

# BLACK ROCK 360

## SPECIAL USE PERMIT



Prepared by:



APRIL 8, 2021

# **BLACK ROCK 360**

## **Special Use Permit Application**

**Prepared for:**

Burning Man Project  
660 Alabama Street, 4<sup>th</sup> Floor  
San Francisco, California 94110

**Prepared by:**

Christy Corporation, Ltd.  
1000 Kiley Parkway  
Sparks, Nevada 89436  
(775) 502-8552

**April 8, 2021**

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- Washoe County Development Application
- Owner Affidavit
- Special Use Permit Application
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- Preliminary Site Plan
- Preliminary Grading and Drainage Plan
- Drainage Report

# BLACK ROCK 360 – SPECIAL USE PERMIT

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## Introduction

This application includes the following request:

- A **Special Use Permit** to allow for the establishment of the following uses within the General Rural zone per section 110.206.10b of the Washoe County Development Code (High Desert Area Plan):
  - Storage of Operable Vehicles
  - Storage of Inoperable Vehicles
  - Wholesaling, Storage, and Distribution (Light)

## Project Location

Black Rock 360 consists of 360± acres located along County Route 34 north of Gerlach within the High Desert Area Plan. Specifically, the project site (APN # 071-150-01) lies approximately  $\frac{3}{4}$  of a mile north of Gerlach (as the crow flies) or 1.25 miles north via County Route 34. Route 34 bisects the property with approximately 21.5± acres located on the west side and 338.5± acres located on the east side of the roadway. Figure 1 (below) depicts the project location.

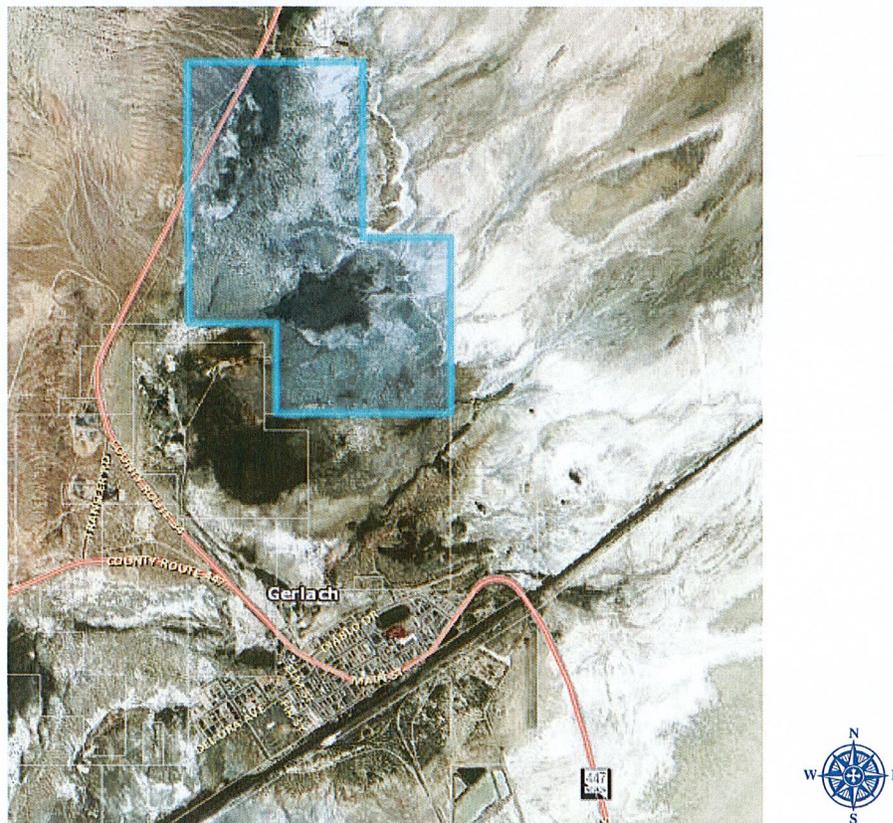


Figure 1 – Vicinity Map

## BLACK ROCK 360 – SPECIAL USE PERMIT

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### Existing Conditions

The project site is currently vacant and includes various unimproved roadways and perimeter fencing. Access to the site is direct from County Route 34 and is currently located at the central portion of the property.

Parcels that adjoin the site are generally vacant and include terrain similar to that of the project site. Property to the southwest includes a residential structure which is located approximately 620 feet south and 850 feet west of the southern project boundary. All adjoining properties (and those within the immediate vicinity) are zoned General Rural (GR). Parcels to the north, west, and east are public lands managed by the Bureau of Land Management (BLM) while property directly south of the site is privately owned.

The Black Rock 360 parcel includes topographic diversity. The western side of the site (west of Route 34) is characterized by steeper terrain as it climbs the Granite Range. Property east of the highway includes a gradual slope to the east as it approaches the Black Rock playa. A natural hot spring is located on the western portion of the site (west of Route 34). The area subject to the Special Use Permit request included with this application is flat and includes native vegetation (sagebrush, rabbitbrush, etc.).

Figure 2 (below) depicts the portion of the property included with this Special Use Permit request, while Figure 3 (following page) depicts the overall Black Rock 360 parcel.

