Sedona Transit Plan

Interim Report #1

Transit Needs Assessment

TRANSPORTATION CONSULTANTS, INC.

TRANSIT marketing LLC

(This page intentionally left blank.)

Sedona Transit Plan

Interim Report #1

Transit Needs Assessment

Prepared for:

City of Sedona
102 Roadrunner Drive
Sedona, AZ 86336

Prepared by:

LSC Transportation Consultants, Inc.
545 East Pikes Peak Avenue, Suite 210
Colorado Springs, CO 80903
(719) 633-2868

In association with:

Transit Marketing, LLC

LSC #184410

October 5, 2018

(This page intentionally left blank.)

CONTENTS

LIST OF TABLES

LIST OF FIGURES

(This page intentionally left blank.)

Chapter I

(This page intentionally left blank.)

Chapter I

Introduction

Through its issuance of a Request for Proposals (RFP) for the completion of a Greater Sedona/Oak Creek Canyon Transit System Development and Implementation Plan and subsequent evaluation and RFP award process, the City of Sedona hired LSC Transportation Consultants, Inc. to carry-out this study and create this plan.

The City of Sedona wishes to develop a plan for providing effective transit services across multiple jurisdictions, focusing primarily on shuttle service for regional recreational and tourism type destinations within and between the greater Sedona area and Oak Creek Canyon but also accessible for local residents. The goal is to design a transit system or systems that will enhance visitor experiences while protecting the unique environment, and improve the mobility of visitors and locals alike by having a new transit system in operation. Reducing the number of vehicles on area roadways during the busiest tourist seasons when traffic delays can exceed one hour or more within Oak Creek Canyon is also a goal, as is reducing the number of vehicles seeking parking at specific trailheads and other locations where capacity to accommodate vehicles is lacking.

The intent of this study and implementation planning is to take what have been general concepts, created over many years of previous transit studies, to the point of actual implementation and operationalization.

REPORT OVERVIEW

Interim Report #1 is a Transit Needs Assessment that acts as the foundation for future implementation planning.

Chapter II

To help inform this planning process, Chapter II presents a literature review of previous planning efforts that have studied aspects of transit in the Sedona area, as well as industry "best practices" for transit in visitor-focused areas like Sedona.

Chapter III

Chapter III presents the community conditions, demographics, and select local travel patterns for the Sedona-Oak Creek Canyon study area. Visitor activity is also evaluated, as is an analysis of the Verde Lynx service operated by Cottonwood Area Transit.

Chapter IV

Chapter IV presents the input gathered from stakeholders and the community through interviews, a community open house, and surveys. A summary of areas of consensus, as well as questions to be answered, is included. Target markets, shuttle destinations, service qualities, and major themes are identified.

Chapter V

Demand estimation is presented in Chapter V utilizing several methods and methodologies from industry standard estimation techniques. The transit demand identified in this section will be used to identify and evaluate various transit service options.

Chapter VI

Chapter VI presents preliminary criteria, based on initial criteria from previous studies combined with input received through the public outreach process, for the development and evaluation of transit service options to meet public transportation needs in Sedona. These criteria will be reviewed by the Advisory Committee and refined to reflect current priorities.

Chapter II

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

CHAPTER II

Literature Review and Best Practices

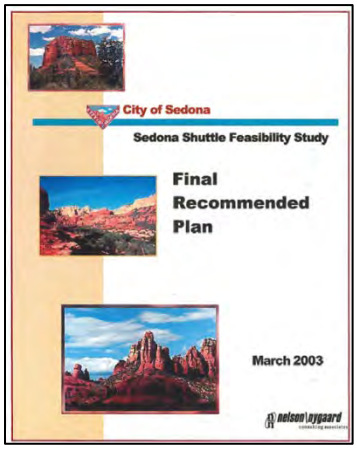
INTRODUCTION

This chapter provides a review of relevant plans and studies on transit, transportation, traffic/safety, tourism, economic development, recreation, and environment issues in the study area. The 10 documents included in this literature review were selected for their relevance to this study. This chapter also presents a review of visitor-focused transit service best practices.

REVIEW OF PREVIOUS PLANS AND STUDIES

Sedona Shuttle Feasibility Study

Prepared by: *Nelson\Nygaard Consulting Associates*
Prepared for: *The City of Sedona*
Date: *March 2003*



The Sedona Shuttle Feasibility Study was prepared by Nelson\Nygaard as a follow up study to the 1998 Vision Report, entitled *Ensuring a Livable Future: Transportation and a Strategic Vision for the Greater Sedona Community*. The purpose of the Sedona Shuttle Feasibility Study was to assess the feasibility of a public shuttle system that goes beyond the conceptual design phase of the Vision Report, and to determine the conditions necessary to ensure a financially and operationally viable shuttle.

The study reviewed existing conditions and found that a shuttle serving both residents and visitors would be feasible if sufficient incentives (i.e., convenient schedules, low fares, attractive buses, etc.) were in place to encourage auto users to shift to shuttle for at least some of their rides. Public input was sought throughout the entire planning process through presentations, public open houses, and newsletters. The public input overwhelmingly favored the implementation of some type of shuttle service in Sedona. The Recommended Plan consisted of three phases: 1) an introductory minimum operating serivce, 2)

an enhanced service scenario, and 3) a long-range maximum plan for optimal shuttle service.

As shown in Figure II-1, Phase 1 service focused resources on providing transit service along the corridor between the Village of Oak Creek and Uptown, in order to capture the tourist market and serve key destinations. The fixed-route service would operate every 30 minutes using three buses, and ADA complementary paratransit service would be provided. In addition, Phase 1 service included flex-route service in the West Sedona Area, with one bus circulating every hour in West Sedona and connecting to an Uptown transfer point where passengers could transfer to the Village service. Buses were to stop within 10 minutes of a scheduled time at four to six stops within the area. The projected ridership for Phase 1 service was approximately 186,000 passenger trips, with an annual operating cost of approximately $784,000. The primary benefits for Phase 1 service were the availability of a non-auto option for toursits traveling along SR179 and the provision of basic transit service for local residents who are transit dependent.

Figure II-1
Map of Phase 1 Transit Service

Figure II-2
Map of Phase 2 Transit Service

Phase 2 built upon Phase 1 service through a modular approach, allowing for maximum flexibility in system design, based on funding considerations and community preferences. As shown in Figure II-2, Phase 2 extended the 179 Village service beyond Uptown into the Oak Creek Canyon as far as Slide Rock State Park. The route connected with the West Sedona route at the Uptown Transfer Point. The operating cost of the Oak Creek Canyon service was $212,000. In West Sedona, Phase 2 added fixed-route service on top of the existing flex-route service in West Sedona. Fixed-route service would be provided every 30 minutes along the corridor and

the flex-route would feed into the fixed-route service on 89A. The operating cost of the West Sedona Fixed-route and Flex-Route services was $374,000. Finally, Phase 2 will add service between Cottonwood and Sedona. This service was to be operated via one or three vehicles (depending on which option is selected) that would travel between the Walmart in Cottonwood and the Uptown Transfer Point. Depending on final scheduling details, the bus could flex to the resort area in Sedona, as well as a number of other locations in the Cottonwood Walmart area. The Cottonwood to Sedona service would have an operating cost between $138,000 and $162,000. Benefits of Phase 2 transit service include: 1) reduction in environmental degradation in terms of litter, trails at non-designated locations, etc.; 2) visually more appealing as fewer vehicles parked throughout the canyon and other scenic locations; 3) high frequencies on shuttle service would make the system attractive and easier to use; 4) more local parking capacity as reduced presence of vehicles from Cottonwood; 5) people with disabilities have easy access to transit system; 6) less congestion on Higways 179 and 89A; and 7) Oak Creek Canyon hikers will have a service option through most daylight hours.

Figure II-3
Map of Phase 3 Transit Service

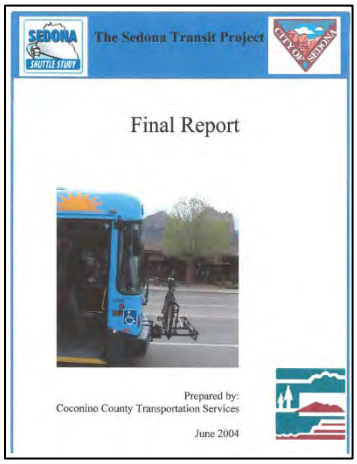
Phase 3, shown in Figure II-3, furthers Phase 2 service, primarily in the frequency of service and expansion of service span (hours) and area. The anticipated time frame for implementation of Phase 3 is 10 years, unless ridership and revenue projections exceed initial estimates. Phase 3 was characterized by significant supportive policies to create strong incentives for using the shuttle, and strong disincentives for driving into Uptown and the canyon areas. Phase 3 included service every 15 minutes between the Cultural Park and Uptown, along the 179 corridor, with service hours extended to 7:30 p.m. in the core service area (outside of Oak Creek Canyon). Phase 3 also included more frequent service to Cottonwood (peak 30 minute headway, off-peak 45 minute headway), and an extension of the shuttle canyon route to Oak Creek Vista. For Phase 3 to be successful, strict enforcement of parking charges and parking in non-designated areas was required. The annual operating cost of Phase 3 services was approximately

$2,390,000. The benefits of Phase 3 included all of the benefits of Phase 2, but enhanced due to higher ridership volumes and much more extensive service.

The study also evaluated the possibility of creating a self-supporting transit system, with the primary means of generating sufficient funds to cover all costs and eliminate the need for public subsidies would be through fare and parking revenues. Through a sensitivity analysis, the consultant team found that daily parking fees of $20 per vehicle would need to be charged at the intercept lot, while parking fees of at least $4 per hour will be required in Uptown Sedona in order to achieve a self-supporting maximum plan. The self-supporting plan is not recommended as these fees would likely be considered unreasonably high by potential visitors to Sedona and local residents.

Sedona Transit Project

Prepared by: Coconino County Transportation Services
Date: June 2004

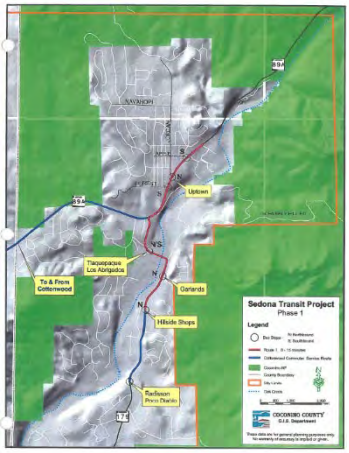


In March 2003, the Sedona City Council accepted the Sedona Shuttle Feasibility Study prepared by Nelson\Nygaard, but still felt that a clearer picture needed to be established as to how a desirable service proposal would be financed, implemented, and administered. In October 2003, the city of Sedona entered into an Intergovernmental Agreement (IGA) with Coconino County to lead a Planning Advisory Committee (PAC) to address the unresolved questions and provide a greater in-depth analysis of the community's level of support for public transit services relative to different service proposals.

Providing 30-minute frequency was established as a benchmark to help drive the evolution of the service proposal. Project staff and PAC studied the experiences of several resort communities that balance recreational and commercial demand outside of the National Park setting. For public outreach, the project staff conducted dozens of personal interviews, focus group meetings, a public open house, and a community attitudes random sample survey. The random sample

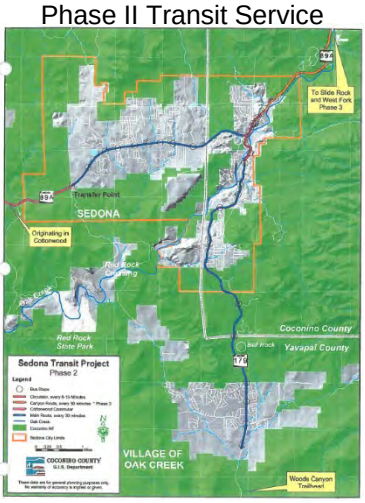
survey found that 72 percent of the public was very or somewhat supportive of the recommended service proposal.

Figure II-4
Phase I Transit Service



The recommended transit plan consists of a three-phase incremental service implementation. Phase One consists of a commercial circulator and commuter service from Cottonwood to Sedona. As shown in Figure II-4, the circulator will be operated by two buses along a 1.2 miles route between Hillside Galleries on SR 179 to Tlaquepaque to the north end of 89A in the Uptown area, providing approximately eight minute frequency. Phase one also consists of two commuter trips into Sedona from Cottonwood in the morning and two return trips in the early evening, as well as ADA paratransit service in Uptown Sedona residential areas. The estimated annual ridership for Phase One is 115,634. All buses will be based in the Cottonwood area in order to maximize the use of capital resources. The annual operating cost of Phase One was $489,000 and the capital costs were $965,000.

Figure II-5
Phase II Transit Service



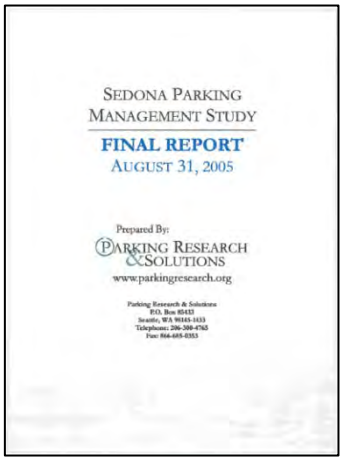
Phase Two built upon Phase One and offered additional commuter service to Sedona-area job centers. As shown in Figure II-5, Phase Two added ADA paratransit service within a ¾ mile buffer of the fixed route operating from West Sedona to the Village of Oak creek. The estimated annual ridership for Phase Two was 310,753. The annual operating cost of Phase Two was $1,462,150 and the capital costs were $1,854,758.

Phase Three required that the first two phases be well established in order to create the connectivity necessary to make this component viable. Phase Three adds service in Oak Creek canyon during Sedona's high visitor season (February through October). Phase Three also added mid-day commuter service between Cottonwood and Sedona. The estimated annual ridership for Phase One was 415,132. The annual operating cost of Phase Three was $1,99,534 and the capital costs were $1,066,389.

The recommended plan provided an in-depth analysis of operating and capital expenses, revenues, and funding sources. The final plan also analyzed the strengths and weaknesses of a variety of administrative and organizational structures. Based on the analysis, the PAC recommended the development of a Transit Authority, and recommended that the City of Sedona cooperate with Coconino County in conducting a Transit Authority Implementation Study. A staffing plan and implementation steps were also developed.

Sedona Parking Management Study

Prepared by: Parking Research & Solutions
Date: August 31, 2005



Parking Research & Solutions were hired by the City of Sedona to complete a comprehensive parking study between February and May 2005. The goals for the study were to quantify current parking demands, determine the utilization of parking spaces, determine the occupancy of all parking lots, analyze the average duration of vehicles parking, and assess the movement of vehicles parking multiple times in different parts of Sedona. The study included public outreach through surveys of key stakeholders and hundreds of visitors. In addition, current parking signs throughout Sedona were evaluated.

A total of 2,578 parking spaces were found in the survey areas, consisting of 1,435 parking spaces in Uptown Sedona and 1,143 parking spaces in the Hwy. 179 corridor. The City of Sedona currently owns and manages 128 on-street parking spaces along Hwy. 89A and 144 off-street parking spaces in the City parking lot. The remaining 2,306 parking spaces in Sedona are privately owned and managed.

Peak occupancies were found between 11:00 a.m. and 3:00 p.m. each day in most off-street parking lots available to the public. The highest overall parking occupancy levels were observed over lunchtime on Wednesday, March 30, 2005. The lowest overall occupancy levels were observed in early February and during morning survey periods throughout the study period. On-street parking along

Hwy. 89A in Uptown Sedona was more than 90 percent occupied most days. Parking along Hwy. 89A were fully occupied on most days from late February to May, and many businesses in the area have very limited or no off-street parking supply for patrons and employees. Several public parking areas in Uptown Sedona, including the City-owned parking lot, often had low occupancy levels, even during peak times. Visibility, directional signage, pedestrian access, and remoteness make these areas less desirable for both visitors and employees. Available parking for the Tlaquepaque shops and galleries is very limited during peak times relative to the number of visitors and employees seeking parking in that area. All of the parking along the east and north sides of Hwy. 179 was severely underutilized.

For most of the surveyed areas, the utilization rate was about 0.80-1.03 vehicles per parking space every hour. Most areas were fully occupied and parking spaces were typically only vacant for a few minutes at the most. These results were consistent with the 2004 RBF Traffic Circulation Study which found a utilization rate of 0.87-0.91 vehicles per space, per hour along Hwy. 89A.

Approximately 55 percent of vehicles surveyed parked for less than one hour, indicating a high level of parking turnover throughout multiple areas of Sedona. The Hyatt north lot, Sinagua Plaza, and the south end of Hwy. 89A had the highest percentage of vehicles parking for less than one hour, mostly due to the location of the visitor information center. The City lot and the on-street parking at the south end of Hwy. 89A had the highest percentage of vehicles parking over three hours.

More than 1,600 unique license plates were logged from vehicles parking on Hwy. 89A in Uptown during the study, and only seven percent of the vehicles parking on Main Street were registered to Sedona residents or with registered addresses that are 50 miles or less from Sedona.

The vehicle movement studies indicated that only between two and five percent of vehicles parking in Sedona park in both the Creek area and in Uptown. Survey results indicated that approximately 72 percent of stakeholders surveyed believed that on-street parking in Uptown should be regulated and most believed that employees and owners of businesses are utilizing on-street parking spaces, while

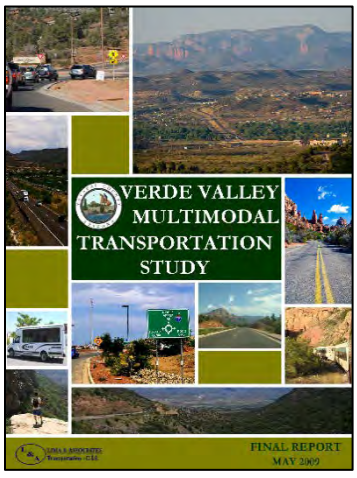
the data gathered in this report indicates that more than 90 percent of the 128 on-street parking spaces were being used by visitors. The vast majority of stakeholders (83 percent) believed that additional parking was needed in Seodona and 61 percent supported the formation of a parking district or a shared and managed public parking system between private property owners. A total of 57 percent of visitors surveyed stated that a shuttle was needed to Uptown, to the Gallery District, or both.

The study outlined nine recommendations for forming a new Parking Management Plan:

1. Creation and management of a public parking supply through public parking agreements
2. Designated employee parking
3. Promotion of public parking options
4. Comprehensive parking management, including time restricted parking and paid parking, and new meters for Main Street
5. Development of new parking sites after implementation of Parking Management Plan
6. Establish residential permit parking (if needed)
7. Reorganize parking management oversight within the City of Sedona
8. Utilize an automated ticket management system
9. Evaluate additional funding sources

Verde Valley Multimodal Transportation Study

Prepared by: Lima and Associates
Date: 2009



The Verde Valley is a region of 673 square miles in northeastern Yavapai County, about 100 miles north of central Phoenix and 40 miles south of central Flagstaff. The study area includes the incorporated municipalities of Camp Verde, Clarkdale, Cottonwood, Jerome, and Sedona, as well as the Yavapai-Apache Nation.

The Verde Valley Multimodal Transportation Study (VVMTS) is an update of the 1999 Verde Valley Transportation Study Update. The purpose of the VVMTS was to develop a long-range regional transportation plan to guide the implementation of transportation

improvements on the roads of regional significance in the Verde Valley, including I-17, State Routes, and roads on the County Regional Road System. Population in the Verde Valley was expected to grow from 72,200 people in 2007, to 85,400 people in 2015 and 108,900 people in 2030, and the number of housing units in the region was expected to increase from 30,600 in 2007, to 38,800 in 2015 and 49,500 in 2030. The increase in population and housing units will cause travel demands to change in the Verde Valley.

The analysis of existing conditions found that portions of several roadways were already at or over their level of service (LOS) capacity, as shown in Figure II-6. The report also includes LOS estimates projected for 2015 and 2030. The projected 2030 LOS on the Verde Valley network are presented in Figure II-7, and illustrate the portions of roadways include a level of service at or over capacity.

Figure II-6
Current Verde Valley Traffic Volumes and Level of Service

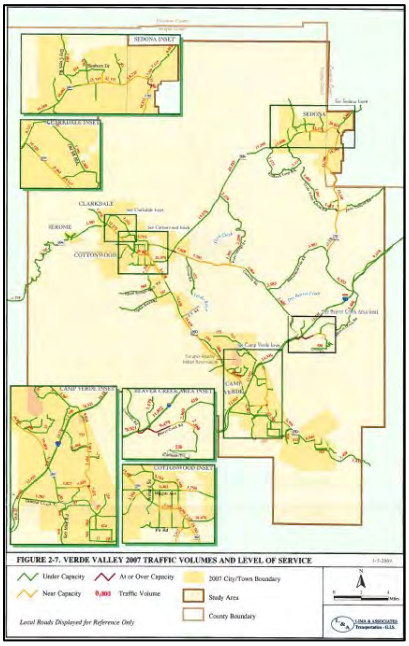
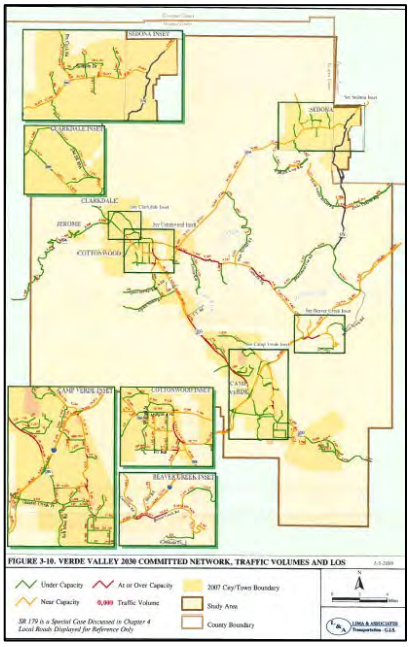


Figure II-7
Verde Valley 2030 Committed Network, Traffic Volumes, and LOS



The report recommends that regional roadway construction and upgrades are needed over the next 20 years to prevent congestion on the Verde Valley roadway system in 2030. Two models were run for alternative roadway networks in order to assess their performance in meeting the 2030 demand. Based on the analysis, a set of recommended projects emerged that would relieve congestion and that could be feasible in terms of public input, land availability for right-of-way, and environmental concerns. The recommended projects are described below.

The 2010 to 2020 projects under Yavapai County Government Jurisdiction, costing a total of $35,694,000, include:

- Cornville Road from SR 89A to Tissaw Road: upgrade from two-lane major collector to four lane arterial.
- Cornville Road from Tissaw Rd. to I-17: some improvements, but no new travel lanes or change to functional class.
- West Loop from Black Hills Dr. to Fir Street: access-controlled, two-lanes. Fir St. would be extended to connect to the West Loop.
- SR 260/SR 89A Bypass from I-17 (McGuireville) to I-17 (at SR 179 exit): Beaver Creek Rd., upgrade near I-17 to an arterial. From the Y to N.F. 119 would be a major connector. N.F. 119 would be a local roadway.
- Low Water Road, Beaver Creek from Beaver Creek Rd./Brocket Ranch Rd. to Coronado Trail/Indian Lakes area: Connection and emergency route.

The 2020 to 2030 project under Yavapai County Government Jurisdiction, costing a total of $14,918,000, include:

- Beaverhead Flat Rd. to SR 260: Construction of two-lane country road on roughly the Forest Service 119A alignment from Cornville Rd. to SR 260. Extend Middle Verde Rd. to connect to the Beaverhead Flat Rd. to SR 260 Rd. Includes the construction of a Verde River bridge.

The 2010 to 2020 projects under ADOT, City, or Town Government Jurisdiction, costing a total of $64,561,000, include:

- SR 260 from Thousand Trails Rd. to West of I-17: Last segment rquired to make SR 260 four lanes continuously from SR 89A in Cottonwood to about 1.2 miles east of the Verde River in souther Camp Verde (ADOT).
- Groseta Ranch Rd. from SR 89A to Old SR 89A: Upgrading Groseta Ranch Rd. to a two-lane minor collector (Cottonwood).
- Main St. (Cottonwood) from Minus Ave. to Willard: Upgrade from two lanes to four lanes and enhance for bicycle and pedestrian travel (Cottonwood).
- Main St. (Cottonwood) from Mingus Ave. to SR 89A: Safety and capacity enhancements (Cottonwood).
- Montezuma Castle Hwy. from Yavapai-Apache Nation Boundary to finnie Flat Rd.: Three lanes (Camp Verde).
- Bypass of "Y" from Sr 179 to SR 89A: Bypass, one lane each way (Sedona).

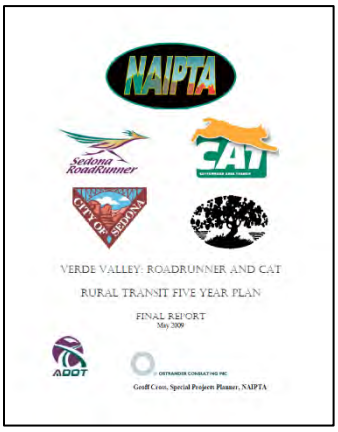
The 2020 to 2030 projects under ADOT, City, or Town Government Jurisdiction, costing a total of $275,174,000, include:

- I-17 from Milepost 282 to Milepost 304: three lanes per direction (ADOT)
- SR 260 bypass from Thousand Trails to General Cook Trail Interchange: to be constructed when needed, but right-of-way preservation for new interchange is recommended well in advance of construction (ADOT).

- Quail Springs Ranch Rd. from Old SR 279 to SR 260: one lane per direction (Cottonwood).
- Bypass Route SR 89A/Cornville Rd. Intersection from SR 89A/Bill Gray Rd. Intersection to Cornville Rd./Tissaw Rd. Intersection: four lanes, in a planned mixed use development (developer built, dedicated to Cottonwood).
- Finnie Flat Rd. from Fir St. to Quail Springs Ranch Rd./Old SR 279: access-controllled, two lanes (Cottonwood).
- Middle Verde Extension from Middle Valley Rd. to Beaverhead Flat Road: two-lane extension (Camp Verde).

Verde Valley: Roadrunner and CAT Rural Transit Five-Year Plan

Prepared by: Ostrander Consulting, Inc. and NAIPTA Planning
Date: May 2009



The Verde Valley: RoadRunner and CAT Rural Transit Five Year Plan addresses the transit services provided by the Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) in Sedona and Cottonwood.

NAIPTA was formed in 2006 and is Arizona's first multi-county transit authority, with members including Coconino and Yavapai Counties, the Cities of Flagstaff, Sedona, and Cottonwood, and Northern Arizona University. Current transit services operated by NAIPTA include: 1) Mountain Line fixed route service in Flagstaff; 2) Mountain Lift paratransit service in Flagstaff; 3) RoadRunner fixed route service in Sedona; 4) RoadRunner paratransit service in Sedona; and, 5) RoadRunner Cottonwood Express commuter service between Cottonwood and Sedona. NAIPTA also coordinates with Mountain Campus Transit fixed route service at Northern Arizona University and the Cottonwood Area Transit System (CAT) checkpoint deviation and demand response service in Cottonwood.

The community goals for transit were divided between Cottonwood and Sedona. For Cottonwood, the priorities included: 1) improving the productivity of the transit system; and 2) improving regional connectivity. For Sedona, the priorities included: 1) improving financial viability; 2) serving more groups; and 3) increasing ridership. In addition, administrative issues to be addressed over the next five years were identified, including: 1) options for consolidation/transfer of

CAT operations for City of Cottonwood to NAIPTA; 2) consolidation of the two Cottonwood and Sedona Section 5311 ADOT grants into one NAIPTA grant; 3) development of consistent expense categories for budget review; 4) development of consistent performance measures for operating review; 5) development of local Transit Advisory Committees to continue work of the Citizen Review Commissions; 6) joint facility development; and 7) identification/evaluation of other Verde Valley service areas.

Transit demand estimates for the study area were based on the Arkansas Public Transportation Needs Assessment methodology developed in 2000. The following annual rider rates were determined:

- **Elderly persons ages 60 and over:** trip rate of 6.79 annual one-way passenger trips
- **Persons with disabilities under age 60:** trip rate of 4.49 annual one-way passenger trips
- **Persons living in poverty under age 60:** trip rate of 20.5 annual one-way passenger trips

Within the region, the unmet need estimate for Clarkdale was 2,000 annual one-way passenger trips, the unmet need estimate for Cottonwood was 9,600 annual one-way passenger trips, and the unmet need estimate for Sedona was 42,300 annual one-way passenger trips.

In addition, unmet needs and coordination strategies were identified through a series of stakeholder meetings. Stakeholder input on unmet needs included: 1) public transit operating dollars were needed to expand the Cottonwood and Sedona public transit services; 2) consideration should be given to developing a voucher system for all services; 3) the Yavapai Meals-on-Wheels program needed van drivers, resources for training, help in managing rider medical needs and help in reducing vehicle insurance. There was no transportation to Prescott for jobs and medical appointments. At least one bus a day was needed. Coordination was needed with the VA Hospital/Mayo Clinic; and 4) the Sedona Community Center needed operating dollars.

Stakeholder input on coordination strategies included: 1) there was significant coordination in the Verde Valley, primarily under the leadership of NAIPTA; 2) CAT was coordinating with NAIPTA and was on the NAIPTA Board. CAT and

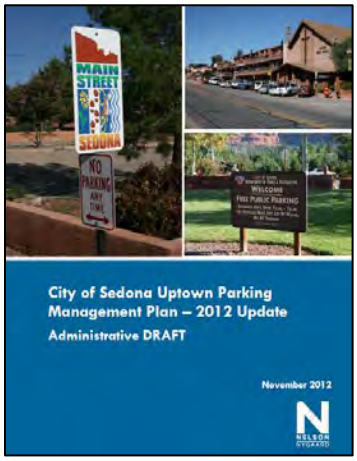
NAIPTA were working to coordinate advertising, branding, marketing, writing grants, etc. CAT was also planning a facility with NAIPTA. The facility would include a wash area, fuel station and shading structures; 3) CAT is also working with the Senior Center and Infinia to coordinate service on an as-needed basis; 4) NAIPTA operates the RoadRunner Cottonwood Express, providing commuter service between Cottonwood and Sedona. Paratransit service will be provided by the Sedona Senior Center in the Sedona area; and 5) express service will coordinate with CAT to transport express riders to the morning pick-up point in Garrison Park.

Projected additional coordination efforts were identified including: 1) building a 5,000 square foot transit office; 2) CAT potentially doing contract transportation for the senior center so the senior center can focus only on Meals-on-Wheels and other specialized services; 3) CAT expanding to one or two more buses on the checkpoint system and transitioning from demand response to fixed route service; 4) NAIPTA's RoadRunner Cottonwood Express service expanding to the Village of Oak Creek and West Sedona and providing half hour service during peak hours to and from Cottonwood (Phase II). The service would expand to seasonal service to Oak Creek (Phase III); 5) NAIPTA's RoadRunner Cottonwood Express service would expand to serve the hospital and medical offices; 6) connector service would develop a Park and Ride in the Clarkdale area; and 7) consider establishing a voucher system for all services or form some type of county-wide payment pool.

The conclusion of the Plan was a five-year financial plan and implementation plan addressing five key areas: 1) management structure and administrative alternatives; 2) the effectiveness of current services and options for expanded service; 3) marketing of service to encourage maximum ridership; 4) coordination of service locally and regionally; 5) a capital plan to address equipment and facility needs, along with a funding plan to support the preferred operating plan.

City of Sedona Uptown Parking Management Plan (2012 Update)

Prepared by: *Nelson\Nygaard Consulting Associates*
Date: *November, 2012*



In 2012, Nelson\Nygaard Consulting Associates was contracted by the City of Sedona to complete an update to the 2005 Sedona Parking Management Study completed by Parking Research & Solutions. The 2005 study was a comprehensive parking analysis that evaluated parking demand and behavior in the Uptown and Highway 179 corridors areas of Sedona, and ultimately concluded that parking management in Sedona, especially in the Uptown area, should undergo a comprehensive overhaul. Since 2005, much has changed in the City of Sedona as it adjusts to a new regional and national economic context, and this report represents the 2012 Update to the 2005 Uptown Parking Management Plan.

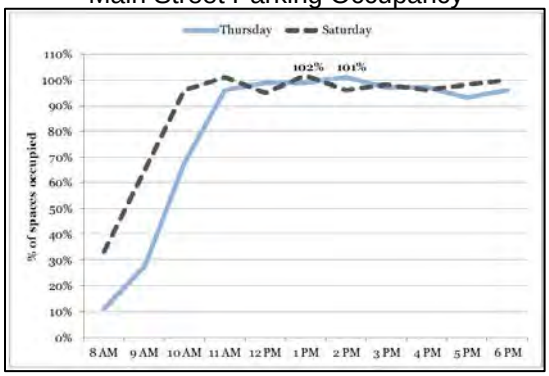
The 2012 Update includes a brief description of the project background and the scope of this study, an overview of the stakeholder feedback received in 2012, summary of the 2012 parking study (parking counts were conducted every hour on Thursday and Saturday, August 23 and 25, 2012 from 8:00 a.m. to 6:00 p.m.) and comparison of the 2012 data with the 2005 findings, and specific 2012 recommendations for improving parking in Uptown.

After a series of stakeholder interviews and a new detailed survey of actual parking conditions in Uptown, a number of key findings about parking trends, issues, and opportunities were identified, including:

Demand for on-street parking is very high, which impacts parking availability and traffic flow.

- The publicly available vehicle parking spaces on Main St. were consistently at or near 100 percent occupancy beginning at 10:00 a.m. until the end of the count period for both Thursday and Saturday, as shown in Figure II-8.

Figure II-8
Main Street Parking Occupancy



- The peak occupancy along Main St. was 101 percent on Thursday at 2:00 p.m. and 102 percent on Saturday at 1:00 p.m., meaning all legal parking spaces were occupied and some vehicles were parking illegally.
- As a result of these high occupancies, the typical motorist driving down Main Street will be unable to find an on-street parking space, which culminates in multiple vehicles driving down Main Street searching for parking and undoubtedly contributing to traffic congestion issues.

Demand for off-street spaces in the Municipal Lot and Sinagua Plaza is much lower than demand for on-street spaces.

- In the Municipal Lot, peak occupancies for Thursday were 35 percent and peak occupancies for Saturday were 64 percent.
- In Sinagua Plaza, peak occupancies for Thursday were 47 percent and and peak occupancies for Saturday were 89 percent.
- When only including public parking in these facilities (i.e., no employee spaces), peak occupancies for public parking were even lower on Thursday (38 percent) and Saturday (76 percent).

There is a geographical imbalance between parking supply and demand.

- During the on-street peak period on Thursday at 2:00 p.m., there were 98 available spaces in the Municipal Lot and 69 public spaces available in Sinagua Plaza.
- During the on-street peak period on Saturday at 1:00 p.m., there were 73 available spaces in the Municipal Lot and 4 public spaces available in Sinagua Plaza.
- This data suggests that there is not a lack of parking, but an imbalance between parking supply and demand, since during the peak demand times when there is no parking available on Main St., there are nearly 200 empty parking spaces available just a few blocks away.

Part of the imbalance in parking demand can be directly attributed to inadequate and inconsistent signage, limited lighting, and poor pedestrian conditions.

- Parking signage remains a key issue in Uptown even though efforts have been made since 2005 to improve signage. The lack of consistent, user-friendly, and intuitive signs makes it difficult for drivers and visitors to easily find parking.
- The large number of signs in private off-street facilities that announce parking restrictions and threaten vehicle towing actively discourage visitors.
- Poor lighting in the off-street lots contributes to employee and visitor concerns about perceived safety and security.
- Pedestrian access to off-street and remote lots can be challenging due to the lack of lighting, steep slopes, and gaps in the sidewalk network in the vicinity of off-street parking facilities.

While some vehicles exceed the three-hour parking limit, parking turnover does not appear to be a major issue in Uptown.

- On Thursday, the average length of stay for a vehicle was 1.8 hours, with Block #2, the east side of 89A from Forest Rd. to Jordan Rd., having the longest average length of stay at 1.9 hours.
- On Saturday, the average length of stay for a vehicle was 1.7 hours, with Block #4, the east side of 89A from Jordan Rd. to the loading zone, having the longest average length of stay at 1.9 hours.
- Only a small percentage of vehicles parked in the on-street parking spaces stay three or more hours, which means that increased enforcement of existing three-hour time limits for on-street parking in Uptown will likely be ineffective at increasing the availability of on-street parking spaces, as the majority of vehicles are not overstaying the current time limits.

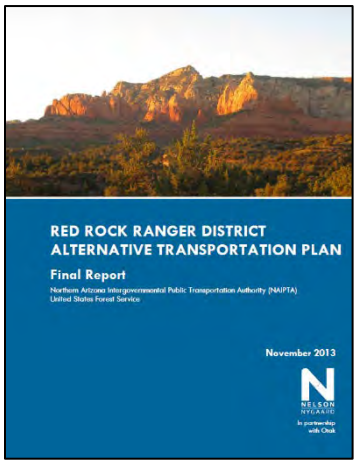
Parking recommendations from the 2012 Update are presented with an implementation timeframe in Figure II-9.

Figure II-9
2012 Uptown Parking Recommendations

Implementation Timeframe	No.	Recommendation
Immediate (within 6-12 months)	1	Continue with implementation of a more active parking enforcement program with the understanding that the fundamental parking challenge in Uptown is NOT related to violation of the current 3-hour limits. Conduct a study to monitor the effects of enhanced enforcement on parking turnover and availability.
	2	Improve awareness of, and access to, the underutilized off-street public parking facilities in Uptown through additional wayfinding improvements.
	3	Improve the motorist experience and perceived safety of using off-street parking through enhanced lighting and pedestrian improvements to and from existing off-street facilities.
	4	Expand the public parking supply in a cost-effective manner and improve the visitor experience by opening up privately-owned off-street lots to public parking through legally binding, public parking agreements.
	5	Lease a specific off-street lot and designate the lot for tour bus parking.
	6	Reevaluate a circulator shuttle to connect the greater Uptown area, Hillsdale area, and off-street parking facilities. Coordinate with NAIPTA on upcoming transportation study and possible shuttle service.
Short-term (within 1-3 years)	7	Designate a specific off-street facility for employee parking and implement an employee permit program.
	8	Install "smart" parking meters and use pricing to make parking more convenient and easier to find. Designate meter revenue specifically for improvements in Uptown that merchants and business owners want.
	9	Evaluate a parking validation program as a means to reward drivers who shop in Uptown.
	10	If needed to reduce parking spillover impacts in Uptown-adjacent neighborhoods, implement a residential parking program.
	11	Designate a part-time/seasonal "Uptown Parking and Transportation Manager" to serve as single point of contact for parking and transportation issues during peak season. The manager's first task would be to establish an ongoing data collection, monitoring, and evaluation process of the City's parking management program and regularly report back to community stakeholders and decision makers so adjustments can be made as needed.
Mid-term (within 3-5 years)	12	Identify additional opportunities to expand the public parking supply, either through a public-private partnership to create a mixed-use parking garage project in the Uptown District or the development of additional remote parking facilities connected by a shuttle circulator.

Red Rock Ranger District Alternative Transportation Plan Final Report

Prepared by: Nelson\Nygaard Consulting Associates in partnership with Otak
Date: November, 2013



The Red Rock Ranger Distric Alternative Transportation Plan was funded through a Paul S. Sarbanes Transit in the Parks Grant that was awarded to the US Forest Service and NAIPTA. The intent for the Red Rock Ranger District Alternative Transportation Plan is to develop transportation options that: 1) reduce vehicular congestion in key "hot spot" areas within Oak Creek Canyon, and 2) reduce the roadside ecologic impacts of visitor parking along Route 89A during peak times of year. The intent of the plan is to enhance opportunities to access recreational points of interest within the Red Rock Ranger District study area, which includes the main thoroughfares on the eastern portion of the Red Rock Ranger District, like Route 89A between Uptown Sedona on the south and Oak Creek Vista to the north. The United States Forest Service (USFS) has three primary goals for developing transportation options within Oak Creek Canyon, including: 1) reduce vehicular traffic congestion; 2) ensure the preservation of natural resources along the roadway; and 3) ensure safety of those living, working, or recreating within Oak Creek Canyon. Through the course of the study, qualitative and quantitative data was collected, analyzed, and used to develop recommended transportation options to consider for future implementation. Key opportunities and constraints based on the findings in the preliminary stages of the project are presented in Figure II-10.

Figure II-10
Key Project Opportunities and Constraints

Opportunities	Constraints
1. Develop a transportation service to address the specific challenges accessing and traveling to destinations in Oak Creek Canyon	1. Lack of key project champion or intergovernmental policymaking body
2. Focus on visitors, but consider the priorities of residents	2. Limited flexibility in modifying transportation regulations and dimensions on Route 89A
3. Create visitor-oriented transportation option within Oak Creek Canyon	3. High number of Oak Creek Canyon day trip visitors (requiring a potentially limited supply of park-and-ride facilities)
4. Enable car-free travel option within Oak Creek Canyon and to other recreational sites	4. Existing corridor bottlenecks (Uptown Sedona, Slide Rock State Park)
5. Reduce need for parking within Oak Creek Canyon and reduce congestion on Route 89A	5. Concerns about visitor capacity constraints in Oak Creek Canyon
6. Add transportation amenity/option for those staying in Sedona area lodging	6. Lack of representative decision-making body or committee to oversee implementation of transportation services within the project's study area
7. Deliver/pick up visitors in Uptown Sedona without additional parking supply	7. Regulations with respect to fees and fares from USFS
8. Provide additional transit connectivity within Sedona vicinity (Oak Creek Canyon, West Sedona, Village of Oak Creek)	

A variety of public outreach efforts were conducted to understand the opinions of residents, visitors, and those who rely on Oak Creek Canyon for their livelihood. Key issues that were raised and were directly relevant to the project scope included:

- Opportunity costs of operations
- Additional pollution caused by shuttles
- Access limitations for those with belongings
- Increased encounters on trailheads
- Increased E.coli levels
- Oak Creek Canyon traffic congestion

The service plan included three transit options for the study area focusing on the needs of key travel markets, including day-trip visitors, overnight visitors, and local residents, that emerged as potential clientele for a future transportation service.

Option 1: Corridor Congestion Reduction is designed to focus on day-trip travel within the study area. This includes surges of visitor traffic on weekends traveling from points southward like Phoenix, with a later phase of the project also focusing on travel coming from the north, like Flagstaff. Ridership estimates for Option 1 are from 25,000 to 40,000 annual passengers.

As shown in Figure II-11, Phase One (Option 1.1): Village of Oak Creek to Slide Rock State Park would include the following key characteristics:

1) Shuttle service between Village of Oak Creek to Slide Rock State Park;
2) Service frequencies of 15 minutes (peak) and 20 minutes (off-peak);
3) Service span between 8:00 a.m. and 8:00 p.m. on peak day-trip travel periods (March-October, weekends, and some Fridays); and
4) Park-and-ride facilities at route's southern terminus.

As shown in Figure II-12, Phase Two (Option 1.2): Village of Oak Creek to Vista Point would include the following key characteristics:

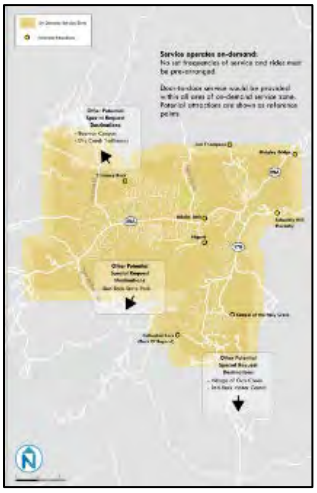
1) Shuttle service between Village of Oak Creek to Oak Creek Canyon Vista Point;
2) Service frequencies of 15 minutes (peak) and 20 minutes (off-peak);
3) Service span between 8:00 a.m. and 8:00 p.m. on peak day-trip travel periods (March-October, weekends, and some Fridays); and
4) Service between West Fork and the Vista Point may operate at lower frequency depending on demand levels.

Figure II-11
Option 1.1 – Corridor Congestion Reduction

Figure II-12
Option 1.2 – Corridor Congestion Reduction

Figure II-13
Option 2 – Local and Regional Access

Figure II-14
Option 3 – On-Demand Service

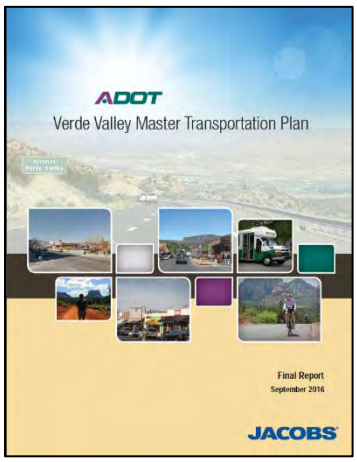


Option 2: Local/Regional Access focuses on travel to high-activity recreational sites within close proximity to the City of Sedona, primarily targeted toward overnight visitors to the Sedona area and local residents. As shown in Figure II-13, Option 2 is designed to provide general circulator service in and around Sedona to key recreational sites. Service is not designed in such a way in terms of frequency to provide enough service to reduce general congestion, but could ease demands on parking and could provide visitors and local residents with a simple, hassle free way to access various recreational locations. As compared to the previous RoadRunner service, this service option focuses more closely on some of the key sightseeing destinations in the general vicinity of Sedona and also provides trailhead access to some local trailheads. Ridership estimates for Option 2 are from 60,000 to 75,000 annual passengers.

Option 3: On-Demand Service requires that riders call ahead for pick-up and drop-off within a defined service area instead of providing a scheduled service. An on-demand service could equally benefit visitors and residents, as visitors could use the service to travel to various local points of interest or trailheads and hikers could use it to begin at one trailhead and end at another. The proposed service would operate between 8:00 a.m. and 5:00 p.m. daily. As shown in Figure II-14, the proposed service area would cover locations within approximately one-quarter mile of the boundaries of the city of Sedona along with other key locations.

Verde Valley Master Transportation Plan

Prepared by: *Jacobs*
Date: *September, 2016*



The Verde Valley Master Transportation Plan was a joint effort by Yavapai County, the Verde Valley Transportation Planning Organization (VVTPO), and the Arizona Department of Transportation (ADOT) to identify and address the most critical current and future transportation needs within the Verde Valley. This plan is an update the 2009 Verde Valley Multimodal Transportation Study, and aims to develop a regionally cohesive framework of multimodal transportation improvements in order to provide VVTPO with a guiding document that provides realistic and feasible solutions to the current and future multimodal needs of the area. The need for this study stems directly from VVTPO member jurisdictions' need to 1) establish a regionally cohesive framework for an efficient, seamless transportation system, 2) enhance mobility and improve safety, 3) support planned land use and future growth, 4) address safety and operational needs, and 5) promote economic growth and community livability.

Based on an inventory and analysis of existing conditions, transportation system deficiencies and issues were identified, and were used as the basis for the next phase of the study which was the development of the long-range transportation plan.

The plan for improvements was split into near-term, mid-term, and long-term implementation phases. The timeframe of each project is intended to be used as a guide for future planning, and together these projects will strengthen the study area's existing roadway network, support economic development, improve safety and operations, as well as provide a network of pedestrian, bicycle, and transit facilities. Near-term projects, shown in Figure II-15, are typically projects needed to address the most critical needs and deficiencies and have a reasonable potential for obtaining funding. Mid-term projects, shown in Figure II-16, are more complex projects that improve safety, expand mobility and access, or address future development needs. Long-term projects, shown in Figure II-17,

are high cost projects that require additional time to obtain funding or are not needed until build-out conditions.

Figure II-15
Recommended Near-Term Improvement Projects

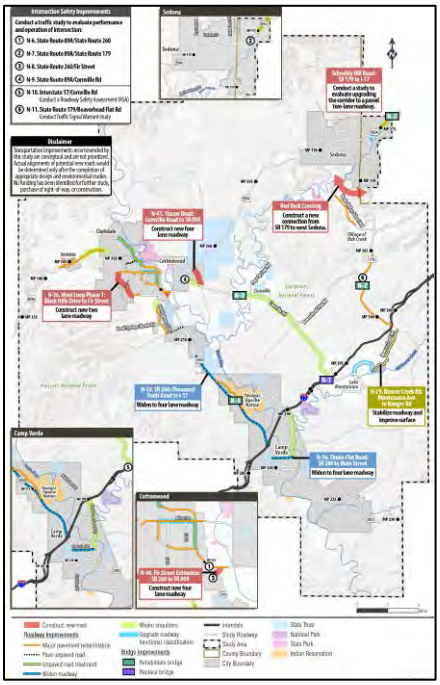


Figure II-16
Recommended Mid-Term Improvement Projects

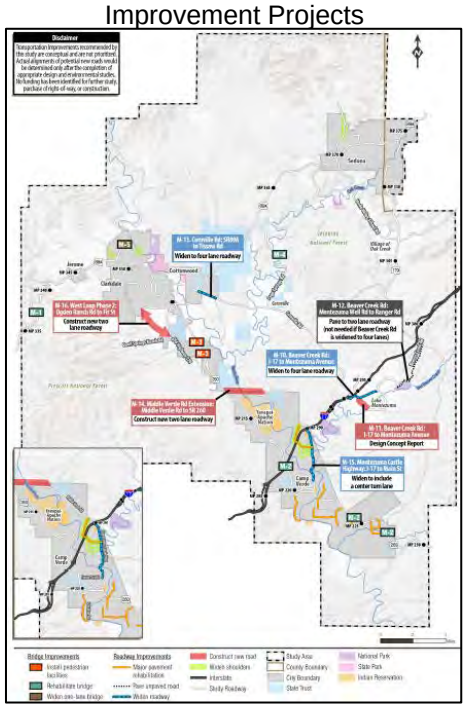
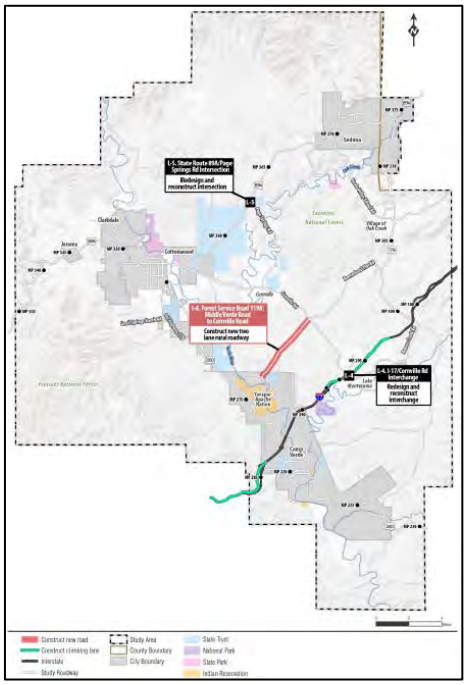


Figure II-17
Recommended Long-Term Improvement Projects



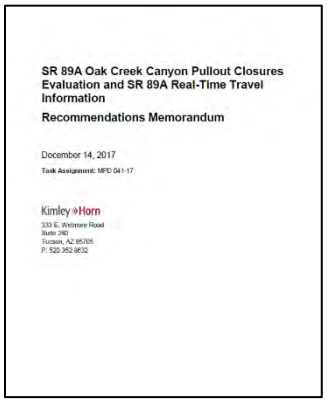
In addition, the plan identified four projects that may involve potential impacts to National Forest Lands or environmentally sensitive lands, which will require conducting a trade-off analysis to carefully determine trade-offs between wilderness values and the "incremental costs" of expanding the transportation network on the environment.

The plan also acknowledges that implementing low-cost congestion management strategies, may assist in reducing transportation demand and improving overall traffic flow. Congestion management strategies, including transportation demand management (TDM) and transportation system management (TSM), were evaluated for the study area to identify methods of improving circulation, reducing congestion, and meeting existing and future demand.

The plan provides pedestrian, bicycle, and trail improvement recommendations for the near-, mid-, and long-terms. Transit service recommendations were provided based on discussions with Cottonwood Area Transit, the Yavapai-Apache Transit System, and input from the TAC, stakeholders, and public.

SR89A Oak Creek Canyon Pullout Closures Evaluation and SR89A Real-Time Travel Information Recommendations Memorandum

Prepared by: Kimley Horn
Date: December, 2017


SR 89A Oak Creek Canyon Pullout Closures Evaluation and SR 89A Real-Time Travel Information

Recommendations Memorandum

December 14, 2017

Task Assignment: MPD 041-17

Kimley»Horn

333 E. Wetmore Road
Suite 260
Tucson, AZ 85705
P: 520.352.9832

The purpose of the SR 89A Oak Creek Canyon Pullouts Closure Evaluation and SR 89A Real-Time Travel Information Recommendations Memorandum was to document and evaluate existing pullout areas on SR 89A in Oak Creek Canyon. This report takes public safety, maintenance needs, and physical and geographical constraints into consideration in order to make a recommendation to keep or to close each pullout.

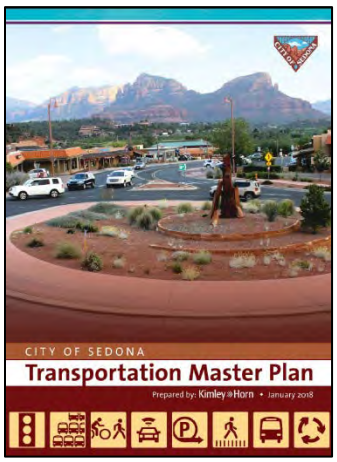
Three closure options were developed for the sites, consisting of: **Closure Option A:** Full closure with guardrail; **Closure Option B:** Full closure with native vegetation using temporary traffic drums during landscape establishment; or **Closure Option C:** Closure with maintenance access (three sub-options of maintenance access were provided: decorative bollard (C-1), wooden posts (C-2), and flexible delineators and removable tubular markers (C-3)).

A total of 59 sites on SR 89A in Oak Creek Canyon were evaluated on Friday, September 1 and Saturday, September 2, 2017. Based on the findings of the field review, a recommendation was developed for each site. Of the 27 identified sites that were recommended for closure, approximately 67 percent were recommended for closure option A, four percent for closure option B, and 30 percent for closure option C. The report also provides recommended closure mechanisms and planning-level/programmatic cost estimates.

In addition, the report reviews the infrastructure needs to implement real-time travel information notifications through the SR 89A corridor between Sedona and Flagstaff. ADOT currently maintains a statewide network of electronic Dynamic Message Signs (DMS) that provide information about incidents, closures, restrictions, hazardous weather, and display travel times. Oak Creek Canyon stakeholders, including ADOT and the City of Sedona, have expressed interest in installing DMS to provide real-time travel time information that will alert travelers of congestions and delays so that they are able to make an informed route choice.

Sedona Transportation Master Plan

Prepared by: *Kimley Horn*
Date: *January, 2018*



The City of Sedona Transportation Master Plan (TMP) recommended a set of multimodal transportation strategies and guidance to address congestion and mobility needs of residents, visitors, and commuters. The Community Values captured in the Sedona Community Plan, including environmental stewardship, community connections, improved traffic flow, walkability, economic diversity, and sense of place, were adopted as the guiding principles in the development of the Sedona TMP. The plan was developed in a three-phase process:

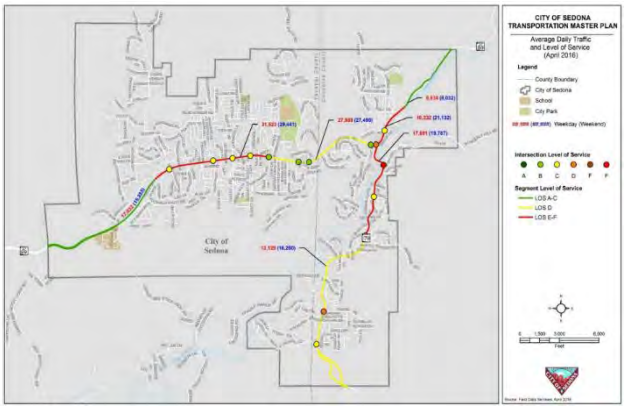
1) *Inform*: provides the City and study team the context and character of the current transportation system and the aspirations of the community;
2) *Analyze*: includes detailed analysis of needs and public input to shape alternative strategies; and
3) *Implement*: is critical to reaching an informed agreement on a recommended plan of action.

The Sedona TMP presented the following key findings on existing mobility conditions in the study area:

- Sedona's population fluctuates throughout the year due to part-time residents. The number of part-time residents increased from 892 to 1,674 between 2000 and 2010; however, overall population decreased from 10,244 to 10,045 during the same period.
- Sedona's population increased by about 300 residents between 2010 and 2015.
- Sedona's population is forecasted to grow to approximately 12,900 residents by 2040, which is 25 percent higher than the current population.
- Approximately 80 percent of trips in Sedona are made by short-term and long-term visitors, based on analysis of AirSage mobility pattern data.
- Tourism growth has approximated the increase in traffic volumes on SR 179 and SR 89A.
- SR 179 and SR 89A serve as the backbone of Sedona's transportation network, and must serve both regional trips and local traffic.
- Limited street connectivity between neighborhoods means there are no alternatives to SR 179 or SR 89A during congested conditions.

- Traffic volumes are significantly higher during peak season, which overwhelm the capacity of the roadway. Figure II-18 summarizes the 24-Hour Average Daily Traffic (ADT) volumes that were collected at seven locations on SR 89A and SR 179 on Thursday, April 14, 2016 and Saturday, April 16, 2016, as well as historical traffic volumes obtained from previous plans and studies and from other available count data.

Figure II-18
Traffic Volume Count Data



- With no traffic, it takes 12 minutes to travel from the Village of Oak Creek to the "Y," however, during the busiest weekends, travel time exceeded 36 minutes on several occasions.
- While SR 179 was reconstructed with comfortable sidewalks and bike lanes, bike lanes on SR 89A with high traffic volumes are uncomfortable for all but the most advanced bicyclists.
- Current bus service, with 45- to 90-minute frequency does not attract sufficient tourists to provide a congestion benefit.

The plan developed a series of 14 strategies, 13 of which were recommended. The strategies were selected to improve mobility within the City, while also respecting the guiding principles of the community values, and were developed by considering analysis of traffic and mobility data, input from stakeholders, City Council, TAC, and the public. The 13 recommended strategies include:

1. Uptown Sedona roadway improvements
2. Uptown Sedona pedestrian improvements
3. Uptown Sedona parking improvements
4. SR 179 improvements, Schnebly Hill roundabout to the "Y"
5. Major roadway connections
6. Neighborhood vehicular connections
7. Enhanced transit service – commuter/resident focused
8. Enhanced transit service – tourism focused shuttle service
9. Enhanced transit service – tourism focused
10. SR 89A/West Sedona access improvements
11. Bicycle and pedestrian improvements
12. Traveler information
13. Red Rock crossing (long-term recommendation)

The plan also identified three steps for project implemenetation, including:

1. An action plan for implementation with short-, mid-, and long-term actions;
2. Identifying partnering opportunities along with the lead agency, responsible party, and other agencies or stakeholders that would be involved in the projects; and
3. An overview of potential funding sources and strategies for the transportation improvement strategies.

VISITOR-FOCUSED TRANSIT BEST PRACTICES

Transit in a tourism-based, recreation-focused community like Sedona has the potential to successfully attract visitors to ride the bus and use it as a primary means of transportation within the community. Looking at best practices from other communities that have economies based on tourism and visitors is helpful as Sedona starts the planning process for a new transit system.

Sedona, with its proximity to state and federal recreation areas with unparalleled natural beauty, can learn from other communities with strong recreational and public land assets. Other areas with ski areas, national parks, national forest lands, and monuments have built transit systems with ridership that is much higher than would be expected based on traditional transit ridership models. A well thought out, visitor-focused transit system can attract riders who never use transit in their own communities but may consider it while on vacation. This success often comes from following key best practices.

BEST PRACTICES

Transit as a Community Ambassador

Visitor-focused transit succeeds when it acts as a positive community ambassador to the visitor. Unlike traditional urban transit systems that focus on residents and regular riders, many of whom are transit-dependent, a visitor-focused system should be designed to help introduce the visitor to the community. The transit system can help the visitor have a more authentic and interesting Sedona experience by:

- Hiring and training drivers that are customer service experts and can give local tips

- Having local information available onboard the buses
  - Interior ads from local businesses, as shown in Figure II-19, area maps, and visitor guides should be available for a rider.

Figure II-19
Local Business Ads Onboard Bus
Source: Mountain Rides Transportation Authority

- Having local experts and guides onboard at key times
  - At the busiest times of the year, many visitor-focused systems will have a tour guide or host available to answer questions and educate passengers.

Ideally, being onboard the local bus makes the visitor feel like a local and should give them "insider access" to community information. It also creates the opportunity for locals and visitors to interact onboard the bus, further enhancing the visitor experience.

Branding that Matches Local Character

The best transit systems that attract visitor ridership often have strong vehicle branding and graphics that visually connects the bus system with the character of the local area. This can include:

- Logos that relate to the local landscape
  - As shown in Figure II-20, the Yosemite Area Regional Transportation System logo incorporates the iconic El Capitan.

Figure II-20
YARTS logo
Source: YARTS website

- Vehicle graphics that reflect local values
  - In the mountain ski resort community of Crested Butte, Colorado, The Mountain Express buses are painted by local artists in different themes that reflect the community, as shown in Figure II-21.

Figure II-21
Painted bus in Crested Butte, CO
Source: The Mountain Express website

- Taglines and slogans that relate to the uniqueness of the area

Specialty vehicles, like trolleys, aren't necessary to accomplish this branding, as much can be done with vinyl graphic applications. Many visitor systems have found specialty vehicles to be expensive to maintain and uncomfortable for passengers, so a more mainstream transit vehicle with good graphics often achieves better overall results than a specialty vehicle, especially in terms of customer satisfaction and vehicle serviceability.

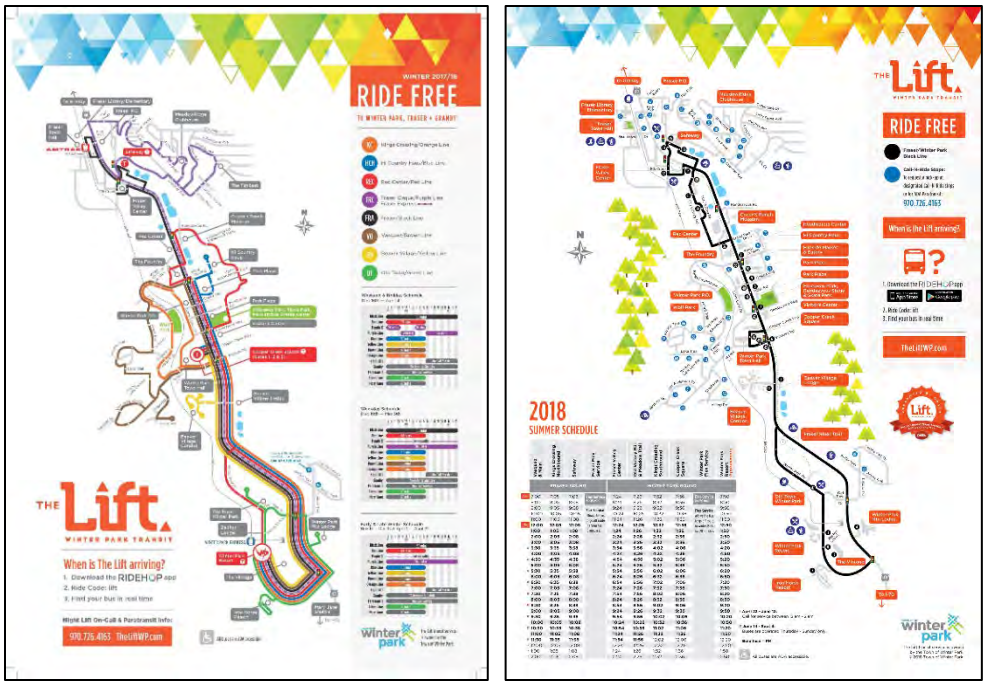
Seasonality of Service

Given fluctuations in visitation to tourist destinations like Sedona, a transit system should be built around visitor numbers. Most visitor transit systems will vary the amount of service operated at different times throughout the year by:

- Having some routes and/or route extensions only run during peak visitor months.
- Extending late night service during peak visitor months.
- Increasing route frequency, also known as headways, during peak visitor months.
- Reducing operating hours, also known as span of service, and headways during the slowest months.

However, these changes in service can be challenging to attracting and retaining local ridership. Local riders may get frustrated or confused if the service is constantly changing, and creating printed schedules and marketing materials gets more challenging with many different seasonal schedule variations. In order to mitigate these challenges, visitor systems will often have a standard year-round base of service that remains constant with additional service during peak visitation. An example of this is shown in Figure II-22, where The Lift in Winter Park, CO operates eight routes during the winter ski season but only one route plus on-demand stops during the summer season.

Figure II-22
Winter and Summer Schedule Differences of The Lift in Winter Park, CO
Source: The Lift Website, Winter Park, CO



Partnering with Local Businesses

Transit for visitors must attract riders who may not have considered using transit or may be unaware of the service. Visitors often find about the local transit system after arriving by car and deciding to take the local bus to get around town and leaving their car parked. Local businesses can support and facilitate this visitor transit use in many ways:

- Businesses can act as travel trainers
  - A visitor transit system needs to regularly inform local businesses on how to use the system through training of front-line staff, especially those in retail or lodging establishments.

- Businesses can help market the bus system
  - A transit system can provide bus information to local businesses to market the service - things like printed schedules, posters, countertop displays, and pocket cards.
  - Shared website links, social media collaboration, and online cross promotion can be a win-win for businesses and the transit system.

- Partnerships during special events
  - One of the best ways to introduce riders to a transit system is during special events that may have limited parking – many visitor-focused

transit systems will partner with businesses putting on special events to encourage attendees to use the bus to access the event, an example of which is Vine Transit in the Napa Valley, CA coordinating transit service with a community event shown in Figure II-23.

Figure II-23
Vine Transit Promotion for Special Event
Source: Napa Valley Transportation Authority, Napa, CA

- Participation in business groups
  - Being a part of the local chamber, business groups, and networking clubs help a transit system become top-of-mind in a visitor-focused community.

A visitor-focused transit system increases its effectiveness by leveraging local business support and should strive to be as omnipresent in the community as possible.

Fare Free or Low Cash Fare

Some of the most successful transit systems for visitors are those without a fare. Fare-free systems offer the advantage of attracting visitors who don't have to worry about carrying exact change or figuring out how to pay for the bus. Being able to just hop on the bus and go is helpful in attracting visitors and can also help expedite bus loading in areas where many visitors all load at once, like a trailhead or park, and dealing with collecting the fare delays the bus. Fare-free visitor systems are typically for shorter trips within a core downtown area or district – trips beyond this core area usually still have a fare that is affordable and attractive, given a longer trip distance.

If not free, many resort areas have a nominal fare low enough to encourage visitor use. A visitor who already has driven to the area may not take transit, and may just drive instead, if the fare is too high. A low fare helps encourage use and incentivize transit. Visitor systems with fares have also used partnerships with local hotels and lodging providers to give out free passes for guests to use through a bulk pass program whereby one-way tickets are purchased in bulk at a discount for distribution to guests (also known as "first ride free" programs).

Coordination with Regional Services

Like Verde Lynx connecting Cottonwood with Sedona, as shown in Figure II-24, many other visitor-focused transit systems have regional transit connectivity that should be considered. A visitor-focused system is often more successful if it provides seamless integration with regional services that are typically more focused on commuters or local riders. This coordination to benefit passengers should include:

Figure II-24
Verde Lvnx bus in Sedona. AZ

- Timed transfers and schedule coordination
- Shared passenger amenities like bus stops
- Coordinated fares that allow for "pay once" access and transferable passes
- Shared schedule and customer information resources

Operational and administrative coordination between local visitor bus systems and regional transit services is also common in tourist towns. Examples of this include shared vehicle maintenance or use agreements, facility colocation, operating contracts, funding agreements, and shared governance.

Good examples of coordinated regional and local systems are found in Summit County, Colorado where the Summit Stage provides linkage throughout the county and the Town of Breckenridge operates a local service within the town. In Eagle County, Colorado, ECO Transit provides regional service with connections to local services at the transit centers in Vail and Avon.

Multimodal Connections and Passenger Amenities

Figure II-25
Park City Transit Center

Since a visitor may not be comfortable or familiar with riding with transit, making a visitor transit system inviting and comfortable is critical as demonstrated by the Park City Transit Center shown in Figure II-25. Visitor systems should have high-quality passenger amenities such as:

- Well-lit bus stops with benches and shelters, as appropriate for ridership demand
  - An inviting bus stop attracts new riders.
- Visible, branded bus stop signage with bus schedule information posted
  - Visitors often learn about the system by stumbling on bus stop displays.
- Real-time bus information, as appropriate
  - Digital signage with real-time bus location info help put new passengers at ease.
- Buses that accommodate local recreation
  - In Sedona, buses should be equipped with adequate bike racks and room for backpacks and strollers.

