

Sedona Transit Implementation Plan Preliminary Recommendations



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Sedona Transit Implementation Plan Preliminary Recommendations

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March 29, 2019

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Introduction

This report presents the preliminary recommendations developed by LSC for implementing public transportation service in the Sedona area. These recommendations are the result of an extensive effort which began in July 2018 with expected completion of the plan in June 2019.

The work began with a review of previous documents and transportation plans for the Sedona area and Oak Creek Canyon, community outreach and engagement, analysis of demand, and evaluation of service options. The results are presented in this report.

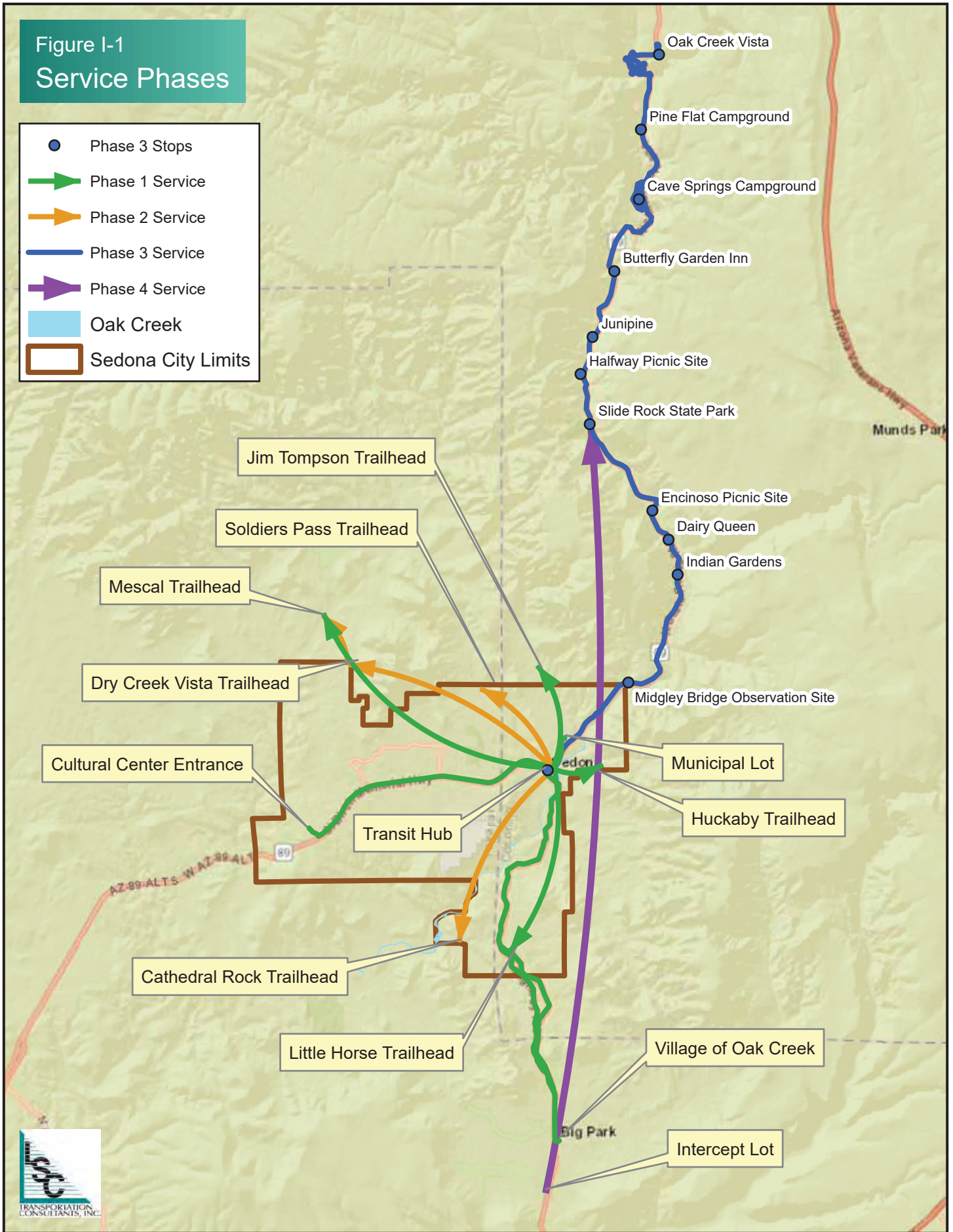


Chapter II presents the results of the online community input and the Service Options Workshops held in January. The community input for priorities was used to refine the numerous service options and develop preliminary recommendations for a transit system plan.

Chapter III presents the preliminary service recommendations. These are being presented to the community for additional input and feedback. The preliminary recommendations will be adjusted as needed based on community input to develop the transit service implementation plan for the Sedona area. The recommendations provide for service to be implemented in four phases. The overall system plan is shown in Figure I-1 and summarized in Table I-1. More detailed information for each phase and route is provided in Chapter III. The initial phase will provide the core community service in the Sedona area with shuttles to trailheads in the vicinity of Sedona. In Phase 2, additional trailheads in the Sedona area will be added. Service to Oak Creek Canyon is included in Phase 3. This service will require extensive cooperation and approvals with the Arizona Department of Transportation (ADOT) and the U.S. Forest Service (USFS) to close roadside pullouts, construct intercept parking lots, and improve bus stop locations. Service to Slide Rock State Park is included in Phase 4 and will require cooperative efforts by the state park to implement express service to the park.

Figure I-1
Service Phases

- Phase 3 Stops
- ➔ Phase 1 Service
- ➔ Phase 2 Service
- Phase 3 Service
- ➔ Phase 4 Service
- Oak Creek
- ▭ Sedona City Limits



**Table I-1
Summary of Preliminary Recommendations**

Service Description	# of Vehicles	Annual Ridership	Annual Operating
PHASE 1			
CORE ROUTES			
Fixed-route service from West Sedona to the Transit Hub			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 45 minutes. Total of 54 trips per day.	3	516,000	\$727,000
<i>Off-Peak Season (November - February):</i> Daily service with frequency every 30 minutes. Roundtrip run time of 30 minutes. Total of 34 trips per day.	1	84,000	\$156,000
TOTAL:	3	600,000	\$883,000
Fixed-route service between VOC (in-town) and the Transit Hub			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 60 minutes. Total of 54 trips per day.	4	218,000	\$980,000
<i>Off-Peak Season (November - February):</i> Daily service with frequency every 30 minutes. Roundtrip run time of 45 minutes. Total of 34 trips per day.	2	73,000	\$309,000
TOTAL:	4	291,000	\$1,289,000
Fixed-route service between Uptown Sedona and the Transit Hub			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 45 minutes. Total of 54 trips per day.	3	462,000	\$700,000
<i>Off-Peak Season (November - February):</i> Daily service with frequency every 30 minutes. Roundtrip run time of 30 minutes. Total of 34 trips per day.	1	102,000	\$147,000
TOTAL:	3	564,000	\$847,000
DEMAND RESPONSE			
ADA Demand Response Service in Sedona and VOC			
Daily service between 6am-11pm.	2	15,000	\$512,000
TRAILHEAD SERVICES			
Shuttle from Transit Hub to Jim Thompson/Jordan Rd. Trailhead			
<i>Peak Season (March - October):</i> Daily service with 14 trips per day. Roundtrip run time of 30 min.	1	67,000	\$204,000
<i>Off-Peak Season (November - February):</i> Weekend service with 14 trips per day. Roundtrip run time of 30 min.	1	9,000	\$28,000
TOTAL:	1	76,000	\$232,000
Shuttle from Transit Hub to Little Horse Trailhead			
<i>Peak Season (March - October):</i> Daily service with six trips per day. Roundtrip run time of 45 min.	1	35,000	\$161,000
<i>Off-Peak Season (November - February):</i> Weekend service with six trips per day. Roundtrip run time of 45 min.	1	5,000	\$23,000
TOTAL:	1	40,000	\$184,000
Shuttle from Transit Hub to Huckaby Trailhead			
<i>Peak Season (March - October):</i> Daily service with 22 trips per day. Roundtrip run time of 30 min.	1	64,000	\$193,000
<i>Off-Peak Season (November - February):</i> Weekend service with 22 trips per day. Roundtrip run time of 30 min.	1	9,000	\$27,000
TOTAL:	1	73,000	\$220,000
Shuttle from Transit Hub to Mescal Trailhead			
<i>Peak Season (March - October):</i> Daily service with 22 trips per day. Roundtrip run time of 30 min.	1	64,000	\$208,000
<i>Off-Peak Season (November - February):</i> Weekend service with 22 trips per day. Roundtrip run time of 30 min.	1	9,000	\$29,000
TOTAL:	1	73,000	\$237,000
PHASE 1 TOTAL:	16	1,732,000	\$4,404,000

Table I-1 Summary of Preliminary Recommendations (continued)			
Service Description	# of Vehicles	Annual Ridership	Annual Operating
PHASE 2			
TRAILHEAD SERVICES			
Shuttle from Transit Hub to Cathedral Rock Trailhead			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	97,000	\$210,000
<i>Off-Peak Season (November - February):</i> Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	7,000	\$29,000
TOTAL:	1	104,000	\$239,000
Shuttle from Transit Hub to Soldiers Pass Trailhead			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	97,000	\$207,000
<i>Off-Peak Season (November - February):</i> Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	7,000	\$29,000
TOTAL:	1	104,000	\$236,000
Shuttle from Transit Hub to Dry Creek Vista and Mescal Trailheads			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 45 min. Total of 23 trips per day.	2	146,000	\$219,000
<i>Off-Peak Season (November - February):</i> Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 45 min. Total of 23 trips per day.	2	10,000	\$31,000
TOTAL:	2	156,000	\$250,000
PHASE 2 TOTAL:	4	364,000	\$725,000
PHASE 3			
OCC SERVICE			
Shuttle from an intercept parking lot on 179 (potentially at the ranger station) to OCC trailheads (Cave Springs Campground, Banjo Bill, Slide Rock) as far as Oak Creek Vista			
<i>Peak Season (March - October):</i> Daily service with frequency every 30 minutes. The first shuttle departs at 7am and the last shuttle departs at 6pm. Roundtrip run time of 150 min. (2.5 hr.). Total of 23 trips per day.	5	170,000	\$1,070,000
<i>Off-Peak Season (November - February):</i> Weekend service only with frequency every 30 minutes. The first shuttle departs at 7am and the last shuttle departs at 6pm. Roundtrip run time of 120 min. (2 hr.). Total of 23 trips per day.	5	17,000	\$122,000
PHASE 3 TOTAL:	5	187,000	\$1,192,000
PHASE 4			
Slide Rock Express Shuttles			
Slide Rock Express Shuttle: VOC - Slide Rock State Park (with a reservation system)			
<i>Peak Season (Memorial Day - Labor Day):</i> Daily service with 53 trips per day. Roundtrip run time of 90 minutes.	10	368,000	\$640,000
PHASE 4 TOTAL:	10	368,000	\$640,000
<i>Source: LSC, 2019.</i>			

Estimated capital costs for vehicles and facilities are shown in Table I-2. Other costs that have not been estimated include costs of land acquisition, additional detailed analysis to meet requirements for approvals, and infrastructure improvements. Both capital and operating costs will be revised as needed based on the final services to be included in the implementation plan.