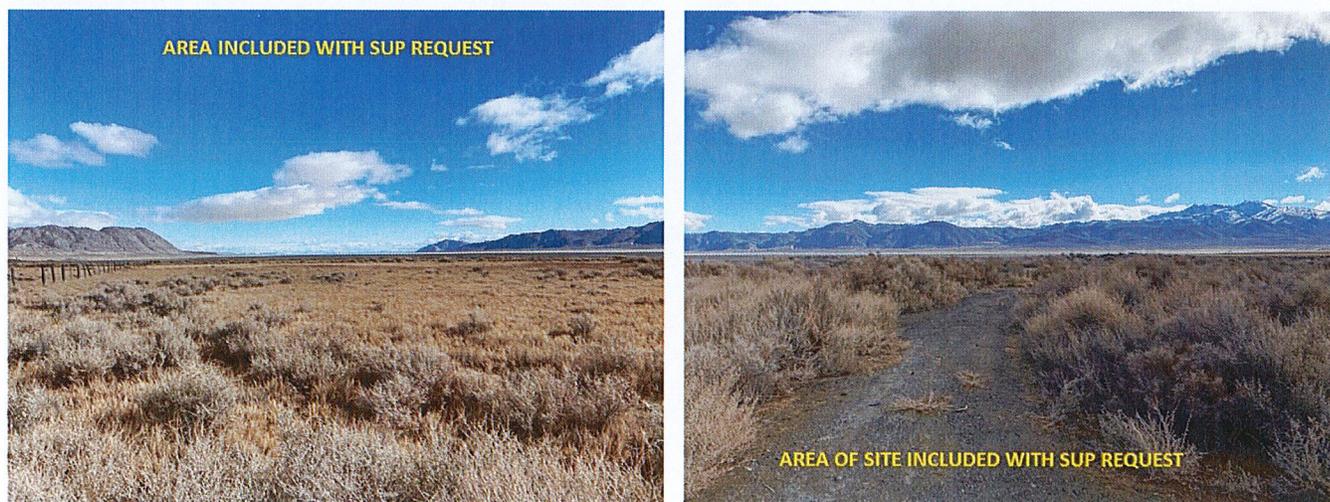


Figure 2 – Existing Conditions

# BLACK ROCK 360 – SPECIAL USE PERMIT

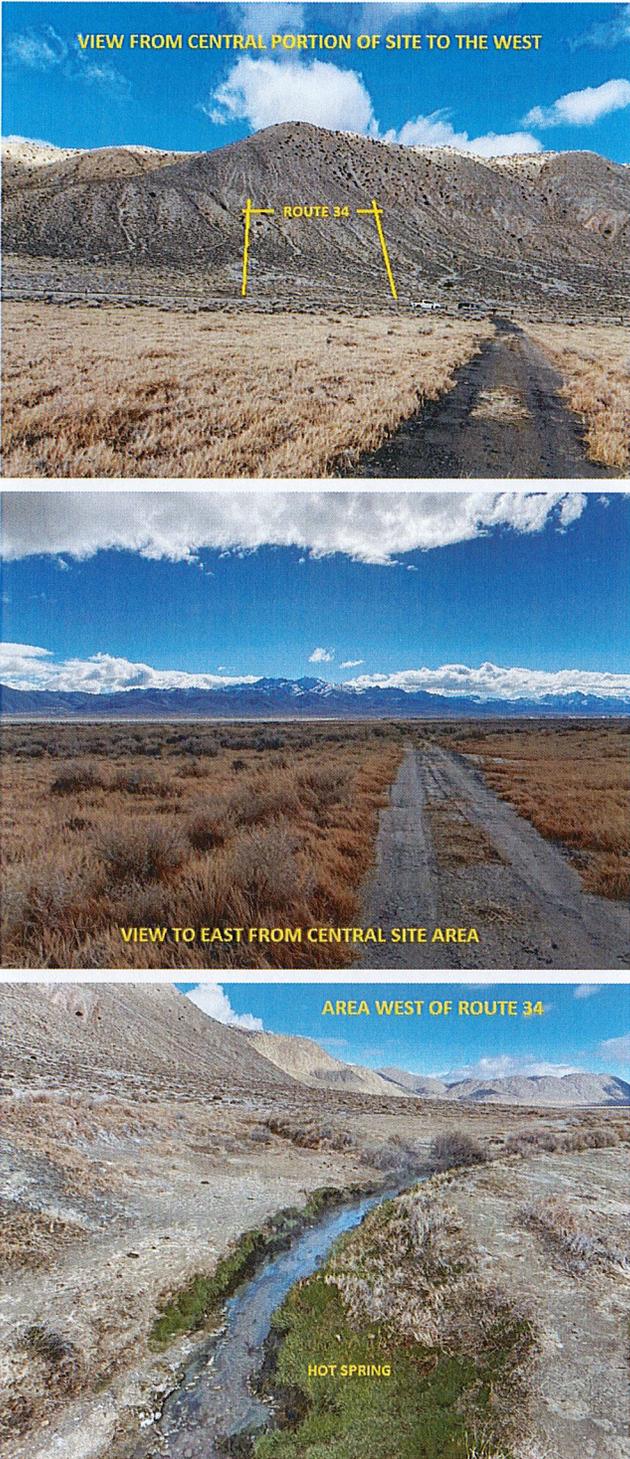


Figure 3 – Existing Conditions

## BLACK ROCK 360 – SPECIAL USE PERMIT

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### Project Description/Request

This application includes a Special Use Permit (SUP) request to establish outdoor and container storage at the project site. As defined by the Washoe County Development Code, the SUP will allow for storage of operable and inoperable vehicles along with wholesaling, storage, and distribution (light) use types. These uses are specifically allowed in the General Rural (GR) zone with the approval of a SUP per section 110.206.10(b) of the Development Code (High Desert Area Plan General Rural Zone Modifier).

The proposed storage area is located at the southern portion of the site and will include storage both outdoors and within containers. The containers will vary in size but typically consist of shipping containers or trailers ranging from 20 to 52± feet in length and will be arranged in a single layer (no stacking). The containers provide storage for art projects and supplies that will be used in support of the Burning Man event.

In addition to the containers, outdoor storage will be provided to accommodate both operable and inoperable vehicles along with larger scale art pieces. Containers will be placed at the perimeter of the storage area to screen all outdoor storage areas from outside of the property boundaries. These containers will be painted to match and will include a natural earth tone color palette that blends with the surrounding high desert environment. As an alternative, the container screen could include future art installations such as a mural or “art fence.” It is envisioned that this would be coordinated as part of Washoe County’s Art Trail efforts which supports economic development initiatives within Gerlach and the surrounding area.

The use of containers to screen outdoor storage areas is highly effective as it essentially creates a wall around the site. This approach has been highly successful within the Black Rock Station Specific Plan located further north in the High Desert Area Plan in the Hualapai Valley. Figure 4 (following page) provides a visual example of how containers can be located along with photos of the Black Rock Station facility.

The proposed storage area will initially include 10 acres. It is requested that the storage area may increase over time as new uses are established at Black Rock 360. Like Black Rock 360 itself, expansion of storage uses would include a phased approach. It is requested within this SUP that a 5-year phasing plan be conditioned with the project. The first phase will consist of the 10-acre plan depicted herein. After the initial phase, it is proposed to allow expansion of the storage area by up to 5 acres per year, for the next four years, not to exceed 30 acres total with this SUP approval.

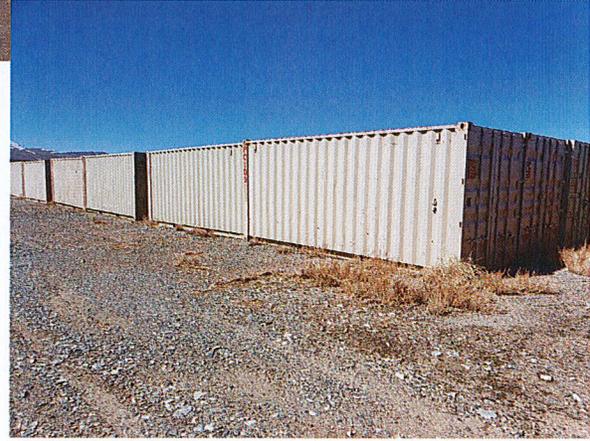
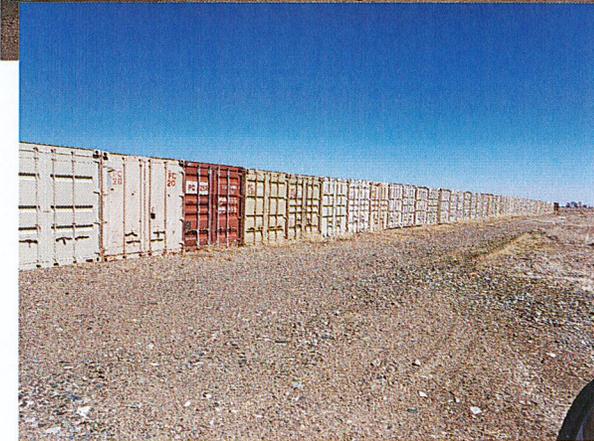
Should expansion beyond the 30 acres be necessary, an amendment to this SUP would have to occur, including new review by the Gerlach Citizens Advisory Board and the Board of Adjustment. As with all onsite improvements, all expansions shall be subject to applicable permits including the approval of grading plans, drainage analysis, etc.

## BLACK ROCK 360 – SPECIAL USE PERMIT

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**Note: Containers to be painted in matching earth tones to blend with surroundings.**



**Figure 4 – Typical Container Screening**

With development of the storage use types, a new access road will be developed from Route 34 into the east side of the property. The road will be 24-feet in width and is the first phase backbone infrastructure that will service the overall Black Rock 360 property. Initially, the road will extend south to the storage area and will also extend eastward to provide access to a parking area that can be used by employees and visitors to the site.

The site plan includes provisions for a caretaker's quarters. This would include a single residential dwelling unit that could be occupied by an onsite manager. Timing of this is dependent upon overall demand and activity associated with uses occurring onsite and is subject to improvements such as a well and septic system. Since a single family residence is permitted by right within the GR zone, the location is depicted to provide full transparency. Should the applicant proceed with construction of the home, it will be subject to applicable building permits and requirements established by the State of Nevada and Washoe County Health District related to well and septic systems. The storage uses proposed within Black Rock 360 do not require installation of a well and septic system. To ensure sanitary facilities for employees and guests, portable restrooms will be located onsite and will be located within the screened area to ensure they are visually hidden from outside of the project boundaries.

# BLACK ROCK 360 – SPECIAL USE PERMIT

As typical within the High Desert Area Plan, it is requested that the suburban development standards included in the Development Code be modified to reflect the rural site location and natural landscape. Specifically, it is requested that landscaping and paving requirements be waived. This is consistent with other projects in the area and will ensure that the overall character and feel of the high desert is retained. For example, new landscaping such as trees and shrubs are in sharp contrast to the natural landscape and result in greater visual impacts that draw attention to site improvements rather than screen them.

In lieu of paving, it is proposed to utilize an all-weather surface (aggregate base) for roadways within the project boundary. The proposed storage use is of very low intensity and will generate minimal vehicle trips. Thus, an all weather surface will be more than adequate and will still accommodate larger vehicles and equipment while keeping with the rural character of the area.

Figure 5 (below) depicts the site plan as previously described.

