

# ACCESS AND CAPACITY ENHANCEMENT (ACE) ALTERNATIVE GRAND COUNTY SUBMISSION DRAFT

## A Generational Blueprint for the Future

### Grand County Commission Submission Draft

Prepared by Commissioner Brian Martinez | Grand County, Utah  
For inclusion in: Arches National Park Visitor Access and Experience Plan (VAEP)

Date: November 2025

## 1. Introduction and Purpose

The Access and Capacity Enhancement (ACE) Alternative provides a balanced, data-driven framework for managing visitation to Arches National Park (Arches) while protecting natural and cultural resources in accordance with the National Park Service’s dual mandate under the 1916 Organic Act. This act directs NPS to conserve the scenery, natural and historic objects, and wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

Grand County proposes the ACE Alternative to modernize outdated management assumptions and Desired Conditions, presenting a locally informed, technically grounded approach to adaptive management, infrastructure, and technology. This proposal presents the NPS with a cooperative model for sustainable access and protection, aligned with 2025 realities.

The Arches 2024 Visitor Access and Experience Plan (VAEP) proposed only two new management alternatives: the preferred Alternative B: Timed Entry Reservations and Alternative C: Daily Reservations. Both proposals require visitor reservations. These approaches favor demand restriction over infrastructure investment and increased visitor capacity. The VAEP dismissed a range of publicly supported alternatives because they were found to be inconsistent with maintaining Desired Conditions provided in the Arches 1989 General Management Plan<sup>1</sup> and the Arches 1995 Visitor Experience and Resource Protection (VERP) Implementation Plan. The timed-entry reservation alternative has been piloted at Arches since 2022. Grand County considers its impact on visitation, the local economy, and the community to be unacceptable<sup>2,3</sup>.

The VAEP proposes maintaining future summer visitation at major park attractions at 2022 levels. Summer visitation in 2022 was the lowest at Arches since 2014. In effect, this proposal

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<sup>1</sup> <https://archive.org/details/generalmanagemen00arch/mode/1up>

<sup>2</sup> “...park staff identified that peak use levels observed during the 2019 season were too high to meet desired conditions. Staff observed use levels during the 2022 season to be consistent with desired conditions...”. (VAEP, p. C-7). In 2019, Arches visitation was 27% higher than in 2022 over the months during which timed entry operated. (Source: [irma.nps.gov/Stats](https://irma.nps.gov/Stats)).

<sup>3</sup> “...gate closures were relatively rare during the comparison 2016-19 period...”; RRC Associates (2024), “NPS Report: Arches NP Economic Regional Data and Analysis”, p. 40

will restrict future summer visitation to levels experienced over a decade ago, a trajectory that is unsustainable for Grand County<sup>4</sup>.

## **2. Objectives of the Alternative**

The ACE Alternative aims to:

- Replace outdated Desired Conditions with measurable, modern performance metrics integrating capacity, infrastructure, and resource conditions to reflect current use and experience.
- Demonstrate how adaptive management, infrastructure investment, and technology sustain both resource protection and visitor access.
- Support Grand County's economic, social, and ecological vitality through responsible tourism management.
- Develop a replicable model for gateway communities that balances conservation and access.

## **3. Management Framework**

The ACE Alternative is structured into three complementary domains:

1. Management Strategies – revising Desired Conditions, zoning, and adaptive management tools.
2. Infrastructure & Capacity Strategies – optimizing physical capacity and improving visitor flow.
3. Technology & Information Systems – enabling real-time management and visitor engagement.

## **4. Management Strategies**

### **4.1 Re-evaluate Desired Conditions**

The ACE Alternative proposes formally re-evaluating the Desired Conditions for Arches to reflect modern use and operational realities while fulfilling NPS planning directives. Under the National Park Service's Management Policies 2006 (§ 2.1.2 and 2.3.1), Director's Order #2<sup>5</sup> and Director's Order #12 (NEPA Handbook), parks are required to review and, if necessary, revise

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<sup>4</sup> When considering use levels, limiting attributes, and observed conditions, park staff identified visitor use levels in 2019 as unsustainable and not allowing the park to meet desired conditions. Based on observations, visitation levels during the summer 2022 season were manageable and should be maintained in order to meet desired conditions.

<sup>5</sup> [https://www.nps.gov/subjects/policy/upload/DO\\_2\\_1-11-2021.pdf](https://www.nps.gov/subjects/policy/upload/DO_2_1-11-2021.pdf)

General Management Plans at least every 10 to 15 years or when substantial new information, conditions, or technologies emerge. The current Desired Conditions are still based on the 1989 General Management Plan, with visitor thresholds informed by a 1993 Visitor Experience Study<sup>6</sup>.<sup>7</sup> These are more than 30 years old. During the intervening 36 years since 1989, there have been significant demographic, technological, and environmental changes, including a doubling of Utah and Colorado's population, the expansion of park boundaries (including the 3,140 acre Lost Springs Canyon addition in 1998), the construction of new infrastructure, and advances in visitor management technology, including the advent and near universal adoption of the mobile phone and the Internet.

Because the proposed 2024 Visitor Access and Experience Plan (VAEP) relies on outdated Desired Conditions to determine whether alternatives meet park objectives, any solution that expands capacity will remain excluded. The failure to follow NPS planning directives and to re-evaluate Desired Conditions effectively imposes the historical 1989 and 1993 management conditions and visitor use preferences on future generations in perpetuity, preventing consideration of viable, adaptive alternatives that reflect modern and evolving visitor expectations and management capabilities.

To help justify the dismissal of alternatives that would increase capacity to meet demand, the NPS decided not to update the 1993 Visitor Experience Study because "*there were concerns that a new study would be less representative of the visiting public*" and that "*a new study would likely skew 'crowd-tolerant' demographic*"<sup>6</sup>. Grand County maintains that contemporary public surveys accurately reflect the preferences and expectations of the visiting public.

The 2021 Arches Visitor Spending and Experience Study<sup>8</sup> - *which was conducted during the period of highest visitation at Arches on record* - provides compelling evidence that today's visitors perceive higher visitation, capacity, and enhanced infrastructure to be compatible with a quality visitor experience and resource protection (see Appendix A). In that study:

- 51% agreed that the number of people on trails was acceptable to protect the experience and prevent crowding (versus 17% who disagreed);
- 53% supported expanded parking at key attraction sites, allowing for more visitors on related trails (versus 28% opposed);
- 65% supported expanded trail networks (versus 12% opposed);
- 72% favored a voluntary shuttle system (versus 12% opposed), while only

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<sup>6</sup> VAEP, p. B-5

<sup>7</sup> In preparing the 2024 VAEP, the NPS elected not to update this 1993 Visitor Experience Study because "there were concerns that a new study would be less representative of the visiting public" and "a new study would likely skew toward a more 'crowd-tolerant' demographic". VAEP, p. B-5, Footnote 1.

<sup>8</sup> <https://irma.nps.gov/DataStore/DownloadFile/69447>

- 12% agreed that the development of facilities inside the park detracts from the visitor experience (45% disagreed, including 38% who strongly disagreed).
- 89% agreed that Arches' natural resources were in pristine condition (versus 3% who disagreed)

These results demonstrate that improved management and infrastructure, rather than demand restrictions, can deliver a high-quality experience and robust resource protection.

The Desired Conditions re-evaluation process should employ modern social science and economic data to establish a Performance-Based Carrying Capacity Model, setting adaptive thresholds based on contemporary, measurable indicators such as resource conditions, visitor satisfaction, and infrastructure performance. This will enable Arches to accommodate more visitors responsibly, enhance public enjoyment, and ensure long-term conservation.

Access and capacity solutions were dismissed in the VAEP because infrastructure was considered adequate to meet outdated Desired Conditions.

## **4.2 Re-alignment of Zoning with Updated Desired Condition**

The ACE Alternative proposes two new zoning categories to reflect a diversity of visitor use preferences. This provides a more flexible and adaptive approach to the 'one size fits all' management alternatives offered in the 2024 Visitor Access and Experience Plan, which implicitly presume that all visitors share similar park destinations and recreational preferences, and comparable levels of crowd tolerance.

