

APPENDIX A: SPRINGDALE STREETScape, PARKING, AND SHUTTLE STOP INVENTORY







Looking East



Looking East - A



Looking East - B



Looking East



Looking East

Streetscape Observations

- Ⓐ "Avoid Parking Hassles Tune Radio to 1610 AM" sign is small in scale and beginning to be obscured by vegetation. Recommend vegetation maintenance.
- Ⓑ "Parking in Zion Full" sign is small in scale.
- Ⓒ Gravel pull out here



Zion Park Boulevard

- Ⓐ Shuttle Stop
- Ⓑ Shuttle Stop (Flag)
- Ⓒ Park And Ride



Looking East



Looking East - A



Looking Southwest - C



Looking Northeast



Looking Northeast



Zion Park Boulevard

Parking Observations

- Ⓐ Springdale Fruit Company is a destination location which has restrooms and a large parking lot. There is potential for this area to become a Shuttle Stop. It is a comfortable setting which would provide a place for people to gather their bearings before beginning the journey on the shuttle through town and then transitioning into the park. Education materials and maps could be provided here for the shuttle, parking, and the park itself.

Other Observations

- Ⓑ "Park In Springdale Sign" is small in scale.
- Ⓒ Large gravel pull out here

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- P Park And Ride



Looking Northeast



Looking Southwest



Looking Northeast - B



Looking Northeast - B

Other Observations

- Ⓐ Springdale Zion Canyon Gateway sign
- Ⓑ Traffic is slowing, many cars pulling off into gravel lot to take photos.



Zion Park Boulevard



Undeveloped Pull Off - Looking North - F



Shuttle Stop - Looking North



Crossing Zion Park Blvd. - Looking West



No Parking Sign - B



Majestic View Shuttle Stop - E



Zion Park Boulevard - 51 Majestic View Hotel

Parking Observations

- Ⓐ Springdale Loop park and ride spaces are adjacent to the road but on the opposite side of the road from the Shuttle Stop. No sidewalk connection or crosswalk exist from the park parking spaces to the stop across Zion Park Blvd. These parking spaces are not clearly identified for visitors driving into town.
- Ⓑ 8-1/2 x 11 laminated paper signs identify these parking spaces as reserved for hotel guests only. There are 15 spaces with 13 rooms in this building. Overall, adjacent parking to the Shuttle Stop is lacking.

Shuttle Stop Observations

- Ⓒ The most southern stop on the Springdale Loop. Some visitors driving into town believe this may be the start of the Park shuttle, thus creating confusion that the hotel room building adjacent to the parking lot is the park visitor center.
- Ⓓ Once or twice a year, sandwich board signs are placed in the parking lots to deter out-of-town visitors from parking in the hotel guest spaces. Other than these one or two times a year, drive-in park visitors typically don't use up more spaces than what the Majestic View has available. Hotel guests most often use the shuttle to get to town and the park.
- Ⓔ The pavement is buckling and potholing due to the shuttle layovers and general use. Restriping should be performed following pavement repairs.
- Ⓕ This informal pull off is an attraction to visitors entering Springdale who want to coordinate their day as they enter the corridor. Several groups of people and cars stop to take pictures of the surrounding canyon in addition to planning their trip.



Shuttle Stop



Shuttle Stop (Flag)



Park And Ride



Silver Bear Flag Stop - Looking North



Silver Bear Flag Stop - Looking South



Silver Bear Flag Stop - Looking South - C



Flag Stop Post and Sign



Shuttle Posting Zion Parking Full

Parking Observations

- Ⓐ No parking spaces exist for Park visitor use in association with this flag stop.
- Ⓑ Infrequently people park at the Silver Bear unknowing that there are designated parking locations in other areas of Springdale.

Shuttle Stop Observations

- Ⓒ Undeveloped Shuttle Stop. No sidewalks, crosswalks, curb/gutter, or sidewalk/roadway separation exists.
- Ⓓ This Shuttle Stop is used by mostly local residents.



Silver Bear Flag Stop

- Ⓒ Shuttle Stop
- Ⓓ Shuttle Stop (Flag)
- Ⓐ Park And Ride



Park Roundabout



Entering Park From SR 9



Park Restrooms - C



Parking Spaces at Park - B



Zion Adventure Pick Up Area - D



Zion Park Boulevard - **50** River Park

Parking Observations

- Ⓐ Pleasant City park off Zion Park Blvd. Great stop for incoming visitors to stop, have a picnic, and stretch their legs before moving further into town.
- Ⓑ Parking space layout is unmarked and confusing. Some visitors parallel parked, some parked on an angle, and some parked straight in.
- Ⓒ Restroom makes this a good stop for visitors driving from great distances.
- Ⓓ Zion Adventures uses the roadside dirt area north of the park entrance for river raft pick up.
- Ⓔ No sidewalk connection exists between River Park and the Driftwood/Quality Inn Shuttle Stop.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- 🅑 Park And Ride



Shuttle Stop Area - Looking North



Northbound Shuttle Stop - Looking North



Shuttle Stop - Looking North - F



Driftwood Parking Area and ID Sign - B



Crosswalk - Looking North



Parking Observations

- Ⓐ 46 - Shuttle parking is not provided or was not clearly identified at Quality Inn & Suites Montclair. A good sidewalk connection exists from the southbound Shuttle Stop to the hotel parking lot.
- Ⓑ 47 - Driftwood Inn provides shuttle parking spaces. These spaces are identified with colored concrete and blue signage. Seven of the spaces are located adjacent to the northbound Shuttle Stop. The other shuttle parking spaces are located at the north end of the hotel parking lot.
- Ⓒ 48 - Chevron does not allow parking for shuttle users. Sometimes the attendant must notify parking visitors to move their car to the Driftwood Inn.
- Ⓓ 49 - The LDS Church has a large lot but has not identified spaces for shuttle parking. Signs are posted stating "No Overnight Parking."

Shuttle Stop Observations

- Ⓔ All four of the identified locations on this map provide safe pedestrian travel ways to the Shuttle Stops.
- Ⓕ The Shuttle Stop shelters, sidewalks, and Shuttle Stop features (both northbound and southbound) are in good condition. Cleaning and minor maintenance upkeep is necessary.

- Shuttle Stop
- Shuttle Stop (Flag)
- Park And Ride

Zion Park Boulevard - 46 Quality Inn - Montclair, 47 Driftwood, 48 Chevron, 49 LDS Church



Unscheduled Shuttle Stop at Bike Zion



Bike Zion Front Parking



Zion Rock and Gem Additional Parking



Zion Rock and Gem - Looking South - C



Zion Rock and Gem - Looking North

Parking Observations

- Ⓐ Shuttle parking is not identified at either Zion Rock and Gem or Bike Zion.
- Ⓑ A wide roadway shoulder on the west side of the road provides ample parking for the businesses.
- Ⓒ The pedestrian environment is a rural, unimproved condition and is not conducive for safe pedestrian movement.



- Ⓐ Shuttle Stop
- Ⓑ Shuttle Stop (Flag)
- Ⓒ Park And Ride

Zion Park Boulevard - 45 Springdale Cycles Bike Zion, 44 Zion Rock and Gem



Zion Park Inn Sidewalk - Looking North - C



Bit & Spur Shuttle Stop - Looking South



Bit & Spur Parking Lot - Looking South - B



Pavement Condition at Bit & Spur Shuttle Stop



Zion Park Blvd - Looking North



Parking Observations

- Ⓐ Shuttle parking are identified at the Zion Park Inn.
- Ⓑ The Bit & Spur provides a large quantity of daily spaces for visitor shuttle parking.
- Ⓒ The Zion Park Inn has constructed a great walkway offset from the road extending from the southern property edge to the northern property edge, but falling short of the Shuttle Stop.

Shuttle Stop Observations

- Ⓓ Adequate street improvements exist at the southbound Shuttle Stop. One missing pedestrian connection is the Bit & Spur parking lot to the roadside sidewalk at the southbound Shuttle Stop location.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- P Park And Ride

Zion Park Boulevard - 43 Zion Park Inn



People Crossing Zion Blvd. to Zion Park Inn



Bit & Spur Shuttle Parking Sign



Zion Park Inn Shuttle Stop - E



Faded Parking Paint and Shuttle Stop Shelter



Zion Park Inn Sidewalk End - Looking North



Zion Park Boulevard - 42 Bit & Spur

Parking Observations

- Ⓐ Shuttle parking for drive in visitors is not designated at the Zion Park Inn.
- Ⓑ The Bit & Spur provides a large quantity of daily spaces for visitor shuttle parking.
- Ⓒ The Zion Park Inn offset walkway does not connect with the northbound Shuttle Stop. A sidewalk adjacent to the roadway connects the Zion Park Inn walkway with the Shuttle Stop.

Shuttle Stop Observations

- Ⓓ Adequate street improvements exist at the southbound Shuttle Stop. One missing connection is the Bit & Spur parking lot to the roadside sidewalk at the southbound Shuttle Stop location.
- Ⓔ The northbound Shuttle Stop is separated from the southbound Shuttle Stop location. The northbound stop is isolated and has no direct connection with adjacent business or residential areas.
- Ⓕ The Shuttle Stop shelters, sidewalks, and Shuttle Stop features (both northbound and southbound) are in good condition. Cleaning and minor maintenance upkeep is necessary.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- 🅑 Park And Ride



Intersection Of Lion Blvd - Looking North



Lion Blvd - Looking West - A



Zion Canyon Clothing Shuttle Stop - Looking East



Crosswalk - Looking West - K



Flanigans Shuttle Stop - Looking North - G



Parking Observations

- (A) Lion Blvd. provides plenty of parallel parking spaces along both sides of the road. Zion Adventures may sometimes cone off a few spaces to park vans and trailers for loading and unloading.
- (B) The Lion Blvd. parallel parking spaces extend along the north side of the road from Zion Park Blvd. to the library and community center. A sidewalk provides a good pedestrian walkway along the north parking spaces, but it is a long walk from the spaces near the library to the nearest Shuttle Stops.
- (C) The sidewalk along Lion Blvd. needs vegetation maintenance and the south edge parking area at Zion Blvd. is without a sidewalk.
- (D) "No Parking" signs everywhere. Parking for customers only, but lots of space. Could easily reconfigure parking lot to get more spaces than current configuration.
- (E) No signs for shuttle parking. People would have to park behind motel. No "No Parking" signs either but one directing people to office before back of building. Best serves customers.