Table I-2		
Estimated Capital Costs		
Description	Quantity	Estimated Cost
Phase 1		
Heavy duty buses for core routes	12	\$9,540,000
Vehicles for paratransit	3	\$270,000
Vehicles for trailhead routes	5	\$450,000
Operations and maintenance facility		\$15,000,000
Transit hub		\$1,500,000
PHASE 1 TOTAL		\$26,760,000
Phase 2		
Vehicles for trailhead routes	3	\$270,000
PHASE 2 TOTAL		\$270,000
Phase 3		
Vehicles for OCC Route	6	\$2,500,000
VOC intercept parking lot		\$3,750,000
Oak Creek Vista parking lot		\$750,000
PHASE 3 TOTAL		\$7,000,000
Phase 4		
Vehicles for Slide Rock Route	12	\$9,000,000
VOC intercept parking lot		\$4,500,000
PHASE 4 TOTAL		\$13,500,000



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Community Input

Service options were developed and evaluated for the Sedona area and for Oak Creek Canyon. These were presented in Interim Report #2 which was submitted December 10, 2018. An email notice was sent to the community members who had expressed an interest in the planning effort and they were provided with an opportunity to submit comments through an online comment form.

A Service Options Workshop was held on January 10, 2019 with Traffic Matters in the morning and key stakeholders in the afternoon. The service options were presented with performance characteristics of each. Participants discussed the options and asked questions to clarify information about the options.

Following the presentation of the options, an exercise was completed in which participants were divided into groups to allocate funding among the various options. Each group had to determine their priorities for service and select the options that should be funded with limited resources. The results of the exercise are shown on the following page with the results from the online responses. The number of online responses was small and should not be considered to be representative although they do correspond well with the priorities from the workshop. The service in Oak Creek Canyon which had the highest priority is the shuttle service through the canyon from VOC to Oak Creek Vista combined with strict parking controls and enforcement. The highest priority for service in the Sedona area was the connection between West Sedona, Uptown, and VOC. This input was used to refine the service options and develop a system plan presented in Chapter III.

OCC Service Option	Online Input Rating	Workshop Groups Funded
1 - 179 Parking to Slide Rock; reservations	7.12	2
2 - 179 Parking to Slide Rock; no reservations	4.00	
3 - 179 Parking to Cave Springs Campground; parking controls	6.92	
4 - 179 Parking to Cave Springs Campground; no parking controls	3.38	
5 - 179 Parking to Oak Creek Vista; parking controls	7.35	7
6 - Uptown Parking to Slide Rock; reservations	5.77	1
7 - Uptown Parking to Oak Creek Vista; parking controls	5.92	1
8 - Cultural Center Parking to Slide Rock; reservations	6.62	
9 - Oak Creek Vista Parking to Slide Rock	6.12	

Sedona Service Option	Online Input Rating	Workshop Groups Funded
1 - Shuttle from Transit Hub to Cathedral Rock Trailhead	5.96	2
2 - Shuttle from Transit Hub to Dry Creek & Mescal Trailheads	6.04	3
3 - Shuttle from Transit Hub to Soldiers Pass TH	6.04	1
4 - Fixed-Route Service from West Sedona to Uptown Parking	6.33	6
5 - Fixed-Route Service from VOC to Uptown Parking	7.29	5
6 - Connector from Transit Hub to Uptown Parking	6.14	4
7 - Entirely Demand-Response Service	4.05	
8 - Demand-Response Service Supplementing Core Fixed-Route Service	5.26	1



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Preliminary Service Recommendations

INTRODUCTION

This chapter describes the preliminary recommendations for implementation of transit service in the Sedona area. The recommendations are based on analysis of transit needs and potential demand, evaluation of multiple service options, and community input. The community input regarding the service options is described in Chapter II.

Characteristics of the service plan are summarized in Table III-1. The cost estimates for the service are based on current operating costs of Cottonwood Transit with an increase in wage rates of 20 percent. These costs include all direct operating costs (e.g., wages and fuel), maintenance costs, and administrative costs.

Table III-1 Preliminary Recommended Service Plan										
Service Description	# of Vehicles Required	Total Daily		Total Annual		Annual Operating Days	Annual Ridership	Annual Operating Cost	Passengers per Hour	Cost per Passenger
		Revenue - Miles	Revenue - Hours	Revenue - Miles	Revenue - Hours					
PHASE 1										
CORE ROUTES										
Fixed-route service from West Sedona to the Transit Hub										
Peak Season (March - October): Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 45 minutes. Total of 54 trips per day.	3	464	41	113,004	9,855	243	516,000	\$727,000	52.4	\$1.41
Off-Peak Season (November - February): Daily service with frequency every 30 minutes. Roundtrip run time of 30 minutes. Total of 34 trips per day.	1	292	17	35,575	2,068	122	84,000	\$156,000	40.6	\$1.86
TOTAL:	3	757	58	148,579	11,923	365	600,000	\$883,000	50.3	\$1.47
Fixed-route service between VOC (in-town) and the Transit Hub										
Peak Season (March - October): Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 60 minutes. Total of 54 trips per day.	4	767	54	186,588	13,140	243	218,000	\$980,000	16.6	\$4.50
Off-Peak Season (November - February): Daily service with frequency every 30 minutes. Roundtrip run time of 45 minutes. Total of 34 trips per day.	2	483	34	58,741	4,137	122	73,000	\$309,000	17.6	\$4.23
TOTAL:	4	1,250	88	245,329	17,277	365	291,000	\$1,289,000	16.8	\$4.43
Fixed-route service between Uptown Sedona and the Transit Hub										
Peak Season (March - October): Daily service with frequency every 30 minutes between 6-10am, every 15 minutes between 10am-8pm, every 30 minutes between 8-11pm. Roundtrip run time of 45 minutes. Total of 54 trips per day.	3	76	41	18,396	9,855	243	462,000	\$700,000	46.9	\$1.52
Off-Peak Season (November - February): Daily service with frequency every 30 minutes. Roundtrip run time of 30 minutes. Total of 34 trips per day.	1	48	17	5,791	2,068	122	102,000	\$147,000	49.3	\$1.44
TOTAL:	3	123	58	24,187	11,923	365	564,000	\$847,000	47.3	\$1.50
DEMAND RESPONSE										
ADA Demand Response Service in Sedona and VOC										
Daily service between 6am-11pm.	2	219	22	80,045	8,004	365	15,000	\$512,000	1.9	\$34.13
TRAILHEAD SERVICES										
Shuttle from Transit Hub to Jim Thompson/Jordan Rd. Trailhead										
Peak Season (March - October): Daily service with 14 trips per day. Roundtrip run time of 30 min.	1	92	12	22,387	2,798	243	67,000	\$204,000	23.9	\$3.04
Off-Peak Season (November - February): Weekend service with 14 trips per day. Roundtrip run time of 30 min.	1	92	12	3,128	391	34	9,000	\$28,000	23.0	\$3.11
TOTAL:	1	184	23	25,515	3,189	277	76,000	\$232,000	23.8	\$3.05
Shuttle from Transit Hub to Little Horse Trailhead										
Peak Season (March - October): Daily service with six trips per day. Roundtrip run time of 45 min.	1	96	9	23,360	2,190	243	35,000	\$161,000	16.0	\$4.60
Off-Peak Season (November - February): Weekend service with six trips per day. Roundtrip run time of 45 min.	1	96	9	3,264	306	34	5,000	\$23,000	16.3	\$4.60
TOTAL:	1	192	18	26,624	2,496	277	40,000	\$184,000	16.0	\$4.60
Shuttle from Transit Hub to Huckaby Trailhead										
Peak Season (March - October): Daily service with 22 trips per day. Roundtrip run time of 30 min.	1	66	11	16,060	2,677	243	64,000	\$193,000	23.9	\$3.02
Off-Peak Season (November - February): Weekend service with 22 trips per day. Roundtrip run time of 30 min.	1	66	11	2,244	374	34	9,000	\$27,000	24.1	\$3.00
TOTAL:	1	132	22	18,304	3,051	277	73,000	\$220,000	23.9	\$3.01
Shuttle from Transit Hub to Mescal Trailhead										
Peak Season (March - October): Daily service with 22 trips per day. Roundtrip run time of 30 min.	1	273	11	66,381	2,677	243	64,000	\$208,000	23.9	\$3.25
Off-Peak Season (November - February): Weekend service with 22 trips per day. Roundtrip run time of 30 min.	1	273	11	9,275	374	34	9,000	\$29,000	24.1	\$3.22
TOTAL:	1	546	22	75,657	3,051	277	73,000	\$237,000	23.9	\$3.25
PHASE 1 TOTAL:	16	3,403	310	644,239	60,914	365	1,732,000	\$4,404,000	28.4	\$2.54

