

# Mescal Trailhead Design Narrative



Southwestern Region  
Coconino National Forest  
Red Rock Ranger District  
USDA Forest Service



**DRAFT Design Narrative for Mescal Trailhead**

Prepared by: Jennifer Burns (Landscape Architect)

Reviewed by:

Forest Landscape Architect: \_\_\_\_\_

Recreation Staff Officer: \_\_\_\_\_

Forest Engineer: \_\_\_\_\_

Recommended by:

District Ranger: \_\_\_\_\_

Forest Supervisor: \_\_\_\_\_

**Introduction**

A Design Narrative is required by FSM 2333.2 to document design decisions related to site and facility development. This document assembles basic information including site characteristics, recreation opportunities, and management objectives. The Design Narrative documents level of development and architectural themes and the design scope. It is intended to be used as a foundation for design development and preparation of construction drawings and specifications.

The Red Rock Ranger District proposes the development and construction of a trailhead and day use site on the Red Rock Ranger District of the Coconino National Forest, outside of the city of Sedona, AZ. This development would be located at an obsolete "borrow" pit site north of Sedona.

The development of this site has been approved through a NEPA process conducted in 2015 and is supported by the Coconino National Forest Land and Resource Management Plan. Additional public opinion on this project occurred during 2010 when the District scoped for trail and trailhead additions in the Sedona area. Numerous comments were received all favorable to the development.

The site will be developed in accordance with the Coconino National Forest Plan, National Environmental Policy Act, the Forest Service Outdoor Accessibility Guidelines, the Forest Service Trail Accessibility Guidelines, the Built Environment Image Guide, the Clean Water Act, and will follow guidance from the Recreation Opportunity Spectrum and Visual Management System for level of development.

This project will:

- Rehabilitate the disturbed area as a developed trailhead to concentrate and organize use.
- Provide a new trailhead for access to four popular trails: Mescal, Chuckwagon, Long Canyon, Devil's Bridge and to Red Rock Secret Mountain Wilderness.
- Provide parking to relieve unmanaged roadside parking associated with nearby Dry Creek Trailhead (people going to Devils Bridge TH).

- Provide parking for a minimum of 40 vehicles, including 2 oversize vehicles, and a shuttle/trolley stop. Provide maximum parking, considering site restraints and BEIG guidance.
- Construct safe, accessible routes and facilities, sanitation amenities, and a scenic vista point.
- Provide orientation, interpretation and safety information, focusing on information about the area, and trail and wilderness ethics messages.
- Maintain and improve the existing head-in parking that has been developed across Long Canyon Road, as added “overflow” parking capacity.

### **Existing Conditions**

#### **Current Conditions of the Site**

This site is currently a vacant, undeveloped, abandoned borrow pit that receives no visitor use. It contains a small drainage, piles of waste dirt from past road construction, and remnant vehicle circulation and grading.

The site is easily accessed from Sedona along Dry Creek Road and then by paved Long Canyon Road which visitors use to access the very popular Devils Bridge Trail and the less popular Wilderness trails. On busy weekends 20-80 cars will be parked haphazardly alongside the road.

To address the demand for trail access in past years, the FS developed “head-in” roadside parking of approximately 20 spaces alongside paved Boynton Pass Road. This is located immediately across the road from the Mescal TH development site.

#### **Site Features**

The site is steep sided, has some natural shelving rock surfacing, and other areas that are better drained. A small drainage, which sometimes flows water, crosses the middle of the site and passes water under the paved road through a culvert. There are noxious weeds at the site, concentrated in the area where borrow material has been stored. There is some mature native vegetation on the site.