Visitor transit must also be well-connected via pedestrian and bicycle infrastructure. It must be safe, easy, and accessible for visitors to get to and from the bus. Having well-designed sidewalks, pathways, crosswalks, bike racks, and bike lanes connected to bus stops helps encourage visitor transit use and build ridership.

Readily Available, Easy to Understand Customer Information

For a visitor to find and use the bus, the bus schedule information must be easy to find and available in a number of formats. A high-quality visitor-focused transit system invests in customer information such as:

- A modern, mobile-friendly website

- A smartphone app that often incorporates real-time bus location information, an example of which is shown in Figure II-26 at Sunline Transit in Thousand Palms, CA (Palm Desert area)

- Widely distributed, easy-to-understand printed schedules in locations where tourist information is available

- Social media tools and links from local tourist-related online information sources

Figure II-26
Sunline Transit Ad for Bus App
Source: Sunline Transit website

All customer information materials should be designed with the visitor in mind, who often times has never or rarely used a transit system and isn't familiar with reading bus schedules. What works for other transit systems, who have legions of regular riders, doesn't work well for a visitor system. Materials should be made as easy to understand as possible for visitors who often are transit neophytes.

Parking Management

Many visitor-focused transit systems include parking management strategies with the overall planning for transit. To act as a disincentive to driving and an incentive to riding the bus, many tourist destinations will price parking such that riding the bus is a cheaper option. In some cases, revenue from paid parking will go to operating the local transit services. With Sedona's uptown parking already being managed and charging for some on-street parking, as shown in Figure II-27, this system could be expanded upon and linked with a new transit system's goals.

Figure II-27
Sedona Uptown Parking
Source: City of Sedona

Park and ride lots are also often incorporated into visitor-focused transit systems and are usually free for long-term parking if someone is riding the bus. Park and ride lots may be located outside of or adjacent to central business districts, depending on the target market or end destination. Free long-term parking at

park and ride lots combined with paid parking for on street parking and close-in lots can help encourage drivers to avoid overparked, congested areas and take the bus instead.

Use of Advanced Technology and Emerging Mobility Solutions

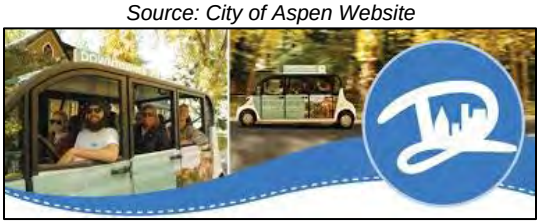
Many visitor-focused transit systems are in communities like Sedona where protection of the environment is an important community value and use of advanced technology is a common expectation. In addition to the use of customer information technology such as smartphone apps and real-time vehicle location previously highlighted in this chapter, some advanced technology and emerging mobility best practice trends for visitor-focused transit systems include:

- Migration of the vehicle fleet to clean, battery electric propulsion
  - Battery electric powered buses are now becoming commonplace in visitor-focused communities, such as Park City, UT (shown in figure II-28), where the entire transit fleet is being transitioned to zero emission buses.

Figure II-28
Park City, UT Electric Bus
Source: City of Park City Website

- Use of partnerships with emerging mobility solutions
  - Many visitor-focused areas are incorporating new transportation options such as transit network companies (e.g., Uber and Lyft) and microtransit, an example of which is shown in Figure II-29 in Aspen, Colorado where a small, open-air electric golf cart type vehicle carries passengers on-demand via an app. Bikes and scooters that are electrically powered and reserved with a smartphone app are also being talked about or newly implemented in many resort areas.

Figure II-29
Downtowner microtransit in Aspen, CO
Source: City of Aspen Website



- Real-time roadway and parking management
  - Many visitor-focused areas with significant traffic and congestion areas like Sedona are incorporating real-time monitoring of parking

lots and traffic via advanced sensing technology – these systems allow staff to dynamically change pricing and traveler information.

Public transportation is rapidly evolving and many visitor-focused systems are incorporating these changes into their solutions. Autonomous vehicles for public transportation are being researched and tested in larger cities and on university campuses, and some tourist towns are keeping an eye on these advances for potential application in the future.

Chapter III

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

CHAPTER III

Community Conditions

INTRODUCTION

Chapter III presents the community conditions, demographics, and select local travel patterns for the Sedona-Oak Creek Canyon study area. In addition, this chapter evaluates visitor activity within the study area using data provided by the City of Sedona, the Sedona Chamber of Commerce and Tourism Bureau, and the Red Rock Ranger District of the Coconino National Forest. A brief overview and analysis of existing operations, ridership data, financial information, and performance measures for the Verde Lynx route operated by Cottonwood Area Transit is presented at the end of the chapter. Where appropriate, figures and tables are used for illustration.

DEMOGRAPHIC CHARACTERISTICS

Study Area Location

The study area is shown in Figure III-1. Sedona is located in the Verde Valley region of Arizona and is located in Coconino and Yavapai counties. It is approximately 29 miles south of the City of Flagstaff, AZ. Oak Creek runs through town along State Highway 89 and there are many recreational activities available along the canyon to the north of Sedona as well as in the surrounding area.

The demographic analysis was done by block group, which is a census-defined boundary. These boundaries do not necessarily denote neighborhoods or communities, but rather act as a standardized means for analysis. Figure III-2 shows the block groups analyzed as part of this study.

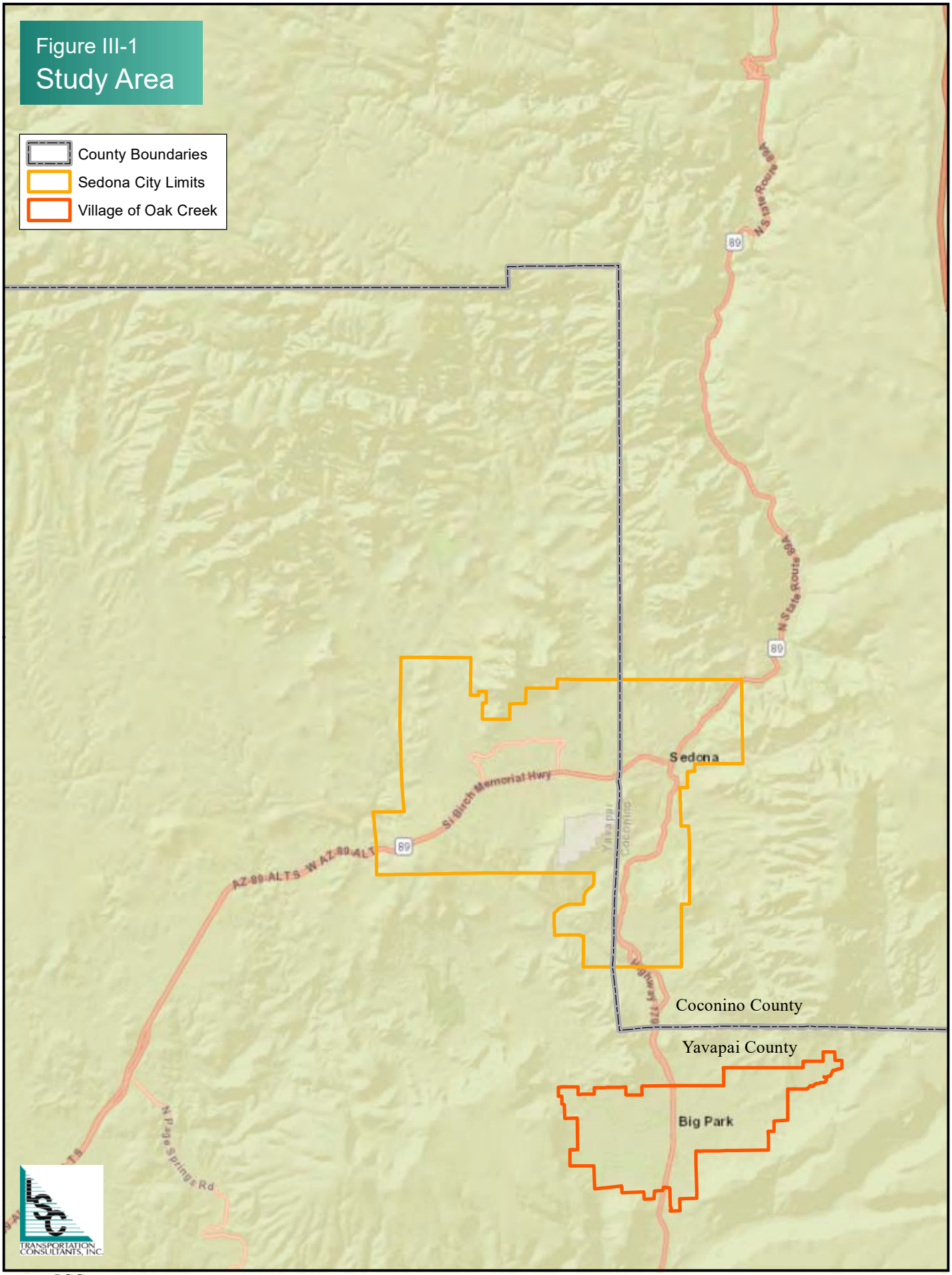


Figure III-1
Study Area
County Boundaries
Sedona City Limits
Village of Oak Creek
N State Route 89A
89
N State Route 89A
89
Sedona
Sr Birch Memorial Hwy
89
AZ-89A ALT
W AZ-89A ALT
Coconino
Yavapai
Coconino County
Yavapai County
Big Park
N Page Springs Rd
TRANSPORTATION CONSULTANTS, INC.

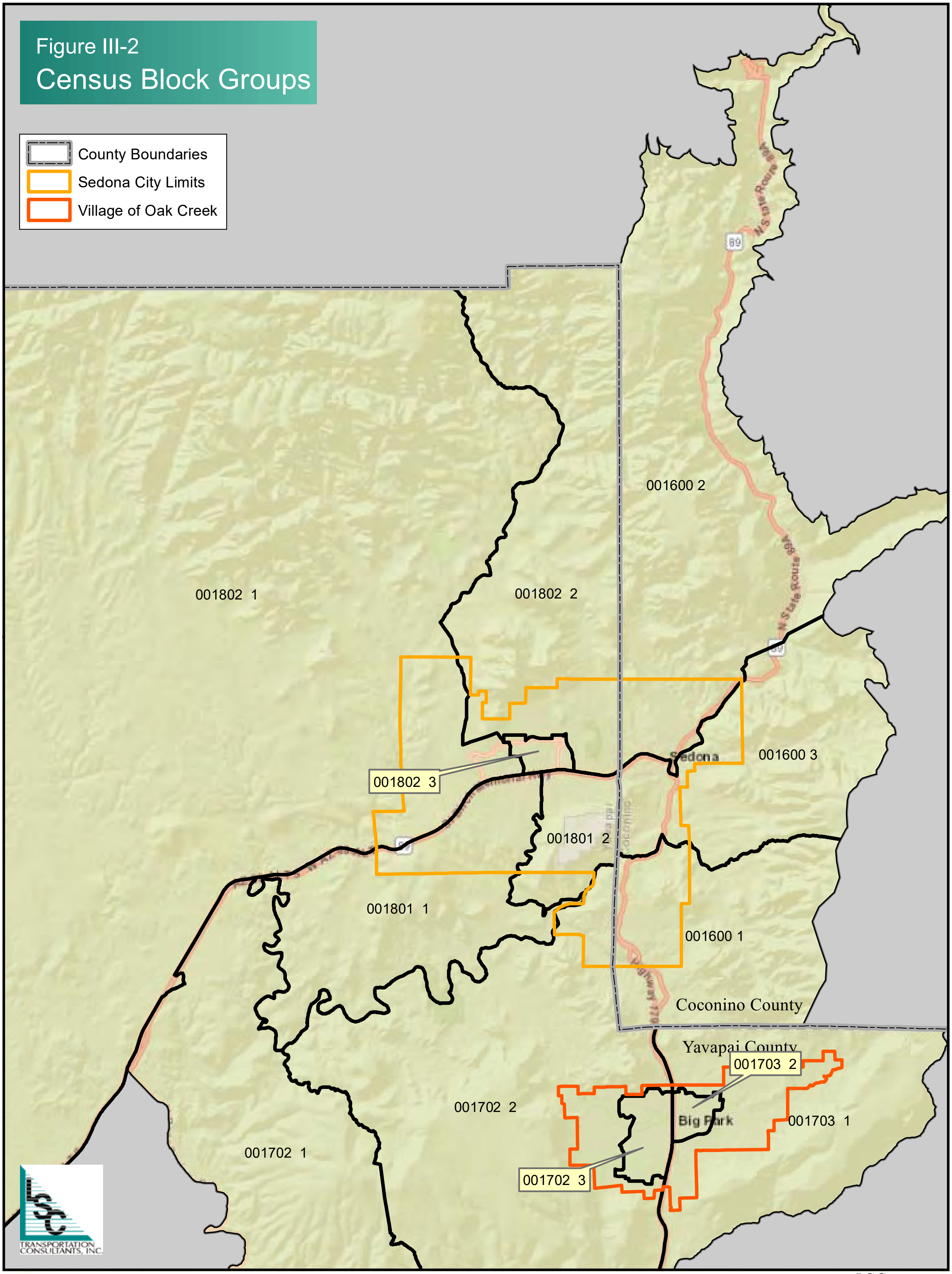


Figure III-2
Census Block Groups
County Boundaries
Sedona City Limits
Village of Oak Creek
001600 2
001802 1
001802 2
001802 3
Sedona
001600 3
001801 2
001801 1
001600 1
Coconino County
Yavapai County
001703 2
001702 2
Big Park
001703 1
001702 1
001702 3
TRANSPORTATION CONSULTANTS, INC.

Demographics

Unless noted otherwise, all data listed in this chapter are from the 2012-2016 U.S. Census American Community Survey (2016 ACS) five-year estimates, the total population of the study area is 18,572. According to the *City of Sedona Land Use and Population Report – 2014*, the total population in 2014 was an estimated 11,862 persons. Of the 11,826 persons 1,696 were seasonal residents. In a study done by TischlerBise in 2018 (*City of Sedona Land Use Assumptions Study*) the estimated 2018 population is 12,557 with 2,044 being seasonal residents.

Population Density

Figure III-3 shows the population density for the study area by census block groups using the 2016 ACS data. The size of the census blocks skews the location of population concentrations. Population density is used to determine where population is concentrated. Transit is generally more successful in areas with greater concentrations of population. As shown in Figure III-3, the highest densities are located north of State Hwy 89 in central Sedona as well as central Village of Oak Creek. The area with the next highest density is in central Sedona south of State Hwy 89.

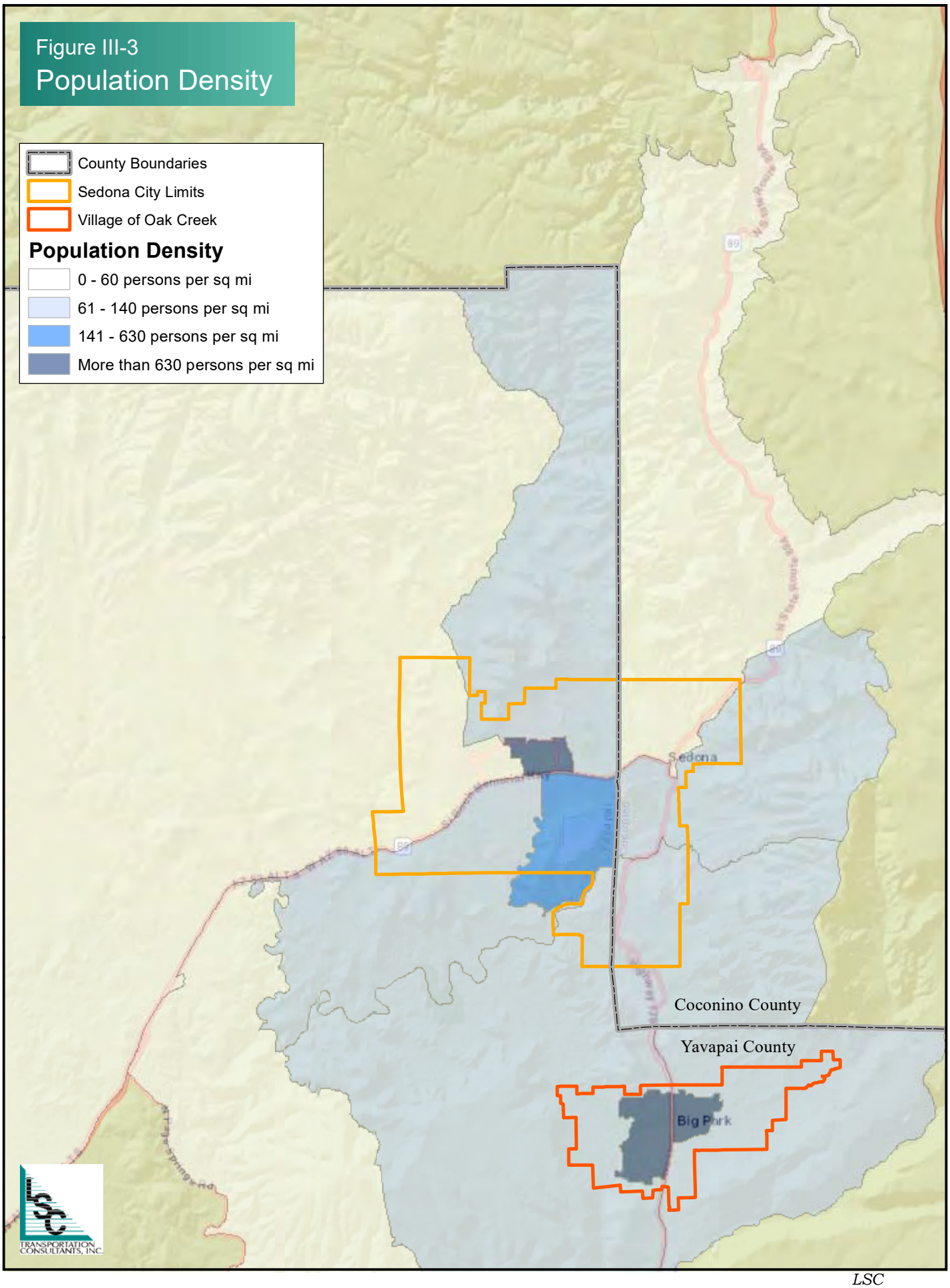


Figure III-3
Population Density
County Boundaries
Sedona City Limits
Village of Oak Creek
Population Density
0 - 60 persons per sq mi
61 - 140 persons per sq mi
141 - 630 persons per sq mi
More than 630 persons per sq mi
Sedona
Coconino County
Yavapai County
Big Park
TRANSPORTATION CONSULTANTS, INC.

Transit-Dependent Population Characteristics

This section provides information on the individuals considered by the transportation profession to be dependent upon public transit. These population characteristics preclude most such individuals from driving, which leaves carpooling and public transit as the only motorized forms of available transportation.

The four types of limitations that preclude people from driving are physical limitations, financial limitations, legal limitations, and self-imposed limitations. Physical limitations may include permanent disabilities such as frailty, blindness, paralysis, or developmental disabilities to temporary disabilities such as acute illnesses and head injuries. Financial limitations include people who are unable to purchase or rent a vehicle. Legal limitations refer to limitations such as being too young to drive (generally under age 16). Self-imposed limitations refer to people who choose not to own or drive a vehicle (some or all of the time) for reasons other than those listed in the first three categories.

The US Census is generally capable of providing information about the first three categories of limitation. The fourth category of limitation represents a relatively small portion of transit ridership, particularly in areas with low density such as the study area. Table III-1 presents the study area's US Census statistics regarding the older adult population, youth population, ambulatory disability population, low-income population, and zero-vehicle households. These data are important to various methods of transit demand estimation.

Older-Adult Population

The older-adult population represents a significant number of the national transit-dependent population and represents 38.3 percent of the total population in the study area. The older adult population includes individuals over the age of 65 years. Figure III-4 illustrates the density of older adults in the study area using the 2016 ACS data. The area with the highest density of older adults is north of State Hwy 89 in central Sedona as well as central Village of Oak Creek. The area with the next highest density is in central and western Sedona south of State Hwy 89 as well as eastern Village of Oak Creek.

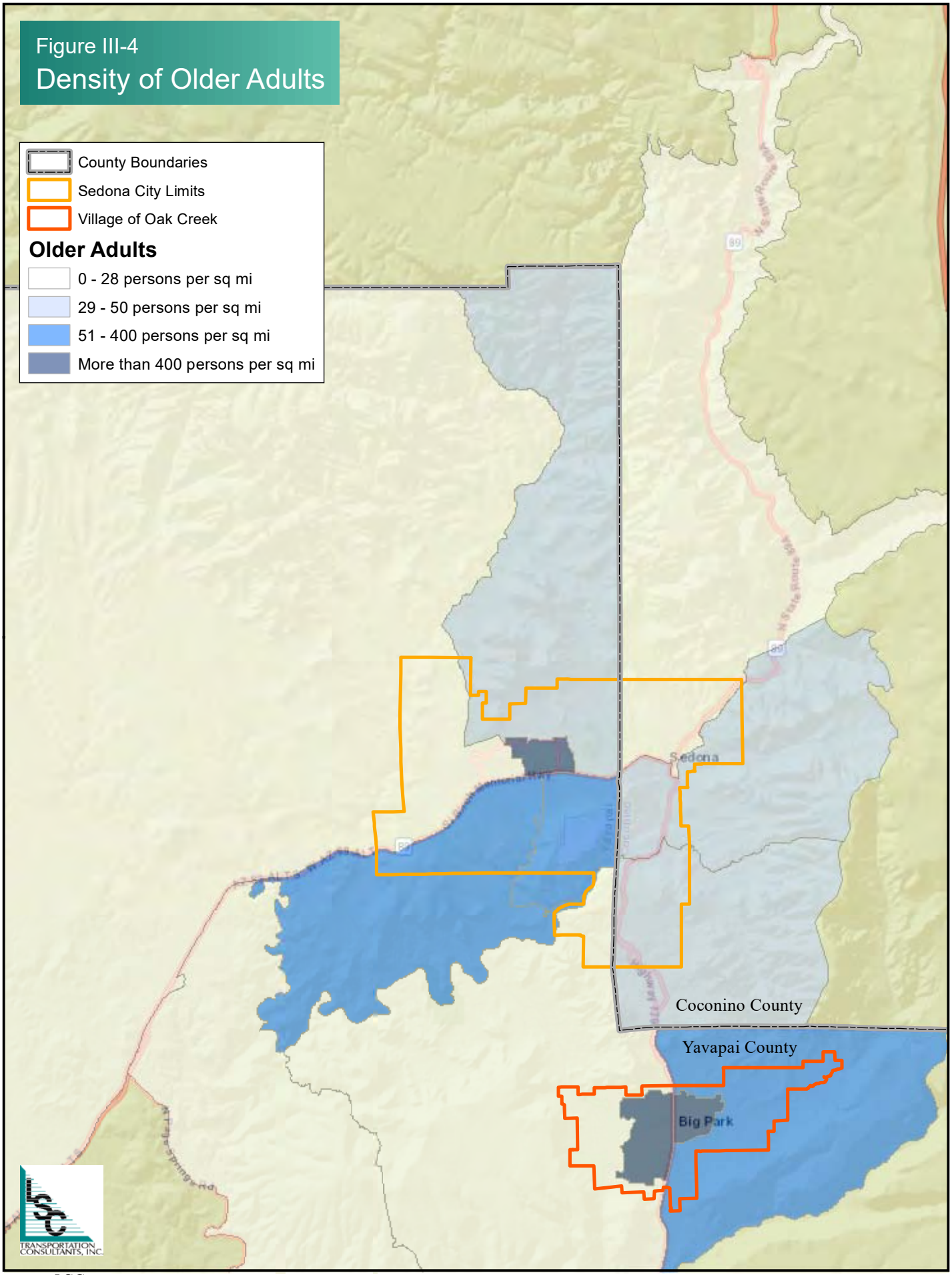
Table III-1
Estimated Population Characteristics
Sedona-Oak Creek Canyon Study Area

County	Census Tract	Census Block Group	Total Population 2016 ACS	Land Area (sq. miles)	Total Number of Households 2016 ACS	Zero-Vehicle Households 2016 ACS		Total Number of Older Adults 65 and Over 2016 ACS		Total Number of Youth 10-19 2016 ACS		Ambulatory Disabled Population 2016 ACS		Low-Income Population 2016 ACS	
					#	#	%	#	%		%	#	%	#	%
Coconino	16	1	827	9.59	398	7	1.8%	356	43.0%	46	5.6%	69	8.4%	128	15.5%
		2	1,074	26.13	643	25	3.9%	424	39.5%	108	10.1%	90	8.4%	167	15.5%
		3	1,219	10.48	645	22	3.4%	492	40.4%	25	2.1%	102	8.4%	189	15.5%
Yavapai	17.02	1	765	26.46	317	0	0.0%	195	25.5%	90	11.8%	60	7.8%	57	7.5%
		2	1664	27.52	793	18	2.3%	762	45.8%	0	0.0%	130	7.8%	125	7.5%
		3	2,030	1.06	1061	99	9.3%	881	43.4%	160	7.9%	159	7.8%	152	7.5%
	17.03	1	1,399	12.03	648	10	1.5%	624	44.6%	104	7.4%	85	6.0%	138	9.9%
		2	1,412	0.49	739	136	18.4%	688	48.7%	16	1.1%	85	6.0%	140	9.9%
	18.01	1	1,504	10.80	756	24	3.2%	571	38.0%	42	2.8%	73	4.9%	150	10.0%
		2	1,696	2.70	1042	56	5.4%	607	35.8%	29	1.7%	83	4.9%	169	10.0%
	18.02	1	1,780	150.00	778	0	0.0%	518	29.1%	179	10.1%	55	3.1%	116	6.5%
		2	2,009	15.93	977	18	1.8%	796	39.6%	126	6.3%	62	3.1%	131	6.5%
		3	1,193	0.51	519	0	0.0%	207	17.4%	60	5.0%	37	3.1%	78	6.5%
		TOTALS	**18,572**	**293.69**	**9,316**	**415**	**4.5%**	**7,121**	**38.3%**	**985**	**5.3%**	**1,091**	**5.9%**	**1,741**	**9.4%**

Source: US Census Bureau, American Community Survey - 2016, LSC 2018.

Figure III-4

Density of Older Adults



Population of Persons with an Ambulatory Disability

Figure III-5 presents the 2016 ACS population of persons with an ambulatory disability in terms of people-per-square-mile density. An individual is classified as having "ambulatory disability" if they have serious difficulty walking or climbing stairs. Approximately 5.9 percent of the population in the study area has some type of ambulatory disability. The areas with the highest density are north of State Hwy 89 in central Sedona as well as central Village of Oak Creek. The area with the next highest density is in central Sedona south of State Hwy 89.

Low-Income Population

The low-income population tends to depend upon transit more than wealthier populations or those with a high level of disposable income. Figure III-6 illustrates the density of the low-income population in the study area using the 2016 ACS data. Low-income population, as defined by the FTA, includes persons whose household income is at or below the Department of Health and Human Services' poverty guidelines. The low-income population listed in the tables and GIS maps includes people who are living below the poverty line using the Census Bureau's poverty threshold.

Although low-income population data are available at the 2016 ACS level, the smallest level of geographical unit for which information was available is at the tract level. The information from the tract level was apportioned to the block group level based on the population of the block group compared to the total population in the tract. Approximately 9.4 percent of the population of the study area are considered low income. The areas with the highest density are north of State Hwy 89 in central Sedona as well as east central Village of Oak Creek. The area with the next highest density is in central Sedona south of State Hwy 89 as well as west central Village of Oak Creek.

Figure III-5

Density of Persons with Ambulatory Disabilities

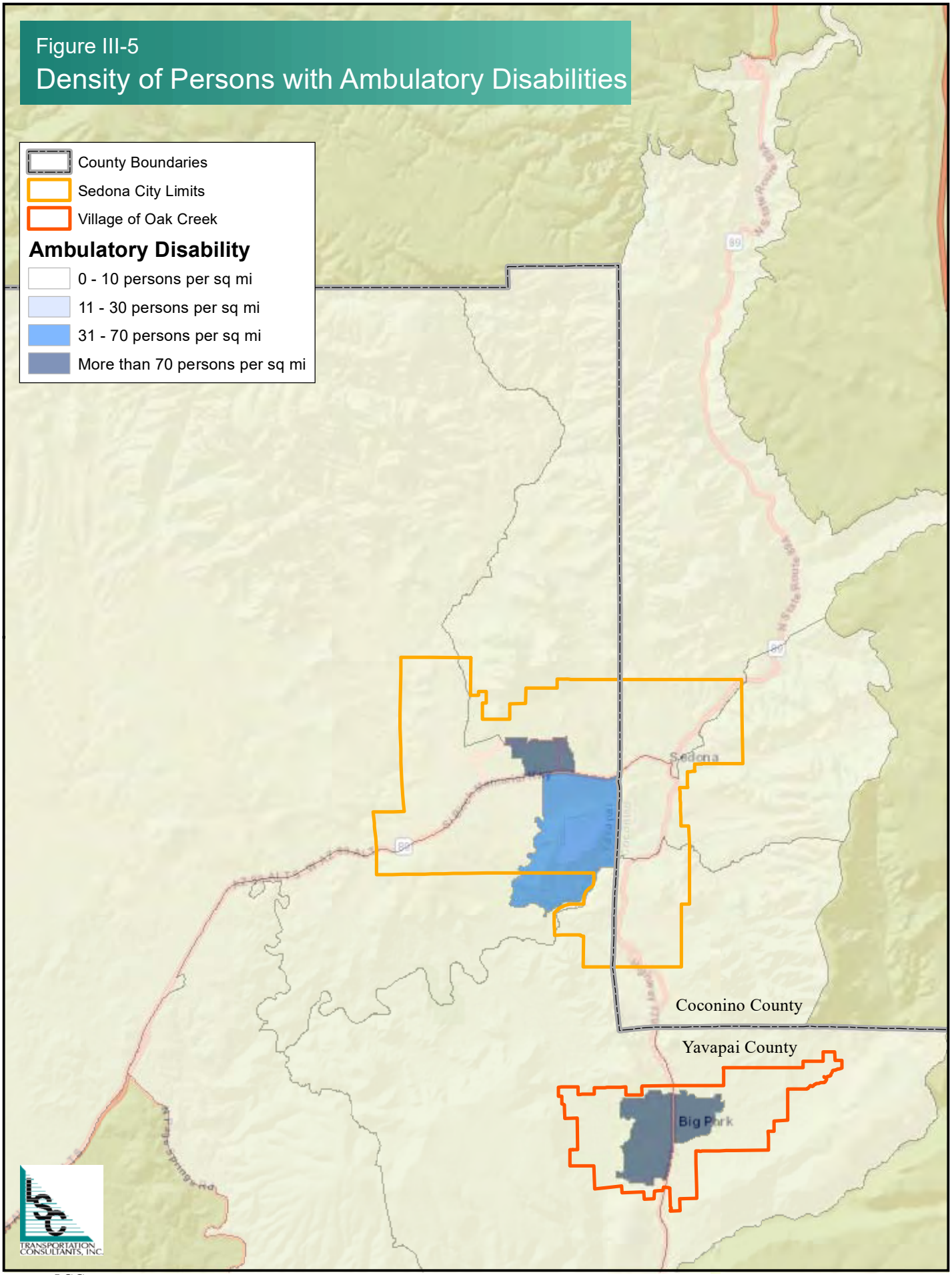
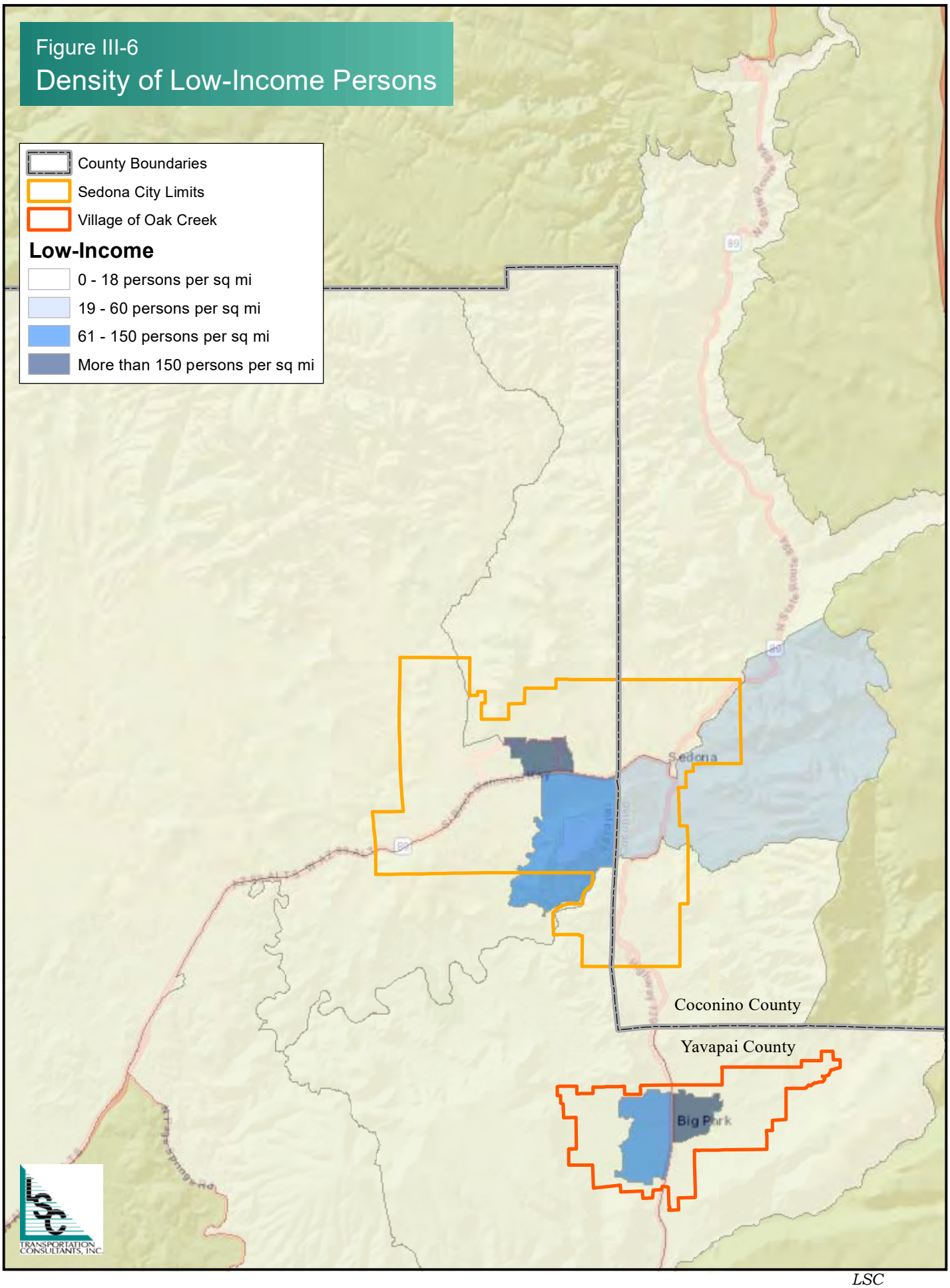


Figure III-6

Density of Low-Income Persons



Zero-Vehicle Households

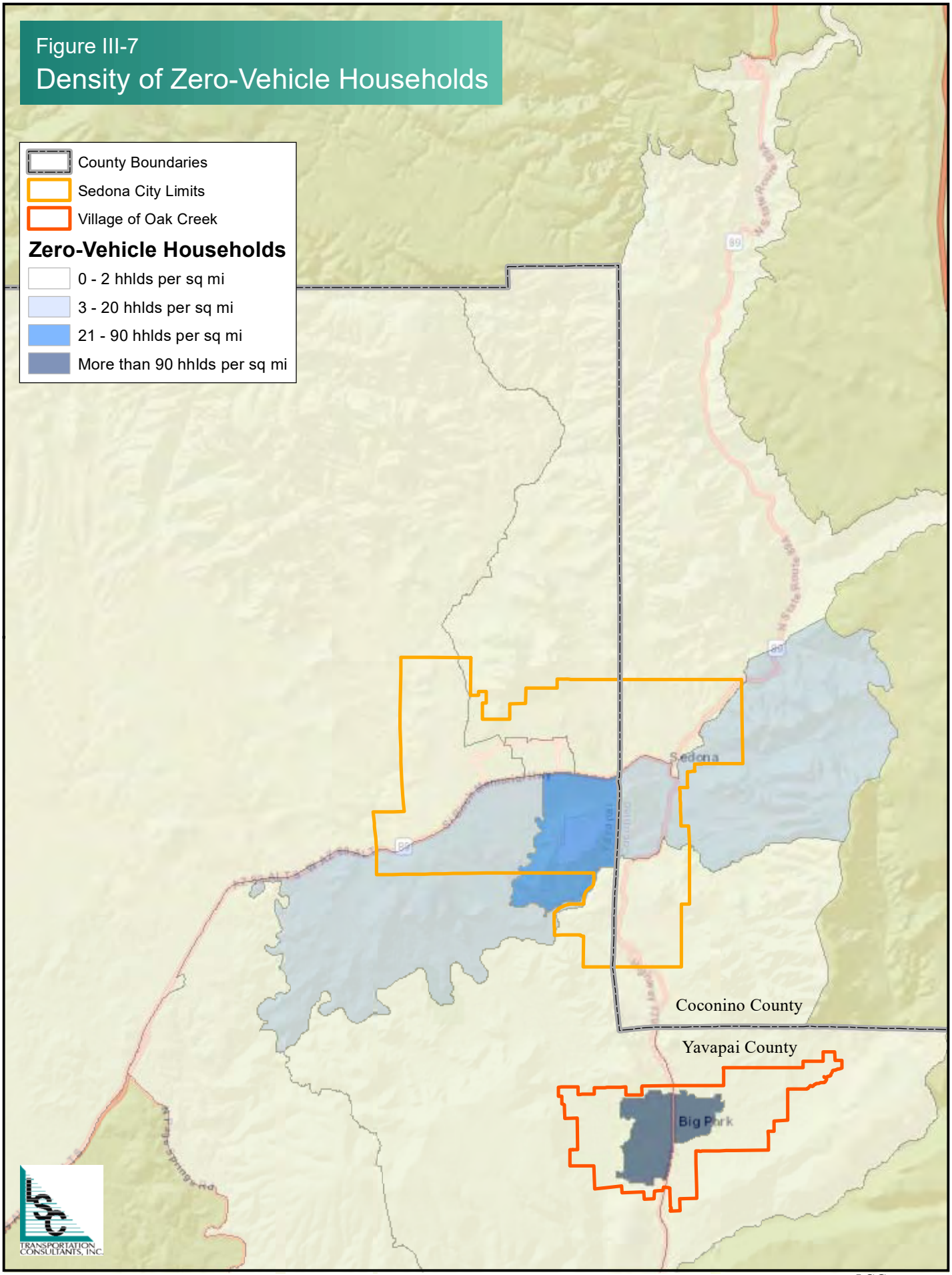
A zero-vehicle household is defined as a household in which an individual does not have access to a vehicle. These individuals are generally transit-dependent as their access to private automobiles is limited. Approximately 4.5 percent of the study area's households reported no vehicle available for use. The density of zero-vehicle households for the study area is shown in Figure III-7. The ranges for the density of zero-vehicle households are quite low due to the size of the block groups, combined with the small number of zero-vehicle households in the study area. The area with the highest density is in central Village of Oak Creek. Central Sedona south of State Hwy 89 is the area with the next highest density.

Youth Population

The population density of youth (10-19 years of age) for the study area is shown in Figure III-8. Approximately 5.3 percent of the population of the study area are youth. The areas with the highest density are north of State Hwy 89 in central Sedona as well as central Village of Oak Creek. The area with the next highest density is in central Sedona south of State Hwy 89.

Figure III-7

Density of Zero-Vehicle Households



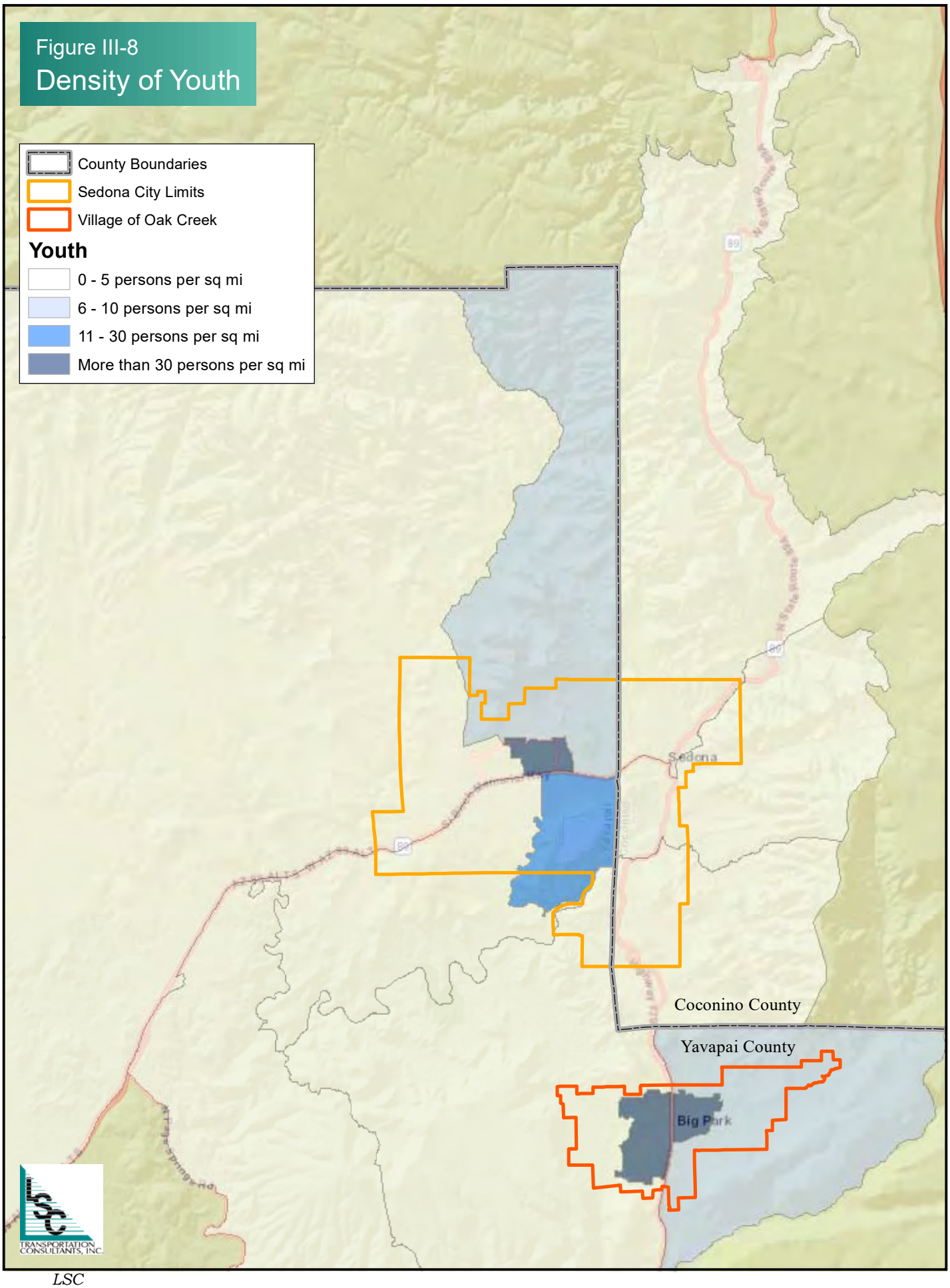


Figure III-8
Density of Youth
County Boundaries
Sedona City Limits
Village of Oak Creek
Youth
0 - 5 persons per sq mi
6 - 10 persons per sq mi
11 - 30 persons per sq mi
More than 30 persons per sq mi
Sedona
Coconino County
Yavapai County
Big Park
89
89A
LSC
TRANSPORTATION CONSULTANTS, INC.

COMMUNITY ECONOMIC CHARACTERISTICS

The study area has a total civilian labor force of 7,401 with 508 being unemployed (approximately seven percent). This is slightly lower than the five-year average unemployment for the State of Arizona (eight percent). Of those in the civilian labor force, 5,070 are in Sedona with 354 being unemployed (seven percent). There are 2,331 persons in the civilian labor force in the Village of Oak Creek with 154 being unemployed (6.6 percent).

Employment Sectors

Table III-2 shows the available 2016 ACS employment information for Sedona and the Village of Oak Creek by employment sector as well as the study area as a whole. The Educational/Health/Social Services sector is the largest sector in the study area, accounting for approximately 18.9 percent of employment. The next highest industry sector for the study area is Arts, Entertainment, and Recreation/Accommodation and Food Services (18.8 percent). Professional, Scientific, and Management/Administrative/Waste Management is the third highest industry sector with 14.9 percent of employment. The employment numbers reflect a five-year average and do not accurately reflect current conditions.

The highest sectors in Sedona mirror those of the total study area with the Educational/Health/Social Services sector being the largest sector, accounting for approximately 21.5 percent of employment. The next highest industry sector for Sedona is Arts, Entertainment, and Recreation/Accommodation and Food Services (17 percent). Professional, Scientific, and Management/Administrative/ Waste Management is the third highest industry sector with 15.2 percent of employment. In the Village of Oak Creek, the Educational/Health/Social Services sector is the fourth highest sector with 13.4 percent of employment. The Arts, Entertainment, and Recreation/Accommodation and Food Services is the highest sector (22.8 percent) followed by Retail Trade (16.4 percent), and Professional, Scientific, and Management/ Administrative/Waste Management (14.3 percent).

Table III-2
Employment by Sector

Industry	Sedona		Village of Oak Creek		Study Area Totals	
	Employees	Percent	Employees	Percent	Employees	Percent
Educational services, and health care and social assistance	1,012	21.5%	291	13.4%	1,303	18.9%
Arts, entertainment, and recreation, and accommodation and food services	800	17.0%	497	22.8%	1,297	18.8%
Professional, scientific, and management, and administrative and waste management services	719	15.2%	311	14.3%	1,030	14.9%
Retail trade	461	9.8%	356	16.4%	817	11.9%
Construction	433	9.2%	102	4.7%	535	7.8%
Other services, except public administration	342	7.3%	188	8.6%	530	7.7%
Finance and insurance, and real estate and rental and leasing	256	5.4%	73	3.4%	329	4.8%
Manufacturing	252	5.3%	46	2.1%	298	4.3%
Transportation and warehousing, and utilities	191	4.1%	87	4.0%	278	4.0%
Public administration	120	2.5%	125	5.7%	245	3.6%
Wholesale trade	75	1.6%	20	0.9%	95	1.4%
Agriculture, forestry, fishing and hunting, and mining	26	0.6%	64	2.9%	90	1.3%
Information	29	0.6%	17	0.8%	46	0.7%
Total	**4,716**	**100%**	**2,177**	**100%**	**6,893**	**100%**

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Major Employers and Activity Centers

Major transit activity centers are important in terms of land use, trip generation, and the ability to be served by public transit. Many of these points of interest are clustered together into what can be referred to as "activity centers." Activity centers are locations that are typically shown to generate transit trips because they are prime origins or prime destinations. There is no set formula that is used to derive a list of activity centers as the process is subjective. Activity centers generally include a wide variety of land uses including shopping/retail areas, as well as commercial, hospital, and education centers. These are the most critical land uses for individuals who use transit. Figure III-9 shows locations of possible transit generators within the study area.

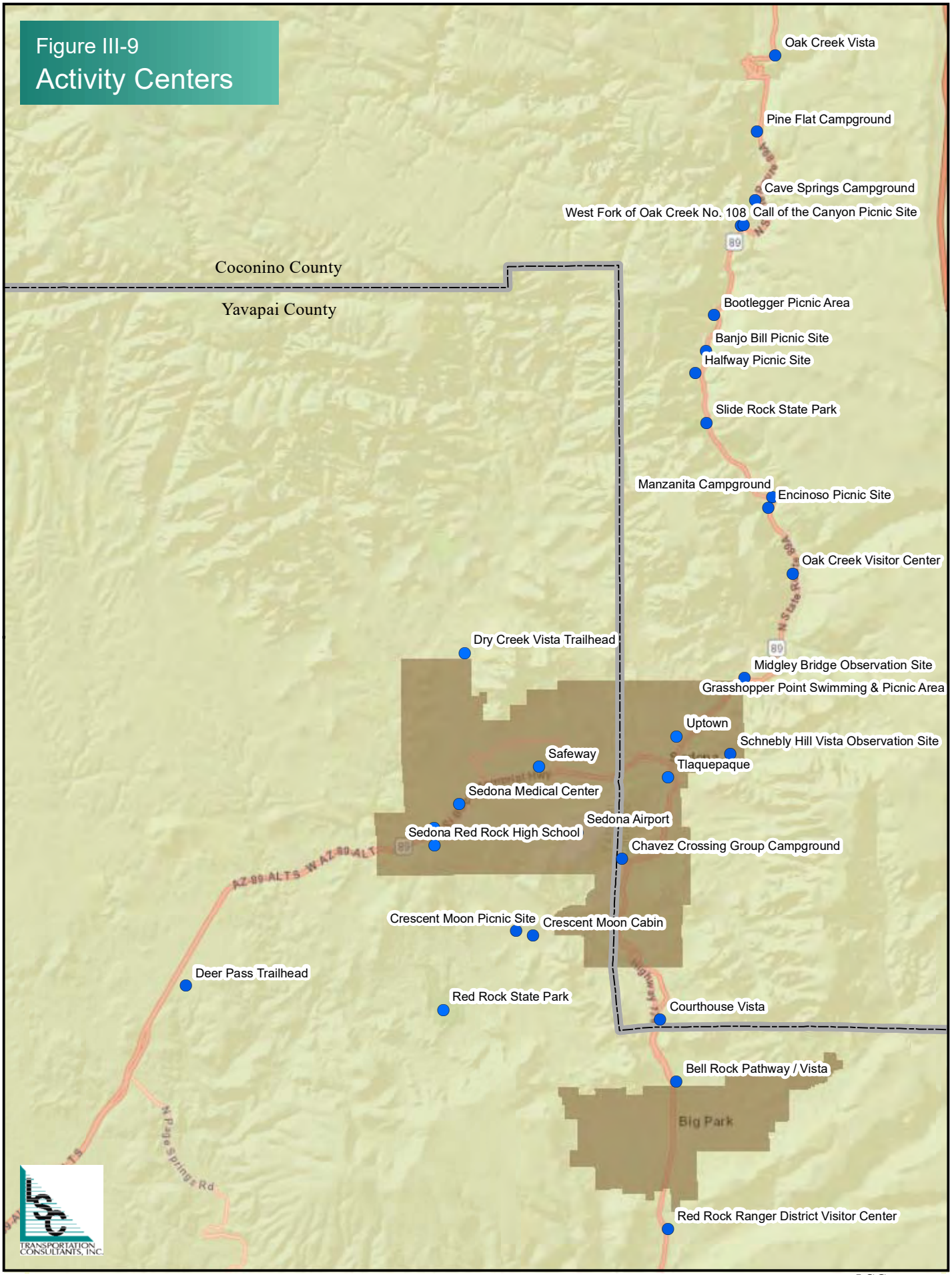


Figure III-9
Activity Centers
Oak Creek Vista
Pine Flat Campground
Cave Springs Campground
West Fork of Oak Creek No. 108
Call of the Canyon Picnic Site
Coconino County
Yavapai County
Bootlegger Picnic Area
Banjo Bill Picnic Site
Halfway Picnic Site
Slide Rock State Park
Manzanita Campground
Encinoso Picnic Site
Oak Creek Visitor Center
Dry Creek Vista Trailhead
Midgley Bridge Observation Site
Grasshopper Point Swimming & Picnic Area
Uptown
Schnebly Hill Vista Observation Site
Safeway
Tlaquepaque
Sedona Medical Center
Sedona Airport
Sedona Red Rock High School
Chavez Crossing Group Campground
Crescent Moon Picnic Site
Crescent Moon Cabin
Deer Pass Trailhead
Red Rock State Park
Courthouse Vista
Bell Rock Pathway / Vista
Big Park
Red Rock Ranger District Visitor Center
AZ-89A ALTS
N Page Springs Rd
N State Route 89A
89
TRANSPORTATION CONSULTANTS, INC.

Places that have been identified as possible transit generators within the study area include many trailheads and campgrounds, Safeway, Tlaquepaque Arts & Shopping Village, Uptown, Sedona Medical Center, Sedona Red Rock High School, and Red Rock State Park.

TRAVEL PATTERNS

Work Transportation Mode

The 2016 ACS yields information useful to the study area regarding the means of transportation to and from work for the study area's residents. Table III-3 shows the number of people in the study area's workforce and their modes of travel. These data were tabulated for employees 16 years of age and older who were at work when the American Community Survey questionnaire was completed. The majority of the study area workforce drives alone to work (4,579 people or 68.2 percent). Carpooling (463 people or 6.9 percent) was the next highest mode of transportation to work for the study area. There were only 21 employees (less than one percent) who reported using public transportation. 1,237 reported that they worked from home, requiring no mode of transportation to work.

Table III-3
Means of Transportation to Work

Means of Transportation	Sedona		Village of Oak Creek		Study Area Totals	
	Workers	Percent	Workers	Percent	Workers	Percent
Drove alone	3,029	82.2%	2,102	89.7%	4,579	83.6%
Carpooled	329	8.9%	134	5.7%	463	8.5%
Walked	218	5.9%	27	1.2%	245	4.5%
Taxicab, motorcycle, bicycle or other means	90	2.4%	79	3.4%	169	3.1%
Public transportation (excluding taxicab)	20	0.5%	1	0.0%	21	0.4%
Total	**3,686**	**100%**	**2,343**	**100%**	**5,477**	**100%**

Note: Workers 16 years and over; Data does not include those who work at home
Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Table III-4 shows that the mean commute time for study area residents was 22 minutes. The most frequent response for residents' travel time to work for the study area was less than 10 minutes (32 percent of the respondents) followed by 10 to 14 minutes with 17 percent of the respondents. This is followed by workers commuting between 20 to 24 minutes (15 percent of respondents). In Sedona the responses were similar to those of the combined study area. The most frequent response was less than 10 minutes (36 percent of respondents), followed by 10 to 14 minutes (22 percent) and 20 to 24 minutes (14 percent). Again, the Village of Oak Creek differed, though less than 10 minutes was still the most frequent response with 24 percent of respondents. This is followed by 20 to 24 minutes (17 percent), 15 to 19 minutes (15 percent) and 30 to 34 minutes (15 percent) of the respondents.

Table III-4
Travel Time to Work

	Sedona		Village of Oak Creek		Study Area Totals	
Travel Time	**Workers**	**Percent**	**Workers**	**Percent**	**Workers**	**Percent**
Less than 10 minutes	1,337	36%	431	24%	1,768	32%
10 to 14 minutes	823	22%	121	7%	944	17%
15 to 19 minutes	411	11%	270	15%	681	12%
20 to 24 minutes	523	14%	303	17%	826	15%
25 to 29 minutes	131	4%	126	7%	257	5%
30 to 34 minutes	268	7%	273	15%	541	10%
35 to 44 minutes	9	0%	52	3%	61	1%
45 to 59 minutes	102	3%	33	2%	135	2%
60 or more minutes	82	2%	182	10%	264	5%
Total	**3,686**	**100%**	**1,791**	**100%**	**5,477**	**100%**
Mean travel time to work:	16 minutes		28 minutes		22 minutes	

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.

Table III-5 shows the time ranges for study area residents leaving home to go to work. The most frequent response for the study area was between 8:00 and 8:29 a.m., with 17 percent of the total residents. The next most frequent response was between 9:00 and 9:59 a.m. with 16 percent, followed by 7:30 and 7:59 a.m. with 11 percent of total responses.

Table III-5
Time Leaving Home to Go to Work

Time Ranges	Sedona		Village of Oak Creek		Study Area Totals	
	Workers	Percent	Workers	Percent	Workers	Percent
12:00 a.m. to 4:59 a.m.	38	1%	134	7%	172	3%
5:00 a.m. to 5:29 a.m.	37	1%	31	2%	68	1%
5:30 a.m. to 5:59 a.m.	88	2%	71	4%	159	3%
6:00 a.m. to 6:29 a.m.	339	9%	166	9%	505	9%
6:30 a.m. to 6:59 a.m.	262	7%	114	6%	376	7%
7:00 a.m. to 7:29 a.m.	215	6%	163	9%	378	7%
7:30 a.m. to 7:59 a.m.	452	12%	147	8%	599	11%
8:00 a.m. to 8:29 a.m.	582	16%	344	19%	926	17%
8:30 a.m. to 8:59 a.m.	363	10%	76	4%	439	8%
9:00 a.m. to 9:59 a.m.	623	17%	267	15%	890	16%
10:00 a.m. to 10:59 a.m.	108	3%	79	4%	187	3%
11:00 a.m. to 11:59 a.m.	46	1%	5	0%	51	1%
12:00 p.m. to 3:59 p.m.	332	9%	99	6%	431	8%
4:00 p.m. to 11:59 p.m.	201	5%	95	5%	296	5%
Total	**3,686**	**100%**	**1,791**	**100%**	**5,477**	**100%**

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.

COMMUTER PATTERNS

Commuter patterns were analyzed for the study area using Longitudinal Employer-Household Dynamics (LEHD) data. In the absence of a better source of commuter pattern data, it is worthwhile to include these data as a general indicator of commuter patterns in the study area. However, it should be noted that LEHD data represent estimates of commuter patterns, synthesized from several sources of US Census residential locations, business locations, and commute data. These figures exclude federal, railroad, and self-employed employees, and include trips that are not made each workday. As such, these data should be used to provide only a general commuting pattern.

Figure III-10 shows the flow of workers in Sedona and the Village of Oak Creek. The figure shows that a large number of workers in Sedona are from outside of the city (3,617 workers). 1,206 workers live and work in Sedona and 1,967 Sedona residents work outside of the city. In contrast, a large number of residents in the Village of Oak Creek work outside of town (1,851 workers) with 161 residents staying in town for work and 393 workers commuting into the Village of Oak Creek for work.

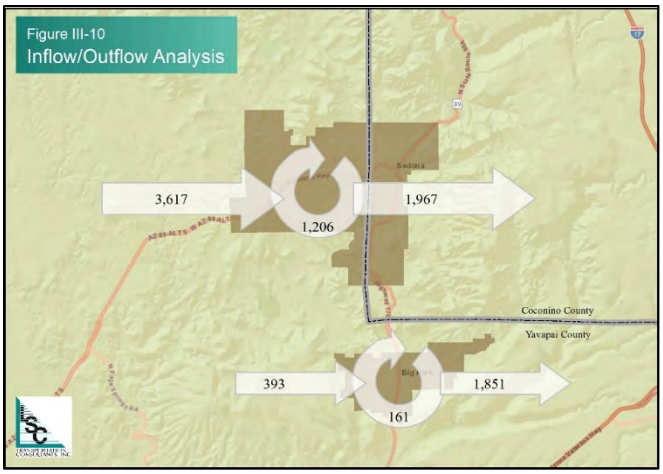


Table III-6 shows where Sedona residents are employed. The table shows that approximately 38 percent of Sedona residents work within the city, followed by 12 percent who work in Phoenix and seven percent who work in Flagstaff.

Table III-6
Employment Location of Sedona Residents

Area of Work	Sedona Residents #	Sedona Residents %
Sedona, AZ	1,206	38%
Phoenix, AZ	383	12%
Flagstaff, AZ	211	7%
Scottsdale, AZ	118	4%
Cottonwood, AZ	110	3%
Prescott, AZ	68	2%
Village of Oak Creek (Big Park), AZ	56	2%
Camp Verde, AZ	46	1%
Tempe, AZ	46	1%
Prescott Valley, AZ	31	1%
All Other Locations	898	28%

Source: LEHD; LSC, 2018

Table III-7 shows where Sedona workers live. The table shows that 25 percent of Sedona workers are from within Sedona. Approximately eleven percent are from Verde Village, approximately 10 percent are from Cottonwood and nine percent are from the Village of Oak Creek.

Table III-7 Residence Location of Sedona Workers		
	Sedona Workers	
Area of Residence	#	%
Sedona, AZ	1,206	25%
Verde Village, AZ	534	11%
Cottonwood, AZ	461	10%
Village of Oak Creek (Big Park), AZ	438	9%
Flagstaff, AZ	259	5%
Camp Verde, AZ	166	3%
Phoenix, AZ	159	3%
Cornville, AZ	144	3%
Prescott Valley, AZ	105	2%
Lake Montezuma, AZ	95	2%
All Other Locations	1,256	26%
Source: LEHD; LSC, 2018		

Table III-8 shows where residents of the Village of Oak Creek are employed. The table shows that 22 percent are employed in Sedona, 17 percent of residents are employed in Phoenix, and eight percent are employed within the Village.

Table III-8 Employment Location of Village of Oak Creek Residents		
	Village of Oak Creek Residents	
Area of Work	#	%
Sedona, AZ	438	22%
Phoenix, AZ	350	17%
Village of Oak Creek (Big Park), AZ	161	8%
Flagstaff, AZ	142	7%
Scottsdale, AZ	104	5%
Cottonwood, AZ	88	4%
Camp Verde, AZ	58	3%
Prescott, AZ	54	3%
Cornville, AZ	32	2%
Tempe, AZ	30	1%
All Other Locations	555	28%
Source: LEHD; LSC, 2018		

Table III-9 shows where workers of the Village of Oak Creek live. The table shows that 29 percent of workers live within the Village, 10 percent of workers live in Sedona, and seven percent live in Lake Montezuma.

Table III-9
Residence Location of Village of Oak Creek Workers

Area of Residence	Village of Oak Creek Workers	
	#	%
Village of Oak Creek (Big Park), AZ	161	29%
Sedona, AZ	56	10%
Lake Montezuma, AZ	38	7%
Verde Village, AZ	35	6%
Cottonwood, AZ	32	6%
Camp Verde, AZ	28	5%
Phoenix, AZ	25	5%
Cornville, AZ	22	4%
Flagstaff, AZ	14	3%
Clarkdale, AZ	12	2%
All Other Locations	131	24%

Source: LEHD; LSC, 2018

VISITATION DATA

This section evaluates a variety of visitor activity within the study area, using data provided by the City of Sedona, the Sedona Chamber of Commerce and Tourism Bureau, and the Red Rock Ranger District of the Coconino National Forest.

Sedona Lodging Inventory – May 2018

The Sedona Chamber of Commerce and Tourism Bureau released an inventory of lodging accommodations in the Sedona area in May 2018. As shown in Table III-10, the inventory included a total of 3,976 hotel and timeshare rooms located within and outside of the City of Sedona. Specifically, the inventory identified 1,605 hotel rooms within the City of Sedona (40 percent of all inventoried rooms), 867 hotel rooms outside the City of Sedona (22 percent of all inventoried rooms), 1,025 timeshare rooms within the City of Sedona (26 percent of all inventoried rooms), and 469 timeshare rooms outside the City of Sedona (12 percent of all inventoried rooms).

(This page intentionally left blank.)

Table III-10
Sedona Region Hotel and Timeshare Inventory

Inside/Outside City of Sedona	Area of Town	Name of Business	Number of Units	Percent of Total Units
Hotel Inside City of Sedona	State Route 179 & Village of Oak Creek	Arabella Hotel Sedona (Was Kings Ransom)	144	4%
Hotel Inside City of Sedona	State Route 179 & Village of Oak Creek	Poco Diablo Resort	137	3%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Amara Resort & Spa	100	3%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Best Western Plus Arroyo Roble Hotel & Creekside Villas	65	2%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Cedars Resort on Oak Creek	38	1%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	El Portal Sedona Hotel	12	0%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	La Petite Sedona	14	0%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	L'Auberge de Sedona	88	2%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Matterhorn Inn of Sedona	23	1%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Orchards Inn of Sedona	70	2%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Sedona Motel	16	0%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Star Motel	10	0%
Hotel Inside City of Sedona	Uptown & Oak Creek Canyon	Vista Ridge in Sedona	6	0%
Hotel Inside City of Sedona	West Sedona	A Sunset Chateau B&B	24	1%
Hotel Inside City of Sedona	West Sedona	Adobe Grand Villas	16	0%
Hotel Inside City of Sedona	West Sedona	Andante Inn of Sedona (was Super 8)	66	2%
Hotel Inside City of Sedona	West Sedona	Arroyo Pinon Hotel (was Kokopelli Suites)	45	1%
Hotel Inside City of Sedona	West Sedona	Best Western Plus Inn of Sedona	110	3%
Hotel Inside City of Sedona	West Sedona	Casa Sedona Bed & Breakfast	16	0%
Hotel Inside City of Sedona	West Sedona	Courtyard by Marriott Sedona (Opened Oct 2016)	121	3%
Hotel Inside City of Sedona	West Sedona	Greentree Inn of Sedona	66	2%
Hotel Inside City of Sedona	West Sedona	Hampton Inn Sedona	55	1%
Hotel Inside City of Sedona	West Sedona	Saad Suites	8	0%
Hotel Inside City of Sedona	West Sedona	Sedona Bear Lodge	4	0%
Hotel Inside City of Sedona	West Sedona	Sedona Real Inn & Suites	89	2%
Hotel Inside City of Sedona	West Sedona	Sedona Rouge Hotel & Spa (32 unit expansion completed in 2016)	103	3%
Hotel Inside City of Sedona	West Sedona	Sky Ranch Lodge	94	2%
Hotel Inside City of Sedona	West Sedona	Southwest Inn at Sedona	28	1%
Hotel Inside City of Sedona	West Sedona	Sugar Loaf Lodge	15	0%
Hotel Inside City of Sedona	West Sedona	White House Inn Sedona	22	1%
		City Sedona Hotel Rooms	**1,605**	**40%**
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Days Inn Kokopelli	42	1%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Desert Quail Inn	41	1%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Hilton Sedona Resort & Spa	221	6%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Holiday Inn Express Sedona - Oak Creek	100	3%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Las Posadas of Sedona	20	1%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Red Agave Resort	14	0%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Sedona Village Lodge	18	0%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	The Views Inn Sedona	39	1%
Hotel Outside City of Sedona	State Route 179 & Village of Oak Creek	Wildflower Inn	28	1%
Hotel Outside City of Sedona	Uptown & Oak Creek Canyon	Briar Patch Inn	18	0%
Hotel Outside City of Sedona	Uptown & Oak Creek Canyon	Forest Houses Resort	16	0%
Hotel Outside City of Sedona	Uptown & Oak Creek Canyon	Garland's Oak Creek Lodge	16	0%
Hotel Outside City of Sedona	Uptown & Oak Creek Canyon	Junipine Resort	40	1%
Hotel Outside City of Sedona	Uptown & Oak Creek Canyon	Oak Creek Terrace Resort	20	1%
Hotel Outside City of Sedona	West Sedona	Enchantment Resort	218	5%
Hotel Outside City of Sedona	West Sedona	Mii amo, A Destination Spa at Enchantment	16	0%
		Non-City Sedona Hotel Rooms	**867**	**22%**
Timeshare Inside City of Sedona	State Route 179 & Village of Oak Creek	Los Abrigados Resort & Spa	196	5%
Timeshare Inside City of Sedona	State Route 179 & Village of Oak Creek	Villas at Poco Diablo	33	1%
Timeshare Inside City of Sedona	Uptown & Oak Creek Canyon	Arroyo Roble Resort	65	2%
Timeshare Inside City of Sedona	Uptown & Oak Creek Canyon	Hyatt Pinon Pointe	109	3%
Timeshare Inside City of Sedona	West Sedona	Sedona Springs Resort	75	2%
Timeshare Inside City of Sedona	West Sedona	Sedona Summit Resort	417	10%
Timeshare Inside City of Sedona	West Sedona	Villas of Sedona	40	1%
Timeshare Inside City of Sedona	West Sedona	Wyndham Sedona Resort	100	3%
		City Timeshare Rooms	**1,035**	**26%**
Timeshare Outside City of Sedona	State Route 179 & Village of Oak Creek	Bell Rock Inn	85	2%
Timeshare Outside City of Sedona	State Route 179 & Village of Oak Creek	The Ridge on Sedona Golf Course	236	6%
Timeshare Outside City of Sedona	West Sedona	Sedona Pines Resort	148	4%
		Non-City Timeshare Rooms	**469**	**12%**
		Total Hotel and Timeshare Rooms	**3,976**	**100%**

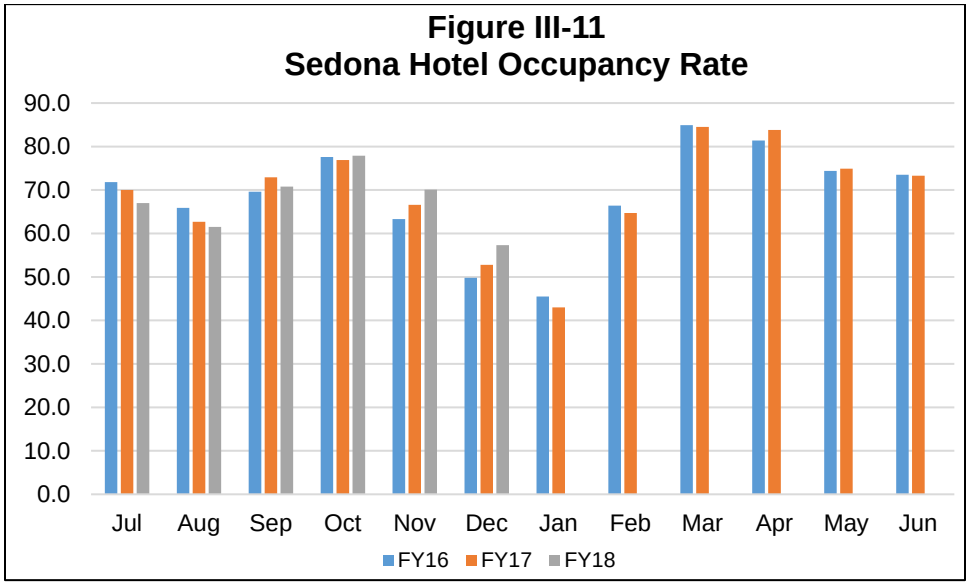
Source:Sedona Chamber of Commerce and Tourism Bureau, 2018.

