Sedona Transit Plan

Interim Report #2

Service Options

TRANSPORTATION CONSULTANTS, INC.

TRANSIT marketing LLC

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Sedona Transit Plan

Interim Report #2

Service Options

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December 10, 2018

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Chapter I

Introduction and Overview

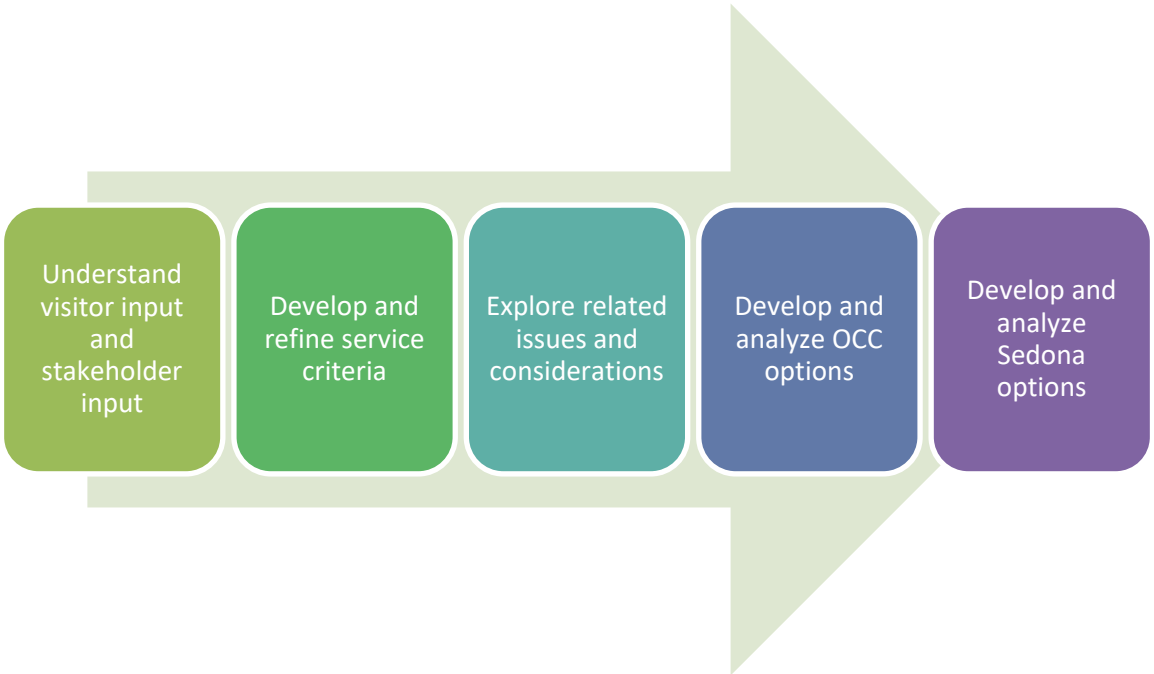
PURPOSE

Building on Interim Report #1: Transit Needs Assessment, this Interim Report #2: Service Options provides an understanding of possible service options, how they perform relative to service criteria, issues and considerations for the service options, and a review of visitor intercept interviews.

The purpose of this Interim Report #2 is to provide an understanding of the possible service options, along with their associated implications, for consideration by the Advisory Committee, stakeholders, and the greater Sedona community.

APPROACH

Our approach to develop this report on service options followed a step-by-step process:



REPORT OVERVIEW

Interim Report #2 contains six chapters in total covering aspects of the service option planning and development process.

Visitor Intercept Interviews

To better understand the parking and transportation experiences of visitors, our team conducted almost 200 interviews with visitors at local hotels, shopping areas, and various trailheads. The results of these interviews are presented in Chapter II.

Interviews ranged from just a few minutes while people were on the move going hiking to more in-depth, incentivized interviews in hotel lobbies. Some of the key findings from these interviews regarding if and how respondents might use a local transit service were:

- More than three-quarters of overnight visitors responded that they might use a shuttle for at least some trips if it existed, assuming it went where and when they needed it
- Day visitors were less likely to respond that they would take a shuttle with the exception being those day-visitors going hiking at West Fork where a long wait for parking is common
- Only about one in five of the overnight visitors interviewed at hotels and shopping locations had no interest in the shuttle while approximately a quarter of day visitors interviewed at trailheads responded that they wouldn't take a shuttle
- Overnight visitors saw the potential to use a shuttle for a variety of trip purposes including accessing trailheads, going shopping, and dining or drinking at night, while day visitors only saw a shuttle as a potential for linking a park and ride with trailheads
- Most visitors were including hiking as a focus activity but were flexible with planning when they might hike and what trails they may do – planning around parking and crowds seemed to be expected

- Many visitors commented on parking and traffic frustrations they experienced while others weren't bothered by lack of parking or congestion

When it came to how the service operates and what factors would get someone to potentially use a service, the most important factors overall were frequency and availability of the service, followed by cost, ease of use, and marketing/awareness of the shuttle operations. Many respondents thought that a free service would be good, but it was considered a large factor, as long as the service were affordable.

Service Criteria

As part of this Interim Report #2, service criteria are presented in Chapter III and are based initial criteria from the previous planning efforts, as well as input received to date by LSC and our team.

The criteria established in this report are:

1. Service will increase mobility opportunities for those visiting, working, or living within the greater Sedona area.
2. Service will provide connectivity between Oak Creek Canyon, Sedona, and the Village of Oak Creek.
3. Service for Oak Creek Canyon and other trailheads will focus on congestion mitigation and reducing parking impacts.
4. Service will be 0perated efficiently and effectively.
5. Sustainable funding sources must be identified for implementation of transit service.

Issues and Considerations

Chapter IV presents associated challenges that must be considered or addressed to facilitate implementation of many of the possible service options. These issues are related to:

- Parking
    - In Oak Creek Canyon, at trailheads, and in the Uptown area
- Roadway Network

    - Connectivity of the overall roadway network and the lack of alternate routes in the greater Sedona area
- Road Capacity at the "Y"
    - Congestion and associated traffic delays at the "Y"
- Pedestrians and Cyclists
    - Lack of connectivity of bicycle and pedestrian infrastructure
    - Crosswalks and the impact on pedestrian safety/access and vehicular traffic
- Visitor capacity
    - Impact of a shuttle on recreational area capacity and possibility of a reservation system
- Fee revenue
    - Parking fees and relationship to a potential shuttle

To inform the discussion of many these issues, LSC relied on many of the concepts included in the current Sedona Transportation Master Plan to inform the discussion of how they relate to a potential shuttle.

Oak Creek Canyon Service Options

In Chapter V, ten different service option possibilities are presented and analyzed. Nine of these options are summarized in Table I-1, in terms of service characteristics and performance. The tenth option is a sightseeing option best suited for a private operator and therefore not analyzed.

Many of the options were analyzed relative to policy considerations for possible parking controls and reservation systems – these policies significantly impact estimated performance.

Table I-1
OCC Service Options Summary

Service Option	Characteristics				Performance						
	Peak Vehicles	Annual Operating Days	Estimated Ridership	Annual Operating Cost	Increase Mobility Options	Provide Connectivity	Traffic Mitigation	Parking Mitigation	Pass-Trips per Hour	Cost per Pass-Trip	Policy Change Required
1 - 179 Parking to Slide Rock; reservations	8	121	243,000	$ 570,000	No	Limited	Yes	Yes	28.6	$ 2.35	Yes
2 - 179 Parking to Slide Rock; no reservations	4	121	36,000	$ 375,000	No	Limited	No	Limited	6.5	$ 10.31	No
3 - 179 Parking to Cave Springs Campground; parking controls	4	244	146,000	$ 773,000	Limited	Yes	Yes	Yes	13.0	$ 5.28	Yes
4 - 179 Parking to Cave Springs Campground; no parking controls	4	244	24,000	$ 773,000	Limited	Yes	No	No	2.2	$ 31.67	No
5 - 179 Parking to Oak Creek Vista; parking controls	4	244	146,000	$ 773,000	Limited	Yes	Yes	Yes	13.0	$ 5.28	Yes
6 - Uptown Parking to Slide Rock; reservations	4	121	243,000	$ 243,000	No	No	Yes	Yes	66.8	$ 1.00	Yes
7 - Uptown Parking to Oak Creek Vista; parking controls	4	244	305,000	$ 750,000	No	Limited	Yes	Yes	27.2	$ 2.47	Yes
8 - Cultural Center Parking to Slide Rock; reservations	3	121	24,000	$ 280,000	No	Limited	No	Limited	5.8	$ 11.56	Yes
9 - Oak Creek Vista Parking to Slide Rock	4	121	36,000	$ 247,000	No	No	No	Limited	10.0	6.78	No

Greater Sedona Area Service Options

Eight different service options for Sedona are explored in Chapter VI. These options are summarized in Table I-2 in terms of service characteristics and performance.

Many of the Sedona options analyzed are dependent on roadway improvements at the "Y" and development of a transit hub, either in Uptown or in the vicinity of the "Y".

Table I-2
Sedona Service Options Summary

Service Option	Characteristics				Performance						
	Peak Vehicles	Annual Operating Days	Estimated Ridership	Annual Operating Cost	Increase Mobility Options	Provide Connectivty	Traffic Mitigation	Parking Mitigation	Pass-Trips per Hour	Cost per Pass-Trip	Policy Change Required
1 - Shuttle from Transit Hub to Dry Creek and Mescal THs	3	244	98,000	$ 592,000	Limited	Limited	No	Yes	10.9	$ 6.04	No
2 - Shuttle from Transit Hub to Cathedral Rock TH	2	244	146,000	$ 392,000	Limited	Limited	No	Yes	24.9	$ 2.68	No
3 - Shuttle from Transit Hub to Soldiers Pass TH	3	244	97,600	$ 585,000	Limited	Limited	Limited	Yes	10.9	$ 5.97	No
4 - Fixed-Route Service from VOC to Uptown Parking	4	365	590,000	$ 1,361,000	Yes	Yes	Limited	Yes	28.4	$ 2.31	Possibly
5 - Fixed-Route Service from West Sedona to Uptown Parking	3	365	290,000	$ 1,018,000	Yes	Yes	Limited	Yes	18.9	$ 3.51	Possibly
6 - Connector from Transit Hub to Uptown Parking	2	365	557,000	$ 663,000	Yes	Yes	Limited	Yes	54.5	$ 1.19	Possibly
7 - Entirely Demand-Response Service	18	365	600,000	$ 6,722,000	Yes	Yes	No	Limited	5.7	$ 11.20	No
8 - Demand-Response Service Supplementing Core Fixed-Route Service	2	365	15,000	$ 607,000	Yes	Indirectly	No	No	1.6	$ 40.47	No

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Chapter II

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Chapter II

Visitor Intercept Summary

Intercept interviews were conducted by consulting team members at a variety of locations within the Greater Sedona area during October 2018 including hotels, trailheads, and Tlaquepaque. These were qualitative conversations to explore visitor travel patterns and destinations, experiences with traffic and parking perceptions, the potential to use a shuttle system, and characteristics which would be required to make a shuttle an attractive transportation option. A total of 191 interviews were conducted.

INTERVIEW LOCATIONS

Incentivized Interviews

Incentivized interviews were conducted with 50 visitors at pre-arranged hotels in Uptown, West Sedona and the Village of Oak Creek.

- Arabella (9)
- Orchards (2)
- Sedona Rouge (8)
- Marriott Courtyard (13)
- Holiday Inn Express (12)
- Los Posadas (6)

Visitors were offered a $20 gift card for taking time to be interviewed, and the conversations were more in-depth than the short interviews.

Short Interviews

Shorter, non-incentivized interviews were conducted with 141 visitors and residents at a variety of locations including:

- Tlaquepaque (22)
- Marriott Courtyard (4)
- Bell Rock Trailhead (34)
- Cathedral Rock Trailhead (22)
- West Fork Trailhead (22)

- Dry Creek Trailhead (37)

These shorter interviews were two to three minutes and conducted as people were going hiking, biking, shopping, or dining out.

SUMMARY OF FINDINGS – HOTEL & TLAQUEPAQUE INTERVIEWS

Visitor Profile

The incentivized interviews were conducted with overnight visitors who had a range of stays, from a single night to a week or more. About six out of ten of the respondents were first time visitors, others had been to Sedona before, and a number were regular visitors.

Most were couples, but several were families with children or groups traveling together. The majority were from U.S. states other than Arizona. Eight of the 50 groups were from Arizona, while one was international. We encountered a few other international travelers at the hotels but were unable to conduct interviews, as they did not speak English.

The interviews included a mix of ages from young people in their twenties to senior citizens. Based on observation only – about twenty percent of respondents were under 30, about half were 30-60 and almost a third were over 60.

The short intercepts conducted at Tlaquepaque included four international groups, as well as a mix of Arizona residents and travelers from other states. Most were overnight visitors.

Travel Plans

For nearly half of the incentivized interviewees, Sedona was the traveler's primary destination, though many were making day trips from Sedona to nearby destinations. For the remaining respondents, Sedona was part of a larger trip that most often included the Grand Canyon, Flagstaff, and/or Las Vegas.

Of the 50 groups interviewed, 48 had driven to Sedona. Most drove a rental car from Phoenix or Las Vegas, while a few couples from California and New Mexico had driven from home. Two had taken the shuttle from Phoenix.

Virtually all of the respondents used either a smartphone (Google Maps app) or a GPS unit to navigate locally. Several also used paper maps, but generally in combination with Google Maps.

Activities and Destinations

The interviewees fell into two groups—those who came to hike or mountain bike and those who came for other things such as shopping, sightseeing, golf, a spiritual experience, or an event such as a wedding, conference, or training. While some of the hikers, who constituted a little more than half of the interviewees, were in Sedona strictly to hike, others were also doing a bit of shopping and sightseeing.

Several of the respondents were taking Pink Jeep tours, other off-road tours, or trolley tours and quite a few were making day trips to nearby attractions including the Grand Canyon, Cottonwood, Jerome, Out of Africa, or the Clarksdale Train. The common activity for almost all the respondents was dining, though it is more of a focus for some visitors than others.

About three quarters of the respondents said that they planned to visit destinations in the Uptown area for dining, shopping or galleries. Tlaquepaque was a destination for most visitors at some point in their trip. Respondents who were intercepted at Tlaquepaque for shorter interviews were less likely to be hikers (about 20%) and more likely to be interested in shopping.

About a quarter of interviewees specifically noted a plan to go to Oak Creek Canyon but for some this was a pass-through trip. Several had or would drive through the Canyon on their way to or from Flagstaff or the Grand Canyon. Only two of the 76 groups we talked with said they planned to visit Slide Rock. This is consistent with Slide Rock's own research that shows most of their guests are day-visitors from the Phoenix area that visit during the summer months.

Much of the discussion of specific destinations revolved around hiking trails that respondents planned to visit. Some came to Sedona with detailed plans regarding what hikes they wanted to do based on internet searches and hiking books; however, many of the respondents were relying on local sources, such as The Hike House, Sedona Visitor Center, and hotel concierges, to suggest hikes appropriate for their needs. The top hiking or sightseeing destinations mentioned were:

- Chapel of the Holy Cross (9)
- Cathedral Rock (8)
- Bell Rock (7)
- Devils Bridge (6)
- Red Rock (Ruins) (6)
- Broken Arrow (3)

There were many other trails cited as destinations including Soldier's Pass, Fay Canyon, Airport Overlook, Brin's Mesa, Enchantment, West Fork, Templeton Trail, Highline Trail, Brighton Canyon, Mt. Wilson, Baldwin Trail, Crescent Moon, Sugar Loaf, and Thunder Mountain.

Traffic and Parking Issues

Among the incentivized interviewees, about four out of ten said traffic and parking were no problem at all. Approximately one quarter made comments about traffic congestion.

"We stay in VOC to avoid traffic. Parking is a problem in Uptown. We stayed at Sedona Real last time but traffic was much worse there."

"Sedona is its own worst enemy. The only way to get here is by car and it is getting overcrowded like other beautiful places."

"Traffic seems to increase each time I come." (respondent visits every year)

"Crossing highway at night (in West Sedona) when walking to restaurants is taking your life in your hands."

"We experienced a backup from VOC to Sedona on weekend coming in."

"Crazy drivers—scary!"

Other comments related to roundabouts and how they are difficult to navigate for some, not well understood or liked, and confusing for newcomers.

About half of respondents noted difficulties parking – most related to the Uptown area. One group wanted to stop in Uptown on their way out of Sedona, but there was no parking so they just drove through. Others shared similar frustrations with lack of parking and congestion in Uptown and Tlaquepaque. The area around the Visitor Center was mentioned as particularly challenging. One respondent noted that her husband is disabled and that when they come together to Uptown parking is difficult and parking signage could be improved.

Some hikers noted parking issues at trailheads, primarily Bell Rock. However, several said they went very early, based on advice they had received, or avoided places where they heard parking was limited. Parking at Chapel of Holy Cross was also mentioned as challenging. Several respondents said that they adjusted their hiking plans because of a lack of parking – it seems many people move on to another trailhead if they can't find parking. One respondent joked that they could have sold their parking spot for a lot of money when they left.

