National Endowment for the Humanities

DRAFT

Condensed Environmental Assessment

For

Georgia O'Keeffe Museum of Santa Fe County
Georgia O'Keeffe Museum

Challenge Grant Program
Grant No. CHA-268762

June 4, 2024

National Endowment for the Humanities
Condensed Environmental Assessment

Project Location:

Facility Name:	Georgia O'Keeffe Museum of Santa Fe County, New Mexico	
Address:	123 Grant Avenue	
City: Sante Fe	County: Sante Fe County	State: NM

Recipient Information:

Facility Name:	Georgia O'Keeffe Museum (GOKM)	
Point of Contact:	Cody Hartley	
Address:	217 Johnson Street	
City: Sante Fe	State: NM	Zip Code: 85701
Telephone Number:	505-946-1055	
Email:	chartley@okeeffemusuem.org	

EA Point of Contact:	Janet Guinn	
Address:	7770 Jefferson St NE	
City: Albuquerque	State: NM	Zip Code: 87109
Telephone Number:	435-770-8895	
Email:	Janet.Guinn@swca.com	

Identify all Attachments to this Condensed EA:

Identify attachments as appendices to the Condensed EA. List the attachments in the order as they appear in the Condensed EA. Include aerial photos, maps, plans, correspondence, and completed studies (or executive summaries).

Attachment A: Figures
- A-1: Project Vicinity Map
- A-2: Project Site Map

Attachment B: Design Material
- B-1: Project Manual – GOKM Grant Street Offices (GSO) Demolition 100% Construction Documents (including Stormwater Pollution Prevention Plan)
- B-2: GOKM Development Plan Amendment Report
- B-3: GOKM GSO Demolition Set (including Erosion and Sediment Control Plan)
- B-4: Existing Conditions Aerial
- B-5: Site Plan
- B-6: Existing Plantings & Photos
- B-7: Landscape Plan

Attachment C: Water Resources Information
- C-1: Sole Source Aquifer
- C-2: EPA Stormwater Discharge Mapping Tool Report
- C-3: Drainage - 2260553 – Georgia O'Keeffe Museum-100323

Attachment D: Cultural Resources Information

- D-1: Letter from NEH to SHPO dated September 2023 and April 2024
- D-2: NEH Letter sent September 2023 to Consulting Parties
- D-3: Historic Properties Treatment Plan (HPTP) Report (for Mitigation) (includes Figure of test pits)
- D-4: Tesuque Pueblo Meeting Minutes (Public Controversy)
- D-5: National and State Historic Registers

Attachment E: Natural Resources Information

- E-1: United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Report
- E-2: New Mexico Department of Game and Fish (NMDGF) Biota Information System of New Mexico (BISON-M) Report
- E-3: Santa Fe County_Federal and State Listed Species
- E-4: Birds of Conservation Concern (BCC)_Bird Conservation Regions (BCR) 16_map and table for migratory species

Attachment F: Site Traffic and Parking Analysis

Attachment G: Hazardous Materials Support Information

- G-1: Phase I ESA
- G-2: Pre-Demolition Asbestos Survey
- G-3: Asbestos Abatement Letter
- G-4: Pre-Demolition Lead-Based Paint Survey

Attachment H: Public Involvement

- H-1: GOKM Meeting List

Part I - General Project Identification

Proposed Action:

Describe the proposed project (the preferred alternative) in detail. List and briefly describe your proposed action (which must relate to the project purpose and need). Attach drawings/plans for the proposed action.

The Georgia O'Keeffe Museum (GOKM) proposes to demolish an existing 19,000-square-foot commercial structure (originally built as a Safeway grocery store) and construct a new 56,288-square-foot building to house exhibition galleries, education facilities, visitor amenities, and collections storage and care spaces on two adjacent privately owned lots at 123 and 135 Grant Avenue in downtown Santa Fe, New Mexico, 87501. The lots are adjacent to the Marcy Street Offices, which serve as administrative offices for GOKM and the historic Otero-Bergere House, the location of the GOKM Research Center, Library, and Archives. The project location is in a highly disturbed urban area in the heart of downtown Santa Fe and surrounded by local businesses. Attachment A, Figures 1 and 2 provide further information on the Proposed Action, project vicinity, and project site.

GOKM proposes to partially fund the development project with a $750,000 grant from the National Endowment for the Humanities (NEH) Challenge Grants Program (CHA-268762). The Challenge Grant Program is authorized under the National Foundation on the Arts and the Humanities Act of 1965 (P.L. 89-209). The grant is intended to be used to fund excavation and archaeological recovery activities. The intent of the new GOKM is to create a welcoming and accessible campus for visitors and communities through innovative presentations of Georgia O'Keeffe's art, the northern New Mexican landscape, and the lived experiences of Georgia O'Keeffe within the region. The new GOKM building will augment the functions of the existing ~12,000-square-foot, one-story, commercial structure at 217 Johnson Street, Santa Fe.

The proposed location of the new GOKM is the former Safeway No. 921 and is roughly a 19,000-square-foot rectangular box ornamented with mid-1990s Pueblo Revival trim. Demolition activities consist of removal of the existing Safeway building, parking lot, and parking kiosk, the removal of 21 feet of the existing white picket fence, and removal of a stuccoed block wall to create a campus-type plan with an unimpeded flow between the two structures and establish a public garden space that will connect Grant and Sheridan Avenues.

Due to height restrictions in the City of Santa Fe and the need for extended space for the new GOKM, the Proposed Action includes excavation for the ground floor and basement. The belowground construction will include spaces for a collections vault, a conservation lab, a digital imaging lab, workspaces, and other storage. The total depth of excavation will be 20 feet deep (6 meters) with a width of ~201 feet (61 meters) by ~179 feet (55 meters). The building includes an elevator shaft and will include a ramped construction entry from Grant Avenue.

The proposed landscaping will consist of refurbishing, maintaining, and adding and replacing multiple trees and gardens. New gates and pathways will be constructed for the public to walk on and through, throughout the GOKM campus.

Temporary facilities for the construction activities will be located in the southeast corner of the lot at 123 Grant Avenue and include the field office, storage areas, sheds, and fencing, project identification sign, access routes, temporary utility routes and connections (includes temporary electricity and lighting), sanitary facilities, trash receptacles, barriers for sediment and erosion control, and protection. Attachment B provides construction documents, including demolitions plans, as well as existing and proposed building and landscaping plans.

Purpose and Need:

Describe the problem that the project will address and the goals of the project. You may incorporate by reference information that is reasonably available to the public. Briefly describe the existing conditions on the project site, and the projected future conditions of the area impacted by the project. Identify any known sensitive environmental conditions. Since 1997, the current GOKM has introduced nearly 4 million people to Georgia O'Keeffe, a pivotal American artist of the twentieth century, through her art, life, and legacy in the context of multicultural New Mexico. But as the collections have grown from 38 paintings to nearly 18,000 objects, and with increasing international appetite for all things O'Keeffe, the current GOKM facilities have become inadequate. Due to limited capacity, school tours must be suspended during peak tourism. Lectures are held off-site in rented hotel spaces, and preschool visits are scheduled before opening hours so that children may sit on the floor without causing a tripping hazard. In addition, the existing O'Keeffe Museum cannot host major touring exhibitions. As visitors and the regional community demand more exhibitions, public programs, and interactive experiences, limited space restricts more opportunities for growth and community engagement.

Anchored by a new 56,288-square-foot exhibition, education, and collections facility, the campaign positions the GOKM as a world-class, visitor-centric, community-minded museum. The new GOKM will present more of the collection in its galleries, matching the caliber of recent national and international exhibitions, showcase diverse artists and voices, increase capacity for programming, engagement, and educational initiatives, and respond to the needs of a growing collection, providing state-of-the-art collections care and storage. The new GOKM will include a combined 18,000 square feet of gallery space, learning and engagement center with classrooms and lecture space, community green space open to the public, including pedestrian routes, state-of-the-art conservation lab, collections storage space, and photography studio for collection documentation. In addition, the proposed project consists of a walkway to the Research Center, Library, and Archives, integrating the sites on Grant Avenue, an on-campus bus drop-off lane, and a loading dock for careful handling of artwork (GOKM 2024).

Reference:

Georgia O'Keeffe Museum (GOKM). 2024. New Museum Project – The Georgia O'Keeffe Museum. https://www.okeeffemuseum.org/about-the-museum/new-museum-project/. Website accessed March 2024.

Alternatives Considered:

Describe all reasonable alternatives, including No-Action (or do nothing. alternative.) You need to develop reasonable alternatives to meet project needs (42 U.S.C. § 4332(E)). You have discretion as to the number and breadth of alternatives. For example, the need to use existing infrastructure necessary to support a proposed action can be a basis for identifying a discrete number of alternatives. When an alternative includes mitigation, include a brief discussion of those measures that avoid, minimize, reduce, or eliminate, rectify, or restore, or compensate for the impacts. If there are no other reasonable alternatives to the proposed action, please provide an explanation.

Alternative 1: No Action

A "no-build alternative" would be to not construct a new GOKM. This alternative was rejected by the GOKM board during preliminary planning phases due to the limited space and location of the existing museum building. The NEH grant is a challenge grant of $750,000 that requires a 4-to-1 match with non-federal donors. If the result of the National Environmental Policy Act (NEPA) process is not accepted and NEH declines to fund the project or the requirements of the challenge grant are not met, then GOKM would still develop the new building through additional funding sources. Construction would be delayed as funding is secured.

Alternative 2: Construct New Facility at 123 and 135 Grant Avenue
The Proposed Action is to construct a new GOKM and consists of site development and facility construction on two adjacent privately owned lots at 123 and 135 Grant Avenue in downtown Santa Fe, New Mexico, adjacent to their existing facilities.

Construction of a new facility adjacent to the O'Keeffe Research Center, Library, and Archives will:

- provide enough space for the museum to present more of Georgia O'Keeffe's collection for its galleries;
- provide more opportunities for community programs and educational spaces for the public;
- provide adequate storage space capable of maintain preservation standards;
- create a campus-type plan with an unimpeded flow between the two museum structures and a public garden space that will connect Grant and Sheridan Avenues; and
- minimize impacts to natural resources while maintaining and preserving historical and cultural significance in the heart of downtown Santa Fe.

Height limitations and design restrictions in the Downtown and Eastside Historic District limit building height and dictate design standards. The Santa Fe Planning Commission approved the Development Plan for a new GOKM in 2021 and the parking variance in 2023. The Historic Districts Review Board (HDRB) approved the demolition of the existing Safeway building in 2021 and approved the final design of the new building in January 2024.

The Proposed Action also includes use of two off-site parking lots: 70 new spaces of parking in the Marcy Plaza parking garage at 117 E. Marcy St., 880 feet from the Museum parcel; and 23 spaces at the Chappelle Street parking lot located 615 feet from the parcel (owned by the Museum).
The preferred alternative is ***Alternative 2: Construct New Facility at Lots 123 and 135***. The site meets the needs of GOKM, is consistent with the City of Santa Fe building requirements, and provides easy access for the public to enter the campus from both Grant Avenue and Sheridan Avenue. This alternative includes mitigation measures for natural resources such as soil and erosion control, stormwater management, noise and dust abatement, vehicular traffic control, and waste management (see Attachment B). The proposed facility has been developed to accommodate the Museum's space needs, while ensuring that the building complies with Historic regulations and thereby harmonizes with the streetscape and existing built environment.

Explain in detail the reason for not selecting each non-preferred alternative.

A no-build alternative would not meet the growing demand of exhibiting more of the late Georgia O'Keeffe's work.

Due to the sensitive environment of the historical and cultural history of Santa Fe the site for the proposed project must be publicly accessible while providing enough space to hold Georgia O'Keeffe's work and the expansive program, engagement, and educational initiatives for the community. Given the project purpose and need, only the acquired adjacent property and current design meets the access, logistics, size, and design requirements. As noted above, Santa Fe Planning Commission and HDRB have been integrally involved in project and design and have provided several facility design approvals

Affected Environment:

Briefly describe the existing conditions on the project site. The description should summarize site-specific conditions identified in Part II. Describe projected conditions of the area impacted by the project. Identify any known sensitive environmental conditions. This information is required for all building renovations and new construction (including building additions, temporary facilities, and trailers). Include the total site acreage and existing land use in the vicinity of the project.

For example:

The area(s) which will be affected by the proposed action are identified in the attached map. This area consists of -[add a brief description of the environmental state of the area that will be affected by the

location and operation of the project, focusing on those areas and resources that are potentially sensitive—the goal is to show the utility and need to identify actual place based environmental issues rather than compiling laundry lists of environmental resources that are not at issue by showing which environmental aspects the proposed activity may impact (aquifers, nesting areas, graves, sacred sites etc.)].

The project site comprises 1.98 acres consisting of two adjacent privately owned lots at 123 and 135 Grant Avenue in downtown Santa Fe, New Mexico (see Attachment A). The lots are adjacent to the Marcy Street offices, which serve as administrative offices for the Museum and the Otero-Bergere House, the location of the Museum Research Center, Library, and Archives.

The Museum currently owns three adjacent properties along Grant Avenue between March Street and the alley to the south – (1) the Marcy Street offices, which serve as administrative offices for the Museum; (2) the Otero-Bergere House, the Museum Research Center, Library, and Archives; and (3) the existing Safeway building at 123 Grant Ave., which previously served as an Education Annex for the Museum.

The project site currently includes the existing and abandoned Safeway building, a private paid parking lot used by the public, planter beds, fencing, and a stucco wall. No natural vegetation or habitat remain on-site. Within the existing Safeway parking lot and the area between the Safeway building and the existing Otero-Bergere House, there are 9,552 square feet of grass lawn and 22 "significant" trees (City of Santa Fe (CSF) *§14-8.4*). These include evergreen and deciduous trees (see Attachment B Existing Planting Plan and photos), some of which are in decline. The existing Safeway parking lot contains an additional 26 deciduous trees.

The public alley south of the site is closed to vehicular traffic and contains dumpsters and parking areas.

Investigations of the existing Safeway building revealed the presence of hazardous materials due to the site's historic use and building materials used during the time of development. Asbestos material was found and removed from pipe fittings and roof penetrations by a licensed remediator (see Attachment G: Hazardous Materials Support Information).

The project area lies within a sole source aquifer (SSA) known as the Española Basin Aquifer System SSA (see Attachment C). The Santa Fe River is located about 0.31 mile from the project site.

Cultural resource investigations of the project area have identified historic features associated with the Spanish Colonial and U.S. Territorial periods. In addition, investigations on immediate adjacent properties have identified Ancestral Puebloan remains below the Spanish Colonial deposits. Preliminary investigations were performed to assess the project area for cultural properties in compliance with Section 106 under the National Historic Preservation Act of 1966 (Attachment D). The site has demonstrated archaeological deposits to a minimum depth of 8 feet, potentially as deep as 12–15 feet. The existing Safeway building has been determined not eligible for listing on the National Register of Historic Places (NRHP). See Section 4.0 of Part II for more information on existing cultural resources within the project site.

The project site is in the Business-Capital District (CSF *§14-4.3(E)*) and the Marcy Street Townscape Subdistrict (CSF *§14-4.3(E)(3)*) (Attachment B). Surrounding uses include local businesses and dense urban land. Many cafes and galleries including historical buildings surround the project site.

References:

City of Santa Fe. 2024a. Code of Ordinances Chapter 14 – Land Development *§14-4.3E Nonresidential and Mixed-use Districts*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CH14LADE_ART14-4ZODI_14-4.3NOMIEDI. Accessed April 2024.

———. 2024b. Code of Ordinances Chapter 14 – Land Development *§14-8.4 Landscape and Site Design*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CH14LADE_ART14-8DEDEST_14-8.4LASIDE. Accessed April 2024

Part II – Environmental Consequences

1.0 Air Quality

Consult the EPA Green Book or your State or local government's environmental or natural resources offices to determine if your project site falls within an EPA air quality non-attainment area, with air quality worse than the National Ambient Air Quality Standards as defined in the Clean Air Act

	Yes	No
Is the project in an air quality nonattainment or maintenance area?		X
If yes, will the project:		
• Exceed net total of threshold level for regulated air pollutants?		X
• Cause major increase in the number vehicles to the site?		X
• Increase emissions above applicable *de minimis* levels?		X
Does the project require an air quality analysis?		X
Does the project require an air quality analysis for construction impacts?		X

Remarks:

The project site does not fall within a U.S. Environmental Protection Agency (EPA) air quality non-attainment area or maintenance area (40 CFR 81.99) (EPA 2024).

Any air quality impact during construction will be temporary and will primarily be in the form of emissions from construction equipment and dust. The Proposed Action will be subject to a dust control plan including best management practices to mitigate all on-site soil disturbance activities. The City of Santa Fe has stringent dust control requirements that will be strictly enforced. Dust control measures include cleaning adjacent structures of dust caused by demolition operations and use of temporary enclosures to cover on-site stockpile material to reduce windblown dust. Trees that will remain on-site will be periodically sprayed with water to reduce dust accumulation (see Attachment B). A Stormwater Pollution Prevention Plan (SWPPP) including drainage and Erosion and Sediment Control Plan (see Attachment B) will be implemented to prevent dust from being transported off-site and polluting neighboring properties. No temporary impacts to air quality associated with the demolition, excavation, and construction of GOKM are anticipated.

Operations of the new GOKM facility would not result in emissions beyond normal visitation and operational staff traffic, which would be below applicable *de minimis* levels.

References:

EPA. 2024. Summary Nonattainment Area Population Exposure Report. Green Book. Available at: https://www3.epa.gov/airquality/greenbook/popexp.html. Accessed March 2024.

Code of Federal Regulations. 2024. 40 CFR 81.99 New Mexico Southern Border Intrastate Air Quality Control Region. Available at: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-81/subpart-B/section-81.99. Accessed March 2024.

2.0 Water Quality

You may consult with your State or local government's environmental or natural resources offices for assistance in obtaining water quality information for your project.

Streams, Rivers, Watercourses & Jurisdictional Ditches	**Yes**	**No**
Are there streams, rivers, watercourses, or ditches in/near the project area?		X
Does the proposed action have the potential to impact water quality (including groundwater, surface water, or public water supply)?		X
Will there be an increase in stormwater?		X
Is there any National Park Service listed wild and scenic rivers on or near the project area?		X
Is there a sole source aquifer in/near the project area?	X	
Other Waters		
Are there any lakes or ponds in/near the project area?		X
Are there other surface/below surface waters in/near the project area?		X

Remarks: The project area lies within a sole source aquifer known as the Española Basin Aquifer System SSA. The Proposed Action will be subject to compliance with Section 402 of the Clean Water Act (CWA) and National Pollutant Discharge Elimination System (NPDES) regulations for discharges of stormwater from construction activities. The EPA has issued an NPDES Stormwater General Permit for Small MS4s in New Mexico (Permit No. NMR040000). The City of Santa Fe falls within the Santa Fe urbanized area and is covered under Phase II of the MS4 permit program (Permit NMR04S003). The Proposed Action would be eligible for permitting under the EPA's Construction General Permit (CGP) which includes the requirement to develop a SWPPP to identify stormwater controls to address erosion and sediment control and pollution prevention on-site. Part of the SWPPP development would include identification of potential pollutant sources and selecting best management practices (BMPs) and mitigations to address potential discharges of pollutants to impaired waters. The permit application, via notice of intent to the EPA, will be obtained and approved prior to issuance of a construction permit. The SWPPP and stormwater controls will be developed, implemented, and maintained in accordance with the EPA's CGP, City of Santa Fe stormwater regulations (CSF *§14-8.2)*, and Section 603 of the New Mexico Department of Transportation 2019 Interim Specification and as amended by the Supplemental Technical Specification Section 603 (see Attachment B). The SWPPP will be submitted and approved by the City of Santa Fe prior to issuance of grading and permitting for demolition, excavation, and construction phases.

The Santa Fe River runs near the project site (see Attachment C). Based on the EPA discharge mapping tool, the Proposed Action has the potential to discharge to one catchment of the Santa Fe River within 0.31 mile of the project site, which includes two impaired assessment units (Guadalupe Street to Nichols Reservoir and Santa Fe Waste Water Treatment Plant to Guadalupe Street) (Attachment C) (EPA 2024a and 2024b). Section 303(d) of the CWA regulates the Impaired Waters and Total Maximum Daily Load program (EPA 2022). Under Section 303(d) of the CWA, states, territories, and authorized tribes, collectively referred to in the act as "states," are required to develop lists of impaired waters. The New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) maintains the list of impaired waters in New Mexico via the *2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report* (NMED SWQB 2022). Compliance is required for any construction or development in, as well as discharges to, CWA 303(d) listed impaired waters.

The proposed project would decrease the amount of impervious area from existing conditions.
The proposed site will largely maintain the existing drainage pattern and direct flow west toward the

infrastructure along Grant Avenue. The City of Santa Fe limits discharge from proposed developments to that of the pre-development conditions. The peak 100-year discharge from the site was calculated using New Mexico Department of Transportation Rational Methodology and found proposed conditions to be 5.46 cubic feet per second. The proposed condition yields a smaller drainage flow than the pre-development condition and does not require additional flow attenuation on-site to meet city drainage requirements (see Attachment C). The SWPPP will be designed to address pollutants of concern during demolition and construction using BMPs to prevent discharge of pollutants to the Santa Fe River. The post-construction BMPs will be installed as part of the project that will address, capture, and treat stormwater on-site in accordance with CSF *§14-8.2*. With consideration of BMPs for stormwater and sediment and erosion control, the Proposed Action will have no negative impact to the two impaired assessment units of the Santa Fe River or the sole source Española Basin Aquifer System SSA.

References:

City of Santa Fe. 2024. Code of Ordinances Chapter 14 – Land Development *§14-8.2 Terrain and Stormwater Management*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CH14LADE_ART14-8DEDEST_14-8.2TESTMA. Accessed April 2024.

New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB). 2024. 2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report. Available at: Final-Draft-2024-2026_IR-Appendix-A-303d-Integrated-List_WQCC-approved.pdf (nm.gov). Accessed April 2024.

U.S. Environmental Protection Agency (EPA). 2022. Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA. Available at: https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa. Accessed April 2024.

———. 2024a. EPA's Sole Source Aquifers. Available at: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b. Accessed April 2024.

———. 2024b. EPA's Stormwater Discharge Mapping Tools. Available at: https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools. Accessed April 2024.

3.0 New/Unproven Technology

	Yes	No
Will action involve the use or purchase of new equipment/technology (such as new restoration techniques)?		X
Are the environmental impacts known?		X

Remarks: N/A

4.0 Cultural Resources

Results of Section 106 Research

Eligible or listed resources present:	Yes	No
Archaeology	X	
History/Architecture	X	

Project Effect	Yes	N/A	SHPO/ NEH Approval Dates
No Historic Properties Affected		X	9.5.2023
No Adverse Effect (Built environment)	X		4.4.2024
Adverse Effect (Below-ground environment)	X		08.29.2023, 9.5.2023

Completed Documentation	Yes	N/A	SHPO/ NEH Approval Dates
Historic Properties Short Report		X	
Historic Property Report		X	
Archaeological Records Check/ Review	X		5.17.2023
Archaeological Phase I Survey Report		X	
Archaeological Phase II Investigation Report	X		5.17.2023. Available upon request.
Archaeological Phase III Data Recovery		X	Anticipated start July 2024.
Eligibility and Effect Determination	X		9.7.2023 (belowground); 4.4.2024 (built environment)
Memorandum of Agreement	X		In Progress

Describe all efforts to document cultural resources using the categories outlined in the remarks box. Include any additional Section 106 work required, such as mitigation or deep trenching.

