Meeting	
January 14, 2014	10220 N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	Richard E. Miller Elementary School Site Council Meeting 2021 W.	
January 14, 2013	Alice Avenue, Phoenix	Presentation (NWE)
	West Phoenix Revitalization Community Advisory Board 4420 N.	
January 16, 2014	51st Avenue, Phoenix	Presentation (WPCG)
	North Phoenix Kiwanis Club	
January 21, 2013	8525 N. Central Avenue, Phoenix	Presentation (NWE)
	South Mountain Village Block Watch	
January 21, 2014	1111 W. Dobbins Road, Phoenix	Presentation (S. Central)
	Royal Palms Baptist Church Women's Expo	
January 25, 2014	8802 N. 19th Avenue, Phoenix	Information Table (NWE)
	Washington Elementary School District Business Advisory Team 4650 W.	
January 29, 2014	Sweetwater Avenue, Glendale	Presentation (NWE)
	Councilmember Pastor Briefing	
January 29, 2014	Phoenix	Presentation (WPCG)(CAP/I-10)(S. Central)(NWE II)(SFS)
	Metro Plaza Hotel	
January 29, 2014	10220 N. Metro Parkway East, Phoenix	Public Meeting (NWE II)
	Washington Park Neighborhood Association 2240	
February 4, 2014	W. Citrus Way, Phoenix	Presentation (NWE)
	Sherwood Plaza	
February 6, 2014	101 N. 1st Avenue, Phoenix	Stakeholder Meeting (GRE)
	Northwest Extension B2D Leadership Meeting	
February 6, 2014	2000 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Rail Weld Celebration Event Main	
February 8, 2014	Street, Mesa	Public Meeting (CME)
	Love Our Community Celebration	
February 9, 2014	8301 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Heart of Glendale Neighborhood Group Leader	
February 12, 2014	4915 W. Glendale Avenue, Glendale	Stakeholder Meeting (WPCG)
	Councilmember Valenzuela Briefing	
February 12, 2014	Phoenix	Presentation (WPCG)(NWE II)
	Beatitudes Health Fair	
February 13, 2014	1601 W. Glendale Avenue, Phoenix	Information Table (NWE)
	Northwest Extension Community Advisory Board	
February 13, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Northwest Extension B2D Meeting	
February 13, 2014	6027 N. 19th Avenue, Phoenix	Public Meeting (NWE)
	Town of Queen Creek Transportation Advisory Committee	
February 13, 2014	22358 S. Ellsworth Road, Queen Creek	Public Committee Meeting (QC)
	Royal Palms Mobile Home Park HOA	
February 15, 2014	2050 W. Dunlap Avenue, Phoenix	Presentation (NWE)
	Downtown Mesa Association Board of Directors	
February 19, 2014	100 N. Center Street, Mesa	Presentation (CME)
	South Central HIA	
February 20, 2014	1300 S. 10th Street, Phoenix	Presentation (S. Central)
	Washington High School Student Council Meeting	
February 21, 2014	2217 W. Glendale, Phoenix	Stakeholder Meeting (NWE)
	Chris Ridge Retirement Community	
February 24, 2014	6250 N. 19th Avenue, Phoenix	Presentation (NWE)
	Rio Salado RDA Meeting with Property Owners	
February 24, 2014	3131 S. Central Avenue, Phoenix	Presentation (S. Central)
	Alhambra Village Planning Committee	
February 25, 2014	2240 W. Citrus Way, Phoenix	Presentation (NWE)(NWE II)
	Royal Palms Neighborhood Association	
February 25, 2014	1548 W. Northern Avenue, Phoenix	Presentation (NWE)
	Cubs Spring Training Game	
February 27, 2014	2330 W. Rio Salado, Mesa	Information Table (CME)
	Central Mesa Community Advisory Board 200	
February 27, 2014	S. Center Street, Mesa	Public Meeting (CME)
	City of Glendale Centerline Business Alliance 5704	
February 27, 2014	W. Glenn Drive, Glendale	Presentation (WPCG)
	Heart of Glendale Event	
March 1, 2014	5730 W. Myrtle Avenue, Glendale	Information Table (WPCG)
	Southeast Valley Transit Study Project Advisory Committee Meeting	
March 3, 2014	4600 E. Washington Street, Phoenix	Presentation (SEVTS)
	City of Mesa Economic Development Advisory Board	
March 4, 2014	57 E. 1st Street, Mesa	Presentation (CME)(GRE)

	Washington Park Neighborhood Association 2240	
March 4, 2014	W. Citrus Way, Phoenix	Presentation (NWE)
	Washington High School Career Day 2217	
March 5, 2014	W. Glendale Avenue, Phoenix	Presentation (NWE)
	Northwest Extension B2D Leadership Meeting	
March 6, 2014	2000 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	FOX 10 511	
March 6, 2014	W. Adams Street, Phoenix	Stakeholder Meeting (CAP/I-10)
	Richard E. Miller Elementary School Literacy Night	
	Event 2021 W.	
March 6, 2014	Alice Avenue, Phoenix	Presentation (NWE)
	Comerica Theatre 400	
March 11, 2014	W. Washington Street, Phoenix	Stakeholder Meeting (CAP/I-10)
	Northwest Extension B2D Meeting 2101 W.	
March 12, 2014	Alice Avenue, Phoenix	Public Meeting (NWE)
	Northwest Extension Community Advisory Board	
March 12, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Cubs Spring Training Game	
March 14, 2014	2330 W. Rio Salado, Mesa	Information Table (CME)
	Glendale Neighborhood Alliance	
March 15, 2014	7102 N. 58th Drive, Glendale	Presentation (WPCG)
	North Mountain Village Planning Committee 9202	
March 19, 2014	N. 2nd Street, Phoenix	Presentation (NWE II)
	South Central HIA Insight Committee 1300	
March 20, 2014	S. 10th Street, Phoenix	Stakeholder Meeting (S. Central)
	Loud Rumor	
March 27, 2014	1820 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
March 27, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Glendale Cactus District Open House 5127	
March 27, 2014	W. Northern Avenue, Glendale	Information Table (WPCG)
	West Plaza Neighborhood Association	
March 27, 2014	6331 N. 39th Avenue, Phoenix	Presentation (WPCG)
	Falcon Field Airport Open House	
March 29, 2014	4636 E. Fighter Aces Drive, Mesa	Information Table (CME)(GRE)
	Central City South Community Connection Fair 840	
March 29, 2014	W. Tonto Street, Phoenix	Information Table (S. Central)
	Washington Park Neighborhood Association 2240	
April 1, 2014	W. Citrus Way, Phoenix	Presentation (NWE)
	Northwest Extension B2D Leadership Meeting	
April 3, 2014	2000 W. Northern Avenue, Phoenix	Public Meeting (NWE)
	Ocotillo District Open House	
April 3, 2014	6905 W. Maryland Avenue, Glendale	Information Table (WPCG)
	Town of Fountain Hills Council Meeting	
April 3, 2014	16705 E. Avenue Of The Fountains, Fountain Hills	Public Committee Meeting (FH)
	CycloMesa: Unchained	
April 5, 2014	263 N. Center Street, Mesa	Information Table (CME)
	City of Phoenix Transportation and Infrastructure	
	Committee 200 W.	
April 8, 2014	Washington Street, Phoenix	Public Committee Meeting (NWE) (NWE II)
	City of Phoenix Council Policy Session	
April 8, 2014	200 W. Jefferson Street, Phoenix	Public Committee Meeting (S. Central)
	Northwest Extension B2D Meeting	
April 10, 2014	2101 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Northwest Extension Community Advisory Board	
April 10, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Glendale Family Bike Ride 9802 N.	
April 13, 2014	59th Avenue, Glendale	Information Table (WPCG)
	Town of Queen Creek Council Meeting	
April 16, 2014	22350 S. Ellsworth Road, Queen Creek	Public Committee Meeting (SEVTS)
	Glendale Transportation Open House	
April 23, 2014	5750 W. Glenn Drive, Glendale	Information Table (WPCG)
	South Central HIA Insight Committee 1300	
April 24, 2014	S. 10th Street, Phoenix	Stakeholder Meeting (S. Central)
	North Mountain Business Alliance 1951	
April 24, 2014	W. North Lane, Phoenix	Presentation (WPCG)
	Central Mesa Community Advisory Board	
April 24, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Town of Guadalupe Council Meeting 9241	
April 24, 2014	S. Avenida del Yaqui, Guadalupe	Public Committee Meeting (SEVTS)
	Christown YMCA Healthy Kids Day 5517	
April 26, 2014	N. 17th Avenue, Phoenix	Information Table (NWE)
	Art & Smart Events 8034 N.	
April 26, 2014	19th Avenue, Phoenix	Information Table (NWE)
	Celebrate Mesa	
April 26, 2014	526 E. Main Street, Mesa	Information Table (CME)
	Route 563/685 Transit Advisory Group	
April 29, 2014	303 E. Pima Street, Gila Bend	Public Meeting (TAG)
	Northwest Extension B2D Leadership Meeting	
May 1, 2014	2000 W. Northern Avenue, Phoenix	Public Meeting (NWE)
	Glendale City Council Workshop 5850	
May 6, 2014	W. Glendale Avenue, Glendale	Presentation (WPCG)
	Washington Park Neighborhood Association 2240	
May 6, 2014	W. Citrus Way, Phoenix	Presentation (NWE)
	Northwest Extension B2D Meeting	
May 8, 2014	2101 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Arizona Bridge to Independent Living (ABIL) 5025	
May 8, 2014	E. Washington Street, Phoenix	Stakeholder Meeting (SFS)
	Northwest Extension Community Advisory Board	
May 8, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Town of Queen Creek Council Meeting	
May 8, 2014	22350 S. Ellsworth Road, Queen Creek	Public Committee Meeting (QC)
	Washington Park Neighborhood Association Project	
	Tour 2240 W.	
May 9, 2014	Citrus Way, Phoenix	Stakeholder Meeting (NWE)
	2nd Friday Night Out Event	
May 9, 2014	Mesa	Information Table (CME)
	City of Tempe Transporation Commission	
May 13, 2014	200 E. Fifth Street, Tempe	Public Committee Meeting (SEVTS)
	Project Advisory Committee	
May 13, 2014	4600 E. Washington Street, Phoenix	Stakeholder Meeting (SEVTS)

	Queen Creek Chamber of Commerce	
May 13, 2014	21802 S. Ellsworth Road, Queen Creek	Information Table (SEVTS)
	Open Door Fellowship Church	
May 14, 2014	8301 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	South Central HIA Insight Committee 1300	
May 15, 2014	S. 10th Street, Phoenix	Stakeholder Meeting (S. Central)
	Washington High School	
May 20, 2014	2217 W. Glendale Avenue, Phoenix	Information Table (NWE)
	Disability Empowerment Center	
May 20, 2014	5025 E. Washington Street, Phoenix	Public Meeting (SFS)
	City of Mesa Transportation Advisory Board	
May 20, 2014	57 E. 1st Street, Mesa	Public Committee Meeting (SEVTS)
	Eastlake Community Center	
May 22, 2014	1549 E. Jefferson Street, Phoenix	Public Meeting (SFS)
	City of Glendale Council Chambers	
May 22, 2014	5850 W. Glendale Avenue, Glendale	Public Meeting (WPCG)
	Grand Canyon University	
May 28, 2014	3300 W. Camelback Road, Phoenix	Public Meeting (WPCG)
	City of Tempe Master Plan Public Meeting	
May 29, 2014	809 E. Southern Avenue, Tempe	Public Meeting (SEVTS)
	Phoenix Pediatric Dental 6750	
May 29, 2014	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Tempe Master Plan Public Meeting	
May 31, 2014	200 E. Fifth Street, Tempe	Public Meeting (SEVTS)
	Northwest Extension B2D Leadership Meeting 2000	
June 3, 2014	W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Bill Luke Jeep Dodge Ram	
June 3, 2014	2425 W. Camelback Road, Phoenix	Stakeholder Meeting (WPCG)
	Town of Queen Creek Ice Cream Social Event	
June 7, 2014	21740 S. Ellsworth Road, Queen Creek	Information Table (SEVTS)
	City of Tempe Transportation Commission	
June 10, 2014	200 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	Northwest Extension B2D Meeting	
June 12, 2014	2101 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Central City South Business Network Brunch 1150	
June 12, 2014	S. 7th Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Northwest Extension Community Advisory Board	
June 12, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	City of Tempe Council Meeting	
June 12, 2014	31 E. 5th Street, Tempe	Public Committee Meeting (TS)
	2nd Friday Night Out Event	
June 13, 2014	Mesa	Information Table (CME)
	South Central HIA Insight Committee 1300	
June 19, 2014	S. 10th Street, Phoenix	Stakeholder Meeting (S. Central)
	Glendale Surviving the Summer Safety Event 6770	
June 20, 2014	N. Sunrise Boulevard, Glendale	Information Table (WPCG)
	City of Tempe Mayor's Community Roundtable 31	
June 24, 2014	E. Fifth Street, Tempe	Presentation (TS)
	Mayor's Commission on Disability Issues	
June 25, 2014	150 S. 12th Street, Phoenix	Public Committee Meeting (SFS)
	Central Mesa Community Advisory Board	
June 26, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Glendale Chamber of Commerce	
June 26, 2014	5800 W. Glenn Drive, Glendale	Presentation (WPCG)
	Art & Smart Events 8034 N.	
June 28, 2014	19th Avenue, Phoenix	Information Table (NWE)
	Downtown Tempe Community Board	
July 2, 2014	310 S. Mill Avenue, Tempe	Presentation (TS)
July 4, 2014	Royal Palm 4th of July Community Event Phoenix	Information Table (NWE)
	Arizona Celebration of Freedom 263	
July 4, 2014	N. Center Street, Mesa	Information Table (CME)
	Northwest Extension Community Advisory Board	
July 10, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Northwest Extension B2D Leadership Meeting	
July 10, 2014	2000 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Mesa Morning Live	
July 11, 2014	1640 Broadway Road, Mesa	Presentation (CME)
	2nd Friday Night Out Event	
July 11, 2014	Mesa	Information Table (CME)
	Northwest Extension First Track Celebration	
July 12, 2014	Phoenix	Information Table (NWE)
	African American Advisory Council	
July 16, 2014	1375 E. Broadway Road, Phoenix	Public Committee Meeting (S. Central)
	Villa Ventura Apartments	
July 23, 2014	7125 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension B2D Leadership Meeting	
July 24, 2014	2000 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
July 24, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Salt and Light Church 6150 N.	
August 6, 2014	19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Glendale General Plan Steering Committee	
August 6, 2014	5850 W. Glendale Avenue, Glendale	Public Committee Meeting (WPCG)
	Tempe/ASU Coordination Meeting	
August 7, 2014	200 E. 5th Street, Tempe	Presentation (TS)
	2nd Friday Night Out Event	
August 8, 2014	Mesa	Information Table (CME)
	Adelante Healthcare Back to School Bash	
August 9, 2014	1701 W. Main Street, Mesa	Information Table (CME)
	Canyon Corridor Neighborhood Alliance	
August 12, 2014	3022 W. Campbell Avenue, Phoenix	Presentation (WPCG)
	Northwest Extension Community Advisory Board	
August 14, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	North Glen Square Neighborhood Association 3101	
August 14, 2014	W. Glendale Avenue, Phoenix	Presentation (WPCG)
	Project Advisory Committee 101	
August 21, 2014	N. 1st Avenue, Phoenix	Stakeholder Meeting (SEVTS)
	Orangewood Elementary School PTA Event 7337	
August 22, 2014	N. 19th Avenue, Phoenix	Information Table (NWE)

	Northwest Extension B2D Leadership Meeting	
August 25, 2014	2000 W. Northern Avenue, Phoenix	Stakeholder Meeting (NWE)
	Chase Bank 6030	
August 28, 2014	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
August 28, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Washington Park Neighborhood Association 2240	
September 2, 2014	W. Citrus Way, Phoenix	Presentation (NWE)
	Disability Empowerment Center	
September 3, 2014	5025 E. Washington Street, Phoenix	Public Meeting (SFS)
	Metro Center's Walk and Talk Celebration	
September 4, 2014	9617 N. Metro Parkway, Phoenix	Information Table (NWE) (NWE II)
	Chase Bank 7801	
September 4, 2014	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Glendale Planning Commission	
September 4, 2014	5850 W. Glendale Avenue, Glendale	Public Committee Meeting (WPCG)
	City of Phoenix Transportation & Infrastructure	
	Council Subcommittee 200	
September 9, 2014	W. Washington Street, Phoenix	Public Committee Meeting (SFS)
	Maryvale Village Planning Committee	
September 10, 2014	7611 W. Thomas Road, Phoenix	Public Committee Meeting (WPCG)
	State Avenue Block Watch	
September 10, 2014	7305 N. 16th Avenue, Phoenix	Presentation (NWE)
	Orangewood Elementary School PTA Event 7337	
September 11, 2014	N. 19th Avenue, Phoenix	Information Table (NWE)
	Northwest Extension B2D Merchants' Meeting	
September 11, 2014	2101 W. Alice Avenue, Phoenix	Public Meeting (NWE)
	Northwest Extension Community Advisory Board	
September 11, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	United Neighbors Association	
September 11, 2014	7502 N. 39th Avenue, Phoenix	Presentation (WPCG)
	2nd Friday Night Out Event	
September 12, 2014	Mesa	Information Table (CME)
	Sears 9617	
September 17, 2014	N. Metro Parkway, Phoenix	Stakeholder Meeting (NWE) (NWE II)
	Open Door Fellowship Church	
September 24, 2014	8301 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
September 25, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Carlyle Development Group	
September 25, 2014	101 N. 1st Avenue, Phoenix	Stakeholder Meeting (NWE II)
	City of Glendale Historic Preservation Commission	
September 25, 2014	5850 W. Glendale Avenue, Glendale	Presentation (WPCG)
	Phoenix Day School for the Deaf Event	
September 26, 2014	7654 N. 19th Avenue, Phoenix	Information Table (NWE)
	Bristol Court Condos	
September 30, 2014	1814 W. Frier Drive, Phoenix	Stakeholder Meeting (NWE)
	Villa Ventura Apartments 7125	
October 1, 2014	N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Downtown Tempe Quarterly Merchants Meeting	
October 1, 2014	398 S. Mill Avenue, Phoenix	Presentation (TS)
	City of Phoenix Citizen's Transit Commission	
October 2, 2014	302 N. 1st Avenue, Phoenix	Public Committee Meeting (SFS)
	City of Glendale Citizens Transportation Oversight Commission	
October 2, 2014	5850 W. Glendale Avenue, Glendale	Presentation (WPCG)
	City of Phoenix 2014 GAIN Event	
October 4, 2014	9617 N. Metro Parkway, Phoenix	Information Table (NWE)
	Best of Phoenix A'Fare 1221	
October 4, 2014	N. Central Avenue, Phoenix	Information Table (NWE)
	Washington Park Neighborhood Association 2240	
October 7, 2014	W. Citrus Way, Phoenix	Presentation (NWE) (NWE II) (WPCG)
	Royal Palms Neighborhood Association	
October 7, 2014	1548 W. Northern Avenue, Phoenix	Presentation (NWE)
	Ocotillo District Meeting	
October 8, 2014	5850 W. Glendale Avenue, Glendale	Presentation (WPCG)
	Northwest Extension B2D Safety Meeting	
October 9, 2014	2101 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension B2D Leadership Meeting	
October 9, 2014	2101 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension Community Advisory Board	
October 9, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
October 10, 2014	Mesa	Information Table (CME)
	Pete's Fish and Chips 3920 S.	
October 14, 2014	Central Avenue, Phoenix	Stakeholder Meeting (S. Central)
	Open Door Fellowship Church	
October 15, 2014	8301 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Pawn 1st	
October 16, 2014	9825 N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	Ottawa University	
October 16, 2014	9414 N. 25th Avenue, Phoenix	Stakeholder Meeting (NWE II)
	Outback Steakhouse	
October 17, 2014	9801 N. Black Canyon Highway, Phoenix	Stakeholder Meeting (NWE II)
	Tombstone Tactical 10011	
October 17, 2014	N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	Longhorn Steakhouse 10047	
October 17, 2014	N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	Kiwanis Walk A Thon 9617	
October 18, 2014	N. Metro Parkway, Phoenix	Information Table (NWE)
	Touch A Truck Event 6770	
October 18, 2014	N. Sunrise Boulevard, Glendale	Information Table (WPCG)
	McDonald's 6005	
October 20, 2014	S. Central Avenue, Phoenix	Stakeholder Meeting (S. Central)
	College America	
October 21, 2014	9801 N. Metro Parkway East, Phoenix	Stakeholder Meeting (NWE II)
	RED Development and DPI	
October 21, 2014	50 W. Jefferson Street, Phoenix	Stakeholder Meeting (S. Central)
	Bristol Court Condos	
October 21, 2014	1814 W. Frier Drive, Phoenix	Stakeholder Meeting (NWE)

	Glendale Chamber of Commerce	
October 22, 2014	17045 N. 59th Avenue, Glendale	Presentation (WPCG)
	City of Phoenix Transporation & Infrastructure Council Subcommittee	
October 22, 2014	200 W. Washington Street, Phoenix	Public Committee Meeting (SFS)
	Nina Mason Pulliam Rio Salado Audubon Center	
October 22, 2014	3131 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Nina Mason Pulliam Rio Salado Audubon Center	
October 23, 2014	3131 S. Central Avenue, Phoenix	Public Meeting (S. Central)
	Villa Ventura Apartments	
October 23, 2014	7125 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Central Mesa Community Advisory Board	
October 23, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Alhambra Neighborhood Association	
October 23, 2014	4510 N. 37th Avenue, Glendale	Presentation (WPCG)
	Washington Adult Activity Center 2240	
October 23, 2014	W. Citrus Way, Phoenix	Information Table (NWE)
	Open Door Fellowship Church Harvest Festival	
October 25, 2014	8301 N. 19th Avenue, Phoenix	Information Table (NWE)
	Open Door Fellowship Church Harvest Festival	
October 26, 2014	8301 N. 19th Avenue, Phoenix	Information Table (NWE)
	Washington Elementary School District Business Advisory Team 4650 W.	
October 29. 2014	Sweetwater Avenue, Glendale	Presentation (NWE)
	Ottawa University	
October 29, 2014	9414 N. 25th Avenue, Phoenix	Public Meeting (NWE II)
	Richard E. Miller School Event	
October 30, 2014	2021 W. Alice Avenue, Phoenix	Information Table (NWE)
	Washington Park Neighborhood Meeting	
November 4, 2014	2240 W. Citrus Way, Phoenix	Presentation (NWE)
	Coperate Center	
November 4, 2014	9630, 10010 N. 25th Avenue, Phoenix	Stakeholder Meeting (NWE II)
	City of Phoenix Citizen's Transit Commission	
November 6, 2014	302 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central) (NWE II)
	City of Chandler Transportation Commission 215	
November 6, 2014	E. Buffalo Street, Chandler	Public Committee Meeting (SEVTS)
	City of Phoenix Central City Village Planning Committee	
November 10, 2014	640 N. 1st Avenue, Phoenix	Public Committee Meeting (S. Central)
	City of Phoenix Transportation & Infrastructure Council Subcommittee 200	
November 12, 2014	W. Washington Street, Phoenix	Public Committee Meeting (S. Central) (NWE II)
	Northwest Extension Community Advisory Board	
November 13, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	Town of Queen Creek Transportation Advisory Committee	
November 13, 2014	22358 S. Ellsworth Road, Queen Creek	Public Committee Meeting (QC)
	City of Tempe City Council	
November 13, 2014	31 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	2nd Friday Night Out Event	
November 14, 2014	Mesa	Information Table (CME)
	Orangewood Elementary School	
November 17, 2014	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Tempe Transportation Commission	
November 18, 2014	200 E. Fifth Street, Tempe	Public Committee Meeting (TS)
	Route 563/685 Transit Advisory Group	
November 18, 2014	508 E. Monroe Avenue, Buckeye	Public Meeting (TAG)
	City of Phoenix City Council	
November 18, 2014	200 W. Jefferson Street, Phoenix	Public Committee Meeting (S. Central) (NWE II) (SFS)
	City of Phoenix Alhambra Village Planning Committee	
November 18, 2014	2240 W. Citrus Way, Phoenix	Presentation (WPCG)
	Orangewood Elementary School	
November 21, 2014	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Commemorative Air Force Museum	
November 21, 2014	2017 N. Greenfield Road, Mesa	Information Table (CME)
	Royal Palms Neighborhood Concert In the Park	
November 22, 2014	Phoenix	Information Table (NWE)
	Orangewood Collaborative Meeting	
December 1, 2014	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Tempe Transportation Center	
December 1, 2014	200 E. 5th Street, Tempe	Public Meeting (TS)
	State Avenue Block Watch	
December 2, 2014	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	City of Tempe Chamber of Commerce	
December 3, 2014	909 E. Apache Boulevard, Tempe	Presentation (TS)
	Salt and Light Church 6150 N.	
December 3, 2014	19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Downtown Tempe Authority Board of Directors	
December 3, 2014	425 S. Mill Avenue, Tempe	Presentation (TS)
	Central Mesa Community Advisory Board	
December 4, 2014	200 S. Center Street, Mesa	Public Meeting (CME)
	Orangewood Elementary School PTA Event 7337	
December 9, 2014	N. 19th Avenue, Phoenix	Information Table (NWE)
	LVA Urban Design Studio	
December 9, 2014	120 S. Ash Avenue, Tempe	Stakeholder Meeting (TS)
	Northwest Extension B2D Safety Meeting	
December 10, 2014	2101 W. Alice Avenue, Phoenix	Stakeholder Meeting (NWE)
	Northwest Extension Community Advisory Board	
December 11, 2014	2240 W. Citrus Way, Phoenix	Public Meeting (NWE)
	2nd Friday Night Out Event	
December 12, 2014	Mesa	Information Table (CME)
	Orangewood Collaborative Meeting	
December 15, 2014	7337 N. 19th Avenue, Phoenix	Stakeholder Meeting (NWE)
	Butler Avenue Block Watch	
December 16, 2014	8941 N. Black Canyon Highway, Phoenix	Presentation (NWE)
	Richard E. Miller School Event	
December 18, 2014	2021 W. Alice Avenue, Phoenix	Information Table (NWE)
	Glendale Glitters	
December 19, 2014	5850 W. Glendale Avenue, Glendale	Information Table (WPCG)
	Glendale Glitters	
December 20, 2014	5850 W. Glendale Avenue, Glendale	Information Table (WPCG)

ATTACHMENT D – EVALUATION OF VALLEY METRO FARE AND SERVICE CHANGES 2012 - 2014

- Title VI Assessment of the Valley Metro Fare Policy and Proposed FY 2013 Fare Change – August 2012
- Title VI Assessment of Proposed Service Changes for July 2013 – May 2013
- Title VI Assessment of Proposed Service Changes for January 2014 – November 2013
- Title VI Assessment of Proposed Service Changes for October 2014 – June 2014

Title VI Assessment of the Valley Metro Fare Policy and Proposed FY 2013 Fare Change

August 27, 2012

VALLEY METRO

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EXECUTIVE SUMMARY

Decisions on transportation systems and infrastructure can have tremendous effects on the social and economic dynamic of a metropolitan region, shaping urban growth and environmental quality for years into the future. Valley Metro has multiple objectives in the provision of a complete regional transportation system. These objectives include such things as regional trip reduction, improved environmental quality, and maximizing regional mobility with limited resources. A pricing structure that will incentivize these objectives is also a consideration.

As part of the delivery of public transportation services in the greater Phoenix metropolitan region, Valley Metro strives to provide transportation services in an equitable manner that encourage the social and economic development of the region, while preserving the human and natural environments. Fundamental to the equitable administration of Valley Metro programs and the delivery of transportation services is the agency's effort to consult with and serve all segments of the population.

Over the past two decades, a renewed emphasis has been placed on social justice and implementing the requirements of Title VI in the programs and policies of public transportation agencies. Reductions in transit service or increases in fares can have a significant effect on all populations, particularly populations who may rely on public transportation as their primary mobility option. Transit fare structures are included in the indices of discrimination that are monitored for disparate treatment. The purpose of this report is to analyze the impact of the region's fare policies and proposed fare structure change with regard to the impacts on minority and/or low-income populations. This analysis was conducted in accordance with the reporting guidelines established in Federal Transit Administration (FTA) Circular 4702.1A, "Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients." The following findings were identified through the analysis:

- The current fare adjustment proposal provides an equitable distribution of the fare increase across system user groups. The proposed transit fare increases are relatively uniform across the different fare types currently offered. The percentage increase paid by riders using express bus services (express bus and RAPID bus routes) is slightly higher than the increase paid by riders using local bus, LINK, or light rail services. The proposed fare structure would create greater balance in the distribution of system-wide operating costs when considered in the context of the ridership profile and demographic characteristics of the service area, while achieving the fare revenue recovery target of 25%.
- Under the existing fare structure and fare policy, available data suggest that disparities occur. Local riders (those who use fixed-route local bus, LINK, and Light Rail Transit (LRT) services) are bearing a disproportionate share of the system-wide operating costs. According to the ridership profile developed as part of the analysis "Title VI Assessment of the Valley Metro Fare Policy and Proposed FY2013 Fare Change," minority and/or low-income populations comprise the majority of local riders, while riders using express services (express bus and RAPID bus services) are predominantly non-minority and non-low-income.
- According to data for Fiscal Year (FY) 2011, the fare recovery ratio for local fare structure routes was significantly higher than routes prescribed to the express fare structure. These trends have been observed longitudinally over the past five years. Given the ridership profile and demographic differences of local riders versus express riders, if the current fare policy and fare structure were to continue without mitigating measures, it is anticipated that minorities and/or low-income populations would continue to bear a disproportionately higher percentage of transit system operating costs (see Table ES-1 for a comparison of relevant statistics).
    - Collectively, local bus, LINK, and LRT services are recovering a higher percentage of operating costs than Express/RAPID services
    - The established fare recovery target (25%) is the same for express fare category routes (Express/RAPID) and local fare category routes (Local bus/LINK/LRT), despite the differences in service characteristics
    - vThe existing base fare multiplier for the Express/RAPID service fares results in a fare recovery rate that is lower than the Local/LRT recovery rate
    - Average fare recovery for Express/RAPID is below established regional service standard threshold of 25%
    - The average subsidy per boarding is more than double for Express/RAPID passengers compared to Local/LINK/LRT passengers

TABLE ES-1. SUMMARY OF RIDERSHIP PROFILE BY MODE, FARE RECOVERY, AND AVERAGE SUBSIDY

Fare Category	Low-Income (% of Ridership)	Minority (% of Ridership)	Employer Subsidized Pass (% Used)	FY2011 Fare Recovery (%)	FY2011 Average Subsidy per Boarding($)
Express/RAPID[a]	10%	29%	74%	19.5%	$5.80
Local/LINK/LRT[b]	45%	50%	6%	25.7%	$2.57

Source: Valley Metro 2010-2011 Annual Transit Performance Report and 2010-11 Transit On-Board Survey
[a] Express bus and RAPID bus services prescribe to the express fare category
[b] Local bus, LINK, and LRT service prescribe to the local fare category

- There is not a fare recovery rate target established for the rural connector service.
- An analysis of the potential impact of on-board and off-board fare sales on low-income and minority populations was not documented as part of the 2009 fare adjustments.
- There is a higher density of off-board fare outlets in identified minority and low-income population areas as compared to non-minority and non-low-income areas. However, passengers who live in an area without direct access to fare outlets may be limited in their ability to purchase advanced off-board fare media. They may purchase off-board fares along a transit route, but this requires that they purchase a 1-ride ticket or all day pass on a route first. This requires passengers to pay the on-board rate, which is higher than the off-board rate. Passengers may purchase transit fares and passes at the off-board rate in advance through http://www.valleymetro.org, but the fare media may take 5-7 days to be delivered. Passengers may sign up to automatically receive fare media at regular intervals without placing a new online order each time.
- ADA/paratransit fares for service included in the regional fare policy are currently meeting the established fare recovery target.
- It is recommended that a corrective action plan to adjust the regional transit fare policies be implemented at the earliest time feasible. The plan for policy adjustments should address the evaluation determinations documented in the "Title VI Assessment of the Valley Metro Fare Policy and Proposed FY2013 Fare Change" and seek to incorporate additional elements that will provide for an equitable distribution of fares and offer flexibility for future transit fare adjustments. Potential policy adjustments may include:
  - Develop separate fare recovery policy targets for Local/LINK/LRT and Express/RAPID fares to ensure equity in operating cost burden
  - Revise or eliminate fare policy multiplier for Express/RAPID fares
  - Establish a permanent policy standard for rounding fares to the nearest quarter ($0.25) or other preferred monetary increment

Recognizing the extensive work the region's transit partners have committed to the development of the fare policy and proposed fare adjustments, several corrective actions have been identified to address the regional fare policy (see Table ES-2). These corrective actions are recommended to address inequities determined with the regional fare policy specifically, and to ensure equity in the pricing of transit fares in the future, when additional fare adjustments become necessary. A corrective action plan for fare policy adjustments should address the determinations documented in the report "Title VI Assessment of the Valley Metro Fare Policy and Proposed FY2013 Fare Change," and seek to incorporate additional elements that will provide for an equitable distribution of fares and offer flexibility for future transit fare adjustments.

TABLE ES-2. ANALYSIS RECOMMENDATIONS FOR FARE POLICY CORRECTIVE ACTIONS

Fare Element	Determination	Recommended Action
Fare Recovery Ratio Target	Local/LINK/LRT services are recovering a higher percentage of operating costs than Express/RAPID	Develop separate fare recovery ratio targets for Local/LINK/LRT and Express/RAPID fares to ensure equity in operating cost burden
Base Fare Multiplier for Express/RAPID Fares	Current base fare multiplier for the Express/RAPID fare produces an Express/RAPID fare recovery rate that is lower than Local/LINK/LRT	Revise fare policy multiplier for express fares or enact a separate express fare recovery ratio target to ensure equity in operating cost burden
Rural Fare Recovery Ratio Target	There is not a fare recovery ratio target established for the rural connector service	Establish a policy for rural route fare recovery
Unequal Rate of Fare Increase	Rounding of fares to nearest $0.25 results in unequal fare adjustments from increase to increase	Specify a permanent fare rounding procedure for every fare product
Accessibility of Fare Outlets	There is a higher density of off-board fare outlets in identified minority and low-income areas	Continue to expand fare media outlets, as demonstrated by the addition of approximately 250 Circle K stores in 2012, and develop a strategy for measuring the increase in access on an annual basis
ADA Fare Threshold	ADA fares currently tracking on target versus recovery threshold	Annually review ADA/paratransit revenue recovery threshold as appropriate

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1 TITLE VI REQUIREMENTS, JURISDICTIONS, AND AUTHORITIES

Over the past two decades, a renewed emphasis has been placed on social justice and implementing the requirements of Title VI in the programs and policies of public transportation agencies. As a pillar of the Civil Rights Act of 1964, Title VI (as amended) is intended to ensure equity and non-discrimination in the delivery of public services, and to guarantee the full and fair participation of all citizens in decisions affecting the provision of public services. Title VI expressly states that "no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance."

More recently, the issuance of Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," built on the principals of Title VI by requiring federal agencies and recipients of federal funds to make achieving environmental justice a core component of their respective agency missions and capital programs. The focus of environmental justice concentrates on efforts to ensure that adverse human health or environmental effects of governmental activities do not fall adversely, disproportionately, or disparately on minority and/or low-income populations. As the recipients of federal funds for transit operating expenditures and capital projects, it is the responsibility of the City of Phoenix, RPTA, and METRO (collectively comprising and hereafter referred to as Valley Metro) to ensure that the delivery and provision of transit services and facilities are equitably distributed within the area of service without regard to race, color, national origin, or income. It is the goal of Valley Metro to ensure equal participatory opportunity to all persons in local, sub-regional, and regional transit service planning processes under the jurisdiction of these agencies.

The United States Department of Transportation (USDOT) defines equity in the provision of transit services as "providing equal levels of service to minority and non-minority residents of the urbanized area. Levels of service, in turn, are defined in terms of capital allocation and accessibility."[1] Equally important to the levels of transit service provided are the fare policies and structures of transit agencies to support continued operations. Transit fare policies and fare structures are included in the indices of discrimination that are monitored for disparate treatment. Changes to fare policies and structures can have the potential to adversely affect minority and/or low-income riders who may bear a higher fare burden than non-minority and/or non-low-income riders. Fare increases have the potential to price-out persons or population groups, creating a transportation disadvantage to these persons by limiting their mobility options and accessibility to destinations.

The USDOT and the FTA have issued guidelines for recipients of FTA administered funds on the appropriate analysis techniques and reporting requirements for considering Title VI and environmental justice in the provision of transit services, programs, or activities. FTA Circular 4702.1A outlines the FTA's current Title VI program objectives that include the following:

- Ensure that the level and quality of transportation service is provided without regard to race, color, or national origin;
- Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects, including social and economic effects of programs and activities on minority populations and low-income populations;
- Promote the full and fair participation of all affected populations in transportation decision making;
- Prevent the denial, reduction, or delay in benefits related to programs and activities that benefit minority populations or low-income populations;

[1]Transit Cooperative Research Program, Legal Research Digest: "The Impact of Civil Rights Litigation Under Title VI and Related Laws on Transit Decision Making", TCRP Project J-5, Washington, D.C. June 1997

- Ensure meaningful access to programs and activities by persons with limited English proficiency. The objectives of Executive Order 13166 and the "DOT Guidance to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries" are for FTA grantees to take reasonable steps to ensure "meaningful" access to transit services and programs for limited English proficient (LEP) persons.

In accordance with the requirements of Title VI and EO 12898, public transportation agencies must develop and implement an integrated approach toward achieving environmental justice in their programs and service delivery policies. This approach includes the collection, analysis, and reporting of information on potential adverse or disproportionately high impacts borne by minority and/or low-income populations as the result of a fare increase or service change. The USDOT has specified three ways transit agencies may assess and support Title VI and environmental justice in their planning, service delivery, and regulatory compliance efforts:

1. Ensure that new investments and changes in transit facilities, services, maintenance, and vehicle replacement deliver equitable levels of service and benefits to minority and low-income populations;
2. Avoid, minimize, or mitigate disproportionately high and adverse effects on minority and low-income populations; and,
3. Enhance public involvement activities to identify and address the needs of minority and low-income populations in making transportation decisions.

The following public regulations and agency policy guidance comprise the FTA's requirements related to Title VI and environmental justice reporting:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. Section 2000d), as amended;
- Federal Transit Laws, as amended (49 U.S.C. Chapter 53 et seq.);
- Joint FTA/Federal Highway Administration (FHWA) regulation, 23 CFR part 771, "Environmental Impact and Related Procedures" (August 28, 1987);
- Joint FTA/FHWA regulation, 23 CFR part 450 and 49 CFR part 613, "Planning Assistance and Standards," (October 28, 1993, unless otherwise noted);
- Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," (February 11, 1994);
- DOT Order 5610.2, "U.S. DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations," (April 15, 1997);
- Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency," (August 11, 2000); and,
- DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient Persons, (December 14, 2005).

2 FARE POLICY REVIEW

OVERVIEW

Public transportation services in the greater Phoenix metropolitan area are collectively operated as the Valley Metro regional system, and are funded through multiple revenue sources including dedicated transit and transportation sales tax revenues at the local and regional levels, appropriated local general funds from area municipalities receiving regional transit service, state transportation funds, negotiated contracts with employers or institutions, vehicle and facility advertisement sales, and customer fares for service. Collected fares are a critical component of the transit operating budgets for each of the region's respective transit agencies, contributing directly to the annual operating and maintenance costs for the production of transit services. With the exception of individual local dial-a-ride service, the Valley Metro system is operated under a single regional fare policy adopted by the Valley Metro Regional Public Transportation Authority Board of Directors. According to the Valley Metro 2010-2011 Annual Transit Performance Report, fixed-route transit service fares (including local bus, LINK, and light rail) accounted for approximately 77% of total fare revenue recovered.

In recent years, revenue collection analyses have shown gradual declines in the fare recovery ratio from transit fares at current rates. Valley Metro has continued to provide transit services in light of these findings; however, current revenue forecasts suggest that fare recovery ratios will continue to fall if the current level of service is maintained without a fare adjustment. Adhering to the adopted policy which stipulates that if the system-wide regional fixed-route fare recovery ratio falls below the designated 25% target, a review of the regional fare policy, fare structure, and/or transit system operations should be considered. The region's transit providers have engaged in this review to determine the equity of the fare rules and proposed fare adjustments. The purpose of this report is to analyze the impact of the region's fare policies and proposed fare structure change with regard to the impacts on minority and/or low-income populations. This report does not provide a transit system performance evaluation.

It is important to distinguish the difference between the fare policy and the fare structure. While these terms may seem interchangeable, they are two different components of the transit fare program. The regional fare policy is the agency-adopted standard used for setting transit fares, fare multiplier values and pricing rules, fare media, and fare recovery targets. The fare structure is the implemented result of the fare policy, in essence, the structured list of fare options customers may choose from when purchasing transit fares.

FARE POLICY GOALS AND STRATEGIES

Fare Policy Goals

Decisions affecting regional transit fares are driven by policy goals as well as criteria established to help evaluate revenue recovery and determine whether fare increases are needed. Fare policy goals and objectives are often established to coincide with goals for customer satisfaction (e.g. fare structures that are easily understood, with simple payment methods), agency financial goals (e.g. increasing revenues to offset system operating costs), and institutional goals (e.g. increasing ridership, maximizing connections within the service area, encouraging ride-sharing, parking demand reduction, and air quality improvements). Annually, the regional transit agency partners evaluate the performance of the transit system with respect to meeting the goals established for service standards and fare policies. It must be noted that public input also plays an important role in the development of the fare policy, as system users are those most sensitive to the instituted fare policies. Several elements are considered when establishing fare policies, including:

- Fare Policy: The region's transit fare policy specifies goals and performance indicators for revenue generation and recovery, relative to system operating costs.
- Payment Strategies: The payment strategies refer to the fare collection structure such as flat fares, service-based differential fares, distance-based fares, discounted fares, or time-differential fares for service. Payment strategies may also refer to advance fare purchases.

- Fare Media and Technology: The fare media refers to the recognized fare payment mechanism (cash, paper passes, stored value cards), while fare technology refers to the equipment used to collect fares (vending machines or in-vehicle fareboxes).

When establishing the regional fare policy and during periodic updates, pricing rules (such as fare multipliers) have been adopted to determine the prices for multi-day passes, express bus fares, reduced cost fares and passes, and student semester passes. Fare pricing rules are also applied to ADA-paratransit fares; however these rules are stipulated by federal ADA guidelines. Pricing rules are typically determined off of the base local one-ride fare. In 2009, a value of $1.00 over the base local fare was implemented to price express bus and RAPID bus fares. The fare policy proposal currently being considered recommends using a combination of cash premiums and base fare multipliers to price Express/RAPID bus fares. Table 1 compares the fare pricing rules applied in 2009 with the 2012 proposed pricing rules.

TABLE 1. FARE TYPES AND PRICING RULES (CURRENT AND PROPOSED)

Fare Type	2009 Pricing Rules	2012 Proposed Pricing Rules
Local Bus, Light Rail, LINK Service – Standard Fare		
1-Ride Cash	Base fare for bus and light rail	$0.25 increments
All-Day On-Board	3 x base cash fare	3 x 1-ride cash
All-Day Off-Board	2 x base cash fare	2 x 1-ride cash
3-Day	3 x 1-day off-board fare	Fare Eliminated
7-Day	5 x 1-day off-board fare	5 x all-day off-board
15-Day	-	16.5 x 1-ride cash
31-Day	31 x local base fare	32 x 1-ride cash
Express		
1-Ride	Base fare + $1.00	1-ride cash + $1.25
All-Day On-Board	Local on-board 1-day + $2.00	1-ride cash + $5.25
All-Day Off-Board	Local off-board 1-day + $2.00	2 x express 1-ride cash
31-Day	31 x express cash fare	32 x express 1-ride cash
Reduced		
1-Ride	0.5 x base fare, rounded down to the nearest $0.05	0.5 x local fare
All-Day On-Board	0.5 x local on-board 1-day, rounded down to nearest $0.05	0.5 x local fare
All-Day Off-Board	0.5 x local off-board 1-day, rounded down to nearest $0.05	0.5 x local fare
3-Day	0.5 x local 3-day, rounded down to nearest $0.25	Fare Eliminated
7-Day	5 x local off-board 1-day, rounded down to nearest $0.25	0.5 x local fare
15-Day	-	0.5 x local fare
31-Day	0.5 x local 31-day, rounded down to nearest $0.25	0.5 x local fare
Semester Pass		
Spring/Fall	0.5 x semester pass	-
Reduced Spring/Fall		
Summer		
Reduced Summer		

Sources: Valley Metro Board of Directors Meeting Minutes, March 11, 2009, and Transit Management Committee Information Summary Meeting, September 28, 2011

To help offset the increased operating costs associated with providing public transit service, on April 19, 2007, the Valley Metro RPTA Board of Directors adopted a system-wide fare recovery ratio target of 25% for fixed-route local and express bus services and LRT service as part of the Service Efficiency and Effectiveness Study. ADA-compliant paratransit/demand response service in the region has a 5% fare recovery ratio target. When fares fall below these programmed targets, the regional fare structure is reviewed for potential adjustments. It is important to note that the fares charged for ADA-compliant paratransit service follow the pricing guidelines as established by the federal government.

A public transportation system's fare policy applies to all aspects of the fare structure. Over time, as prices for equipment, facilities, materials, and labor change, it becomes necessary for transit agencies to consider pricing adjustments to offset operating cost increases. Adjustments to the regional fare policy are also periodically necessary to reflect changes in new methods of fare payment, fare media and technology. Recent examples include the ability to purchase transit fares online and modifications to vehicle fareboxes. For transit agencies to improve service quality and quantity, thereby improving system performance and ridership, effective and efficient pricing policies and strategies must be employed.

Fare Structure Development and Strategies

Development of the regional fare policy and structure has been an on-going process following the implementation of the region's transit system. While public transportation services have been available in the Phoenix metropolitan region for decades, transit services were historically operated by for-profit companies and later by individual municipalities. In 1985, voters approved a dedicated sales tax for transit, and participating municipalities appropriated local general funds helping to form RPTA as the agency responsible for providing regional bus service. More recently, voters have approved additional sales tax increases dedicated for transportation and transit funding. However, sales tax revenues can fluctuate based on natural market forces associated with sales and consumption, and sales tax revenues alone cannot cover the entire costs of providing transit service. Augmenting sales tax revenues are other means of revenue generation, including vehicle advertising revenue and customer fares for service.

Traditionally, this region's fare structure has been comprised of two basic fare strategies: flat fares and service-based differential fares. These two basic fare strategies may be combined under a single fare structure to provide a simple and convenient method of payment for system users, and as a method for increasing operating efficiencies.

- Flat Fares: Under the flat fare structure, riders are charged the same fare for a one-way, one-ride trip regardless of their trip length or the time-of-day. This type of fare structure was adopted as a customer convenience given its simple interpretation and payment method, and is applied to all system routes, regardless of mode type. In this region, a flat fare is employed for all local bus routes, LINK bus routes, and the LRT system.
- Service-based Differential Fares: Under a service differential fare structure, transit fares are differentiated by mode type to reflect the higher level of service provided, and offset the higher operating costs associated with premium service. In this region, a service-based differential fare is employed for express bus and RAPID bus services. Despite this differential pricing, a one-way, one-ride flat fare is charged for these services (e.g. a rider can board any express bus or RAPID bus and pay the same one-way, one-ride fare going to any area these routes service within the metropolitan region).

Valley Metro's current fare structure is a combination of both fare structures described above. All routes subscribing to either the local or express regional fare structure have a flat fare structure that charges customers a fixed fare for a one-seat ride, regardless of distance traveled or time of day. The current regional fare structure does not include off-peak period fares. However, express bus fares are priced at a higher rate than local bus, LINK, or LRT service fares, creating a service-based differential fare structure.

While the region employs two basic fare structures, there are other fare structures operated based on specific circumstances. RPTA currently operates a rural bus route linking the communities of Ajo and Gila Bend, Arizona, with the Phoenix metropolitan region. This route currently operates on a distance-based fare structure, sometimes referred to as an "Origin and Destination" fare structure, with prices ranging from $2.00 to $8.00 per one-way trip. It is important to note that this route does not follow the regional fare policy, and passengers must purchase additional fares when transferring to bus or light rail services operated within the regional service area.

The regional transit agencies also negotiate agreements with area academic institutions for reduced fares for students which are subsidized by the academic institution. The current fare policy allows students to purchases transit passes for a single academic semester or the academic calendar year.

The current fare structure does not allow passengers holding a single ride ticket to transfer between modes without paying another fare. Passengers with valid all-day or multi-day passes are able to make as many transit trips as they wish during the time period their pass is valid.

Finally, in accordance with Section 5307 of federal transit laws, recipients of funds for transit services must offer discounted fares for elderly persons and persons with disabilities, not to exceed one-half the rate charged to non-elderly persons or persons without disabilities. The agencies participating in the regional fare structure offer discounted fares for those individuals who qualify based on need or age.

Fare Media and Technology

A variety of fare media are available under the current regional fare structure, tailored to the wide-ranging needs of travelers. Single ride fares, multi-day passes, student passes, and reduced fares for youth (ages 6 to 18), elderly persons and persons with disabilities are available for most forms of transit in the region (reduced fares for premium express bus services are not available). Additionally, programs sponsored by governmental entities to encourage transit usage, such as Maricopa County's Trip Reduction Program, allow employers to offer free or subsidized transit passes to employees in exchange for tax credits.

In 2009, the Valley Metro Board of Directors approved the implementation of off-board fare purchases at designated locations throughout the metropolitan region where transit customers could purchase a 1-day or multi-day transit pass prior to making their trip. Transit fares may be purchased from fare vending machines (such as those at light rail stations or transit centers), participating convenience or supermarket grocery stores, and government office buildings. For both local and express services, an all-day pass is priced at a multiplier of three times the corresponding single ride fare when purchased on-board a bus. Off-board purchases of all-day passes are discounted to a multiplier of two times the corresponding single ride fare, and are available at advance fare purchase locations and LRT stations. The difference in pricing between on-board and off-board fares is to encourage system users to purchase fares in advance of their trip, expediting vehicle boarding and therefore improving passenger travel times while enhancing transit system efficiencies. This practice is consistent with peer systems..

Valley Metro's Platinum Pass Program provides employers a simplified way of offering commuting benefits to their employees. Valley Metro provides contact-less fare media cards for each employee of a participating employer. A participating employer is only charged for the actual number of rides up to a maximum of $55 per month per rider for local bus and light rail and up to a maximum of $85 per month per rider for express and RAPID bus services. Participating employers receive a monthly invoice for total charges on all cards being used, but can opt for a detailed billing summary that provides the date, time, and route for each boarding. The detailed summary is available at an extra charge to the employer. Employers may set their own policies for what amount (if any) the employee is responsible for reimbursing to the employer.

3 PROPOSED FARE STRUCTURE

DESCRIPTION OF THE EXISTING AND PROPOSED FARE STRUCTURE

Valley Metro employs a regional fare structure that currently charges $1.75 per one-way ride on all regular fixed-route bus and light rail services, and $2.75 for Express/RAPID bus routes. Discounted local fares of $0.85 per ride are available to persons with disabilities, seniors (age 65 and above), and K-12 students who qualify. Customers may also purchase an all-day transit pass and select from a variety of multi-day transit passes enabling riders to make multiple transit trips during the duration of a pass' calendar life cycle from the time the pass is validated. Multi-day passes are available in the form of a three-day pass costing $10.50 for adults ($5.25 for seniors, students, and persons with disabilities), and a seven-day pass ($17.50 for adults, $8.75 for seniors, students, and the disabled). A month-long, 31-day pass is also available, currently priced for adults at $55.00 for all local bus and light rail services, and $85.00 for express bus and RAPID bus services. Reduced fares for multi-day and monthly passes are available to those who qualify. A 31-day pass for persons with disabilities, seniors, and K-12 students is currently priced at $27.50. No reduced fares are offered for premium express and RAPID bus service. ADA-compliant dial-a-ride paratransit service is available in Phoenix, the East Valley, and some portions of Maricopa County for $3.50 per ride. ADA dial-a-ride paratransit fares and fare instruments in other jurisdictions are established by those jurisdictions. It is important to note that the regional transit fare policy has historically allowed for reduced fares at a rate of approximately one-half the standard fare on local bus/light rail and offered ADA paratransit fares at twice the rate of the local bus/light rail fare consistent with federal policies.

In addition to the various transit pass options available to customers, the regional transit providers have also negotiated contracts with area academic institutions to offer semester or academic calendar year passes to students. Currently, Arizona State University students may purchase a semester pass for $65.00, allowing for unlimited day, night, and weekend travel on local and express buses, and METRO light rail. Students may also purchase an academic calendar year pass for $150.00. Arizona State University is billed an amount similar to the system-wide average fare each time one of these passes is used.

It is important to note the distinction between the all-day off-board and all-day on-board fares. In an effort to improve system efficiencies, particularly related to bus loading, and as a means of promoting transit usage as an alternative to the private automobile, the regional fare policy was amended in 2009 to allow passengers to purchase off-board transit fares from fare outlets around the metropolitan region at a discount from the on-board purchase price (refer to Figure 8). Through the use of ticket and transit pass vending machines, along with negotiated contracts between the agencies and area business, customers may purchase transit fares from off-board fare outlets. Fare vending machines are available at some transit facilities and light rail stations, or customers may purchase transit passes from retailers including Safeway and Fry's Foods grocery stores, 7-Eleven and Circle K convenience stores, and Walgreens pharmacies, among other locations. An analysis of the potential impact of on-board and off-board fare sales on minority and low-income populations was not documented as part of the 2009 service adjustments; therefore, an analysis of fare outlet locations is provided in this review.