Shuttle Potential

While discussing traffic and parking, a few respondents made the unsolicited comment that there needs to be another way to get around in Sedona besides driving, noting that it would be great if there was a trolley or a shuttle system in Sedona. Others wondered if there was Uber or Lyft available in Sedona.

Asked if they think there needs to be a visitor-oriented shuttle system and if they'd use it, more than three quarters of respondents said yes, they would use it for at least some trips.

About a quarter of the respondents gave an immediate and enthusiastic yes to the idea of a shuttle. The highest level of enthusiasm was among younger people in their twenties or early thirties and those over 60.

"Definitely would use it – I've used shuttles in other places like Zion."

"Oh gosh yes! It would encourage people to go to shops and galleries."

"Would use in a heartbeat." (respondent knew of the Lynx bus stop outside the Arabella)

"Absolutely, especially if it was kid-friendly."

"A shuttle would allow me to go many more places." (respondent without car)

"I would use it if it was a hop-on, hop-off service. And went to Uptown, dining, and attractions like Chapel of the Holy Cross."

"It would add value to Sedona, especially if hotels gave a pass and info."

"If there had been a shuttle, we would have skipped renting a car" (respondents were a young couple from California who are hikers and repeat visitors)

Others were more measured in their response to the shuttle concept. Some initially said they probably wouldn't use it, but went on to say they might use a shuttle if it ran a regular route at predictable intervals and went to the places they wanted to go. Other respondents started with no interest but then thought a shuttle to shopping centers and dining at night could be a good thing. Some thought they would still drive but might consider using a shuttle if they were staying longer. Many didn't think a shuttle would work for day-trippers.

Many noted that they had used shuttles in other national parks, such as Yosemite, Zion, Grand Canyon, or resort areas and thought that there should be one in Sedona. There seemed to be a comfort level among many respondents about needing to use a shuttle to access popular natural wonders like those found in Sedona. Several respondents mentioned the hop-on/hop-off aspect of other shuttles and how that seemed to work well and give good flexibility.

When asked what they would use the shuttle for, the respondents were split into three groups with specific comments on how they would use it:

1. Those who would park their car and use it for a variety of trips throughout the day and into the evening. They saw potential for using a shuttle for all their needs such as going out to dinner, shopping, general sightseeing, trailheads for hiking and biking, and accessing other forms of transportation like Jeep tours.
2. Those who would use it specifically to visit busy destinations such as trailheads, Uptown, and shopping only during the day. These respondents saw benefit of a shuttle for destinations with limited parking – Tlaquepaque was frequently mentioned. Taking the shuttle from a hotel to trailheads was seen as a benefit for many in this group.
3. Those who only wanted an alternative for going out in the evening for dinner without having to worry about drinking and driving, driving on very dark streets, or dealing with parking in Uptown. These respondents didn't think they would use it during the day but saw the benefit for evening travel.

About <u>one out of five respondents had little or no interest in using a shuttle for any reason</u> with common themes that included:

- Liking the freedom and flexibility that comes with driving and being able to change plans

- Seeing how it might be good for younger people who are used to Uber or transit, but the shuttle wouldn't be for them
- A dislike for the concept of using buses in general
- Only thinking of the need for a shuttle for larger groups
- A feeling that traffic isn't that bad if you plan around it
- A concern that a shuttle might cause overcrowding – one group of avid mountain bikers feared that a shuttle might encourage more competition for space on the trails. They initially embraced the idea of a shuttle, but after discussion weren't sure it was a good idea simply because it would make their favorite spots more accessible.

Factors that Would Make Shuttle Attractive

There was broad consensus that what people want is a hop-on/hop-off bus that runs regularly, goes to the most popular destinations during the day time, and allows for dining out in the evening.

Frequency: Most people said that a frequency of every 15-30 minutes would make the shuttle attractive, some wanted frequency every 10 minutes, and others wanted hourly frequency for a trailhead shuttle.

Hours: In order to serve the daytime activity riders, the shuttle would need to run quite early. Many people said 7 AM, while others said sunrise. To serve the "dinner" riders, respondents said the shuttle needed to run until 10 PM or midnight.

Proximity to hotel: Most respondents seemed willing to walk to a stop that was within a block or so of the hotel and didn't expect the shuttle to pick up at the door. It should be noted that many of the respondents were hikers used to walking longer distances.

Type of vehicle: The vehicles themselves were not as much a focus as frequency and destinations. Respondents focused on different elements of the vehicle, including bike racks, room for gear such as backpacks and baby strollers, big windows to provide views, comfortable vehicles with air conditioning, green and clean such as an electric vehicle, information about stops and destinations as you go such as an onboard audio or video tour, others just wanted to know where they were going and what was at each stop

Shuttle Stops: The general sentiment was that stops need to be within a short walk of the hotel and very clearly marked. They need to provide information about the route and when the next bus will arrive. Several people mentioned electronic signs to show how many minutes until the shuttle arrives. A few people mentioned amenities such as a shelter, bench and trash can, but this was not a frequent topic. Convenience and frequency of the route was the top of mind issue.

Destinations: During the daytime travelers want to be able to get from their hotels (in Uptown, West Sedona, and VOC) to popular destinations for hiking, shopping, galleries and sightseeing. In the evening, they want to be able to travel from hotels to restaurants which tend to be concentrated uptown and along 89A.

Other comments: Some respondents commented on specific benefits they thought the shuttle would provide such as ability to do thru-hikes and friendly drivers that give you some local history and facts.

Free or Paid

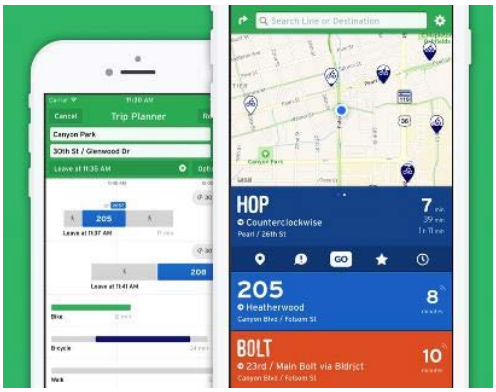
Only a few respondents felt that the shuttle had to be free; however, quite a few other people noted that a free shuttle would likely attract more use and that shuttles in other resort areas and national parks are often free. A free shuttle was associated with convenience.

Most respondents said that a low fare, such as $1 to $3 one-way, would be acceptable as long as it was easy to pay. Many brought up the idea of a day pass, which they could purchase at the hotel or be given when they checked in – some thought if they had to go out of their way to buy a pass it would be a barrier to use. Respondents made various comments about fares including increasing the bed tax to help fund the shuttle, having discounts for groups, and being able to combine with the Red Rock Pass.

Marketing and Communications

Several respondents noted that a key feature of the shuttle service would be marketing. They stressed that shuttle information should be easy, apparent, and promoted by the hotel staff when you check-in. Specific recommendations that we heard repeatedly included:

Figure II-I
Boulder County, CO Transit App



- An app with real-time next bus info plus real-time bus info through electronic signage at bus stops
  - Most respondents used Google Maps
- Online information that could be accessed when travel planning through a website, the Chamber website, Trip Advisor, Yelp, and hotel websites
- Map showing route and local destinations that could act as both a tool for using the bus and a helpful area guide
- Having front desk staff provide info and pass during check-in
- Promotion through visitor resource centers such as Red Rock Ranger Station and Uptown Visitor Center

SUMMARY OF FINDINGS – TRAILHEAD INTERVIEWS

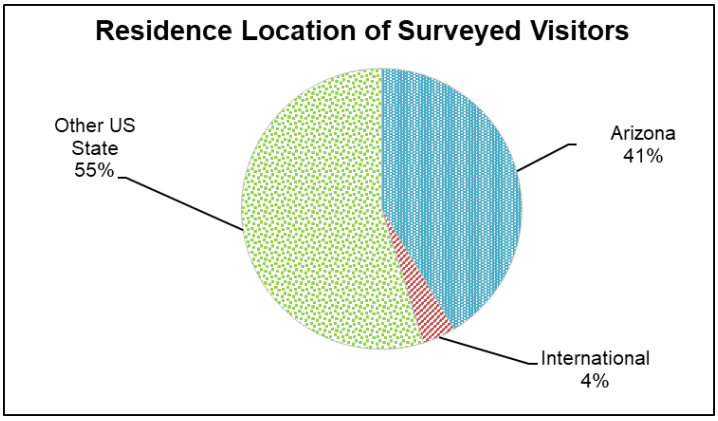
The short trailhead intercept interviews yielded similar input and themes as the longer hotel interviews. However, there were differences in visitor profile (trailhead interviews included many day visitors), travel plans, input on Oak Creek Canyon issues, comments on parking, shuttle potential, and factors for shuttle attractiveness.

Visitor Profile

Of those interviewed at trailheads, all but a few were visitors. Two-thirds of the visitors were staying overnight and one-third were day visitors. The majority of respondents had two people in their group and nine out of ten of those interviewed had four or less people in their group. As shown in Figure II-2, the

majority were from states other than Arizona, but in-state visitors were still a significant proportion.

Figure II-2
Where Visitors Live



Of the overnight visitors, half were staying at hotels or a resort and approximately a quarter were staying at a short-term rental property. The rest were staying at a mix of accommodation types. The length of stay varied from one night to an entire week.

Travel Plans

For those who were day visitors, most were from the Phoenix area. Of overnight visitors interviewed at trailheads, almost two-thirds said Sedona was their primary destination while approximately one-third were visiting Sedona as part of a bigger tour of the southwest that often included Flagstaff and the Grand Canyon.

Approximately half of those interviewed at trailheads arrived by personal car and half by rental car.

Activities and Destinations

Overall, the vast majority of interviewees were going hiking with only a handful of respondents going mountain biking or just taking pictures and sightseeing.

Day visitors were often just doing one activity in the Sedona area, mostly hiking, while overnight visitors noted other activities that they planned to do including

three quarters who said dining out, half who said general sightseeing, and half who said shopping.

Of all respondents, approximately three quarters said they were doing multiple hikes in the area. A common theme of these respondents was the flexibility of their hiking plans—they had a list of hikes they wanted to try but many respondents indicated that they would be "playing it by ear."

Traffic and Parking Issues

Opinion among visitors was almost evenly split among those who thought parking was a problem (45 percent) compared to those who said it wasn't a problem (55 percent).

"We arrived early so parking wasn't a problem."

"It was relatively easy to park at Bell Rock."

"I expect it to be crowded with long line to park." (West Fork)

"Parking is always challenging."

"Parking at West Fork is very difficult and requires having to wait a long time to park." (respondent had already waited 30-40 min to park at West Fork)

Those waiting in line at West Fork were the most likely to say that parking was a problem and were most likely to say that they would use a park-and-ride style shuttle to avoid waiting in a long parking line.

Shuttle Potential

Responses on whether someone would use a shuttle varied based on the type of visitor and how they might use it. About two-thirds of overnight visitors said they would likely take a shuttle from their lodging location to the trailhead, while slightly less than half of overnight visitors said they might use it to get around

town to shopping or dining. Day visitors were split over whether they would use with just four out of ten saying that they might use a shuttle, about a quarter saying they wouldn't use a shuttle, and the rest undecided.

"Cars take away from the wilderness experience, so a shuttle would be great!"

"Safety in the canyon is big issue and has gotten worse over years; Cathedral Rock is crazy with too many people." (respondent was a long-time visitor)

"An Uber-like service would be great."

"Not having to deal with parking is big motivator for using a possible shuttle."

"Other national parks have shuttles."

Those who didn't like the idea of a shuttle had several concerns. Many of those who said they wouldn't use a shuttle mentioned the convenience of their car, issues with carrying a lot of gear like for mountain biking, and wondering how they would about a shuttle if they were a day visitor or just passing through. A few trailhead respondents thought parking was the issue and that local officials should focus on increasing parking. Two respondents had concerns that a shuttle wouldn't protect the natural resources and could add too many people to already crowded trails. Some respondents said it wouldn't be for them but that it might be good for other people such as older adults, overnight visitors, or younger people who use Uber. One respondent mentioned that they were recently at Zion and hated having to take the shuttle because it took away from the experience.

There were only three of 115 respondents who were local residents, and all said they would not take a shuttle to access a trailhead. Some did note that they thought it would be "good for the tourists."

Factors for Shuttle Attractiveness

The overwhelming majority of respondents said frequency was the most important factor in considering whether or not to use a shuttle. The other two most important factors for trailhead respondents were cost and marketing/awareness of the shuttle. Many thought that the service area, in terms of which trailheads served, was also very important. A few mentioned that they would only take the shuttle if dogs were allowed.

Overall, availability and ease of use were most important to trailhead respondents.

Chapter III

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Chapter III

Transit Service Criteria

This chapter presents criteria used for the development and evaluation of transit service options to meet public transportation needs in Sedona. The initial criteria were taken from the Red Rock Ranger District Alternative Transportation Plan (November 2013) and were modified based on input received from the Advisory Committee, community stakeholders, local businesses, and members of the community. The draft criteria were presented to the Advisory Committee on October 23, 2018.

The following are the service criteria used in this evaluation. These may be refined as the implementation plan is developed.

- Service will increase mobility opportunities for those visiting, working, or living within the greater Sedona area.
    - Service must be frequent enough to be an attractive option.
    - Service must run late enough for 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 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.
    - 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 government, private sector, state, and federal should be identified for capital and operating costs to implement the service.
    - Service implementation may be phased based on availability of funding.

Chapter IV

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Chapter IV

Issues and Considerations

As we consider how to implement a transit system in the Sedona area, there are broad transportation issues, considerations, and impacts that must be included in our planning effort. These include:

- Parking, both in town and at trailheads
- Roadway network and operations
- Capacity of roundabouts at the "Y"
- Pedestrian infrastructure
- Trailhead capacity and possible reservation systems
- Pass and parking revenue impact for State and USFS

PARKING

Parking has been identified as a major issue in the Sedona area and has been addressed in previous studies. This section provides a discussion of parking issues specifically related to transit service. The issues are grouped in three categories: Oak Creek Canyon, Trailheads, and Uptown.

Oak Creek Canyon

The parking issues in Oak Creek Canyon were addressed in the study of Oak Creek Canyon Pullout Closures by Kimley-Horn in 2017. Of the 60 locations studied, closures were recommended at 27 sites. Parking management in OCC is important for the service options considered in this corridor. Without control of parking, most visitors will continue to hunt for a place to park and without enhanced enforcement, people will be comfortable parking in poor locations. Restricting parking will provide an incentive to use the transit service in OCC. Parking controls are particularly important in the vicinity of Slide Rock State Park. Currently there are many people who park on the roadside and walk into the park, often without passing through the entrance station and paying the entrance fees. Control of parking and unauthorized access to the state park will serve as incentives to use the transit service.

Traveler information is also important to support the transit service. With limited parking availability, travelers need to be informed when parking is not available and what other options are available.

The recommendations for control of parking in OCC should be implemented in conjunction with any transit service in the corridor.

Trailhead Parking

Several popular trailheads experience significant parking congestion. In particular, Bell Rock, Courthouse Rock, Cathedral Rock, Soldier's Pass, Dry Creek Vista, and West Fork are frequently filled to capacity with people parking on nearby roads if possible or waiting to obtain a parking space. Traffic is frequently observed in a queue along the road waiting to gain entrance to the West Fork parking lot which is controlled by an entrance gate and parking fee.

Some of these trailheads may provide an opportunity to reduce parking congestion by providing transit access that is convenient and relatively inexpensive. Many people interviewed at trailheads, as discussed in Chapter II would prefer a transit service and many others would consider it. The service to trailheads will have to provide as direct a routing as possible and frequent so that people are not spending much time waiting for the bus.

Transit service could also provide an alternative for people to take less popular trails although this would be a challenge. The most popular trails have received publicity through social media and have become an attraction for people traveling to Sedona.

Uptown Parking

Parking in Uptown was analyzed thoroughly in 2012. Two key findings from that analysis are that on-street parking is in high demand and used to capacity while off-street parking is under used. Most of the on-street parking along SR 89A is paid parking which provides some incentive to use other parking facilities, but recent observations as part of this transit study show that the on-street parking is heavily used.

As many as half of the people interviewed indicating parking was a problem in the Sedona area. Some mentioned parking problems at trailheads and others in Uptown. Some who are more frequent visitors to Sedona indicated they either stay in Uptown and can walk to most places or they know where to find parking in Uptown. The parking data indicate that much of the time it is possible to find parking in off-street lots just a few blocks from SR 89A and the area of highest demand for on-street parking.

Lack of available parking is a major incentive for use of a local transit system. If parking is available at little or no cost, the majority of people will continue to drive their personal vehicles rather than use the transit service. Parking management will have to be a consideration for transit service implemented in the Uptown area to create an incentive for transit use and a decrease in parking demand and traffic. Marketing of a transit service as an alternative to driving and searching for parking will be important.

ROADWAY NETWORK

For roadways, there are two primary issues: one is the lack of roadway connections between neighborhoods and the other is the lack of alternate routes.