Area of Potential Effect (APE): According to 36 CFR 800.16(d), the APE is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The Project APE considers the improvements that will be implemented as part of the proposed project and the extent of potential ground disturbance, as well as the setting and character of the project area, and must include measures to identify and evaluate both archaeological and historical resources.

Two APEs were considered for the Proposed Action; the historical (built environment) and the archaeological (belowground environment). The historical (built environment) APE comprises 1.98 acres of developed land on two adjacent lots 123 and 135 Grant Avenue, which contain the historic Otero-Bergere House, an abandoned Safeway building, a parking lot, lawn and planter beds, fencing, and a stucco wall. This APE is for the consideration of potential visual, noise, or vibration impacts to historic properties from the Proposed Action.

The archaeological (belowground environment) APE comprises of two adjacent lots located at 123 and 135 Grant Avenue. This APE is for the consideration of impacts to identified and potential subsurface

cultural deposits during the demolition and excavation phases. The demolition activities would include the abandoned Safeway building, parking lot, planter beds, fencing, and a stucco wall.

Coordination with Consulting Parties: In 2020, letters were sent out to notify potential consulting parties about the new GOKM. The HDRB reviewed the preliminary design of the new GOKM and provided preliminary review comments at a hearing held on August 10, 2021. In March of 2023, GOKM engaged a local architectural firm to complete design development and see the project through construction. This resulted in a number of meaningful design revisions, including improved public access to the green spaces, reduced exterior footprint (doing away with an enclosed courtyard that would have required some complicated design adjustments in order to meet height restriction) and a refined approach to wall heights and setbacks based upon guidance provided by City of Santa Fe staff. With these changes, the design is more responsive to the site's context and streetscape, and better addresses the preliminary review comments received from the City of Santa Fe staff and the HDRB. In September 2023, additional notifications were sent to consulting parties about the new GOKM and its updated design. Additional meetings with signatory parties started in December 2023 and are ongoing.

Archaeology: The project site has demonstrated archaeological deposits to a minimum depth of 8 feet, potentially as deep as 12–15 feet (see Attachment D).

Historic Properties: The existing Safeway structure has been determined not eligible for National Register of Historic Places (NRHP) listing. The Otero-Bergere House is listed in the NRHP (75001166) and State Register (SR-355). The project site is located within the Santa Fe Historic District (Attachment D).

Documentation and Findings:

Archaeological testing in 2021 resulted in findings of significant subsurface features and deposits shown in Figure 3-9 of the Historic Properties Treatment Plan (HPTP) (see Attachment D). The Office of Archaeological Studies testing report recommended data recovery (i.e., archeological excavation). NEH issued a finding of Adverse Effect on historic properties for belowground resources. The New Mexico State Historic Preservation Office (SHPO) concurred with this finding on September 7, 2023 (see Attachment D).

The NEH agreed to continue consultation to minimize and mitigate the Adverse Effect to historic properties through development of a Memorandum of Agreement (MOA). After consultation with SHPO and NEH, it was decided that data recovery would be used to mitigate adverse effects. The HPTP was prepared and sent to consulting parties for review and comment as part of the MOA process. Once comments were considered, the HPTP was finalized by NEH and SHPO. Data recovery will commence after execution of the MOA.

Historical/Built Environment: On April 4, 2024, a public notification of No Adverse Effect Finding for the built environment was determined by NEH in concurrence with SHPO. NEH determined that the proposed project would have No Adverse Effect on historic properties listed in or eligible for listing in the NRHP or that are of historical, architectural, or archaeological value (see Attachment D). This public notification is found at https://www.neh.gov/grants/georgia-okeefe-museum.

Public Involvement: Project planning and design have involved significant public outreach and involvement, including the following:

- Two Early Neighborhood Notification meetings to review the project and proposed Development Plan. All owners/occupants of properties within 300 feet of the project area were notified, as well as registered neighborhood associations, and notice signs were posted on the property.
- Planning Commission hearing to consider the Development Plan application.
- Nine hearings before the City Historic Districts Review Board to consider historic status, demolition, preliminary design, and final design.

Two hearings before the City Archaeological Review Committee to review the testing report and treatment plan.

5.0 Ecological Resources

Biotic Resources

Describe the various types of flora (plants), fauna (fish, birds, reptiles, mammals, etc.), and habitat located in the project area. Indicate if the project will have any impact on these species or their habitat.

Remarks: The project site is in a highly urbanized area in downtown Santa Fe. The existing conditions on the site have limited natural vegetation, and the proposed project is anticipated to have a minimal effect on wildlife and habitat. Current site conditions consist of the existing Safeway building, parking lot, and planter beds with minimal vegetation and wildlife throughout the landscape. Of the existing 48 trees that are on-site, the project would retain nine existing trees, replace 39 trees, and plant an additional seven trees for a total of 50 deciduous trees and five evergreen trees. The project would reduce the grass lawn by about 58% (5,601 square feet) but would also plant 475 shrubs and develop a vegetable garden (see Attachment B).

Threatened or Endangered Species		
Are there listed species and/or designated critical habitat present in areas affected directly or indirectly by the project? Please review the FWS Critical Habitat resources.		
	Yes	**No**
Is the project within the known range of any federal species?	X	
Does the project area contain any critical habitat?		X
Is Section 7 formal consultation required for this action (16 U.S.C. Sections 1536)?		X
Are there any State designated threatened or endangered species in the area?	X	
Did you consult with USFWS (attach letter)?		X
Did you consult with the responsible state agency (attach letter)		X

Remarks: The U.S. Fish and Wildlife Service's (USFWS's) Information for Planning and Consultation database and the New Mexico Department of Game and Fish Biota Information System of New Mexico were used to generate reports for potential threatened and endangered species potentially located within or near the project area. The reports are included in Attachment E.

The reports indicate that 19 federally listed and/or state-listed species have the potential to occur within or near the project area. Five of these species are federally listed, and two species are candidates for endangered species status. A full list of the federally listed and/or state-listed species and the likelihood of occurrence within the project area is shown in Attachment E. The proposed project area does not contain any USFWS critical habitat.

Most bird species are protected by the Migratory Bird Protection Act (MBTA). The MBTA implements various treaties and conventions between the United States and other countries for the protection of migratory birds. According to the migratory bird information provided in the IPaC review (see Attachment E), there are birds of particular concern (Birds of Conservation Concern [BCC])—other than those protected under the Endangered Species Act and Bald and Golden Eagle Protection Act—that may have the potential to be present within the project area (Attachment E). USFWS BCC are migratory and nonmigratory bird species that represent USFWS's highest conservation priorities. The project area is in

Bird Conservation Region 16, and 25 avian species are listed as potentially occurring in the Region. According to IPaC, 7 of these BCC species have potential to occur in the project area.

A full list of BCC species including the rationale for the potential to occur in the project area can be found in Attachment E.

A pre-construction nest survey was undertaken on April 26, 2024, to determine presence or absence of avian species protected under the MBTA on the project site. The survey found no nests on the project site. One active American crow nest was located across Grant Avenue from the project site approximately 100 feet from the edge of the demolition area. Based on the survey, the nest is likely to become inactive between June 1st and June 23rd. No demolition, excavation, or construction is anticipated to occur within the 100-foot avoidance buffer until later phases of the project (after fledging) (Attachment B). Daytime construction noise levels would exceed normal levels however, with consideration of the distance between the nest and demolition areas and existing noise levels associated with traffic on Grant Avenue adjacent to the nest, no impacts to the nest are expected.

Due to the developed nature of the site and its lack of potential habitat for listed species, the project is not anticipated to have an adverse impact on federally listed and state-listed threatened or endangered species or migratory bird species.

The review of the New Mexico State Endangered Plant Species list found that no critical habitat for plant species is known to occur in the project site (Attachment E). It is unlikely that these plant species will be negatively impacted by the proposed project as the proposed site has been extensively disturbed with urban development providing minimal range and habitat.

6.0 Wetlands

	Yes	No
Are there wetlands in/near the project area?		X
Total wetland area: _____ acre(s) Total wetland area impacted: _____ acres(s)		

Wetland No.	Classification	Total Size (Acre)	Impacted Acres	Jurisdictional	Non-Jurisdictional	Comments

Completed Documentation	Yes	No
Wetland Delineation Report		X
Conceptual Mitigation Plan (see remarks)		X
Mitigation Available		X

Individual Wetland Finding

Alternatives that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain)

	Yes	No
Substantial adverse impacts to adjacent homes, businesses, or other improved properties		X
Substantially increased project costs		X
Unique engineering, maintenance, or safety problems		X
Substantial adverse social, economic, or environmental impacts		X
The project not meeting the identified needs		X

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Remarks: The proposed project site is located in a highly dense urban area. No wetlands are identified in the proposed project area.

7.0 Floodplains

	Yes	No
Is the project located in a FEMA designated floodplain?		X

Follow the instructions in the link above to look up your project site and generate a FIRMette. Attach other documentation in the appendix. For projects within the 100-year floodplain, NEH will integrate the E.O. 11988 8- step process as part of this Condensed EA.

N/A

8.0 Coastal Areas

Review the National Oceanic and Atmospheric Administration (NOAA) state links to Coastal Zone Management Act maps to determine if the project falls within a State's or Territory coastal zone. If the site is within the coastal zone, NEH will assist you with preparing a Negative or Consistency Determination to be submitted to the State Coastal Management Program office. The State determination will be incorporated into the impacts section. The State has up to 75 days to review and respond. A FONSI cannot be finalized until the CZMA process is completed.

	Yes	No
Is the project located in a Coastal Barrier Resource System?		X
Is the project located in a Coastal Zone?		X
Is the project consistent with the State's CZMP (Attach coordination with State Agency to appendix)?		X

Remarks: N/A

9.0 Energy and Natural Resources

	Yes	No
Will the project result in energy impacts during or after construction?		X
Will energy and natural resource demand exceed supply?		X
Are scarce or unusual materials required for the proposed project?		X
Are there parts of your project that are sustainable (if yes, describe below)?		X

Remarks:

N/A

10.0 Noise

	Yes	No
Will the project change the current noise levels?	X	
Will the project create temporary (less than 180 days) noise impacts?		X
Are there any sensitive noise receptors near and/or adjacent to the project area?	X	

Remarks: Noise will occur with the demolition, excavation, and construction phases of the Proposed Action. Noise impacts will be temporary and sporadic and will vary over different phases of the Proposed Action.

Demolition: The demolition phase is expected to occur over a 1-month period (June–July 2024), and machines will likely include excavators, material handlers (hydraulic machines that remove debris from site), hammers, skid steer loaders, and bulldozers with roughly 85 decibel (A-weighted sound pressure level) (dBA) about 50 feet away (U.S. Department of Transportation 2018).

Excavation: Data recovery will occur over a 6-month period (July–December 2024), and machines include excavators, dump trucks, and flat end loaders with roughly 80 dBA about 50 feet away.

Construction: The first 6 months of construction will have the heaviest noise impacts due to the heavy machines and equipment used for development of the building. This includes the use of bulldozers, excavators, concrete mixers, and dirt compactors with roughly 85 dBA about 50 feet away. Once the framework of the building is developed, the impact from noise levels during the construction phase is expected to be less as the type of machinery used will be minimized.

The EPA guideline for residential noise is 55 dBA at about 1,600 feet (EPA 1974). The City of Santa Fe has strict regulations and limits noise in commercial zoning districts as follows: 9:00 p.m. – 7:00 a.m.: 55 dBA; 7:00 a.m. – 9:00 p.m.: 60 dBA (CSF §10-2 Noise). To minimize these temporary impacts from noise, during all phases, a noise abatement plan will be enforced in accordance with work health and safety measures, and federal, state, and local noise control laws, ordinances, and regulations (CSF §10-2 Noise) (Attachment B). This plan will provide mitigation measures such as potential noise barriers and sound-absorbing walls to prevent disturbance to the public, workers, and occupants of the adjacent premises and surrounding areas. If a certain noise level is unavoidable due to the nature of the work or equipment involved, arrangements will be made with jurisdictional authorities to perform the work. Furthermore, the Proposed Action is located in Zone District Business-Capital District (BCD), with construction activities prohibited between 9:00 p.m. and 7:00 a.m. (CSF §10-2 Noise). However, the GOKM construction will generally cease construction by 5:00 p.m. If construction requires work to occur within a restricted time period due to unique circumstances, a special permit will be sought from and

reviewed by the City of Santa Fe (CSF §10-2.8 Noise). A noise notice will be provided to the public prior to the demolition phase, including contact information for the public to ask questions regarding noise levels.

Sensitive noise receptors located near the project area include the First Presbyterian Church of Santa Fe located to the northeast of the lot at 135 Grant Avenue (approximately 0.05 mile from the project area). The Otero-Bergere House located on the lot at 135 Grant Avenue, is historically listed, will remain on-site, and is considered a sensitive noise receptor. Commercial businesses, galleries, cafes, and the Santa Fe Community Convention Center are also located within the surrounding project area. The noise abatement plan and mitigation measures will enforce and limit the impact to the surrounding sensitive noise receptors.

Vibration control will be implemented to minimize impact to the structural integrity of the surrounding historical buildings. Construction techniques including boring of the piers for building shoring (instead of pile-driving) will be used to minimize impacts to the surrounding historic listed buildings (see Attachment D).

On April 4, 2024, a No Adverse Effect determination was made by NEH for the built environment, with which SHPO concurred (see Attachment D). With the use of a noise abatement plan, mitigation measures, and strict time frames for construction operation, as well as the use of different construction techniques for vibration control, the temporary noise and vibration impacts from the Proposed Action will be minimized.

References:

City of Santa Fe. 2024. Code of Ordinances Environmental Regulations *§10-2 Noise Ordinance*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CHXENRE_10-2NO. Accessed April 2024.

U.S. Department of Transportation. 2018. Construction Noise Handbook. USDOT Federal Highway Administration. Available at: https://www.nrc.gov/docs/ML1805/ML18059A141.pdf. Accessed April 2024.

U.S. Environmental Protection Agency (EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. USEPA Office of Noise Abatement and Control. March 1974. Accessed April 2024.

11.0 Compatible Land Use

	Yes	No
Will proposed action comply with local/regional development patterns for the area?	X	
Is the proposed action in or adjacent a Wildlife Refuge or Wilderness Area?		X
Will the project affect a Wildlife Refuge or Wilderness Area?		X

Remarks: N/A

12.0 Construction Impacts

Will construction of the proposed project:	Yes	No
Increase ambient noise levels due to equipment operation	X	
Degrade local air quality due to dust, equipment exhaust, or burning debris		X
Deteriorate water quality when erosion or pollutant runoff occur		X
Disrupt off-site and local traffic patterns	X	

Remarks: The Proposed Action may contribute to temporary air, noise/vibration, and traffic flow impacts within the immediate vicinity of the project. However, BMPs will be implemented during temporary works (see Attachment B).

Noise: A noise abatement plan and mitigation measures will be implemented using BMPs to limit the amount of noise generated during the construction phase. Noise restrictions will be in accordance with CSF §10-2, and construction noise will adhere to a strict 5:00 p.m. cut-off rule. If noise cannot be contained within the designated limits, a noise permit will be sought from the City of Santa Fe (CSF §10-2.8) and arrangements will be made with jurisdictional authorities to perform the work (see Attachment B). It is unlikely that significant impacts will occur during the construction phase.

Air: As noted in Section 1.0 (Air Quality), the City of Santa Fe has stringent dust control requirements (see Attachment K), which will be noted on the recorded Development Plan and strictly enforced. This addresses how the Contractor will minimize the amount of disturbed soil, and how the Contractor will stabilize the disturbed surface area exposed to wind or vehicle traffic during the construction phase. No significant impacts to air quality are likely to occur during the construction phase.

Water: The Proposed Action will be subject to compliance with the EPA's Stormwater Pollution Prevention regulations with respect to erosion control and prevention of stormwater contamination. The proposed project would decrease the amount of impervious area from existing conditions. Existing runoff points of discharge are not anticipated to change, and a significant increase in the pollutant loading of the runoff is not anticipated.

Traffic: Site access during construction will be from Grant Avenue via a construction entrance compliant with SWPPP requirements. There are four metered, public parking spaces along the site frontage that will likely be reserved during construction to provide additional staging area. All construction signage and barricading shall comply with the New Mexico Manual and Specifications for the Uniform System of Traffic Control Devices for Streets and Highways (see Attachment B). Occasional temporary lane closures will be conducted as necessary to facilitate utility connections and large-scale material deliveries, with proper traffic control measures.

Operations: Long-term road or lane closures are not anticipated for the project site. The public alley south of the site would be reopened to vehicular circulation and would accommodate bus parking for school groups.

The creation of pedestrian circulation through the proposed gardens between the new museum and the existing research center will create a valuable open space through which pedestrians can pass on their way to the museum or simply as they walk between Sheridan Street and Grant Avenue. All pedestrian pathways in the proposed design shall be Americans with Disabilities Act-compliant.

A site traffic and parking analysis was conducted in accordance with the City of Santa Fe requirements to evaluate potential impacts attributed to the site development on the transportation network (see Attachment F). Vehicular traffic from outside the museum would be direct, limiting increased congestion with a vehicular passenger loading zone located along Grant Avenue. The study found that no

significant impacts to the adjacent transportation system will occur provided that a passenger loading zone, alley access improvements to the south of the lot at 123 Grant Avenue, and off-site parking are implemented. Bicycle parking will be present on-site.

***References*:**

City of Santa Fe. 2024a. Code of Ordinances Environmental Regulations *§10-2 Noise Ordinance*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CHXENRE_10-2NO. Accessed April 2024.

———. 2024b. Code of Ordinances Environmental Regulations *§10-2.8 Permits*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CHXENRE_10-2NO_10-2.8PE. Accessed April 2024.

The Proposed Action may contribute to temporary air, noise/vibration, and traffic flow impacts within the immediate vicinity of the project. However, BMPs will be implemented during temporary works (see Attachment B).

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Operations: Long-term road or lane closures are not anticipated for the project site. The public alley south of the site would be reopened to vehicular circulation and would accommodate bus parking for school groups.

The creation of pedestrian circulation through the proposed gardens between the new museum and the existing research center will create a valuable open space through which pedestrians can pass on their way to the museum or simply as they walk between Sheridan Street and Grant Avenue. All pedestrian pathways in the proposed design shall be Americans with Disabilities Act-compliant.

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***References*:**

City of Santa Fe. 2024a. Code of Ordinances Environmental Regulations *§10-2 Noise Ordinance*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CHXENRE_10-2NO. Accessed April 2024.

———. 2024b. Code of Ordinances Environmental Regulations *§10-2.8 Permits*. Available at: https://library.municode.com/nm/santa_fe/codes/code_of_ordinances?nodeId=CHXENRE_10-2NO_10-2.8PE. Accessed April 2024.

13.0 Solid and Hazardous Waste

	Yes	No
Is there an Environmental Due Diligence Audit (EDDA) for the Environmental Site Assessment (ESA) Phase I Report?	X	
• If yes, is an ESA Phase II required/completed?		X
• If yes, is an ESA Phase III required/completed?		X
What is the date of any building on the site: 1950s – refurbished in the 1990s		
Does the project require the use of land that may be contaminated?		X
Will the proposed project generate solid waste?	X	
• If yes, are local disposal facilities capable of handling the additional waste?	X	

Remarks: The existing building previously contained hazardous materials, which have been abated by separate contract. Asbestos surveys were conducted, and laboratory results indicated that asbestos greater than 1% was in the pipe fitting insulation and roof penetration sealant of the existing building (see Attachment G). Asbestos was removed as indicated in the Certificate of Disposal (see Attachment G). Lead paint surveys were conducted to determine if surface coatings of the existing building contained lead. The surveys found no lead-based paint equal to or greater than the regulatory limit (see Attachment G).

Terracon prepared a Phase I ESA (see Attachment G) in May 2020. No recognized environmental conditions were identified during the historical and regulatory review. No additional investigations were required. Based on these findings, no Phase II or Phase III ESA reports were required. It is unlikely that hazardous materials would be encountered during the demolition, excavation, and construction phases. If hazardous materials are found, appropriate abatement and removal procedures will be conducted in accordance with federal, state, and local regulations (see Attachment B).

A waste management plan will be implemented to determine how and what materials will be salvaged, recycled, or disposed of (see Attachment B). Demolition waste will consist of asphaltic concrete paving, concrete, concrete reinforcing steel, doors, frames, and other materials from the existing structures on-

site. Temporary waste will be managed via portable toilets and a solid waste dumpster that will then be disposed of. All waste will be collected and removed to the Santa Fe Solid Waste Management Facility or other appropriate disposal location off-site. No burning of waste will be permitted. Construction waste will consist of site-clearing waste, wood sheet materials, metals, and packaging material. Once constructed, solid waste generated by the proposed facility is anticipated to be general waste similar to existing Museum facilities and can be handled under the City of Sante Fe's waste removal program.

14.0 Socioeconomic Impacts

		Yes	No
Will the proposed action result in the relocation people, businesses, or farms?			X
Number of relocations:	Residences:0	Businesses: 0	
	Farms: 0	Other: 0	

Will the proposed action result in:	Yes	No
• A change in business or economic activity in the project area?		X
• An impact on local public service demands?		X
• Induced/secondary impacts on the surrounding community?		X

Remarks: As discussed in Section 12.0, impacts from construction noise, dust, vibration, and traffic may temporarily affect the surrounding businesses in the surrounding area. Noise and dust abatement plans will be implemented and BMPs will be used to minimize these impacts (see Attachment B). Once the project is constructed, vehicular traffic will improve long-term with the implementation of a loading zone, alley access improvements to the south of the lot 123, and off-site parking for the new museum. No significant impacts from noise, dust, vibration, and traffic are anticipated to affect economic activity in the project area.

Once constructed, the new museum will provide improved services to the community, including an education center, free community green space, and a state-of-the-art conservation lab. The services may increase ridership on available public transit but are not expected to create an impact on available capacity on public services. The new museum will be a local economic driver that is expected to attract visitors to local business, create jobs, and encourage use of local parks and trails. The project will not result in any loss of jobs or other socioeconomic impacts. The new GOKM is anticipated to have beneficial induced or secondary impacts on the surrounding community, including new temporary jobs for construction and permanent jobs for operation of the museum, providing a socio-economic benefit to the city of Santa Fe, as well as opportunities for community gatherings and events.

15.0 Environmental Justice (EJ)

	Yes	No
Are any low income or minority populations located within the project area?		X
Will the project result in adversely high or disproportionate human health or environmental impacts to the low income or minority populations population?		X

Remarks: The proposed project is within Block Group 1, Census Tract 4, with a total population of 274 people in 2021. The project is within the Santa Fe Historic District, which consists predominantly of commercial businesses. This census tract comprises a smaller percentage of minority populations than most of the surrounding census tracts. According to the U.S. Census Bureau 2017–2021 American Community Survey 5-Year Estimates, Census Tract 4 has a 15.3% minority population. This percentage is significantly lower than the U.S., New Mexico, and Santa Fe County percentages, which are 40.6%,

64.0%, and 57.7%, respectively. Census Tract 4 also has a small low-income population at 10.7%, which is lower than all the surrounding census tracts as well. This percentage is lower than the U.S., New Mexico, and Santa Fe County percentages, which are 29.2%, 39.1%, and 31.1%, respectively (USBLS 2024; USCB 2024a, 2024b, 2024c). Census Tract 4 is not considered an environmental justice community. This project will not impact community services, features, or neighborhoods, and no minority populations will be negatively affected. The new GOKM will provide educational opportunities for the surrounding communities and will aim to incorporate and center on the peoples, cultures, rich history, and landscape of New Mexico. The project will comply with the requirements for Environmental Justice (Executive Order 12898).