Table III-1
Preliminary Recommended Service Plan (continued)

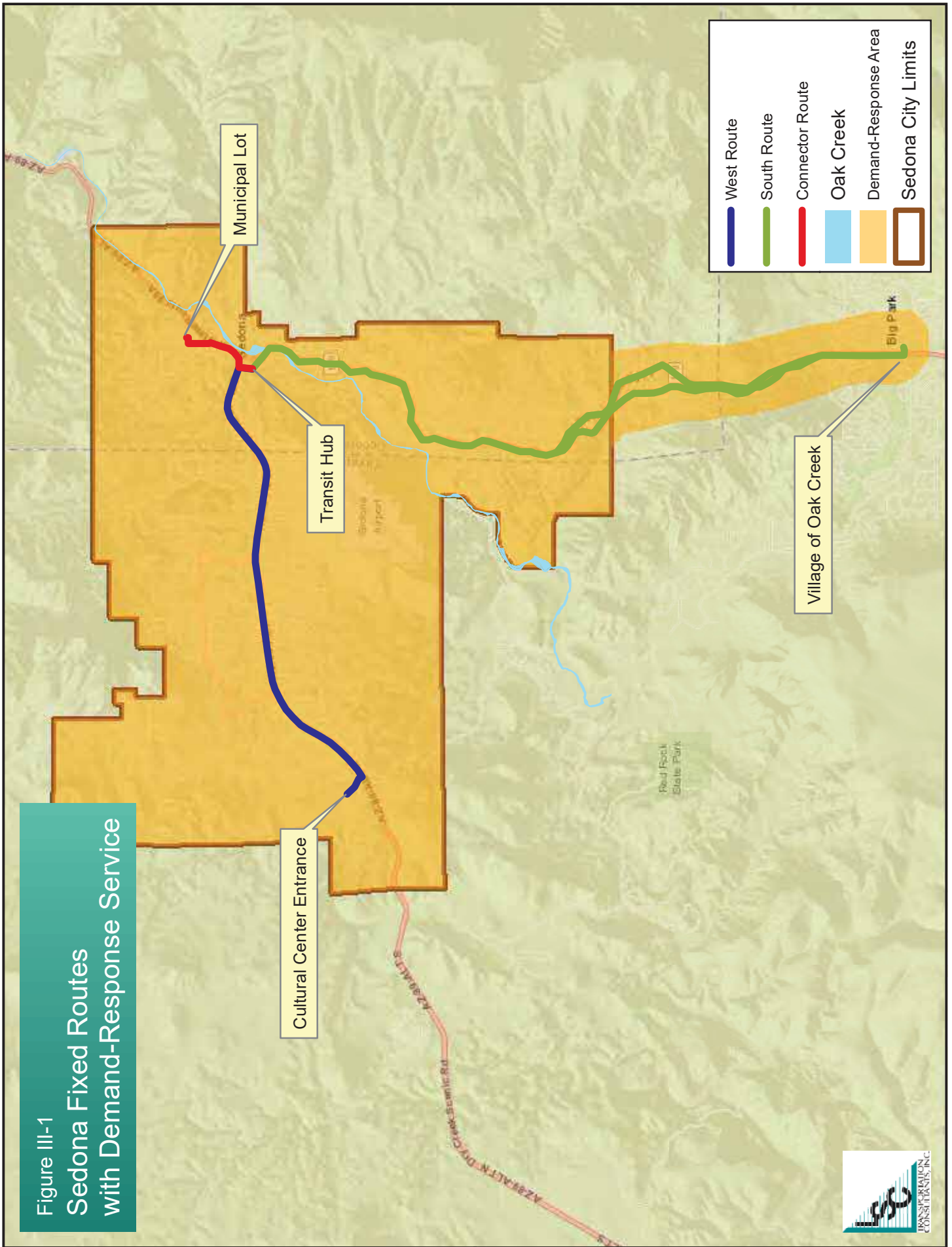
Service Description	# of Vehicles Required	Total Daily		Total Annual		Annual Operating Days	Annual Ridership	Annual Operating Cost	Passengers per Hour	Cost per Passenger
		Revenue - Miles	Revenue - Hours	Revenue - Miles	Revenue - Hours					
PHASE 2										
TRAILHEAD SERVICES										
Shuttle from Transit Hub to Cathedral Rock Trailhead										
Peak Season (March - October): Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	184	12	44,773	2,798	243	97,000	\$210,000	34.7	\$2.16
Off-Peak Season (November - February): Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	184	12	6,256	391	34	7,000	\$29,000	17.9	\$4.14
TOTAL:	1	368	23	51,029	3,189	277	104,000	\$239,000	32.6	\$2.30
Shuttle from Transit Hub to Soldiers Pass Trailhead										
Peak Season (March - October): Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	133	12	32,461	2,798	243	97,000	\$207,000	34.7	\$2.13
Off-Peak Season (November - February): Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 30 min. Total of 23 trips per day.	1	133	12	4,536	391	34	7,000	\$29,000	17.9	\$4.14
TOTAL:	1	267	23	36,996	3,189	277	104,000	\$236,000	32.6	\$2.27
Shuttle from Transit Hub to Dry Creek Vista and Mescal Trailheads										
Peak Season (March - October): Daily service with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 45 min. Total of 23 trips per day.	2	311	12	75,555	2,798	243	146,000	\$219,000	52.2	\$1.50
Off-Peak Season (November - February): Weekend service only with frequency every 30 minutes between 7am-6pm. Roundtrip run time of 45 min. Total of 23 trips per day.	2	311	12	10,557	391	34	10,000	\$31,000	25.6	\$3.10
TOTAL:	2	621	23	86,112	3,189	277	156,000	\$250,000	48.9	\$1.60
PHASE 2 TOTAL:	4	1,256	69	174,138	9,568	365	364,000	\$725,000	38.0	\$1.99
PHASE 3										
OCC SERVICE										
Shuttle from an intercept parking lot on 179 (potentially at the ranger station) to OCC trailheads (Cave Springs Campground, Banjo Bill, Slide Rock) as far as Oak Creek Vista										
Peak Season (March - October): Daily service with frequency every 30 minutes. The first shuttle departs at 7am and the last shuttle departs at 6pm. Roundtrip run time of 150 min. (2.5 hr.). Total of 23 trips per day.	5	1,185	58	288,228	13,992	243	170,000	\$1,070,000	6.9	\$11.03
Off-Peak Season (November - February): Weekend service only with frequency every 30 minutes. The first shuttle departs at 7am and the last shuttle departs at 6pm. Roundtrip run time of 120 min. (2 hr.). Total of 23 trips per day.	5	1,185	46	40,273	1,564	34	17,000	\$122,000	4.5	\$17.43
PHASE 3 TOTAL:	5	2,369	104	328,501	15,556	277	187,000	\$1,192,000	12.0	\$6.37
PHASE 4										
Slide Rock Express Shuttles										
Slide Rock Express Shuttle: VOC - Slide Rock State Park (with a reservation system)										
Peak Season (Memorial Day - Labor Day): Daily service with 53 trips per day. Roundtrip run time of 90 minutes.	10	1,696	80	178,080	8,348	105	368,000	\$640,000	44.1	\$1.74
PHASE 4 TOTAL:	10	1,696	80	178,080	8,348	105	368,000	\$640,000	44.1	\$1.74

Source: LSC, 2019.

PHASE 1 SEDONA COMMUNITY SERVICE

The core component of the recommended service is focused on mobility within Sedona and the Village of Oak Creek (VOC). Three routes are proposed which will link West Sedona, Uptown, and the VOC through a central transit hub as shown in Figure III-1. Each route is described separately, but the three routes are designed to function as a system and in order for the service to be effective, it will require implementation of the all three routes.

**Figure III-1
 Sedona Fixed Routes
 with Demand-Response Service**



West Sedona Route

One route would operate between the Cultural Park in West Sedona and the transit hub. A park-and-ride lot could potentially be provided at the Cultural Park for people driving who may choose to use the bus rather than dealing with parking issues and traffic congestion. This fixed-route transit service along SR 89A would be operated daily, year-round, with frequencies varying by season and time of day. The off-peak season would be from November through February with service every 30 minutes from 6:00 a.m. to 11:00 p.m. During the peak season from March through October, service would be every 30 minutes from 6:00 a.m. to 10:00 a.m., every 15 minutes from 10:00 a.m. to 8:00 p.m., and every 30 minutes from 8:00 p.m. to 11:00 p.m. Estimated demand is based on community population characteristics along the route, lodging occupancy rates, and survey results. The following characteristics describe this route.

- Peak vehicles in operation: 3
- Annual operating days: 365
- Estimated ridership: 600,000
- Annual operating cost: \$883,000
- Passenger-trips per hour: 50.3
- Average cost-per passenger-trip: \$1.47

Scheduling for this route would be coordinated with the Lynx service to either shorten the Lynx route to end at the Cultural Park with a transfer to the Sedona service or using the Lynx to operate some of the runs on the West Sedona route. The Lynx route would end at the proposed transit hub and would not continue on SR 179 or to Uptown.

VOC Route

This route would operate between the VOC and the central transit hub with daily service throughout the year. The terminus in VOC would be the southern roundabout on SR 179. During the off-peak season from November through February, service would be every 30 minutes from 6:00 a.m. to 11:00 p.m. During the peak season from March through October, service would be every 30 minutes from 6:00 a.m. to 10:00 a.m., every 15 minutes from 10:00 a.m. to 8:00 p.m.,

and every 30 minutes from 8:00 p.m. to 11:00 p.m. Estimated demand is based on community population characteristics along the route, lodging occupancy rates, and survey results. This route will provide a desired connection at the transit hub from the Verde Lynx to VOC for commuters. The following characteristics describe this route.