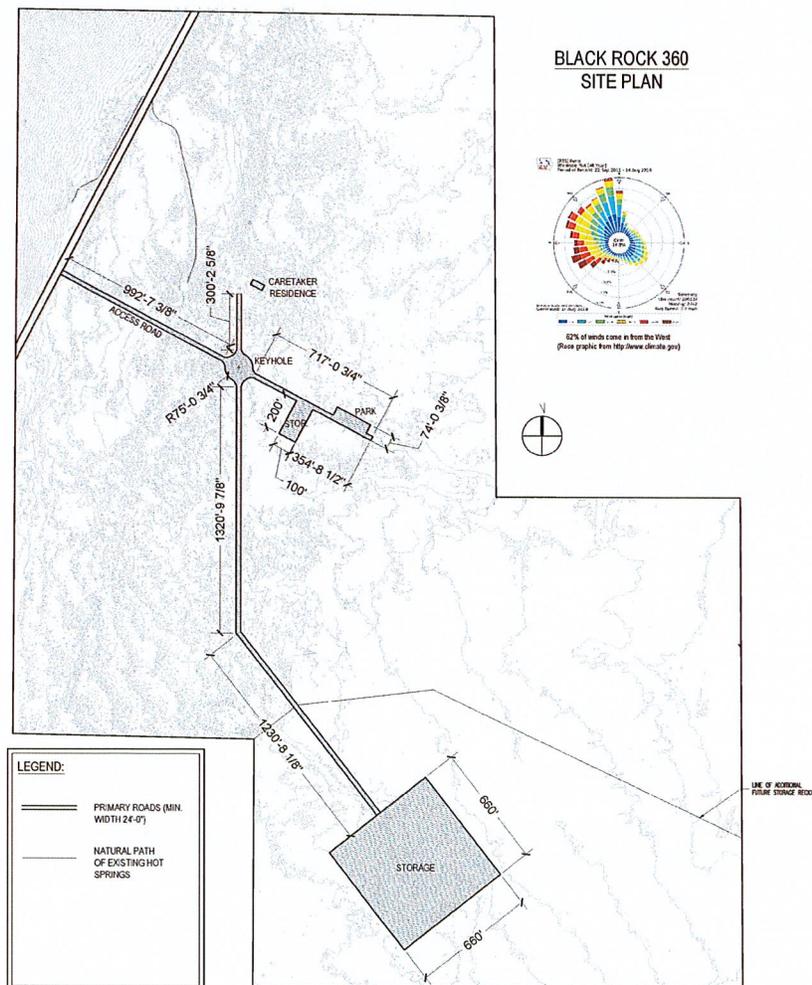


Figure 5 – Site Plan

## BLACK ROCK 360 – SPECIAL USE PERMIT

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The storage uses planned are of a very low intensity and are not anticipated to generate negative impacts to the surrounding area. The primary potential impact is visual. However, given that the storage area is approximately one-half mile from Route 34, visual impacts are greatly diminished. This, coupled with the fact that containers will be painted to blend with natural surroundings and will not be stacked, ensures that all visual impacts are properly mitigated. The containers will also ensure that all outside storage areas are fully screened.

Lighting of the facility is not planned at this time. The High Desert Area Plan strongly discourages lighting that results in spill-over and glare, reducing views of the nighttime skies. No light pollution will occur as a result of this proposal. Traffic generated by the project will be minimal. The Institute of Transportation Engineers (ITE) Trip Generation Manual provides trip generation rates for mini-warehouse/storage units (land use code 151). Based on the 10 acres proposed, 25 average daily trips (ADT) with 1 am and 3 pm peak trips are expected. However, it is very important to note that the ITE estimates relate to a commercial self-store operation. The Black Rock 360 facility is primarily private with limited outside patrons. Thus, trips will be even further reduced. Traffic impacts generated by the project account for approximately 1% of the volumes that would require a traffic impact analysis per Washoe County standards. The project will not impact the level of service on Route 34 or any roadways within the area.

### Special Use Permit Findings

In order to approve a Special Use Permit, the following findings must be made. Responses are provided in **bold face** type.

1. Consistency. The granting of the special use permit is consistent with the policies and maps of the Comprehensive Plan Elements and the Area Plan in which the property is located.

**Section 110.206.10b of the Washoe County Development Code specifically provides for a modifier to the General Rural development standards and allowed use table within the High Desert Area Plan permitting the requested uses with the approval of a SUP. Additionally, the Board of Adjustment has the ability to modify development standards as part of the public SUP review process (section 110.810.20e) allowing for the proposed deviations to landscaping and paving standards.**

2. Adequate Public Facilities. Adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities must exist or will be provided.

**The proposed storage uses are of a very low intensity and do not require utility connections or the need for potable water. Portable sanitation facilities can be located onsite and will be serviced regularly by an outside vendor at the expense of the applicant. The attached grading plan and drainage report address how drainage will be addressed, including onsite detention to ensure that predevelopment flows from the site are not increased as a result of this project.**

## BLACK ROCK 360 – SPECIAL USE PERMIT

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3. Site Suitability. The site must be physically suitable for the proposed use and for the intensity of development.

**The portion of the site proposed for storage use is well suited for development and generally includes slopes less than 2%. Also, the site is located approximately ½ mile from Route 34 which greatly diminishes potential visual impacts within the immediate area.**

4. Issuance Not Detrimental. Issuance of the permit may not be significantly detrimental to the public health, safety or welfare; have a detrimental impact on adjacent properties; or be detrimental to the character of the surrounding area.

**No negative impacts are anticipated with the granting of this SUP request. The storage use is very low intensity and will not generate large amounts of onsite activity. The project location and the use of containers to screen outdoor storage areas further ensure that negative impacts will not occur. The use of storage containers and outdoor storage occurs throughout rural areas of the High Desert Area Plan and is not out of character with other properties in the project vicinity.**

# APPENDICES

## Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

<b>Project Information</b>		Staff Assigned Case No.: _____	
Project Name: <b>Black Rock 360</b>			
Project Description: A SUP to allow for storage of operable and inoperable vehicles and wholesalinbg, storage, and distribution within the High Desert Area Plan.			
Project Address: East and west sides of County Route 34, approximately 1.25 miles north of Gerlach.			
Project Area (acres or square feet): 360 acres			
Project Location (with point of reference to major cross streets AND area locator): The property is located approximately 3/4 of a mile north of Gerlach (as the crow flies) and is bisected by Route 34. Refer to attached vicinity map.			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
071-150-01	360 acres		
Indicate any previous Washoe County approvals associated with this application: Case No.(s).			
<b>Applicant Information (attach additional sheets if necessary)</b>			
<b>Property Owner:</b>		<b>Professional Consultant:</b>	
Name: Burning Man Project		Name: Christy Corporation, Ltd.	
Address: 660 Alabama St.		Address: 1000 Kiley Pkwy.	
San Francisco, CA	Zip: 94110	Sparks, NV	Zip: 89436
Phone: (206) 391-0131	Fax:	Phone: (775) 502-8552	Fax:
Email: chef@burningman.org		Email: mike@christynv.com	
Cell: Same as Above	Other:	Cell: (775) 250-3455	Other:
Contact Person: Matthew Kwatinetz		Contact Person: Mike Railey	
<b>Applicant/Developer:</b>		<b>Other Persons to be Contacted:</b>	
Name: Same as Above		Name:	
Address:		Address:	
	Zip:		Zip:
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
<b>For Office Use Only</b>			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: BURNING MAN PROJECT

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA )  
COUNTY OF WASHOE )

I, William R. Peterson  
(please print name)

being duly sworn, depose and say that I am the owner\* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Building.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 071-150-01

Printed Name William R. Peterson

Signed WR Peterson

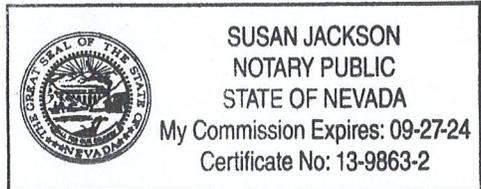
State of Nevada  
County of Washoe

Address 185 E Rancho Ave  
Gerlach, NV 89412

Subscribed and sworn to before me this  
1st day of April, 2021,  
by William R. Peterson  
Susan Jackson  
Notary Public in and for said county and state

(Notary Stamp)

My commission expires: 9/27/2024



\*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Community Services Department

Planning and Building

**SPECIAL USE PERMIT**

(see page 7)

**SPECIAL USE PERMIT FOR GRADING**

(see page 9)

**SPECIAL USE PERMIT FOR STABLES**

(see page 12)

**APPLICATION**



Community Services Department  
Planning and Building  
1001 E. Ninth St., Bldg. A  
Reno, NV 89512-2845

Telephone: 775.328.6100

# Special Use Permit Application Supplemental Information

(All required information may be separately attached)

1. What is the project being requested?

A Special Use Permit to allow for the establishment of the following uses within the General Rural zone per section 110.206.10b of the Washoe County Development Code (High Desert Area Plan):  
Storage of Operable Vehicles  
Storage of Inoperable Vehicles  
Wholesaling, Storage, and Distribution (Light)

2. Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)

Refer to attached site plan and engineering drawings.