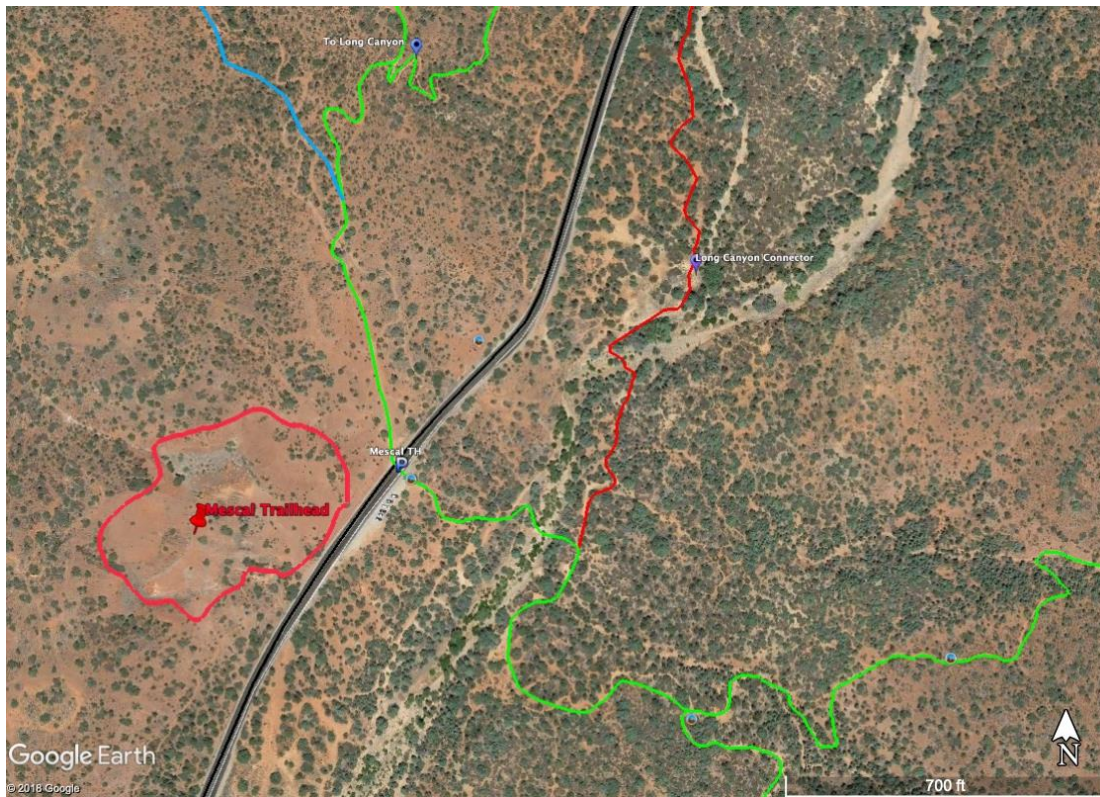
#### **Climate**

The Sedona area receives 5-20 inches of average annual precipitation. The wettest season extends from July to October; a second wet season extends from December to March. At this elevation, snow cover does not persist for more than a few days.