Shuttle Stop Observations

- (F) Shuttle route maps on sign are old and hard to read.
- (G) Driver remarked that this stop is difficult to get out of when people are turning in and out of Flanigan's parking lot. Many drivers wish the stop was just forward from the driveway.

Streetscape Observations

- (H) Sidewalk ends just north of Flanigans (Spotted Dog Restaurant). No sidewalk between Flanigans and Cliffrose flag stop.
- (I) Curb on south edge of driveway is broken and cracking, in need of repair.
- (J) Bulbout at crosswalk is in very good condition. Sidewalk nice and wide here.
- (K) Crosswalk concrete is cracking, could be made more visible.
- (L) Bent culvert located here. Recommend removing culvert.
- (M) Concrete curb/gutter begins here and continues north.
- (N) Access across Koritas/Quality Inn driveway is not ADA compliant.
- (O) Unattractive assortment of remnant posts/poles and lack of vegetation just north of Koritas/Quality Inn driveway. Recommend improving this area

Zion Park Boulevard - **12** Lion Boulevard On-Street Parking, **11** Zion Adventures, **10a** On-Street Parking, **10** Koritas/Quality Inn, **9** Zion Canyon Clothing and Gift, **8** Flanigans



El Rio - Looking Northeast



Red Rock Inn - Looking Northeast



Under the Eaves - Looking Northeast



Shell Station - Looking West



Lazy Lizards/Oscars - Looking North

Parking Observations

- Ⓐ Parking for customers at businesses. Not enough parking stalls available for shuttle use.
- Ⓑ Del Rio lacks signage indicating who can use the parking lot. This is a small lot with poor visibility from the street.

Streetscape Observations

- Ⓒ Sidewalk gap between West Temple Drive and Lazy Lizards. It is currently a concrete surfaced drive entrance for the Shell Station. Concrete is spalling in many areas presumably due to heavy amount of vehicular traffic circulating in and out of business.



- Ⓐ Shuttle Stop
- Ⓑ Shuttle Stop (Flag)
- Ⓒ Park And Ride

Zion Park Boulevard - 40 El Rio, 38 Red Rock Jewelry and B&B, 37 Under the Eaves, 36 Shell Station, 34 Lazy Lizards/Oscars



Mean Bean - Looking Northeast



Mean Bean - Looking East - H



Mean Bean - Looking North - A



Elementary School - Looking East



School Crosswalk - Looking East - E



Zion Park Boulevard - **33** Mean Bean, **31** Springdale Elementary School

Parking Observations

- Ⓐ Parking at Mean Bean is limited, used by customers.
- Ⓑ Parking availability at school fluctuates between seasons. Best kept for school use.

Shuttle Stop Observations

- Ⓒ See next page for Bumbleberry/Zions Bank shuttle stop observations.

Streetscape Observations

- Ⓓ Sidewalk from Shell Station to Springdale Elementary Drive is narrow, approximately four feet wide with narrow gravel band, sandstone curb and gutter, and an asphalt parking lane. All are in fair/good condition, exhibiting some wear and tear. Asphalt edge along gutter is not eroding as much at this location as compared to others.
- Ⓔ Sidewalk from Springdale Elementary Driveway to ditch is approximately five to six feet wide with narrow gravel band, sandstone curb and gutter, and an asphalt parking lane. All are in good condition. Street parking is restricted along school frontage.
- Ⓕ Crosswalk is beginning to fade. Concrete bulbout is in good condition. Gravel beginning to wear away in planting beds.
- Ⓖ Sidewalk at ditch is approximately four feet wide with concrete curb, in good condition. Street parking is not permitted here.
- Ⓗ Flashing school speed limit sign here - 20 mph

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- P** Park And Ride



Canyon Offerings - Looking South - B



Bumbleberry Parking - Looking South - A



Shuttle Stop - Looking South



Looking North



Looking East - D



Zion Park Boulevard - **32** Canyon Offerings, **30** Zions Bank, **29** Bumbleberry

Parking Observations




- Ⓐ There are a number of signs in the Bumbleberry parking lot that indicate it is for customer parking only. It is clearly defined who can park here. If shuttle users are allowed to park here it should be clearly indicated.
- Ⓑ The Zions Bank and Canyon Offerings parking lots are fairly small and best serve customers.

Shuttle Stop Observations

- Ⓒ The Bumbleberry/Zions Bank shuttle stop is located at a blind curve and drivers have commented that it is a dangerous spot to pull out of. The ground plane at this location also tilts drastically toward sidewalk, making it challenging for passengers to embark and disembark. This Shuttle Stop has shelter in excellent condition. Many drivers and others have commented that relocating this Shuttle Stop to the front of the Zion Park Motel (28) would place it directly across the road from Pizza & Noodle. This could potentially increase safety and legibility.

Streetscape Observations

- Ⓓ The boardwalk covering the sandstone ditch at this location has unstable boards and the slats are wide which creates difficulty for strollers, wheelchairs, etc.
- Ⓔ Flashing school speed limit sign here - 20 mph

-  Shuttle Stop
-  Shuttle Stop (Flag)
-  Park And Ride



Looking West



Park And Ride - Looking North - B



Shuttle Stop - Looking East



Looking West - E



Looking North



Zion Park Boulevard - **27** Pizza Noodle Complex, **26** Zion Park Deli, **25** Pioneer Lodge

Parking Observations

- (A)** Parking at Pioneer Lodge and Zion Park Deli best serves customers due to size and because lodge guests can keep car parked and use shuttle.
- (B)** Park and Ride sign for Zion Pizza & Noodle is small, difficult to spot from vehicle unless driver knows what they are looking for. Parking lot is dirt with a few no parking signs placed at entrance, which may deter some visitors. It is not clear where people can park to use shuttle. No arrow on sign indicating where park and ride is located specifically.

Shuttle Stop Observations

- (C)** Concrete shuttle pad is eroding and cracking. "Zion Pack Day Trips" sign on pole is faded and cracked. Shuttle route map on shelter is faded and ripped. Information kiosk is hard to spot, blocked by vegetation. Shelter is in excellent condition, with ample seating.

Streetscape Observations

- (D)** Sidewalk is approximately ten feet wide at Shuttle Stop and narrows at driveway apron to Zion Park Deli. In good condition.
- (E)** Cones on the sidewalk here to prevent cars from driving into sandstone curb and gutter. Sidewalk is eroding where it hangs over sandstone curb and gutter. There is no gravel strip between sidewalk and curb here. Curb and gutter are old, in fair condition.
- (F)** Sidewalk is in good condition here, approximately 5.5 feet at Pioneer Lodge and approximately four feet east of Pioneer Lodge.
- (G)** Concrete curb here, in excellent condition.
- (H)** Asphalt edge is eroding where it meets sandstone curb and gutter.
- (I)** A lot of pedestrian activity in this location. People cross at various locations. No crosswalk located here.



Looking East - C



Zion Park Motel Parking - Looking South - B



Looking West



Looking South



Looking East



Parking Observations

- Ⓐ There seem to be four suitable areas to park providing many spaces. However, these areas are not clearly defined as to who can park here. Some of these areas are unpaved and would require some work to be a more suitable parking environment. There is one parking area that is adjacent to the laundromat. This is a small lot and seems to be heavily used by people using this facility.
- Ⓑ There is a lack of signage in this parking lot indicating who can park there and for what uses. Parking appears to mainly be used by customers.

Streetscape Observations

- Ⓒ Sidewalk in fair/poor condition in driveway for Zion Park Motel parking.
- Ⓓ Sidewalk in fair/poor condition this area.
- Ⓔ Identified location for moving Zions Bank Shuttle Stop, see page A-15 for Zions Bank Shuttle Stop observations.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- 🅑 Park And Ride

Zion Park Boulevard - **28** Zion Park Market & Motel/Canyon Outfitters, **24** Indian Village/Panda Garden



Asia to Zion - Looking Northeast



Worthington Gallery - Looking Southwest



People Crossing Road - Looking Southwest - I



Desert Pearl Vacant Lot - Looking Southwest - B



Blondie's - Looking Southwest





Zion Park Boulevard - **23** Asia to Zion, **22** Worthington Gallery, **20** Desert Pearl Vacant Lot, **19** Blondie's Diner

Parking Observations

- (A)** Not many spaces available for shuttle parking. Customer parking only.
- (B)** This area is a large unpaved, dirt parking lot that is not clearly defined for its allowable uses. There are a lot of people who park here and cross the street to get to the ranch. There is signage along the perimeter of the parking lot. The northeast portion of the lot is reserved for "Desert Pearl Employee Parking Only." There is a sign when you first enter announcing "No Overnight Camping or Parking." There is also a "Private Property No Trespassing" sign near the entrance of the lot.
- (C)** There is an area in the back of the Worthington Gallery that doesn't appear to be used.
- (D)** This lot is very small and set back from the street. Best serves customers.