Table 2 summarizes the current and proposed fare structure, along with the percentage change for each fare type. Included within Table 2 are two columns that represent the previously proposed fare adjustments presented to the public in 2011. In October of 2011, Valley Metro proposed a fare structure using multipliers applied to the base local 1-ride cash fare to set prices for local and express services. An equity analysis was completed for the then-proposed fare structure that determined the pricing structure was inequitable. Following the results of the equity analysis, Valley Metro developed the now-current fare structure (highlighted in Table 2) to create equity in the pricing of transit fares.

TABLE 2. CURRENT AND PROPOSED FARE STRUCTURE

Fare Type	Current Fare	Proposed Fare (Fall, 2011)	Percent Change	Proposed Fare (August, 2012)	Percent Change
Local Bus and Light Rail – Standard Fare					
1-Ride	$1.75	$2.00	14.3	**$2.00**	**14.3**
All-Day Off-Board	$3.50	$4.00	14.3	**$4.00**	**14.3**
All-Day On-Board	$5.25	$6.00	14.3	**$6.00**	**14.3**
3-Day	$10.50	-	Eliminated	-	**Eliminated**
7-Day	$17.50	$20.00	14.3	**$20.00**	**14.3**
15-Day	-	$33.00	100[a]	**$33.00**	**100[a]**
31-Day	$55.00	$64.00	16.4	**$64.00**	**16.4**
Express Bus – Standard Fare					
1-Ride	$2.75	$3.00	9.1	**$3.25**	**18.2**
All-Day Off-Board	$5.50	$6.00	9.1	**$6.50**	**18.2**
All-Day On-Board	$7.25	$9.00	24.1	**$8.50**	**17.2**
31-Day	$85.00	$96.00	12.9	**$104.00**	**22.4**
Reduced Local Bus and Light Rail Fare					
1-Ride	$0.85	$1.00	17.6	**$1.00**	**17.6**
All-Day Off-Board	$1.75	$2.00	14.3	**$2.00**	**14.3**
All-Day On-Board	$2.60	$3.00	15.4	**$3.00**	**15.4**
3-Day	$5.25	-	Eliminated	-	**Eliminated**
7-Day	$8.75	$10.00	14.3	**$10.00**	**14.3**
15-Day	-	$16.50	100[a]	**$16.50**	**100[a]**
31-Day	$27.50	$32.00	16.4	**$32.00**	**16.4**
ADA Dial-a-Ride Fare					
1-Ride	$3.50	$4.00	14.3	**$4.00**	**14.3**
Rural Connector Fare					
1-Ride	$3.25[b]	$4.00	23.1	**$4.00**	**23.1**

Source: Valley Metro, 2011

[a] New fare type that would take effect at the time the proposed fare increases would be implemented.

[b] Average fare per trip. Fares are based on distance travelled.

The largest proposed percentage increase in price (excluding the Rural Connector Fare) is for the 31-day express bus pass (an increase by 22.4%). A comparison of the proposed percentage increase in fares shows that the local bus and light rail single-ride ticket and all-day off-board pass would be increased at a rate lower than the same fare categories for express bus services. The proposed increase for the single-ride ticket and all-day off-board local bus and light rail pass represents a 14.3% increase over the current fare. This amounts to a difference of 3.9% between these fare categories.

The proposed single-ride reduced fare for local bus and light rail service is also planned to increase. The proposed cash fare for the single-ride reduced fare would increase from $0.85 to $1.00, a difference of $0.15 (an increase of 17.6%). This higher rate of change, compared to a 14.3% increase for the standard fare, is explained by the regional fare policy of providing reduced fares at approximately one-half the cost of a standard local bus/light rail fares. The current standard single-ride fare is $1.75, while the reduced fare is $0.85. One-half of $1.75 is $0.875; therefore, the current fare was rounded down to $0.85 for more efficient on-board fare payment. Rounding the reduced fare down to the nearest nickel is provided for in the currently approved fare policy. The proposed fare adjustment increases the standard single-ride fare from $1.75 to $2.00. Consistent with the regional fare policy, the proposed single-ride reduced fare of $1.00 will be exactly one-half of the standard fare.

In addition to the region's fixed-route local and express bus services, RPTA also operates one rural connector route, Route 685, with service between Ajo, Arizona and Phoenix, a distance of approximately 112 miles. This service is not subject to the regional fare policy structure, as passenger fares are based on distance and are only available as a single ride purchase. Furthermore, reciprocal transfers are not provided between this bus route and the regional fixed-route transit services. The average one-way trip fare is shown in Table 1. Due to increased operating costs, fares for this route are also proposed to be increased. Additionally, the fare policy for Route 685 is proposed to change from a distance-based fare structure to a flat-fare structure, creating greater legibility in the fare structure for travelers, and incorporating the route more efficiently into the regional fare structure. The average fare is projected to increase from $3.25 to $4.00 per ride, representing an increase of approximately 23.1%.

Under the proposed fare adjustments, the current 3-day pass for local fixed-route bus and light rail service will be eliminated, while a new 15-day pass will be instituted.

THE NEED FOR THE FARE ADJUSTMENTS

As noted, regional transit services are funded through multiple revenue sources including dedicated transit and transportation sales taxes, municipal general fund appropriations, transit fares, state and federal funds. Valley Metro has established a fare recovery policy target of 25% to help cover system operating costs. When the recovery ratio of fares drops below 25%, the regional transit providers review operations and the fare structure alternatives to achieve the fare recovery goal.

The primary justification of the proposed fare adjustments is to meet the regional fare recovery rate targets and offset rising operations costs. Current data indicate that the fixed-route farebox recovery ratio has been below the 25% target since 2006 despite a fare increase in July, 2009 (FY 2010). As per the regional fare policy, local bus and light rail service use the same standard base fare, and ADA paratransit fares are two multiples of the standard one-ride base fare. Consistent with the regional fare policy, adjustments to the fixed route bus fares would result in adjustments to the light rail and ADA paratransit fares. Table 3 identifies the historic regional fare recovery trends, while Figure 1 provides a longitudinal comparison of the change in annual gross operating and annual fare revenue collected.

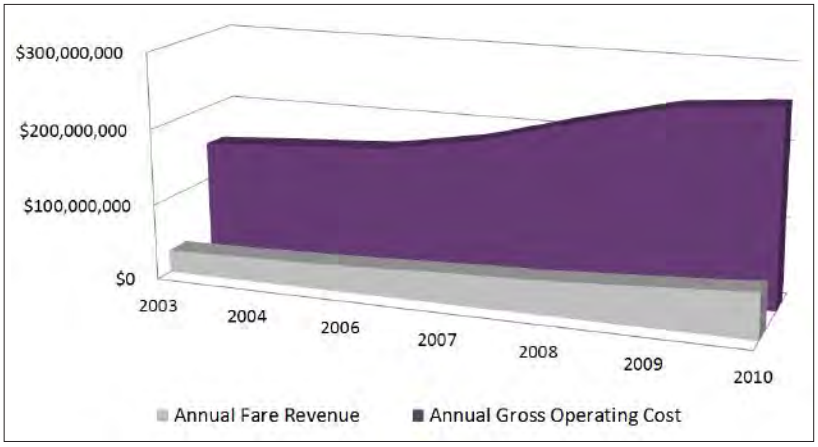
Historically, there have only been two regional fare rate adjustments since 1994. The first fare adjustment was implemented in 1994, with the most recent fare adjustment occurring in July, 2009. However, in December, 2007, regional fare payment and media adjustments were implemented as part of a new regional fare collection system that included validating fare collection technology capable of on-board electronic fare media sales and SmartCard functionality. The July, 2009, fare adjustments capitalized on the new fare collection technology by offering new multi-day fare options and price differentials for on-board and off-board fare sales. An analysis of the potential impact of on-board and off-board fare sales on low-income and minority populations was not documented as part of the 2009 service adjustments; therefore, a geographic analysis of fare outlet locations is provided in this review.

TABLE 3. HISTORIC REGIONAL FARE RECOVERY TRENDS

Fiscal Year	Fixed-Route Fare Recovery Ratio [a]	Paratransit [b]	Light Rail [c]	System [d]
1995	31.3 %	-	-	-
1996	36.4%	-	-	-
1997	33.2%	-	-	-
1998	31.2%	8.7%	-	-
1999	30.2%	8.2%	-	-
2000	30.8%	8.9%	-	-
2001	28.4%	6.7%	-	24.8%
2002	23.0%	6.0%	-	20.7%
2003	22.3%	5.4%	-	-
2004	23.6%	5.2%	-	28.0%
2005	26.9%	4.5%	-	27.6%
2006	24.6%	4.9%	-	28.1%
2007	24.2%	4.4%	-	22.2%
2008	22.4%	4.1%	-	20.7%
2009	22.3%	4.1%	21.2%	21.0%
2010	24.1%	6.2%	28.0%	23.3%

[a] FY 2011 RPTA Short Range Transit Program (SRTP)
[b] FY 2009, 2010, and 2011 RPTA SRTPs
[c] 2009 and 2010 Transit Performance Reports and 2011 SRTP
[d] Includes Vanpool at greater than 85% fare recovery each year
Source U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2006-2010

FIG.1 ANNUAL GROSS OPERATING COST AND FARE REVENUE



Sources: FY 2009, 2010, and 2011 RPTA Short Range transit Programs

STUDY PURPOSE, OBJECTIVES, AND SCOPE

Public transportation providers across the United States face difficult choices in the provision of transportation services. Faced with growing and diverse demands for service, increased operations and maintenance costs, and increasingly limited funds, transit providers are turning to traditional and non-traditional forms of revenue collection or changes to service standards in effort to provide the highest level of service possible to current and future passengers while balancing operating and maintenance costs. To offset cost increases, transit agencies have traditionally turned to transit service reductions or fare increases as methods to increase revenues to provide transit services while decreasing operating and maintenance costs. According to survey results documented in the Transit Cooperative Research Program (TCRP) Legal Research Digest Issue 35, published in March, 2011, 62 of 64 transit agencies indicated a need to reduce service, increase fares, or implement both practices over the past decade in order to maintain sufficient transit service in the face of increasing operating costs. These findings are also supported by research conducted by the American Public Transportation Association (APTA) in 2010, finding that "Public transportation agencies across the United States are in the midst of unprecedented budgetary challenges as a result of the current recession. Transit agencies have been forced to cut service, lay off employees, raise fares, slow capital improvements and take many other actions to survive. More troubling is that this comes at a time when transit use is at near modern record levels."

The purpose of this report is to analyze the impact of the region's fare policies and proposed fare structure change with regard to the impacts on minority and/or low-income populations. This report does not provide a transit system performance evaluation. This analysis was conducted in accordance with the reporting guidelines established in FTA Circular 4702.1A, "Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients." The analysis contained herein focused on the following questions:

1. How would the proposed fare changes affect minority and/or low-income riders?
2. What alternative fare payment options are (or could be made) available for people that would be impacted by the fare change?
3. Is there a disproportionately high or adverse impact on either minority or low-income riders resulting from the implementation of a fare increase with respect to the advance fare purchase or reciprocal transfers between transit services/service providers?
4. Are opportunities for off-board fare purchases geographically equitable?
5. What measures are being considered to mitigate, minimize, and/or offset disparate impacts on minority and/or low-income populations?

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4 DATA AND ANALYSIS METHODS

This study evaluates the policies established to define the regional fare structure and whether the proposed regional transit fare adjustments have a disproportionately high, adverse, or disparate impact on minority, low-income, or LEP populations. Determining the presence of minority, low-income, and LEP populations in the service area was completed through an analysis of 2010 Census data. The data were collected and analyzed at the Census tract geographic level. The analysis focused principally on population characteristics associated with race and ethnicity, household income and poverty status. Consideration of other selected social characteristics in the service area, specifically English language proficiency, also contributed to the analysis. The spatial identification of population data was completed using Geographic Information Systems (GIS) software. The data for this analysis was extracted from the U.S. Census Bureau (the Census Bureau) Census 2010 Summary Files and the American Community Survey (ACS), available on the Census Bureau website.

The transit service area was defined as the geographic area in which all local, express, and LRT modes that are subject to the regional fare structure operate within. Transit services that do not contribute to the regional fare structure (e.g. city circulators or shuttle buses) were not included in the analysis. One route, Route 685, that has a separate fare structure but is considered a part of the RPTA service network, is included in this study but was analyzed separately. Using GIS, a three-quarter mile buffer was determined around each transit route. This distance was used for consistency with the American's with Disabilities Act (ADA) standards for access to transit services by persons with disabilities. Figure 2 displays the transit service area determined for this analysis.

Complementing the Census data, the analysis also evaluated data derived from the 2010-2011 Transit On-Board Survey. This survey represents the most current data that the Valley Metro partners have obtained regarding regional transit passengers. The data provide an in-depth look at the demographic characteristics of the region's transit passengers' and their travel behaviors. The previous on-board survey was completed between 2007 and 2008, and since the time of that survey, the landscape of transit services in the Phoenix region has changed dramatically. At the time of the previous survey's data collection, LRT was not in operation. Now in operation for 3 years, the latest survey has produced robust information on the changing demographics and travel behaviors of transit passengers.

In addition to the data obtained from the Census Bureau and the 2010-2011 Transit On-Board Survey, the analysis of the regional fare policy structure employed data published in Draft 2010-2011 Valley Metro Transit Performance Report for FY 2011 (July 1, 2010 to June 30, 2011). Data from this report were used to document farebox recovery measures for the types of fare products offered, and review the policy thresholds and pricing rules considered in the context of the ridership profile and service area demographics.

As described in the USDOT Final Order on Environmental Justice (Federal Register, Vol. 62, No. 72), the following definitions of minority populations were used for this study:

- Black or African American (persons having racial origins in any of the black racial groups of Africa)
- Hispanic or Latino (persons of Cuban, Mexican, Puerto Rican, South or Central American or other Spanish culture or origin, regardless of race)
- Asian American (persons with origins related to the original peoples of the Far East, Southeast Asia, or Indian subcontinent)
- American Indian and Alaskan Native (persons having origins related to the original peoples of North and South America - including Central America - and who maintain tribal affiliation or community attachment)
- Native Hawaiian or Other Pacific Islander (persons having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)

The USDOT Final Order defines low-income populations as "a person whose median household income is at or below the Department of Health and Human Services poverty guidelines." This analysis used Census tract level economic data, available from the American Community Survey 5-year estimate data, for persons below the poverty level.

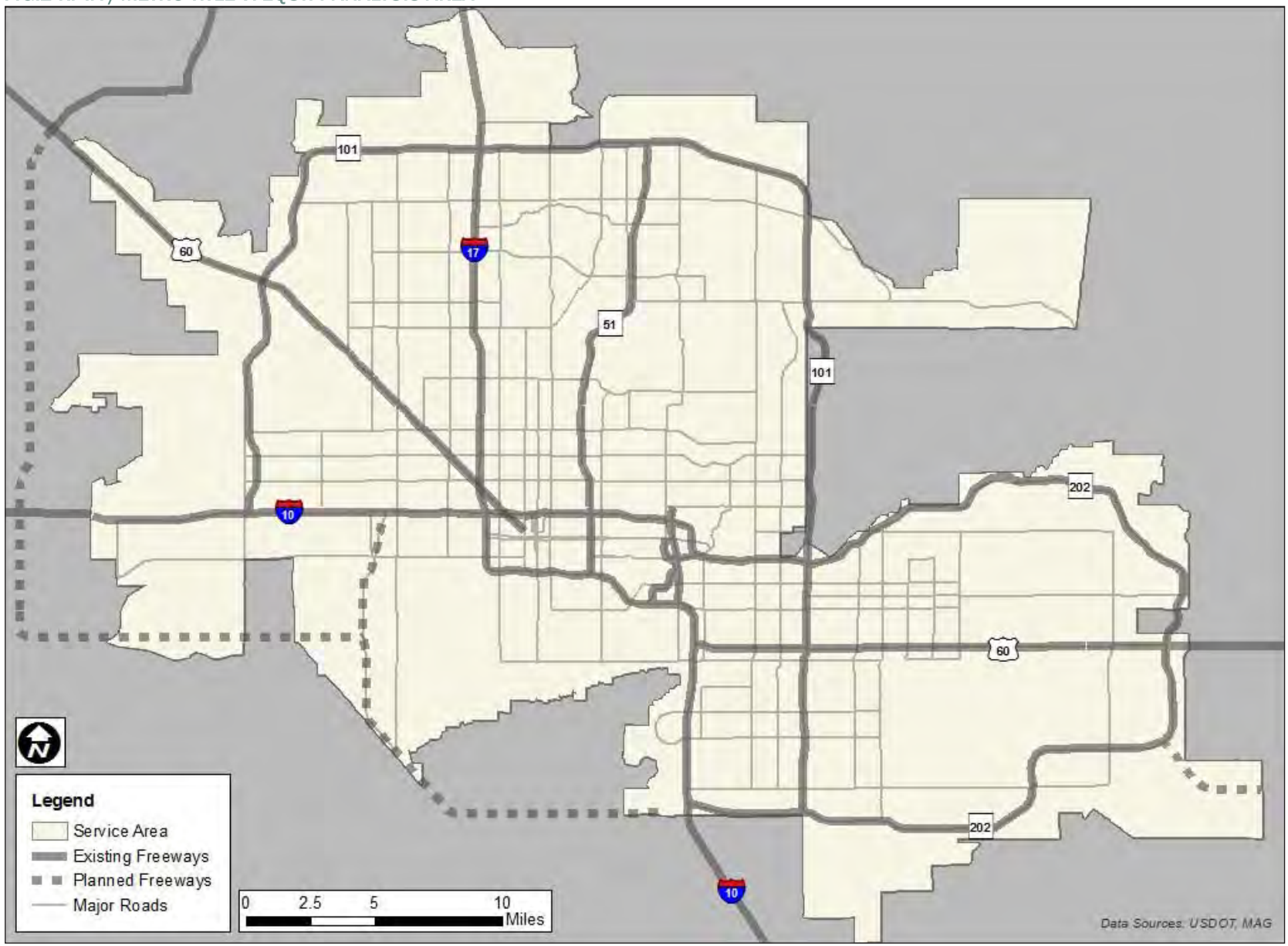
The analysis also considered the presence of limited English proficiency populations within the service area. Data on linguistically isolated households was used to geographically identify regions within the service area that have higher percentages of non-English speaking populations. The Census Bureau provides the following definition of a linguistically isolated household: "A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English 'very well.' In other words, all members 14 years old and over have at least some difficulty with English."

A disproportionately high or adverse effect to minority or low-income populations was defined as an effect that was:

1. Predominantly borne by a minority population and/or a low-income population, or
2. Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and or non-low-income population.

It was assumed that the fare payment methods will remain the same regardless of the proposed increase in fares, with the noted exception of the current 3-day pass (to be eliminated), and the proposed 15-day fare type.

FIG.2 RPTA / METRO TITLE VI EQUITY ANALYSIS AREA



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5 STUDY SETTING: SERVICE AREA AND DEMOGRAPHICS

DESCRIPTION OF TRANSIT SERVICES PROVIDED

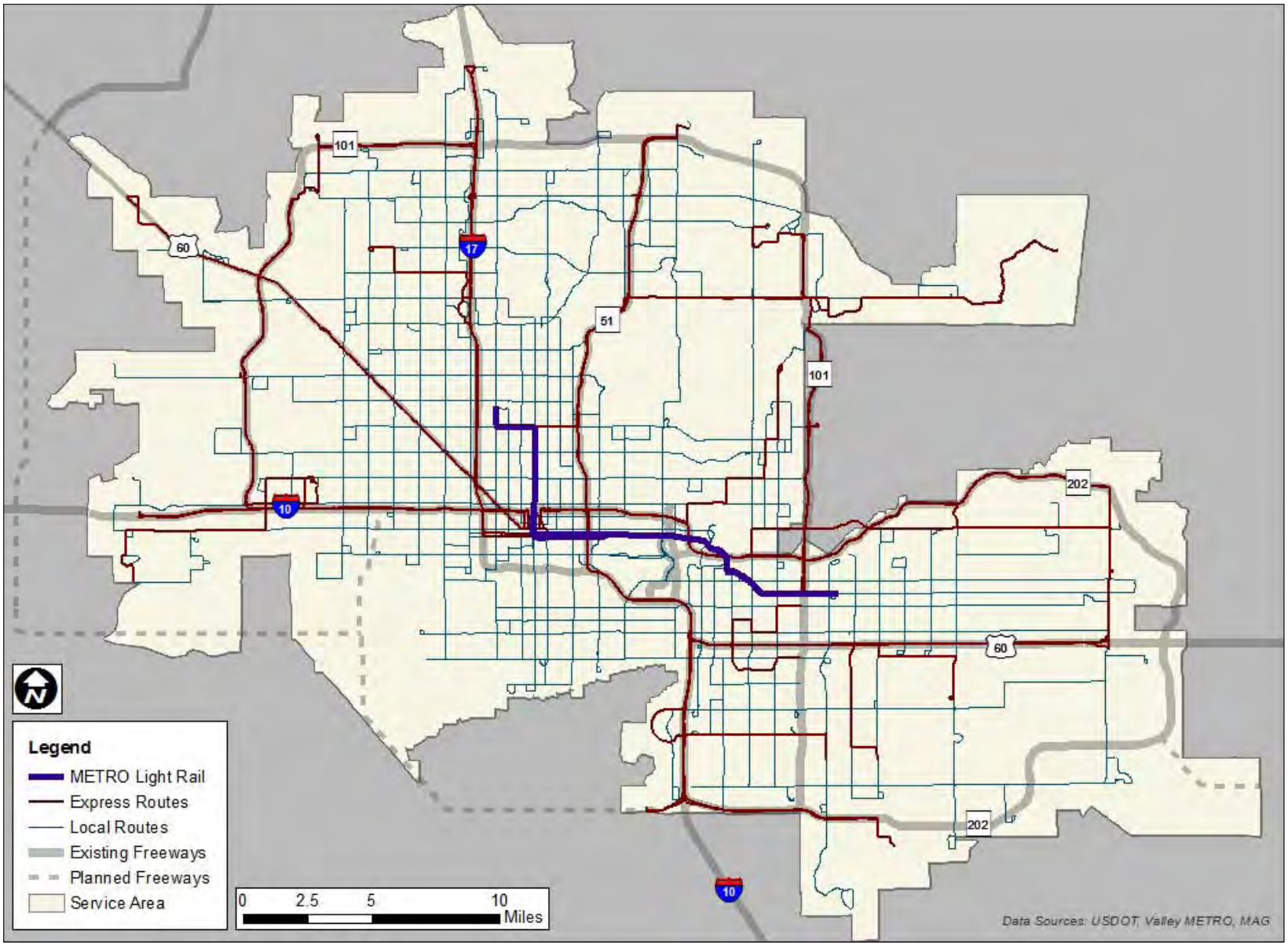
Valley Metro and its member jurisdictions operate a rich mixture of public transportation services catering to the diverse needs of the metropolitan region's population. As of January 31, 2012, a total of 80 local, express, and BRT/LINK bus routes and one light rail transit line provide transit service to a geographic area encompassing more than 883 square miles, with a metropolitan population of more than 3.8 million residents. Collectively, approximately 67.6 million boardings occurred on the region's fixed route bus and light rail transit network in Fiscal Year 2011.

Local fixed-route, express, and limited-stop bus service is operated by Valley Metro and its partners. The local fixed-route services are principally operated along the region's arterial road network, and serve as the backbone of the region's transit network, connecting with all other transit modes to link travelers with regional destinations across the service area. Limited-stop express bus service, including the City of Phoenix RAPID service, principally operates during peak travel periods on the region's freeway system, with stops at park-and-ride facilities and regional transit centers allowing passengers to connect with local services.

The region's only light rail transit line is operated and maintained by Valley Metro. The current LRT system consists of a 20-mile starter line operating in the cities of Phoenix, Tempe, and Mesa.

In addition to these services, selected cities operate circulator shuttle bus services within their respective communities. These circulator routes establish connections between city neighborhoods, downtown districts, and local attractions with regional transit facilities and services. However, because circulator and shuttle bus routes are a service of the city they are provided in, and are not part of the regional fare structure, they are not considered in this analysis. In certain cases, circulator routes (such as the Downtown Dash provided by the City of Phoenix) are free, while other circulators may cost $0.25 per ride (such as the Glendale Urban Shuttles and Avondale ZOOM). Though circulators may provide a free or low-cost public transportation mobility option within the communities that offer such a service, most circulator services do not provide comprehensive community coverage, operating within closed loop systems or providing a specialized service within a designated area and linking passengers with the fixed-route system. Furthermore, if a service is provided for free or at a significantly reduced cost as compared to fixed-route services, it is presumed that most persons will choose the service that saves them the most money, and take a free or reduced cost circulator. Therefore, the region's circulator routes do not provide sufficient mitigation for system-wide fixed-route fare equity discrepancies. Figure 3 displays the various types of transit services available within the service area.

FIG.3 REGIONAL TRANSIT SERVICES – LOCAL, EXPRESS, AND LRT



RIDERSHIP PROFILE

Using data derived from the 2010-2011 Transit On-Board Survey, a general profile of transit riders may be constructed based on self-reported demographic information, trip making characteristics, and fare payment methods. This information is useful when considering a fare structure adjustment to identify and compare potential effects to system users, and help ensure that the interests of minority and/or low-income populations are considered in the process. The data obtained from the On-Board Survey were cross-tabulated to produce a composite picture of system users by mode.

RACE AND ETHNICITY

In general, there is tremendous diversity among the ridership of public transportation services in the Phoenix metropolitan area. Approximately 44% of all transit riders self-identified themselves as White, while 29% identified themselves as Hispanic or Latino, and 18% identified themselves as Black or African-American. In total, over 56% of riders surveyed, self-reported their race and/or ethnicity as within a minority category.

Cross-referencing race and ethnicity data with information on the service type, the data indicate that ridership on services including express bus and RAPID is predominantly comprised of Whites. Comparatively, ridership on local bus routes and LRT is much more diversified, with minority populations comprising more than 50% of total ridership. Ridership on limited stop and LINK services, while more diversified than ridership on express bus and RAPID services, is still comprised predominantly of Whites. While persons of all racial and/or ethnic groups represented use each type of service available, available data indicate that minority populations predominantly use local bus and light rail services. Table 4 provides a percentage breakdown of ridership by race and ethnicity for each route type based on the 2010-2011 Transit On-Board Survey.

TABLE 4. RACE AND ETHNICITY BY SERVICE TYPE

Race/Ethnicity	Service Type						
	Local	Express	Limited Stop	RAPID	BRT	Rail	Total
White	41.7%	70.8%	62.4%	75.3%	60.5%	44.8%	43.8%
Hispanic/Latino	31.8%	14.0%	23.2%	11.5%	19.6%	24.0%	29.3%
Black or African-American	19.4%	6.2%	12.0%	5.3%	5.7%	16.8%	18.2%
American Indian	4.1%	3.4%	0.0%	0.3%	11.4%	6.1%	4.4%
Asian	1.6%	3.6%	0.0%	6.5%	1.4%	5.2%	2.5%
Other	1.4%	2.0%	2.4%	1.1%	1.4%	3.0%	1.8%
Minority	58.3%	29.2%	37.6%	24.7%	39.5%	55.2%	56.2%

Source: Valley Metro 2011 Transit On-Board Survey, 2011

INCOME AND EMPLOYMENT

Transit ridership across all modes of transport continues to be driven by low-income populations. Just over 50% of riders surveyed reported annual household incomes below $25,000, and approximately one-third (33.1%) reported annual household incomes below $15,000. Less than one-fifth (19%) of system users indicated they had an annual household income of $50,000 or more, while 3.6% of riders reported an annual household income of $100,000 or more. Table 5 identifies household incomes by route type reported by current riders.

TABLE 5. HOUSEHOLD INCOME BY ROUTE TYPE

Household Income	Route Type						
	Local	Express	Limited Stop	RAPID	LINK	Rail	Total
Below $5,000	15.7%	2.1%	5.6%	1.5%	14.2%	9.6%	14.7%
$5,000-$14,999	19.3%	2.7%	12.0%	4.5%	18.3%	16.7%	18.4%
$15,000-$24,999	18.7%	4.9%	9.6%	5.4%	23.8%	13.3%	17.5%
$25,000-$49,999	29.4%	23.0%	25.6%	27.8%	28.1%	36.6%	30.0%
$50,000-$99,999	14.1%	45.0%	42.4%	34.0%	9.8%	18.7%	15.4%
Above $100,000	2.6%	22.2%	4.8%	25.0%	5.7%	4.5%	3.6%

Source: Valley Metro 2011 Transit On-Board Survey, 2011

Over three-fourths (79%) of all transit passengers indicated they were employed or seeking work. Bus passengers were more likely to be employed full-time than light rail only passengers (38% bus only vs. 34% light rail only). Light rail passengers were more likely to be employed part-time (25% light rail only vs. 20% bus only). The higher percentage of part-time employment among light rail passengers may be related to the fact that a higher percentage of light rail users are college students. Thirty-eight percent (38%) of all transit passengers indicated that they were students. Light rail passengers were more likely to be enrolled in a college or university than bus passengers (48% light rail only vs. 21% bus only). Most transit passengers (85%) reported that they live in households where at least one person is employed.

FREQUENCY OF USE AND FARE PAYMENT

Of all transit passengers in the region, nearly two-thirds (62%) indicated they have been using public transportation in the Phoenix metropolitan area for at least two years. Bus passengers were more likely to have been using public transit for at least two years than light rail passengers (63% bus only vs. 53% light rail only). The principal reasons transit passengers gave for using the public transportation system in Phoenix during the past 2 years were:

1. To save money (21%)
2. They had moved to the area within the last 2 years (16%)
3. They had lost their car (16%)

Looking more closely at these percentages, light rail passengers were nearly four times as likely as bus passengers to report they started using public transit in the last 2 years to save money (44% light rail only versus 12% bus only). Light rail passengers were also significantly more likely than bus passengers to report that they started using public transit because light rail service began (16% light rail only vs. 1% bus only). Bus passengers were seven times as likely as rail passengers to report they started using public transit because they had lost their car (21% bus only vs. 3% light rail only). Bus passengers were also significantly more likely to report they started using public transit because they had moved to the area within the last 2 years (19% bus only vs. 7% light rail only).

The 2010-2011 Transit On-Board Survey provides a sample of the fare payment method used by route or service type. Data from the survey suggest that express and RAPID riders are significantly more likely to use an employer subsidized transit pass than a local bus rider. More than 72% of express and RAPID riders use an employer subsidized pass, while only 5.6% of local riders use this type of fare media. For local bus riders more than half either use a 31-day pass (27.6%) or use a 1-day pass (26.6%). The most commonly used fare media for light rail trips is the U-Pass, an academic year transit pass purchased by Arizona State University students, representing 33.7% of those surveyed. The survey does not indicate if the 1-day pass users purchased their pass on-board or off-board. Table 6 specifies the fare payment method used by riders surveyed on the day of their trip.

TABLE 6. METHOD OF PAYMENT BY ROUTE TYPE

Fare Media	Route Type						
	Local	Express	Limited	Rapid	BRT	Rail	Total
1-Day Pass	26.6%	3.3%	8.8%	1.3%	32.4%	24.1%	23.8%
3-Day Pass	0.5	0.0	0.0	0.0	0.0	0.7	0.5
7-Day Pass	3.7	0.0	0.0	0.0	5.7	3.4	3.3
31-Day Pass	27.6	12.9	11.2	14.5	28.2	21	24.1
Free	1.3	0.6	0.0	3.4	0.0	0.8	7.7
U-Pass	3.6	1.5	2.4	5.7	8.4	33.7	8.7
Employer Subsidized Pass	5.6	75.6	65.6	72.1	4.3	6.3	6.7
Semester Pass	3.7	0.7	0.0	0.0	0.0	3.8	3.3
Courtesy Pass	0.2	0.0	0.0	0.0	1.4	0.2	0.3
Full Fare	12.2	1.6	2.4	2.6	8.5	1.8	9.3
Youth Fare	1.9	0.2	2.4	0.5	0.0	0.5	1.4
Senior Fare	0.6	0.0	0.0	0.0	0.0	0.2	0.5
Person with Disability Fare	0.9	0.0	0.0	0.0	0.0	0.9	0.8
Field Trip Pass	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year Round Pass	0	0.0	0.0	0.0	0.0	0.0	0.0
Reduced Fare ID Card	5	2.4	7.2	0.0	6.9	0.5	3.8
Cash	1.2	0.0	0.0	0.0	0	0.2	0.9
Other	1.7	0.9	0.0	0.0	2.8	0.7	1.4
No Response Provided	3.7	0.2	0.0	0.0	1.4	1.3	3.3

Source: Valley Metro 2011 Transit On-Board Survey, 2011

REGIONAL DEMOGRAPHICS

Determining the service area's demographics geographically is an important step in conducting an evaluation of whether changes in fares, policies, or programs can have an adverse or disproportionate effect on minority and low-income populations. It is important to note that current FTA guidance does not establish a specific threshold for when a potential impact would be considered disproportionately high or adverse. As stipulated by the FTA's proposed circular's on Title VI and Environmental Justice, "The existing guidance from CEQ, EPA and others suggest that a minority population may be present if the minority population percentage of the affected area is "meaningfully greater" than the minority population percentage in the general population or other "appropriate unit of geographic analysis." The FTA defines "affected area" as the area that a "proposed project or activity will or may have an effect on."

MINORITY POPULATIONS

Consistent with the USDOT definition of minority populations, Valley Metro defines minority populations as any individual or group who self-identifies themselves as Black or African American, American Indian and Alaska Native, Asian, Hispanic or Latino, and Native Hawaiian or Other Pacific Islander. The Census Bureau separates Native Hawaiian and Other Pacific Islander persons from Asian Americans. Hispanic or Latino heritage is considered an ethnicity in Census data; however, a person of Hispanic of Latino heritage may self-identify themselves with any racial group (e.g. a person may identify themselves as Black and Hispanic). The Census Bureau provides data that identify Hispanic or Latino populations independently of other racial and ethnic groups.

The identification of minority populations within the service area was conducted with Census tract level data. Using 2010 Census data, the percentage of minority populations was determined for Maricopa County as 41.3 percent. Subsequently, the percentage of minority populations was determined for each Census tract within the service area, and compared to the county percentage. If the minority population percentage in a Census tract is found to be greater than the county percentage, that Census tract is identified as a predominantly minority tract. Table 7 summarizes the statistics for minority populations in Maricopa County and the service area.

TABLE 7. MINORITY POPULATIONS IN MARICOPA COUNTY AND THE SERVICE AREA

Race/Ethnicity	Maricopa County		Service Area	
	Number of Persons	Percent of Total	Number of Persons	Percent of Total
White (Non-Hispanic)	2,240,055	58.7	1,624,097	54.4
Black or African-American	177,490	4.6	150,968	5.1
Hispanic or Latino[a]	1,128,741	29.6	994,772	33.3
Asian	128,301	3.4	100,557	3.4
All Others[b]	142,530	3.7	112,543	3.8
Total	3,817,117	100	2,982,937	100

Source: U.S. Census Bureau, Census 2010

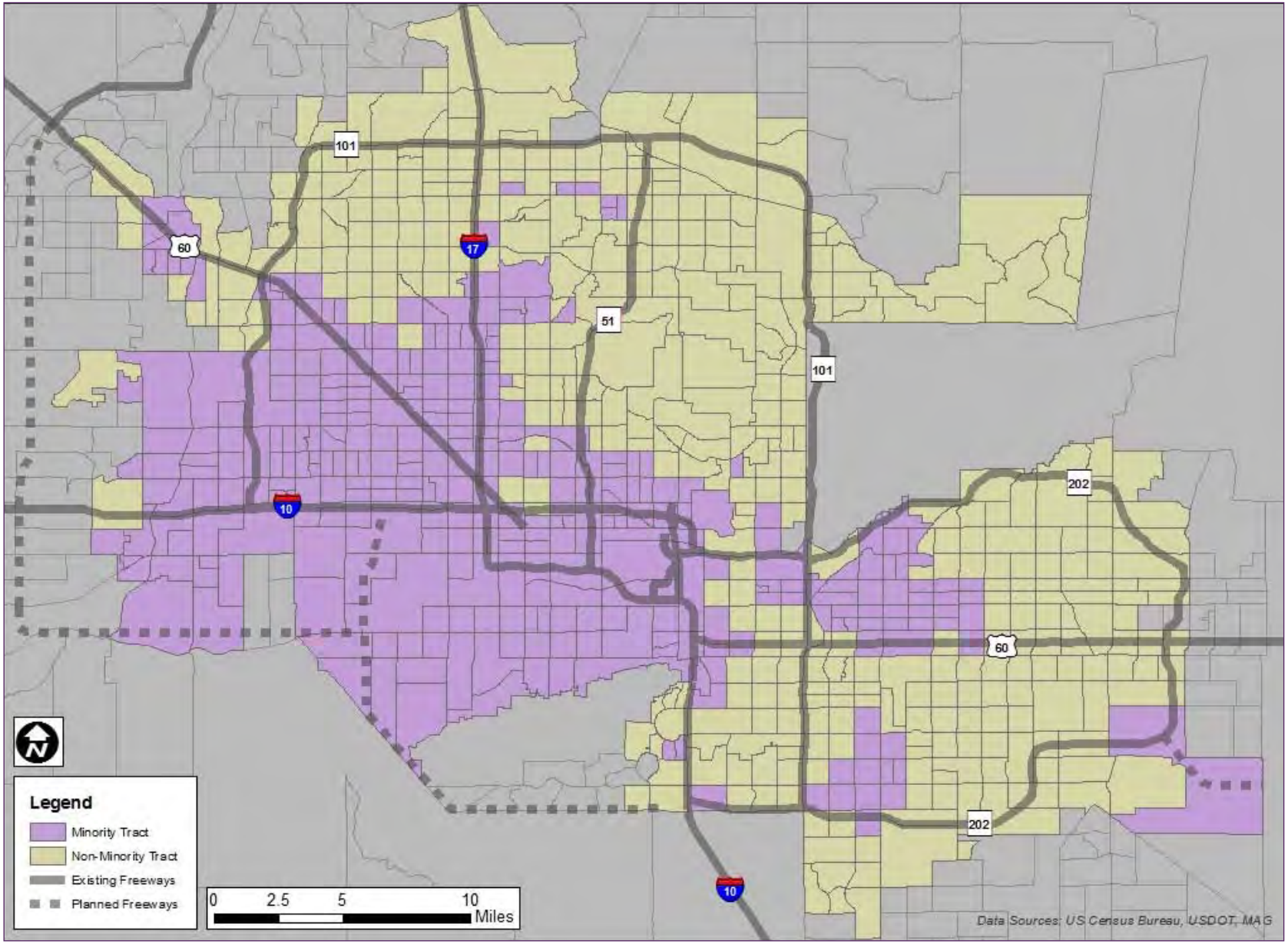
[a] By Census Bureau definition, the ethnic category "Hispanic or Latino" includes persons of any race. However, for purposes of this study, Hispanic or Latino persons comprise their own ethnic category, and their number are separated from the race categories (Black, White, Asian, etc.).

[b] The category "All Others" includes American Indian and Alaska Native, Native Hawaiian and other Pacific Islander, "some other race," and persons who identified themselves as being of two or more races.

As displayed by Table 7, the majority of the service area population in 2010 self-identified themselves as non-Hispanic White persons. Ethnic minority populations comprised a 45.6 percent of the service area population, which is higher than Maricopa County's ethnic and minority population percentage of 41.3 percent. Within the service area, Hispanic or Latino populations represent the largest ethnic minority group (33.3%) next to non-Hispanic Whites with Black or African-American populations comprising the third largest ethnic community group (5.1%). There are 722 Census tracts in the service area of which 332 (45.9%) are above the 41.3 percent threshold for minority populations, and 390 Census tracts (54%) are below the threshold.

Figure 4 shows the distribution of minority populations in the service area based on the 2010 Census data. Minority populations are primarily congregated in the central, south, west, and northwest Phoenix regions. Minority populations in the east valley region are predominantly located in north Tempe and west Mesa.

FIGURE 4. CENSUS TRACTS PREDOMINANTLY POPULATED BY MINORITY POPULATIONS



LOW-INCOME POPULATIONS

Low-income populations are those persons or households with incomes at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. The Census Bureau's ACS provides estimate data of persons and households determined to be at or below the official poverty level at the Census tract level. Similar to the identification of minority population areas, and in accordance with the recommended guideline in FTA's Advisory Circular 4702.1A, a similar process is used to identify Census tracts in the service area that are predominantly populated by low-income populations. Table 8 shows the percentage of low-income persons for service area as compared to Maricopa County. If the percentage of the low-income population for a Census tract was found to be higher than 13.9 percent, the tract is identified as a low-income tract.

TABLE 8. PERSONS BELOW THE POVERTY LEVEL

Economic Characteristic	Maricopa County		Service Area	
	Number of Persons	Percent of Total County Population	Number of Persons	Percent of Total Service Area Population
Persons Below the Poverty Level	515,030	13.9%	466,837	15.8%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2006-2010

According to the 2010 American Community Survey 5-Year estimate data, 303 Census tracts in the service area (41.9%) are above the 13.9% low-income threshold, and 419 tracts (58.1%) are below the threshold. Figure 5 displays the distribution of low-income populations in the service area. Census tracts shaded in green refer to those tracts with a higher proportion of low-income residents, above the county threshold. Although the data display pockets of mixed incomes throughout the service area, greater income variability is identified in the central and southern Phoenix area, and western portions of the service area. Low-income populations in the east valley are clustered predominantly in north Tempe and west Mesa, generally paralleling the highway network. Institutional land uses may also contribute pockets of poverty in the region. By example, a university with a large student population living within a Census tract or group of Census tracts in proximity to one another. As a result, a congregation of students with limited incomes could skew the average income down for that unit.

Considered collectively, a spatial analysis was conducted to identify the locations of predominantly minority and low-income areas, minority and not-low-income areas, low-income but not minority areas, and non-minority/non-low-income areas of the service area. Figure 6 displays the findings of this analysis, showing that locations of the service area with minority and low-income populations greater than the established thresholds are predominantly in southwest and west Phoenix, extending north along I-17, and in west Mesa.

FIG.5 CENSUS TRACTS PREDOMINATELY POPULATED BY LOW-INCOME POPULATIONS

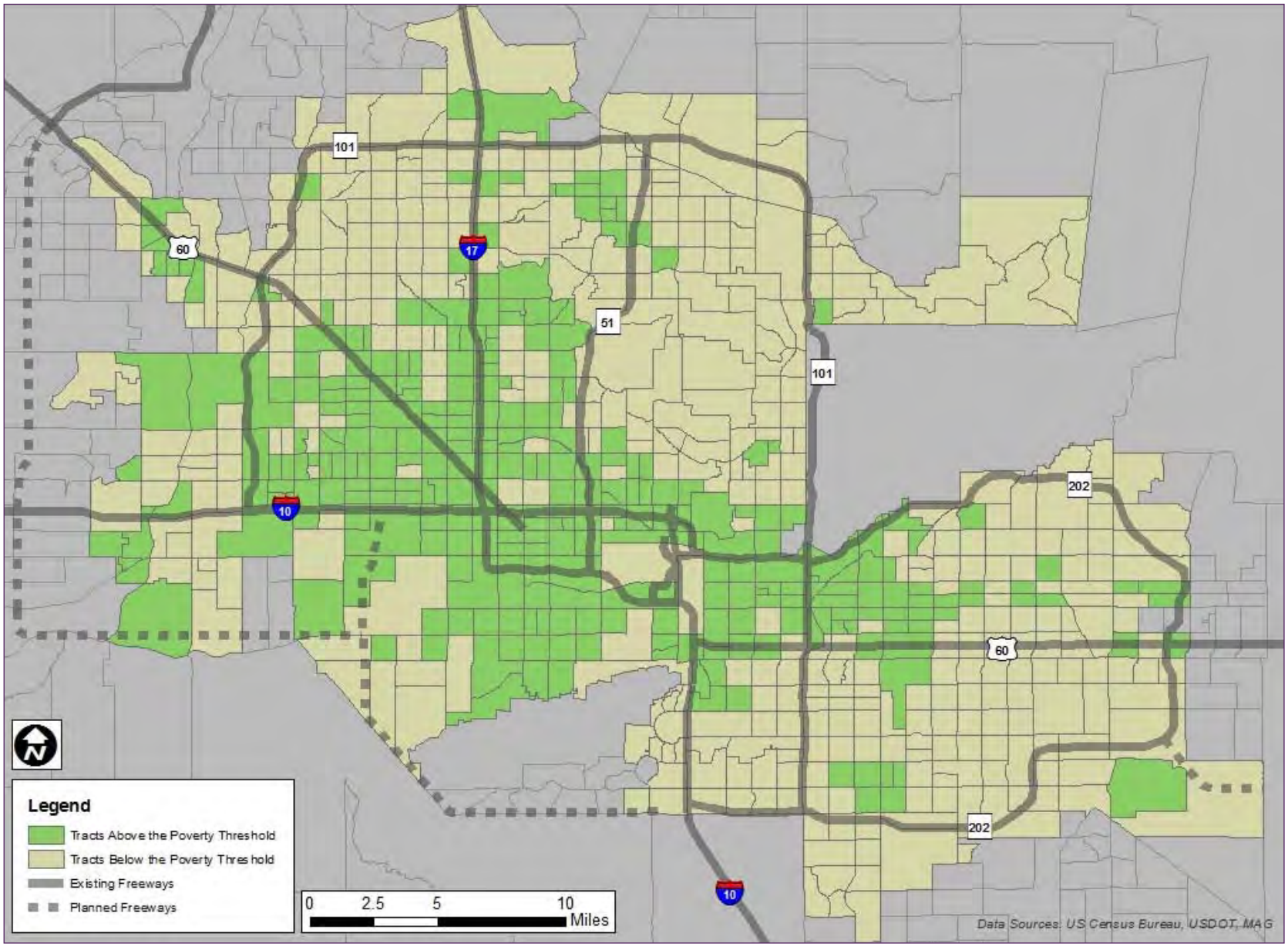
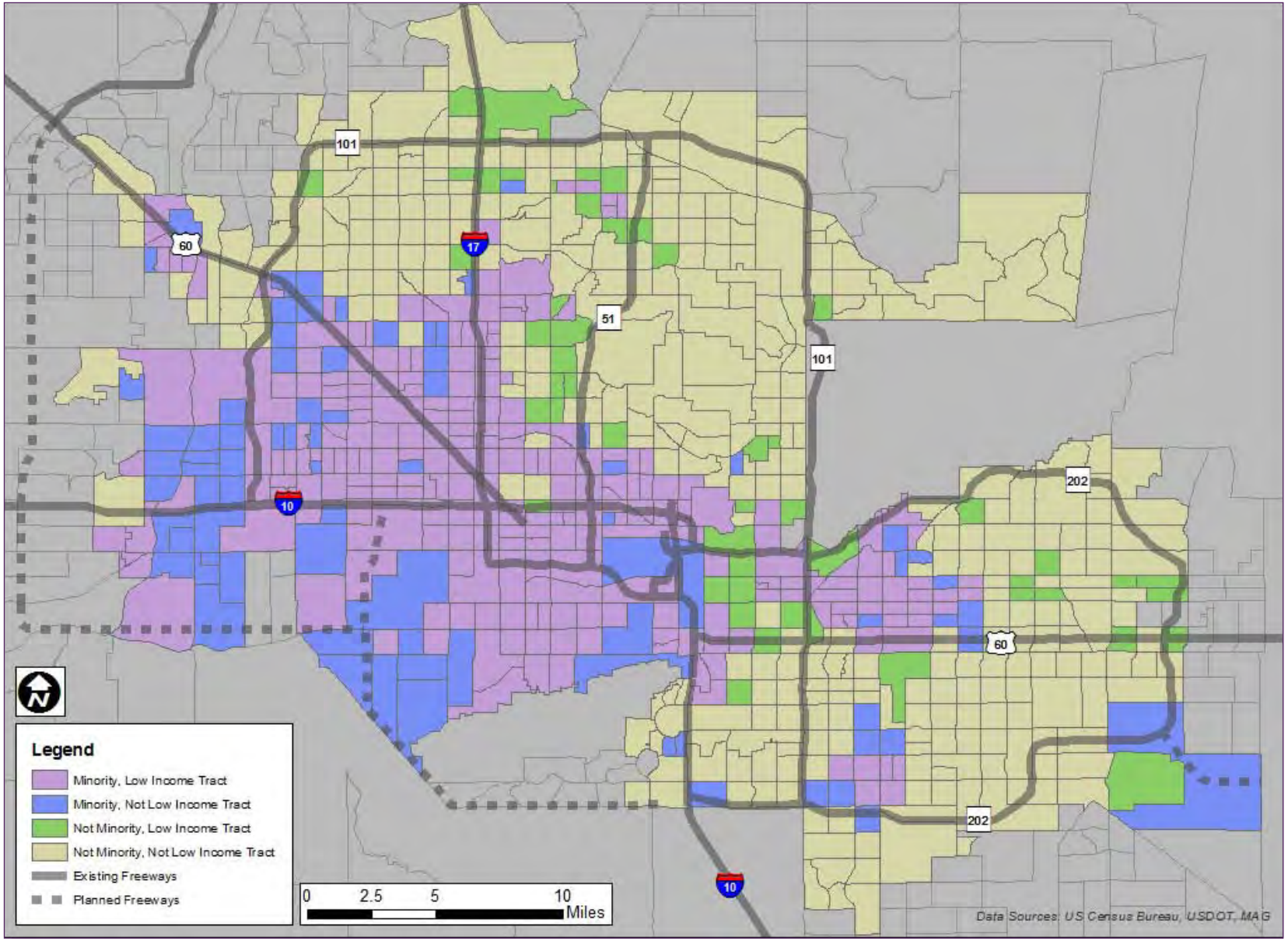


FIG.6 MINORITY AND LOW-INCOME CENSUS TRACTS



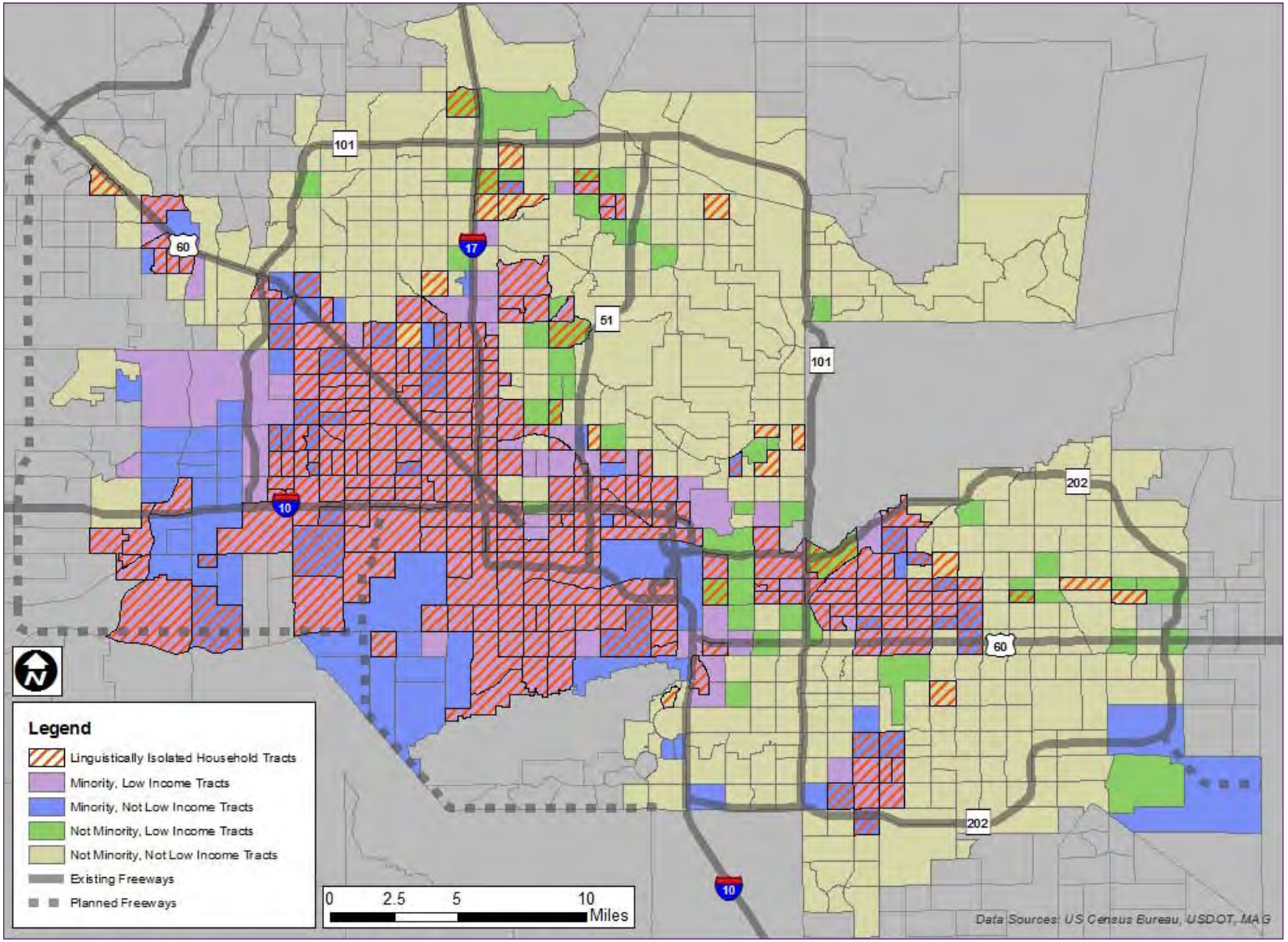
LIMITED ENGLISH PROFICIENCY POPULATIONS

In addition to the statutes of Title VI and EO 12898, Executive Order 13166 "Improving Access to Services for Persons with Limited English Proficiency" was issued on August 11, 2000. This EO mandates that all federal agencies and recipients of federal funding identify any need for service to those persons and households for whom English proficiency is limited. The EO also established the principle that those persons with limited English speaking skills be represented and engaged as part of the planning process. Public transportation can serve as a vital means of mobility for persons with limited English speaking capabilities, particularly for those persons who may otherwise not have access to a private vehicle. In the Phoenix metropolitan region, Spanish is the most common foreign language spoken. Valley Metro and its member jurisdictions routinely publish printed materials in English and Spanish (with other language translations available upon request), and public service announcements at transit facilities are made in bi-lingual format. Communication of policy changes for service or fares are broadcast regionally through ethnic media outlets including print, television, and radio programs.