References:

U.S. Bureau of Labor Statistics (USBLS). 2024. Consumer Price Index Retroactive Series (R-CPI-U-RS), U.S. City Average, All Items. Available at: https://www.bls.gov/cpi/research-series/r-cpi-u-rs-home.htm. Accessed April 2024.

U.S. Census Bureau (USCB). 2024a. 2017-2021 American Community Survey 5-Year Estimates and 2012-2016 American Community Survey 5-Year Estimates. Available at: https://data.census.gov/cedsci/table. Accessed April 2024.

———.2024b. American Community Survey 2017-2021 5-Year Data Release. Available at:https://www.census.gov/newsroom/press-kits/2022/acs-5-year.html. Accessed April 2024.

———.2024c. American Community Survey Census Tract 4, Santa Fe County, New Mexico. Available at: https://data.census.gov/profile/Census_Tract_4,_Santa_Fe_County,_New_Mexico?g=1400000US35049000400. Accessed April 2024.

16.0 Farmland

If your new construction or expansion project site will convert undisturbed ground in an area that with prime farmland soils or is identified as non-urban land, regardless of whether it is zoned for development, NEH will assist you with consulting the Natural Resource Conservation Services (NRCS) field offices for further designation in accordance with the Farmland Protection Policy Act. If your project site is identified as an urban area on a Census Bureau, USDA Important Farmland, or USGS Topographic map, no further review under this section is required.

	Yes	No
Is this a new construction or expansion project that will convert undisturbed ground?		X
Will the project affect any agricultural lands?		X
Is there any Prime Farmland (per NRCS) in the project area?		X
NRCS-AD-1006 Form score:		

Remarks: N/A

17.0 Cumulative Impacts

	Yes	No
When considered together with other past, present, and reasonably foreseeable future development projects on or off the project area, would the proposed project produce a cumulative effect on any of the environmental impact categories above?		X

Remarks: The project is not anticipated to contribute to a cumulative effect on the environmental impact categories due to the existing properties of the site, mitigation measures, and BMPs for temporary works. No known construction projects surrounding the project area are anticipated within the same time frame as the Proposed Action.

Part III – Permits, Mitigation, Coordination and Public Involvement

Permits/Mitigation

Permits

List all required permits, for the preparing the proposed project site and any zoning variances or changes. Indicate if any problems are anticipated in obtaining the permit.

Remarks: The proposed project will be subject to acquiring all demolition, excavation, and construction permits, including debris disposal permits and notices. This includes general building and construction permits, electrical and utility permits, stormwater management permits, waste disposal permits, excavation permits, noise (if noise exceeds regulatory levels) permits, plumbing and sewer permits, and traffic permits.

Mitigation

Describe all mitigation measures for the proposed project. Include any impacts that cannot be mitigated or those that cannot be mitigated below threshold levels. Also, provide a description of any resources that must be avoided during construction.

Remarks:

The project design already includes various demolition and construction plans that will minimize stormwater pollution, including erosion and sediment control, dust, noise and vibration, traffic, and waste. BMPs, including data recovery and archeological monitoring, will be used for all temporary works during the demolition, excavation, and construction phases (see Attachments B–F).
All impacts have been avoided, minimized, and mitigated.

Coordination

List each agency coordinated with, the date coordination was sent, and if a response was received in the following table. Make sure to include a copy of the response in the appendix. For Instance, State Historic Preservation Office for Section 106 consultation, USDA Extension office for the NRCS-AD-1006, etc.

Resource Agency	Date Letter Sent	Date Response Received	Date Draft EA Sent	Date Response Received
City of Santa Fe – Historic Districts Review Board	6/22/21, 7/13/21, 8/10/21, 9/14/21, 5/23/23, 9/12/23, 9/26/23, 11/14/23, 11/28/23, 1/9/24, 2/13/24	N/A	N/A	N/A
COSF – Planning Commission	9/2/21, 11/4/21, 9/7/24	N/A	N/A	N/A
COSF - Archaeology Review Committee	12/7/23, 1/25/24, 2/22/24	N/A	N/A	N/A
Department of Cultural Affairs Historic Preservation Division	12/19/23	N/A	N/A	N/A
Pueblo of Tesuque	2/27/24	N/A	N/A	N/A

Remarks: Various coordination efforts occurred throughout the design and planning phase, including coordination related to Section 106 of the National Historic Preservation Act.

The Draft EA was posted on NEH's website on May XX, 2024, for a 30-day review period.

Public Involvement

Some level of public involvement is encouraged for every Federal Action. **The level of public involvement should be commensurate with the proposed action.** Discuss any public involvement activities (legal notices, letters to affected property owners and residents, meetings, special purpose meetings, local papers newspaper articles, etc.), including the number of notices and the dates that have been or will be posted for this project.

Remarks: The public has been informed of the proposed project since 2021, when a neighborhood notification meeting was held in the City of Santa Fe. Because the project is receiving federal assistance from NEH, it is subject to review under Section 106 of the National Historic Preservation Act of 1966. The Section 106 process has been integrated into the public meetings and listening sessions. NEH and GOKM are working with the following consulting parties: Pueblo of Tesuque, The Hopi Tribe, Historic Santa Fe Foundation, Old Santa Fe Association, New Mexico Historic Preservation Division, El Rancho de Las Golodrinas, Falling Colors, First Presbyterian Church of Santa Fe, City of Santa Fe Historic Preservation Division, and the New Mexico Economic Development Department. The project has been well-publicized by articles in a variety of local news sources, including Indigenous outlets.

GOKM has hosted a series of listening sessions and public meetings and will plan future sessions to continue gathering ideas on the design, development, and future programming of the new museum. The public meetings are available to watch at https://www.okeeffemuseum.org/attend-a-meeting/. GOKM has an active Facebook page and an active webpage. An email subscription to receive announcements for upcoming meetings is available to the public. Numerous press releases and news articles on the project have been issued. Comments on the project will be formally solicited during the public comment period required by NEPA.

Public Controversy on Environmental Grounds

	Yes	No
Is the project anticipated to involve substantial controversy concerning community and/or natural resource impacts?		X

Remarks: The proposed project site is within the Santa Fe Historic District, and limited natural resources are within the project vicinity due to the developed nature of the area. During the design and planning phase for the location of the Proposed Action, numerous public meetings were held to engage with the community about potential concerns to cultural and natural resources. During the design and planning phase, a diverse range of opinions for and against the design and location of the new GOKM were discussed and expressed by the public and numerous stakeholders. Consulting parties expressed concern and communicated preferences over naming conventions of the site and how historical and cultural resources are to be managed during the excavation phase (see Attachment D). An MOA is currently being drafted with interested parties documenting the concerns and resolutions for the Proposed Action. The MOA will be provided upon finalization. The decision on the design and location was finalized with public involvement, and no further opposition to the project design and location has been expressed.

Preparer Certification

I hereby certify that the information I have provided is complete and accurate, to the best of my knowledge:

	[insert]
Name	Date
[insert]	[insert]
Title	Organization

Recipient Certification (must be signed by an authorized official; may not be delegated to consultant)

I hereby certify that the information provided is complete and accurate to the best of my knowledge. I also recognize and agree that construction activity, including but not limited to site preparation, demolition, or land disturbance, is limited by 40 CFR §1506.1 - Limitations on actions until the NEH issues a final environmental decision for the proposed project(s) and until compliance with all other applicable NEH approval actions (e.g., all conditions of the grant award have been met) have occurred. All applicable Federal, State, and local permits required shall be obtained before proceeding with the proposed action.

[insert]	[insert]
Name, Title, and Organization	

NEH Decision

Having reviewed the above information, certified by the responsible official, the proposed projects warrant environmental processing as indicated below:

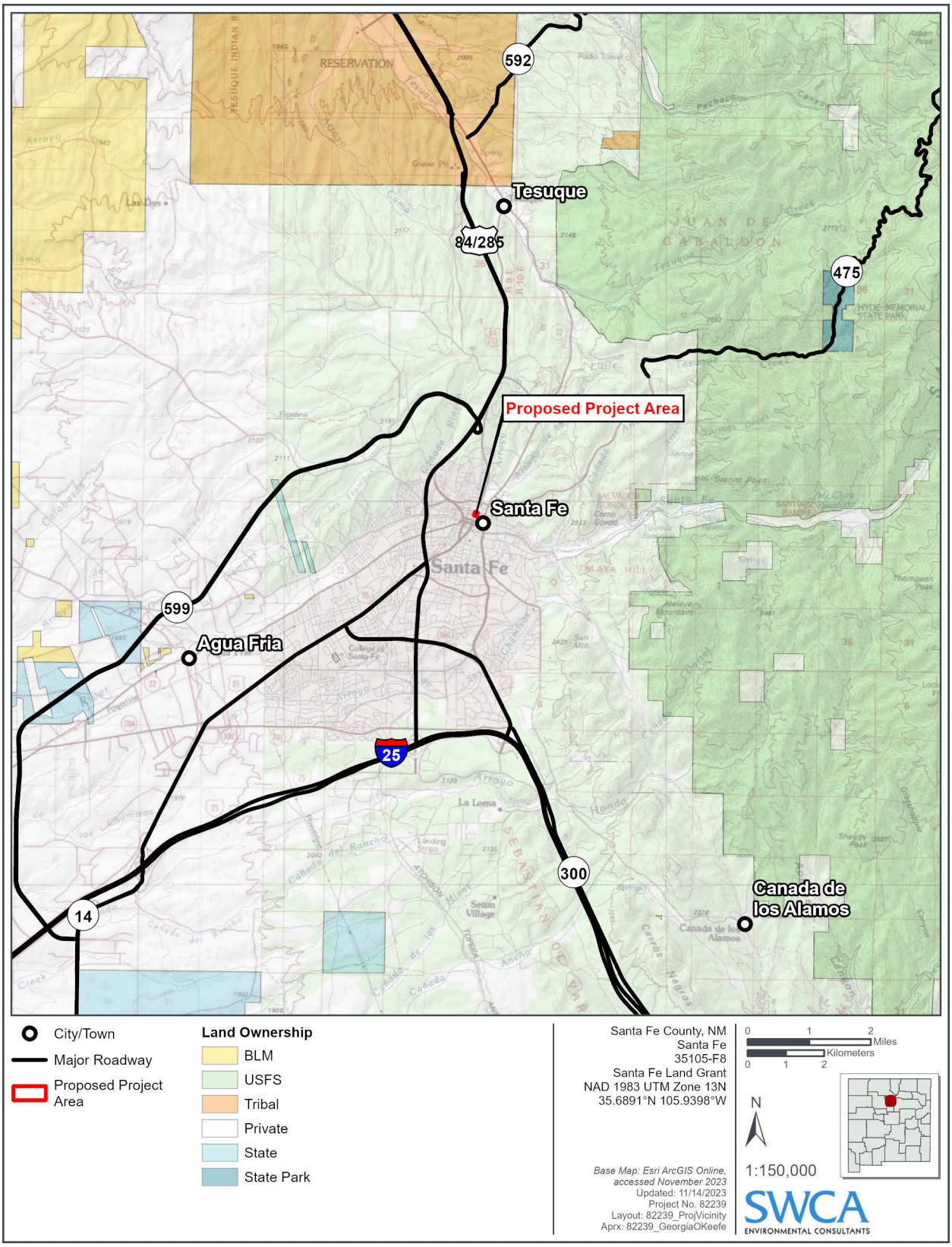
- The proposed action has been found to qualify for a Condensed Environmental Assessment. The Finding of No Significant Impact is attached.
- The proposed development action exhibits conditions that require the preparation of a detailed Environmental Assessment.
- The proposed development action requires preparation of an Environmental Impact Statement.

This Environmental Assessment becomes a federal document when approved by the Responsible NEH Official.

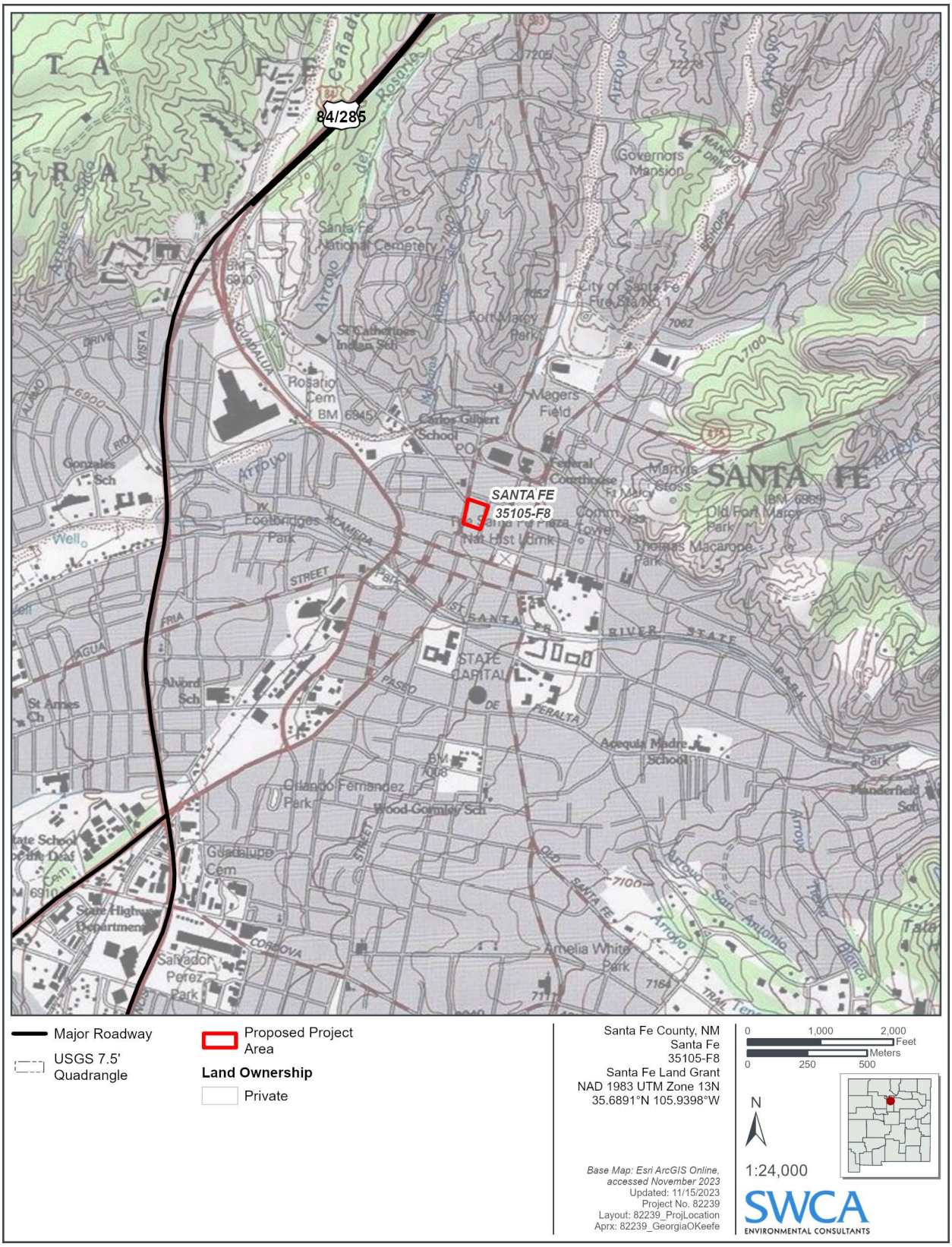
[insert]	[insert]
Name	Date
Environmental Officer	

Attachment A

Figures



Attachment A-1. Project Vicinity Map.



Attachment A-2. Project Site Map.

Attachment B

Design Material

PROJECT MANUAL FOR CONSTRUCTION

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES (GSO) DEMOLITION

123 GRANT AVENUE, SANTA FE, NM 87501

100% CONSTRUCTION DOCUMENTS

December 15th, 2023

dnca architects

PROJECT MANUAL

GEORGIA O'KEEFFE MUSEUM
Grant Street Offices (GSO) Demolition

123 GRANT AVE, SANTA FE, NM 87501

100% Construction Documents

December 15, 2023

ARCHITECTS

DNCA, LLC
924-A Shoofly Street
Santa Fe, NM 87505
ph 505-255-4033

MECHANICAL, PLUMBING, ELECTRICAL ENGINEERS

Bridgers & Paxton
4600 C Montgomery Blvd NE
Albuquerque, NM 87109
ph 505-883-4111

CIVIL ENGINEERS

Wilson & Co
4401 Masthead Street NE,
Albuquerque, NM 87109
ph 505-348-4000

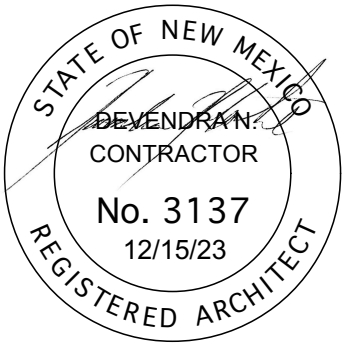
LANDSCAPE ARCHITECTS

Reed Hilderbrand
33 Whitney Avenue
New Haven, CT 06510
ph 617-923-2422

DOCUMENT 00 01 05

CERTIFICATION PAGE

I, DEVENDRA N. CONTRACTOR, AIA Registered Architect in the State of New Mexico, License No. 3137, certify these documents were prepared directly under my supervision and are true and correct to the best of my knowledge and belief.



_____

DEVENDRA N. CONTRACTOR, AIA
Registered Architect No. 3137
924-A Shoofly Street
Santa Fe, New Mexico 87505

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END OF TABLE OF CONTENTS

SECTION 01 10 00

SUMMARY

PART 1 - GENERAL

1.1 PROJECT IDENTIFICATION

A. Project Name and Location: Grant Street Offices (GSO) Demolition; 123 Grant Avenue and 135 Grant Avenue, Santa Fe, NM 87501.

B. Project Summary Description: The project consists of the demolition of an existing building and associated site features at 123 Grant Avenue; and the east/west site wall (only) on the south edge of the 135 Grant Avenue lot.

C. Scope of Work:

1. 123 Grant Avenue
    a. Demolition of a 19,270sf building and a 46sf parking attendant's kiosk.
    b. Demolition of site wall along alley, dumpster enclosure, planting islands, and paving in parking lot and along south side of building.
    c. With the exception of nine (9) existing Rooftop Air Handling Units (RTUs), all mechanical, electrical, plumbing, and fire protection systems will be fully demolished and capped. Existing RTUs to be salvaged and returned to the Owner after onsite and review with the Owner's Representative.
    d. And existing electrical transformer on the site serves two adjacent buildings; the power for those two properties will be re-routed and the transformer will be demolished under separate permit application.
2. 135 Grant Avenue
    a. Demolition of 272' long east/west CMU site wall (only) along south property line.

D. The Owner's Representative for the project is:

Colleen Gavin, Principal, JenkinsGavin Land Use | Project Management; (505) 820-7444 (o) / (505) 699-0563 (m); colleen@jenkinsgavin.com

E. A Geotechnical Engineering Report has been prepared for the project. The report is included as part of the contract documents and as Attachment 1 to the Project Manual.

F. The building previously contained Hazardous Materials, which have been abated by separate contract.

1. Certificate of Disposal is available to review upon request.
2. A Hazardous Materials Report was prepared for the project and is available to review upon request.

1.2 ALTERNATES:

The project includes no Additive Alternates.

1.3 WORK UNDER OTHER CONTRACTS

A. The Contractor shall cooperate with other Contractors performing related work, including providing labor, materials, and other costs necessary to satisfactorily coordinate the Contract work with work performed under other contracts.

B. Archaeologist: The General Contractor shall be required to coordinate all demolition and excavation activities with an Owner-provided third-party Archeological Consultant. Archaeological monitoring shall run concurrently with demolition and any excavation. Upon the discovery of any findings of archeological significance, as identified by the Archeologist, work in the vicinity of the finding shall pause, and the Archeologist shall inform the Owner, the Owner's Representative, and the General Contractor immediately and provide appropriate recommendations. All findings flagged by the Archeologist shall be treated with the highest level of discretion and confidentiality. All Parties will maintain the confidentiality of any information or records under NMSA 1978, § 18-6-11.1 (Confidentiality of site location).

PART 2 - EXECUTION (Not Applicable)

END OF SECTION 01 10 00

SECTION 01 14 00

WORK RESTRICTIONS

PART 1 - GENERAL

1.1 CONTRACTOR USE OF PREMISES

A. The Owner's Representative and the Architect will conduct a Pre-Construction Survey with the Contractor to review and document the existing conditions surrounding the project premises prior to the beginning of any construction activity, and review work schedules and coordination issues with the City of Santa Fe.

B. The Contractor shall limit use of the premises to the work in areas indicated, to allow for Vehicular and Pedestrian use along public roads, easements, and walkways.

1. Confine operations at the site to areas indicated. Do not disturb portions of the site beyond the areas in which Work is indicated or approved staging plans.
2. Schedule deliveries to minimize space and time requirements for storage of material and equipment on site.
3. Existing materials and equipment that are removed as part of the construction operations, and that are not reused or designated to be salvaged as the Owner's property, shall become the property of the Contractor and shall be removed from the site. Storage or sale of excess salvageable materials and equipment shall be coordinated as part of an approved staging plan.
4. Smoking is not permitted in or around the building or project site.
5. Onsite parking is restricted and will require coordination with adjacent property owners. The Contractor and Contractor's employees shall make appropriate arrangements for vehicle parking off site.
6. Existing heritage trees adjacent to the Area of Work shall be protected.

C. RELATED WORK

1. Section 01 50 00 - Temporary Facilities and Controls
2. Section 01 56 39 - Temporary Tree and Plant Protection

1.2 WORKING HOURS

A. Contractor's General Working Hours: The Contractor working hours shall be established prior to construction as part of an approved overall work plan.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 14 00

SECTION 01 35 26

SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

The General Contractor shall comply with all Local, State and Federal safety standards including the following:

1. 29 CFR, Part 1910: Occupational Safety and Health Administration (OSHA) General Industry and Health Standards.
2. 29 CFR, Part 1926: OSHA Construction Industry Standards.
3. 40 CFR, Part 61: National Emission Standards for Hazardous Air Pollutants.
4. 40 CFR, Part 261: Environmental Protection Agency (EPA) Characteristics of Hazardous Waste.

1.2 SAFETY MEETING

A. Prior to commencing construction, representatives of the Contractor, including the principal on-site project representative and one or more safety representatives, shall meet with the Owner’s Representative for the purpose of reviewing safety and health requirements.

B. The Contractor's safety and health program shall be reviewed, and implementation of safety and health provisions pertinent to the Work shall be discussed.

1.3 COMPLIANCE WITH REGULATIONS

A. Contractor Responsibility: The Contractor shall assume full responsibility and liability for compliance with all applicable codes, standards and regulations pertaining to the health and safety of personnel during execution of the Work, and shall hold the Owner harmless for any action on the Contractor's part, or that of the Contractor's employees or subcontractors, that results in illness, injury or death.

