NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.:	2a. Lead (Sponsoring) Agency:	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
138642	USACE		

4. Title of Report: Cultural Resource Survey for Proposed La Cueva Arroyo Extension in Albuquerque, Bernalillo County, New Mexico

Author(s) Christina Chavez and Ardale R. Delena

5. Type of Report
☒ **Negative** ☐ **Positive**

6. Investigation Type
☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study
☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other

7. Description of Undertaking (what does the project entail?):
Llave Homes Enterprises proposes to construct a scour wall at the La Cueva Arroyo channel in Albuquerque, Bernalillo County, New Mexico (Figure 1). The proposed wall would protect currently vacant land parcels. The proposed project includes constructing a concrete-reinforced scour wall to contain the 100-year flood event on the south bank of the existing arroyo within lots 17 and 18 (just west of Ventura Street). The lots would also be graded and prepared for future construction. The arroyo channel would be widened adjacent to filled areas to accommodate ephemeral flows at the existing water surface elevation.

Marron and Associates, an NV5 company, (Marron, NV5) completed an intensive (100 percent) cultural resource survey on August 1, 2017. Ardale R. Delena completed the survey under NM permit NM-17-160-S. Christina Chavez served as the Principal Investigator. The United States Army Corps of Engineers (USACE) is the lead agency. A total of 2.17 hecatres (ha) (5.35 acres (ac) was surveyed on private land. Two (2) areas totaling 0.19 ha (0.46 ac) on private land were fenced off and not surveyed. A total of 0.28 ha (0.69 ac) was surveyed on City of Albuquerque (CoA) land, for a total surveyed space of 2.44 ha (6.04 ac) for the proposed project.

Universal Transverse Mercator (UTM) coordinates for the project area corners are listed in Table 1.

8. Dates of Investigation: (from: 08/01/17 **to:** 08/01/17**)**

9. Report Date: October 2018

10. Performing Agency/Consultant: Marron and Associates, an NV5 company
Principal Investigator: Christina Chavez
Field Supervisor: Ardale R. Delena
Field Personnel Names:

11. Performing Agency/Consultant Report No.: 17034.01

12. Applicable Cultural Resource Permit No(s):
NM-17-160-S

13. Client/Customer (project proponent): Llave Enterprises Inc.
Contact: Mr. Robert Keeran
Address: 8830 Keeran Lane NE
Albuquerque, New Mexico 87122
Phone: (505) 249-1502

14. Client/Customer Project No.:

15. Land Ownership Status ***(Must be indicated on project map):***

Land Owner	Acres Surveyed	Acres in APE
Private	5.35	5.81
City of Albuquerque	0.69	0.69
TOTALS	6.04	6.5

16 Records Search(es):

Date(s) of ARMS File Review 07/31/17	**Name of Reviewer(s)** A. Ochoa	
Date(s) of NR/SR File Review 07/31/17	**Name of Reviewer(s)** A. Ochoa	
Date(s) of Other Agency File Review	**Name of Reviewer(s)**	**Agency**

17. Survey Data:

a. Source Graphics ☐ **NAD 27** ☒ **NAD 83**

☒ **USGS 7.5' (1:24,000) topo map** ☐ **Other topo map, Scale:**

☒ **GPS Unit** **Accuracy** ☐ **<1.0m** ☒ **1-10m** ☐ **10-100m** ☐ **>100m**

b. USGS 7.5' Topographic Map Name **USGS Quad Code**

Alameda	35106-B5; 1990

c. County(ies): Bernalillo

17. Survey Data (continued):

d. Nearest City or Town: Albuquerque

e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼ ¼ ¼
			, , .
			, , .
			, , .
			, , .
			, , .
			, , .
			, , .
			, , .