3. What is the intended phasing schedule for the construction and completion of the project?

The project will include an initial phase of 10 acres with 4 additional phases of 5 acres, to occur within a 5-year timeline. Refer to attached report for details.

4. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

The project area is flat and unconstrained. The use is located away from adjoining properties and will be appropriately screened. Refer to attached report for a detailed analysis.

5. What are the anticipated beneficial aspects or affects your project will have on adjacent properties and the community?

The project will provide for needed storage uses without impacting residents within the town of Gerlach. Refer to attached report for additional analysis.

6. What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?

The use of containers to screen all outdoor storage areas will occur to ensure that all visual impacts are properly mitigated. This is detailed in the attached report.

7. Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

Refer to attached report and preliminary site plan.

8. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

9. Utilities:

a. Sewer Service	Septic (future - not needed at this time)
b. Electrical Service	Solar
c. Telephone Service	Cellular Service
d. LPG or Natural Gas Service	Granite Propane (future - not needed at this time)
e. Solid Waste Disposal Service	Gerlach GID
f. Cable Television Service	Various Providers
g. Water Service	Onsite Well (future - not needed at this time)

For most uses, Washoe County Code, Chapter 110, Article 422, Water and Sewer Resource Requirements, requires the dedication of water rights to Washoe County. Please indicate the type and quantity of water rights you have available should dedication be required.

h. Permit #		acre-feet per year	
i. Certificate #		acre-feet per year	
j. Surface Claim #		acre-feet per year	
k. Other #		acre-feet per year	

Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources).

<b>Not applicable at this time.</b>
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10. Community Services (provided and nearest facility):

a. Fire Station	Gerlach VFD
b. Health Care Facility	Renown Regional Medical Center
c. Elementary School	Gerlach
d. Middle School	Gerlach
e. High School	Gerlach
f. Parks	Water Tower Park
g. Library	Washoe County Spanish Springs Branch
h. Citifare Bus Stop	Not applicable

Washoe County Treasurer  
 Tammi Davis

Account Detail

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**Disclaimer**

- **ALERTS:** If your real property taxes are delinquent, the search results displayed may not reflect the correct amount owing. Please contact our office for the current amount due.
- For your convenience, online payment is available on this site. E-check payments are accepted without a fee. However, a service fee does apply for online credit card payments. See Payment Information for details.

CollectionCart		
	Items	Total
Collection Cart	0	\$0.00

[Checkout](#)
[View](#)

**Pay Online**

No payment due for this account.

**Washoe County Parcel Information**

Parcel ID	Status	Last Update
07115001	Active	4/8/2021 1:40:06 AM

**Current Owner:**  
 BURNING MAN PROJECT  
 ATTN DOUG ROBERTSON  
 660 ALABAMA ST 4TH FLOOR  
 SAN FRANCISCO, CA 94110

**SITUS:**  
 0 STATE ROUTE 34  
 WCTY NV

**Taxing District:** 9000      **Geo CD:**

**Pay By Check**

Please make checks payable to:  
**WASHOE COUNTY TREASURER**

**Mailing Address:**  
 P.O. Box 30039  
 Reno, NV 89520-3039

**Overnight Address:**  
 1001 E. Ninth St., Ste D140  
 Reno, NV 89512-2845

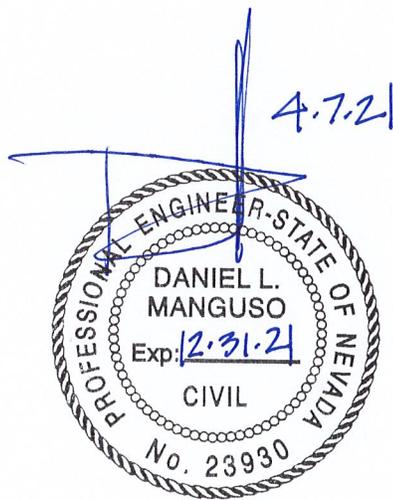
**Tax Bill (Click on desired tax year for due dates and further details)**

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
2020	\$2,442.70	\$2,442.70	\$0.00	\$0.00	\$0.00
2019	\$2,326.38	\$2,326.38	\$0.00	\$0.00	\$0.00
2018	\$55.66	\$55.66	\$0.00	\$0.00	\$0.00
2018	\$2,164.17	\$2,164.17	\$0.00	\$0.00	\$0.00
2017	\$53.42	\$53.42	\$0.00	\$0.00	\$0.00
2016	\$52.07	\$52.07	\$0.00	\$0.00	\$0.00
<b>Total</b>					\$0.00

- Payment Information**
- Special Assessment District**
- Installment Date Information**
- Assessment Information**

## PRELIMINARY DRAINAGE REPORT

### BURNING MAN PROJECT CONTAINER AND OUTDOOR STORAGE



Prepared for:  
Burning Man Project  
Attn: Doug Robertson  
660 Alabama Street 4<sup>th</sup> Floor  
San Francisco, CA 94110

Prepared by:  
Christy Corporation, Ltd.  
1000 Kiley Parkway  
Sparks, Nevada 89436

April 7, 2021



## **PRELIMINARY DRAINAGE REPORT**

### **BURNING MAN PROJECT CONTAINER AND OUTDOOR STORAGE**

Prepared for:  
Burning Man Project  
Attn: Doug Robertson  
660 Alabama Street 4<sup>th</sup> Floor  
San Francisco, CA 94110

Prepared by:  
Christy Corporation, Ltd.  
1000 Kiley Parkway  
Sparks, Nevada 89436

April 7, 2021

## Introduction

This report presents the results of a preliminary hydrology analysis for the Burning Man Project – Container and Outdoor Storage in Washoe County, NV. The project is part of Black Rock 360 which consists of 360± acres along County Route 34 north of Gerlach within the High Desert Area Plan. Specifically, the project site (APN # 071-150-01) lies approximately ¾ of a mile north of Gerlach (as the crow flies) or 1.25 miles north via County Route 34. Route 34 bisects the property with approximately 21.5± acres located on the west side and 338.5± acres located on the east side of the roadway. Reference the attached vicinity map located in the appendix.

The current proposed improvements consist of a 10-acre storage area and a 24' wide aggregate base access road which will extend south from Route 34 to the storage area and will also extend eastward to provide access to a parking area for visitors to the site. The site plan also includes provisions for a caretaker's quarters.

The purpose of this report is to demonstrate that the preliminary drainage plan complies with the criteria set forth in Washoe County and meets sound design and engineering practices.

## References

NOAA Atlas 14 Point Precipitation Estimates (2013)  
USGS Web Soil Survey  
*Open-Channel Hydraulics* [Chow, 1959]  
*Truckee Meadows Regional Drainage Manual - April 2009 (TMRDM)*

## Existing Conditions

The project site is currently vacant and includes various unimproved roadways and perimeter fencing. Access to the site is direct from County Route 34 and is currently located at the central portion of the property. Parcels to the north, west, and east are public lands managed by the Bureau of Land Management (BLM).

The western side of the site (west of Route 34) is characterized by steeper terrain as it climbs the Granite Range. Property east of the highway includes a gradual slope to the east as it approaches the Black Rock playa. The native area of the currently proposed development is flat and includes native vegetation (sagebrush, rabbitbrush, etc.)

## Methodology

### Rational Method

Onsite runoff was determined using the Rational Method ( $Q=CiA$ ). As noted above, the site is currently undeveloped. Rational C coefficients for the both the proposed and existing conditions were chosen from the TMRDM Table 701 (Appendix). For the existing condition, the values corresponding to "Undeveloped Range" were used. The values chosen for the proposed base surface are 0.55 and 0.6 for the 5-year and 100-year storm events, respectively.

Times of concentration were determined using Standard Form 2 from the Truckee Meadows Regional Drainage Manual (Section 1500). Corresponding rainfall intensities were then determined using NOAA Atlas 14 (at [www.nws.noaa.gov/ohd/hdsc/](http://www.nws.noaa.gov/ohd/hdsc/)). Reference the Appendix for the times of concentration and rainfall intensities that were used to calculate the runoff. The NOAA precipitation data is also located in the Appendix.