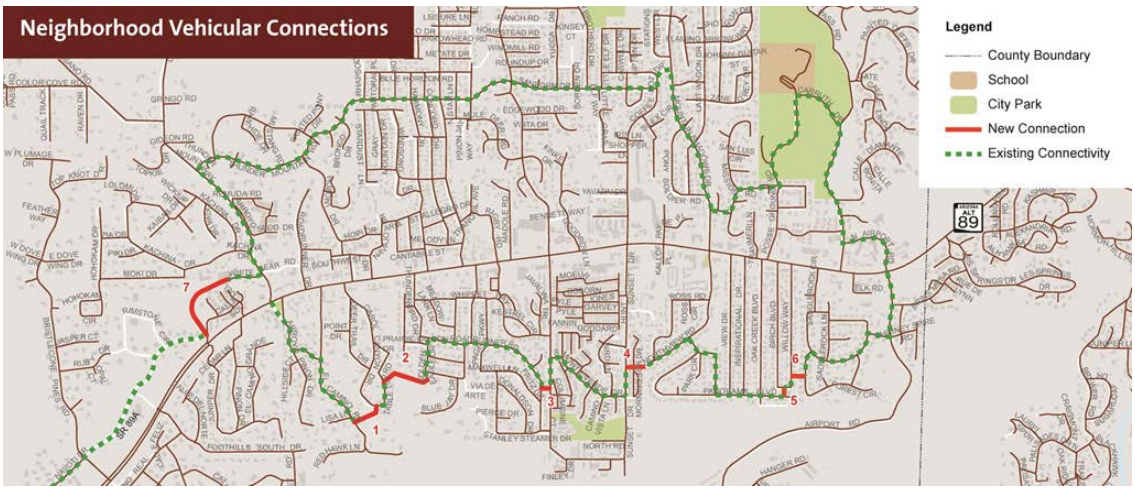
Connectivity of Overall Roadway Network

The lack of connectivity of the Sedona area road network creates challenges for operating bus service. With disconnected neighborhood roads and the absence of a grid street network, as noted in the Sedona Transportation Master Plan (TMP), buses are not able to have routes that run parallel to SR 89A or SR 179. If a bus has to go into a neighborhood for a bus stop or passenger, it will have to retrace its path to return to the main road to access other neighborhoods.

This results in an either inefficient routing or routes that don't serve neighborhoods and stick only to SR 89A or SR 179. As shown in Figure IV-1, the TMP identifies seven possible locations for creating new vehicular connections to help improve the road network. These connections could help create more opportunity for transit routes that better serve neighborhoods; however, the TMP states that "the city will only pursue neighborhood street connections in areas

where homeowners are interested in connections and their associated amenities." Adding buses into neighborhoods may be viewed favorably by some and unfavorably by others.

Figure IV-1
TMP Street Connections Recommendation



This TMP approach to making "small, local-traffic, residential street connections in logical locations, adding walking and bike pathways as neighborhood amenities," may also provide related walking and bicycling benefits for potential transit riders who can more easily access the bus.

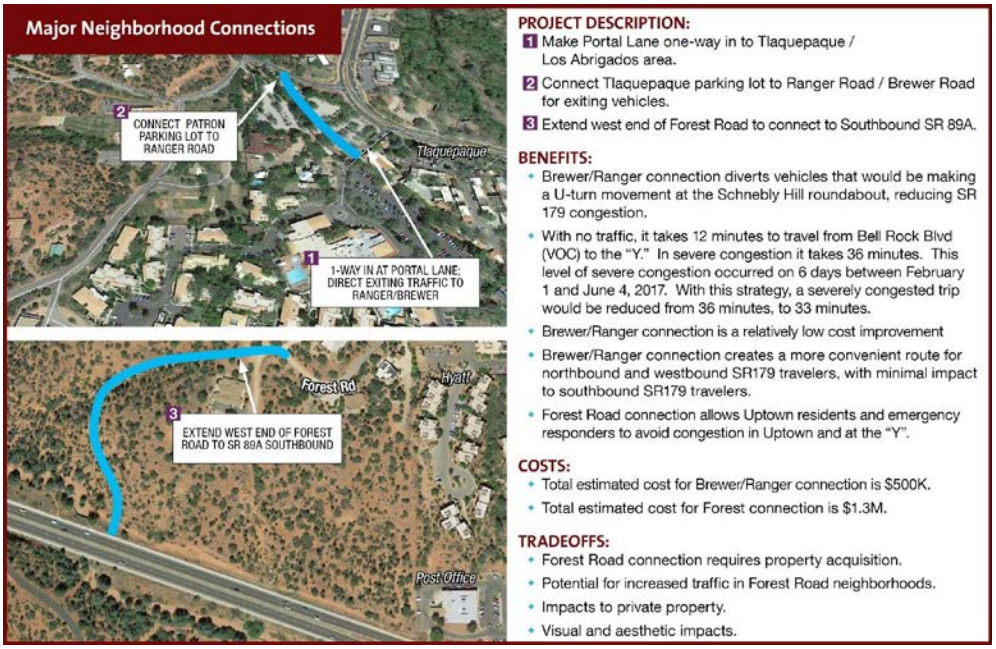
Lack of Alternate Routes

Related to road connectivity is the lack of alternate routes along both SR 179 and SR 89A. As noted in the TMP, locals have no alternate routes to avoid traffic and visitor congestion, so three connections are recommended and shown in Figure IV-2:

1. Make Portal Lane one-way in to the Tlaquepaque/Los Abrigados area.
2. Connect Tlaquepaque parking lot to Ranger Road/Brewer Road for exiting vehicles. Improve the Brewer Road/Ranger Road intersection.
3. Extend the west end of Forest Road to connect to Southbound SR 89A.

These same connections could help transit operations of a potential Sedona Shuttle by giving operational options and routing possibilities. Alternate routes could help a shuttle to stay on schedule during peak traffic conditions.

Figure IV-2
Major Neighborhood Connections



ROAD CAPACITY AT THE "Y"

The Transportation Master Plan identified congestion and capacity issues at the Y. The congestion and delay which occurs at this intersection will adversely impact transit operations. Buses operating in traffic will be delayed and maintaining a schedule will be difficult or impossible. Traffic delays will create high variability for transit travel times.

Recommendations in the Transportation Master Plan are to add lanes to the roundabout at the Y and the Schnebly Hill roundabout with an additional travel lane in each direction between the two roundabouts. While this will improve capacity at the intersections and between the roundabouts, SR 179 south of Schnebly Hill Road will still have only one lane and will become the congestion point for traffic traveling south from the Y.

The pedestrian crossing at Tlaquepaque also creates a point of congestion as traffic stops to allow pedestrians to cross. The use of traffic control personnel at the crossing is a help, but this crossing still serves as a point of congestion and causes traffic to back up in both directions at various times of the day. With widening of the road to two lanes in each direction, the delay will be increased as pedestrians have to cross two lanes instead of one.

One approach which is shown in the service options is to create a hub which will limit the routes that go through the roundabouts and reduce the number of time buses pass through the roundabouts. Locating a transit hub in the vicinity of Brewer Road and Ranger Road would reduce the number of buses passing through the roundabout at the Y. If a transit hub is located in Uptown, all buses will have to travel through the Y roundabout and will experience significant delay. Another approach would be to provide a shoulder lane for buses to bypass traffic delays. This is the approach used in the Park City area between Park City and Kimball Junction and would improve transit performance if a shoulder lane was available from Airport Road to the Y.

PEDESTRIANS AND CYCLISTS

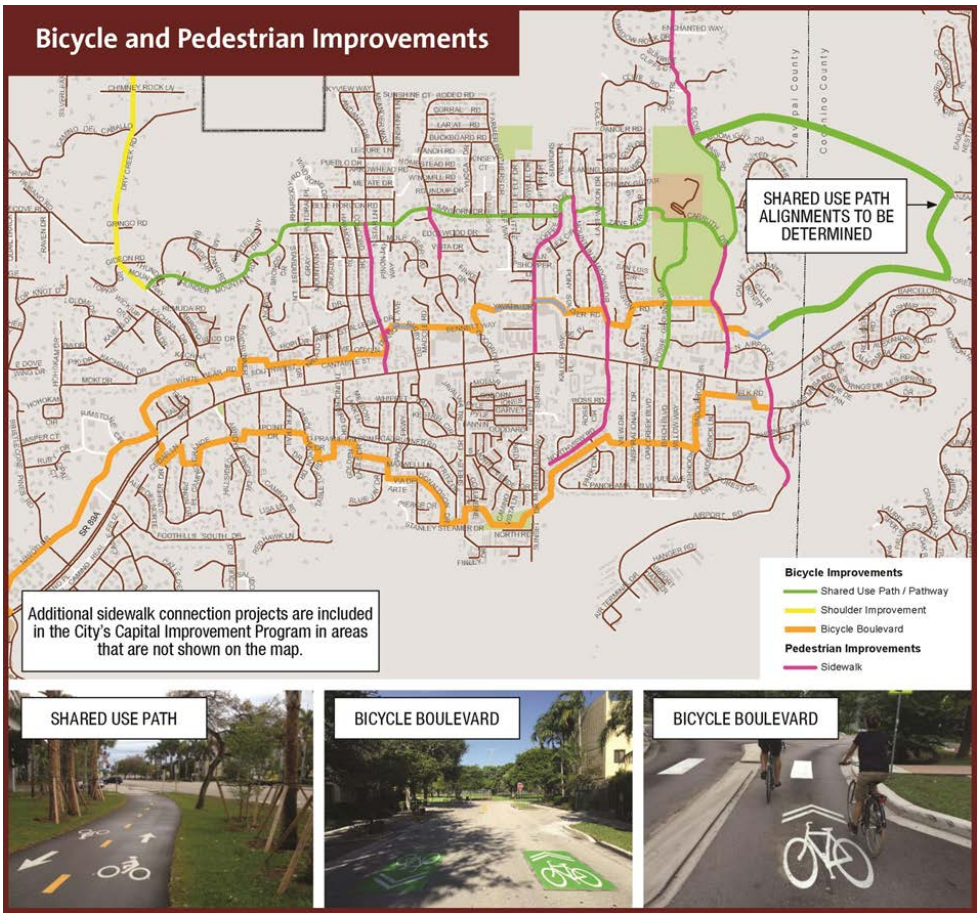
Biking and walking conditions vary considerably within the Sedona area – this variability is challenging for operating a shuttle system since every transit trip starts and ends with a walking or biking trip. The inconsistency of pedestrian and bicycling infrastructure could mean:

- Less ridership, as potential riders may decide it's too difficult or dangerous to get to or from a bus stop
- More paratransit trips because potential riders may not be able to navigate to or from a bus stop – these trips are much more expensive to operate
- Inefficient and circuitous bus routing to serve neighborhoods without pedestrian connectivity that are relatively close (1/2 mile or less) to main roads like SR 89A – an example of this is shown in Figure IV-3.

Pedestrian and Bicycle Connectivity

The City of Sedona is actively working on improving the overall pedestrian and bicycling network as a transportation priority. The TMP has a vision for more connected pedestrian and bicycle facilities such as sidewalks, shoulder improvements, shared use pathways, and bicycle boulevards, as shown in Figure IV-4.

Figure IV-4
TMP Recommended Pedestrian and Bicycle Improvements



Currently, the City is working to plan and implement the following high priority path and sidewalk projects:

- Schnebly Hill Road – from the roundabout along the west side to Bear Wallow Lane
- Southwest Drive – from City Hall along Southwest Drive to Rodeo Road. Sunset Park – from the Shelby Drive thru Sunset Park to Sunset Drive
- Shelby Drive – bike lane on west side, from State Route 89A to the entrance to Sunset Park.

According to the City of Sedona, other possible future bicycle and pedestrian implementation projects include:

- A multi-use path from Uptown to West Sedona: the Sedona Trails and Pathways System would be used by walkers and bike-riders.
- Wide paved shoulders on Dry Creek Road to support safe bike riding.

- Bike boulevard running parallel and to the north and south of SR 89A using existing streets with some new connecting pathways.
- Sidewalk connections to link neighborhoods and provide better resident access to parks and services, and opportunities for more outdoor activities.

All of these projects, once complete, will support a transit system and allow for more potential ridership.

Crosswalks

Another consideration for pedestrians, motorists, and overall traffic is crosswalks, existing and needed. For pedestrians, crosswalks are often across very busy roadways with limited sight distances. For motorists, multiple crosswalks within a relatively short distance create frustration and potential for more incidents and accidents. For area traffic, crosswalks add to delays and congestion due to vehicles stopping frequently for pedestrians.

The City of Sedona is trying to mitigate these issues in the Uptown area by posting crossing guards at crosswalks during the busiest times. These guards will alternatively stop vehicles and pedestrians, much like a pedestrian crossing signal would. This solution is helpful in the mid-term but may not be the best long-term fix.

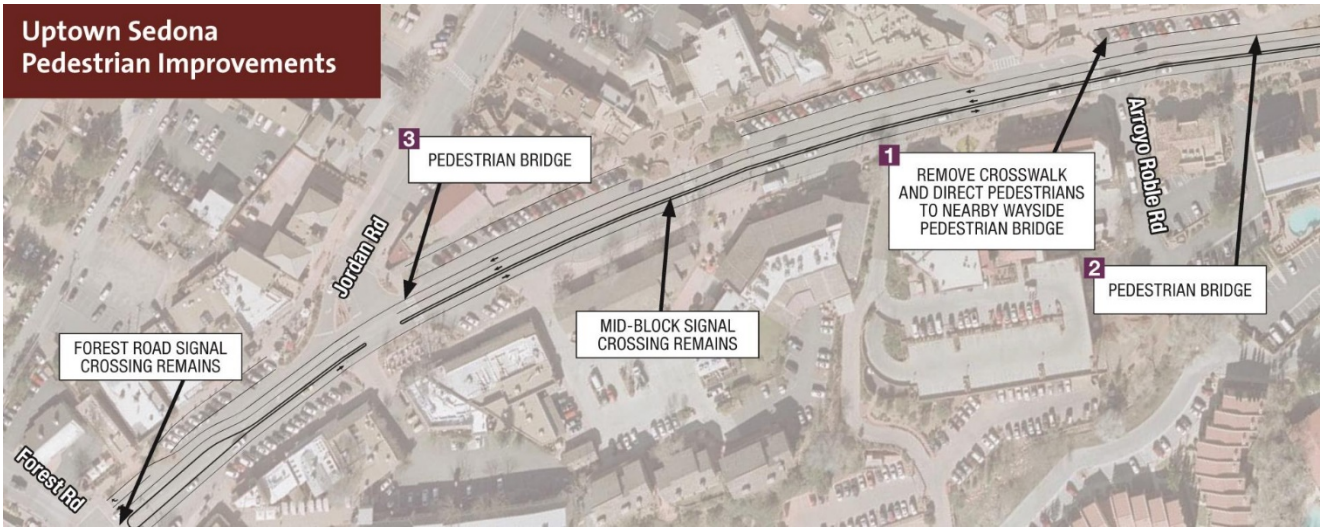
Recognizing the challenge with crosswalks in the Uptown area, the City states that “managing pedestrian movements will improve traffic flow and safety in Uptown, and help pedestrians more easily access businesses on both sides of Main Street. Improvements in hardscaping and landscaping will make Sedona's Uptown area more attractive and pedestrian-friendly.”

As shown in Figure IV-5, potential pedestrian design elements being considered include:

- A raised median with landscaping and/or art elements to improve the street's appearance and reduce uncontrolled pedestrian crossings.
- Crossing bridges with art elements to improve safety and eliminate conflicts with traffic.

- Removing the crosswalk at Arroyo Roble. Direct pedestrians to bridges with art elements at Wayside Chapel and Jordan Road.

Figure IV-5
Pedestrian Considerations for Uptown



These pedestrian crosswalk improvements in Uptown could help reduce traffic, which would improve transit operations, and encourage more walking within Uptown, which could boost potential transit ridership.

VISITOR CAPACITY

A concern when providing access to trails or Slide Rock State Park is the possibility of increasing the number of visitors and exceeding the visitor capacity of the natural resource. A cooperative effort will be needed between the State Park, USFS, and the City to ensure that access is provided without overwhelming the destination.

A reservation or permit system and transit can be an effective means of limiting the number of people at any one point or during a specified period of time. Many attractive tourist destinations have been forced to implement either a permit system or reservations to access the site. Muir Woods National Monument requires reservations for parking and the shuttle to visit the Redwoods forest. Zion National Park has restricted private vehicle access and requires use of the shuttle service. The USFS has plans to implement a shuttle system and eliminate

private vehicle parking at the trailhead for Hanging Lake in Colorado. Use of the shuttle with a fee will be required to access the trail during the peak visitor season. The plan includes required reservations to use the shuttle.

Access to some Federal lands requires a separate permit and, in some cases, the number of permits issued each day is limited to ensure an acceptable experience for visitors. This is true for many designated wilderness areas. Many people visiting national recreation areas are familiar with these systems and understand the benefits.

The USFS and Slide Rock State Park should determine the acceptable visitation levels at key recreation sites and the work with the transit service to implement a schedule that supports the goals of the Park and the USFS for visitation.

FEE REVENUE

Both the State Park and USFS receive revenue from visitor fees. Slide Rock State Park has a visitor entrance fee and the USFS has the Red Rock Pass for use of many parking areas around Sedona. The fees are used to support maintenance and improvements of the facilities. Any transit system that is implemented should be at least neutral with the revenue received by the USFS and State Park. This could be structured through premium fees for some services such as parking personal vehicles and a lower fee for those using transit. West Fork serves as a good example of the willingness to pay a fee for access. Vehicles are waiting in line to gain access to the parking area to be able to access the trail. While the fee of $10 per vehicle is not insignificant, it is not high enough to keep the parking area from filling by 9:30 a.m. or earlier and people waiting for 30 minutes to gain entry. A similar fee or higher fee could be charged at the most popular locations to generate revenue offset by people access trails by bus.