Projected legal description? Yes ☐ **, No** ☒ **Unplatted** ☒

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.): Elena Gallegos Grant

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):

Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)

Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 **Crew Size:** 1 **Fieldwork Dates:** 08/01/17

Survey Person Hours: 2 **Recording Person Hours:** 0 **Total Hours:** 2

Additional Narrative: Two (2) areas totaling 0.19 ha (0.46 ac) on private land were fenced off and not surveyed.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):
The project area lies within the Mexican Highland Section of the Basin and Range Physiographic Province (Hawley 1986:24). Elevation for the project area is 1,676 meters (m) (5,500 feet [ft]) above mean sea level (amsl). The Rio Grande Valley in New Mexico consists of a series of north-south oriented basins that form part of the Rio Grande depression or rift belt that stretches across the state. These basins are linked by narrow valleys and structural bedrock constrictions situated at either end of the basins (Kelley 1977:7, 35). The project area is part of the Albuquerque Basin of central New Mexico. This basin, the largest in the Rio Grande Rift, is 164.1 kilometers (km) (102 miles [mi]) long (north-south) and 40.2 to 64.4 km (25–40 mi) wide (east-west). It is bounded on the west by the Colorado Plateau and on the east by the Sandia, Manzano, and Los Pinos fault blocks (i.e., mountains) that tilt eastward. These mountains consist of granitic igneous rocks of Precambrian age and metamorphic rocks of schist, gneiss, and quartzite (Pease 1975:118). The foothills consist of limestones, sandstones and shale (Pease 1975:118). The north end of the Albuquerque Basin is the Cerrillos constriction that separates it from the Española Basin and the south end is the Socorro constriction that connects with the San Marcial Basin. The Albuquerque Basin is drained by the Rio Puerco in the west and by the Rio Grande in the east. Both drainages are deeply entrenched into a former high basin surface that is preserved in the Ceja Mesa divide between the two drainages (Kelley 1977:7–8, 35, 43).

The Rio Grande is the only perennial river in the Albuquerque area. This river flows 3018 km (1885 mi) from southern Colorado to the Gulf of Mexico at the extreme end of southern Texas. In the vicinity of Albuquerque, the river is characterized by a broad valley with low relief. Prior to settlement of the valley by Anglo-Americans, evidence indicates the river was perennial throughout its course in New Mexico. Even the most arid portions of the Rio Grande had numerous marshes, oxbow pools, and fringe forests of cottonwoods, willows, and shrubby phreatophytes.

The soils of the project area consist of 2 soil series— The Embudo gravelly fine sandy loam, and the Embudo- Tijeras complex. The Embudo gravelly fine sandy loam is characterized by terraces with alluvium derived from igneous and sedimentary rock as the parent material with a 0 to 5 percent slope. The Embudo-Tijeras complex is the next soil within the project. The Embudo is characterized by terraces with alluvium derived from igneous and sedimentary rock as the parent material with a 0 to 5 percent slope. The Tijeras aspect is characterized by fan remnants with the same parent material as the Embudo but with a 1 to 9 percent slope. Both soil series have an elevation range of 1,478 m to 1,981 m (4,850 ft to 6,500 ft) (USDA Websoil Survey 2017).

The project area has an arid, continental climate characterized by low rainfall, warm summers, and mild winters. The average annual precipitation is 17.8 to 25.4 centimeters (cm) (7 to 10 inches). Most of the precipitation, 11.4 cm (4.5 in) falls from June through October in the form of brief, often heavy thunderstorms. The Gulf of Mexico is the main source of moisture during this period (Houghton 1977). During winter, precipitation is provided by eastward-moving Pacific Ocean storms. Most of the moisture, however, is lost in the mountains west of New Mexico. In general, precipitation varies greatly from month to month and from year to year (Houghton 1977).

The average annual temperature ranges from 15.6 degrees Celsius (°C) (60 degrees Fahrenheit [°F]) in the Rio Grande valley to 10°C (50°F) in the Sandia Mountains (Pease 1975:112). The average frost-free season is 196 days. Relative humidity averages less than 50 percent. On hot, sunny afternoons, it is less than 20 percent. Winds are primarily southerly in summer and northerly in winter. Although winds are light throughout most of the year, averaging 16 km (10 mi) per hour, spring is the windy season. During this time, the winds are mainly from the southwest (Hacker 1977:95–96; Houghton 1977).