## Outlet Erosion Control Protection

### Basin Configuration

If the flow velocity at a culvert exceeds the maximum permissible velocity for the local soil or channel lining, channel protection is required. This protection usually consists of an erosion resistant reach, such as riprap, to provide a stable reach at the outlet in which the exit velocity is reduced to a velocity allowable in the downstream channel. The length of the outlet protection ( $L_a$ ) is determined using the following empirical relationships that were developed for the U.S Environmental Protection Agency (1976):

$$L_a = (1.8Q/D_0^{3/2}) + 7D_0 \text{ for } TW < D_0/2 \quad (\text{tmrdm } 859)$$

Where,

$D_0$  = Maximum inside culvert width (ft) or diameter,

$Q$  = Pipe discharge (cfs)

$TW$  = Tailwater depth (ft)

Where there is no well-defined channel downstream of the apron, the width,  $W$ , of the outlet and of the apron (as shown in Figure 829) should be as follows:

$$W = 3D_0 + 0.4L_a \text{ for } TW \geq D_0/2 \quad (\text{tmrdm } 861)$$

and

$$W = 3D_0 + L_a \text{ for } TW < D_0/2 \quad (\text{tmrdm } 862)$$

The width of the apron at the culvert outlet should be at least 3 times the culvert width. Where there is a well-defined channel downstream of the apron, the bottom width of the apron should be at least equal to the bottom width of the channel and the lining should extend at least one foot above the tailwater elevation and at least two-thirds of the vertical conduit dimension above the invert. The side slopes should be 2:1 or flatter, and the bottom grade should be level.

#### Rock Size

The median stone diameter,  $d_{50}$  is determined from the following equation (ASCE, 1975):

$$d_{50} = .02Q^{4/3} / (TWD_0^{4/3}) \quad (\text{tmrdm } 863)$$

### **Existing Hydrology**

The Black Rock 360 site consists of 360± acres of undeveloped land which generally drains from west to east toward the Black Rock Playa. A natural hot spring is located on the site (west of Route 34 and north of the proposed storage improvements). An alluvial fan from the Granite Range exists on the west side of Route 34. Runoff from this area drains to a cutoff ditch which runs south to north adjacent to Route 34. These flows are then collected by culvert which drains east underneath Route 34 and onto the site.

### **Proposed Hydrology**

Proposed flows will be similar to the historical drainage patterns. Drainage onto the site from west of Route 34 and the hot springs area at the north end of the site will not be disturbed.

With the construction of the aggregated base access road and storage area, sheet flow across the site from west to east will be disrupted. To facilitate a preliminary analysis on the impacts of disruption, the site was divided into 11 hydraulic basins. Reference the Hydraulic Basin Map in the Appendix. Basin's 7, 8 and 11 were analyzed for both the existing and proposed conditions. The proposed condition results are depicted as 7A, 8A and 11A on Table 1 and Table 2 (Appendix).

A drainage swale will be placed along the south and west sides of the proposed access road to capture runoff from the west. Several culverts will be placed to capture and discharge flows to the east side of the road. Outlet protection consisting of a riprapped apron will be placed on the downstream end to provide outlet protection and to prevent erosion. Swales will also be placed around the storage pads to divert sheet flow to east.

A series of more detailed onsite basins will be created with the final development plans and corresponding hydrology report.

#### Detention

Detention of post development flows was not considered in the conceptual design of this project, based on the minimal increase and the lack of downstream infrastructure. Should detention be required with final design, infiltration and/or detention basins will be used to dissipate the peak flows of 7.04 cfs ( 5-year) and 8.6 cfs (100-year).

### **Flood Hazard Areas**

FEMA's Flood Insurance Rate Maps (FIRM), lists the site as Zone X (unshaded), an area of minimal flooding. Reference the FIRM in the appendix.

### **Conclusion**

This report presents the findings of a preliminary drainage analysis of the Burning Man Project. Preliminary existing and proposed flows and flow paths have been calculated. The project is in conformance with Washoe County design requirements. Detailed calculations will be provided with the building permit application for the project.