- Peak vehicles in operation: 4
- Annual operating days: 365
- Estimated ridership: 291,000
- Annual operating cost: \$1,289,000
- Passenger-trips per hour: 16.8
- Average cost-per passenger-trip: \$4.43

Uptown Route

The third route in the system is a connector between the transit hub and Uptown. This route will provide the connection for areas served by the other routes to Uptown, as well as circulation within the Uptown area. The route would operate between the transit hub in the vicinity of Brewer Road and Ranger Road and the municipal lot in Uptown. During the off-peak season from November through February, service would be every 30 minutes from 6:00 a.m. to 11:00 p.m. During the peak season from March through October, service would be every 30 minutes from 6:00 a.m. to 10:00 a.m., every 15 minutes from 10:00 a.m. to 8:00 p.m., and every 30 minutes from 8:00 p.m. to 11:00 p.m. Estimated demand is based on community population characteristics along the route, lodging occupancy rates, and survey results. This route would provide the connection between the Verde Lynx and Uptown through the transit hub. The Lynx route would no longer serve Uptown. The following characteristics describe this route.

- Peak vehicles in operation: 3
- Annual operating days: 365
- Estimated ridership: 564,000
- Annual operating cost: \$847,000
- Passenger-trips per hour: 47.3
- Average cost-per passenger-trip: \$1.50

Complementary Paratransit Service

Under the Americans with Disabilities Act (ADA), any entity providing fixed-route public transit service is required to provide a complementary paratransit service. The service must be available during the same hours (6:00 a.m. to 11:00 p.m.) and provide a level of service comparable to the service provided by the fixed-route system. A certification process is required to determine eligibility. Eligibility is determined by the inability to use the fixed-route service and not just by the presence of some type of disability. Typical reasons for eligibility are the inability to walk to the bus stop or inability to get on or off the bus. The following characteristics describe the complementary paratransit service.

- Peak vehicles in operation: 2
- Annual operating days: 365
- Estimated ridership: 15,000
- Annual operating cost: \$512,000
- Passenger-trips per hour: 1.9
- Average cost-per passenger-trip: \$34.13

Vehicles

Two types of vehicles are recommended for the core service. The first is a 30- to 35-foot heavy duty coach for the three core routes. This would have room for approximately 30 passengers with two wheelchair positions and 10 to 12 standing passengers. This size is recommended as a larger vehicle would



have difficulty maneuvering in some of the areas to be served. The buses for the core service could be either diesel or battery electric buses with a fast charging station location at the transit hub. A total of ten buses for peak service with two spare buses would be required for the core routes as shown in Table III-2. Diesel buses have the advantage of a lower initial cost, but have higher annual operating

and maintenance costs. Battery electric buses have the potential to save approximately \$20,000 per year over the life of the bus (typically 12 years).

Table III-2 Heavy Duty Buses for Core Sedona/VOC Routes					
Route	Peak Bus Requirement	All diesel buses (\$415k ea.)		Battery Electric Bus Mix (BEB=\$795k ea)	
		Qty	Cost	Qty	Cost
W Sedona to Hub	3	3	\$1,245,000	3	\$2,385,000
VOC to Hub	4	4	\$1,660,000	4	\$3,180,000
Hub to Uptown	3	3	\$1,245,000	3	\$2,385,000
Subtotal	10		\$0		
Spares (20%)	2	2	\$830,000	2	\$1,590,000
TOTAL Buses/Cost:	12	12	\$4,980,000	12	\$9,540,000



Two smaller vehicles would be required for the complementary paratransit service. These could be either a minivan vehicle or a larger body on van chassis. If the trailhead service is implemented with the core service, the recommendation is to use the larger vehicle so that the spare vehicles could be shared between the

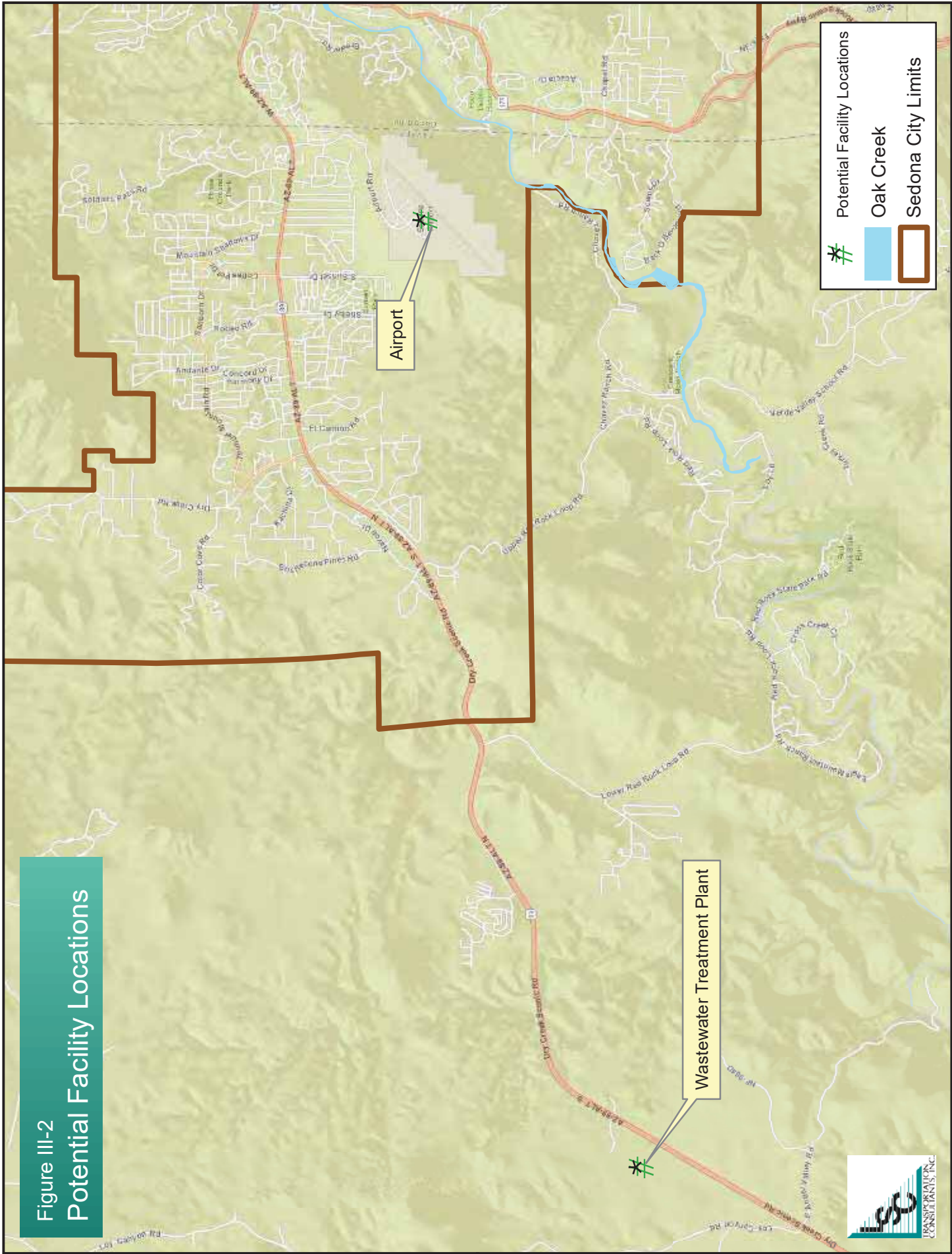
paratransit and trailhead routes. A third vehicle would be required for a spare at a total cost of \$270,000.

Facilities

A maintenance and operations facility will be required to store vehicles and perform vehicle maintenance. This facility should also provide space for administrative functions. The initial requirement is a facility to accommodate 12 large vehicles and seven small vehicles for the core routes, paratransit, and the Phase 1 trailhead service. Expansion for all four phases of the recommended service would require a facility that could accommodate 40 vehicles. An estimated

cost for a facility of this size is expected to be about \$15 million without land acquisition costs. The full facility for all phases will require approximately two acres depending on site configuration and access. Figure III-2 shows possible locations in Sedona that could be considered for the operations and maintenance facility. There is land owned by Yavapai County by the airport and the City has land by the wastewater treatment plant. Implementation will require a site selection study and an environmental analysis.

A transit hub is recommended in the vicinity of the intersection of Ranger Road and Brewer Road. This location creates the opportunity to keep buses on the West Sedona Route and the VOC Route out of the “Y” and the greatest congestion, which will impact schedule reliability. If electric buses are chosen for the core route service, a fast charging station should be included at the hub for vehicle charging during layovers. Three-quarters to one acre would be needed for the transit hub depending on the site configuration and access. The cost for this transit hub is estimated to be \$2.5 million including space for buses, passenger shelters, and a fast charging station; but does not include land acquisition or site improvements.



Infrastructure Improvements

Planned improvements to the “Y” intersection, US 89A, and SR 179 will be needed to support this service. These improvements include a right-turn bypass lane for US 89A to SR 179 and two southbound lanes on SR 89A approaching the “Y.” The Transportation Master Plan included extension of the second lane on SR 179 through the Schnebly Hill roundabout. This improvement is recommended to improve traffic flow and bus access and egress at the transit hub for the VOC route.

An additional recommended improvement is changing the lane configuration on US 89A from Airport Road to the Brewer Road roundabout to allow buses to operate on the shoulder/bike lane. This would require reducing the width of the center paved median and shifting the northbound lanes to provide sufficient width in the bicycle lane. This minor change would allow buses on the West Sedona route to bypass traffic queues approaching the “Y” from West Sedona.

To provide access to the transit hub, two changes for intersection configurations should be considered. These are shown in Figure III-3. These improvements will allow buses on the West Sedona and VOC routes to avoid the “Y” completely and reduce the potential for delay that occurs at the intersection. The first option would be to extend Ranger Road to US 89A and construct a new roundabout with improvements at the intersections of Ranger Road with Brewer and Ranger Road with SR 179. The second option would use Brewer Road for access to the transit hub with intersection improvements at the intersections of Brewer with Ranger and Ranger with SR 179. Intersection improvements would be needed at Ranger Road and SR 179 to allow buses coming from VOC to turn left. This could be a bus-activated signal to stop traffic long enough for the bus to make the left turn onto Ranger Road.