Streetscape Observations

- (E)** Sidewalk in fair condition, displaying spalling and wearing at edges, joints, and corners.
- (F)** Extreme spalling at utility cover here.
- (G)** Asphalt parallel parking is tight, eroding at sandstone curb and gutter edge. Curb and gutter is old, eroding in places. Narrow gravel strip is in fair condition.
- (H)** Sidewalk is covered with gravel and is cracking profusely at driveway to Desert Pearl vacant lot.
- (I)** Many people cross street here to reach the ranch.
-  Shuttle Stop
-  Shuttle Stop (Flag)
- P** Park And Ride



Shuttle Stop - Looking Southwest



Looking Southwest



Looking South - D



Looking Southwest - G



Looking Southwest - F



Zion Park Boulevard - **18** Big Chief, **17** Canyon Ranch, **16** Desert Pearl Inn

Parking Observations

- Ⓐ The shopkeeper at Big Chief remarked that he occasionally needs to tell people that they cannot park at his business for shuttle use. Not enough spaces here to warrant use as shuttle parking.
- Ⓑ The Desert Pearl Inn parking lot is better used for business. There seems to be available parking in the back of the inn. There isn't any signage indicating that the lot can or can not be used for public use. While it appears to be available, it is somewhat far and disconnected from the Shuttle Stop. The closest parking spaces are located in the front of the Desert Pearl. However, these parking spots are marked to be used only for Element customers or Desert Pearl check-in parking.
- Ⓒ The Canyon Ranch parking feels like private drive and parking is better used for motel patrons.

Shuttle Stop Observations

- Ⓓ Shuttle Stop hard to see from a distance. Sign is small and shaded/covered by trees. No shelter. This flag stop feels integrated with the Desert Pearl. The benches that are a part of the seat wall and the proximity make it feel this way. The flag stop also has a dense canopy cover which makes it feel more comfortable in the heavy heat. Either make sign more visible or prune surrounding trees.
- Ⓔ Very exposed to elements. No furniture, people observed using low rail fence to lean on.

Streetscape Observations

- Ⓕ "Isolated" concrete sidewalk segment at Shuttle Stop only. It sits between asphalt waiting area and asphalt paint striped shuttle pad.
- Ⓖ Sidewalk gap between Elm Street and Canyon Ranch segment. This is an asphalt drive for Big Chief business parking.
- Ⓗ Sidewalks ends on southbound side of road. Does not continue north of here.



Post Office - Looking Southwest



Looking Southwest - C



Looking North



Looking North



Looking North



Zion Park Boulevard - 15 Post Office

Parking Observations

- Ⓐ Parking lot usage is low and has a fast turn-over rate. People only use the spots for a few moments. It might be suitable to reserve the six spots closest to the post office for post office users. The other seven spots may be appropriate for shuttle users. These spots are a close distance to the flag stop at Desert Pearl Inn.

Streetscape Observations

- Ⓑ Sidewalk in vicinity of post office is in variable condition, narrow and spalling in some locations. Asphalt edge is wearing away at sandstone curb/gutter.
- Ⓒ No sidewalk on southbound side of road but there is wide shoulder that people use to walk on.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- P Park And Ride



Intersection Of Lion Blvd - Looking North



Lion Blvd - Looking West - A



Zion Canyon Clothing Shuttle Stop - Looking East



Crosswalk - Looking West - K



Flanigans Shuttle Stop - Looking North - G



Zion Park Boulevard - **12** Lion Boulevard On-Street Parking, **11** Zion Adventures, **10a** On-Street Parking, **10** Koritas/Quality Inn, **9** Zion Canyon Clothing and Gift, **8** Flanigans

Parking Observations

- (A)** Lion Blvd. provides plenty of parallel parking spaces along both sides of the road. Zion Adventures may sometimes cone off a few spaces to park vans and trailers for loading and unloading.
- (B)** The Lion Blvd. parallel parking spaces extend along the north side of the road from Zion Park Blvd. to the library and community center. A sidewalk provides a good pedestrian walkway along the north parking spaces, but it is a long walk from the spaces near the library to the nearest Shuttle Stops.
- (C)** The sidewalk along Lion Blvd. needs vegetation maintenance and the south edge parking area at Zion Blvd. is without a sidewalk.
- (D)** "No Parking" signs everywhere. Parking for customers only, but lots of space. Could easily reconfigure parking lot to get more spaces than current configuration.
- (E)** No signs for shuttle parking. People would have to park behind motel. No "No Parking" signs either but one directing people to office before back of building. Best serves customers.

Shuttle Stop Observations

- (F)** Shuttle route maps on sign are old and hard to read.
- (G)** Driver remarked that this stop is difficult to get out of when people are turning in and out of Flanigan's parking lot. Many drivers wish the stop was just forward from the driveway.

Streetscape Observations

- (H)** Sidewalk ends just north of Flanigans (Spotted Dog Restaurant). No sidewalk between Flanigans and Cliffrose flag stop.
- (I)** Curb on south edge of driveway is broken and cracking, in need of repair.
- (J)** Bulbout at crosswalk is in very good condition. Sidewalk nice and wide here.
- (K)** Crosswalk concrete is cracking, could be made more visible.
- (L)** Bent culvert located here. Recommend removing culvert.
- (M)** Concrete curb/gutter begins here and continues north.
- (N)** Access across Koritas/Quality Inn driveway is not ADA compliant.
- (O)** Unattractive assortment of remnant posts/poles and lack of vegetation just north of Koritas/Quality Inn driveway. Recommend improving this area



Lion Blvd - Looking Southeast



Lion Blvd - Looking Northwest - B



Town Hall Driveway - Looking Southeast



Community Center/Town Hall Parking Lot - Looking North



Community Center Parking Lot - Looking Southeast



Parking Observations

- Ⓐ Lion Blvd. provides plenty of parallel parking spaces along both sides of the road. Zion Adventures may sometimes come off a few spaces to park vans and trailers for loading and unloading.
- Ⓑ The Lion Blvd. parallel parking spaces extend along the north side of the road from Zion Park Blvd. to the library and community center. A sidewalk provides a good pedestrian walkway along the north parking spaces, but it is a long walk from the spaces near the library to the nearest Shuttle Stops.
- Ⓒ The sidewalk along Lion Blvd. needs vegetation maintenance and the south edge parking area at Zion Blvd is without a sidewalk.
- Ⓓ Blue markings on pavement designating Park And Ride are fading all the way to Zion Park Blvd.

- 🚌 Shuttle Stop
- 🚌 Shuttle Stop (Flag)
- P** Park And Ride

Lion Boulevard - 14 Community Center, 13 Town Hall, 12 Lion Boulevard On-Street Parking



Looking North



Looking South - D



Looking North - F



Tribal Arts - Looking Northeast - G



Cliffrose - Looking Northeast



Zion Park Boulevard - 10a On-Street Parking, 7 Tribal Arts, 6 Cliffrose

Parking Observations

- Ⓐ It appears Tribal Arts parking lot does not fill to capacity on a regular basis. Designate half for shuttle?
- Ⓑ Customer parking is well used at Cliffrose.

Shuttle Stop Observations

- Ⓒ Sidewalk is constant width of approximately four feet wide with concrete curb and gutter.
- Ⓓ Amount of seating here does not make sense for this location. Could seating be relocated?
- Ⓔ Driveways are typically not ADA compliant.
- Ⓕ There are weeds that are encroaching upon sidewalk here. Weeds should be removed, perhaps some friendly native vegetation could be planted here (extending park out into the town).
- Ⓖ Beginning here and continuing north, sidewalk becomes approximately six feet wide, gravel band goes away, becomes concrete.
- Ⓗ No sidewalk, wide shoulder.
- Ⓘ Jersey barrier at slide area, constricts roadway.