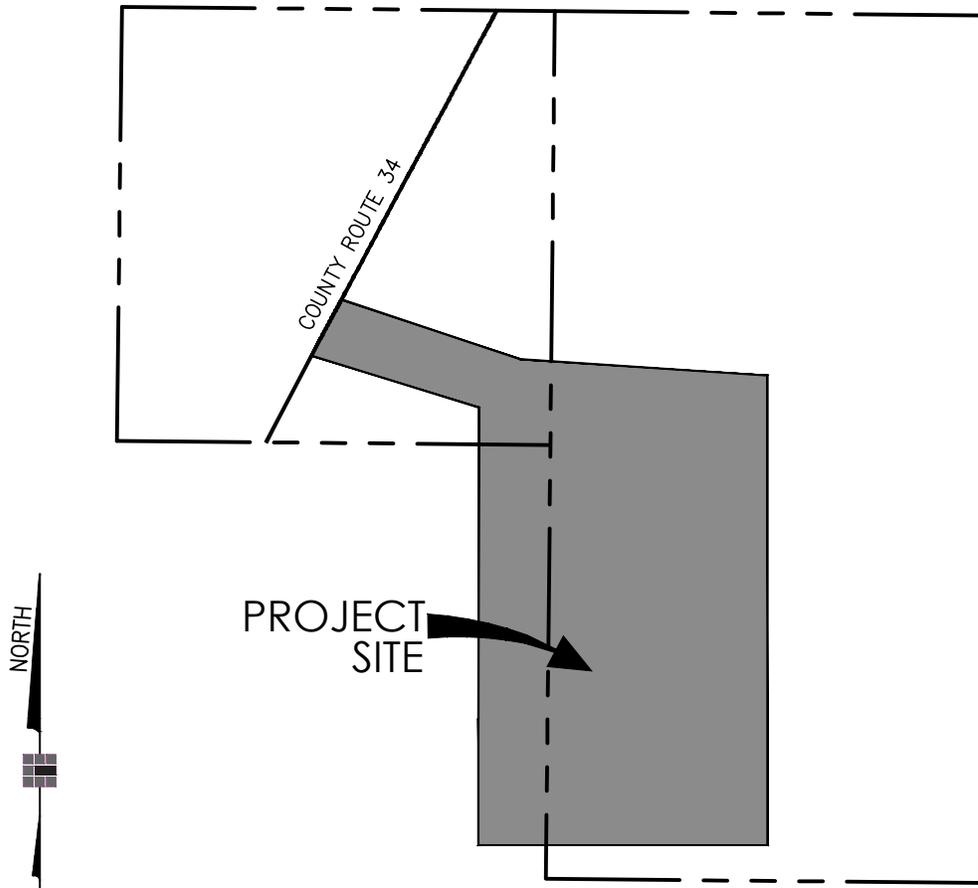
# **APPENDIX**

# VICINITY MAP

## *BURNING MAN PROJECT*

CONTAINER AND OUTDOOR STORAGE

APRIL 2021



# CHRISTY

CORPORATION

1000 Kiley Pkwy | Sparks Nevada 89436

☎ 775.502.8552

## **BASIN MAPS**

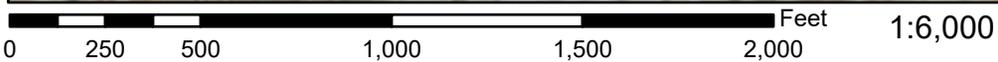
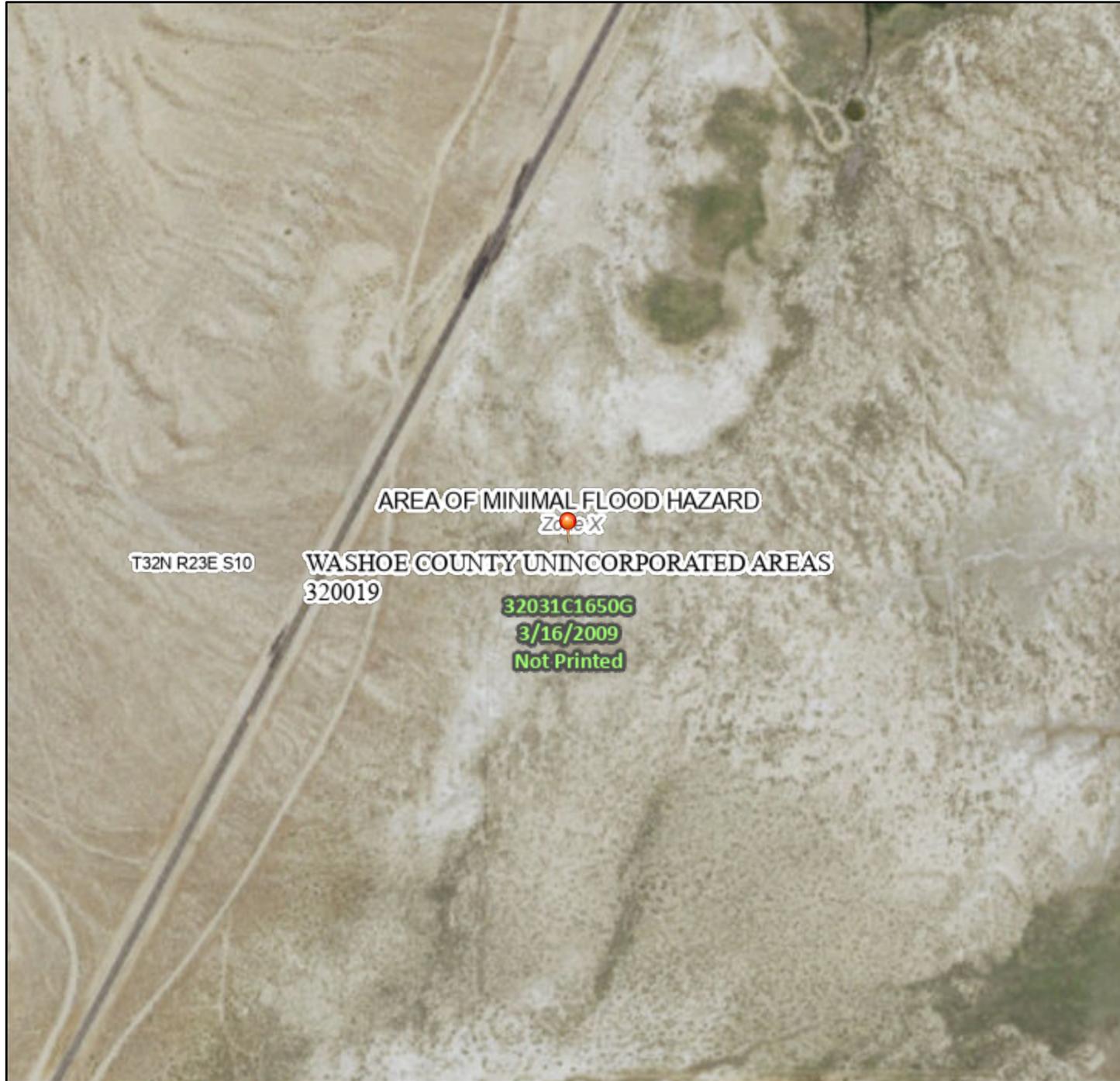


**FEMA FIRMETTE**

# National Flood Hazard Layer FIRMette



119°22'11"W 40°40'25"N



119°21'34"W 40°39'58"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

<b>SPECIAL FLOOD HAZARD AREAS</b>		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
<b>OTHER AREAS OF FLOOD HAZARD</b>		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
<b>OTHER AREAS</b>		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
<b>GENERAL STRUCTURES</b>		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
<b>OTHER FEATURES</b>		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
<b>MAP PANELS</b>		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **4/7/2021 at 5:15 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

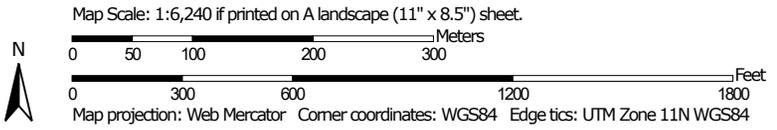
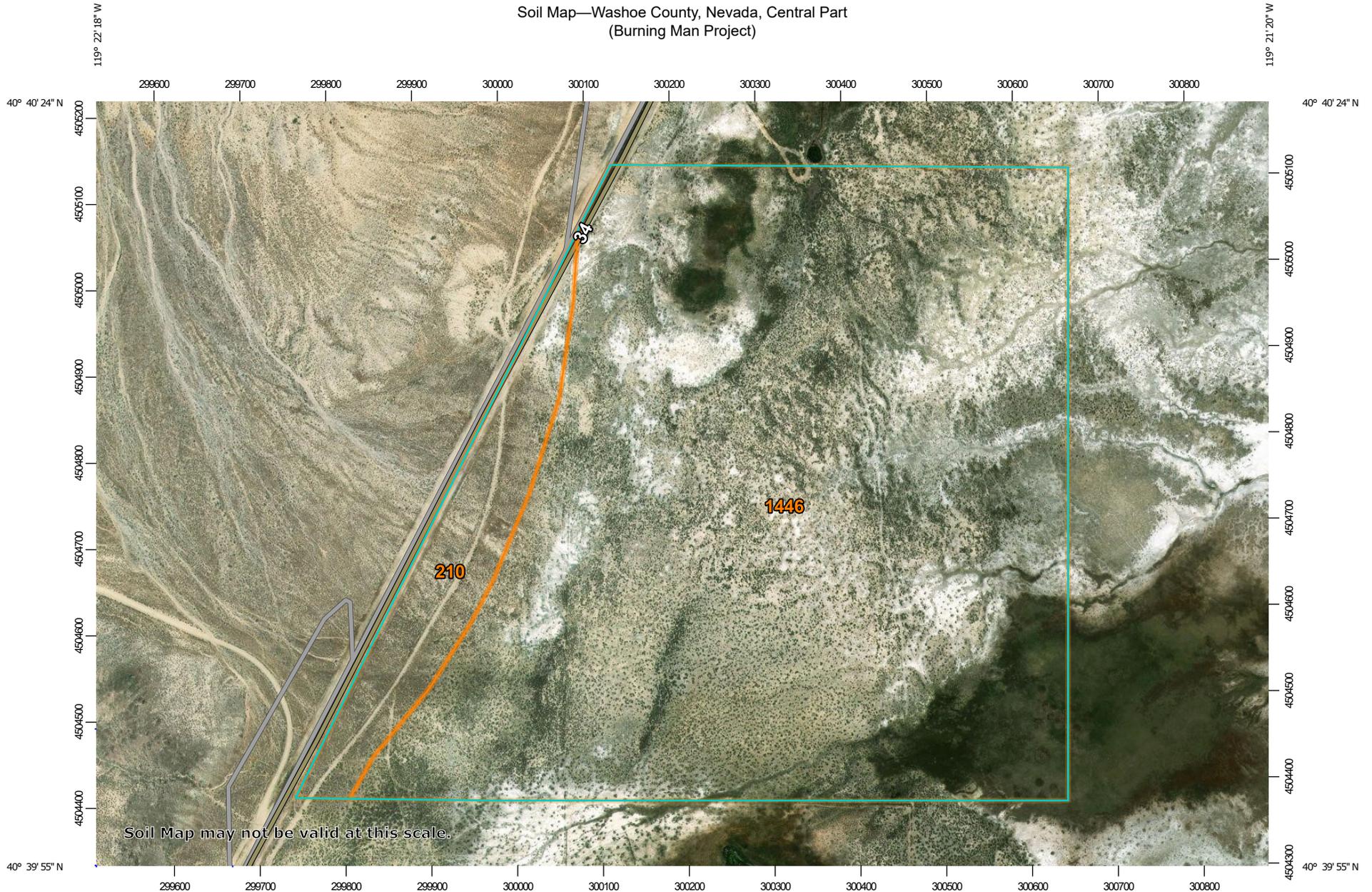
## **RATIONAL METHOD**





## **SOIL DATA**

Soil Map—Washoe County, Nevada, Central Part  
(Burning Man Project)



Soil Map—Washoe County, Nevada, Central Part  
(Burning Man Project)

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

**Water Features**



Streams and Canals

**Transportation**



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

**Background**



Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Washoe County, Nevada, Central Part

Survey Area Data: Version 13, Aug 26, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