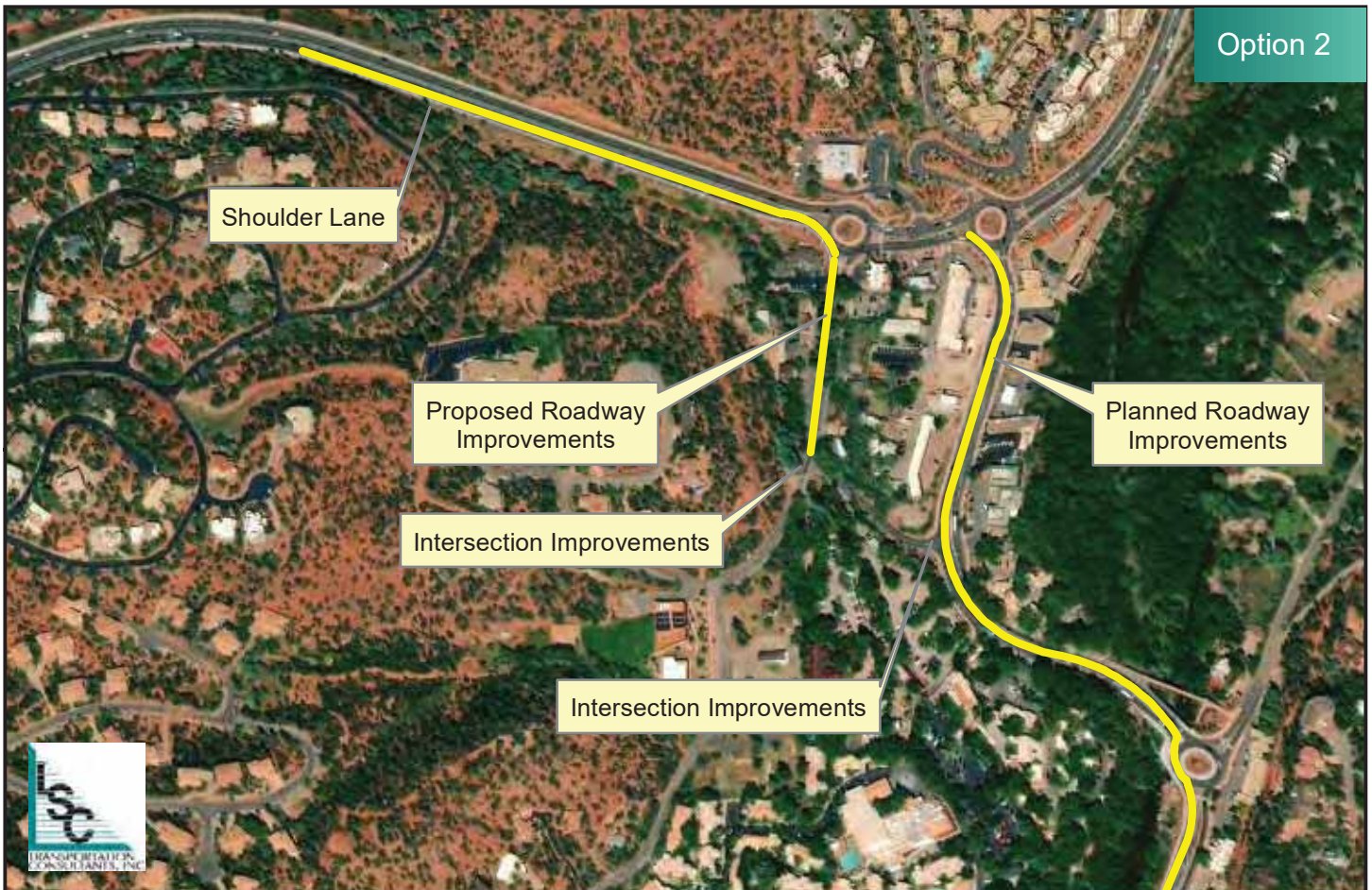
The possible changes to the roadways and particularly the intersection changes will require analysis using the Sedona traffic model to determine the potential impacts on traffic flow and the extent of the benefit from the transit service in conjunction with changes in traffic patterns.

Figure III-3
Intersection Improvements

Option 1



Option 2



Required Approvals

Changes to the roadways may require an update to the Transportation Master Plan for the extension of Ranger Road to US 89A. Other changes to the roadways could be approved by the Arizona Department of Transportation (ADOT) as minor improvements. As part of the analysis, changes in traffic volumes and possible changes in roadways will be evaluated using the City's traffic model.

There are existing bus stops on US 89A and at some locations on SR 179. Final locations will be selected as part of the implementation. Use of existing Lynx stops and new stops will have to be approved by ADOT as the stops are in the state highway right-of-way.

Changes to parking policies in Uptown should be considered. Currently only parking along US 89A is paid parking and other on-street and off-street parking has no fee. The 2012 Uptown parking study showed that much of the off-street parking was under-utilized. The City is beginning to complete an updated study of Uptown parking. This provides an opportunity to reconsider parking policies. Rather than building additional off-street parking in Uptown, the City should consider building intercept parking along the bus routes to reduce the amount of traffic to Uptown. A coordinated parking and transit strategy will function to reduce parking demand by providing an attractive alternative. With service to Uptown every 15 minutes during peak times, visitors will have an option to leave their cars parked at their place of lodging. Increasing the areas that have paid parking and capping the amount of available parking will serve as an incentive for visitors to use the transit service. These should be policy considerations as the new parking study is completed.

Fares

The core routes and complementary paratransit service are recommended to be operated with a zero fare. A zero-fare policy serves as an incentive to attract as many people as possible from driving their own vehicles for circulation within the Sedona area. Implementing a fare would slow down the bus boarding process and decrease the number of passengers by as much as 50 percent.

Benefits

The core service will reduce parking demand in Uptown and the amount of traffic, particularly through the “Y.” Parking demand in Uptown could be reduced by as much as 250 cars and traffic through the “Y” could be reduced by up to 500 cars a day during peak periods. Estimated changes in traffic flow will be analyzed using the City’s traffic demand model.

A local transit system will enhance the visitor experience. Input from visitor surveys and interviews indicates a strong likelihood of using a local transit service in the Sedona area. While parking is often available in Uptown, the feedback from visitors has been that finding parking is difficult and traffic congestion is a major issue. The transit service will help people get to destinations throughout the community without dealing directly with the traffic or worrying about where to park. Many visitors to the Sedona area are familiar with other tourist destinations such as Mammoth Lakes, Park City, Durango, and Steamboat Springs that have local transit service and have wondered why Sedona does not have something similar.

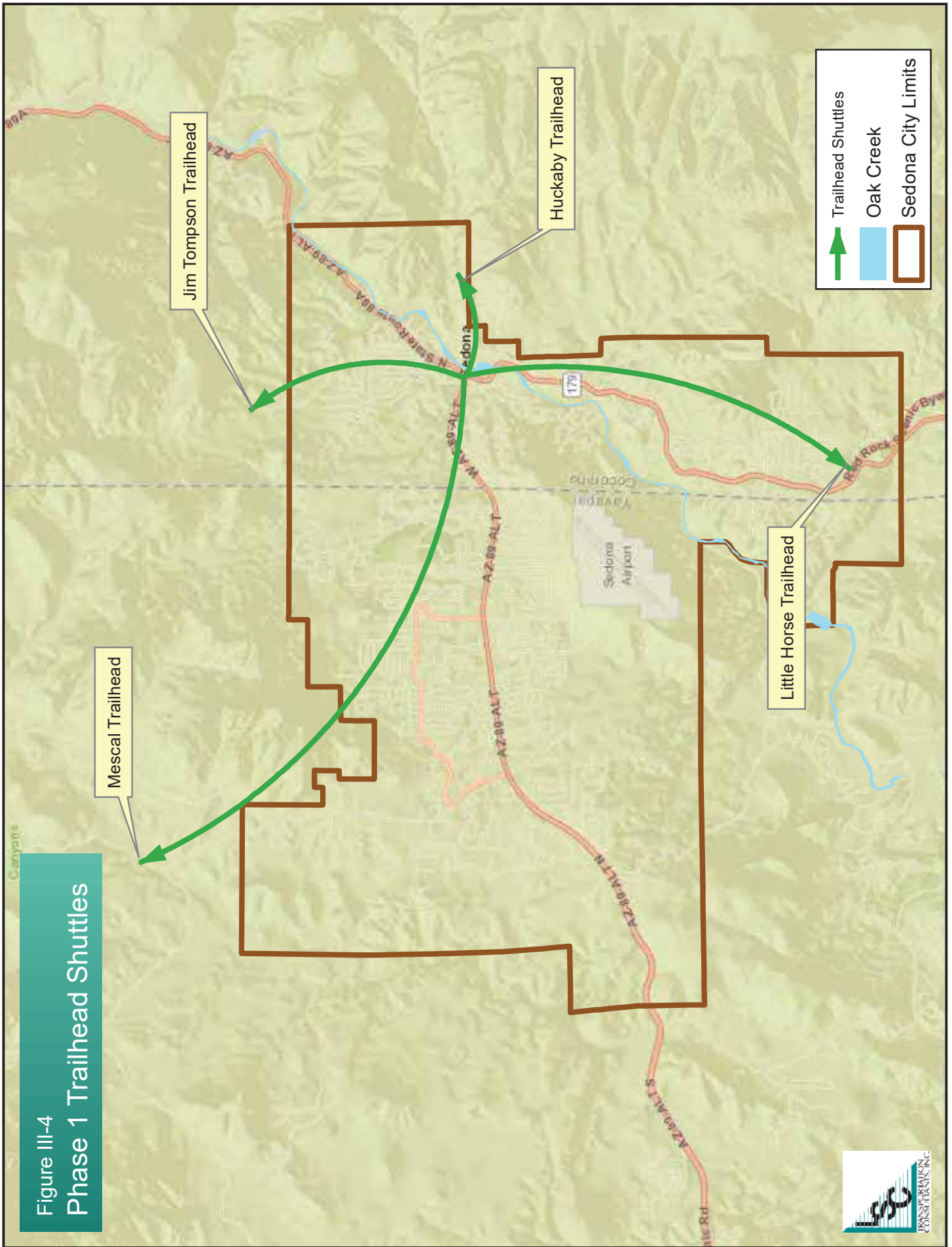
Another benefit for visitors would be the ability to visit Sedona without a car. The vast majority of visitors arrive by private automobile although shuttle service is available from Phoenix. With local transit service, the shuttle service from Phoenix could be promoted with the information that you can visit Sedona without a car. This could help reduce the number of people coming to Sedona with cars, helping to alleviate the traffic congestion and parking demand.