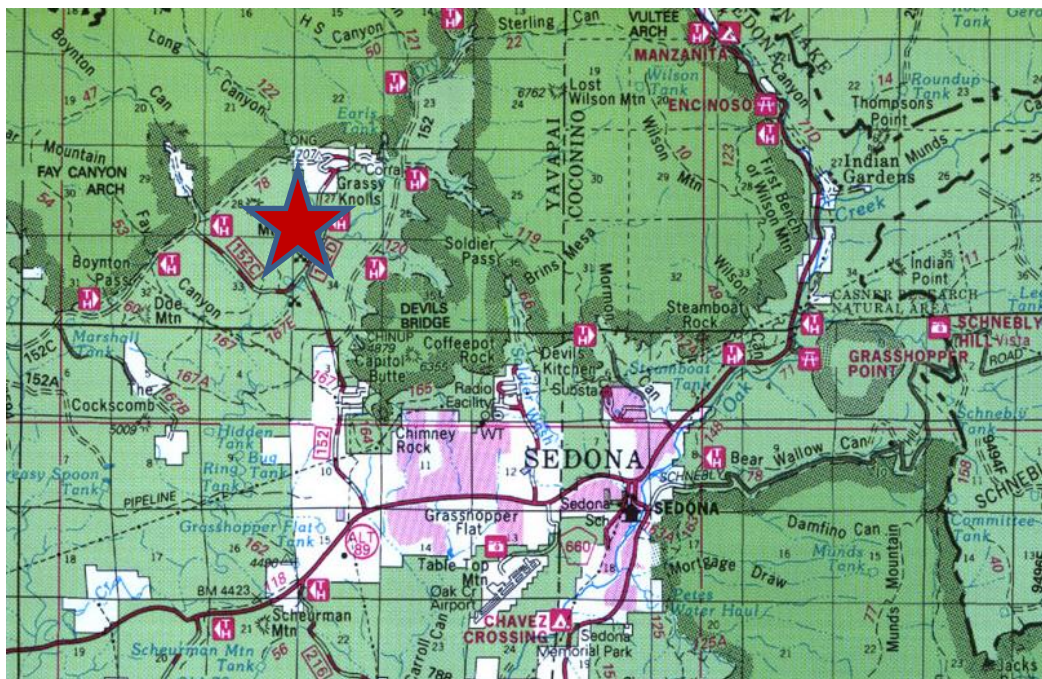
The Sedona area has 1-2 inches of average annual runoff, and 30-35 inches of potential average annual evapotranspiration. Average annual temperatures range from a low of 29 degrees Fahrenheit in January to a high of 95.1 degrees in August. The southwestern climate’s relatively moderate temperatures allow for a long season of use.



## Location



Location of proposed Mescal Trailhead in old borrow pit on Long Canyon Road.



Vicinity location map of project area.



### **Slopes and Soils**

Soils in the project area are sandy and rocky. The site is generally flat to sloped, with steep surrounding slopes.

### **Vegetation**

The project area is located within the southwestern-most portion of the National Forest and has an elevation of 4500.' The landscape of Dry Creek Basin is a transition zone between the canyons, cliffs, and buttes of the Red Rock/Secret Mountain Wilderness and the large savannah landscape to the west of the project area. The vegetation type typical to this landscape is the juniper-pinyon woodlands, which contains several species of juniper, Arizona cypress, pinyon pine, succulents such as yucca and prickly pear, and other small shrubs and sagebrushes.

Verde Valley sage and Delmaters agave are two sensitive plant populations that occur within the Dry Creek Basin that should be protected during site layout and construction.

### **Scenery**



Typical view near the site.

The area has very high scenic value (Scenic Class A) but the integrity is moderately degraded by unmanaged recreation use.

### **Hydrological Conditions and Water Quality**

This site is located within the Upper Verde River Hydrological Unit. Dry Creek is located within 1 mile of the site. Dry Creek flows into Oak Creek, an Arizona State Unique Water. Control of water drainage and sediments from the site will be extremely important.

### **Cultural Resources**

The District Archaeologist has surveyed the site and provided information necessary to avoid all impacts to cultural resources.

## **Biological Resources**

A biological evaluation by the District Wildlife biologist has determined that there are no threatened or endangered wildlife species of concern.

## **Forest Plan Direction**

The Coconino Forest Plan, completed in 1987, and amended to include the Sedona area in 1998 (Amendment 12) gives direction for managing land use and development throughout the varying management areas of the Coconino National Forest. The proposed Dry Creek Trailhead is located on the border of two Management Areas identified in Forest Plan Amendment 12; a section of the site area falls in the Neighborwoods area (Management Area 24), and the main area of the site is located within the Dry Creek Basin (Management Area 21). Since the majority of the site falls within the Dry Creek Basin, the project will be in accordance with this management area. The management objectives for the Dry Creek Basin Management Area state:

“Achieve, in general, a Semi-primitive Non-motorized ROS setting away from roads and Semi-primitive Motorized along Dry Creek Road. Recognize ROS setting inconsistencies expected along Dry Creek Road, at or within half a mile of trailheads, where encounters with other people are expected to be high and in the areas near private lands, such as Cockscomb/Tree Farm/Long Canyon. (Coconino Forest Plan, pg. 206-33).”