1.4 SUBMITTALS

A. Safety and Health Programs: The Contractor shall submit, for approval, copies of the project safety and health programs, as applicable to the work scope, or required as a result of the safety meeting, including but not necessarily limited to the following:

1. Occupational Noise Exposure.
2. Fall Protection.
3. Personnel Protective Equipment.
4. Control of Hazardous Energy.
5. Electrical Safety Related Work Practices.
6. Lead.

7. Asbestos.
8. Respirator Protection.
9. Confined spaces.

B. Contractor's Safety Plan: In addition to specific safety and health programs applicable to the project, Contractor shall submit firm's general safety plan listing emergency procedures and contact persons with home addresses and telephone numbers.

C. Accident Reporting: Submit a copy of each accident report that the Contractor or Subcontractors submits to their insurance carriers, within seven calendar days after the date of the accident.

PART 2 - PRODUCTS

2.1 PERSONNEL PROTECTIVE EQUIPMENT

A. Special facilities, devices, equipment and similar items used by the Contractor in execution of the Work shall comply with 29 CFR Part 1910, Subpart I and other applicable regulations.

2.2 HAZARDOUS MATERIALS

A. The Contractor shall bring to the attention of the Owner’s Representative, any material encountered during execution of the Work that the Contractor suspects is hazardous.

B. Owner’s Representative shall determine whether the Contractor shall perform tests to determine if the material is hazardous.

C. If the Owner’s Representative directs the Contractor to perform tests and the material is found to be hazardous, or if the material is found to be hazardous without Contractor testing, a change to the Contract price may be provided, subject to the applicable provisions of the Contract.

PART 3 - EXECUTION

3.1 EMERGENCY SUSPENSION OF WORK

A. When the Contractor is notified by the Owner’s Representative of non-compliance with the safety or health provisions of the Contract, the Contractor shall immediately, unless otherwise instructed, correct the unsafe or unhealthy condition.

1. If the Contractor fails to comply promptly, all or part of the Work will be stopped by notice from the Owner’s Representative.
2. When, in the opinion of and by notice given by the Owner’s Representative, satisfactory corrective action has been taken by the Contractor, work shall resume.
3. The Contractor shall not be allowed any extension of time or compensation for damages in connection with a work stoppage for an unsafe or unhealthy condition.

3.2 PROTECTION OF PERSONNEL

A. The Contract shall take all necessary precautions to prevent injury to the public, occupants, or damage to property of others. The public and occupants includes all persons not employed by the Contractor or a subcontractor.

B. Wherever practical, the work area shall be fenced, barricaded or otherwise blocked off from the public or occupants to prevent unauthorized entry into the work area.

1. Provide traffic barricades and traffic control signage where construction activities occur in vehicular areas.
2. Corridors, aisles, stairways, doors and exitways shall not be obstructed or used in a manner to encroach upon routes of ingress or egress utilized by the public or occupants, or to present an unsafe or unhealthy condition to the public or occupants.
3. Store, position and use equipment, tools, materials, scraps and trash in a manner that does not present a hazard to the public or occupants by accidental shifting, ignition or other hazardous activity.
4. Store and transport refuse and debris in a manner to prevent unsafe and unhealthy conditions for the public and occupants. Cover refuse containers, and remove refuse on a frequent regular basis acceptable to the Owner's Representative. Use tarpaulins or other means to prevent loose transported materials from dropping from trucks.

3.3 ENVIRONMENTAL PROTECTION

A. Dispose of solid, liquid, and gaseous contaminants in accordance with local codes, laws, ordinances and regulations.

B. Comply with applicable federal, state, and local noise control laws, ordinances and regulations.

END OF SECTION 01 35 26

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes requirements for temporary utilities, support facilities, and protection.

1. Temporary utilities include but are not limited to the following:
    a. Temporary water service and distribution.
    b. Temporary sanitary and restroom facilities.
    c. Temporary electric power and lighting.
2. Support facilities include but are not limited to the following:
    a. Project identification and other temporary signs.
    b. Waste disposal services.
    c. Other construction aids and miscellaneous services and facilities.
3. Protection includes but is not limited to the following:
    a. Barricades, warning signs, and lights.
    b. Enclosure fence.
    c. Environmental protection.

B. Provide temporary facilities and controls required for construction activities.

C. Refer to Section 01 14 00 ‘Work Restrictions’

1.2 REFERENCES

A. NFPA 10 - Standard for Portable Fire Extinguishers.

B. NFPA 241 - Safeguarding Building Construction, Alterations, and Demolition Operations

1.3 SITE MOBILIZATION PLAN

A. Provide three copies of a staging plan describing the construction, the locations and the duration of all temporary enclosures and storage requirements. Prepare site mobilization plan showing:

1. Field office (if necessary).
2. Storage areas, sheds, and fencing.
3. Project identification sign.
4. Access routes.

5. Temporary utility routes and connections.
6. Sanitary facilities.
7. Trash and rubbish receptacles.

B. Present 3 copies of the staging plan at Pre-Construction Conference

1.4 TEMPORARY ELECTRICITY

A. Provide Temporary Electricity as necessary at no cost to the Owner

1.5 TEMPORARY LIGHTING

A. After dark, provide security lighting as necessary

1.6 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required sanitary facilities for work force.

1.7 FENCING

A. Provide temporary fencing around existing building and materials storage site. Completely separate construction from existing facilities and related exterior areas.
B. Type: 6 foot high commercial grade chain link fence. Equip with vehicular and pedestrian gates with locks.

1.8 BARRIERS AND PROTECTION

A. Security: Provide to protect Work and existing facilities from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program and personnel.
B. Barriers: Provide to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from construction operations.

1.9 ACCESS

A. Identify access to Contractor's work and office area with appropriate signs so that delivery personnel and others may contact Contractor.
B. Prevent unauthorized personnel from proceeding outside of Contractor's work and office area.

1.10 PROJECT SIGN

A. Furnish project sign and erect on site at location designated by the Owner
B. Construction: 4 by 8 feet constructed of 3/4 inch exterior plywood bolted to 4 by 4 inches treated wood posts.
C. Sign shall be prepared by professional sign fabricator
D. Design, style and size of lettering, color, and text shall be as provided by the Owner.
E. Allow no other signs to be displayed without approval of Owner.

1.11 FIELD FACILITIES

A. If necessary, provide and maintain a weather-tight, fully equipped field office.

1.12 PARKING

A. Arrange for parking for work force. Parking will not be available at building site except within fenced construction area.

1.13 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

A. Remove temporary above grade and buried utilities, equipment, facilities, and excess materials prior to final inspection.
B. Clean and repair damage caused by installation of temporary facilities.

1.14 QUALITY ASSURANCE

A. Standards and Regulations: Comply with industry standards and with applicable laws and regulations of authorities having jurisdiction, including but not limited to the following:

1. Building Code requirements.
2. Health and Safety regulations.
3. State of New Mexico Requirements
4. City of Santa Fe Requirements
5. Utility company regulations.
6. Police, Fire Department and rescue squad rules.
7. Environmental Protection regulations.
8. NFPA 241 "Standards for Safeguarding Construction, Alterations and Demolition Operations".
9. ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition".
10. NECA Electrical Design Library "Temporary Electrical Facilities", NFPA 70, and NEMA, NECA and UL standards and regulations for temporary electric service.

B. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Provide undamaged materials in serviceable conditions and suitable for use intended.

B. Erosion Control: Provide and maintain erosion control materials as described in the Contract Documents

C. Tarpaulins: Waterproof, fire-resistant UL labeled with flame spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.

D. Water: Potable and as approved by local health authorities.

2.2 TEMPORARY UTILITIES

A. Temporary Electric Power Service: If necessary, provide weatherproof grounded electric power service and distribution system of sufficient size, capacity, and power characteristics for construction needs.

B. Temporary Lighting: If necessary, provide lighting that provides adequate illumination for construction operations and traffic conditions.

C. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Enforce requirements strictly and dispose of material lawfully.

1. Comply with NFPA 241 for removal of combustible waste material and debris.
2. Do not hold waste materials more than 7 days during periods when the ambient temperature remains continuously less than 80 def. (27 degC), or more than 3 days when the temperature exceeds or is expected to rise above 80 degF (27 degC).
3. Handle and properly containerize hazardous, dangerous, or unsanitary waste materials separately from other waste.

2.3 TEMPORARY PROTECTION FACILITIES

A. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard involved. Where appropriate and needed, provide lighting, including flashing red or amber lights.

B. When directed by the Owner-provided third-party Archeological Consultant, provide protective barricades and enclosures necessary. Such protective barricades and enclosures shall be considered a change to the Contractor’s basic scope of services.

C. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.

1. Storage: If necessary, provide a secure lockup for valuable stored materials and equipment.
2. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

D. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid using tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons near the site.

2.4 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

B. Maintenance: Maintain facilities in good operating condition until removal.

C. Termination and Removal: Temporary facilities shall be removed when the need for its service has ended and can be replaced by authorized use of a permanent facility. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION 01 50 00

SECTION 01 56 39

TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DESCRIPTION OF WORK

A. Protection of existing trees and plants from damage as a result of the Contractor's operations including, but not limited to:

1. Marking of clearing limits
2. Tree protection fencing
3. Tree armor
4. Root pruning
5. Root invigoration to promote root growth

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

1. Section 31 10 00, Site Clearing

1.4 REFERENCES

A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.

1. American National Standards Institute (ANSI): Z133.1 Safety Requirements for Pruning, Trimming, Repairing, Maintaining and Removing Trees, and for Cutting Brush.
2. International Society of Arboriculture (ISA): Guide for Establishing Values of Trees and Other Plants
3. National Arborist Association (NAA): Ref. 1 Pruning Standards for Shade Trees

1.5 SUBMITTALS

A. Proposed methods, and schedule for effecting tree and plant protection shall be submitted for approval.

B. Proposed methods, materials, and schedule for root pruning, construction pruning, and tree fertilization shall be submitted for approval.

1.6 DAMAGE PENALTIES

A. Certain specimen trees adjacent to construction areas and in other key locations will be identified by the Owner and the Architect and marked with red tags. Loss of any of these trees

will result in fines assessed at $5,000 per tree. Damage to all other trees on the property will be assessed at the rate of $200 per inch caliper of the tree.

B. A fine of $1,000 will be levied against the Contractor for each incident of construction inside tree protection areas.

C. Damages to trees, shrubs, and other vegetation will be assessed by the Architect and Owner in accordance with the ISA Guide.

D. Trees or roots visibly damaged will cause the Owner to withhold from the Contractor an assessed amount conforming to the requirements stipulated above for a period of two years. After that period the impact of the damage to any tree will be assessed accordingly.

E. If any trees or shrubs designated to be saved are damaged and replacement is required, a number and diameter of trees or shrubs of the same species and variety, as specified by the Owner and Architect, shall be furnished and planted by the Contractor. The total inch diameter of the replacement trees or shrubs shall equal the diameter of the tree or shrub to be replaced. The Contractor shall not be liable for any loss or damage which occurs while the Contractor is complying with instructions given by the Owner, Architect, or arborist working on the Project.

1.7 QUALITY ASSURANCE

A. Selective pruning and feeding methods shall conform to the applicable requirements of ANSI Z133.1.

B. Work of this section shall be completed by a professional ISA Certified Arborist with a minimum five years experience, who has successfully completed an exam and education program equal to the International Society of Arboriculture (ISA) Certification Program, sponsored by the International Society of Arboriculture 2009, P.O. Box 3129, Champaign, IL 61826 (217) 355-9411; Email: isa@isa-arbor.com.

C. Arborist shall have the following minimum qualifications:

1. Membership in:
   a. NAA – National Arborist Association
   b. ISA – International Society of Arborists
2. Meet state requirements for insurance.
3. Licenses for application and use of pesticides.

PART 2 - PRODUCTS

2.1 TREE PROTECTION FENCING

A. Tree protection fencing shall be the following:

1. Galvanized chain link fencing, 6 ft. high.
2. Fabric shall be a good commercial quality of steel wire of 2 in. mesh and 11 gage.
3. Fittings shall be malleable iron casting, wrought iron forgings, or pressed steel and provided with pin connections. Equipment shall be designed to carry 100% overload.
4. Piping shall be steel conforming to ASTM A 120 except that pipe shall be unthreaded and untested for water pressure.

B. Stakes for fencing shall be 9 ft. galvanized steel posts, driven a minimum of 3 ft. into the ground, except above steam tunnel and vault locations where surface anchors shall be used. Posts shall be spaced 10 ft. o.c. maximum.

C. For fencing within the drip line of trees, surface mounted post anchors may be acceptable. Review with Architect and arborist and obtain written approval prior to installing. Post installation shall not damage tree root systems.

2.2 ACCESSORY MATERIALS

A. Mulch: Pine bark mulch

B. Tree Wound Paint: Bituminous based paint of standard manufacture specifically formulated for protection of tree wounds from moisture and insect invasion.

C. Tree Armor:

1. Wood: SPFA utility grade, 2x4.
2. Wire: Annealed steel wire, 16 gage minimum.

D. Critical root zones shall be protected with AlturnaMats, 1/2" thick recycled polyethylene mats capable of supporting vehicles and equipment weighing up to 60 tons, manufactured by AlturnaMats, Inc., 701 E. Spring Street, Mailbox #9, Titusville, PA 16354 • Phone: 888.544.6287 • Fax: 866-723-2903 , or approved equal.

2.3 ROOT PRUNING

A. Mulch materials shall be as specified under Section 329300, PLANTING.

B. Liquid fertilizer to be applied to root pruned and construction pruned trees shall be Peters M 77 Sequestered-Chelated Soluble Fertilizer manufactured by W.R. Grace and Co., Cambridge, MA 02140, Gold Start Liquid Fertilizer, manufactured by Nutra-Flo Company, 1919 Grand Ave, Sioux City, IA 51106-5708; Phone: 712-277-2011; 800-831- 4815; Fax: 712-279-1946; AgroCulture Liquid Fertilizer, manufactured by Agro-Culture Liquid Fertilizers, 3055 W. M-21, P.O. Box 150, St. Johns, Michigan 48879; 1-800-678- 9029, or approved equal. Liquid fertilizer shall be approved by Certified Arborist.

C. Dormant oil spray shall be a dormant miscible spray equal to Sunspray, Scalecide, or Volck Oil.

D. Insecticide shall be Isotox manufactured by Ortho; QuickPRO, manufactured by Monsanto; LESCO Sevin Brand SL, #019106, manufactured by LESCO, or approved equal. Insecticide shall be approved by Certified Arborist.

PART 3 - EXECUTION

3.1 INSTALLATION OF FENCING

A. Prior to start of demolition work and clearing and grubbing operations, tree protection fencing shall be installed in accordance with the following:

1. Fencing shall be installed at the tree protection areas indicated on the Drawings.
2. Fencing shall be installed at a minimum of 15' beyond the drip line of trees to be protected, unless otherwise approved by the Architect.

B. Post installation must avoid underground utilities. Tree protection fencing located over steam tunnel/vault locations shall be installed using surface anchors. No poles or stakes shall be driven into the ground at these locations.

3.2 PROTECTION FOR EXISTING TREES TO BE PRESERVED:

A. All trees to be preserved on the property shall be protected against damage from construction operations.

1. Includes associated understory.

B. Only those trees located within the limits of improvements to be constructed as indicated, shall be removed.

1. All trees to remain shall be flagged for review after the location of improvements to be constructed are staked in the field.
2. Any tree to be removed shall be reviewed by the Architect and Owner for approval prior to removal.
3. Trees to be preserved, removed, or newly planted are represented graphically and differentiated from existing trees.
4. Obtain approval of installation of tree barricade fencing from Owner and Architect prior to the initiation of any removal of vegetation and construction.

C. Erect fencing and armor protection prior to beginning any clearing, demolition, or construction activity, and unless otherwise instructed, maintain in place until construction is completed.

1. Obtain approval of installation of tree barricade fencing from Owner and Architect prior to the initiation of any removal of vegetation and construction.
2. Tree protection barricade shall be erected at the dripline; in extreme circumstances and with the approval of the Architect, fencing may be located at the edge of the root protection zone.
3. Trees immediately adjacent to and within one hundred feet (100) of any construction activities are to be protected by barricade fencing; subject to approval of the Architect and Owner.
4. Trees exposed to construction activity within the dripline or within twenty-five (25) feet of any construction activity are to have trunks protected with tree armor in addition to barricade fencing.
5. The tree protection barricade shall be placed before any excavating or grading is begun and maintained in repair for the duration of the construction work unless otherwise directed.
6. No material shall be stored, or construction operation shall be carried on within the tree protection barricade.
7. Tree protection barricade shall remain until all work is completed.
8. Remove tree protection barricade at commencement of finish grading.
9. Remove tree armor immediately prior to Substantial Completion.

D. Protect tree trunk with tree armor to a height of 8' or to the limits of lower branching (when exposed to construction activity within the drip line) with 2x4's butted side to side completely around trunk.

1. Wire wrap, do not nail, around trees.

E. Protect trees that are to remain, whether within barricade fencing or not, from the following:

1. Compaction of root area by equipment or material storage; construction materials shall not be stored closer to trees than the farthest extension of their limbs (dripline).

2. The proposed finished grade within the root protection zone of any preserved tree shall not be raised or lowered more than three (3) inches.
   a. Retaining methods can be used to protect and/or provide lateral support to the area outside the root protection zone.
3. Trunk damage by moving equipment, material storage, nailing or bolting.
4. Strangling by tying ropes or guy wires to trunks or large branches.
5. Poisoning by pouring solvents, gas, paint, etc., on or around trees and roots.
6. Cutting on roots by excavating, ditching, etc.
   a. Prior to excavation within the tree drip lines or the removal of trees adjacent to other trees that are to remain, make a clean cut between the disturbed and undisturbed root zones with a rock saw or similar equipment to minimize root damage.
   b. Refer to EXCAVATION AROUND TREES paragraph for additional information.
7. Damage of branches by improper pruning.
8. Drought from failure to water or by cutting or changing normal drainage pattern past roots. Contractor shall provide means as necessary to ensure positive drainage.
9. Changes of soil pH factor by disposal of lime base materials such as concrete, plaster, lime treatment at pavement subgrade, etc. When installing concrete adjacent to the root zone of a tree, use a minimum 6 mil. plastic vapor barrier behind the concrete to prohibit leaching of lime into the soil.
10. Do not cut roots 3/4" in diameter or over without approval of Owner's Representative. All excavation and earthwork within the RPZ of trees shall be done by hand.
11. Protect all existing trees near areas to be stabilized from underground contaminations by placing a 6 mil. Plastic film barrier along exposed vertical cut extending a minimum 12" into undisturbed subgrade below depth of stabilization.
12. No vehicular traffic shall occur within the drip line of any tree; including parking of vehicles.
13. No soil shall be spread, spoiled or otherwise disposed of under any tree within the RPZ.

F. Any damage done to existing tree crowns or root systems shall be repaired by the Arborist to the satisfaction of the Architect and Owner's Representative.
   1. Broken branches shall be cut cleanly.
   2. Any roots cut shall be cut cleanly with a saw other means approved by the Architect and Owner's Representative.

G. Damages to trees caused through negligence of Contractor or his employees will be assessed by Owner and Project Arborist as described in Paragraph 1.05.

3.3 ROOT PROTECTION ZONE:

A. The root protection zone (RPZ) is measured with a radius from the trunk 10'.

1. No disturbance shall occur closer to the tree than one-half the radius of the RPZ or within five (5) feet of the tree whichever is greater.

3.4 ROOT PROTECTION ZONE IMPACTS:

A. Those trees to remain which have some encroachment on their root protection zone shall have the following maximum allowable impacts:

1. Minimum Protection Criteria 'A': No disturbance of natural grade, e.g. trenching or excavation, can occur closer to the tree than one-half the radius of the RPZ or within five (5) feet of the tree whichever is greater.
2. Minimum Protection Criteria 'B': No cut or fill greater than three (3) inches will be located closer to the tree trunk than ½ the RPZ radius distance.

B. Trees impacted shall have a minimum of a six (6) inch layer of mulch placed and maintained over the root protection zone and the undisturbed area within the dripline.

1. Immediate pruning and fertilization shall occur per the pruning and fertilization sections of this specification.
2. Provide water in a slow drip manner to impacted trees as approved by the Architect and Owner's Representative.
3. Provide water to apply equivalent to 1 inch once per week to deeply soak in over the area within the dripline of the tree during periods of hot, dry weather.
4. Spray tree crowns periodically to reduce dust accumulation on the leaves.

3.5 EXCAVATING AROUND TREES

A. Excavate within the dripline of trees only where required and when absolutely necessary.

1. Any excavation within the RPZ of trees shall be under the direction of the Arborist.
2. Arborist shall be at site at all times while excavation is occurring within the RPZ.
3. Air spade all removals within the RPZ.
4. Refer to ROOT PROTECTION ZONE (RPZ).

B. When excavating for new construction is required within the RPZ, air spade and hand excavate to minimize damage to root systems.

1. Use narrow tine spading forks and comb soil to expose roots.
2. Relocate roots back into backfill areas wherever possible.
3. If large main lateral roots are encountered, expose beyond excavation limits as required to bend and relocate without breaking.
4. If root relocation is not practical, clean cut roots using sharp ax approximately three (3) inches back from new construction.

C. Where existing grade is above new finish grade, carefully excavate within the dripline to the new finish grade.

1. Carefully hand excavate an additional six (6) inches below the finish grade.
2. Use narrow tine spading forks to comb the soil to expose the roots, and prune the exposed root structure as recommended by the Arborist.
3. Keep the exposed roots damp.
4. Treat the cut roots as specified and as recommended by the Arborist.
5. After pruning and treatment of the root structure is complete, backfill to finish grade with eight (8) inches of approved plant mix, or structural soil.

D. Where noted on plan, use airspade to expose roots for required cutting to accommodate hardscape elements. Architect to verify all cuts prior to proceeding.

E. Temporarily support and protect roots against damage until permanently relocated and covered with recommended landscape material.

3.6 ROOT PRUNING

A. Where construction will be in close proximity to existing trees designated to remain, roots shall be pruned in advance of proposed excavation. Proximity shall be as determined in the field by the Architect. Root pruning shall be conducted by professional arborist.

B. All root pruning shall be done by hand. Trenching, vibrating plow, and stump grinding are NOT suitable means for root pruning.

C. Tree to be root pruned shall be root pruned to a depth of 24 in. by means of a hand saw, or other approved means which results in a sharp clean cut.

D. Backfill root pruning trench with existing soil mixed with peat moss or well-rotted sawdust to a mixture of approximately 75% soil and 25% humus. Tamp lightly to set soil.

E. Apply mulch to a depth of 6 in. at minimum 10 ft. to 15 ft. radius around tree to reduce compaction and increase moisture retention.

3.7 GOVERNING STANDARDS:

A. Work procedures will be guided by the current provisions of the American National Standard Institute. Complete detail of the provisions are to be found in the references listed. The two basic objectives of the pruning operation shall include:

1. Hazard Reduction Pruning: Hazard reduction pruning shall be completed to remove visible hazards in a tree. Hazard pruning shall consist of one or more of the maintenance pruning types.
2. Maintenance Pruning: Maintenance pruning shall be completed to maintain and improve tree health and structure and includes hazard reduction pruning.