PHASE 1 SEDONA TRAILHEAD SERVICE

The United States Forest Service (USFS) has estimated capacity at several trailheads in the Sedona area for use by private shuttles. Permits have been issued to serve some of these trailheads, but use at many locations is below the carrying capacity. There may be an opportunity to initiate a pilot shuttle service to some of the key trailheads in the area. Three trailheads that may have capacity to accommodate hikers using the shuttle are the Jim Thompson/Jordan Road trailhead, Little Horse trailhead, and Huckaby trailhead as shown in Figure III-4. These trailheads would be served daily during the peak season from roughly 7:00

a.m. to 6:00 p.m. with the number of trips determined by the USFS permit as shown in Table III-1. Characteristics of each route are shown in the following sections.

Figure III-4
Phase 1 Trailhead Shuttles



Jim Thompson Trailhead

Service to the Jim Thompson/Jordan Road trailhead will be 14 trips per day with additional trips if needed to pick up returning hikers. The final number of trips will be determined based on permitting from USFS at the time of implementation. The following characteristics describe this route.

- Peak vehicles in operation: 1
- Annual operating days: 277
- Estimated ridership: 76,000
- Annual operating cost: \$232,000
- Passenger-trips per hour: 23.8
- Average cost-per passenger-trip: \$3.05

Little Horse Trailhead

Service to the Little Horse trailhead will be six trips per day with additional trips if needed to pick up returning hikers. The final number of trips will be determined based on permitting from USFS at the time of implementation. The following characteristics describe this route.

- Peak vehicles in operation: 1
- Annual operating days: 277
- Estimated ridership: 40,000
- Annual operating cost: \$184,000
- Passenger-trips per hour: 16.0
- Average cost-per passenger-trip: \$4.60

Huckaby Trailhead

Service to the Huckaby trailhead will be 22 trips per day with additional trips if needed to pick up returning hikers. The final number of trips will be determined based on permitting from USFS at the time of implementation. The following characteristics describe this route.

- Peak vehicles in operation: 1
- Annual operating days: 277

- Estimated ridership: 73,000
- Annual operating cost: \$220,000
- Passenger-trips per hour: 23.9
- Average cost-per passenger-trip: \$3.01

Mescal Trailhead

Mescal trailhead is located north of West Sedona and access via Dry Creek Road. This trailhead offers an alternate route to Devil's Bridge, one of the most popular hiking destinations in the Sedona area. Service would be 22 trips per day with the final number of trips to be determined based on permitting from USFS at the time of implementation. The following characteristics describe this route.

- Peak vehicles in operation: 1
- Annual operating days: 277
- Estimated ridership: 73,000
- Annual operating cost: \$237,000
- Passenger-trips per hour: 23.9
- Average cost-per passenger-trip: \$3.25

Vehicles

This service will require four vehicles in peak service plus one spare vehicle. The vehicle recommended for this service is the same as for the complementary paratransit service. Purchase of five vehicles is estimated to be \$450,000.

Required Approvals

Service to each of these trailheads will require approval by the USFS. This could be a streamlined process as the USFS has made a determination of capacity and has permitted private shuttles to serve these locations. If the permits are not being used by shuttle operators, they could be transferred for use by the Sedona transit system. Additional review may be required as determined by USFS.

Fares

The proposed fare for the local trailhead service is \$3.00 for a day pass for adults aged 16 and older. Children under age 16 would ride for free.

Benefits

Access to local trailheads will improve the options for visitor mobility and access to recreational opportunities. It also may disperse hikers among lesser used trailheads and reduce impacts at some of the more popular hiking areas. There is the potential to reduce the number of cars traveling to these trailheads by 100 to 200 vehicles per day. The most likely users of these trailhead shuttles will be overnight visitors and local residents.

PHASE 2 SEDONA TRAILHEAD SERVICE

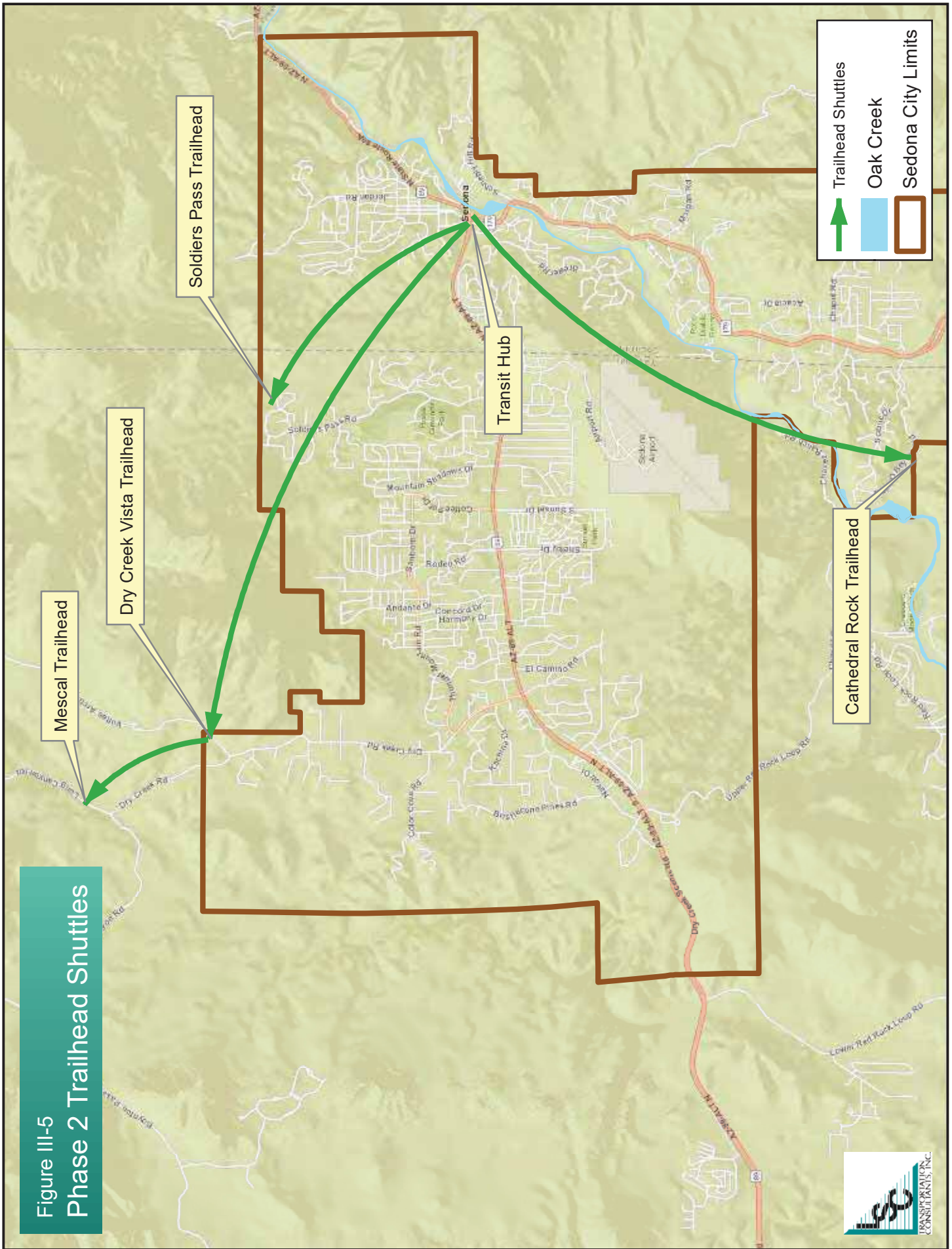
Service to some of the more active trailheads in the Sedona area is recommended as part of the initial implementation. Three trailheads have been selected based on input from the community, input from the USFS, and observations of activity at multiple trailheads. The service concept is illustrated in Figure III-5.

Cathedral Rock Trailhead

This route would consist of a shuttle operating between the transit hub and Cathedral Rock trailhead. Transit service to the Cathedral Rock trailhead, located at the south end of Sedona, would be operated daily from March through October, with a 30-minute frequency and weekend service from November through February. Service would be provided from 7:00 a.m. to 6:00 p.m. 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 route.

- Peak vehicles in operation: 1
- Annual operating days: 277
- Estimated ridership: 104,000
- Annual operating cost: \$239,000
- Passenger-trips per hour: 32.6
- Average cost-per passenger-trip: \$2.30

**Figure III-5
Phase 2 Trailhead Shuttles**



Soldiers Pass Trailhead

Transit service to Soldiers Pass trailhead, located on the north end of Sedona, would be operated daily from March through October, with a 30-minute frequency and weekend service from November through February. Service would be provided from 7:00 a.m. to 6:00 p.m. 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 Soldiers Pass trailhead offers an opportunity for a pilot test of restricted parking in combination with transit service. The parking lot at the trailhead has room for only 14 cars and is typically congested with people waiting or looking for a place to park. Parking at the trailhead could be prohibited during the peak season and on weekends with access only by transit. This could help reduce traffic congestion in the neighborhood and would control the number of people using the trail based on the capacity of the transit service. If access is desired for more people, the capacity could be increased by adding a second bus during peak times. The following characteristics describe this route.