(This page intentionally left blank.)

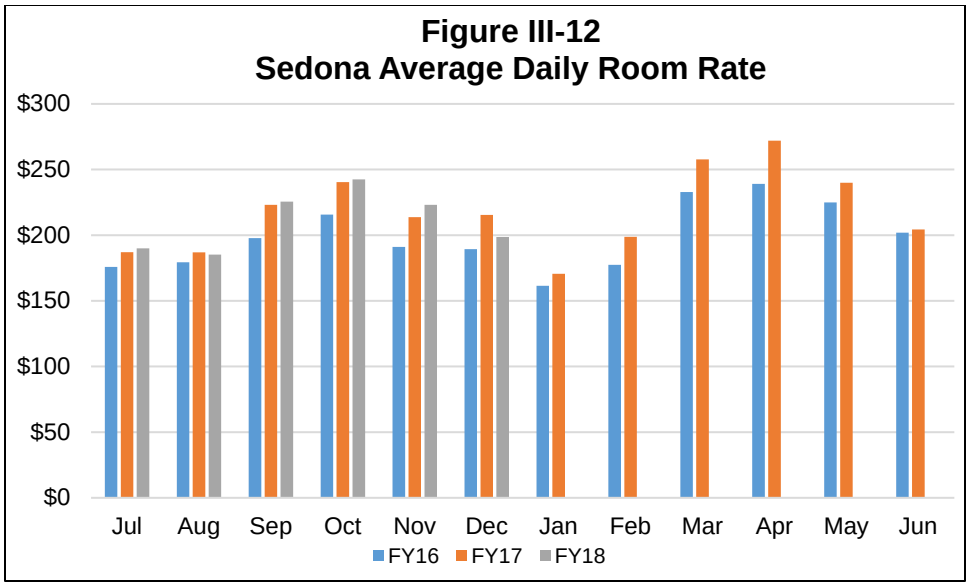
Sedona Occupancy and Average Daily Room Rate Data (2016-2018)

The Sedona Chamber of Commerce and Tourism Bureau provided monthly data on the average occupancy rate and average daily room rate in Sedona between FY 2016 and FY 2018.

The average hotel occupancy rate in Sedona during FY 2016 was 66.3 percent, during FY 2017 was 67.0 percent, and during the first half of FY 2018 was 67.4 percent. Figure III-11 illustrates the average hotel occupancy rate in Sedona by month. Hotel occupancy in Sedona is lowest during the month of January (2016: 45.5 percent; 2017: 43.0 percent) and highest during the month of March (2016: 84.9 percent; 2017: 84.5 percent).



The average daily hotel room rate in Sedona during FY 2016 was $192, during FY 2017 was $211, and during the first half of FY 2018 was $211. Figure III-12 illustrates the average daily hotel room rate in Sedona by month. Hotel room rates in Sedona are lowest during the month of January (2016: $161; 2017: $171) and highest during the month of April (2016: $239; 2017: $272).

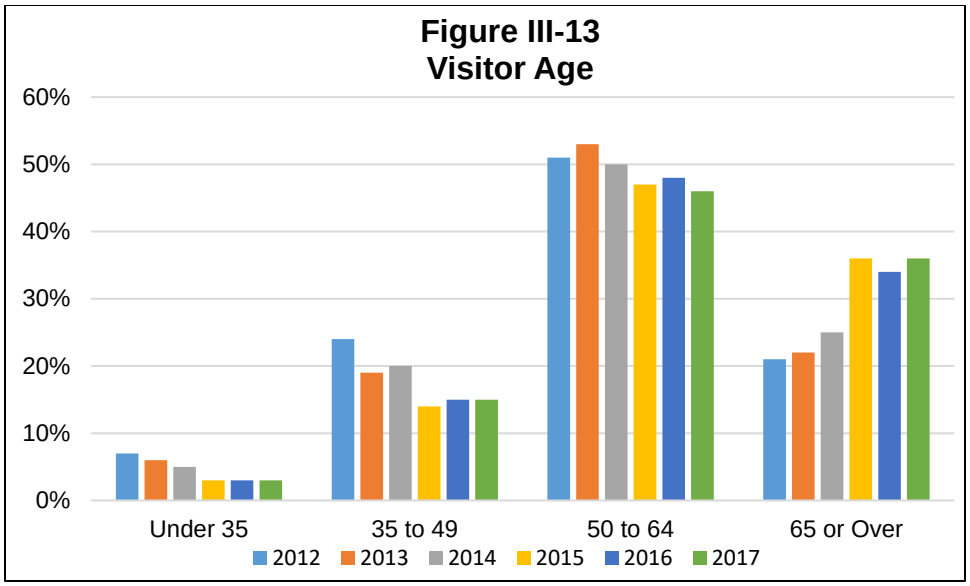


Sedona Visitor Survey (2012-2017)

The Sedona Chamber of Commerce and Tourism Bureau released an annual report of the results of visitor surveys conducted between 2012 and 2017. Interviews were conducted by the Sedona Chamber of Commerce and Tourism Bureau via a web-based survey which was sent to individuals who requested the Chamber's E-Newsletter request during 2012, 2013, 2014, 2015, 2016 and 2017. Only respondents who indicated they had visited Sedona or would visit Sedona in the next 12 months were included in the analyzed data.

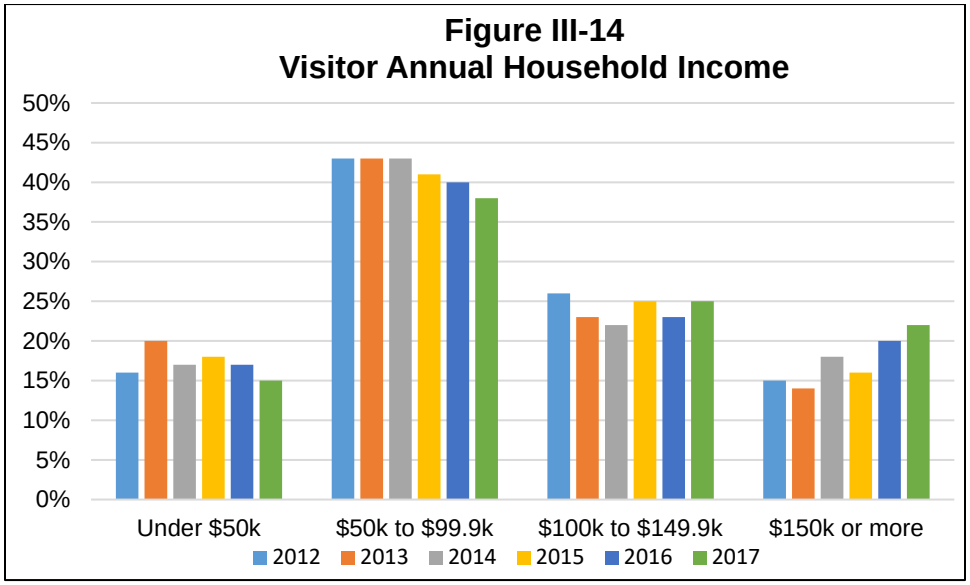
Visitor Age

Overall, the median age of surveyed Sedona visitors has been increasing, from 56.5 years old in 2012 to 60.6 years old in 2017. Figure III-13 presents the age ranges of surveyed visitors between 2012 and 2017. The figure clearly illustrates the increasing number of respondents age 65 and older, from approximately 21 percent of respondents in 2012 to about 36 percent of respondents in 2017.



Visitor Annual Household Income

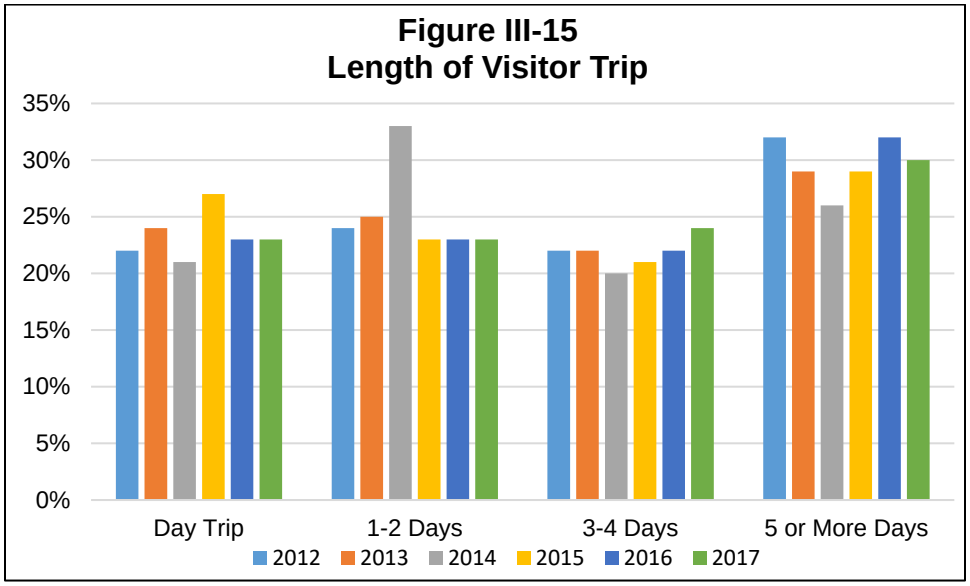
Overall, the median annual household income of surveyed Sedona visitors has been decreasing, from $97,000 in 2012 to $89,400 in 2017. Figure III-14 illustrates the annual household incomes of surveyed Sedona visitors. While the percent of surveyed visitors with annual household incomes under $50,000 and between $50,000 and $99,999 has decreased, the percent of surveyed visitors with annual household incomes between $100,000 and $149,999 and more than $150,000 has increased.



Length of Visitor Trip

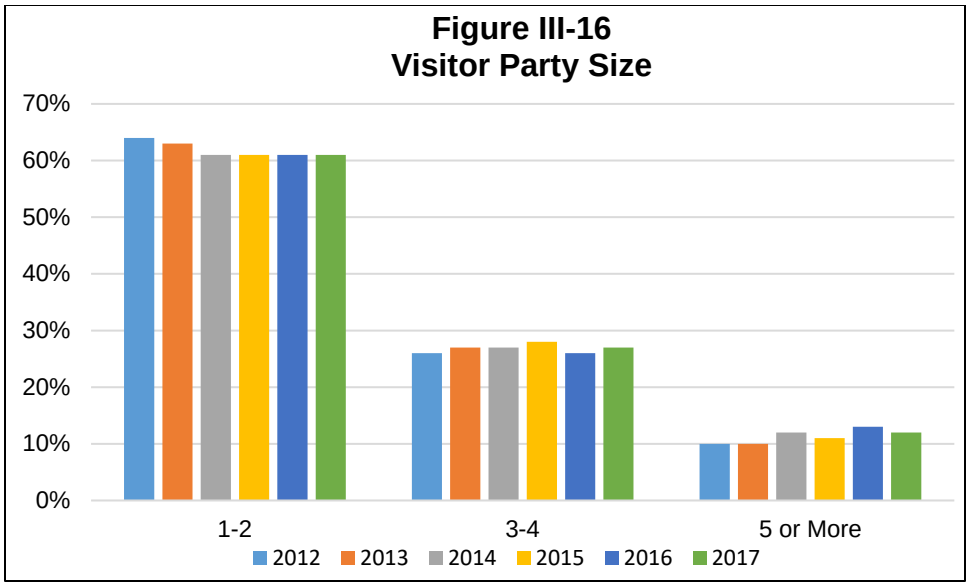
Figure III-15 illustrates the average trip length of surveyed Sedona visitors between 2012 and 2017. In 2017, approximately 30 percent of visitors spent five or more days in Sedona, followed by 24 percent of visitors who spent three to four days in Sedona, 23 percent of visitors who spent one to two days in Sedona, and 23 percent of visitors who made a daytrip to Sedona. The median length of visitor trip in 2017 was 3.3 days.

Figure III-15
Length of Visitor Trip



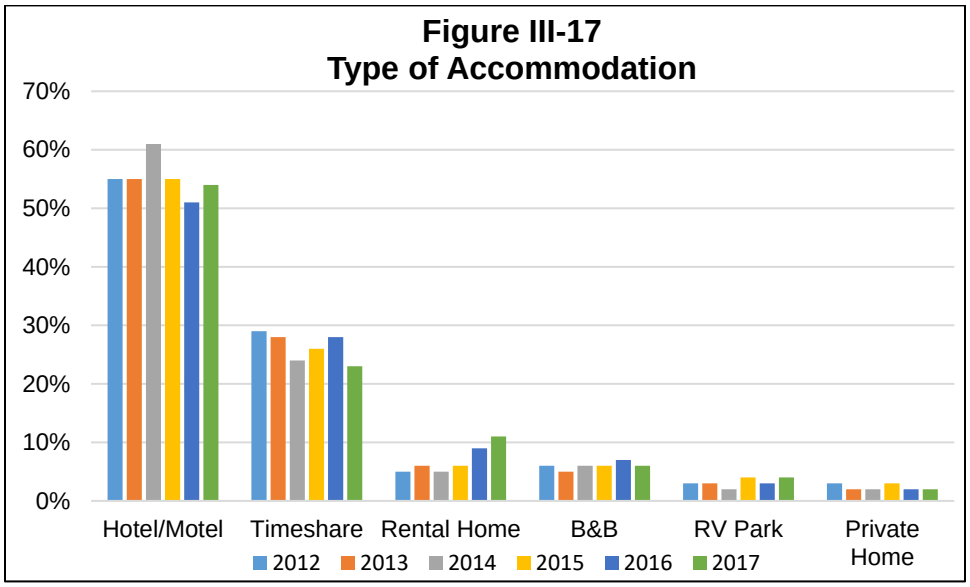
Visitor Party Size

Figure III-16 illustrates the average party size of surveyed Sedona visitors between 2012 and 2017. In 2017, approximately 61 percent of visitor parties contained one to two people, followed by 27 percent of visitor parties which contained three to four people, and 12 percent of visitor parties which contained five or more people.



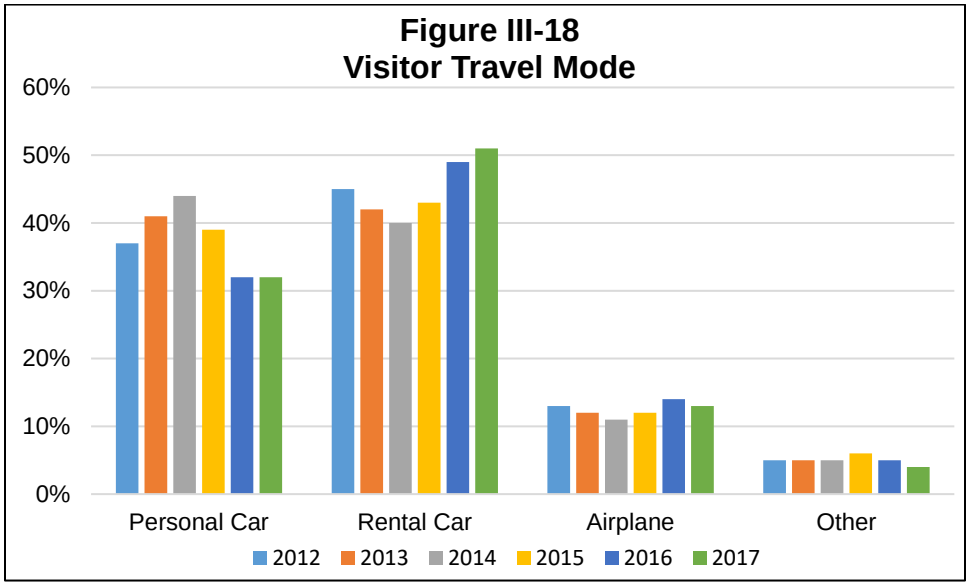
Type of Accommodation

Figure III-17 presents the type of accommodation of surveyed Sedona visitors between 2012 and 2017. In 2017, 54 percent of surveyed visitors stayed in a hotel/motel, followed by 23 percent who stayed in a timeshare, 11 percent who stayed in a rental home, six percent who stayed in a bed and breakfast, four percent who stayed in a RV park, and two percent who stayed in a private home.



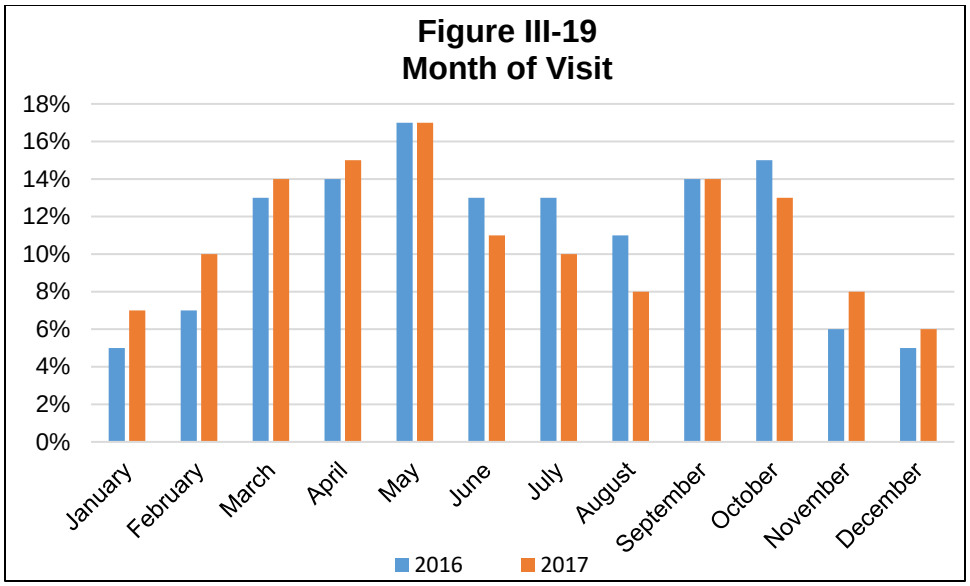
Visitor Travel Mode

Figure III-18 illustrates the travel mode of surveyed Sedona visitors between 2012 and 2017. In 2017, approximately 51 percent of surveyed visitors used a rental car, followed by 32 percent who used a personal car, 13 percent who used an airplane, and four percent who said they used another travel mode. Overall, the number of respondents using a personal car has been decreasing while the number using a rental car has been increasing.



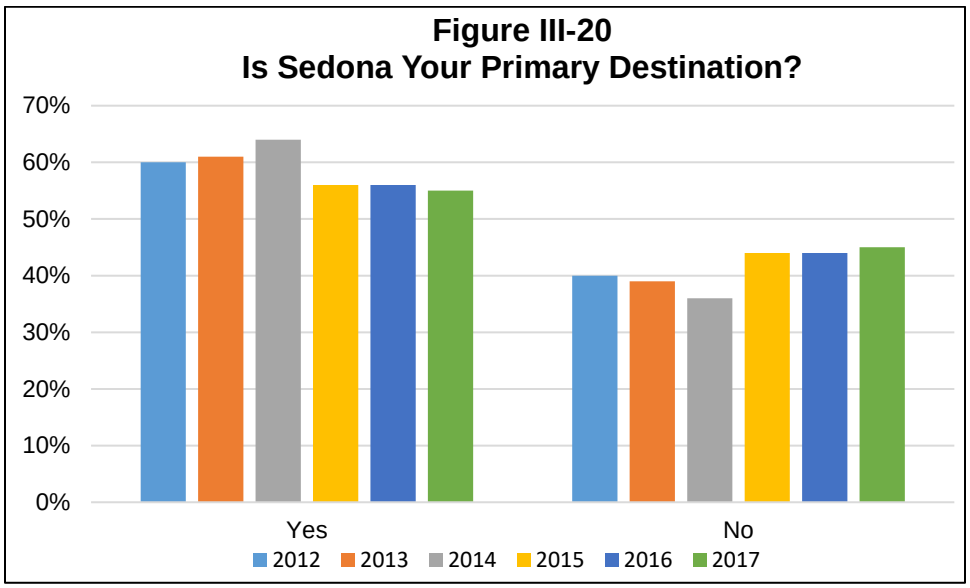
Month of Visit

Figure III-19 illustrates the month surveyed visitors traveled to Sedona in 2016 and 2017. In 2016, the majority of visitors traveled to Sedona during May (17 percent) October (15 percent), and September (14 percent), and in 2017, the majority of visitors traveled to Sedona during May (17 percent), April (15 percent), March (14 percent), and September (14 percent). The months with the fewest surveyed visitors were November through February.



Primary Destination

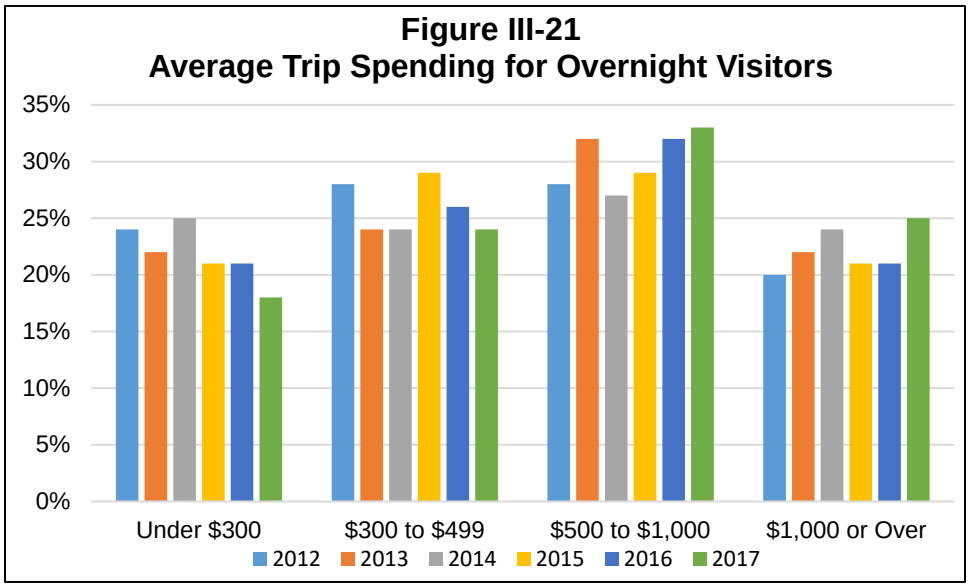
As shown in Figure III-20, the number of surveyed visitors whose primary destination is Sedona has been decreasing, from 60 percent in 2012 to 55 percent in 2017, while the number of surveyed visitors whose primary destination is not Sedona has been increasing, from 40 percent in 2012 to 45 percent in 2017.



Average Trip Spending for Overnight Visitors

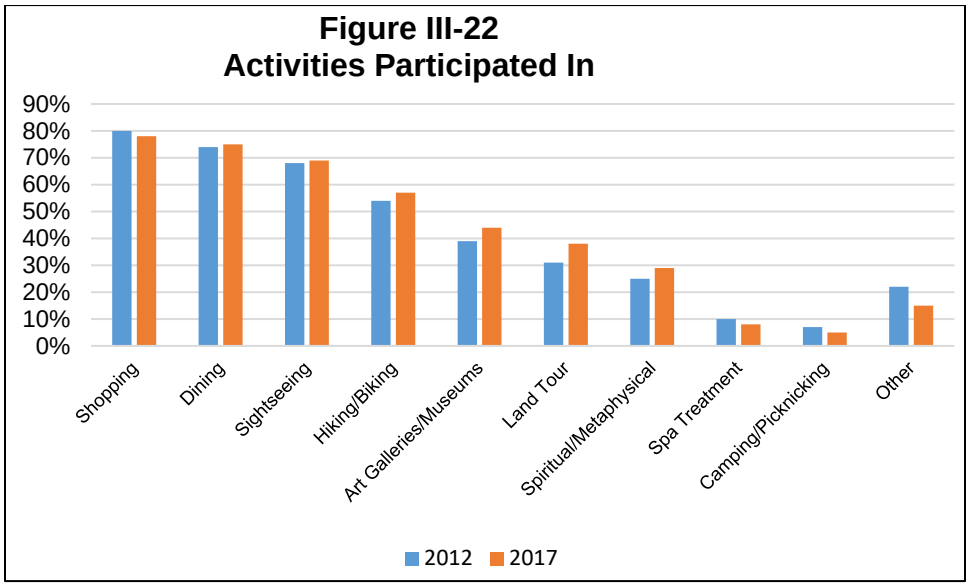
Figure III-21 illustrates the average trip spending for overnight surveyed visitors between 2012 and 2017. The figure illustrates that fewer surveyed overnight

visitors are spending under $300, and more surveyed overnight visitors are spending between $500 and $1,000, and $1,000 or more.



Activities Participated In

Figure III-22 illustrates the activities surveyed visitors indicated they participated in 2012 and 2017. The most popular activities stayed relatively consistent between the two years, with shopping being the most popular activity, followed by dining, sightseeing, and hiking/biking.



Comparative Analysis of Sedona Visitor Intercept Surveys (2002/2016)

Behavior Research Center, Inc., completed a comparative analysis of Sedona visitor intercept surveys for 2002 and 2016.

Visitor Age

The median age of surveyed Sedona visitors increased, from 49.8 years old in 2002 to 55.0 years old in 2016. As shown in Table III-11, approximately 60 percent of surveyed Sedona visitors in 2016 were age 50 or over.

Table III-11
Visitor Age

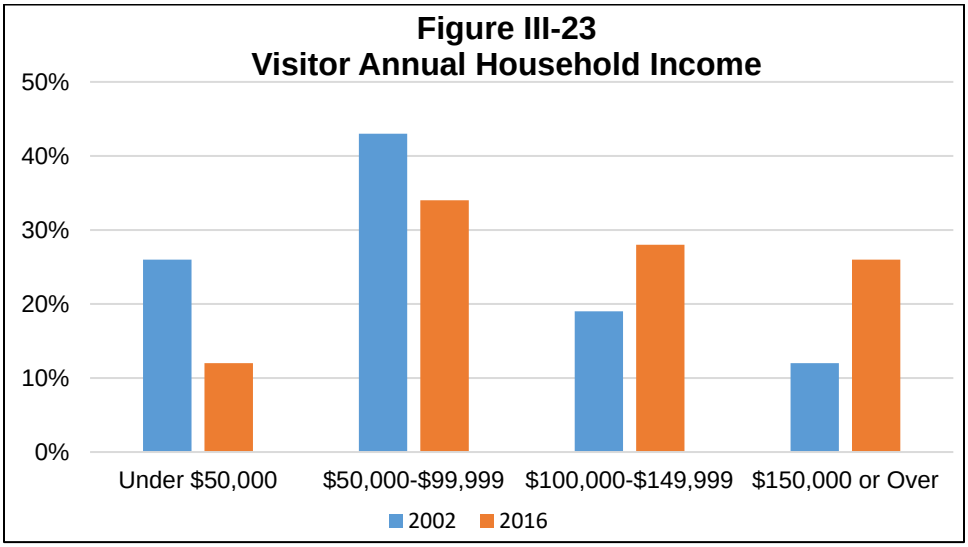
2002		2016	
Under 35	16%	Under 35	7%
35 to 55	46%	35 to 49	33%
55 or Over	38%	50 to 64	30%
--	--	65 or Over	30%

Source: Behavior Research Center Inc., 2016.

Visitor Annual Household Income

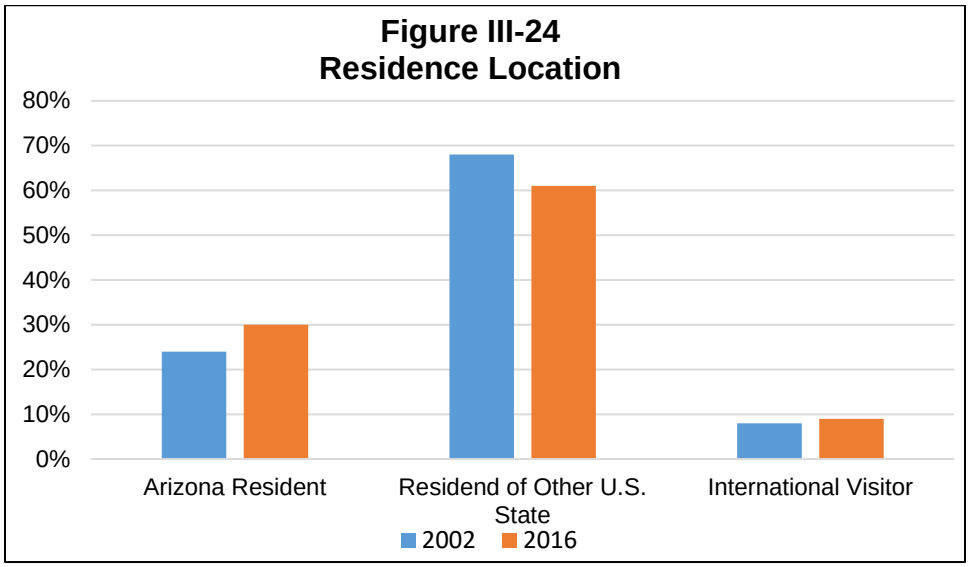
Overall, the median annual household income of surveyed Sedona visitors increased from $76,800 in 2002 to $107,100 in 2016. Figure III-23 illustrates the annual household incomes of surveyed Sedona visitors. While the percent of surveyed visitors with annual household incomes under $50,000 and between $50,000 and $99,999 has decreased, the percent of surveyed visitors with annual household incomes between $100,000 and $149,999 and more than $150,000 has increased.

Figure III-23
Visitor Annual Household Income



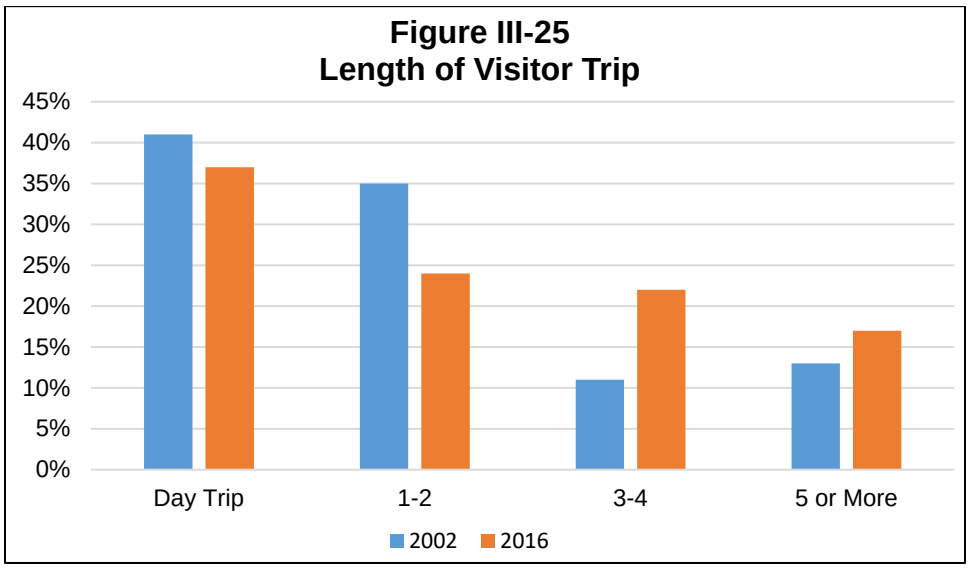
Residence Location

As shown in Figure III-24, the number of surveyed visitors residing in Arizona increased between 2002 and 2016, while the number of surveyed visitors residing in other U.S. state decreased. The number of international visitors remained relatively consisted between 2002 and 2016.



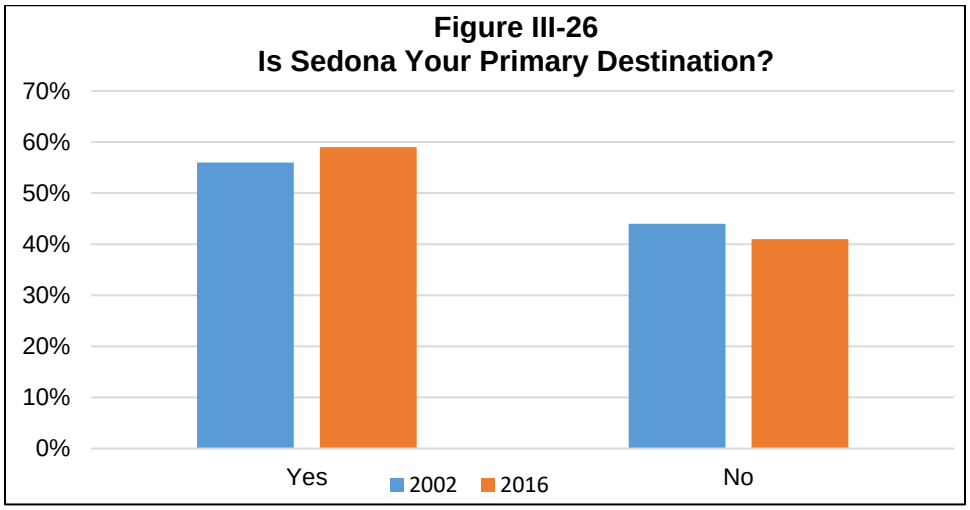
Length of Visitor Trip

Figure III-25 illustrates the average trip length of surveyed Sedona visitors in 2002 and 2016. Overall, the number of visitors making day trips or short overnight trips (one to two days) has decreased while the number of visitors making longer trips (three to four days and five or more days) has increased.



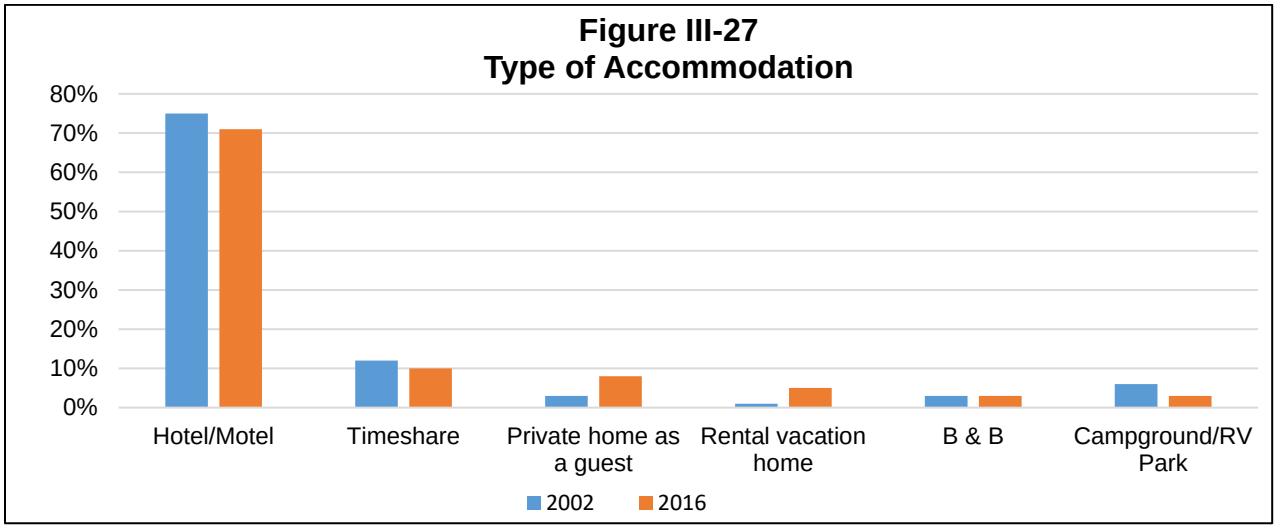
Primary Destination

As shown in Figure III-26, the number of surveyed visitors whose primary destination is Sedona slightly increased from 56 percent in 2002 to 59 percent in 2016, while the number of surveyed visitors whose primary destination is not Sedona slightly decreased from 44 percent in 2002 to 41 percent in 2016.



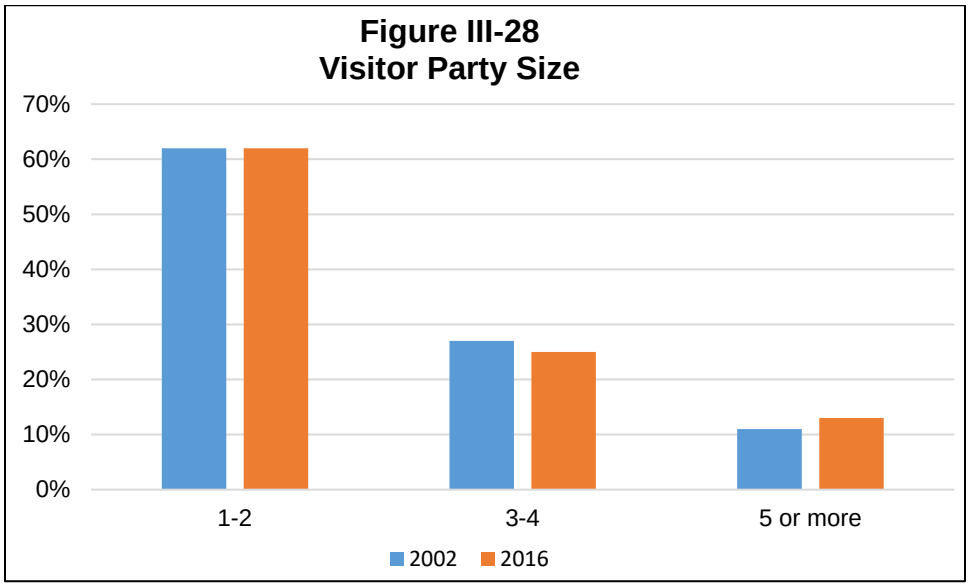
Type of Accommodation

Figure III-27 presents the type of accommodation of surveyed Sedona visitors in 2002 and 2016. Between the two years, the number of visitors staying in a hotel/motel, timeshare, and campground/RV park decreased, while the number of visitors staying in a private home as a guest and at a rental vacation home increased. The number of visitors staying in a bed and breakfast remained the same from 2002 to 2016.



Visitor Party Size

Figure III-28 illustrates the average party size of surveyed Sedona visitors in 2002 and 2016. Overall, visitor party sizes have stayed relatively consistent over time, with a slight decrease in groups of three to four people, and a slight increase in groups of five or more people.



Average Trip Spending for Overnight Visitors

The median average trip spending for overnight surveyed visitors increased from $243 per party per day in 2002 to $508 per party per day in 2016. Table III-12 illustrates the average trip spending for overnight surveyed visitors in 2002 and 2016. Overall, significantly fewer surveyed overnight visitors are spending under $300, and more surveyed overnight visitors are spending $500 or more. In 2016, over half of overnight surveyed visitors spent at least $500.

Table III-12
Average Trip Spending for Overnight Visitors

2002		2016	
Under $300	62%	Under $300	19%
$300-$499	23%	$300-$499	30%
$500 or More	15%	$500-$999	43%
--	--	$1,000 or More	8%

Source: Behavior Research Center Inc., 2016.

Activities Participated In

Table III-13 presents the activities surveyed visitors indicated they participated in 2002 and 2016. Several activities were not included in the 2002 survey, including sightseeing, dining, air tour, and special occasion. The most popular activities in 2016 included sightseeing (85 percent), dining (73 percent), shopping (58 percent), and hiking/biking (56 percent).

Table III-13
Activities Participated In

Activity	2002	2016
Sightseeing	-	85%
Dining	-	73%
Shopping	83%	58%
Hiking/Biking	40%	56%
Art Galleries/Museums	43%	39%
Land Tours	20%	31%
Spiritual/Metaphysical	14%	12%
Camping/Picnicking	6%	6%
Special Events	9%	8%
Spa Treatment	9%	6%
Air Tour	-	4%
Special Occasion	-	4%
Golf	7%	2%

Source: Behavior Research Center Inc., 2016.

Most Desirable Qualities of Sedona

Table III-14 presents the qualities surveyed visitors indicated they liked most about Sedona in 2002 and 2016. For both years, the majority of surveyed visitors indicated their favorite quality about Sedona was the scenic beauty (2002: 81 percent; 2016: 73 percent). Other desirable qualities of Sedona included the weather (2002: seven percent; 2016: 10 percent), shopping (2002: four percent; 2016: six percent), and the relaxed/laid back atmosphere (2002: three percent; 2016: five percent).

Table III-14 Most Desirable Qualities of Sedona		
Qualities	**2002**	**2016**
Scenic Beauty	81%	73%
Weather	7%	10%
Shopping	4%	6%
Relaxed/Laid Back Atmosphere	3%	5%
Vortex/Spiritual Healing	2%	5%
Hiking/Biking Trails	-	5%
Chapel of the Holy Cross	-	4%
Family/Friends Live in Sedona	-	3%
Close to Home/Local Get Away	-	3%
Friendly People	3%	2%
Clean/Well Kept	-	2%
Outdoor Recreation Activities	6%	1%
Art Galleries	2%	1%
Restaurants	1%	1%
Lots of Bathrooms	-	1%
Hotels/Resorts	-	1%
Source: Behavior Research Center Inc., 2016.		

Least Desirable Qualities of Sedona

Table III-15 presents the qualities surveyed visitors indicated they liked least about Sedona in 2002 and 2016. For both years, a large portion of surveyed visitors indicated there was nothing they liked least about Sedona (2002: 42 percent; 2016: 40 percent). Other least desirable qualities of Sedona included traffic congestion (2002: 12 percent; 2016: 19 percent), lack of parking (2002: five percent; 2016: 18 percent), and too crowded (2002: 14 percent; 2016: five percent).

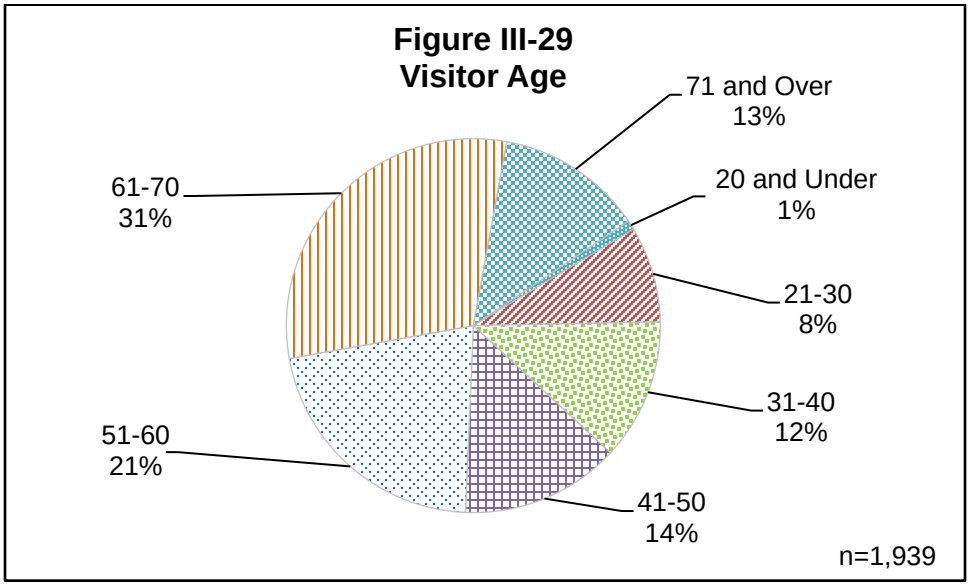
Table III-15 Least Desirable Qualities of Sedona		
Qualities	**2002**	**2016**
Nothing	42%	40%
Traffic Congestion	12%	19%
Lack of Parking	5%	18%
Too Crowded	14%	5%
Too Expensive	8%	4%
Too Much Commercialism	1%	4%
Weather	8%	2%
Limited Shopping	6%	1%
Limited Restaurants	1%	1%
Poor Public Transit	-	1%
Hiking Trails - limited, unsafe	-	1%
Rude/Snobby People	-	1%
Too Spiritual	-	1%
Source: Behavior Research Center Inc., 2016.		

Verde Valley Visitor Survey (2014-2015)

The Verde Valley visitor survey was prepared for the Arizona Office of Tourism by the Arizona Hospitality Research and Resource Center, Alliance Bank Business Outreach Center, and the W.A. Franke College of Business at Northern Arizona University. The purpose of the study was to understand and document changes in the Verde Valley visitor market, in order to assist Verde Valley tourism and economic development directors with targeted marketing, additional product development, and advocacy for an industry that is critical to the health of the regional economy. A total of 2,406 surveys were completed over a 12-month period from September 2014 through August 2015, and an additional 312 surveys were collected during an aborted start in April and May 2014, for an overall total of 2,718 collected surveys.

Visitor Age

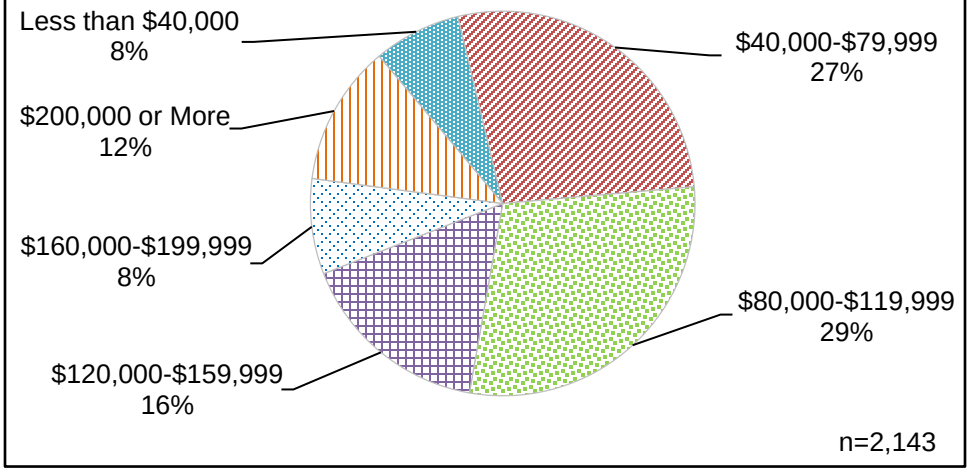
The average age of surveyed visitors to the Verde Valley was 54.6 years old and the median age of surveyed visitors to the Verde Valley was 58.0 years old. Figure III-29 presents the age ranges of surveyed visitors. Almost half of respondents were 61 or older, with 31 percent between the ages of 61 and 70, and 13 percent age 71 or older.



Visitor Annual Household Income

The average annual household income of surveyed visitors to the Verde Valley was $109,276. Figure III-30 illustrates the annual household incomes of surveyed visitors to the Verde Valley. Approximately eight percent of surveyed visitors indicated their annual household income was less than $40,000, while approximately 20 percent of surveyed visitors indicated their annual household income was $160,000 or more.

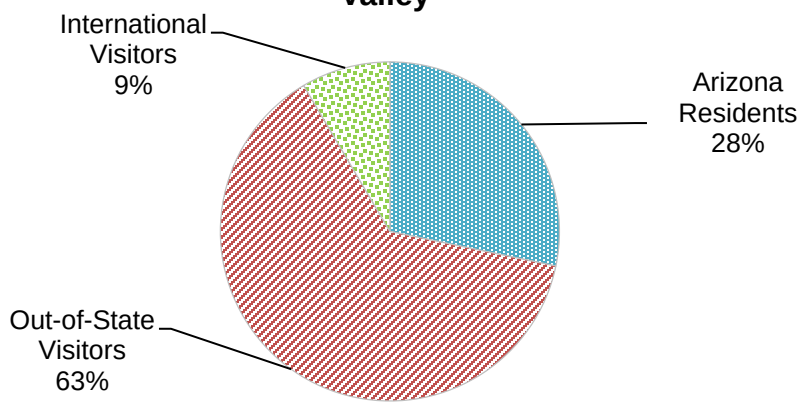
Figure III-30
Visitor Annual Household Income



Residence Location

As shown in Figure III-31, approximately 63 percent of surveyed visitors to the Verde Valley were out-of-state visitors, followed by Arizona residents (28 percent) and international visitors (nine percent). Of the out-of-state visitors, approximately 32 percent were from Arizona, followed by California (12 percent), and Wisconsin (four percent). Approximately 18 percent of visitors living in the State of Arizona were visiting from Phoenix, followed by Scottsdale (eight percent), Mesa (seven percent), and Glendale (five percent). International visitors were most commonly visiting from Canada (68 percent), the United Kingdom (13 percent), Australia (three percent), and Japan (two percent).

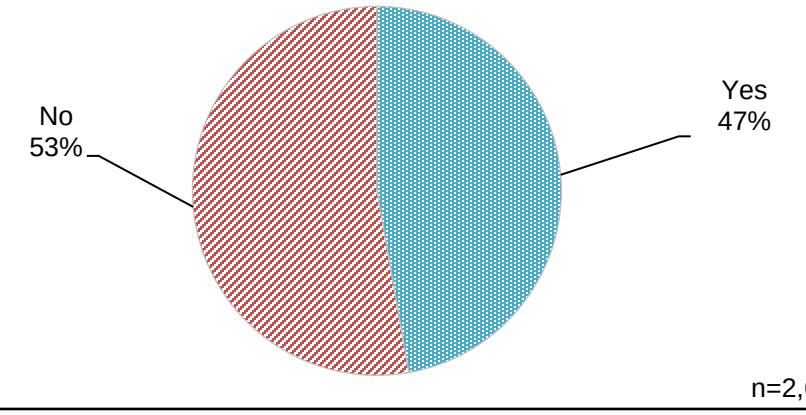
Figure III-31
Residence Location of Visitors to the Verde Valley



First Visit to the Verde Valley

As shown in Figure III-32, approximately 53 percent of surveyed visitors said this was not their first trip to the Verde Valley, while 47 percent of surveyed visitors said this was their first trip to the Verde Valley. For those who have previously visited the Verde Valley, the mean number of times they have visited was 8.3 and the median number of times they have visited was 4.0.

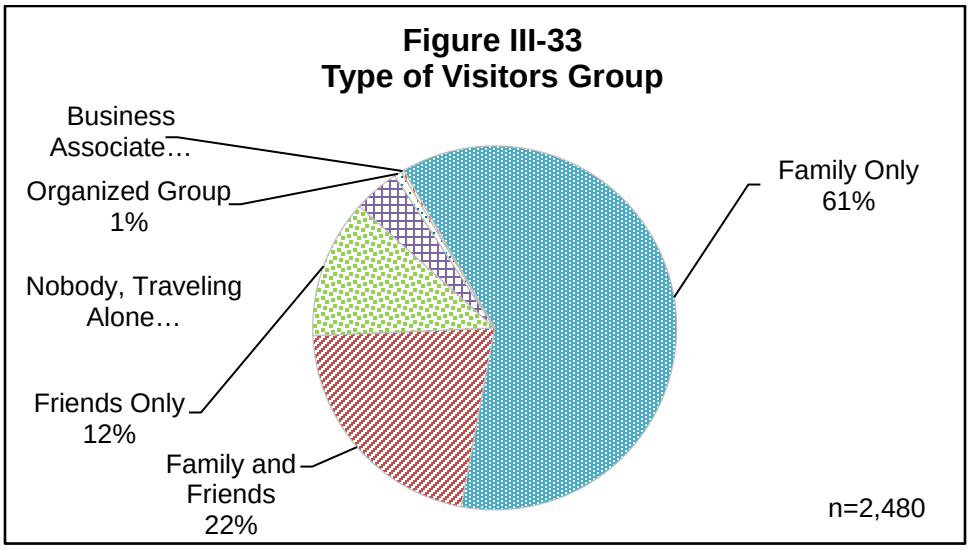
Figure III-32
First Trip to the Verde Valley?



Type of Visitor Group and Size

As shown in Figure III-33, almost two-thirds of surveyed visitors to the Verde Valley traveled in family only groups (61 percent). Almost a quarter of respondents indicated they traveled in a group of family and friends (22

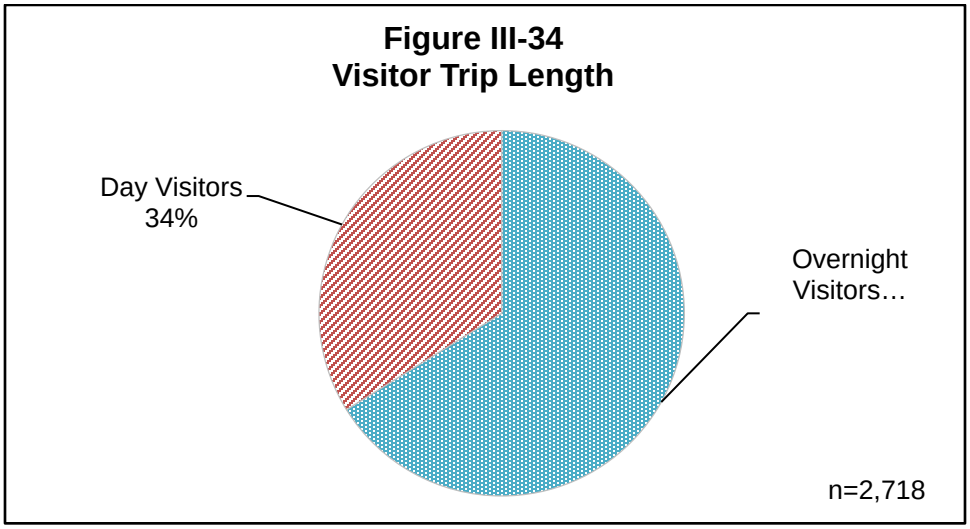
percent), followed by respondents who said they traveled in friend only groups (12 percent).



The average visitor party to the Verde Valley consisted of 3.1 people, while the median party size was two people. Children were included in approximately 10 percent of all visitor parties, and those with children in the party averaged 1.2 children (median of one child).

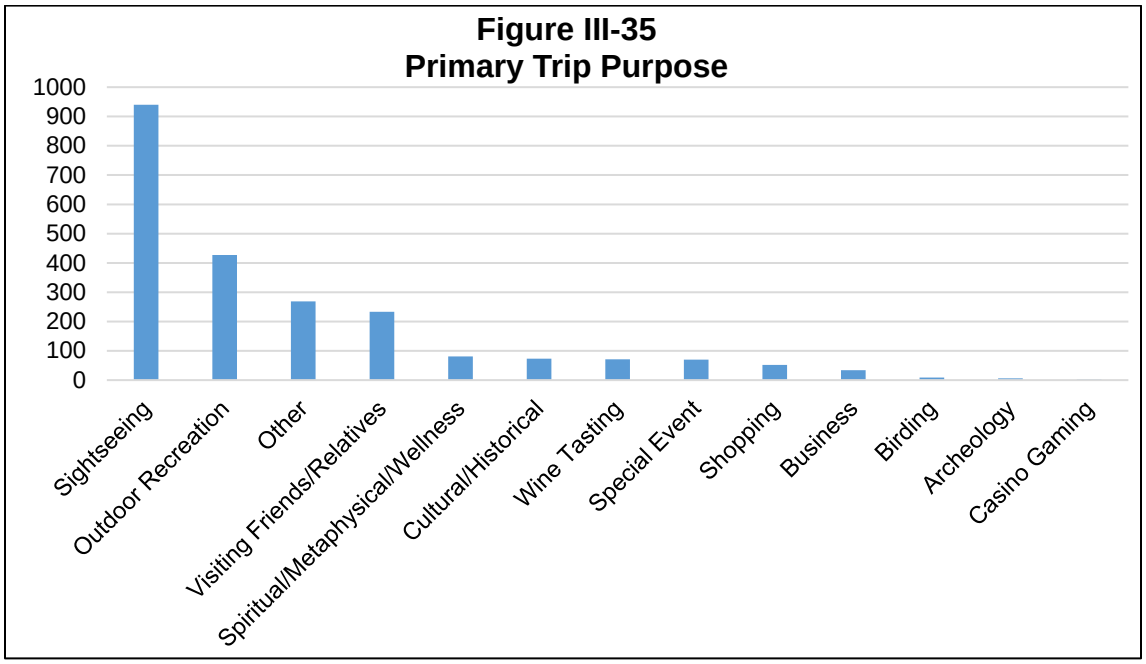
Visitor Trip Length

As shown in Figure III-34, approximately two-thirds of surveyed visitors to the Verde Valley indicated they were overnight visitors (66 percent), while approximately one-third of surveyed visitors to the Verde Valley indicated they were day trip visitors (34 percent).



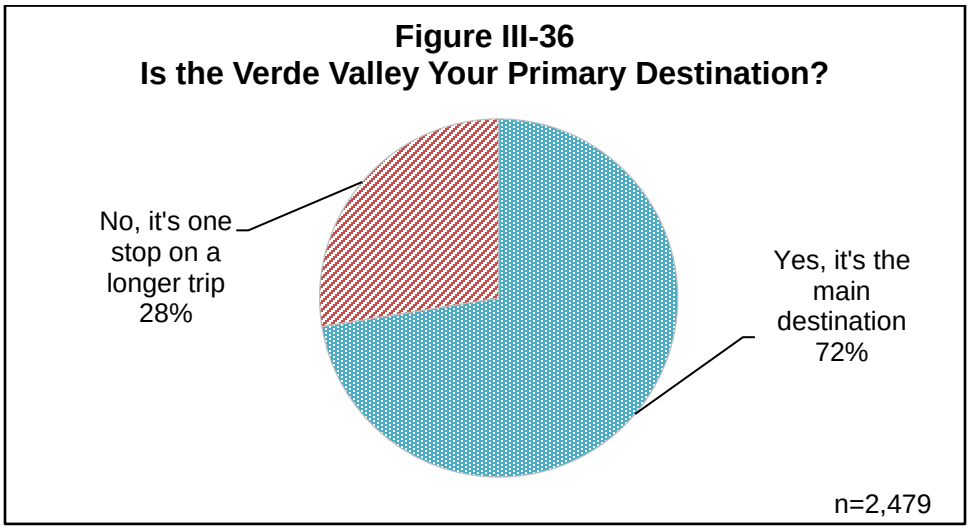
Primary Trip Purpose

As shown in Figure III-35, the most popular trip purpose of surveyed visitors to the Verde Valley was sightseeing (42 percent), followed by outdoor recreation (19 percent), other (12 percent), and visiting friends/relatives (10 percent).



Primary Destination

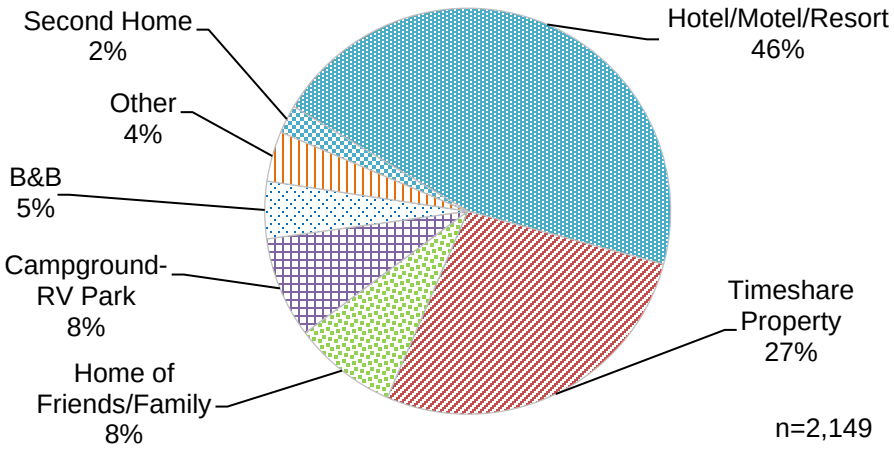
As shown in Figure III-36, approximately 72 percent of surveyed visitors to the Verde Valley indicated it was the main destination of their trip, while 28 percent of respondents said it was not their main destination, just a stop on a longer trip.



Type of Accommodation

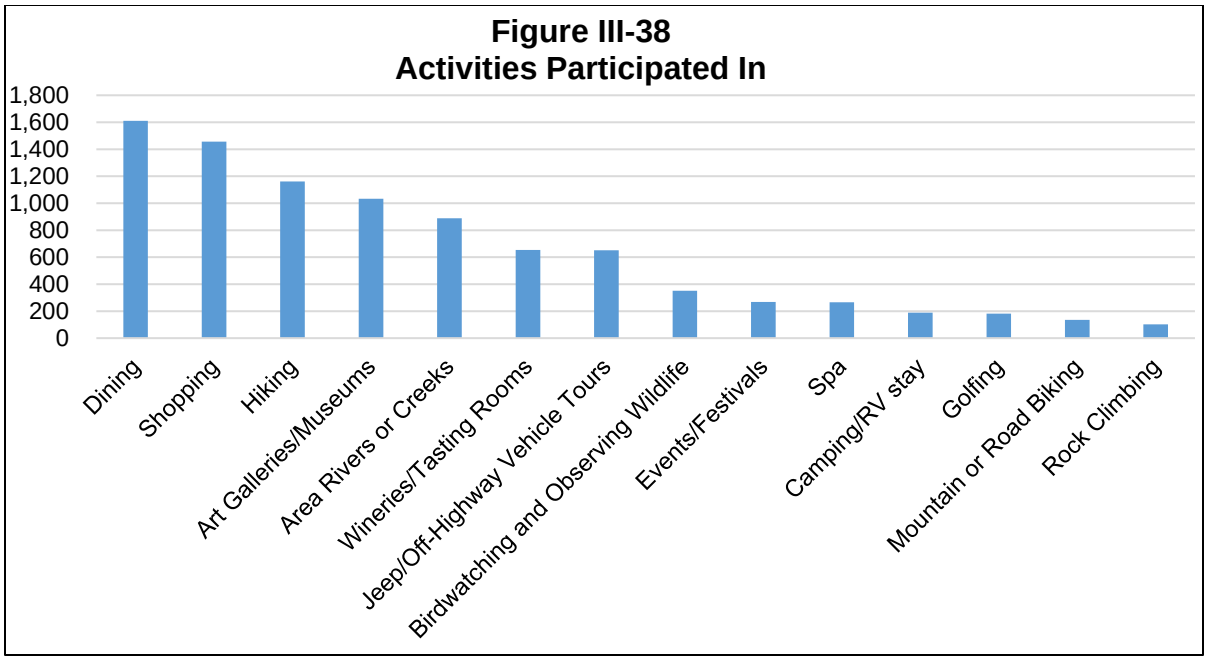
Figure III-37 presents the type of accommodation of surveyed visitors to the Verde Valley. The majority of respondents indicated they stayed in a hotel, motel, or resort (46 percent), followed by timeshare properties (27 percent), home of friends or family (eight percent), and campground-RV park (eight percent).

Figure III-37
Type of Accommodation



Activities Participated In

Figure III-38 illustrates the activities surveyed Verde Valley visitors indicated they participated in. The most popular activities included dining (59 percent), shopping (54 percent), hiking (43 percent), art galleries/museums (38 percent), and area rivers or creeks (33 percent).



Trip Spending

Table III-16 presents the mean and median trip spending by category for surveyed visitors to the Verde Valley. Visitors spent most of their money on lodging/camping, followed by restaurant/grocery.

Table III-16
Trip Spending

Category	Mean	Median
Lodging/Camping	$191	$125
Restaurant/Grocery	$112	$80
Transportation/Gas	$60	$32
Shopping/Souvenirs	$92	$50
Recreation/Tour/Entrance/Permit Fees	$94	$50
Spa/Spiritual/Metaphysical	$46	$38
Other	$60	$49

Source: Verde Valley Visitor Survey, Arizona Office of Tourism, 2015.

Visitor Satisfaction

Surveyed visitors were asked to rate their overall satisfaction with their visit to the Verde Valley for eight different attributes. Surveyed riders evaluated each attribute with a rating from one (low) to five (high). The responses from the survey and the mean scores are shown in Table III-17. The attributes with the highest mean scores were attractions (4.6), activities (4.5), accommodations

(4.5), and visitor information (4.5). The attributes with the lowest mean scores were prices (3.8), shopping (4.1), and entertainment (4.1).

Table III-17
Verde Valley Visitor Satisfaction

Attribute	Low 1	Somewhat Low 2	Neither Low nor High 3	Somewhat High 4	High 5	Mean Score
Attractions	0.1%	0.4%	5.6%	27.8%	66.1%	4.6
Activities	0.3%	0.8%	7.9%	29.6%	61.4%	4.5
Accommodations	0.5%	0.8%	9.4%	28.4%	61.0%	4.5
Visitor Information	0.6%	1.2%	8.8%	23.6%	65.7%	4.5
Food & Drink	0.4%	1.3%	10.8%	37.1%	50.4%	4.4
Entertainment	1.3%	3.4%	20.8%	31.7%	42.8%	4.1
Shopping	1.1%	3.8%	19.0%	34.0%	42.2%	4.1
Prices	1.8%	5.7%	26.5%	38.9%	27.0%	3.8

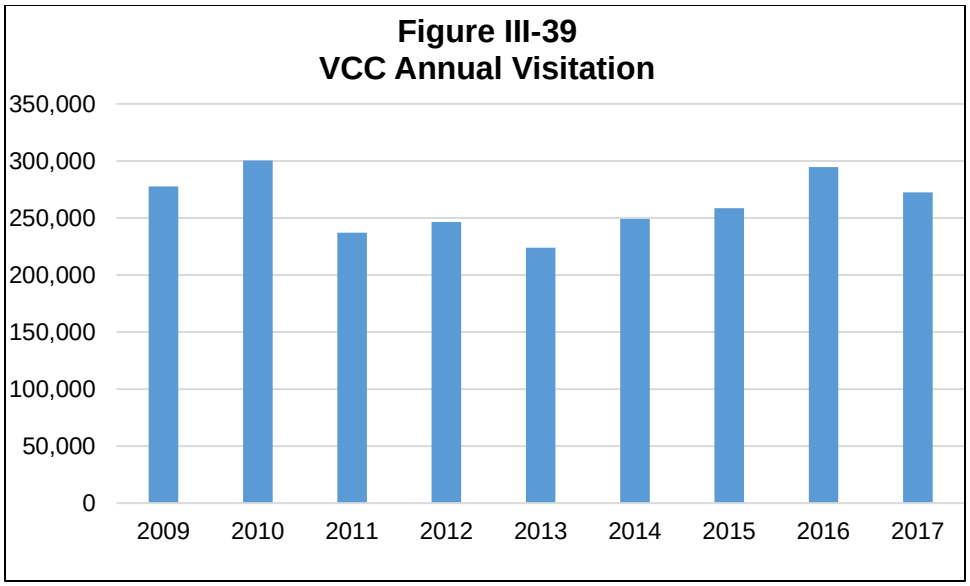
Source: Verde Valley Visitor Survey, Arizona Office of Tourism, 2015.

Red Rock Ranger District Visitation (2008-2017)

The Red Rock Ranger District of the Coconino National Forest provided detailed visitation data for five specific locations – the Red Rock Ranger District Visitor Contact Center, the Palatki Heritage Site, the V Bar V Heritage Site, the Oak Creek Vista Visitor Center, and the Honanki Heritage Site. Data were provided for 2008 through 2017.