3.8 MAINTENANCE PRUNING TYPES:

A. Both hazard reduction pruning and maintenance pruning shall consist of one or more of the following pruning types:

1. Crown Cleaning: Crown cleaning shall consist of the selective removal of one or more of the following items: dead, dying, or diseased branches, weak branches, water sprouts and stubbed branches.
2. Crown Thinning: Crown thinning shall consist of the selective removal of branches to increase light penetration, air movement, and reduce weight.
3. Crown Raising: Crown raising shall consist of the removal of the lower branches of a tree to provide clearance.
4. Crown Reduction, or Crown Shaping: Crown reduction shall consist of decreasing the height and/or spread of a tree.
5. Vista Pruning: Vista pruning shall consist of selective thinning of framework limbs or specific areas of the crown.
6. Crown Restoration: Crown restoration pruning shall improve the structure, form and appearance of a tree which has been severely headed, vandalized, storm damaged or improperly pruned.

3.9 UTILITY PRUNING:

A. Utility pruning shall consist of one or more of the following items:

1. Trees Underneath: Pruning trees growing directly under and growing into the facility/utility space.
2. Trees Along Side: Pruning of trees growing directly alongside and growing into or toward the facility/utility space.

3.10 SCHEDULE

A. All of the pruning type(s) as applicable are required at each tree. All pruning shall be completed to remove branches/laterals 1/8 inch and greater. All pruning to be completed before commencement of demolition. All pruning to be directed on site by Landscape Architect.

1. Height clearance:
   a. Pedestrian Areas: 8 feet height clearance from grade unless directed otherwise by Architect and Owner.
   b. Vehicular Areas: 13'-6" height clearance from top of paving unless directed otherwise by Architect and Owner.

3.11 CROWN IMPACTS

A. Trees impacted by construction shall be limited to a maximum of 30 percent of the viable portion of a tree's crown removed as approved by the Architect and Owner's Representative. Removal of more than 30 percent of the viable portion of a tree's crown will necessitate the tree's removal and replacement at the Contractor's expense.

1. Replacement shall be governed at the ratio of 1 inch of new tree per inch of tree removed up to trees of size less than 24" caliper. For trees 24" caliper and greater the ratio shall be 3 inches per new tree per inch of tree removed.
2. Replacement trees are to have a one (1) year warranty; refer to Section 329300, PLANTING

3.12 APPROVAL

A. No major limbs or structure will be cut or removed without prior approval of the Architect and Owner's Representative.

3.13 STERILIZATION

A. All tools used will be sterilized with Clorox Bleach, or approved equal, prior to use and between each tree.

B. Residue from sterilization operation shall be diluted so as not to damage any vegetation.

C. At trees known to be diseased and where there is danger of transmitting that disease, tools are to be disinfected after each cut.

3.14 PAINT CUTS:

A. Paint cuts more than 1 inch in diameter with an approved tree wound paint on trees.

1. Paint cuts within 30 minutes after cutting.

3.15 FERTILIZATION OF PRESERVED TREES

A. All existing trees to be preserved impacted by construction activities taking place within the dripline, including but not limited to trenching and grading, shall be fertilized.

B. Feeding of existing trees to be impacted by construction shall be accomplished in accordance with the following specifications:

1. Feeding shall be completed prior to construction of permanent improvements adjacent to all trees including site fill or paving including trenching operations.
2. Liquid tree fertilizer applied with a standard hydrant sprayer at a pressure of 100 to 200 psi shall be injected in slightly slanted holes approximately twelve (12) inches in depth.
3. Concentration of suspension to be forty (40) pounds of fertilizer for trees in each 100 gallons of water. Application rate: six (6) pounds of actual nitrogen per 1,000 square feet of area under drip-line.
4. Holes are to be made in concentric circles and 3' on center around the tree with the last ring located at the dripline of the foliage of the trees.
5. Area beneath the dripline of the trees is to be well watered after the fertilization is placed.

3.16 ROOT INVIGORATION

A. Trees with root zones displaying deteriorating soil conditions due to turf management practices, soil compaction, lack of organic matter in the soil, and lack of nutrients shall be identified by the Project Arborist and receive a root invigoration program. Root invigoration incorporates organic matter, fertilizer, and mycorrhizal fungi while reducing soil compaction and aerating the soil, promoting root growth.

B. Root invigoration shall be accomplished by implementing the Bartlett Root Invigoration Program as follows:

1. Site evaluation, tree evaluation and soil sampling. The landscape and affected trees are examined to make certain that they are suitable candidates for the service. Not all declining trees will respond to this treatment. Soil analysis provides information on the current nutrient, pH and organic matter levels as well as soil penetrability/density.
2. Program recommendations. Either Basic or Complete Root Invigoration Program may be recommended depending on results of the diagnostic tests, tree condition and your landscape goals. A Basic Root Invigoration (Figure 1) includes soil conditioning only around the trunk of the tree. A Complete Root Invigoration (Figure 2) conditions the soil around the trunk and in segments throughout the critical root zone.
3. Irrigation. Irrigation is required prior to and after treatment during periods of drought.
4. Fertilizer Application. Bartlett’s unique Soil Rx Prescription Fertilization matches fertilizer to your soil and tree needs and provides the greatest benefits with the least environmental impact.
5. Soil Conditioning. On the day of treatment, a crew of one or two will arrive with a large air compressor and the materials that will be incorporated into the soil. They will cultivate the soil using an air spade, designed to till the soil without disturbing the roots. Following this operation, organic matter, fertilizer and mycorrhizal fungi will be incorporated into the treatment zone.
6. Mulching. The work area will be covered with mulch at the end of the process. Mulch depth should be maintained at 2 to 4 inches for optimum response. If it is not desirable to mulch the area, it can be seeded in ground cover, planting grass is not recommended. Turf will inhibit tree root development and make the treatment much less beneficial.
7. Root Diseases. If root disease is suspected of playing a role in the tree decline, a root sample will be collected for additional diagnostic testing. Treatment recommendations can be provided at a later date, if required.

3.17 MULCH

A. Mulch base of all existing trees four (4') feet radius with 3 " deep mulch layer.

1. If existing trees are grouped, the entire area is to be mulched in between the trees.

B. Mulch base of all existing trees impacted by construction activities within RPZ with 3" deep mulch layer.

1. If existing trees are grouped, the entire area is to be mulched in between the trees.

3.18 CLEANUP

A. Wood and debris shall become property of the Contractor and shall be removed from the site. Cost of disposal to be paid by Contractor.

B. If acceptable to Owner, wood from tree removal and pruning activities can be double shredded/grinded and used on site as mulch at locations as approved by Architect and Owner.

3.19 REMOVAL OF PROTECTION

A. All protection shall remain in place throughout the construction period. Remove protection devices only after written permission has been granted by the Architect.

END OF SECTION 01 56 39

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes procedural requirements for cutting and patching.

B. Cutting and Patching may include areas of public sidewalks, roads, and alleyways.

C. Definition: Cutting and patching includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and repair required to restore surfaces to their original condition.

D. Refer to other sections for other requirements and limitations applicable to cutting and patching individual parts of the Work.

E. Coordinate cutting and patching with demolition requirements specified in Division 1 Section "Selective Demolition".

1.2 SUBMITTALS

A. Cutting and Patching Plan: Submit a proposal to the Owner’s Representative and the Architect, describing procedures at least 14 calendar days in advance of the time cutting and patching will initially be performed.

1. Include the following information, as applicable:

    a. Description of the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
    b. Description of the anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in appearance and other significant visual elements.
    c. List of products to be used and entities that will perform work.
    d. Dates and hours of operation when cutting and patching will be performed.
    e. Compatibility and cohesion characteristics of patching compounds with adjacent materials.
    f. Details and engineering calculations showing integration of reinforcement with the original structure, where cutting and patching involves adding reinforcement to structural elements.
    g. Submit Shoring plan of areas impacted by demolition where temporary shoring will be required.

2. Approval by the Architect or Owner's Representative to proceed with cutting and patching does not waive the right to later require complete removal and replacement of unsatisfactory work.

1.3 QUALITY ASSURANCE

A. Visual Requirements: Do not cut and patch construction exposed on the exterior location in a manner that would, in the Owner's Representative and the Architect's opinion, reduce the aesthetic qualities of the item being patched. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction that is cut and patched in a visually unsatisfactorily manner.

1.4 EXISTING WARRANTIES

A. Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to avoid any existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Use materials identical to existing materials to the maximum extent available.

B. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

C. Use materials whose installed performance will equal or surpass that of existing materials.

PART 3 - EXECUTION

3.1 INSPECTION

A. Before cutting, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

B. Before proceeding with cutting and patching involving two or more trades, meet at the Project site with the entities providing or affected by the cutting and patching. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.2 PREPARATION

A. Protect existing conditions during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.

B. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

C. Bypass in-service existing pipe, conduit, or ductwork scheduled to be removed or relocated before cutting.

3.3 PERFORMANCE

A. Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

B. Cutting: Cut existing construction using methods least likely to damage elements retained and adjoining construction.

1. In general, use hand or small power tools designed for sawing or grinding, not for hammering and chopping.
2. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
3. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
4. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
5. After utility services are bypassed, cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
2. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction in a manner that will eliminate evidence of patching and refinishing.

3.4 CLEANING

A. Clean areas and spaces where cutting and patching are performed.

END OF SECTION 01 73 29

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Salvaging nonhazardous demolition and construction waste.
2. Recycling nonhazardous demolition and construction waste.
3. Disposing of nonhazardous demolition and construction waste.

B. Related Sections include the following:

1. Section 01 10 00 – Summary; for Owner requested RTU Salvage items
2. Section 01 50 00 - Temporary Facilities and Controls
3. Section 02 41 10 - Selective Demolition
4. Section 02 41 16 - Structure Demolition
5. Section 31 10 00 - Site Clearing

1.2 DEFINITIONS

A. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

B. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

C. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

D. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

E. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 PERFORMANCE GOALS

A. Salvage/Recycle Goals: Owner's goal is to salvage and recycle as much nonhazardous demolition and construction waste as possible including the following materials:

1. Demolition Waste:

   a. Asphaltic concrete paving.
   b. Concrete.
   c. Concrete reinforcing steel.
   d. Doors and frames.

2. Construction Waste:

   a. Site-clearing waste.

b. Wood sheet materials.
c. Metals.
d. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials:

1) Paper.
2) Cardboard.
3) Boxes.
4) Plastic sheet and film.
5) Polystyrene packaging.
6) Wood crates.
7) Plastic pails.

1.4 WASTE MANAGEMENT PLAN

A. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.

1. Owner Requested Salvage items: Field verify all Owner requested Salvage items with the Owner's Representative prior to demolition. Salvaged items shall be disconnected and removed and returned to the Owners Representative as directed by the Owner's Representative .Owner Requested Salvage items include:
   a. Nine (9) existing Rooftop Air Handling Units (RTUs)
2. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
3. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
4. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
5. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
6. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
7. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement waste management plan as approved by Owner. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

1. Comply with Division 01 Section "Temporary Facilities and Controls" for operation, termination, and removal requirements.

B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.

1. Distribute waste management plan to everyone concerned within three days of submittal return.
2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale not permitted on Project site.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.

1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    a. Inspect containers and bins for contamination and remove contaminated materials if found.
2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste off Owner's property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

A. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.

B. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.

1. Pulverize concrete to maximum 4-inch (100-mm) size.
2. Crush concrete and screen to comply with requirements in Division 31 Section "Earth Moving" for use as satisfactory soil for fill or subbase.

C. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.

1. Pulverize masonry to maximum 4-inch (100-mm) size.

a. Crush masonry and screen to comply with requirements in Division 31 Section "Earth Moving" for use as general fill.

D. Metals: Separate metals by type.

1. Structural Steel: Stack members according to size, type of member, and length.
2. Remove and dispose of bolts, nuts, washers, and other rough hardware.

3.5 RECYCLING CONSTRUCTION WASTE

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

3.6 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

C. Disposal: Transport waste materials and dispose of at designated spoil areas on Owner's property.

D. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 01 74 19

SECTION 02 41 10

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the following:

1. Demolition and removal of existing Site elements.

1.2 RELATED SECTIONS

A. Drawings and general provisions of contract, including General and Supplementary Conditions and Division 01 specification Sections apply to the work of this Section.

B. Section 01 74 19 “Construction Waste Management” for additional requirements for recycling and waste handling.

1.3 DEFINITIONS:

A. Remove: Detach items from existing construction and legally dispose of them.

B. Remove and Salvage: Detach items from existing construction and deliver them to Government ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed.

1.4 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be salvaged, reinstalled, or otherwise indicated to remain the Owner’s property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at Contractor's option.

B. Historical items, relics, and similar objects including, but not limited to: exterior signs and commemorative plaques, doors, and other items of interest or value to the Owner, which may be encountered during selective demolition, shall remain the Owner's property.

1. Carefully remove and salvage each item or object in a manner to prevent damage, and deliver it promptly to the Owner.
2. Cooperate with the Owner's archaeologist or historical adviser.

1.5 SUBMITTALS

A. Qualification Data: List of demolition firm's completed projects with project addresses, and names and addresses of architects and owners.

B. Proposed dust-control measures.

C. Proposed noise-control measures.

D. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition work, with starting and ending dates for each activity.
2. Demolition staging diagrams and plans for review by the Owner's Representative and the Architect.
3. Impacts to and shutdowns of streets, right of ways, pedestrian sidewalks.
4. Locations of temporary partitions and means of egress.

E. Inventory: Items to be removed and salvaged.

F. Photographs or Videotape: Before work begins, submit sufficiently detailed photographs or videotapes showing existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before starting selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with NFPA 241 and ANSI A10.6.

C. Pre-Demolition Conference: Conduct conference at Project site to comply with requirements in Division 1 section "Project Management and Coordination." Review methods and procedures related to selective demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review and finalize demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review requirements of work performed by other trades that rely on substrates exposed by demolition operations.
4. Review inventory of all salvage items.

1.7 PROJECT CONDITIONS

A. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work. If any material suspected of containing hazardous materials are encountered, do not disturb the material.
   a. Immediately notify the Owner
   b. Coordinate abatement and removal with the Owner
   c. Notify the Owner of any impacts to the project scope or schedule.

1.8 WARRANTIES

A. Existing Special Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials that do not void existing warranties.

PART 2 - PRODUCTS

2.1 REPAIR MATERIALS

A. Where available and appropriate for use, provide repair materials that are identical to existing materials.

B. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

C. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities to be removed have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required. Contractor is responsible for field verifying the full extent of the demolition. Demolition drawings may be diagrammatic in nature.

C. Inventory and record the condition of items to be removed and reinstalled, and items to be removed and salvaged.

D. When encountering unanticipated elements that conflict with the intended function or design, investigate, and measure the nature and extent of the conflict. Promptly submit a written report to the Owner’s Representative and the Architect.

E. Perform surveys as the selective demolition progresses to detect hazards resulting from the activities.

3.2 UTILITY SERVICES

A. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.

B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving areas to be selectively demolished.

1. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
2. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit after bypassing.
3. Do not start selective demolition work until utility disconnection and sealing have been completed and verified.

3.3 PREPARATION

A. Temporary Site Control: Remove debris and conduct demolition operations in a manner to ensure minimum interference with roads, streets, walks, walkways, corridors, and other adjacent occupied or used facilities.

1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from the Owner's Representative and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

B. Temporary Facilities: Conduct demolition operations in a manner to prevent injury to people and damage to adjacent buildings and properties. Provide for safe passage of people around selective demolition area.

1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.

C. Temporary Shoring: Provide and maintain shoring, bracing or other structural support to preserve stability and prevent movement, settlement, or collapse of elements to be selectively demolished. Strengthen or add new supports when required during the progress of selective demolition.

1. Provide stamped engineered shop drawings of shoring when so required by the structural engineer.

3.4 POLLUTION CONTROLS

A. Dust Control: Use temporary enclosures and other suitable methods complying with governing environmental protection regulations to limit the spread of dust and dirt.

1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding or pollution.

B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.

C. Cleaning: Clean adjacent structures and site improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

3.5 SELECTIVE DEMOLITION

A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete selective demolition within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically. Conduct work in an order that avoids transporting removed items and debris through areas with completed selective demolition work, and that allows for removal of items before supports for those items are removed in another area.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage adjoining construction to remain. Use hand or

small power tools designed for sawing or grinding, not for hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations, and maintain adequate ventilation when using cutting torches.
5. Remove decayed, vermin-infested and other dangerous or unsuitable materials, and promptly dispose of these materials off-site.
6. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.

B. Repair, Storage and Reinstallation of Salvaged items:

1. Repair: Clean and repair the materials and equipment to functional condition adequate for intended reuse. Paint damaged or deteriorated painted surfaces of equipment to match new equipment.
2. Storage: Store the materials and equipment in a secure area until final reinstallation. If necessary, pack or crate salvaged materials and equipment after removal. Identify contents of containers. Protect items from damage during storage.
3. Reinstallation: Where items are indicated to be removed and reinstalled, install the materials and equipment in locations indicated. Comply with installation requirements for new materials and equipment.

C. Salvage and Delivery to the Owner:

1. Where items are to be removed, salvaged, and delivered to the Owner, transport the materials and equipment to the area on-site designated by the Owner’s Representative. Review delivery and storage with methods with the Owner's Representative prior to delivery. Protect items from damage during delivery.

a. Nine (9) existing Rooftop Air Handling Units (RTUs)

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Owner's Representative, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

3.6 PATCHING AND REPAIRS

A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.

B. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.

1. Completely fill holes and depressions in existing masonry walls to remain with an approved masonry patching material, applied according to the manufacturer's written recommendations.

C. Finishes: Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

A. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

B. Do not burn demolished materials.

C. Disposal: Transport demolished materials off property and legally dispose of them.

END OF SECTION 02 41 10

SECTION 02 41 16

STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Building removal / demolition
2. Miscellaneous structure removal / demolition

1.2 RELATED SECTIONS

A. General demolition, including at-grade facilities, utilities and other non-structural demolition, is specified in Section 02 41 10 - Selective Demolition.

B. Temporary facilities, such as fences, barricades, warning lights, and other temporary safety measures, are specified in Section 01 52 00 - Construction Facilities. (01 50 Temporary Facilities)

C. Noise and dust control is specified in Section 01 57 00 - Temporary Controls.

D. Clearing and grubbing is specified in Section 31 10 00 - Site Clearing.

1.3 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI A10.6 Safety Requirements for Demolition Operations

B. State of New Mexico, NMAC Title 14 Chapter 5.1 General Provisions, Chapter 7.7 2021 New Mexico Existing Building Code.

C. State of New Mexico, NMAC 20.4 Hazardous Waste, NMAC 20.9 Solid Waste, NMSA 1978 Statutes.

D. All applicable State and Federal laws, statues, and rules.

1.4 DESCRIPTION

A. Demolition as follows:
1. Building structures, including foundations, footings, and foundation systems shall be completely removed.
2. Miscellaneous structures, including box culverts, retaining walls, U-walls and junction boxes, shall be completely removed.
3. Utility services to facilities to be removed or demolished shall be disconnected, cut, and capped.

1.5 PERMITS

A. The Contractor shall obtain all special permits and licenses and give all notices required for performance and completion of the structure demolition and removal work, hauling, and disposal of debris.

1.6 SUBMITTALS

A. Demolition Plan: Submit a comprehensive demolition plan, describing the proposed sequence, methods, and equipment for demolition, removal, and disposal of structure(s); include salvage if required.

1. If necessary, provide drawings that show all structural elements to be demolished or removed. Indicate stages or phases of the selective structure demolition work. If required, calculations shall show that the structure and portions of the structure remaining during and after each stage or phase of structure demolition work is safe and stress levels in the structural members are within the limits of governing codes and regulations. Drawings and calculations shall be prepared, sealed, and signed by a professional civil or structural engineer currently registered in the State of New Mexico.

B. Permits: Submit copies of demolition, hauling, and debris disposal permits and notices for record purposes. Include description of proposed haul routes.

C. Utility Severance Certificates: Provide certificates, issued by the utility owners, of severance of utility services for record purposes.

D. Private Property Owner's Release: If material demolished and removed from the site will be deposited on private property, submit two copies of written releases not less than 15 days before the start of work. Releases shall absolve the Owner (Georgia O'Keeffe Museum) from responsibility in connection with the depositing of material on private property, and shall be signed by the owners of such property on which the material will be deposited.

1.7 SITE CONDITIONS

A. Protection of Persons and Property:

1. Install chain link fencing around the area of demolition work as specified in Section 01 50 00 - Temporary Facilities and Controls.

2. Erect and maintain temporary bracing, shoring, lights, barricades, signs, and other measures as necessary to protect the public, workers, and adjoining property from damage from demolition work, all in accordance with applicable codes and regulations.

3. Open depressions and excavations occurring as part of this work shall be barricaded and posted with warning lights when accessible through adjacent property or through public access. Operate warning lights during hours from dusk to dawn each day and as otherwise required in the Contract Documents.

4. Protect utilities, pavements, and facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by demolition operations.

B. Protection of Utilities:

1. Protect active sewer, water, gas, electric, and other utilities; and drainage and irrigation lines indicated or, when not indicated, found, or otherwise made known to the Contractor before or during demolition work. If utility is damaged, immediately notify the utility owner for corrective action.

2. Arrange with and perform work required by utility companies and municipal departments for discontinuance or interruption of utility services due to demolition work.

C. Noise and Dust Abatement:

1. Provide continuous noise and dust abatement as required to prevent disturbance and nuisance to the public and workers and to the occupants of adjacent premises and surrounding areas. Dampen or cover areas affected by demolition operations as necessary to prevent dust nuisance.

2. When a certain level of noise is unavoidable because of the nature of the work or equipment involved, and such noise is objectionable to the occupants of adjacent premises, make arrangements with the jurisdictional authorities to perform such work.

D. Unknown Conditions:

1. The Contract Documents may not represent all surface conditions at the site and adjoining areas. The known surface conditions are as indicated, and shall be compared with actual conditions before commencement of work.

2. Existing utilities and drainage systems below grade are located from existing documents and from surface facilities such as manholes, valve boxes, area drains, and other such surface fixtures. The Contractor's proposed methods of demolition shall be designed to allow for the possibility that the existing pipe, sewer, utility, or other facility are in a location that is three feet from that shown on the Design Drawings.

3. If existing active services encountered are not indicated or otherwise made known to the Contractor and interfere with the permanent facilities under construction, notify the appropriate authority in writing, requesting instructions on their disposition. Take immediate steps to ensure that the service provided is not interrupted, and do not proceed with the work until written instructions are received from the appropriate authority.

PART 2 - PRODUCTS

2.1 MATERIALS, EQUIPMENT, AND FACILITIES

A. The Contractor shall furnish all materials, tools, equipment, devices, appurtenances, facilities, and services as required for performing the demolition and removal Work.

PART 3 - EXECUTION

3.1 PRESERVATION OF REFERENCE MARKERS

A. Record the locations and designation of survey markers and monuments affected by the structure demolition. Provide three reference points for each survey marker and monument removed, established by a licensed civil engineer or land surveyor currently registered in the State of New Mexico.

B. Store removed markers and monuments during demolition work and replace them upon completion of the work. Re-establish survey markers and monuments in conformance with the recorded reference points. Forward to the Owner a letter verifying re-establishment of survey

markers and monuments, signed by a licensed civil engineer or land surveyor currently registered in the State of New Mexico.