### **A. Higher Density / Lower Solitude Zone**

The Higher Density / Lower Solitude zone will accommodate higher visitation during peak periods through the development of new and enhanced infrastructure, including additional parking and information technology. This zone will provide improved access to popular destinations for peak-period visitors who are demonstrably more crowd-tolerant.

Importantly, during non-peak months and shoulder times of day during the peak tourism season, this zone will continue to offer opportunities for a lower-density, higher solitude experience for visitors with lower crowd tolerance.

This zone will incorporate Balanced Rock, Wolfe Ranch to Delicate Arch, Delicate Arch Viewpoint, the existing Windows section, Devil's Garden to Landscape Arch, Sand Dune Arch, and Park Avenue. Refer to Appendix B and Appendix C for detailed information on these zones.

### **B. Lower Density / Higher Solitude**

Through the development of new and enhanced infrastructure, such as additional primitive trails, the Lower Density / Higher Solitude zone will support expanded recreational opportunities for visitors who are more active, adventurous, and less crowd-tolerant year-round. This zone will

include longer, more remote hikes through sections of the park with wilderness qualities, including solitude, natural sounds, quiet, and wildlife. Refer to Appendix B and Appendix C for detailed information on these zones.

### 4.3 Adaptive Management Framework

Redefined Desired Conditions will establish new thresholds for high and low capacity. When the desired conditions are redefined, new thresholds will be set and triggers established accordingly. When triggers have been defined to meet the new desired conditions, technology can be leveraged to respond dynamically to conditions, managing visitation displacement by expanding capacity when necessary.

## 5. Infrastructure & Capacity Strategies

Refer to the associated table and maps in Appendix B, Appendix C and Appendix D.

### 5.1 Physical Improvements

#### 5.1.1 Main Entrance

##### Mid-Term Improvements (6-18 months)

- Extend the southbound left-turn pocket on U.S. 191.
- Reopen the closed entrance lane.
- Allow for automated fee payment, including an electronic, pre-paid, QR code option to expedite entry.

#### 5.1 Park Traffic and Parking

**Existing Conditions:** Parking at many key attractions is surprisingly limited.

1. **Park Avenue** has 17 marked parking spaces, with capacity for approximately four oversized vehicles on unmarked asphalt. This is five (5) fewer parking spaces than the Sweet Cravings Bakery and sandwich shop on Main St, Moab.
2. **Balanced Rock** has 20 parking spaces.
3. **The Windows** has 92 marked parking spaces<sup>9</sup>. This compares to 152 parking spaces at the Moab Field Station Hotel (formerly Super 8), 128 spaces at the Moab Valley Inn, 129 spaces at the Hyatt Place Hotel, 120 spaces at the Holiday Inn, 122 spaces at the Archway Inn, and 95 spaces at the Quality Suites.

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<sup>9</sup> <https://www.nps.gov/arch/planyourvisit/parking.htm> with two spaces that can accommodate oversized vehicles as needed as per the Federal Highway Administration Manual

4. **Devil's Garden** has 160 parking spaces. This compares to 170 parking spaces at the Moab LDS Church.
5. **Delicate Arch / Wolfe's Ranch** has 157 parking spaces.

#### **Short-term Improvements (0 – 6 months)**

**Park Avenue** Convert parallel parking on the southern side to angle parking to increase parking capacity.

#### **Devil's Garden:**

**Eastern parking section** The sealed asphalt in this section is approximately 50 feet wide. It contains one traffic lane with oversized parking on the east side of the road, and unofficial, unmarked parallel parking on the western side.

- Remove bollards from eastern parking spaces.
- Restripe these spaces, reducing the length from oversized to a generous standard vehicle length of approximately 20 feet (refer to the Federal Highway Administration Manual of Uniform Traffic Control Devices).
- Install formal, marked, parallel parking of standard size on the western side of the road, which can also accommodate oversized vehicles across two spaces as necessary (8 feet wide).
- To improve traffic flow, install two through lanes (11 feet wide) to allow <https://grandcountyut.portal.civicclerk.com/event/2706/files/attachment/10229vehicles> to pass stopped vehicles entering and exiting parking spaces more easily.

#### **Western parking section**

- Stripe parallel parking on the western side of the road.

#### **Mid-term Improvements (6 – 18 months)**

- **Windows and Devil 's Garden** : add parking inside traffic loops, expand capacity, and improve vehicular flow.
- **Balanced Rock** : expand parking capacity, add a turn lane, and through-traffic lanes to improve traffic flow.
- **Delicate Arch**: add turns lanes with space for turning around, through lanes for traffic continuing to the Delicate Arch viewpoint,

plus formal intersections with appropriate traffic signs to improve vehicular flow.

#### **Long Term Improvements (18 – 36 months)**

- Plan, develop, and create a sealed road for secondary vehicle access at the northern park boundary via Salt Valley Wash, with an automated or staffed entrance booth. This is presently an unpaved road.

#### **5.2 Shuttle and Mobility Integration (18 – 36 months)**

- Launch Moab Area Transit (MAT) operated shuttle connecting downtown Moab, Utah Raptor State Park, and Arches Visitor Center.
- Implement dynamic shuttle frequency based on real-time congestion data.
- Link shuttle service to overflow parking and major lodging areas.

#### **5.3 New and Redesigned Trails (6 – 36 months) (Refer to Appendix C)**

##### **Design and create:**

- A Delicate Arch loop trail to enhance visitor experiences, improve flow, and reduce congestion.
- A multi-use pathway parallel to U.S 191 connecting Arches to Utah Raptor State Park.
- A multi-use hardened trail is an official bike entrance into the park, connecting Utah Raptor State Park with Balanced Rock and the Windows.
- Secondary interpretive trails in previously disturbed areas to disperse visitation.
- A Skyline Arch / Sand Dune Arch Loop trail, incorporating Broken Arch and Tapestry Arch (high density-low solitude).
- A Lost Canyon Overlook trail (low density – high solitude).
- A Lost Canyon trail (low density – high solitude).
- Upper and Lower Courthouse Wash trails (low density – high solitude).
- A Colorado River Overlook trail (low density – high solitude).

## 6. Technology & Information Systems

### 6.1 Mighty Five Mobile Platform (6 – 36 months)

A joint adaptive management and capacity optimization initiative between the NPS, State of Utah, and Grand County, providing real-time data on parking, crowding, and weather, along with push notifications and incentives to manage visitor distribution and encourage off-peak visitation. Dynamic management via the ACE App will inform visitors in real time.

### 6.2 ACE Dashboard (06 – 36 months)

A shared management system linking NPS, State of Utah, Grand County, and Southern Utah University (SUU) for live monitoring of visitation, parking telemetry, and MAT ridership. This will include quarterly reporting and public transparency.

## 7. Implementation and Partnerships

**Short-Term** (0–6 Months): Grand County adoption and submission; initiate data-sharing and app prototype; restripe existing parking lots; add shuttle pickup at the Visitor Center via MAT.

**Mid-Term** (6–18 Months): Desired Conditions reclassification study; parking lot redesigns; new trail designs; bike path design.

**Long-Term** (18–36 Months): ACE Dashboard and app launch; shuttle and parking telemetry pilots; Salt Valley Wash feasibility study; scalability studies; parking lot construction; new trails; bike path construction from Utah Raptor State Park to the Windows.

**Partners:** State of Utah, Grand County, NPS, Utah Department of Transportation, Utah Office of Tourism, Moab Area Transit, SUU Visitor Use Research Center, Bureau of Land Management, Utah State Parks.

## 8. Socio-Economic Context

The ACE Alternative supports Grand County's gateway tourism-dependent economy by restoring significant revenue losses from visitation and mitigating negative direct, indirect, and induced economic impacts, while creating new economic opportunities in data management, shuttle and tour operations, and technology.

## 9. Conclusion

The ACE Alternative provides a scalable, balanced framework for sustaining visitor access while protecting resources. By combining management modernization, infrastructure improvements,

and technology integration, Grand County provides a 21st-century model for adaptive, cooperative park management and public land stewardship.