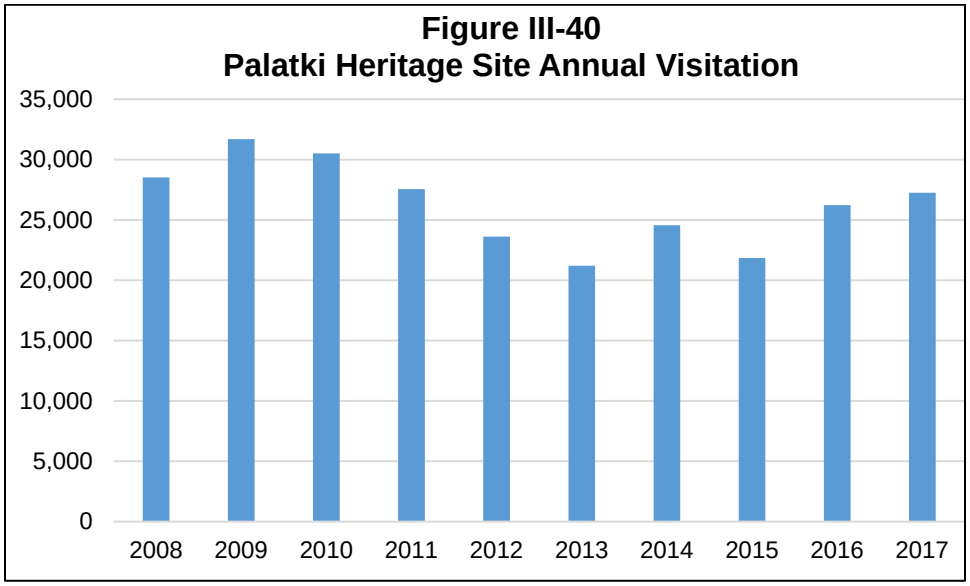
Red Rock Ranger District Visitor Contact Center

Figure III-39 illustrates annual visitation to the Red Rock Ranger District Visitor Contact Center (VCC) between 2009 and 2017. VCC visitation was highest during 2010 (300,311 visitors) and lowest during 2013 (223,865). In 2017, there were approximately 273,000 VCC visitors.



Palatki Heritage Site

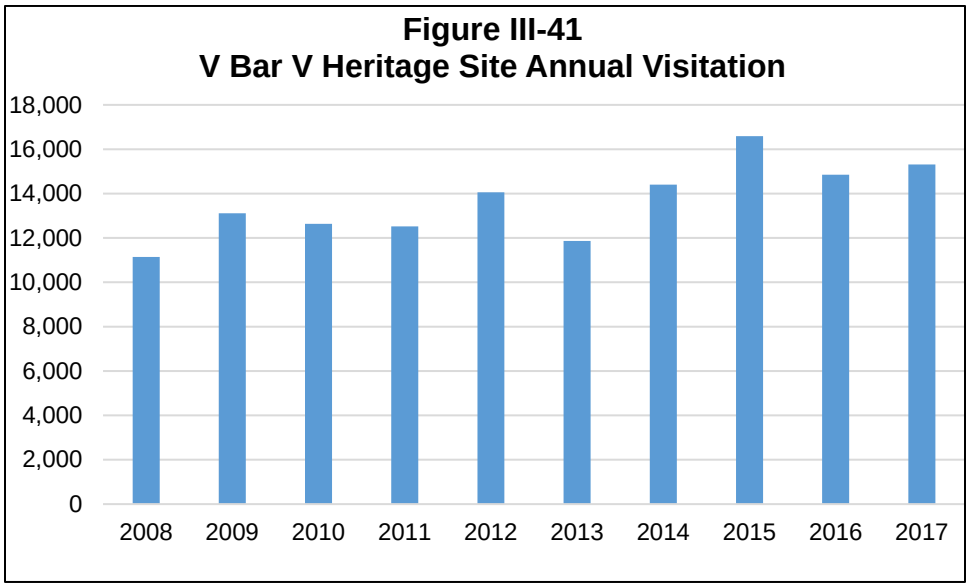
Figure III-40 illustrates annual visitation to the Palatki Heritage Site between 2008 and 2017. Visitation has fluctuated a bit year-to-year, but overall has stayed relatively consistent. Visitation was highest during 2009 (31,698 visitors) and lowest during 2013 (21,198). In 2017, approximately 27,300 people visited the Palatki Heritage Site.



V Bar V Heritage Site

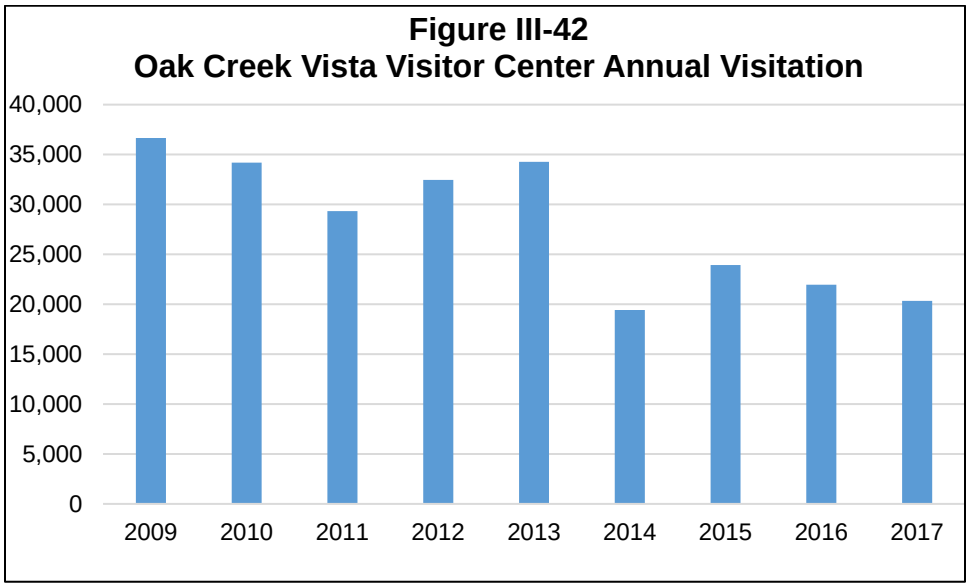
Figure III-41 illustrates annual visitation to the V Bar V Heritage Site between 2008 and 2017. Visitation was highest during 2015 (16,592 visitors) and lowest

during 2008 (11,146). In 2017, approximately 15,300 people visited the V Bar V Heritage Site.



Oak Creek Vista Visitor Center

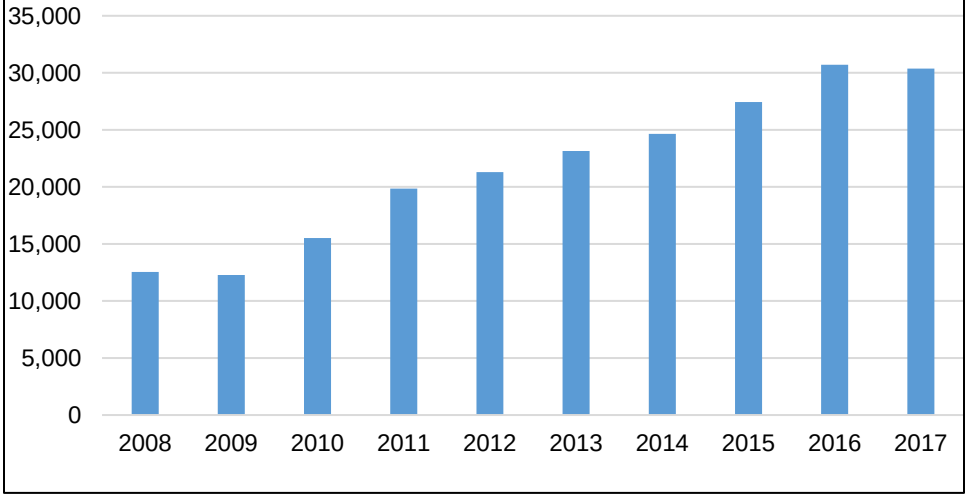
Figure III-42 illustrates annual visitation to the Oak Creek Vista Visitor Center between 2009 and 2017. Visitation was highest during 2009 (36,654 visitors) and lowest during 2014 (19,433). In 2017, approximately 20,300 people visited the Oak Creek Vista Visitor Center. Construction on Hwy. 89A during 2017 may have contributed to a lower number of visitors to the site.



Honanki Heritage Site

Figure III-43 illustrates annual visitation to the Honanki Heritage Site between 2008 and 2017. Visitation has been steadily increasing, with the highest number of visitors during 2016 (30,711 visitors) and the least during 2009 (12,276). In 2017, approximately 30,400 people visited the Honanki Heritage Site.

Figure III-43
Honanki Heritage Site Annual Visitation



Red Rock Ranger District Visitor Use Summary – 2015

The Red Rock Ranger District of the Coconino National Forest, part of the United States Forest Service (USFS), prepared a summary of visitor use data for the 2015 calendar year.

During 2015, approximately 2,841,000 people visited the Red Rock Ranger District. As shown in Figure III-44, the majority of visitors were trail visitors (61 percent), followed by outfitter and guide special uses (11 percent), concessionaire campgrounds and day use sites (11 percent), and visitor center (nine percent).

Figure III-44
Red Rock Ranger District 2015 Visitors

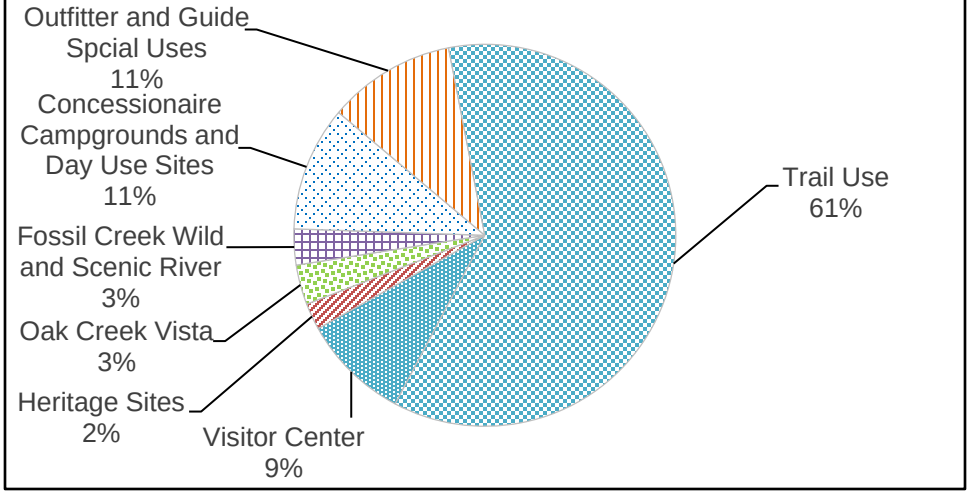
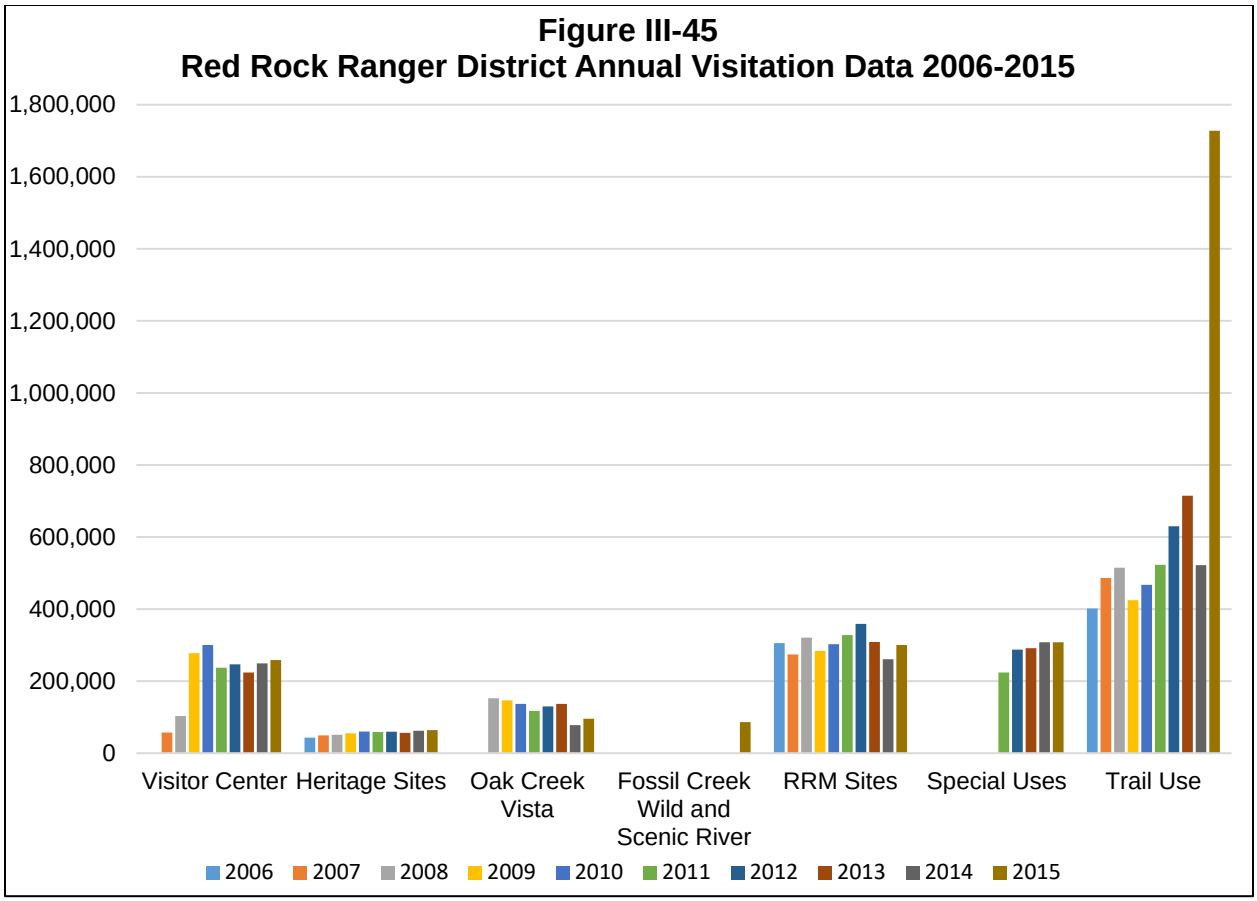


Figure III-45 illustrates the annual visitation data for the Red Rock Ranger District between 2006 and 2015. The number of visitors at the visitor center increased significantly (169 percent) between 2008 and 2009, and has since stayed relatively consistent. The number of visitors to the heritage sites has been gradually increasing between 2006 and 2015, from approximately 43,000 annual visitors in 2006 to 64,000 annual visitors in 2015. The number of visitors to Oak Creek Vista has been decreasing between 2006 and 2015, from approximately 153,000 visitors in 2008 to 96,000 visitors in 2015. The number of visitors to the RRM sites has fluctuated a bit year-to-year between 2006 and 2015, but overall has stayed relatively consistent. The number of visitors to special use sites has been gradually increasing between 2011 and 2015, from approximately 224,000 visitors in 2011 to 308,000 visitors in 2015. The most noticeable change in the visitor data occurred between 2014 and 2015, when there was a dramatic increase (231 percent) in the number of trail use visitors to the Red Rock Ranger District.

Figure III-45
Red Rock Ranger District Annual Visitation Data 2006-2015



The 2015 summary of visitor use data also included the top five most visited trails in the Red Rock Ranger District. The top five visited trails accounted for 36 percent of all trail use visitors. The top five most visited trails during 2015 were:

1. Bell Rock Pathway (188,866 visitors)
2. Cathedral Rock (138,028 visitors)
3. West Fork (127,726 visitors)
4. Devil's Bridge (78,787 visitors)
5. Broken Arrow (74,536 visitors)

In addition, trail use was divided between wilderness and non-wilderness trails within the Red Rock Ranger District. Approximately 35 percent of trail use visitors accessed wilderness trails, while 65 percent accessed non-wilderness trails.

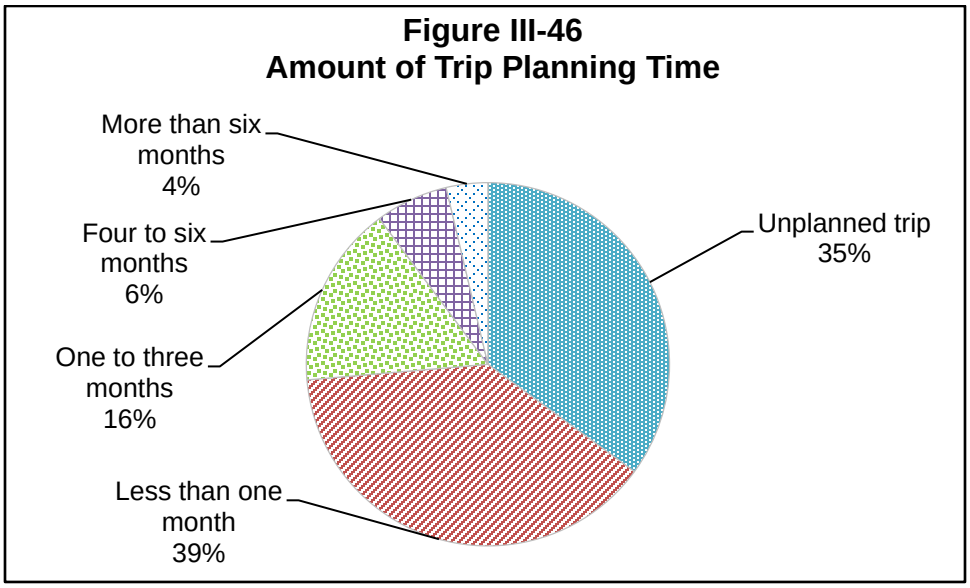
Slide Rock State Park Visitor Survey – August, 2017

The Arizona State Parks conducted a survey of visitors to Slide Rock State Park during August 2017. The survey was intended to ascertain visitors' perceptions of the park, specifically in terms of the impact to the parks' natural and cultural areas, air and water quality, parking, litter, and crowding, as well as feedback on how to provide park information and improve the visitor experience. Visitors were asked to complete a survey questionnaire at the end of their visit prior to exiting the park on seven specific days during August, 2017 (August 1, 5, 6, 7, 11, 12, and 13, 2017). Visitors were offered a free Arizona State Parks and Trails day pass as an incentive for completing the survey. A total of 479 completed survey were received.

Trip Planning Time

As shown in Figure III-46, almost three-quarters of respondents (74 percent) indicated they spent less than one month planning their trip to Slide Rock State Park, with 35 percent being unplanned trips and 39 percent being trips planned in less than one month. Approximately 16 percent of surveyed visitors spent one to three months planning their trip to Slide Rock State Park, about six percent spent four to six months planning their trip to Slide Rock State Park, and four percent spent more than six months planning their trip to Slide Rock State Park.

Figure III-46
Amount of Trip Planning Time



Group Size

The average group size of surveyed visitors was six people, with the majority of surveyed visitors traveling in groups of four.

Residence Location

Approximately 53 percent of surveyed visitors lived in the U.S. but outside the State of Arizona, while 40 percent were Arizona residents and seven percent were international visitors. Of the out-of-state visitors, approximately 30 percent were from California, followed by Texas (11 percent), and Nevada (seven percent). Approximately 81 percent of visitors living in the State of Arizona were visiting from the Phoenix metropolitan area. International visitors were most commonly visiting from Canada (29 percent), the Netherlands (24 percent), Belgium (12 percent), and England (12 percent).

Park Conditions

Surveyed visitors were asked to rate the park conditions of Slide Rock State Park for 10 different attributes. Surveyed riders evaluated each attribute with a rating of not a problem, slight problem, or serious problem. The responses from the survey are shown in Table III-18. The top attributes that surveyed Slide Rock State Park visitors identified as serious problems included parking (18 percent), overcrowding (14 percent), litter or trash dumping (11 percent), and impact to water quality (10 percent).

Table III-18 Slide Rock State Park Conditions			
Attribute	**Not a Problem**	**Slight Problem**	**Serious Problem**
Parking	46%	30%	18%
Overcrowding	43%	40%	14%
Litter or trash dumping	57%	26%	11%
Impact to water quality	49%	25%	10%
Decrease in wildlife sightings	41%	28%	9%
Impact to air quality	67%	11%	5%
Damage to park's natural area	61%	22%	4%
Shade structures near water/slide area	75%	12%	4%
Coolers/ice chests near the water's edge	70%	17%	4%
Damage to historical or archaeological sites	62%	16%	3%
Source: Arizona State Parks, 2017 Slide Rock State Park Visitor Survey.			

Importance when Visiting Slide Rock State Park

Surveyed visitors were asked to rate the importance of seven different attributes when visiting Slide Rock State Park. Surveyed riders evaluated each attribute with a rating of not important, somewhat important, or very important. The responses from the survey are shown in Table III-19. The top attributes that surveyed Slide Rock State Park visitors identified as very important included keep park and surrounding area in good condition (76 percent), prevent damage to environment and surrounding area (73 percent), and programs that promote safe and responsible recreation (68 percent).

Table III-19 Importance when Visiting Slide Rock State Park			
Attribute	**Not Important**	**Somewhat Important**	**Very Important**
Keep park and surrounding area in good condition	10%	11%	76%
Prevent damage to environment and surrounding area	9%	15%	73%
Programs that promote safe and responsible recreation	10%	19%	68%
Improve damage to environment and surrounding area	13%	20%	62%
Enforce existing rules and regulations	15%	26%	56%
Provide park signs	17%	31%	48%
Provide park maps and information	16%	34%	46%
Source: Arizona State Parks, 2017 Slide Rock State Park Visitor Survey.			

VERDE LYNX ROUTE

CAT Transit Services

Cottonwood Area Transit (CAT) operates the Verde Lynx route between Cottonwood and Sedona, which will be the focus of this analysis, as well as four local routes in Cottonwood, Clarkdale, and Verde Village, called the Blue Route (Central Circulator), the Red Route (Cottonwood to Clarkdale), the Yellow Route (Central Cottonwood Midday), and the Green Route (Cottonwood Shopping Loop).

CAT Routes

The four local CAT routes operate every 45 minutes, Monday thru Friday from 6:45 a.m. to 6:45 p.m. with a one-way cash fare of $1.25. In addition, CAT provides paratransit service for persons with disabilities who are unable to use CAT fixed-route buses. The paratransit service is a shared-ride and provides transportation to locations that are located within three-quarters of a mile of a fixed-route bus stop. The cost for a one-way paratransit trip is $2.25 and trips must be scheduled one day in advance.

Verde Lynx

Verde Lynx is CAT's commuter transit service providing transportation between Cottonwood and Sedona. Figure III-47 illustrates the Verde Lynx route, which operates between the Cottonwood Library and Poco Diablo and the Municipal Parking Lot in Uptown Sedona. Verde Lynx operates daily from 6:00 a.m. to 7:12 p.m. according to the schedule shown in Figure III-48. The Verde Lynx route has a total of 15 stops, of which, the following 12 are located in Sedona:

- Upper Red Rock Loop Rd. (High School)
- Foothills (Across from the Sedona Medical Center)
- Arroyo Pinon & Dry Creek
- Stutz Bearcat & Andante (Super 8 Model)
- Shelby & Rodeo (Wells Fargo Bank)
- Sunset & Coffee Pot (Walgreens)
- Northview & Mountain Shadows
- Soldiers Pass Rd. (Biddles)
- Tlaquepaque
- Poco Diablo Resort
- Hillside Shops and Galleries
- Sedona Municipal Parking Lot

Figure III-47
Verde Lynx Route

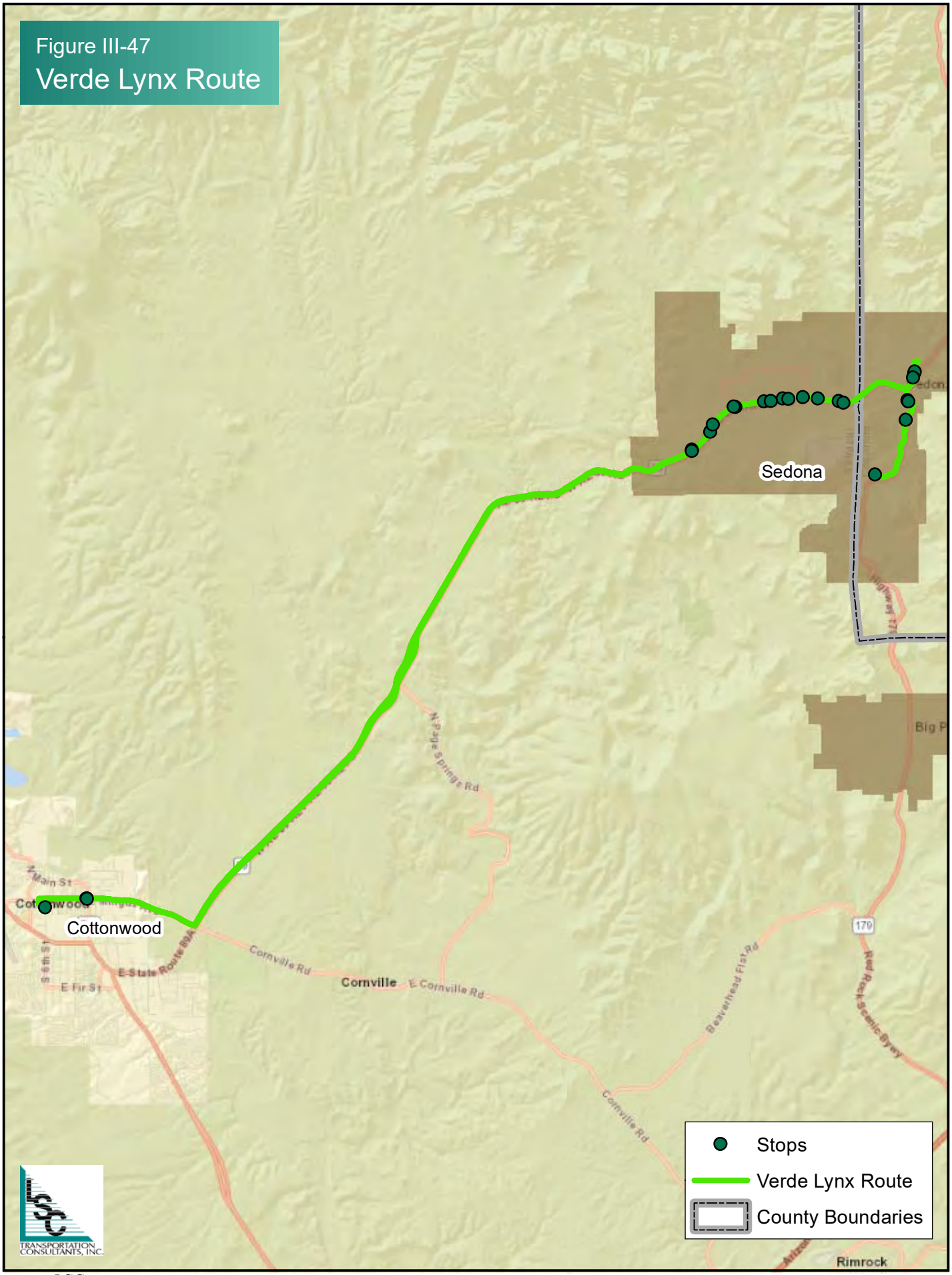


Figure III-48
Verde Lynx Schedule

VERDE LYNX ROUTE WEEKDAYS (Monday through Friday) 6:00 a.m. – 7:12 p.m.

	Bus Stop											
NORTHBOUND to Sedona												
1	Depart Cottonwood Library	6:00	6:45	7:30	8:15	9:00	10:30	1:00	1:30	2:30	3:00	4:00	6:00
2	Mingus at 8th *(By Walking Bridge)*	—	—	—	—	—	—	—	—	—	—	—	—
3	Mingus & Main *(Circle K)*	6:02	6:47	7:32	8:17	9:02	10:32	1:02	1:32	2:32	3:02	4:02	6:02
4	Upper Red Rock Loop Rd. *(High School)*	6:21	7:06	7:51	8:36	9:21	10:51	1:21	1:51	2:51	3:21	4:21	6:21
5	Foothills *(Across from Sedona Med Center)*	6:22	7:07	7:52	8:37	9:22	10:52	1:22	1:52	2:52	3:22	4:22	6:22
6	Arroyo Pinon & Dry Creek *(Kokopellis)*	6:24	7:08	7:53	8:38	9:23	10:53	1:23	1:53	2:53	3:23	4:23	6:23
7	Stutz Bearcat & Andante *(Andante Inn)*	6:25	7:09	7:54	8:39	9:24	10:54	1:24	1:54	2:54	3:24	4:24	6:24
8	Shelby & Rodeo *(Wells Fargo Bank)*	6:26	7:10	7:55	8:40	9:25	10:55	1:25	1:55	2:55	3:25	4:25	6:25
9	Sunset & Coffee Pot *(Wallgreens)*	6:27	7:12	7:57	8:42	9:27	10:57	1:27	1:57	2:57	3:27	4:27	6:27
10	Northview & Mountain Shadows	6:28	7:13	7:58	8:43	9:28	10:58	1:28	1:58	2:58	3:28	4:28	6:28
11	Soldiers Pass Rd. *(Biddles)*	6:30	7:15	8:00	8:45	9:30	11:00	1:30	2:00	3:00	3:30	4:30	6:30
12	Tlaquepaque	6:33	7:18	8:03	8:48	9:33	11:03	1:33	2:03	3:03	3:33	—	6:33
	Flag Stop *(Copper Cliffs – Across from Hillside)*	—	—	—	—	—	—	—	—	—	—	—	—
	Flag Stop *(Arrow Rd.)*	—	—	—	—	—	—	—	—	—	—	—	—
13	Poco Diablo Resort	6:37	7:22	8:07	8:52	9:37	11:07	1:37	2:07	3:07	3:37	—	—
	Flag Stop *(Morgan Rd.)*	—	—	—	—	—	—	—	—	—	—	—	—
14	Hillside Shops & Galleries *(Arabella)*	6:40	7:25	8:10	8:55	9:40	11:10	1:40	2:10	3:10	3:40	—	6:34
	Flag Stop *(Tlaquepaque North)*	—	—	—	—	—	—	—	—	—	—	—	6:35
	Flag Stop *(Outlaw BBQ)*	—	—	—	—	—	—	—	—	—	—	—	—
15	Sedona Municipal Parking Lot	6:44	7:29	8:14	8:59	9:44	11:14	1:44	2:14	3:14	3:44	4:33	6:38
SOUTHBOUND to Cottonwood												
15	Sedona Municipal Parking lot	6:45	7:30	8:15	9:00	9:45	11:15	1:45	2:15	3:15	3:45	5:00	6:39
	Flag Stop *(Outlaw BBQ)*	—	—	—	—	—	—	—	—	—	—	—	—
	Flag Stop *(Forrest & 89A)*	—	—	—	—	—	—	—	—	—	—	—	—
12	Tlaquepaque	—	—	—	—	—	—	—	—	—	—	5:03	—
	Flag Stop *(Copper Cliffs – Across from Hillside)*	—	—	—	—	—	—	—	—	—	—	—	—
	Flag Stop *(Arrow Rd.)*	—	—	—	—	—	—	—	—	—	—	—	—
13	Poco Diablo Resort	—	—	—	—	—	—	—	—	—	—	5:09	—
	Flag Stop *(Morgan Rd.)*	—	—	—	—	—	—	—	—	—	—	—	—
14	Hillside Shops & Galleries *(Arabella)*	—	—	—	—	—	—	—	—	—	—	5:11	—
	Flag Stop *(Tlaquepaque North)*	—	—	—	—	—	—	—	—	—	—	5:12	—
11	Soldiers Pass *(Whole Foods)*	6:50	7:35	8:20	9:05	9:50	11:20	1:50	2:20	3:20	3:50	5:15	6:43
10	Mountain Shadows & Northview *(Hampton Inn.)*	6:52	7:37	8:22	9:07	9:52	11:22	1:52	2:22	3:22	3:52	5:16	6:44
9	Coffee Pot & Sunset *(Arco / Bashas)*	6:53	7:38	8:23	9:08	9:53	11:23	1:53	2:23	3:23	3:53	5:17	6:45
8	Rodeo & Shelby *(Safeway)*	6:54	7:39	8:24	9:09	9:54	11:24	1:54	2:24	3:24	3:54	5:19	6:46
7	Andante & Stutz Bearcat *(Sedona Car Wash)*	6:55	7:40	8:25	9:10	9:55	11:25	1:55	2:25	3:25	3:55	5:20	6:47
6	Dry Creek & Arroyo Pinon	6:56	7:41	8:26	9:11	9:56	11:26	1:56	2:26	3:26	3:56	5:21	6:48
5	Sedona Medical Center	6:57	7:42	8:27	9:12	9:57	11:27	1:57	2:27	3:27	3:57	5.23	6:49
4	Cultural Park Pl. *(Culture Center / High School)*	6:58	7:43	8:28	9:13	9:58	11:28	1:58	2:28	3:28	3:58	5:24	6:50
3	Mingus & Main *(Goodwill)*	7:17	8:02	8:47	9:32	10:17	11:47	2:17	2:47	3:47	4:18	5:47	7:09
2	Mingus at 8th *(Across from Walking Bridge)*												
1	Arrive Cottonwood Library	7:19	8:04	8:49	9:34	10:19	11:49	2:19	2:49	3:49	4:19	5:49	7:12

VERDE LYNX ROUTE WEEKENDS (Saturday and Sunday) 6:00 a.m. – 7:12 p.m.

Only shaded trips operate on Sunday

	Bus Stop								
NORTHBOUND to Sedona									
1	Depart Cottonwood Library	6:00	7:30	9:00	10:30	1:00	2:30	4:00	6:00
2	Mingus at 8th *(By Walking Bridge)*	—	—	—	—	—	—	—	—
3	Mingus & Main *(Circle K)*	6:02	7:32	9:02	10:32	1:02	2:32	4:02	6:02
4	Upper Red Rock Loop Rd. *(High School)*	6:21	7:51	9:21	10:51	1:21	2:51	4:21	6:21
5	Foothills *(Across from Sedona Med Center)*	6:22	7:52	9:22	10:52	1:22	2:52	4:22	6:22
6	Arroyo Pinon & Dry Creek *(Kokopellis)*	6:23	7:53	9:23	10:53	1:23	2:53	4:23	6:23
7	Stutz Bearcat & Andante *(Andante Inn)*	6:24	7:54	9:24	10:54	1:24	2:54	4:24	6:24
8	Shelby & Rodeo *(Wells Fargo Bank)*	6:25	7:55	9:25	10:55	1:25	2:55	4:25	6:25
9	Sunset & Coffee Pot *(Wallgreens)*	6:27	7:57	9:27	10:57	1:27	2:57	4:27	6:27
10	Northview & Mountain Shadows	6:28	7:58	9:28	10:58	1:28	2:58	4:28	6:28
11	Soldiers Pass Rd. *(Biddles)*	6:30	8:00	9:30	11:00	1:30	3:00	4:30	6:30
12	Tlaquepaque	6:33	8:03	9:33	11:03	1:33	3:03	—	6:33
	Flag Stop *(Copper Cliffs Across from Hillside)*	—	—	—	—	—	—	—	—
	Flag Stop *(Arrow Rd.)*	—	—	—	—	—	—	—	—
13	Poco Diablo Resort	6:37	8:07	9:37	11:07	1:37	3:07	—	—
	Flag Stop *(Morgan Rd.)*	—	—	—	—	—	—	—	—
14	Hillside Shops & Galleries *(Arabella)*	6:40	8:10	9:40	11:10	1:40	3:10	—	6:34
	Flag Stop *(Tlaquepaque North)*	—	—	—	—	—	—	—	6:35
	Flag Stop *(Outlaw BBQ)*	—	—	—	—	—	—	—	—
15	Sedona Municipal Parking Lot	6:44	8:14	9:44	11:14	1:44	3:14	4:33	6:38
SOUTHBOUND to Cottonwood									
15	Sedona Municipal Parking lot	6:45	8:15	9:45	11:15	1:45	3:15	5:00	6:39
	Flag Stop *(Outlaw BBQ)*	—	—	—	—	—	—	—	—
	Flag Stop *(Forrest & 89A)*	—	—	—	—	—	—	—	—
12	Tlaquepaque	—	—	—	—	—	—	5:03	—
	Flag Stop *(Copper Cliffs – Across from Hillside)*	—	—	—	—	—	—	—	—
	Flag Stop *(Arrow Rd.)*	—	—	—	—	—	—	—	—
13	Poco Diablo Resort	—	—	—	—	—	—	5:09	—
	Flag Stop *(Morgan Rd.)*	—	—	—	—	—	—	—	—
14	Hillside Shops & Galleries *(Arabella)*	—	—	—	—	—	—	5:11	—
	Flag Stop *(Tlaquepaque North)*	—	—	—	—	—	—	5:12	—
11	Soldiers Pass *(Whole Foods)*	6:50	8:20	9:50	11:20	1:50	3:20	5:15	6:43
10	Mountain Shadows & Northview *(Hampton Inn.)*	6:52	8:22	9:52	11:22	1:52	3:22	5:17	6:45
9	Coffee Pot & Sunset *(Arco / Bashas)*	6:53	8:23	9:53	11:23	1:53	3:23	5:18	6:46
8	Rodeo & Shelby *(Safeway)*	6:54	8:24	9:54	11:24	1:54	3:24	5:19	6:47
7	Andante & Stutz Bearcat *(Sedona Car Wash)*	6:55	8:25	9:55	11:25	1:55	3:25	5:20	6:48
6	Dry Creek & Arroyo Pinon	6:56	8:26	9:56	11:26	1:56	3:26	5:21	6:49
5	Sedona Medical Center	6:57	8:27	9:57	11:27	1:57	3:27	5.22	6:50
4	Cultural Park Pl. *(Culture Center / High School)*	6:58	8:28	9:58	11:28	1:58	3:28	5:23	6:51
3	Mingus & Main *(Goodwill)*	7:17	8:47	10:17	11:47	2:17	3:47	5:42	7:10
2	Mingus at 8th *(Across from Walking Bridge)*								
1	Arrive Cottonwood Library	7:19	8:49	10:19	11:49	2:19	3:49	5:44	7:12

Times are approximate and may vary due to weather and traffic conditions. AM times are shown in regular type. PM times are shown in **boldface type.**

Verde Lynx riders are able to transfer between local CAT routes and Verde Lynx at the Cottonwood Library by asking their driver for a transfer. Riders are also able to use the free 'Park & Ride' facilities at Garrison Park in Cottonwood and at the Municipal Lot in Sedona. Passenger fare information for Verde Lynx is presented in Table III-20.

Table III-20
Verde Lynx Fares

Type	Cost
Regular Fare	$2.00
Trips within Sedona	$1.00
Monthly Pass	$60.00
20-Ride Pass	$35.00
All Access Daily Pass*	$6.00
All Access Monthly Pass*	$75.00

**All Access Passes allow unlimited rides on Verde Lynx and CAT local routes.*

Source: Verde Lynx Rider Guide.

Vehicle Fleet & Facilities

CAT's vehicle fleet is presented in Table III-21. CAT currently has 17 vehicles, three of which are used for the Verde Lynx route. All of CAT's vehicles have wheelchair lifts and can accommodate between four and 30 passengers.

CAT's transfer center is located at the Cottonwood Library. All four local CAT routes and the Verde Lynx route stop at the Cottonwood Library. CAT also offers free 'Park & Ride' facilities at Garrison Park in Cottonwood and the Sedona Municipal Lot.

Table III-21
CAT Vehicle Fleet

ID#	Service Type	Make	Vehicle Type	Year	Miles	License	VIN#	Funding	Purchase Price	Engine Type	Air Suspension	Comp	Passenger Lift Type	# of Seats	Kneel
5701	RR	Ford	E-450 Eldorado Aerotech w/lift	2006	50894	G919GJ	1FDXE45S96HB37624	5311	$122,000	Gas	No	N/A	Side Lft	10	-
5711	CAT	Chevrolet	4500 ARBOC	2009	132474	G943GK	1GBJG31K391156191	5311	$127,250	Gas	Yes	Elect	Ramp	11	Man-dwn Auto-up
5712	CAT	Chevrolet	4500 ARBOC	2010	108569	G156GC	1GBJG31K281215410	5311	-	Gas	Yes	Elect	Ramp	14	Man-dwn Auto-up
5713	CAT	Chevrolet	4500 ARBOC	2015	60335	G540HE	1GB6G5BG1F1131121	5311	$133,500	Gas	Yes	Elect	Ramp	14	Man-dwn Auto-up
5714	CAT	Chevrolet	4500 ARBOC	2015	44703	G506HE	1GB6G5BG2F1209406	5311	$133,500	Gas	Yes	Elect	Ramp	14	Man-dwn Auto-up
5715	CAT	AMG	MV-1	2014	73862	G028HP	57WMD2A6XEM102163	5311	$44,000	Gas	Yes	Elect	Ramp	5	-
5716	CAT	AMG	MV-1	2014	76018	G027HP	57WMD2A65EM101793	5311	$44,000	Gas	Yes	Elect	Ramp	5	-
5702	CAT	Chevrolet	4500 ARBOC	2010	153941	G942GK	1GB9G5AG2A1103951	5311	$129,288	Gas	Yes	Elect	Ramp	19	Man-dwn Auto-up
5805	CAT	Chevrolet	4500 ARBOC	2010	205863	G949GK	1GB9G5AG7A1104349	5311	$133,405	Gas	Yes	Elect	Ramp	19	Man-dwn Auto-up
5812	CAT	Chevrolet	4500 ARBOC	2015	119372	G541HE	1GB6G5BG4F1129783	5311	$138,000	Gas	Yes	Elect	Ramp	19	Man-dwn Auto-up
5813	CAT	Chevrolet	4500 ARBOC	2015	106033	G507HE	1GB6G5BG8F1207093	5311	$138,000	Gas	Yes	Elect	Ramp	19	Man-dwn Auto-up
5814	CAT	Chevrolet	4500 ARBOC	2016	99055	G039HP	1GB6GUBG8G1182224	5311	$138,000	Gas	Yes	Elect	Ramp	19	Man-dwn Auto-up
5811	CAT	Navistar	El Dorado	2008	216647	G544FF	1HVBTAFM98W555046	5311	-	Diesel	Yes	Elect	Ramp	30	Man-dwn Auto-up
5901	Verde Lynx	Chevrolet	4500 ARBOC	2010	340847	G623GM	1GB9G5AGZA1103609	5311	$135,702	Gas	Yes	Elect	Ramp	23	Man-dwn Auto-up
5903	Verde Lynx	Navistar	El Dorado	2014	303466	G806GZ	5WEASAAM5FH126030	5311	$148,000	Diesel	Yes	Elect	Rear Lift	30	-
5904	Verde Lynx	Navistar	El Dorado	2014	314473	G807GZ	5WEASAAM7FH126031	5311	$148,000	Diesel	Yes	Elect	Rear Lift	30	-
5808	CAT	Chevrolet	Mini Van (Kitten)	2008	95110	G946GK	1GBDV13W98D212171	5311	$44,433	Gas	Yes	Elect	Ramp	4-5	-

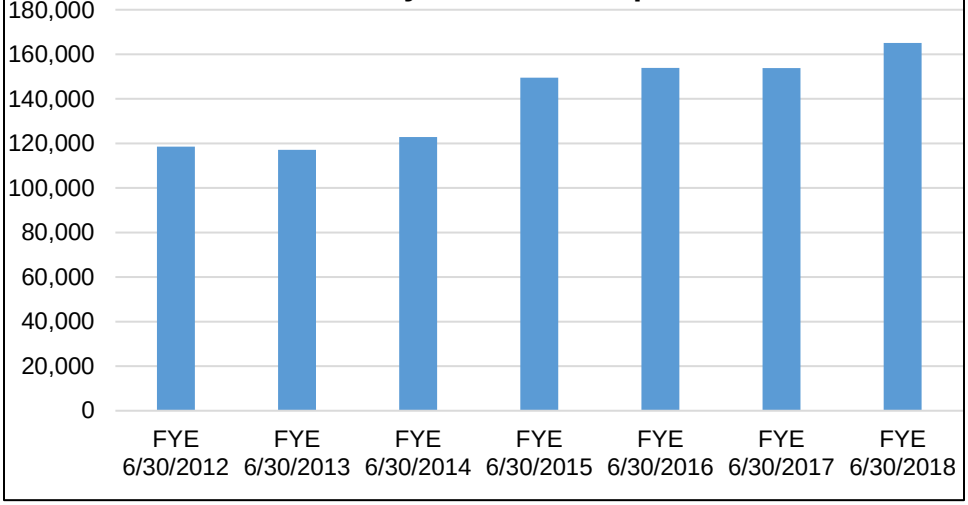
Source: Cottonwood Area Transit, 2018.

Ridership

CAT System Ridership

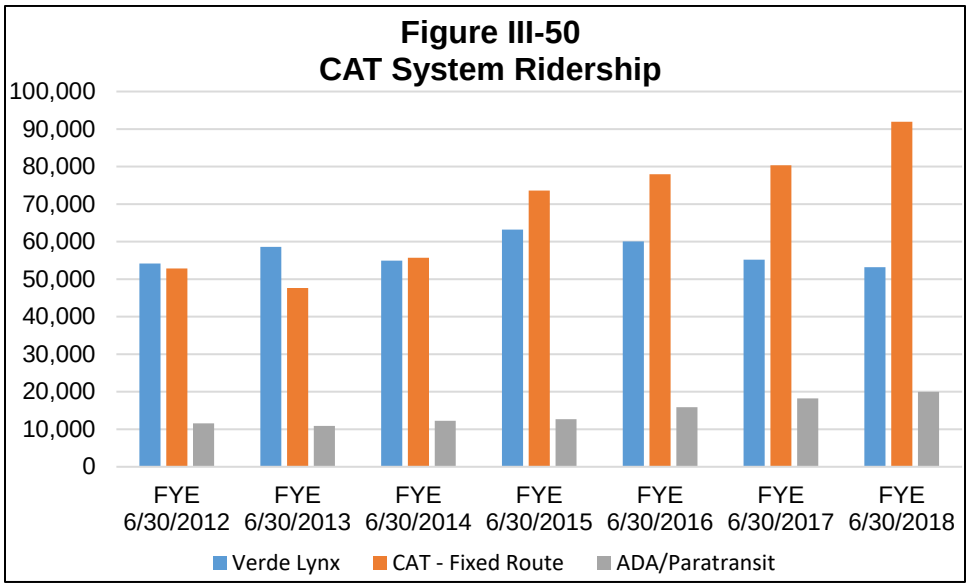
Annual passenger trip data for the CAT system, which includes passengers on the four local CAT routes, ADA paratransit services, and the Verde Lynx route, was provided for the Fiscal Year ending in June 2012 through the Fiscal Year ending in June 2018. As shown in Figure III-49, CAT's system ridership has grown by approximately 39 percent from approximately 119,000 passengers during the Fiscal Year ending in June 2012 to approximately 165,000 passengers during the Fiscal Year ending in June 2018.

Figure III-49
CAT System Ridership



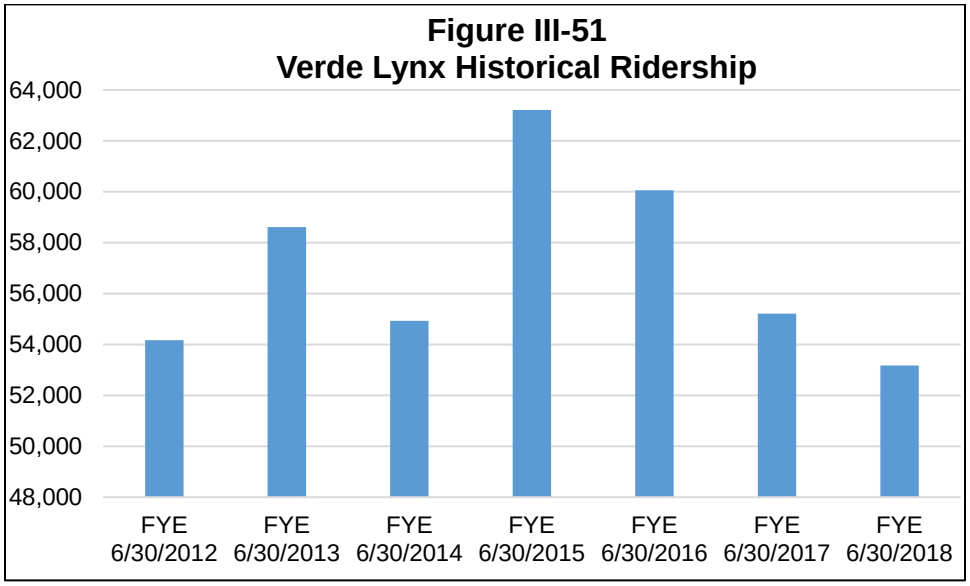
As shown in Figure III-50, Ridership on CAT's four local routes and ADA paratransit services have been increasing over the past several years, while ridership on the Verde Lynx route has been decreasing. Ridership on CAT's four local routes has grown by approximately 74 percent from approximately 53,000 passengers during the Fiscal Year ending in June 2012 to approximately 92,000 passengers during the Fiscal Year ending in June 2018. Ridership on CAT's ADA paratransit services has grown by approximately 73 percent from approximately 12,000 passengers during the Fiscal Year ending in June 2012 to approximately 20,000 passengers during the Fiscal Year ending in June 2018. On the other hand, ridership on the Verde Lynx route has decreased by approximately two percent from approximately 54,000 passengers during the

Fiscal Year ending in June 2012 to approximately 53,000 passengers during the Fiscal Year ending in June 2018.



Historical Ridership

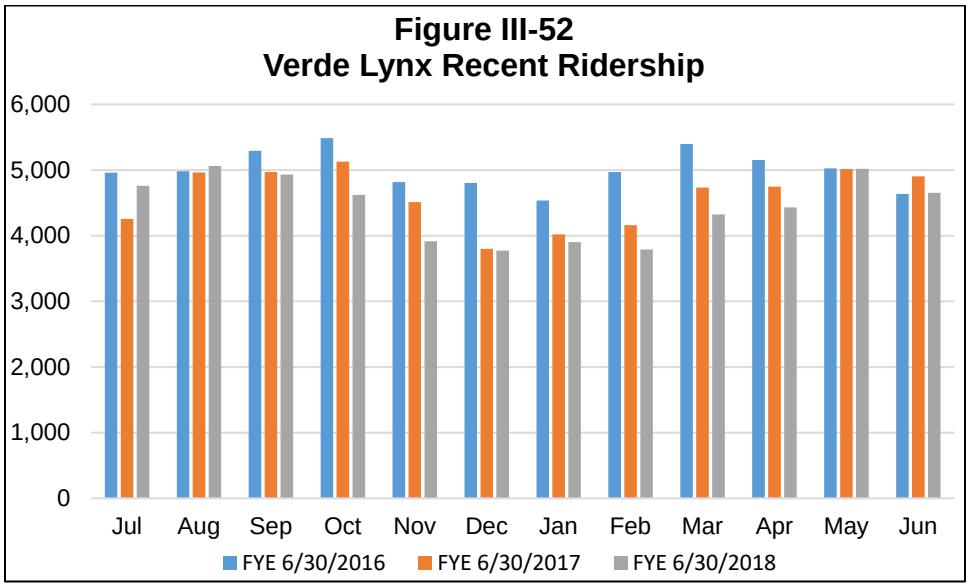
As shown in Figure III-51, ridership on the Verde Lynx route was highest during the Fiscal Year ending in June 2015, with approximately 63,000 passengers, and lowest during the Fiscal Year ending in June 2018, with approximately 53,000 passengers. Between the Fiscal Year ending in June 2015 and the Fiscal Year ending in June 2018, ridership on the Verde Lynx route decreased by approximately 16 percent.



Recent Ridership

It is important to look closely at ridership trends over the last three years to identify possible ridership changes based on route changes, economic influences such as increases in the price of gasoline, unemployment, or an economic downturn and its impact on the local economy. Figure III-52 illustrates the monthly ridership on the Verde Lynx route for the past three years. Monthly ridership was highest every month during the Fiscal Year ending in June 2016, with the exception of the months of August (when ridership was highest during the Fiscal Year ending in June 2018) and June (when ridership was highest during the Fiscal Year ending in June 2017).

Figure III-52
Verde Lynx Recent Ridership



Average Daily Boardings by Stop

Figure III-53 illustrates the average daily passenger boardings on the Verde Lynx route in Sedona for the month of September 2018. Daily averages were calculated assuming 30 operating days in September. The bus stops with the highest boarding volumes on the route are located in nearby Cottonwood, AZ and are not included in this analysis. Bus stops with the highest ridership include Outlaws BBQ (11 boardings), Arco/Bashas (10 boardings), Tlaquepaque North (nine boardings), Super 8 Motel (eight boardings), the Sedona car wash (seven boardings), Sedona Municipal Parking Lot (six boardings), and Soldiers Pass/Whole Foods (six boardings). The Sedona Medical Center, Arrow Rd, and Morgan Rd. bus stops all had less than one average daily boarding.

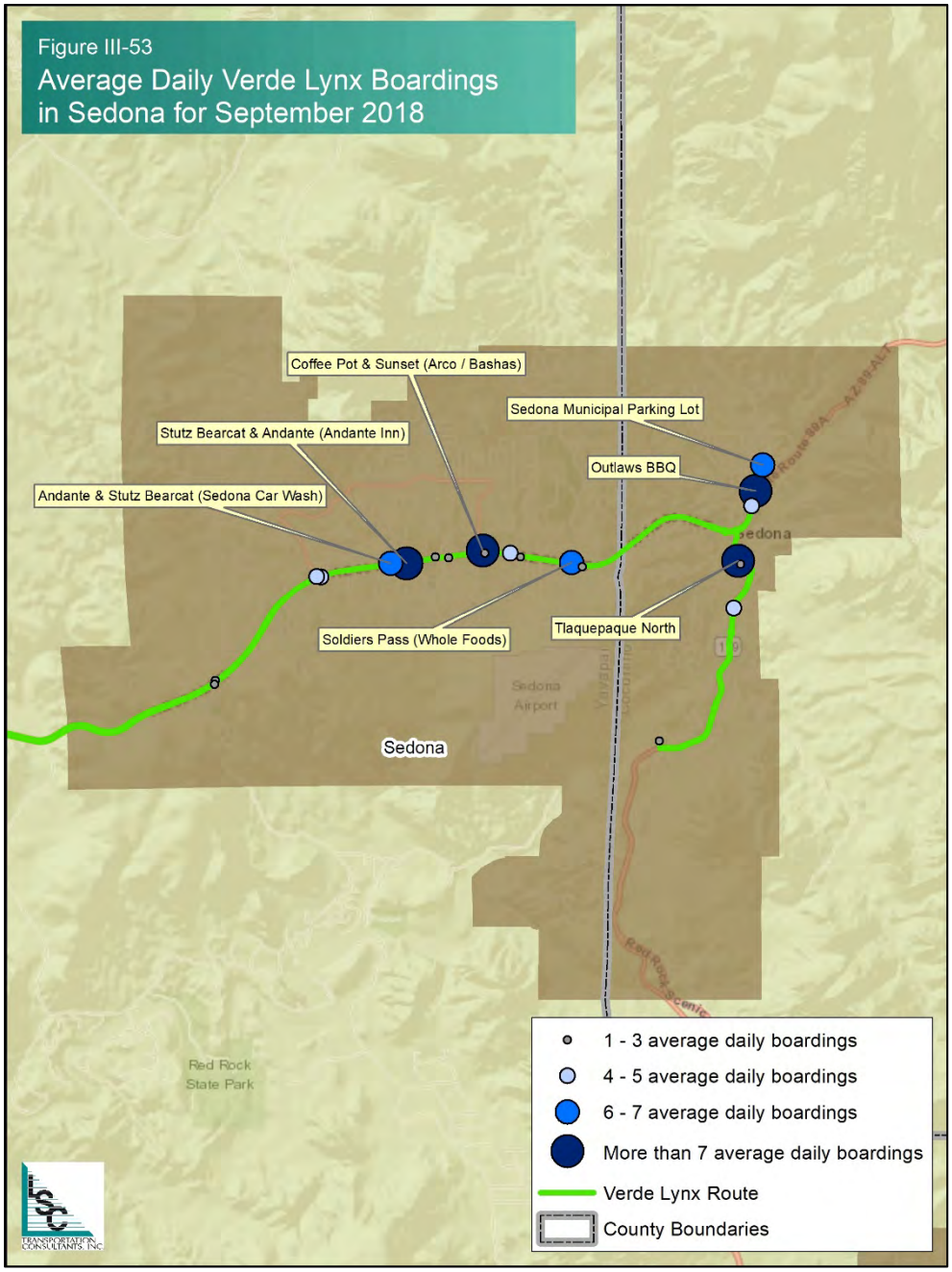
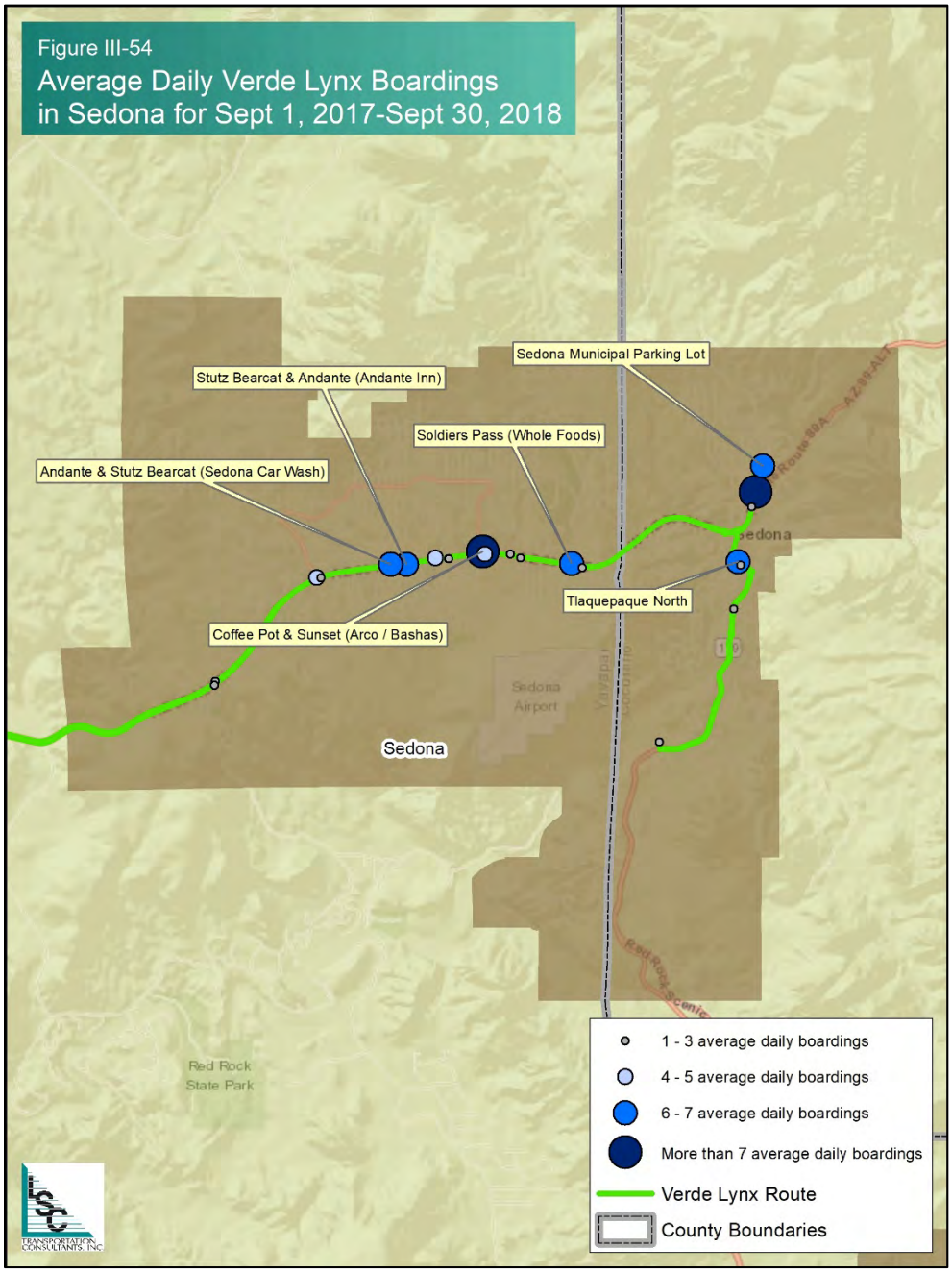


Figure III-54 shows the average daily passenger boardings on the Verde Lynx route in Sedona for the period between September 1, 2017 and September 20, 2018. Daily averages were calculated assuming 391 operating days during this span. The bus stops with the highest boarding volumes on the route are located in nearby Cottonwood, AZ and are not included in this analysis. Bus stops with the highest ridership include Outlaws BBQ (nine boardings), Arco/Bashas (nine boardings), Sedona Municipal Parking Lot (six boardings), Super 8 Motel (nine boardings), Sedona Car Wash (six boardings), Tlaquepaque North (six

boardings), and Soldiers Pass/Whole Foods (six boardings). The Sedona Medical Center, Arrow Rd, Cooper Cliffs, and Morgan Rd. stops all had less than one average daily boarding.



When comparing the bus stops with the highest boardings in September 2018 to the highest boardings between September 1, 2017 and September 30, 2018, the results are similar except for the stops at the Andante Inn and Tlaquepaque which both had higher numbers of boardings in September 2018.

Financial Review

An essential element of operating and sustaining transit service is a review of the financial characteristics of the system presented in this section.

Revenues

The revenue required to operate CAT services come from a variety of sources consisting of grants from ADOT, local community contributions from Clarkdale, Sedona, and Yavapai County, fare box revenues, and other sources. Total CAT operating revenue for the Fiscal Year Ending in June 2017 was approximately $1,357,000, as shown in Table II-22. Approximately one-third of CAT total revenues, were for the Verde Lynx route, while the remaining two-thirds, were revenues for CAT's local services. The largest revenue sources were ADOT grants which totaled almost a million dollars, with approximately $738,000 for CAT local services and $241,000 for Verde Lynx.

Table III-22
CAT Revenue Sources

Revenue Source	Actual FYE 6/30/17 Amount	Percentage
CAT Local Services (Account 15-1520)		
ADOT Grant	$737,716	54%
Yavapai County	$20,645	2%
Clarkdale	$24,650	2%
Fare Box	$115,779	9%
Fare Box - CSA CDBG	$12,492	1%
Other Income	$800	0.1%
Subtotal:	*$912,082*	*67%*
Verde Lynx (Account 15-1530)		
ADOT Grant	$240,829	18%
Sedona	$125,539	9%
Fare Box	$78,731	6%
Subtotal:	*$445,099*	*33%*
CAT Total Revenues:	**$1,357,181**	**100%**

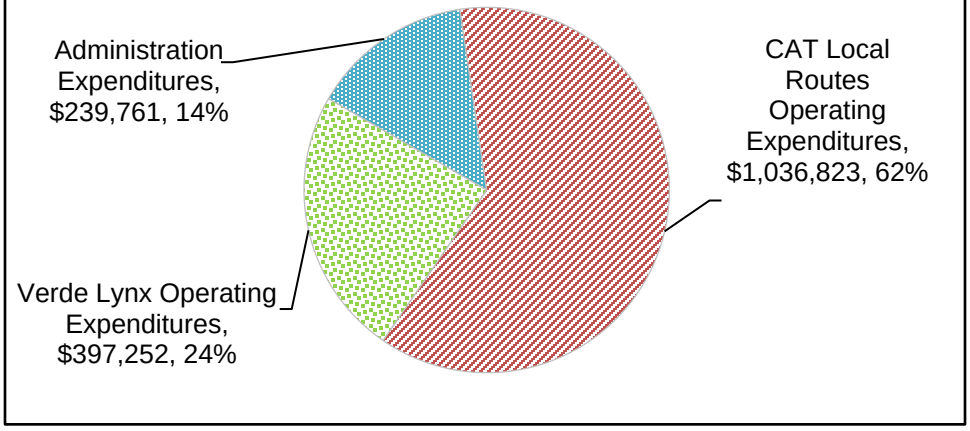
Source: CAT, 2018.

Expenditures

Total CAT operating expenditures for the Fiscal Year Ending in June 2017 were approximately $1,674,000. As shown in Figure III-55, approximately 14 percent of CAT expenditures were administration costs, 24 percent were Verde Lynx

operating expenditures, and 62 percent were expenditures for CAT's local services.

Figure III-55
CAT Expenditures



Cost Allocation Model

A cost allocation model provides base information by which current operations can be evaluated. In addition, the model is useful for estimating cost ramifications of proposed service changes.

Cost information from the Fiscal Year Ending in June 2017 was used to develop a two-factor cost allocation model of the current CAT operations. In order to develop such a model, each cost line item is allocated to one of two service variables—hours and miles and fixed costs. Fixed costs are those costs that are identified as being constant and do not increase or decrease based on the level of service. This is a valid assumption for the short term, although indirect costs could change over the long term as thresholds or "break points" are met or exceeded. Examples of the cost allocation methodology include allocating fuel costs to vehicle-miles and allocating operator salaries to vehicle-hours. The total costs allocated to each variable are then divided by the total quantity (i.e., total revenue-miles or vehicle-hours) to determine a cost rate for each variable. The cost allocation model for CAT is shown in Table III-23.

Table III-23 CAT Cost Allocation Model				
PROPOSED ACCOUNT	**Actual FY 6/30/17**	**Vehicle-Hours**	**Vehicle-Miles**	**Fixed Costs**
Admin - Salaries/Insurance/Retirement	$129,055			$129,055
Operating - Salaries/Insurance/Retirement	$955,129	$955,129		
Supplies, Building Maintenance, Furnishing/Equipment	$181,661			$181,661
Contractual Services	$20,824			$20,824
Advertising	$13,953			$13,953
Travel/Training	$3,972			$3,972
Vehicle/Radio Maintenance, Tools	$214,593	$214,593		
Fuel/Oil	$119,438		$119,438	
Liability Insurance	$35,211			$35,211
TOTAL OPERATING COSTS	**$1,673,836**	**$1,169,722**	**$119,438**	**$384,676**
Service Variable Quantities		veh-hrs	veh-mls	Fixed-Cost
Used for Planning Purposes		23,485	417,644	Factor
		$49.81	**$0.29**	**1.30**
Source: CAT, 2018				

The allocation of costs for the Fiscal Year Ending in June 2017 bus service yields the following cost equation for existing operations:

Total Cost = $384,676 + ($49.81 x Vehicle Revenue-Hours) + ($0.29 x Vehicle Revenue-Miles)

OR

Total Cost = ($49.81 x Vehicle Revenue-Hours) + ($0.29 x Vehicle Revenue-Miles) x Fixed Cost Factor (1.30)

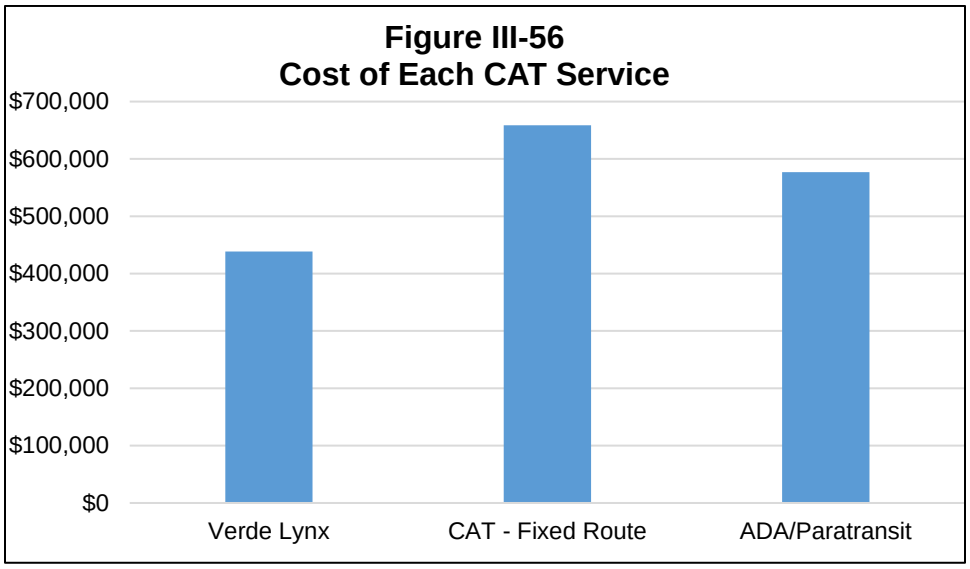
Incremental costs such as the extension of service hours or service routes/areas are evaluated considering only the mileage and hourly costs:

Incremental Costs = ($49.81 x Vehicle Revenue-Hours) + ($0.29 x Vehicle Revenue-Miles)

Cost of Each CAT Service

Using the cost allocation model for CAT services, the approximate cost for the Verde Lynx route during the Fiscal Year ending in June 2017 was $438,000, as shown in Figure III-56. The approximate cost for CAT Fixed-Route services was

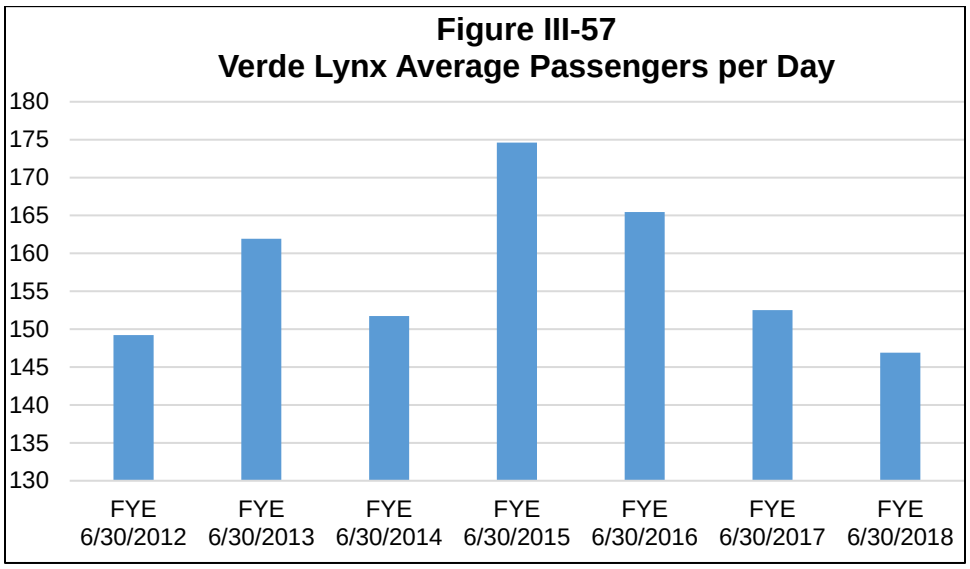
$659,000 and the approximate cost for the ADA/Paratransit services was $577,000.