Data on households with limited English proficiency was obtained and analyzed to identify congregations of linguistically isolated households within the service area. This analysis was conducted in accordance with FTA analysis methods as outlined in "Implementing the Department of Transportation's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons: A Handbook for Public Transportation Providers," published on April 13, 2007. The Census Bureau's 2010 American Community Survey 5-Year estimate data includes estimates on the number of linguistically isolated households by Census tract. The Census Bureau provides the following definition of a linguistically isolated household: "A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English 'very well.' In other words, all members 14 years old and over have at least some difficulty with English." Applying a similar method as was used for the identification of minority and low-income populations above, the percentage threshold for linguistically isolated households in Maricopa County was determined to be 6.51%. Therefore, Census tracts with a total percentage of linguistically isolated households above this threshold were identified, and a spatial analysis was conducted to determine the general locations of populations with limited English proficiency.

According to the data, 269 Census tracts have a percentage of linguistically isolated households above the Maricopa County threshold. A spatial analysis indicates that linguistically isolated households are predominantly congregated in the neighborhoods of southwest and west Phoenix, and west Mesa. In general, the spatial analysis found that regions of the service area with a percentage of linguistically isolated households above the county threshold correspond with locations populated predominantly with minority and/or low-income populations. While pockets of linguistically isolated households are scattered across the service area, the findings of this spatial analysis confirm that these populations would, in most cases, be included in the analysis of potential impacts to minority and low-income communities resulting from the proposed fare increase. Figure 7 displays the Census tracts with percentages of linguistically isolated households above the county threshold.

FIG. 7 LINGUISTICALLY ISOLATED HOUSEHOLDS



RURAL ROUTE 685 ANALYSIS

Service Area and Route Description

The Route 685 – Ajo/Gila Bend Regional Connector is a rural service route connecting Ajo, Arizona with the Desert Sky Mall Transit Center in Phoenix, spanning a distance of approximately 112 miles. Stops between terminus points include Gila Bend, Buckeye, Goodyear, and Avondale, with service operating Monday through Saturday. Given the rural nature of the service area, the service operates on a flex-stop basis, deviating up to three-quarters of a mile from the actual route to serve rural residents. For passengers seeking to transfer to Valley Metro buses, additional fares are required. The demographics of system users on this route are predominantly Hispanic or Latino.

Description Of Existing and Proposed Fare Structure

The current fare structure for Route 685 is distance based. Regular fares range from $2.00 to $8.00, with discounted fares available to those who qualify are between $1.00 and $5.50. For those passengers being picked up at flex stops, there is no discount. Valley Metro is responsible for service from Gila Bend to Phoenix, while the Regional Transportation Authority for Pima County is responsible for service between Gila Bend and Ajo. The proposed fare change would constitute both a change in fare structure and an increase in the fare. If approved, the rural route fare structure would be simplified to a flat fare of $4.00 per one-way ride, with a reduced fare of $2.00 per rider for elderly, youth, disabled, and intra-city travel. Intra-city travel includes trips within a jurisdiction and those between adjacent communities like Avondale and Goodyear, and Tolleson and Phoenix. The flat fare would constitute a $0.75 increase above the average distance-based fare of $3.25.

Analysis Methods

Because the Route 685 operates on a distance-based fare structure, an analysis using average daily ridership based on origin and destination travel patterns was employed. Daily ridership from June, 2011, was used to establish baseline revenue and trip patterns. It was assumed that trip patterns would remain the same for other months, and that June 2011 was a typical month. Trip patterns were grouped by trip pattern type, including regular (non-flex), regular flex, ADA & wheelchair (non-flex), and ADA & wheelchair flex boardings. For each trip pattern, the difference between current and proposed fare was calculated.

Analysis Findings

The analysis determined that a fare structure change to a flat, $4.00 fare would have varying degrees of effects to users. Some users paying the regular fare would experience an increase in costs, while a similar percentage would experience a decrease in costs. Flex stop users would experience the greatest increase in cost.

TABLE 9. ROUTE 685 FARE ADJUSTMENT IMPACT ASSESSMENT

Trip Pattern Type	Pay less fare	No impact	Pay more fare
Regular Boardings	38.8%	20.5%	40.8%
Regular Flex	7.7%	32.9%	59.4%
ADA & WC Flex	13.7%	86.3%	0.0%
ADA & Wheelchair	58.5%	18.9%	22.6%

Source: Route 685 On-Board Survey, 2010-2011

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6 ASSESSMENT OF THE FARE POLICY

Following the development of the ridership profile, and in conjunction with the spatial analysis of Census Bureau data on minority, low-income, and LEP populations, an assessment of the regional fare policy was conducted to evaluate potential equity implications associated with the goals or established thresholds for fare revenue recovery. Table 10 reports the total number of boardings by the transit modes that prescribe to the regional fare policy. The local fixed-route bus and light rail modes had the highest number of boardings, with LINK services having the lowest number of total boardings. Tables 11 and 12 report operating cost and fare revenue recovery data by mode. While the modes of service are different, the service pairings shown in Tables 11 and 12 were based on the fare structure of each mode. For example, local bus, LINK, and light rail all prescribe to the local bus fare structure, as described in Tables 1 and 2 above. Express bus and RAPID bus services prescribe to the express bus fare structure. These pairings are also reflective of the markets served by these modes, according to the 2010-2011 Transit On-Board Survey results. All data displayed were obtained from the Draft Valley Metro 2010-2011 Transit Performance Report.

TABLE 10. FY 2011 BOARDINGS BY TRANSIT SERVICE

Service Type	Total Boardings
Local Bus	47,066,049
LINK	403,894
LRT	12,793,529
Express Bus	723,481
RAPID	832,895
Total	61,819,848

Source: Valley Metro 2010-2011 Transit Performance Report

TABLE 11. FY 2011 OPERATING COST AND REVENUE DATA FOR LOCAL FARE ROUTES AND SERVICES

Service Type	Total Operating Cost	Total Fare Revenue	Average Fare Paid	Farebox Recovery Ratio	Subsidy per Boarding
Local Bus	$175,104,507	$42,950,800	$0.91	24.5%	$2.81
LINK	$2,290,822	$338,171	$0.84	14.8%	$4.83
LRT	$31,020,110	$10,238,281	$0.80	33.0%	$1.62
Total	$208,415,439	$53,527,252	$0.89	25.7%	$2.57

Source: Valley Metro 2010-2011 Transit Performance Report

TABLE 12. FY 2011 OPERATING COST AND REVENUE DATA FOR EXPRESS BUS AND RAPID SERVICES

Service Type	Total Operating Cost	Total Fare Revenue	Average Fare Paid	Farebox Recovery Ratio	Subsidy per Boarding
Express Bus	$6,563,067	$957,623	$1.32	14.6%	$7.75
RAPID	$4,641,206	$1,222,905	$1.47	26.3%	$4.10
Total	$11,204,273	$2,180,528	$1.40	20.40%	$5.80

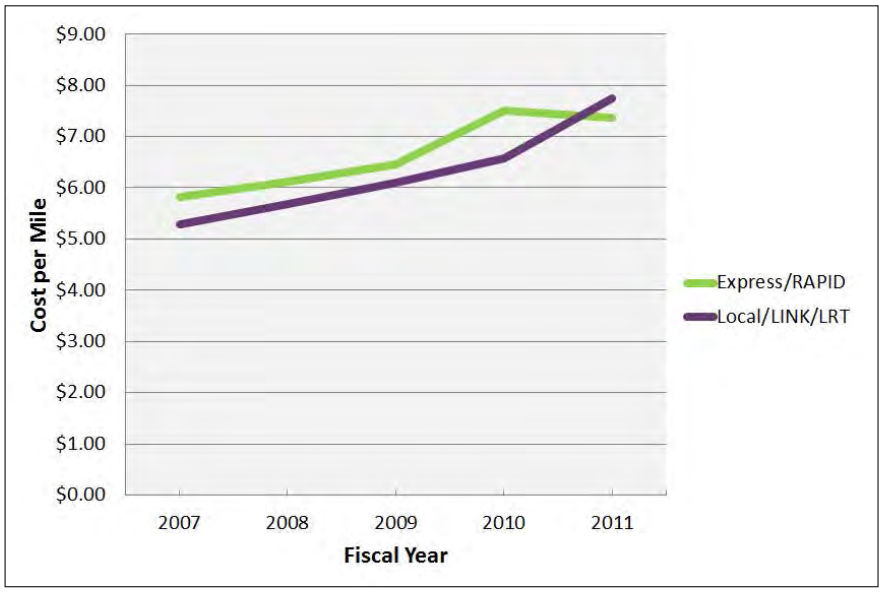
Source: Valley Metro 2010-2011 Transit Performance Report

ANALYSIS FINDINGS

The initial step in the equity analysis of the region's fare policy considered the operating cost per revenue mile. The data were obtained longitudinally from the Valley Metro Annual Transit Performance Reports between 2007 and 2011. It is important to note that the operating cost data were collected for each mode specifically, and aggregated by fare classification. Therefore, local fixed-route buses, light rail, and LINK services were aggregated together because these modes are operated under the local fare structure, while express bus and RAPID bus routes are operated under the express fare structure.

Between 2007 and 2011 system-wide operating costs rose steadily, with operating costs for express routes (express bus and RAPID) slightly higher as compared to local routes (local bus, LRT, and LINK). However, following the fare increase in FY2010, operating costs for local routes increased, while operating costs for express routes decreased. Figure 8 displays the operating cost per revenue mile by fare structure.

FIGURE 8. OPERATING COST PER REVENUE MILE BY FARE STRUCTURE

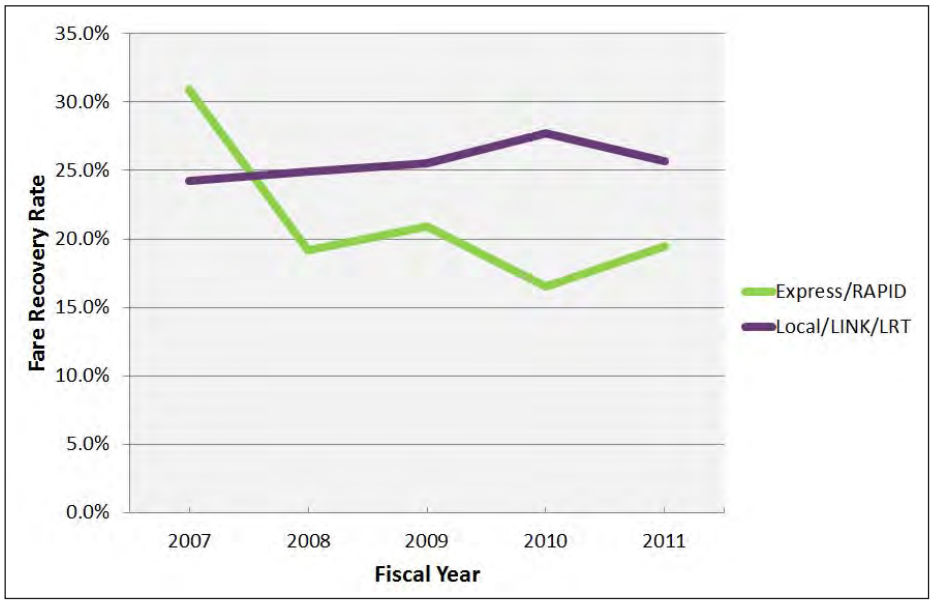


Source: Valley Metro Performance Reports, Fiscal Years 2007 through 2011

Note: In FY 2011, the City of Phoenix revised reporting methods for transit data and transit financials. When aggregated with data from Valley Metro for transit services operated under the express fare structure, this change potentially resulted in a reduction in operating cost per revenue mile for Express/RAPID services.

While operating costs rose, longitudinal trend data on farebox recovery percentages suggest that different transit modes either performed steadily or underperformed toward achieving a farebox recovery percentage at or above the established 25% target. Transit modes operating under the local fare structure generally met the 25% performance target; however, the farebox recovery percentage for transit modes operating under the express fare structure did not. Although the 25% farebox recovery target is established for the fixed-route system, and not necessarily applied on a mode by mode basis, this observation is notable and should be considered when determining future actions. Figure 9 displays the farebox recovery percentage by fare structure.

FIGURE 9. FAREBOX RECOVERY PERCENTAGE BY FARE STRUCTURE



Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

Note: In FY 2011, the City of Phoenix revised reporting methods for transit data and transit financials. When aggregated with data from Valley Metro for transit services operated under the express fare structure, this change potentially resulted in an increase in the fare recovery rate for Express/RAPID services.

Table 13 displays the aggregated fare recovery rates for each mode by fare structure, reflective of the data shown in Figure 9. As displayed, local routes are meeting the 25% fare recovery threshold, while express routes are below this threshold.

TABLE 13. FAREBOX RECOVERY PERCENTAGE BY FISCAL YEAR

Fare Structure	FY2007	FY2008	FY2009	FY2010	FY2011
Express/RAPID	30.9%	19.2%	20.9%	16.5%	20.4%
Local/LINK/LRT	24.2%	24.9%	26.0%	27.7%	25.7%

Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

Disaggregating the data shown in Table 13 to reflect the farebox recovery percentage by mode, a review of the data by mode indicates that certain modes are artificially inflating the recovery ratio of other modes. Specifically, RAPID bus services operated by the City of Phoenix are performing well above the 25% threshold, while express bus services are operating at only 14.8% fare recovery. This is largely due to the difference in level of service provided by RAPID as compared to the express bus network; high quality, reliable service translates into improved ridership. Aggregating the revenue recovery data by fare structure suggests that the fare recovery for the RAPID bus network is inflating the express fare structure recovery ratio when aggregated with the express bus mode. Similarly, the fare recovery percentage of LRT is more than double the fare recovery percentage for LINK service, while the local bus network is recovering nearly 25%. Table 14 displays the farebox recovery percentage by mode.

TABLE 14. FAREBOX RECOVERY PERCENTAGE BY MODE BY FISCAL YEAR

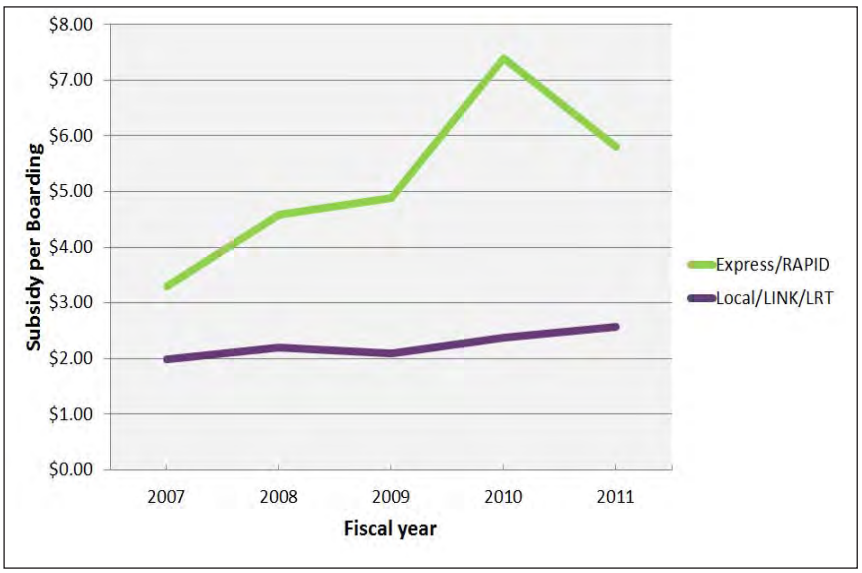
Mode	FY2007	FY2008	FY2009	FY2010	FY2011
Express Bus	30.9%	13.2%	12.3%	13.2%	14.6%
RAPID	30.9%	28.2%	33.0%	19.6%	26.3%
Local Bus	24.2%	24.9%	26.1%	27.8%	24.3%
LINK	-	-	7.3%	14.7%	14.8%
LRT	-	-	21.2%	28.0%	33.0%

Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

As shown in Table 10 above, the region's transit system is predominantly used by passengers using the local fixed-route bus network and LRT system, and according to the ridership profile, a significant proportion of these riders are minority and low-income users. According to data obtained from the 2010-2011 Transit On-Board Survey on ridership subsidies, approximately 74% of express bus riders use some type of transit pass subsidized by their employer, while only 6% of local passengers use some form of employer subsidized transit pass.

Additionally, the analysis considered the subsidy per boarding, aggregated by fare structure. Between fiscal years 2007 and 2011, the data generally display a widening gap in fare subsidy per boarding, with express route riders subsidized at a rate of nearly 2 or 3 times that of local riders. Figure 10 shows the subsidy per boarding aggregated by fare structure.

FIGURE 10. SUBSIDY PER BOARDING BY FARE STRUCTURE

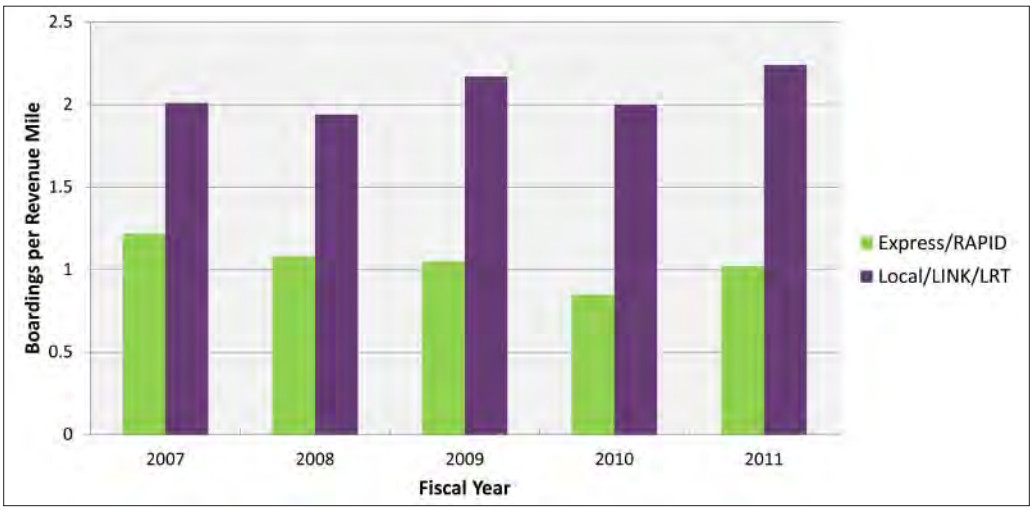


Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

Note: In FY 2011, the City of Phoenix revised reporting methods for transit data and transit financials. When aggregated with data from Valley Metro for transit services operated under the express fare structure, this change potentially resulted in a reduction in average subsidy per boarding for Express/RAPID services.

Figure 11 displays the Boardings per Revenue Mile to further illustrate the disparity in the subsidy per boarding, aggregated by fare structure.

FIGURE 11. BOARDINGS PER REVENUE MILE BY FARE STRUCTURE



Source: Valley Metro Annual Transit Performance Reports, Fiscal Years 2007 through 2011

Tables 15 shows the subsidy per boarding by transit mode, while Table 16 shows the subsidy per boarding aggregated by fare structure.

TABLE 15. SUBSIDY PER BOARDING BY MODE

Mode	FY2007	FY2008	FY2009	FY2010	FY2011
Express Bus	$6.50	$7.54	$4.89	$9.41	$7.75
RAPID	$2.97	$2.97	$4.89	$5.44	$4.10
Local Bus	$1.99	$2.20	$2.06	$2.47	$2.81
LINK	-	-	$7.34	$4.80	$4.83
LRT	-	-	$2.24	$1.96	$1.62

Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

TABLE 16. SUBSIDY PER BOARDING AGGREGATED BY FARE STRUCTURE

Fare Structure	FY2007	FY2008	FY2009	FY2010	FY2011
Express/RAPID	$3.30	$4.58	$4.89	$7.39	$5.80
Local/LINK/LRT	$1.99	$2.20	$2.09	$2.38	$2.57

Source: Valley Metro Transit Performance Reports, Fiscal Years 2007 through 2011

The 25% Fare Recovery Ratio Target and Service-Based Differential Fare Multiplier

As discussed, the regional fare policy stipulates a system-wide fare recovery ratio target of 25%. Available data indicate that both LRT and the City of Phoenix RAPID bus service have fare recovery ratios above this threshold, while the fare recovery ratio for local fixed-route bus services is immediately below the threshold. Conversely, the fare recovery ratios for express bus and LINK services are well below this threshold. However, when considered based on the fare structure applied to the fare classification, local fixed-route bus, LINK, and light rail services surpass the 25% threshold, while express bus and RAPID are well below the threshold (refer to Table 14).

Given the similarities in service between the regional express bus routes and the City of Phoenix RAPID bus routes, but recognizing the differences in service productivity (e.g. fare recovery ratios and subsidies per boarding), a market analysis was conducted to identify the markets served by these services.

The region's express bus and RAPID bus networks are designed to primarily serve the large employment district comprised of the Phoenix Central Business District and State Capital area. All but one of the region's 23 regional express and RAPID routes serve these important employment centers. Three of the largest employers located in the Phoenix Central Business District and State Capital area include the State of Arizona, Maricopa County and the City of Phoenix. All three of these major employers provide a public transit subsidy to their employees through the Valley Metro Platinum Pass program. The City of Phoenix and Maricopa County pay 100% of their employee's transit usage for commute trips, while the State of Arizona offers a maximum of $43 per month per employee. As previously documented, the 2010-11 On-Board Survey indicates that more than 74% of Express/RAPID passengers transit fares are subsidized by their employers.

Access to express bus and RAPID services requires payment of a premium fare. Single ride fares are available for purchase however many riders use multi-day passes or employer subsidized passes. The current 31-day pass fare of $85 was established in 2009. This was the last fare increase since 1994, when the 31-day express pass was set at $68. To understand the potential impact that future fare increases may have on ridership, the analysis below documents the impact of the last fare increase on passenger ridership by comparing patronage and other transit performance data before the 2009 fare increase (FY2010) and after the fare increase. Table 17 provides a summary of the express bus and RAPID operating and performance data from FY2007 through FY2011.

TABLE 17. EXPRESS/RAPID OPERATING AND PERFORMANCE – FY 2007 THROUGH FY 2011

Annual Performance	FY2007	FY2008	FY2009	FY2010 (Fare Increase)	FY2011
Boardings	1,434,895	1,590,092	1,815,530	1,594,978	1,556,376
Revenue Miles	1,178,186	1,470,833	1,906,307	1,877,106	1,525,757
Boardings/Revenue Miles	1.22	1.08	1.05	0.85	1.02
Total Fare Revenue	$2,114,652	$1,728,848	$2,348,760	$2,320,891	$2,180,528
Total Operating Cost	$6,852,699	$9,009,948	$11,220,842	$14,105,729	$11,204,273
Farebox Recovery Rate	30.9%	19.2%	20.93%	16.5%	20.4%
Average Fare Paid	$1.47	$1.09	$1.29	$1.46	$1.40
Average Subsidy	$3.30	$4.58	$4.89	$7.39	$5.80

Source: Valley Metro Transit Performance Reports, 2007 through 2011

The data in Table 17 indicate that express bus and RAPID ridership decreased from approximately 1.8 million annual boardings in FY2009 to approximately 1.6 million annual boardings in FY2010 after the fare increase was implemented, representing a 12.1% decrease. In comparison, collectively the local fixed-route, LINK, and LRT (excluding circulator and rural services) ridership decreased from 62.6 million annual boardings in FY2009 to 58.8 million in FY2010; a 6.1% decrease. Independently, LRT ridership increased between FY2009 and FY2010.

The express bus and RAPID annual boardings and amount of service provided (revenue miles) in FY2009 were significantly higher than the two previous fiscal years. In the last five years, FY2009 had the highest level of ridership and also the highest level of service provided (revenue miles). In the last two years (FY2010 and FY2011) the express bus and RAPID ridership levels were similar to the level of ridership observed in FY2007 and FY2008 prior to the FY2010 fare increase.

After reviewing the available data and factoring in the high usage of employer subsidized Platinum Passes by express bus and RAPID passengers, the impact of the fare increase on ridership is inconclusive. It is not feasible to isolate the other potential impacts associated with reduced levels of service or other variables on ridership. However, the data do show that both the express bus and RAPID ridership, along with local fixed-route, LINK, and light rail ridership decreased immediately following the regional fare increase. It is reasonable to assume that any increase in either the express or local fares may have a negative impact on ridership.

Considered in the context of the ridership profile and the demographics of the service area, the data suggest that disparities exist in the existing fare policy. Under the existing fare policy, local riders (those who use fixed-route bus, LINK, and LRT services) are bearing a disproportionate share of the system-wide operating costs. The fare recovery ratios for those routes prescribed to the local fare structure is currently greater than the fare recovery ratio of routes prescribed to the express fare structure. The fare structures were considered separately of one another because of the separate fare structure for local and express routes, given the proposed 1.5 multiplier pricing rule applied. The analysis found that the 1.5 multiplier to price one-way, one-ride express fares is also resulting in a subsidy per boarding difference of nearly $5.00, meaning express riders are receiving a significantly higher rate of public subsidy per boarding. It is recommended that separate fare recovery ratio targets be considered for express and local services.

5% ADA Paratransit Fare Recovery Ratio Target

As noted, the current regional fare policy establishes a 5% fare revenue recovery target for ADA-compliant paratransit services. According to available data, the revenue recovery ratio for paratransit services is currently 6.5%. Therefore, the system is meeting the established recovery target.

Rural Route

At the time of this report, RPTA operates one rural bus route between Ajo, Arizona and Phoenix. RPTA is responsible for the operations of this route only between Gila Bend and Phoenix, while Ajo Transportation is responsible for operating the route between Gila Bend and Ajo, Arizona. Other rural routes have been operated previously, but have either been suspended from service or eliminated based on route performance and operating costs. The current fare structure for rural route service is distance-based between designated stop locations, although the rural nature of the area served by this route allows for drivers to deviate up to three-quarters of a mile from the designated route alignment to serve rural residences. Moving to a flat fare structure would equally apply fares to all passengers regardless of trip length and establish a foundation for equitable fare adjustments in the future. However, it is important to note that passengers who make shorter trips along this route may feel this structure is inequitable when other passengers are making longer trips for the same price. It is recommended that a separate revenue recovery target be established for rural route service given the difference in fare structure and operating characteristics in order to consider future fare adjustments.

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7 ASSESSMENT OF THE PROPOSED FARE STRUCTURE

Following the analysis of socioeconomic data from the Census Bureau, coupled with data obtained from the 2010-2011 Transit On-Board Survey, the proposed fare structure was evaluated to identify whether the potential for adverse, disproportionately high, or disparate effects to minority and/or low-income populations could exist. This assessment was conducted independently of the fare policy assessment to evaluate the proposed fare adjustments at face value. The following observations are made:

1. How would the proposed fare changes affect minority and/or low-income riders?

In general, the proposed fare increases are relatively uniform across the different types of fare media currently offered. The percentage increase paid by riders using express bus services is greater when compared to the percentage increase paid by riders using the local bus, LINK, or light rail services. Specifically, the current regional fare structure charges $1.75 per one-way ride for all regular fixed-route bus and light rail services, and $2.75 for express routes. The proposed fare structure would increase the base local route fare by $0.25, equating to a 14.3% increase for fixed-route local bus, LINK, and light rail fares. Comparatively, the base cash fare for express route fares would increase by $0.50, a percentage increase of 18.2%. Similar observations were made for the 31-day local pass (an increase of 16.4%) and the 31-day express pass (an increase of 22.4%), and the all-day off-board local fare (an increase of 14.3%) and the all-day off-board express fare (an increase of 18.2%). Given the demographic differences between riders of the fixed-route local system, who are predominantly minority and/or low-income as compared to express riders, who are predominantly non-minority and middle-to-upper income, it is anticipated that the proposed fare structure will create greater balance (or equity) between the fare tariffs, and in the share of the operating costs.

In comparing the previous fare changes in 2009 for regular fixed-route bus and light rail fares with express fares, the data show that the express fares were previously increased at a much higher rate. In 2009, the single-ride cash fare for local and light rail increased 40% from $1.25 to $1.75, while the express fare increased by 57.1%, from $1.75 to $2.75. Likewise, in 2009, the 31-day local and light rail fare increased from $45.00 to $55.00 (an increase of 22.2%), while the express pass increased from $68.00 to $85.00, representing a 25% increase.

Table 18 details the type of fare purchased by user group, obtained from the Valley Metro 2010-2011 Transit On-Board Survey. The table shows the percentage of total fares purchased by minority or low-income populations by fare type. By example, of the total number of all day passes purchased, 61.1% were purchased by minority persons, and 53.7% were purchased by low-income persons. For comparison purposes, the table also shows the total number of fare types purchased, and the percent of total fare types purchased.

TABLE 18. TYPE OF FARE PURCHASED BY USER GROUP

Fare Type	User Group		Total Fare Types Purchased[c]	Percent of Total Fare Types Purchased
	Minority[a]	Low-Income[b]		
All Day Pass	61.1%	53.7%	57,416	23.8
3-Day Pass	70.9%	41.5%	1,246	0.5
7-Day Pass	60.5%	50.5%	8,177	3.4
31-Day Pass	52.9%	54.0%	57,649	23.9
Free	49.7%	54.6%	18,629	7.7
U-Pass	49.3%	42.3%	20,972	8.7
Employer Subsidized Pass	44.9%	22.4%	16,209	6.7
Semester Pass	78.2%	49.0%	8,014	3.3
Courtesy Pass	62.2%	62.4%	659	0.3
Full Fare	59.7%	52.2%	22,291	9.3
Youth Fare	75.9%	50.3%	3,569	1.5
Senior Fare	34.9%	66.1%	1,158	0.5
Person with Disability Fare	32.6%	73.6%	1,881	0.8
Field Trip Pass	100%	100%	48	0.0
Year Round Pass	100%	100%	35	0.0
Reduced Fare ID Card	48.4%	58.8%	9,305	3.9
Cash	50.7%	49.4%	2,246	0.9
Other	70.1%	53.5%	3,436	1.4
No Response Provided	61.2%	57.8%	8,027	3.3

Source: Valley Metro 2010-2011 Transit On-Board Survey

[a] The minority column includes all respondents who self-identified their racial identity as any ethnicity other than White.

[b] Low-income refers to all income classifications self-reported by survey respondents below $25,000.

[c] Total Fare Types Purchased reflects the total number of fares purchased by fare media type.

2. What alternative fare payment options are (or could be made) available for people that would be impacted by the fare change?

Reduced one-way fares and all transit pass options will continue to be available to those who qualify. While the cost of reduced fares would also increase under the current proposal, these fares would remain at one-half the standard rate. Also, the implementation of a 15-day pass may help off-set the difference between purchasing a seven-day or 31-day pass currently. While there was no way to comprehensively analyze the impacts of the new fare media, there may be positive impacts associated with introducing a lower cost fare instrument for low-income populations that may not have access to the large up-front costs of a 31-day monthly pass.

3. Is the proposed fare increase equitable with respect to the advance fare purchase (off-board fare purchases) or reciprocal transfers between transit services/service providers?

The proposed fare increase would only affect those services governed by the regional fare policy structure. All Valley Metro member agencies honor the regional fare media and will continue to do so after any fare increase. Passengers using a multiple-ride pass could transfer between Valley Metro partner agency buses or light rail vehicles using the same fare media as long as that media remained valid. The single-ride fare is the only type of fare that does not allow for transfers between modes or multiple boardings. A single-ride fare does not entitle the purchaser to more than one boarding either currently or under the proposed fare structure.

4. Are opportunities for off-board fare purchases geographically equitable?

An analysis of the potential impact of on-board and off-board fare sales on low-income and minority populations was not documented as part of the 2009 service adjustments. However, Valley Metro did conduct a geographic analysis to identify potential fare outlet locations in respect to general geographic coverage, which served as the foundation for an outlet location expansion program. While this analysis did not consider minority or low-income populations specifically.

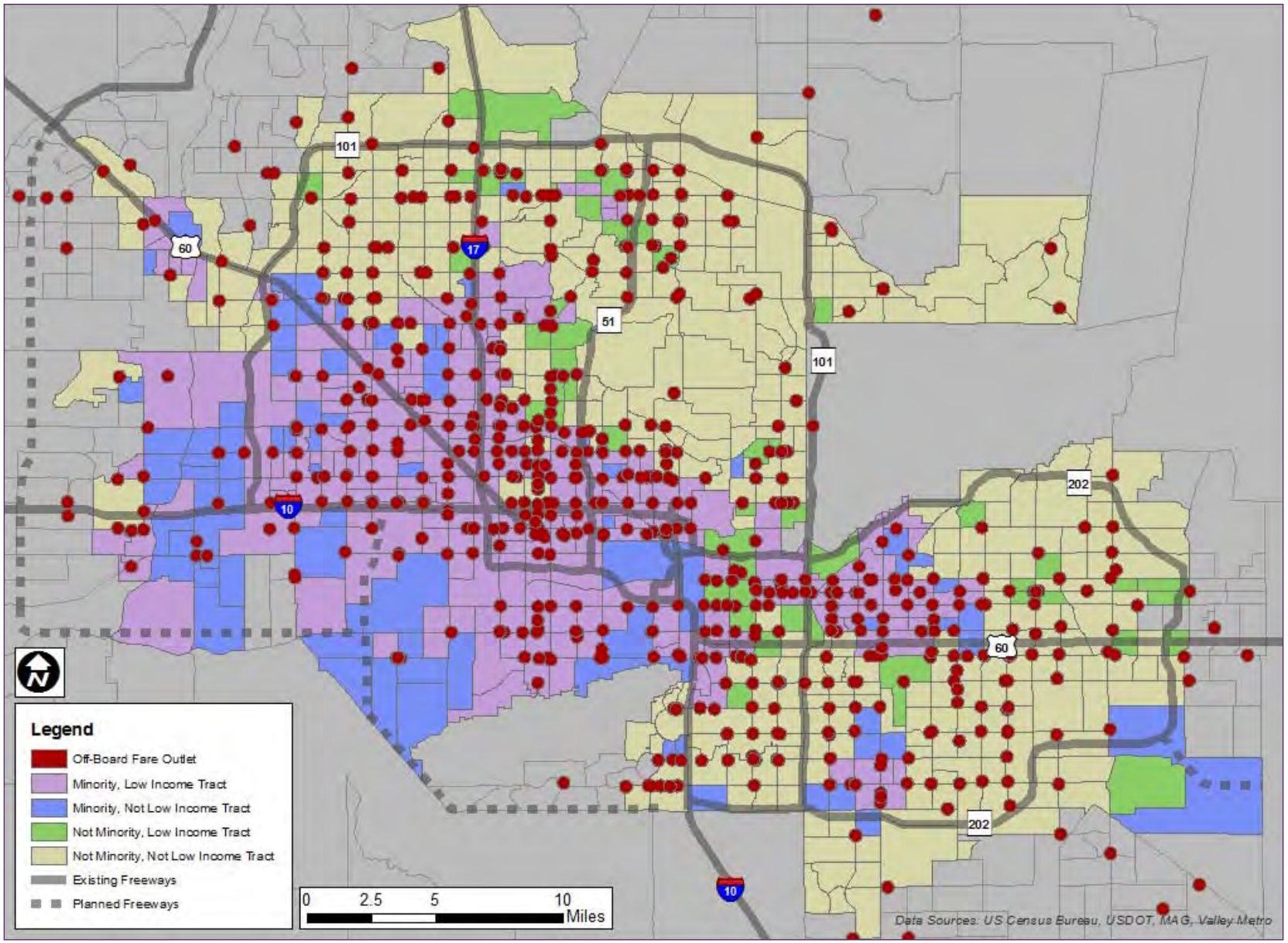
A geographic analysis of off-board fare purchase outlets was conducted as part of this Title VI analysis to identify the locations of existing facilities as they related to minority and low-income areas of the service area. A density analysis was developed to evaluate the density of off-board fare purchase outlets in minority and low-income areas as compared to non-minority and non-low-income areas. While there is a higher density of off-board fare outlets in minority and low-income areas, there are gaps in the service area that would require people in minority and low-income Census tracts to travel greater distances than one-quarter mile to access an off-board fare outlet. A partial list of the locations include:

- Southwest Phoenix
- North Tempe/South Scottsdale
- West Phoenix/Avondale/Tolleson
- Guadalupe

Figure 11 displays the location of off-board fare outlets within the service area and points beyond where passengers may purchase transit passes in advance of their trip.

Valley Metro recently entered into a contractual agreement with Circle K convenience stores to sell off-board transit fares at nearly 250 locations throughout the greater Phoenix metropolitan region. The addition of these outlets has improved accessibility to the areas identified above. Additionally, advanced purchase of off-board fares can be made online at http://www.valleymetro.org, but the fare media may take 5-7 days to be delivered. Passengers may also advance purchase fares at over 600 existing fare outlet locations throughout the greater Phoenix metropolitan area. However, passengers who live in an area without direct access to fare outlets are able to purchase off-board fare media at locations along a transit route. Passengers may sign up for the Automatic Mail Program to receive fare media at regular intervals without placing a new on-line order each time. The expiration date for any piece of multi-ride fare media is not set until the media is activated at the time of its first use.

FIG.12 LOCATIONS OF OFF-BOARD FARE MEDIA OUTLETS



It is recommended that Valley Metro develop a strategic plan to increase the number of fare media outlets to provide greater access to the discounted 1-day off-board fare media. Particular attention should be paid to geographic areas that either do not have, or have a limited number of fare media outlets currently. While the geographic distribution of off-board fare purchase locations currently favors minority and low-income communities, limited access to fare media outlets prevents some system users who wish to purchase an all-day pass to benefit from the $1.75 discount currently available, and the $2.00 discount under the proposed fare increase. At the time this policy was adopted, a Title VI analysis was not completed to determine whether the policy had the potential to disproportionately or adversely affect minority and low-income populations. While consistent with the practice of some peer systems, it is recommended that a Title VI analysis be completed to ensure compliance with federal reporting guidelines and requirements under Title VI and the Civil Rights Act of 1964.

5. What measures are being considered to mitigate, minimize, and/or offset disparate impacts on minority and/or low-income populations?

The proposed fare structure is deemed to be equitable across the different user groups and fare media, when considered in the context of the ridership profile and the demographics of the service area.

However, disparities remain within the current fare policy that must be addressed to ensure greater equity in the distribution of system-wide operating costs in the future. It is recommended that the fare policy multiplier for express fares be adjusted to ensure equity in the operating cost burden and/or consider establishing a separate express and RAPID bus fare target. This recommendation is based on data obtained from the Valley Metro 2010-2011 Transit Performance Report that indicates express and RAPID bus riders are currently being subsidized at a significantly higher rate as compared to local bus and light rail system users. While riders using express services have experienced higher fare increases than riders using local services in previous fare increases, under the existing fare policy and fare structure local riders are bearing a disproportionate share of the system-wide operating costs. Consequently, express riders are being subsidized at twice the rate of local riders. The proposed fare structure is anticipated to provide greater balance in the share of system-wide operating costs, and close the existing gap in subsidy between user groups.

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8 PUBLIC OUTREACH ACTIVITIES

Valley Metro's implementation strategy for the proposed changes to fares included a high level of public outreach in advance of making the proposed changes in order to gather public feedback and input. Public and agency involvement is critical when considering an increase in fares for service with the potential to affect the community. Consideration of the proposed fare increase, along with the public process developed and implemented, has involved extensive coordination and consultation with the affected public and agencies. The affected public include not only individuals residing in the service area, but businesses, civic organizations, local officials and others interested. The process was structured and implemented to consider the community concerns and issues.

Originally planned for implementation on July 1, 2012, the proposed fare adjustments are now planned to take effect March 1, 2013. The delay was necessary in order to complete this Title VI assessment. Announcements of the proposed fare change, meetings, and information materials have been made on major news media outlets including television, radio, and printed publications across the greater Phoenix metropolitan area. Public notices were provided via direct mail, on buses, and in local newspaper advertisements and press releases to local media. In addition, online announcements with links to printed information on the Valley Metro website were made on news media outlets and Valley Metro's internet homepage. Outreach efforts to ethnic news media sources to communicate with populations for whom English speaking capabilities may be limited were also made. A series of public hearings were held across the metropolitan region in November and December of 2011 to address the concerns of the public with respect to the proposed fare changes. A listing of these meetings is provided in Table 19 below.

TABLE 19. PUBLIC MEETINGS CONDUCTED ON THE PROPOSED FARE INCREASE

Date	Location	Address	Time	Minority/Low-Income/LEP Area
November 16, 2011	Town of Buckeye Council Chambers	530 E. Monroe Ave. Buckeye, AZ	6:00-7:15 PM	Yes
November 30, 2011	Cesar Chavez Library	3635 W. Baseline Road Phoenix, AZ	12:00-1:15 PM	Yes
November 30, 2011	Juniper Branch Library	1825 W. Union Hills Phoenix, AZ	5:30-6:45 PM	Yes
December 5, 2011	Maryvale Community Center	4420 North 51st Avenue Phoenix, AZ	12:00-1:15 PM	Yes
December 6, 2011	Valley Metro RPTA, Lake Powell Room	101 North 1st Avenue Phoenix, AZ	12:00-1:15 PM	Yes
December 6, 2011	Tempe Transportation Center	200 E. Fifth Street Tempe, AZ	6:00-7:15 PM	Yes
December 7, 2011	Mesa City Plaza	20 E. Main Street Mesa, AZ	6:00-7:15 PM	Yes
December 8, 2011	Glendale City Council Chambers	5850 W. Glendale Ave Glendale, AZ	6:00-7:15 PM	Yes
January 3, 2012	Valley Metro RPTA, Lake Powell Room	101 North 1st Avenue Phoenix, AZ	12:00-1:15 PM	Yes

Source: Valley METRO, 2011

Following the efforts of Valley Metro to publicize the proposed fare increase, a public comment period began where citizens could comment directly on the proposed fare changes. According to data obtained from public comments, the primary findings were determined:

- 31% of respondents indicated that raising fares would lower overall ridership, and make driving more economical,
- 25% of respondents said that the agencies should not raise fares at this time, given the greater economic picture of region and the nation,
- 24% said raising fares would be most difficult on transit dependent populations,
- 10% said that fare boxes should be fixed (e.g. repaired or better maintained), and
- 9% of survey respondents also indicated that transit agencies should consider other sources of revenue beyond fare increases.

While the general perception of increasing fares was less than positive, some respondents recognized the need to increase fares. Approximately 8% of respondents said that they would be more willing to accept a fare increase provided transit service was improved, while 8% of respondents also indicated that they would support a modest fare increase, kept to a minimum of $0.25. Approximately 4% of those respondents indicated that the focus should continue to be on increasing ridership, and 3% of respondents felt any increase in fares should be gradual (smaller, incremental increases in fares occurring more frequently, rather than a large increases in fares less often). Another 3% of respondents felt that changes in service should be considered before fares would be increased.

Overall, the findings of the public process indicated that ideally, no fare increase would be preferred. However, if a fare increase must occur, a $0.25 increase to the one-ride base fare garnered the most support. A strategy to improve the fare collection process on the bus, the use of smart cards where value can be added by the user, and a retail outlet strategy must be considered as part of any recommendation. The cost to use public transit was slightly more important to respondents than the level of service available. With any fare increase, the public expects service to improve, and setting public expectations regarding service levels and quality will be critical toward achieving improved ridership and system utilization. Finally, a significant fare increase may force discretionary riders to drive rather than use transit, and regional employers are concerned about the impact to the Platinum Pass program.

9 RECOMMENDATIONS

The pricing of transit fares and fare policies have a direct influence on the utilization of transit systems. If prices are set too high, demand for service will be low and other community goals may be compromised, such as air quality benefits or travel time savings; conversely, if prices are set to low, thereby encouraging greater demand, the revenue recovery may be insufficient to keep pace with supplied service. It is therefore important that a fare structure and policy balance both the demand and supply of transit service to maintain economies of scale and efficiency and to give consideration to all community goals related to the use of public transportation and ride-sharing. However, consideration of equity in the provision of transit service must not be overlooked when developing a fare structure and policy.

Analysis of the proposed fare structure finds that no disproportionate or disparate equity impacts are anticipated. The percentage increases by different fare types are relatively similar, albeit fares for express bus and RAPID bus system users will increase at a slightly higher rate than riders using the local bus, LINK, or light rail systems. When considered in the context of the ridership profile, the proposed fare structure does not have a disproportionate or disparate equity impact on minority and/or low-income populations.

However, disproportionate and disparate equity impacts do exist under the current fare policy and fare structure resulting in local bus, LINK, and light rail transit riders assuming a higher proportion of the system-wide operating costs and subsidizing express riders at higher rates. As displayed by the ridership profile, minority and/or low-income populations overwhelmingly comprise the ridership of transit services that employ the local fare structure, while express riders are predominantly non-minority and non-low-income. While minority and/or low-income riders also utilize express bus services, they constitute a much smaller proportion of existing riders using these services. Under the current fare policy and fare structure, riders using express fare services are being subsidized at twice the rate of riders using local fare services. While the majority of transit services provided are local fixed-route buses, and local fixed-route revenues comprise over 96% of total fare revenues recovered, the majority of local riders in the Phoenix metropolitan region are transit-dependent, while express riders are typically choice riders with access to other forms of transportation. Furthermore, analysis of ridership survey data indicates that 74% of current express riders have access to, and regularly use, employer-subsidized transit passes, meaning that the out-of-pocket expense paid by express riders is typically lower than that paid by local system riders.

It is important to recognize the extensive work the region's transit partners have committed to the development of the fare policy and proposed fare adjustments. However, the current fare structure appears to have an inherent disproportionate and disparate impact to minority and/or low-income communities. This impact is anticipated to continue without implementation of mitigation practices. The mitigation practices recommended for the region's transit partners are outlined in Table 20.

It is recommended that a corrective action plan be developed to adjust the regional transit fare policies and be implemented at the earliest time feasible. The plan for policy adjustments should address the determinations documented in this report and seek to incorporate additional elements that will provide for an equitable distribution of fares and offer flexibility for future transit fare adjustments.

TABLE 20. ANALYSIS RECOMMENDATIONS FOR CORRECTIVE ACTIONS

Fare Element	Determination	Recommended Action
Fare Recovery Ratio Target	Local/LINK/LRT services are recovering a higher percentage of operating costs than Express/RAPID	Develop separate fare recovery ratio targets for Local/LINK/LRT and Express/RAPID fares to ensure equity in operating cost burden
Base Fare Multiplier for Express/RAPID Fares	Current base fare multiplier for the Express/RAPID fare produces an Express/RAPID fare recovery rate that is lower than Local/LINK/LRT	Revise fare policy multiplier proposed for express fares or enact a separate express fare recovery ratio target to ensure equity in operating cost burden
Rural Fare Recovery Ratio Target	There is not a fare recovery ratio target established for the rural connector service	Establish policy for rural fare recovery
Unequal Rate of Fare Increase	Rounding of fares to nearest $0.25 results in unequal fare adjustments from increase to increase	Specify a permanent fare rounding procedure for every fare product
Accessibility of Fare Outlets	Fare outlets not available in all low-income and minority areas of service area	Continue to expand fare media outlets, as demonstrated by the addition of approximately 250 Circle K stores in 2012, and develop a strategy for measuring the increase in access on an annual basis
ADA Fare Threshold	ADA fares currently tracking on target versus recovery threshold	Annually review ADA/paratransit revenue recovery threshold as appropriate

The development of a corrective action plan is the initial step that Valley Metro must take to address the disparate impacts identified and deficiencies of the existing fare policy and structure. A corrective action plan should specify the responsible office and/or designated authorities responsible for Title VI review, a public participatory plan detailing community engagement practices specifically for Title VI, the public procedure for filing Title VI complaints and the process for how complaints are evaluated/resolved, and a schedule for implementation and monitoring to evaluate the effectiveness of agency activities toward achieving equity in the fare policy and structure.

It is also important to establish a sequence for future Title VI reviews of proposed fare adjustments and/or major service changes to ensure equity is considered early in the planning process. As noted in the determinations of this report, no records are available to indicate that Title VI reviews were completed for previous fare policy and fare structure adjustments. Moving forward, it is recommended that once the need for fare adjustments is determined, and Valley Metro staff define the scale of adjustments necessary, a Title VI review of the proposed fare adjustments be conducted, followed by a public participatory process.

10 CORRECTIVE ACTION PLAN OUTLINE

The Title VI equity evaluation for the proposed regional transit fare increase and regional fare policy identified several equity concerns with the regional fare policy that were affecting the pricing of transit fares. The regional fare policy is the agency-adopted standard used for setting transit fares, fare multiplier values and pricing rules, fare media, and fare recovery targets. The fare structure is the implemented result of the fare policy, in essence, the structured list of fare options customers may choose from when purchasing transit fares.

The corrective actions recommended in the Title VI report are intended to address the inequities determined with the regional fare policy, and to ensure equity in the pricing of transit fares in the future when additional fare adjustments become necessary. These corrective actions are intended to address the determinations documented in the report "Title VI Assessment of the Valley Metro Fare Policy and Proposed FY2013 Fare Change," and seek to incorporate additional elements that will provide for an equitable distribution of fares and offer flexibility for future transit fare adjustments. Table 20 of the report identifies the determinations and recommended actions that should be taken to correct inequities in the fare policy, and to ensure continued monitoring of fare-related actions

As part of the delivery of public transportation services in the greater Phoenix metropolitan region, Valley Metro strives to provide transportation services in an equitable manner that encourage the social and economic development of the region. To that end, Valley Metro has outlined the following corrective actions the agency intends to take in calendar year 2013 to rectify the deficiencies determined in the fare policy. During the remaining months of 2012, and for much of the 2013 calendar year, Valley Metro will implement a corrective action plan that addresses the deficiencies of the regional fare policy. A schedule for implementation of the corrective actions is provided in Table 21.

TABLE 21. CORRECTIVE ACTION PLAN IMPLEMENTATION SCHEDULE

Corrective Action	Schedule
Prepare draft fare policy options	February – March
Conduct Title VI analysis of fare policy options	April
Present fare policy options to RPTA/METRO Boards	May
Hold public review and comment process	May - July
Revise fare policy and fare structure options	July – August
Present recommended fare policy to RPTA/METRO Boards	September

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Valley Metro

Title VI Assessment of Proposed Service Changes for July 2013

May 2013

VALLEY METRO

1.0 Introduction

This memorandum defines the proposed general service modifications considered for several Valley Metro system routes, and considers whether the proposed service modifications qualify as "Major Service Changes" in accordance with Valley Metro's adopted service equity policies and Federal Title VI regulations. The memorandum includes an evaluation of potential effects to minority and/or low-income populations using or residing near the routes considered for service modifications. Maps displaying the percentages of minority and low-income populations surrounding each bus route considered for service modifications are provided at the back of this memorandum.

2.0 Summary of Service Modifications

Table 1 outlines the bus routes proposed for service changes, the percentage change, and whether the change qualifies as a Major Service Change. It is important to note that several routes included multiple service modifications, and the proposed modifications were therefore considered independently. Additional detail on the proposed service modifications is provided below.

Table 1. Summary of Service Modifications and Major Service Changes

Route	Percentage Change	Major Service Change	Disparate/Disproportionate Impact Determination
Route 56 (Route Reduction)	37.0%	Yes	Potential disparate impact; Offset by modifications to Route 108
Route 56 (Modified Alignment)	4.4%	No	None
Route 108 (Modified Alignment)	20.0%	No	None
Route 108 (Headway Expansion)	65.8%	Yes	None
Route 156 (Modified Alignment)	2.6%	No	None
Route 511 (Modified Alignment)	1.1%	No	None
Route 571 (Headway Expansion)	33.0%	Yes	None

3.0 General Service Modifications

The proposed general service modifications to the following routes are defined below. The service modifications considered include elimination of service along specific streets, extensions of routes to serve new geographic areas, and enhancements to service frequencies.

- Route 56 (Priest Drive) – Route Length Reduction/Modified Alignment (Segments to New Areas) – Two service changes are proposed for Route 56. The first would be the elimination of service between Priest Drive/Elliot Road and 48th Street/Chandler Boulevard (a reduction of approximately 4.11 route miles). The second change would be the extension of service from Priest Drive/Elliot Road to 48th Street/Ray

Road (via Priest Drive), and extension of service to McDowell Road/68th Street. These service changes will be evaluated separately.

- Route 108 (Elliot Road) – Route Length Expansion/Service Headway Expansion – Two service changes are proposed for Route 108. The route's western end is proposed to be extended by approximately 5.25 miles to 48th Street/Frye Road, with designated peak hour trips to the 40th Street/Pecos Road Park-and-Ride. In addition to the extension of the route, the cities of Mesa, Gilbert, and Chandler are planning to increase service operations along Route 108 to match the operating characteristics of the service in Tempe. These service changes will be evaluated separately.
- Route 156 (Chandler Boulevard) – Route Length Expansion – The western end of the route is proposed to be extended by approximately 0.5 miles to the intersection of 48th Street/Chandler Boulevard.
- Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment – This express route is modified to end at the McClintock/Apache Boulevard Park-and-Ride to connect passengers with local bus and light rail services.
- Route 571 (Grand Avenue Express) – Service Headway Expansion – Two additional service runs are proposed, one morning and one afternoon peak period trip, increasing the total number of trips from six to eight.

4.0 Determination of Major Service Changes

In accordance with Valley Metro's policy for determining whether the proposed service modifications to the aforementioned routes qualify as Major Service Changes, each of the route modifications were evaluated independently. In order to be considered a Major Service Change, the route length, alignment, or the route's operating characteristics must exceed a cumulative change threshold of 25%.