# **APPENDIX A: EVIDENCE-BASED SUPPORT FOR UPDATED DESIRED CONDITIONS**

This appendix provides a modern empirical basis for redefining Desired Conditions and expanding sustainable visitor capacity at Arches National Park. It relies on the 2021 Arches Visitor Spending and Experience Study, which was conducted in the spring of 2021 when visitation at Arches was the highest on record<sup>10</sup>. It provides strong evidence that higher visitor capacity can be achieved with high visitor satisfaction and resource protection, consistent with the ACE Alternative's objectives.

## **A.1 Purpose**

To establish a contemporary data foundation for revising the park's Desired Conditions in accordance with NPS Management Policies (2006, §2.1.2 & §2.3.1) and Director's Order #12 (NEPA handbook), this appendix demonstrates that the 2021 Visitor Study supports capacity expansion rather than restriction, and that Arches' management framework must evolve accordingly.

## **A.2 Core Survey Findings Supporting Capacity Expansion**

The 2021 Arches Visitor Study directly contradicts the 2024 VAEP's underlying assumption that expanded access degrades visitor experience and is inconsistent with resource protection. Survey data indicate that contemporary visitors overwhelmingly favor improvements to capacity, access, and mobility systems that recalibrate Desired Conditions upward. 80% of survey respondents were college or trade school graduates, with 33% holding a doctoral, master's, or professional degree.

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<sup>10</sup> Conducted from May 28 to June 07, 2021. Visitation in May and June 2021 was 225,789 and 238,499 respectively. For comparison, visitation in May and June 2025 was 193,448 and 175,660 respectively.

**Table A.1 2021 Visitor Use and Experience Summer Survey Results**

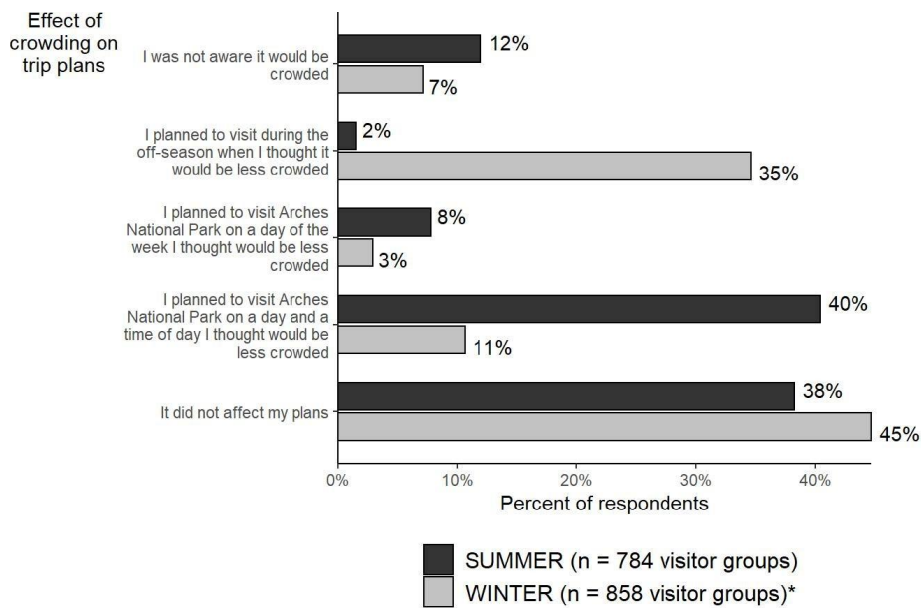
Visitor Preference of Condition	Survey Result	Interpretation
<b>Crowding</b>	<ul style="list-style-type: none"> <li>• While 41% agreed that the park was generally too crowded, most visitors did not.</li> <li>• 51% agreed that the number of people on trails was acceptable to protect the quality of visitor experiences and prevent crowding. 17% disagreed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reflects that most people do not consider the park to be unacceptably crowded, especially at the site attractions themselves.</li> <li>• Confirms that the visitor experience was not diminished in high density.</li> </ul>
<b>Development</b>	<ul style="list-style-type: none"> <li>• Only 12% agreed that the development of facilities inside the park detracts from visitors' experiences.</li> <li>• 45% disagreed, including 38% who strongly disagreed.</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure development would enhance the visitor experience.</li> </ul>
<b>Parking</b>	<ul style="list-style-type: none"> <li>• 53% supported expanding parking at key attraction sites to accommodate more visitors on related trails.</li> <li>• Only 28% were opposed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reflects a demand for greater physical capacity throughout the park.</li> </ul>

<b>Trail Expansions</b>	<ul style="list-style-type: none"> <li>65% supported expanding the trail network to provide additional recreation opportunities.</li> <li>Only 12% were opposed.</li> </ul>	<ul style="list-style-type: none"> <li>Shows broad interest in active recreation, creating opportunities to visit more of the park, dispersing use, and reducing congestion.</li> </ul>
<b>Voluntary Shuttle Bus System</b>	<ul style="list-style-type: none"> <li>72% supported implementing a voluntary shuttle system to expand access modes.</li> <li>Only 12% were opposed.</li> </ul>	<ul style="list-style-type: none"> <li>Validates support for multi-modal, transit-based solutions to increase capacity and visitor flow.</li> </ul>
<b>Resource Protection</b>	<ul style="list-style-type: none"> <li>89% percent agreed that Arches' natural resources were in pristine condition, including 36% who strongly agreed.</li> <li>Only 3% of people disagreed.</li> </ul>	<ul style="list-style-type: none"> <li>Confirms that high use levels do not compromise resource protection.</li> </ul>

**A.4 Empirical Evidence Supporting Capacity Re-Evaluation**

Findings from the 2021 Study show that visitors remain delighted and supportive of management improvements that expand access. These data provide strong empirical justification for reevaluating the Desired Conditions to increase well-managed capacity at Arches National Park.

**Figure A-1. Effect of Possible Crowding on Trip Plans**



X<sup>2</sup>=417.976; p<0.001

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*Over one-third of summer reported that the possibility of crowding did not affect their trip plans—demonstrating that visitor crowd tolerance remains high even at record visitation levels.*

**Figure A-2. Support for Management Practices**

**Table 14.** Support or opposition to management practices

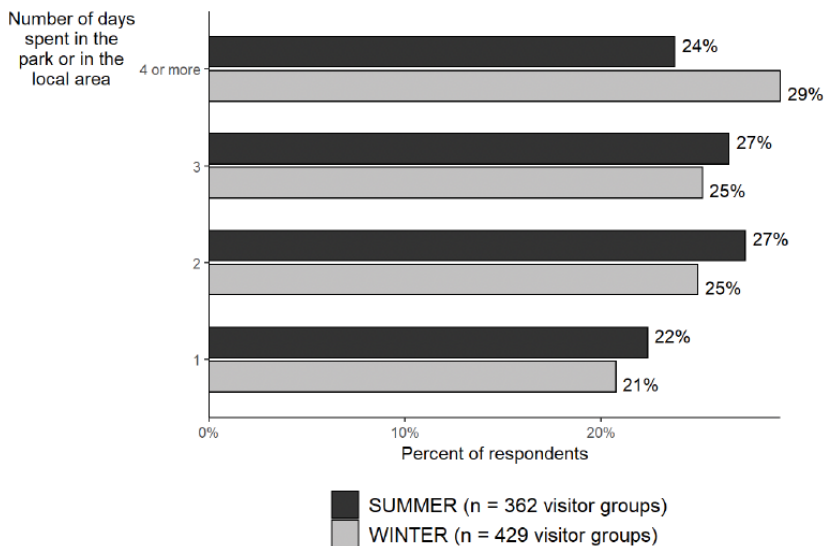
Management practice	Season	N	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose	Do not Know/No Opinion	Total	Statistic
Expand parking areas at key attraction sites, allowing for more visitors on the related trails	Summer	353	23%	30%	17%	22%	6%	2%	100%	X <sup>2</sup> =41.004; p<0.001
	Winter	418	9%	26%	20%	31%	10%	4%	100%	
Implement advance timed entry reservations to the park to reduce crowding during the peak season	Summer	348	17%	42%	14%	18%	5%	3%	100%	X <sup>2</sup> =6.671; p=0.246
	Winter	419	17%	45%	16%	12%	6%	5%	100%	
Expand trail network in the park to provide additional recreation opportunities	Summer	350	17%	48%	20%	11%	1%	3%	100%	X <sup>2</sup> =9.721; p=0.084
	Winter	419	24%	44%	18%	7%	3%	4%	100%	
Implement advance timed entry reservations to visit specific areas of the park (i.e., site-specific permits)	Summer	350	9%	28%	21%	31%	9%	3%	100%	X <sup>2</sup> =4.812; p=0.439
	Winter	418	10%	33%	19%	25%	9%	4%	100%	
Implement mandatory shuttle system to reduce traffic congestion	Summer	347	8%	20%	18%	36%	16%	2%	100%	X <sup>2</sup> =3.764; p=0.584
	Winter	415	8%	19%	20%	31%	20%	2%	100%	
Implement voluntary shuttle system to increase modes of access	Summer	351	15%	57%	14%	10%	2%	3%	100%	X <sup>2</sup> =13.876; p=0.016
	Winter	415	17%	48%	20%	7%	5%	3%	100%	
Temporarily close congested parking areas	Summer	352	3%	28%	28%	29%	7%	5%	100%	X <sup>2</sup> =7.789; p=0.168
	Winter	414	6%	31%	26%	24%	9%	5%	100%	