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Chapter V

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Chapter V

Service Options in Oak Creek Canyon

INTRODUCTION

This chapter focuses on service options for Oak Creek Canyon. Options include direct, non-stop service to Slide Rock State Park and service with multiple stops in the Canyon at various trailheads, picnic areas, and campgrounds. Four locations for intercept parking were used to define the options. The first possible location for intercept parking was along SH 179 in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station. A specific location has not been identified or evaluated, but will have to be addressed as part of the implementation if one of these options is selected. The second location for intercept parking is the municipal parking lot #5 in Uptown. The third location for an intercept parking lot is in West Sedona at or near Cultural Park. Finally, intercept parking at Oak Creek Vista was considered for an option to serve people coming to Oak Creek Canyon from the north.

Service to Slide Rock State Park has been evaluated with and without a reservations system for access to the park. With a reservations system a limited number of people could reserve access to the park on specific days for vehicle entry. An additional number of reservations would be accepted for access by bus with parking at the intercept parking lot. The Park could control the number of people entering the park by the number of reservations that are accepted. This approach could be financially neutral by charging a premium for vehicular access and a per person charge for those parking at the intercept lot and using the bus.

Parking restrictions in Oak Creek Canyon have been used to compare service options for the canyon service. One option is to continue the current parking scenario with possible minor changes. The second option is to implement a more aggressive program of strict parking controls by eliminating roadside parking through barriers and enhanced enforcement. Strict parking controls would also require traveler information through the use of variable message signs and smart phone apps to alert travelers when parking is not available within the Canyon.

The number of vehicles required for operation of each option has been identified. In addition to the number of vehicles in operation, spare vehicles will be required to cover times for routine maintenance and repairs. The number of spare vehicles will be determined by which options are implemented and how the service options are combined in the implementation plan. Typically, a transit fleet requires the number of spare vehicles to be about 20 percent of the number of vehicles in operation at peak times.

OCC OPTION 1 – 179 PARKING TO SLIDE ROCK WITH RESERVATION SYSTEM

In this option, an intercept parking lot would be established in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station. A specific location has not been determined. It could be located at the Ranger Station or near the south end of the Village. If the location is moved farther north in the Village, it will become less effective. The service concept is illustrated in Figure V-1.

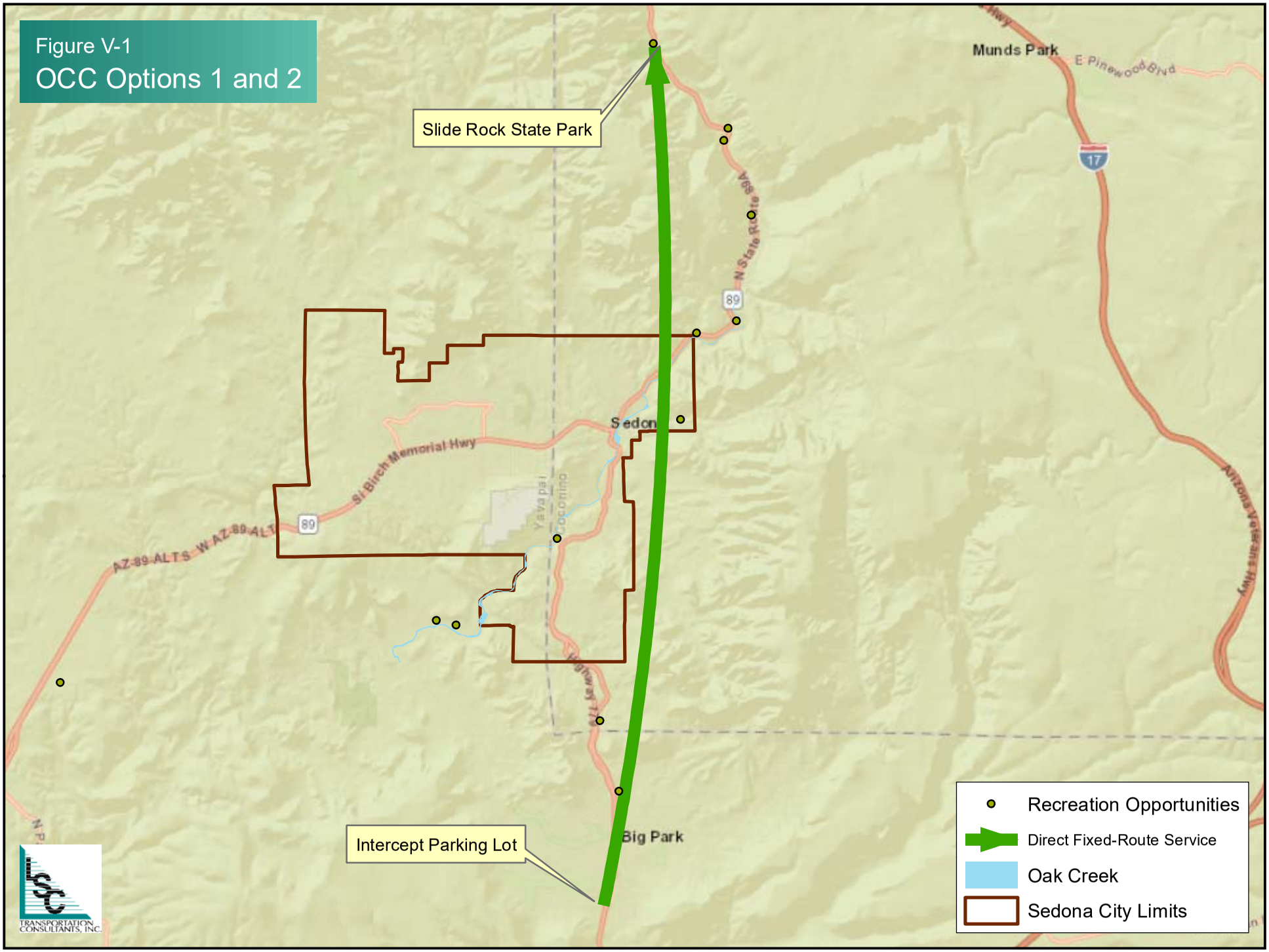
Service to Slide Rock State Park would be operated daily from mid-May through mid-September. The reservation system has been assumed to accommodate 1,000 visitors arriving by bus. With a vehicle occupancy of 3.5 to 4 people per car, the lot will have to accommodate at least 300 cars. If this option is combined with one of the options serving the remainder of Oak Creek Canyon, additional capacity will be required.

Sufficient capacity will be required to transport 1,000 people to Slide Rock over a few hours in the morning. Buses will have to be staged to depart as they are filled or after some maximum waiting time if the bus is not full. For this service, a bus capacity of 40 passengers has been assumed.

The following characteristics describe this option.

- Peak vehicles in operation: 8
- Annual operating days: 121
- Estimated ridership: 243,000
- Annual operating cost: $570,000
- Passenger-trips per hour: 28.6
- Average cost-per passenger-trip: $2.35

Figure V-1
OCC Options 1 and 2



Performance

Table V-1 shows the performance evaluation of OCC Option 1 relative to the established service criteria.

Table V-1
Performance – OCC Option 1

Service Criteria	Evaluation
Increase mobility options	No – focused on direct service to Slide Rock State Park
Provide connectivity between VOC, Sedona, and OCC	Limited – direct service from VOC to Slide Rock State Park
Traffic congestion mitigation	Yes – would reduce traffic volumes in OCC and congestion at entrance to Slide Rock
Parking congestion mitigation	Yes – would reduce parking demand at Slide Rock
Passenger-trips per hour of service	28.6
Cost per passenger trip	$2.35
Requires other policy changes	Yes – reservations for Slide Rock and parking controls on SR 89A in OCC

OCC OPTION 2 – 179 PARKING TO SLIDE ROCK WITHOUT RESERVATION SYSTEM

In this option, an intercept parking lot would be established in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station as in OCC Option 1. A specific location has not been determined. It could be located at the Ranger Station or near the south end of the Village. If the location is moved farther north in the Village, it will become less effective. The service concept is illustrated in Figure V-1.

Service to Slide Rock State Park would be operated daily from mid-May through mid-September. Without a reservations system and restrictions on how many people may enter the park, the demand for this service will be low. Visitors will continue to drive to the park as they do currently, hoping to arrive early enough to be able to enter the park.

Buses would operate throughout the time the park is open with service every 30 minutes. A daily average of only 150 people are expected use this service which would require a much small parking lot than in OCC Option 1. A total of about

50 spaces would be required for this option. Smaller vehicles with a capacity of 25 to 30 passengers could be used for this service.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 121
- Estimated ridership: 36,000
- Annual operating cost: $375,000
- Passenger-trips per hour: 6.5
- Average cost-per passenger-trip: $10.31

Performance

Table V-2 shows the performance evaluation of OCC Option 2 relative to the established service criteria.

Table V-2
Performance – OCC Option 2

Service Criteria	Evaluation
Increase mobility options	No – focused on direct service to Slide Rock State Park
Provide connectivity between VOC, Sedona, and OCC	Limited – direct service from VOC to Slide Rock State Park
Traffic congestion mitigation	No – negligible impact on traffic volumes in OCC and congestion at entrance to Slide Rock
Parking congestion mitigation	Limited – would reduce some parking demand at Slide Rock
Passenger-trips per hour of service	6.5
Cost per passenger trip	$10.31
Requires other policy changes	No – doesn't have policy requirements

OCC OPTION 3 – 179 PARKING TO CAVE SPRINGS CAMPGROUND WITH STRICT PARKING CONTROLS

In this option, an intercept parking lot would be established in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station as in OCC Option 1. A specific location has not been determined. It could be located at the Ranger Station or near the south end of the Village. If the location is moved farther north in the Village, it will become less effective. The service concept is illustrated in Figure V-2.

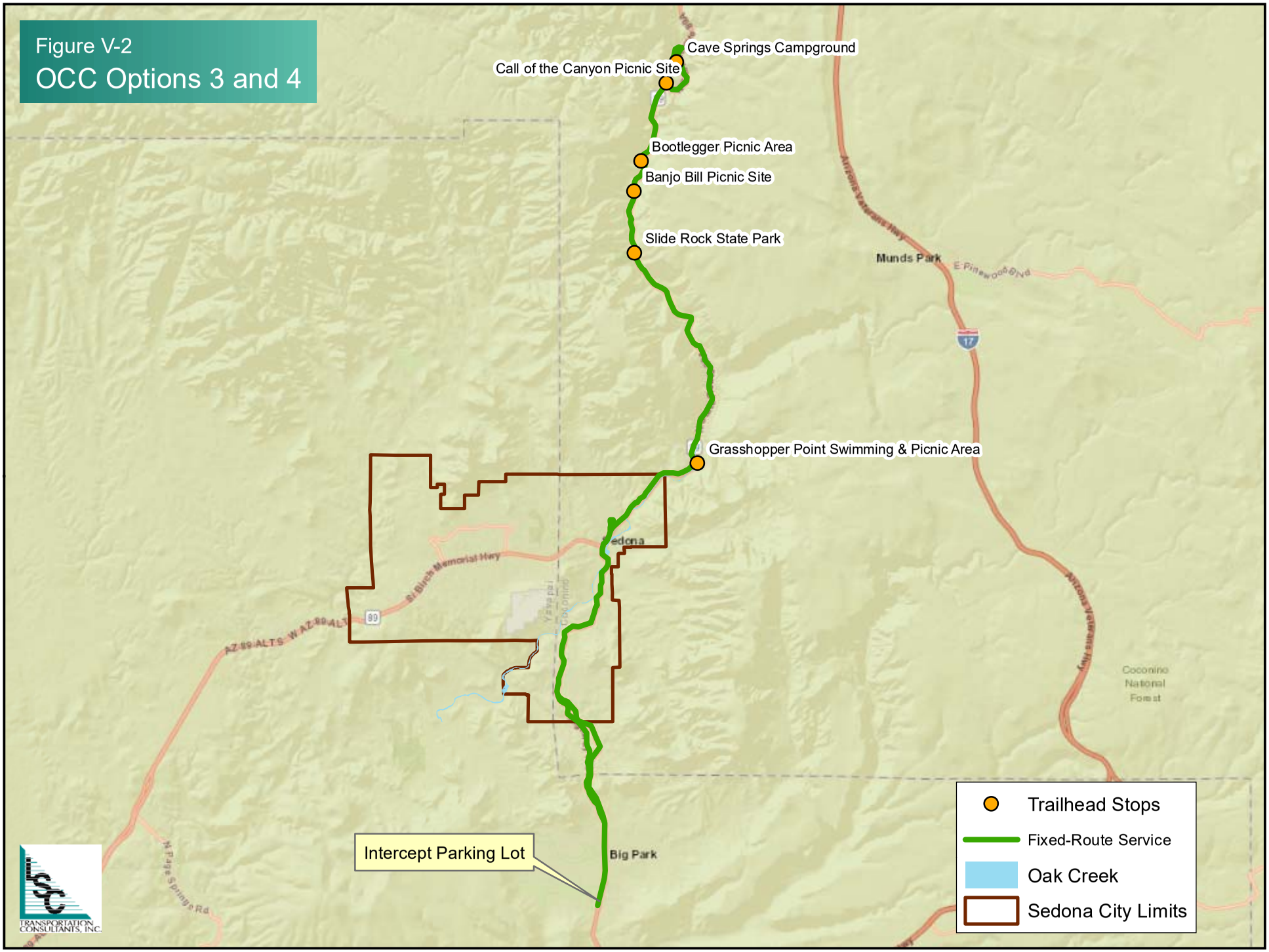


Figure V-2
OCC Options 3 and 4
Cave Springs Campground
Call of the Canyon Picnic Site
Bootlegger Picnic Area
Banjo Bill Picnic Site
Slide Rock State Park
Munds Park
Grasshopper Point Swimming & Picnic Area
Sedona
Intercept Parking Lot
Big Park
Coconino National Forest
Trailhead Stops
Fixed-Route Service
Oak Creek
Sedona City Limits

Service would be provided to trailheads, day use areas, and campgrounds from the Village of Oak Creek through Oak Creek Canyon as far as Cave Springs Campground. The service would operate from 7:00 a.m. to 6:00 p.m. with service every 30 minutes. This route would operate from April 1 through October 31.

In this option, implementation of strict parking controls has been assumed. Recommendations for elimination of roadside parking in OCC along with enhanced enforcement will serve to encourage use of a shuttle service between an intercept parking location, trailheads, and other day use areas. Using AirSage data for day visitor volumes from areas south of Sedona, the average daily use of this service is estimated to be about 300 people.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 244
- Estimated ridership: 146,000
- Annual operating cost: $773,000
- Passenger-trips per hour: 13.0
- Average cost-per passenger-trip: $5.28

Performance

Table V-3 shows the performance evaluation of OCC Option 3 relative to the established service criteria.

Table V-3
Performance – OCC Option 3

Service Criteria	Evaluation
Increase mobility options	Limited – focused on recreation areas
Provide connectivity between VOC, Sedona, and OCC	Yes – connects VOC with OCC destinations and intermediate recreation areas
Traffic congestion mitigation	Yes – would reduce traffic volumes in OCC and congestion at recreation areas
Parking congestion mitigation	Yes – would reduce parking demand at key trailheads
Passenger-trips per hour of service	13.0
Cost per passenger trip	$5.28
Requires other policy changes	Yes – parking controls on SR 89A in OCC

OCC OPTION 4 – 179 PARKING TO CAVE SPRINGS CAMPGROUND WITHOUT STRICT PARKING CONTROLS

In this option, an intercept parking lot would be established in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station as in OCC Option 3. A specific location has not been determined. It could be located at the Ranger Station or near the south end of the Village. If the location is moved farther north in the Village, it will become less effective. The service concept is illustrated in Figure V-2.

This option is similar to OCC Option 3. Service would be provided to trailheads, day use areas, and campgrounds from the Village of Oak Creek through Oak Creek Canyon as far as Cave Springs Campground. The service would operate from 7:00 a.m. to 6:00 p.m. with service every 30 minutes. This route would operate from April 1 through October 31.

In this option, only minimal changes to parking restrictions and enforcement on SR 89A in OCC are considered. Demand for this service is expected to be very low without parking restrictions and traveler information. Using AirSage data for day visitor volumes from areas south of Sedona, the average daily use of this service is estimated to be about 100 people.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 244
- Estimated ridership: 24,000
- Annual operating cost: $773,000
- Passenger-trips per hour: 2.2
- Average cost-per passenger-trip: $31.67

Performance

Table V-4 shows the performance evaluation of OCC Option 4 relative to the established service criteria.