- Route 56 (Priest Drive) – Route Length Reduction – The proposed reduction in route length represents a loss of 4.11 route miles, amounting to a 37% reduction of the route's current total length. This percentage change is above the 25% threshold. Additionally, the elimination of service between the intersections of Priest Drive/Elliot Road and 48th Street/Chandler Boulevard would require passengers to transfer to a different route to connect with destinations currently served between these intersections along Elliot Road and 48th Street. No frequency or service span changes are planned. This service modification is therefore considered a Major Service Change.
- Route 56 (Priest Drive) – Modified Alignment (Segments to New Areas) – While a portion (described above) of Route 56 would be eliminated, the northern and southern ends of the route would be extended to serve new areas. The northern terminus would be extended from Van Buren Street/Priest Drive to McDowell Road/68th Street (approximately 1.9 miles), and the southern terminus at Priest Drive/Elliot Road would be extended to 48th Street/Ray Road (via Priest Drive) (approximately 3 miles). No frequency or service span changes are planned. These

route extensions amount to a 4.4% gain in route length (when compared to the existing route length). Cumulatively, when considering the eliminated segment and the new areas served by extension of the Route 56, the change amounts to a difference of -10.1% in total route length (or a loss of only 1.4 miles in route length) when compared to the existing route alignment and length. The modified alignment of Route 56 with service to new areas is not a Major Service Change.

- Route 108 (Elliot Road) – Route Length Expansion – The proposed extension of Route 108 would result in a net gain of 4.7 route miles, amounting to a 20% increase in total route length above the route's current alignment. This extension would operate along the existing alignment of the Route 56 proposed for elimination, helping to offset the loss of service along 48th Street by the restructuring of Route 56. While passengers from the Route 56 would have to transfer to the Route 108 at Priest Drive/Elliot Road (or at 48th Street/Ray Road, assuming the Route 56 alignment is modified), they would still be able to reach destinations along the Elliot Road and 48th Street corridors west of Priest Drive currently served by the Route 56. The proposed service modification is not a Major Service Change.
- Route 108 (Elliot Road) – Service Headway Expansion – In addition to the planned extension of the route, changes are also planned for the service frequency of Route 108. Currently the route makes 13 trips through the cities of Tempe, Chandler, Mesa, and the Town of Gilbert. The proposed frequency changes would result in the service operating in Mesa, Chandler, and Gilbert matching the service in Tempe, where the route currently operates at 30-minute headways (unlike Mesa, Chandler, and Gilbert, where the route operates at 60 minute headways currently) making 38 total trips. This change amounts to adding 25 additional daily trips. This amounts to an increase of 259,055.73 additional annual revenue miles. In total, the additional 25 trips amounts to an increase in service of approximately 65.8%. Therefore, the proposed service modification is a Major Service Change.
- Route 156 (Chandler Boulevard) – Route Length Expansion – The proposed route modification would extend the western end point of Route 156 from 54th Street to 48th Street. This amounts to a route extension of approximately 0.5 miles. No frequency or service span changes are planned. This service modification amounts to a change of approximately 2.6% increase in route length. Therefore, the proposed service modification is not considered a Major Service Change.
- Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment – The route is proposed to be shorted by 1.1%, simplifying the turnaround at the Scottsdale Airpark to link with a future circulator service.
- Route 571 (Grand Avenue Express) – Service Headway Expansion – This route currently makes three morning and three afternoon peak period trips. The addition of two full service runs (one during the morning and one during the afternoon peak periods) would increase the total number of services runs from six to eight. Cumulatively, the addition of two trips along a route that currently makes six total trips (morning and afternoon) would result in a 33% increase in the total number of trips. This service modification would be a major service change.

Table 2 summarizes the service modifications deemed to qualify as Major Service Changes.

Table 2. Summary of Service Modifications and Major Service Changes

Route	Percentage Change	Major Service Change
Route 56 (Route Reduction)	37.0%	Yes
Route 56 (Modified Alignment)	4.4%	No
Route 108 (Modified Alignment)	20.0%	No
Route 108 (Headway Expansion)	65.8%	Yes
Route 156 (Modified Alignment)	2.6%	No
Route 511 (Modified Alignment)	1.1%	No
Route 571 (Headway Expansion)	33.0%	Yes

5.0 Route Demographic Profile Information

A review of available demographic data was conducted to evaluate the current ridership socioeconomic characteristics of the existing routes, and/or the population and income characteristics of populations residing in areas where new service would be provided. The evaluation was based on Valley Metro's policies for service changes. For service changes affecting route lengths or headways, a review of available origin/destination survey data was conducted. For extensions of routes to new geographic areas where service is currently not provided, 2010 Census data were used to profile the demographic characteristics of the new service area.

- Route 56 (Priest Drive) – Route Length Reduction – According to data from the origin/destination survey, 59.2% of the route's ridership are minority passengers. The data suggest that approximately 29.9% of current passengers are low-income.
- Route 56 (Priest Drive) - Modified Alignment (Segments to New Areas) – Census demographic data suggests that the extensions north and south along Priest Drive to McDowell Road/68th Street and 48th Street/Ray Road would serve areas below the Valley Metro service area threshold for being considered minority or low-income areas.
- Route 108 (Elliot Road) – Route Length Expansion – According to Census demographic data, the proposed extension of Route 108 would serve a geographic area along Elliot Road and 48th Street in southeast Phoenix that are below the Valley Metro service area thresholds for being considered minority or low-income areas.
- Route 108 (Elliot Road) – Service Headway Expansion - According to the most recent Transit On-Board Origin/Destination Survey, 57.5% of the Route 108 riders are minorities, and 29.8% are low-income riders, with incomes below $25,000, the threshold used to characterize low-income populations.
- Route 156 (Chandler Boulevard) – Route Length Expansion – According to the Census demographic data, the proposed extension of Route 156 would serve a

geographic area along Chandler Boulevard that is below the Valley Metro service area thresholds for being considered minority or low-income areas.

- Route 511 (Grand Avenue Express) – Service Headway Expansion – According to the origin/destination survey data, approximately 26.3% of passengers using Route 511 are minorities. Approximately 0.0% of existing passengers self-identified themselves has having incomes below $25,000.
- Route 571 (Grand Avenue Express) – Service Headway Expansion – According to the origin/destination survey data, approximately 29.6% of passengers using Route 571 are minorities. Approximately 10.5% of existing passengers self-identified themselves has having incomes below $25,000.

Table 3 below provides a summary of 2010 decennial Census data representing the minority and impoverished populations residing in census tracts that are directly affected by each of the proposed service modifications. The table is split to show the minority and low-income percentages first along the existing routes, and then along the portions of each route slated to change.

Table 3. Census Demographic Data for Current and Proposed Route Alignments

Current Route Alignment Demographics (Census)	Minority	Low-Income
Route 56	45.6%	16.5%
Route 108	28.0%	7.5%
Route 156	39.7%	8.7%
Route 511	28.7%	15.6%
Route 571	55.7%	23.9%
Service Modification Demographics	**Minority**	**Low-Income**
Route 56 (Route Length Reduction) (O/D Survey[1])	59.1%	29.9%
Route 56 (Modified Alignment) (Census)	38.8%	11.0%
Route 108 (Route Length Expansion) (Census)	35.8%	8.5%
Route 108 (Service Headway Expansion)[2] (O/D Survey[1])	57.5%	29.8%
Route 156 (Route Length Expansion) (Census)	41.4%	7.2%
Route 511 (Modified Alignment) (O/D Survey[1])	26.3%	0.0%
Route 571 (Service Headway Expansion)[2] (O/D Survey[1])	29.6%	10.5%
Valley Metro Service Area (Census)	45.6%	15.8%
Valley Metro System-Wide Percentage (O/D Survey[1])	56.2%	50.6%

[1] The most recent Transit On-Board Origin/Destination Survey was conducted at the 95% confidence level, with a margin of error of +/- 1%. Refer to Appendix B of the O/D Survey.
[2] As service frequency changes, the demographic characteristics of Routes 108 and 571 do not change from their current characteristics.

6.0 Public Outreach

The City of Tempe held two public meetings on February 6th and 9th 2013 to seek input on proposed changes to routes 56 and 108.

The City of Phoenix held several public meetings on March 12th, 13th, 14th, 18th, and 20th 2013 to seek input on proposed changes to routes 56, 108, 156, and 571. The City of Phoenix also held a public hearing on these proposed changes on April 8, 2013.

Valley Metro will hold a public hearing on May 29, 2013 in the Town of Surprise to discuss the proposed changes to Route 571.

7.0 Conclusions

Of the proposed service modifications outlined above that qualify as "Major Service Changes", only the Route 56 has the potential to result in a disparate and disproportionate impact on minority and low-income populations. Currently, 59.1% of Route 56 riders are minorities, 2.9 percentage points above the Valley Metro system-wide percentage of minority users (56.2%) based on the Transit On-Board Survey (2010-2011). Low-income populations account for 29.9% of the route's ridership, 20.7 percentage points below the Valley Metro system-wide percentage of low-income users (50.6%), based on the Transit On-Board Survey. The elimination and re-alignment of service along portions of the Route 56 would result in the need for current Route 56 passengers to transfer between bus routes to access destinations along Elliot Road and 48th Street. All passengers would still have access to destinations served by the current alignment of Route 56 if the Route 108 is modified to serve 48th Street and the 40th Street/Pecos Road park-and-ride (select peak-period trips only). Therefore, the potential disparate impact to Route 56 is offset by the modification of Route 108 as described above. None of the proposed service changes, regardless of whether they are "Major Service Changes" or not, are anticipated to have a disproportionate impact to low-income populations.

In the case of the frequency enhancements to Route 108 and Route 571, the enhancements to service are anticipated to benefit all communities. Therefore, the proposed change in frequency will not result in a disparate or disproportionate impact to minority or low-income population.

Table 4 summarizes the analysis results by route and the determination of whether a disparate or disproportionate impact would result as an outcome of the changes as proposed. It is important to remember that the service modifications proposed are either changes to the route alignments and/or route lengths, or are service frequency changes. The type of service modification determines the data to be used for analyzing whether the proposed change will result in a disparate or disproportionate impact. Changes to existing route alignments or service frequencies are evaluated using origin/destination survey data, while extensions of bus routes to serve new geographic areas are evaluated using Census data. The minority and low-income percentages shown are based on the type of data used to evaluate the proposed service change for equity implications. Each of the routes has been identified as to whether the proposed service modification would qualify as a "Major Service Change". Because there were multiple changes proposed for both the Route 56 and Route 108, these changes were

considered separately. The determination of whether an adverse, disparate, or disproportionate impact occurs is based on the following:

1. The proposed service modification qualifies as a Major Service Change. If the service modification is not deemed a "Major Service Change", it is determined that the proposed change would not have an adverse, disparate, or disproportionate impact to any community.
2. The percentage of minority or low-income populations is above the Valley Metro Service Area threshold (shown at the bottom of the table). The percentages shown for minority and low-income populations reflect the population percentages for the portion of the route that is changing, or type of service modification. For example, the minority percentage for the route length reduction proposed for Route 56 reflects the percentage of minorities currently using the route based on the origin/destination survey data.
3. Improvements to service (e.g. extensions of routes to serve new areas or frequency improvements) that provide a benefit to all users do not constitute an adverse, disparate, or disproportionate impact.

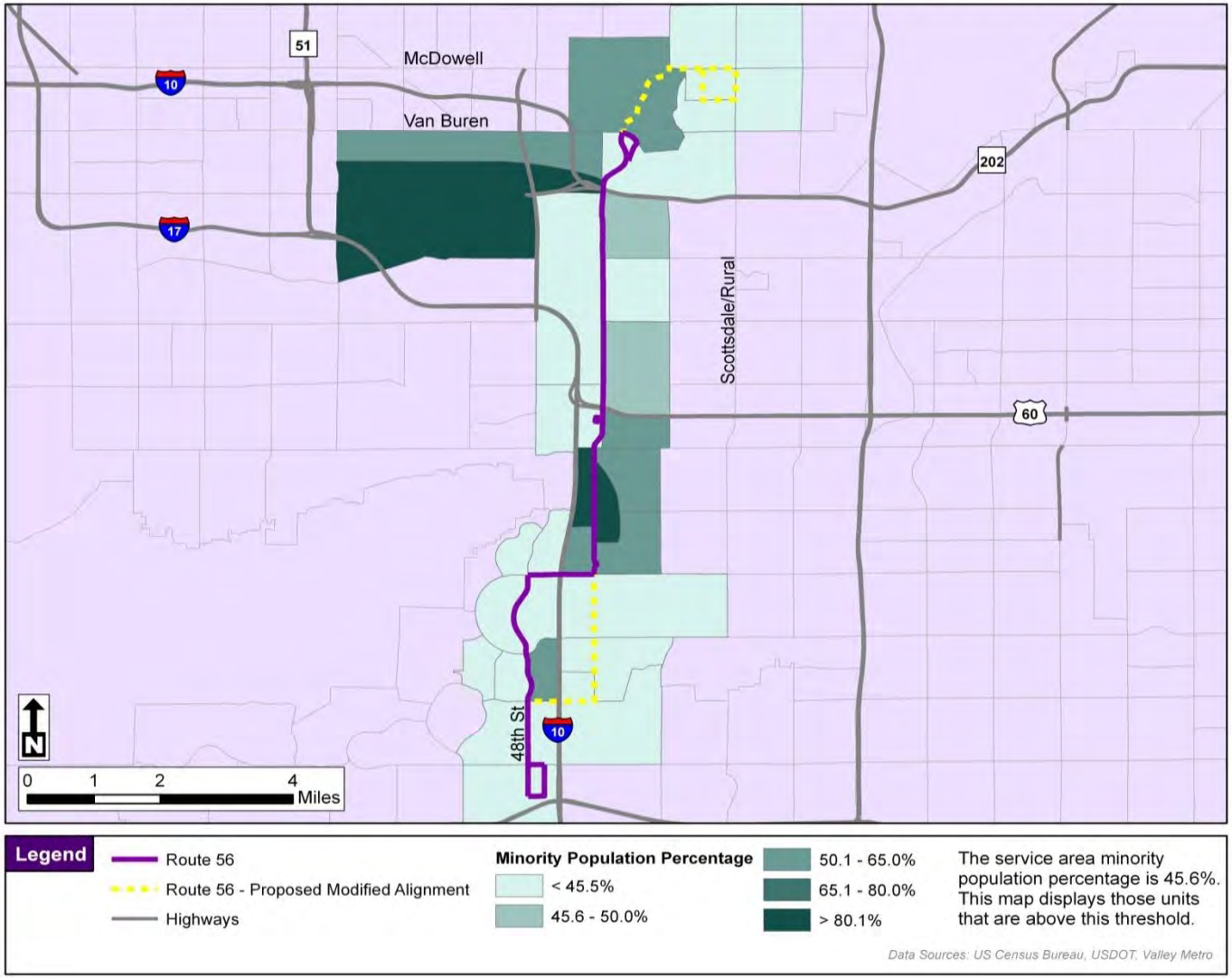
Table 4. Summary of Service Modifications and Equity Impact Assessment

Route	Major Service Change	Type of Change	Minority Percentage	Low-Income Percentage	Disparate/Disproportionate Impact Determination
Route 56	Yes	Length Reduction[1]	59.1%	29.9%	Potential disparate impact; Offset by modifications to Route 108
Route 56	No	Modified Alignment[2]	38.8%	11.0%	None
Route 108	No	Length Expansion[2]	35.8%	8.5%	None
Route 108	Yes	Headway Expansion[1]	57.5%	29.8%	None
Route 156	No	Length Expansion[2]	41.4%	7.2%	None
Route 511	No	Modified Alignment[2]	26.3%	0.0%	None
Route 571	Yes	Headway Expansion[1]	29.6%	10.5%	None
Valley Metro Service Area		N/A	45.6%	15.8%	N/A
Valley Metro System-Wide Percentage (O/D Survey)			56.2%	50.6%	

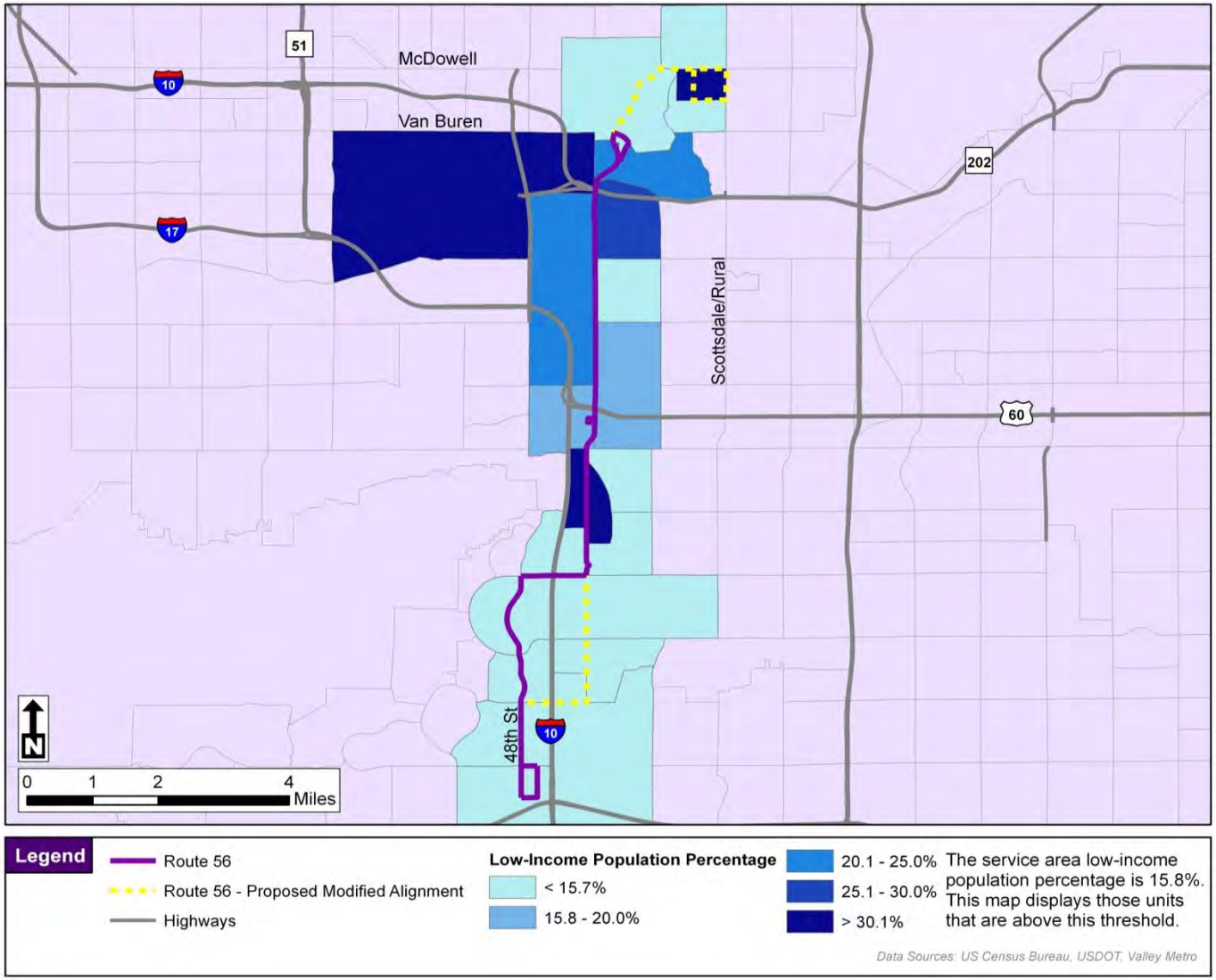
[1] Transit On-Board Origin/Destination Survey Data, 2010-2011
[2] 2010 Census Data, U.S. Census Bureau

PROPOSED SERVICE CHANGES AND DEMOGRAPHIC MAPS

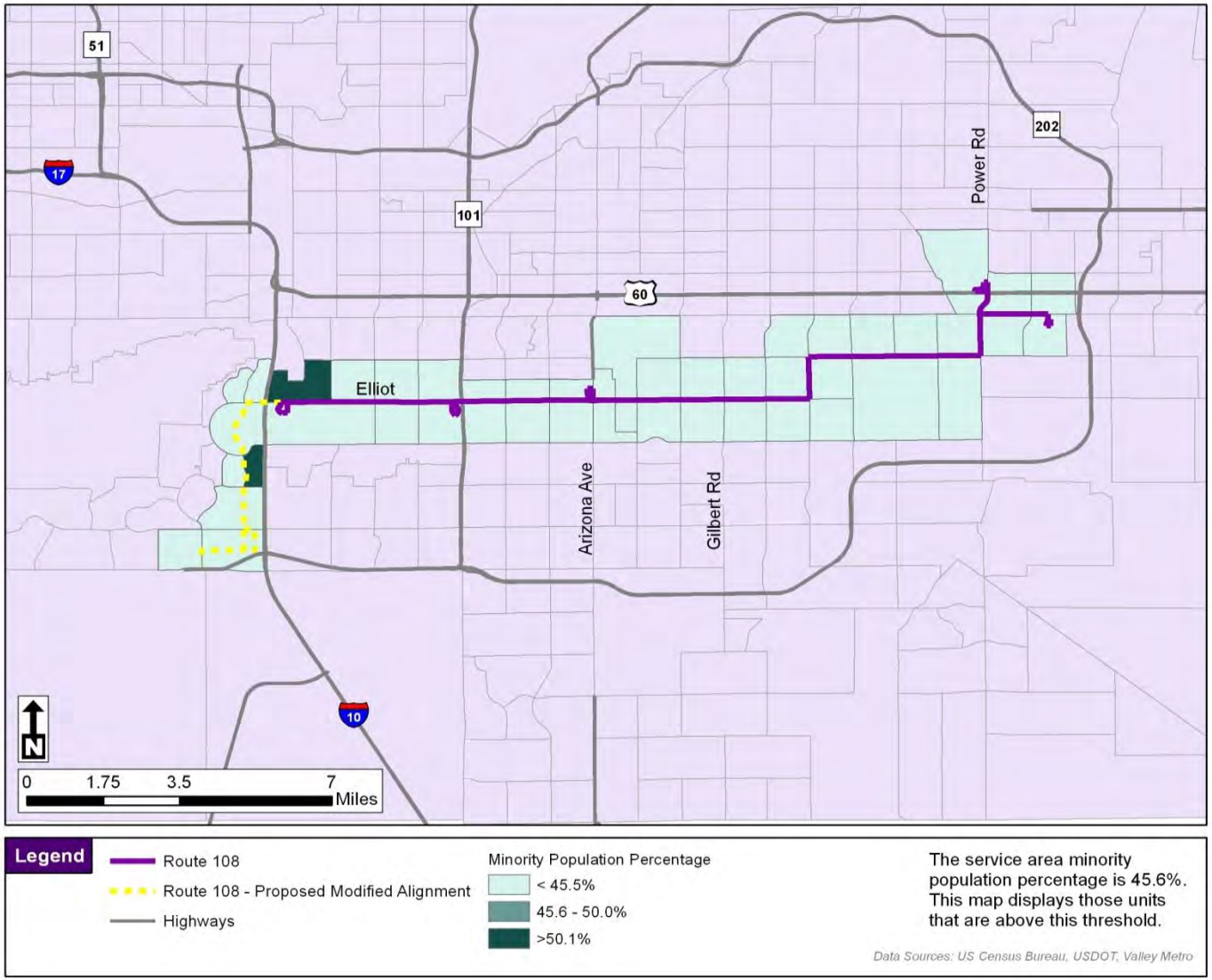
Route 56 - Proposed Service Modification & Minority Percentage



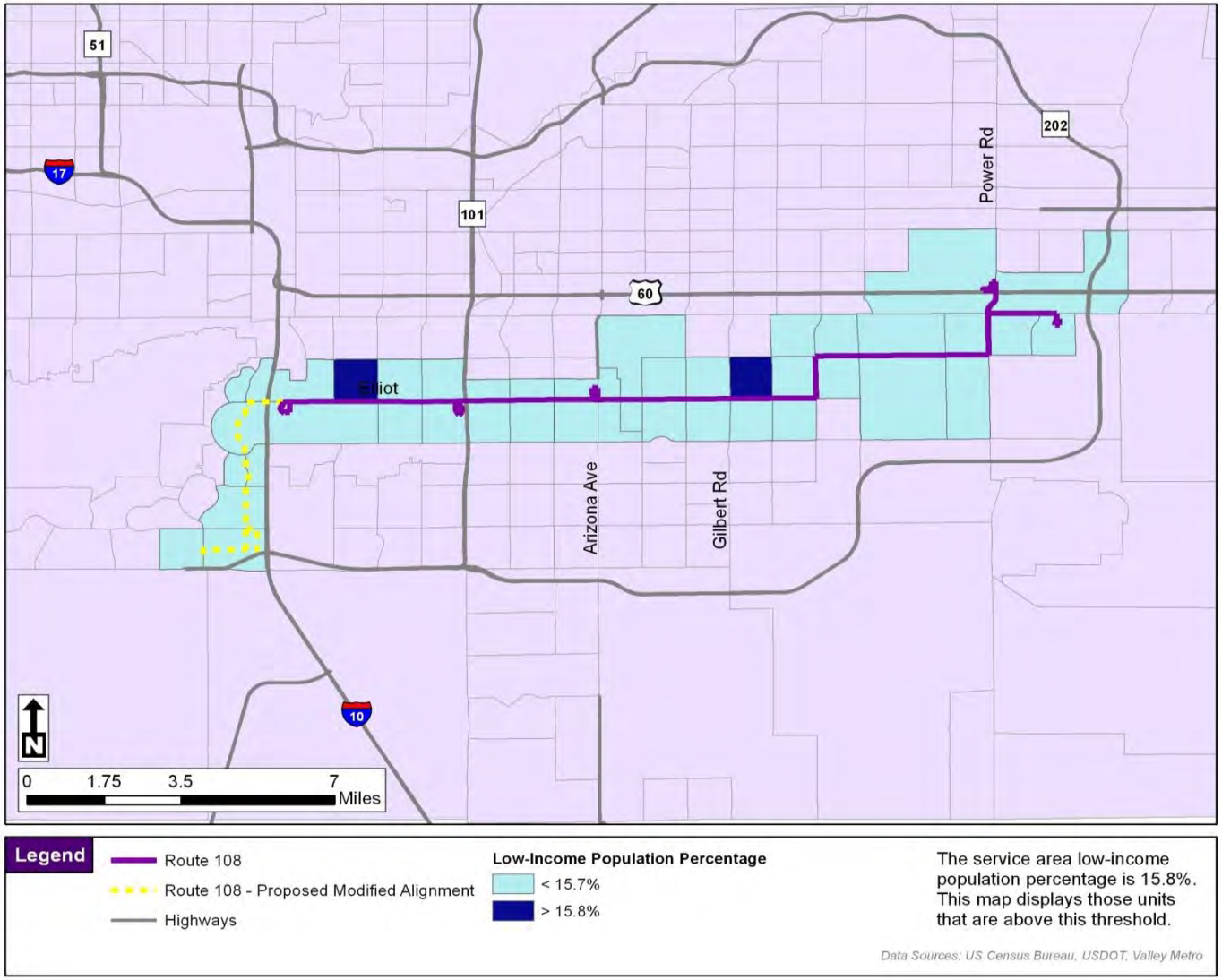
Route 56 - Proposed Service Modification & Low-Income Percentage



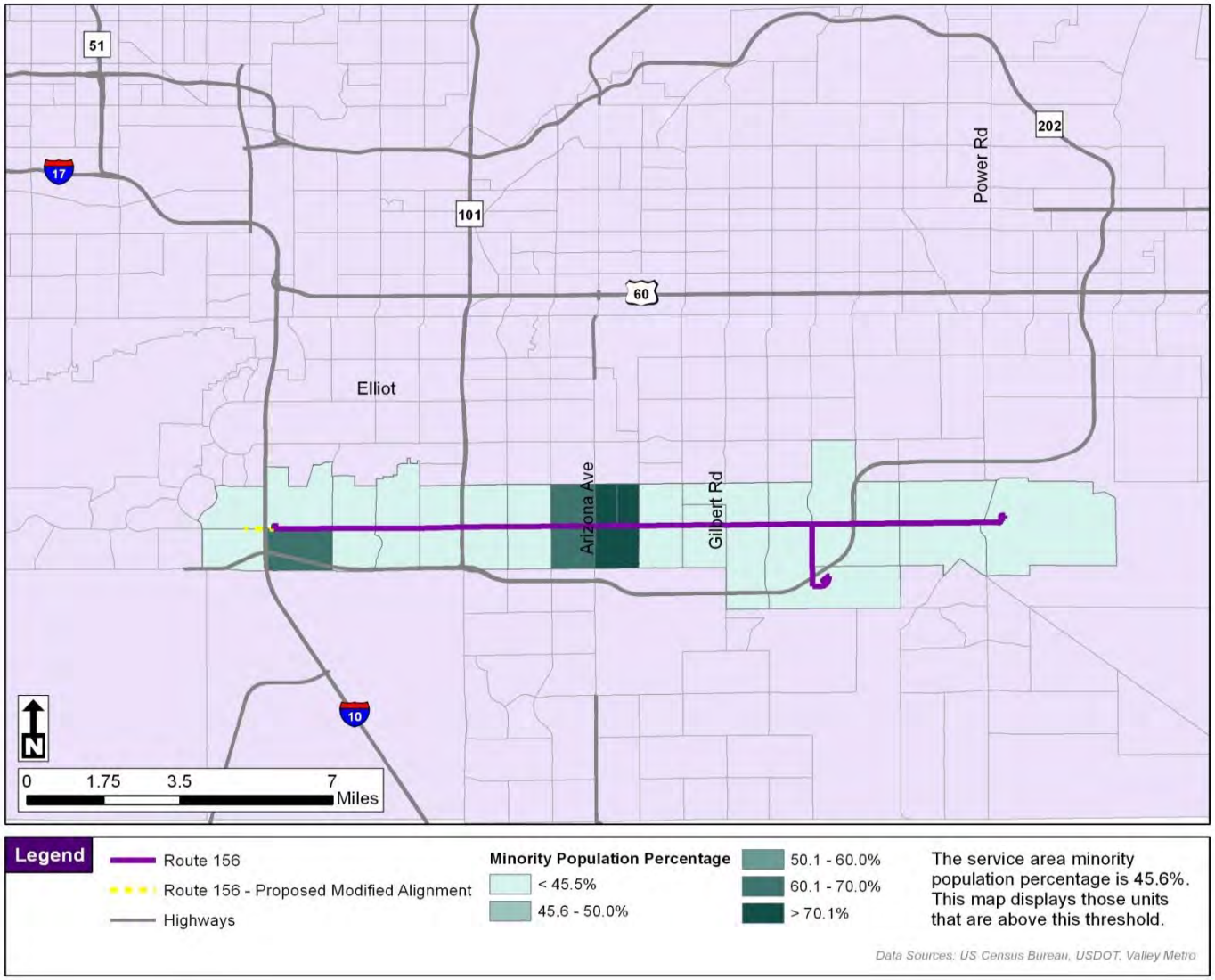
Route 108 - Proposed Service Modification & Minority Percentage



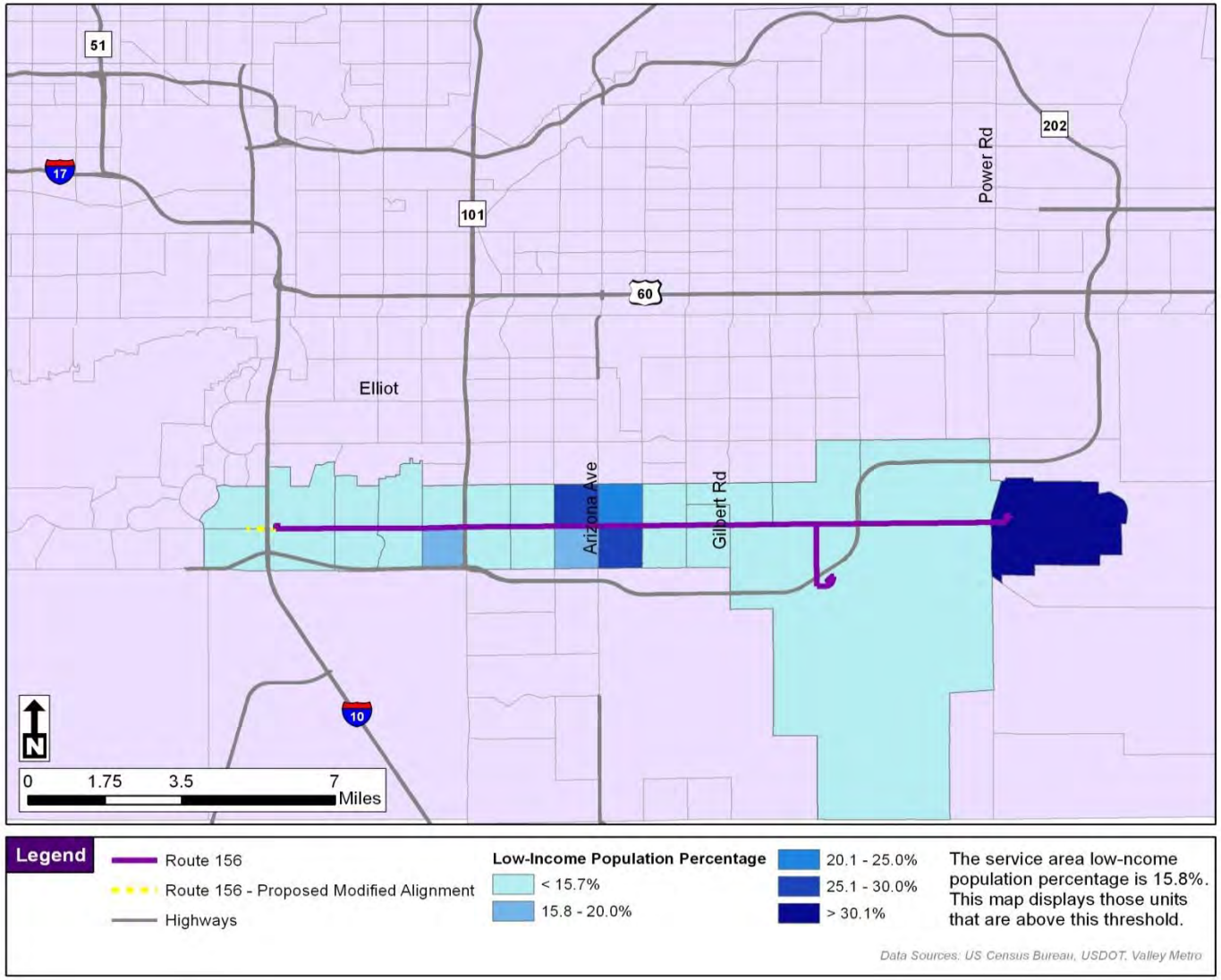
Route 108 - Proposed Service Modification & Low-Income Percentage



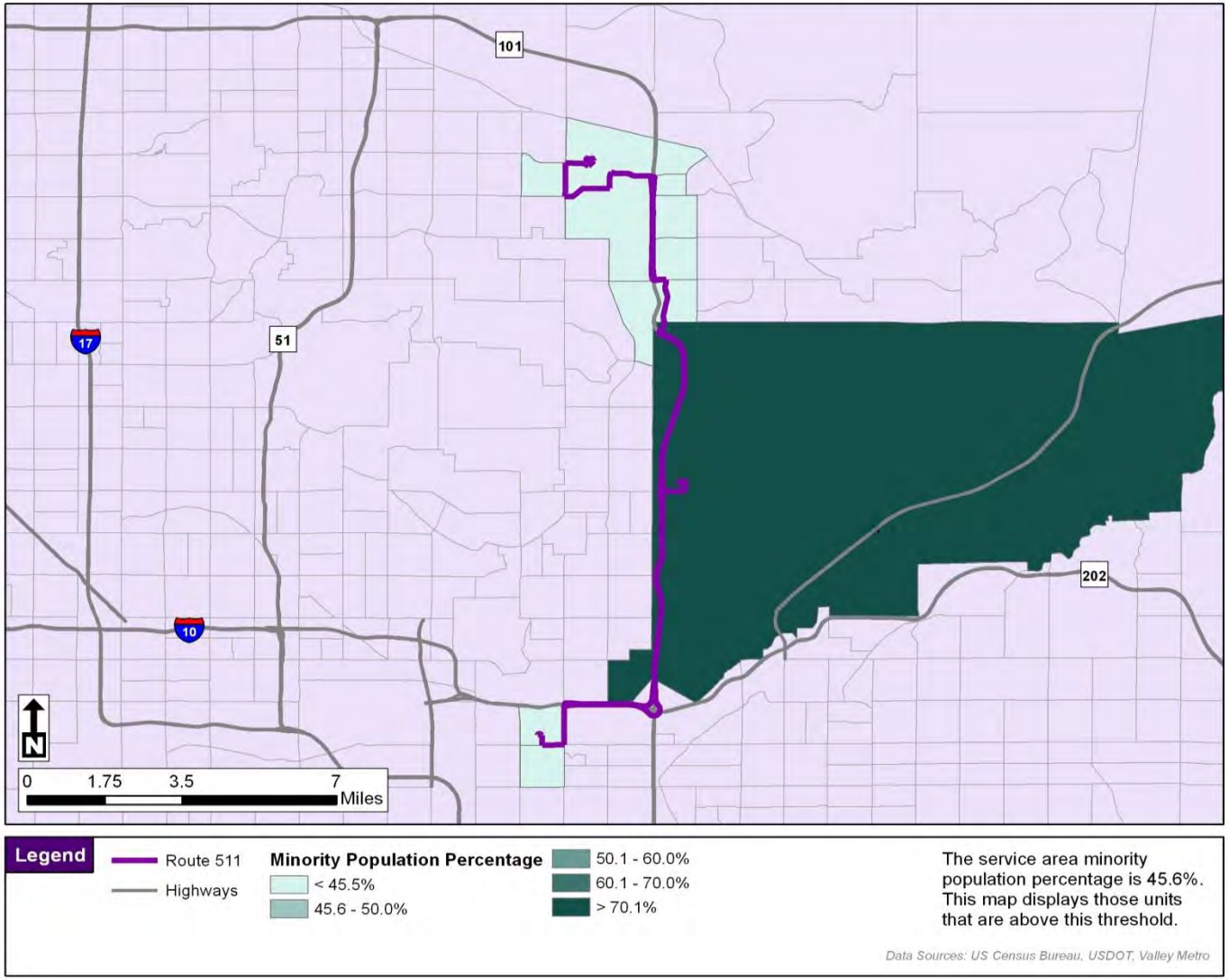
Route 156 - Proposed Service Modification & Minority Percentage



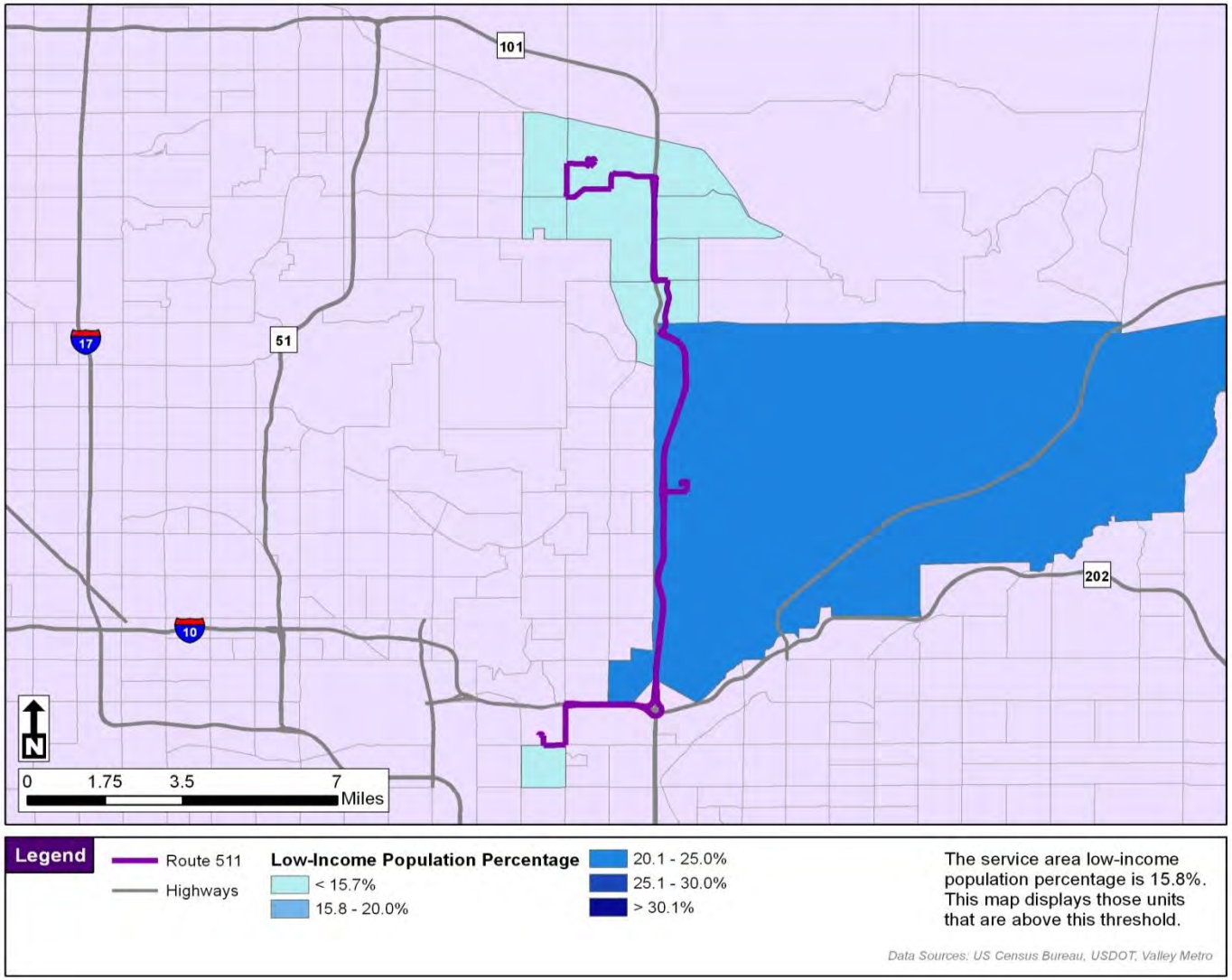
Route 156 - Proposed Service Modification & Low-Income Percentage



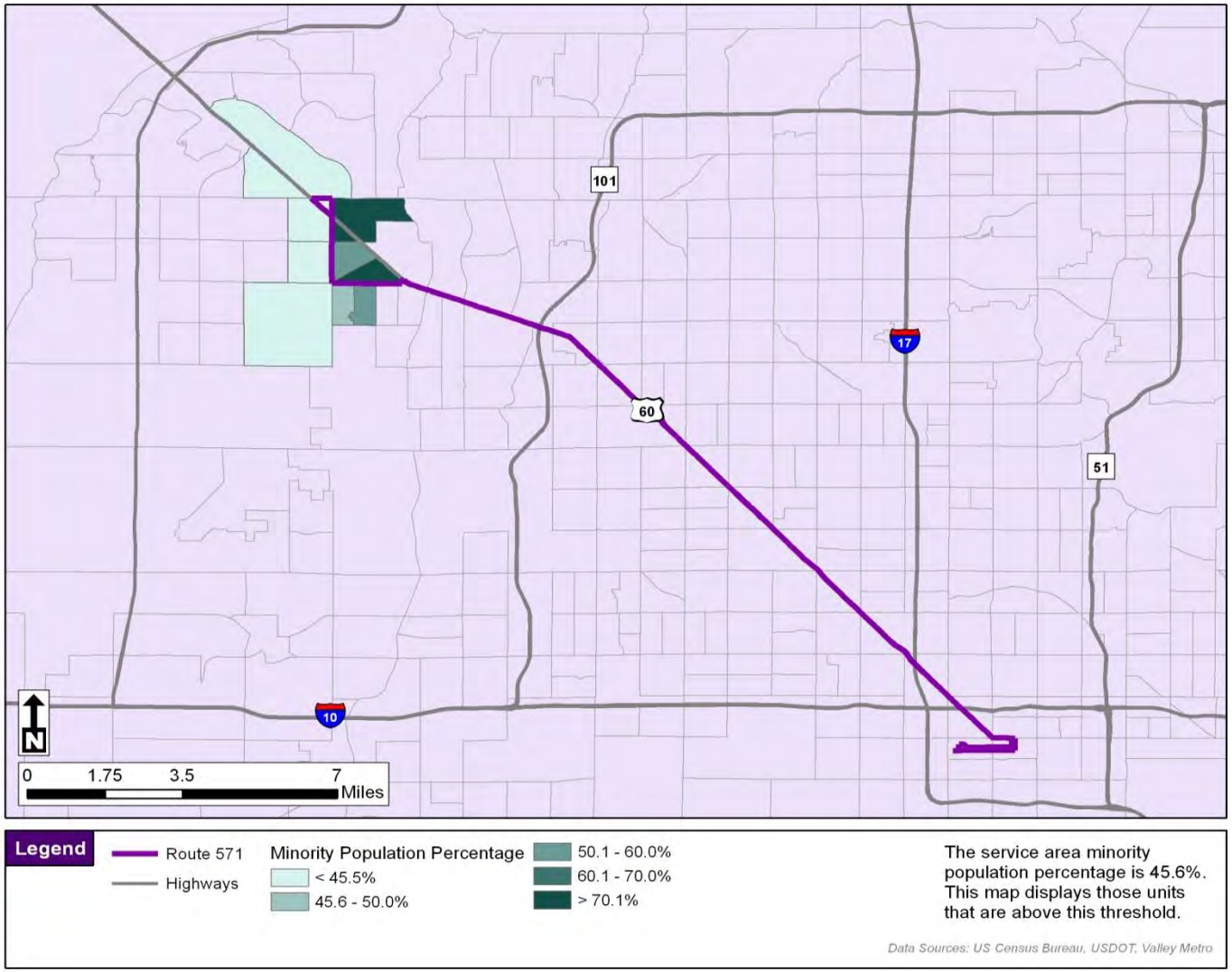
Route 511 - Proposed Service Modification & Minority Percentage



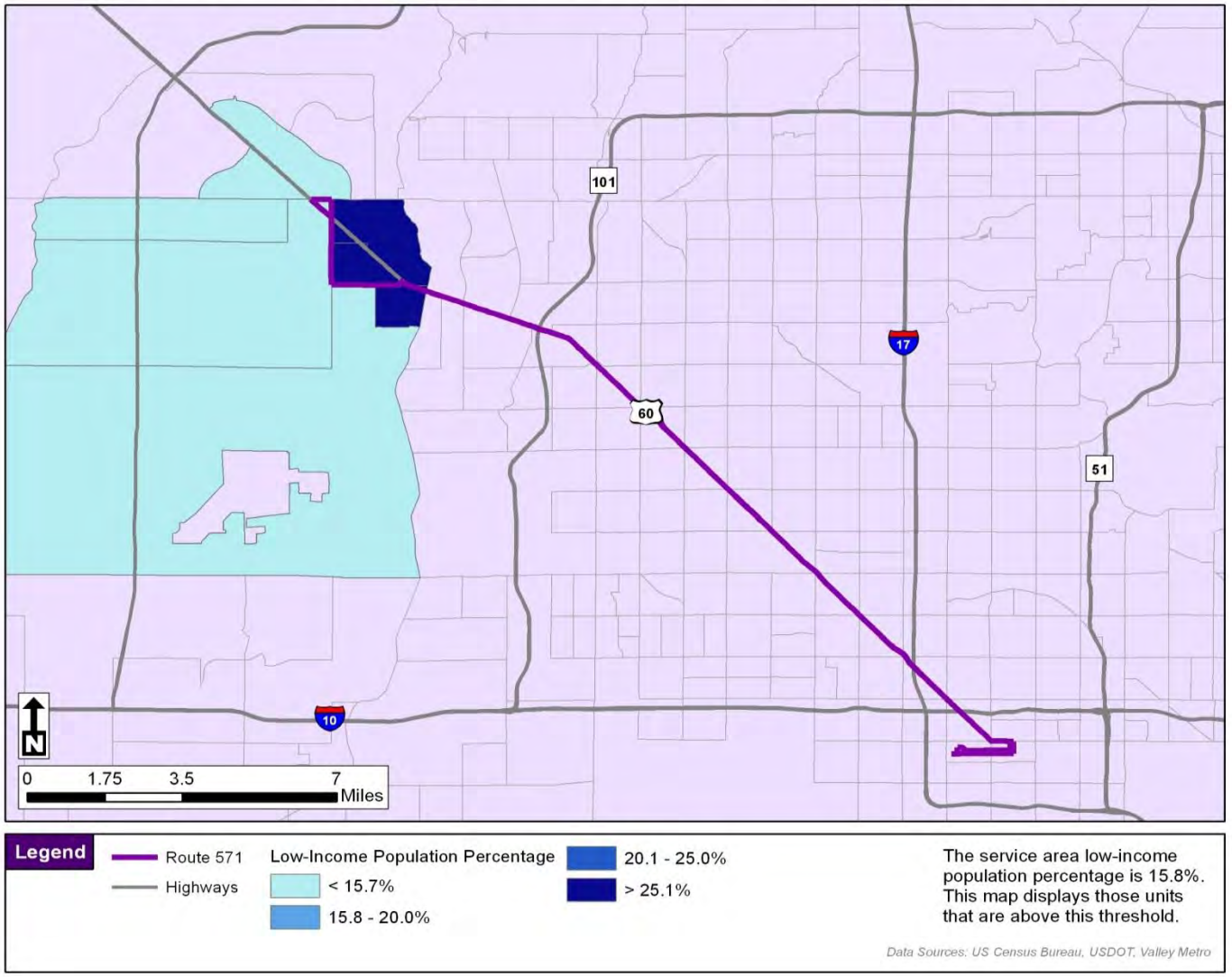
Route 511 - Proposed Service Modification & Low-Income Percentage



Route 571 - Proposed Service Modification & Minority Percentage



Route 571 - Proposed Service Modification & Low-Income Percentage



Valley Metro

Title VI Assessment of Proposed Service Changes for January 2014

November 2013

VALLEY METRO

1.0 Introduction

This report defines the proposed general service modifications considered for several Valley Metro system routes, and considers whether the proposed service modifications qualify as "Major Service Changes" in accordance with Valley Metro's adopted service equity policies and Federal Title VI regulations. The report includes an evaluation of potential effects to minority and/or low-income populations using or residing near the routes considered for service modifications. Maps displaying the percentages of minority and low-income populations surrounding each bus route considered for service or alignment modifications are provided at the back of this report.

2.0 General Service Modifications

The proposed general service modifications to the following bus routes and light rail are defined below. The service modifications considered include elimination of service along specific streets, extensions of routes to serve new geographic areas, and enhancements to service frequencies.

- **Route 45 (Broadway Road) – Route Length Reduction –** The portion of the route along 19th Avenue from Broadway Road to Southern Avenue, including the turnaround will be eliminated. The proposed change will result in the route terminating at 19th Avenue and Broadway Road (a reduction of approximately 2.5 route miles).

- **Route 72 (Scottsdale/Rural Road) – Modified Alignment and Service Headway Expansion –** Four service changes are proposed for Route 72: an alignment modification and three service expansions. The route will make a small deviation to serve the new park-and-ride lot at the Scottsdale Road/Thunderbird Road intersection and then resume its regular route. This route deviation will result in an expansion of approximately 0.5 miles. In addition to the route modification, the City of Chandler is planning on increasing service operations along Route 72 from the Chandler Fashion Mall to the Rural Road/Ray Road intersection. The proposed service changes are to extend two additional northbound weekday trips, and add two Saturday round trips and one Sunday round trip. These service changes will be evaluated separately.

- **Route 81 (Hayden/McClintock) – Service Headway Expansion –** The City of Chandler is proposing to add fourteen trips on Saturdays to match service provided along the rest of the route.

- **Route 156 (Chandler Blvd/Williams Field Road) – Service Headway Expansion –** Three service changes are proposed for Route 156. The City of Chandler is proposing to add two weekday morning trips from the Chandler Boulevard/48th Street intersection (where the route ends on weekends) to the Chandler Boulevard/Dobson Road intersection to match the operating characteristics of the

existing weekday service. One Saturday morning trip will also be added to match the operating characteristics of the existing Saturday service. In addition, one Sunday westbound trip will be added. These service changes will be evaluated separately.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment –** The City of Scottsdale is proposing to modify the route to serve the new transit center at Scottsdale Road/Thunderbird Road. The proposed deviation is less than 0.5 miles.

- **Route 562 (Goodyear/Downtown Express) – Schedule Adjustments –** The City of Goodyear is proposing to adjust the schedule for the Route 562 Express service to Downtown Phoenix. A schedule adjustment does not require an evaluation.

- **Route 563 (Buckeye Express) – Schedule Adjustments –** The City of Goodyear is proposing to adjust the schedule for the Route 563 Express service to Downtown Phoenix. A schedule adjustment does not require an evaluation.

- **Route 685 (Ajo-Gila Bend-Phoenix Rural Route) – Modified Alignment –** Two service changes are proposed for Route 685. The first change would eliminate service along Maricopa 85 from the intersection of State Highway 85/Maricopa 85 to Van Buren Street/Litchfield Road. The second change would be to modify the alignment to serve new areas of the Town of Buckeye. In the Town of Buckeye, the Route 685 is proposed to be re-aligned to operate through downtown Buckeye, with service along Miller Road and Yuma Road. The route would operate along Yuma Road to the intersection with Litchfield Road, where it would resume its current alignment with continuing service into Phoenix.

- **ZOOM – Modified Alignment –** The City of Avondale is proposing to modify the current alignment to serve the residential area called Cashion in Avondale. The route is proposed to deviate east on Durango Street, north of 111th Avenue, west on Pima Street and south on 113th Avenue to Durango Street, returning to Avondale Boulevard, where the route would resume its regular route. The proposed loop modification in Cashion is approximately 1.5 miles.

- **Light Rail – Schedule Adjustment –** Valley Metro is proposing to adjust the departure schedule from the Sycamore station. A schedule adjustment does not require an evaluation.

3.0 Determination of Major Service Changes

In accordance with Valley Metro's policy for determining whether the proposed service modifications/changes to the aforementioned routes qualify as Major Service Changes, each of the route modifications/changes were evaluated independently. In order to be

considered a Major Service Change, the route alignment, directional miles or the route's revenue miles must exceed a change threshold of 25%.