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Park Service 2021 Arches Visitor Spending and Experience Study pg.82

More than 70 percent of visitors support a voluntary shuttle service, and 50 percent support parking expansion. Public opinion favors infrastructure and mobility improvements that increase managed access rather than limit entry.

**Figure A-5. Length of Stay in Park and Local Area**



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Over half of respondents spend three or more days in Arches and Moab, reinforcing the direct economic benefit of sustaining and accommodating higher levels of visitation.

## Figure A-6. Importance of Visiting Park Destinations

Table 7. Importance of visiting park destinations

Destination	Season	N	Extremely Important	Very Important	Moderately Important	Slightly Important	Not at all Important	Did not visit	Total	Statistic
Delicate Arch	Summer	317	42%	32%	13%	6%	1%	7%	100%	$\chi^2=6.806$ , $p=0.235$
	Winter	377	40%	27%	15%	5%	1%	11%	100%	
Landscape Arch	Summer	302	20%	28%	24%	9%	2%	17%	100%	$\chi^2=1.53$ , $p=0.91$
	Winter	367	20%	26%	27%	8%	2%	17%	100%	
Park Avenue	Summer	293	12%	16%	23%	13%	4%	32%	100%	$\chi^2=1.965$ , $p=0.854$
	Winter	367	11%	15%	22%	14%	7%	32%	100%	
Fiery Furnace	Summer	295	7%	15%	23%	15%	7%	33%	100%	$\chi^2=13.738$ , $p=0.017$
	Winter	366	10%	12%	19%	10%	5%	43%	100%	
Sand Dune Arch	Summer	287	9%	19%	25%	14%	6%	28%	100%	$\chi^2=3.315$ , $p=0.652$
	Winter	358	11%	18%	22%	14%	8%	27%	100%	
Balanced Rock	Summer	310	20%	28%	30%	13%	4%	6%	100%	$\chi^2=12.728$ , $p=0.026$
	Winter	374	16%	23%	29%	15%	5%	12%	100%	
Visitor Center	Summer	309	19%	20%	20%	12%	6%	22%	100%	$\chi^2=3.108$ , $p=0.683$
	Winter	362	18%	17%	18%	12%	8%	26%	100%	
Windows	Summer	303	25%	31%	25%	7%	3%	9%	100%	$\chi^2=12.344$ , $p=0.03$
	Winter	365	22%	25%	25%	7%	3%	18%	100%	
Other	Summer	81	31%	32%	15%	1%	1%	20%	100%	$\chi^2=5.267$ , $p=0.384$
	Winter	110	42%	22%	14%	5%	1%	17%	100%	

National Park Service 2021 Arches Visitor Spending and Experience Study pg.63

*Nearly all visitors rated major park destinations as “very” or “extremely important.” Desired Conditions should ensure that capacity planning preserves access to these signature experiences, central to visitor satisfaction.*

### A.5 Interpretation and Recommendation

The 2021 Arches Visitor Study provides statistically grounded evidence for revising Desired Conditions. High satisfaction and widespread visitor support for infrastructure improvements

indicate that Arches' actual social carrying capacity exceeds outdated thresholds. Therefore, the ACE Alternative recommends that NPS adopt a Performance-Based Carrying Capacity Model that integrates measurable indicators, such as visitor satisfaction, resource condition, and infrastructure performance, to guide responsible capacity expansion.

## APPENDIX B: RE-ALIGNMENT OF ZONING WITH UPDATED DESIRED CONDITIONS

**Table 1: Higher Density / Lower Solitude Zones**

Zone	Experience Description	Enhanced Infrastructure Requirements
<b>The Windows</b>	<ul style="list-style-type: none"> <li>• High interpretive use, social recreation, and sightseeing focus, consisting of short and longer hikes on well-demarcated paths &amp; trails</li> </ul>	<ul style="list-style-type: none"> <li>• Additional parking</li> <li>• Reconfigured traffic to improve flow, including the addition of bypass lanes</li> <li>• Creation of an additional loop trail connecting Windows with Garden of Eden, Cove of Cave, and Balanced Rock</li> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> <li>• Potable water facility</li> </ul>
<b>Balanced Rock</b>	<ul style="list-style-type: none"> <li>• Central scenic corridor with high levels of passing-through traffic.</li> <li>• Social recreation and sightseeing focus, consisting of short hikes on well-demarcated paths and trails</li> </ul>	<ul style="list-style-type: none"> <li>• Additional parking</li> <li>• Reconfigured traffic to improve flow, including turn and bypass lanes</li> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> </ul>
<b>Delicate Arch</b>	<ul style="list-style-type: none"> <li>• Active recreation focus, consisting of longer, more challenging hikes</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of an additional loop trail</li> </ul>

	<p>on well-demarcated paths and trails</p>	<ul style="list-style-type: none"> <li>• Reconfigured traffic to improve flow, including turn lanes, intersections &amp; stop signs</li> <li>• Information technology</li> <li>• Potable water facility</li> </ul>
<p><b>Delicate Arch Viewpoint</b></p>	<ul style="list-style-type: none"> <li>• Social recreation and sightseeing focus, consisting of short hikes on well-demarcated trails</li> </ul>	<ul style="list-style-type: none"> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> </ul>
<p><b>Devil's Garden Landscape Arch</b></p>	<ul style="list-style-type: none"> <li>• High interpretive use, social recreation, and sightseeing focus, consisting of medium-length hikes on well-demarcated paths and trails</li> </ul>	<ul style="list-style-type: none"> <li>• Additional and reconfigured parking</li> <li>• Reconfigure traffic to improve flow, including bypass lanes and connectors</li> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> </ul>
<p><b>Sand Dune, Broken, Tapestry &amp; Skyline Arches</b></p>	<ul style="list-style-type: none"> <li>• High interpretive use, social recreation, active recreation, and sightseeing focus, consisting of short to long hikes on well-demarcated trails</li> </ul>	<ul style="list-style-type: none"> <li>• Create an additional loop trail connecting Sand Dune, Broken, Tapestry, and Skyline Arches</li> <li>• Additional parking at Sand Dune Arch and Skyline Arch parking lots</li> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> </ul>

		<ul style="list-style-type: none"> <li>• Potable water facility</li> </ul>
<b>Park Avenue</b>	<ul style="list-style-type: none"> <li>• High interpretive use, social recreation, and sightseeing focus, consisting of short hikes on well-demarcated paths and trails</li> </ul>	<ul style="list-style-type: none"> <li>• Carpark reconfiguration and restriping</li> <li>• Improved trail demarcation, including fencing</li> <li>• Information technology</li> </ul>

**Table 2: Lower Density / Higher Solitude Zones**

<b>Area</b>	<b>Experience Description</b>	<b>Enhanced Infrastructure Requirements</b>
<b>Colorado River Trail</b>	<ul style="list-style-type: none"> <li>• Active recreation focus consisting of long hikes through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of a new primitive trail connecting the Windows with a Colorado River overlook at its confluence with Salt Wash</li> <li>• Higher quality trail demarcation and signage of wilderness quality</li> </ul>