- Peak vehicles in operation: 1
- Annual operating days: 277
- Estimated ridership: 104,000
- Annual operating cost: \$236,000
- Passenger-trips per hour: 32.6
- Average cost-per passenger-trip: \$2.27

Dry Creek Vista and Mescal Trailheads

Transit service to Dry Creek Vista trailhead would be added to the route serving Mescal trailhead, both located on the north end of Sedona, and would be operated daily from March through October, with a 30-minute frequency and weekend service from November through February. Service would be provided from 7:00 a.m. to 6:00 p.m. Dry Creek Vista is one of Sedona's most popular trailheads and Mescal trailhead provides an alternate route to Devil's Bridge. The combined demand for this service is expected to be about 600 people per day. The following characteristics describe this route.

- Peak vehicles in operation: 2

- Annual operating days: 277
- Estimated ridership: 156,000
- Annual operating cost: \$392,000
- Passenger-trips per hour: 24.9
- Average cost-per passenger-trip: \$2.68

SR 179 Trailheads

As part of Phase 2, stops at Bell Rock and Courthouse Vista are recommended as part of the VOC route. These stops would be added to the route implemented in Phase 1 between VOC and the transit hub. Analysis of the capacity at these trailheads and approval by the USFS will be required to add these stops. There is no additional cost for including these stops as part of the VOC route.

Vehicles

This service will require the purchase of three additional vehicles for peak service. No additional spare vehicles will be required as the recommended vehicle is the same as for the Phase 1 service. Estimated cost for these vehicles is \$270,000.

Required Approvals

Service to each of these trailheads will require USFS approval. Analysis will be required to determine the carrying capacity of each trailhead and the current usage level. The level of service that could be provided to each trail must be established and approved by the USFS through the National Environmental Policy Act (NEPA) process, which could cost \$300,000 and take three to five years to complete.

Fares

The proposed fare for the local trailhead service is \$3.00 for a day pass for adults aged 16 and older. Children under age 16 would ride for free.

Benefits

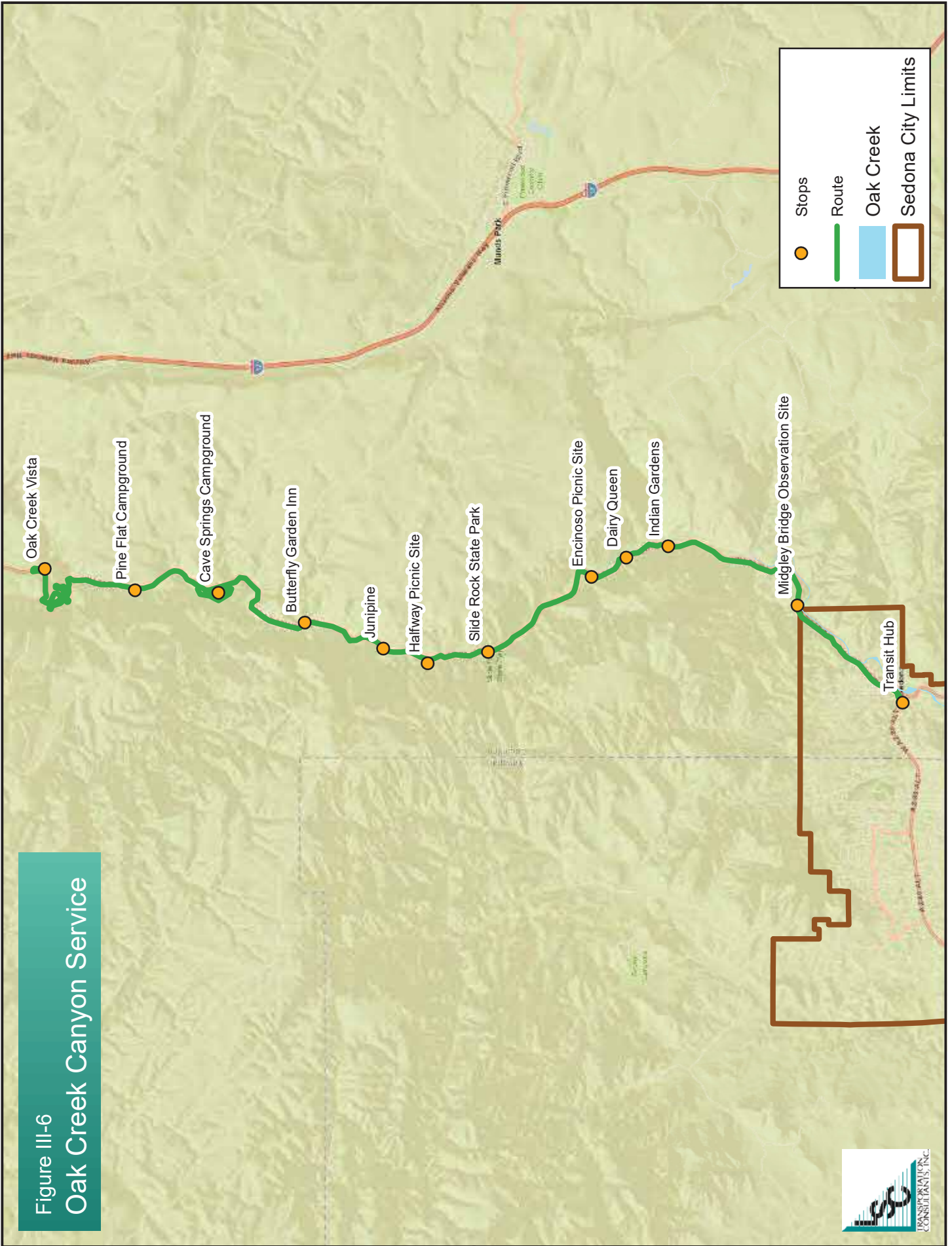
Access to local trailheads will improve the options for visitor mobility and access to recreational opportunities. It may also disperse hikers among lesser used trailheads and reduce impacts at some of the more popular hiking areas. There

is the potential to reduce the number of cars traveling to these trailheads by up to 400 on a peak day. The most likely users of these trailhead shuttles will be overnight visitors and local residents. There is also the opportunity to reduce the amount of parking spaces provided at these trailheads as discussed under the Soldiers Pass shuttle. The connection to Mescal trailhead could be used to disperse hikers traveling to Devil's Bridge, particularly if the service bypassed the Dry Creek Vista trailhead and went directly to Mescal with a return pickup at Dry Creek Vista.

PHASE 3 OAK CREEK CANYON SERVICE

For this service, an intercept parking lot would be established in the vicinity of the VOC 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 III-6.

Figure III-6
Oak Creek Canyon Service



Service would be provided to trailheads, day use areas, and campgrounds from the VOC through Oak Creek Canyon (OCC) 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 daily from March 1 through October 31 and on weekends during the off-peak season from November through February.

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. The recommendations for *SR 89A Oak Creek Canyon Pullout Closures* evaluated 60 locations for closure of roadside pullouts and parking. Recommendations were made to close 27 of the locations. Because these are used as informal parking areas, it is not possible to have a precise number of parking spaces that would be eliminated, but a reasonable estimate is 180 to 200 spaces. With an assumed utilization rate of only two vehicles per space per day, this could be as many as 400 cars a day that currently park in OCC and would no longer have parking. The OCC route would provide an alternative. Without an option, many of these visitors would continue to drive to OCC and search for parking, likely increasing congestion as they search for a parking space.

Using AirSage data for day visitor volumes from areas south of Sedona, the average day visitor use of this service is estimated to be about 300 people with additional use by overnight visitors.

Traveler information will also be an important part of this option as visitors must know that parking is not available in OCC, but the shuttle service is operating as an alternative. Information signs will be needed on I-17, SR 179, and US 89A approaching Sedona and from Flagstaff before the SR 89A exit and approaching Oak Creek Vista.

Potential stops with notes are provided in Table III-3.

Table III-3 OCC Bus Stop Locations		
Stop Locations in Northbound Order	Northbound	Southbound
Midgley Bridge	Possible but needs pullout, retaining wall, crosswalk	Space available to pull out in parking lot
Indian Gardens	Space available but need to define bus pullout area, need crosswalk	Space available to pull out in parking lot
Dairy Queen/Oak Creek Terrace	Space available but need to define bus pullout area, need crosswalk	Space available to pull out in parking lot
Encinoso	Pullout exists, would need a crosswalk	Possible to pull into entrance to day use site
Slide Rock	Space available across from entrance but needs guardrail moved to give space to create and define bus pullout area, would need crosswalk	Space available to pull out in entrance lane, need to define exactly where
Halfway Picnic Site		
Junipine	Space available to pull out, need crosswalk	Space available to pull out in parking lot
Butterfly Gardens	Space available but need to define bus pullout area, need crosswalk	Space available to pull out in parking lot
Cave Springs	Yes, but would have to make a left turn and pull into CG or create a new pullout, which requires removing trees and re-grading.	Space available to pull off into entrance road
Pine Flats	Yes, could pull off at entrance road or pull into CG	Yes, could pull off at entrance road or pull into CG

The following characteristics describe this route.

- Peak vehicles in operation: 5
- Annual operating days: 277
- Estimated ridership: 187,000
- Annual operating cost: \$1,192,000
- Passenger-trips per hour: 12.0
- Average cost-per passenger-trip: \$6.37

Vehicles

The recommended vehicle is a 30- to 35-foot heavy duty coach for the OCC route. This would have room for approximately 30 passengers with two wheelchair positions and 10 to 12 standing passengers. This size is recommended as a larger

vehicle would have difficulty maneuvering in some of the areas to be served. The buses for this route should be diesel because of the route length and configuration, which is not well-suited for service using electric buses. A total of five buses for peak service with one spare bus would be required for the OCC route at a cost of approximately \$2.5 million.

Facilities

This service will require two intercept parking lots. The primary lot should be located along SR 179 near the south end of VOC or possibly near the Red Rock Ranger Station. This lot will need to accommodate up to 250 vehicles with space for larger recreation vehicles in addition to automobiles with an estimated cost of \$3.8 million exclusive of land acquisition. The second lot should be located in the vicinity of Oak Creek Vista at the north end of the canyon with an estimated cost of \$750,000 exclusive of land acquisition. It could be located closer to the I-17 interchange where it may be easier to find land and construct the parking lot. This lot would need to have a capacity of about 50 vehicles including space for larger recreation vehicles.