- 🚌 Shuttle Stop
- 🚩 Shuttle Stop (Flag)
- 🅑 Park And Ride



Narrow Escapes Shuttle Stop - Looking Northeast - D



Cliffrose Shuttle Stop - Looking Northeast



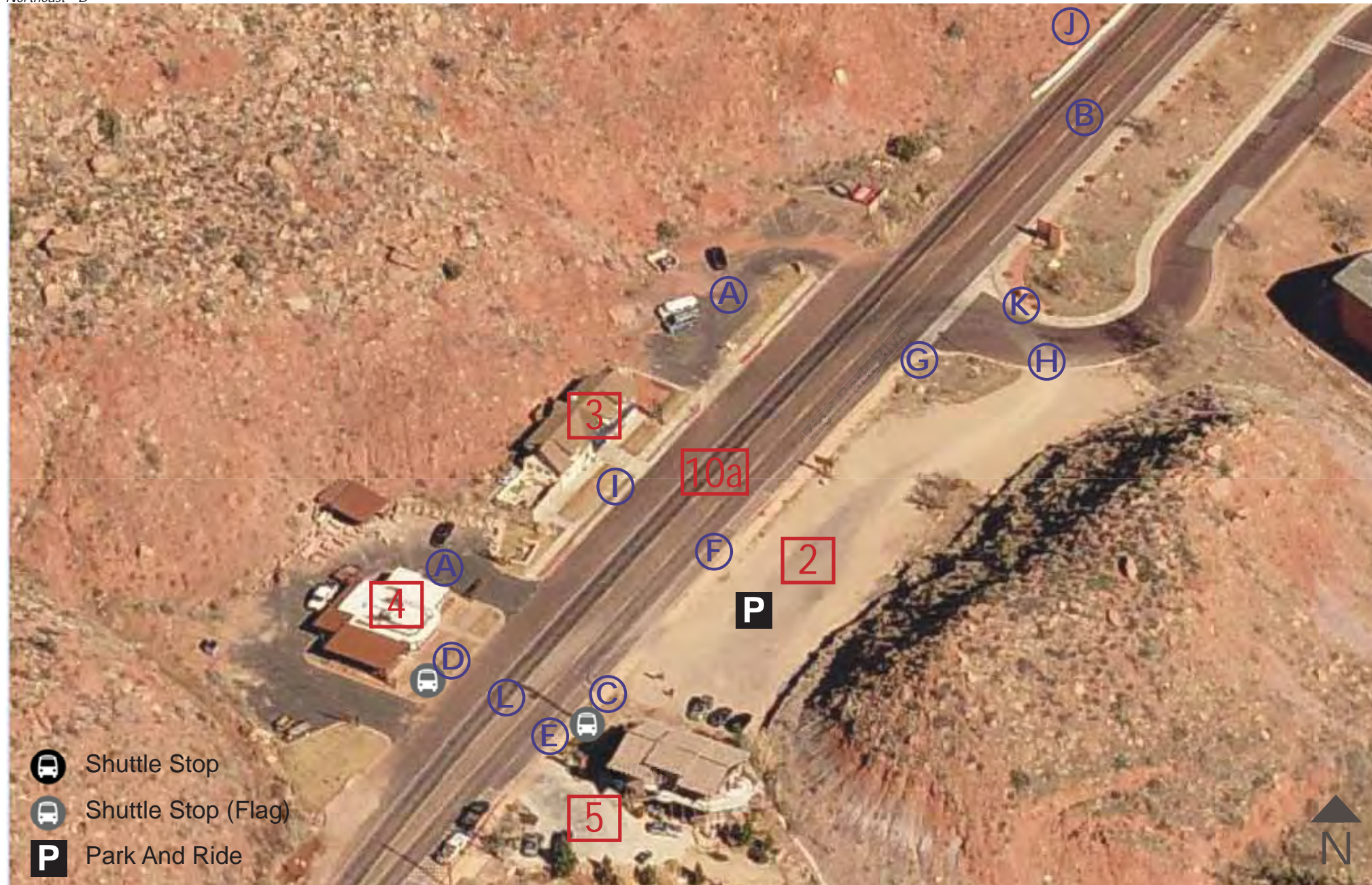
Theater Parking Lot - Looking Northeast



Tsunami Juice - Looking Northeast - I



Looking Northeast - F



Parking Observations

- Ⓐ Parking best saved for customers.
- Ⓑ On street parking well used here.

Shuttle Stop Observations

- Ⓒ No shelter, no lights, one rock bench, fairly close to park visitor center pedestrian entrance.
- Ⓓ Same as above but no bench.

Streetscape Observations

- Ⓔ Sidewalk in front of Takach Building has small area of landscape strip of red rocks and spiny plants. Plants are not very pedestrian friendly.
- Ⓕ Sidewalk is approximately six feet wide, in excellent condition, with concrete curb and gutter.
- Ⓖ Curb is broken and curb is exposed at southern edge of first driveway to lower parking for theater. The ramp at this corner does not meet ADA, very wide radius.
- Ⓗ No sidewalk on this side of driveway.
- Ⓘ Only area with sidewalk on this side of roadway.
- Ⓙ Jersey barrier at slide area, constricts roadway.
- Ⓚ Anthills encroaching sidewalk.
- Ⓛ No crosswalk here.

Zion Park Boulevard - **10a** On-Street Parking, **5** Takach Building, **4** Narrow Escapes, **3** Tsunami Juice, **2** Giant Screen Theater Complex Upper Lot



Pedestrians on Southern (1st) Driveway



Looking West



Looking Northeast - F



Northern Driveway (2nd) - Looking Northeast - A



Entrance to Visitor Center - Looking East



Zion Park Boulevard - **10a** On-Street Parking, **1** Giant Screen Theater Complex Upper Lot

Parking Observations

(A) According to shuttle drivers and others, many visitors get confused by the “Entrance” sign at the second driveway to the theaters. Visitors think it is the entrance to the park, while it is actually the entrance to the theaters. Drivers recommend placing a Zion National Park entrance sign adjacent to this one with an arrow pointing straight ahead.

(B) On-street parking is very well used here.

(C) No sidewalk on this side of driveway. Signs and more sidewalks and crosswalks would help direct people to pedestrian park entrance.

(D) Parking designated for customers only.

Shuttle Stop Observations

(E) Legibility and wayfinding are challenged here for shuttle riders. There is a makeshift sign mounted on the Shuttle Stop shelter which directs people to “Shuttle to town” and “To Park Shuttle”. There is a large kiosk located directly in the sight line of the pedestrian bridge which leads to the park pedestrian entrance. Legibility would be greatly improved if the large green national park sign was moved adjacent to the kiosk or before the kiosk so people can quickly determine what direction the pedestrian park entrance is. Other elements such as footprints in the paving would be very helpful in providing wayfinding.

When people are leaving the park to come to Springdale, the sight line to the shuttle is again obstructed by an advertisement for the theater. This Shuttle Stop could be better identified with a large sign on both sides of the shelter.

Streetscape Observations

(F) Landscaped area between driveways to lower parking is not attractive. Under construction? Should be planted/improved with people-friendly native vegetation, extending the feel of the park



Approaching Entrance - Looking North



Looking South - C



Car Turning Around - Looking North



Parking Lot - Looking North



Looking North - A

Parking Observations

- Ⓐ This parking lot needs to be striped. New asphalt recently installed.
- Ⓑ Sandstone edging along perimeter of parking lot.

Streetscape Observations

- Ⓒ No sidewalk on either side of road.



Zion Park Boulevard & Zion Park Entrance - 10a On-Street Parking

- Ⓐ Shuttle Stop
- Ⓑ Shuttle Stop (Flag)
- Ⓒ Park And Ride

APPENDIX B: RIDECHECK AND TIMECHECK DATA SHEETS



SPRINGDALE SHUTTLE ONS for Aug 8 (AM) and Aug 9 (PM), 2008							
Draft 8/21/08							
FRIDAY AUGUST 8, 2008			SATURDAY AUGUST 9, 2008				
Block	Time	Ons	Block	Time	Ons		
101	5:35 AM	17					
101	6:00 AM	10					
101	6:45 AM	10					
101	7:00 AM	9	101	3:00 PM	57		
101	7:30 AM	7	101	3:30 PM	57		
101	8:00 AM	18	101	4:00 PM	45		
101	8:30 AM	18	101	4:30 PM	21		
101	9:00 AM	17	101	5:00 PM	38		
101	9:30 AM	27	101	5:30 PM	94		
101	10:00 AM	39	101	6:00 PM	58		
101	10:30 AM	24	101	6:30 PM	70		
101	11:00 AM	41	101	7:00 PM	52		
101	11:30 AM	29	101	7:30 PM	64		
101	12:00 PM	33	101	8:00 PM	37		
101	12:30 PM	48	101	8:30 PM	39		
101	1:00 PM	22	101	9:00 PM	43		
101	1:30 PM	33	101	9:30 PM	38		
101	2:00 PM	22	101	10:00 PM	25		
101	2:30 PM	71	101	10:30 PM	9		
			101	11:00 PM	2		
102	6:50 AM	7	102	3:10 PM	72		
102	7:15 AM	0	102	3:40 PM	67		
102	7:45 AM	10	102	4:10 PM	45		
102	8:10 AM	15	102	4:40 PM	49		
102	8:40 AM	35	102	5:10 PM	89		
102	9:10 AM	17	102	5:40 PM	43		
102	9:40 AM	21	102	6:10 PM	82		
102	10:10 AM	33	102	6:40 PM	63		
102	10:40 AM	12	102	7:40 PM	74	7:10 run missed	
102	11:10 AM	15	102	8:10 PM	19		
102	11:45 AM	9	102	8:40 PM	31		
102	12:15 PM	43	102	9:15 PM	47		
102	12:45 PM	33	102	9:45 PM	32		
102	1:15 PM	45	102	10:15 PM	35		
102	1:45 PM	29	102	10:45 PM	0		
102	2:15 PM	51					
102	2:45 PM	16					
103	8:20 AM	17	103	2:50 PM	43		
103	8:50 AM	28	103	3:20 PM	80		
103	9:20 AM	49	103	3:50 PM	55		
103	9:50 AM	15	103	4:20 PM	71		
103	10:20 AM	32	103	4:50 PM	77		
103	10:50 AM	4	103	5:20 PM	65		
103	11:20 AM	14	103	5:50 PM	43		
103	11:50 AM	34	103	6:20 PM	57		
103	12:20 PM	37	103	6:50 PM	60		
103	12:50 PM	22	103	7:20 PM	48		
103	1:20 PM	29	103	7:50 PM	51		
103	1:50 PM	15	103	8:20 PM	40		
103	2:20 PM	28	103	8:50 PM	28		
TOTALS:		1,210			2,215		