<p><b>Delicate Arch</b></p> <p><b>Primitive Trail</b></p>	<ul style="list-style-type: none"> <li>Active recreation focus consisting of a physical hike through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Creation of a new primitive trail along the historical trail route connecting Delicate Arch Viewpoint with Delicate Arch</li> <li>Parking lot restriping to reduce the number of oversized vehicle spaces</li> <li>Higher quality trail demarcation and signage of wilderness quality</li> </ul>
<p><b>Devil's Garden</b></p> <p><b>Primitive Loop</b></p>	<ul style="list-style-type: none"> <li>Active recreation focus consisting of longer hikes through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Higher quality trail demarcation and signage of wilderness quality</li> </ul>
<p><b>Fiery Furnace</b></p>	<ul style="list-style-type: none"> <li>Active recreation focuses on remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife.</li> </ul>	
<p><b>Tower Arch &amp; Klondike Bluffs</b></p>	<ul style="list-style-type: none"> <li>Active recreation focuses on remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Higher quality trail demarcation and signage of wilderness quality</li> </ul>
<p><b>Lost Springs Canyon Overlook</b></p>	<ul style="list-style-type: none"> <li>Active recreation focus consisting of long hikes through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>Creation of a new primitive trail connecting Wolfe Ranch with Lost Springs / Swanky Arch Overlook</li> </ul>

		<ul style="list-style-type: none"> <li>• Higher quality trail demarcation and signage of Canyonlands NP quality</li> </ul>
<b>Lost Springs Canyon</b>	<ul style="list-style-type: none"> <li>• Active recreation focus consisting of long hikes and remote dispersed camping through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of a demarcated primitive trail through Lost Canyon connecting Sand Dune Arch trailhead with Wolfe Ranch</li> <li>• Remote campsites like the Canyonlands Needles district</li> </ul>
<b>Upper &amp; Lower Courthouse Wash</b>	<ul style="list-style-type: none"> <li>• Active recreation focus consisting of long hikes and remote dispersed camping through remote areas with wilderness qualities, including solitude, natural sounds, quiet, and wildlife</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of a larger, marked parking lot at Courthouse Wash</li> <li>• Creation of a demarcated, signed primitive trail connecting the parking lot to the upper &amp; lower Courthouse Wash</li> <li>• Toilet</li> </ul>

## **APPENDIX C: EXPANDED TRAIL NETWORK**

# DRAFT: Proposed Balance Rock to Double Arch



## Legend

- |                                       |                    |                  |
|---------------------------------------|--------------------|------------------|
| Bike Path Balance Rock to Double Arch | Arches Trailheads  | Arches Restrooms |
| Bike - Proposed                       | Pullout            | Trail            |
| Hike - Proposed                       | Arches Picnic Area | Arches Boundary  |

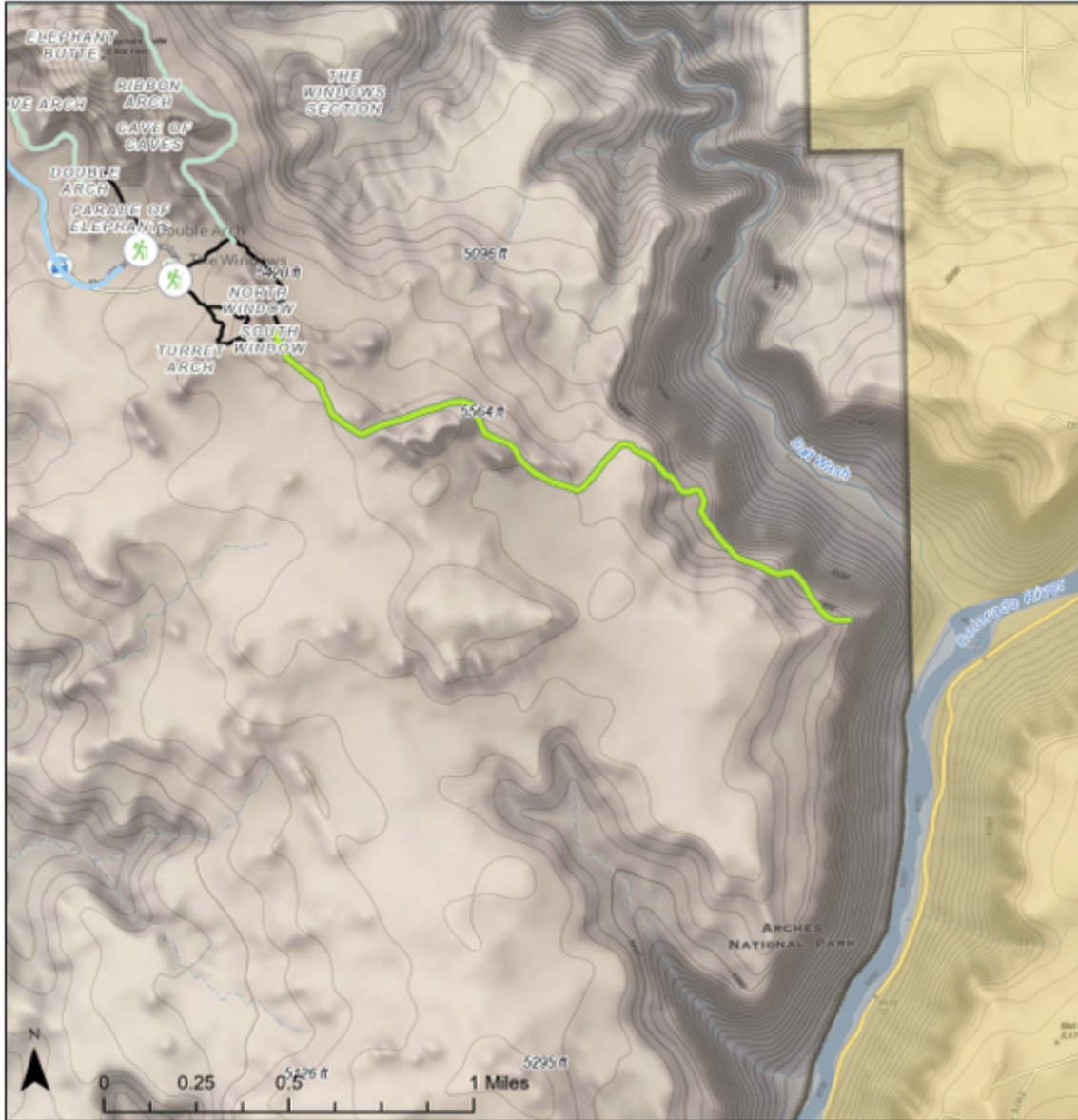
# DRAFT: Proposed Balance Rock to Utahraptor



## Legend

- |   |                           |                            |
|---|---------------------------|----------------------------|
| Bike Path Balance Rock to Utahraptor Park | Arches Picnic Area        | State Trust Lands          |
| Bike - Proposed                           | Arches Restrooms          | State Sovereign Land       |
| Arches Trailheads                         | Trail                     | State Parks and Recreation |
| Pullout                                   | Bureau of Land Management | Arches Boundary            |