This project area falls under inclusion as one of the “ROS setting inconsistencies” called out in the above quote, as the design scope and proposed and existing capacity of users are more in alignment with Roaded Natural than Semi-Primitive Motorized.

The Forest Plan outlines the recreation opportunities which are to be emphasized; these are trailheads/access points, picnic sites, and scenic viewing. Recreation objectives of this area are to emphasize non-guided, day-use recreational activities, featuring high quality hiking, mountain biking, equestrian use, scenic viewing, contemplation and opportunities to experience nature and solitude.

The Forest Plan directs that nonmotorized trails developed in this Management Area are to offer a diversity of challenge levels, ranging from moderate to difficult. Also, commercial tours will be restricted to system roads and trails.

## **Recreation Opportunity Spectrum**

The Recreation Opportunity Spectrum identifies levels of modification and permissible development in new forest construction, and ROS designations for this project area are outlined in the Coconino Forest Land and Resource Management Plan. The project area overlaps two ROS designations, Roaded Natural and Semi Primitive Motorized. However, the targeted level of development and ROS classification is Roaded Natural. This assumption is determined based on existing and projected levels of use, design suggestions, and proposed materials palette.

The ROS classification of Roaded Natural has a remoteness criterion of an area being within ½ mile of better than primitive roads; Mescal Trailhead is less than a half mile from Boynton Pass Road, a road

that stems from 89A, the major thoroughfare of Sedona, AZ. Roaded Natural permits a rate of 15 encounters per hour, which is typical to this site with group visits, jeep tours, and occasional weddings. Roaded Natural calls for a natural setting which has some modifications visible to the viewer, with strong evidence of roads or highways. Frequency of contact is moderate to high on roads, low to moderate on trails and away from roads. Management controls are visible but subordinate to the environment. There is opportunity for users to affiliate with other users in developed sites but with some chances for privacy.

### **Relationship to Other Recreation Opportunities**

Surrounding recreation areas includes Long Canyon Trailhead, Dry Creek Trailhead, Boynton Canyon Trailhead and Fay Trailhead. All of these forest access points work within a strategy to spread trail use throughout the landscape, attempting to manage capacity in a very popular trail system. The Mescal TH is a key component of this strategy.

### **Proximity to Urban Populations**

This site is located within close proximity of the city of Sedona, which has a population of 10,000 within its incorporated boundaries. The site is close to several of Sedona's outlying residential communities. Private land inholdings nearby include Enchantment Resort and Seven Canyons Golf Resort and residences. Clients and residents of these places are avid trail users.

### **Origin of Customers**

The Coconino has a diverse array of visitors, from national and international tourists to local residents recreating in their backyard. The National Visitor Use Monitoring Report for the Coconino National Forest reported that the same proportion of visits come from within 50 miles of the forest as come from over 500 miles away—about a third each.

According to a recent survey by the Forest Service's Red Rock District Visitor Contact Office in 2009 of volunteers and staff, the majority of out-of-state visitors to the contact office were from California, and the majority of out-of-country visitors were from Canada, England, and Germany. These numbers are reflective of the general tourist population of Sedona, which receives over 4 million tourist visitations annually.

FS surveys done in 2016 estimated that trail use on trails surrounding Sedona amount to over 2 million users annually.

### **Customer profile**

The majority of recreational users to this site are daytime users of the forest. Their desired experience spans a range of hiking, mountain biking, equestrian use, picnicking, scenic viewing, and off-highway vehicle use (including commercial organized tours). They are seeking a safe forest experience with expectations of reduced physical and social pressures, natural scenery, clean air, accessible facilities, and moderate encounters of other users.