Table V-4 Performance – OCC Option 4	
Service Criteria	**Evaluation**
Increase mobility options	Limited – focused on recreation areas
Provide connectivity between VOC, Sedona, and OCC	Yes – connects VOC with OCC destinations and intermediate recreation areas
Traffic congestion mitigation	No – negligible impact on traffic
Parking congestion mitigation	No – insignificant OCC parking reduction
Passenger-trips per hour of service	2.2
Cost per passenger trip	$31.67
Requires other policy changes	No – doesn't have policy requirements

OCC OPTION 5 – 179 PARKING TO OAK CREEK VISTA WITH STRICT PARKING CONTROLS

In this option, an intercept parking lot would be established in the vicinity of the Village of Oak Creek and the Red Rock Ranger Station as in OCC Option 3. A specific location has not been determined. It could be located at the Ranger Station or near the south end of the Village. If the location is moved farther north in the Village, it will become less effective. The service concept is illustrated in Figure V-3.

Service would be provided to trailheads, day use areas, and campgrounds from the Village of Oak Creek through Oak Creek Canyon to Oak Creek Vista on the north. The service would operate from 7:00 a.m. to 6:00 p.m. with service every 30 minutes. This route would operate from April 1 through October 31.

In this option, implementation of strict parking controls has been assumed. Recommendations for elimination of roadside parking in OCC along with enhanced enforcement will serve to encourage use of a shuttle service between an intercept parking location, trailheads, and other day use areas. Using AirSage data for day visitor volumes from areas south of Sedona, the average daily use of this service is estimated to be about 300 people.

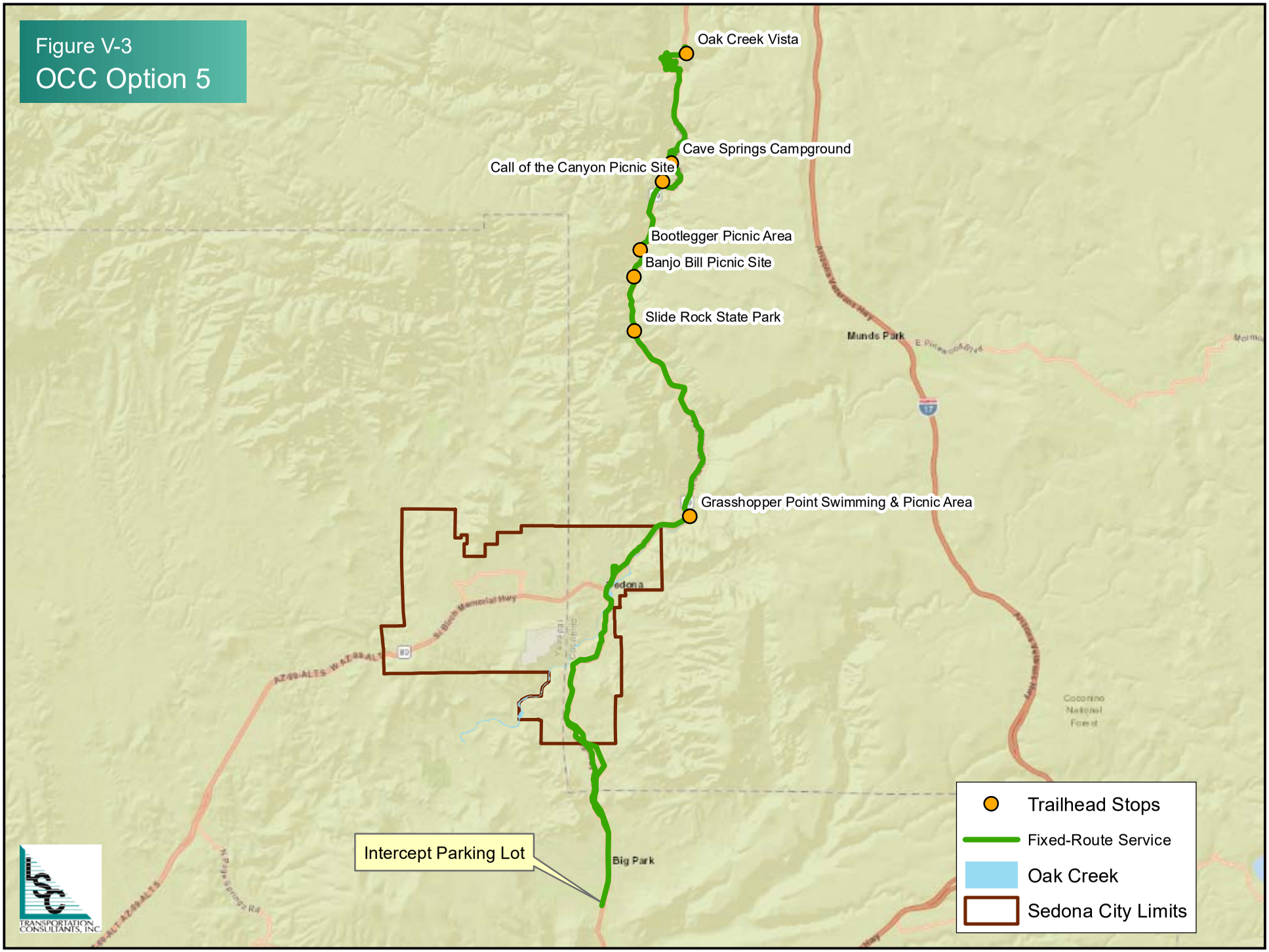


Figure V-3
OCC Option 5
Oak Creek Vista
Cave Springs Campground
Call of the Canyon Picnic Site
Bootlegger Picnic Area
Banjo Bill Picnic Site
Slide Rock State Park
Grasshopper Point Swimming & Picnic Area
Intercept Parking Lot
Big Park
Munds Park
Sedona
Coconino National Forest
Trailhead Stops
Fixed-Route Service
Oak Creek
Sedona City Limits
TRANSPORTATION CONSULTANTS, INC.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 244
- Estimated ridership: 146,000
- Annual operating cost: $773,000
- Passenger-trips per hour: 13.0
- Average cost-per passenger-trip: $5.28

Performance

Table V-5 shows the performance evaluation of OCC Option 5 relative to the established service criteria.

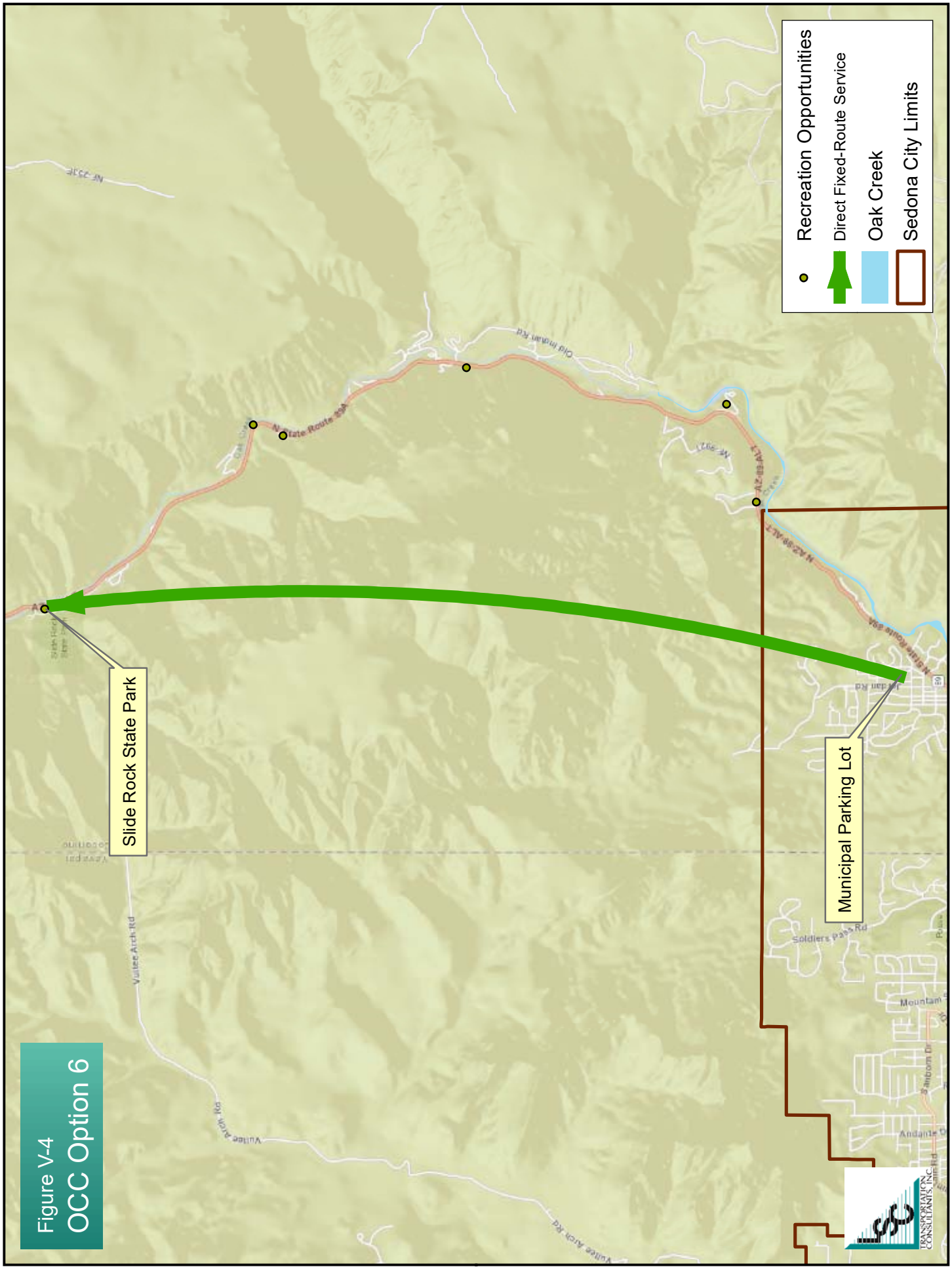
Table V-5
Performance – OCC Option 5

Service Criteria	Evaluation
Increase mobility options	Limited – focused on recreation areas
Provide connectivity between VOC, Sedona, and OCC	Yes – connects VOC with OCC destinations and intermediate recreation areas
Traffic congestion mitigation	Yes – would reduce traffic volumes in OCC and congestion at recreation areas
Parking congestion mitigation	Yes – would reduce parking demand at key trailheads
Passenger-trips per hour of service	13.0
Cost per passenger trip	$5.28
Requires other policy changes	Yes – parking controls on SR 89A in OCC

OCC OPTION 6 – UPTOWN PARKING TO SLIDE ROCK WITH RESERVATION SYSTEM

In this option, municipal parking lot #5 would be used as an intercept parking lot. The service concept is illustrated in Figure V-4.

Service to Slide Rock State Park would be operated daily from mid-May through mid-September. The reservation system has been assumed to accommodate 1,000 visitors arriving by bus. With a vehicle occupancy of 3.5 to 4 people per car, the lot will have to accommodate at least 300 cars. If this option is combined with one of the options serving the remainder of Oak Creek Canyon, additional capacity will be required.


Recreation Opportunities
Direct Fixed-Route Service
Oak Creek
Sedona City Limits
Slide Rock State Park
Municipal Parking Lot
Figure V-4
OCC Option 6

Sufficient capacity will be required to transport 1,000 people to Slide Rock over a few hours in the morning. Buses will have to be staged to depart as they are filled or after some maximum waiting time if the bus is not full. For this service, a bus capacity of 40 passengers has been assumed.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 121
- Estimated ridership: 243,000
- Annual operating cost: $243,000
- Passenger-trips per hour: 66.8
- Average cost-per passenger-trip: $1.00

Performance

Table V-6 shows the performance evaluation of OCC Option 6 relative to the established service criteria.

Table V-6
Performance – OCC Option 6

Service Criteria	Evaluation
Increase mobility options	No – focused on direct service to Slide Rock State Park
Provide connectivity between VOC, Sedona, and OCC	No – direct service from Uptown to Slide Rock State Park
Traffic congestion mitigation	Yes – would reduce traffic volumes in OCC and congestion at entrance to Slide Rock
Parking congestion mitigation	Yes – would reduce parking demand at Slide Rock
Passenger-trips per hour of service	66.8
Cost per passenger trip	$1.00
Requires other policy changes	Yes – reservations for Slide Rock

OCC OPTION 7 – UPTOWN PARKING TO OAK CREEK VISTA WITH STRICT PARKING CONTROLS

In this option, municipal parking lot #5 would be used as an intercept parking lot. The service concept is illustrated in Figure V-5.

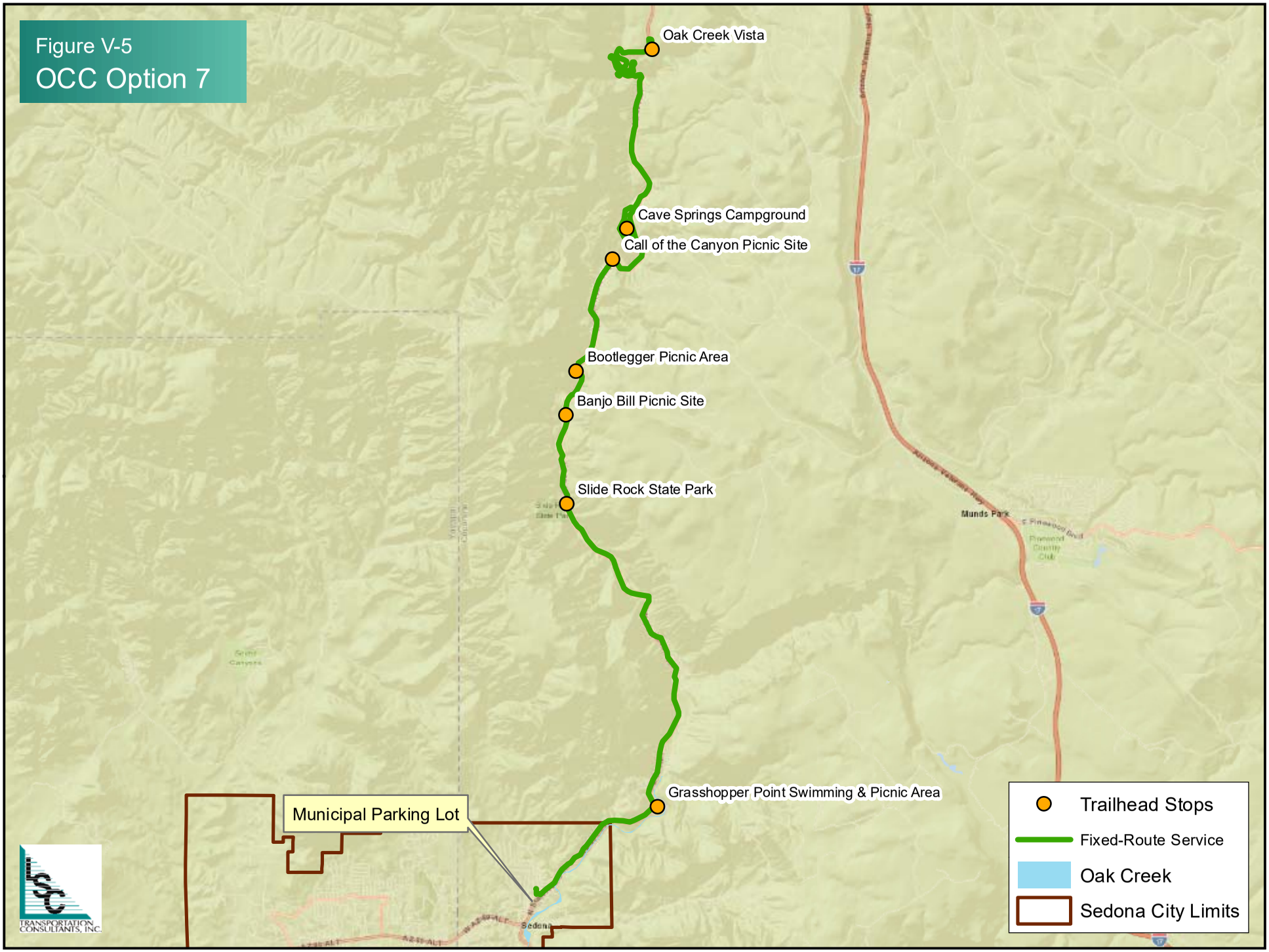


Figure V-5
OCC Option 7
Oak Creek Vista
Cave Springs Campground
Call of the Canyon Picnic Site
Bootlegger Picnic Area
Banjo Bill Picnic Site
Slide Rock State Park
Grasshopper Point Swimming & Picnic Area
Municipal Parking Lot
Munds Park
Sedona
Trailhead Stops
Fixed-Route Service
Oak Creek
Sedona City Limits
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Service would be provided to trailheads, day use areas, and campgrounds from the Village of Oak Creek through Oak Creek Canyon to Oak Creek Vista on the north. The service would operate from 7:00 a.m. to 6:00 p.m. with service every 30 minutes. This route would operate from April 1 through October 31.

In this option, implementation of strict parking controls has been assumed. Recommendations for elimination of roadside parking in OCC along with enhanced enforcement will serve to encourage use of a shuttle service between an intercept parking location, trailheads, and other day use areas. Using AirSage data for day visitor volumes from areas south of Sedona, the average daily use of this service is estimated to be about 300 people.

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 244
- Estimated ridership: 305,000
- Annual operating cost: $750,000
- Passenger-trips per hour: 27.2
- Average cost-per passenger-trip: $2.47

Performance

Table V-7 shows the performance evaluation of OCC Option 7 relative to the established service criteria.