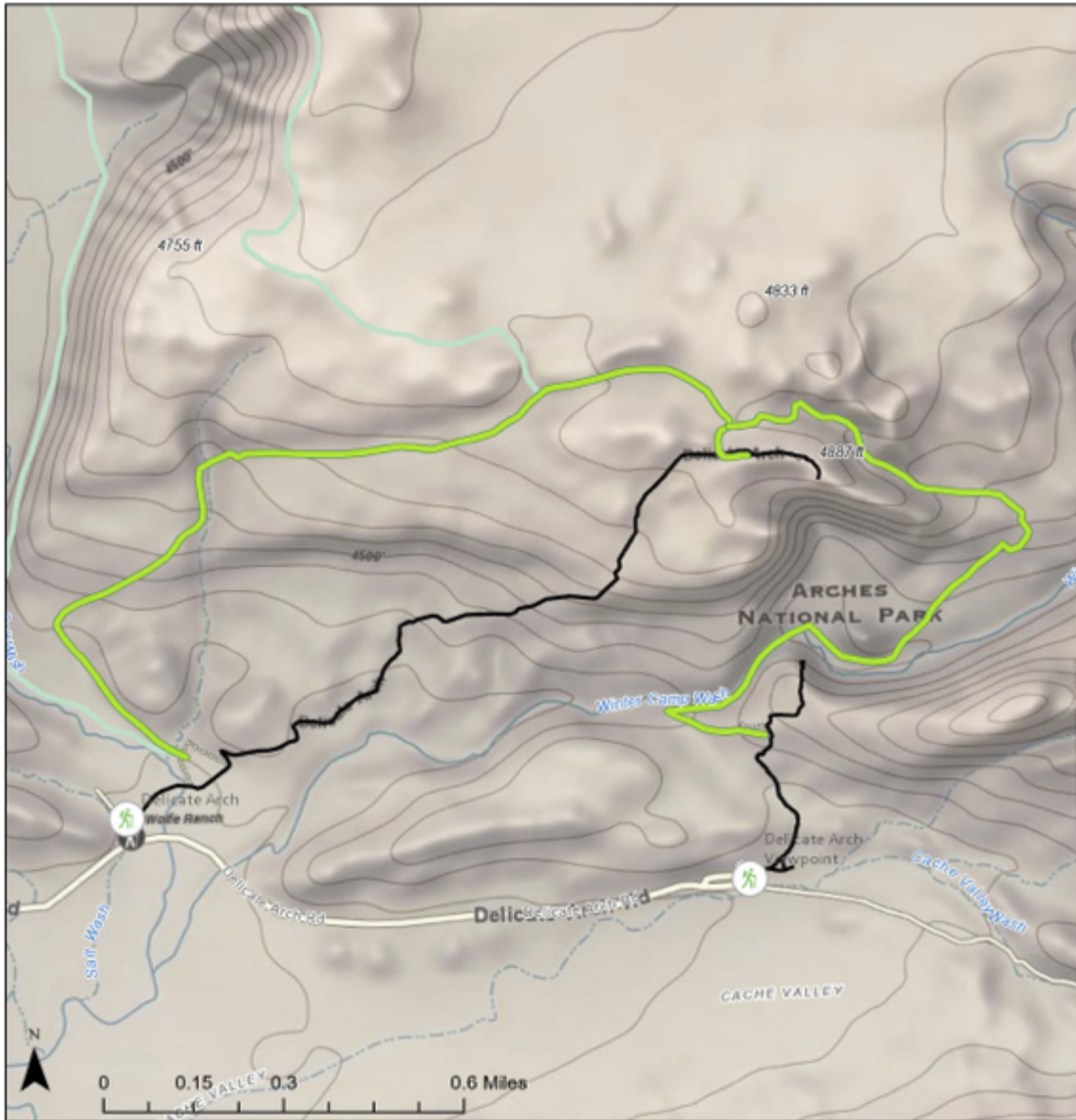
# DRAFT: Proposed Colorado River Overlook



## Legend

- |                         |                   |                           |
|-------------------------|-------------------|---------------------------|
| Colorado River Overlook | Arches Trailheads | Trail                     |
| Bike - Proposed         | Pullout           | Bureau of Land Management |
| Hike - Proposed         | Arches Restrooms  | State Sovereign Land      |
|                         |                   | Arches Boundary           |

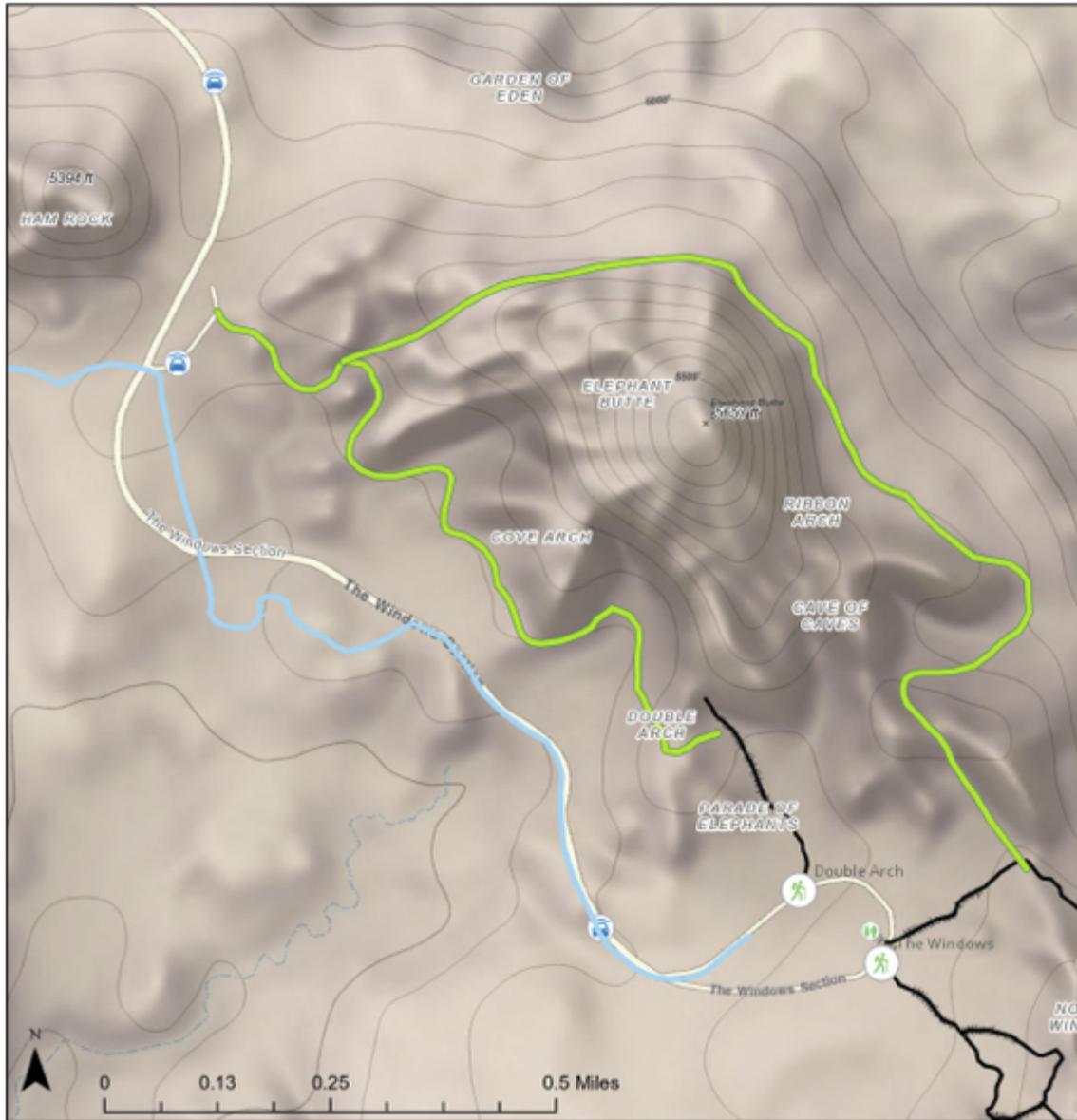
# DRAFT: Proposed Delicate Arch Loop



## Legend

- Delicate Arch Loop Trail
- Hike - Proposed
- Arches Trailheads
- Arches Restrooms
- Trail
- Arches Boundary