Improvements for bus stops will also be required. An initial list of stop locations with needed improvements is shown in Table III-3. These stops are at locations with high visitor activity and the opportunity to create a bus pullout for a stop. Costs for bus stop improvements have not been determined.

Required Approvals

Construction of the new intercept parking lots will require review and approval through the National Environmental Policy Act (NEPA) process if they are located on federal lands or if they involve the use of federal funding. Service to stops in OCC will require approval of both the USFS and ADOT. Service to National Forest recreation sites will require approval through the NEPA process, which could range from a limited environmental analysis to a more extensive review with determination of recreation visitor carrying capacity at each trailhead or stop location. This process could cost \$300,000 and take three to five years to complete. ADOT may have to approve bus stops along US 89A. ADOT controls the right-of-way and typically must approve bus stops as an encroachment in the

state right-of-way. Approval of the stops will likely be a cooperative effort of ADOT and the USFS. Approval and construction of the parking lots could require up to five years. Approval for bus stops may require two to three years depending on the level of review.

This service is closely linked to the closure of roadside pullouts along US 89A in OCC. ADOT and USFS have jointly identified 27 locations to be closed, which will reduce the amount of roadside parking in the canyon. Reduction in parking will serve as an incentive to use the transit service and the transit service provides an option for people wanting to reach recreation areas in OCC. Enforcement of parking restrictions will be needed to ensure that illegal parking does not occur and that new, informal pullouts are not created. Relocation of parking from the roadside in OCC to intercept lots with transit service will not increase the number of visitors in the canyon, but will reduce the number of cars along US 89A.

Fares

The recommended fare for this service would be \$5.00 for an adult day pass with children under the age of 16 riding free. This is comparable to what is currently paid for a Red Rocks day pass per vehicle. The fares would not cover the full cost of the service which means additional funding will be required to operate this service.

Benefits

Two major benefits will result from this service. The first is an alternative for access to recreation areas in OCC when parking pullouts are eliminated. The second, and greater benefit, will be the reduction in traffic along US 89A and SR 179. By providing a convenient option, people will use the transit service and will not drive to OCC in the hope of finding a parking place. This has the potential to reduce the number of vehicles entering OCC by as much as 400 cars per day and to reduce the number of vehicles through the “Y” by 800 cars per day (round-trip to and from OCC). This could be a reduction in peak-hour traffic of as much as ten percent through the “Y.”

PHASE 4 SERVICE TO SLIDE ROCK

Future service is proposed for Slide Rock State Park. Phase 3 service in OCC would include stops at Slide Rock State Park, but this is proposed as an express service from a new intercept parking lot along SR 179 to the park as shown in Figure III-7.

An intercept parking lot would be established in the vicinity of the VOC 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

Service to Slide Rock State Park would be operated daily from Memorial Day weekend through Labor Day. The reservation system has been assumed to accommodate all visitors arriving by car. No parking would be available at the park during the peak season, but would be open to private vehicles during the off-peak season. With a vehicle occupancy of 3.5 to 4 people per car, the lot will have to accommodate at least 300 cars.

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 50 passengers has been assumed.

The following characteristics describe this option.

- Peak vehicles in operation: 10
- Annual operating days: 105
- Estimated ridership: 368,000
- Annual operating cost: \$640,000
- Passenger-trips per hour: 44.1
- Average cost-per passenger-trip: \$1.74

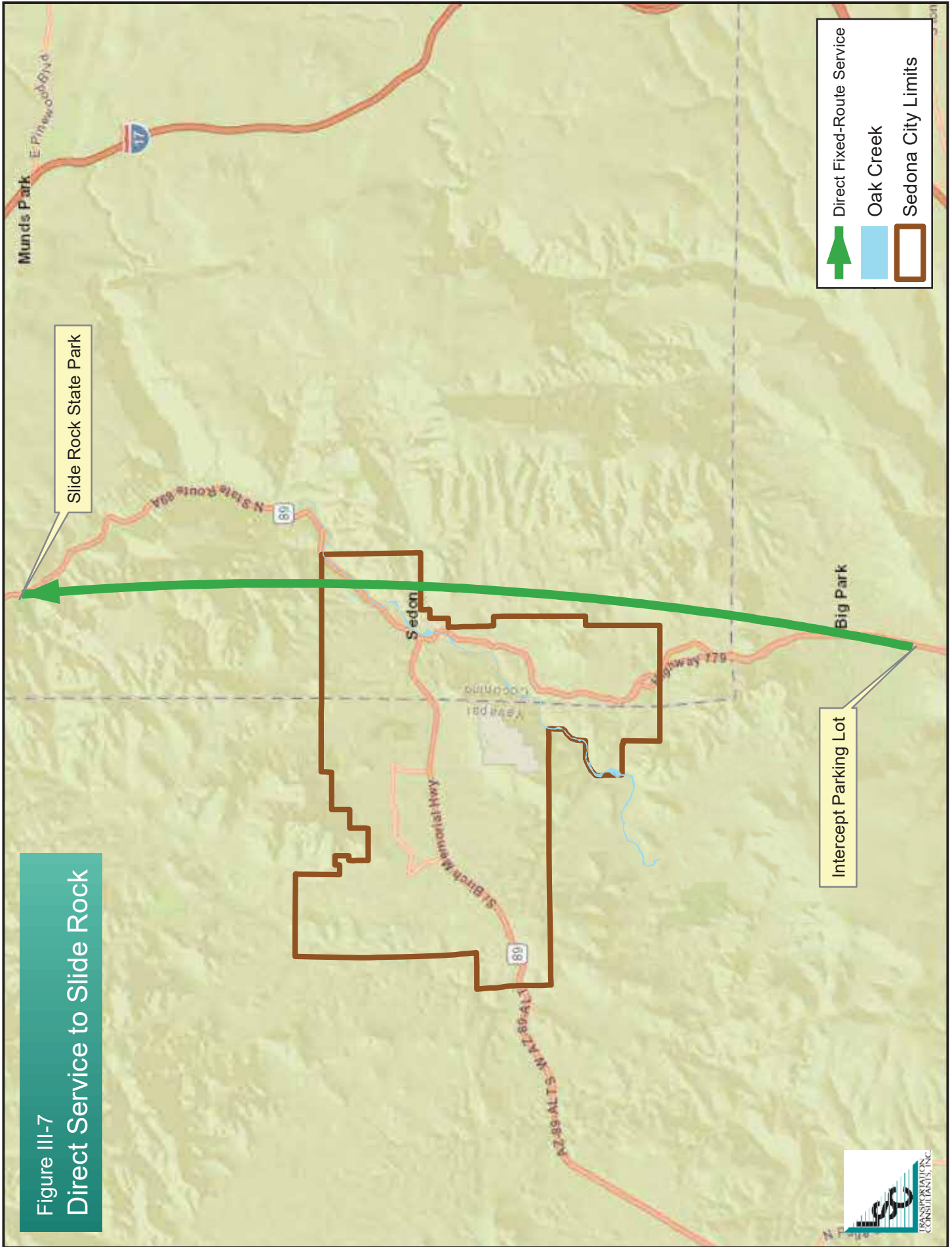
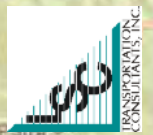


Figure III-7
Direct Service to Slide Rock



Vehicles

Vehicles for this service should be over-the-road commuter type coaches with storage bays to carry recreational equipment to the state park. The capacity of these coaches is 50 to 55 passengers. The service will require 10 vehicles in operation for peak service to move up to 1,000 people in a short time. Two spare vehicles will be required to ensure uninterrupted service. These coaches cost about \$750,000 each for a total cost of \$9 million.

Facilities

The maintenance facility will need to accommodate the fleet for this service. The facility discussion under Phase 1 Sedona Community Service includes space to incorporate these vehicles. The facility could be built initially to serve Phase 1 and 2 fleets, and designed for expansion to meet the needs of Phases 3 and 4.

An intercept parking lot will be required in the vicinity of VOC to accommodate 300 vehicles at a cost of \$4.5 to \$5 million.

No improvements are anticipated for the state park as the buses will only operate when no private vehicles are allowed to enter the park and the parking lot may be used as the bus loading/unloading area and turn around.

Required Approvals

This service will have to be developed jointly with Slide Rock State Park. The park will need to create the reservation system and restrict parking during the peak summer season. The park system will have to implement a fee collection system so that visitors pay a single fee for the bus service and entrance to the park.

Fares

The cost of a round-trip will be about \$3.50 to \$4.00 per person. This should be combined with a park entrance fee to ensure that the change is at least revenue neutral for the park and covers the transit operating cost on this route. The total fee should be set so that it is not too high for families who currently benefit from a single fee per vehicle, but high enough to cover the full cost.

Benefits

This service has the potential to significantly reduce traffic congestion on US 89A in OCC and at the entrance to Slide Rock State Park. On busy days, traffic is backed up on the state highway waiting to turn into the park entrance. This congestion would be eliminated. As many as 500 cars would be removed from OCC and traffic through the “Y” could be reduced by up to 1,000 cars a day on peak summer days.

Visitors would benefit by knowing they have a reservation at the park and would not drive up the canyon hoping that there are still spaces within the park. Instead of circulating within OCC looking to find parking, visitors would know in advance when they could arrive at the remote parking lot and travel to the park on the bus.

CUMULATIVE BENEFITS

Each of these services have benefits for traffic reduction and parking congestion. Combined, the benefits could be significant. By fully implementing all four phases, parking demand in OCC and Uptown would be reduced significantly. Traffic volumes through the “Y” could be reduced by as much as 1,800 cars per day during peak times. Traffic on SR 179 could be reduced by 1,300 cars per day during peak times. While these reductions may not be immediately noticeable to motorists, they will result in fewer times of severe delay and will be an overall improvement for traffic flow. One task for development of the implementation plan will be to model the potential impacts of each phase on traffic conditions in Sedona.

A good transit service may reduce the need to add new parking facilities in Uptown as parking is moved to the outer edges of the community and overnight visitors are able to leave their cars at lodging facilities with access to other destinations using transit.

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