The project area is within Bailey's (1913:27) Upper Sonoran Zone and Shreve's (1942:236) Chihuahuan Desert as amended by Schmidt (1979). The vegetation of the East mesa is variously classified as Plains-Mesa Sand Scrub (Dick-Peddie 1993:124, 128–129), Plains and Great Basin Grassland (Brown 1994:115–121), and desert grassland (Castetter 1956). Most of the Plains-Mesa Sand Scrub areas occur in former mesa grassland sites (Dick-Peddie 1993:128). Drought and overgrazing since 1850 have drastically reduced the grass cover (Dick-Peddie 1993:131). As a result, the various bunchgrasses (e.g., *grama species*) favored by livestock have been replaced by forbs and shrubs.

The prehistoric inhabitants of the project area hunted a variety of animals for food, hides, and body parts. All available environmental zones and landforms were exploited. Important game animals included pronghorn, deer, wapiti, bighorn sheep, bison, and leporids—cottontails, jackrabbits. Mammals such as bears, wolves, beavers, bobcats, foxes, and river otters were hunted for their pelts. Turkeys, owls, hawks, eagles, and various perching birds were hunted or raised for their feathers. Quail and waterfowl were procured as secondary food resources.

20. a. Percent Ground Visibility: 90 **b. Condition of Survey Area (grazed, bladed, undisturbed, etc.):** Project area has numerous locations where construction materials (concrete fragments, milled lumber fragments, and bricks) are dumped on the ground. Also, a motorcycle track is in the project area.

21. CULTURAL RESOURCE FINDINGS ☐ **Yes, See Page 3** ☒ **No, Discuss Why:** Project location is surrounded by housing developments and is also disturbed by a motorcycle track that has berms and ramps. Most of the project area is within or around a northwest - southeast arroyo.

22. Required Attachments (check all appropriate boxes):
- ☒ **USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn**
- ☒ **Copy of NMCRIS Mapserver Map Check**
- ☐ **LA Site Forms - new sites (*with sketch map & topographic map*)**
- ☐ **LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)**
- ☐ **Historic Cultural Property Inventory Forms**
- ☒ **List and Description of isolates, if applicable**
- ☐ **List and Description of Collections, if applicable**

23. Other Attachments:
- ☐ **Photographs and Log**
- ☐ **Other Attachments**

***(Describe)*:**

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Toni R. Goar

Signature _____ **Date** October 22, 2018 **Title (if not PI):** CR Program Manager

25. Reviewing Agency:	**26. SHPO**
Reviewer's Name/Date	**Reviewer's Name/Date:**
Accepted ( ) Rejected ( )	**HPD Log #:**
Tribal Consultation (if applicable): ☐ **Yes** ☐ **No**	**SHPO File Location:**
	Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.:	2. Lead (Sponsoring) Agency:	3. Lead Agency Report No.:
138642	USACE	

SURVEY RESULTS:

Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited (*site update form required*): 0
Previously recorded sites not relocated ***(site update form required):*** 0
TOTAL SITES VISITED: 0
Total isolates recorded: 1 **Non-selective isolate recording?** ☒
Total structures recorded (*new and previously recorded, including acequias*): 0

MANAGEMENT SUMMARY: Marron, NV5, completed a 100-percent cultural rersource survey on August 1, 2017. Ardale Delena completed the survey. Christina Chavez served as the Principal Investigator. Work was conducted under New Mexico State Permit No.17-160-S. Two (2) person hours (not including drive time) were required to complete the survey. The USACE is the lead agency. A total of 2.17 ha (5.35 ac) was surveyed on private land. Two (2) areas totaling 0.19 ha (0.46 ac) on private land were fenced off and not surveyed. A total of 0.28 ha (0.69 ac) was surveyed on City of Albuquerque (CoA) land, for a total surveyed space of 2.44 ha (6.04 ac) for the proposed project (Figures 1 through 3).