SPRINGDALE SHUTTLE ONS for Aug 8 (AM) and Aug 9 (PM), 2008

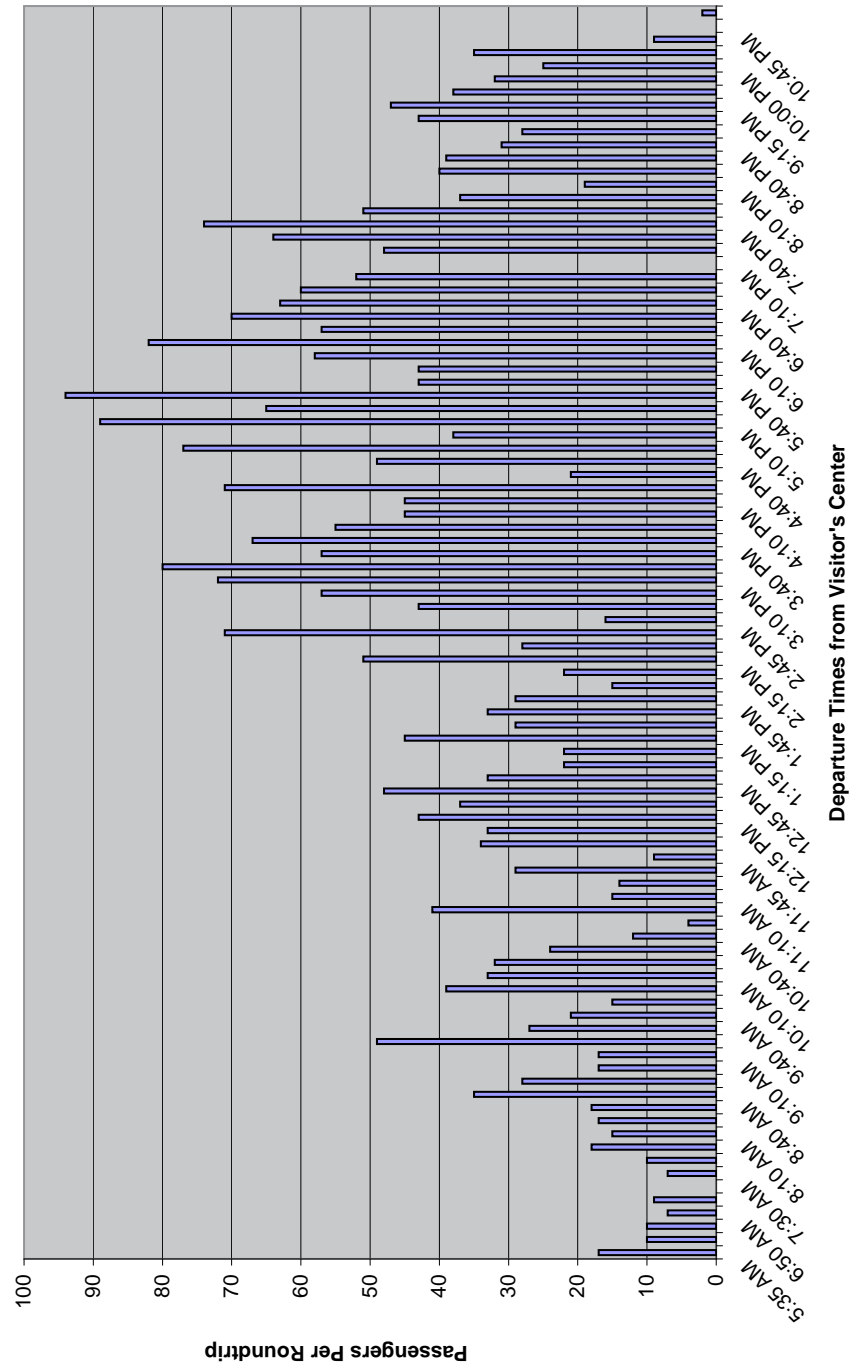
Combined "Sample Day"

Block	Time	Ons	Rev Hrs	Pass/Hr		
101	5:35 AM	17	0.5	34		
101	6:00 AM	10	0.5	20		
101	6:45 AM	10	0.5	20		
102	6:50 AM	7	0.5	14		
101	7:00 AM	9	0.5	18		
102	7:15 AM	0	0.5	0		
101	7:30 AM	7	0.5	14		
102	7:45 AM	10	0.5	20		
101	8:00 AM	18	0.5	36		
102	8:10 AM	15	0.5	30		
103	8:20 AM	17	0.5	34		
101	8:30 AM	18	0.5	36		
102	8:40 AM	35	0.5	70		
103	8:50 AM	28	0.5	56		
101	9:00 AM	17	0.5	34		
102	9:10 AM	17	0.5	34		
103	9:20 AM	49	0.5	98		
101	9:30 AM	27	0.5	54		
102	9:40 AM	21	0.5	42		
103	9:50 AM	15	0.5	30		
101	10:00 AM	39	0.5	78		
102	10:10 AM	33	0.5	66		
103	10:20 AM	32	0.5	64		
101	10:30 AM	24	0.5	48		
102	10:40 AM	12	0.5	24		
103	10:50 AM	4	0.5	8		
101	11:00 AM	41	0.5	82		
102	11:10 AM	15	0.5	30		
103	11:20 AM	14	0.5	28		
101	11:30 AM	29	0.5	58		
102	11:45 AM	9	0.5	18		
103	11:50 AM	34	0.5	68		
101	12:00 PM	33	0.5	66		
102	12:15 PM	43	0.5	86		
103	12:20 PM	37	0.5	74		
101	12:30 PM	48	0.5	96		
102	12:45 PM	33	0.5	66		
103	12:50 PM	22	0.5	44		
101	1:00 PM	22	0.5	44		
102	1:15 PM	45	0.5	90		
103	1:20 PM	29	0.5	58		
101	1:30 PM	33	0.5	66		
102	1:45 PM	29	0.5	58		
103	1:50 PM	15	0.5	30		
101	2:00 PM	22	0.5	44		
102	2:15 PM	51	0.5	102		
103	2:20 PM	28	0.5	56		
101	2:30 PM	71	0.5	142		
102	2:45 PM	16	0.5	32		
103	2:50 PM	43	0.5	86		
101	3:00 PM	57	0.5	114		
102	3:10 PM	72	0.5	144		
103	3:20 PM	80	0.5	160		

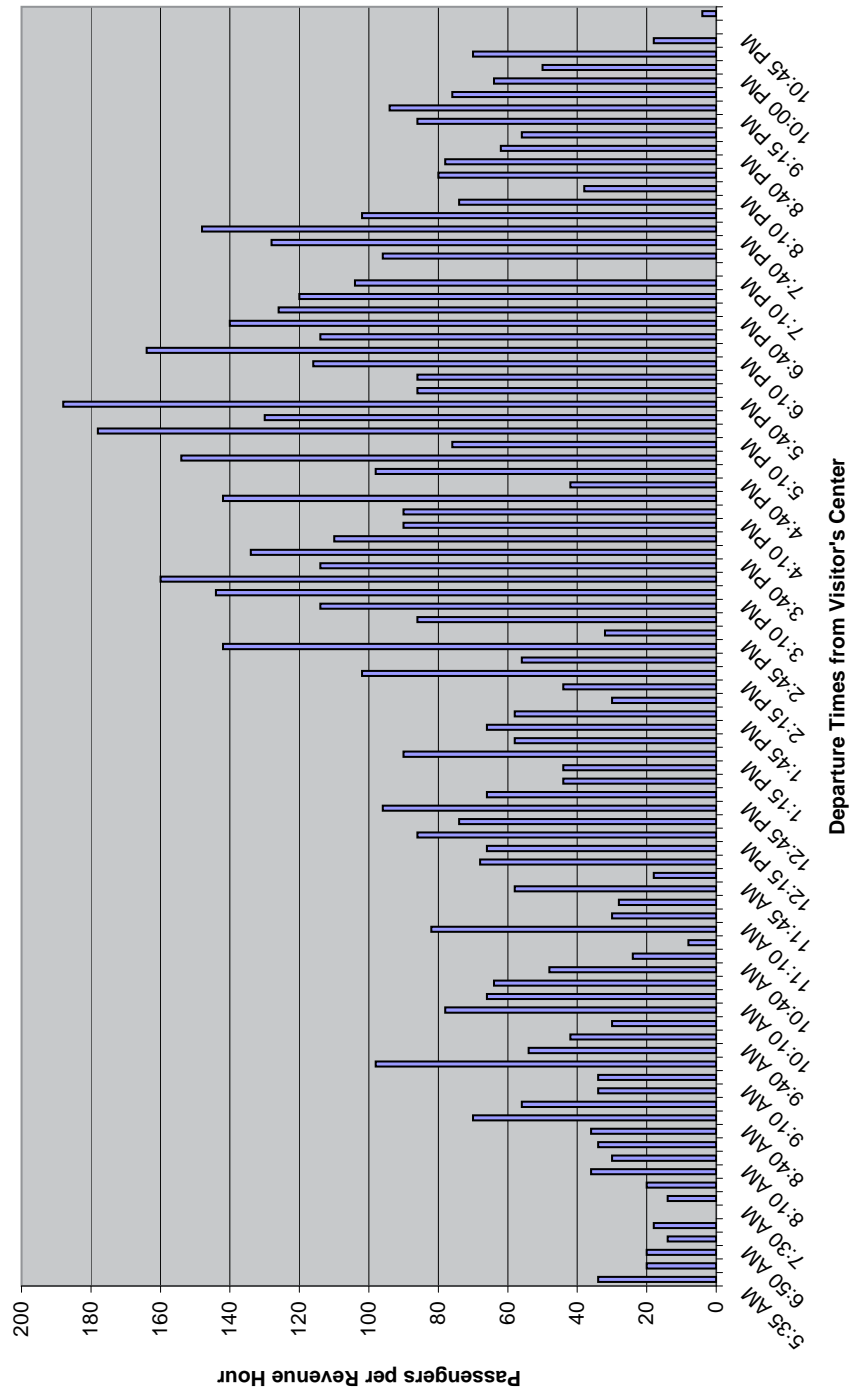
Block	Time	Ons	Rev Hrs	Pass/Hr		
101	3:30 PM	57	0.5	114		
102	3:40 PM	67	0.5	134		
103	3:50 PM	55	0.5	110		
101	4:00 PM	45	0.5	90		
102	4:10 PM	45	0.5	90		
103	4:20 PM	71	0.5	142		
101	4:30 PM	21	0.5	42		
102	4:40 PM	49	0.5	98		
103	4:50 PM	77	0.5	154		
101	5:00 PM	38	0.5	76		
102	5:10 PM	89	0.5	178		
103	5:20 PM	65	0.5	130		
101	5:30 PM	94	0.5	188		
102	5:40 PM	43	0.5	86		
103	5:50 PM	43	0.5	86		
101	6:00 PM	58	0.5	116		
102	6:10 PM	82	0.5	164		
103	6:20 PM	57	0.5	114		
101	6:30 PM	70	0.5	140		
102	6:40 PM	63	0.5	126		
103	6:50 PM	60	0.5	120		
101	7:00 PM	52	0.5	104		
102	7:10 PM	0	0.5	0		
103	7:20 PM	48	0.5	96		
101	7:30 PM	64	0.5	128		
102	7:40 PM	74	0.5	148		
103	7:50 PM	51	0.5	102		
101	8:00 PM	37	0.5	74		
102	8:10 PM	19	0.5	38		
103	8:20 PM	40	0.5	80		
101	8:30 PM	39	0.5	78		
102	8:40 PM	31	0.5	62		
103	8:50 PM	28	0.5	56		
101	9:00 PM	43	0.5	86		
102	9:15 PM	47	0.5	94		
101	9:30 PM	38	0.5	76		
102	9:45 PM	32	0.5	64		
101	10:00 PM	25	0.5	50		
102	10:15 PM	35	0.5	70		
101	10:30 PM	9	0.5	18		
102	10:45 PM	0	0.5	0		
101	11:00 PM	2	0.5	4		
Total Passengers		3425	47.5			
Passengers/Rev Hr				72.1		