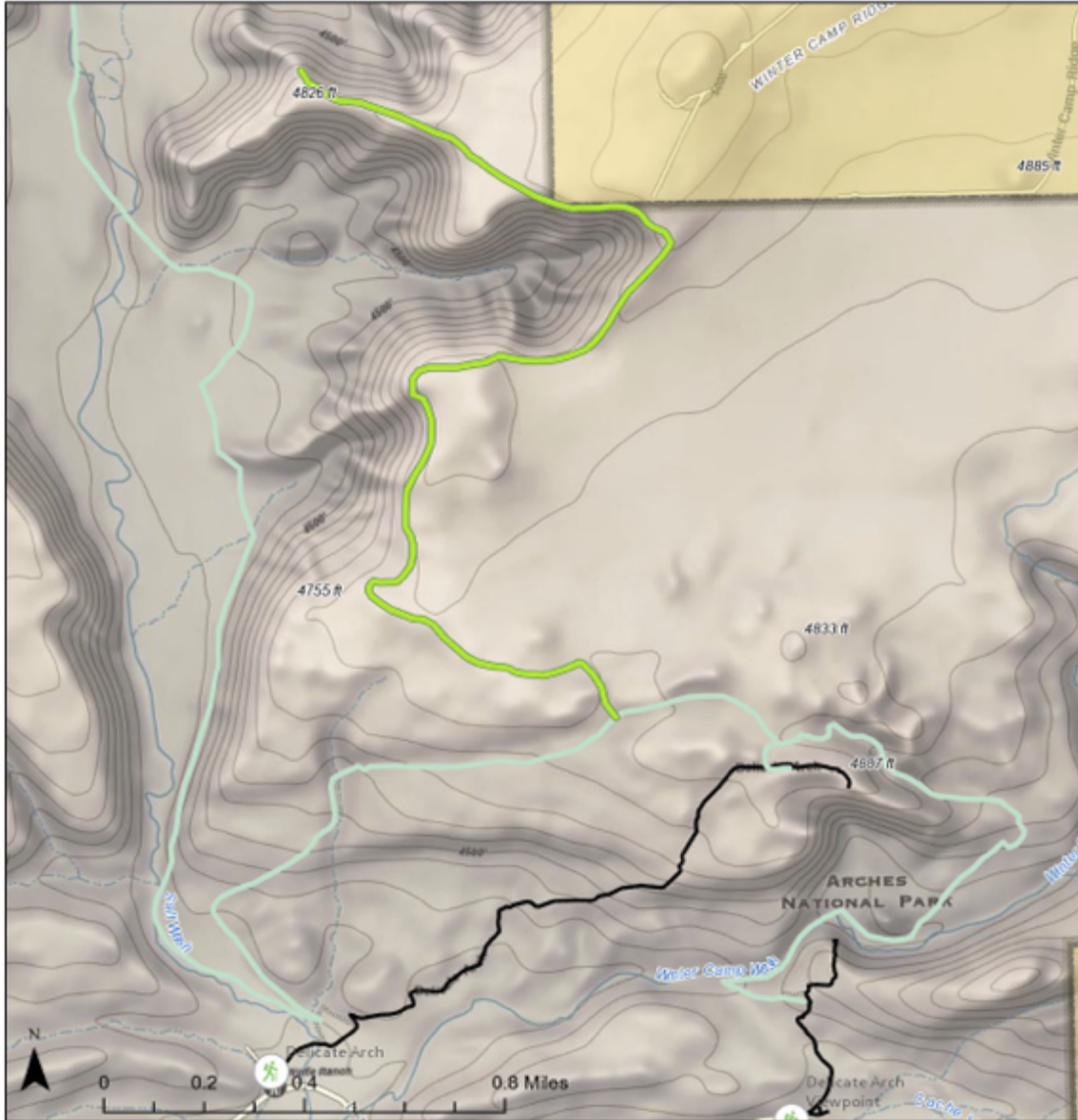
# DRAFT: Proposed Garden of Eden



## Legend

- Garden of Eden Trail
- Bike - Proposed
- Hike - Proposed
- Arches Trailheads
- Pullout
- Arches Restrooms
- Trail
- Arches Boundary

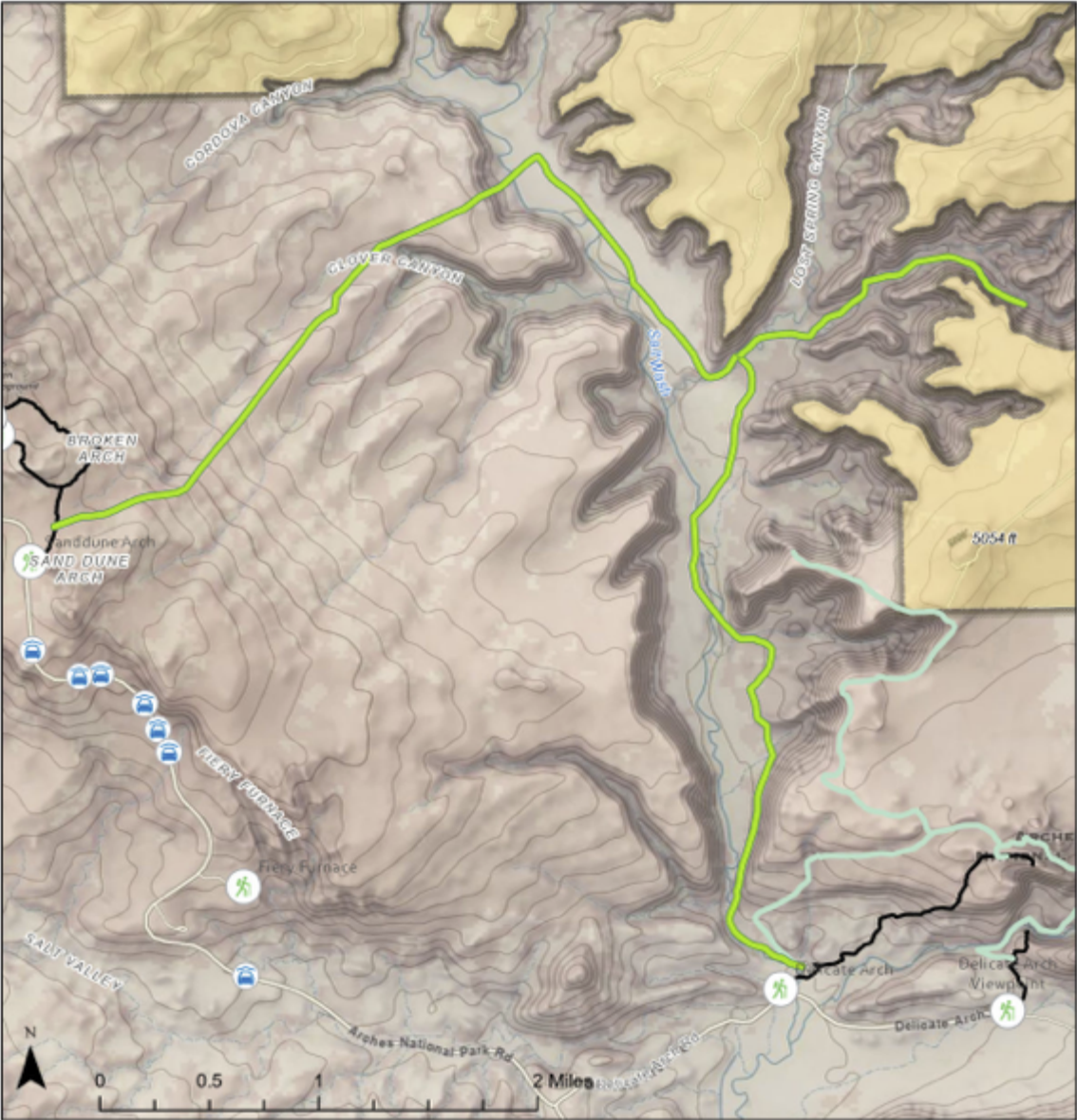
# DRAFT: Proposed Lost Canyon Overlook



## Legend

- Lost Canyon Overlook
- Hike - Proposed
- ⛶ Arches Trailheads
- ♿ Arches Restrooms
- Trail
- Bureau of Land Management
- Arches Boundary