3.2 STRUCTURE DEMOLITION

A. Perform structure demolition and removal Work in accordance with the reviewed demolition plan and ANSI A10.6 and the New Mexico Code of Regulations, as applicable.

B. Remove walls and masonry construction to a minimum depth of one foot below existing ground level or 3 feet below finished grade, whichever is lower, in areas where such items do not interfere with new construction.

C. Cap or plug sanitary sewer in accordance with the utility owner's standard details and instructions. Cap and plug pipe and other conduits abandoned due to demolition, with approved type caps and plugs as required by the utility owners.

D. Backfill and compact depressions caused by excavations, demolition, and removal in accordance with applicable requirements.

3.3 DISPOSAL OF REMOVED MATERIALS AND DEBRIS

A. Dispose of removed materials, waste, trash, and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction.

B. Burying of trash and debris on the site will not be permitted. Burning of trash and debris at the site will not be permitted.

C. Remove trash and debris from the site at frequent intervals so that their presence will not delay the progress of the work or cause hazardous conditions for workers and the public.

D. Removed materials, trash, and debris shall become the property of the Contractor and shall be removed from the project site and be disposed of in a legal manner. Location of disposal site and length of haul shall be the Contractor's responsibility.

3.4 CLEANUP

~~A.~~ Provide a clean and orderly site at all times.

END OF SECTION 02 41 16

SECTION 31 00 00
SITE WORK

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. The clearing and grubbing, trench and backfill, pipe installation, grading work, asphalt work, concrete, base course, sub-grade preparation, testing, retaining wall installation, fencing, permanent signing and striping, designation and potholing for utility conflicts, structural backfill, and overall project coordination and project scheduling required by the construction documents for this project.
B. The planning, implementation, maintenance, and closure of the Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section 603 of the New Mexico Department of Transportation 2005 Interim Specification and as amended by the Supplemental Technical Specification Section 603 and all other materials and equipment required to complete erosion control plan and SWPPP.

1.2 REFERENCE STANDARDS

A. City of Santa Fe Standard Specifications for Public Works Construction.
B. Section 603 of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 WORK RESULTS

A. Perform sitework in accordance with the City of Santa Fe Standard Specifications for Public Works Construction except where revised, amended, supplemented or superseded by the construction documents.
B. Perform planning, implementation, maintenance, and closure of the Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section 603 of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition and all other materials and equipment required to complete erosion control plan and SWPPP.

END OF SECTION 31 00 00

SECTION 31 10 00

SITE CLEARING

PART 1 - GENERAL

1.1 WORK INCLUDED

A. The work covered by this section consists of furnishing all plant, labor, and equipment in performing all stripping and clearing operations in accordance with the Project Manual and Drawings. Clearing shall consist of removing natural and artificial objectionable material from the construction areas and proper disposal.

1.2 RELATED WORK

A. 01 50 00 - Temporary Facilities and Controls

B. General foundation notes on Drawings. In case of conflict or omission, the general foundation notes shall govern.

1.3 TRAFFIC HANDLING

A. General: All construction signage and barricading shall comply with the New Mexico Manual & Specifications for a Uniform System of Traffic Control Devices for Streets & Highways, latest edition and applicable regulations adopted by the local Traffic Engineer.

B. Barricading Within Public Right-of-Way: The Contractor shall submit a construction signing and barricading plan to the appropriate government authority having jurisdiction prior to barricading or closing a public right-of-way.

C. Barricading Private Streets or Parking Lots: The Contractor shall submit a construction signage and barricading plan to the Architect prior to barricading or closing a private street, parking lot and/or areas of the project site.

1.4 SUBSURFACE SOIL DATA

A. Subsurface soil investigations have been made, and the results are included as Attachment 1 to the Project Manual. This is not a warranty of conditions; the Contractor is expected to examine the site and determine for himself the character of materials that may be encountered.

PART 2 - PRODUCTS - No products required for clearing.

PART 3 - EXECUTION

3.1 COORDINATION

A. Strip and stockpile suitable topsoil that may be reused.

3.2 CLEARING AND GRUBBING

A. General: Clear and grub all areas shown on the contract drawings to be excavated or on which fill is to be constructed.

B. Clearing: Clearing shall consist of removal and disposal of trees and other vegetation as well as down timber, snags, brush, existing foundations, slabs, and rubbish within the areas to be cleared. Individual trees, groups of trees and other vegetation not required to be removed shall be protected and left standing.

C. Grubbing: Stumps, matted roots, and roots larger than 2 inch in diameter shall be removed from within 8 inches of the surface of areas on which fills are to be constructed except in paved areas. Materials as described above within 18 inches of finished subgrade of paved areas in either cut or fill sections shall be removed. Areas disturbed by grubbing shall be filled as specified in Section 02200 - Earthwork.

D. Grass & Topsoil: Grass, grass roots, and incidental topsoil shall not be left beneath a fill area, nor shall this material be used as fill material. Grass, grass roots, and topsoil may be stockpiled and later used in the top 6 inches of fills outside roadways, parking areas and building pads.

3.3 SALVAGEABLE ITEMS

A. Carefully remove items indicated to be salvaged and store as indicated on the Drawings or directed by Owner.

3.4 ARCHEOLOGY

A. Archaeologist: The General Contractor shall be required to coordinate all demolition and excavation activities with an Owner-provided third-party Archeological Consultant. Archaeological monitoring shall run concurrently with demolition and any excavation. Upon the discovery of any findings of archeological significance, as identified by the Archeologist, work in the vicinity of the finding shall pause, and the Archeologist shall inform the Owner, the Owner's Representative, and the General Contractor immediately and provide appropriate recommendations. All findings flagged by the Archeologist shall be treated with the highest level of discretion and confidentiality. All Parties will maintain the confidentiality of any information or records under NMSA 1978, § 18-6-11.1 (Confidentiality of site location).

3.5 PRESERVATION OF PROPERTY

A. Provide temporary fences, barricades, coverings, or other protection to preserve existing items (landscaping, site features, utility items, building equipment, furniture, interior finishes, etc.) indicated to remain and to prevent injury or damage to persons or property. Apply protection to adjacent properties as required.

B. Restore damaged work to condition existing prior to start of work, unless otherwise directed.

3.6 EXISTING UTILITIES

A. The Contractor shall verify the location of any utility lines, pipelines, or underground utility lines in or near the area of the work in advance of and during clearing work. The Contractor is fully responsible for any and all damage caused by failure to locate, identify, and preserve any and all existing utilities, pipelines and underground utility lines. Repair damaged utilities to the satisfaction of the utility Owner at no expense to the Owner.

B. Should uncharted or incorrectly charted piping or other utilities be encountered during clearing, contact the Architect immediately for directions as to procedures.

C. Cooperate with the Owner and public or private utility companies in keeping service and facilities in operation.

3.7 WASTE

A. Dispose of all waste off Owner’s property.

B. Burning of waste will not be permitted.

3.8 AIR POLLUTION

A. Use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt air pollution. Comply with governing regulations pertaining to environmental protection.

END OF SECTION 31 10 00

JENKINSGAVIN
LAND USE | PROJECT MANAGEMENT

November 17, 2023

Dan Esquibel, Senior Planner
City of Santa Fe Current Planning Division
200 Lincoln Avenue
Santa Fe, NM 87501

RE: Georgia O'Keeffe Museum Development Plan Amendment, 123-135 Grant Avenue

Dear Dan:

This letter is respectfully submitted on behalf of 123-135 Grant LLC / Georgia O'Keeffe Museum (GOKM) in application for an administrative amendment to the previously approved Development Plan at 123 and 135 Grant Avenue. The 1.9845-acre subject property is zoned BCD-MAR and is in the Downtown and Eastside Historic District and Historic Downtown Archaeological Review District. The presently separate lots that comprise the subject property will be consolidated into a single tract with a Lot Consolidation Plat that is also included in this application. The building addresses will remain 123 and 135 Grant Avenue.

Background and Summary

At their hearing on November 4, 2021, the Planning Commission approved the following applications: a) Development Plan for a new ~54,000 square foot museum, inclusive of a parking reduction in accordance with §14-8.6(B)(4)(e) based on a Parking Demand Study (Case 2021-3976); b) Variance to SFCC §14-8.6(C)(2)(b) to permit two off-site parking lots located more than 600 feet from the subject property: 1) Chappelle St. Parking Lot located 615 feet from the parcel (owned by the Museum); and 2) San Francisco St. Parking Lot located 1,275 feet from the subject property (leased property) (Case 2021-3977). The San Francisco St. property was subsequently sold, and GOKM was unable to negotiate a lease with the new owner. Therefore, GOKM pursued an alternate location and 70 spaces were secured in the Marcy Plaza parking garage at 117 E. Marcy St., 880 feet from the Museum parcel (see attached Parking Variance Map). This additional parking variance was approved by the Planning Commission on September 7, 2023, in Case 2023-7081.

The Historic Districts Review Board (HDRB) has reviewed the historic status of the existing former Safeway building at 123 Grant Avenue, and demolition of this building was approved on September 14, 2021, in Case 2020-004123-HDRB. Preliminary design presentations have been provided to the HDRB, and a final design review application has been submitted and is awaiting assignment of a hearing date. Final design approval from the HDRB is expected in December 2023 or January 2024.

ABBREVIATIONS

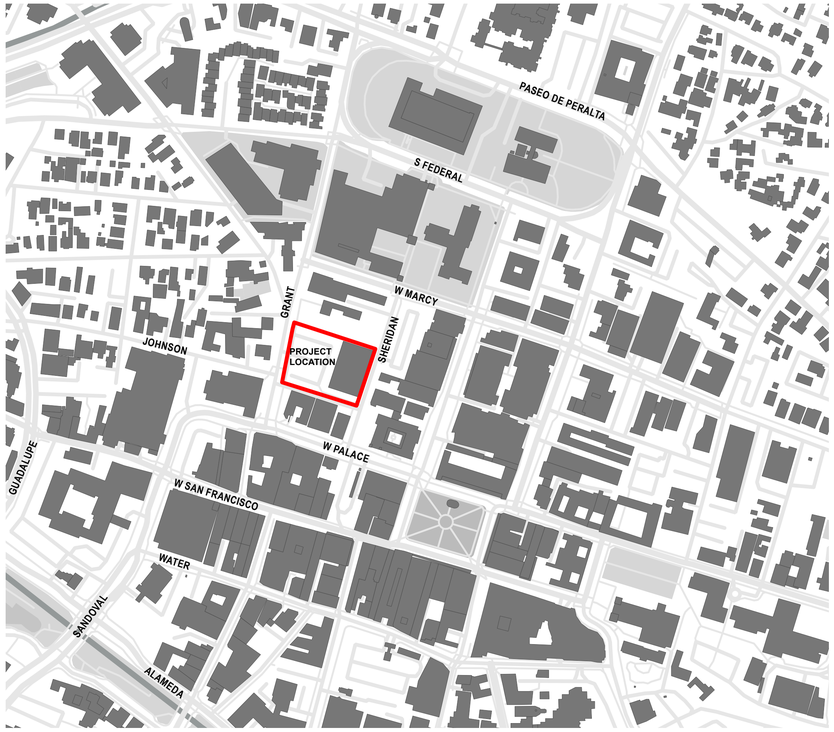
@	AT
A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISHED FLOOR
ANCH.	ANCHOR
∠	ANGLE
APPD.	APPROVED
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT
B.L.	BRICK LEDGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.O.C.	BOTTOM OF CANOPY
BOT. or B.	BOTTOM
B.O.W.	BOTTOM OF WALL
BRG.	BEARING
BRIDG.	BRIDGING
BTWN.	BETWEEN
C.C.	CENTER TO CENTER
℄	CENTER LINE
C.I.P.	CAST IN PLACE
C.J.	CONTROL JOINT
CLR.	CLEAR
CNTR.	CENTER
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
C.W.P.	CONCRETE WALL PANEL
D.A.S.	DEFORMED ANCHOR STUD
D.B.A.	DEFORMED BAR ANCHOR
DBL.	DOUBLE
DEPR.	DEPRESS OR DEPRESSION
DET.	DETAIL
Ø	DIAMETER
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
do	DITTO
DRWG.	DRAWING
DWL.	DOWEL
E.	EAST
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
ENGR.	ENGINEER
EQ.	EQUAL
E.S.	EACH SIDE
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
E.W.	EACH WAY
E-W	EAST-WEST
FAB.	FABRICATION
F.F.	FINISH FLOOR ELEVATION
FIN.	FINISH
FLG.	FLANGE
FLR.	FLOOR
FNDN.	FOUNDATION
F.S.	FAR SIDE
FT.	FOOT
FTG.	FOOTING
GA.	GUAGE
GALV.	GALVANIZED
G.L.	GLU-LAM
GR.	GRADE
GR. BM.	GRADE BEAM
GYP. BD.	GYPSUM BOARD
GYP.	GYPSUM
H.A.S.	HEADED ANCHOR STUD
HDR.	HEADER
HGR.	HANGER
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	1000 LBS. (KIPS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS.	POUNDS
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
LONG.	LONGITUDINAL
L.S.H.	LONG SIDE HORIZONTAL
L.S.V.	LONG SIDE VERTICAL
MANUF.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM
MC	MISCELLANEOUS CHANNEL
M.C.J.	MASONRY CONTROL JOINT
MECH.	MECHANICAL
MIN.	MINIMUM
M.L.	MICRO-LAM
#	NUMBER OR POUNDS
N.	NORTH
N.S.	NEAR SIDE
N-S	NORTH-SOUTH
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPN'G.	OPENING
OPP.	OPPOSITE
PAR.	PARALLEL
P.C.	PRECAST
PENET.	PENETRATION
PERIM.	PERIMETER
PERPEN.	PERPENDICULAR
P.I.P.	POURED IN PLACE
⏥	PLATE
PLF	POUNDS PER LINEAR FOOT
PRELIM.	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT.	POINT
PTF	POUND TO FIT
P.W.P.	PRECAST WALL PANEL
QTY.	QUANTITY
R.	RISER OR RADIUS
R.D.	ROOF DRAIN
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCING
REQ'D.	REQUIRED
REQ'MT.	REQUIREMENT
S.	SOUTH
SCHED.	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SP.	SPACE
SPEC.	SPECIFICATION
SPCG.	SPACING
SQ.	SQUARE
STD.	STANDARD
SS	STAINLESS STEEL
STIFF.	STIFFENER
STL.	STEEL
STRP.	STIRRUP
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
T.& B.	TOP AND BOTTOM
TEMP.	TEMPERATURE
T.& G.	TONGUE AND GROOVE
T.O.C.	TOP OF CANOPY
T.O.F.	TOP OF FOOTING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STRUCTURAL STEEL
T.O.W.	TOP OF WALL
TR.	TREAD
T.S.	STRUCTURAL TUBE
TYP.	TYPICAL
U.N.	UNLESS NOTED
U.N.O.	UNLESS NOTED OTHERWISE
VAR.	VARIES
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.	WEST
W/	WITH
WD.	WOOD
W/0	WITHOUT
W.P.	WATERPROOF
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
YD.	YARD

GENERAL NOTES

1. Work performed shall comply with the following:
   A. These General Notes, and Construction Documents.
   B. All applicable local, state and federal codes, ordinances and regulations. All codes listed in Specifications and Drawings shall be inclusive of all codes, regulations and requirements adopted by the City of Santa Fe and State of New Mexico, including all Amendments.
   C. All work shall be executed in accordance with the best accepted trade practices and per manufacturers' recommendations.
2. On-site verification of all dimensions and conditions shall be the responsibility of the General Contractor.
3. The General Notes and Typical Details apply throughout the job unless otherwise noted or shown on these drawings. Noted dimensions take precedent over scale, larger scale over smaller scale, addenda and clarifications over previous documents.
4. Discrepancies: The General Contractor shall compare and coordinate the information shown on all drawings. Where in the opinion of the General Contractor a discrepancy exists, he shall promptly report it to the Architect for proper clarification or adjustment.
5. Omissions: In the event that certain features of the construction are not fully shown on the drawings, then their construction shall be the same character as the construction of similar conditions that are shown or noted on the drawings and specifications. If there is any doubt concerning the similarity of the condition, the General Contractor shall notify the Architect and request clarification.
6. Changes: The General Contractor shall inform the Owner immediately if any changes requested in the field either verbally or in writing shall impact the project schedule or budget. The Contractor shall prepare a Proposed Change Order within a reasonable agreed upon time frame for review and approval, prior to commencing the work on any proposed changes or directives. Proposed Change Orders submitted by the General Contractor after the the fact shall not be accepted.
7. Contract Documents take precedence when they are more stringent than applicable codes, ordinances, standards and statutes. Codes, ordinances, standards and statutes take precedence when they are more stringent or conflict with drawings and specifications.
8. Use of the Site: The General Contractor's use of the site shall be fully coordinated with the Owner.
9. The General Contractor shall conduct and coordinate weekly site meetings as necessary.
10. General Guaranty: Neither the final certificate of payment nor any provision in the Contract Documents nor partial or entire occupancy of the project by the Owner shall constitute acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any expressed warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy all defects in the work and pay for damages to other work resulting therefrom, which shall appear within a period of one (1) year from the date of Substantial Completion of the work under the Contract. The Owner will give notice of observed defects with reasonable promptness.

DEMOLITION GENERAL NOTES

A. General Contractor shall obtain all permits from City and comply with all City requirements to protect vehicular and pedestrian activity on all public sides of the site from construction and demolition activity.
B. Provide temporary barriers and partitions as necessary. General Contractor shall be responsible for providing safety measures for protection of pedestrians, vehicles, and all other existing construction to remain relative to the demolished scope of work described herein. The General Contractor shall be responsible to correct any damage caused by execution of construction activities.
C. Prior to any demolition, review all salvage items with Owner's Representative and Architect.
   • Salvage items to be returned to Owner shall include: (9) rooftop air handling units (RTUs).
D. Abatement of Hazardous Materials has been completed under separate contract. It is not anticipated that hazardous materials will be encountered on this project. In the event that any materials are encountered that are suspected to be hazardous, immediately inform the Architect and Owner's Representative.
E. Any and all debris generated by construction operations shall be cleaned up and removed DAILY, making the site ready for all subsequent subcontractors.
F. Provide shoring and temporary supports as necessary to insure structural stability and integrity of all elements of the structure during demolition.
G. Refer to Civil, Electrical, and Plumbing drawings and specifications for specific demolition and capping requirements.
H. Contractor shall protect all elements to remain
I. Refer to Landscape for requirements related to protection of existing trees adjacent to Area of Work
J. Unless indicated otherwise, all demolition debris / items are to be removed to a legal waste facility.
K. Refer to Civil for erosion control requirements.
L. General Contractor shall locate all adjacent utilities prior to demolition.
M. General Contractor shall become familiar with the existing site conditions prior to commencement of work and shall report any discrepancies between the drawings and field conditions to the Architect and Owner's Representative.



1 GD100 Vicinity Map — Scale: Actual Size

N

CODE DATA	APPLICABLE CODES
Jurisdiction: City of Santa Fe	• 2021 NM Commercial Building Code (2021 IBC as amended by State of NM)
Address: 123 & 135 Grant Ave, Santa Fe, NM, 98505	• 2021 NM Plumbing Code (2021 UPC as amended by State of NM)
UPC Number	• 2020 NM Electrical Code (2020 NEC as amended by State of NM)
123 Grant: 1054409921323100000	• 2012 NM Electrical Safety Code (2012 NEC as amended by State of NM)
135 Grant: 1054099218245000000	• 2015 International Fire Code and CoSF IFC amendments
Zoning: BCD	• NMAC 14.5.1 General Provisions, 14.5.2 Permits, 14.5.3 Inspections
Townscape: Marcy Street	• 2017 ICC a117.1-2017 Accessible and Usable Buildings and Facilities
Historic Overlay: Downtown & Eastside Historic District	
Site Area:	
123 Grant: 1.2174 Ac (53,030sf)	
135 Grant: 0.7671Ac (33,415sf)	

SCOPE OF WORK

123 Grant Avenue:
• Demolition of a 19,270sf building, a 46sf parking attendant's kiosk.
• Demolition of site wall along alley, dumpster enclosure, planting islands, and paving in parking lot and along south side of the building.
• All mechanical, electrical, plumbing, and fire protection systems will be fully demolished and capped.
• An existing transformer on the site currently serves two adjacent properties; the power for those two properties will be re-routed and the existing transformer will be demolished under separate permit application.
• Hazardous materials abatement has been completed by Owner under separate contract.