### **Site Issues**

***Environmental Concerns:***

Providing a properly graded and drained access road, pedestrian routes, and designated trail access point will be necessary. Noxious weeds will need to be addressed.

***Management Concerns:***

Visitors to this area of the District seek orientation information about the area, what there is to see and do. Dry Creek and Long Canyon roads access 5 additional trailheads and two developed cultural sites as well as miles of dirt road and dispersed recreation. This trailhead/vista development will serve to meet trail access demand and mitigate unmanaged roadside parking associated with visitors seeking access to Devil's Bridge and other popular sites/areas. Visitors will be able to obtain area information and make decisions about their activities. Their visit will be safer and less impacting. Currently visitors park along Forest Road 152 and Boynton Pass Trailhead, to access the Dry Creek Trailhead as well as the Devil's Bridge trailhead which is northeast of the site. This causes vehicle congestion, traffic jams, vehicle damage, and road blockage.

Designated parking spaces (as opposed to the current parking marked by boulders) will control and confine vehicular traffic to the developed site, minimizing and reversing environmental damage as well as safety issues. Trail signs and well-defined trail edges will encourage users to stay on the trail, and thereby minimizing impacts to surrounding vegetation and soils.

The site does not currently meet safety and accessibility requirements for a recreational site on a national forest. With this site development, pedestrian and vehicular routes will be separated at the trailhead, for safety purposes. This day use site will be developed in accordance with the Forest Service Accessibility Guidelines.

**Management Objectives and Administrative Criteria**

**Level of Modification**

In accordance with the Recreation Opportunity Spectrum, this site will be developed under the classification of Roaded Natural, with Development Scale III.

All roads and outdoor recreation access routes will have hardened surfaces. Road and parking lot surfaces will have paved surface material. Outdoor recreation access routes will have paved or stabilized surface materials. Trails will have native surface material.

Self service interpretive services will include a kiosk to provide orientation and safety information. The kiosk will be identical to other roofed kiosks on the District and will have the same orientation and LNT information. One or two additional interpretive signs may be provided, depending on funding. Key topics are Wilderness and geology.

A shuttle/trolley turnout and stop will be designed to accommodate future public transit.



**Proposed Improvements:**

Mescal Trailhead will be developed as a day use site/trailhead, with the following new development and construction:

- Develop a parking lot that has capacity for a minimum of 40 spaces, including 2 oversized vehicles, and 2 accessible spaces. No horse trailer parking will be provided as this is available at Fay Trailhead. Site parking will be allocated entirely to small and medium vehicles and transit, in order to maximize trail user capacity.
- Trailhead capacity, or people at one time (PAOT), is averaged at 3.5 people per vehicle. This project's capacity is approximately 140 PAOT. In addition, there will be a maximum of 30 people arriving by transit.
- Provide a through route in the parking area to allow for visitors to circulate through the site to choose a parking space.
- A large turnout space with capacity to accommodate a trolley or small transit shuttle will be accommodated, for future alternative transit.
- Commercial busses will be prohibited.
- Install toilet facilities with outdoor recreation accessible routes that connect to the parking lot. Capacity and toilet type to be determined in the Engineering Report.
- Locate a kiosk on site which provides interpretive information on wilderness, land ethics, and orientation. Orient this kiosk to avoid wear and tear from sun exposure.
- Potable water will not be provided at this site.
- Incorporate strategic fencing around the site to control people and vehicles from accessing undesignated areas. Using native materials, specifically the fencing design that incorporates split juniper and 4-strand smooth wire fencing.
- Construct access to viewing locations as indicated on site plan.
- Separate pedestrian and vehicular use with access routes designed for pedestrian use only.
- Install a closure gate to enable closure as necessary.
- Connect the trailhead parking to non-motorized trails.
- Use materials that maintain the natural character of the site, which are derived from native sources, are natural-appearing, and maintain the rustic natural character of the site.
- Site is expected to be used year-round.
- Incorporate picnic tables into the site.
- This site will have all amenities required by Federal Land Recreation Enhancement Act.
- This site is not intended to have specific features for weddings or jeep tours.