- **Route 45 (Broadway Road) – Route Length Reduction –** The proposed reduction to Route 45 occurs within the City of Phoenix and the minority and low-income populations along this portion of the route exceed the transit system area average. Therefore, the reduction in this route will be evaluated just within the City of Phoenix. The proposed reduction in route length represents a loss of 2.5 route miles, amounting to a 26.3% reduction of the route's current total length within the City of Phoenix. In addition to the change in the route length, the proposed modification also reduces the route's revenue miles by 102,990, amounting to a 24.3% reduction in the route's revenue miles within the City of Phoenix. This service modification/change is considered a Major Service Change.

- **Route 72 (Scottsdale/Rural Road) – Modified Alignment –** The proposed change in the route alignment to serve the new park-and-ride at Scottsdale Road and Thunderbird Road and then to resume its regular route represents a gain of approximately 0.5 route miles, amounting to a 1.5% addition of the route's current total length. In addition, the proposed change would result in an increase of 15,748 annual revenue miles, amounting to a 1.7% increase. These percentages are below the 25% threshold; therefore the proposed service modification is not a Major Service Change.

- **Route 72 (Scottsdale/Rural Road) – Service Headway Expansion –** In addition to the planned modified alignment of the route, changes are also planned for the service frequency of Route 72. Currently the route makes 253 total (weekdays and weekends) trips through the cities of Chandler, Tempe, Scottsdale, and boarders the cities of Paradise Valley and Phoenix. The proposed frequency changes would result in the service operating in Chandler to begin at the Chandler Fashion Mall instead of at the Rural Road/Ray Road Intersection in Chandler. This change adds 2 northbound weekday trips, 2 Saturday trips, and 1 Sunday trip to match the existing service. This amounts to an increase of 1,854 weekday, 739 Saturday, and 369 Sunday annual revenue miles. In total, the change in revenue miles amounts to an increase of approximately 0.2%, 0.6%, and 0.5% for weekdays, Saturdays, and Sundays respectively. These percentages are below the 25% threshold; therefore, the proposed service modifications are not Major Service Changes.

- **Route 81 (Hayden/McClintock) – Service Headway Expansion –** The proposed service change is to add trips on Saturdays to match service provided along the rest of the route. This results in the addition of 14 trips and an increase of 5,150 annual revenue miles, amounting to a 10% increase in the route's Saturday revenue miles. The proposed service modification is not a Major Service Change.

- **Route 156 (Chandler Blvd/Williams Field Road) – Service Headway Expansion –** This route currently serves the cities of Phoenix, Chandler, Mesa, and the Town of Gilbert. The proposed frequency changes would add 2 weekday trips from the end of line at Chandler Boulevard/48th Street to Dobson Road/Chandler Boulevard Intersection matching the existing route trips. This amounts to an increase of 5,826 additional annual revenue miles, a 1.5% increase. The proposed frequency change would add 1 Saturday trip from the end of line at Chandler Boulevard/48th Street to Gilbert Road/Chandler Boulevard Intersection to match the existing route trips. This amounts to an increase of 997 additional annual revenue miles, a 1.7% increase. In addition, the proposed frequency change would add 1 Sunday westbound trip from Gilbert Road/Chandler Boulevard Intersection to the end of line at Chandler Boulevard/48th Street. This amounts to an increase of 574 additional annual revenue miles, a 0.8% increase. Therefore, the proposed service modifications are not a Major Service Change.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment –** The proposed change in the route alignment is to serve the new park-and-ride at the Scottsdale Road/Thunderbird Road Intersection and then to resume its regular route representing a gain of approximately 0.5 route miles. The proposed alignment modification amounts to a 1.4% increase of the route's current total length. In addition, the proposed change will result in an increase of 520 revenue miles, amounting to a 1.1% increase. The proposed service modification is not a Major Service Change.

- **Route 562 (Goodyear/Downtown Express) – Schedule Adjustments -** The proposed change is to adjust the current schedule. A schedule adjustment does not require a Title VI evaluation.

- **Route 563 (Buckeye Express) – Schedule Adjustments –** The proposed change is to adjust the current schedule. A schedule adjustment does not require a Title VI evaluation.

- **Route 685 (Ajo-Gila Bend-Phoenix Rural Route) – Modified Alignment –** The proposed service change for Route 685 would re-align 17.8 route miles in the Town of Buckeye to serve more populated areas and employment centers. The portion of service along Maricopa 85 between the intersections State Highway 85/Maricopa 85 and Van Buren Street/Litchfield Road would be re-aligned to Miller Road and Yuma Road. The route would operate along Yuma Road to the intersection with Litchfield Road, where it would resume its current alignment with continuing service into Phoenix. This service re-alignment accounts for approximately 16.4% of the total route's length. No frequency or service span changes are planned. Therefore, the proposed service modification is not considered a Major Service Change.

- **ZOOM – Modified Alignment –** The proposed service change for the ZOOM would divert for 1.5 route miles in Avondale to serve a residential neighborhood. This service re-alignment accounts for approximately 8% of the total route's length. No frequency or service span changes are planned. Therefore, the proposed service modification is not considered a Major Service Change.

- **Light Rail – Schedule Adjustment –** The proposed change is to adjust the departure times from the Sycamore station. A schedule adjustment does not require a Title VI evaluation.

Table 1 summarizes the service modifications and whether they qualify as Major Service Changes.

Table 1. Summary of Service Modifications and Major Service Changes

Route	Metric	Percentage Change	Major Service Change
Route 45 – Portion within City of Phoenix (Route Reduction)	Route Miles	26.3%	Yes
	Revenue Miles	24.3%	No
Route 45 – Whole Route (Route Reduction)	Route Miles	8.1%	No
	Revenue Miles	13.7%	No
Route 72 (Headway Expansion - Weekday)	Revenue Miles	0.2%	No
Route 72 (Headway Expansion - Saturday)	Revenue Miles	0.6%	No
Route 72 (Headway Expansion - Sunday)	Revenue Miles	0.5%	No
Route 72 (Route Modification)	Route Miles	1.5%	No
	Revenue Miles	1.7%	No
Route 81 (Headway Expansion – Saturday)	Revenue Miles	10.0%	No
Route 156 (Headway Expansion – Weekday)	Revenue Miles	1.5%	No
Route 156 (Headway Expansion – Saturday)	Revenue Miles	1.7%	No
Route 156 (Headway Expansion – Sunday)	Revenue Miles	0.8%	No
Route 511 (Route Expansion)	Route Miles	1.4%	No
	Revenue Miles	1.1%	No
Route 562/563 (Schedule Adjustment)	N/A	0%	No
Route 685 (Route Modification)	Route Miles	16.4%	No
	Revenue Miles	16.4%	No
Zoom (Route Expansion)	Route Miles	8.0%	No
	Revenue Miles	8.3%	No
Light Rail (Schedule Adjustment)	N/A	0%	No

4.0 Route Demographic Profile Information

A review of available demographic data was conducted to evaluate the current ridership socioeconomic characteristics of the existing routes, and/or the population and income characteristics of populations residing in areas where new service would be provided. The evaluation is based on Valley Metro's policies for service changes. For service changes affecting headways or a reduction in a route length, a review of available origin/destination survey data was conducted. For extensions of routes to new geographic areas where service is currently not provided, 2010 Census data were used to profile the minority populations and the 2011 American Community Survey (ACS) data was used to profile the low income populations of the new service area. Low income is defined as the population with incomes at or below 150 percent of the Department of Health and Human Services poverty level.

When collecting and interpreting the 2010 Census or 2011 ACS data for route extensions, modifications, or new routes, data was collected using at a minimum a one-half (½) mile radial buffer surrounding the proposed extension. However, in many cases the census tracts went well beyond the ½ mile buffer. Data for the entire census tract was used and not a subset of the data.

Although identifying the demographic profile is only required for proposed service changes that are identified as a "Major Service Change" the Title VI Coordinator determined that identifying the demographic profile for each proposed service change provides value in this Title VI Analysis.

- **Route 45 (Broadway Road) - Route Length Reduction –** According to the most recent Transit On-Board Origin/Destination Survey, 77.4% of the riders on this portion of the route within the City of Phoenix are considered minorities and 61.1% are low-income riders.

- **Route 72 (Scottsdale/Rural Road) – Modified Alignment –** According to the Census demographic data, the proposed route modification of Route 72 would serve a small geographic around the new park-and-ride lot at the Scottsdale Road/Thunderbird Road that consists of 13% minority and 6.5% low-income populations.

- **Route 72 (Scottsdale/Rural Road) – Service Headway Expansion –** According to the most recent Transit On-Board Origin/Destination Survey, 46.1% of the Route 72 riders are minorities and 46.7% are low-income riders.

- **Route 81(Hayden/McClintock) – Service Headway Expansion –** According to the most recent Transit On-Board Origin/Destination Survey, 41.6% of the Route 81 riders are minorities and 36.4% are low-income riders.

- **Route 156 (Chandler Blvd/Williams Field Road) – Service Headway Expansion –** According to the most recent Transit On-Board Origin/Destination Survey, 59.0% of the Route 156 riders are minorities and 47.9% are low-income riders.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment –** According to the most recent Transit On-Board Origin/Destination Survey, 13.0% of the Route 511 riders are minorities and 6.5% are low-income riders.

- **Route 562 (Goodyear/Downtown Express) and Route 563 (Buckeye Express) – Schedule Adjustments –** Since a schedule adjustment does not require a Title VI evaluation a demographic profile was not developed.

- **Route 685 (Ajo-Gila Bend-Phoenix Rural Route) – Modified Alignment –** According to the Census demographic data, the proposed route alignment change would serve a geographic area in Downtown Buckeye that consists of 51.5% minority and 16.5% low-income populations.

- **ZOOM – Modified Alignment –** According to the Census demographic data, the proposed route alignment change would serve a geographic area in Downtown Buckeye that consists of 82.5% minority and 38.4% low-income populations.

- **Light Rail – Schedule Adjustment –** Since a schedule adjustment does not require a Title VI evaluation a demographic profile was not developed.

Table 2 below provides a summary of the 2010 decennial Census data representing the minority population and 2011 ACS data on impoverished populations residing in census tracts that are directly affected by each of the proposed service modifications. Table 2 also provides data from the Origin and Destination Survey conducted in 2010 showing the minority and impoverished populations along the portion of the route subjected to a change. The table is split to show the minority and low-income percentages first along the existing routes, prior to these proposed changes and then along the portions of each route slated to change. The bottom of the table shows the demographics of the transit service area based on the census data and the system-wide rider demographics based on the Origin and Destination Survey.

Table 2. Census Demographic Data for Current and Proposed Route Alignments

Current Route Alignment Demographics (Census)[1]	Minority[2]	Low-Income[3]
Route 45	55.1%	36.3%
Route 72	24.2%	19.2%
Route 81	26.4%	19.4%
Route 156	39.8%	15.8%
Route 511	24.3%	22.4%
Route 685	50.4%	12.9%
ZOOM	68.9%	27.4%

Service Modification Demographics	Minority	Low-Income
Route 45 (Route Length Reduction (O/D Survey[4])	77.4%	61.1%
Route 72 (Service Headway Expansion) (O/D Survey[4])	46.1%	46.7%
Route 72 (Route Modification) (Census)	13.0%	6.5%
Route 81 (Service Headway Expansion) (O/D Survey[4])	41.6%	36.4%
Route 156 (Service Headway Expansion) (O/D Survey[4])	59.0%	47.9%
Route 511 (Route Length Expansion) (Census)	13.0%	6.5%
Route 685 (Route Modification) (Census)	51.5%	16.5%
ZOOM (Route Length Expansion) (Census)	82.5%	38.4%
Valley Metro Service Area (Census)	45.6%	15.8%
Valley Metro System-Wide Percentage (O/D Survey[4])	56.2%	50.6%

[1]2010 Census Data per census tracks that are at a minimum ½ mile on either side of the route.
[2]The average minority population based on the 2010 Census Track data.
[3]The average low-income population based on the 2011 ACS census track data for populations with incomes at or below 150 percent of the Department of Health and Human Services poverty level.
[4]The most recent Transit On-Board Origin/Destination Survey was conducted at the 95% confidence level, with a margin of error of +/- 1%. Refer to Appendix B of the O/D Survey.

5.0 Disparate/Disproportionate Impact Determination

Per the 2013 Major Service Change and Service Equity Policy only the proposed service changes that are considered a "Major Service Change" will be evaluated to determine if the proposed change will result in a disparate impact to minority populations and/or a disproportionate impact to low-income populations. Route 45 is the only proposed service change that has been identified as a major service change; therefore, Route 45 is the only change evaluated for potential disparate and disproportionate impacts. Note that all the other proposed service changes may have a minority and/or low-income population greater than either the transit service area or the system-wide percentages; however, the enhancements would benefit all communities and would not result in a disparate or disproportionate impact to minority or low-income populations.

The portion of Route 45 within the City of Phoenix consists of 77.4% minority riders, 21 percentage points higher than the Valley Metro system-wide percentage of minority users (56.2%) based on the Transit Origin and Destination Survey (2010-2011). Low-income populations account for 61.1% of the route's ridership, 10.5 percentage points above the Valley Metro system-wide percentage of low-income users (50.6%), based on the Transit Origin and Destination Survey. The elimination of service along 19th Avenue from Broadway Road to Southern Avenue, along Southern Avenue from 19th Avenue to 15th Avenue, along 15th Avenue from Southern Avenue to Roeser, and along Roeser from 15th Avenue to 19th Avenue would result in an adverse effect to transit passengers and will require the need for these passengers to transfer between bus routes to access destinations along Broadway Road. All passengers within the eliminated portion of Route 45 are within ½ mile of the portion of Route 45 on Broadway, Route 52 on Roeser that will take passengers to the Ed Pastor Transit Center on Broadway Road,

Route 61 on Southern Avenue, Route 19 on 19th Avenue, and Route 8 on 7th Avenue. In addition, there are a number of bus routes that run north and south along the alignment of Route 45 that can be utilized by riders to transfer to the 45 for destination on Broadway Road, if necessary. Therefore, the potential disparate and disproportionate impacts to minority and low-income populations on Route 45 would be offset by the surrounding routes that are within ½ mile of the modification to Route 45 as described above.

6.0 Public Outreach

Valley Metro held the following public meetings to seek input on proposed changes to the routes evaluated in this report:

September 16, 2013
Town of Buckeye, Public Library
310 N 6th St.

September 18, 2013
City of Glendale, Council Chambers
5850 W Glendale Ave

September 19, 2013
City of Chandler, Council Chambers
88 E Chicago St

September 24, 2013
City of Scottsdale, One Civic Center
7447 E Indian School Rd

September 25, 2013
Phoenix Burton Barr Library
1221 N Central Ave

Valley Metro held a public hearing on October 8, 2013 at Valley Metro's Board Room in Downtown Phoenix to discuss the proposed changes to all the proposed service changes.

In addition, the City of Phoenix held public meetings to seek input on proposed changes to Route 45 evaluated in this report:

September 20, 2013
Ed Pastor Transit Center

10 W. Broadway Road

7.0 Conclusions

Table 3 summarizes the analysis results by route and the determination of whether a disparate or disproportionate impact would result as an outcome of the changes as proposed. It is important to remember that the service modifications proposed are either changes to the route alignments and/or route lengths, or are service frequency changes. The type of service modification determines the data to be used for analyzing whether the proposed change will result in a disparate or disproportionate impact. Changes to existing route alignments or service frequencies are evaluated using origin/destination survey data, while extensions of bus routes to serve new geographic areas are evaluated using Census data. The minority and low-income percentages shown are based on the type of data used to evaluate the proposed service change for equity implications. Each of the routes has been identified as to whether the proposed service modification would qualify as a "Major Service Change". The determination of whether an adverse, disparate, or disproportionate impact occurs is based on the following:

1. The proposed service modification qualifies as a Major Service Change. If the service modification is not deemed a "Major Service Change", it is determined that the proposed change would not have an adverse, disparate, or disproportionate impact to any community.

2. The percentage of minority or low-income populations is above the Valley Metro Service Area threshold (shown at the bottom of the table). The percentages shown for minority and low-income populations reflect the population percentages for the portion of the route that is changing, or type of service modification. For example, the minority percentage for the route length reduction proposed for Route 45 reflects the percentage of minorities currently using the route within the City of Phoenix based on the origin/destination survey data.

3. Improvements to service (e.g. extensions of routes to serve new areas or frequency improvements) that provide a benefit to all users do not constitute an adverse, disparate, or disproportionate impact.

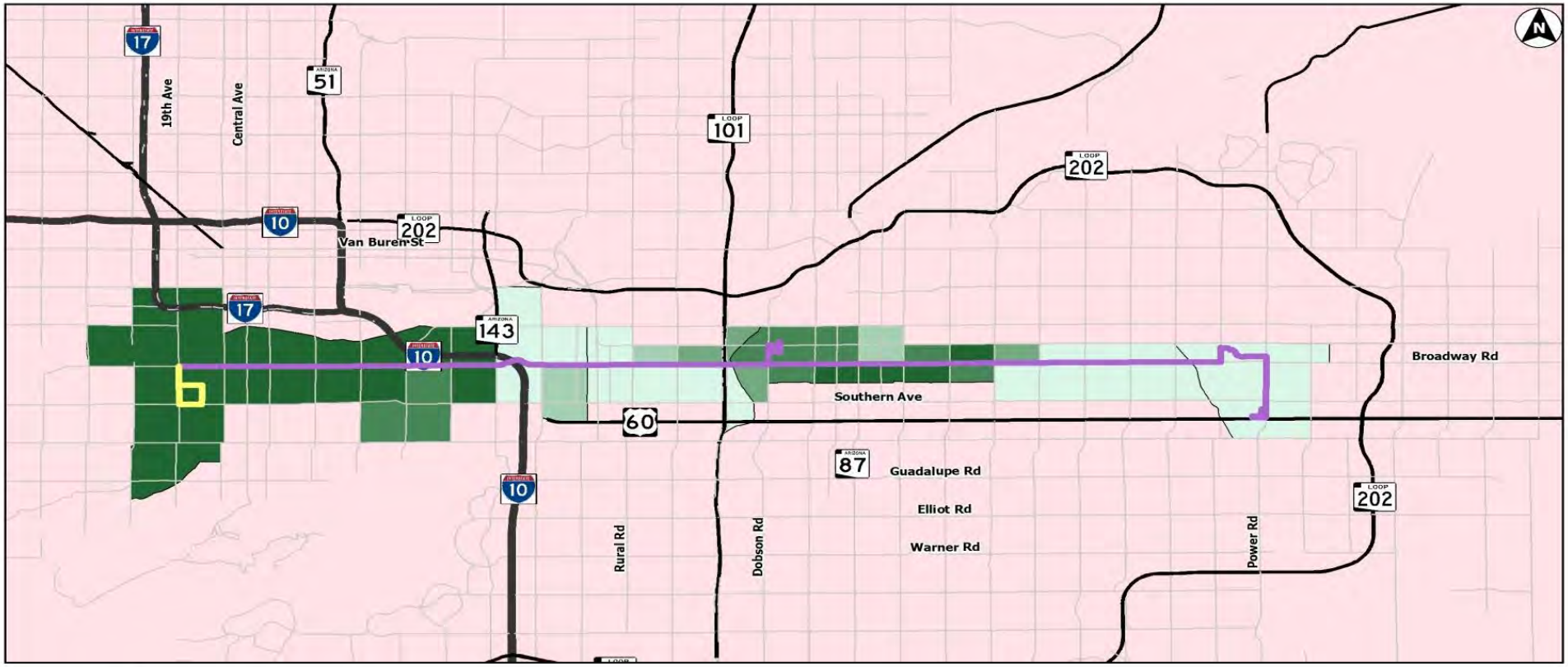
Table 3. Summary of Service Modifications and Equity Impact Assessment

Route	Major Service Change	Type of Change	Minority Percentage	Low-Income Percentage	Disparate/Disproportionate Impact Determination
Route 45	Yes	Route Length Reduction[1]	77.4%	61.1%	Potential disparate and disproportionate impacts; Offset by being ½-mile from several routes in which to transfer from
Route 72	No	Route Modification[2]	46.1%	46.7%	None
Route 72	No	Headway Expansion[1]	13.0%	6.5%	None
Route 81	No	Headway Expansion[1]	41.6%	36.4%	None
Route 156	No	Headway Expansion[1]	59.0%	47.9%	None
Route 511	No	Route Length Expansion[2]	13.0%	6.5%	None
Route 685	No	Route Modification[2]	51.5%	16.5%	None
ZOOM	No	Route Length Expansion[2]	82.5%	38.4%	None
Valley Metro Service Area		N/A	45.6%	15.8%	N/A
Valley Metro System-Wide Percentage (O/D Survey)			56.2%	50.6%	

[1] Transit On-Board Origin/Destination Survey Data, 2010-2011
[2] 2010 Census Data, U.S. Census Bureau

PROPOSED SERVICE CHANGES AND DEMOGRAPHIC MAPS

Route 45 – Proposed Service Modification & Minority Percentage



LEGEND

Minority Population Percentage

- < 45.50%
- 45.51 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

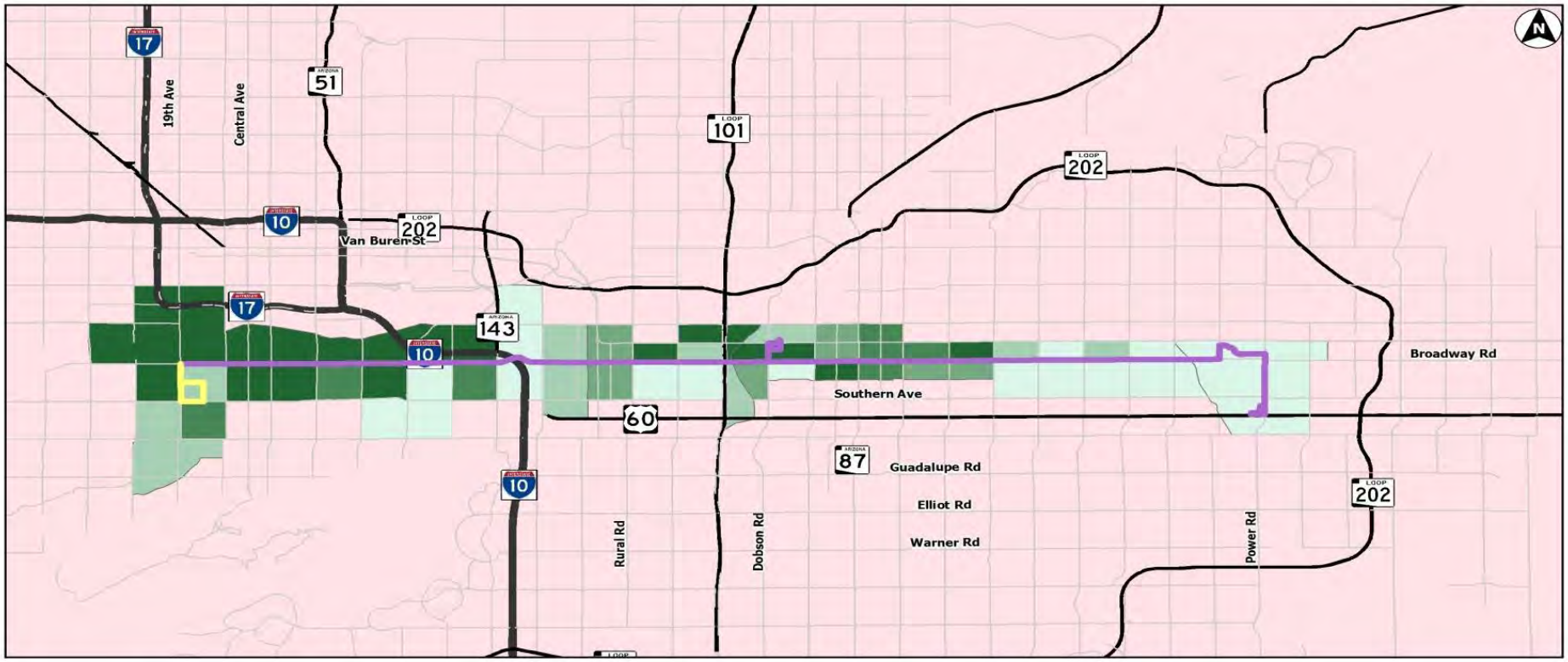
Route 45

Route 45 - Proposed Route Reduction

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 45 – Proposed Service Modification & Low-Income Percentage



LEGEND

Low Income Population Percentage

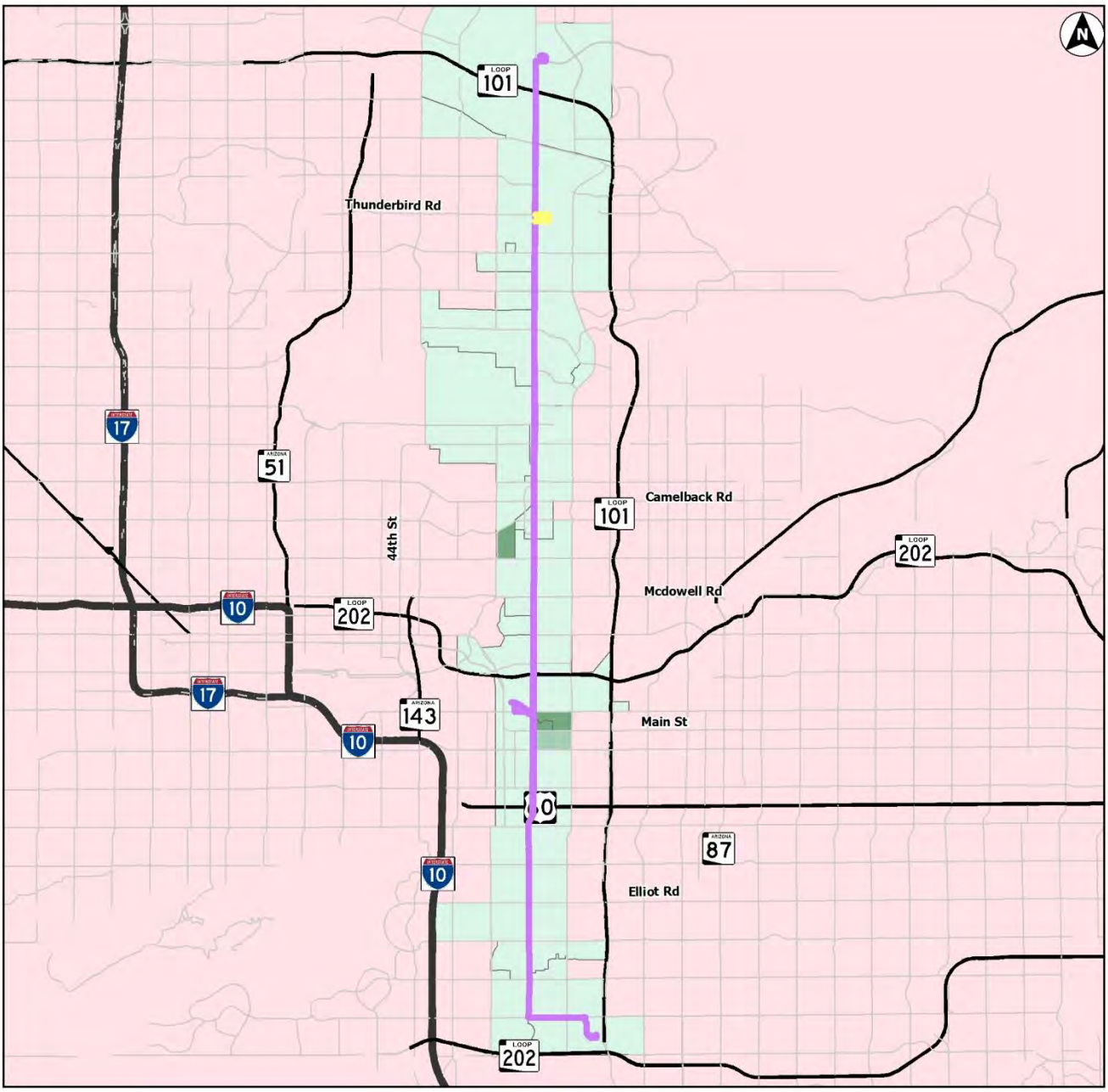
- < 15.7%
- 15.71% - 20%
- 20.01% - 25%
- 25.01% - 30%
- > 30.01%

- Route 45
- Route 45 - Proposed Route Reduction

The service area low-income population percentage is 15.8%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 72 – Proposed Service Modification & Minority Percentage



LEGEND

Minority Population Percentage

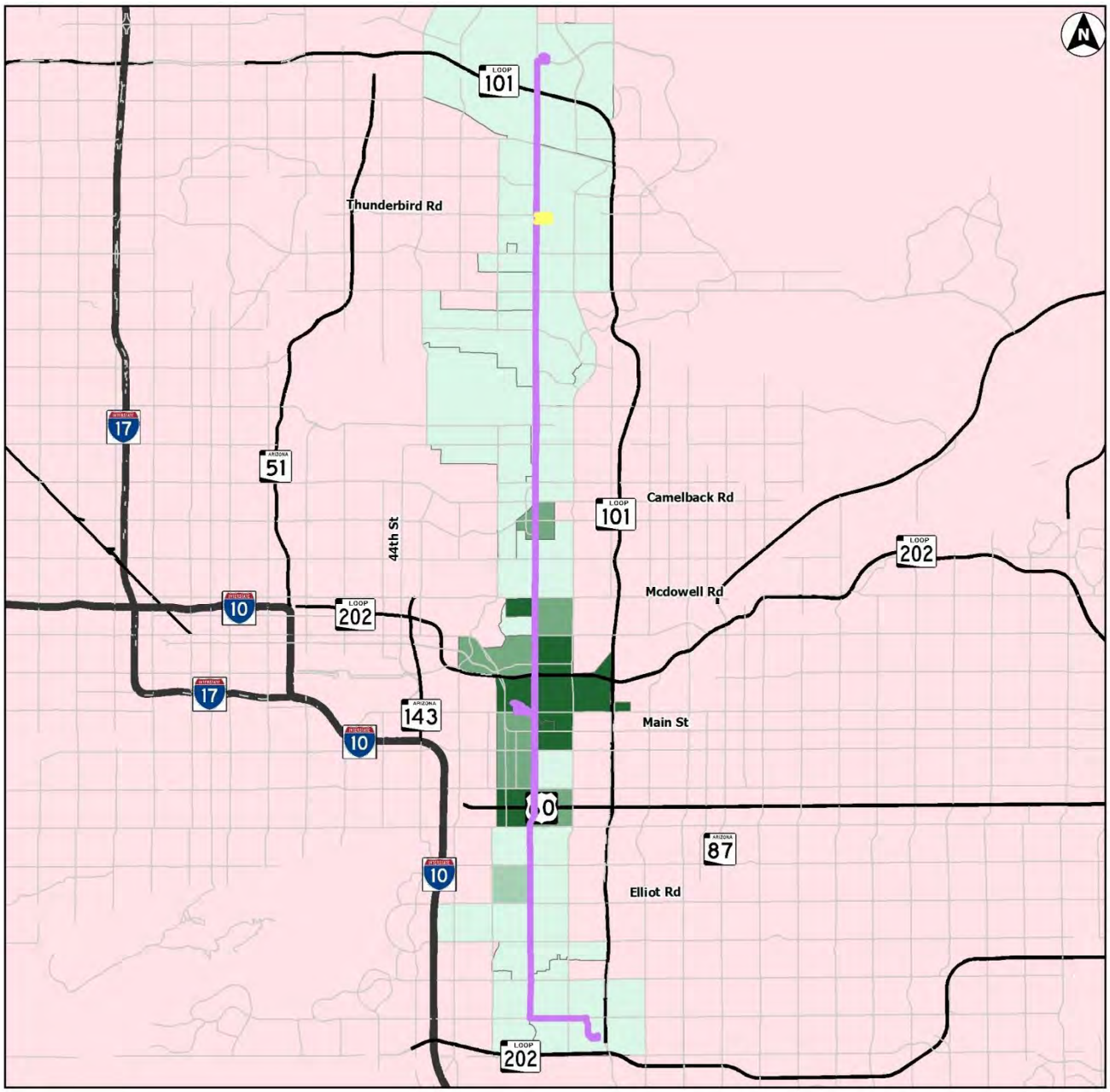
- < 45.50%
- 45.51 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

- Route 72 - Proposed Route Modification
- Route 72

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 2.5 5 Miles

Route 72 – Proposed Service Modification & Low-Income Percentage



LEGEND

Low-Income Population Percentage

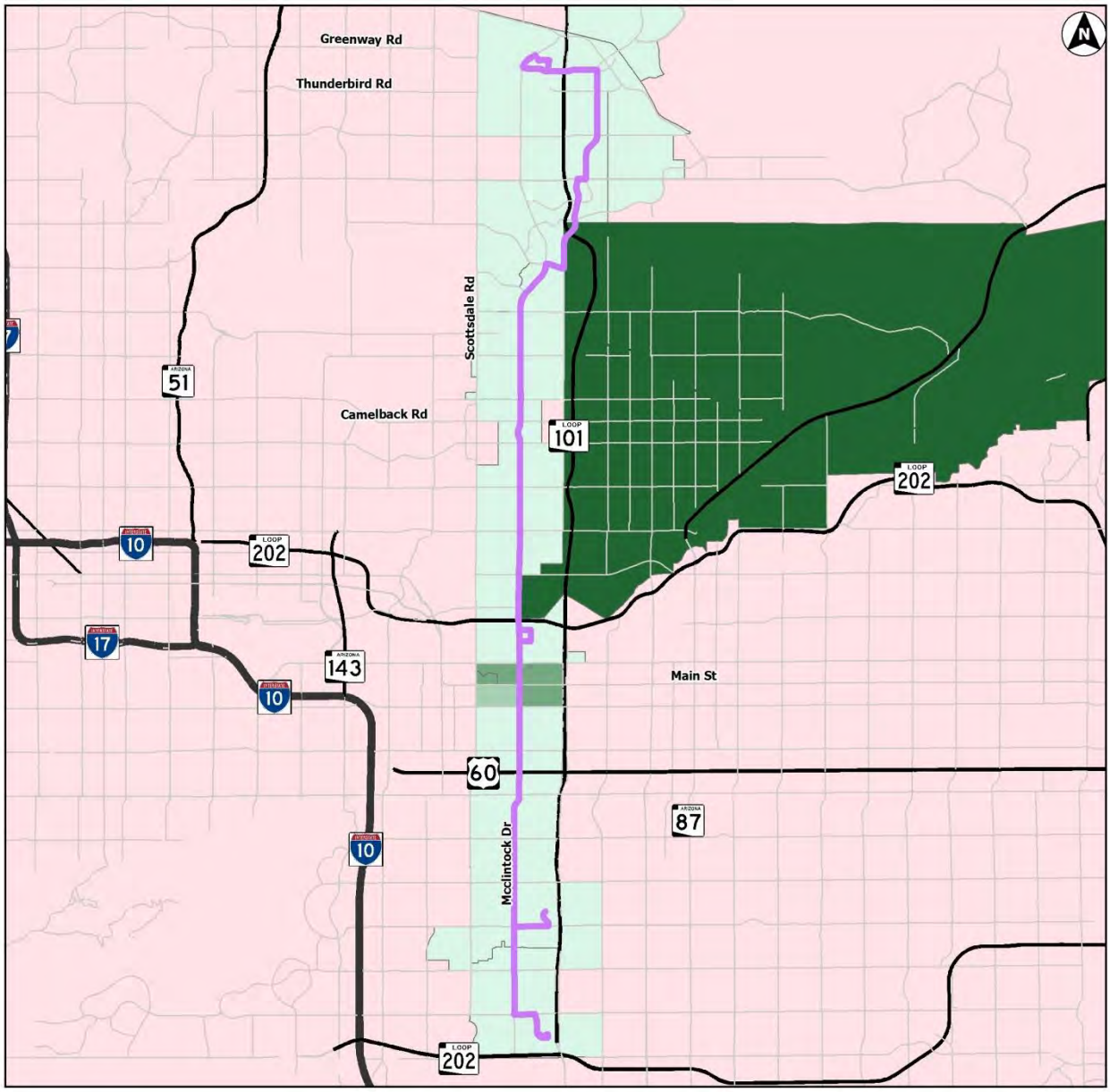
- < 15.7%
- 15.71% - 20%
- 20.01% - 25%
- 25.01% - 30%
- > 30.01%

- Route 72 - Proposed Route Modification
- Route 72

The service area low-income population percentage is 15.8%. This map displays those units that are above this threshold.

0 2.5 5 Miles

Route 81 – Proposed Service Modification & Minority Percentage



LEGEND

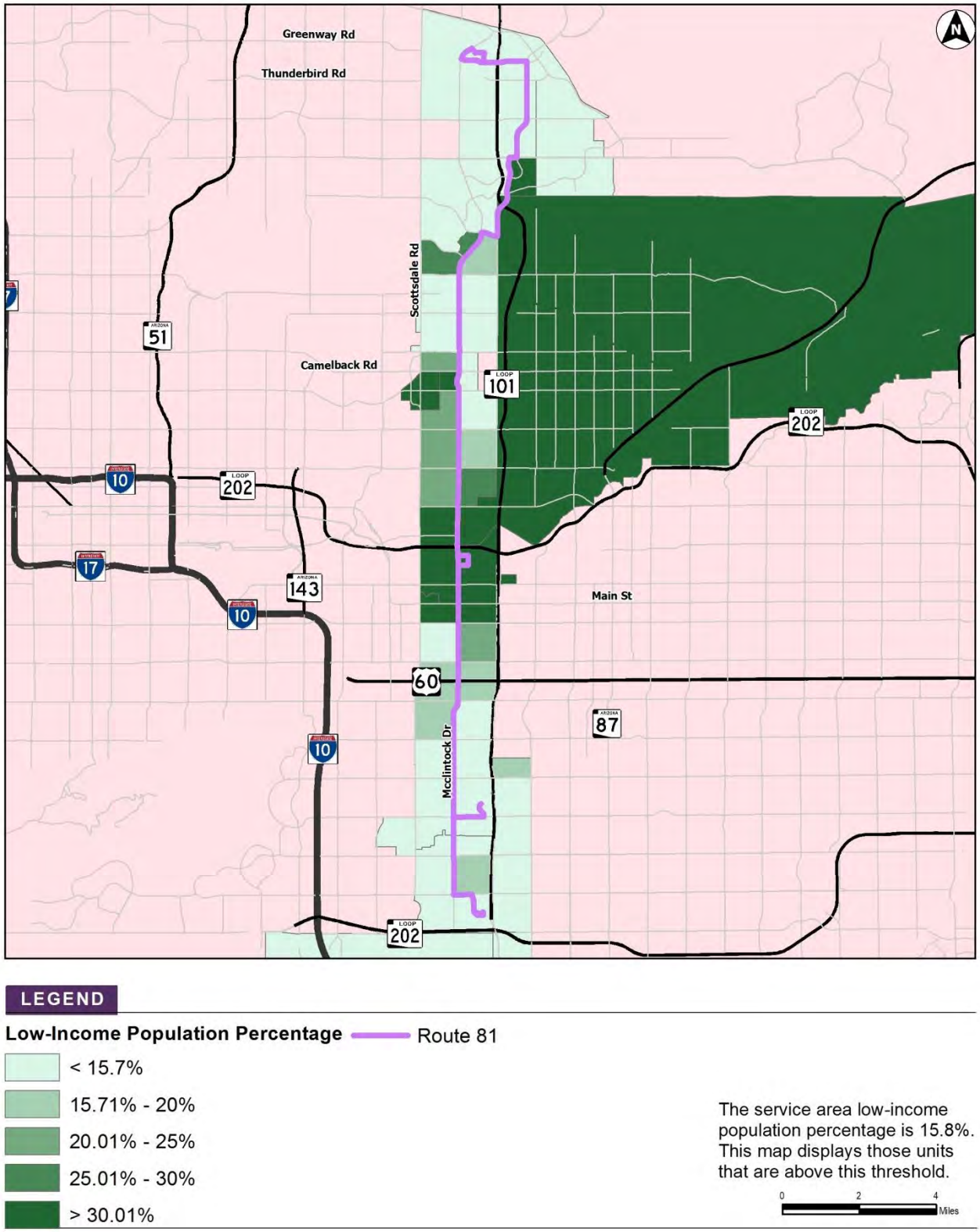
Minority Population Percentage — Route 81

- < 45.5%
- 45.51% - 50%
- 50.01% - 60%
- 60.01% - 70%
- > 70.01%

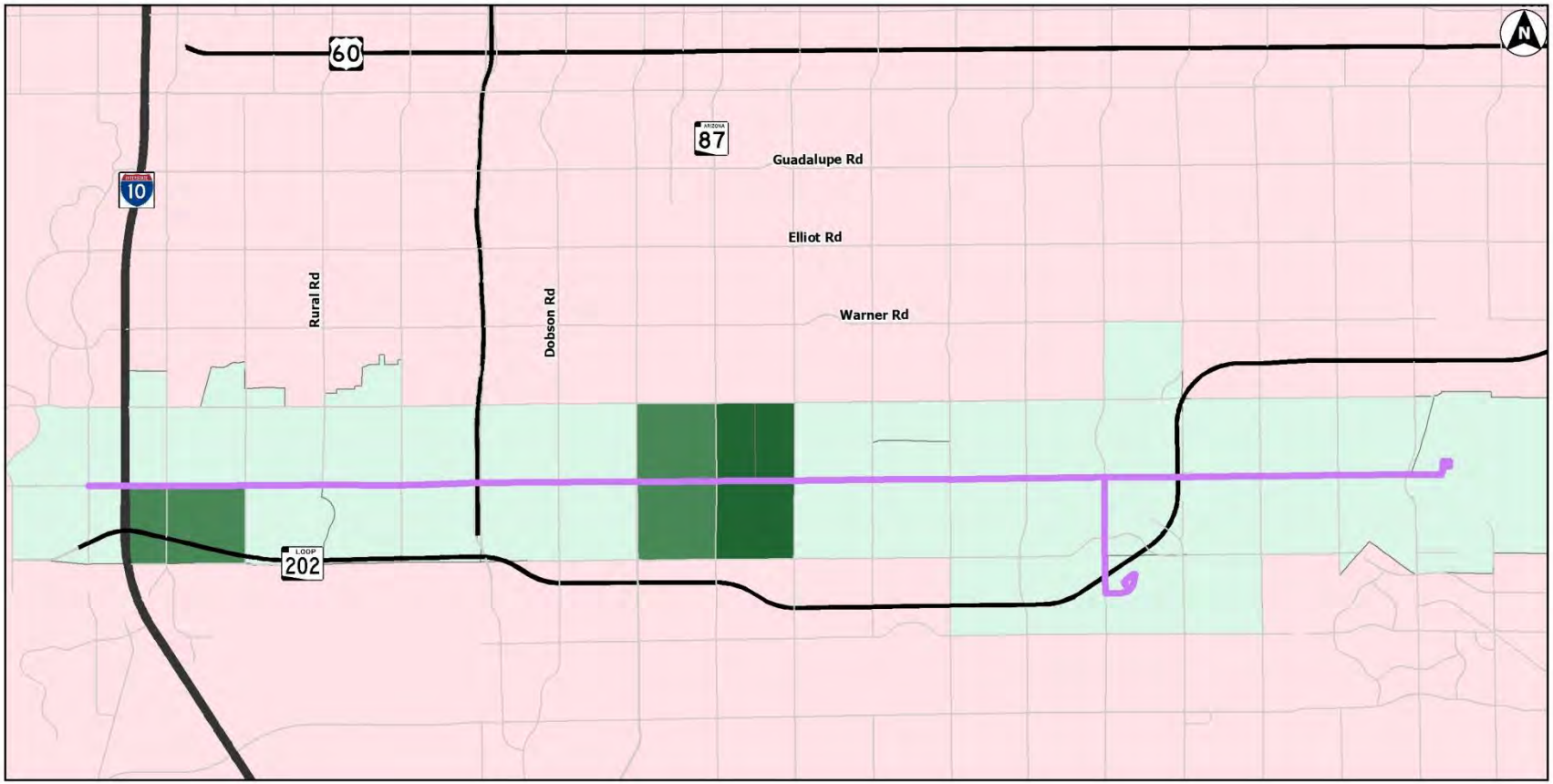
The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 81 – Proposed Service Modification & Low-Income Percentage



Route 156 – Proposed Service Modification & Minority Percentage



LEGEND

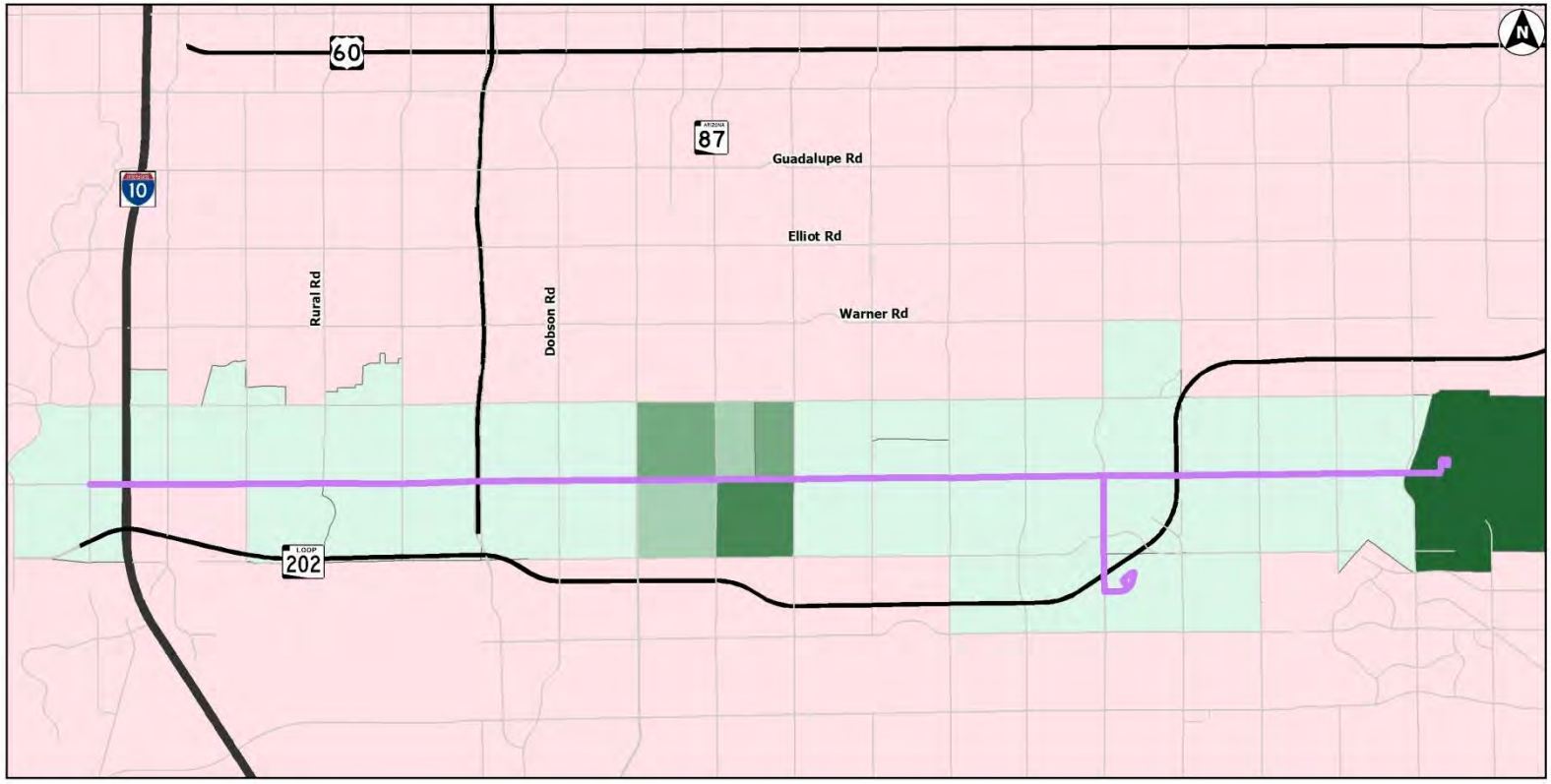
Minority Population Percentage — Route 156

- 20.53% - 45.5%
- 45.51% - 50%
- 50.01% - 60%
- 60.01% - 70%
- 70.01% - 100%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

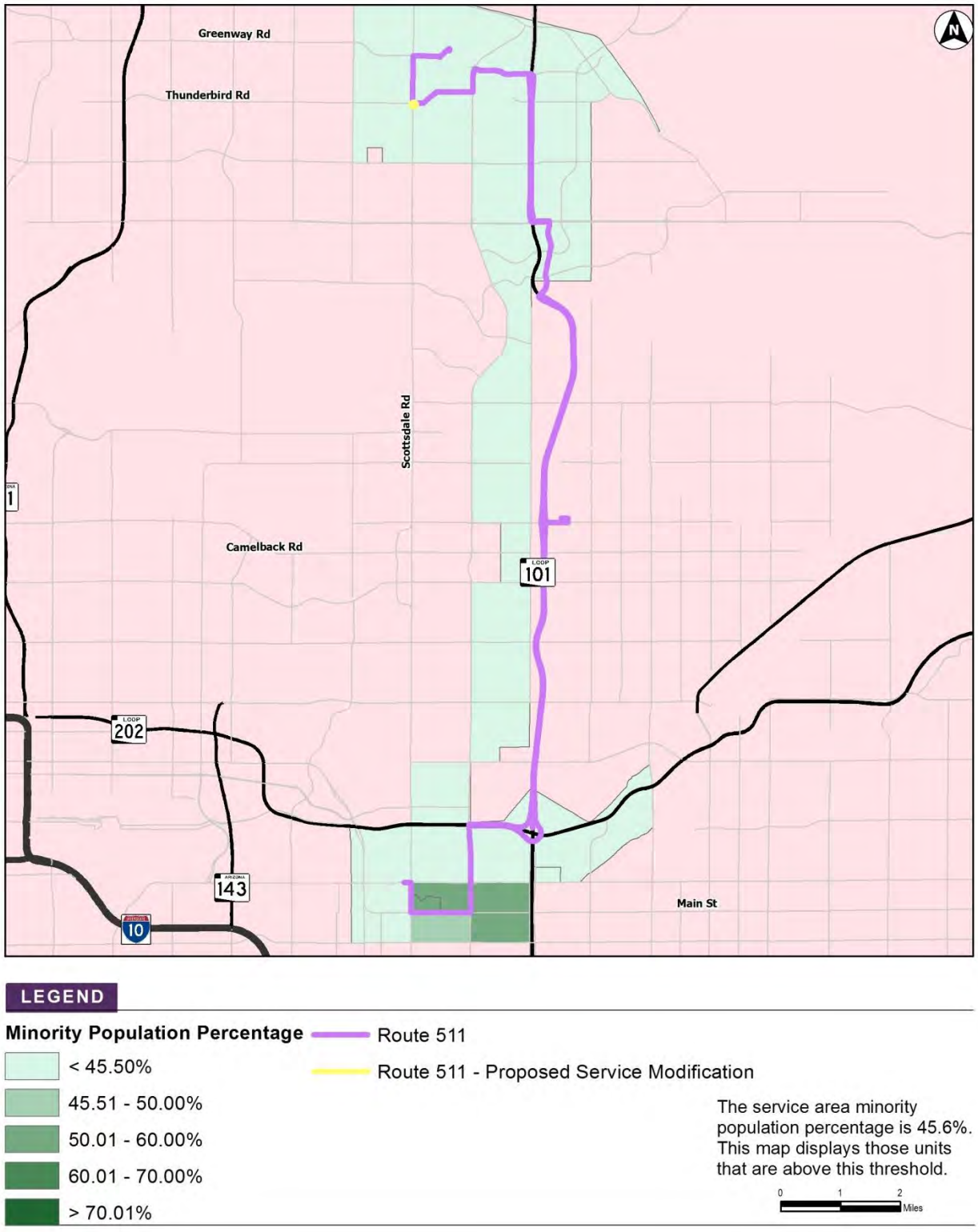
0 1 2 Miles

Route 156 – Proposed Service Modification & Low-Income Percentag

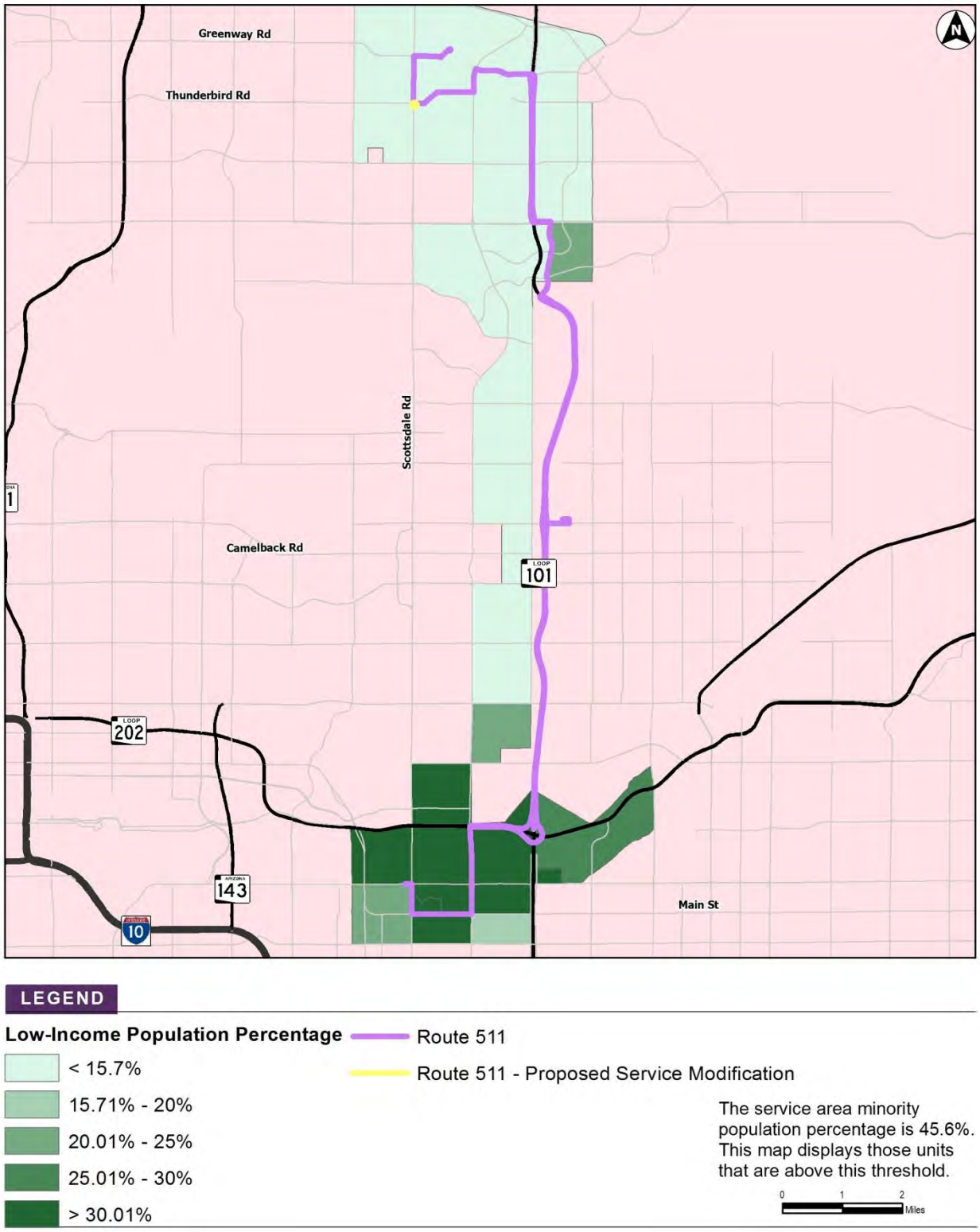


e

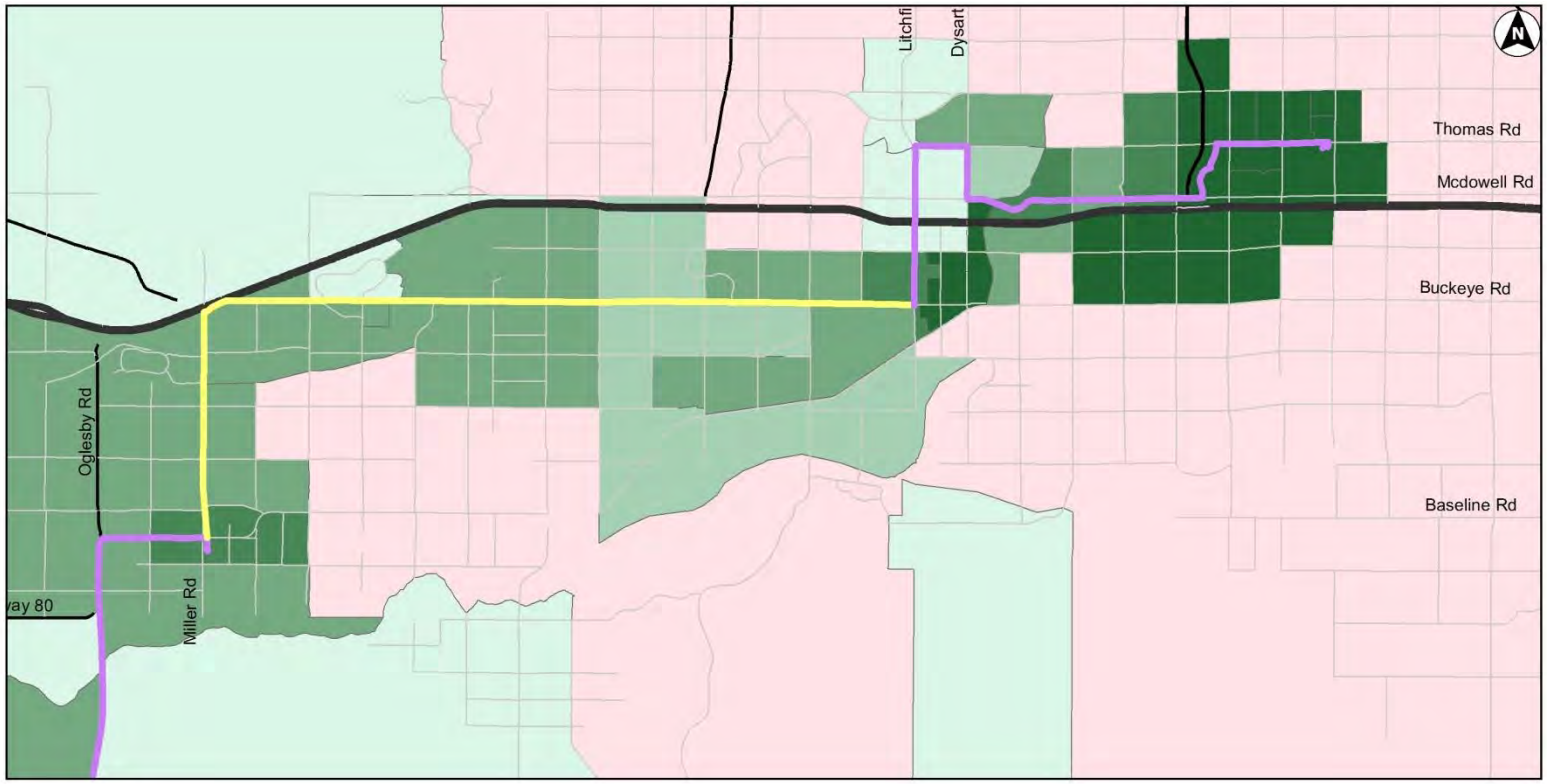
Route 511 – Proposed Service Modification & Minority Percentage