Performance

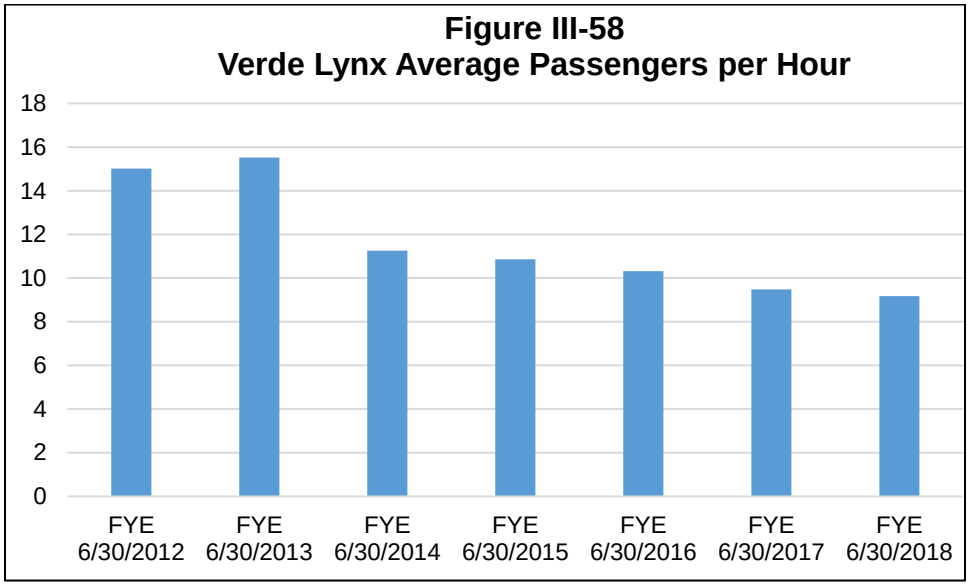
Passengers per Day

Figure III-57 illustrates the average number of passengers riding Verde Lynx per day over the past seven years. The average number of passengers riding Verde Lynx per day was highest during the Fiscal Year ending in June 2015, with approximately 175 passengers per day. The average number of passengers riding Verde Lynx per day was lowest most recently, during the Fiscal Year ending in June 2018, with approximately 147 passengers per day.



Passengers per Hour

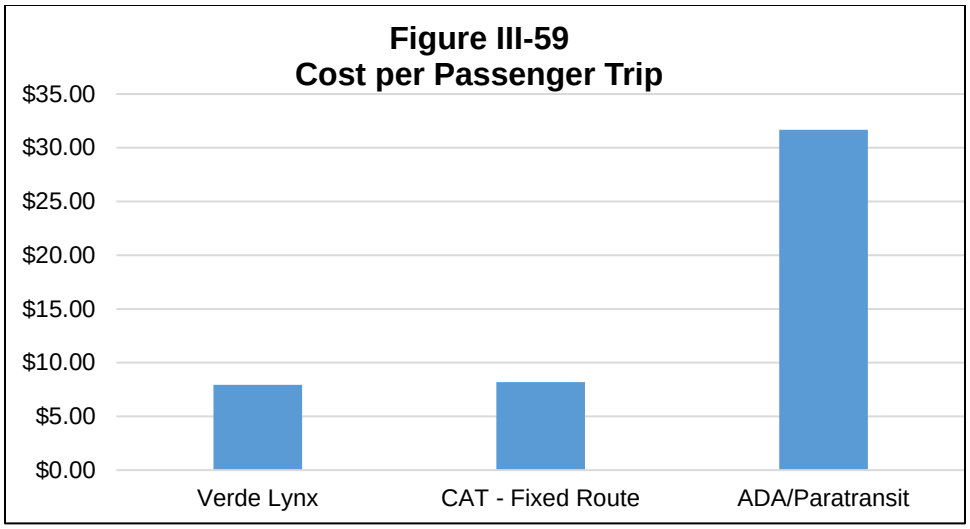
Figure III-58 illustrates the average number of passengers riding Verde Lynx per hour over the past seven years. The average number of passengers riding Verde Lynx per hour was highest during the Fiscal Year ending in June 2013, with approximately 16 passengers per hour. The average number of passengers riding Verde Lynx per hour was lowest most recently, during the Fiscal Year ending in June 2018, with approximately nine passengers per hour.



Cost per Passenger Trip

During the Fiscal Year ending in June 2017, CAT's system had an average cost per passenger of $10.88, slightly less than the average cost per passenger of $10.96 during the Fiscal Year ending in June 2016.

As shown in Figure III-59, during the Fiscal Year ending in June 2017, the Verde Lynx route had an average cost per passenger of $7.94, while the CAT Fixed-Route services had an average cost per passenger of $8.20 and the ADA/Paratransit services had an average cost per passenger of $31.66.



CHAPTER SUMMARY

Chapter III presented the community conditions, demographics, and local travel patterns for the study area, evaluated visitor activity within the study area, and provided a brief overview and analysis of the Verde Lynx route operated by CAT.

Key findings from Chapter III include:

- Sedona is a small city with a low resident population and a high visitor population, and due to the nature of the community, it is challenging to find a reasonable comparison to other communities.
- Sedona has a significantly higher older-adult population (38.3 percent) and the percentage of Sedona's seasonal residents is increasing.
- The unemployment rate of the study area is approximately 6.9 percent, slightly lower than the five-year average unemployment for the State of Arizona (eight percent).
- Only 21 employees (less than one percent) in the study area workforce reported using public transportation.
- Sedona is an employment center in the region and has a significantly higher inflow than outflow of workers. Approximately 74 percent of Sedona's workforce do not live in Sedona and about 61 percent of Sedona's residents do not work in Sedona.
- As of May 2018, there are approximately 4,000 hotel and timeshare rooms located within and outside of the City of Sedona.
- The average hotel occupancy rate in Sedona has been increasing and was 67.4 percent during the first half of FY 2018 while the average daily hotel room rate remained constant at $211 between FY 2017 and the first half of FY 2018.

- The number of visitors to the study area is significant – During peak periods the population in Sedona can increase by approximately 53 percent to approximately 28,000 people.
- Visitors to Sedona tend to be older adults in groups of one to two people and have a high annual household income.
- Visitors tend to stay in hotels and motels, but the number of visitors staying in Airbnb and vacation rentals has been increasing and results in a lack of affordable housing in the area. Recent state legislative action may accelerate this trend.
- The number of respondents using a personal car to visit Sedona has been decreasing while the number using a rental car has been increasing. The vast majority of visitors arrive either by personal car or rental car, which may impact potential transit usage.
- The most popular months to visit are March through July and September and October.
- In 2017, the median length of visitor trips to Sedona was 3.3 days, and day visitors accounted for 23 percent of all visitors.
- The most popular activities visitors indicated they participated in include shopping, dining, sightseeing, and hiking/biking. It is notable that both shopping and dining ranked higher than hiking, biking, or going to rivers/lakes.
- There were approximately 1,728,000 trail visitors to the Red Rock Ranger District in 2015, and the most visited trails were Bell Rock Pathway, Cathedral Rock, and West Fork.
- Visitors' favorite qualities about Sedona are the scenic beauty, the weather, and shopping while the least favorite include parking, traffic, and overcrowding.
- Visitors identified parking and overcrowding as serious problems to the park conditions of Slide Rock State Park.
- Verde Lynx Route:
    - Ridership has decreased by approximately 16 percent from FY 2014/2015 to FY 2017/2018.
    - The approximate cost for the Verde Lynx route during FY 2016/2017 was $438,000.
    - Verde Lynx's average passengers per hour has been decreasing and was nine passengers per hour during FY 2017/2018.
    - During FY 2016/2017, the Verde Lynx route had an average cost per passenger of $7.94.

(This page intentionally left blank.)

Chapter IV

(This page intentionally left blank.)

CHAPTER IV

Stakeholder and Community Input

Chapter IV presents the input gathered from stakeholders and the community through interviews, a community open house, and surveys.

PUBLIC OUTREACH

Table IV-1 lists the stakeholders we have talked to, including representatives from partner organizations, elected officials, the business community, recreation, Oak Creek Canyon, and others.

What We Have Heard

Is There a Need for a Visitor-Oriented Shuttle Service in the Sedona-Oak Creek Canyon Area?

There is a strong consensus that "something" needs to be done in order to address Sedona's growing traffic congestion, reduce parking congestion at trailheads, improve the visitor experience and provide employee transportation.

- Traffic backups have steadily gotten worse over the past 6 years and now pose safety risk and quality of life issue for Oak Creek Canyon home owners. *Oak Creek Canyon Resident*
- Horror stories of weekend traffic requiring hours to go short distances between VOC, Sedona and the Canyon. *Numerous Residents*
- Hiking and biking are the main reasons people come to Sedona. Trailheads are all over the city. There is not enough parking at the trailheads so people park in the neighborhoods blocking local streets. *City Councilor*
- I hear a lot of complaints about parking and access – 99 percent relating to the Canyon area north of Sedona. *Outdoor Coordinator for REI*
- Biggest transportation issue in Sedona from Forest Service perspective is negative impact of traffic on the visitor experience. *Forest Service Representative*
- Transit may be the "only answer" to the traffic and congestion issues. Oak Creek Canyon area is highest priority/need but the backups are going all the way out to VOC and beyond, so it is an issue for all. *County Supervisor*

Table IV-1
Stakeholder Outreach

Type of Stakeholder	Name	Position, Organization
Partners		
	Karen Osburn	Assistant City Manager / Community Development Director, City of Sedona
	Cynthia Lovely	Senior Planner, City of Sedona
	Justin Clifton	Sedona City Manager ◆
	Stephen Craver	Engineering Supervisor, City of Sedona
	Bruce Morrow	Transit Manager, City of Cottonwood ◆
	Rudy Rodriguez	Deputy City Manager, City of Cottonwood ◆
	Tim Dalegowski	Transportation Planner, Coconino County Public Works
	Sara Allred	Program Manager, Transit, ADOT
	Audra Merrick	District Engineer, ADOT
	Dallas Hammit	State Engineer, ADOT ◆
	Mel Green, M.A., CPRP	Operations Manager, Arizona State Parks & Trails ◆
	James Meza	Hydrologist, Arizona State Parks & Trails
	Keith Ayotte	Arizona State Parks & Trails ◆
	Hank Vincent	Park Manager, Slide Rock State Park ◆
	Nicole Branton	District Ranger, Forest Service, Red Rock Ranger District, Coconino National Forest ◆
	Adam Barnett	Recreation and Wilderness Program Manager, Red Rock Ranger District ◆
	Aaron Mayville	Deputy Forest Supervisor
	Jennifer Wesselhoff	President/CEO, CDME, Sedona Chamber of Commerce & Tourism Bureau ◆
	Kris Kazian	Fire Chief, Sedona Fire District
Elected Official		
	Sandy Moriarty	Mayor
	John Martinez	Vice Mayor
	John Currivan	City Councilor
	Scott Jablow	City Councilor
	Jon Thompson	City Councilor
	Jessica Williamson	City Councilor
	Randy Garrison	Yavapai County Supervisor
	Tom Thurman	Yavapai County Supervisor
	Matt Ryan	Coconino County Supervisor
	Keith Brekhus	Constituent Service Representative
	Tom O'Halloran	Congressman
Business Community		
	Jennifer Wesselhoff	Sedona Chamber of Commerce and Tourism Bureau, Executive Director
	Steve Segner	El Portal Hotel Owner and Lodging Council Chair
	Wendy Lippman	Tlaquepaque, General Manager/Partner & Sedona Gallery Association
	Jesse Alexander	Sedona Trolley/Sedona Center Properties, COO
	Dave Swartwout	Safari Jeep Tours
	Al Comello	Comello Media
	Linda Goldenstein	Goldenstein Gallery
	Lodging Council:	
	Holiday Inn Express	
	Marriott Residence Inn	
	Sedona Rouge	
	L'Auberge	
	Lonnie Lillie	
	Greg Stevenson	The Hike House
	Eben and Ali Hartzenber	Bennalli's
	Rob Arbogast	Sedona Outdoors
Recreation		
	Mike Rainey	Over the Edge Bikes
	Kevin Adams	Red Rock Trail Fund
	Dr. Curtis Kommer	Red Rock Trail Fund
	Michael Yarbrough	President, Keep Sedona Beautiful
	Justin Inglis	Outdoor Programs and Outreach Coordinator, REI
Oak Creek Canyon		
	Marcie Ellis	Traffic Matters – Action Committee for Oak Creek Canyon
	W. M. Stalcup	Traffic Matters – Action Committee for Oak Creek Canyon
	Mary Garland	Traffic Matters – Action Committee for Oak Creek Canyon
	Max Licher	Architect
Other		
	Dennis Dearden	Superintendent, Sedona Oak Creek School District
	Janeen Trevelyan	Heritage Museum Volunteer
	Christopher Fox Graham	Editor, Red Rock News

Note:
◆ *Denotes stakeholder interviews with partner agencies in addition to TAC meetings.*

- Employee transportation is a critical concern for businesses in VOC. One sick employee who is the driver in a carpool can mean that you lose four staff people. *Hotelier in VOC*

Who Should the Shuttle Serve?

There are a variety of target groups that might be served by a transit service. There were mixed views about the willingness of different market segments to leave their cars and use a shuttle.

Overnight Visitors

- **Hotel Guests**: There was generally a feeling that overnight visitors staying in hotels are the "low hanging fruit" for a shuttle service. Many hotels are located along the major highways and could be easily served; visitors can leave their vehicles at the hotel parking lot; and the hoteliers expressed a strong willingness to promote the service to their guests.
- **International Visitors:** Hoteliers mentioned that international visitors often arrive without a vehicle (via Arizona Shuttle) and would welcome a shuttle that served major destinations. They currently have to hire someone to drive them.
- **Airbnb Guests:** The proliferation of short-term rentals, particularly in West Sedona, was a topic that came up repeatedly during the outreach. It was noted that these guests would be much harder to serve with a shuttle since they are widely dispersed and not necessarily near the highway. They would need to drive to a Park-n-Ride or collector point to access a shuttle, or would need to be served by a demand response type service.
- **VOC Visitors:** There are a growing number of hotels in the Village of Oak Creek and a desire for a transportation service that would link them with Sedona and Oak Creek Canyon.
- **Campers:** Most input was that campers would be unlikely to use a shuttle service to any significant extent.

Day Visitors

Sedona and Oak Creek Canyon get a large number of day visitors from Phoenix, and to a somewhat lesser degree from Flagstaff. The Phoenix visitors contribute to the traffic from the freeway north, while the Flagstaff visitors contribute to the traffic in the Canyon. It was generally perceived that it would be more difficult to get these visitors to leave their cars and use a shuttle, particularly since they are often traveling with a lot of gear (ice chests, grills, etc.).

- **From Phoenix:** Participants discussed the potential for Park-n-Rides around the Red Rock Ranger Station, in the Village of Oak Creek and/or in uptown Sedona to intercept these visitors and get them on a shuttle before they reach the most congested areas.
- **From Flagstaff:** Day visitors from Flagstaff would need to be intercepted at the Overlook before entering Oak Creek Canyon. This was an audience of concern primarily to Oak Creek Canyon residents who feel that many NAU students and Grand Canyon visitors access the area from this direction.
- **Sightseers:** A subset of day trippers is those who wish to drive through the Canyon and take photos, but not actually stop anywhere. There was a suggestion that this type of visitor would be unlikely to use a destination-oriented shuttle, but might be served by a private sightseeing shuttle.

Tourism Industry Employees

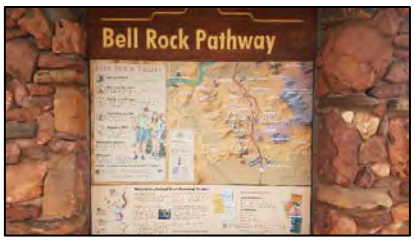
Many tourism industry employees in Sedona currently use the Verde Lynx to commute from Cottonwood. This service was highly regarded by business representatives, and the planned expansion to later hours was welcomed. However, hoteliers in the Village of Oak Creek argued strongly for a service that would get employees from Cottonwood (and Camp Verde) to VOC. Other employers noted the need for more stops in Cottonwood, so that employees wouldn't have to drive or use a second bus route to get to the Verde Lynx stop. Some Sedona employers shuttle their own employees from Cottonwood or provide a van for them to drive. It was generally believed that the proposed shuttle service should meet the needs of employees as well as visitors.

Local Residents

During the outreach effort, we were repeatedly cautioned "not to forget the local residents." While most residents acknowledged that it would be difficult to get people out of their cars for day to day activities, they thought that residents should have an option. The times when residents would most likely use a shuttle would be to access trailheads where parking is limited, to attend festivals or special events in uptown or to go out in the evening without the concern of drinking and driving. A few participants discussed the need for transportation that would serve the aging population, providing easy access to grocery stores and medical facilities. It was generally acknowledged that this might need to be a demand response service in order to reach into the neighborhoods.

Where Should the Shuttle Go?

Broad input indicates that the transportation service needs to be relatively comprehensive – serving hotels, commercial destinations and trailheads throughout Sedona, VOC and Oak Creek Canyon. It was repeatedly noted that it needs to be different than the prior RoadRunner service which served only a very limited area in the core Uptown to Hillside area.



- **Key Trailheads & Recreation Areas:** The single most common answer to the question of where the shuttle should serve was trailheads. Both locals and visitors use the trailheads throughout Oak Creek Canyon and West Sedona, resulting in congestion and spillover parking on the roadside and in neighborhoods. Among the most frequently mentioned locations were:

    - Oak Creek Canyon: West Fork, Slide Rock State Park, Grasshopper
    - West Sedona: Airport Overlook, Devil's Bridge, Dry Creek
    - South to Ranger Station: Cathedral Rock Trailhead, Bell Rock

The strong support for serving the destinations described above is somewhat complicated by the concerns of the Forest Service and State Parks regarding capacity of the various recreation areas. Up to this point, capacity has been (somewhat) constrained by parking. There is some fear that providing shuttle access (without truly reducing parking) will overload popular trails and destinations.

- **Uptown Sedona and Tlaquepaque:** For many day visitors these are the primary destinations. For longer term visitors they are important destinations for shopping and dining.

One business owner suggested a hop on-hop off service that would connect a few popular day-tripper destinations including uptown, Tlaquepaque and the Airport Overlook.

- **Hotels:** It was frequently noted that if overnight visitors are going to use the service, it has to serve the hotels throughout the service area in a convenient manner. There are significant concentrations of hotel rooms in:

    - Uptown Sedona and Hillside area

- West Sedona
- Village of Oak Creek

- **Park-n-Ride Lots:** Appropriately located shuttle pickup points with parking will be important to attract overnight visitors staying in short term rentals and hotels not served by the shuttle system. They will also be critical in facilitating use by day visitors arriving from the south, west or north.

Desired Characteristics of the Shuttle Service

Asked what characteristics would make the shuttle service attractive to potential riders, stakeholders and residents noted the following factors:

- **Frequent:** The service needs to be frequent in order to be convenient. Asked how frequent, most people said every 15-30 minutes, possibly every hour in outlying areas. A few individuals argued for on-demand service that would come when requested, but most thought a predictable frequent schedule was preferable.
- **Hours:** Participants noted that the hours of the service need to accommodate various activities:
  - Outdoor activities: Sunrise to sunset – varying with the season.
  - Dining: late enough in the evening for people to go out for dinner and drinks
  - Working: service workers require service from early morning (6 a.m.) until the bars and restaurants close (11 p.m.)

  It was noted that service levels might need to vary with season and with weekday versus weekend.
- **Stay Primarily Along Highways:** Asked if bus stops should be primarily along the highway or include deviations into neighborhoods, views were somewhat mixed. Most people felt that for convenience, ease of understanding and speed of travel, the shuttle should primarily serve stops along 179 and 89A. This would provide easy access to most hotels and key destinations. However, serving trailheads in West Sedona will require going off the highway and into the neighborhoods. Some participants felt that a different type of service (demand response) would be needed for the trailheads.
- **Fare Free or Low Cost:** Most input indicated that a free service would be the most attractive and most likely to reduce traffic, if it could be afforded. It was noted that any fare could present a barrier to use and that this was particularly true for families or groups who would have to pay multiple fares. One alternate view was that, if there were virtually no parking

allowed in Oak Creek Canyon, pricing of the Canyon shuttle could be used to limit demand.

- **Vehicles:** There was a strong consensus for vehicles very different than the RoadRunner trolleys. Key attributes that participants suggested for the vehicles included:

    - Green Vehicles: Electric or other low emission vehicles.
    - Bike Racks: Recreation groups and businesses said it is critical that the vehicles provide capacity for as many bikes as practical since Sedona has become a mountain biking destination.
    - Room for Gear: It was repeatedly noted that visitors bring a lot of gear with them when going to recreation sites and that the shuttles need to provide room for it.
    - Right-sized: There was general consensus that smaller vehicles are more desirable – however they need to be large enough to accommodate families and group traveling together (average group at Slide Rock is 5+) and to allow for bikes and gear.

- **Easy to Understand:** Hoteliers in particular noted the need for the service to be easy to understand and promote to tourists. This includes clear signage and wayfinding, easy to read maps, predictable schedules and real time information via app or at stop displays.
- **Boldly Branded/Promoted by Businesses:** The shuttle needs to be clearly branded and aggressively promoted. One hotelier advocated for a clear, identifiable branding (like Pink Jeeps), while another stakeholder suggested that the style needs to be "Enviro-Chic." Hoteliers represented at the Lodging Council expressed strong willingness to play a key role in promoting the service.
- **Education and Information:** The Forest Service, Park Service and businesses saw the shuttle as an opportunity to provide information and educate visitors. Specific comments related to GPS activated announcements about the area and educational messages about protecting the natural environment and leaving no trace.

Key Issues to be Addressed in Service Design

The limited road network in the Sedona-Oak Creek Canyon area makes the route design seem somewhat obvious – three legs serving Ranger Station to Uptown, Uptown to West Sedona and Uptown north through Oak Creek Canyon. However, there are three issues which must be addressed:

Locations for Park-n-Ride Lots

It would be desirable to have Park-n-Rides at the points where visitors enter the service area from the south, west, and north. Identifying and securing these locations will be critical to the service design. Suggestions for potential destinations included:

- **South:** Red Rock Ranger Station or Outlet Mall in VOC
- **Central:** Uptown Sedona – public parking lots/Jordan road location or lot by Tlaquepaque – potential for parking garage
- **West:** Land adjacent to waste-water facility or Cultural Park in West Sedona
- **North:** Overlook parking lot at the north end of Oak Creek Canyon

Two of the suggested parking locations belong to the Forest Service. The Deputy Superintendent notes that park and ride on Forest Service land is "uncommon, but not unheard of."

How to Serve Trailheads in Neighborhoods

As previously noted, many of the popular trailheads are located in neighborhoods and at some distance from the highway. How to serve these locations with a shuttle is a question that came up repeatedly during the outreach. Some advocated for a separate demand response service.

Bus Stops Locations Along Highway

The shuttle is likely to operated largely on state highways 179 and 89A. Stakeholder noted that identifying convenient stop locations, on or off the highway, will be a key part of the service design challenge.

Traffic - Impact on Bus Schedule

It was commented frequently that the shuttles are likely to be "stuck in traffic" and unable to stay on a schedule. Finding ways to overcome this (by staging extra buses) was considered critical to creating a reliable system – otherwise people would be waiting for long periods and would give up.

Other Challenges to be Addressed in Implementing a Shuttle Service

Other challenges to implementation that were addressed by stakeholders included:

Governance Structure

Who will govern and who will operate the shuttle service were topics that were discussed by stakeholders but without a clear opinion about the appropriate direction. Some assumed that the shuttle would be an extension of the Verde Lynx operated by Cottonwood. Others thought that an entirely separate operation would be needed. The number of jurisdictions involved – City of Sedona, Yavapai and Coconino Counties, Forest Service and State Parks – suggests the potential for some kind of joint powers authority or transit district.

Funding

Most respondents assumed that funding the service would be difficult and would require a combination of funding sources. Specific comments relating to funding included:

- The service needs to serve both visitors and residents, but should be paid for by visitor taxes. *Sedona resident at Open House*
- Arizona has not previously provided rural transit funding (5311) for visitor-oriented services. *ADOT*
- The Chamber of Commerce is using a portion of their bed tax allotment to expand Verde Lynx service into the evenings and might play a role in funding the shuttle. *Chamber of Commerce*
- Funding will be a challenge. All of the buses, turnouts, bus stops, etc. will take a lot of money and who will pay for that? There is no money to do road widening or improvements. The fare will need to help pay for service. Private public partnerships will be critical. *Elected Official*
- Suggestion to ask hotels that have shuttles to pool resources to support citywide hotel shuttle. *Elected Official*

Actions on Forest Service lands will Require NEPA Review and Potential Permits

Many of the key destinations for the shuttle are located in or adjoining the Coconino National Forest. According to the Deputy Forest Supervisor, any action where "turning dirt" is required will necessitate a National Environmental Policy Act (NEPA) review. Other actions which don't involve construction, such as

serving an existing Forest Service parking lot or dropping off near a Forest Service trailhead, may also require a NEPA review or at least a thorough capacity/impact study. Understanding and incorporating this NEPA or impact study process, and associated completion time, into planning the service is necessary. It could take 18-24 months to complete.

Forest Service permits are required for drop-offs on Forest Service sites or if the shuttle creates an impact to forest lands. Commercial vehicles (including taxis) are not allowed to drop people there.

Emergency Evacuation of Canyon in the Event of a Fire

Residents of Oak Creek Canyon and the Sedona Fire District have noted the need for a plan for how to evacuate shuttle-riders in the event of a fire or other emergency in the canyon.

Transit Is Only Part of the Solution

In speaking with elected officials, business owners, project partners and residents it was constantly made clear that transit alone cannot resolve the issues of traffic, congestion, and overcrowding that are at the heart of this project's objectives. Making real progress will require additional actions on the part of the City, DPS, Coconino National Forest and Arizona Parks.

Parking Limitation/Enforcement

The limitation of parking in Oak Creek Canyon and the enforcement of parking regulations both in the Canyon and at trailheads were seen as critical components of reducing traffic and congestion.

The current efforts by ADOT and the National Forest Service to block roadside areas currently used for parking are very welcomed by residents.

Other specific comments included:

- If people can continue to park illegally, they will. They need to be ticketed every time. *Sedona Resident.*

- Overflow parking in neighborhoods degrades the experience of both residents and visitors. There needs to be better signage and enforcement. (One respondent said they had counted 130 cars parked at Dry Creek as they walked a long distance to the trailhead. Other residents told of having hikers park on their private property.)
- There is only a single patrol officer assigned to the canyon. In a car, they are unable to get in to address the problem. They need to be on motorcycles. *Canyon Resident*

Capacity of Destinations

There is some concern from the National Forest Service, Arizona Parks and residents that, without mitigating actions, a shuttle could simply add more people to already crowded trails and recreation areas. Possible actions which were suggested to improve access while protecting the natural resource included:

- Establishing capacity limitations for trails and enforcing those in ways other than by the number of parking places
- Potential reservation-based parking at Slide Rock, West Fork, and other locations.
- Policies/amenities at Slide Rock to reduce the amount of "stuff" that visitors bring – encouraging them to use the shuttle instead of driving.

Pedestrian Access in Canyon

Many people commented on the danger of walking along the road in Oak Creek Canyon and the lack of options for providing pedestrian access from a shuttle stop to other destinations. One stakeholder and canyon resident proposed that there be a continuous trail that parallels the road to allow hikers to walk without having to be on the roadway.

Fees for State Park and National Forest

Both Arizona Parks and the Coconino National Forest rely on vehicle-based fees for critical income. Slide Rock charges visitors $30 per car-load, while the Red Rock Pass is required for those parking in Forest Service recreation areas. A critical concern is how to protect income which is used to maintain and support the resources, while providing an incentive for visitors to use the shuttle. It was discussed that this may

mean changing the way visitors pay for access to an individual-based, rather than vehicle-based, strategy.

Diversionary Signage at Freeway

There was much discussion of the plan for dynamic signage at the freeway to inform travelers about travel times through the canyon and to encourage through travelers to use the freeway route. Similar signage was suggested at perimeter Park-n-Rides to let visitors know about parking limitations or reservation systems and direct them to the free parking/free shuttle.

Need for Comprehensive Solution in Order to Succeed

A number of stakeholders noted that the shuttle must be relatively comprehensive in nature, if it is to succeed. They noted that the RoadRunner, which was Phase 1 of a larger plan, was too limited to make a real difference and therefore easy for elected officials to eliminate even though it was accomplishing its limited objective.

- This system needs to implement enough of a change to significantly solve congestion in the corridor, or it will be ineffective and unused. This will require changing parking enough to force day trippers to use the shuttle. *Resident and Business Owner*
- Caution about trying to take on too much at once, but taking on only one part may not be enough because people may not see the success. *NAIPTA*
- While the service needs to be designed primarily for visitors, it needs to be broad enough to provide a benefit for residents too. Otherwise they will resent "their tax dollars" paying for it. *Media Representative*
- There were a number of comments about making the service truly regional – providing links to Flagstaff and other Verde Valley communities.

Public Outreach Summary

The public outreach effort consisted of talking to a variety of stakeholders including representatives from partner organizations, elected officials, the business community, recreation, and Oak Creek Canyon. Key findings from the discussions included:

- There is a strong consensus that "something" needs to be done in order to address Sedona's growing traffic congestion, reduce parking congestion at

trailheads, improve the visitor experience and provide employee transportation.

- There are a variety of target groups that might be served by a transit service and there were mixed views about the willingness of different market segments to leave their cars and use a shuttle.
    - General belief that overnight visitors staying in hotels are the "low hanging fruit" for a shuttle service.
    - International visitors often arrive without a vehicle and would welcome a shuttle that served major destinations.
    - Airbnb guests would be much harder to serve with a shuttle since they are widely dispersed and not necessarily near the highway.
    - Visitors staying at hotels in the Village of Oak Creek would desire a transportation service that would link them with Sedona and Oak Creek Canyon.
    - Campers would be unlikely to use a shuttle service to any significant extent.
    - It was generally perceived that it would be more difficult to get daytrip visitors to leave their cars and use a shuttle, as they are often traveling with a lot of gear.
    - Park-n-Rides may be an option to intercept some daytrip visitors and get them on a shuttle before they reach the most congested areas.
    - It was generally believed that the proposed shuttle service should meet the needs of employees as well as visitors.
    - While most residents acknowledged that it would be difficult to get people out of their cars for day-to-day activities, they thought that residents should have an option to use local transportation. It was generally acknowledged that this might need to be a demand response service in order to reach into the neighborhoods.
- Broad input indicates that the transportation service needs to be relatively comprehensive, serving hotels, commercial destinations, and trailheads throughout Sedona, VOC, and Oak Creek Canyon, and it needs to be different than the limited area the prior RoadRunner service operated.
    - Key trailhead locations to serve included: Oak Creek Canyon (West Fork, Slide Rock State Park, Grasshopper), West Sedona (Airport Overlook, Devil's Bridge, Dry Creek), and South to Ranger Station (Cathedral Rock Trailhead, Bell Rock).
    - Key shopping and dining locations to service included: Uptown Sedona and Tlaquepaque.

- The transit service needs to serve the concentrations of hotels located in uptown Sedona and the Hillside area, West Sedona, and the Village of Oak Creek.
- Appropriately located shuttle pickup points (Park-n-Rides) will be important to attract overnight visitors staying in short-term rentals and hotels not served by the shuttle system.

- The most important characteristics that would make the shuttle service attractive to potential riders, stakeholders, and residents included:
  - Frequency – the majority of people said every 15-30 minutes, possibly every hour in outlying areas.
  - Service Hours – needs to accommodate a variety of users, including outdoor activity participants (sunrise to sunset), people dining (late enough in the evening for people to go out for dinner and drinks), and workers who are commuting (early morning until late evening).
  - Roads - the majority of people felt that for convenience, ease of understanding and speed of travel, the shuttle should primarily serve stops along 179 and 89A.
  - Fares - the majority of people indicated that a free service would be the most attractive and most likely to reduce traffic, if it could be afforded.
  - Vehicles – many people felt that green vehicles were needed, along with appropriately sized vehicles that could accommodate bike racks and room for gear.
  - The shuttle service should be easy to understand in order to promote it to tourists.
  - The shuttle needs to be clearly branded and aggressively promoted.
  - The shuttle is an opportunity to provide information and educate visitors about protecting the natural environment.

- It would be desirable to have Park-n-Rides at the points where visitors enter the service area from all directions. These locations include the Red Rock Ranger Station or Outlet Mall in VOC (south), public parking lots/Jordan road location or lot by Tlaquepaque in Uptown Sedona (central), land adjacent to waste-water facility or Cultural Park in West Sedona (west), and overlook parking lot at the north end of Oak Creek Canyon (north).

- Identifying convenient bus stop locations, on or off the state highways 179 and 89A, will be a key part of the service design challenge.

- The shuttles will need to be able to stay on a schedule and be reliable despite the existing traffic.
- Other challenges to implementation that were addressed by stakeholders included governance structure, funding, NEPA review and potential permits for actions on Forest Service lands, emergency evacuation of Oak Creek Canyon in case of a fire, transit alone cannot resolve the traffic and congestion issues, parking limitation and enforcement in Oak Creek Canyon, capacity of destinations, pedestrian access in Oak Creek Canyon, fees for State Park and National Forest, diversionary signage at the freeway, and need for comprehensive solution in order to succeed.

CHAMBER VISITOR SURVEY

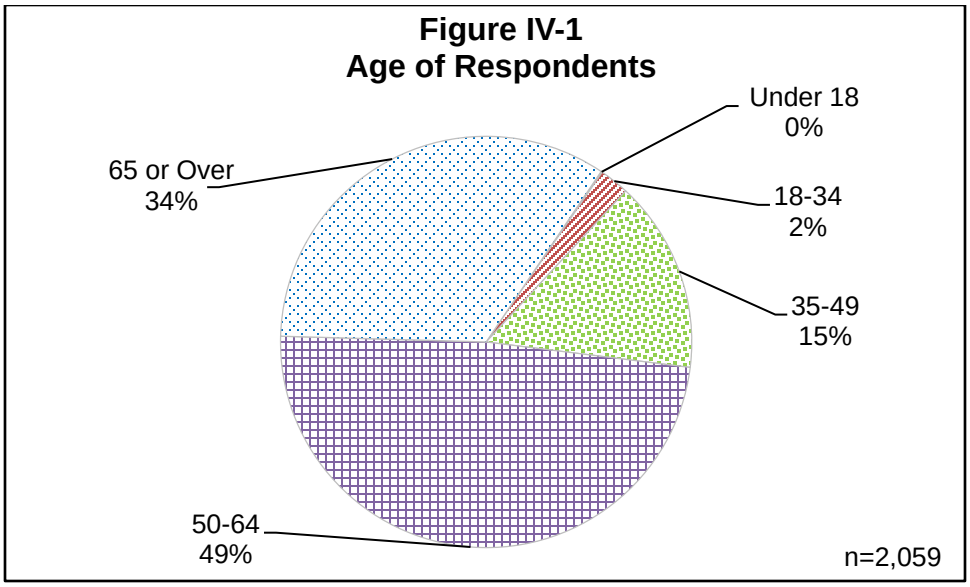
The Sedona Chamber of Commerce and Tourism Bureau collects survey data from visitors who request information. Data were collected using a web-based survey which was sent to individuals who requested the Chamber's E-Newsletter. Between May 1, 2018 and August 17, 2018, a total of 2,066 survey responses were received. Key findings from analyzed data are summarized in the following pages.

Residence Location

Survey respondents indicated they resided in each of the 50 U.S. States and the District of Columbia. The top five most frequent residence locations included California (190 responses, 10 percent of all responses), Illinois (121 responses, six percent of all responses), Florida (116 responses, six percent of all responses), Arizona (110 responses, six percent of all responses), and New York (104 responses (five percent).

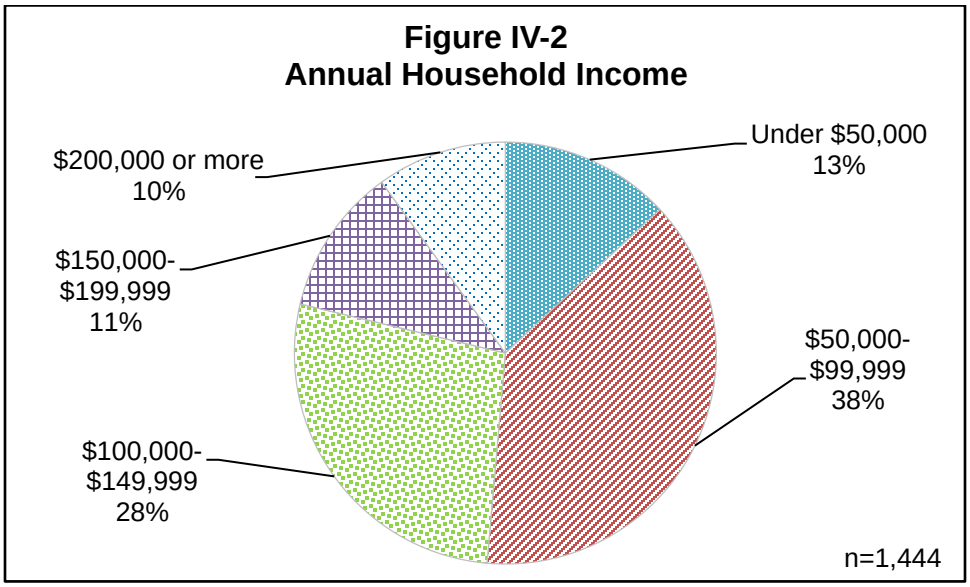
Age of Respondents

As shown in Figure IV-1, the majority of respondents (82 percent) were over the age of 50, with 49 percent being between the ages of 50 and 64 and 34 percent being age 65 or older. Approximately two percent of respondents were age 34 or younger.



Annual Household Income

Slightly more than half of respondents reported an annual household income under $100,000, while the other half of respondents indicated an annual household income over $100,000. As shown in Figure IV-2, most respondents indicated their annual household income was between $50,000 and $99,999 (38 percent), followed by $100,000 to $149,999 (28 percent), and under $50,000 (13 percent).



Previous Visits to Sedona

Respondents were asked to indicate if they have previously visited Sedona. Approximately half of respondents (51 percent) indicated that they have previously visited Sedona, while the other half of respondents (49 percent) reported that they have not previously visited Sedona.

Month of Visit to Sedona

Approximately 87 percent of respondents said their last trip to Sedona occurred between the months of March and July. As shown in Table IV-2, most respondents indicated their last trip to Sedona occurred during the month of April (23 percent), followed by May (21 percent), March (17 percent), and June (14 percent).

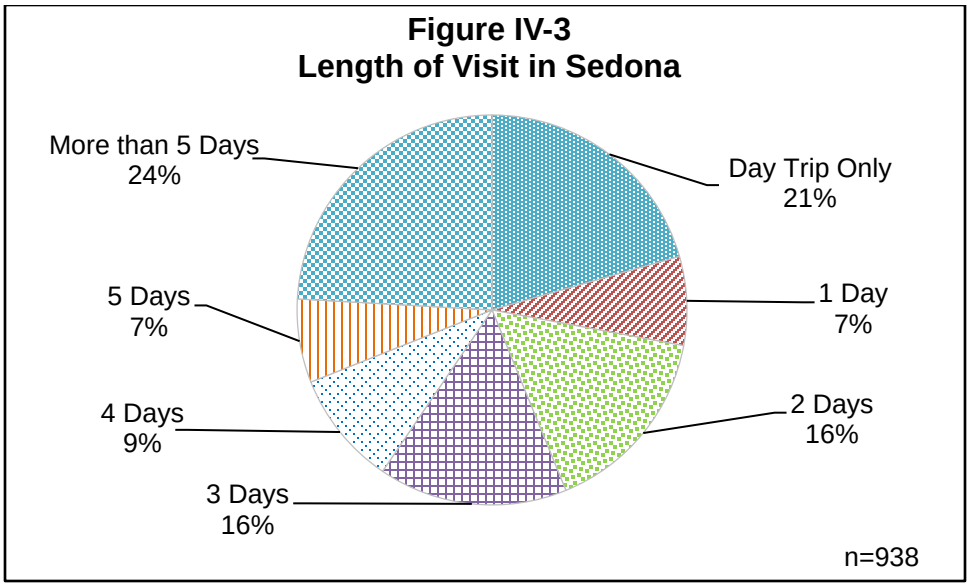
Table IV-2
Month of Visit

Month	Number of Responses	Percent of Total Respondents
January	30	3%
February	85	9%
March	163	17%
April	218	23%
May	200	21%
June	132	14%
July	104	11%
August	55	6%
September	93	10%
October	76	8%
November	40	4%
December	37	4%
TOTAL	**1,233**	**131%**

Source: Sedona Chamber of Commerce and Tourism Board, 2018.

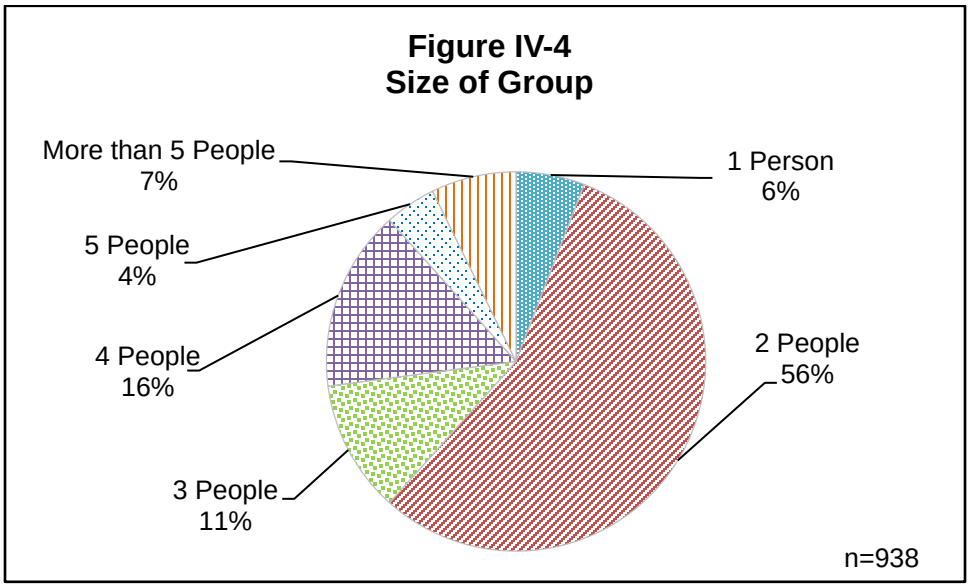
Length of Visit in Sedona

As shown in Figure IV-3, approximately a quarter of respondents (24 percent) said their last trip to Sedona was for more than five days, followed by day trips to Sedona, which accounted for about 21 percent of respondents.



Size and Age of Group

As shown in Figure IV-3, over half of respondents (56 percent) said their last trip to Sedona was for a group of two people, followed by groups of four people (15 percent) and groups of three people (11 percent).



As shown in Table IV-3, over half of respondents (55 percent) said during their last trip to Sedona their group contained someone between the ages of 50 and 65, followed by groups containing someone age 65 or over (39 percent) and groups containing someone between the ages of 34 and 49 (23 percent).

Table IV-3 Age of Group		
Age	**Number of Responses**	**Percent of Total Respondents**
5 or younger	25	3%
6 to 17	122	13%
18 to 34	158	17%
34 to 49	218	23%
50 to 64	516	55%
65 or over	362	39%
TOTAL	**1,401**	**149%**
Source: Sedona Chamber of Commerce and Tourism Board, 2018.		

Transportation to Sedona

As shown in Table IV-4, nearly two-thirds of respondents (62 percent) said they used a rental car as transportation to Sedona during their last trip, followed by respondents who used their personal car (33 percent) and respondents who took an airplane. Of the respondents who traveled by airplane, the majority flew into Phoenix (89 percent), followed by Las Vegas, NV (nine percent), Flagstaff (two percent), and Sedona (one percent).

Table IV-4 Transportation to Sedona		
Transportation Mode	**Number of Responses**	**Percent of Total Respondents**
Personal Car	312	33%
Rental Car	577	62%
Airplane	132	14%
Tour Bus	16	2%
Shuttle	9	1%
Motorcycle	3	0%
RV/Camper	20	2%
Other	13	1%
TOTAL	**1,082**	**115%**
Source: Sedona Chamber of Commerce and Tourism Board, 2018.		

Chamber Visitor Survey Summary

The Sedona Chamber of Commerce and Tourism Bureau collected survey data from 2,066 visitors who requested information between May 1, 2018 and August 17, 2018. Key findings from the survey included:

- Survey respondents lived in each of the 50 U.S. States and the District of Columbia.
- Most frequent residence locations included California (10 percent), Illinois (six percent), Florida (six percent), and Arizona (six percent).
- Approximately 82 percent of respondents were over the age of 50.
- Approximately half of respondents reported an annual household income under $100,000, while the other half of respondents indicated an annual household income over $100,000.
- Approximately half of respondents indicated that they have previously visited Sedona.
- Approximately 87 percent of respondents said their last trip to Sedona occurred between the months of March and July.
- About a quarter of respondents said their last trip occurred during the month of April.
- Approximately a quarter of respondents said their last trip to Sedona was for more than five days.
- Over half of respondents said their last trip to Sedona was for a group of two people.
- Approximately 94 percent of respondents said during their last trip to Sedona their group contained someone age 50 or older.
- Nearly two-thirds of respondents said they used a rental car as transportation to Sedona during their last trip
- About one-third of respondents said they used their personal car as transportation to Sedona during their last trip.
- Approximately 89 percent of respondents who took an airplane on their trip, flew into the Phoenix airport.

ONLINE RESIDENT SURVEY

As part of the effort to obtain input from the community, a separate survey questionnaire was used for residents in the study area. The questionnaire was developed with input from City of Sedona staff and then distributed as widely as possible. The survey asked respondents to answer a series of questions about a new public transportation system serving the Sedona-Oak Creek Canyon area. The survey was available online for approximately one month (from August 27, 2018 through September 30, 2018) and a total of 469 responses were received. A short summary of key takeaways from the survey will be shared in this section and the detailed analysis is located in Appendix A.

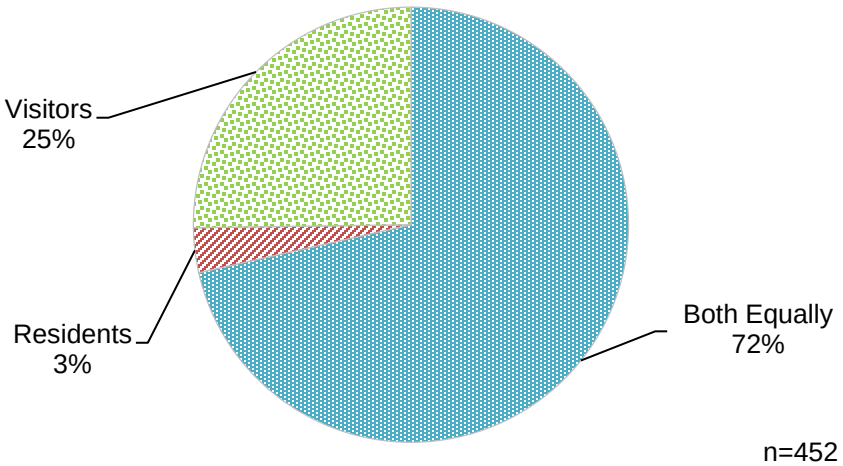
Key findings from the online resident survey include:

- The majority of respondents (60 percent) are full-time Sedona residents and have been for more than five years.

- The majority of respondents believe there is a need for a local public transportation within Sedona (80 percent), between Sedona and Oak Creek Canyon (74 percent), and between Sedona and the Village of Oak Creek (83 percent).

- As shown in Figure IV-5, the majority of respondents (72 percent) believe the transit service primarily serve both residents and visitors equally.

Figure IV-5
Who Should The Transit Service Primarily Serve



- The majority of respondents (27 percent) indicated that they would be somewhat likely to use a public transit service for some trips within Sedona, followed by 26 percent who would be not very likely to use a public transit service for some trips within Sedona and 26 percent who would be very likely to use a public transit service for some trips within Sedona.

- The majority of respondents (31 percent) indicated that they would be very likely to use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon, followed by 28 percent who would be somewhat likely to use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon.

- The majority of respondents (32 percent) indicated that they would be somewhat likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon, followed by 27 percent who would be not very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon and 23 percent who

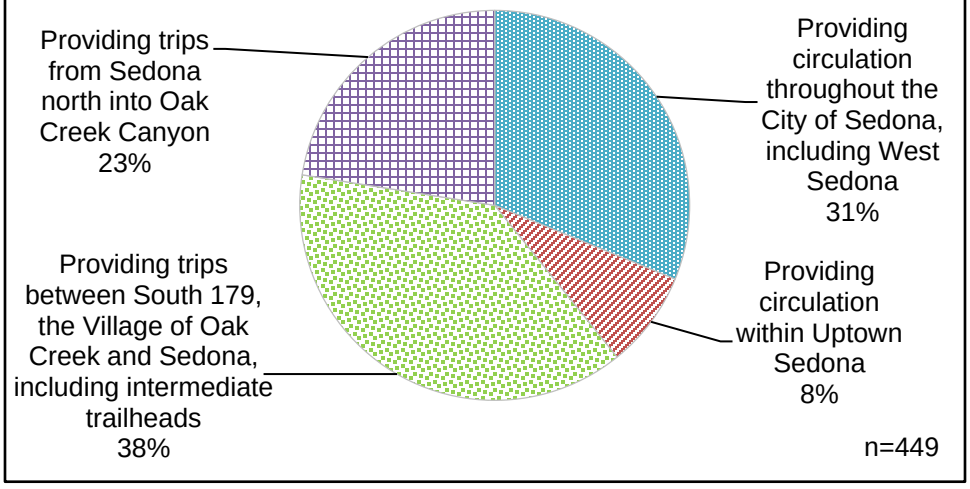
would be very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon.

- The majority of respondents (32 percent) indicated that they would be very likely to use a public transit service for trips between Sedona and the Village of Oak Creek, followed by 25 percent who would be somewhat likely to use a public transit service for trips between Sedona and the Village of Oak Creek.

- The majority of respondents (59 percent) indicated that reducing traffic and congestion is the most important benefit for the transit system to deliver.

- As shown in Figure IV-6, the majority of respondents (38 percent) indicated that it is most important for the transit service to provide trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads, followed by 31 percent of respondents who said that it is most important for the transit service to provide circulation throughout the City of Sedona, including West Sedona

Figure IV-6
Most Important Trip Type to Serve



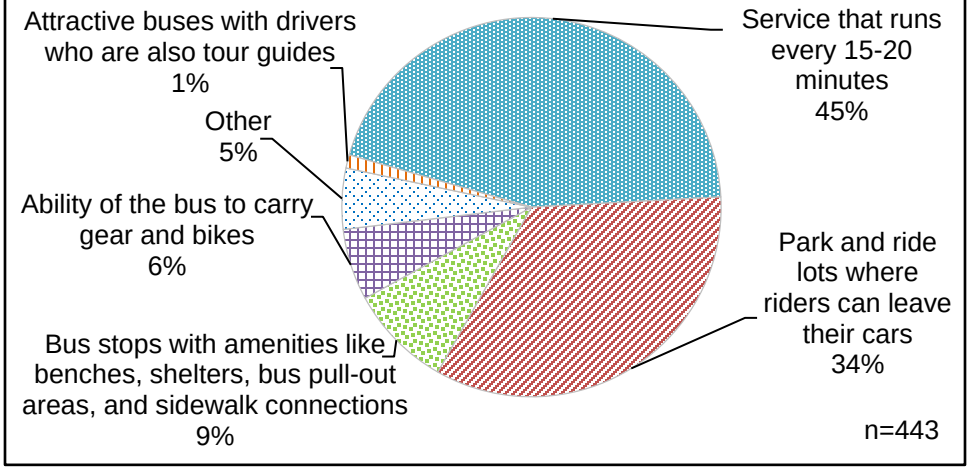
- The majority of respondents (60 percent) indicated that transit buses should only operate on the main state highways (179, 89A).

- The majority of respondents (38 percent) indicated that the transit service should travel as far north into Oak Creek Canyon as the West Fork/Call of the Canyon, followed by the Canyon Overlook (23 percent) and Slide Rock (22 percent).

- As shown in Figure IV-7, the majority of respondents (45 percent) indicated that having transit service that runs every 15 to 20 minutes is the most important factor for making the transit system attractive to residents and

visitors, followed by park and ride lots where riders can leave their cars (34 percent).

Figure IV-7
Most Important Factor to Make the Transit Service Attractive



- The majority of respondents (32 percent) indicated that a reasonable transit service fare would be a low fare for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek.

ONLINE CHAMBER BUSINESS SURVEY

As part of the effort to obtain input from the community, a separate survey questionnaire was used for businesses in the study area that are a part of the Sedona Chamber of Commerce and Tourism Board. The questionnaire was developed with input from City of Sedona staff and then distributed as widely as possible. The survey asked respondents to answer a series of questions about a new public transportation system serving the Sedona-Oak Creek Canyon area. The survey was available online for approximately one month (from August 27, 2018 through September 30, 2018) and a total of 77 responses were received. A short summary of key takeaways from the survey will be shared in this section and the detailed analysis is located in Appendix D.

Key findings from the online chamber business survey include:

- The majority of respondents (24 percent) indicated that they represent a business in the service industry, followed by other (22 percent), lodging (20 percent), and retail (15 percent).

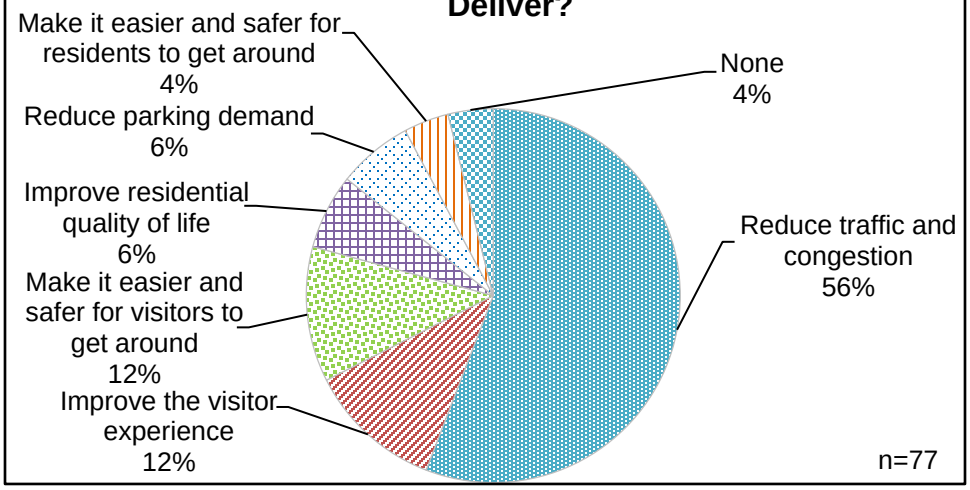
- The majority of respondents (88 percent) indicated that a visitor-focused shuttle system is needed within the Sedona-Oak Creek Canyon area.

- The majority of respondents (69 percent) indicated that improved employee transportation is needed within the Sedona-Oak Creek Canyon area.

- Respondents indicated that it is most important for the transit service to provide trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads.

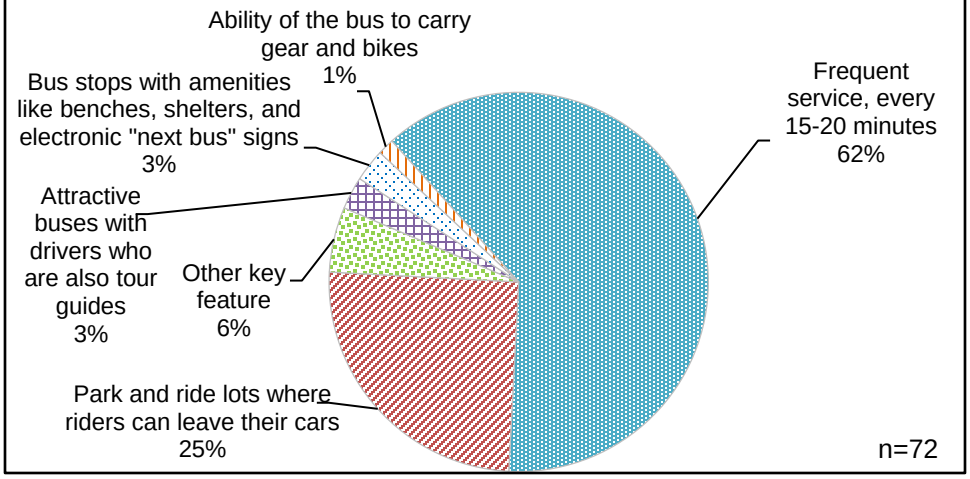
- As shown in Figure IV-8, the majority of respondents (56 percent) indicated that reducing traffic and congestion is the most important benefit for the transit system to deliver.

Figure IV-8
Most Important Benefit for the Transit System to Deliver?



- As shown in Figure IV-9, the majority of respondents (62 percent) indicated that having transit service that runs every 15 to 20 minutes is the most important factor for making the transit system attractive to residents and visitors, followed by park and ride lots where riders can leave their cars (25 percent).

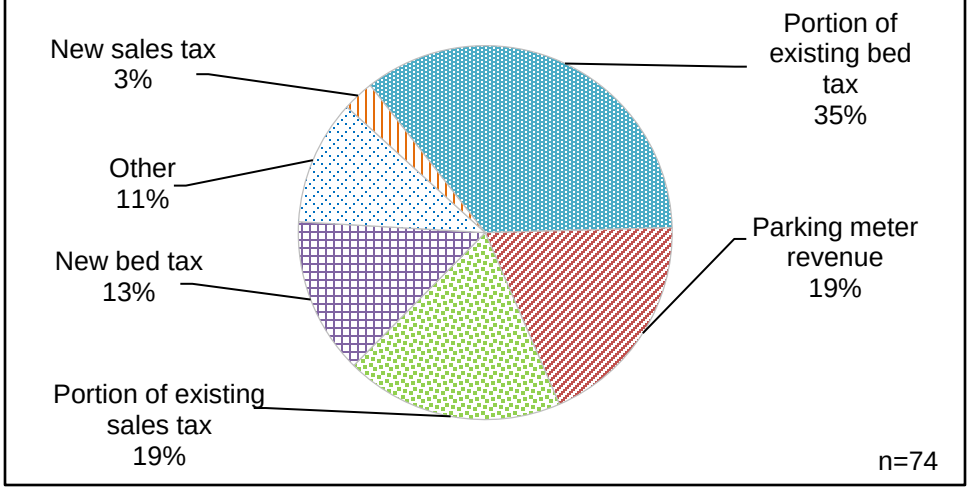
Figure IV-9
Most Important Factor for a Visitor Shuttle



- The majority of respondents (84 percent) indicated they would be willing to play an active role in promoting a new shuttle service to their customers via their front-line staff, literature distribution, on-line information, etc.

- As shown in Figure IV-10, the majority of respondents (35 percent) indicated that the best funding source for the transit service would be a portion of the existing bed tax, followed by parking meter revenue (19 percent) and a portion of the existing sales tax (19 percent).

Figure IV-10
Best Funding Source



- In addition, respondents indicated that passenger fares, support from hotels/tourism industry/Chamber of Commerce, grants, Park-n-Ride revenues, and advertising should be considered as potential sources of funding for a local shuttle service.

- The majority of respondents (37 percent) indicated that a reasonable transit service fare would consist of free trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way).

- The factors respondents believe will be the most important in implementing a successful public transit shuttle service within the Sedona-Oak Creek Canyon area include the topics of parking (25 percent), frequent service (23 percent), helpful signage/information/marketing (20 percent), easy to use (18 percent), and fares (16 percent).

Chapter V

(This page intentionally left blank.)

CHAPTER V

Transit Needs and Demand Assessment

INTRODUCTION

A key step in developing and evaluating transit plans is a careful analysis of the mobility needs of various segments of the population and potential transit riders. There are several factors that affect demand, not all of which can be forecast. Demand estimation is an important task in developing any transportation plan, and several methods of estimation have been developed. This analysis makes use of the demographic data and existing Cottonwood Area Transit (CAT) ridership, as discussed in Chapter III of this Interim Report, as well as the stakeholder and community input presented in Chapter IV.

This chapter presents an analysis of the demand for transit services in the study area based upon standard estimation techniques. These methodologies are standard approaches to estimate transit needs and demand. Some may be more appropriate for the Sedona area than others. Areas with significant visitor markets are unique and specific approaches must be developed based on the unique characteristics of community and the population segments. The transit demand identified in this section will be used with information to be obtained through surveys and interviews to identify and evaluate various transit service options. This chapter describes several models and formulas to help quantify different segments of transit need and demand in the study area, including:

- Mobility Gap
- General Public Rural Non-Program Demand
- Small City Fixed-Route Demand
- Commuter Transit Demand
- ADOT Traffic Count Data and Mode Split Demand
- 2016 Sedona Visitation Estimate
- AirSage Data

Data were taken from the 2012-2016 U.S. Census American Community Survey (2016 ACS) five-year estimates for all of the population groups. Each of these approaches helps to show the patterns that are likely to arise regarding transit needs within the study area. Estimating demand for services is not an exact science and therefore must be carefully evaluated.

MOBILITY GAP

The mobility gap methodology is used to identify the amount of service required to provide an equal mobility to households that have access to vehicles and those that do not. The National Household Travel Survey (NHTS) provides data that allow for calculations to be made relating to trip rates. Separate trip rates are generated for various regions throughout the United States to help account for any locational inequities. Trip rates are also separated by general density and other factors such as age. This methodology was updated using the most recent NHTS data available (2009).

Arizona is part of the U.S. Census Mountain Division. The trip rate for zero-vehicle households in rural areas of the Mountain Division was determined to be 5.2 daily trips. For rural households with at least one vehicle, the trip rate was 6.0 daily trips. The mobility gap is calculated by subtracting the daily trip rate of zero-vehicle households from the daily trip rate of households with at least one vehicle. Thus, the mobility gap is represented as 0.8 household trips per day. This mobility gap is lower than the national average of 1.5 for rural households. To calculate the transit need for each census block group in the study area, the number of zero-vehicle households is multiplied by the mobility gap number. Table V-1 shows this information broken out by block group. In total, 332 daily trips need to be provided by transit to make up for the gap in mobility. This calculates to an annual transit need of approximately 100,000 trips.

Table V-1
Mobility Gap Transit Need

Area/Place	Census Tract	Census Block Group	Total Number of Households 2016 ACS	Zero-Vehicle Households 2016 ACS	Mobility Gap	Transit Need (Daily Trips)
Coconino	16	1	398	7	0.8	6
		2	643	25	0.8	20
		3	645	22	0.8	18
Yavapai	17.02	1	317	0	0.8	0
		2	793	18	0.8	14
		3	1,061	99	0.8	79
	17.03	1	648	10	0.8	8
		2	739	136	0.8	109
	18.01	1	756	24	0.8	19
		2	1042	56	0.8	45
	18.02	1	778	0	0.8	0
		2	977	18	0.8	14
		3	519	0	0.8	0
		TOTAL:	**9,316**	**415**		**332**

Source: US Census Bureau, American Community Survey - 2016, LSC 2018.

GENERAL PUBLIC RURAL NON-PROGRAM DEMAND

TCRP Report 161 provides a method of estimating general public rural transit demand. This methodology applies transit-dependent population statistics and trip rates to estimate the annual demand for non-program and overall general public rural transportation. The general public rural non-program demand estimation technique described in TCRP Report 161 is calculated by the following formula:

Annual Demand = (2.20 x Population Age 60+) + (5.21 x Mobility Limited Population Age 18-64) + (1.52 x Residents of Households Having No Vehicle)

Annual Demand = (2.20 x 9,646) + (5.21 x 123) + (1.52 x 495)

As calculated above, transit demand is estimated at approximately 22,600 passenger-trips annually.

SMALL CITY FIXED-ROUTE DEMAND

TCRP Report 161 provides a method for estimating fixed-route demand for small urban areas with populations less than 50,000. The demand estimation technique considers the total population and estimated annual vehicle hours of service and is calculated by the following formula:

Annual Demand = (5.77 x Revenue-hours) + (1.07 x population) + (7.12 x College/University Enrollment)

Annual Demand = (5.77 x 8,760) + (1.07 x 18,572) + (7.12 x 0)

Assuming a local fixed-route service, like a circulator, operates throughout the study area using two vehicles, each operating 12 hours a day and seven days a week throughout the entire year, the annual vehicle hours for the service would be 8,760. As presented in Chapter III, the population of the study area is 18,572. The formula also includes college/university enrollment (not including community college enrollment), which is zero as there are no four-year resident colleges or universities in the study area. The forecasted ridership for a fixed-route service in the Sedona study area would be an estimated 70,400 one-way trips annually.

COMMUTER TRANSIT DEMAND

The demand estimation technique established in *TCRP Report 161: Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation* to estimate commuter demand between places is presented by the following formula:

Commuter trips by transit from Place A to Place B per Day = Proportion using transit for Commuter Trips from Place A to Place B x Number of Commuters x 2

Proportion using Transit for Commuter Trips from Place A to Place B =
0.024 + (0.0000056 x Workers Commuting from Place A to Place B)
– (0.00029 x Distance in Miles from Place A to Place B)
+ 0.015 (if the Place is a state capital)

Census Longitudinal Employer-Household Dynamics (LEHD) data were used to determine how many individuals were commuting between various employment centers in the study area. Figure V-1 and Table V-2 show the associated demand estimates. Overall, the demand for daily commuter transit is relatively low throughout the study area using this methodology. The highest levels of commuter demand were from Verde Village to Sedona (20 daily trips, 5,600 annual trips), the Village of Oak Creek to Sedona (20 daily trips, 5,400 annual trips), and Cottonwood to Sedona (20 daily trips, 4,800 annual trips). This methodology may not be as useful in areas like Sedona because of the high number of service workers in the tourism industry, the lack of affordable housing within the community, and the high cost of commuting by private auto. Seasonal employees may not be included in the estimates of commuters.