135 Grant Avenue:
• Demolition of a 272' long CMU site wall (only) along south property line.

Georgia O'Keeffe Museum

GRANT STREET OFFICES DEMOLITION SET

December 15, 2023

PROJECT TEAM

CLIENT
Georgia O'Keeffe Museum
217 Johnson Street
Santa Fe, NM 87501

LAND USE / OWNER REP
JenkinsGavin
130 Grant Avenue, Suite 101
Santa Fe, NM 87501
ph: 505-820-7444
Contact: Colleen Gavin

ARCHITECTS
DNCA, LLC
924-A Shoofly St.
Santa Fe, NM 87505
ph: 505-255-4033

CIVIL ENGINEERS
Wilson & Co. Inc.
4401 Masthead Street NE Suite 150
Albuquerque, NM 87109
ph: 505-348-4000

MEP ENGINEERS
Bridgers & Paxton
4600 C Montgomery Blvd NE
Albuquerque, NM 87109
ph: 505-883-4111

GENERAL CONTRACTOR
Bradbury Stamm
7110 2nd Street NW
Albuquerque, NM 87107
ph: 505-765-1200

DRAWING DIRECTORY

Page	Label	Sheet Name
GENERAL		
01	G100	Cover Sheet
02	G101	Plats
03	G103	Topo 135
04	G104	Topo 123
05	G105	Site Utility Survey
ARCHITECTURAL		
06	ASD100	Utility Architectural Site Demolition Plan
07	ASD101	Architectural Site Demolition Plan
CIVIL		
08	C-102	Demolition Plan
09	C-503	Erosion Control & Sedimentation Plan
10	C-504	Erosion Control & Sedimentation Details
11	C-505	Erosion Control & Sedimentation Details
PLUMBING / ELECTRICAL		
12	PDS101	Plumbing Demolition Plan
13	E-001	Electrical Legend
14	ES101	Electrical Demo Site Plan

STATE OF NEW MEXICO
DEVENDRAN
CONTRACTOR
No. 3137
12/15/23
REGISTERED ARCHITECT

Consultant

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

December 15, 2023	Plot Date 12/14/23
Drawn by	Checked by

File
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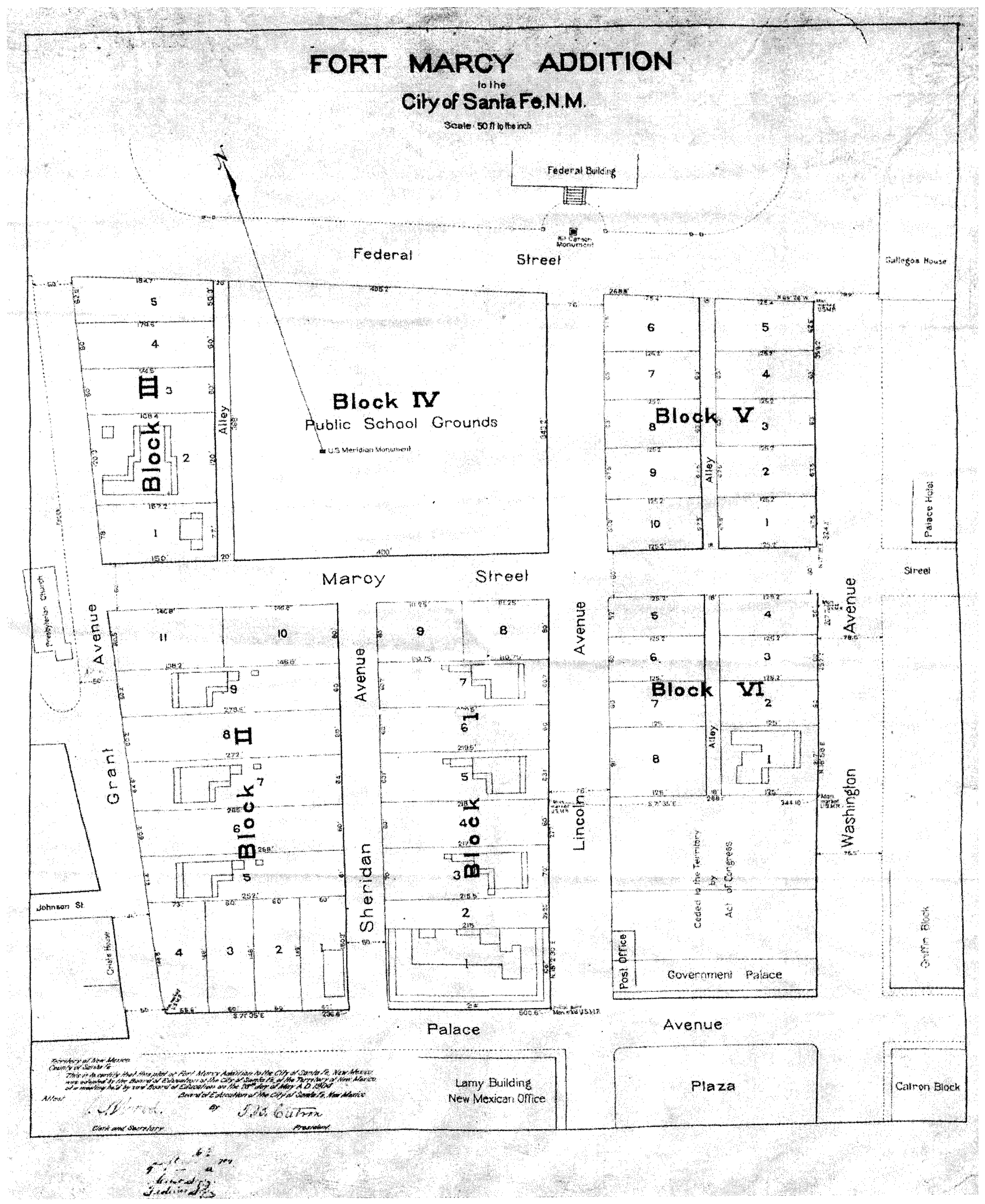
Set
DEMOLITION SET

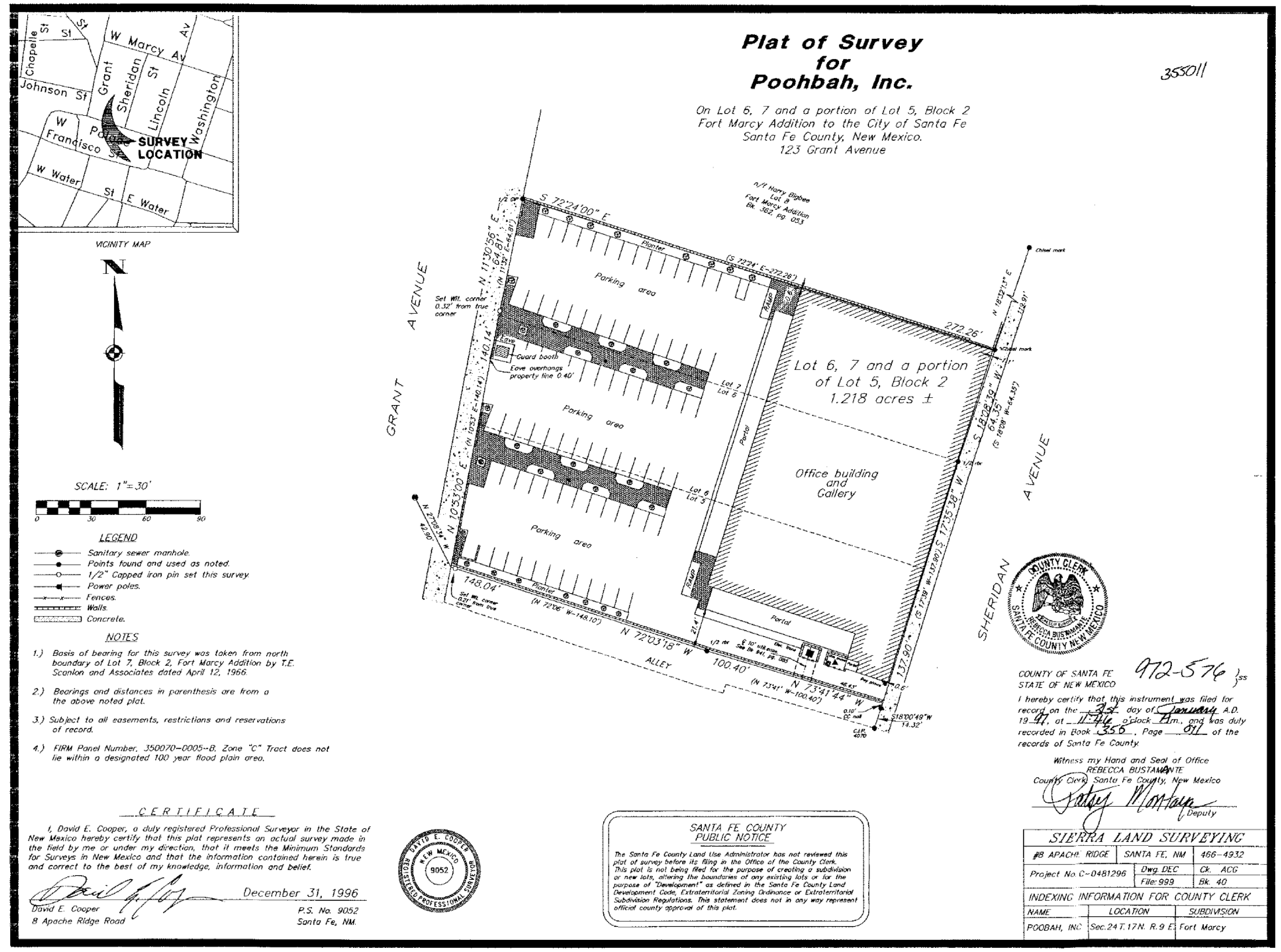
Sheet Title
Cover Sheet

GD100

Sheet 01 of



1 -GD101 Plat : 135 Grant Ave
Scale: Actual Size



2 -GD101 Plat : 123 Grant Ave
Scale: Actual Size

GEORGIA O'KEEFFE MUSEUM

GRANT STREET OFFICES

Demolition Set

123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

December 15, 2023	Plot Date 12/14/23
Drawn by	Checked by

File
GOKM GSO Demo -G1xx 231214 dh.vwx

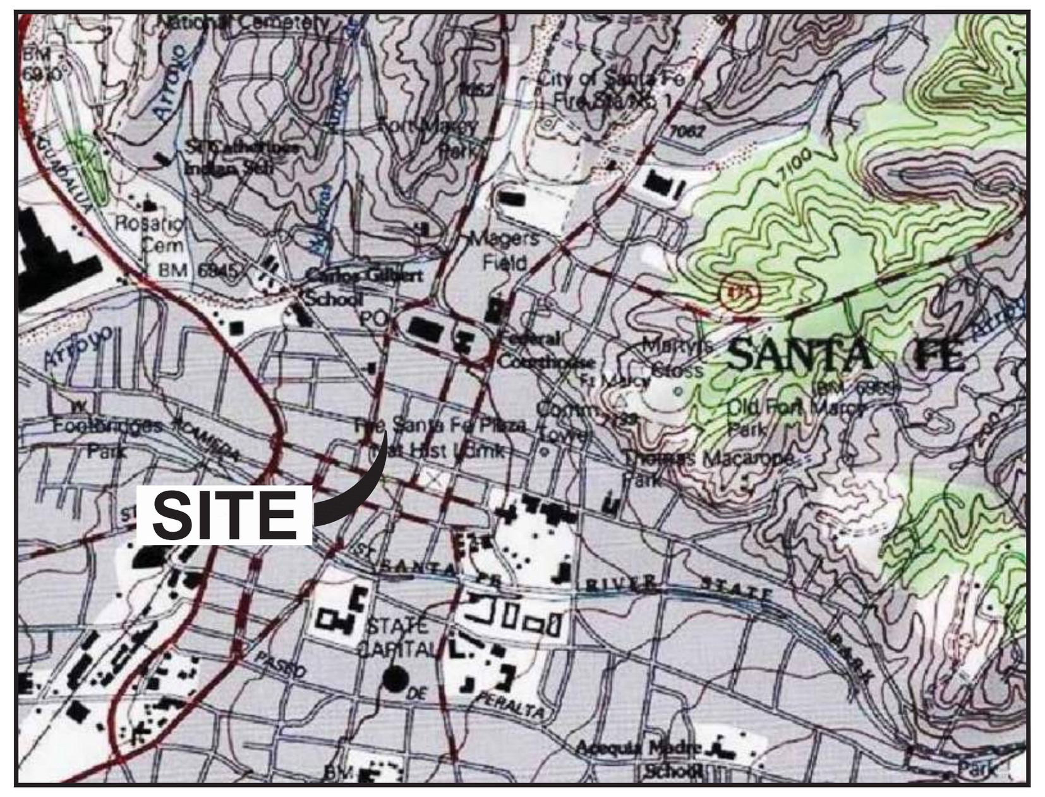
Set
DEMOLITION SET

Sheet Title
Plats

GD101

Sheet 02 of

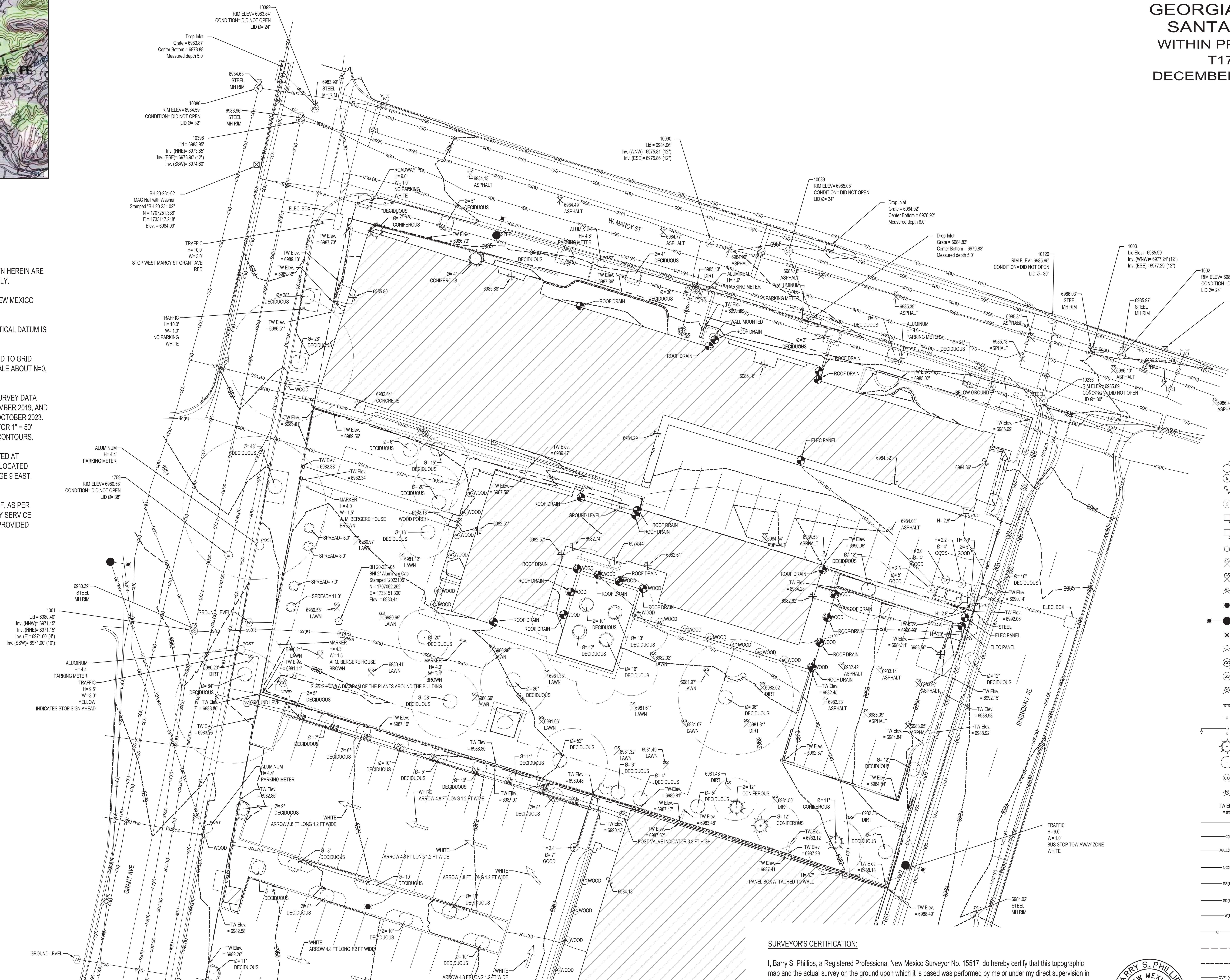
TOPOGRAPHIC MAP
GEORGIA O'KEEFE MUSEUM
SANTA FE, NEW MEXICO
WITHIN PROJECTED SECTION 24, T17N, R9E, N.M.P.M.
DECEMBER 2019, NOVEMBER 2023



LOCATION MAP
NOT TO SCALE

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN HEREIN ARE APPROXIMATE IN NATURE AND SHOWN FOR REFERENCE ONLY.
2. THE TOPOGRAPHIC MAP IS BASED ON GROUND MODIFIED NEW MEXICO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE.
3. THE HORIZONTAL DATUM IS BASED ON NAD83 AND THE VERTICAL DATUM IS BASED ON NAVD88(GEOID12B).
4. PROJECT COMBINED FACTOR = 0.999578790000 (FOR GROUND TO GRID TRANSFORMATION OF THE HORIZONTAL COORDINATES, SCALE ABOUT N=0, E=0).
5. THIS TOPOGRAPHIC MAP WAS PREPARED FROM GROUND SURVEY DATA COLLECTED BY BHI FIELD SURVEY IN NOVEMBER AND DECEMBER 2019, AND AS TO ADDITIONAL SURVEY FOR THE SOUTH ALLEYWAY IN OCTOBER 2023. THIS SURVEY DATA MEETS ENGINEERING SPECIFICATIONS FOR 1" = 50' MAPPING AND HAS A VERTICAL ACCURACY FOR ONE FOOT CONTOURS.
6. THE APPROXIMATE CENTER OF THE PROJECT SITE IS LOCATED AT N35°41'21.89" LATITUDE, W105°56'22.65" LONGITUDE. SITE IS LOCATED WITHIN PROJECTED SECTION 24, TOWNSHIP 17 NORTH, RANGE 9 EAST, N.M.P.M., SANTA FE COUNTY, NEW MEXICO.
7. UTILITIES SHOWN WERE LOCATED IN THE FIELD BY BHI STAFF, AS PER MARKS SPOTTED ON THE GROUND FROM SUE Level B UTILITY SERVICE PROVIDED BY HIGH MESA CONSULTING GROUP - SEE PLAN PROVIDED SEPARATELY AND DATED 11-2019.



LEGEND

- POSTS
- BOLLARD
- BUILDING FINISHED FLOOR
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS PEDESTAL
- ELECTRICAL PEDESTAL
- ELECTRICAL POLE
- ASPHALT SHOT
- GROUND SHOT
- IRRIGATION VALVE
- LIGHTING POLE
- LIGHTING POLE
- LIGHTING RECESSED LIGHTING
- NATURAL GAS VALVE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- SANITARY SEWER VALVE
- SIGNAGE
- SIGNAGE
- SIGNAL POLE
- TREE
- TREE
- UNIDENTIFIED UTILITY CLEANOUT
- WATER VALVE
- TW Elev. = #### TOP OF WALL ELEVATION
- APPROXIMATE BOUNDARY LINE
- C(B) COMMUNICATIONS LINE SUE LEVEL B
- UGEL(B) ELECTRICAL LINE UNDERGROUND SUE LEVEL B
- NG(B) NATURAL GAS LINE SUE LEVEL B
- SS(B) SANITARY SEWER LINE SUE LEVEL B
- SD(B) STORM DRAIN LINE SUE LEVEL B
- W(B) WATER LINE SUE LEVEL B
- FENCE CHAINLINK
- SURFACE CONTOUR MAJOR
- SURFACE CONTOUR MINOR
- OVEL(C) OVERHEAD ELECTRIC LINE (LEVEL C)

SURVEYOR'S CERTIFICATION:

I, Barry S. Phillips, a Registered Professional New Mexico Surveyor No. 15517, do hereby certify that this topographic map and the actual survey on the ground upon which it is based was performed by me or under my direct supervision in December 2019 and November 2023; that I am responsible for this survey; that this survey meets the Minimum Standards for surveying in New Mexico, under N.M.A.C. 12.8.2.7.B(3) and that it is true and correct to the best of my knowledge and belief.

BARRY S. PHILLIPS NEW MEXICO 15517 LICENSED PROFESSIONAL SURVEYOR

11-16-2023

Barry S. Phillips , PS, NM Professional Surveyor No.15517 — Date
for and on behalf of Bohannan Huston, Inc.
7500 Jefferson St. NE, Albuquerque, NM 87109-4335

SHEET 1 OF 2

Bohannan Huston
www.bhinc.com 03 800.877.5332

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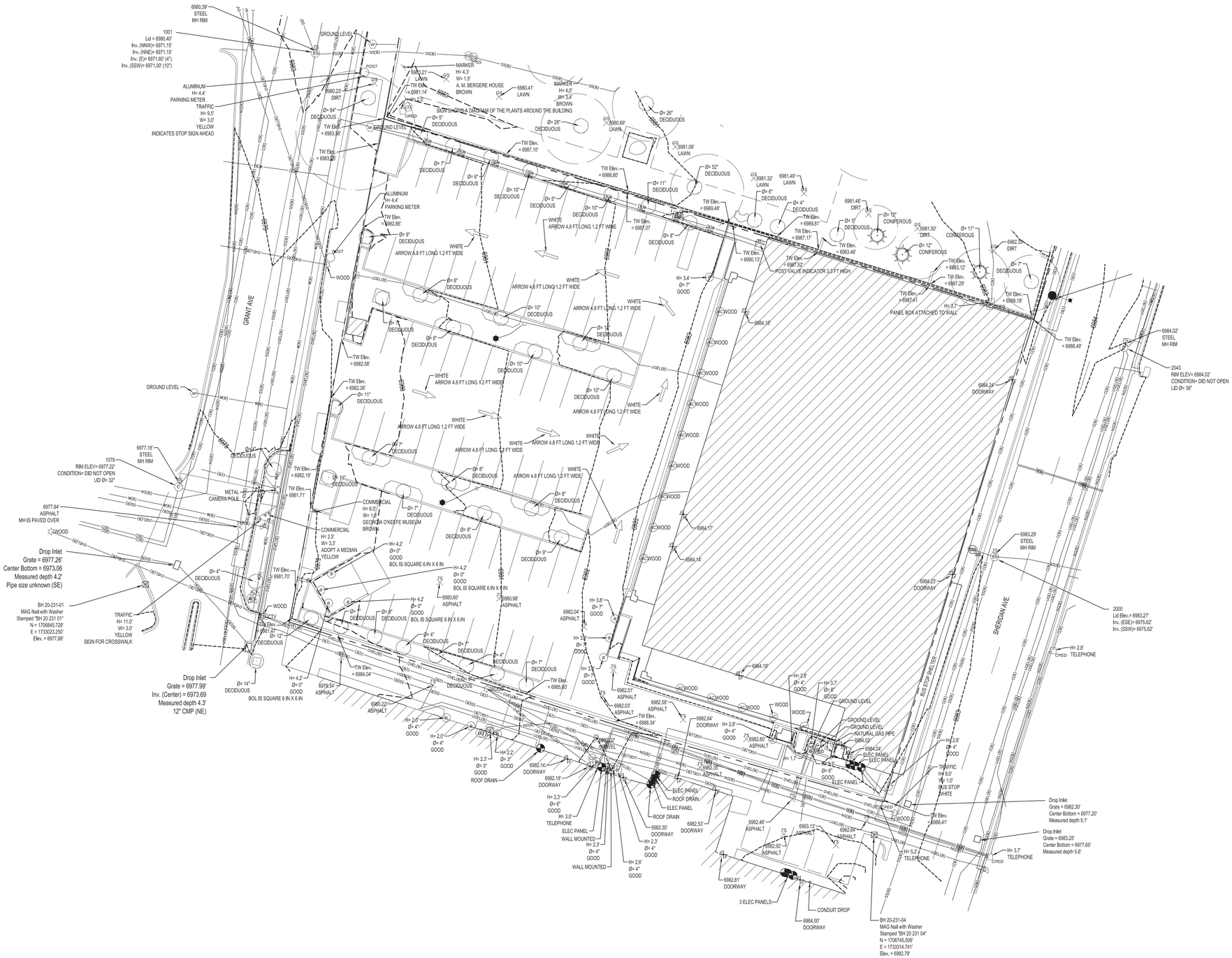
TOPOGRAPHIC MAP
GEORGIA O'KEEFE MUSEUM
SANTA FE, NEW MEXICO
WITHIN PROJECTED SECTION 24, T17N, R9E, N.M.P.M.
DECEMBER 2019, NOVEMBER 2023



N

20' 10' 0 20'

1" = 20'

LEGEND

- POSTS
- BOLLARD
- BUILDING FINISHED FLOOR
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS PEDESTAL
- ELECTRICAL PEDESTAL
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11-16-2023

Barry S. Phillips , PS, NM Professional Surveyor No.15517 — Date

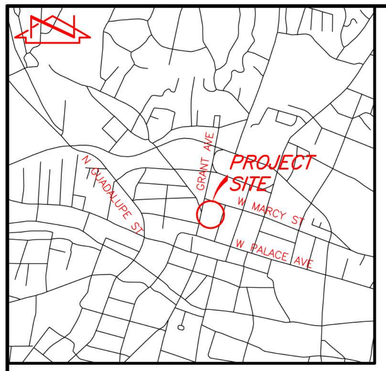
for and on behalf of Bohannan Huston, Inc.