Route 511 – Proposed Service Modification & Low-Income Percentage



Route 685 – Proposed Service Modification & Minority Percentage



LEGEND

Minority Population Percentage

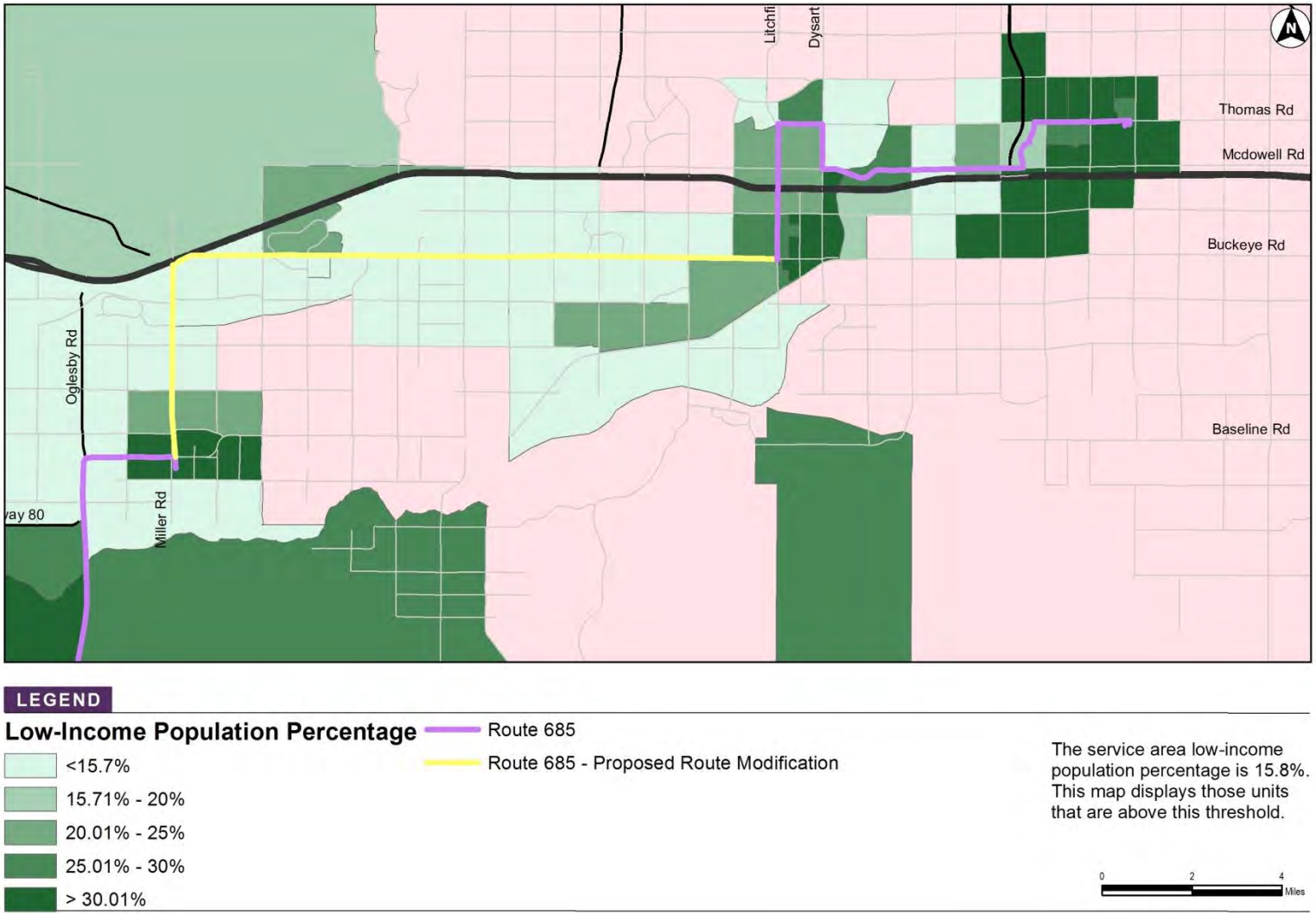
- < 45.5%
- 45.51% - 50%
- 50.01% - 60%
- 60.01% - 70%
- > 70.01%

- Route 685
- Route 685 - Proposed Route Modification

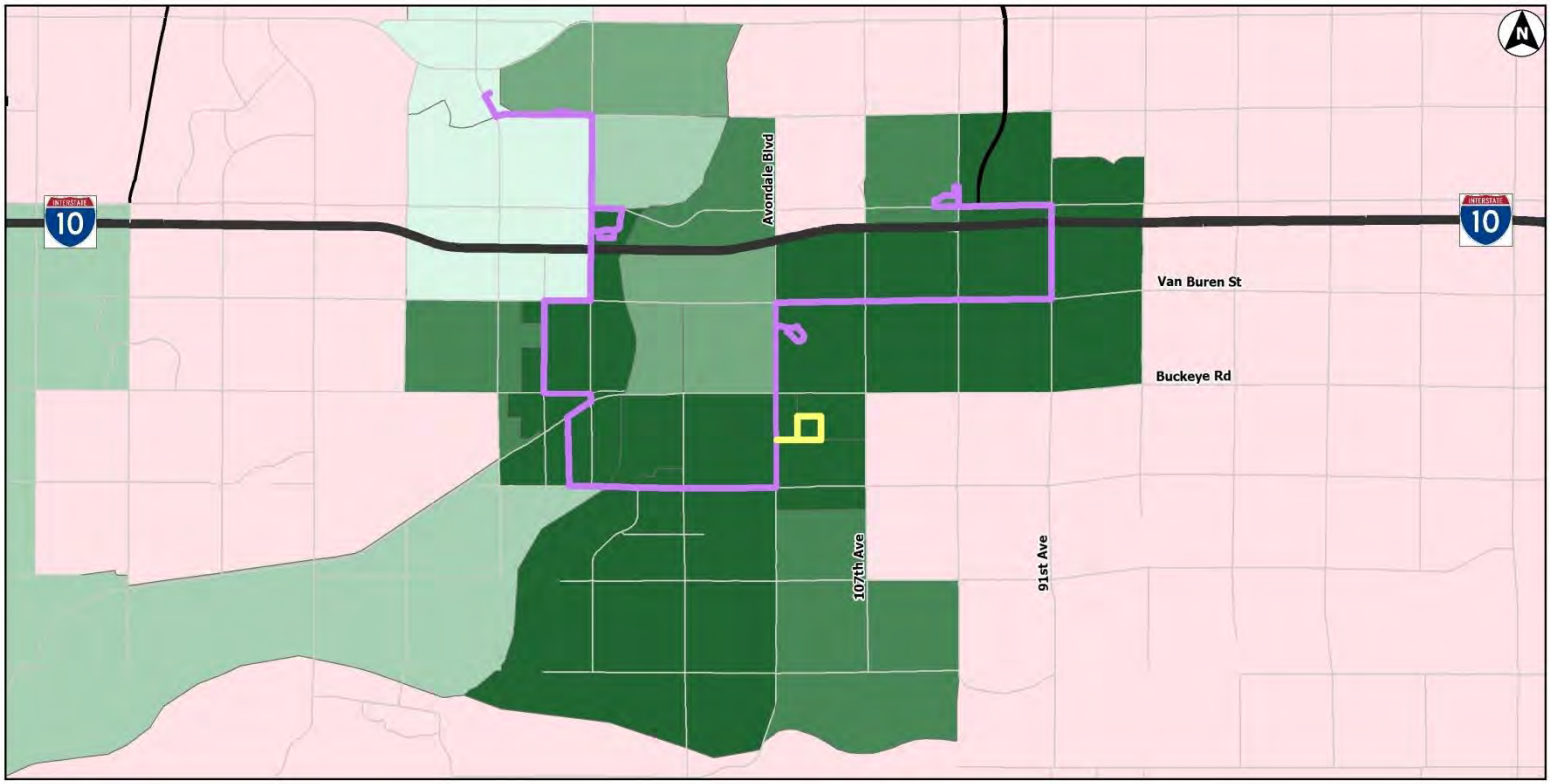
The service area minority population percentage is 45.8%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 685 – Proposed Service Modification & Low-Income Percentage



Zoom Route – Proposed Service Modification & Minority Percentage



LEGEND

Minority Population Percentage

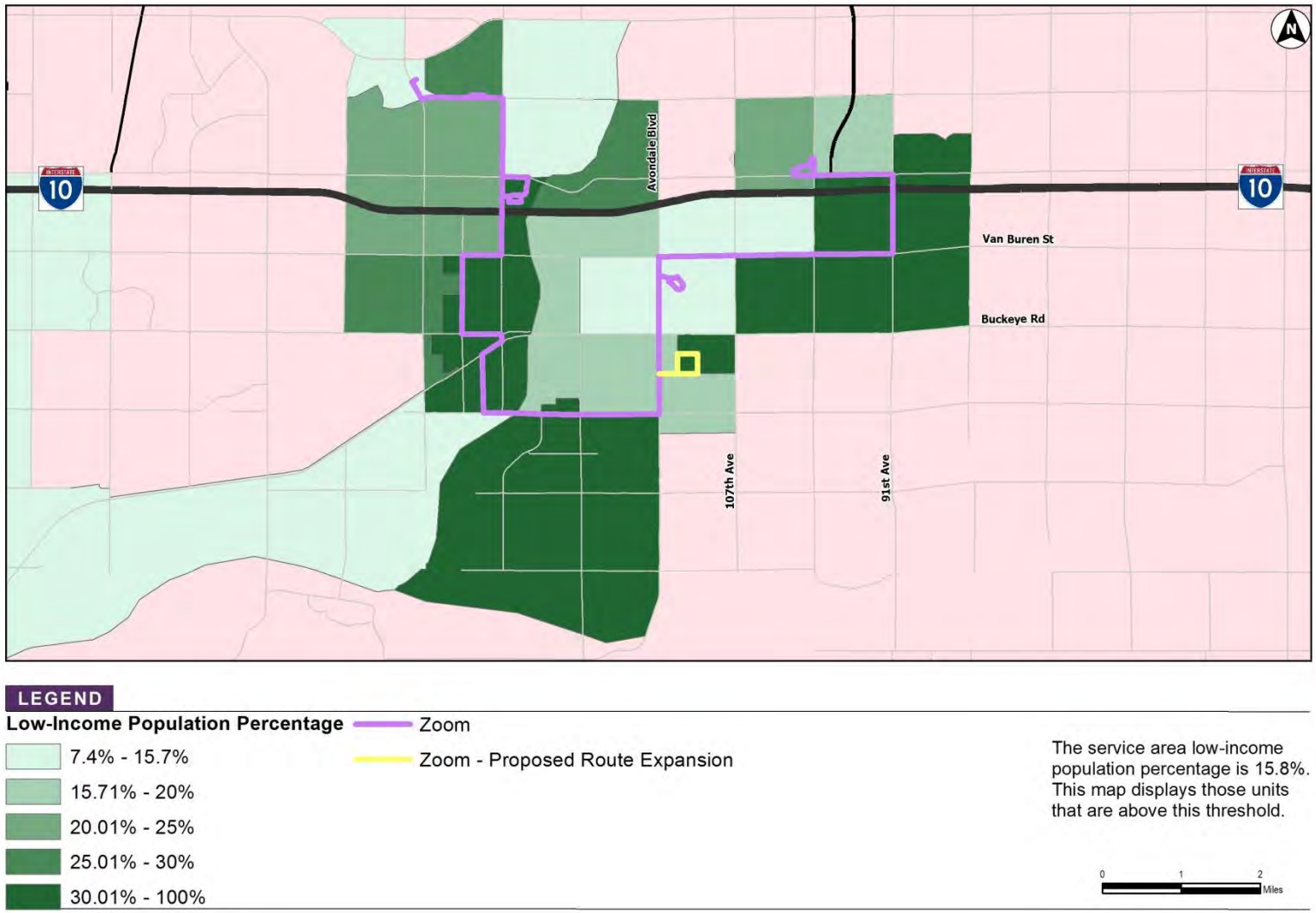
- < 45.5%
- 45.51% - 50%
- 50.01% - 60%
- 60.01% - 70%
- > 70.01%

- Zoom
- Zoom - Proposed Route Expansion

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1 2 Miles

Zoom Route– Proposed Service Modification & Low-Income Percentage



Valley Metro

Title VI Assessment of Proposed Service Changes for October 2014

June 2014

VALLEY METRO

1.0 Introduction

This report defines the proposed general service modifications considered for several Valley Metro system routes, and considers whether the proposed service modifications qualify as "Major Service Changes" in accordance with Valley Metro's adopted service equity policies and Federal Title VI regulations. The report includes an evaluation of potential effects to minority and/or low-income populations using or residing near the routes considered for service modifications. Maps displaying the percentages of minority and low-income populations surrounding each bus route considered for service or alignment modifications are provided at the back of this report.

2.0 General Service Modifications

The proposed general service modifications to the following bus routes are defined below. The service modifications considered include elimination of service along specific streets, extensions of routes to serve new geographic areas, and enhancements to service frequencies.

- **Route 48 (48th Street) – Route Length Reduction –** The portion of the route entering and serving the Arizona Mills Mall in Tempe will be eliminated. The route will now terminate at Priest Drive and Baseline Road. The proposed change will result in the route reduction of approximately 0.65 route miles.

- **Route 56 (Priest) – Route Length Reduction and Extension-** The portion of the route entering and serving the Arizona Mills Mall in Tempe will be eliminated. The route will continue to operate in the northbound and southbound direction on Priest Drive. In Phoenix and Scottsdale, the route will be extended north from the Desert Botanical Garden to Sky Song at Scottsdale Road and McDowell Road. The proposed change will result in an overall route expansion of 4.05 miles (route expansion of 4.71 miles minus route reduction of 0.66 miles).

- **Route 77 (Baseline) – Route Length Reduction –** The portion of the route entering and serving the Arizona Mills Mall in Tempe will be eliminated (1.30 miles). The route will continue to operate eastbound and westbound on Baseline Road.

- **Route 81 (Hayden/McClintock) – Service Headway Expansion –** The City of Tempe is proposing to increase the Saturday and Sunday frequency from 60 minute to 30 minutes from the ASU Research Park to Tempe Marketplace.

- **Route 96 (Dobson) – Route Alignment Change –** The City of Chandler is proposing two deviations. The route will now head west on Germann Road from Dobson Road, turn south on Price Road, and east on Queen Creek, joining back with the existing route alignment on Dobson Road. The portion of the road on Dobson between Germann and Queen Creek Roads will be eliminated. The second deviation (expansion) will travel through the Intel parking lot entering through

Dobson Road and exiting at the intersection of Dobson and Ocotillo Roads, and continuing its route along Ocotillo Road. In addition, the schedule will be adjusted to better align with employment needs on the Price Road corridor. The proposed changes will result in an overall route expansion of 3.80 miles.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Route Elimination –** The City of Scottsdale and Tempe are proposing to eliminate this route (36.85 miles).

- **Route 562 (Goodyear Express) –Service Headway Expansion –** One round trip will be added to the Route 562 Express service to Downtown Phoenix (35.83 miles).

- **Route 563 (Buckeye Express) – Route Modification and Service Headway Expansion –** The Route 563 Express service will be modified to now serve the Avondale park-and-ride instead of the Goodyear park-and-ride; also, two additional round trips will be originating from the Avondale park-and-ride to Downtown Phoenix. The route will be renamed Route 563 - Avondale/Buckeye Express.

3.0 Determination of Major Service Changes

In accordance with Valley Metro's policy for determining whether the proposed service modifications/changes to the aforementioned routes qualify as Major Service Changes, each of the route modifications/changes were evaluated independently. In order to be considered a Major Service Change, the route alignment, directional miles or the route's revenue miles must exceed a change threshold of 25%.

- **Route 48 (48th Street) – Route Length Reduction –** The proposed route change will no longer serve the Arizona Mills Mall in Tempe. The route will terminate at Priest Drive and Baseline Road. This results in a reduction in 0.65 route miles. The proposed route modification amounts to a 7.0% reduction of the route's current total length. In addition, the proposed change will result in a decrease of approximately 11,000 revenue miles, amounting to a 13.4% decrease. The proposed service modification is not a Major Service Change.

- **Route 56 (Priest) – Route Length Reduction –** The proposed service change is to eliminate the portion of the route that enters into Arizona Mills Mall in Tempe. This results in a reduction of 0.66 route miles. The proposed route modification amounts to a 2.8% reduction of the route's current total length. In addition, the proposed change will result in a decrease of approximately 7,500 revenue miles, amounting to a 3.2% decrease. The proposed service modification is not a Major Service Change.

- **Route 56 (Priest) – Route Length Extension –** The proposed service change is to extend the route from the Desert Botanical Garden to Sky Song at Scottsdale Road

and McDowell Road. This results in an addition of 4.71 route miles and a 20.3% increase in the route's current total length. In addition, he proposed change will result in an increase of approximately 48,268 revenue miles amounting to a 20.3% increase. The proposed service modification is not a Major Service Change.

- **Route 77 (Baseline) – Route Length Reduction –** The proposed service change is to eliminate the portion of the route that enters into Arizona Mills Mall in Tempe. This results in a reduction of 1.30 route miles. The proposed route modification amounts to a 5.8% reduction of the route's current total length. In addition, the proposed change will result in a decrease of approximately 32,300 revenue miles, amounting to a 5.8% decrease. The proposed service modification is not a Major Service Change.

- **Route 81 (Hayden/McClintock) – Service Headway Expansion –** The proposed service change is to add trips on Saturdays and Sundays from the ASU Research Park to Tempe Marketplace. This result in the addition of 20 trips on Saturday and an increase of approximately 92,560 annual revenue miles, amounting to a 42.1% increase in the route's Saturday revenue miles. This also result in the addition of 20 trips on Sundays and an increase of approximately 112,140 annual revenue miles, amounting to a 42.1% increase in the route's Sunday revenue miles. These proposed service modifications are considered a Major Service Change.

- **Route 96 (Dobson) – Route Alignment Change –**The proposed alignment changes would add service to Price Road in Chandler by deviating west on Germann, south on Price Road, east on Queen Creek Road and south on Dobson Road, joining the existing Route 96 alignment. A second deviation will travel through the Intel Corporation parking lot between Dobson and Ocotillo Roads. Collectively, these deviations will result in an increase of 3.80 route miles. The proposed route modifications amount to a 9.7% increase of the route's current total length. In addition, the proposed change will result in an increase of approximately 14,820 revenue miles, amounting to a 4.9% increase. The proposed service modification is not a Major Service Change.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Route Elimination –** The cities of Scottsdale and Tempe area proposing to eliminate this express bus route (36.85 miles). The proposed route elimination amounts to a 100% decrease of the route's current total length and revenue miles resulting in a Major Service Change.

- **Route 562 (Goodyear/Downtown Express) – Service Headway Expansion Adjustments -** The proposed change is to add one round trip to Route 562 Express service to Downtown Phoenix. This will result in an increase of approximately 18,630 annual revenue miles, a 33.3% change resulting in a Major Service Change.

- **Route 563 (Buckeye Express) – Route Modification –** The proposed change is to modify the route to now serve the Avondale park-and-ride instead of the Goodyear park-and-ride. This modification will result in a net increase of 0.40 route miles or 416 annual revenue miles, amounting to a 0.7% increase. The proposed service modification is not a Major Service Change. The route will also be renamed Route 563 - Avondale/Buckeye Express. Note that Route 562 serves the Goodyear park-and-ride and will be adding an additional trip to account for those passengers using Route 563.

- **Route 563 (Buckeye Express) –Service Headway Expansion –** The addition of two round trips originating from the Avondale park-and-ride to Downtown Phoenix will increase the weekday revenue miles by approximately 35,048 miles resulting in a 60.9% increase. The service headway expansion will result in a Major Service Change. The route will also be renamed Route 563 - Avondale/Buckeye Express.

Table 1 summarizes the service modifications and whether they qualify as Major Service Changes.

Table 1. Summary of Service Modifications and Major Service Changes

Route	Metric	Percentage Change	Major Service Change
Route 48 – (Route Reduction)	Route Miles	7.0%	No
	Revenue Miles	13.4%	No
Route 56 – (Route Reduction)	Route Miles	2.8%	No
	Revenue Miles	3.2%	No
Route 56 – (Route Expansion)	Route Miles	20.3%	No
	Revenue Miles	20.3%	No
Route 77 (Route Reduction)	Route Miles	5.8%	No
	Revenue Miles	5.8%	No
Route 81 (Headway Expansion – Saturday)	Revenue Miles	42.1%	**Yes**
Route 81 (Headway Expansion – Sunday)	Revenue Miles	42.1%	**Yes**
Route 96 (Route Modifications – Weekday)	Route Miles	9.7%	No
	Revenue Miles	4.9%	No
Route 511 (Route Elimination)	Route Miles	100%	**Yes**
	Revenue Miles	100%	**Yes**
Route 562 (Headway Expansion – Weekday)	Revenue Miles	33.3%	**Yes**
Route 563 (Route Modification)	Route Miles	0.7%	No
	Revenue Miles	0.7%	No
Route 563 (Headway Expansion – Weekday)	Revenue Miles	60.9%	**Yes**

4.0 Route Demographic Profile Information

A review of available demographic data was conducted to evaluate the current ridership socioeconomic characteristics of the existing routes, and/or the population and income characteristics of populations residing in areas where new service would be provided. The evaluation is based on Valley Metro's policies for service changes. For service changes affecting headways or a reduction in a route length, a review of available origin/destination survey data was conducted. For extensions of routes to new geographic areas where service is currently not provided, 2010 Census data was used to profile the minority populations and the 2012 American Community Survey (ACS) data was used to profile the low income populations of the new service area. Low income is defined as the population with incomes at or below 150 percent of the Department of Health and Human Services poverty level.

When collecting and interpreting the 2010 Census or 2012 ACS data for route extensions, modifications, or new routes, data was collected using at a minimum a one-half (½) mile radial buffer surrounding the proposed extension. However, in many cases the census tracts went well beyond the ½ mile buffer. Data for the entire census tract was used and not a subset of the data.

Although identifying the demographic profile is only required for proposed service changes that are identified as a "Major Service Change" the Title VI Coordinator determined that identifying the demographic profile for each proposed service change provides value in this Title VI Analysis.

- **Route 48 (48th Street) - Route Length Reduction –** According to the most recent Transit On-Board Origin/Destination Survey, 60.8% of the riders are considered minorities and 49.6% are low-income riders.

- **Route 56 (Priest) – Route Reduction –** According to the most recent Transit On-Board Origin/Destination Survey, 59.1% of the Route 56 riders are minorities and 29.9% are low-income riders.

- **Route 56 (Priest) – Route Extension –** According to the Census demographic data, the proposed route modification of Route 56 from the Desert Botanical Garden to Sky Song at Scottsdale Road and McDowell Road consists of 38.8% minority and 11.0% low-income populations.

- **Route 77 (Baseline) – Route Length Reduction** – According to the most recent Transit On-Board Origin/Destination Survey, 78.7% of the Route 56 riders are minorities and 64.0% are low-income riders.

- **Route 81 (Hayden/McClintock) – Service Headway Expansion –** According to the most recent Transit On-Board Origin/Destination Survey, 41.6% of the Route 81 riders are minorities and 36.4% are low-income riders.

- **Route 96 (Dobson) – Route Alignment Change –** According to the Census demographic data, the proposed route alignment change from Dobson road to Germann, to Price Road, to Queen Creek, then back to Dobson Road and into the Intel Corporation complex occurs within the same census tracts as the current alignment and consists of 33.9% minority and 8.1% low-income populations.

- **Route 511 (Tempe/Scottsdale Airpark Express) – Modified Alignment –** According to the most recent Transit On-Board Origin/Destination Survey, 13.0% of the Route 511 riders are minorities and 6.5% are low-income riders.

- **Route 562 (Goodyear/Downtown Express) – Service Headway Expansion Adjustments -** According to the most recent Transit On-Board Origin/Destination Survey, 57.3% of the Route 562 riders are minorities and 26.1% are low-income riders.

- **Route 563 (Buckeye Express) – Route Modification –** According to the Census demographic data, 60.1% of the Route 562 riders are minorities and 20.1% are low-income riders.

- **Route 563 (Buckeye Express) – Service Headway Expansion –** According to the Census demographic data, 56.7% of the Route 562 riders are minorities and 35.4% are low-income riders.

Table 2 below provides a summary of the 2010 decennial Census data representing the minority population and 2012 ACS data on impoverished populations residing in census tracts that are directly affected by each of the proposed service modifications. Table 2 also provides data from the Origin and Destination Survey conducted in 2010/2011 showing the minority and impoverished populations along the portion of the route subjected to a change. The table is split to show the minority and low-income percentages first along the existing routes, prior to these proposed changes and then along the portions of each route slated to change. The bottom of the table shows the demographics of the transit service area based on the census data and the system-wide rider demographics based on the Origin and Destination Survey.

Table 2. Census Demographic Data for Current and Proposed Route Alignments

Current Route Alignment Demographics (Census)[1]	Minority[2]	Low-Income[3]
Route 48	63.7%	36.6%
Route 56	44.7%	22.9%
Route 77	59.3%	25.1%
Route 81	25.7%	20.5%

Route 96	35.9%	19.5%
Route 511	24.6%	24.2%
Route 562	60.9%	46.2%
Route 563	56.7%	35.4%
Service Modification Demographics	**Minority**	**Low-Income**
Route 48 (Route Length Reduction (O/D Survey[4])	60.8%	49.6%
Route 56 (Route Reduction) (O/D Survey[4])	59.1%	29.9%
Route 56 (Route Extension) (Census)	38.8%	11.0%
Route 77 (Route Length Reduction (O/D Survey[4])	78.7%	64.0%
Route 81 (Service Headway Expansion) (O/D Survey[4])	41.6%	36.4%
Route 96 (Route Modification) (Census)	33.9%	8.1%
Route 511 (Route Elimination) (O/D Survey[4])	13.0%	6.5%
Route 562 (Service Headway Expansion) (O/D Survey[4])	57.3%	26.1%
Route 563 (Route Modification) (Census[5])	60.1%	20.1%
Route 563 (Service Headway Expansion) (Census[5])	56.7%	35.4%
Valley Metro Service Area (Census)	45.6%	27.6%
Valley Metro System-Wide Percentage (O/D Survey[4])	56.2%	50.6%

[1]2010 Census Data per census tracks that are at a minimum ½ mile on either side of the route.
[2]The average minority population based on the 2010 Census Track data.
[3]The average low-income population based on the 2012 ACS census track data for populations with incomes at or below 150 percent of the Department of Health and Human Services poverty level.
[4]The most recent Transit On-Board Origin/Destination Survey was conducted at the 95% confidence level, with a margin of error of +/- 1%. Refer to Appendix B of the O/D Survey.
[5]A portion of Route 563 has changed since the last O/D Survey and would not provide an accurate representation of the ridership; therefore, census is being used to document the ridership.

5.0 Disparate/Disproportionate Impact Determination

Per the 2013 Major Service Change and Service Equity Policy only the proposed service changes that are considered a "Major Service Change" will be evaluated to determine if the proposed change will result in a disparate impact to minority populations and/or a disproportionate impact to low-income populations. Routes 81, 511, 562, and 563 are the proposed service changes that have been identified as a major service change; therefore, all four routes were evaluated for potential disparate and disproportionate impacts. Note that all the other proposed service changes may have a minority and/or low-income population greater than either the transit service area or the system-wide percentages; however, the enhancements would benefit all communities and would not result in a disparate or disproportionate impact to minority or low-income populations.

Route 81

Based on the Transit On-Board Survey (2010–2011) 41.6% of the Route 81 riders are minorities, 14.6 percentage points below the Valley Metro System-wide percentage of minority users (56.2%). Low-income riders account for 36.4% of the route's ridership, 14.2 percentage points below the Valley Metro System-wide percentage of low-income

users (50.6%). Since the percentage of minority and low-income riders on route 81 being lower than the Valley Metro System-wide percentages the proposed change would not result in a disparate or a disproportionate impact to the minority and low-income populations. In addition, the proposed change to Route 81 is to increase the Saturday and Sunday frequency from 60 minute to 30 minutes from the ASU Research Park to Tempe Marketplace. This is a new benefit to the riders of Route 81 and to the community.

Route 511

Route 511 is proposed to be completely eliminated. Based on the Transit On-Board Survey (2010-2011) 13.0% of Route 511 riders are minorities, 43.2 percentage points below the Valley Metro System-wide percentage of minority users (56.2%). Low-income riders account for 6.5% of the routes ridership, 44.1 percentage points below the Valley Metro System-wide percentage of low-income users (50.6%). Since the percentage of minority and low-income riders on Route 511 being lower than the Valley Metro System-wide percentages the proposed change would not result in a disparate or a disproportionate impact to the minority and low-income populations.

Route 562

Based on the Transit On-Board Survey (2010–2011) 57.3% of the Route 562 riders are minorities, 1.1 percentage points above Valley Metro's System-wide percentage of minority users (56.2%). Based on the 2012 ACS data, low-income riders account for 26.1% of the route's ridership, 24.5 percentage points below the Valley Metro System-wide percentage of low-income users (50.6%). With the percentage of minority riders on Route 562 greater than the percentage of minority riders in Valley Metro's transit system and above the 1% threshold difference this indicates that there is a disparate impact to the minority populations. However, the proposed change is to increase the number of route trips providing a greater opportunity for riders to use Route 562 to get to their destination. Therefore, this proposed change will not result in a disparate impact to minority populations. In addition, the percentage of low-income riders is lower than that of the transit system; therefore there is no disproportionate impact to low-income populations.

Route 563

Based on the Transit On-Board Survey (2010–2011) data for minority populations, 56.7% of the Route 563 riders are minorities, 0.5 percentage points above the Valley Metro System-wide percentage of minority users (56.2%). Low-income riders account for 35.4% of the route's ridership, 15.2 percentage points below the Valley Metro System-wide percentage of low-income users (50.6%). The threshold for disparate and disproportionate impacts, per Valley Metro's Major Service Change Policy is if the percentage of minority and/or low-income passengers on the affected route is greater

than the transit system's minority and/or low-income ridership within the appropriate dataset's margin of error. In this case the O/D dataset's margin of error is +/- 1%. The percentage of minority riders on Route 563 is only 0.5 percentage points greater than the percentage of minority riders in Valley Metro's transit system; therefore, there are no disparate impacts. The percentage of low-income riders on Route 563 is lower than the percentage of riders in the transit system; therefore there are no disproportionate impacts. In addition, the proposed change to Route 563 is increasing the frequency providing an increased opportunity to use the system. Therefore, this is a benefit to the community.

6.0 Public Outreach

Valley Metro held the following public meetings to seek input on proposed changes to the routes evaluated in this report:

April 9, 2014
City of Glendale, Council Chambers
613 E Broadway

April 15, 2014
City of Chandler, Council Chambers
88 E Chicago St.

April 15, 2014
City of Scottsdale, One Civic Center
7447 E Indian School Rd.

April 22, 2014
City of Avondale, Council Chambers
11465 W. Civic Central Dr.

April 23, 2014
Phoenix Burton Barr Library
1221 N Central Ave.

Valley Metro conducted a webinar on April 16, 2014 and a tweet-chat on April 30, 2014.

Valley Metro held a public hearing on April 29, 2014 at Valley Metro's Board Room in Downtown Phoenix to discuss the proposed changes to all the proposed service changes.

7.0 Conclusions

Table 3 summarizes the analysis results by route and the determination of whether a disparate or disproportionate impact would result as an outcome of the changes as proposed. It is important to remember that the service modifications proposed are either changes to the route alignments and/or route lengths, or are service frequency changes. The type of service modification determines the data to be used for analyzing whether the proposed change will result in a disparate or disproportionate impact. Changes to existing route alignments or service frequencies are evaluated using origin/destination survey data, while extensions of bus routes to serve new geographic areas are evaluated using Census data. The minority and low-income percentages shown are based on the type of data used to evaluate the proposed service change for equity implications. Each of the routes has been identified as to whether the proposed service modification would qualify as a "Major Service Change". The determination of whether an adverse, disparate, or disproportionate impact occurs is based on the following:

1. The proposed service modification qualifies as a Major Service Change. If the service modification is not deemed a "Major Service Change", it is determined that the proposed change would not have an adverse, disparate, or disproportionate impact to any community.

2. The percentage of minority or low-income populations is above the Valley Metro Service Area threshold or the Valley Metro System-wide threshold (shown at the bottom of the table). The percentages shown for minority and low-income populations reflect the population percentages for the portion of the route that is changing, or type of service modification. For example, the minority percentage for the route length reduction proposed for Route 48 reflects the percentage of minorities and low-income populations currently using the route is based on the origin/destination survey data.

3. Improvements to service (e.g. extensions of routes to serve new areas or frequency improvements) that provide a benefit to all users do not constitute an adverse, disparate, or disproportionate impact.

Table 3. Summary of Service Modifications and Equity Impact Assessment

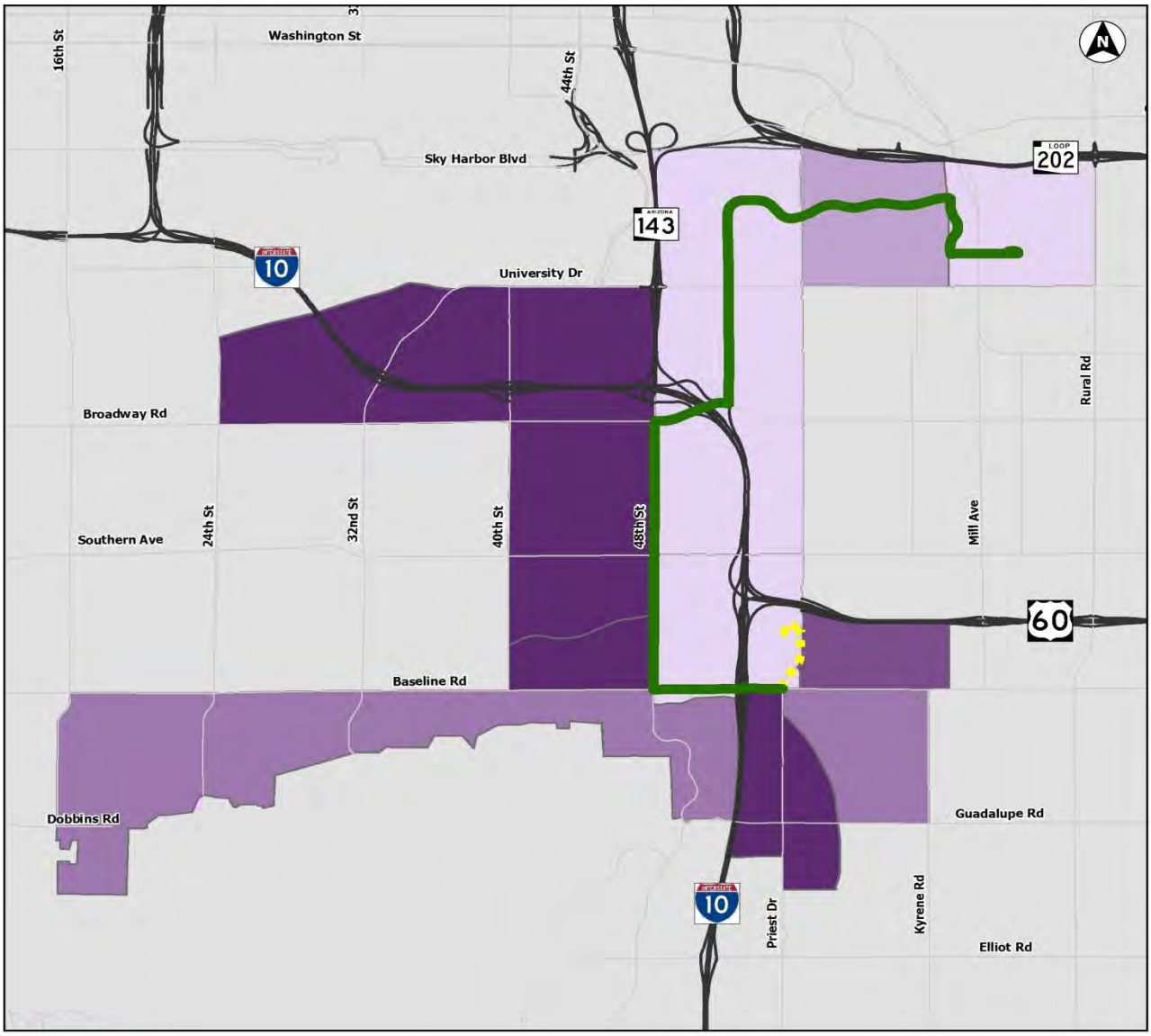
Route	Major Service Change	Type of Change	Minority Percentage	Low-Income Percentage	Disparate/Disproportionate Impact Determination
Route 48	No	Route Length Reduction[1]	60.8%	49.6%	None
Route 56	No	Route Length Reduction[1]	59.1%	29.9%	None

Route	Major Service Change	Type of Change	Minority Percentage	Low-Income Percentage	Disparate/Disproportionate Impact Determination
Route 56	No	Route Length Extension[2]	38.8%	11.0%	None
Route 77	No	Route Length Reduction[1]	78.7%	64.0%	None
Route 81	Yes	Headway Expansion[1]	41.6%	36.4%	The percent minority and low-income is lower than the system-wide percentages. In addition, the proposed change is to increase Saturday and Sunday service. Therefore, no impacts.
Route 96	No	Headway Expansion[1]	33.9%	8.1%	None
Route 511	Yes	Route Elimination[1]	13.0%	6.5%	The percent minority and low-income is lower than the system-wide percentages, therefore, there are no disparate or disproportionate impacts.
Route 562	Yes	Headway Expansion[1]	57.3%	26.1%	Although the percentage of minority population is greater than the system-wide percentage the proposed change is to increase service. Therefore there are no disparate or disproportionate impacts.
Route 563	No	Route Modification[2]	60.1%	20.1%	None
Route 563	Yes	Headway Expansion[1]	56.7%	35.4%	Although the percentage of minorities using this route is greater than the transit system it is less than the 1% threshold stated in the Major Service Change Policy. Therefore, there are no disparate impacts.
Valley Metro Service Area	N/A		45.6%	27.8%	N/A
Valley Metro System-Wide Percentage (O/D Survey)			56.2%	50.6%	

[1] Transit On-Board Origin/Destination Survey Data, 2010-2011
[2] 2010 Census Data, U.S. Census Bureau

PROPOSED SERVICE CHANGES AND DEMOGRAPHIC MAPS

Route 48 – Proposed Service Modification & Minority Percentage



LEGEND

- Route 48
- Proposed Route Change

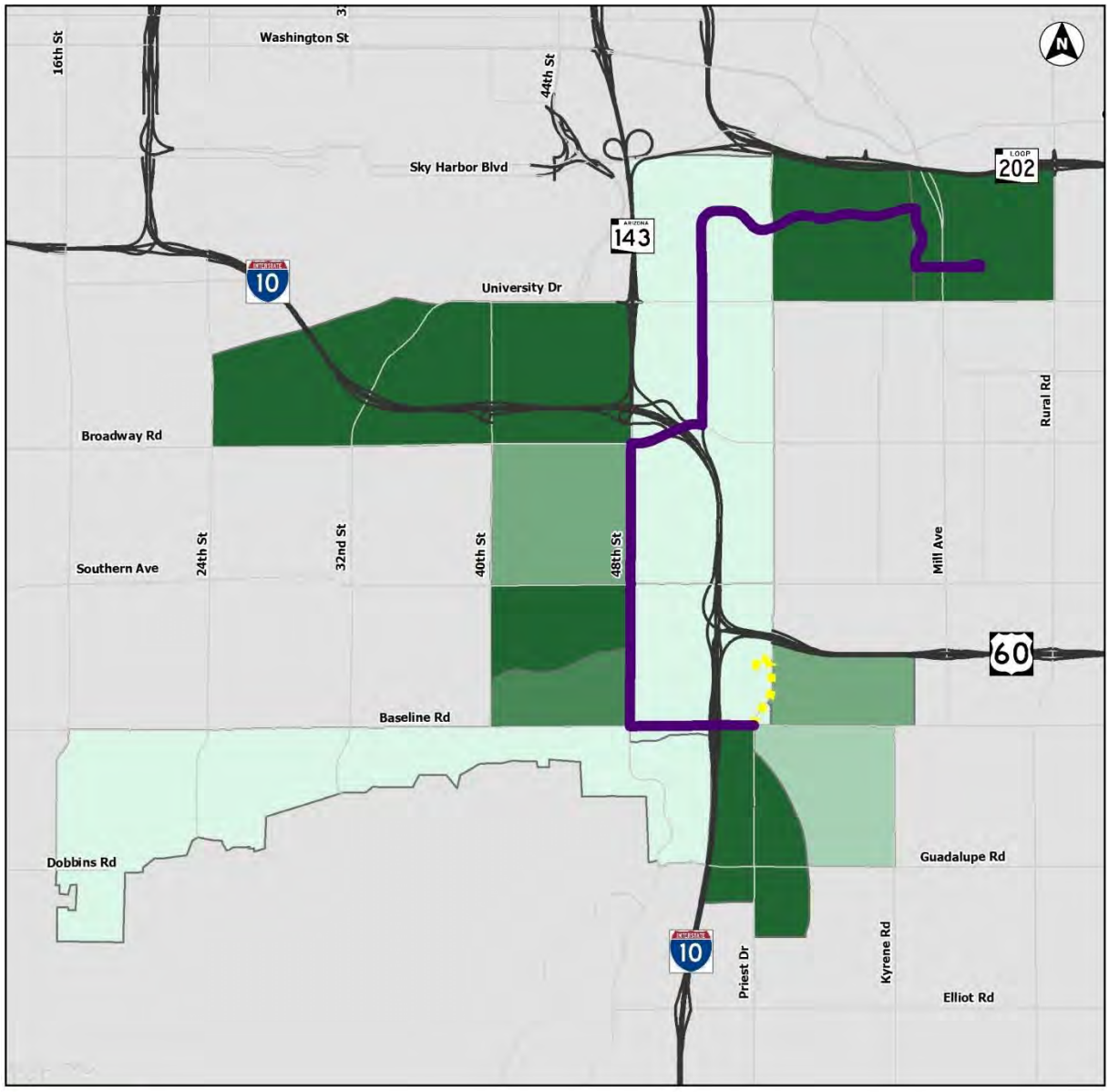
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 0.65 1.3 Miles

Route 48 – Proposed Service Modification & Low-Income Percentage



LEGEND

Route 48

Proposed Route Change

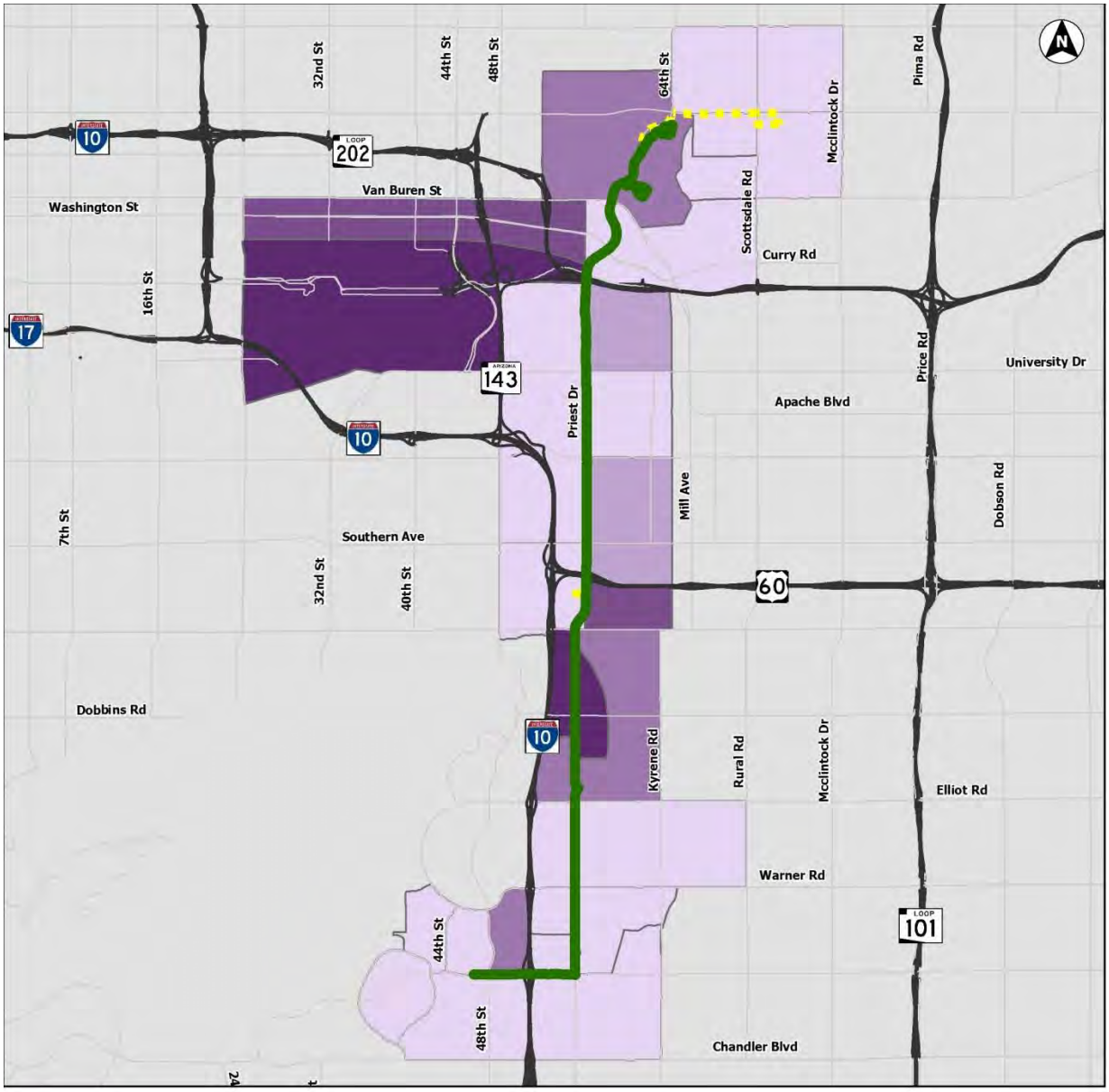
Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 0.65 1.3 Miles

Route 56 – Proposed Service Modification & Minority Percentage



LEGEND

- Route 56
- Proposed Route Changes

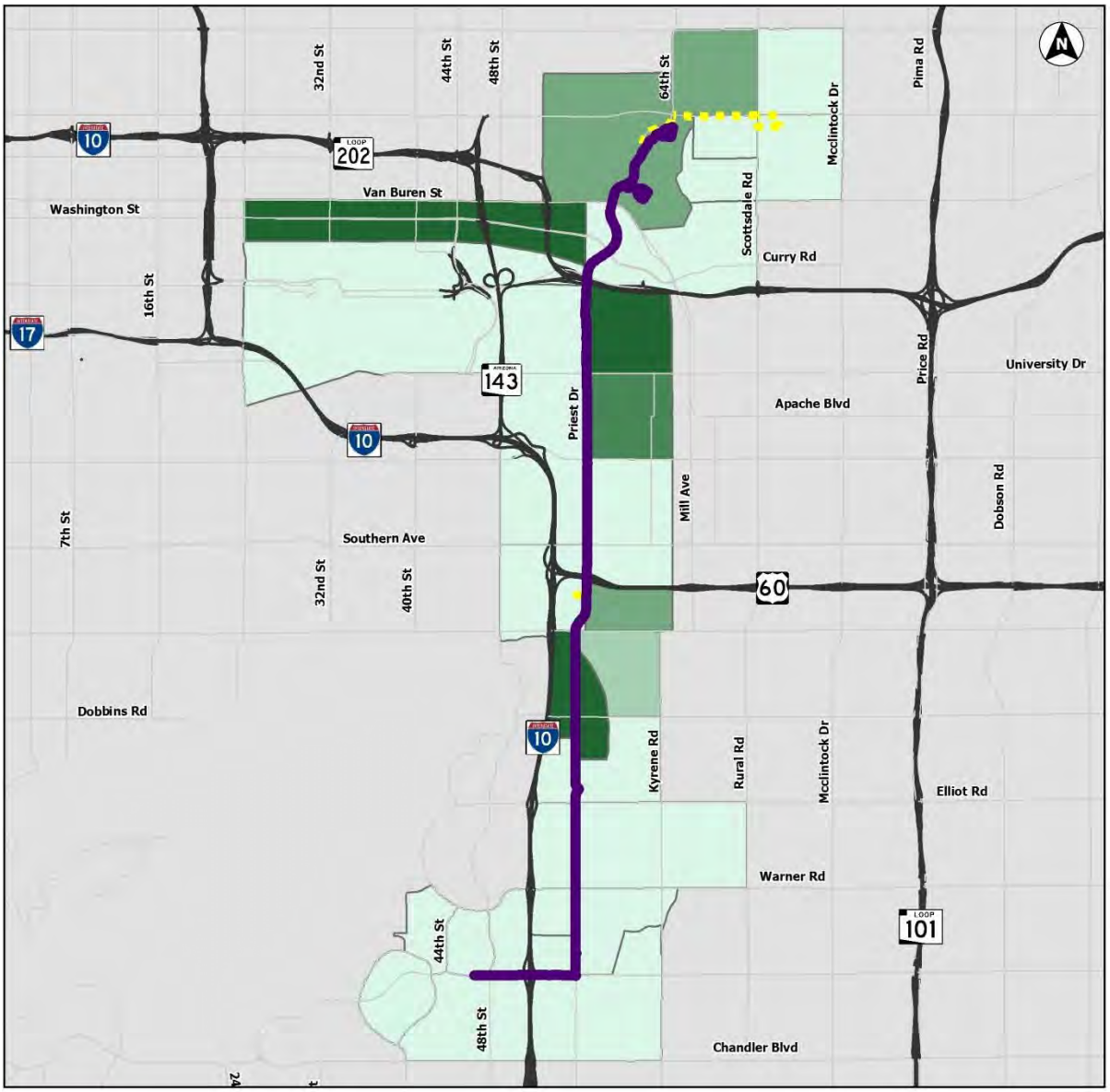
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1 2 Miles