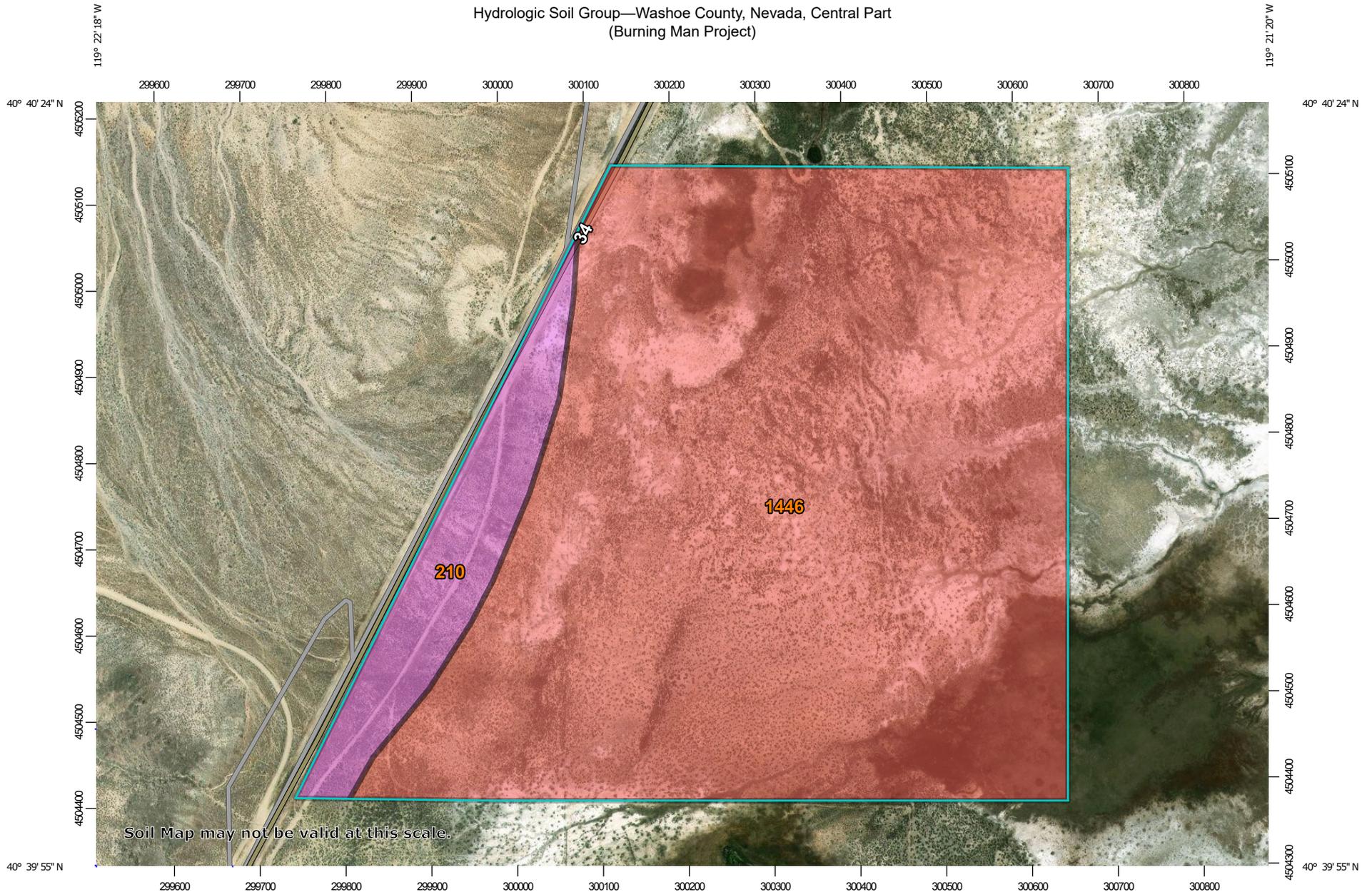
Date(s) aerial images were photographed: Dec 31, 2009—Sep 11, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

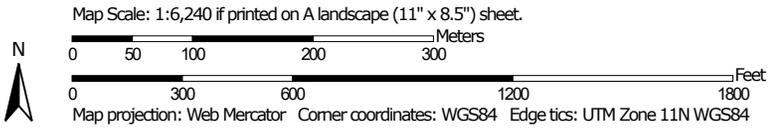
## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
210	Veta-Langston association	12.2	9.3%
1446	Umberland association	118.7	90.7%
<b>Totals for Area of Interest</b>		<b>130.9</b>	<b>100.0%</b>

Hydrologic Soil Group—Washoe County, Nevada, Central Part  
(Burning Man Project)



Soil Map may not be valid at this scale.



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Lines

 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Points

 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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 Survey Area Data: Version 13, Aug 26, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 11, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
210	Veta-Langston association	A	12.2	9.3%
1446	Umberland association	D	118.7	90.7%
<b>Totals for Area of Interest</b>			<b>130.9</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

**CONSULTANTS**

**General Contractor**  
 TBD

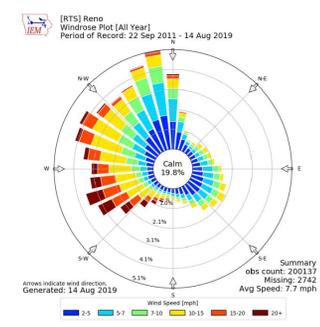
**PROJECT MANAGER**  
 MIKE RILEY  
 CHRISTY CORPORATION, LTD  
 1000 KILEY PARKWAY  
 SPARKS, NV 89436  
 OFFICE: 775.502.8552  
 DIRECT: 775.236.2487  
 MOBILE: 775.250.3455  
 E-MAIL: mike@christynv.com

**Structural Engineer**  
 TBD

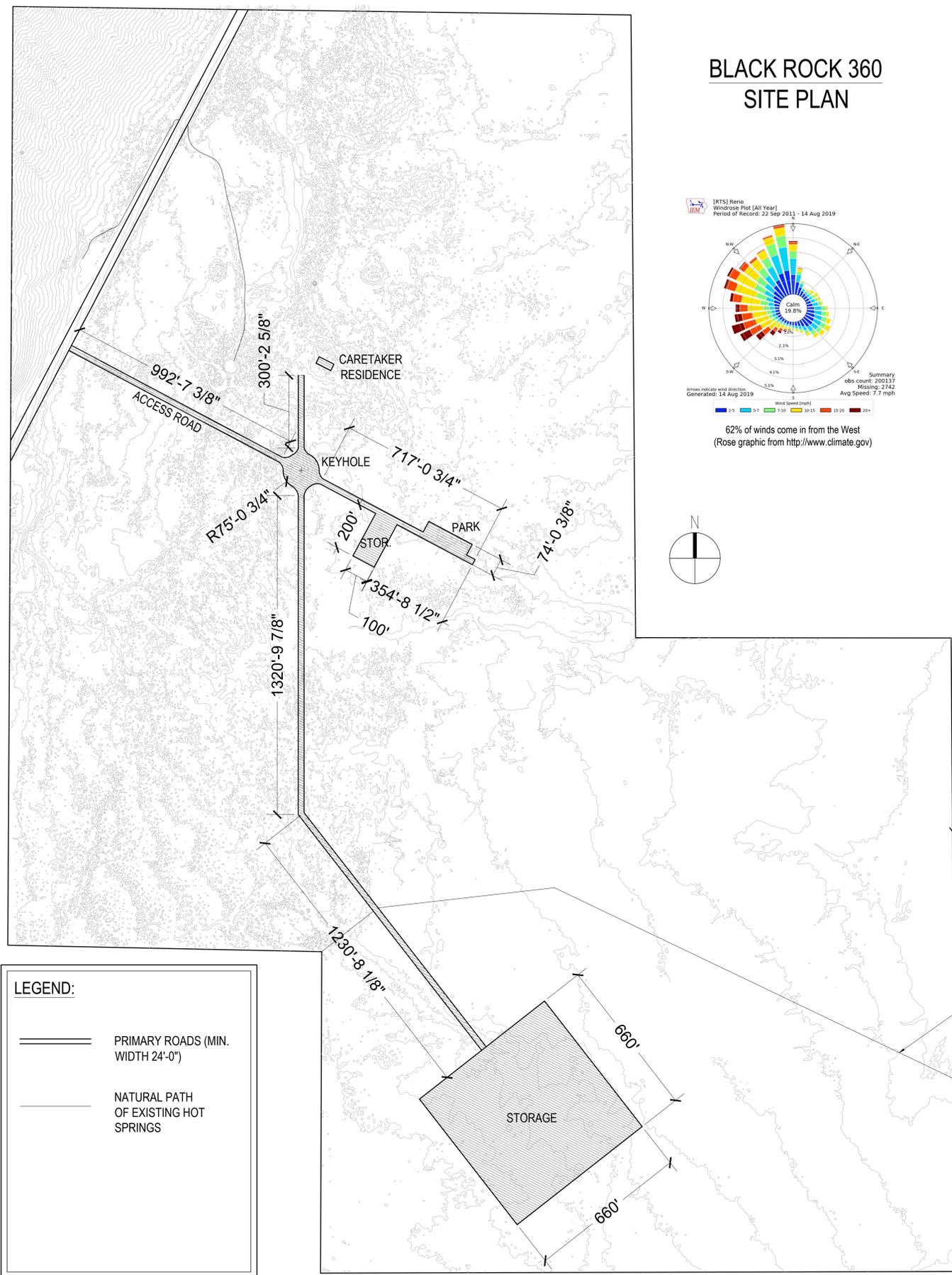
**Geotechnical Engineer**  
 TBD

**Landscape Architect**  
 TBD

**BLACK ROCK 360  
 SITE PLAN**



62% of winds come in from the West  
 (Rose graphic from <http://www.climate.gov>)