Springdale - Passengers Per Roundtrip



Springdale - Passengers per Revenue Hour



CANYON SHUTTLE ONS for Aug 8 (AM) and Aug 9 (PM), 2008					
Draft 8/21/08					
FRIDAY AUGUST 8, 2008			SATURDAY AUGUST 9, 2008		
Block	Time	Ons	Block	Time	Ons
201	6:30 AM	10	201	2:39 PM	237
201	7:45 AM	39	201	4:03 PM	216
201	9:00 AM	54	201	5:27 PM	148
201	10:27 AM	142	201	6:52 PM	146
201	11:51 AM	215	201	8:15 PM	78
201	1:15 PM	206			
202	6:45 AM	1	202	2:55 PM	172
202	8:00 AM	55	202	4:19 PM	182
202	9:18 AM	91	202	5:43 PM	140
202	10:43 AM	180			
202	12:07 PM	105			
202	1:31 PM	129			
203	7:00 AM	11	203	3:17 PM	198
203	8:20 AM	61	203	4:41 PM	219
203	9:42 AM	87	203	6:07 PM	194
203	11:05 AM	117	203	7:30 PM	149
203	12:28 PM	193			
203	1:53 PM	213			
204	7:15 AM	24	204	3:29 PM	197
204	8:30 AM	14	204	4:53 PM	196
204	9:54 AM	105	204	6:15 PM	224
204	11:17 AM	166	204	7:40 PM	134
204	12:41 PM	130	204	9:00 PM	21
204	2:05 PM	161	204	10:30 PM	10
205	7:30 AM	49	205	2:28 PM	215
205	8:50 AM	110	205	3:52 PM	124
205	10:16 AM	137	205	5:16 PM	189
205	11:40 AM	162	205	6:37 PM	174
205	1:04 PM	185	205	8:00 PM	45
			205	9:30 PM	14
206	8:10 AM	28	206	3:06 PM	174
206	9:30 AM	81	206	4:30 PM	190
206	10:54 AM	126	206	5:54 PM	150
206	12:18 PM	88	206	7:20 PM	127
206	1:42 PM	288	206	8:45 PM	34
207	8:40 AM	94	207	2:17 PM	216
207	10:05 AM	143	207	3:41 PM	181
207	11:29 AM	145	207	5:05 PM	200
207	12:53 PM	227	207	6:30 PM	169
			207	7:50 PM	122
208	9:06 AM	65	208	2:44 PM	199
208	10:32 AM	146	208	4:08 PM	139
208	11:56 AM	146	208	5:32 PM	153
208	1:20 PM	228			

Our surveyor missed this run, this count is from the driver

FRIDAY AUGUST 8, 2008			SATURDAY AUGUST 9, 2008		
Block	Time	Ons	Block	Time	Ons
209	9:12 AM	86	209	2:50 PM	210
209	10:38 AM	177	209	4:14 PM	182
209	12:02 PM	187	209	5:38 PM	138
209	1:26 PM	188	209	7:00 PM	126
210	9:24 AM	114	210	4:25 PM	252
210	10:49 AM	182	210	5:49 PM	165
210	12:13 PM	192	210	7:10 PM	116
210	1:37 PM	221	210	8:30 PM	71
210	3:01 PM	193	210	10:00 PM	33
211	9:36 AM	113	211	3:12 PM	105
211	11:00 AM	194	211	4:36 PM	177
211	12:24 PM	182	211	6:00 PM	146
211	1:48 PM	212			
212	9:48 AM	94	212	1:59 PM	223
212	11:11 AM	189	212	3:23 PM	285
212	12:35 PM	218	212	4:47 PM	153
213	9:59 AM	111	213	2:11 PM	213
213	11:23 AM	178	213	3:35 PM	204
213	12:47 PM	206	213	4:59 PM	183
			213	6:22 PM	211
214	10:10 AM	144	214	2:22 PM	181
214	11:34 AM	127	214	3:46 PM	237
214	12:58 PM	152	214	5:10 PM	171
215	10:21 AM	112	215	2:33 PM	208
215	11:45 AM	151	215	3:57 PM	172
215	1:09 PM	153	215	5:21 PM	155
			215	6:45 PM	72
			216	10:46 AM	75
			216	11:53 AM	72
			217	2:44 PM	58
			217	3:35 PM	102
			217	4:28 PM	73
			217	5:28 PM	44
TOTALS:		9,033			10,489

These are actual departure times
recorded by surveyor, and
don't match the timetables
we have for this Block



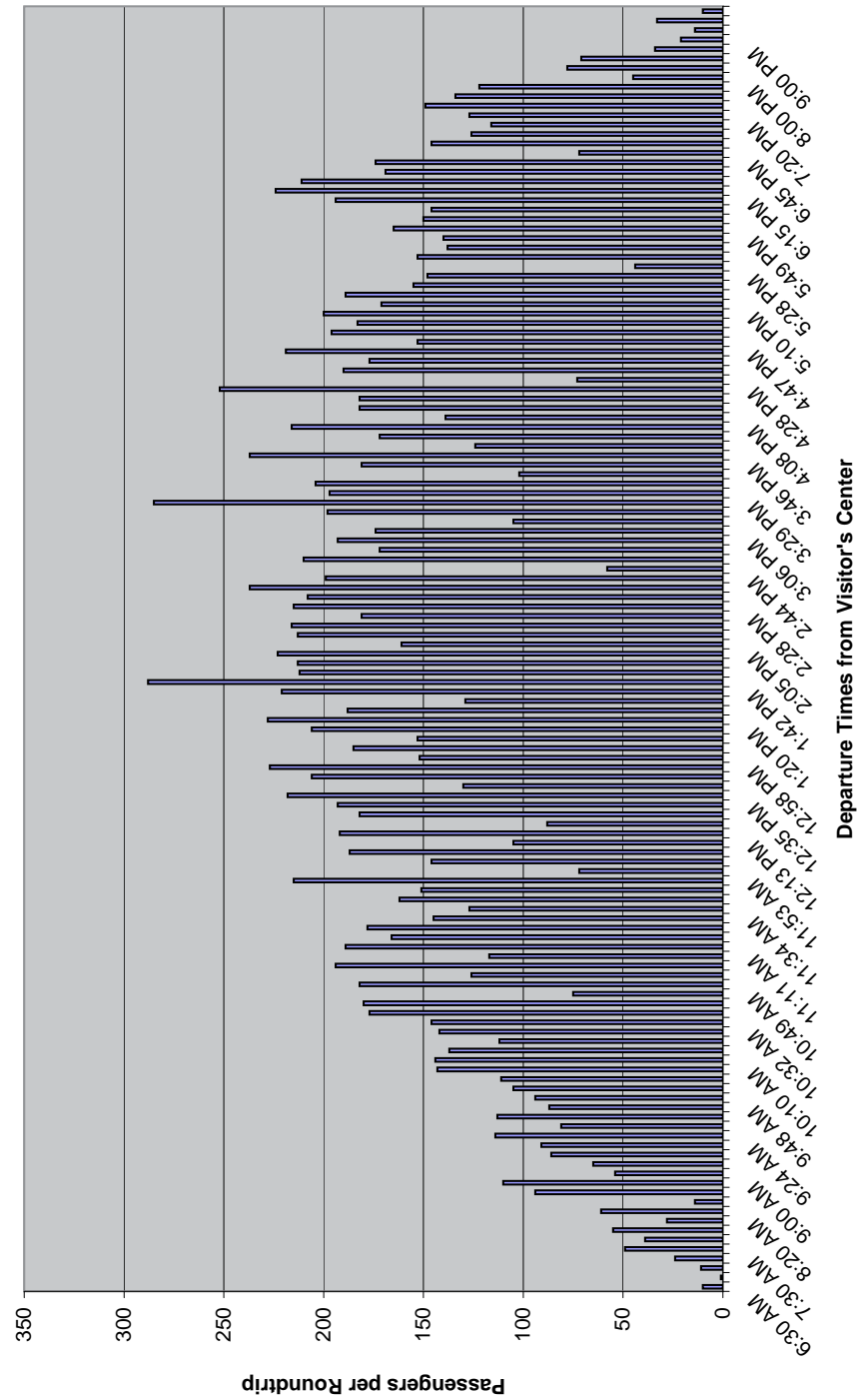
CANYON SHUTTLE ONS for Aug 8 (AM) and Aug 9 (PM), 2008						
Combined "Sample Day"						
Block	Time	Ons	Rev Hrs	Pass/Rev Hr		
201	6:30 AM	10	1.25	8		
202	6:45 AM	1	1.25	0.8		
203	7:00 AM	11	1.25	8.8		
204	7:15 AM	24	1.25	19.2		
205	7:30 AM	49	1.25	39.2		
201	7:45 AM	39	1.25	31.2		
202	8:00 AM	55	1.25	44		
206	8:10 AM	28	1.25	22.4		
203	8:20 AM	61	1.25	48.8		
204	8:30 AM	14	1.25	11.2		
207	8:40 AM	94	1.25	75.2		
205	8:50 AM	110	1.25	88		
201	9:00 AM	54	1.25	43.2		
208	9:06 AM	65	1.25	52		
209	9:12 AM	86	1.25	68.8		
202	9:18 AM	91	1.25	72.8		
210	9:24 AM	114	1.25	91.2		
206	9:30 AM	81	1.25	64.8		
211	9:36 AM	113	1.25	90.4		
203	9:42 AM	87	1.25	69.6		
212	9:48 AM	94	1.25	75.2		
204	9:54 AM	105	1.25	84		
213	9:59 AM	111	1.25	88.8		
207	10:05 AM	143	1.25	114.4		
214	10:10 AM	144	1.25	115.2		
205	10:16 AM	137	1.25	109.6		
215	10:21 AM	112	1.25	89.6		
201	10:27 AM	142	1.25	113.6		
208	10:32 AM	146	1.25	116.8		
209	10:38 AM	177	1.25	141.6		
202	10:43 AM	180	1.25	144		
216	10:46 AM	75	1.25	60		
210	10:49 AM	182	1.25	145.6		
206	10:54 AM	126	1.25	100.8		
211	11:00 AM	194	1.25	155.2		
203	11:05 AM	117	1.25	93.6		
212	11:11 AM	189	1.25	151.2		
204	11:17 AM	166	1.25	132.8		
213	11:23 AM	178	1.25	142.4		
207	11:29 AM	145	1.25	116		
214	11:34 AM	127	1.25	101.6		
205	11:40 AM	162	1.25	129.6		
215	11:45 AM	151	1.25	120.8		
201	11:51 AM	215	1.25	172		
216	11:53 AM	72	1.25	57.6		
208	11:56 AM	146	1.25	116.8		
209	12:02 PM	187	1.25	149.6		
202	12:07 PM	105	1.25	84		
210	12:13 PM	192	1.25	153.6		
206	12:18 PM	88	1.25	70.4		
211	12:24 PM	182	1.25	145.6		
203	12:28 PM	193	1.25	154.4		
212	12:35 PM	218	1.25	174.4		
204	12:41 PM	130	1.25	104		