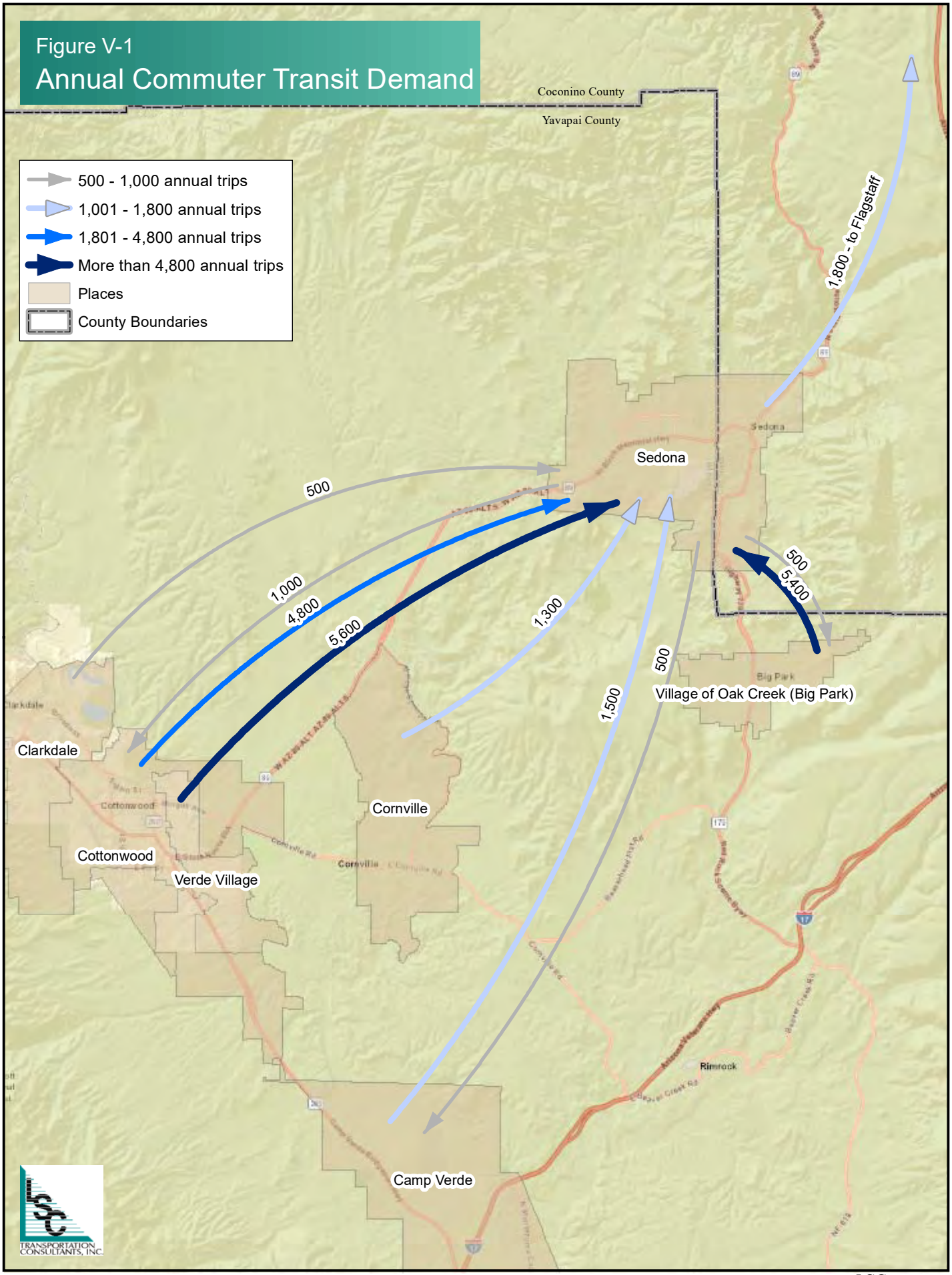


Figure V-1
Annual Commuter Transit Demand
Coconino County
Yavapai County
500 - 1,000 annual trips
1,001 - 1,800 annual trips
1,801 - 4,800 annual trips
More than 4,800 annual trips
Places
County Boundaries
1,800 - to Flagstaff
Sedona
500
1,000
4,800
5,600
1,300
500
5,400
500
1,500
Village of Oak Creek (Big Park)
Clarkdale
Cornville
Cottonwood
Verde Village
Rimrock
Camp Verde
TRANSPORTATION CONSULTANTS, INC.

Table V-2
Commuter Transit Demand

Residence Location	Work Location	Count	Percent Transit	Daily Transit Demand *(one-way trips)*	Annual Transit Demand *(one-way trips)*
Verde Village, AZ	Sedona, AZ	534	2%	20	5,600
Village of Oak Creek, AZ	Sedona, AZ	438	2%	20	5,400
Cottonwood, AZ	Sedona, AZ	461	2%	20	4,800
Sedona, AZ	Flagstaff, AZ	211	2%	10	1,800
Camp Verde, AZ	Sedona, AZ	166	2%	10	1,500
Cornville, AZ	Sedona, AZ	144	2%	10	1,300
Sedona, AZ	Cottonwood, AZ	110	2%	0	1,000
Sedona, AZ	Camp Verde, AZ	46	2%	0	500
Clarkdale, AZ	Sedona, AZ	50	2%	0	500
Sedona, AZ	Village of Oak Creek, AZ	56	2%	0	500

Source: LEHD, LSC 2018.

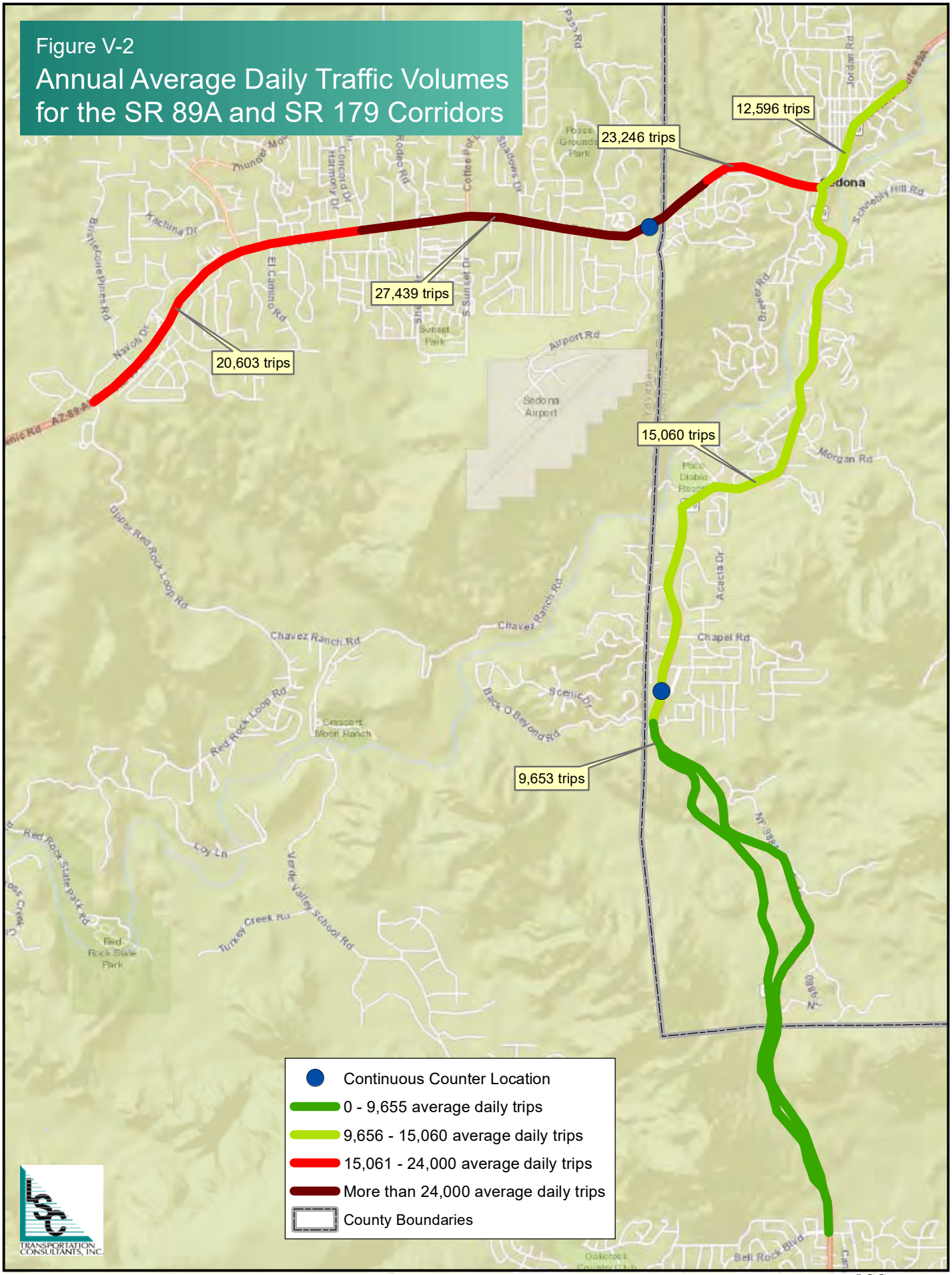
ADOT TRAFFIC COUNT DATA AND MODE SPLIT DEMAND

The Arizona Department of Transportation (ADOT) collects information on traffic volumes for major roadways which are available as Annual Average Daily Traffic (AADT) volumes. AADTs are helpful in determining areas of heavy traffic that could be alleviated by transit services. Figure V-2 shows the most recent AADT count data along the SR 89A and SR 179 corridors in the study area. The area with the highest traffic volume is along SR 89A between Andante Rd. and Airport Rd.

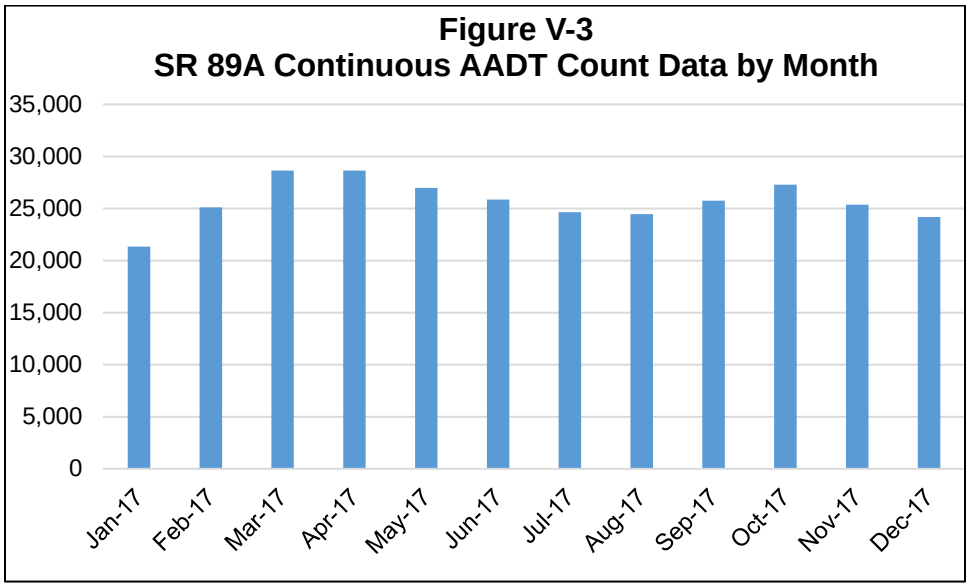
As shown in Figure V-2, there are two continuous traffic counters located within the study area, one along SR 89A and one along SR 179.

Figure V-2

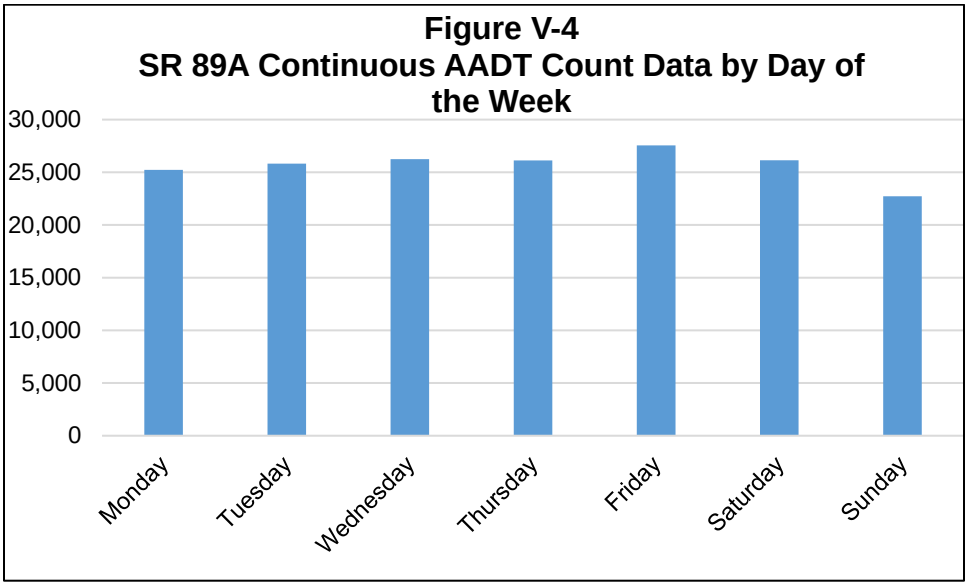
Annual Average Daily Traffic Volumes for the SR 89A and SR 179 Corridors



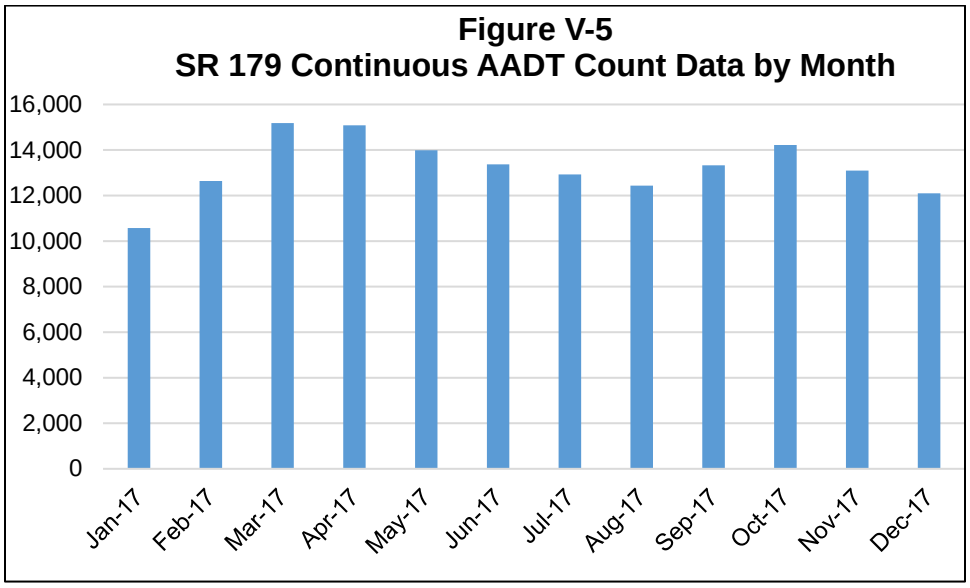
As shown in Figure V-3, traffic volumes along SR 89A were highest during the month of March (approximately 29,000 vehicles) and lowest during the month of January (approximately 21,000 vehicles). This data is consistent with hotel occupancy rates in Sedona (presented in Chapter III), which were highest during March 2017 (84.9 percent occupancy) and lowest during January 2017 (46.5 percent).



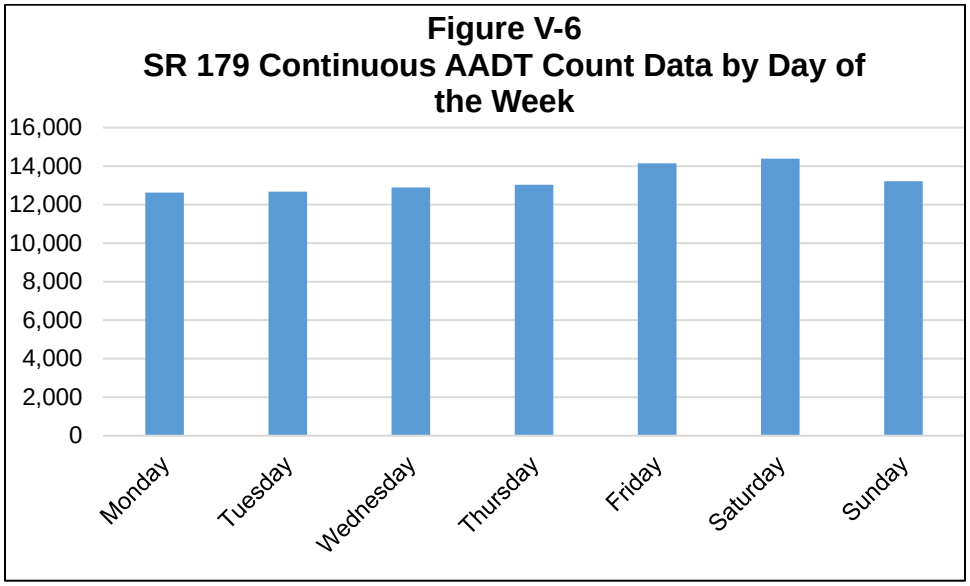
As shown in Figure V-4, traffic volumes along SR 89A were relatively consistent throughout the week, with the highest volumes on Fridays throughout 2017 (approximately 28,000 vehicles) and lowest volumes on Sundays throughout 2017 (approximately 23,000 vehicles).



As shown in Figure V-5, traffic volumes along SR 179 were highest during the month of March (approximately 15,000 vehicles) and lowest during the month of January (approximately 11,000 vehicles). This data is consistent with hotel occupancy rates in Sedona (presented in Chapter III), which were highest during March 2017 (84.9 percent occupancy) and lowest during January 2017 (46.5 percent).



As shown in Figure V-4, traffic volumes along SR 179 were relatively consistent throughout the week, with the highest volumes occurring on Saturdays (approximately 14,000 vehicles) and lowest volumes occurring on Sundays (approximately 13,000 vehicles).



These AADT volumes were then used in calculating regional travel demand in the study area. A mode split based on traffic volumes was used to calculate travel demand throughout the study area. A 1.5 percent mode split was used to determine the number of transit trips and a 1.8 vehicle occupancy was assumed. The demand for public transportation along the SR 89A corridor is approximately 744 passenger-trips per day, which calculates to approximately 272,000 annual passenger-trips, assuming 365 days per year. The demand for public transportation along the SR 179 corridor is approximately 410 passenger-trips per day, which calculates to approximately 150,000 annual passenger-trips, assuming 365 days per year.

2016 SEDONA VISITATION ESTIMATE

The Sedona Chamber of Commerce and Tourism Bureau provided an estimate of the total number of visitors to Sedona and the total number of visitor days for 2016, using the regional hotel room base, annual occupancy rate, number of room nights, and average length of stay. As shown in Table V-3, the methodology estimated a total of approximately 3,064,000 visitors, with approximately 28 percent being overnight visitors and 72 percent being day visitors. The methodology also estimated a total of approximately 5,025,000 visitor days, with approximately 56 percent being overnight visitor days and 44 percent being daytrip visitor days.

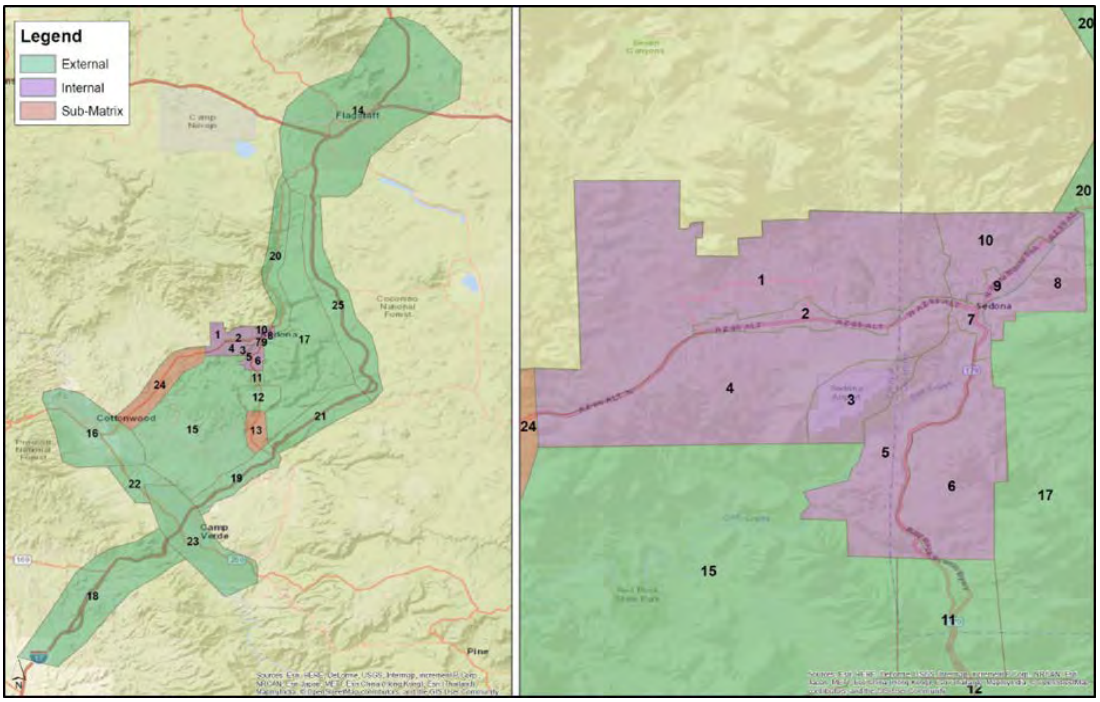
Table V-3 Estimate of Sedona Visitors for 2016		
Estimate of Base Lodging Demand		
Regional Hotel Room Base	2,589	
Annual Occupancy Rate	68.8%	
Occupied Room Nights	650,150	
Average Length of Stay	3.3	
Estimate of Overnight Stays		
Number of Overnight Hotel/B&B Party Nights	650,150	67%
Timeshare Nights	232,889	24%
Private Home Nights	63,074	7%
RV Park Nights	19,407	2%
Total Overnight Party Nights	*970,373*	*100%*
Estimate of Total Stays		
Percent of Total Overnight Stays	970,373	56%
Percent Daytrippers Stays	762,436	44%
Total Stays	*1,732,808*	*100%*
Party Size		
Persons/Party	2.90	
Estimate of Total Number of Visitors		
Overnight Visitors	852,752	28%
Daytrip Visitors	2,211,063	72%
Total Visitors	*3,063,815*	*100%*
Estimate of Total Number of Visitor Days		
Overnight Visitor Days	2,814,081	56%
Daytrip Visitor Days	2,211,063	44%
Total Visitor Days	*5,025,144*	*100%*
Source: Sedona Chamber of Commerce and Tourism Bureau, 2018.		

AIRSAGE DATA

The consulting firm, Kimley-Horn, completed the Sedona Transportation Master Plan (TMP), which was published in January 2018. The TMP used origin-destination mobility pattern data, provided by AirSage, to understand the mobility patterns of residents, commuters, and visitors during the peak tourist season in Sedona. AirSage, a wireless information and data provider, processed anonymous location and movement data of mobile cell phones from wireless signaling data in the City of Sedona for the month of March 2016.

AirSage collected data for 10 zones located within City of Sedona limits (called internal zones) and 13 zones located outside the City of Seodna limits (called external zones), shown in Figure V-7. The external zones included the neighboring communities of the Village of Oak Creek, Cottonwood, Camp Verde, and Flagstaff.

Figure V-7
AirSage Mobility Zones
Source: Kimley-Horn, Sedona Transportation Master Plan Final Report, January, 2018.



The complete data set is provided in Table V-4. The patterns observed from the origin-destination data show distinct trip pairs within and around Sedona.

Table V-4
AirSage Origin and Destination Data Summary

Trip Pair	Weekday Daily Trips	Visitors		Commuters		Weekend Daily Trips	Visitors		Commuters	
		#	%	#	%		#	%	#	%
Sedona and Cottonwood	17,866	8,817	49%	6,623	37%	11,644	6,828	59%	3,287	28%
Sedona and Flagstaff	7,230	6,169	85%	589	8%	7,247	6,703	92%	265	4%
Sedona and Camp Verde	5,080	4,147	82%	7,151	15%	4,610	4,013	87%	364	8%
Sedona and Village of Oak Creek	14,558	10,302	71%	2,896	20%	11,359	9,303	82%	1,442	13%
Sedona and Oak Creek Canyon	5,968	5,713	96%	77	1%	6,265	6,069	97%	57	1%
Oak Creek Canyon and areas outside Sedona	7,342	7,282	99%	43	1%	10,136	10,048	99%	74	1%

Source: Kimley-Horn, Sedona Transportation Master Plan Final Report, January, 2018.

The aggregated data identified the average number of weekday and weekend trips made by individuals arriving, departing, and staying in Sedona by walking, riding a bicycle, driving, being a passenger in a vehicle, taking a jeep tour, riding a bus, or any other mode. On an average weekend day in March 2016, residents and visitors made approximately 101,700 person trips to, from, and within the City of Sedona, of which 25,000 were made entirely within the City of Sedona limits. The TMP infers that this data indicates that most travelers do not spend their entire day within Sedona City limits, rather they visit other nearby attractions or commute in from other communities.

The AirSage data also revealed that most trips began and ended within the same zone, indicating there may be opportunities for non-vehicular travel by bicycle, walking, or transit due to the short travel distances. West Sedona had the highest number of trips that began and ended in different zones, which the TMP indicated emphasized the importance of enhancing multimodal connections between West Sedona and hotel/lodging destinations along SR 179, and with the Uptown area.

CHAPTER SUMMARY

This chapter presented an analysis of the demand for transit services in the study area based upon standard estimation techniques, including mobility gap, general public rural non-program demand, small city fixed-route demand, commuter transit demand, ADOT traffic count data and mode split demand, 2016 Sedona visitation estimates, and AirSage data. The transit demand estimation tools described in this chapter will be used to identify and evaluate various transit service options later in the planning process.

Key findings from Chapter V include:

- **Mobility Gap:** A total of 332 daily trips, or 100,000 annual trips, need to be provided by transit to make up for the gap in mobility.
- **General Public Rural Non-Program Demand:** Transit demand is estimated at approximately 22,600 annual passenger-trips using this demand model.
- **Small City Fixed-Route Demand:** Transit demand is estimated at approximately 70,400 annual passenger-trips within the Sedona study area using this demand model. The model assumes a local fixed-route service operating throughout the study area using two vehicles, each

operating 12 hours a day and seven days a week throughout the entire year.

- **Commuter Transit Demand:** Using LEHD data and this demand model, overall demand for daily commuter transit is relatively low throughout the study area. The highest levels of commuter demand were from Verde Village to Sedona (20 daily trips, 5,600 annual trips), the Village of Oak Creek to Sedona (20 daily trips, 5,400 annual trips), and Cottonwood to Sedona (20 daily trips, 4,800 annual trips).
- **ADOT Traffic Count Data and Mode Split Demand:**
    - The area with the highest traffic volume in the study area is along SR 89A between Andante Rd. and Airport Rd.
    - Traffic volumes along SR 89A were highest during the month of March (approximately 29,000 vehicles) and lowest during the month of January (approximately 21,000 vehicles), which is consistent with hotel occupancy rates in Sedona.
    - Traffic volumes along SR 89A were relatively consistent throughout the week, with the highest volumes on Fridays throughout 2017 (approximately 28,000 vehicles) and lowest volumes on Sundays throughout 2017 (approximately 23,000 vehicles).
    - Traffic volumes along SR 179 were highest during the month of March (approximately 15,000 vehicles) and lowest during the month of January (approximately 11,000 vehicles), which is consistent with hotel occupancy rates in Sedona.
    - Traffic volumes along SR 179 were relatively consistent throughout the week, with the highest volumes occurring on Saturdays (approximately 14,000 vehicles) and lowest volumes occurring on Sundays (approximately 13,000 vehicles).
    - The demand for public transportation along the SR 89A corridor using a mode split is approximately 744 passenger-trips per day, or 272,000 annual passenger-trips.
    - The demand for public transportation along the SR 179 corridor using a mode split is approximately 410 passenger-trips per day, or 150,000 annual passenger-trips.
- **2016 Sedona Visitation Estimates:** The Sedona Chamber of Commerce and Tourism Bureau provided an estimate of the total number of visitors to Sedona and the total number of visitor days for 2016, using the regional hotel room base, annual occupancy rate, number of room nights, and average length of stay. The methodology estimated a total of approximately 3,064,000 visitors, with approximately 28 percent being overnight visitors and 72 percent being daytrip visitors. The methodology also estimated a total of approximately 5,025,000 visitor days, with approximately 56

percent being overnight visitor days and 44 percent being daytrip visitor days.

- **AirSage Data:** The 2018 Sedona Transportation Master Plan used AirSage origin-destination mobility pattern data provided to understand the mobility patterns of residents, commuters, and visitors during the peak tourist season in Sedona (March 2016). AirSage collected data for 10 internal zones located within City of Sedona limits and 13 external zones located outside the City of Seodna limits.
    - On an average weekend day in March 2016, residents and visitors made approximately 101,700 person trips to, from, and within the City of Sedona, of which 25,000 were made entirely within the City of Sedona limits, indicating that most travelers do not spend their entire day within Sedona City limits, rather they visit other nearby attractions or commute in from other communities.
    - Most trips began and ended within the same zone, indicating there may be opportunities for non-vehicular travel by bicycle, walking, or transit due to the short travel distances.
    - West Sedona had the highest number of trips that began and ended in different zones, which emphasize the importance of enhancing multimodal connections between West Sedona and hotel/lodging destinations along SR 179, and with the Uptown area.
    - The AirSage data, together with the input obtained from the visitor and intercept surveys, will be used to help inform demand estimates for specific service scenarios that we develop later in the planning process.

(This page intentionally left blank.)

Chapter VI

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

Chapter VI

Transit Service Criteria

This chapter presents preliminary criteria for the development and evaluation of transit service options to meet public transportation needs in Sedona. These criteria will be reviewed by the Advisory Committee and refined to reflect current priorities. The initial criteria were taken from the Red Rock Ranger District Alternative Transportation Plan (November 2013) and have been modified based on input received from the Advisory Committee, community stakeholders, local businesses, and members of the community.

The following are proposed service criteria. These may be modified based on feedback from the Advisory Committee and additional community input as the service plan is developed.

- Service will increase mobility opportunities for those visiting, working, or living within the study area.
    - Service must be frequent enough to be an attractive option for overnight visitors.
    - Service must run late enough for overnight visitors to be able to return to hotels after dining at local restaurants.
    - Service must connect lodging with major visitor destinations.
    - Local service will provide connectivity with regional commuter service.
- Service will provide connectivity between Oak Creek Canyon, Sedona, and the Village of Oak Creek.
    - Service types and levels will be appropriate for the demand between these locations.
    - Service in Oak Creek Canyon will be adjusted to meet seasonal variations in demand.
- Service for Oak Creek Canyon and other trailheads will focus on congestion mitigation and reducing parking impacts.

    - Transit service should be integrated with intercept parking facilities.
    - The service must support USFS management policies on visitor capacity and use of Forest Service lands.
    - Service to Slide Rock State Park should enhance access to the park without adversely impacting the park visitor capacity.
- Service will be operated efficiently and effectively.
    - Performance measures will be established for efficiency of service operations.
    - Performance measures will be established for effectiveness of service delivery.
    - Service levels will be adjusted to meet seasonal demand.
    - Policies which are needed to support successful implementation will be identified
- Sustainable funding sources must be identified for implementation of transit service.
    - Multiple funding sources, including local, state, and federal, should be identified for capital and operating costs to implement the service.

Appendix A

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

APPENDIX A

Resident Survey Analysis

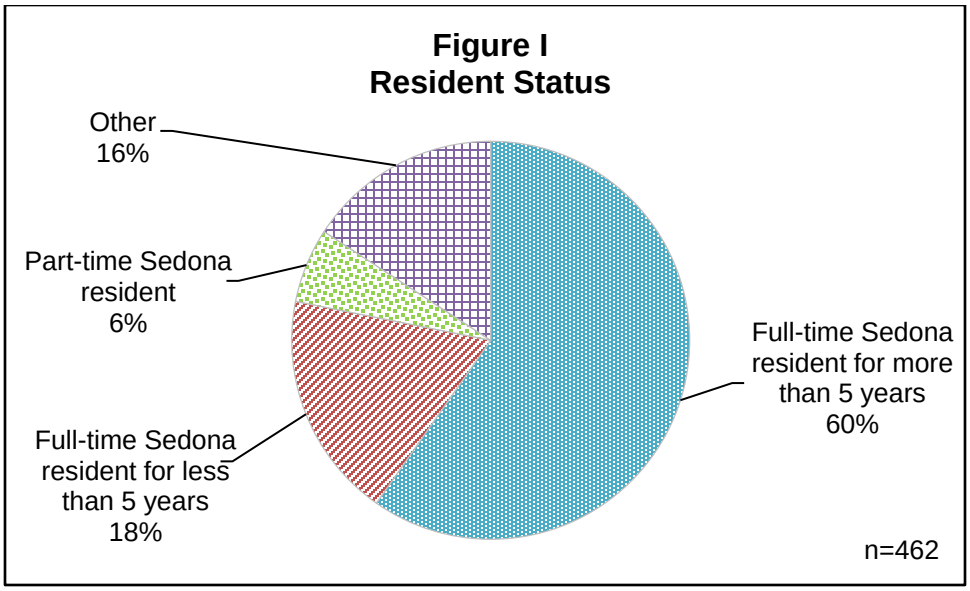
As part of the effort to obtain input from the community, a separate survey questionnaire was used for residents in the study area. The questionnaire was developed with input from City of Sedona staff and then distributed as widely as possible. The survey asked respondents to answer a series of questions about a new public transportation system serving the Sedona-Oak Creek Canyon area. The resident survey was available from August 27, 2018 through September 30, 2018, and is included in Appendix B.

SURVEY ANALYSIS

A total of 469 responses were received through the online questionnaire. The results of the resident survey will be discussed in the following section.

Resident Status

Respondents were asked to indicate if they were a full-time Sedona resident for more than five years, full-time Sedona resident for less than five years, part-time Sedona resident, or other. The results are illustrated in Figure 1. The majority of respondents (60 percent) indicated they have been a full-time Sedona resident for more than five years, followed by 18 percent of respondents who have been a full-time Sedona resident for less than five years. Approximately 16 percent of respondents indicated other, with the most common responses including being a resident of the Village of Oak Creek (eight percent of all respondents), resident of Cottonwood (two percent of all respondents), and resident of Cornville (two percent of all respondents).



Need for a Local Public Transportation System

Respondents were asked if they believe there is a need for a local public transportation system within Sedona, between Sedona and Oak Creek Canyon, and between Sedona and the Village of Oak Creek. As shown in Table 1, the majority of respondents indicated yes, that there is a need for a local public transportation in the three areas.

Table 1
Need for a Local Public Transportation System

Location	Yes		No		Don't Know		TOTAL Responses
	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	
Within Sedona?	351	80%	59	13%	30	7%	**440**
Between Sedona and Oak Creek Canyon?	324	74%	65	15%	49	11%	**438**
Between Sedona and the Village of Oak Creek?	377	83%	47	10%	28	6%	**452**

Source: LSC Resident Survey, 2018.

Approximately 80 percent of respondents said there is a need for a local public transportation system within Sedona, while 13 percent said there is not a need for a local public transportation system within Sedona and seven percent did not know.

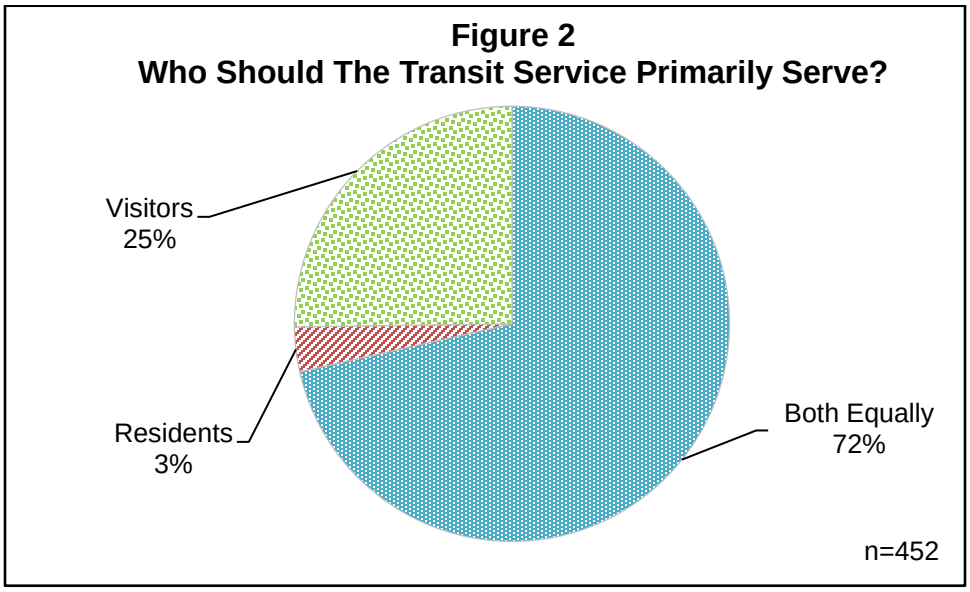
Approximately 74 percent of respondents said there is a need for a local public transportation system between Sedona and Oak Creek Canyon, while 15 percent said there is not a need for a local public transportation system between Sedona and Oak Creek Canyon and 11 percent did not know.

Approximately 83 percent of respondents said there is a need for a local public transportation system between Sedona and the Village of Oak Creek, while 10 percent said there is not a need for a local public transportation system between Sedona and the Village of Oak Creek and six percent did not know.

Who Should the Transit Service Primarily Serve?

Respondents were asked who they think the transit service should be designed to primarily serve – residents, visitors, or both residents and visitors equally. As shown in Figure 2, almost three-quarters of respondents (72 percent) indicated that the transit service should primarily serve both residents and visitors equally. Approximately 25 percent of respondents said the transit service should primarily serve tourists and three percent of respondents said the transit service should primarily serve residents.

Figure 2
Who Should The Transit Service Primarily Serve?



Potential Use of a Public Transit Service

Respondents were asked how likely they would be to personally use a transit service for four different types of trips: 1) for some trips within Sedona; 2) for trips to trailheads or recreation areas in Oak Creek Canyon; 3) for trips to trailheads

or recreation areas outside of Oak Creek Canyon; and 4) for trips between Sedona and the Village of Oak Creek. The results are presented in Table 2.

Approximately 27 percent of respondents indicated that they would be somewhat likely to use a public transit service for some trips within Sedona, followed by 26 percent who would be not very likely to use a public transit service for some trips within Sedona and 26 percent who would be very likely to use a public transit service for some trips within Sedona. Approximately 21 percent of respondents said they would definitely not use a public transit service for some trips within Sedona.

Approximately 31 percent of respondents indicated that they would be very likely to use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon, followed by 28 percent who would be somewhat likely and 23 percent who would be not very likely. Approximately 19 percent of respondents said they would definitely not use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon.

Approximately 32 percent of respondents indicated that they would be somewhat likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon, followed by 27 percent who would be not very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon and 23 percent who would be very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon. Approximately 19 percent of respondents said they would definitely not use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon.

Approximately 32 percent of respondents indicated that they would be very likely to use a public transit service for trips between Sedona and the Village of Oak Creek, followed by 25 percent who would be somewhat likely and 25 percent who would be not very likely. Approximately 18 percent of respondents said they would definitely not use a public transit service for trips between Sedona and the Village of Oak Creek.

Table 2
Potential Use of a Public Transit Service

	Very Likely		Somewhat Likely		Not Very Likely		Definitely Would Not		TOTAL Responses
	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	
For some trips within Sedona?	114	26%	120	27%	117	26%	92	21%	**443**
For trips to trailheads or recreation areas in Oak Creek Canyon?	134	31%	124	28%	99	23%	82	19%	**439**
For trips to trailheads or recreation areas outside of Oak Creek Canyon?	101	23%	138	32%	117	27%	82	19%	**438**
For trips between Sedona and the Village of Oak Creek?	144	32%	112	25%	111	25%	83	18%	**450**

Source: LSC Resident Survey, 2018.

Likelihood of the Local Transit System Providing Benefits to the Community

Respondents were asked to rate how likely it is that a local transit system would provide the following six benefits to the community: 1) reduce traffic and congestion, 2) reduce parking demand, 3) improve the experience for visitors, 4) make it easier and safer for residents to get around, 5) make it easier and safer for visitors to get around, and 6) improve residential quality of life. Participants were asked to rate the benefits from one to five with one being definitely would not benefit the community and five being definitely would benefit the community. The results are presented in Table 3.

Table 3
Likelihood of the Local Transit System Providing Benefits to the Community

Benefits	Average Score
Make it easier and safer for visitors to get around	3.77
Improve the experience for visitors	3.65
Improve residential quality of life	3.61
Reduce parking demand	3.55
Make it easier and safer for residents to get around	3.54
Reduce traffic and congestion	3.53

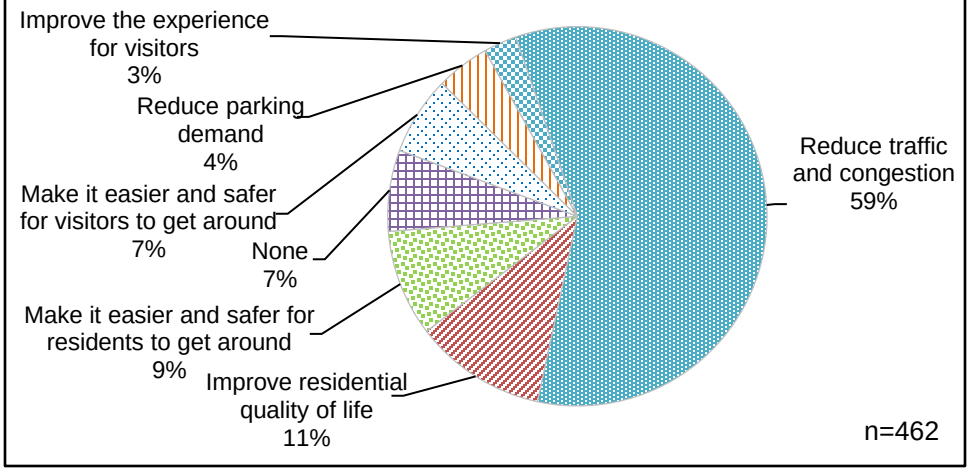
Source: LSC Resident Survey, 2018.

The average scores of all six benefits were very similar, with 0.24 separating the highest and the lowest average scores. The benefits that received the highest average scores were make it easier and safer for visitors to get around (3.77) and improve the experience for visitors (3.65). The benefits that received the lowest average scores were reduce traffic and congestion (3.52) and make it easier and safer for residents to get around (3.54).

Most Important Benefit for the Transit System to Deliver

Respondents were asked which benefit is most important for the transit system to deliver. As shown in Figure 3, over half of respondents (59 percent), indicated that reducing traffic and congestion is the most important benefit for the transit system to deliver, followed by improving residential quality of life (11 percent) and making it easier and safer for residents to get around (nine percent).

Figure 3
Most Important Benefit for the Transit System to Deliver?



Importance of Trip Types to Provide

Respondents were asked how important it is for the new transit system to provide the following four types of trips: 1) providing trips from Sedona north into Oak Creek Canyon; 2) providing circulation within Uptown Sedona; 3) providing circulation throughout the City of Sedona, including West Sedona; and 4) providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads. Participants were asked to rate the trips from one to five with one being not important and five being very important. The results are presented in Table 4.

Table 4
Importance of New Transit System Trip Types

Type of Trip	Average Score
Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads	3.85
Providing circulation throughout the City of Sedona, including West Sedona	3.70
Providing trips from Sedona north into Oak Creek Canyon	3.43
Providing circulation within Uptown Sedona	3.33

Source: LSC Resident Survey, 2018.

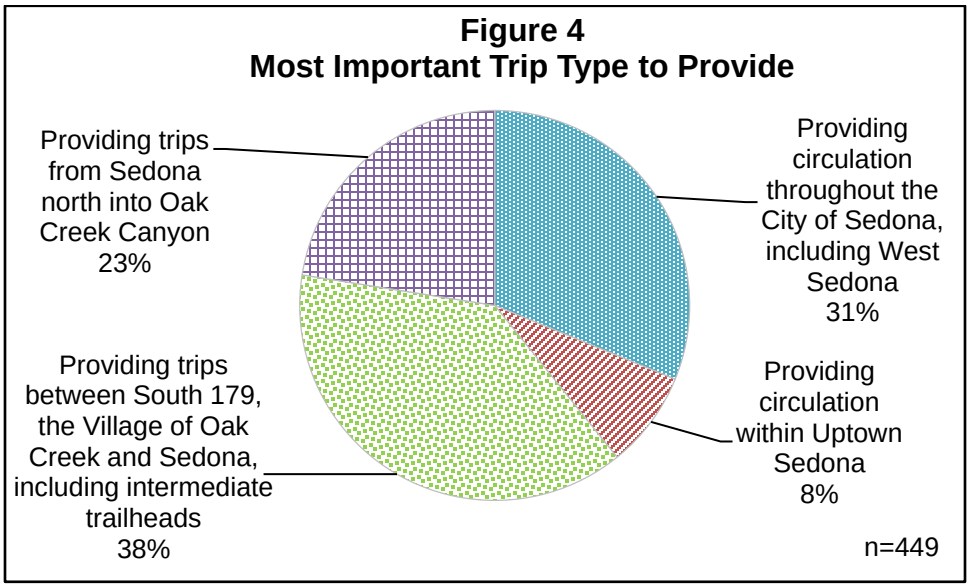
The average scores of the four trip types were very similar, with 0.53 separating the highest and the lowest average scores. The trip type that received the highest average score was providing trips between South 179, the Village of Oak Creek

and Sedona, including intermediate trailheads (3.85), while the trip type that received the lowest average score was providing circulation within Uptown Sedona (3.33).

Most Important Trip Type to Provide

Respondents were asked which trip type is most important for the transit system to provide. As shown in Figure 4, approximately 38 percent of respondents indicated that it is most important for the transit service to provide trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads, followed by 31 percent of respondents who said that it is most important for the transit service to provide circulation throughout the City of Sedona, including West Sedona.

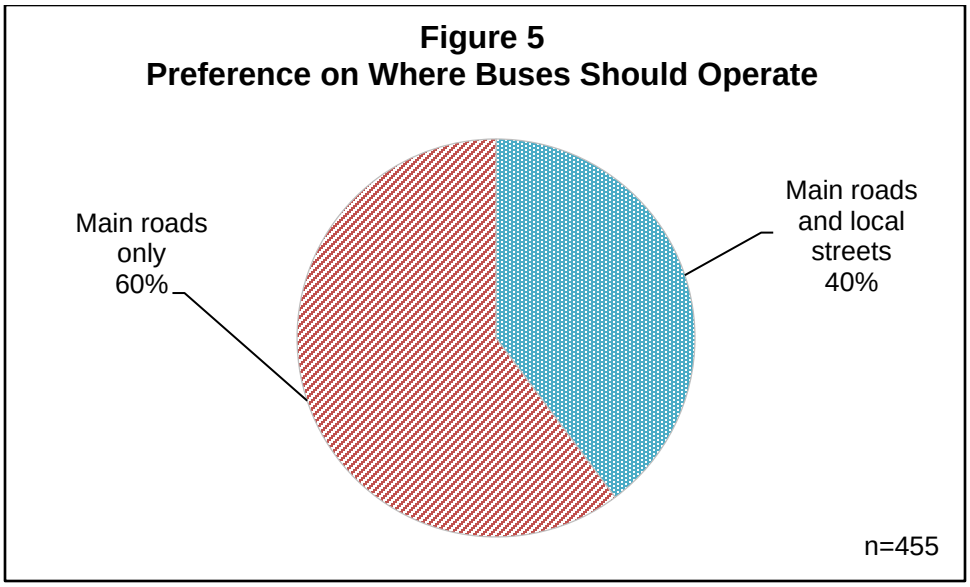
Figure 4
Most Important Trip Type to Provide



Preference on Where Buses Should Operate

Respondents were asked their preference on where the buses should operate – stay on the main state highways (179, 89A) only or use both main roads and local streets to serve neighborhoods and trailheads located off the state highways. As shown in Figure 5, approximately 60 percent of respondents said that buses should operate on main roads only, while approximately 40 percent of respondents indicated that buses should operate on main roads and local streets.

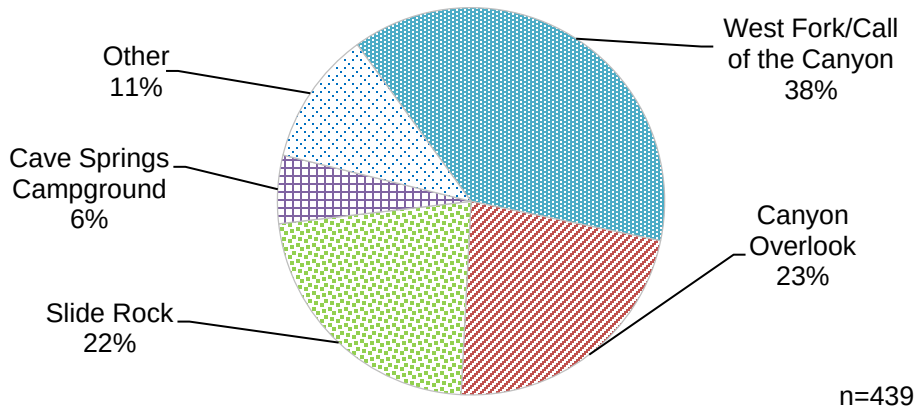
Figure 5
Preference on Where Buses Should Operate



How Far North into Oak Creek Canyon Should a Transit Service Travel?

Respondents were asked how far north into Oak Creek Canyon should a transit service travel – to Slide Rock, to West Fork/Call of the Canyon, to Cave Springs Campground, to Canyon Overlook, or to some other location. As shown in Figure 6, the majority of respondents (38 percent) indicated that the transit service should travel as far north into Oak Creek Canyon as the West Fork/Call of the Canyon, followed by the Canyon Overlook (23 percent) and Slide Rock (22 percent). Approximately 11 percent of respondents indicated that the transit service should travel as far north into Oak Creek Canyon as some other location, with the most common responses including that the bus should not travel into Oak Creek Canyon (19 respondents, four percent of total responses) and Flagstaff (two respondents, less than one percent of total responses).

Figure 6
How Far North into Oak Creek Canyon Should a Transit Service Travel?



Importance of Factors That Would Make Transit Service Attractive

Respondents were asked how important each of the following six factors are for making the transit service attractive to residents and visitors: 1) service that runs every 15 to 20 minutes; 2) bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections; 3) ability of the bus to carry gear and bikes; 4) park and ride lots where riders can leave their cars; 5) attractive buses with drivers who are also tour guides; and 6) other. Participants were asked to rate the factors from one to five with one being not important at all and five being very important. The results are presented in Table 5.

Table 5
Importance of Factors That Would Make Transit Service Attractive

Factors	Average Score
Other	4.31
Park and ride lots where riders can leave their cars	4.10
Service that runs every 15-20 minutes	4.10
Ability of the bus to carry gear and bikes	3.87
Bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections	3.75
Attractive buses with drivers who are also tour guides	2.68

Source: LSC Resident Survey, 2018.

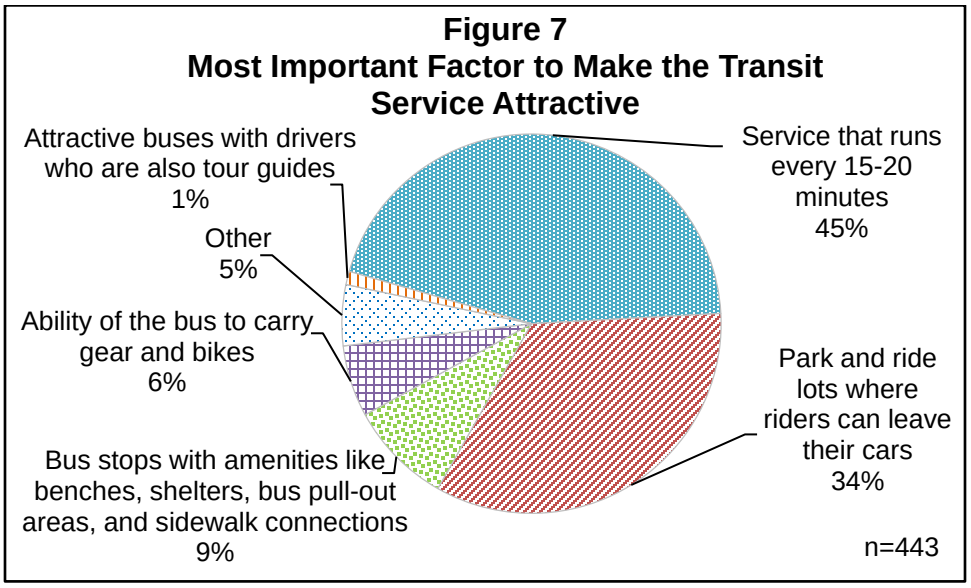
The factor that received the highest average score was other (4.31), while the factor that received the lowest average score was attractive buses with drivers

who are also tour guides (2.68). The most common responses for other included low-emission or clean buses (14 responses, 17 percent of all respondents), do not support transit in Oak Creek Canyon (seven response, nine percent of all responses), ability to transfer or connect with other routes (six responses, seven percent of all responses), bus stop locations at hotels (six responses, seven percent of all responses), helpful signage and information (five responses, six percent of all responses), and incentivize using transit (five responses, six percent of all responses).

Most Important Factor That Would Make Transit Service Attractive

Respondents were asked which factor is most important for making the transit system attractive to residents and visitors. As shown in Figure 7, approximately 45 percent of respondents indicated that service that runs every 15 to 20 minutes is the most important factor for making the transit system attractive to residents and visitors, followed by park and ride lots where riders can leave their cars (34 percent).

Figure 7
Most Important Factor to Make the Transit Service Attractive

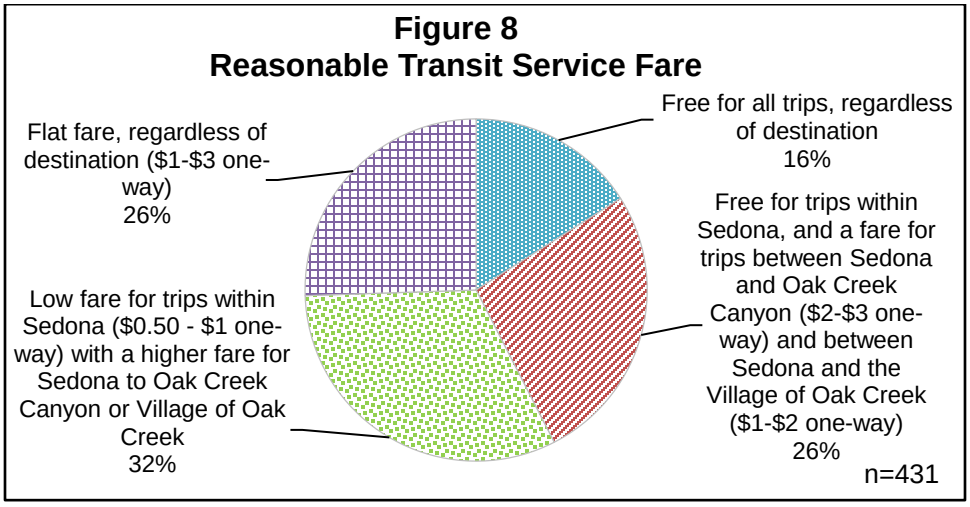


Reasonable Transit Service Fare

Respondents were asked what a reasonable transit service fare would be: 1) free for all trips, regardless of destination; 2) free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way); 3) low fare

for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek; or 4) flat fare, regardless of destination ($1.00-$3.00 one-way). As shown in Figure 8, approximately 32 percent of respondents indicated that a reasonable transit service fare would be a low fare for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek. Approximately 26 percent of respondents indicated that a reasonable transit service fare would be free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way).

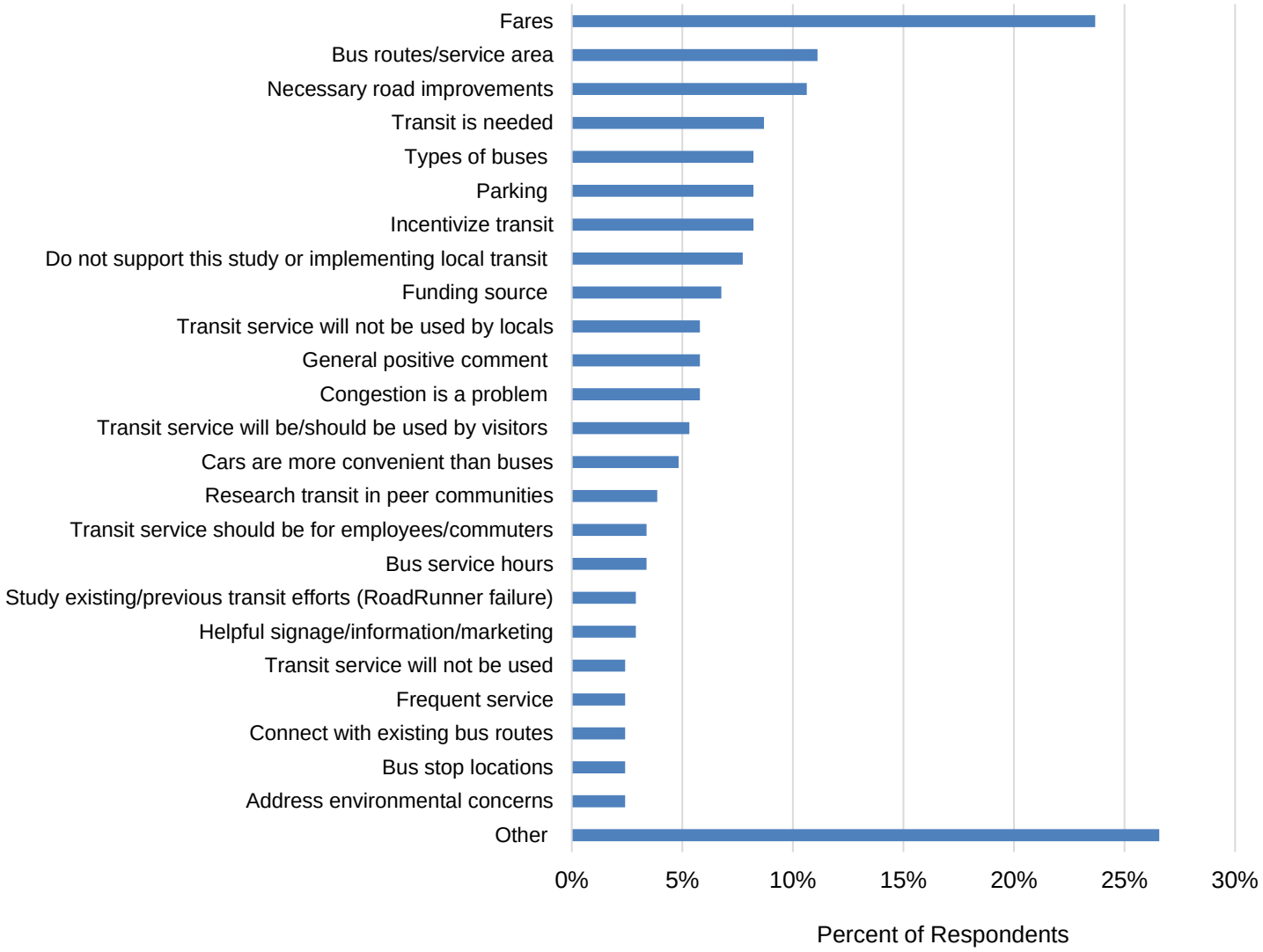
Figure 8
Reasonable Transit Service Fare



Additional Comments

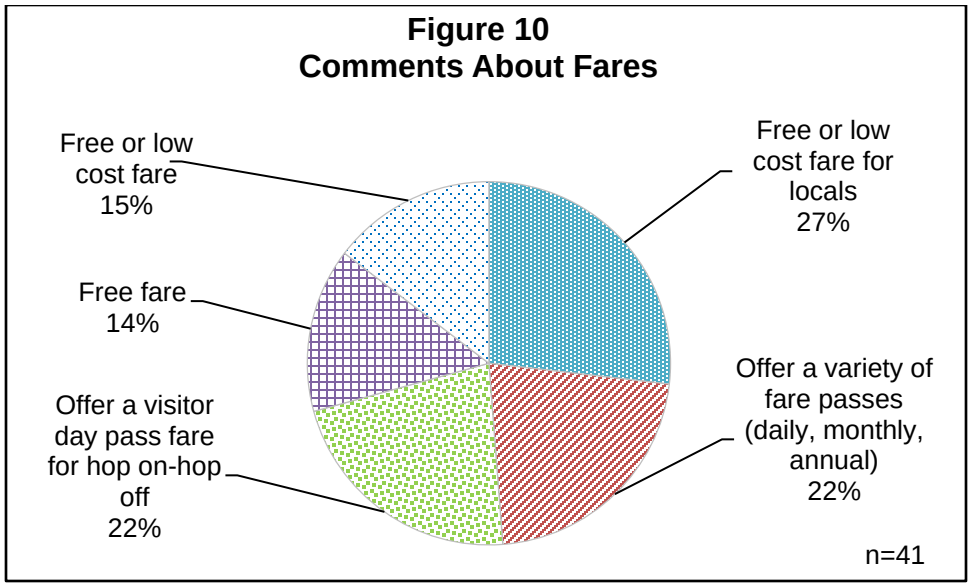
Respondents were asked to share any additional comments about a potential transit service at the end of the survey instrument. The individual comments can be read in full in Appendix C. Out of 469 total survey responses received, 207 respondents chose to write additional comments. General categories were used to group the comments based on the comments mentioned. If multiple subjects were addressed in one comment, the comment was counted in each of the relevant categories. Figure 9 categorizes the various comments received.

Figure 9
Comment Categories

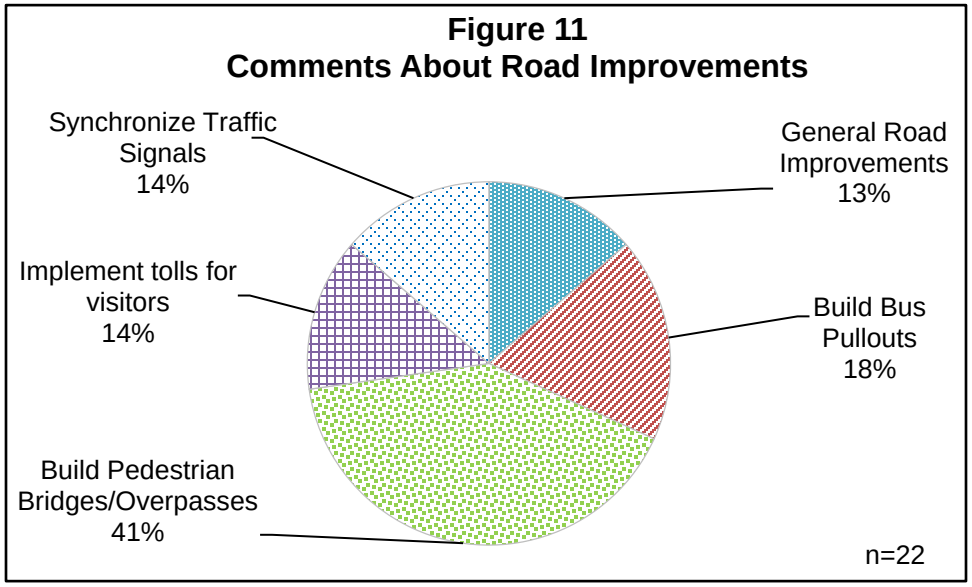


The most frequently received comments were regarding fares (24 percent), bus routes/service area (11 percent), and necessary road improvements (11 percent).

Of the comments received about fares, as shown in Figure 10, the majority were regarding a free or low-cost fare for locals (27 percent), followed by offering a variety of fare passes (daily, monthly, annual) (22 percent), offering a visitor day pass fare for hop on-hop off (22 percent), either free or low-cost fare (15 percent), and free fare (specifically) (14 percent).



Of the comments received about road improvements, as shown in Figure 11, the majority were regarding building pedestrian bridges and overpasses (41 percent), followed by building bus pullouts (18 percent), implementing tolls for visitors (14 percent), synchronizing traffic signals (14 percent), and general road improvements (13 percent).



Appendix A

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

APPENDIX A

Resident Survey Analysis

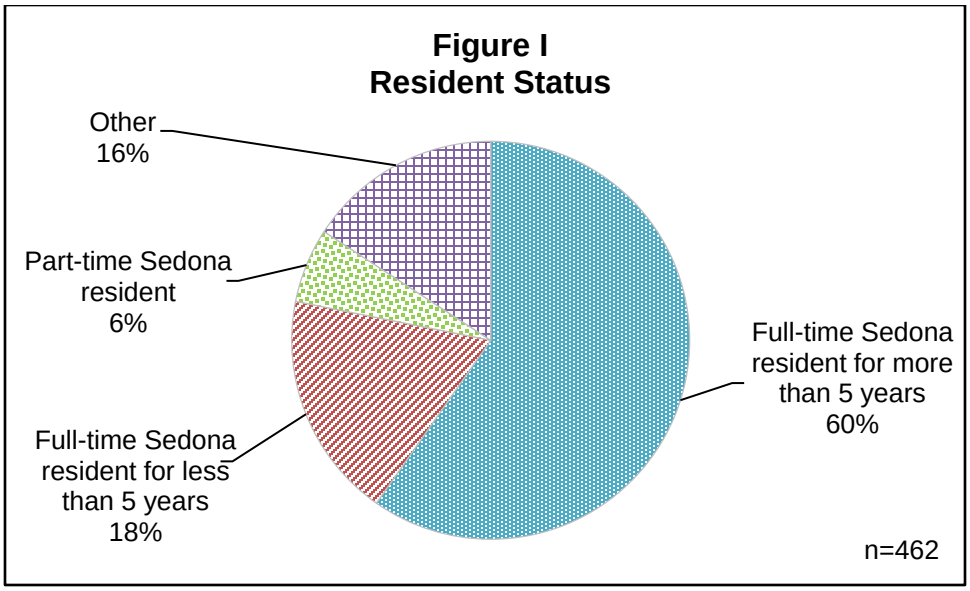
As part of the effort to obtain input from the community, a separate survey questionnaire was used for residents in the study area. The questionnaire was developed with input from City of Sedona staff and then distributed as widely as possible. The survey asked respondents to answer a series of questions about a new public transportation system serving the Sedona-Oak Creek Canyon area. The resident survey was available from August 27, 2018 through September 30, 2018, and is included in Appendix B.

SURVEY ANALYSIS

A total of 469 responses were received through the online questionnaire. The results of the resident survey will be discussed in the following section.

Resident Status

Respondents were asked to indicate if they were a full-time Sedona resident for more than five years, full-time Sedona resident for less than five years, part-time Sedona resident, or other. The results are illustrated in Figure 1. The majority of respondents (60 percent) indicated they have been a full-time Sedona resident for more than five years, followed by 18 percent of respondents who have been a full-time Sedona resident for less than five years. Approximately 16 percent of respondents indicated other, with the most common responses including being a resident of the Village of Oak Creek (eight percent of all respondents), resident of Cottonwood (two percent of all respondents), and resident of Cornville (two percent of all respondents).



Need for a Local Public Transportation System

Respondents were asked if they believe there is a need for a local public transportation system within Sedona, between Sedona and Oak Creek Canyon, and between Sedona and the Village of Oak Creek. As shown in Table 1, the majority of respondents indicated yes, that there is a need for a local public transportation in the three areas.

Table 1
Need for a Local Public Transportation System

Location	Yes		No		Don't Know		TOTAL Responses
	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	
Within Sedona?	351	80%	59	13%	30	7%	**440**
Between Sedona and Oak Creek Canyon?	324	74%	65	15%	49	11%	**438**
Between Sedona and the Village of Oak Creek?	377	83%	47	10%	28	6%	**452**

Source: LSC Resident Survey, 2018.

Approximately 80 percent of respondents said there is a need for a local public transportation system within Sedona, while 13 percent said there is not a need for a local public transportation system within Sedona and seven percent did not know.