**LEGEND:**

- PRIMARY ROADS (MIN. WIDTH 24'-0")
- NATURAL PATH OF EXISTING HOT SPRINGS

REVISIONS	
	NOT FOR CONSTRUCTION
04.09.2021	SPECIAL USE PERMIT
	KEY PLAN

ADDRESS: COUNTY ROAD 34  
 (40.674153, -119.363689)  
 GERLACH, NV  
 WASHOE COUNTY

LOT:  
 ZONING: SPECIAL DIST.  
 ZONING MAP #

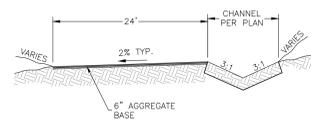
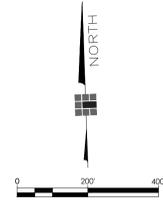
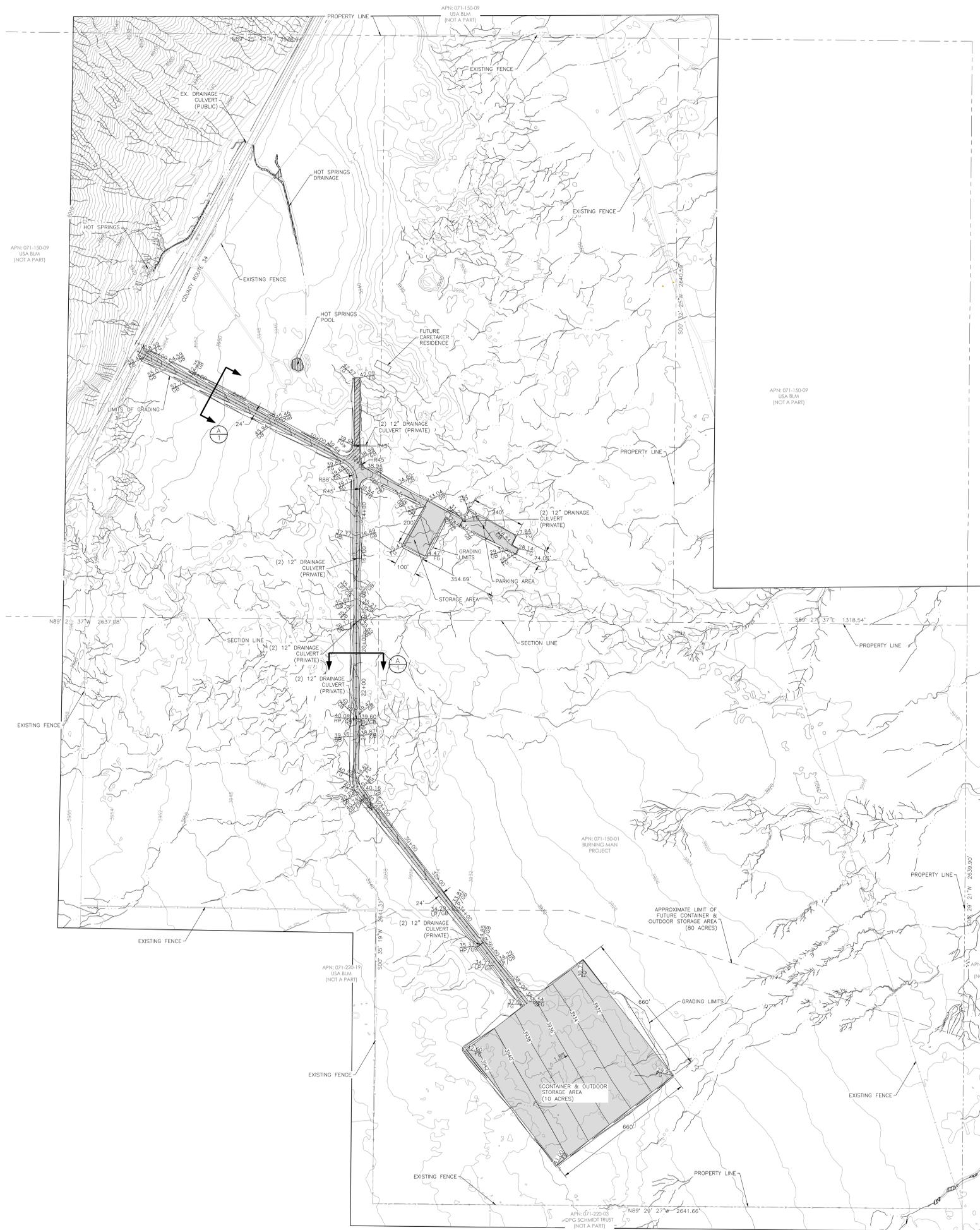
**SITE PLAN**

PROJECT NO: 2001 SCALE: AS NOTED

**A-101**



C:\Users\Burning Man\OneDrive\Containers Storage\360-GP-1-DETAILED GRADING PLAN.dwg 4/08/21 1:55pm /z



**ACCESS ROAD**  
Not To Scale

**LEGEND**  
6" AGGREGATE BASE SURFACE

- GRADING NOTES:**
- EXISTING CONTOURS ARE IN 2 FT INTERVALS.
  - ADD 3900 TO ALL FINISHED GRADE ELEVATIONS IF LISTED WITH ONLY 4 SIGNIFICANT FIGURES.

**SITE QUANTITIES**

AREA OF DISTURBANCE	18 ACRES
VOLUME OF BASE (IMPORT)	11,000 CU YDS
CUT VOLUME	9,000 CU YDS
FILL VOLUME	20,000 CU YDS
NET GRADING VOLUME	0 CU YDS

ISSUED FOR PERMIT - 04/08/2021



**CHRISTY CORPORATION**  
1000 Riley Parkway | Sparks, Nevada 89436  
775.502.8552 | christywm.com

REV.	DATE	DESCRIPTION

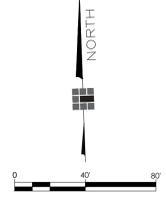
**SPECIAL USE PERMIT PLANS FOR  
BLACK ROCK 360 - CONTAINER & OUTDOOR STORAGE  
OVERALL GRADING PLAN  
BURNING MAN PROJECT**

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Date: 04/08/2021  
Designed by: DRB  
Checked by: CRM  
Job No.: 1615.002



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**PAVING LEGEND**

24' ACCESS ROAD

**GRADING NOTES:**

- EXISTING CONTOURS ARE IN 2 FT INTERVALS.
- ADD 3900 TO ALL FINISHED GRADE ELEVATIONS IF LISTED WITH ONLY 4 SIGNIFICANT FIGURES.

REV.	DATE	DESCRIPTION

ISSUED FOR PERMIT - 04/08/2021

**CHRISTY CORPORATION**  
 1000 Riley Parkway | Sparks, Nevada 89436  
 775.502.8552 | christy.com



SPECIAL USE PERMIT PLANS FOR  
**BLACK ROCK 360 - CONTAINER & OUTDOOR STORAGE**  
 GRADING PLAN  
 BURNING MAN PROJECT

WASHOE COUNTY, NEVADA

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Date: 04/08/2021  
 Designed by: DRB  
 Checked by: CRM  
 Job No.: 1615.02