Block	Time	Ons	Rev Hrs	Pass/Rev Hr		
213	12:47 PM	206	1.25	164.8		
207	12:53 PM	227	1.25	181.6		
214	12:58 PM	152	1.25	121.6		
205	1:04 PM	185	1.25	148		
215	1:09 PM	153	1.25	122.4		
201	1:15 PM	206	1.25	164.8		
208	1:20 PM	228	1.25	182.4		
209	1:26 PM	188	1.25	150.4		
202	1:31 PM	129	1.25	103.2		
210	1:37 PM	221	1.25	176.8		
206	1:42 PM	288	1.25	230.4		
211	1:48 PM	212	1.25	169.6		
203	1:53 PM	213	1.25	170.4		
212	1:59 PM	223	1.25	178.4		
204	2:05 PM	161	1.25	128.8		
213	2:11 PM	213	1.25	170.4		
207	2:17 PM	216	1.25	172.8		
214	2:22 PM	181	1.25	144.8		
205	2:28 PM	215	1.25	172		
215	2:33 PM	208	1.25	166.4		
201	2:39 PM	237	1.25	189.6		
208	2:44 PM	199	1.25	159.2		
217	2:44 PM	58	1.25	46.4	These are actual departure times	
209	2:50 PM	210	1.25	168		
202	2:55 PM	172	1.25	137.6		
210	3:01 PM	193	1.25	154.4		
206	3:06 PM	174	1.25	139.2	Our surveyor missed this run, this count is from the driver	
211	3:12 PM	105	1.25	84		
203	3:17 PM	198	1.25	158.4		
212	3:23 PM	285	1.25	228		
204	3:29 PM	197	1.25	157.6		
213	3:35 PM	204	1.25	163.2		
217	3:35 PM	102	1.25	81.6	recorded by surveyor, and	
207	3:41 PM	181	1.25	144.8		
214	3:46 PM	237	1.25	189.6		
205	3:52 PM	124	1.25	99.2		
215	3:57 PM	172	1.25	137.6		
201	4:03 PM	216	1.25	172.8		
208	4:08 PM	139	1.25	111.2		
209	4:14 PM	182	1.25	145.6		
202	4:19 PM	182	1.25	145.6		
210	4:25 PM	252	1.25	201.6		
217	4:28 PM	73	1.25	58.4	don't match the timetables	
206	4:30 PM	190	1.25	152		
211	4:36 PM	177	1.25	141.6		
203	4:41 PM	219	1.25	175.2		
212	4:47 PM	153	1.25	122.4		
204	4:53 PM	196	1.25	156.8		
213	4:59 PM	183	1.25	146.4		
207	5:05 PM	200	1.25	160		
214	5:10 PM	171	1.25	136.8		
205	5:16 PM	189	1.25	151.2		
215	5:21 PM	155	1.25	124		
201	5:27 PM	148	1.25	118.4		
217	5:28 PM	44	1.25	35.2	we have for this Block	
208	5:32 PM	153	1.25	122.4		

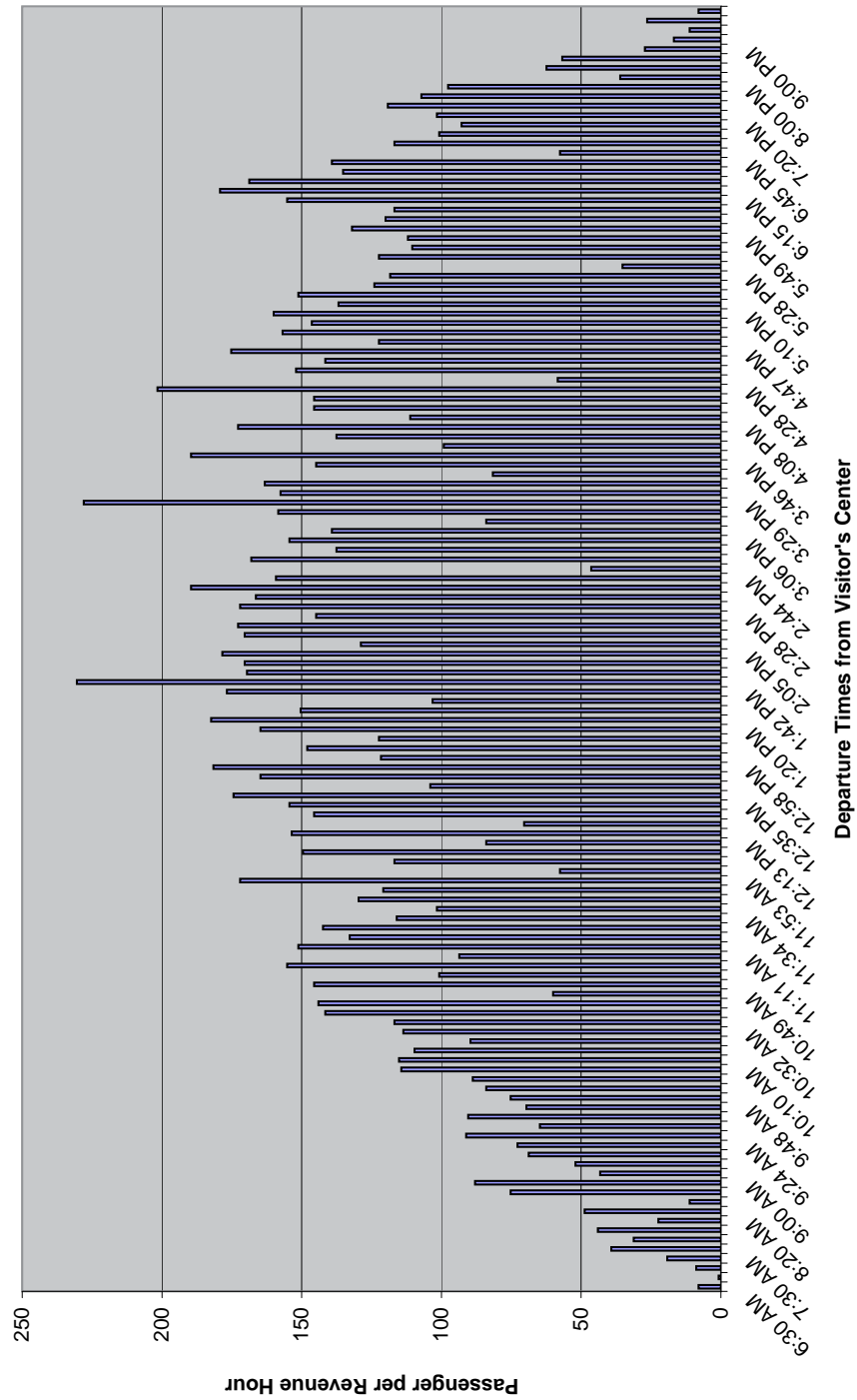


Block	Time	Ons	Rev Hrs	Pass/Rev Hr		
209	5:38 PM	138	1.25	110.4		
202	5:43 PM	140	1.25	112		
210	5:49 PM	165	1.25	132		
206	5:54 PM	150	1.25	120		
211	6:00 PM	146	1.25	116.8		
203	6:07 PM	194	1.25	155.2		
204	6:15 PM	224	1.25	179.2		
213	6:22 PM	211	1.25	168.8		
207	6:30 PM	169	1.25	135.2		
205	6:37 PM	174	1.25	139.2		
215	6:45 PM	72	1.25	57.6		
201	6:52 PM	146	1.25	116.8		
209	7:00 PM	126	1.25	100.8		
210	7:10 PM	116	1.25	92.8		
206	7:20 PM	127	1.25	101.6		
203	7:30 PM	149	1.25	119.2		
204	7:40 PM	134	1.25	107.2		
207	7:50 PM	122	1.25	97.6		
205	8:00 PM	45	1.25	36		
201	8:15 PM	78	1.25	62.4		
210	8:30 PM	71	1.25	56.8		
206	8:45 PM	34	1.25	27.2		
204	9:00 PM	21	1.25	16.8		
205	9:30 PM	14	1.25	11.2		
210	10:00 PM	33	1.25	26.4		
204	10:30 PM	10	1.25	8		
Total Passengers		19522	170			
Passengers/Rev Hr			114.8			

Canyon - Passengers Per RoundTrip



Canyon - Passengers per Revenue Hour





APPENDIX C: ZION BIKE ON BUS MEMO 1



MEMORANDUM

To:

From: Chava Kronenberg

Date: October 3, 2008

Subject: Bike Trailer Options for Zion National Park

The existing method of visitors transporting bicycles in Zion National Park is the front-load bike rack, with two bicycles per bus capacity. However, with the growing popularity of cycling as a sport and better awareness of using transit to transport bicycles, the opportunity to move bicycles to the Park in greater numbers should be reviewed.