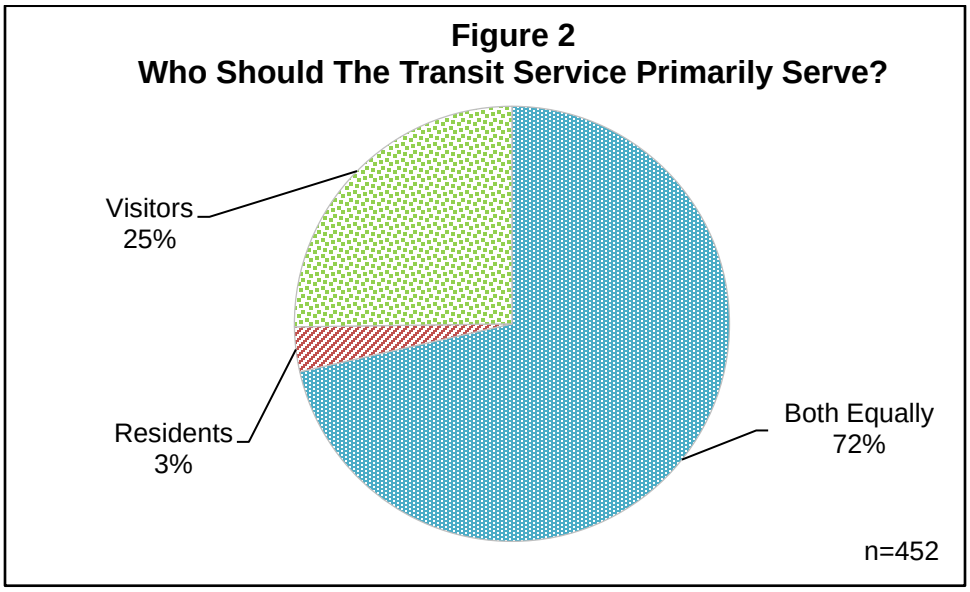
Approximately 74 percent of respondents said there is a need for a local public transportation system between Sedona and Oak Creek Canyon, while 15 percent said there is not a need for a local public transportation system between Sedona and Oak Creek Canyon and 11 percent did not know.

Approximately 83 percent of respondents said there is a need for a local public transportation system between Sedona and the Village of Oak Creek, while 10 percent said there is not a need for a local public transportation system between Sedona and the Village of Oak Creek and six percent did not know.

Who Should the Transit Service Primarily Serve?

Respondents were asked who they think the transit service should be designed to primarily serve – residents, visitors, or both residents and visitors equally. As shown in Figure 2, almost three-quarters of respondents (72 percent) indicated that the transit service should primarily serve both residents and visitors equally. Approximately 25 percent of respondents said the transit service should primarily serve tourists and three percent of respondents said the transit service should primarily serve residents.

Figure 2
Who Should The Transit Service Primarily Serve?



Potential Use of a Public Transit Service

Respondents were asked how likely they would be to personally use a transit service for four different types of trips: 1) for some trips within Sedona; 2) for trips to trailheads or recreation areas in Oak Creek Canyon; 3) for trips to trailheads

or recreation areas outside of Oak Creek Canyon; and 4) for trips between Sedona and the Village of Oak Creek. The results are presented in Table 2.

Approximately 27 percent of respondents indicated that they would be somewhat likely to use a public transit service for some trips within Sedona, followed by 26 percent who would be not very likely to use a public transit service for some trips within Sedona and 26 percent who would be very likely to use a public transit service for some trips within Sedona. Approximately 21 percent of respondents said they would definitely not use a public transit service for some trips within Sedona.

Approximately 31 percent of respondents indicated that they would be very likely to use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon, followed by 28 percent who would be somewhat likely and 23 percent who would be not very likely. Approximately 19 percent of respondents said they would definitely not use a public transit service for trips to trailheads or recreation areas in Oak Creek Canyon.

Approximately 32 percent of respondents indicated that they would be somewhat likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon, followed by 27 percent who would be not very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon and 23 percent who would be very likely to use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon. Approximately 19 percent of respondents said they would definitely not use a public transit service for trips to trailheads or recreation areas outside of Oak Creek Canyon.

Approximately 32 percent of respondents indicated that they would be very likely to use a public transit service for trips between Sedona and the Village of Oak Creek, followed by 25 percent who would be somewhat likely and 25 percent who would be not very likely. Approximately 18 percent of respondents said they would definitely not use a public transit service for trips between Sedona and the Village of Oak Creek.

Table 2
Potential Use of a Public Transit Service

	Very Likely		Somewhat Likely		Not Very Likely		Definitely Would Not		TOTAL Responses
	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	Number of Responses	Percent of Respondents	
For some trips within Sedona?	114	26%	120	27%	117	26%	92	21%	**443**
For trips to trailheads or recreation areas in Oak Creek Canyon?	134	31%	124	28%	99	23%	82	19%	**439**
For trips to trailheads or recreation areas outside of Oak Creek Canyon?	101	23%	138	32%	117	27%	82	19%	**438**
For trips between Sedona and the Village of Oak Creek?	144	32%	112	25%	111	25%	83	18%	**450**

Source: LSC Resident Survey, 2018.

Likelihood of the Local Transit System Providing Benefits to the Community

Respondents were asked to rate how likely it is that a local transit system would provide the following six benefits to the community: 1) reduce traffic and congestion, 2) reduce parking demand, 3) improve the experience for visitors, 4) make it easier and safer for residents to get around, 5) make it easier and safer for visitors to get around, and 6) improve residential quality of life. Participants were asked to rate the benefits from one to five with one being definitely would not benefit the community and five being definitely would benefit the community. The results are presented in Table 3.

Table 3
Likelihood of the Local Transit System Providing Benefits to the Community

Benefits	Average Score
Make it easier and safer for visitors to get around	3.77
Improve the experience for visitors	3.65
Improve residential quality of life	3.61
Reduce parking demand	3.55
Make it easier and safer for residents to get around	3.54
Reduce traffic and congestion	3.53

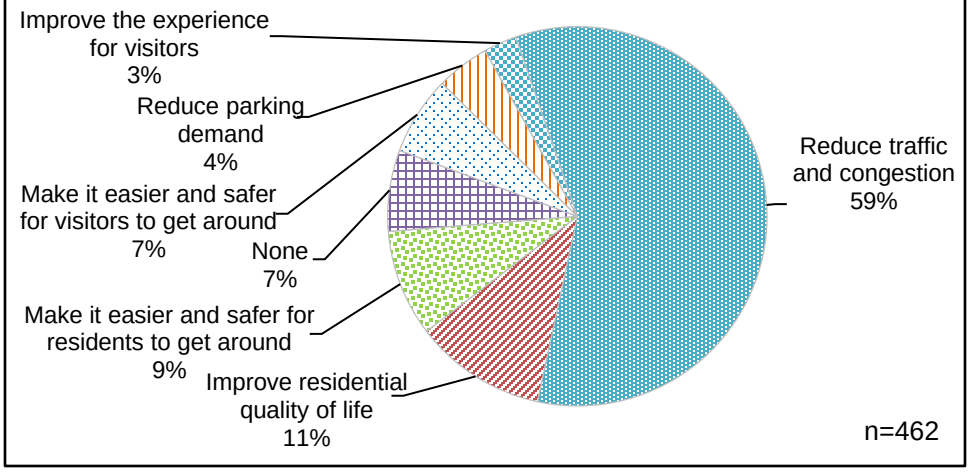
Source: LSC Resident Survey, 2018.

The average scores of all six benefits were very similar, with 0.24 separating the highest and the lowest average scores. The benefits that received the highest average scores were make it easier and safer for visitors to get around (3.77) and improve the experience for visitors (3.65). The benefits that received the lowest average scores were reduce traffic and congestion (3.52) and make it easier and safer for residents to get around (3.54).

Most Important Benefit for the Transit System to Deliver

Respondents were asked which benefit is most important for the transit system to deliver. As shown in Figure 3, over half of respondents (59 percent), indicated that reducing traffic and congestion is the most important benefit for the transit system to deliver, followed by improving residential quality of life (11 percent) and making it easier and safer for residents to get around (nine percent).

Figure 3
Most Important Benefit for the Transit System to Deliver?



Importance of Trip Types to Provide

Respondents were asked how important it is for the new transit system to provide the following four types of trips: 1) providing trips from Sedona north into Oak Creek Canyon; 2) providing circulation within Uptown Sedona; 3) providing circulation throughout the City of Sedona, including West Sedona; and 4) providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads. Participants were asked to rate the trips from one to five with one being not important and five being very important. The results are presented in Table 4.

Table 4
Importance of New Transit System Trip Types

Type of Trip	Average Score
Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads	3.85
Providing circulation throughout the City of Sedona, including West Sedona	3.70
Providing trips from Sedona north into Oak Creek Canyon	3.43
Providing circulation within Uptown Sedona	3.33

Source: LSC Resident Survey, 2018.

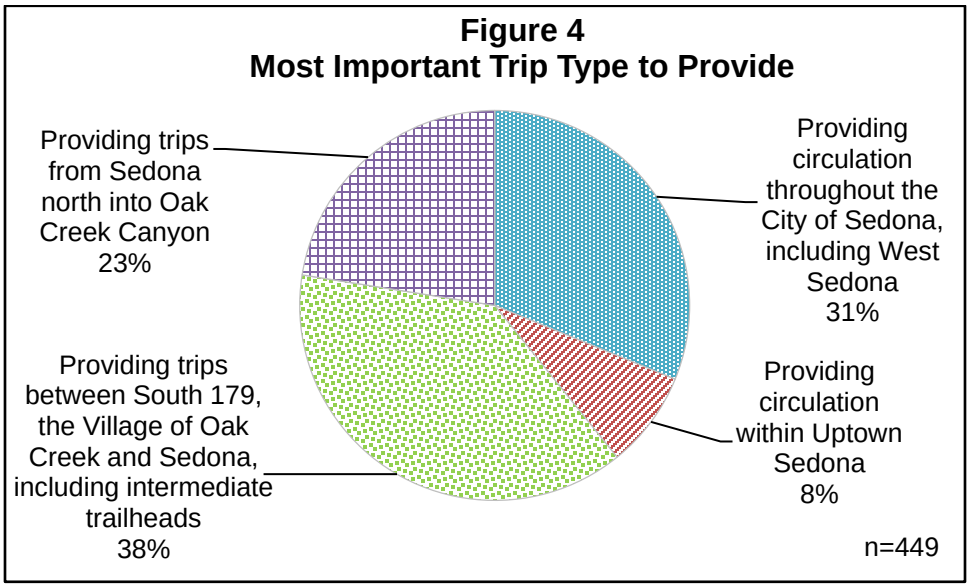
The average scores of the four trip types were very similar, with 0.53 separating the highest and the lowest average scores. The trip type that received the highest average score was providing trips between South 179, the Village of Oak Creek

and Sedona, including intermediate trailheads (3.85), while the trip type that received the lowest average score was providing circulation within Uptown Sedona (3.33).

Most Important Trip Type to Provide

Respondents were asked which trip type is most important for the transit system to provide. As shown in Figure 4, approximately 38 percent of respondents indicated that it is most important for the transit service to provide trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads, followed by 31 percent of respondents who said that it is most important for the transit service to provide circulation throughout the City of Sedona, including West Sedona.

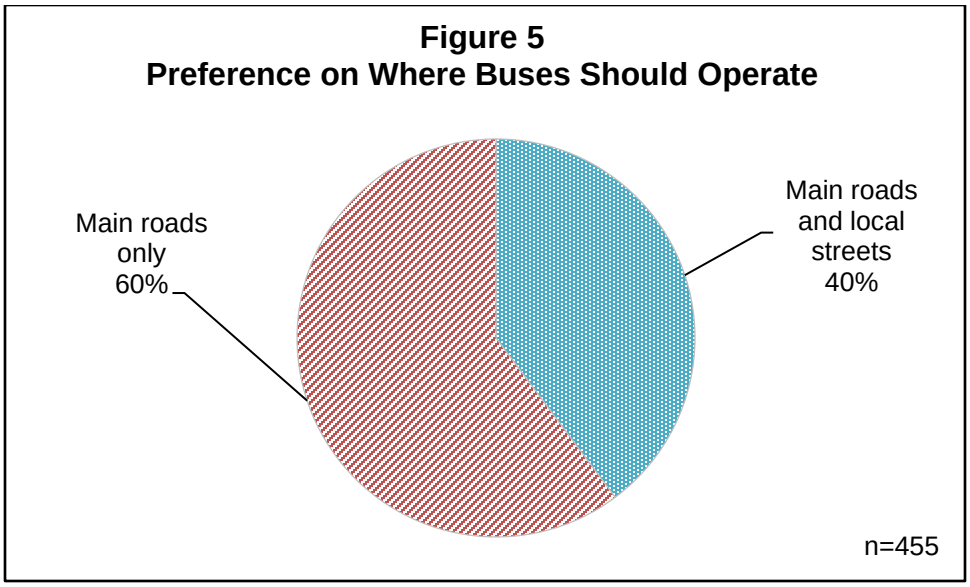
Figure 4
Most Important Trip Type to Provide



Preference on Where Buses Should Operate

Respondents were asked their preference on where the buses should operate – stay on the main state highways (179, 89A) only or use both main roads and local streets to serve neighborhoods and trailheads located off the state highways. As shown in Figure 5, approximately 60 percent of respondents said that buses should operate on main roads only, while approximately 40 percent of respondents indicated that buses should operate on main roads and local streets.

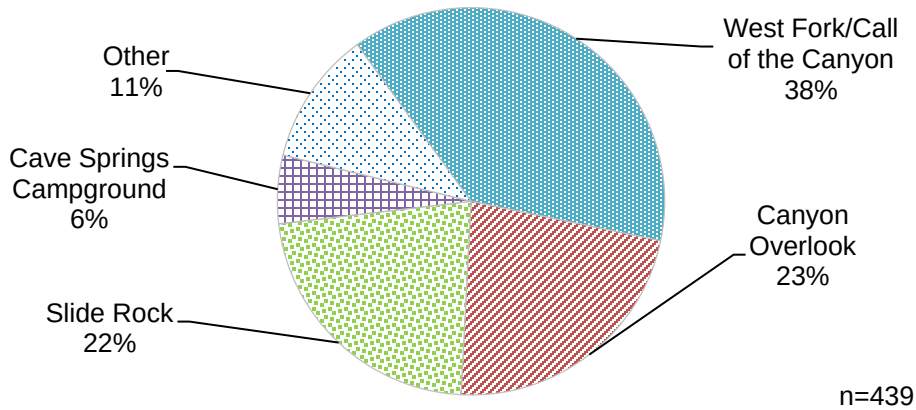
Figure 5
Preference on Where Buses Should Operate



How Far North into Oak Creek Canyon Should a Transit Service Travel?

Respondents were asked how far north into Oak Creek Canyon should a transit service travel – to Slide Rock, to West Fork/Call of the Canyon, to Cave Springs Campground, to Canyon Overlook, or to some other location. As shown in Figure 6, the majority of respondents (38 percent) indicated that the transit service should travel as far north into Oak Creek Canyon as the West Fork/Call of the Canyon, followed by the Canyon Overlook (23 percent) and Slide Rock (22 percent). Approximately 11 percent of respondents indicated that the transit service should travel as far north into Oak Creek Canyon as some other location, with the most common responses including that the bus should not travel into Oak Creek Canyon (19 respondents, four percent of total responses) and Flagstaff (two respondents, less than one percent of total responses).

Figure 6
How Far North into Oak Creek Canyon Should a Transit Service Travel?



Importance of Factors That Would Make Transit Service Attractive

Respondents were asked how important each of the following six factors are for making the transit service attractive to residents and visitors: 1) service that runs every 15 to 20 minutes; 2) bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections; 3) ability of the bus to carry gear and bikes; 4) park and ride lots where riders can leave their cars; 5) attractive buses with drivers who are also tour guides; and 6) other. Participants were asked to rate the factors from one to five with one being not important at all and five being very important. The results are presented in Table 5.

Table 5
Importance of Factors That Would Make Transit Service Attractive

Factors	Average Score
Other	4.31
Park and ride lots where riders can leave their cars	4.10
Service that runs every 15-20 minutes	4.10
Ability of the bus to carry gear and bikes	3.87
Bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections	3.75
Attractive buses with drivers who are also tour guides	2.68

Source: LSC Resident Survey, 2018.

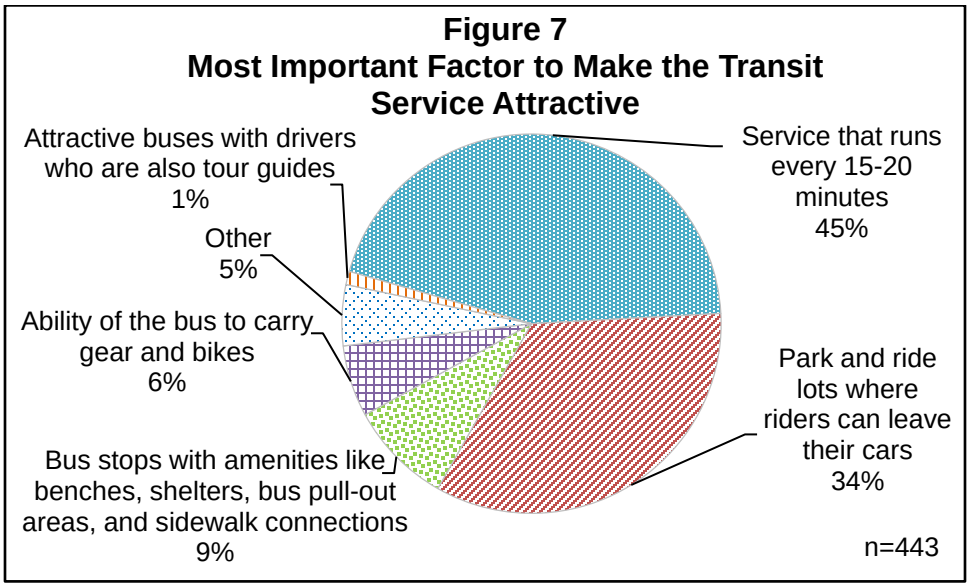
The factor that received the highest average score was other (4.31), while the factor that received the lowest average score was attractive buses with drivers

who are also tour guides (2.68). The most common responses for other included low-emission or clean buses (14 responses, 17 percent of all respondents), do not support transit in Oak Creek Canyon (seven response, nine percent of all responses), ability to transfer or connect with other routes (six responses, seven percent of all responses), bus stop locations at hotels (six responses, seven percent of all responses), helpful signage and information (five responses, six percent of all responses), and incentivize using transit (five responses, six percent of all responses).

Most Important Factor That Would Make Transit Service Attractive

Respondents were asked which factor is most important for making the transit system attractive to residents and visitors. As shown in Figure 7, approximately 45 percent of respondents indicated that service that runs every 15 to 20 minutes is the most important factor for making the transit system attractive to residents and visitors, followed by park and ride lots where riders can leave their cars (34 percent).

Figure 7
Most Important Factor to Make the Transit Service Attractive

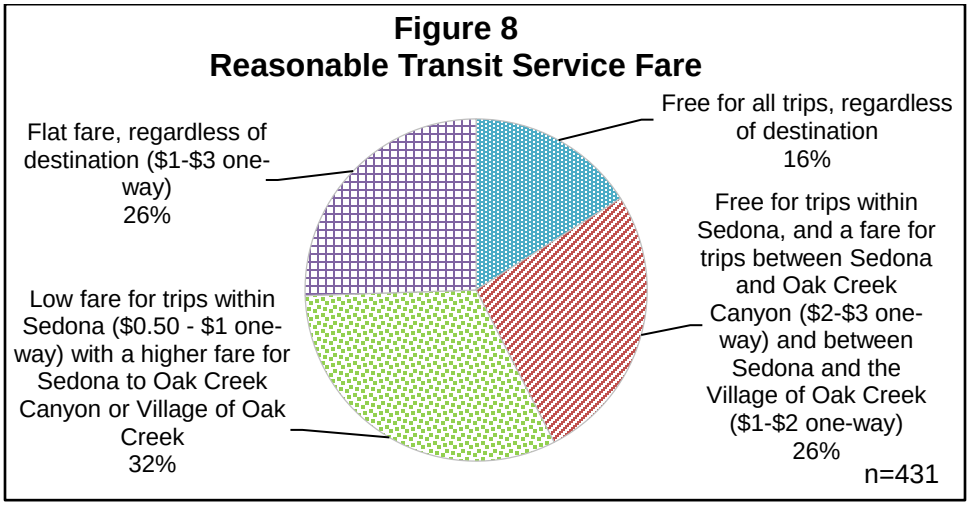


Reasonable Transit Service Fare

Respondents were asked what a reasonable transit service fare would be: 1) free for all trips, regardless of destination; 2) free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way); 3) low fare

for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek; or 4) flat fare, regardless of destination ($1.00-$3.00 one-way). As shown in Figure 8, approximately 32 percent of respondents indicated that a reasonable transit service fare would be a low fare for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek. Approximately 26 percent of respondents indicated that a reasonable transit service fare would be free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way).

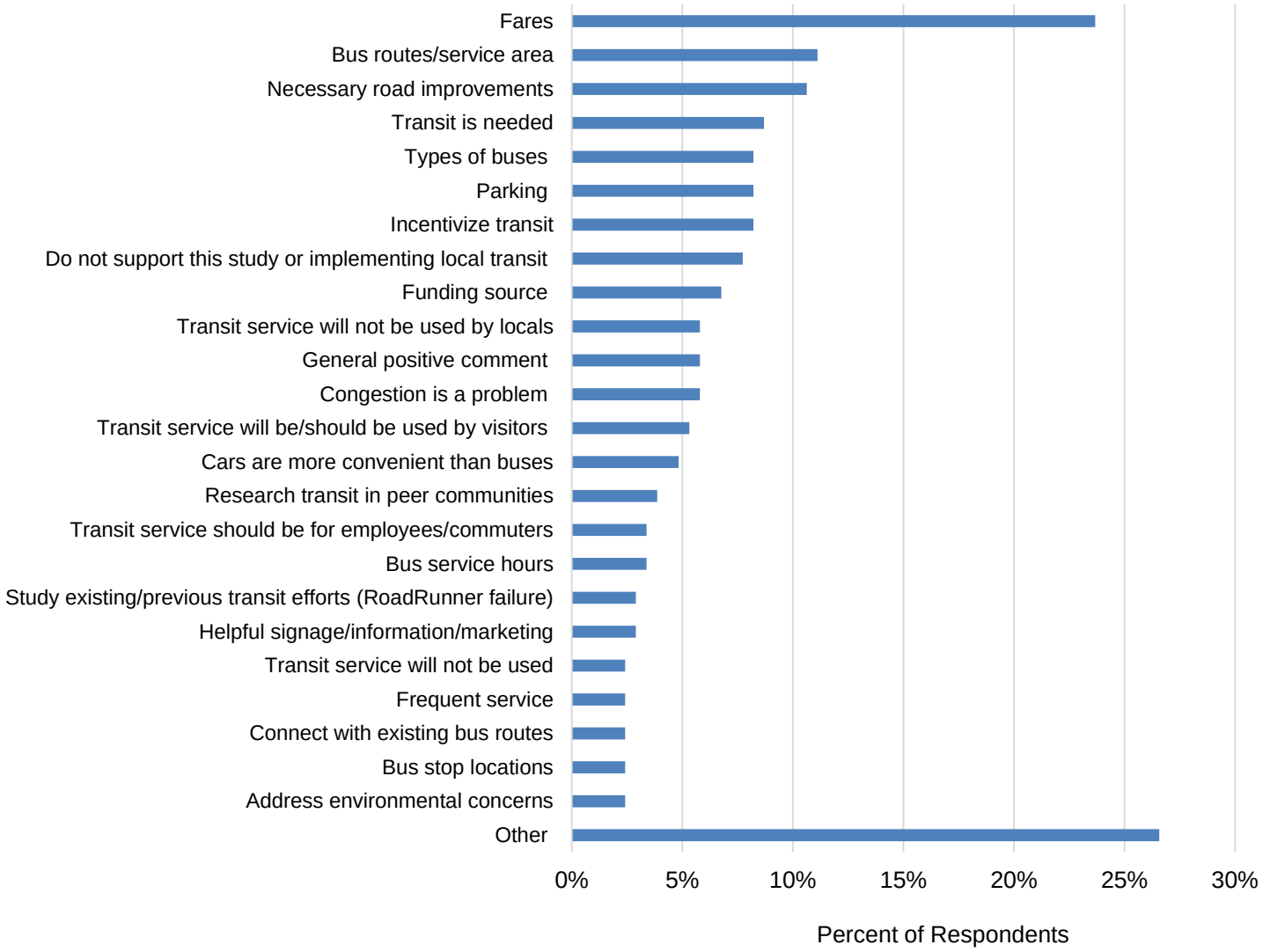
Figure 8
Reasonable Transit Service Fare



Additional Comments

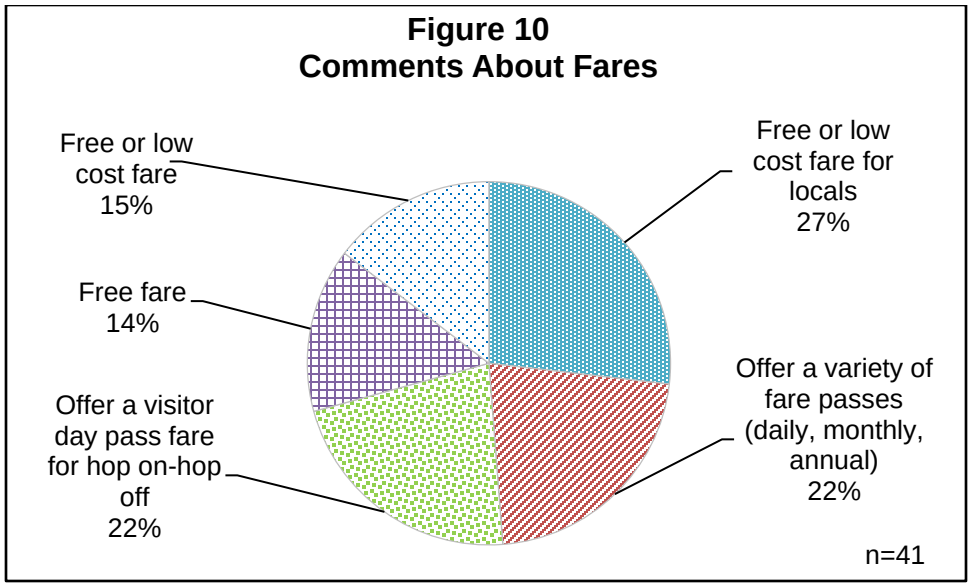
Respondents were asked to share any additional comments about a potential transit service at the end of the survey instrument. The individual comments can be read in full in Appendix C. Out of 469 total survey responses received, 207 respondents chose to write additional comments. General categories were used to group the comments based on the comments mentioned. If multiple subjects were addressed in one comment, the comment was counted in each of the relevant categories. Figure 9 categorizes the various comments received.

Figure 9
Comment Categories

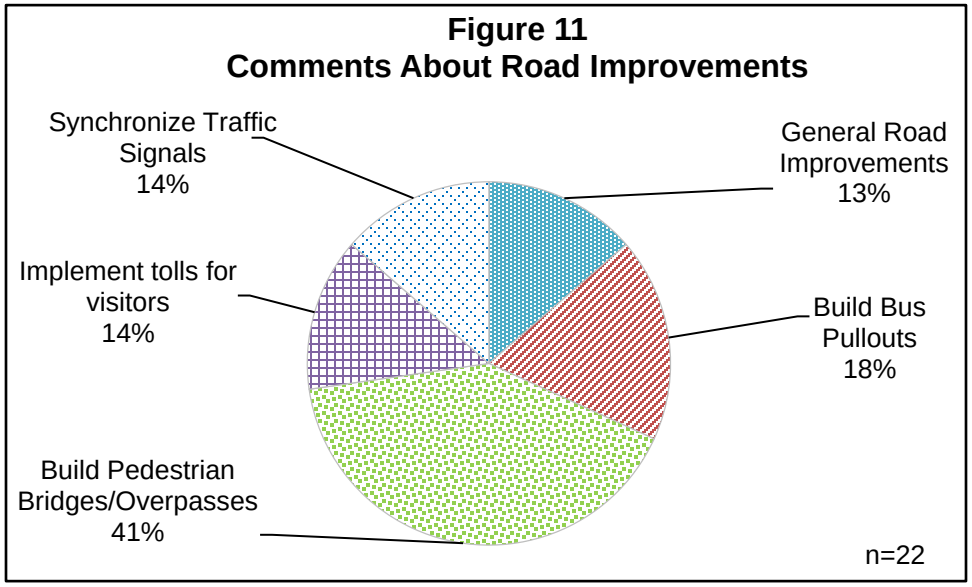


The most frequently received comments were regarding fares (24 percent), bus routes/service area (11 percent), and necessary road improvements (11 percent).

Of the comments received about fares, as shown in Figure 10, the majority were regarding a free or low-cost fare for locals (27 percent), followed by offering a variety of fare passes (daily, monthly, annual) (22 percent), offering a visitor day pass fare for hop on-hop off (22 percent), either free or low-cost fare (15 percent), and free fare (specifically) (14 percent).



Of the comments received about road improvements, as shown in Figure 11, the majority were regarding building pedestrian bridges and overpasses (41 percent), followed by building bus pullouts (18 percent), implementing tolls for visitors (14 percent), synchronizing traffic signals (14 percent), and general road improvements (13 percent).

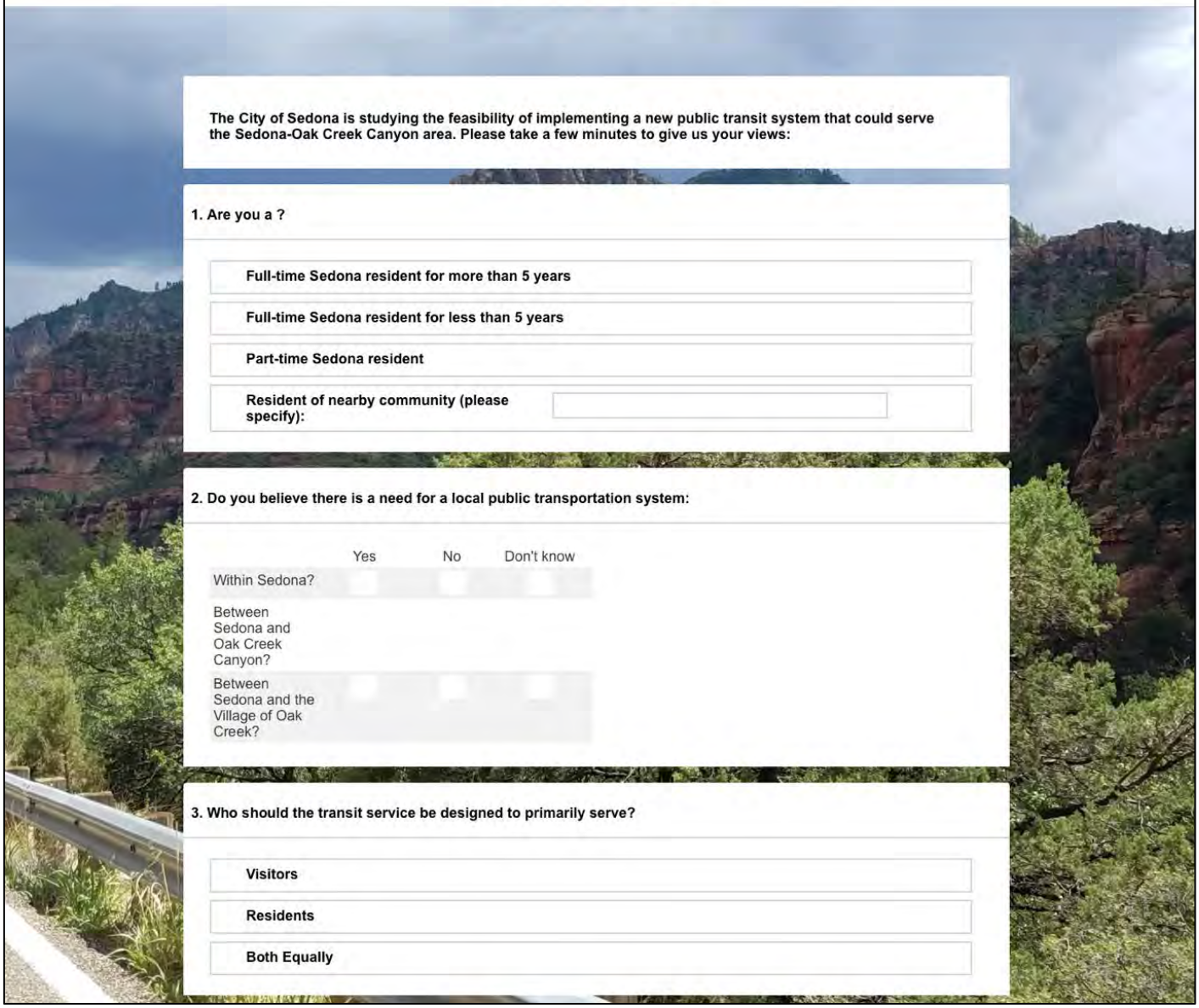


Appendix B

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

Resident Survey



The City of Sedona is studying the feasibility of implementing a new public transit system that could serve the Sedona-Oak Creek Canyon area. Please take a few minutes to give us your views:

1. Are you a ?

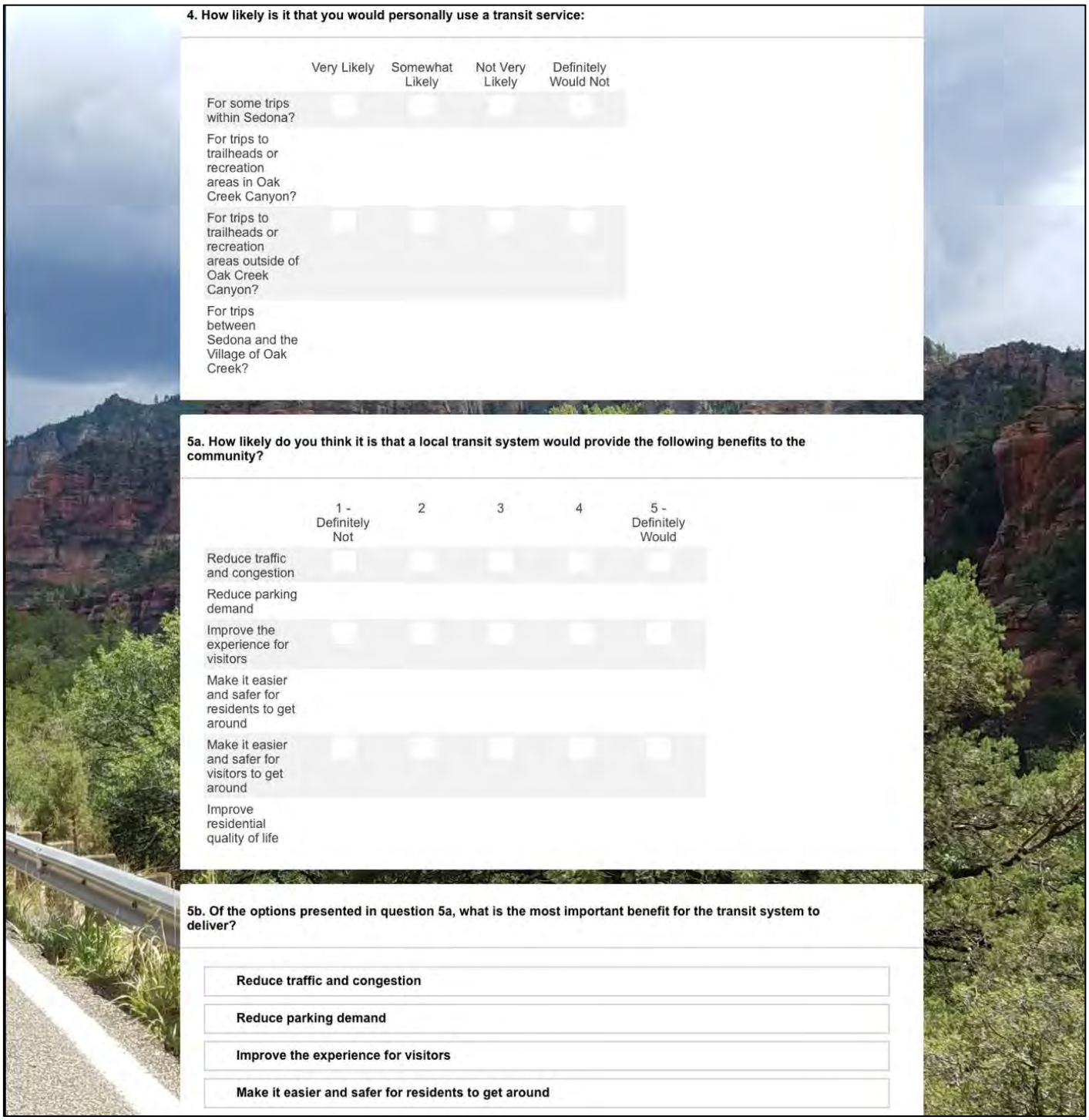
- **Full-time Sedona resident for more than 5 years**
- **Full-time Sedona resident for less than 5 years**
- **Part-time Sedona resident**
- **Resident of nearby community (please specify):**

2. Do you believe there is a need for a local public transportation system:

	Yes	No	Don't know
Within Sedona?			
Between Sedona and Oak Creek Canyon?			
Between Sedona and the Village of Oak Creek?			

3. Who should the transit service be designed to primarily serve?

- **Visitors**
- **Residents**
- **Both Equally**



4. How likely is it that you would personally use a transit service:

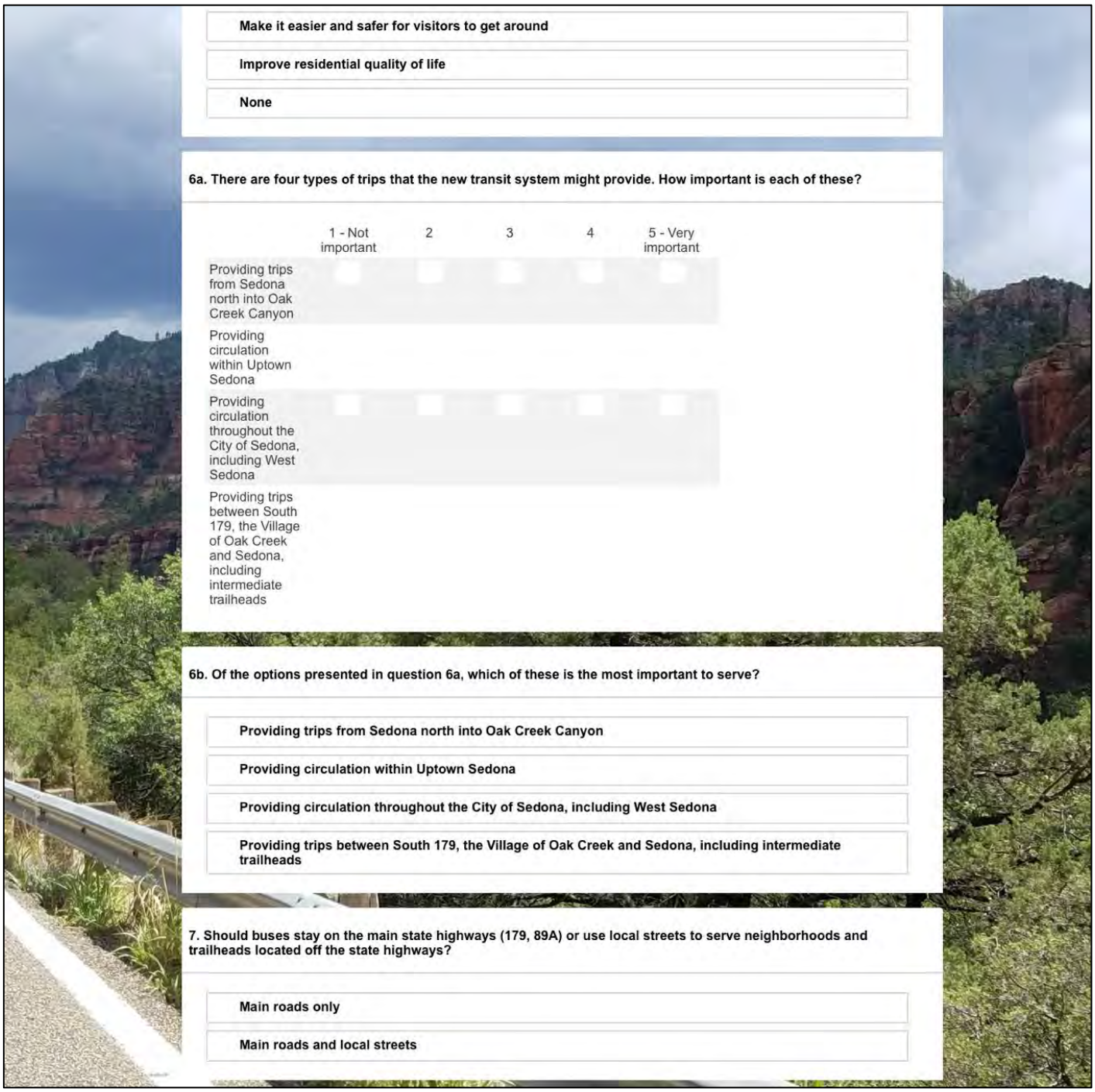
	Very Likely	Somewhat Likely	Not Very Likely	Definitely Would Not
For some trips within Sedona?				
For trips to trailheads or recreation areas in Oak Creek Canyon?				
For trips to trailheads or recreation areas outside of Oak Creek Canyon?				
For trips between Sedona and the Village of Oak Creek?				

5a. How likely do you think it is that a local transit system would provide the following benefits to the community?

	1 - Definitely Not	2	3	4	5 - Definitely Would
Reduce traffic and congestion					
Reduce parking demand					
Improve the experience for visitors					
Make it easier and safer for residents to get around					
Make it easier and safer for visitors to get around					
Improve residential quality of life					

5b. Of the options presented in question 5a, what is the most important benefit for the transit system to deliver?

- **Reduce traffic and congestion**
- **Reduce parking demand**
- **Improve the experience for visitors**
- **Make it easier and safer for residents to get around**



- Make it easier and safer for visitors to get around
- Improve residential quality of life
- None

6a. There are four types of trips that the new transit system might provide. How important is each of these?

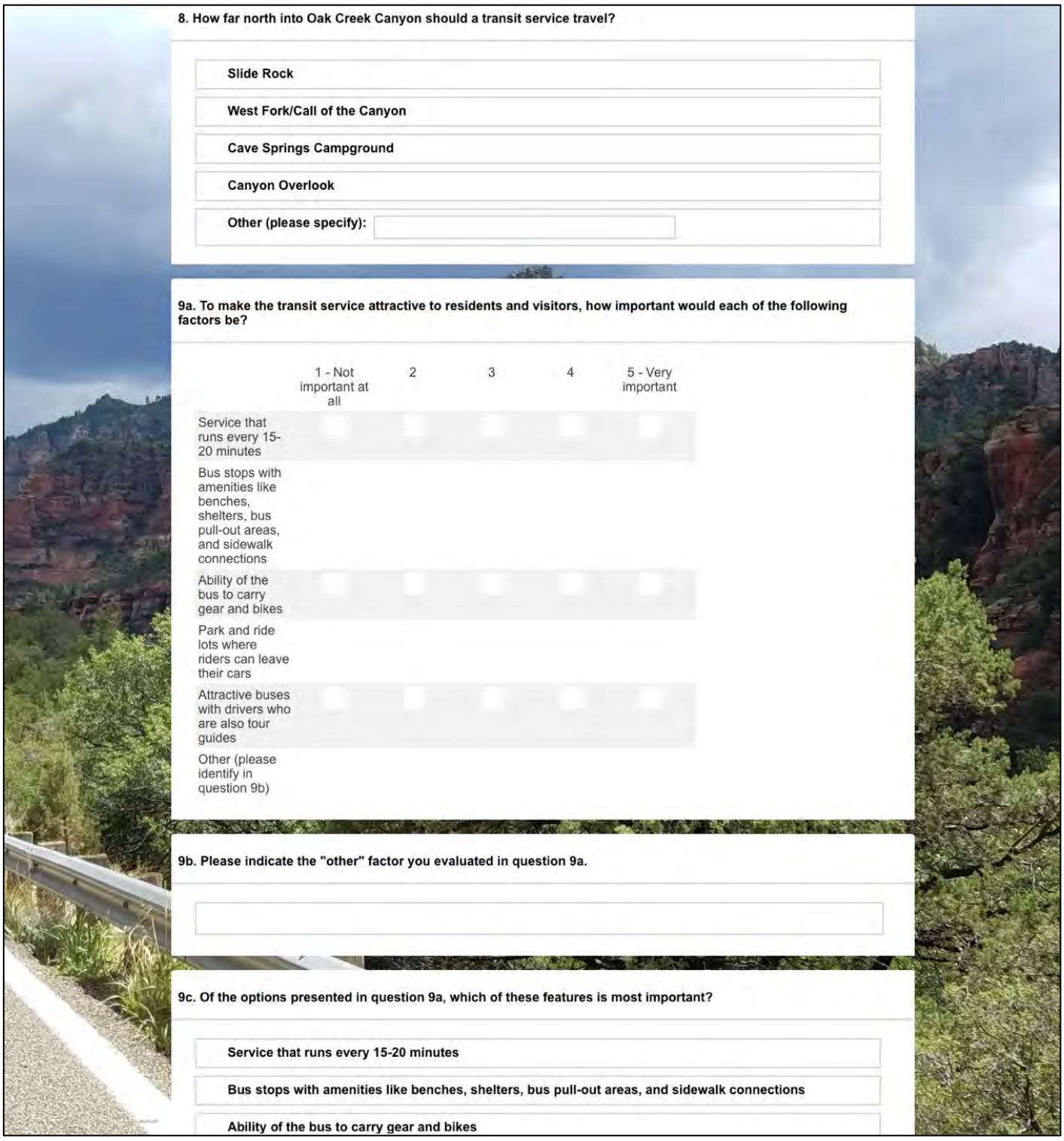
	1 - Not important	2	3	4	5 - Very important
Providing trips from Sedona north into Oak Creek Canyon					
Providing circulation within Uptown Sedona					
Providing circulation throughout the City of Sedona, including West Sedona					
Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads					

6b. Of the options presented in question 6a, which of these is the most important to serve?

- Providing trips from Sedona north into Oak Creek Canyon
- Providing circulation within Uptown Sedona
- Providing circulation throughout the City of Sedona, including West Sedona
- Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads

7. Should buses stay on the main state highways (179, 89A) or use local streets to serve neighborhoods and trailheads located off the state highways?

- Main roads only
- Main roads and local streets



8. How far north into Oak Creek Canyon should a transit service travel?

- Slide Rock
- West Fork/Call of the Canyon
- Cave Springs Campground
- Canyon Overlook
- Other (please specify):

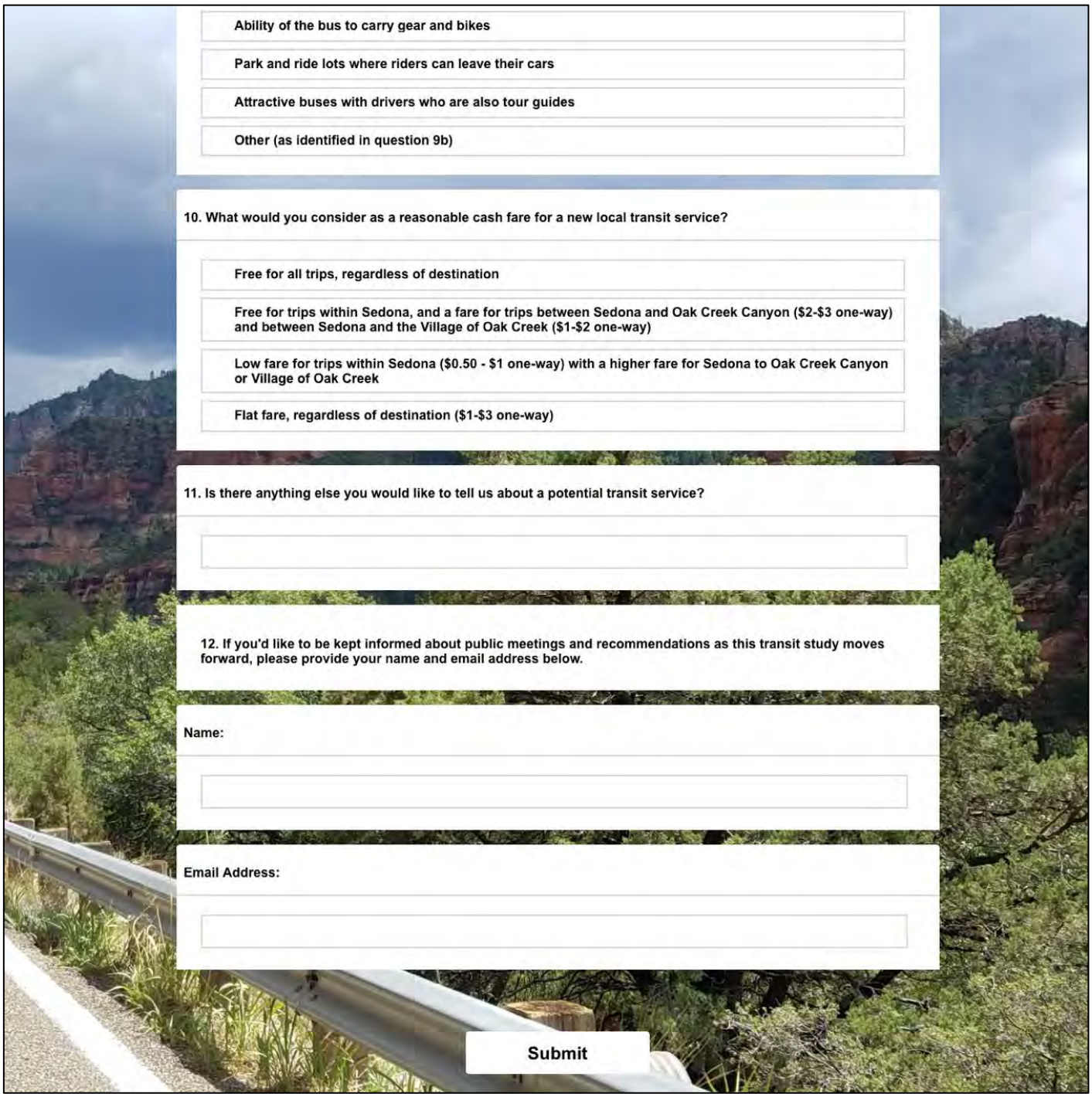
9a. To make the transit service attractive to residents and visitors, how important would each of the following factors be?

	1 - Not important at all	2	3	4	5 - Very important
Service that runs every 15-20 minutes					
Bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections					
Ability of the bus to carry gear and bikes					
Park and ride lots where riders can leave their cars					
Attractive buses with drivers who are also tour guides					
Other (please identify in question 9b)					

9b. Please indicate the "other" factor you evaluated in question 9a.

9c. Of the options presented in question 9a, which of these features is most important?

- Service that runs every 15-20 minutes
- Bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections
- Ability of the bus to carry gear and bikes



- Ability of the bus to carry gear and bikes
- Park and ride lots where riders can leave their cars
- Attractive buses with drivers who are also tour guides
- Other (as identified in question 9b)

10. What would you consider as a reasonable cash fare for a new local transit service?

- Free for all trips, regardless of destination
- Free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2-$3 one-way) and between Sedona and the Village of Oak Creek ($1-$2 one-way)
- Low fare for trips within Sedona ($0.50 - $1 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek
- Flat fare, regardless of destination ($1-$3 one-way)

11. Is there anything else you would like to tell us about a potential transit service?

12. If you'd like to be kept informed about public meetings and recommendations as this transit study moves forward, please provide your name and email address below.

Name:

Email Address:

Submit

(This page intentionally left blank.)

Appendix C

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

APPENDIX C

Resident Survey Comments

1. Must have park and ride lots in VOC and west entry to Sedona—only way to reduce traffic is to reduce cars on road. Free if you park in one of these lots.
2. Daily fee, unlimited use, one charge for the entire day.
3. BUY 179 from ADOT - set up tolls for non-residents heading into town from 17. Year-round residents get free toll pass.
4. Deliver service at least through the dinner hours.
5. Keep within Sedona and stop trying to encroach other areas
6. It would be good for workers to be able to use that fits their schedules as well.
7. If there must be a fare, how about also having weekly/monthly/yearly discounted passes?
8. The traffic situation MUST BE ADDRESSED NOW!!! This sounds like a start.
9. Must be marketed! Allow time for this to succeed. Must promote to tourists; encourage them to leave their cars at their hotels and use public transportation. Buses must run regularly or on designated schedule if they are to be used.
10. I have been to other cities where I park my car at the hotel and jump on public transit to take me into the town. I thought it was a great idea and would think visitors would use this transit.
11. If drivers have to deal with fares the service WILL NEVER run on schedule! Traffic in Sedona is bad enough in regards to slowing down the scheduled service without adding people not having correct fare or not having it ready when the bus arrives. Trust me, people will not read signs reminding them to have exact change or their money ready. I should mention the fact that the buses will most likely be blocking the right lane in places where there is not a convenient pull-off for passenger loading which, of course, will add to the traffic congestion. For the VOC service have one dedicated bus running just from Hillside to the VOC and back. These VOC travelers can then pick up one of the Sedona shuttles from the Hillside drop-off. Otherwise if the VOC bus goes further into Sedona they will no doubt pick up passengers expecting to go to West Sedona and not the VOC. Also have two other buses just doing the Uptown-West Sedona-Hillside loop. There's no way the service will be able to run a 15-20 minute wait service if you don't have two in-town buses running preferably in opposite directions to accommodate, for example, Uptown visitors wanting to go straight to Tlaquepaque and not have to sit through the whole route through West Sedona and then to Tlaquepaque. FYI: I have worked for five transportation companies (3 public transportation bus companies, 1 airport shuttle company and 1 jeep tour company) in the last fourteen years and know what works and what doesn't.
12. Will not solve traffic problems.
13. I think the service at Zion is a good pattern.

14. Creating transit for employees of Sedona and VOC businesses e.g., hotels, biz, restaurants is VITAL.
15. 24-hour pass would be better than low fare within the city.
16. The transit system needs to be easy and no hassle I think passes where riders can step on step off again and again without fumbling for change is critical for visitors and locals to use the service often.
17. The fare would have to be less than people currently spend on fuel to encourage residents to use the service. For example, from the VOC to Sedona, I spend $20 once every two weeks for eight round trips, or $2.50 per round trip, so $1 one-way would justify using the service, while $2 one-way would not.
18. Instead of a per ride fare, have a daily fare to permit hop on/hop off experience.
19. If you price it equal to or higher than fuel costs, people will continue to use the convenience of their private vehicle.
20. It sounds good, but you need to analyze why the system failed in the past. Also what is the impact of weather: heat, monsoons. I think you overlooked one group which is hourly workers who might like to use it, especially if there were a monthly pass. The only thing is many of them live in Rimrock, etc. and would need to be bused in maybe in conjunction with normal working hours.
21. 179 should be double lane for some parts on one side and some other parts on the other way.
22. Oak Creek Canyon is overrun with parked cars, cars waiting for a space, and casual hikers who are too far from the nearest toilet. The Canyon experience is being ruined by the lack of traffic management.
23. Too much to list here. But thank you.
24. Important to have parking lots available at the 3 entrance points so they can truly "park and ride," one at VOC, one at Grasshopper Flats (West Sedona), and one before you go into Uptown, perhaps that eyesore of abandoned homes and hotels that the city owns. There should also be special passes for residents that would encourage use, and a "daily pass" so people can get on and off throughout the day, or even a "weekend pass" during high traffic weekends.
25. Should run between 8 am and 6 pm winter (Oct-Mar and 7 am and 7 pm other times. Should go to Chapel and to Cathedral Rock trail head off 179.
26. It needs to be established right away.
27. Make it easy for dummies to purchase tickets. There's nothing more frustrating than being in a foreign town or country and not being able to figure out the transit system. Machines for ticket sales should also offer change.
28. Let tourist taxes pay for shuttle service.
29. Central transfer stations to provide easy access to trailheads.

30. Quit spending public money advertising for tourists. Spend it on a cut-off from 179 to Oak Creek Canyon, bypassing Uptown. The traffic problem in Sedona is "Man Made."
31. People like their cars too much for this to be successful. They would rather sit in their own car during the inevitable traffic jams listening to their own music etc., there are better ways to address our traffic problems starting with the Red Rock Crossing bridge. Don't waste money on band-aids. Think big.
32. Identify a sustainable funding source before embarking on any new transit system. Use the experience of other communities of a similar demographic profile like Laguna Beach, CA that has a local system.
33. Reduced monthly fare for residents with a transit pass.
34. Residents unlikely to use transport but making it mandatory for guests with the pricing making it attractive.
35. They should not travel in residential areas if it all possible. Unless that residential area is a pass-through to a tourist site, then that can't be avoided. Smaller Transit should be used at larger Transit locations when traveling through residential zones. For example, a larger Transit can pick up in Village of Oak Creek drop at a smaller Transit pickup zone to take tourist through residential areas. The last thing we want is giant buses going down our streets.
36. The mass transit up Oak Creek Canyon would pose too many needs. Locations for disembarking, allowing enough space for safety. People standing on the highway in some instances for the next "bus." People who do not want to stop where the transit goes/stops, will be driving on their own anyway.
37. Just study all the other studies! Stop your study and do it!!!!!
38. If it doesn't perform as expected what will the city do with it?
39. RESIDENTS WON'T USE. SHOULD SET UP A SYSTEM LIKE NATIONAL PARKS I.E., ZION.
40. Not going to work!
41. Connect with Links bus in West Sedona at Coffee Pot. Do not duplicate routes. Make it easy for people who work throughout Sedona and VOC to get to work cost-effectively and efficiently while leaving their cars out of high traffic problem areas. Offer late night services on the half hour so employees can use the transit service.
42. The current transit system (Roadrunner and Lynx) doesn't seem to have an abundance of ridership. Since we're paying for this survey/development of a new system I'd like to know what the consultant has to offer to make ridership more attractive to both residents and tourists. Running empty shuttles/busses just clogs up the system more!
43. It would definitely help with the troubles in the traffic circles.
44. Look at Springdale, Utah and Zion Canyon for excellent examples of local transit service.
45. Rather than building new roads and wrecking neighborhoods and natural scenery/wildlife in the process, this is THE SOLUTION.

46. A waste of money - just like the last attempt.
47. Must pay for itself from revenues over expenses.
48. How many people will really use it? I know I wouldn't.
49. The transit system should stay between Uptown and West Sedona only. Based on what I have seen having lived in Sedona and working in Flagstaff for 10 years is there will be little benefit to a transit system in Oak Creek Canyon. Hikers go out early in the morning and their return trip has little to no effect on the traffic problem in Uptown. The main traffic problem is pedestrian interference. Once you put up pedestrian overpasses and add additional parking lots a large part of the problem will dissipate.
50. The Chamber should pay for this.
51. The vehicles should be electric or hybrid electric/bio diesel.
52. Should be geared more towards visitors. Residents should be able to choose to use their cars at will in their own city where they pay taxes and will be supporting buses for the tourists!
53. Good luck getting that funded. As a local this should be funded by the tourist industry not my taxes.
54. May be difficult to get visitors to take advantage of transit service.
55. Look at Williamsburg for great tourist Park and Ride bus model. With adding bus transit then the proposed neighborhood connectors and Forest bypass road should be eliminated.
56. The distances within West Sedona and Uptown are small and where there seems to be the most congestion - so it seems that free fares and frequent trips would encourage tourists to leave their cars - similar to Zion and the Grand Canyon.
57. Examples of other places in other countries: Have visitors pay a one-time "vacationing tax" of a certain $ amount per adult and 50% less per child, and finance a possibly free for all trips transit service.
58. We have a troll now. It sits in traffic during busy seasons like everyone else does. How are you going to REDUCE the drive-throughs to the G Canyon?
59. Fares: should offer economy passes for seniors, children and workers.
60. Residents of Oak Creek Canyon need to be considered. Residents should be able to buy discount passes. Hotels and timeshares should contribute. Probably Airbnb owners as well.
61. 24 ST AND CAMELBACK IN PHX BUILT A BEAUTIFUL UNDERPASS - BIKING GREENBELT ON 89A - SAFETY – BEAUTY.
62. Don't think people will use the service unless it runs fairly frequently, people don't want to give up the freedom of a vehicle for long waits for public transport, particularly in our heat.
63. The City must stop wasting money on this subject. Instead, build a new police facility!
64. It will merely cause more traffic problems, slower traffic and congestion when buses stop.

65. Use a daily wrist band system. Riders could get on and off as needed. Residents could purchase a monthly card.
66. Must be good for the environment.
67. Non-polluting vehicles that are quiet and do not create more noise and air pollution.
68. Keep buses relatively small 20 passengers max.
69. Please, consider monthly pass for residents, at reduced rate for frequent riders.
70. Paint an attractive local artist painted mural on both sides.
71. It needs to run long hours from early morning to late at night. Also, to maximize usability, good connections with existing system - Verde Lynx - is important.
72. Sedona already studied and implemented a transit plan with the RoadRunner many years ago. It was free and initially served Uptown, Hillside, Tlaqupaque, with very little ridership. Also, the service briefly expanded to include West Sedona, and even workers commuting from Cottonwood. The service eventually folded. Not sure what the incentive will be for people to park their cars, load coolers, camp chairs and supplies on a bus, ride in traffic to the canyon, unload, only do reload later all over again. How many cars will one bus take off the road? 5, 6, 10? You will need a lot of buses to have carrying capacity to make a dent in local traffic. Also, we know locals are too impatient to wait for a bus, they already drive too fast in a town that the longest commute is 10 minutes (20 from the village). I am so glad money got spent for another consultant/feasibility study for area transit and I am sure this program will launch despite it was tried and failed on a smaller scale before. Why build it once when you can build it a second time for twice the price.
73. The sound of buses is terrible. Are you talking about big buses? How about shuttles? Maybe I am delusional that that would help?
74. It is so important that this survey is including to / from the Village of Oak Creek. Please include a package rate for workers who need to use the service several times a week.
75. The transit service needs to be comprehensive and integrated to include as much of the Greater Sedona area as possible.
76. A State Grant would be nice.
77. Make it convenient for getting large numbers (tourists) to and from the over major attractions where parking is full. Residents need to use their cars for multiple stops at non-attractions: home to the Post Office, school, pharmacy, bank, grocery and home again. Bus service with all these stops for residents is not financially practical.
78. Please get this started as soon as possible!! :)
79. Residents will not use this as they have their own vehicles and will not want to deal with the bother of walking to and from transit stops, hauling stuff by hand, and waiting to be picked up and dropped off. Visitors are also not likely to use transit for the same reasons and also they will not be familiar with how the transit system works.

80. Day, week, month, or annual passes would encourage the use of public transit.
81. Because all the grocery stores and banks are so spread out in West Sedona, I don't know how a transit system would help locals.
82. NO TRANSIT SERVICE NEEDED.
83. Don't do it.
84. We tried this before. Buses ran empty for months on end. If you must do something, build bus stops and let private carriers service them.
85. Please use Hybrid or other high fuel-efficiency and low emissions transport vehicles
86. Transit isn't just about visitors. With an aging population, we need a transit system to help older people get around and especially people who may not be as safe driving as they once were.
87. I think it will be a flop. You have no parking.
88. The fare is a difficult, but important, consideration. We love that Zion charges nothing for its shuttles, and would love if Sedona charged nothing, too. But that may not be feasible. If a charge is necessary, PLEASE keep it low, say, $1.00 per trip. That way, people have an incentive to use it. Incentive is everything!! In our car-dependent society, we have to have a very good reason to NOT use our cars. For the residents, we see the traffic/parking problem, but visitors will not necessarily know about it. They will think it's easier to use their cars, unless the fare is very low or free.
89. Whatever is done, it must be done with respect to our precious environment. Possibly a portion of Park-n-Ride fees be donated to trail and environmental projects. Sell annual passes to locals. Have environmental tour books about Sedona's history/mountains/flora/fauna/trails available for very nominal fee.
90. This is important for us to do. It is one of the few ways we can deal with traffic in Sedona.
91. Locals should have a lower fare than visitors.
92. Thank you for the survey!
93. This is an excellent idea and very much needed! Many Western towns; most people understand Sedona can get congested and offering this service will help improve their experience as well, especially if there are places to park where they can leave their car.
94. This might take awhile to catch on. Please stick with the plan as residents and tourists adopt new, healthier ways of enjoying Sedona the plan will benefit tourists and residents and bring the two populations together while sharing an improved Sedona experience.
95. Tourist traffic is a serious problem in Sedona, and is translating to real political battles. Given the Chamber receives money from the City to advertise and invite tourists to Sedona, money from tourism MUST directly support quality of life for residents in very visible ways. If not, we're going to have serious tourist v local and resident v hotelier/Chamber problems. The City Council should pay attention to this latest political season, and actively address these traffic

and tourism concerns in ways that don't always include costly consultants who end up writing reports that do not translate into improved quality of life.
96. Start small, Oak Creek first, no village.
97. It should use electric vehicles.
98. Please do not move forward with this idea. Focus on quality of life for residents.
99. I doubt it will attract tourists or residents. Driving one's own car more convenient, private, doesn't require waiting to be picked up or lugging gear except into and out of one's own car. The Red Rock Crossing option makes much more sense than another public transit system. (Whatever happened to Verde Lynx?)
100. This is not as high of a priority as Oak Creek Canyon access, but consideration for future expansion should also be given for access onto Dry Creek Rd, Red Rock Loop Rd, to Red Rock Crossing, and Red Rock State Park.
101. Go green.
102. Small buses, did we learn anything from the Roadrunner fiasco?
103. Hotels must enforce that visitors use the shuttles. They have the parking. How to enforce that visitors don't drive needs to be studied.
104. If you want residents to use it you may consider a card for free or reduced fare. Visitors should pay.
105. Yes. This is specifically for tourists. The investment should be in public transit, traffic light coordination, pedestrian crossings. DO NOT continue discussions or studies (wasting money) on neighborhood connector road or the Forest Road project. Keep the neighborhoods for the residents!! Listen and post accurate information - no pro-spin and print both sides of all opinions.
106. Research efficient, cost-effective systems in other cities, not only in the USA, and build a great system. Make Sedona a model for cull time living, and for tourists, instead of the thoughtless, chaotic mess it is now. Put quality of experience before private financial concerns. In that way, it will be successful, and therefore amenable to local businesses, as well as to riders. Thank you for moving on this. Our roads are unsafe now, and there is little time to waste.
107. I think that it is the number #1 best use for the Home Rule money that just got renewed...given the passions surrounding the election. If that isn't addressed immediately the Home Rule opponents will begin their next attack. The Chamber of Commerce should be clearly and publicly part of this plan AND share the costs. I have always watched and questioned the detrimental effects that C of Cs can have on all manner of communities: they start off helpful and eventually continue to help a lot of businesses but often impact negatively the quality of life for both visitors and residents. We are choosing to spend many more months elsewhere than we did just 5 years ago. We used to escape the heat but now it's much more. The End for now.
108. No one will use it.

109.	It would be beneficial to study other areas where shuttles are utilized and successful.
110.	Free important. at $1 each, it costs a family of 4 $8 RT. Gas is cheaper, and they came in a car. The temptation of cost and convenience over transit will keep people off the buses.
111.	Just that it should be reliable and on-time!
112.	(1) The City doesn't know what Sedona's carrying capacity is--this needs to be determined--and there are only two highways (SR 89A and SR 179). Traffic and crowds are a negative already, as is over-tourism. What if residents get a call telling us to evacuate because of a fire? It could happen. The Brins Mesa Fire started on a Father's Day Sunday at about 11:30 a.m. The cause was due to a human, probably a beggar's camp. Very luckily, there was little wind, if any. How many residents and tourists would be able to evacuate should a wildfire rage through the City on a windy day? We only have two highways and emergency vehicles need the right of way. Health, safety and welfare have been ignored by City Council, Staff, the Chamber of Commerce, the Lodging Council, and the Transportation Master Plan Update. (2) The Sedona AZ Community Livability Report 2017 found (Figure 10: Support for Growth Industries) that about 4 in 10 respondents supported increasing tourism or warehouse and distribution businesses. Why are three new hotels in the pipeline? Residents don't support them, there are health and safety problems already (Uptown, especially), and the City's carrying capacity is unknown. In addition, the .5% City sales tax increase effective last March 1st, the Transportation Master Plan Update and the SIM will not do the job needed and be out of date in a few years. (2) The City needs to address the needs of the local community over ignoring Health, Welfare and Safety issues.
113.	Let’s make it happen!
114.	Low-income (elder) or all Residents could be eligible for some city reimbursement after a pre-set minimum expenditure for bus use in the first year - and perhaps afterward.
115.	Hopefully you are looking at experiences of other similar cities. If it doesn’t reduce traffic in the Canton and between VOC and Sedona it’s a waste of money. And it should not substitute for other alternatives - i.e., a bridge across Oak Creek.
116.	Give riders to the canyon a discount at Slide Rock for using the system! Discounts at local stores
117.	Locals with ID showing they live in Sedona/VOC/Oak Creek should have a free annual pass.
118.	Free admission to trails for those who ride the bus to the trailhead.
119.	Free same day bus transfers.
120.	Wrong.
121.	It needs to be attractive enough for tourists to park their own cars in a lot and use the transportation.
122.	Bus pullout lanes are critical. Otherwise, the system will only cause more traffic backups. An easy way to pay fare for locals would be nice, such as a year-long bus pass.
123.	Free Passes for low income Sedona residents.