Table V-7
Performance – OCC Option 7

Service Criteria	Evaluation
Increase mobility options	No – focused on OCC only
Provide connectivity between VOC, Sedona, and OCC	Limited – only links Uptown and OCC
Traffic congestion mitigation	Yes – would reduce traffic volumes in OCC
Parking congestion mitigation	Yes – would reduce parking demand in OCC
Passenger-trips per hour of service	27.2
Cost per passenger trip	$2.47
Requires other policy changes	Yes – parking controls on SR 89A in OCC

OCC OPTION 8 – CULTURAL CENTER PARKING TO SLIDE ROCK WITH RESERVATION SYSTEM

In this option, an intercept parking lot would be located in the vicinity of Cultural Park. The service concept is illustrated in Figure V-6.

Service to Slide Rock State Park would be operated daily from mid-May through mid-September. The number of visitors coming to the Sedona area via Cottonwood and SR 89A is a relatively small percentage of the total visitors. The demand for this service is expected to be no more that 100 people per day.

The following characteristics describe this option.

- Peak vehicles in operation: 3
- Annual operating days: 121
- Estimated ridership: 24,000
- Annual operating cost: $280,000
- Passenger-trips per hour: 5.8
- Average cost-per passenger-trip: $11.56

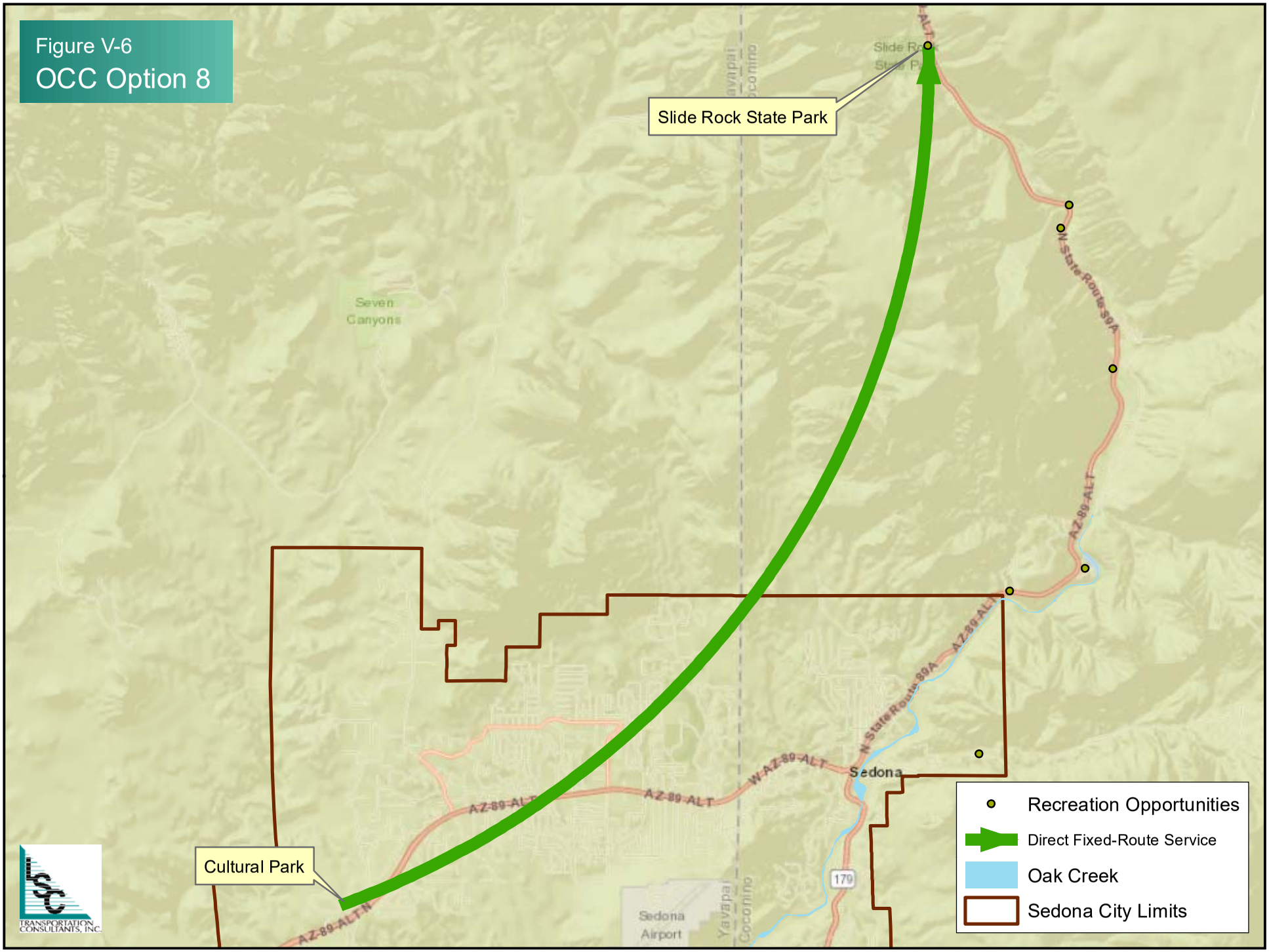
Performance

Table V-8 shows the performance evaluation of OCC Option 8 relative to the established service criteria.

Table V-8
Performance – OCC Option 8

Service Criteria	Evaluation
Increase mobility options	No – focused on direct service to Slide Rock State Park
Provide connectivity between VOC, Sedona, and OCC	Limited – direct service from W. Sedona to Slide Rock State Park
Traffic congestion mitigation	No – negligible impact on traffic
Parking congestion mitigation	Limited – small OCC parking reduction
Passenger-trips per hour of service	5.8
Cost per passenger trip	$11.56
Requires other policy changes	Yes – reservations for Slide Rock

Figure V-6
OCC Option 8



OCC OPTION 9 – OAK CREEK VISTA PARKING TO SLIDE ROCK

In this option, an intercept parking lot would be located in the vicinity of Oak Creek Vista. A new parking facility would be required to support this service. The service concept is illustrated in Figure V-7.

Service to Slide Rock State Park would be operated daily from mid-May through mid-September. Only about ten percent of the visitors to OCC enter from the north based on the AirSage data. Assuming that this service could capture 25 percent of the visitors, the demand for this service is expected to be no more than 150 people per day.

The following characteristics describe this option.

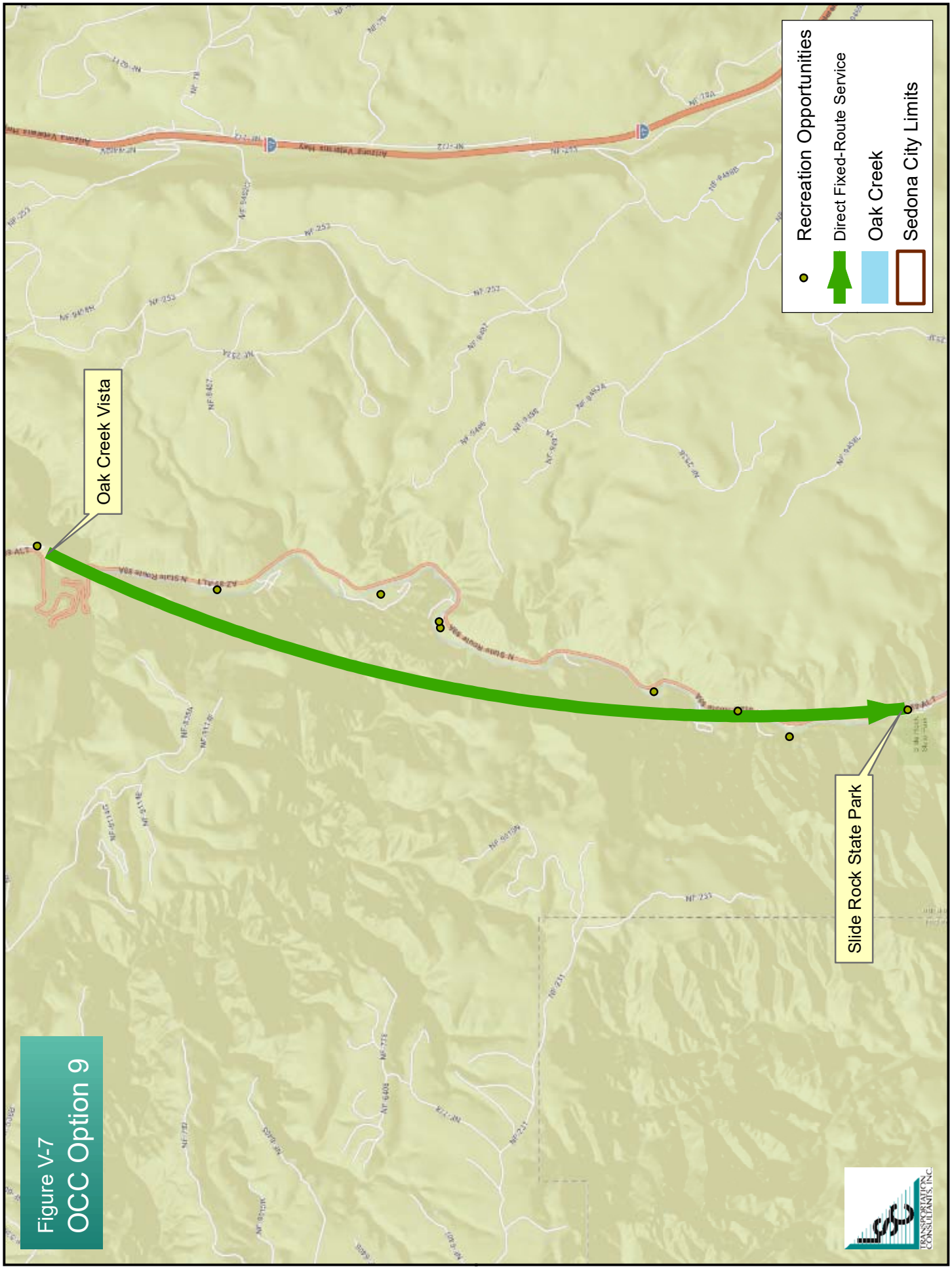
- Peak vehicles in operation: 4
- Annual operating days: 121
- Estimated ridership: 36,000
- Annual operating cost: $247,000
- Passenger-trips per hour: 10.0
- Average cost-per passenger-trip: $6.78

Performance

Table V-9 shows the performance evaluation of OCC Option 9 relative to the established service criteria.

Table V-9
Performance – OCC Option 9

Service Criteria	Evaluation
Increase mobility options	No – focused on direct service to Slide Rock State Park
Provide connectivity between VOC, Sedona, and OCC	No – only connects Oak Creek Vista to Slide Rock
Traffic congestion mitigation	No – negligible change in traffic volumes in OCC and congestion at entrance to Slide Rock
Parking congestion mitigation	Limited – small parking demand reduction at Slide Rock
Passenger-trips per hour of service	10.0
Cost per passenger trip	$6.78
Requires other policy changes	No – doesn't have policy requirements


Recreation Opportunities
Direct Fixed-Route Service
Oak Creek
Sedona City Limits
Oak Creek Vista
Slide Rock State Park
Figure V-7
OCC Option 9

OCC OPTION 10 – SIGHT SEEING TOUR

An additional option to consider for OCC is a visitor-oriented tour. Many of the visitors to the Sedona area are interested primarily in sight seeing and are not taking hikes or involved in other active recreation. A narrated tour through the canyon with a few designated stops would have the potential to attract some visitors and reduce the number of vehicles on SR 89A through OCC.

This option has not been evaluated separately as it should be a role for the private sector. There are several tour operators in the Sedona area that could operated this service. It may be necessary for the community to provide some incentives or encouragement to initiate the service. A separate narrated tour with transit services operating in the same corridor follows the model used in Denali National Park. Visitors may use the transit service to travel between points within the park while a separate narrated tour travels the same route, but provides a tour and passengers are not able to get on or off except at the start and end of the tour. This option should be considered independently of the other service options.

Chapter VI

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CHAPTER VI

Service Options in Sedona

INTRODUCTION

This chapter focuses on service options in Sedona. Options include shuttles to several popular trailheads, fixed-route service from West Sedona and the Village of Oak Creek (VOC) to Uptown Sedona, a fixed-route service connector from a new transit hub located near Tlaquepaque, and demand response service in Sedona. Demand response service in Sedona has been evaluated as an entirely demand response transit system and as a demand response service that supplements core fixed-route transit service in Sedona.

The number of vehicles required for operation of each option has been identified. In addition to the number of vehicles in operation, spare vehicles will be required to cover times for routine maintenance and repairs. The number of spare vehicles will be determined by which options are implemented and how the service options are combined in the implementation plan. Typically a transit fleet requires the number of spare vehicles to be about 20 percent of the number of vehicles in operation at peak times.

SEDONA OPTION 1 – SHUTTLE FROM TRANSIT HUB TO CATHEDRAL ROCK TRAILHEAD

In this option, a new transit hub would be established in Sedona, either in Uptown or near Tlaquepaque, with a shuttle operating between the transit hub and Cathedral Rock Trailhead. The service concept is illustrated in Figure VI-1.

Transit service to Cathedral Rock Trailhead, located at the south end of Sedona, would be operated daily from April through October, with a 15-minute frequency. Cathedral Rock is one of the most popular trailheads in Sedona and the demand for this service is expected to be about 400 people per day.

The following characteristics describe this option.

- Peak vehicles in operation: 3
- Annual operating days: 244

- Estimated ridership: 98,000
- Annual operating cost: $592,000
- Passenger-trips per hour: 10.9
- Average cost-per passenger-trip: $6.04

Performance

Table VI-1 shows the performance evaluation of Sedona Option 1 relative to the established service criteria.

Table VI-1
Performance – Sedona Option 1

Service Criteria	Evaluation
Increase mobility options	Limited – focused on direct service to Cathedral Rock
Provide connectivity between VOC, Sedona, and OCC	Limited – direct connection from Sedona to Cathedral Rock
Traffic congestion mitigation	No – negligible impact on local traffic
Parking congestion mitigation	Yes – would reduce parking demand at the Cathedral Rock trailhead
Passenger-trips per hour of service	10.9
Cost per passenger trip	$6.04
Requires other policy changes	No – doesn't require any new policies

SEDONA OPTION 2 – SHUTTLE FROM TRANSIT HUB TO DRY CREEK VISTA AND MESCAL TRAILHEADS

In this option, a new transit hub would be established in Sedona, either in Uptown or near Tlaquepaque, with a shuttle operating between the transit hub, Dry Creek Vista Trailhead, and Mescal Trailhead. The service concept is illustrated in Figure VI-1.

Transit service to Dry Creek Vista and Mescal Trailheads, both located on the north end of Sedona, would be operated daily from April through October, with a 30-minute frequency. Dry Creek Vista is one of Sedona's most popular trailheads and Mescal trailhead provides an alternate route to Devil's Bridge. The demand for this service is expected to be about 600 people per day.