Background

Many transit systems in the States, including the Zion Canyon Shuttle, use the front-mounted bicycle racks with two-bicycle capacity, as shown. However, once these racks are full, visitors with bicycles must wait for the next bus, which hopefully does not have a full rack. Some of the early concerns from both bicyclists and transport providers (and the bus drivers themselves) are primarily 'ease of use' concerns. Bus drivers do not want to become responsible for loading and unloading, and users often find there to be a great deal of pressure to load and unload the bicycle quickly, making it a stressful situation for all involved.



The majority of stakeholders have found with user education and outreach (including numerous PSA and opportunities for cyclists to practice putting their bike on a bus rack) that these racks have proved enormously successful. To use these racks, the cyclist lifts up on the middle bar to drop the bike rack down, places their bike in one of the two bike slots, and lifts the lever to secure the wheel. This takes about one minute, maximum, for a user familiar with the system.

Finding better methods of transporting more bicycles within the Park and on the shuttle service will give the shuttle more appeal for cyclists and allow all visitors to bring their bikes to the park. Any new system should be easy to understand for new users, easy to access for bicycles being loaded/ unloaded at a variety of bus stops, and safe for operators. Below are a number of possibilities for such a system.

Pendle 6- and 12- bike trailers



Burtech trailer, fits between 6 to 20 bicycles



Bike-Bus circa 1960s



Hippie Transport

Unfortunately, Zion Canyon Shuttle Service probably can't use the Bike-Bus model for potential bike capacity expansion due to general safety concerns and loading/ unloading difficulties. But perhaps in the future!

Trailer Systems

More popular options for multiple-bike transportation are 6- and 12- bike trailers, loaded behind trucks for the purpose of moving multiple bicycles at a time.

Pendle, a United Kingdom-based manufacturer, sells these trailers. According to the website, "bikes are separated by tilting vertical supports, which the frames rest against. They are then held securely by straps, therefore maintaining them in an upright position to ensure safe transport." As these are primarily used for transporting multiple bikes from one distinct location to another, it is unclear as to how difficult it might be to remove one bicycle on the rack amidst others. These range in price from £635.00 (~US \$1,100) for the 6 bike trailer to £1980 (~US \$3,430) for the 12

bike trailer, though these costs might be much higher for transport to the States.

Burtech, another UK-based manufacturer, makes a trailer that can accommodate between 6 and 20 upright bicycles. According to the website, the bicycles are “individually held and accessible” and are “secured by a single strap looped around the handlebar.” Depending on the type of brakes and the number of bicycles spaces needed on the system, the prices vary from £1,466 (~US \$2,540) to £2,326, (~US \$4,030) with no accounting for transport to the U.S.

For both of the reviewed systems, it is unclear whether bicycles can be loaded by individual passengers with some understanding of these systems, or whether the complexity will require bus operators to assist visitors with loading and unloading. Further, it is unclear as to the difficulty of removing bicycles at different stops.

CalTrans has a bicycle shuttle that runs across the Bay Bridge during peak commute hours from both Oakland and San Francisco. This service exists as a compliment to buses that run across the bridge with front loading bike racks, with a passenger van pulling a bike trailer loaded by the operator. Other programs include a tourist shuttle service in southern England operated from 2002-2003 that had a 24-bike “specially designed” trailer for the purpose of delivering tourists and their bicycles to local parks. It appears that this bus no longer runs, but further inquiry might be valuable.

(<http://www.durham.gov.uk/durhamcc/pressrel.nsf/Web+Releases/537D6024CF78B87680256BC000555030?OpenDocument>)

Dedicated Bicycle Transit Cars

Popular on train systems that have high demand from bike users that may use bicycles on either end of their commute. Demand often out-strips supply and these dedicated cars have become sources of conflict in the Bay Area and Portland, OR. However, they have been very effective in safely and efficiently transporting both bicycles and their users. The bikes-on-transit database is a comprehensive data source on all transit agencies and their bicycle accommodations. (<http://www.bikemap.com/bikesontransit/>)

Caltrain has dedicated an entire car on a number of its routes from San Francisco to San Jose for bicycles only. The Portland MAX light-rail has hanging bicycle racks that accommodate two bicycles per train car. Boston MBTA commuter rail cars have been re-fitted to accommodate up to 39 bicycles in a car shared with sitting passengers. These are all easy to use for cyclists, involve no assistance from operators, and keep bicycles enclosed and safe, but are space consuming—each bicycle can take up to one person space or more.

Hanging racks are popular as a space-saving measure, but require more maneuvering space to get them up and down, and take time to remove during alighting, a space versus time trade-off.

CalTrain Dedicated Bicycle Car



MBTA Commuter Rail Bicycle/ Passenger Car



Critical Considerations:

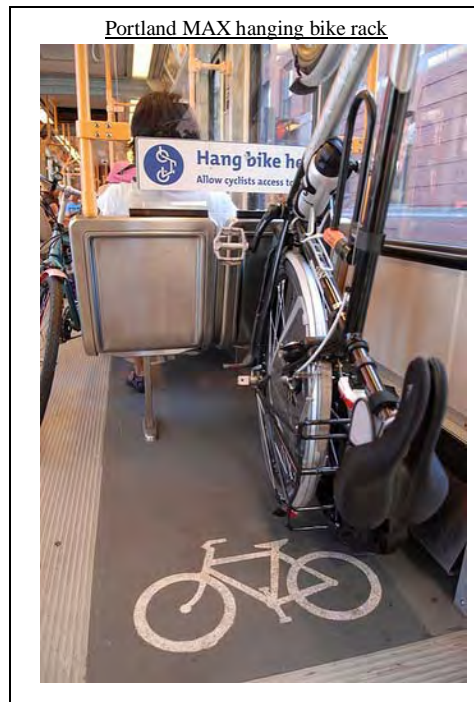
Cost: Trailers are significantly less expensive than dedicating an entire bus or portion of a bus to bicycles and their users. It is probable that creating a specially designed trailer for the Zion Canyon shuttle will probably remain less expensive than the addition of on-board bicycle buses.

Easy Loading/ Unloading: In order for any system to be effectively implemented, bus operators must be assured that they will not be involved in the loading and unloading of bicycles process, and users must be able to understand and easily use the mechanism without assistance. There must be clarity in using the system (what do I have to do next?) and needs to not be time-consuming in order to maintain existing schedules. Providing education to both bus operators and bicyclists prior to using the system will minimize these difficulties.

Easy Access to Bicycles: The ability for passengers to retrieve their bicycle at any station is a necessity. It is unclear whether the existing trailers allow for such a maneuver.

Safety/ Security – Bicyclists like to know that their bike is secure on the rack, and that there is limited potential for others to take a bicycle that is not theirs. Though bicycle theft off of racks is unlikely, the ability to keep an eye on the bicycles is appreciated by cyclists.

Weight and Hauling Capabilities: A fully loaded bike trailer is not an insignificant amount of weight. Hauling fewer bicycles reduces this weight. An analysis of the towing capacity of Zion National Canyon Shuttle services might be useful.



Findings and Recommendations:

Clearly, the difficulty of transporting bicycles on space-limited transit service beyond front-load racks has been encountered in many communities. The solutions are often creative and require both effort and initiative.

There appear to be two options for NPS Zion to increase bicycle capacity on its buses:

1. It can switch out the existing front mounted bicycle racks from 2 slot racks to 3 slot racks, thus increasing capacity by 50%. This would cost about \$1,500 per bus including labor. It would be relatively easy and inexpensive but it might not be worth the effort, given that the carrying capacity per vehicle will still be very minimal.
2. It could implement a new bike shuttle program. Several power units could be equipped with bicycle trailers (as noted in the previous section) and then these buses could be used to provide a dedicated "bike shuttle service" up the canyon every 30 or 60 minutes during the peak periods. It might be possible to do this without increasing operating costs, if the load patterns make it clear that certain trips with bus/trailer units can be replaced with bus/bike shuttle units. This is still to be determined.

Both of these options deserve further study and evaluation.

References:

For further research on bicycle and transit integration, the Transportation Research Board has published a synthesis of design examples and effective policies in TCRP 62: Integration of Bicycles and Transit, that can be found here:

http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_syn_62.pdf

Burtech website: <http://www.burtechtrailers.co.uk/product.asp?pid=8>

Pendle website: <http://www.kudubikes.co.uk/shop/400/>