**Type of Administration**

The site will be managed by the Red Rock Ranger District office and staff. This site may be proposed in future as a recreation fee site in order to secure maintenance funds.

**Health and Safety**

Upgraded site access and access roads with designated parking and restroom facilities will improve health and safety at Mescal Trailhead and along Boynton Pass Road and Long Canyon Road.

### **Operation and Maintenance Strategy**

The site will be managed for recreation activities of hiking, scenic viewing, and mountain biking.

### **Vegetation Management**

The design of the site will avoid large trees and shrubs. During construction, native vegetation will be protected, to keep aesthetics and ecological communities on site intact. A post construction rehab plan will be developed as needed. Construction will protect native plant communities present on site to the maximum extent possible.

### **Outservice Development**

The District may contract for trash collection and toilet cleaning.

### **Recreation Opportunities**

The site will provide visitors a place to park and access nature on designated trails. Trail access parking will focus on hiking and mountain biking, but equestrian use will pass through the site since trails pass through that are open to horse use. In addition to the four longer trails, which tie into the Dry Creek trail system, there will be a short walk opportunity for visitors to access the scenic vista. Equestrian use is moderate in the area. The trails accommodate all three uses, but horse trailer parking is currently provided at Girder (Cultural Park), Fay and Aerie trailheads nearby.

Trail access will be a primary use of the site.

Scenic viewing will be a primary use of the site.

Area orientation will be a primary use of the site.

Picnicking will be provided at a low level.

### **Scenery Management**

The area has a High Scenic Integrity Objective. All development and construction at Dry Creek Trailhead will be subordinate to the naturally appearing landscape and will not conflict with high-quality scenic opportunities. Visitors will see a landscape that appears largely unaltered and which is dominated by natural elements and features. Scenic viewing will be emphasized on site with the development of a scenic vista point.

All facilities and materials used in the construction of the trailhead will borrow from local materials and landscape characteristics, in order to blend the facilities into the existing landscape. Mature vegetation on site will be maintained to the fullest extent, in order to screen new facilities and development from the scenic vista points and from the road.

### **Architectural Themes**

Site features and facilities will be similar to those at Huckaby, Little Horse and Bell Rock Vista trailheads including stone bases and retaining walls, cedar and wire fencing, post and beam kiosk, and CXT toilets.

The site will have a double unit CXT Vault Toilet, with a split-face block wall texture in “Nuss Brown”. The building will have a ribbed wall roof also in “Nuss Brown” color. These color choices are intended to blend the building into the overall scenic landscape.

ELEMENT/ITEM	MATERIAL	FINISH/DETAILS	COLOR
CXT Vault Toilet	Tioga Special Vault model	ribbed wall roof	Nuss Brown
Outdoor Recreation Access Routes	Natural appearing; DG in parking area		Natural (red of the soils if possible)
Parking lot	Paved or chip seal		Natural appearing
Edging for impact areas and pathways	none		Dark-brown
Fee Box	Provided by contractor	Prime and paint	Dark Brown
Trash Recept.-Ext	Bear-proof	Enamel	Dark brown
Gates on road	Corten steel	Clear coat stain	
Fencing	Split juniper and four-strand smooth wire		Natural
Boulders	Rock occurring on site or haul	Bury base, arrange in group of threes with varying sizes	Red/Sandstone
Wheelstops	Concrete	Anchor with #4 rebar	Paint dark-brown
Kiosk	Standard Red Rock kiosk design with rock base and corrugated metal roof		
Slabs - Aprons	Concrete at toilets	Broom w/ trowel edge	Integral natural-color