Prior to the cultural resource survey, an electronic search of the Museum of New Mexico Archaeological Records Management System (ARMS) on July 31, 2017, revealed no previously recorded archaeological sites located within 0.5 km (0.3 mi) of the current project area. In addition, 3 cultural resource surveys have been completed within 0.5 km (0.3 mi) of the project area (Table 2; Figure A1). Published listings for the State Register of Cultural Properties (SRCP) and the National Register of Historic Places (NRHP) were consulted. No listed property is near the project area.

One (1) isolated occurence was recorded (Table 3). The isolated occurrence was a crushed, knife-opened, oil can. The isolated occurrences do not meet the eligibilty criteria for nomination to the NRHP and no further treatment is recommended.

This undertaking complies with the provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and applicable regulations. This report is consistent with applicable federal and state standards for cultural resource management.

In the event that cultural resource materials are uncovered during either construction or earth-disturbing activities, work in the area should cease immediately and the USACE and the State Historic Preservation Officer (SHPO) will be notified. The USACE and SHPO will determine the necessary steps to evaluate, document, protect, or remove the material or remains, in compliance with the law.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT

REFERENCES CITED

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1913 *Life Zones and Crop Zones of New Mexico.* North American Fauna No. 35. U.S. Department of Agriculture, Bureau of Biological Survey, Washington, D.C.

Castetter, Edward F.
1956 The Vegetation of New Mexico. *New Mexico Quarterly* 26(3):256–288.

Dick-Peddie, William A.
1993 *New Mexico Vegetation: Past, Present, and Future.* University of New Mexico Press, Albuquerque.

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1977 *Geology of Albuquerque Basin, New Mexico.* Memoir 33. New Mexico Bureau of Mines and Mineral Resources, Socorro.

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1979 A Climatic Delineation of the Real Chihuahuan Desert. *Journal of Arid Environments* 2:243–250.

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United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/ accessed [September 2017].

Table 1 — Project Coordinates

Description	UTMs (NAD 83, Zone 13)	
	Easting	Northing
Northwest corner	359178	3894670
Northeast corner	359178	3894668
Southwest corner	359219	3894557
Southeast corner	359568	3894428

Table 2 — Previous Archaeological Surveys within 0.5 km (0.3 mi) of the Project Area

NMCRIS No.	Description	Acres	No. of Sites	Author, Date
48808	Proposed La Cueva Arroyo Diversion and Signal Avenue Dike Rehabilitation Bernalillo County, New Mexico	15.50	0	Hudspeth William B., 1994
57360	Proposed Construction of Alameda BLVD (East Corridor) Bernalillo County, New Mexico	322.00	0	Fletcher, Thomas F., 1996
66898	City of Albuquerque Water Resources Management Strategy Implementation Cultural Resources Survey Report Non-Potable Water Reclamation and Reuse Northeast Heights and Southeast Albuquerque, New Mexico	98.50	11	Ecosystem Management, Incorporated, 2000

Table 3—Isolated Occurrences (Zone 13)

IO No.	Setting	Description	Easting	Northing
1	Drainage	One crushed knife-opened oil can	359380	3894552