Route 56 – Proposed Service Modification & Low-Income Percentage



LEGEND

Route_56

Proposed Route Changes

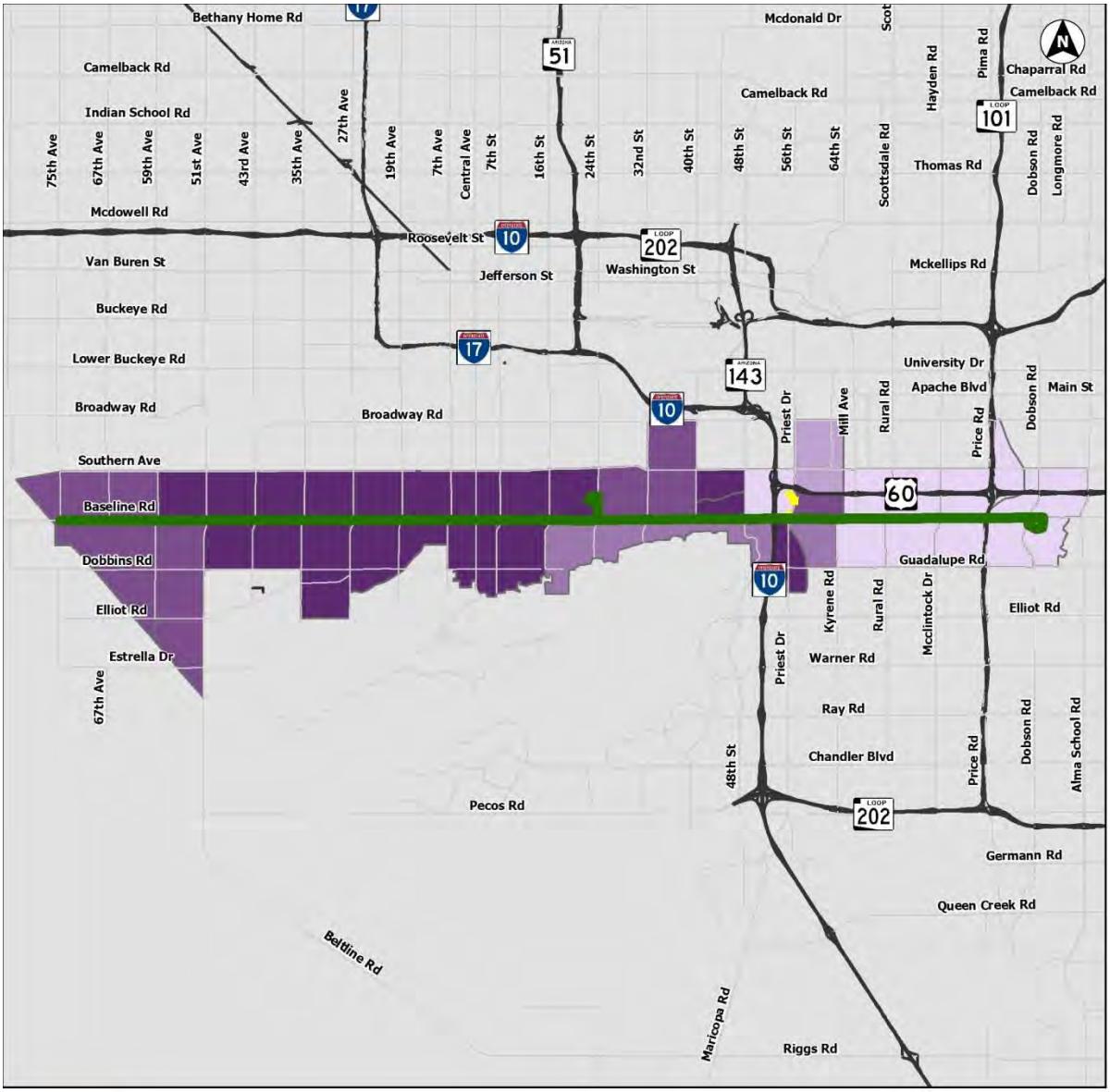
Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 1 2 Miles

Route 77 – Proposed Service Modification & Minority Percentage



LEGEND

- Route 77
- Proposed Route Change

Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 77 – Proposed Service Modification & Low-Income Percentage

LEGEND

- Route 77
- Proposed Route Change

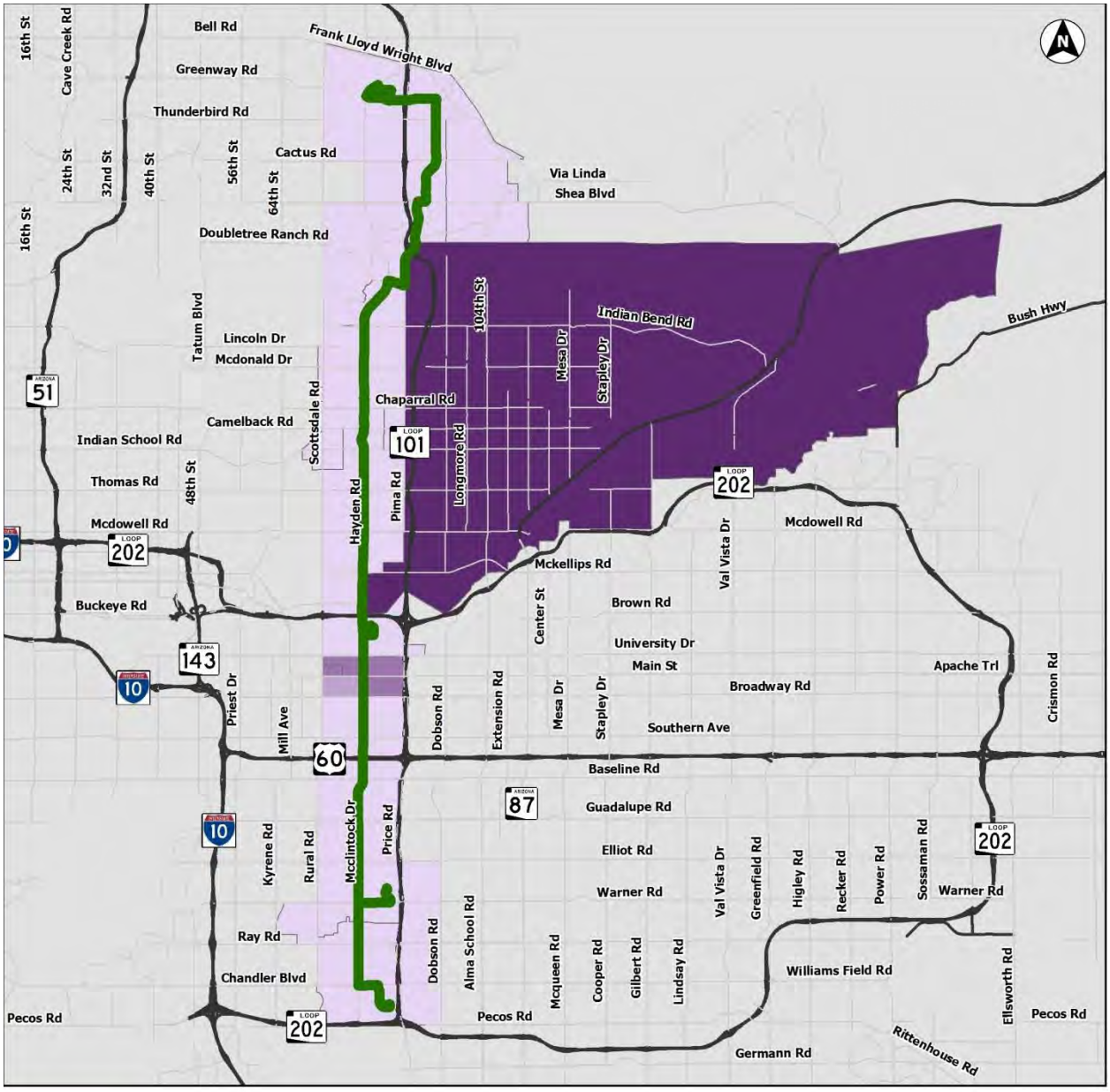
Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 81 – Proposed Service Modification & Minority Percentage



LEGEND

Route 81

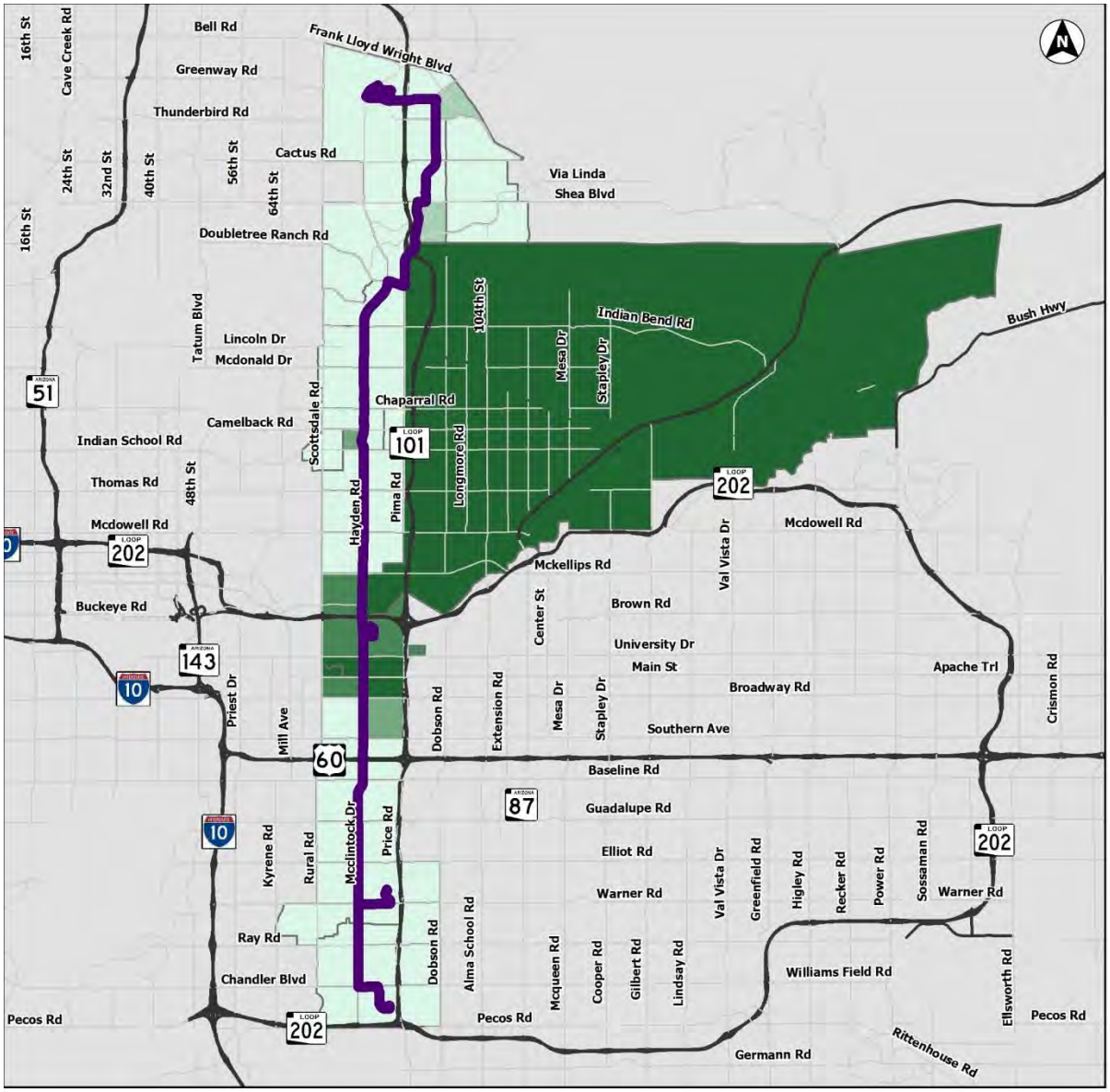
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 81 – Proposed Service Modification & Low-Income Percentage



LEGEND

Route 81

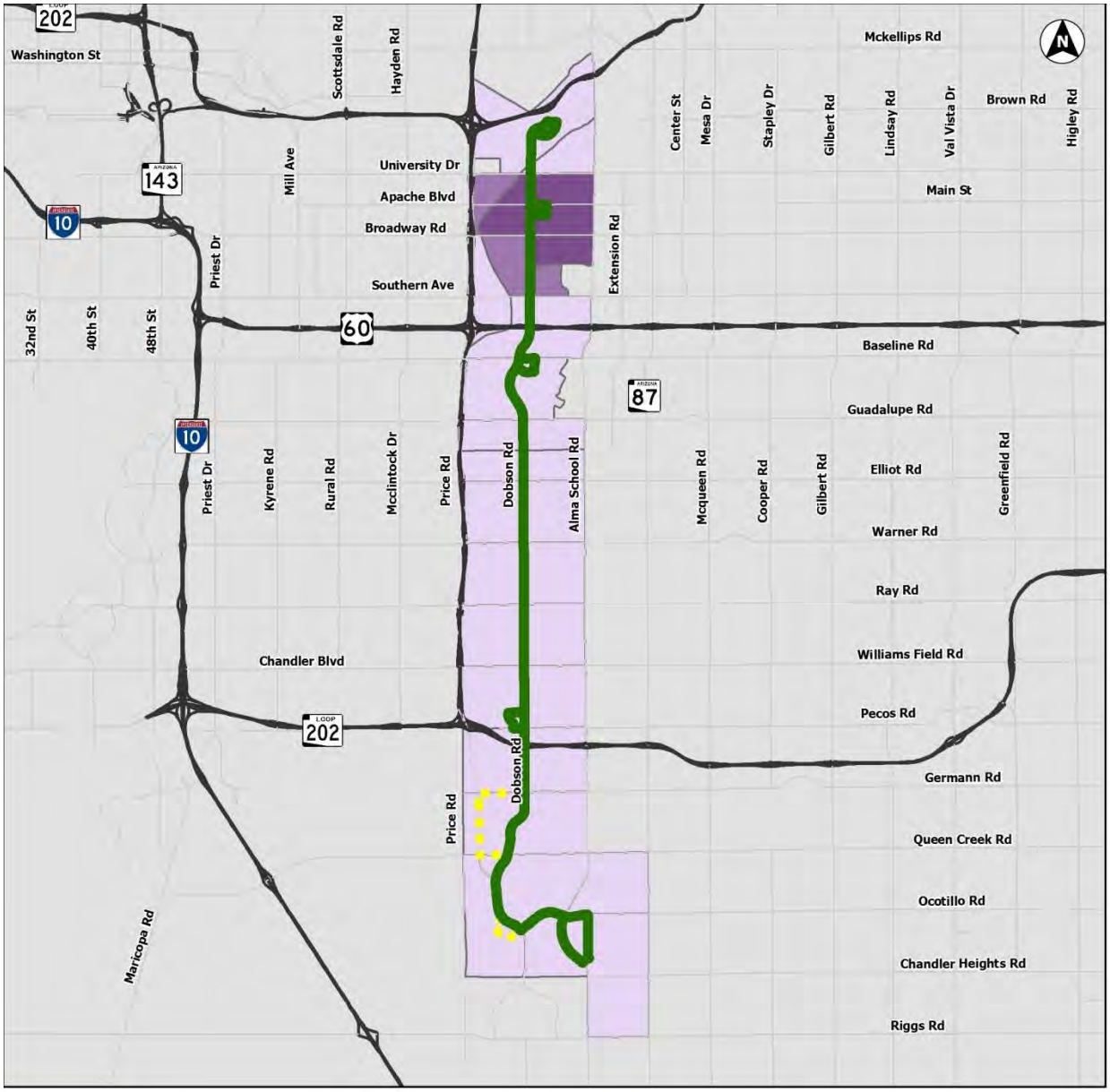
Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 2 4 Miles

Route 96 – Proposed Service Modification & Minority Percentage



LEGEND

- Route 96
- Proposed Route Change

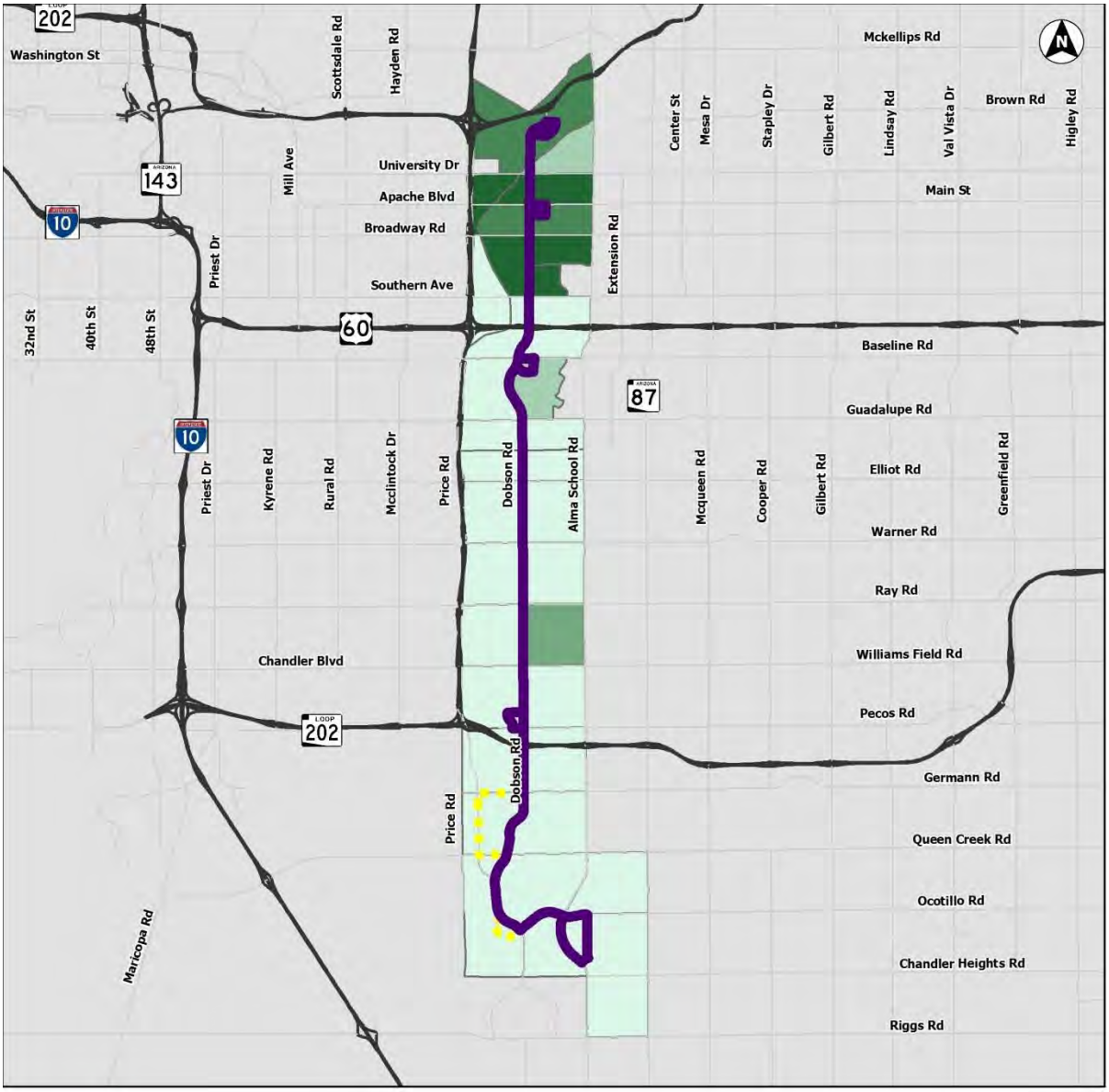
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 96 – Proposed Service Modification & Low-Income Percentage



LEGEND

Route 96

Proposed Route Change

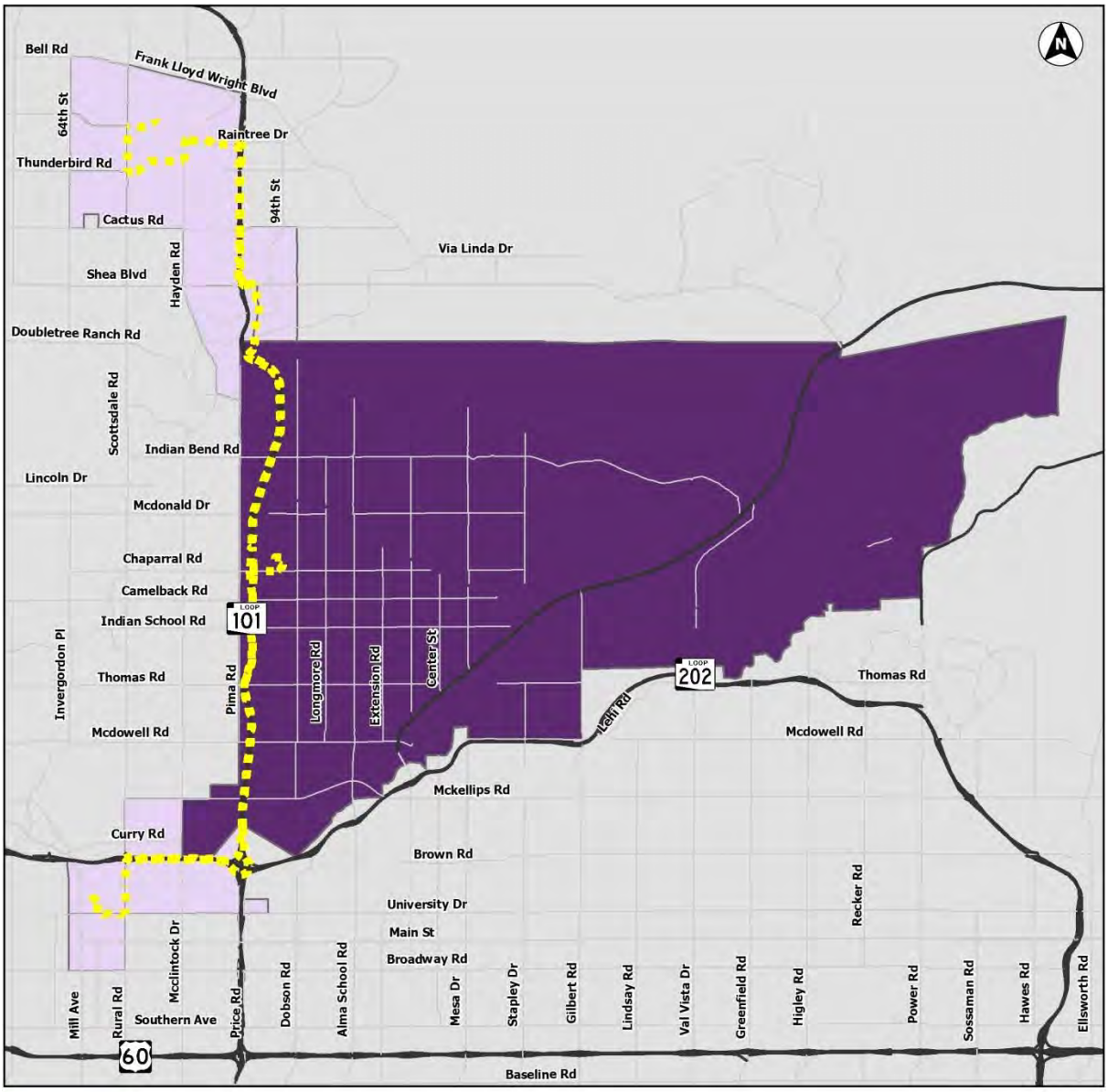
Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 511 – Proposed Service Modification & Minority Percentage



LEGEND

Proposed Route 511 Elimination

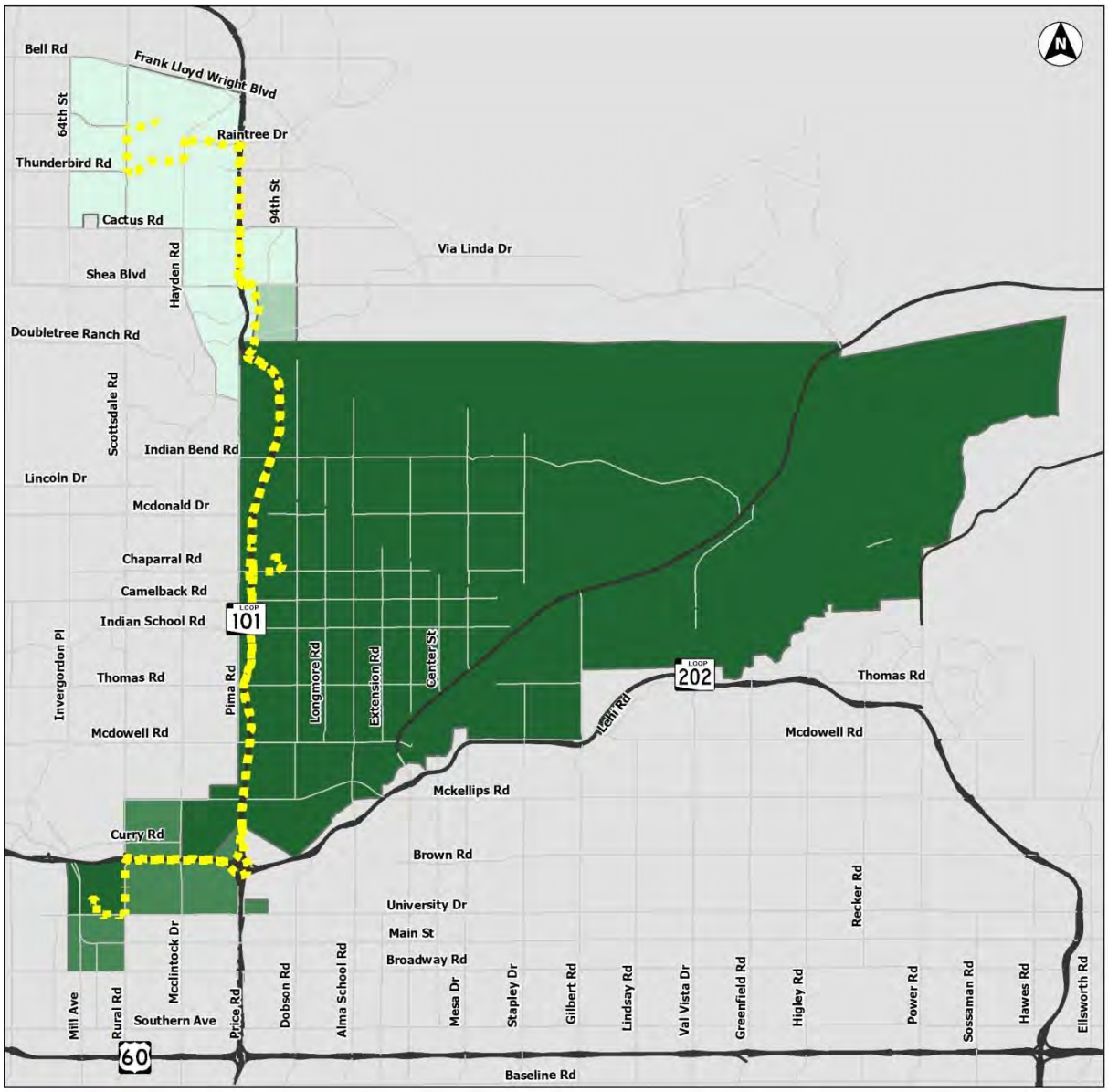
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 511 – Proposed Service Modification & Low-Income Percentage



LEGEND

Proposed Route 511 Elimination

Low-Income Population Percentage

- < 27.60%
- 27.61 - 30.00%
- 30.01 - 35.00%
- 35.01 - 40.00%
- > 40.01%

The service area low-income population percentage is 27.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 562– Proposed Service Modification & Minority Percentage

LEGEND

Route 562

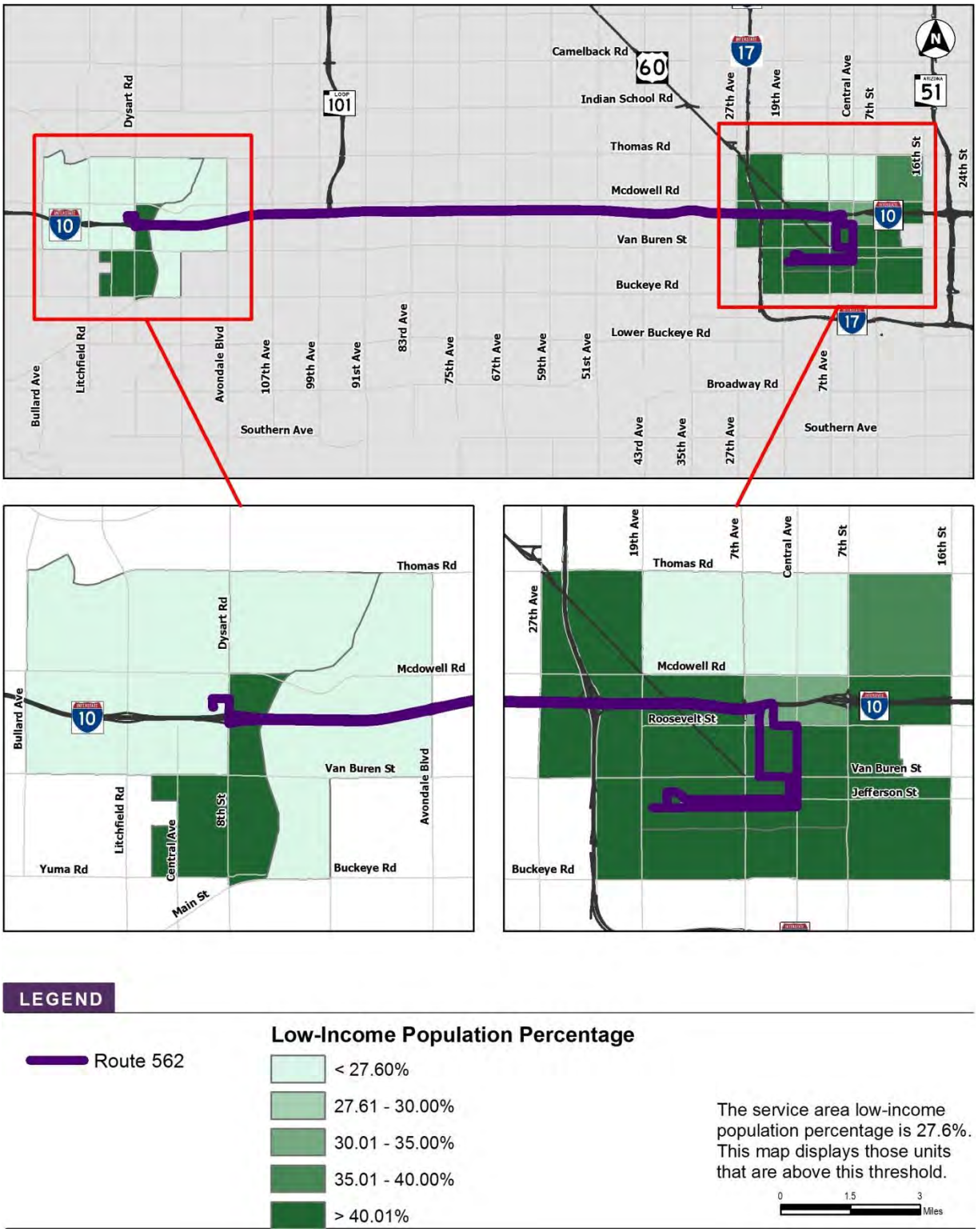
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

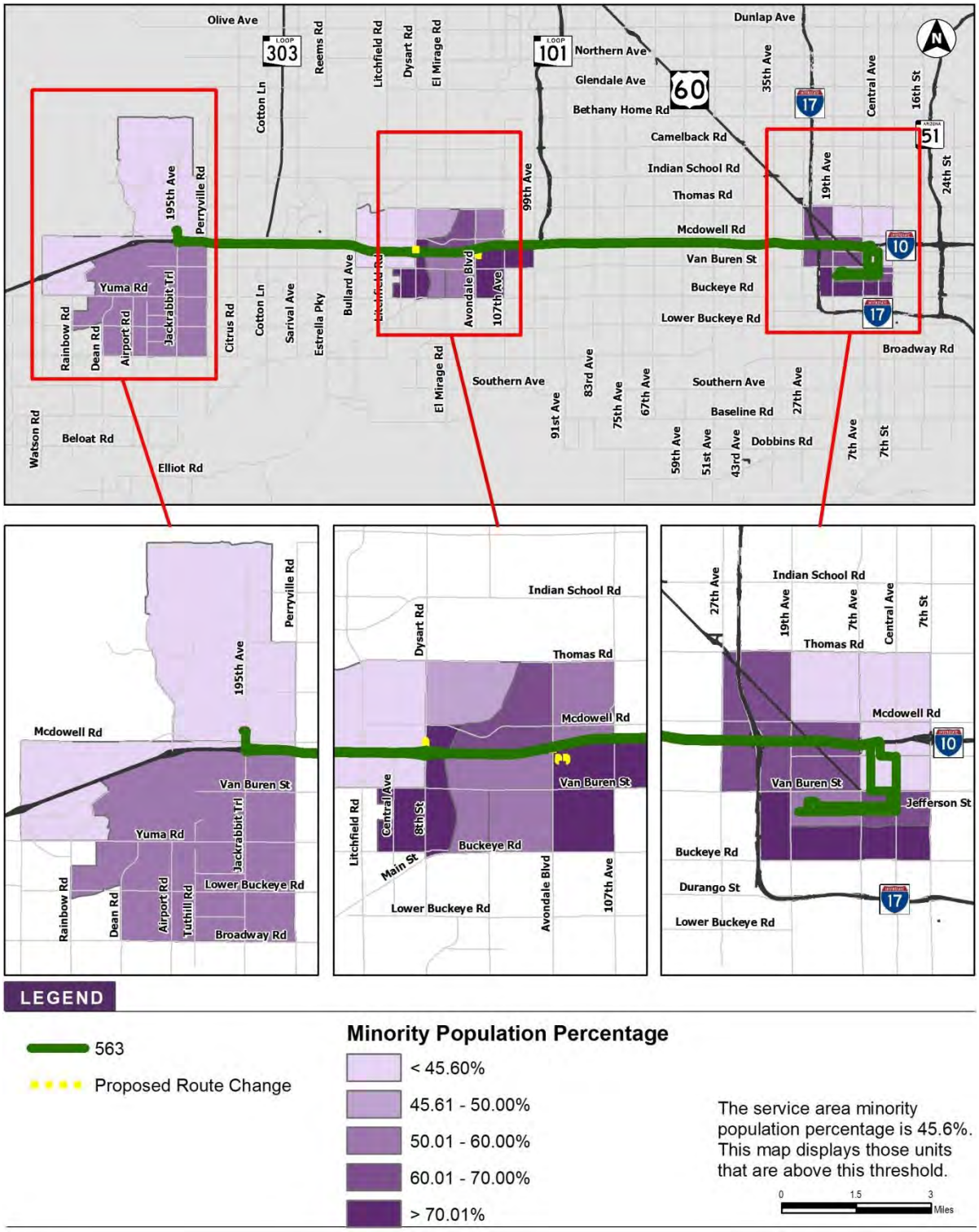
The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 562 – Proposed Service Modification & Low-Income Percentage



Route 563– Proposed Service Modification & Minority Percentage



LEGEND

563

Proposed Route Change

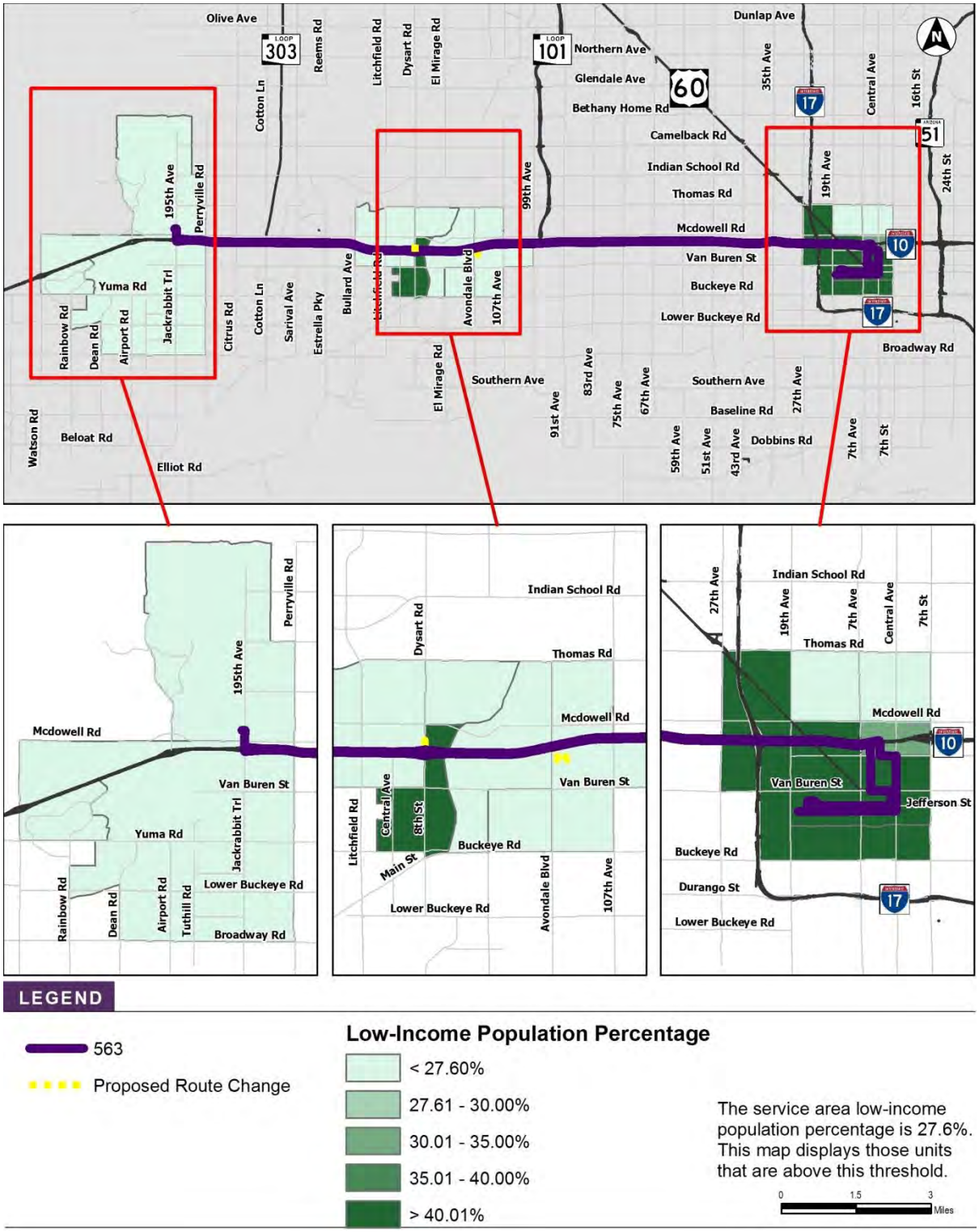
Minority Population Percentage

- < 45.60%
- 45.61 - 50.00%
- 50.01 - 60.00%
- 60.01 - 70.00%
- > 70.01%

The service area minority population percentage is 45.6%. This map displays those units that are above this threshold.

0 1.5 3 Miles

Route 563 – Proposed Service Modification & Low-Income Percentage



ATTACHMENT E – TRANSIT SERVICE MONITORING REPORT

2014 Monitoring Report

TITLE VI PROGRAM

July 2015

1.0 INTRODUCTION

This report is intended to monitor compliance with the Regional Standards and Policies for both bus and light rail services per the 2015 Title VI Program Update. This program was undertaken in July 2015 to identify disparities in the level and quality of Valley Metro's operated transit service provided to different demographic groups, in particular minority populations. This report depicts the results of Valley Metro's Title VI Service Monitoring Assessment as outlined in the Title VI Program.

Title VI of the Civil Rights Act of 1964, provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal financial assistance.

Pursuant to Title 49 U.S.C. Chapter 53, as amended, the City of Phoenix Public Transit Department is the regionally designated recipient of funds under FTA Sections 5307 and 5309. As the designated recipient for federal funding, the City of Phoenix Public Transit Department is responsible for providing the FTA with a Title VI Update every three years in accordance with FTA Circular 4702.1B dated October 1, 2012 and with reporting requirements detailed in 49 CFR Section 21.9(b).

As a sub recipient to the City of Phoenix Transit Department, Valley Metro is also responsible for providing the City of Phoenix with an updated Title VI Program every three years at a time designated by the City of Phoenix in accordance with FTA Circular 4702.1B dated October 1, 2012. The purpose of this report is to assess the compliance of Valley Metro with the Civil Rights Act of 1964, DOT Order 5610.2, and Executive Order 12898 and 70 FR 74087. To ensure compliance with the requirements of Title VI, Valley Metro is required to develop a Title VI Service Monitoring Report and submit updates to the City of Phoenix every three years as part of their Triennial Review.

1.2 Standards and Policies

As modeled after the City of Phoenix Public Transit Department's Title VI Service Monitoring Report methodology, Valley Metro will assess the following standards and policies for both bus and light rail transit service:

- Regional Standards
  - Vehicle Load
  - Vehicle Headway
  - On-Time Performance
  - Services Accessibility
- Regional Policies
  - Vehicle Assignment
  - Distribution of Transit Amenities

Detailed assessment methods may be found in the appropriate Regional Standards and Policy documents and are summarized below.

2.0 BACKGROUND

Valley Metro is a regional transit agency that provides fixed route bus service, neighborhood circulator service, complementary paratransit service, and light rail service in 16 cities in Maricopa County, Arizona. Valley Metro operates 48 fixed routes, including 3 key local bus routes, 19 local bus routes, 14 Express commuter routes, and 2 limited stop all day bus routes, 8 circulator routes, a rural route, and Valley Metro Rail. In addition, the City of Phoenix, City of Glendale, and City of Scottsdale operate services within Maricopa County. This report focuses on those services operated only by Valley Metro.

Over the course of the monitoring period, January 2011 – December 2014, several major service changes occurred. Notably, Express service was restructured in 2012. Specific service changes included:

- Route 120 service span reduction in January 2011
- AZ Avenue / Country Club Drive LINK began operations in January 2011
- Route 48 headway reduction in July 2011
- Route 62 routing change and headway reduction in July 2011
- Route 72 service span reduction in January 2012
- Route 81 service span reduction in January 2012
- Route 96 service span reduction in January 2012
- Route 541 routing changes and headway reduction in January 2012
- Route 511 routing changes in July 2012
- Route 514 replaces Route 512 with routing changes in July 2012
- Route 520 headway reduction in July 2012
- Route 521 headway reduction in July 2012
- Route 522 headway increase in July 2012
- Route 531 headway reduction in July 2012
- Route 533 routing changes and headway increase in July 2012
- Route 535 headway increase in July 2012
- Route 541 routing changes and headway reduction in July 2012
- Route 562 headway increase in July 2012
- Route 571 routing changes in July 2012
- Route 184 began operations in January 2013
- ZOOM routing changes in January 2013
- Route 56 route length reduction in July 2013
- Route 108 headway expansion in July 2013
- Route 571 headway expansion in July 2013
- Route 45 route length reduction in January 2014
- Route 81 headway expansion in October 2014
- Route 511 elimination in October 2014

- Route 562 headway expansion in October 2014
- Route 563 headway expansion in October 2014

2.1 Demographics

This section provides a summary of a demographic analysis of the population within Maricopa County and the Valley Metro service area, which is within a one-half mile radial buffer fixed routes operated by Valley Metro. The following data for minority populations was collected from the 2013 American Community Survey (ACS).

Map 1 and Table 1 below summarizes the minority populations of all the Census Tracts within Maricopa County and Valley Metro's service area, based on data from the 2013 ACS.

Map 1 Valley Metro Operated Routes and Minority Population

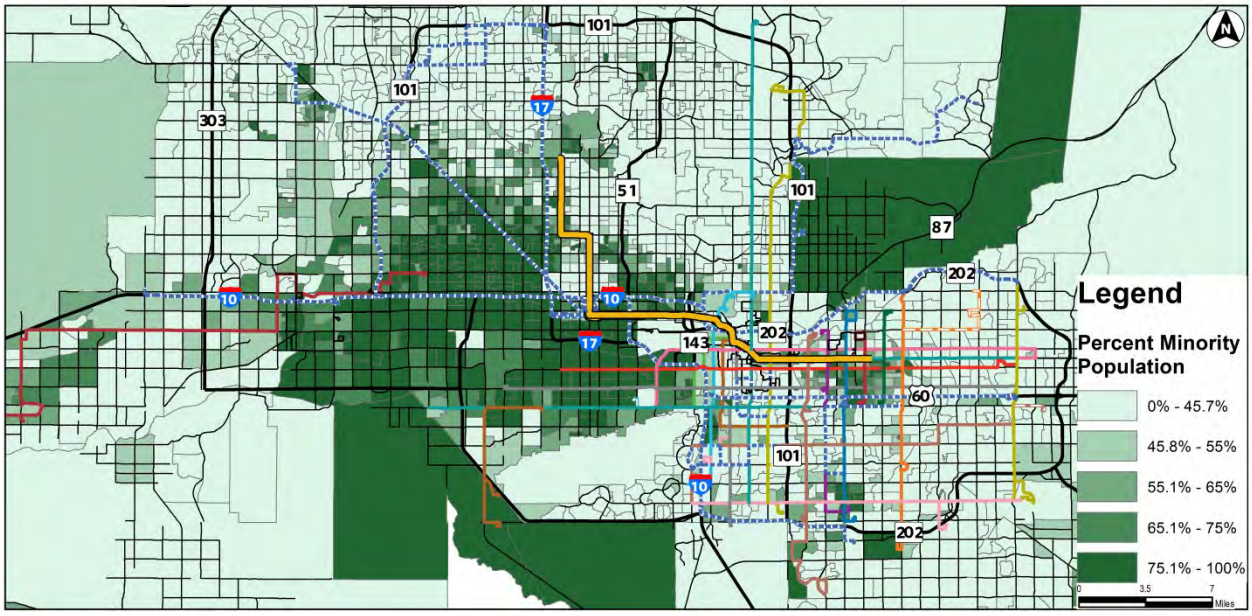


Table 1 Minority Population Summary

	Total Population	Minority Population	Percent Minority
Maricopa County	3,889,161	1,624,496	41.8%
Service area	3,249,332	1,475,404	45.4%

To compare services, each route was defined as a minority or non-minority route using the 2013 ACS data to evaluate the average percentage of the population that identifies as a minority within census tracts intersecting a ½-mile of the fixed route. Express routes are evaluated similarly, however, within the radius of bus stop locations rather than the route footprint. Commuter Express services do not have opportunities throughout the route to access the service as they predominately travel within freeway

corridors, so the evaluation was modified slightly to reflect the service type by using the inbound boarding locations for minority analysis.

Table 2 lists all the Valley Metro operated routes and their percent minority population. Routes highlighted in green are above the service area's minority population threshold, signifying a minority designation.

Table 2 Transit Service and Minority Population

Local and Key Local Routes	
Route	Percent Minority
30	42.2%
40	38.0%
45	52.4%
48	56.6%
56	44.9%
61	47.0%
62	46.4%
65	40.5%
66	62.5%
72	30.0%
77	63.8%
81	29.7%
96	40.7%
104	52.1%
108	31.0%
112	53.5%
120	54.6%
128	48.8%
136	34.1%
156	42.2%
184	22.5%
251	75.4%
Percent of Routes	50%

Limited Stop Routes	
Route	Percent Minority
Main St LINK	36.3%
AZ LINK	53.5%
Percent of Routes	50%

Light Rail and Rural Routes	
Route	Percent Minority
LRT	56.5%
685	67.8%
Percent of Routes	100%

Commuter Express Routes	
Route	Percent Minority*
514	22.6%
520	39.2%
521	32.4%
522	34.3%
531	41.9%
533	15.4%
535	22.8%
541	41.4%
542	57.0%
562	58.8%
563	60.4%
571	47.7%
573	32.4%
575	26.7%
Percent of Routes	29%

**Within ½ miles of inbound stop locations*

Circulator Routes	
Route	Percent Minority
BUZZ	47.7%
Earth	42.1%
Flash	42.5%
Flash McAllister	41.0%
Jupiter	37.5%
ZOOM	67.7%
Mars	40.6%
Venus	40.4%
Mercury	47.6%
Percent of Routes	33%

Minority Population Thresholds	
County	41.8%
Service Area	45.4%

A set of minority and non-minority sample routes was selected for comparison of each factor: vehicle load, distribution of transit amenities, vehicle headway, on-time performance, vehicle assignment, and service availability. Table 3 lists the sample routes selected for further analysis by minority or non-minority designation.

Table 3 Transit Service Sample Routes

Service Type	Sample Routes	
	Minority Routes	Non-Minority Routes
Rural	685	
Circulator	Mercury, ZOOM	Mars
Key Local and Local	45, 61, 77, 104	30, 72, 81
Limited Stop All-Day (LINK)	AZ Ave	Main St
Commuter Express	542, 562	531, 533, 535, 575
Light Rail	Valley Metro Rail	

Throughout the monitoring assessment tables, routes highlighted in green continue to represent minority route designation.

3.0 MONITORING ASSESSMENT

For each regional standard and policy, Valley Metro analyzed the comparison of services provided for the sampled routes above by comparing minority and non-minority routes. Note that for a few service types, there may only be one route and thus the comparison is unfeasible, though still reported (i.e. Rural, Light Rail).

3.1 Vehicle Assignment Policy

Vehicle assignment refers to the process by which transit vehicles are placed into revenue service throughout the transit system. The vehicle assignment assessment is conducted by calculating the average age of the fleet assigned to a certain route and comparing that with the average fleet age in 2014.

3.1.1 Bus Service

Vehicles will be assigned to the various depots such that the average age of the fleet serving each depot does not exceed 12 years. Bus assignments take into account the operating characteristics of buses of various lengths, which are matched to the operating characteristics of the route. Note that some service types have specific vehicle types. For example, a circulator route will always be assigned a shuttle/circulator vehicle. The fleet also contains articulated vehicles that may be dispatched on Local, Key Local or Commuter Express services, thus these service types have been combined to determine the average fleet age.

Table 4 depicts the average age of the fleet assigned to each of the sample routes selected and notes whether these routes are designated as minority or non-minority routes. Routes operated out of West Valley depots are not required to report vehicle assignments. Sample routes from the West Valley have the same average fleet age as listed below by service type.

Table 4 Average Fleet Age

Route	Average Fleet Age
Local, Key Local, and Commuter Express	***5.3***
30	5.5
45	5.6
61	6.1
72	2.4
77	3.1
81	3.9
104	7.3
531	10.2
533	7.5
535	5.3
542	6.4
562*	7.0
575*	7.0
Rural	***2.9***
685*	2.9
Limited Stop All Day	***4.8***
Main St	4.9
AZ Ave	4.6
Circulator	***1.4***
Mars	1.2
Mercury	1.0
ZOOM*	1.0

**West Valley operated routes signifying the average age of fleet assignments by service type.*
Green highlight indicates a minority route

Of the sampled routes, 50% of the minority designated routes and 44% of the non-minority designated routes are at or below the average fleet age. The vehicle assignment policy for bus service has comparable ratios of the minority and non-minority designated routes.

3.1.2 Rail Service

The Vehicle Assignment service policy generally addresses the equitable assignment of transit vehicles to depots and routes throughout the entire transit system in terms of

minority populations compared to non-minority populations. This policy measures whether transit vehicles are equitably assigned considering the age of the vehicle, type of fuel used, number of seats in the vehicle and whether or not the vehicle is high or low floor. However, Valley Metro has one light rail route with a single type of fleet. Valley Metro's light rail fleet consists of 50 vehicles of the same design, passenger load, amenities, and are the same age.

All vehicles put into service each day run along the one light rail route and have the same amenities and quality for all passengers riding the system. Until new extensions are added to the system, no assessment of vehicle assignment is warranted. All vehicles are six years of age.

3.2 Distribution of Transit Amenities Policy

Transit amenities refer to items of comfort and convenience available to the general riding public. Some examples of amenities include shade structures and seating.

3.2.1 Bus Service

Transit amenities are locally funded and fall under the responsibility of the jurisdictions within which they are sited. The service standard elements and level of service assessments will be the responsibility of the individual municipalities. At this time, Valley Metro does not monitor the distribution of transit amenities for bus service.