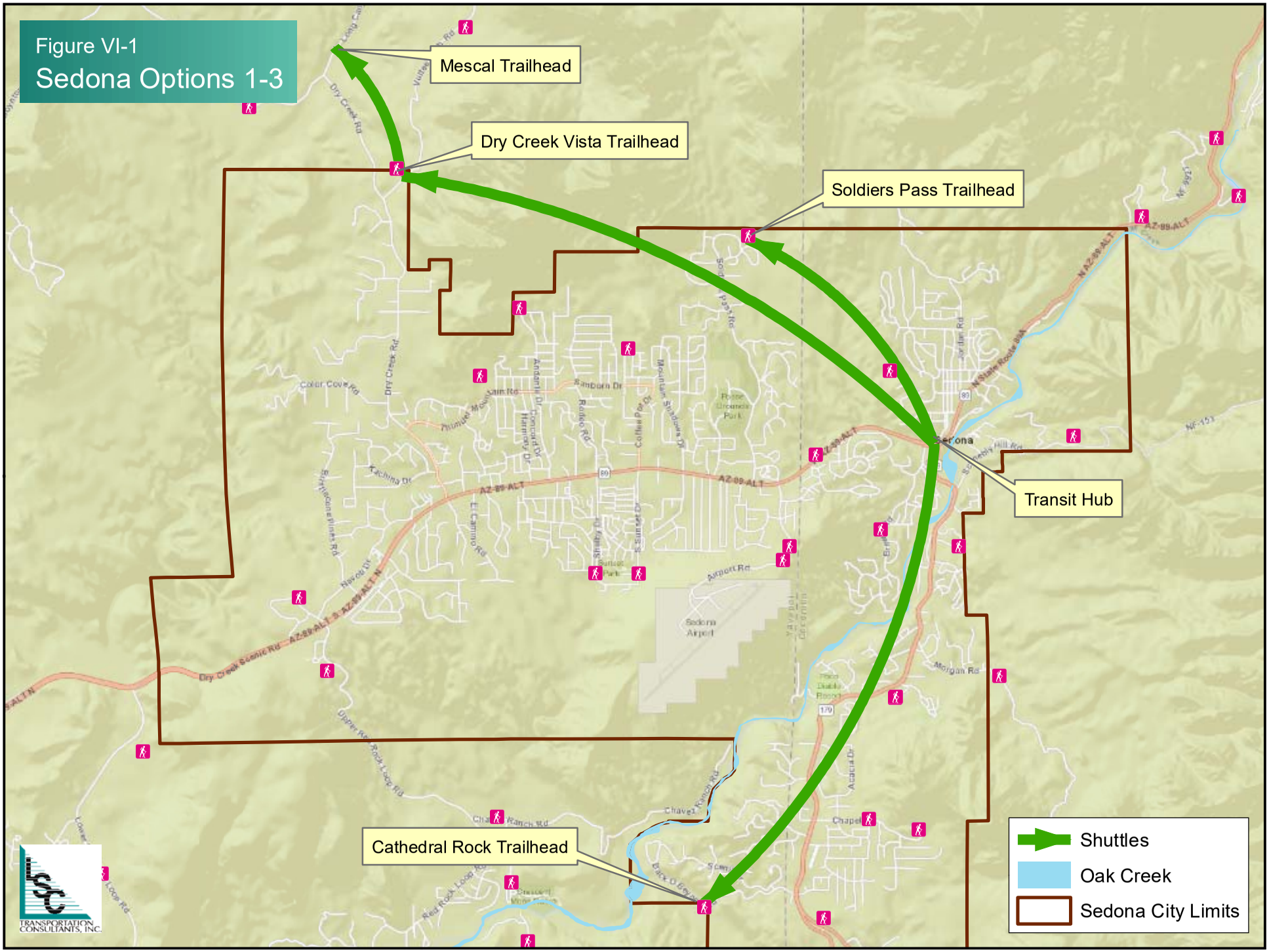
Figure VI-1
Sedona Options 1-3
Mescal Trailhead
Dry Creek Vista Trailhead
Soldiers Pass Trailhead
Transit Hub
Cathedral Rock Trailhead
Shuttles
Oak Creek
Sedona City Limits
Sedona
Sedona Airport
AZ-89-ALT
Dry Creek Scenic Rd
Airport Rd
Morgan Rd
Chapel
Chavez Ranch Rd
Red Rock Loop Rd
Upper Red Rock Loop Rd
Dry Creek Rd
Color Cove Rd
Thunder Mountain Rd
Andante Dr
Concord Dr
Harmony Dr
Rambam Dr
Rondo Rd
Coffee Pot Dr
Mountain Shadows Dr
Kachina Dr
El Camino Rd
S Sunset Dr
Navajo Dr
Bradshaw Dr
Jordan Rd
N State Route 89A
Soldiers Pass Rd
Schnebly Hill Rd
Acacia Dr
Verde Valley Sanatorium
Posse Grounds Park
Sedona Public Park
Creek Drive Park
Verde Valley Sanatorium
LSC
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The following characteristics describe this option.

- Peak vehicles in operation: 2
- Annual operating days: 244
- Estimated ridership: 146,000
- Annual operating cost: $392,000
- Passenger-trips per hour: 24.9
- Average cost-per passenger-trip: $2.68

Performance

Table VI-2 shows the performance evaluation of Sedona Option 2 relative to the established service criteria.

Table VI-2
Performance – Sedona Option 2

Service Criteria	Evaluation
Increase mobility options	Limited – focused on direct service to Dry Creek and Mescal Trailheads
Provide connectivity between VOC, Sedona, and OCC	Limited – direct connection from Sedona to Dry Creek and Mescal Trailheads
Traffic congestion mitigation	No – negligible impact on local traffic
Parking congestion mitigation	Yes – would reduce parking demand at the Dry Creek and Mescal Trailheads
Passenger-trips per hour of service	24.9
Cost per passenger trip	$2.68
Requires other policy changes	No – doesn't require any new policies

SEDONA OPTION 3 – SHUTTLE FROM TRANSIT HUB TO SOLDIERS PASS TRAILHEAD

In this option, a new transit hub would be established in Sedona, either in Uptown or near Tlaquepaque, with a shuttle operating between the transit hub and Soldiers Pass Trailhead. The service concept is illustrated in Figure VI-1.

Transit service to Soldiers Pass Trailhead, located on the north end of Sedona, would be operated daily from April through October, with a 15-minute frequency. Soldiers Pass Trailhead is one of the most popular trailheads in Sedona and the demand for this service is expected to be about 400 people per day.

The following characteristics describe this option.

- Peak vehicles in operation: 3
- Annual operating days: 244
- Estimated ridership: 97,600
- Annual operating cost: $585,000
- Passenger-trips per hour: 10.9
- Average cost-per passenger-trip: $5.97

Performance

Table VI-3 shows the performance evaluation of Sedona Option 3 relative to the established service criteria.

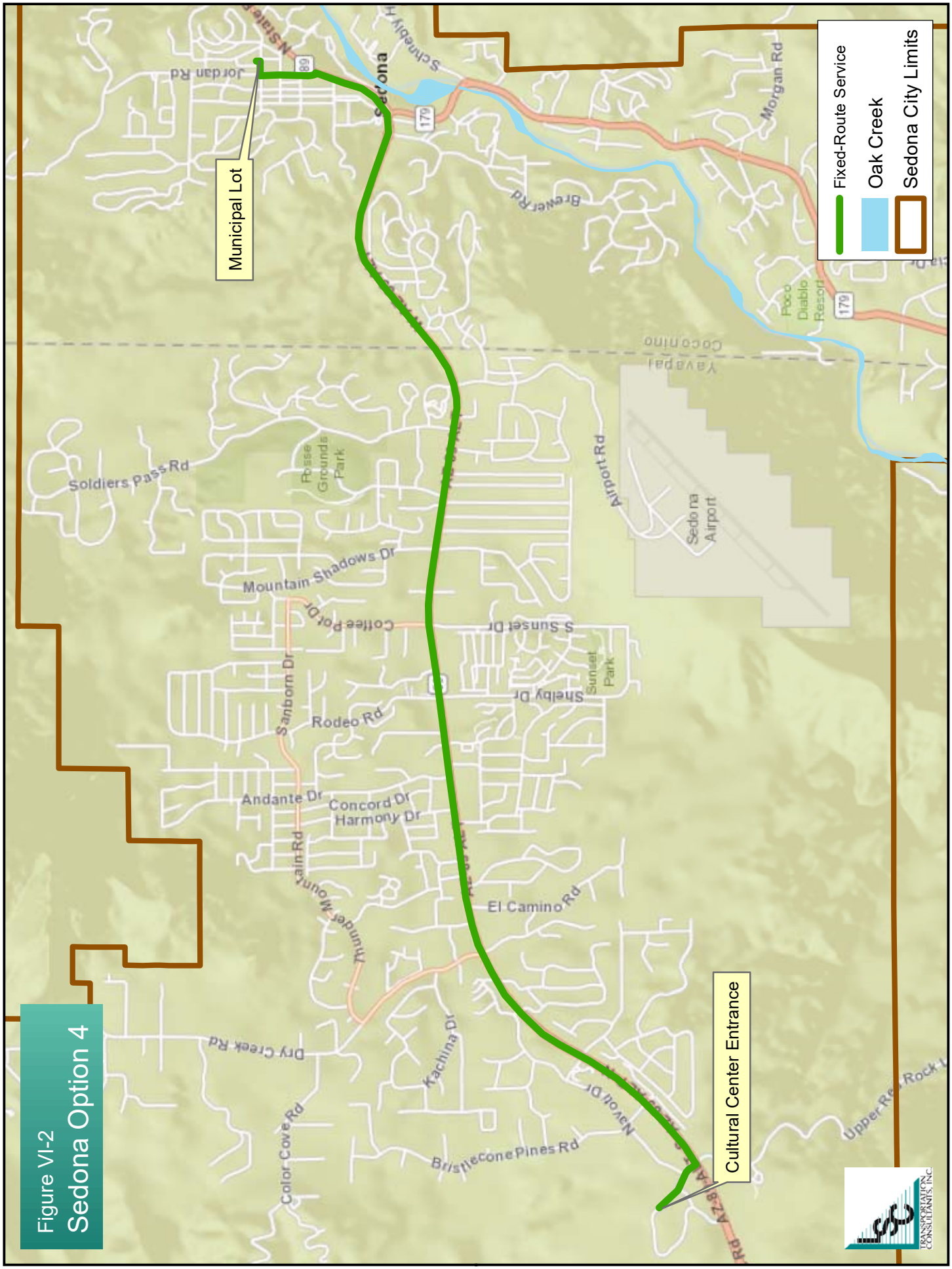
Table VI-3
Performance – Sedona Option 3

Service Criteria	Evaluation
Increase mobility options	Limited – focused on direct service to Soldiers Pass Trailhead
Provide connectivity between VOC, Sedona, and OCC	Limited – direct connection from Sedona to Soldiers Pass Trailhead
Traffic congestion mitigation	Limited – could reduce traffic impacts in adjacent neighborhood
Parking congestion mitigation	Yes – would reduce parking demand at the Soldiers Pass Trailhead
Passenger-trips per hour of service	10.9
Cost per passenger trip	$5.97
Requires other policy changes	No – doesn't require any new policies

SEDONA OPTION 4 – FIXED-ROUTE SERVICE FROM WEST SEDONA TO UPTOWN SEDONA MUNICIPAL PARKING LOT

In this option, a shuttle would operate between the Cultural Park in West Sedona and the Municipal Parking Lot in Uptown Sedona. The service concept is illustrated in Figure VI-2.

This fixed-route transit service along SR 89A would be operated daily, year-round, with a 15-minute frequency. Using lodging and occupancy rate data for overnight Sedona guests, the average daily use of this service is estimated to be about 1,600 people.


Municipal Lot
Cultural Center Entrance
Fixed-Route Service
Oak Creek
Sedona City Limits
Jordan Rd
Sedona
Schnebly H
Morgan Rd
Brewer Rd
Poco Diablo Resort
179
Coconino
Yavapai
Soldiers Pass Rd
Rose Grounds Park
Airport Rd
Sedona Airport
Mountain Shadows Dr
Coffee Pot Dr
S Sunset Dr
Sunset Park
Shelby Dr
Sanborn Dr
Rodeo Rd
Andante Dr
Concord Dr
Harmony Dr
Thunder Mountain Rd
El Camino Rd
Dry Creek Rd
Kachina Dr
Navoti Dr
Bristlecone Pines Rd
Color Cove Rd
Upper Red Rock
89A
Figure VI-2
Sedona Option 4

The following characteristics describe this option.

- Peak vehicles in operation: 4
- Annual operating days: 365
- Estimated ridership: 590,000
- Annual operating cost: $1,361,000
- Passenger-trips per hour: 28.4
- Average cost-per passenger-trip: $2.31

Performance

Table VI-4 shows the performance evaluation of Sedona Option 4 relative to the established service criteria.

Table VI-4
Performance – Sedona Option 4

Service Criteria	Evaluation
Increase mobility options	Yes – could be used by a variety of users for a variety of trip purposes
Provide connectivity between VOC, Sedona, and OCC	Yes – provides good connectivity between Uptown and West Sedona
Traffic congestion mitigation	Limited – small reduction in traffic volumes through the "Y"
Parking congestion mitigation	Yes – would reduce parking demand in Uptown
Passenger-trips per hour of service	28.4
Cost per passenger trip	$2.31
Requires other policy changes	Possibly – might require policy changes for Uptown parking and roadway operations, e.g. allowing bus on shoulder and improvements at the "Y"

SEDONA OPTION 5 – FIXED-ROUTE SERVICE BETWEEN VOC AND UPTOWN SEDONA MUNICIPAL PARKING LOT

In this option, a shuttle would operate between VOC and the Municipal Parking Lot in Uptown Sedona. A specific location in VOC has not been identified or evaluated, but will have to be addressed as part of the implementation if this option is selected. In addition, this route would serve Bell Rock Trailhead and Courthouse Trailhead in both directions. The service concept is illustrated in Figure VI-3.

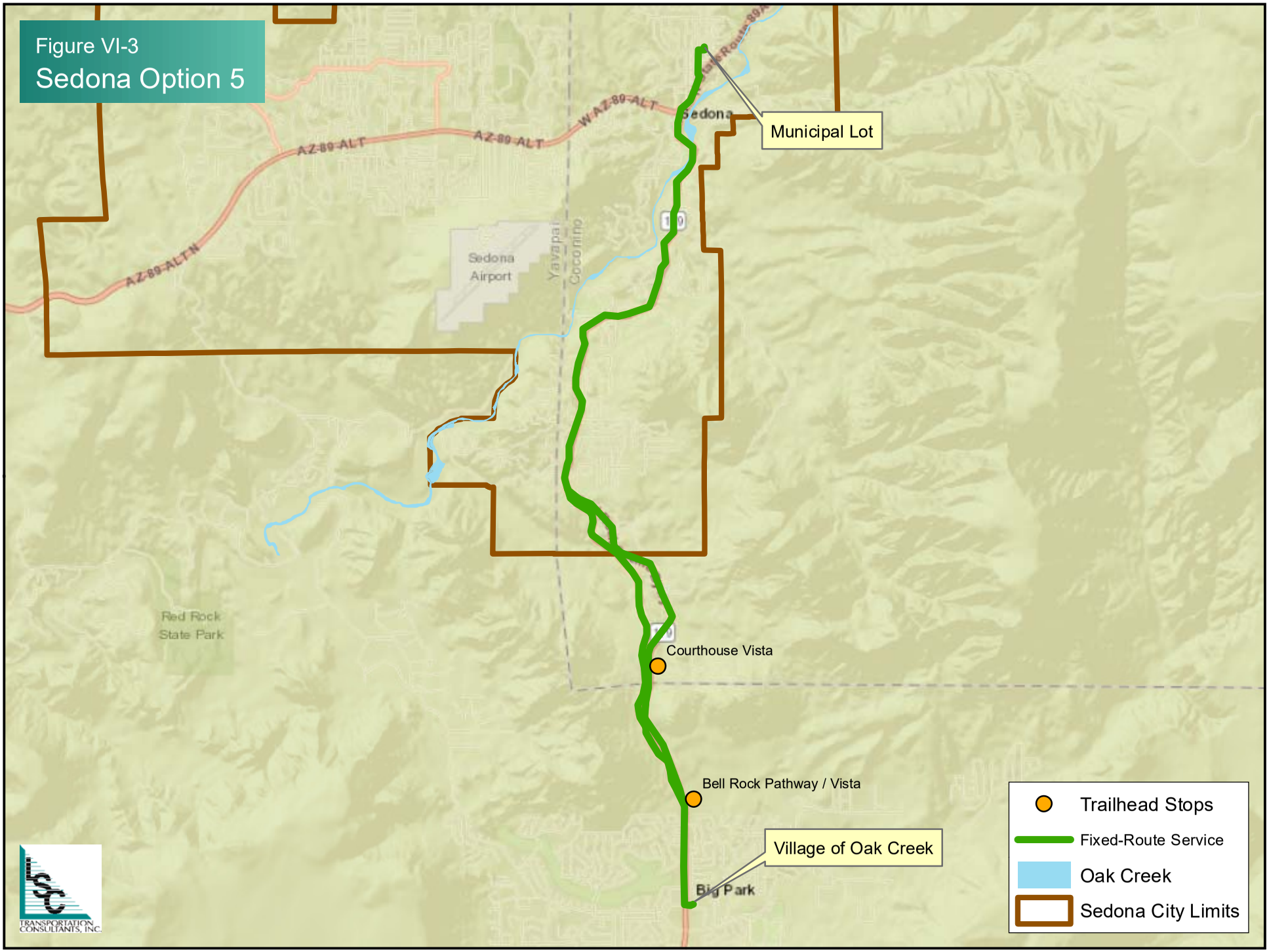


Figure VI-3
Sedona Option 5
AZ-89-ALT
AZ-89-ALT
W AZ-89-ALT
AZ-89-ALTN
Sedona
Municipal Lot
Sedona Airport
Yavapai
Coconino
Red Rock State Park
Courthouse Vista
Bell Rock Pathway / Vista
Village of Oak Creek
Big Park
Trailhead Stops
Fixed-Route Service
Oak Creek
Sedona City Limits
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This fixed-route transit service along SR 179 would be operated daily, year-round, with a 30-minute frequency. Using lodging and occupancy rate data for overnight VOC guests, the average daily use of this service is estimated to be about 800 people.

The following characteristics describe this option.

- Peak vehicles in operation: 3
- Annual operating days: 365
- Estimated ridership: 290,000
- Annual operating cost: $1,018,000
- Passenger-trips per hour: 18.9
- Average cost-per passenger-trip: $3.51

Performance

Table VI-5 shows the performance evaluation of Sedona Option 5 relative to the established service criteria.

Table VI-5
Performance – Sedona Option 5

Service Criteria	Evaluation
Increase mobility options	Yes – could be used by a variety of users for a variety of trip purposes and incorporates trailheads along route
Provide connectivity between VOC, Sedona, and OCC	Yes – provides good connectivity between Sedona Uptown and VOC
Traffic congestion mitigation	Limited – small reduction in traffic volumes through the "Y"
Parking congestion mitigation	Yes – would reduce parking demand in Uptown
Passenger-trips per hour of service	18.9
Cost per passenger trip	$3.51
Requires other policy changes	Possibly – might require policy changes for Uptown parking and improvements at the "Y"

SEDONA OPTION 6 – CONNECTOR FROM TRANSIT HUB TO UPTOWN MUNICIPAL PARKING LOT

In this option, a new transit hub would be established in Sedona near the intersection of Brewer Road and Ranger Road. This option would incorporate

service options 4 and 5, but adjust them slightly to serve the transit hub location. Option 6 would introduce a connector route providing service from the transit hub to the Municipal Parking Lot in Uptown Sedona. The service concept is illustrated in Figure VI-4.