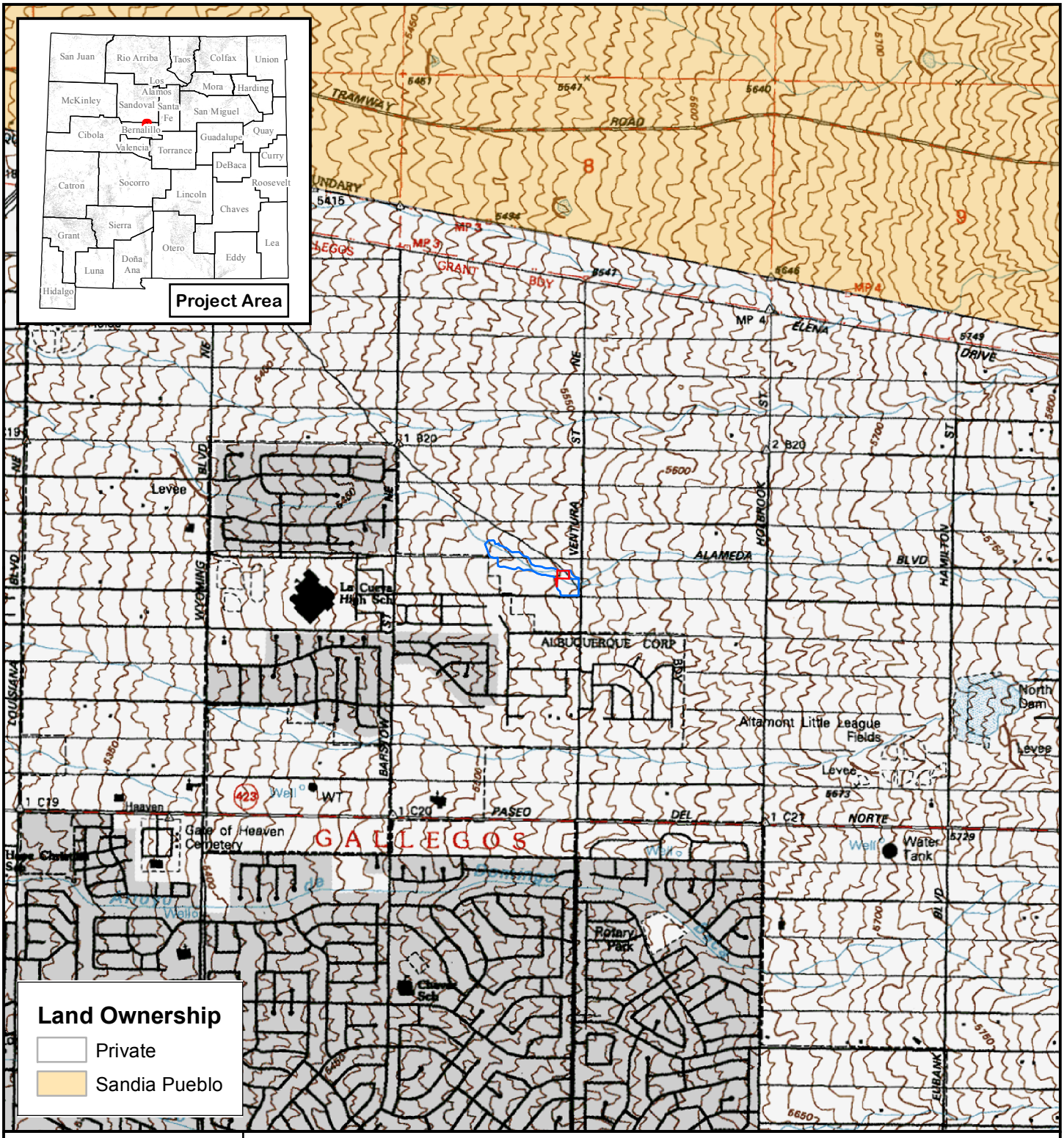


Figure 1
Project Location Map

Survey Area
Not Surveyed

Alameda, NM
USGS 7.5' Quadrangle

Elena Gallegos Grant
Bernalillo County, New Mexico

0 0.375 0.75 1.5 Kilometers

0 0.2 0.4 0.8 Miles

N

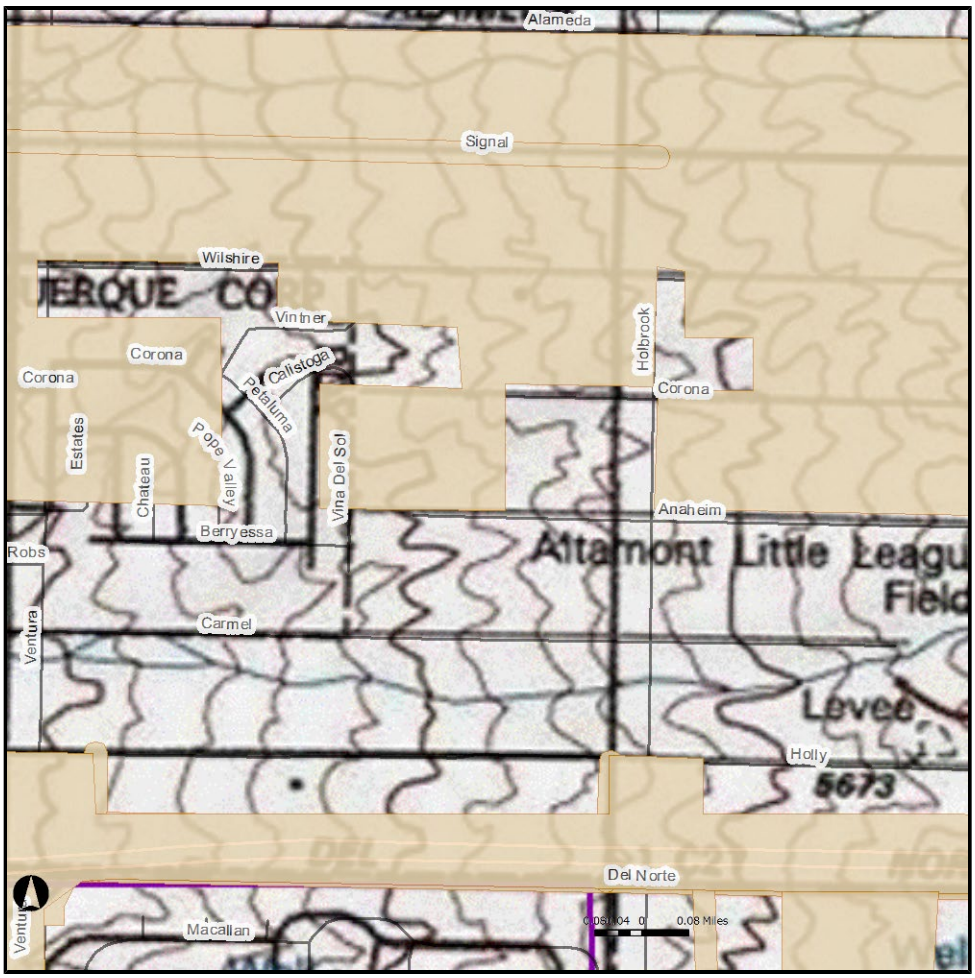
1:24,000

La Cueva Arroyo Extension, Bernalillo County, New Mexico

Figure 2 – Project Area Overview, Facing South

Figure 3 – Project Area Overview, Facing South

Map



Site Labels

Site Boundaries (Edit)

Site Boundaries

- Not Defined
- Proposed
- Approved

Building Labels

Object Labels

Linear Resource Labels

Historic Structure Labels

Historic Structures (Edit)

Buildings (Edit)

Objects (Edit)

Linear Resources (Edit)

Buildings

- Not Defined
- Proposed
- Approved

Objects

- Not Defined
- Proposed
- Approved

Linear Resources

- Not Defined
- Proposed
- Approved

District Labels

Districts (Edit)

Districts

- Not Defined
- Proposed
- Approved

Register Properties (Edit)

Archaeological Surveys (Edit)

Archaeological Surveys

- Not Defined
- Proposed
- Approved

Highways

- Primary Limited Access or Interstate
- Primary US and State Highways
- Secondary State and County
- Local - Rural
- Ramp, other

Detailed Streets

New Mexico

Counties

Towns

NGS USA Topographic Maps

NMCRIS

Background Reference Layers

DRGs: Copyright: © 2013 National Geographic Society
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Satellite Imagery

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