124.	Most people are married to their cars. I don't think that the city should subsidize it.
125.	The electric buses in Mesa are doing very well and the people seem to like the character of them.
126.	Traffic is awful. Clogging up the canyon and streets with the addition of busses is an awful, ill planned idea. I don't see it reducing traffic. I see it adding to the problem and costing money.
127.	Fares - sell a card that can be swiped on the bus for rides. This would make a fare below $1 easier.
128.	You are posing no answer to the transit problem. The carry capacity of vehicles will not decrease unless visitors are staged in out of city parking facilities and then bused throughout town. That addresses 89A in town but you have two other access points, one from Flagstaff and other from Sedona. Many European cities are now limiting tourist visiting since as with ours the quality of community life is being destroyed. Traffic is not the real problem but access to Sedona. The infrastructure is at capacity with water use, pollution, food services, etc. Drastic social issues must be addressed as to curving visitation but that won't happen owing to an amateur city council and mayor who have no training nor experience with civic planning. They don't even know how to address such issues.
129.	Pick-ups at hotels and motels.
130.	No transit system! NO TRANSIT SYSTEM.
131.	I have seen no analysis of how and why the former Roadrunner transit system failed, and how and why this system will be different, and correct the former problems. Actively investigate (by interview) everyone involved in the "Roadrunner" design and "ostensible" failure, so many of the same mistakes. I'm personally one of the initial top 10 Roadrunner promoters, but not contacted. Forget resident utilization unless the system utilizes neighborhood incorporation. Getting into your vehicle to get to the bus is ridiculous!
132.	This is a waste of time and money would not be used.
133.	Free public transportation should be mandatory for ALL visitors (there are plenty of areas where parking lots could be developed with minimal destruction to the environment. Since we have one of the highest local sales tax rates in the nation, money should be diverted from other unnecessary projects in SIM to this.
134.	Have central trailhead parking lots with transit to major trailheads at least early am, 12:00 pm and late pm
135.	Residents will not drive to a park and ride lot on 179 and or 89A and then transfer to a bus. A big city solution that serves a commuting workforce. That is not Sedona. Close the canyon, ala Zion or install a bus lane to reduce travel time.
136.	This service is a MUST! It's a wonder that people aren't killed walking on the narrow road in Oak Creek Canyon. The City and Coconino County should protect themselves from liability by providing this much needed service. Many National Parks require buses as transit to reduce traffic congestion and increase safety. People get used to it and it becomes the norm.

"No Parking" barriers are also used in National Parks to stop illegal parking and helps to enforce the transit system.
137. Should be daily passes only. Included free in hotel daily rate.
138. It's critical that we create safe and easily available transportation to avoid the Sedona/Oak Creek Canyon being "loved to death."
139. I would like to see more public transit from Phoenix to Sedona.
140. Transit system needs to focus 1) primarily on hotel/motel guests in West Sedona and VOC (80% of SR179 weekend traffic are visitors-Trans Master Plan p 16) and 2) on commuters. Shuttle system should be combined with Oak Creek Canyon reservation system, limited roadside parking and Dynamic Message Signage advising sight-seeing drive thru traffic to use I-17 to and from Flagstaff and that OCC campgrounds and day-use areas are FULL / NO PARKING AVAILABLE.
141. I'm glad our city is starting to tackle the idea of public transportation. In doing so I think it is imperative to remember and return to the fundamental point. This is about helping people connect to place(s); one has not simply arrived when they step off a bus. Other kinds of connections and infrastructure are imperative to a success public transit system. If a major goal is to reduce traffic/cars on our roads, the solution should not only reflect the goal but also function holistically in order to be successful rather than a band-aid. Taking the bus in combination with walking/riding a bike on a safe connecting path will need to be as easy/pleasing or easier/more pleasing than driving a car.
142. I do not believe locals will use this service based on the proposed route. I hope visitors will use it for the Canyon and maybe Bell Rock and Courthouse.
143. I have lived in Oak Creek Canyon for 10 years and this isn't just about traffic, we have so many sirens every day in the canyon and it is really dangerous living here now.
144. Zion National Park shuttle service is a great example!
145. Just 3 or 4 buses is not going to help much. You would need several. And I don't think it would cut down visitor congestion because they need their Cars to carry their things. Plus, most parking areas will get employees of uptown businesses towed. Residents have no security regarding this topic.
146. Have all hotels/motels/restaurants supply bus schedules
147. Park and Ride lots seem very important but I'd hate to see the environmental impact.
148. Ecologically sound buses/vehicles would be hugely important.
149. They need to do away with all parking along the side of the road in Oak Creek Canyon or this transit system will not get used there by visitors.
150. This is a waste of time and money. The survey was biased into showing a result that the politicians wanted
151. Some people want to be able to get around to their jobs into Sedona. The tourists that have cars don't seem to have much interest in getting to a place in the canyon. Most Day trippers

will have a car full of camping/picnic gear along with multiple people and taking public transportation is just not suitable. Those who travel mostly with bikes or on foot need to have a way to get around. We need flashing re-routing signs on 17 for those coming up from the valley so they have options to get into Sedona from the west and not just 179.
152. Needs to be comprehensive enough in Oak Creek Canyon so that it does reduce congestion significantly, or it won't work. No baby steps here; take the time and implement a complete system well.
153. I know there is maintenance on buses and gas costs but a free system would entice visitors and older residents on a fixed income to use what could become a viable solution to getting around the Sedona/Village area. This would reduce traffic and help with pollution. If a fee were to be charged I think it should be a flat fee of .50 cents.
154. I think the transit service should be primarily for tourists who represent the largest percentage of cars in traffic jams. Also, the fares should be subsidized by BBB tax and the hotel and accommodation businesses except short term rental properties. All the amenities of 9a are important to make this work. I have seen it work in tourist towns in Europe like Chamonix and ski resorts in Austria. If it works well, then locals will be happy to use it too!
155. Putting buses into the mix, the buses won't be able to keep a schedule due to traffic (talk to trolley companies, and to Jeep companies) The current bus system is NOT used by locals why do you think locals will change their behavior (do you know the average age of a Sedona resident?) and use a new bus system? Stand at grocery store for a week, ask one simple question, as a resident would you use a local bus system instead of your car. Adding buses only makes traffic worse.
156. Running hop on/off service continuously would reduce congestion and would make use of the service more attractive. A more scheduled service is less attractive for residents because they would have to plan their day around the transit service. This type of service has been in use in Europe and is highly successful.
157. Please address the real issue of traffic which is the backups that having the roundabout made on 179 and the mess in Uptown Sedona after the curbs etc. were added. An alternate route onto Schnebly or Jordan or adding an overpass so that pedestrians can pass over 89a in Uptown Sedona or something else needs to be considered. I really don't think anyone would take the extra time needed to use public transportation when they can just use their own cars non the less pay for it. This is really bad idea. Please fix what you did by adding the roundabouts and the changes you made to Uptown Sedona.
158. Again, I would like to emphasize that we use clean transportation, electric vehicles.
159. First, someone get ADOT to synchronize the west Sedona lights and make them able to detect traffic. Maybe put strobes on the buses so they can control the lights. Now I would definitely use the transit service if buses came every 20 minutes or so and was not subject to traffic. But it is, so I predict all buses will be stuck in traffic and breaking schedules. There will be no incentive to take them, unless we think some up. I don't know if "free" is good enough. Maybe discounts in shops and restaurants for riders. Perhaps close the canyon on busy weekends, open only to locals and buses. Maybe restrict all canyon parking to pay lots. And uptown should be treated like a mall with all the parking nearby and easy. That opens up traffic lanes or more walking area. $10 parking. Free if you have a receipt for at least $10.

160. Free within Sedona would be a very strong inducement to locals and visitors, and low-cost to the canyon would be worthwhile for visitors IF (a) the park and ride included amenities such as shade, restrooms and perhaps some tourist info and (b) there is room on the bus to store gear under seats or overhead -- this is very important because people will want to carry backpacks, swimming stuff, etc.
161. We need more ways to safely bike through town.
162. No. But want to remind all that most uptown residences are against neighborhood connector roads and especially the Forest Road project. To reduce traffic add services like this, synchronized traffic lights and leave the neighborhoods to the property owners. Also, please publish accurate results of this survey - not a pro spin by omission of the opposing opinions as in previous SIM communications.
163. Love that we're looking into this! Thank you.
164. Transit between the growing VOC and Sedona is important to reduce congestion on the highways.
165. It sounds great but would not want it on my residential street.
166. Might be prudent to try one route before committing to all four potential routes.
167. This is a TERRIBLE IDEA.
168. ONLY charge fare if bus will take cashless payment – I will NOT carry cash
169. Good lock getting people to use it. People like the flexibility to come and go as they like, when they like. I am not a big city person so never used mass transit, so we will see.
170. This is needed and should work in conjunction with synchronized traffic lights and pedestrian bridges/crossings. The neighborhood proposals should be canceled immediately! Stop wasting funds on projects like Forest Road and make the investment on what will have the largest impact with the least cost involved. Also, ensure that complete and accurate information (like this survey and this comment) are reported accurately. Stop the leading statements like "some supported" and pro opinions. The city needs to share factual and truthful statements without a bias one-way or another.
171. Yes. This program needs to be free and easy to use. It should run alongside other low-cost activities like pedestrian bridges and coordinate traffic lights. Stop the neighborhood connector projects and studies like Forest Road. Leave neighborhoods to the residents!
172. Make sure folks don't need cash to get on. Please see above about giving local business the opportunity to market to the captive tourist audience on the bus.
173. This idea of local transit to alleviate traffic sounds good, BUT execution is everything and could make it a disaster for Sedona and residents! 1. Any transit service should use electric or natural gas technology to minimize environmental pollution. Diesel would be a disaster! 2. I don't want to see Sedona littered with big busses. Smaller electric powered shuttles are preferable. 3. There must also be adequate ridership to justify the cost and environmental impact, and ongoing analysis to justify and ensure it's being used adequately - if not used enough, schedules should be adjusted to longer intervals to facilitate rides with enough

passengers to justify the trip or be disbanded. For example, a bus running for 1-2 riders is a waste, needlessly causing pollution and increased traffic. 4. Transit service could easily make traffic worse without adequate ridership AND without turnout lanes. 5. The service must be free to encourage increased ridership. 6. IMHO a study of who rides in similar communities (visitors vs residents) and the types of locations frequented should be done. These decisions shouldn't be based on survey opinions, but on hard data. (For example, it sounds good to make Sedona more walkable and bikeable, but Sedona weather and demographics don't lend themselves to this being a reality. The vast majority of residents will never walk or bike to the store, etc. And these bike/walking paths are infringing on individual property rights and ruining Sedona's small-town look and feel in violation of the Community Plan.) Otherwise I think transit should be geared toward visitors, running between hotels and trails. Hotels should contribute toward the cost. There are not enough residents using transit to warrant the costs and impacts. 7. I would not care for bus stop benches littered along 89A and 179, these will end up being used for loitering by vagrants. 8. Keep busses off local connector roads.
174. Use latest technologies to help with pollution, noise, and other issues associated with public transportation- electric, etc.
175. It must provide real connections to places that people frequent, like supermarkets, movie theaters, trailheads.
176. The success of any transit system is whether people use it. People will use it if it takes them where they want to go and does so without a lot of waiting time. So bus frequency, followed closely by the bus route, are, in my mind, the most important factors.
177. Believe improved transit would be good for Sedona, but do not believe will address the real traffic issue. 80 to 90% of the time traffic is fine and it is what should be expected in a tourist town with limited road options. I don't see how improving the transit system significantly reduces the congestion going north on 179 or at the Y during crunch time. I have asked members of the council what is "success" with these transit projects. Have never received an answer that is measurable or quantified. My fear is that we will spend millions of dollars to save 10 minutes 20 times a year. Not worth the price and money could be used in better ways. I don't care that "tourists" pay for 60% of the cost as many like to point out.
178. The development of a Toll for use of Oak Creek Canyon Road 89A, beginning above the switchbacks or Canyon View parking area south into the Uptown area. Similar to the 17-mile drive on the Monterey Peninsula in Calif. There are several toll roads for scenic byways across the country, and Oak Creek Canyon is no different. Also, the scenic byway north of the Village of Oak Creek to Sedona constitutes another potential toll. As an example, a $5.00 per car toll would generate significant revenue that could then be infused into a fund to maintain the roadways, remove trash, protect and enhance the environment/natural and cultural resources, etc.
179. Lodging industry should be required to provide transit or at least help subsidize
180. Pedestrian underpasses and bypasses for pedestrian safety.
181. This is two part -We Want to make it compelling for people to park and ride in either direction. How would we compel them? Free cost to park and low cost to ride? 1)If visitor is an overnight visitor they will have free parking at their rental/hotel-they could use public transportation-either in the form of bus/other alternatives -i.e., bikes. To compel them parking in a non

VRBO/hotel area should be expensive and time bound. 2) Day trippers should pay some sort of toll to drive through or they can park their car at a designated parking area and use the transit system at a low cost -like a National Park would do- like we already live in, right!
182. Getting cars off the road is the ideal solution. Park and ride from VOC and from outside west Sedona. Trailheads don't have enough parking and no one comes to Sedona to sit in traffic on the highway.
183. Check out various Colorado ski resort models, the one that runs through Zion National Park in Utah, plus considering some pedestrian-only areas in Uptown??
184. I don't think many residents will use it but tourists might if the fare is low and popular tourist sights are readily accessible.
185. More "$ burden" on the tourists. Set it up like London where are you simply cannot bring your car into non-residential Uptown under any circumstance. The only vehicles would be trolleys, buses, etc. Love the possibilities. ASAP, please!
186. Thank you for doing this survey.
187. Tie-in with sustainability goal. Reduction of carbon emissions.
188. Next bus arrival time information at key stops.
189. Lots are a terrible idea. Let the pickups be at major hotels like AZ Shuttle does. Also, we NEED to connect VV School Rd. With Red Rock Loop Rd. That would decrease traffic and make first responders be able to navigate our city much better, safer and quicker.
190. There should be free or low cost "loop" service that goes by the hotels, major attractions and trailheads. Bus shelters are a must; nobody is going to stand outdoors in the heat waiting for a bus without some shelter.
191. Any transit service into Oak Creek Canyon must not further hinder traffic there. It should only have a few stops to the most popular places, with pull-outs that will allow traffic to flow and passengers to be safe. Small shuttle buses would be best.
192. Don't make trails like West Fork and Devil's Bridge more crowded.
193. Thanks
194. Paid parking at $10 an hour in Uptown to help entice folks to use the trams. Residents exempt.
195. Use more trolleys.
196. Must find a way to limit traffic with extraordinarily high Oak Creek Canyon parking fee. (Also, please limit BBQ's along the side of the road - nuts!)
197. Small buses or shuttles only, if possible.
198. The main congestion is in Sedona.

199. I think that it would help our community and there would be less people with fines also and it would help communities.
200. Park and ride incentives are important- easy cheap and often seem essential.
201. Needs to connect to existing transit operations.
202. Make sure it can accommodate commuters with a park and ride lot somewhere just outside of W. Sedona.
203. Needs to not be “studied” forever and happen now.
204. I would use to eat/drink in Sedona if it returned to Clarkdale.
205. Forget this idea - public transit can never pay for itself and will be subsidized by government.
206. Unless you force people to use it, it will be a waste of money. Tourists can get vouchers for a certain number of rides from the overwhelming number of hotels in town and the hotels should charge an in and out fee for their parking lots. Let's make it hard for tourists NOT to use the transit. This works in Yosemite and all around the world. We must protect Sedona from being loved to death and since people will not self-regulate, as the stewards of this town, we must regulate them.
207. Hotels need to be in on this. They need to highly recommend, as well as subsidize this service to their guests.

(This page intentionally left blank.)

Appendix D

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

APPENDIX D

Chamber Business Survey Analysis

As part of the effort to obtain input from the community, a separate survey questionnaire was used for businesses in the study area that are part of the Sedona Chamber of Commerce and Tourism Board. The questionnaire was developed with input from City of Sedona staff and then distributed as widely as possible. The survey asked respondents to answer a series of questions about a new public transportation system serving the Sedona-Oak Creek Canyon area. The survey was available from August 27, 2018 through September 30, 2018, and is included in Appendix E.

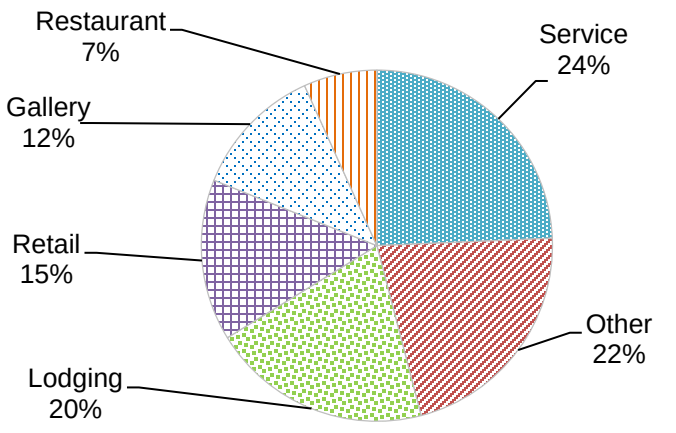
SURVEY ANALYSIS

A total of 77 responses were received through the online questionnaire. The results of the chamber business survey will be discussed in the following section.

Type of Business Represented

Respondents were asked to indicate what type of business they represent – lodging, restaurant, retail, gallery, service, or other. The results are illustrated in Figure 1. Approximately 24 percent of respondents were employed in the service industry, followed by other (22 percent), lodging (20 percent), retail (15 percent), gallery (12 percent), and restaurant (seven percent).

Figure 1
Type of Business Represented

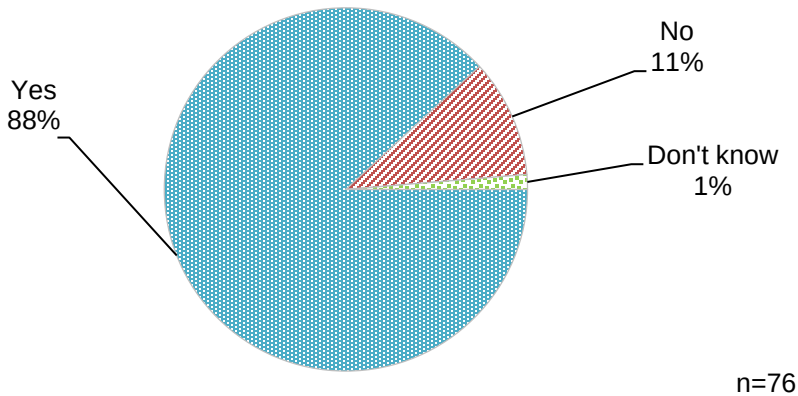


Of the respondents who selected other, the most common responses included non-profit organization (four responses, five percent of all respondents), resident (four responses, five percent of all respondents), volunteer (three responses, four percent of all respondents), and retired (two responses, three percent of all respondents).

Need for a Visitor-Focused Shuttle System

Respondents were asked if they believe there is a need for a visitor-focused shuttle system within the Sedona-Oak Creek Canyon area. As shown in Figure 2, the majority of respondents (88 percent) indicated yes, that a visitor-focused shuttle system is needed within the Sedona-Oak Creek Canyon area.

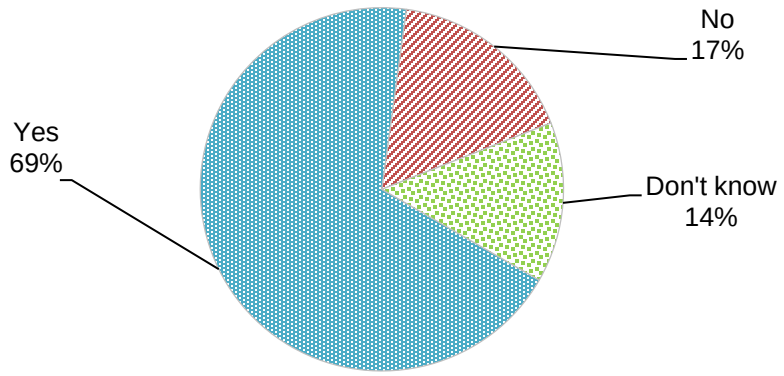
Figure 2
Need for a Visitor-Focused Shuttle System within the Sedona-OCC area?



Need for Improved Employee Transportation

Respondents were asked if they believe there is a need for improved employee transportation within the Sedona-Oak Creek Canyon area. As shown in Figure 3, the majority of respondents (69 percent) indicated yes, that improved employee transportation is needed within the Sedona-Oak Creek Canyon area.

Figure 3
Need for Improved Employee Transportation within the Sedona-OCC area?



n=76

Importance of Trip Types to Provide

Respondents were asked how important it is for the new transit system to provide the following four types of trips: 1) providing trips from Sedona north into Oak Creek Canyon; 2) providing circulation within Uptown Sedona; 3) providing circulation throughout the City of Sedona, including West Sedona; and 4) providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads. Participants were asked to rate the trips from one to five with one being not important and five being very important. The results are presented in Table 1.

Table 1
Importance of New Transit System Trip Types

Type of Trip	Average Score
Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads	4.16
Providing circulation throughout the City of Sedona, including West Sedona	3.94
Providing trips from Sedona north into Oak Creek Canyon	3.35
Providing circulation within Uptown Sedona	3.19

Source: LSC Resident Survey, 2018.

The average scores of the four trip types are above 3.0 indicating respondents believe all four trip types are important. The trip type that received the highest average score was providing trips between South 179, the Village of Oak Creek

and Sedona, including intermediate trailheads (4.16), while the trip type that received the lowest average score was providing circulation within Uptown Sedona (3.19).

Likelihood of the Local Transit System Providing Benefits to the Community

Respondents were asked to rate how likely it is that a local transit system would provide the following six benefits to the community: 1) reduce traffic and congestion, 2) reduce parking demand, 3) improve the experience for visitors, 4) make it easier and safer for residents to get around, 5) make it easier and safer for visitors to get around, and 6) improve residential quality of life. Participants were asked to rate the benefits from one to five with one being definitely would not benefit the community and five being definitely would benefit the community. The results are presented in Table 2.

Table 2
Likelihood of the Local Transit System Providing Benefits to the Community

Benefits	Average Score
Make it easier and safer for visitors to get around	4.07
Improve the experience for visitors	3.99
Improve residential quality of life	3.96
Make it easier and safer for residents to get around	3.95
Reduce traffic and congestion	3.94
Reduce parking demand	3.87

Source: LSC Resident Survey, 2018.

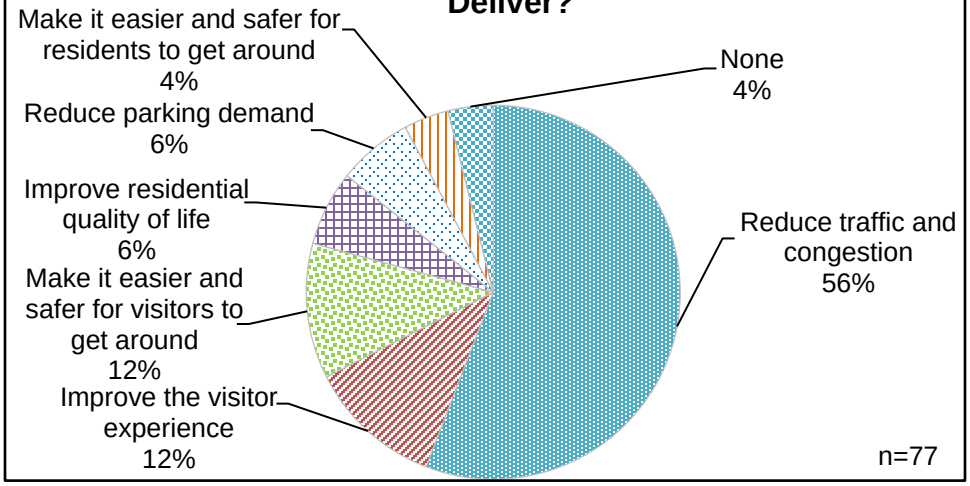
The average scores of all six benefits were very similar, with 0.20 separating the highest and the lowest average scores. All of the average scores were above 3.0 indicating respondents believe the local transit system will provide all six benefits to the community. The benefits that received the highest average scores were make it easier and safer for visitors to get around (4.07) and improve the experience for visitors (3.99). The benefits that received the lowest average scores were reduce parking demand (3.87) and reduce traffic and congestion (3.94).

Most Important Benefit for the Transit System to Deliver

Respondents were asked which benefit is most important for the transit system to deliver. As shown in Figure 4, over half of respondents (56 percent), indicated

that reducing traffic and congestion is the most important benefit for the transit system to deliver, followed by improving the visitor experience (12 percent) and making it easier and safer for visitors to get around (12 percent).

Figure 4
Most Important Benefit for the Transit System to Deliver?



Importance of Factors for a Visitor Shuttle

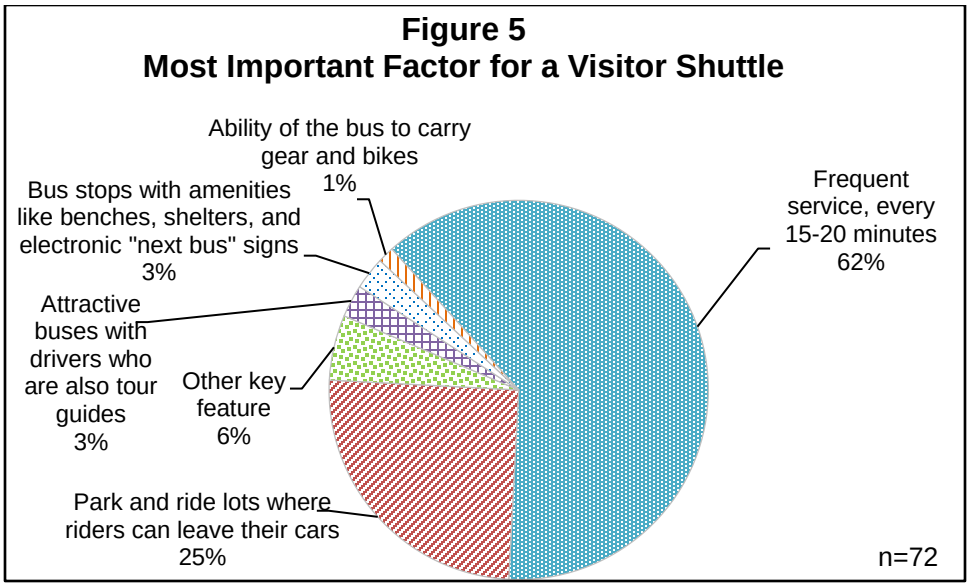
Respondents were asked how important each of the following six factors are for a visitor shuttle: 1) service that runs every 15 to 20 minutes; 2) bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections; 3) ability of the bus to carry gear and bikes; 4) park and ride lots where riders can leave their cars; 5) attractive buses with drivers who are also tour guides; and 6) other. Participants were asked to rate the factors from one to five with one being not important at all and five being very important. The results are presented in Table 3.

Table 3 Importance of Factors for a Visitor Shuttle	
Factors	**Average Score**
Service that runs every 15-20 minutes	4.32
Other	4.27
Park and ride lots where riders can leave their cars	4.15
Bus stops with amenities like benches, shelters, bus pull-out areas, and sidewalk connections	3.83
Ability of the bus to carry gear and bikes	3.78
Attractive buses with drivers who are also tour guides	2.99
Source: LSC Resident Survey, 2018.	

The factor that received the highest average score was service that runs every 15 to 20 minutes (4.32), while the factor that received the lowest average score was attractive buses with drivers who are also tour guides (2.99). The most common responses for other included bus routes/service area (six responses, 23 percent of all respondents), low-emission or clean buses (five responses, 19 percent of all respondents), bus service hours (four responses, 15 percent of all respondents), and bus stop locations at trailheads (four responses, 15 percent of all respondents).

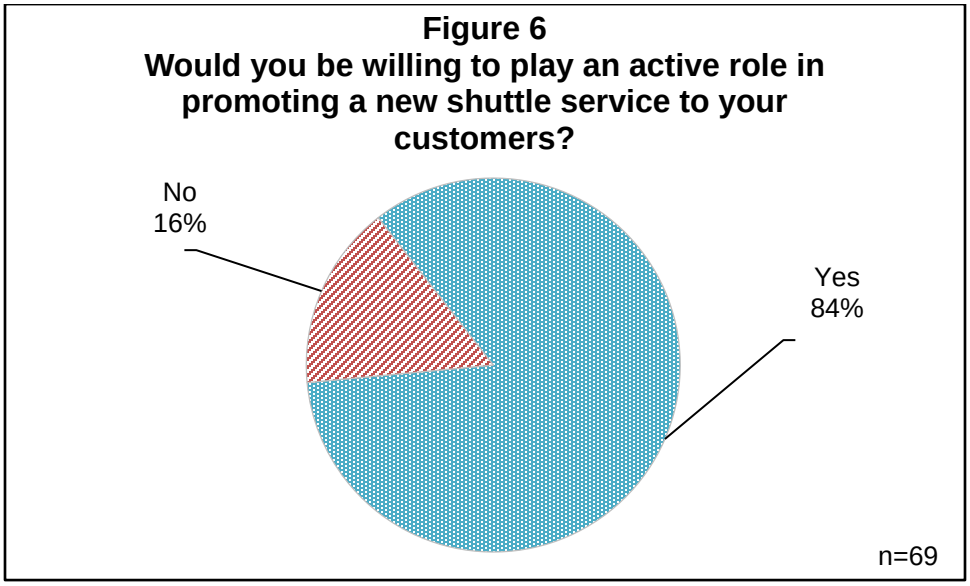
Most Important Factor that would Make Transit Service Attractive

Respondents were asked which factor is most important for a visitor shuttle. As shown in Figure 5, approximately 62 percent of respondents indicated that service that runs every 15 to 20 minutes is the most important factor for a visitor shuttle, followed by park and ride lots where riders can leave their cars (25 percent).



Willing to Play an Active Role Promoting New Shuttle Service

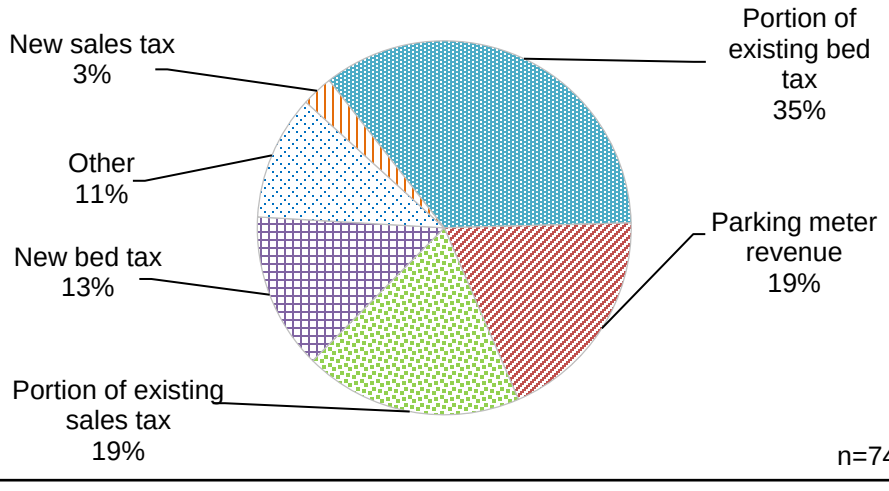
Respondents were asked if they would be willing to play an active role in promoting a new shuttle service to their customers via their front-line staff, literature distribution, on-line information, etc. As shown in Figure 6, the majority of respondents (84 percent) indicated they would be willing to play an active role in promoting a new shuttle service to their customers, while 16 percent of respondents indicated they would not be willing to play an active role in promoting a new shuttle service to their customers.



Best Funding Source

Respondents were asked what they believe the best funding source is for the transit service: 1) new sales tax; 2) new bed tax; 3) portion of existing sales tax; 4) portion of existing bed tax; 5) parking meter revenue; or 6) other. As shown in Figure 7, approximately 35 percent of respondents indicated that the best funding source for the transit service would be a portion of the existing bed tax, followed by parking meter revenue (19 percent), portion of the existing sales tax (19 percent), and a new bed tax (13 percent).

Figure 7
Best Funding Source



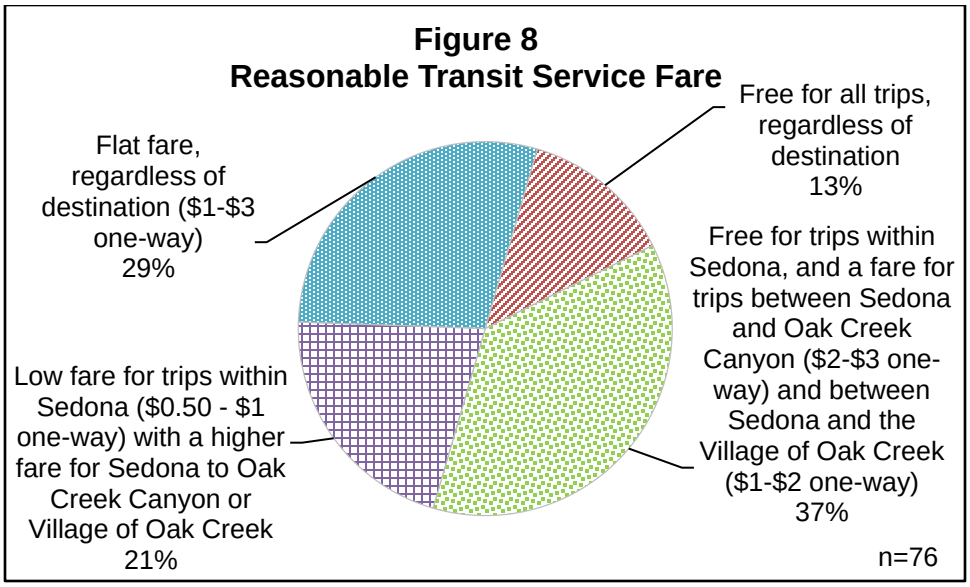
Additional Funding Sources to Consider

Respondents were asked what other sources of funding should be considered for a local shuttle service. As shown in Table 4, approximately 37 percent of respondents indicated that passenger fares should be an additional source of funding for a local shuttle service, followed by a new or existing bed tax (20 percent), and funding from hotels, the tourism industry, and the chamber of commerce (14 percent).

Table 4 Additional Funding Sources to Consider		
Type of Funding	**Number of Responses**	**Percentage of Total Respondents**
Passenger Fares	18	37%
New/Existing Bed Tax	10	20%
Hotels/Tourism Industry/Chamber of Commerce	7	14%
Grants	6	12%
Parking Meter/ Park-n-Ride Lot Revenues	6	12%
New/Existing Sales Tax	6	12%
Other	4	8%
Advertising	2	4%
None	2	4%
TOTAL	61	124%
Source: LSC Chamber Business Survey, 2018.		

Reasonable Transit Service Fare

Respondents were asked what a reasonable transit service fare would be: 1) free for all trips, regardless of destination; 2) free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way); 3) low fare for trips within Sedona ($0.50 - $1.00 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek; or 4) flat fare, regardless of destination ($1.00-$3.00 one-way). As shown in Figure 8, approximately 37 percent of respondents indicated that a reasonable transit service fare would consist of free trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2.00-$3.00 one-way) and between Sedona and the Village of Oak Creek ($1.00-$2.00 one-way). Approximately 29 percent of respondents indicated that a reasonable transit service fare would be a flat fare, regardless of destination ($1.00-$3.00 one-way).

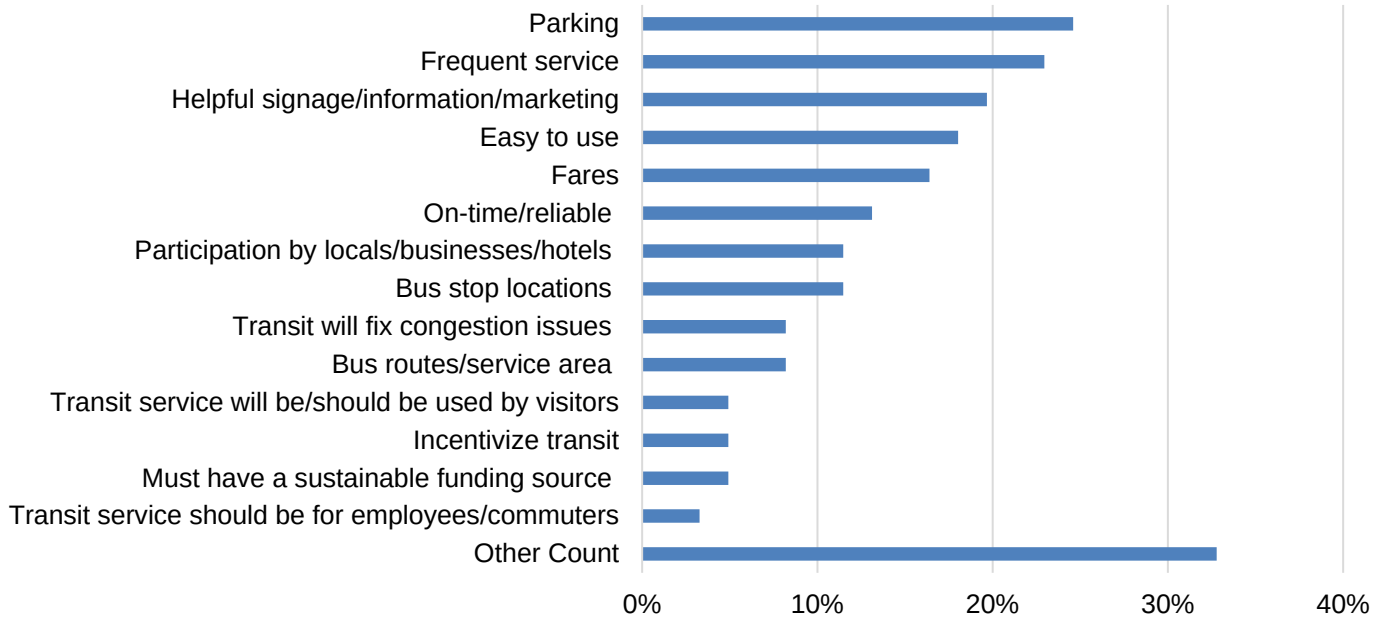


Most Important Factors for Implementing a Successful Public Transit Service within the Sedona-Oak Creek Canyon Area

At the end of the survey instruments, respondents were asked to share which factors they believe will be the most important in implementing a successful public transit shuttle service within the Sedona-Oak Creek Canyon area. The individual comments can be read in full in Appendix F. Sixty-one out of 77 respondents provided a comment with the factors they believe will be most important in implementing a successful public transit shuttle service within the Sedona-Oak Creek Canyon area. General categories were used to group the factors based on the comments received. If multiple factors were addressed in one comment, the comment was counted in each of the relevant categories.

Figure 9 categorizes the various comments received. The most frequently received comments were regarding parking (25 percent), frequent service (23 percent), helpful signage/information/marketing (20 percent), easy to use (18 percent), and fares (16 percent).

Figure 9
Most Important Factors for Implementing a Successful Public Transit Service within the Sedona-Oak Creek Canyon Area



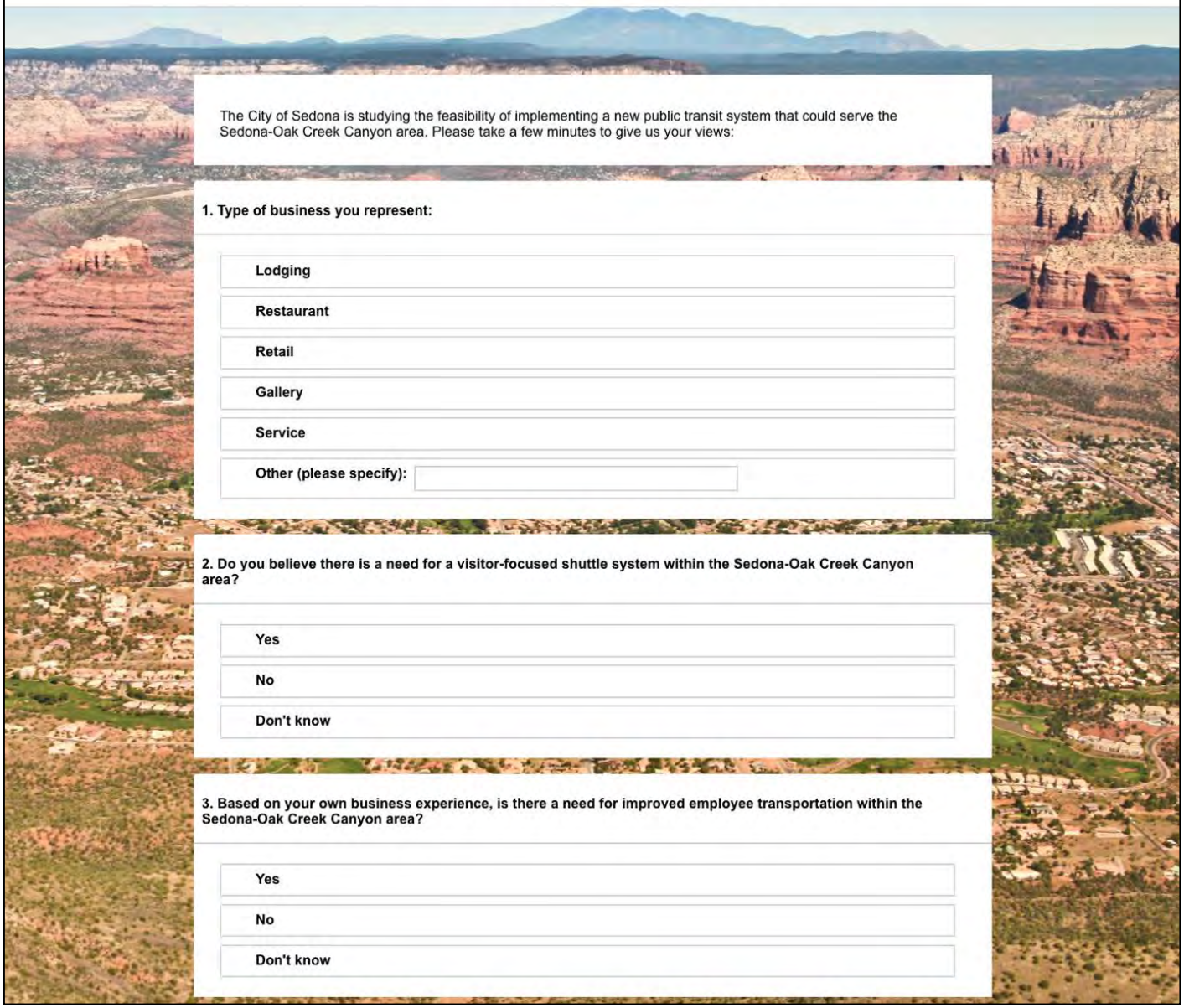
(This page intentionally left blank.)

Appendix E

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

Chamber Business Survey



The City of Sedona is studying the feasibility of implementing a new public transit system that could serve the Sedona-Oak Creek Canyon area. Please take a few minutes to give us your views:

1. Type of business you represent:

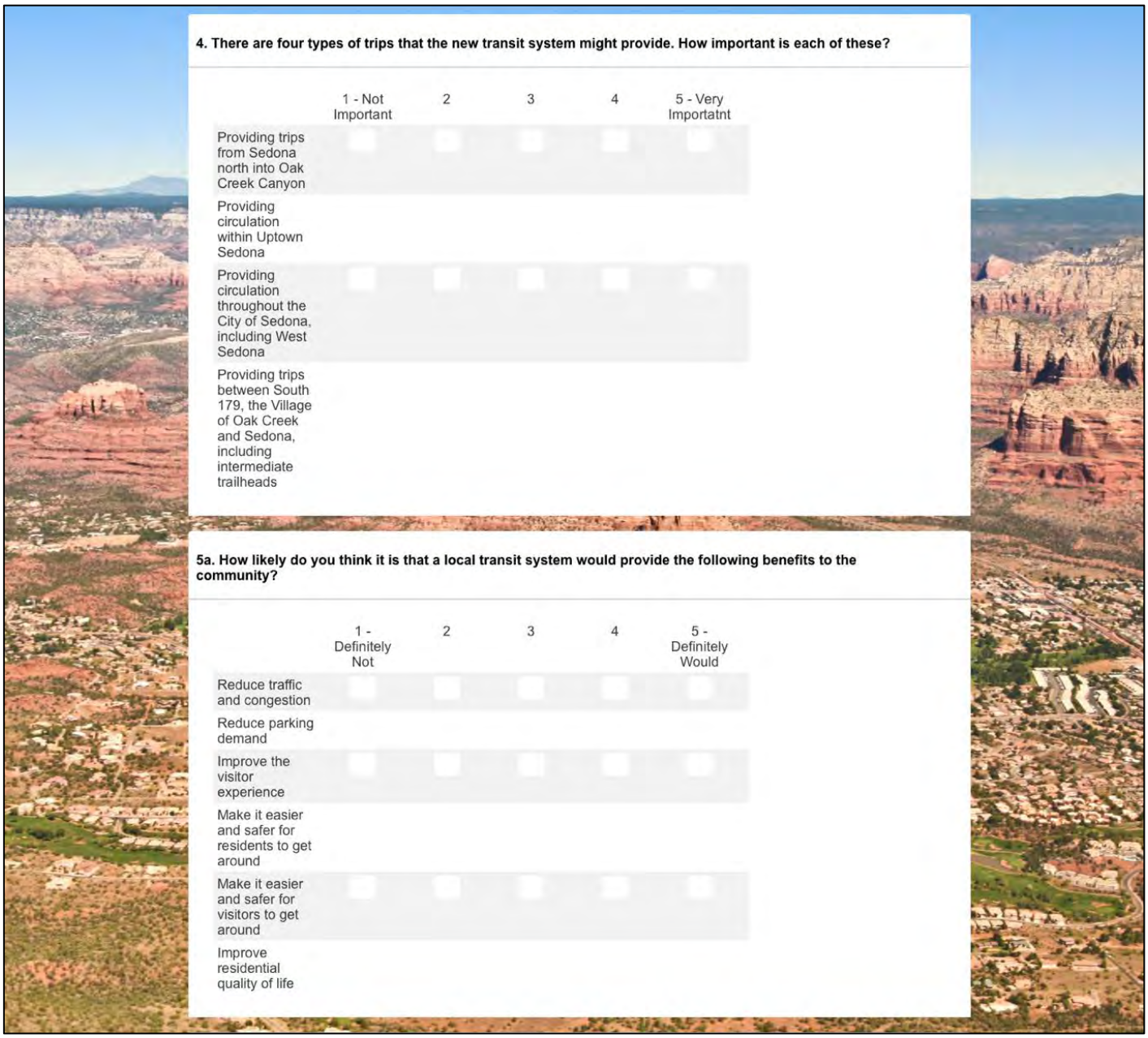
- Lodging
- Restaurant
- Retail
- Gallery
- Service
- Other (please specify):

2. Do you believe there is a need for a visitor-focused shuttle system within the Sedona-Oak Creek Canyon area?

- Yes
- No
- Don't know

3. Based on your own business experience, is there a need for improved employee transportation within the Sedona-Oak Creek Canyon area?

- Yes
- No
- Don't know

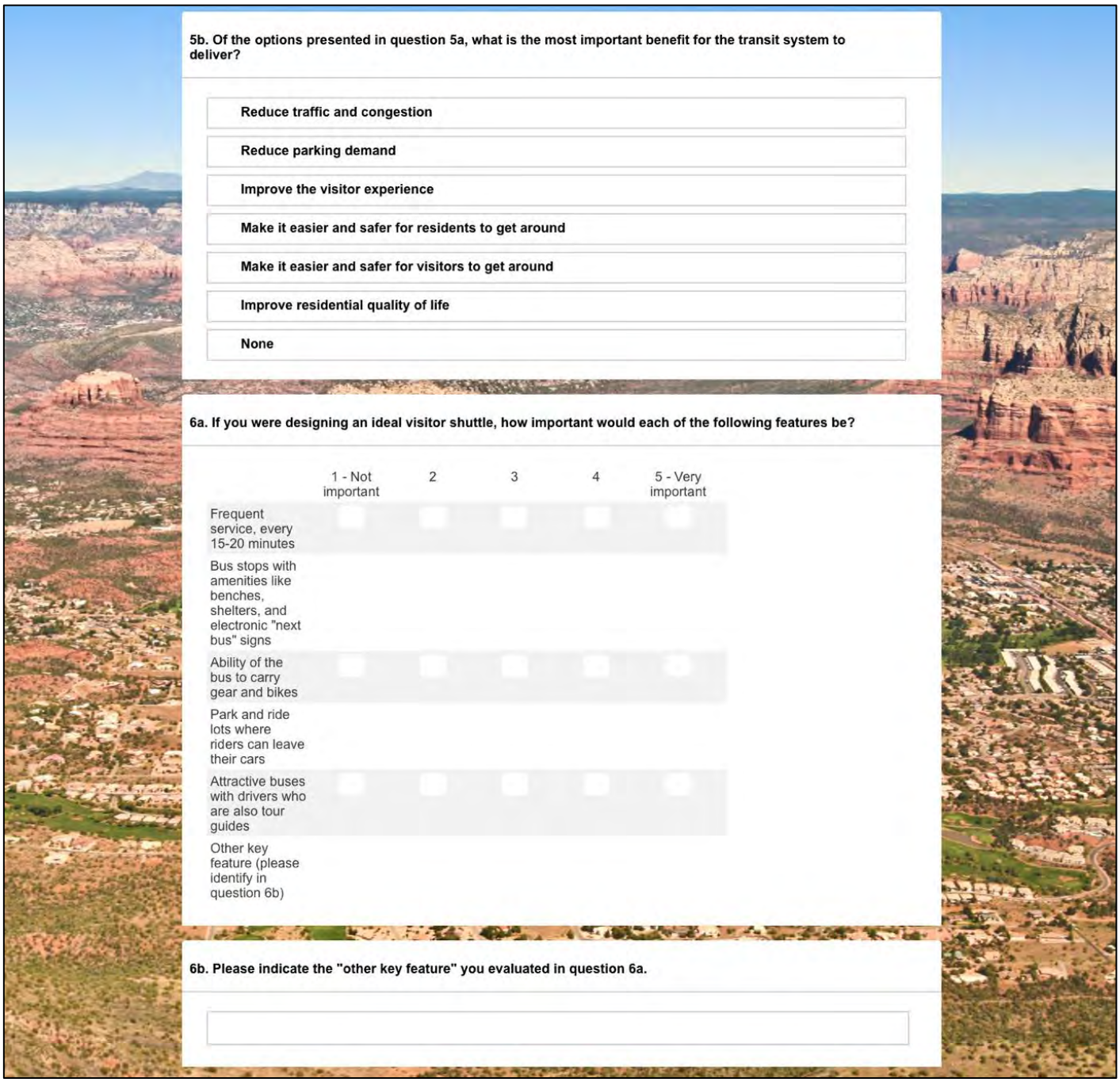


4. There are four types of trips that the new transit system might provide. How important is each of these?

	1 - Not Important	2	3	4	5 - Very Importatnt
Providing trips from Sedona north into Oak Creek Canyon					
Providing circulation within Uptown Sedona					
Providing circulation throughout the City of Sedona, including West Sedona					
Providing trips between South 179, the Village of Oak Creek and Sedona, including intermediate trailheads					

5a. How likely do you think it is that a local transit system would provide the following benefits to the community?

	1 - Definitely Not	2	3	4	5 - Definitely Would
Reduce traffic and congestion					
Reduce parking demand					
Improve the visitor experience					
Make it easier and safer for residents to get around					
Make it easier and safer for visitors to get around					
Improve residential quality of life					



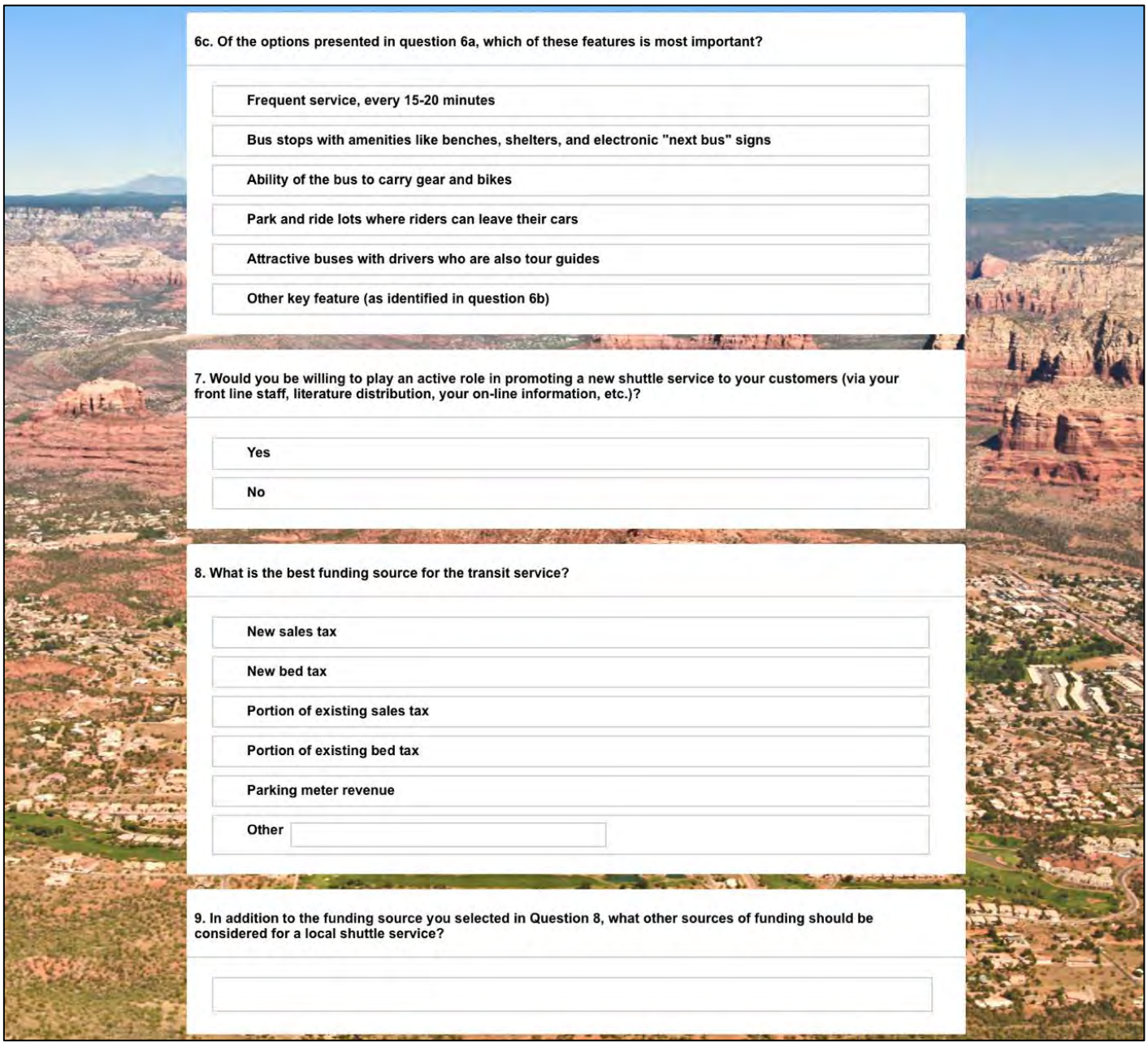
5b. Of the options presented in question 5a, what is the most important benefit for the transit system to deliver?

- Reduce traffic and congestion
- Reduce parking demand
- Improve the visitor experience
- Make it easier and safer for residents to get around
- Make it easier and safer for visitors to get around
- Improve residential quality of life
- None

6a. If you were designing an ideal visitor shuttle, how important would each of the following features be?

	1 - Not important	2	3	4	5 - Very important
Frequent service, every 15-20 minutes					
Bus stops with amenities like benches, shelters, and electronic "next bus" signs					
Ability of the bus to carry gear and bikes					
Park and ride lots where riders can leave their cars					
Attractive buses with drivers who are also tour guides					
Other key feature (please identify in question 6b)					

6b. Please indicate the "other key feature" you evaluated in question 6a.



6c. Of the options presented in question 6a, which of these features is most important?

- Frequent service, every 15-20 minutes
- Bus stops with amenities like benches, shelters, and electronic "next bus" signs
- Ability of the bus to carry gear and bikes
- Park and ride lots where riders can leave their cars
- Attractive buses with drivers who are also tour guides
- Other key feature (as identified in question 6b)

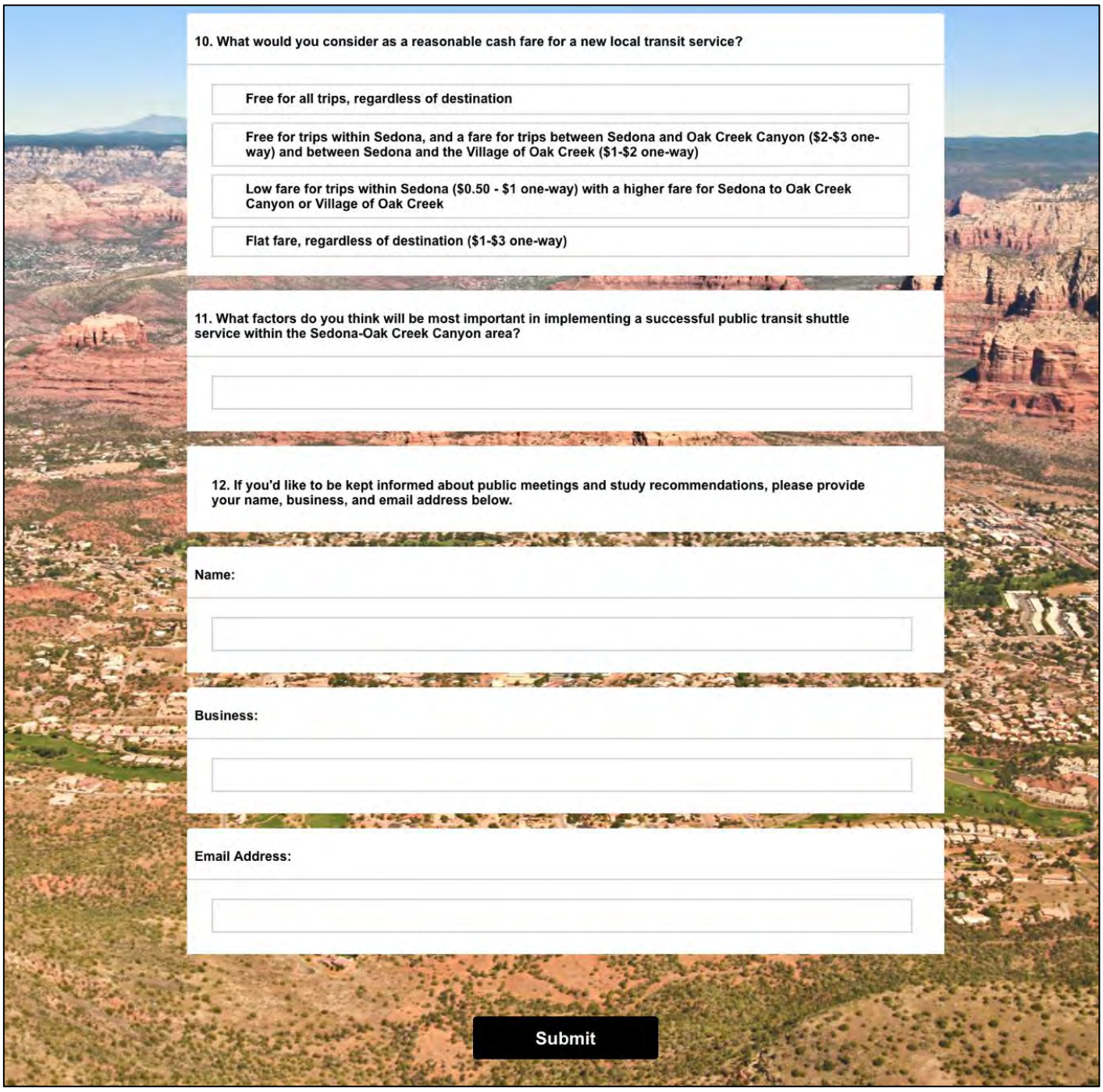
7. Would you be willing to play an active role in promoting a new shuttle service to your customers (via your front line staff, literature distribution, your on-line information, etc.)?

- Yes
- No

8. What is the best funding source for the transit service?

- New sales tax
- New bed tax
- Portion of existing sales tax
- Portion of existing bed tax
- Parking meter revenue
- Other

9. In addition to the funding source you selected in Question 8, what other sources of funding should be considered for a local shuttle service?



10. What would you consider as a reasonable cash fare for a new local transit service?

- Free for all trips, regardless of destination
- Free for trips within Sedona, and a fare for trips between Sedona and Oak Creek Canyon ($2-$3 one-way) and between Sedona and the Village of Oak Creek ($1-$2 one-way)
- Low fare for trips within Sedona ($0.50 - $1 one-way) with a higher fare for Sedona to Oak Creek Canyon or Village of Oak Creek
- Flat fare, regardless of destination ($1-$3 one-way)

11. What factors do you think will be most important in implementing a successful public transit shuttle service within the Sedona-Oak Creek Canyon area?

12. If you'd like to be kept informed about public meetings and study recommendations, please provide your name, business, and email address below.

Name:

Business:

Email Address:

Submit

(This page intentionally left blank.)

Appendix F

TRANSPORTATION
CONSULTANTS, INC.

(This page intentionally left blank.)

APPENDIX F

Chamber Business Survey Comments

1. The schedule would need to be consistent and as timely as possible. With traffic congestion this is obviously going to be difficult to uphold.
2. Monthly passes at a reduced price for residents.
3. Getting the concerned authorities to authorize and implement the service.
4. Great PR, consistent support from the city and businesses.
5. Would only be used for sludge. Would only be feasible for Slide Rock and West Fork.
6. Electric vehicles, also to Cottonwood as many live there who have to work here.
7. Promoting it.
8. Telluride and Durango, Co have wonderful free transport...works for them!
9. Make it easy for visitors to use.
10. Frequency of start/stop times.
11. Consistency, the shuttles have to operate frequently.
12. Routine service, and advertising in all shops and galleries in Sedona.
13. 1. don't make visitors wait long to catch the bus 2. make sure there are clear instructions on how easy it will be to ride the bus. 3. more prices is just confusing, make it $1.00 no matter where they go.
14. Dependability/Affordability.
15. Frequent service and user friendly.
16. Out of view parking, strategic drop off and pick up to not interfere with other traffic, other people or views.
17. Yes this is a possible solution. We need to have the customer to be the alternate winner.
18. Transportation for staff and travelers.
19. Park and ride shuttle from between VOC and Uptown MUST be able to bypass backed up traffic and arrive faster than driving. There must also be a second shuttle from Uptown into the canyon, so that the visitor does not need to drive their car to get into the canyon. (A specially-designed mini-shuttle could use the bike path along 179, or a near-ground-level tramway with seats could be used to transport people between VOC and Uptown.
20. Having the funds for a transit system.
21. The transit schedule and location/times of stops.
22. The Roadrunner system didn't work. Why would this?
23. Frequency of service.
24. No cost to users.
25. That locals know about bus, then help locals help out of towners.
26. Needs to be accurate on timing and easily accessible.

27. Ease of congestion, hospitality for guests and residents, better management of labor force, and accessible transportation.
28. Frequency, clearly marked shuttle stops, and free parking for visitors who want to use the shuttle.
29. Charge more than enough to sustain and maintain. Take your highest estimated operating costs and triple them. Divide them by the number of riders. That's the only realistic approach. If you have a surplus that will help fund expansions.
    If you are using ASU for any budget amounts be sure to multiply them by ten. They are the worst cost estimators in the world.
30. Stops at or near hotels, hiking trails, shopping and dining. Ability to ride all day for one fee.
31. Community engagement and participation of locals and especially tourism representatives (business owners, those that directly deal with guests and their comments and concerns regarding excessive traffic).
32. Simple, regular, reliable, and flat fare.
33. Time, frequency, pickup locations, cost.
34. That it actually serves to get people around completely and efficiently so that tourists and visitors alike can leave their vehicles behind. Coupled with bike-share program, and an increase in walkability (actual sidewalks), an increase in bikeability (wider, protected bike lanes), and a toll to travel through Sedona this could be the beginning of a multi-modal transportation plan that works. Light rail? Gondola?
35. More traffic for business in the area.
36. We need to motivate the visitor to use the service and NOT drive their car within Sedona/Oak Creek area. Parking along 89A in Oak Creek needs to be restricted and strongly enforced so that the only option is to use the buses. If the lot attendants (or electronic signage) communicated that there was NO PARKING AVAILABLE at popular destinations like Slide Rock then visitors would be motivated to park and ride rather than using their own vehicles. Also, signage at the intersections of SR 179 and I-17 should communicate delays for pass-through traffic. If the system was seen as easy-to-use, convenient, value-added (tour guides) etc., then I think the hotels would be happy to promote it to their guests as retailers would too. I know it is a huge up-front expense and will require a lot of coordination but our town is in dire need of this if it is thoroughly thought out and done right. If it is not, and fails, the City won't have an opportunity to try this for another 20 years.
37. Consistent regular service, lots of service to parking areas, promotion. Service to trails, parks, etc. in canyon itself and beyond will reduce traffic through traffic at the Y. A huge portion of traffic is just going through town to the canyon. Need to also reduce/enforce parking along road system to reduce congestion and convert people to riding the transit system to destinations within the canyon, which will reduce backup traffic in town as well once visitors understand how it works and see it in action.
38. Making sure people know how it works, timetables that are easy to understand, and seeing key members of Sedona i.e., Chamber Staff, City Council use it regularly.
39. A system focus to aid people who are disabled or unable to explore Sedona on their own.
40. Stops at hotels, galleries, grocery stores and trailheads.
41. Teamwork.
42. Just do it.

43. Education. Selling convenience and lower environmental impact. It's much more relaxing to ride than drive. One can actually look around without becoming a hazard. I've been driving myself around this place for over 30 years. I'd much rather catch an affordable ride.
44. Requiring fees in all canyon parking areas and allowing parking in the canyon only in designated parking areas.
45. Proper marketing.
46. Letting people know how easy to get on/off and view for those that can't/don't want to hike.
47. Reliability - parking - ease - a good route will be critical.
48. Frequent shuttles that can be used as a reliable transportation that goes everywhere within Sedona, or it won't be used.
49. Properly fund it, keep operations fast and cheap, properly promote it, and charge a lot for parking, and restrict parking at trailheads.
50. Comfortable waiting stations and frequent service.
51. STOP PARKING ON 89A! Only let shuttles into Slide Rock and West Fork.
52. Get some of the traffic out of Uptown, especially on the weekends.
53. Less congestion.
54. Making it free and stopping at trailheads and tourist sites.
55. Easy-to-understand maps with routes.
56. Transportation to trailheads, frequency, low cost.
57. Community buy in.
58. Advertising and ease of use, discouraging/preventing parking along roadway.
59. Traffic already moves at 10 mph below speed limit. A shuttle will possibly make this worse.
60. None. I don't believe it will be used enough to justify the cost. Bryce and Zion National Parks have shuttles during high traffic seasons but there are no outlets from the parks to other tourist areas. People going to Slide Rock Park can continue on to Flagstaff for more sight-seeing.
61. The AZDOT must not allow parking on the sides of 89A through Oak Creek Canyon. The Forest Service must not allow parking in their parking lots except for cars with disabled stickers and people staying at the campgrounds.