3.2.2 Rail Service

Valley Metro's *Design Criteria Manual* includes a chapter on light rail station design. This chapter provides standards for the design of each station as well as the amenities that will be incorporated into each station. Each of the 28 stations within Valley Metro's current light rail system contains the following amenities:

- shading and climate protection,
- seating,
- lighting,
- drinking fountain,
- trash receptacles,
- platform information maps,
- emergency call boxes,
- closed circuit television cameras,
- public address system/variable message boards,
- ticket vending machines, and

- all light rail station platforms should be double loading, except where adequate pedestrian crossing is not available.

Valley Metro conducted field observations to determine if each station still contains the following amenities in good operational standing:

- Information maps and public announcements at each light rail station are in English and Spanish
- Ticket vending machines at each light rail station entrance
- Seating
- Waste receptacles
- Bike racks
- Lighting

All 28 stations contain these amenities in good operational standing.

3.3 Vehicle Load Standard

Vehicle Load (also known as maximum load) is the ratio of the number of passengers on a vehicle to the number of seats. The maximum load is compared between the sample set of minority routes and non-minority routes.

3.3.1 Bus Service

Valley Metro and the City of Phoenix operate local fixed routes, Express routes, and circulator service within the region with different bus configurations containing different number of seats and persons that may be accommodated on the bus. The vehicle load threshold is therefore broken down to the four main types of service and is based on the average number of seats and the number of standing passengers. The load thresholds are identified below:

Local Fixed Route Service (Local Bus, Key Local Bus, Limited Stop All-Day)

Two bus types provide local fixed service in the region, a standard 40-foot bus and a 60 foot articulated bus. For a 40-foot bus or a 60 foot articulated bus, the vehicle load threshold for peak service is expressed as a ratio of 1.50.

Commuter Express / RAPID Service / Limited Stop Peak

Three bus types provide Express service in the region, a standard 40-foot bus, a 45-foot bus and a 60 foot articulated bus. The vehicle load threshold for commuter or limited stop peak service is expressed as a ratio of 1.50.

Community Circulator Service

There are multiple unique buses branded for individual circulator routes. The vehicle load is determined by the average capacity across the circulator fleet. The vehicle load threshold for all day circulator service is expressed as a ratio of 1.35.

Rural Connector

A single bus type provides rural transit service in the region. The vehicle load threshold for rural connector service is expressed as a ratio of 1.35.

Valley Metro is making efforts to expand the ratio of Automatic Passenger Counter (APC) equipped vehicles by replacing and expanding the number of fleet with this technology. At this time, several service types do not have APC sensors to capture the passenger load; this includes most Circulators and the Rural fleets. Although most of the Local, Key Local, Commuter, and Limited Stop service fleet are currently equipped with APCs, a portion of the fleet is not. Table 5 below shows the greatest max load by route using available APC data over the period of the July – October 2014 bid, the first available data set.

Table 5 Max Load

Route	Max Load
Local and Key Local	**1.50**
30	0.96
45	0.65
61	1.14
72	0.75
77	0.91
81	0.73
104	0.50
Commuter Express	**1.50**
531	0.55
533	0.31
535	0.58
542	0.55
562	*No APC data*
575	*No APC data*
Limited Stop All Day	**1.50**
Main St	0.65
AZ Ave	0.45

Vehicle loads vary throughout the day and throughout the length of the route. In this analysis the max load is the highest number of passengers on the vehicle at one point in time. All sample routes evaluated are within the appropriate standard by service type.

3.3.2 Rail Service

Vehicle load varies throughout the day and throughout the length of the route. In this analysis the max load is the highest number of passengers on the vehicle at one point in time. The light rail load was determined using APC data from April 3, 2014 by train car. This day was selected as it was the highest ridership day during the month of April 2014. The max load observed that day was a ratio of 3.17 passengers per seat. The vehicle load threshold for peak service for comfortable accommodations capacity is expressed as a ratio of 2.12. The vehicle load threshold for peak service for maximum capacity is expressed as a ratio of 3.42. Note that although the comfortable accommodations threshold was exceeded, crush factor for the light rail was not exceeded. The sampled data was for a day with multiple special events that may have contributed to high ridership, including the Arizona Diamondbacks seasonal opening series against the San Francisco Giants.

3.3 Vehicle Headway Standard

Vehicle headway is the time interval between two vehicles traveling in the same direction on the same route. Vehicle headway is measure using the standard published fixed route service schedules. The numbers of minority and non-minority routes meeting the standard are compared.

3.3.1 Bus Service

Similar to vehicle load, there are varying vehicle headway standards by mode. The vehicle headway standards are typically determined by the amount of time between trips. For commuter and rural services, however the standard is based on a minimum number of daily trips as expressed below. The vehicle headway thresholds are identified in Table 6.

Table 6 Headway Standard by Service Type

Service Type	Minimum Headway or Daily Trips
Rural Connector	4 trips inbound / 4 trips outbound
Community / Circulator	30 min
Local Bus	30 min*
Key Local Bus	15 min peak / 30 min base*
Limited Stop All-Day	Headways same as light rail, up to 2X Peak[1]
Commuter Express/RAPID	4 trips AM / 4 trips PM

**60-min early morning and late night*

[1] The light rail standard is 12 minutes during the peak, thus the Limited Stop All-Day peak headway standard is 24 minutes

Headway standard is reported in Table 7 below using the published fixed route service schedules printed in the January 2011 and 2014. Generally, service has been maintained or improved over the timeframe.

Table 7 Peak Vehicle Headway

Route	Peak Vehicle Headway	
	2011	2014
Rural Connector (trips)		
685	5	5
Community / Circulator (minutes)		
Mercury	10	10
Mars	15	15
ZOOM	*Not in Service*	30
Local (minutes)		
30	30	30
77	30	30
81	15	15
104	30	30
Key Local (minutes)		
45	15	15
61	15	15
72	20	20
Limited Stop All-Day (minutes)		
Main St	15	15
AZ Ave	30	25
Commuter Express (trips)		
531	8	6
533	5	6
535	3	5
542	5	6
562	3	3
575	3	3

Most routes evaluated are within the respective standard by service type. For services evaluated by headways length, the exceptions are two routes: Key Local Route 72 and Limited Stop All-Day AZ Avenue LINK. Route 72 is a non-minority route with 20-minute headways; the Key Local service standard is 15-minute peak headways. The AZ Avenue LINK is a minority route operating on 25-minute headways. The standard for Limited Stop All-Day service is to have headways the same as light rail or up to two times the peak headway. The light rail standard is currently 12-minute peak headways, thus the Limited Stop All-Day standard is 24 minutes.

Two of six sample Commuter Express Routes are not within the minimum number of trips. These were minority Route 562 and non-minority Route 575; both provide three

inbound trips. Route 562 had service frequency enhancements in October of 2014; presently there are four round trips provided by this route. Route 575 continues to have three stops, though Route 573 also serves the same pickup locations. Collectively, these routes offer seven round trips servicing the same locations though travelling divergent routes.

3.3.2 Rail Service

The vehicle headway standard for the light rail system is service frequencies every 12 minutes or better in the peak hours (6 a.m. to 7 p.m.) each weekday.

Using the published fixed route service schedules printed in the January 2011 and 2014, the light rail operated at 12-minute peak frequencies. This standard has been met.

3.4 On Time Performance Standard

On time performance (OTP) is a measure of bus trips for a particular route completed as scheduled within the allowed on-time window (0 minutes early and 5 minutes late of scheduled arrival times).

3.4.1 Bus Service

The service standard threshold is defined as 90% or better of all trips on a particular route completed within the allowed on-time window. April 2014 OTP data from the Vehicle Management System (VMS) was used to evaluate the OTP for each bus route. Table 8 shows the on-time performance by route for Local, Key Local, Limited Stop, and Commuter Express routes. Circulator and Rural services do not have VMS data available to report since they are not equipped with the technology.

Table 8 On-Time Performance

Route	On-Time Performance
Local	
30	93%
77	90%
81	93%
104	94%
Key Local	
45	91%
61	94%
72	90%
Limited Stop All-Day	
Main St	88%
AZ Ave	86%
Commuter Express	

531	94%
533	96%
535	92%
542	95%
562	95%
575	99%

All Local and Key Local service types are within the OTP standard. The Limited Stop All-Day routes are below the OTP standard of 90%. Significant construction began in 2013 as part of a light rail extension (Central Mesa Extension from Sycamore and Main St to Mesa Drive and Main St) in the area of the Limited Stop All-Day services taking both routes onto detours. The Main St. LINK, a non-minority route, has an OTP of 88% and the AZ Ave LINK, a minority route, has an OTP of 86%. Although OTP continued to be monitored, it was recognized that the dip below the standard was part of the rerouting and construction delays.

3.4.2 Rail Service

On time performance is a measure of the light rail trips completed as scheduled between the two current end-of-line stations. The service standard threshold is defined as 93% or better of all trips on light rail route completed within the allowed on-time window.

Using the April 2014 schedule adherence reports, the light rail had an OTP of 95% during the month. The light rail is within the OTP standard of 93%.

3.5 Service Availability Standard

Service availability is measured by the distribution of transit stops within the regional service area that affords residents accessibility to transit.

3.4.1 Bus Service

The Bus System Standards stipulate that service availability and service availability assessments will be the responsibility of the individual municipalities. At this time, Valley Metro maintains a bus stop database accessible to monitor the service availability for bus service. Valley Metro is unable to affect the service availability of transit since the agency does not own or locate bus stops; staff may assist in planning the location bus stops at the request of a member agency.

Similar to vehicle headway, there are varying service availability standards by mode. The service availability is typically determined by the distribution of bus stops along a route, displayed as a ratio of stops per mile. For commuter services, however the standard is based on a maximum number of inbound stops. Additionally for flag or flex

route style service, like the Rural and Circulator service types, there is not a service standard since an unlimited number of stops may be accommodated. The service availability standards are described below:

Local Bus and Key Local Bus

Bus stops are placed approximately one-quarter mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.

Limited Stop Peak and Limited Stop All-Day

Bus stops are placed approximately one mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.

Express / RAPID Service

Express / RAPID stops are strategically placed and are generally located at park-and-ride facilities. No more than four inbound Express bus stops.

Community Circulator Service

Bus stops within the designated stop area of each circulator route are placed no more than one-quarter mile apart. In the flag stop zone area of each circulator route passengers can be picked up anywhere along the route.

In Table 9 below, the ratio of bus stops to route length is depicted for each of the sample routes. The ratio standard is also listed alongside the service type. Additionally, the values reported for the Community Circulators sampled omit any portions of the route that are flag stop service.

Table 9 Service Availability

Route	Service Availability (bus stops/mile)
Local, Key Local, and Circulator (approximately 4.0 stops/mile)	
30	3.4
45	4.2
61	3.8
72	3.6
77	3.7
81	3.2
104	3.3
Mars	3.3

Mercury	3.4
ZOOM	2.5
Limited Stop All Day (approximately 1.0 stops / mile)	
Main St	1.0
AZ Ave	1.2
Route	**Service Availability (number of inbound bus stops)**
Commuter Express (4 stops or less)	
531	5
533	1
535	2
542	1
562	1
575	2

The majority of fixed route bus services are within range of the approximate stops per mile. This standard recognizes that development patterns may be of higher or lower density than typical in some areas of the region. Variations to the recommended stop spacing standard are accepted in areas where a different spacing may be warranted. Note the ZOOM has a stop per mile ratio of 2.5, the lowest stop per mile ratio of Local, Key Local, and Circulator sample routes evaluated. The ZOOM circulator travels predominately through the City of Avondale, with connections in the cities of Goodyear and Tolleson. This is route connects activity centers like the Avondale Civic Center, Estrella Mountain Community College, and Gateway Pavilions; however, it also traverses low density areas including agricultural fields whereby no stops are present. This contributes to the relatively low stop per mile ratio. The Commuter Express sample routes met the standard of four inbound stops or fewer with the exception of Route 531, which has five inbound stops. This route historically serviced stops and preceded the development of the standard.

3.4.2 Rail Service

Service availability is measured by the distribution of light rail stations within the light rail route that affords residents accessibility to the regional transit system. The service standard has two thresholds as follows:

- Light rail stations are placed approximately one mile apart. Where development patterns are of higher or lower density than typical within the region, an exception to the recommended stop spacing standard may be warranted.
- General considerations for light rail stations are based on the following criteria:
    - Density of population and employment

- Mix of land uses
- Connection to other transit services
- Pedestrian accessibility to the station
- Planning and design characteristics that are supportive of transit oriented development and transit access

The 20-mile rail line has 28 stations resulting in a station every 0.7 miles on average (1.4 stations per mile). The light rail is within the service availability standard. Throughout the alignment, stop spacing varies where development patterns are of higher or lower density and a different spacing may be warranted.

4.0 CONCLUSION

This program did not identify disparities in the level and quality of Valley Metro operated transit service provided to different demographic groups, in particular minority populations. Occasionally, standards or policies may not have been met by sample routes; however, the thresholds unmet are equitably distributed between minority and non-minority designated routes. Valley Metro continues to make efforts to reach the standard and policy thresholds while ensuring reasonable transit service. This comparison of transit services operated by Valley Metro shows that services seem to be reasonably distributed across minority and non-minority populations. Every three years, Valley Metro will conduct a monitoring assessment of transit services per the Title VI Program requirements.

ATTACHMENT F – BOARD OF DIRECTOR'S MEETING MINUTES FOR 2015 TITLE VI UPDATE

Minutes

DATE **AGENDA ITEM 2**
September 10, 2015

Minutes of the
Valley Metro RPTA
Board of Directors
Thursday, August 13, 2015
12:15 p.m.

Meeting Participants
Councilmember Jim McDonald, City of Avondale, Chair
Councilmember Gary Sherwood, City of Glendale, Vice Chair
Councilmember Thelda Williams, City of Phoenix, Treasurer
Councilmember Rick Heumann for Vice Mayor Kevin Hartke, City of Chandler
Councilmember Lynn Selby, City of El Mirage
Councilmember Jenn Daniels, Town of Gilbert
Vice Mayor Joe Pizzillo, City of Goodyear
Supervisor Steve Gallardo, Maricopa County
Vice Mayor Dennis Kavanaugh, City of Mesa
Vice Mayor Jon Edwards, City of Peoria (via phone)
Councilmember Suzanne Klapp, City of Scottsdale
Councilmember Skip Hall, City of Surprise
Vice Mayor Corey Woods for Mayor Mark Mitchell, City of Tempe
Councilmember Kathie Farr, City of Tolleson
Councilmember Everett Sickles, Town of Wickenburg

Members Not Present
Vice Mayor Eric Orsborn, City of Buckeye

Due to technical difficulties, the audio recording was not operational during discussion of Items 1 through 6 of the agenda. Summary minutes are provided for that portion of the meeting.

Chair McDonald called the meeting to order at 12:15 p.m. and the pledge of allegiance was recited.

1. Public Comment

Public Comment was provided by Dianne Barker and Blue Crowley.

2. Minutes

Minutes from the June 18, 2015 Board meeting were presented for approval.

Public Comment was provided by Blue Crowley.

IT WAS MOVED BY COUNCILMEMBER SHERWOOD, SECONDED BY COUNCILMEMBER SICKLES AND UNANIMOUSLY CARRIED TO APPROVE THE JUNE 18, 205 BOARD MEETING.

3. Chief Executive Officer's Report

Mr. Banta provided an update on the following items:

- ✓ ADA 25th Anniversary Gala
- ✓ 2015 Clean Air Campaign
- ✓ APTA Sustainability – Valley Metro Awarded BRONZE Level
- ✓ Strategic Plan Alignment
- ✓ Legislative Update

Mr. Banta thanked Vice Mayor Pizzillo for his service to Valley Metro.

4. Consent Agenda

Public Comment
Mr. Lee from CARE Evaluators provided public comment and thanked the Board for the opportunity to provide services at the Mobility Center.

The following items were presented on the consent agenda:

A. Contract Extension for ADA Paratransit Eligibility Certification and Fixed-Route Travel Training Services

Mr. Banta said staff is requesting authorization for the CEO to exercise option years six and seven including a contract value adjustment to the contract with CARE Evaluators for the provision of ADA paratransit eligibility certification and fixed-route travel training services, in an amount not to exceed $1,260,604 for the period of October 1, 2015 through September 30, 2017.

In April 2010 Valley Metro authorized a contract with CARE Evaluators, LLC to provide in-person ADA paratransit eligibility certification and related services for the region.

On an ongoing basis, the contractor conducts in-person, physical and cognitive ADA paratransit and makes eligibility assessment recommendations to Valley Metro staff - who make all final eligibility decisions.

The two-year extension will result in a total 7-year contract value of $3,193,508. For FY16, the new RPTA contract obligation is $439,330, which is fully funded with the Valley Metro adopted FY16 Operating and Capital budget.

Councilmember Daniels asked what the cost per assessment is and what value is being received for the service. She also asked what the initial cost per evaluation was in FY 2011. She said it is estimated that 5,800 people will go through the Mobility Center next year, how accurate is that number and what are the base costs?

Mr. Banta said personal assessments vary per individual. Every year there are variables and regulation changes that impact the services provided.

Mr. Brooks said the contract is nearing the 5-year term and staff has been working with Care Evaluators on managing resources.

Councilmember Daniels asked how long each assessment takes.

Mr. Brooks said it depends on the need and type of assessment.

Councilmember Daniels said it is estimated that there will be 23 individuals coming through the Mobility Center on a daily basis. The current cost for the assessments is $92 and is going to increase to $123.

Mr. Brooks said better management of resources and staff has made it possible to deliver the assessments at the lowest possible costs. He said the FY 2016 budget number will more closely reflect actual expenses. He said the $123 includes more than just the customer assessment.

B. Contract Award for Investment Management Services (IMS)

Mr. Banta said staff is requesting authorization for the CEO to execute a contract with PFM Asset Management LLC for Investment Management Services for a not to exceed cost of $60,000 for the one year initial term of the contract with 4 one-year extension options not to exceed $60,000 per year. The goal of Valley Metro's Investment policy is to optimize return on investments while ensuring safety and liquidity of cash reserves.

The IMS contract provides expertise to manage a portion of Valley Metro's cash reserves, generating higher yields and returning greater net investment income. Four firms bid on the contract and PFM Asset Management LLC was selected to provide best value. The initial contract will be for one year, with four one year options. The initial Assets to be managed by PFM total $50 million of the current $160 Million cash reserve balance.

PFM contract fees and independent custodial services will not exceed $75,000 per year. Improved investment earnings for one year are estimated at $175,000, providing a $100,000 net benefit. Annual contract renewal will depend on yield performance, investment environment and status of cash reserves.

IT WAS MOVED BY COUNCILMEMBER SHERWOOD, SECONDED BY VICE MAYOR PIZZILLO AND UNANIMOUSLY CARRIED TO APPROVE THE CONSENT AGENDA.

5. Title VI Program Update

Mr. Banta said the Board is being asked to approve the 2015 Title VI Program Update.

In October 2012, FTA issued new Title VI Requirements and Guidelines to provide guidance on new requirements and provide clarity to help ensure that all recipients maintain compliance with their programs.

One of the new requirements was to establish policies by April 1, 2013 to identify and evaluate potential equity issues related to changes in transit fares and services. In coordination with the City of Phoenix, Valley Metro developed the fare and services equity policies to fulfill this requirement in March 2013.

This 2015 update of the policy makes changes to the policy include:

- Making a change to the definition of "Service" expansion to "Route" expansion
- Extending temporary transit service discontinuation or demonstration service from 180 days to 365 days
- Changing the definition of low-income population and areas from those persons with an income of 80% or less of national per capita income to 150% or less.

These changes are related to monitoring only and have no costs associated with them.

Mr. Grote provided a presentation which included the following:

- ✓ General Overview
- ✓ Program Requirements
- ✓ Fare and Service Equity Policies
- ✓ Service Equity Policy Change
- ✓ Service and Fare Equity Policy Change
- ✓ Monitoring Regional Service Standards and Policies
- ✓ Recommendation

Public Comment
Mr. Crowley provided public comment which included the need for equity service for low income families, increased service and additional TVMs. He said the $2.00 in additional fare to buy a pass on the bus is unfair when you can purchase an all-day pass at light rail stations for $4.00.

IT WAS MOVED BY COUNCILMEMBER SHERWOOD, SECONDED BY COUNCILMEMBER WILLIAMS TO APPROVE THE TITLE VI PROGRAM UPDATE.

6. October 2015 Valley Metro Transit Service Changes

Mr. Banta said staff is requesting authorization for the CEO to amend the service operator contracts and member agency intergovernmental agreements (IGAs), as necessary, to accommodate the recommended October 2015 service changes.

This item includes bus and light rail service changes for Valley Metro-operated routes and routes funded through the regional PTF. As part of the CME project opening on August 22nd, four bus routes will be modified at that time. All other improvements will go into effect on October 26, 2015.

Public Comment
Mr. Crowley said where are the two routes from 2006? Each LINK stop has a TVM. Citizens are not being taken care of. There are no TVMs at transit centers. Why aren't there TVMs at Arrowhead Mall and Desert Sky Mall?

Mr. Grote provided a presentation which included the following:

- ✓ Overview
- ✓ Recommended Service Changes – August 23, 2015
- ✓ Recommended Service Changes – October 26, 2015
- ✓ Recommended Service Changes (map)
- ✓ Recommended Service Changes – CME (map)
- ✓ Public Input
- ✓ Public Input Results (2 slides)
- ✓ Public Input Route 50
- ✓ Public Input Mesa Buzz
- ✓ Recommendation

Councilmember Williams asked how far people would have to walk to reach the Mesa Buzz with the change.

Mr. Luna said it is approximately a half of a mile. Riders would have to make the loop around the school to reach the stop.

Mr. Grote said the current route doesn't not have high ridership and this change will benefit more Mesa residents.

Councilmember Williams asked that the route be monitored to analyze ridership.

Councilmember Sherwood asked how many miles equate to the $900,000 change.

Mr. Luna said service changes are based on revenue mile and when the changes are implemented. He said he would provide the equation.

IT WAS MOVED BY COUNCILMEMBER WILLIAMS, SECONDED BY COUNCILMEMBER KLAPP AND UNANIMOUSLY CARRIED TO AUTHORIZE THE

CEO TO AMEND SERVICE OPERATOR CONTRACTS AND MEMBER AGENCY INTERGOVERNMENTAL AGREEMENTS (IGAS), AS NECESSARY, TO ACCOMMODATE THE RECOMMENDED OCTOBER 2015 SERVICE CHANGES.

Technical difficulties with the audio recording were resolved at this point in the meeting.

7. FY 2015 Valley Metro RPTA and Valley Metro Rail CEO Performance Incentive Goals and CEO Performance Incentive Compensation

Public Comment
Mr. Crowley said we're getting something that's two years away in technology supposedly, but every time we go to do something in the future, Mr. Grote, I look at the Deck Park transit facility and I look at the transit facility out there at the airport, not the toy, I'm not talking the Sky Train, I'm talking about the actual transit facility under Terminal 4 that supposedly the rail was to go to and a bus facility was already there.

So when I look at those two bus facilities, his future plans for transit, because if Avondale gets a transit center, you're going to say we don't need to have a dispenser there because their proliferation.

Well, I want them proliferated all over the Valley. I need you guys to start doing the exact grid and start servicing all of the three million population that you don't take care of that's been paying your way, since everybody west of 67th Avenue has been paying the tax since 1985. And I don't consider that you got transit service unless you're within a quarter mile of it.

And since you ain't got any there and he ain't planning it that way, I just don't understand what it is that you're asking to give him more money on. And being that I wasn't able to make that last meeting, I would like a copy of the new $25,000 worth of goals that he's going to be able to do with the extra time he isn't spending collecting the money we already pay him.

Mr. Banta said Mr. Chair, members of the Board, I've got a brief presentation on the achievements that we've had over the last twelve months. There is a comprehensive report at your place.

Also I wanted to remind you that this is the second year of the goals that were adopted in 2014. They aren't aligned with the strategic plan. Next year's goals are aligned with the strategic plan, just to remind you.

Goal No. 1 was that the communication and business assistance plan should be nimble and address specific needs of the area. We're very concerned about that because we had two construction projects going on.

I'm pleased to report that our METRO Max program participation is up by 16 percent. We've also participated in over 254 community events. We've conducted three milestone events, a couple in Mesa with the groundbreaking and also the rail weld

event, and then there was an art exhibit. And then we've done the, as you can see in the photo there, the Dunlap station groundbreaking that we did up in the Northwest extension.

Unfortunately last week, or earlier this week, we had an event to unveil art, but that was the day we had the haboob and the bad weather and we had to cancel the press conference up there.

Also I'm pleased to report that the communities report very positively on the construction efforts of the contractors through the CAB reports, 90 percent consistently in Mesa and 100 percent consistently in the Northwest and Phoenix.

Goal No. 2 was to develop the zero-based budget plan for RPTA and Valley Metro Board approval. I'm pleased to say that we developed the CEO goals in unison with the Valley Metro strategic plan for FY16 and we've also incorporated that into the budget process for next fiscal year.

Those goals will be discussed with you at a future meeting that we will schedule for the budget at the Board Subcommittee for RPTA and Valley Metro Rail.

The FY16 budget, the base budget, was built using zero-based budgeting techniques, as was requested by our member cities. And I'm pleased to report also we're consistently providing the budget to your member cities early in February for you to include in your overall annual budgeting process at the member cities.

Item No. 3 is to increase customer satisfaction and issues related to safety and security on buses and light rail. We have implemented a cross-jurisdictional team to evaluate options for increasing police and security presence on our system.

We also designed and implemented and procured e-ticketing technology, so now we have a consistent way in which when we engage our customer on light rail, if there's fare evasion or a ticket involved, there's a way in which we can deliver that electronically to the municipal court system.

We also conducted greater connection with Valley Metro staff and its frontline employees. We've had numerous meetings, we've developed a newsletter, we also did a rail rodeo, and next year we'll do a bus rodeo to also review and celebrate the work that our bus operators, rail operators, bus maintainers, and rail maintainers perform.

This past year we did participate in the International Rail Rodeo in Salt Lake City and we did very, very well. And as you know, we provided a lot of service for the Super Bowl.

Goal No. 4 was to increase visibility with the understanding of the importance of transit within the region.

Earlier this year we conducted Stand Up 4 Transportation Day. That was in

collaboration with the American Public Transit Association or Transportation Association and also a number of transit agencies throughout the US, and it was a day where we all got together and talked about the importance of regional transportation. There's a picture there of the folks that attended.

We also launched the value of transit marketing campaign, and I'd ask you to indulge me for a couple of minutes. I'd like to show you a YouTube video on our transit advancement.

(A video is shown to the members.)

Councilmember Heumann said Steve, is that video part of like a cable thing? It's pretty long, I was kind of curious where we're using it at?

Ms. Foose said it's online and we're also creating shorter vignettes.

Mr. Banta said back with Goal No. 4, we've also hosted our annual congressional delegation luncheon back in DC in late winter. We launched Valley Metro's official mobile application Ridekick.

And again we also serviced 126,000 people on Saturday alone in the downtown area and also augmented with bus service out to Glendale for the Super Bowl. I believe we made a very significant impact as it relates to overall mobility around the Super Bowl and special events.

Goal No. 5 is addressing the service needs and communication with our member cities. Again, this chart, we've looked at before, we've got a number at the bottom of ad hoc working groups that really do talk about all the different issues that either come to this Board eventually or, through the process, gets put off onto the side for additional review.

But ultimately it moves up through the regional marketing committees, the financial working group, service planning and the regional security team.

We then have our Rail Transit Advisory Group that is your member city staffs coming with us to talk about what's going to come before this Board. That is a nonpublic meeting and it's an opportunity for us to really hash out issues as it relates to each one of the Board agenda items.

Then we've got the Rail and the Transit Management Committee meetings which are public and then ultimately to the Board for approval and adoption. One of the things you can say is that there's a lot of process here for the opportunity to bring things before you, but the good part about the process is that when we make decisions here at the Board they are sustainable.

A couple of other things I'd like to mention that are noteworthy, is we have completed construction of the solar project at the operations and maintenance facility. And I got a quick link that shows you right now the work that's being done by the solar panels. For a

one - month savings of about $7600. We're projecting $81,000 in cost avoidance over the year with the introduction of the solar plant that's down at the operations and maintenance facility. We actually put solar panels in the yard, a bunch of arrays, and over all of the parking structures.

Also, the central Mesa extension opening August 22nd, seven months ahead of schedule, and the Northwest extension, it's about ready to open up early next year, is also going to be ahead of schedule and on budget.

With that, Mr. Chair, and members of the Board, that concludes my brief report. I do believe for the period ending June 30, 2015, that I've earned the full amount of performance incentive compensation provided for in my employment agreement. I'd be glad to answer any questions you might have.

Chair McDonald said are there any questions from the Board?

Councilmember Williams said I don't have any questions, but I'd be glad to talk about the subcommittee's review. This subcommittee is pretty tough. And we really drilled in on each one of these. Following last year, where we really set some specific goals in the strategic plan. And I think we felt very good about his accomplishments for this year.

We agreed that just because they were accomplished this year didn't mean he can't improve again next year on these same goals in addition to the 2016 strategic plan that's out there that has additional goals. And we felt very strongly that an emphasis on security, improving ridership was very important.

They were both very important and we really stressed how we want to get more information as the year goes by so that the Board is very aware of what's going on or what's not going on and we could offer suggestions, implementation, whatever we thought was needed as a Board.

But on a whole I felt the Phoenix perspective, and the members of the subcommittee seemed to agree, that we saw significant improvements this past year.
I especially noticed that there was much more coordination amongst the cities. We had very specific goals in mind last year and, yes, he did accomplish, I think, each and every one of them that made significant improvements that raised the visibility and the confidence of our consumers.

And so I know we had questions about the contract. The contract was set in -- was it March 2012 when the two agencies were merged.

And his performance goals are written in the contract, so it's important that we recognize that we have contractual agreements and therefore that's why this evaluation occurs each year until this contract ends. And then as we negotiate a new contract, we will see what happens from there.

But as Chair of the subcommittee and in accordance RPTA's employment agreement with the CEO, Steve Banta, effective March 1, 2012, I move that Mr. Banta be paid the sum of $25,000 in additional compensation for his successful completion of the five goals.

Councilmember Heumann said second.

Chair McDonald said we do have a first and second on the floor. Is there anyone else who would like to add any comments?

Councilmember Heumann said I want to reiterate what Councilmember Williams said as she was our Chair for this group. There was a lot of scrutiny, a lot of questions, and some of these things will roll over into the goals for next year. And as many people know, that security and visibility is a big part of - I think Mr. Banta's got some things in place that hopefully will totally come to fruition which will only help in the future.

But it wasn't just sitting in a room and having lunch for 10 minutes. It was a very long discussion about a lot of different things, so I do appreciate the committee's work and glad to second this motion.

Councilmember Sherwood said I appreciate the extra visibility we've had this past year. It certainly hasn't gone unnoticed. And again, I reiterate what my colleague said, there was a lot of time put in on this and I'm sure we'll do the same job for the next year, so thank you.

Vice Mayor Kavanaugh said I served on the Inaugural Committee for this back in 2012, and that was a very interesting roller coaster ride that we have gone through -- went through with the Boards. And I was privileged to return back to the committee this summer. And if you see the names on the list, you know there are no shrinking violets in the group and everyone was assertive in asking questions and exploring issues.

And I think we really did come to a consensus that significant improvements occurred over the past year that within our own communities and working with our staffs, a high degree of satisfaction in -- with the better communication, I think that, you know, coming from -- it's reflected coming from the top down to the other employees here at Valley Metro.

So we certainly were able to achieve consensus on this, but this Committee is always, I think, very infinite, so every year, I think, you can expect to have a tradition of being questioning and contrary at times, so thank you.

Chair McDonald said are there any other questions? And I just want to get some clarity on this, the possible executives if we have questions on this item; is that correct? Okay. And I just want to add to this, I was also on that inaugural group and was able to participate in all that fun, and I know it may seem, seem odd that even though this is contractual that we do it. I just want to state that the importance of the subcommittee to actually outline specific things that are important to this Board and that those get

focused on. I think it's important to do that so we have that visibility, it's that one level of visibility that these are the important things and that they get that special attention that they're needed.

So even though this is contractual, I do think this is a very important part of this process and the evaluation that we have the open conversation to see whether that was met, so I'm in agreement that this was -- is deserved at this point.

IT WAS MOVED BY COUNCILMEMBER WILLIAMS SECONDED BY COUNCILMEMBER HEUMANN AND UNANIMOUSLY CARRIED IN ACCORDANCE RPTA'S EMPLOYMENT AGREEMENT EFFECTIVE MARCH 1, 2012 WITH THE CEO, STEVE BANTA, THAT MR. BANTA BE PAID THE SUM OF $25,000 IN ADDITIONAL COMPENSATION FOR HIS SUCCESSFUL COMPLETION OF THE FIVE GOALS.

Agenda Items 8 and 9 were not heard.

10. Future Agenda Item Requests and Report on Current Events

Chair McDonald said I do want to note that Vice Mayor Pizzillo is leaving the Board. There's a vacancy on the Budget Finance Subcommittee, so they'll be sending out information for anybody who might be interested to submit letters of interest to serve on the subcommittee, so please consider that. And if it's a good fit for you, please send in your letter of interest.

Are there any new agenda items that the Board would like to bring forward? Councilwoman Williams.

Councilmember Williams said thank you. Blue has been up here talking about the dispensaries or lack thereof at Arrowhead and then the west side. Could you do a report, get back to us, on why your decision not to have the ability to sell tickets in these facilities?

Mr. Banta said I would be glad to make it an agenda item at a future Board meeting.

Councilmember Sherwood said just one report that we're -- the new transit center at Arrowhead is being constructed now and hope that it's finished in November before the holiday shopping season. So let's -- that goes along with all the improvements that are being made at Arrowhead right now and coincides with all the money they're putting in that town center, so anxious for that to open. Thank you.

Chair McDonald said are there any other items? Okay. Seeing none, we do have our next meeting scheduled for Thursday, September 17th at 12:15 p.m.

With no further discussion the meeting adjourned at 1:36 p.m.

Minutes

DATE **AGENDA ITEM 2**
September 10, 2015

Minutes of the
METRO
Board of Directors
Thursday, August13, 2015
1:15 p.m.

Meeting Participants
Thelda Williams, City of Phoenix, Chair
Mayor Mark Mitchell, City of Tempe, Vice Chair
Councilmember Rick Heumann, City of Chandler
Councilmember Gary Sherwood, City of Glendale
Councilmember Dennis Kavanaugh, City of Mesa

Chair Williams called the meeting to order at 1:50 p.m.

1. Public Comment

Mr. Rochelle said there's two things that I want to bring up today. One, I have heard that the ADOT has taken away the double decking of I-17, which I was strongly for years ago, but at this point I'm not strongly for it, because we need to get transportation on light rail into Metrocenter to keep Metrocenter going for the next twenty or thirty years.

The second thing that I want to bring up is I want to thank everybody for bringing the gentleman back from Boston so that we can get a seamless Dial-a-Ride from one end of the Valley to the other, hopefully, or a secondary plan, which everybody from the West Valley can transfer in downtown Phoenix, and everybody in the East Valley can transfer in downtown Phoenix.

Hopefully we'll get the seamless one. It's really overdue. And I'm glad we've called it back because we were working on it diligently in 2007 and 2008, and now unfortunately since we had that catastrophe in monetary situations, it was called off. Let's bring it back. Thank you.

Mr. Crowley said I'd like to start off by mentioning that wonderful YouTube video that y'all saw, my favorite part of it was that the glass studio that the lady was bragging about closed three months ago, so when he's talking about how they've gotten the businesses, and they've helped out, when you do the editing I might take that part out as an example of how good you guys are doing.

I also would like to have staff for the west I-10 alignment give me a document showing me where your plan is for each of the stops and how it will be intermodal with the bus and where those bus stops are going to be.

Because the way you can make it most advantageous for the bus ridership and the bicyclists is to make the distance between modalities more than a quarter of a mile. Now if you're going to have the route in the right-of-way of the freeway, I didn't know that ADOT had agreed to that, but -- well, where is it going to go?

So it's on the north side of the freeway and all of the communities in Maricopa County on the west side of 67th Avenue are located -- oh, that's for Phoenix's benefit, isn't it, that we would put that on the north side of a structure rather than on the south side where it would have more connectivity with Avondale, Goodyear, Tolleson, Cashion, Gila Bend, et cetera.

I just don't think that it's a good alignment, and like I requested, could you please send me something showing me both where the intermodality between the two is going to be and where the stops are.

2. Minutes

Chair William said we will go to the second item is the minutes from the June 18, 2015 Board meeting. Do I have a motion to approve or any questions?

IT WAS MOVED BY VICE MAYOR KAVANAUGH, SECONDED BY MAYOR MITCHELL AND UNANIMOUSLY CARRIED TO APPROVE THE JUNE 18, 2015 VMR BOARD MEETING MINUTES.

3. Chief Executive Officer's Report

Chair Williams said do any of you need to hear Mr. Banta's report again? Okay.

Councilmember Heumann said you mentioned the bus ridership for July. You didn't mention the rail ridership.

Mr. Banta said rail ridership is up by 3.4 percent. It's down 1.9 percent combined over last year. The month of July is up 3.4 percent, moving in the right direction.

The rest of my report, I would leave in the spirit of time, and I will send to you electronically.

4. Title VI Program Update

Chair Williams said the same for Item 4, which is the Title VI Update. Any changes? I

believe we need a motion on that.

IT WAS MOVED BY VICE MAYOR KAVANAUGH, SECONDED BY MAYOR MITCHELL AND UNANIMOUSLY CARRIED TO APPROVE THE TITLE VI PROGRAM UPDATE.

5. Gilbert Road Extension Project and Design Services Contract

Mr. Banta said Madam Chair, Members of the Board, I'd like to introduce Rick Brown who will go over Item No. 5, which is for action, and also Item No. 6, which is for action.

Mr. Brown said good afternoon. We're requesting two approvals with this item. First, we're requesting Board approval of the total Gilbert Road extension project for $152,726,625, which includes all of the design, the construction, right- of-way, public art, light rail vehicles, professional services and finance cost.

Second thing that we're asking for today is authorization to execute a contract for the GRE Design Services with Jacobs Engineering Group, Inc. for a not-to-exceed amount of $7,050,000.

Gilbert Road is 1.9 miles in length. It includes two stations, one park-and-ride lot, and a transit center at Gilbert Road. This is the map. The line will extend from our soon-to-be easterly terminal of our light rail line, Mesa Drive, in less than nine days, that will be our terminal station.

We're actually going to run 1.9 miles east from Edgemont Street to Gilbert Road. We'll have a station at Gilbert Road, a park-and-ride lot, and a bus transit center. We'll also have a station at Stapley Drive. And we have two roundabouts that are shown on the map. So that is our project.

We have multiple procurements with this project. The first one being the design consultant and that's the item that we're bringing today for your approval. We have selected Jacobs. We've negotiated the contract and we're ready to go to work tomorrow on that project.

We have the CM@Risk Contractor procurement that is well underway. We'll be coming back to the Board in October for approval of that contract.

We also have the artist contracts. We have four contracts. That procurement is well underway, and we'll be coming back in October, October 22nd, with those contracts as well.

We have to purchase additional vehicles and that contract will be going out later this year we'll start that procurement.

The budget that we have here is $152,726,625 that we're asking approval of. The FTA budget was $161,744; however, an additional $32 million dollars of funds was found, and the finance costs have gone down from $14 million to $5 million, so we've saved $9 million in finance costs, which is a very good story.

All the other line items, they're all the same, nothing has changed, it's just the bottom line is $152. $9 million less than what we had started with. Funding is CMAQ, FTP, City Of Mesa Local Match, 5307, and PTF. So that is our cost and budget.

Additional information is that because of the additional funding we've had to revise the TPAN agreement. And we actually met this morning with the City of Mesa, City of Phoenix, MAG, and ourselves, and we concluded the discussion and negotiates for that, so we are going to be bringing that to the Board as early as September, maybe October. So that's another good deal.

The second thing is today we're requesting approval to award the contract, but based on the limited funding that we have until we get the TPAN agreement revised, we're only going to issue a limited notice to proceed to get the consultant started and that will get us going and we can proceed.

Again, two actions: First of all is to approve the total Gilbert Road project for $152,726,625 and all the elements that are part of that project that I went over; and authorization to execute a contract with Jacobs for the design of that project for $7,050,000.

Vice Mayor Kavanaugh said I was going to make a motion for approval of the two items. I also wanted to make a comment that certainly from my perspective, the process has been working very well in working with Valley Metro and everyone involved in the process. It's really going very smoothly and it's very exciting project, because ultimately we take light rail to Gilbert Road, it really opens up both the northeast part of the Valley and the southeast in terms of providing access to Gilbert Road, because of the way the exits are on the 202 freeway, and so, that will be a very significant and, I think, increase ridership.

But what I wanted to do is talk about the process and the process has really worked very well.

Vice Mayor Heumann said I just have a comment and I'm excited to have this go forward as we continue to build light rail out. I guess it comes back to the next item, which will be Item 6, in terms of the contingency, you know, coming back for an additional $3 million dollars, I want to know based on this budget, based on what we've learned so far for the first part of this extension, where we're going to be adding this. Is

this a pretty good number, or are we going to be looking at a discrepancy of that kind of magnitude again.

Mr. Brown said we think it's a good number. And one of the reasons that we want to get the contract approved today is we want to start working on real estate acquisition. And I'll be talking about that in the next item. And the sooner we get the design going, the sooner we identify all the right-of-way that's required, we purchase the right-of-way. And then we have our contractor who's going to be working with the designer working out the exact sequencing of the construction work that works best with the right- of- way acquisition. We think that will make it move a lot smoother and a lot better.

So again, the contractor is not coming back with a contract for the contractor until October, but we want to get the designer going and get the right-of-way purchase, so that's what we're going to do.

Mr. Banta said Councilmember, this is a bit of a different delivery method. The Construction Manager at Risk also allows the constructor and the designer to work hand in hand with the city and Valley Metro in progressing the project. The design-build operation is where you design and build at the same time and, you know, we worked with the City of Mesa and ourselves to try to expedite design review packages.

Sometimes it led to a little bit of re- sequencing of work. You'll see in the next change order some of the other reasons around the additional money. All well within the overall budget. But I think the CM@Risk allows a little more collaboration between all parties.

Councilmember Heumann said I bring it up just because it's, you know, to try and protect taxpayer dollars, where we make sure the efficiencies are there and the budget process is in such a way that it's transparent and we aren't looking at major changes like that, and you know we'll talk a little bit more about it with the next item, but I think it's related.

IT WAS MOVED BY VICE MAYOR KAVANAUGH, SECONDED BY COUNCILMEMBER MEMBER HUEMANN TO APPROVE THE TOTAL GRE PROJECT FOR $152,726,625 WHICH INCLUDES DESIGN, CONSTRUCTION, RIGHT-OF-WAY ACQUISITION, PUBLIC ART, LIGHT RAIL VEHICLES, PROFESSIONAL SERVICES AND FINANCE COSTS AND AUTHORIZATION FOR THE CHIEF EXECUTIVE OFFICER (CEO) TO EXECUTE THE CONTRACT FOR GRE DESIGN SERVICES WITH JACOBS ENGINEERING GROUP, INC. FOR A NTE AMOUNT OF $7,050,000.

Chair Williams said I just make the comment from City of Phoenix experience, the design build has worked very well for us and usually saved us money. And very timely, projects have come in on budget or under budget and usually early. So I encourage you to do that.

6. Central Mesa Extension Project Contract Contingency Adjustment and Change Order

Mr. Brown said this item we're requesting two items as well -- or two actions as well.

First of all requesting to allocate additional contract contingency in the amount of $3,008,347 for the central Mesa extension construction contract additional contingency.

Second item is we want authorization to execute a change order for a comprehensive settlement in the amount -- the same amount three million eight with Valley Transit Constructors Joint Venture.

The CME project is essentially complete. As you know, we're running pre-revenue service now. And in less than nine days we're going to be having revenue service and that's coming up very, very quickly and your staff is working many, many hours to make that happen. Revenue service is August 22nd.

Now during the course of the construction there were real estate issues that came up, namely, not having the real estate, you know, on time to keep the contractor going in their work sequence. This affected their planned execution of the work. Our contractor, VTC, re-sequenced the work to accommodate and to make the project schedule and they've done that, as you know. We have negotiated with VTC a comprehensive settlement for $3 million dollars for those impacts to their work and their additional cost.

The settlement is fair and reasonable. And it will enable us to go ahead and close out the contract once they finish the punch list work and they're completely done. We'll be able to close that out very quickly without any further issues or potential claims. That is a real good story, because sometimes you know in construction sometimes things can linger on for many, many years.

And so what your staff has done is a very good job of negotiating the issues we had with VTC in getting a settlement brought together, and that's a good deal, even though it sounds like a lot of money, it's a good deal. And it can be more costly if we waited a couple of years to do this. The overall budget for the project remains the same because we have contingency money to fund the $3 million change order.

We have unallocated contingency. We have allocated contingency in this amount. When the contract was awarded, the Board authorized $11 million of contingency. That was back in 2012.

In 2013, we came to you for additional use of the contingency because we had quite a few change orders on the job and the Board authorized an additional $4 million dollars, so that takes care of the allocated and unallocated -- or the allocated contingency.

We have unallocated contingency of $17 million dollars. What we have done is we have used $5.3 million of that for the additional cost for buying the real estate itself. It came in over our budget, but we had to buy it to get the job done, we did it, and so we've used contingency for the real estate cost.

Now we're talking about $3 million dollars more that will still come out of the $17 million and when that is done, we were going to have -- we will have $8.5 million left in the contingency so that's also a very good story.

So again, we are requesting two actions: The first action is to allocate additional contingency, $3 million, into the construction contract; the second is to authorize the change order for the comprehensive settlement that we have achieved with VTC.

Mr. Banta said Madam Chair, if I might adjust two simple points. To Councilmember Heumann's point, if you remember back when we first brought to the Board the VTC contract, we had a very large contingency, some of that was recommended by the FTA.

The Board told us at that point in time to segregate the contingencies with allocated and unallocated. And if we had to dip into the unallocated, you wanted us to come back to the Board and ask approval so you could watch the funding and the expenses as it related to this project.

Second, VTC came to us originally with about an $8 million change order and our teams negotiated it down to three. So we do believe that this is in the best interest of our project and the region.

Public Comment
Mr. Crowley said $2 million here, $3 million there, a billion here, a billion there, what this project will now be $200 million. And from what I'm hearing, you're adding three million to your contingency fund, which is already at eleven million and then you're taking that out to pay this off, and originally they came up to you and said, no, it's eight million.

Well, I just don't understand changes and work orders and that when the project is pretty specific in what you got to do and how you got to get it done, and where it's got to go. If there was a problem with the amount of right-of-way acquisition, those funds were, I thought, specific to that and they covered it as it went along, so when I hear that, well, we had to take out four million to cover it, I just don't understand.

And, as I said, why are we paying them a dime when the job was for a hundred ninety-eight million and this is all you got to get done that they can manipulate the process to get another five percent because with the two times that they've already come before.

So it's just I don't understand how you're doing such a good job, Mr. Banta, if people keep on putting their hand out saying you owe us more, that's not good planning and it's not good administration.

IT WAS MOVED BY VICE MAYOR KAVANAUGH, SECONDED BY COUNCILMEMBER HEUMANN AND UNANIMOUSLY CARRIED TO AUTHORIZE THE CEO TO 1) ALLOCATE ADDITIONAL CONTRACT CONTINGENCY IN THE AMOUNT OF $3,008,347 FOR THE CME PROJECT CONSTRUCTION CONTRACT AND; 2) EXECUTE A CHANGE ORDER FOR A COMPREHENSIVE SETTLEMENT IN THE AMOUNT OF $3,008,347 WITH VALLEY TRANSIT CONSTRUCTORS JOINT VENTURE.

7. Renewal of Rail Ride Fare Agreement with US Airways Center

Mr. Banta said Madam Chair, members of the Board, this item is for action. This is an agreement that we have with the US Airways Center. The program continues to be very successful. It is for three base years and four one-year options. The current relationship with US Airways Center is we get 31 cents of the gate.

We in FY15 averaged about $31,000 per event. We believe this is a good deal when they can use their US Airways event to ride on METRO light rail. We do this calculation based on boardings and alightings with events and with non-events.

Our finance groups with US Airways Center gets back together frequently to ensure that that 31 cents is meeting its intended goal. We would seek your approval to continue this program.

Public Comment
Mr. Crowley said I appreciate that what we do with US Airways, but we can't really get an accurate count of how many either use or don't use the light rail because the only thing it tell us is people getting on and off; it doesn't tell us what type of pass and thing that they're using.

So I go, well, I know that we're not doing every bit of the gate, taking it, but then I look across the street and I say, well, what are we doing with the Diamondbacks. You know, if this is such a great panacea for the sports enthusiasts keeping their traffic from being downtown, why isn't it taken further. And then I go, well, part of the reason is, is that we can't keep an accurate count because you don't know who gets on and off the light rail.

As in the Councilman has more than one time stated he's worried about freebie riders. Well, if you're getting on the bus, you can't ride for free. You have to have your card to go in there or you have to pay for it.

So I'd like you to expand this to some of the other sports venues, but be able to get a more accurate account so we could say to them, this percentage of your gate is using our facilities, you owe us this much, and how we can expand on both sides of that equation, because as you know, you can ride that rail for free and you get screwed when you get on the bus.

Councilmember Heumann said Mr. Banta, the 31 cents is per ticket sold at the facility, it's not whether it's ridership or getting on or off; correct?

Mr. Banta said it's actually the turnstile, it's 31 cents at the turnstile. Sometimes people buy a ticket but they won't go. They have to go to the event.

Councilmember Heumann said so it's not a matter of we're getting -- not getting paid for people riding our thing, we're getting 31 cents. We've had this conversation about the Diamondbacks and I know you're going to reach out to the county on that one and see what we can do about trying to bring them into the fold.

Mr. Banta said we meet with the Diamondbacks every year. We'll reach out to the county.

IT WAS MOVED BY COUNCILMEMBER HEUMANN, SECONDED BY VICE MAYOR KAVANAUGH AND UNANIMOUSLY CARRIED TO AUTHORIZE THE CEO TO RENEW THE FARE AGREEMENT WITH PHOENIX ARENA DEVELOPMENT LIMITED PARTNERSHIP (PADLP), OPERATOR OF US AIRWAYS CENTER (USAC), FOR UP TO SEVEN YEARS. THIS AGREEMENT COMBINES LIGHT RAIL AND EVENT TICKETING ALLOWING CUSTOMERS TO RIDE AT NO ADDITIONAL COST TO USAC EVENTS.

8. FY 2015 Valley Metro RPTA and Valley Metro Rail CEO Performance Incentive Goals and CEO Performance Incentive Compensation

Public Comment
Mr. Crowley said I enjoyed Mr. Banta's performance at the bus meeting showing the goals that were so important to him. My favorite part was that the first goal was the most important to him and did it have anything to do with the bus, no. It's along the rail route. And he was so happy for what he had done and how the rail is doing.

And then he did his little YouTube video, where I would say what percentage of that was that woman at the glass shop talking about how the light rail had made her business so successful.

Three months ago that shop closed. If you're gonna show your successes, they should be continuous.

He says that the performance measures he's got to achieve are in the contract. I have not been able to find them, and I would like to get the specifics on what his goals for this next year, so he can get that other dip into the well, are, and why it isn't included in $237,000 worth of salary? He also gets stipends and perks that we need to have incentives, cash incentives, to make the man do his job and to get the job done.
So my recommendation is to dissolve his position, because it isn't doing what it was supposed to do, blending the two systems so that they're multimodal, and go back

either to the way it was or an improved version, because what you're getting is a quarter of million dollars worth of what.

I look in one hand and I look in the other and I don't see where we're getting the bang for the buck that the solution of putting both of the entities together has done anything other than siphon off moneys from bus to rail.

Originally it was to be 60: 40, 60 percent for the bus, 40 percent for the rail. In fact Skippy made sure that on your Prop 2000 thing that you guys put more of your money to the rail because you were short changed with Prop 400.

So like I said, you need to dissolve the position, get rid of that man, and get the job done by someone that can do it right and who has the sensitivity to understand that the bus is not an afterthought that we have a grid that is natural here, and the 24-hour service, 7 days a week is what we should be shooting for that part of the service.

Councilmember Heumann said I sit there and listen to that, and Mr. Banta, you know I don't agree with everything going on, and we have our discussions and I think we've worked out a lot of different things over the years, but for that comment to be made, I take offense to that. I think you've done a good job.

We, like I said, we don't agree on everything. I think the merger of the two organizations saved the taxpayers a lot of money by putting these things together. Could things be better, absolutely. That's why we have performance reviews, that's why this isn't a meeting that lasts five minutes or exec sessions that last five minutes. There are challenges. So I do take offense to that that your position should be eliminated. I think you've done a good job for us, so thank you.

Mr. Banta said thank you for that.

Chair Williams said thank you very much. I thoroughly agree with your comments. As I said previously, I felt we made great improvements within the organization. And the merger I know is most difficult and in some ways we're still struggling, but I think that working through the Board and through all of the member cities you've done an excellent job of communication in setting goals that meet and satisfy all of our needs. So I thank you.

So I'm looking for a motion or further comments to approve his performance and compensate him for his goals of $25,000.

IT WAS MOVED BY VICE MAYOR KAVANAUGH, SECONDED BY COUNCILMEMBER HEUMANN AND UNANIMOUSLY CARRIED IN ACCORDANCE WITH THE RPTA'S EMPLOYMENT AGREEMENT WITH CEO STEPHEN R. BANTA EFFECTIVE MARCH 1, 2012, THAT MR. BANTA BE PAID THE SUM OF $25,000 IN

ADDITIONAL COMPENSATION FOR HIS SUCCESSFUL COMPLETION OF THE FIVE GOALS.

Items 9 and 10 were not heard.

11. Future Board Agenda Items Request and Report on Current Events

Chair Williams said does anyone have any items?

Councilmember Heumann said Madam Chair, Mr. Banta, when will the survey results be out to us in a presentation form?

Ms. Foose said they would be presented at the October Board meeting.

Chair Williams said the next board meeting will be Thursday, September 17th, at 1:15 p.m.

With no further discussion the meeting adjourned at 2:22 p.m.