The new connector service would be operated daily, year-round, with a 10-minute frequency. Using lodging and occupancy rate data for overnight Sedona and VOC guests, the average daily use of this service is estimated to be about 1,500 people.

The following characteristics describe only the connector from the hub to Uptown and do not include Options 4 and 5.

- Peak vehicles in operation: 2
- Annual operating days: 365
- Estimated ridership: 557,000
- Annual operating cost: $663,000
- Passenger-trips per hour: 54.5
- Average cost-per passenger-trip: $1.19

Performance

Table VI-6 shows the performance evaluation of Sedona Option 6 relative to the established service criteria. This performance assumes that Options 4 and 5 are implemented in conjunction with this route to provide the connections between West Sedona, Uptown, and VOC.

Table VI-6
Performance – Sedona Option 6

Service Criteria	Evaluation
Increase mobility options	Yes – could be used by a variety of users for a variety of trip purposes
Provide connectivity between VOC, Sedona, and OCC	Yes – provides connections to West Sedona, VOC, and Uptown
Traffic congestion mitigation	Limited –small reduction in traffic volumes
Parking congestion mitigation	Yes – would reduce parking demand in Uptown
Passenger-trips per hour of service	54.5
Cost per passenger trip	$1.19
Requires other policy changes	Possibly – could require Uptown parking policy changes, shoulder lane for buses, and improvements at "Y"

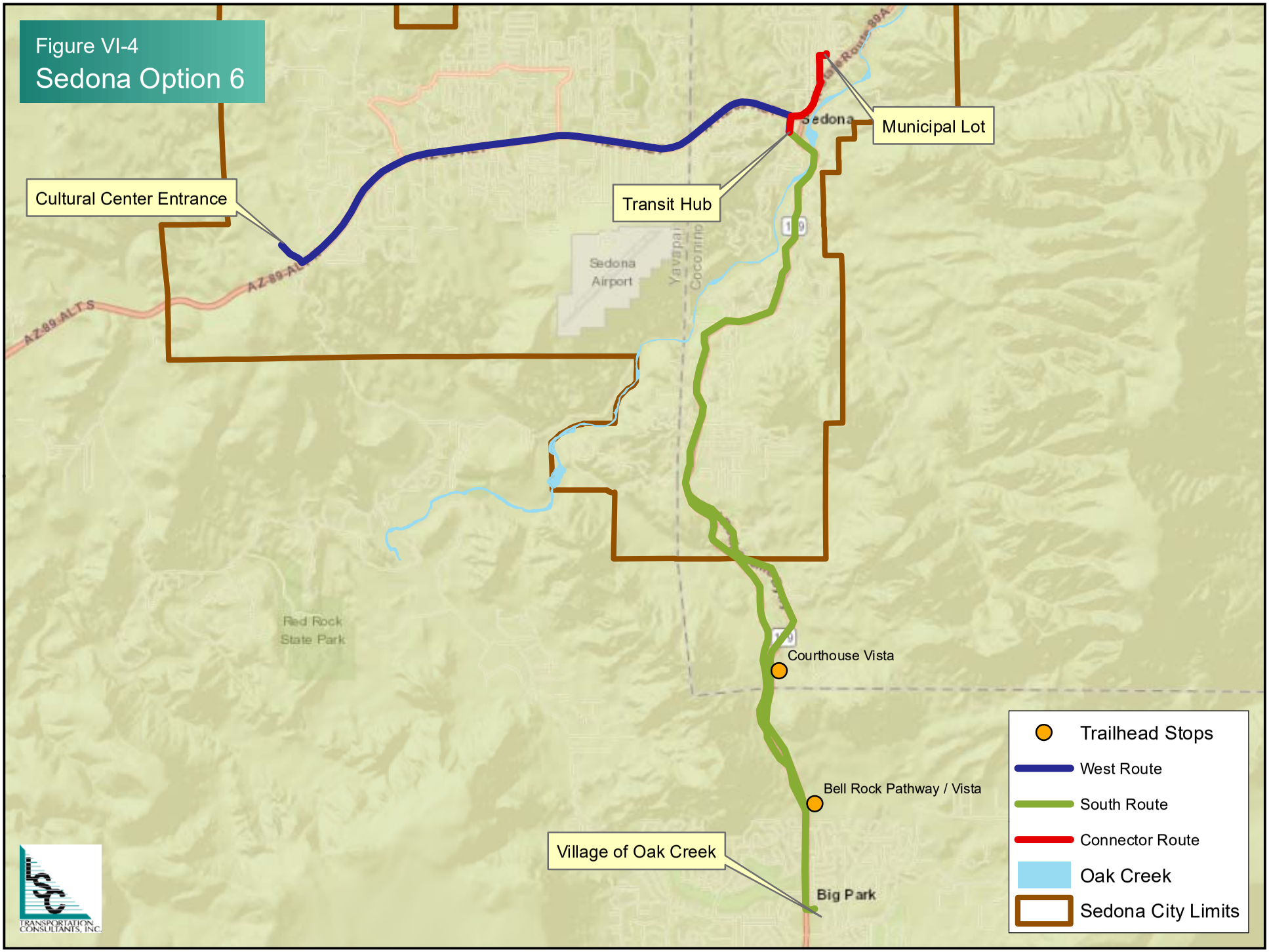
Figure VI-4
Sedona Option 6
Municipal Lot
Transit Hub
Cultural Center Entrance
Sedona
Sedona Airport
Red Rock State Park
Courthouse Vista
Bell Rock Pathway / Vista
Village of Oak Creek
Big Park
Trailhead Stops
West Route
South Route
Connector Route
Oak Creek
Sedona City Limits

SEDONA OPTION 7 – ENTIRELY DEMAND RESPONSE SERVICE

In this option, transit service in Sedona would be served entirely by a demand response service. The service would operate daily, year-round and the service area is illustrated in Figure VI-5.

A demand response service designed to provide 600,000 annual trips in Sedona would require significant capital resources, including 18 vehicles to operate the service, not to mention significant operating resources due to an annual operating cost of approximately $6.7 million.

The following characteristics describe this option.

- Peak vehicles in operation: 18
- Annual operating days: 365
- Estimated ridership: 600,000
- Annual operating cost: $6,722,000
- Passenger-trips per hour: 5.7
- Average cost-per passenger-trip: $11.20

Performance

Table VI-7 shows the performance evaluation of Sedona Option 7 relative to the established service criteria.

Table VI-7
Performance – Sedona Option 7

Service Criteria	Evaluation
Increase mobility options	Yes – could be used by a variety of users for a variety of trip purposes
Provide connectivity between VOC, Sedona, and OCC	Yes – would connect all communities
Traffic congestion mitigation	No – could result in more traffic with 18 vehicles operating daily
Parking congestion mitigation	Limited – could provide small reduction in Uptown parking
Passenger-trips per hour of service	5.7
Cost per passenger trip	$11.20
Requires other policy changes	No – doesn't require any new policies

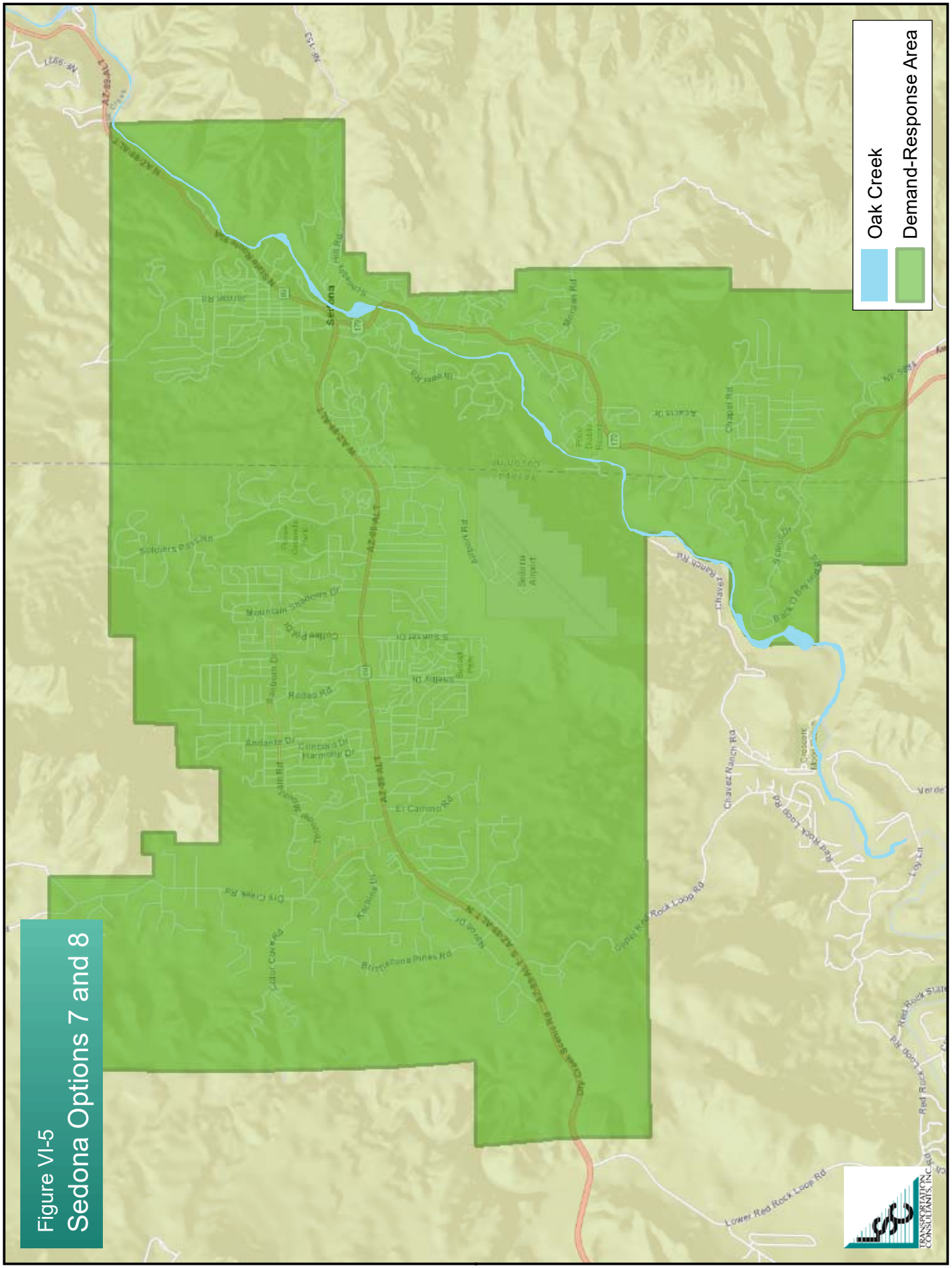

Figure VI-5
Sedona Options 7 and 8

SEDONA OPTION 8 – DEMAND RESPONSE SERVICE SUPPLEMENTING CORE FIXED-ROUTE SERVICE

In this option, demand response transit service would supplement core fixed-route transit service in Sedona. The demand response service would operate daily, year-round and the service area is illustrated in Figure VI-5.

The following characteristics describe this option.

- Peak vehicles in operation: 2
- Annual operating days: 365
- Estimated ridership: 15,000
- Annual operating cost: $607,000
- Passenger-trips per hour: 1.6
- Average cost-per passenger-trip: $40.47

Performance

Table VI-8 shows the performance evaluation of Sedona Option 8 relative to the established service criteria.

Table VI-8
Performance – Sedona Option 8

Service Criteria	Evaluation
Increase mobility options	Yes – could help a variety of people access fixed route service for a variety of trip purposes
Provide connectivity between VOC, Sedona, and OCC	Indirectly – helps extend connectivity of fixed route service
Traffic congestion mitigation	No – adds vehicle miles to neighborhood areas
Parking congestion mitigation	No – parking is not impacted
Passenger-trips per hour of service	1.6
Cost per passenger trip	$40.47
Requires other policy changes	No – doesn't require any new policies

Appendix A

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Incentivized Interviews

1. Where are you visiting from? Arizona Other US International
2. How long will you be staying in Sedona?
3. Number in your group?
4. Is this your first time in Sedona? First time Repeat Visitor
5. Is Sedona your primary destination or is this stop on a longer trip?
   Primary Longer (where else)
6. Did you arrive by car? Yes No (how)
7. What are you doing while you're here?
   Hiking Biking Sightseeing Shopping Dining Spiritual Other
8. Where will you be going while you're here?
   Uptown West Sedona Oak Creek Canyon Slide Rock State Park Village of Oak Creek Hiking/Biking Trails (what trails) Other Specific
9. Have you gotten advice about destinations from the hotel staff – concierge or front desk staff – or did you have everything planned before you came? (If planned) How did you do your travel planning?
10. How will they be getting around while you're here (driving, hotel shuttle, taxi/Uber, receiving a ride from a friend/relative, public transit, etc.).
11. When driving, how do you navigate – paper maps, Smartphone, instructions from staff?
12. Have you had any concerns or issues with traffic and parking? Are there places you've chosen not to go because of parking/traffic concerns?
13. If there was a convenient shuttle that connected their hotels with destinations in Sedona, Oak Creek Canyon and the Village of Oak Creek, would they use it instead of driving for some trips?
    a. Would not having to deal with parking hassles be a factor in deciding to use a shuttle?
    b. What kinds of trips/destinations would they use it for?
14. What characteristics would the shuttle need to have to be attractive to them?
    Frequency? Travel time? Hours? Proximity to hotel? Type of vehicle? Sheltered waiting area, other amenities? Room for gear on vehicle?
15. Would the shuttle need to be free or would you be willing to pay a fare?
16. Where would you want to get information about the shuttle?

Short Interviews - Tlaquepaque

1. Where are you visiting from? AZ Other State Local Resident
2. Are you staying in Sedona or just here for the day?
3. Where else are you visiting while you're here?
4. How are you getting around while you're here?
5. Any problems with traffic or parking?
6. If there were a shuttle
    a. From a park and ride lot along 179/89A
    b. From your hotel

    To places in Sedona and Oak Creek Canyon, do you think you'd use it?

7. What would make a shuttle attractive to you?

    Frequency Hours Destinations

Appendix B

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Trail Intercept Survey Questionnaire	**Date:** **Location:**			**Date:** **Location:**		
1) Where are they from? (specify)	□ AZ	□ State:	□ Int'l:	□ AZ	□ State:	□ Int'l:
2) What activity are they participating in? (observation)	□ Hiking	□ Mtn. Biking	□ Equestrian	□ Hiking	□ Mtn. Biking	□ Equestrian
3) What is the size of their group?	_____ people			_____ people		
4) Type of Visitor?	□ Overnight Visitor	□ Day Visitor	□ Local Resident	□ Overnight Visitor	□ Day Visitor	□ Local Resident
5) If OVERNIGHT, where are they staying?						
Hotel/Motel/Resort	□			□		
Airbnb/Rental Vacation Home	□			□		
Timeshare	□			□		
Private Home as a guest	□			□		
B&B	□			□		
Campground/RV Park	□			□		
Free Camping not in a campground	□			□		
6) If OVERNIGHT, what other activities are they participating in while in Sedona?						
Sightseeing	□			□		
Dining	□			□		
Shopping	□			□		
Other (specify)	□			□		
7) If OVERNIGHT, is Sedona their primary trip destination?	□ Yes	□ No - what is?		□ Yes	□ No - what is?	
8) How did they arrive in Sedona?	□ Personal Vehicle	□ Rental Vehicle	□ Other:	□ Personal Vehicle	□ Rental Vehicle	□ Other:
9) Where did they park – was it a problem? Ask for an explanation of the problem or ask about a specific problem i.e. "did you have difficulty finding a place to park" or "how long did you spend looking for a place to park"	□			□		
10) If OVERNIGHT, if there was a shuttle that connected Sedona/VOC hotels with this location, would they have left their car and ridden the shuttle to this location?	□			□		
11) Would they use a shuttle for other destinations? (i.e. restaurants, bars, shopping)	□			□		
12) IF DAY VISITOR, if there was a shuttle that connected a park and ride along 179/89A with this location, would they have left their car and ridden the shuttle to this location? Would not having to deal with parking hassles be a factor in deciding to use a shuttle?	□			□		
13) IF RESIDENT, if there was a shuttle that connected Sedona neighborhoods with this location, would they have left their car and ridden the shuttle to this location?	□			□		
14) Are they doing other hikes or bike rides while here? If so, where?						
15) What characteristics would the shuttle need to have to be attractive to them?						
Frequency - how often should a bus come?	□			□		
Cost - what might they be willing to pay?	□			□		
Bike racks/room for gear on the bus	□			□		
Hours	□			□		
Sheltered waiting area/ other bus stop amenities (specify)	□			□		
Is there a need for weekday service?	□			□		
Other (specify)	□			□		