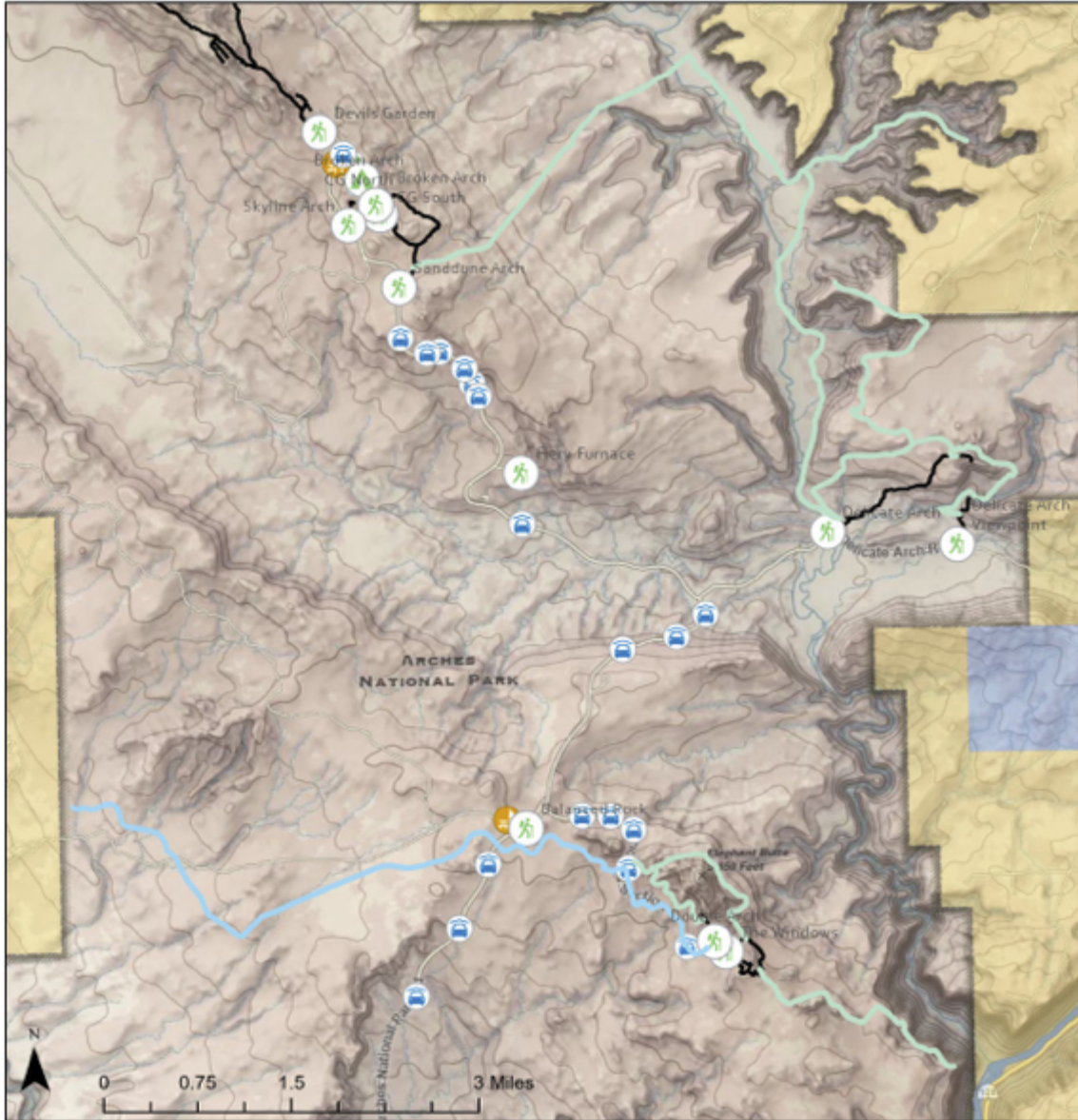
# DRAFT: Proposed Lost Canyon Primitive Trail



## Legend

- Lost Canyon Primitive Trail
- Hike - Proposed
-  Arches Trailheads
-  Pullout
-  Arches Restrooms
-  Trail
-  Bureau of Land Management
-  Arches Boundary

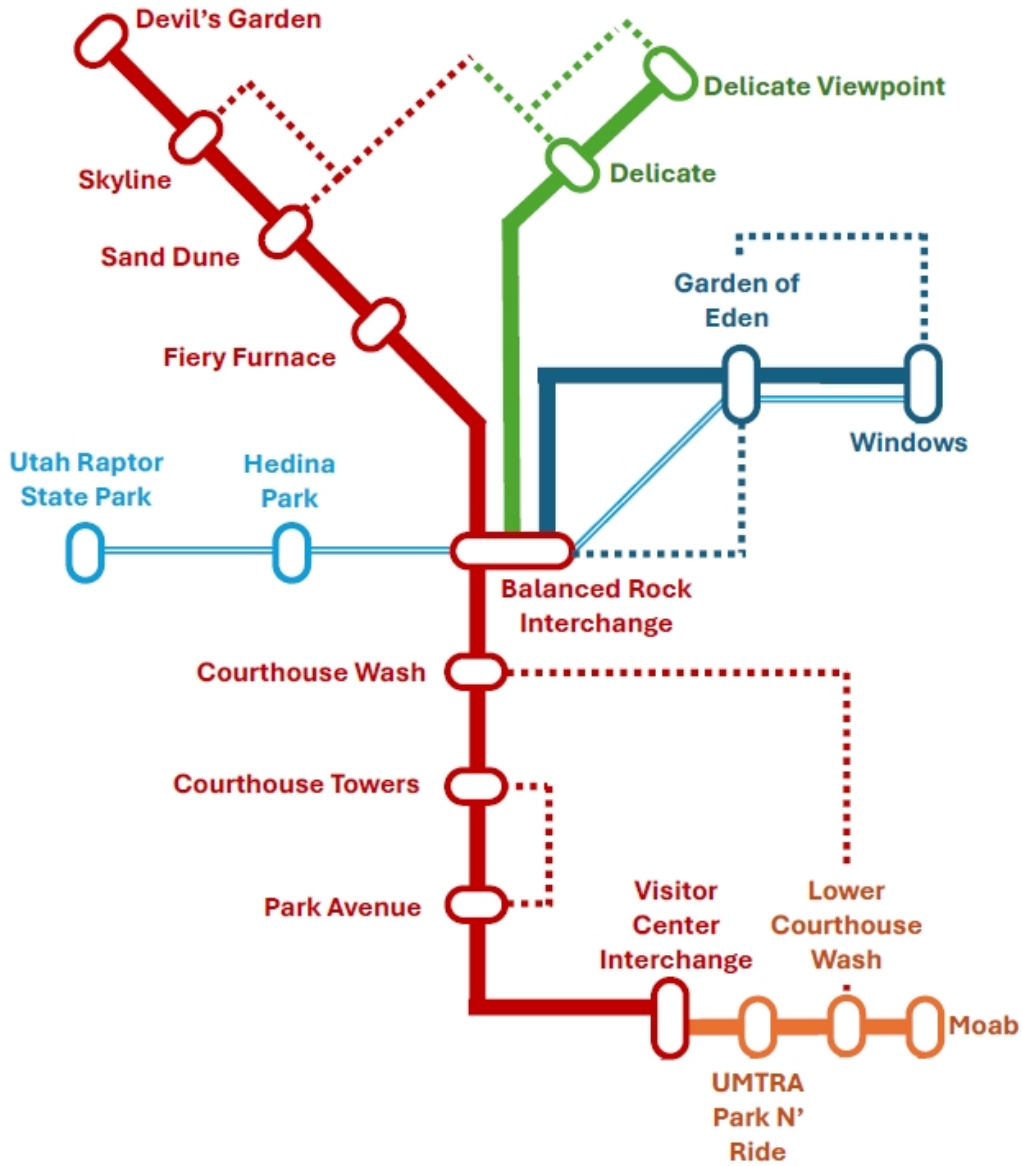
# DRAFT: Proposed Trails



## Legend

- |                   |                    |                      |                           |
|-------------------|--------------------|----------------------|---------------------------|
| Bike - Proposed   | Pullout            | Campground           | Bureau of Land Management |
| Hike - Proposed   | Arches Picnic Area | Arches Restrooms     | State Trust Lands         |
| Arches Trailheads | Trail              | State Sovereign Land | Arches Boundary           |

# APPENDIX D: CONCEPTUAL MULTI-MODAL TRANSPORTATION PLAN



Voluntary Shuttle System	Active Transportation Network	Grand County Transit
<span style="color: red;">—</span> Main Line	<span style="color: lightblue;">—</span> Bike Paths	<span style="color: orange;">—</span> Moab Area Transit
<span style="color: green;">—</span> Delicate Line	<span style="color: red;">⋯</span> Hiking Trails	