7500 Jefferson St. NE, Albuquerque, NM 87109-4335

BARRY S. PHILLIPS NEW MEXICO 15517 LICENSED PROFESSIONAL SURVEYOR

SHEET 2 OF 2

Bohannan Huston
www.bhinc.com 04 800.877.5332



VICINITY MAP

NOT TO SCALE

SUBSURFACE UTILITY NOTES

- THIS SITE UTILITY DIAGRAM IS A REPRESENTATION OF UTILITY CONDITIONS AND ASCERTAINABLE UTILITY LOCATIONS IDENTIFIED, COLLECTED AND/OR OBSERVED BY HIGH MESA CONSULTING GROUP USING DISCUSSED EQUIPMENT AND METHODOLOGIES. THESE SERVICES WERE PERFORMED IN ACCORDANCE WITH ASCE 38–02 (STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA). SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVELS B AND D HAVE BEEN COMPLETED.

  QUALITY LEVEL B – UTILITY DESIGNATION EFFORTS HAVE BEEN BASED UPON CURRENT SITE CONDITIONS INCLUDING SURFACE FEATURES FOUND WITHIN PROJECT LIMITS THAT INDICATE THE PRESENCE OF SUBSURFACE UTILITIES. THE EXACT PIPE/CABLE SIZE, DEPTH OR MATERIAL OF THE UTILITIES DESIGNATED BY THIS EFFORT IS UNKNOWN. RESULTS OF THIS UTILITY DESIGNATION EFFORTS HAVE BEEN REFERENCED TO EXISTING AS–BUILT RECORD UTILITY DRAWINGS OR SITE UTILITY PLANS (THAT WERE AVAILABLE AT THE TIME THIS WORK WAS PERFORMED). ANY UNRESOLVED DISCREPANCIES RELATED TO THE RECORD DRAWINGS, UTILITY CONNECTIVITY OR PUBLIC UTILITY RESPONSE HAVE BEEN DOCUMENTED. REFER TO KEYED NOTES BELOW.

- PUBLICLY–OWNED UTILITIES REPRESENTED ON THIS DIAGRAM HAVE BEEN IDENTIFIED BY THE OWNER IN RESPONSE TO HMCG NM811 DESIGN LOCATE REQUEST (NM811 TICKET 19OC250196 10/25/19 09:22AM 03:29PM) AND/OR THROUGH SUPPLEMENTAL EFFORTS BY HMCG BASED ON SURFACE EVIDENCE AND UTILITY RECORD INFORMATION OBTAINED FROM THE OWNER AT THE ON–SET OF THE PROJECT.

- THIS UTILITY SURVEY AND UTILITY DESIGNATION EFFORT IS NOT ALL–INCLUSIVE AND MAY NOT REPRESENT UTILITIES/INFRASTRUCTURE THAT HAS BEEN ABANDONED–IN –PLACE.

- AERIAL IMAGERY CAPTURED BY HMCG DRONE NOVEMBER 13, 2019.

KEYED SUBSURFACE UTILITY NOTES

1. STORM DRAINS COULD NOT BE DESIGNATED BEYOND THIS POINT. MANHOLE LID COULD NOT BE OPENED WITHOUT DAMAGE TO THE LID. LOCATION WEST OF MANHOLE BASED ON RECORD DRAWINGS.
2. WATER LINES COULD NOT BE DESIGNATED FROM THE WATER VALVE, METER OR FIRE HYDRANT LOCATED AT THE POINT INDICATED ON DIAGRAM. DESIGNATION IS INCOMPLETE.
3. COMMUNICATION CTV FIBER OPTIC CABLE IN CONDUIT IN HAND HOLE. FIBER OPTIC CABLE WAS NOT ACCOMPANIED BY A TRACER WIRE. DESIGNATION OF FIBER OPTIC PATHWAY IS INCOMPLETE.
4. SANITARY SEWER (SAS) CLEANOUTS WERE NOT ACCESSIBLE. SAS LINE COULD NOT BE DESIGNATED FROM THIS POINT.
5. SAS PIPELINE COULD NOT BE DESIGNATED BEYOND THIS POINT. DESIGNATION IS INCOMPLETE.
6. DOMESTIC WATER LINE WAS NOT DETECTABLE BEYOND THIS POINT. DESIGNATION IS INCOMPLETE.
7. PUBLICLY–OWNED SAS MAIN LOCATED BY UTILITY OWNER. SAS MANHOLE IS PAVED–OVER AND INACCESSIBLE. LOCATION WAS NOT VERIFIED BY HMCG.
8. CUT OFF ELECTRIC AND CTV LINES IN THE CTV HAND HOLE. THE ELECTRIC LINES WERE NOT DETECTABLE FROM THIS POINT. DESIGNATION IS INCOMPLETE ON THESE INACTIVE LINES.
9. STORM DRAIN DROP INLET WAS SURCHARGED PREVENTING ACCESS AND DESIGNATION FROM THIS POINT.

APWA UTILITY COLOR CODE

RED – ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES	E
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS	G
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS FROM RECORD	G FRD
ORANGE – COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT	C
ORANGE – CABLE TELEVISION LINES	CTV
ORANGE – FIBER OPTIC LINES	FO
ORANGE – FIBER OPTIC LINE FROM RECORD	FO FRD
BLUE – POTABLE WATER	W
BLUE – POTABLE WATER FROM RECORD	W FRD
GREEN – SANITARY SEWER LINES	SAS
GREEN – STORM DRAIN LINES	SD
GREEN – STORM DRAIN LINE FROM RECORD	SD FRD

SCALE: 1" = 30'

30 0 60

15 30

LEGEND

- CATV CABINET
- CATV RISER
- COMM CABINET
- COMM MH
- COMM PULLBOX
- ELEC CABINET
- ELEC MANHOLE
- ELEC PULLBOX
- FLOOD LIGHT
- GAS METER
- SD MANHOLE
- SAS SINGLE CO
- SAS MANHOLE
- WATER METER BOX
- WATER VALVE BOX
- FIRE HYDRANT

HIGH MESA Consulting Group
Engineers, Surveyors & Subsurface Utility Consultants
6010–B Midway Park Blvd. NE • Albuquerque, New Mexico 87109
Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesacg.com

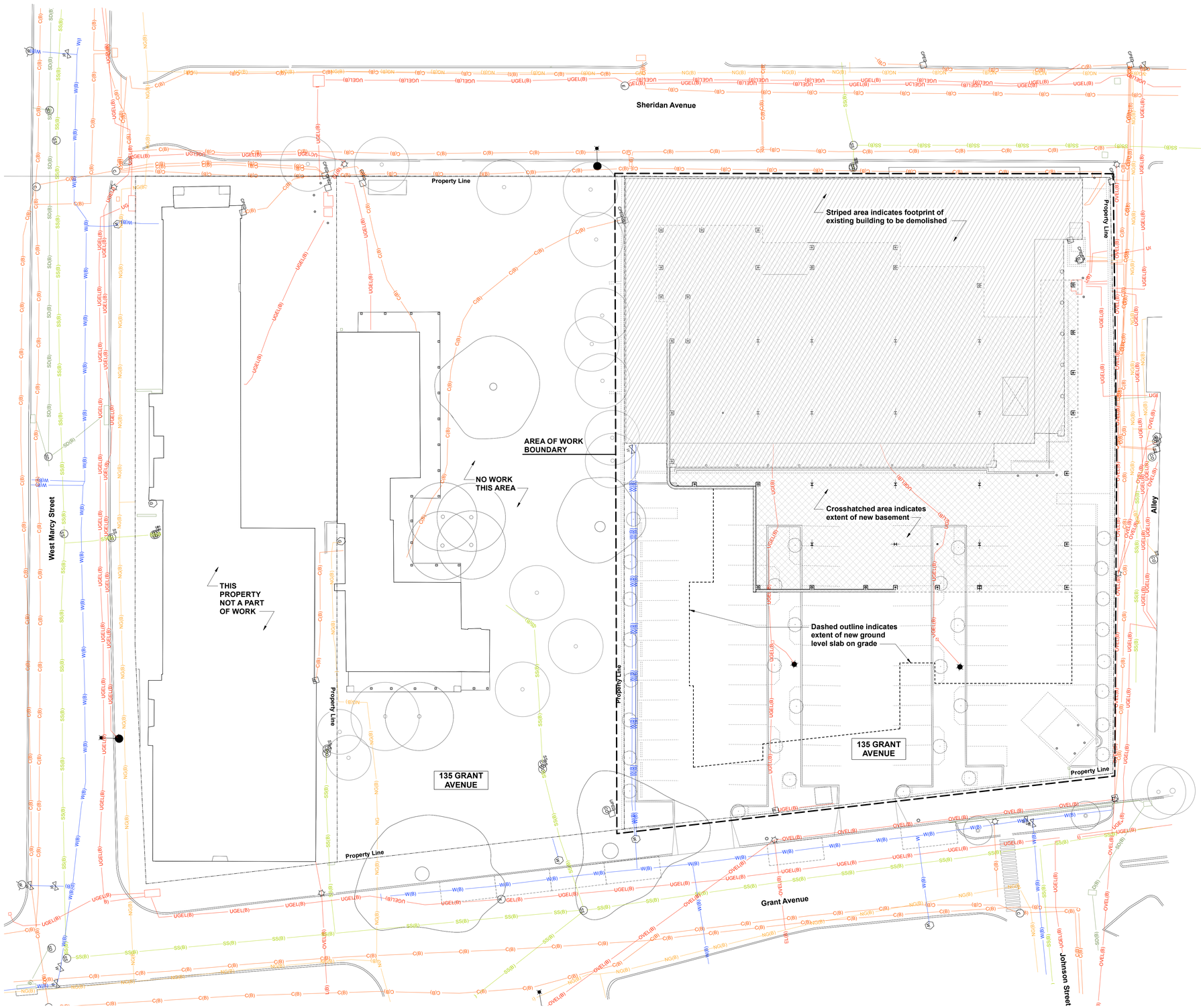
SITE UTILITY DIAGRAM

GEORGIA O'KEEFFE MUSEUM ANNEX – SANTA FE, NEW MEXICO

FLOWN BY D.R.
DRAWN BY R.W.U.
APPROVED BY J.G.

NO.	DATE	BY	REVISIONS

JOB NO. 2019.1083
DATE 11–2019
SHEET 1 OF 1



1 ASD100 UTILITY COORDINATION PLAN: Existing Site w/ New Basement
Scale: 1" = 20'-0"

GENERAL COORDINATION SHEET NOTES

1. **THIS SHEET IS FOR COORDINATION ONLY.**
   - **Utility information on this sheet was taken from the certified Site Utility Survey completed by High Mesa Consulting Group, dated 11/2019.**
   - **Information contained herein is provided for general coordination and is not to be considered as an accurate portrayal of utility locations.**
   - **All utilities shall be accurately located by the Contractor prior to beginning Work.**

LEGEND

- CATV CABINET
- CATV RISER
- COMM CABINET
- COMM MH
- COMM PULLBOX
- ELEC CABINET
- ELEC MANHOLE
- ELEC PULLBOX
- FLOOD LIGHT
- GAS METER
- SD MANHOLE
- SAS SINGLE CO
- SAS MANHOLE
- WATER METER BOX
- WATER VALVE BOX
- FIRE HYDRANT

APWA UTILITY COLOR CODE

RED – ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES	E
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS	G
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS FROM RECORD	G FRD
ORANGE – COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT	C
ORANGE – CABLE TELEVISION LINES	CTV
ORANGE – FIBER OPTIC LINES	FO
ORANGE – FIBER OPTIC LINE FROM RECORD	FO FRD
BLUE – POTABLE WATER	W
BLUE – POTABLE WATER FROM RECORD	W FRD
GREEN – SANITARY SEWER LINES	SAS
GREEN – STORM DRAIN LINES	SD
GREEN – STORM DRAIN LINE FROM RECORD	SD FRD

STATE OF NEW MEXICO
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Consultant

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

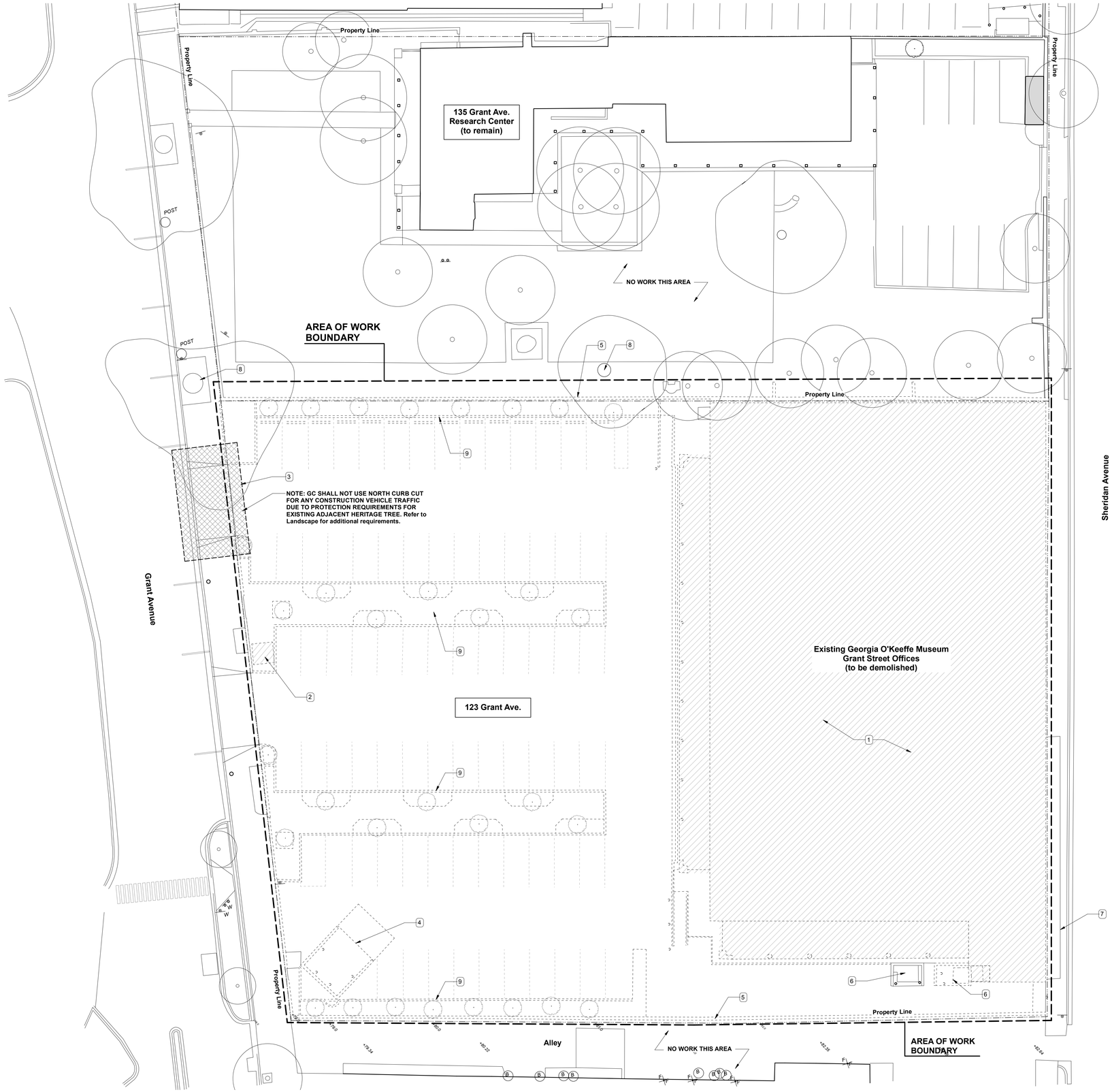
Date	Issue

December 15, 2023 | Plot Date 12/15/23
Drawn by | Checked by
File: GOKM GSO Demo ASD1xx 231214 dh.vwx
Set: **DEMOLITION SET**

UTILITY COORDINATION PLAN: Existing Site w/ New Basement

ASD100

Sheet 07 of



1 ASD101 Demolition Site Plan
Scale: 1/16" = 1'-0"

DEMOLITION PLAN GENERAL NOTES

A. At hatched area remove existing structure complete including exterior walls, foundation, roof, as well as interior walls, furring, and doors and exterior structure as indicated.
B. General Contractor shall obtain all permits from City and comply with all City requirements to protect vehicular and pedestrian activity on all public sides of the site from construction and demolition activity.
C. Provide temporary barriers and partitions as necessary. General Contractor shall be responsible for providing safety measures for protection of pedestrians, vehicles, and all other existing construction to remain relative to the demolished scope of work described herein. The General Contractor shall be responsible to correct any damage caused by execution of construction activities.
D. Prior to any demolition, review all salvage items with Owner's Representative and Architect.
   • Salvage items to be returned to Owner shall include: (9) existing rooftop air handling units (RTUs).
E. Abatement of Hazardous Materials has been completed under separate contract. It is not anticipated that hazardous materials will be encountered on this project. In the event that any materials are encountered that are suspected to be hazardous, immediately inform the Architect and Owner's Representative.
F. Any and all debris generated by construction operations shall be cleaned up and removed DAILY, making the site ready for all subsequent subcontractors.
G. Provide shoring and temporary supports as necessary to insure structural stability and integrity of all elements of the structure during demolition.
H. Refer to Civil, Electrical, and Plumbing drawings and specifications for specific demolition and capping requirements.
I. Contractor shall protect all elements to remain
J. Refer to Landscape for requirements related to protection of existing trees adjacent to Area of Work
K. Unless indicated otherwise, all demolition debris / items are to be removed to a legal waste facility.
L. Refer to Civil for erosion control requirements.
M. General Contractor shall locate all adjacent utilities prior to demolition.
N. General Contractor shall become familiar with the existing site conditions prior to commencement of work and shall report any discrepancies between the drawings and field conditions to the Architect and Owner's Representative.

KEYED NOTES

1. Demolish existing building
2. Demolish parking attendant's kiosk
3. NOTE: GC SHALL NOT USE NORTH CURB CUT FOR ANY CONSTRUCTION VEHICLE TRAFFIC DUE TO PROTECTION REQUIREMENTS FOR EXISTING ADJACENT HERITAGE TREE. Refer to Landscape for additional requirements.
4. Demolish dumpster enclosure, coordinate disposal of dumpster w/ CoSF
5. Demolish site wall, see Civil regarding retaining
6. Demolish transformer, see Electrical
7. Existing CoSF bus shelter, coordinate with City of Santa Fe
8. Existing heritage tree to remain, see Landscape regarding protection
9. Demolish existing curb and paved islands, typ

STATE OF NEW MEXICO
DEVENDRAN
CONTRACTOR
No. 3137
12/15/23
REGISTERED ARCHITECT

Consultant

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

December 15, 2023	Plot Date 12/15/23
Drawn by	Checked by

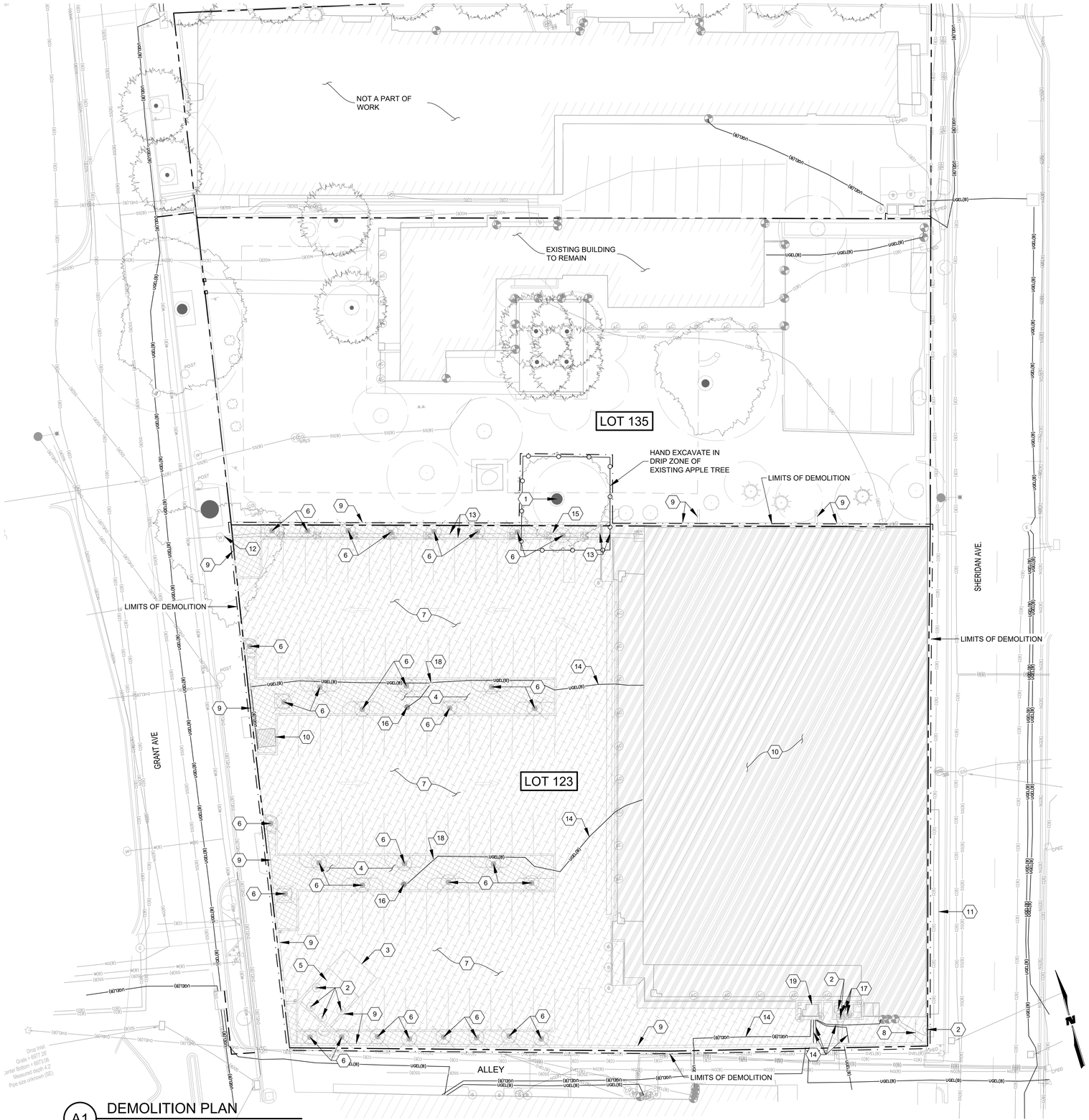
File
GOKM GSO Demo ASD1xx 231214 dh.vwx

Set
DEMOLITION SET

Sheet Title
Architectural Site Demolition Plan

ASD101

Sheet 08 of



A1 DEMOLITION PLAN

SCALE: 1" = 20'

0 10' 20'

KEYNOTES

1. EXISTING TREE TO REMAIN. PROTECT IN PLACE.
2. REMOVE AND DISPOSE BOLLARD.
3. REMOVE AND DISPOSE CONCRETE.
4. REMOVE AND DISPOSE BRICK PAVERS.
5. TRASH DUMPSTER TO BE REMOVED BY OWNER.
6. EXISTING TREE TO BE REMOVED.
7. REMOVE AND DISPOSE ASPHALT.
8. EXISTING GATE TO BE REMOVED.
9. EXISTING WALL TO BE REMOVED.
10. DEMOLISH AND REMOVE ALL EXISTING BUILDINGS COMPLETELY, INCLUDING CRAWL SPACES AND FOUNDATIONS. BACKFILL AND COMPACT TO MATCH EXISTING GRADE.
11. BUS SHELTER REMOVAL. COORDINATE WITH CITY OF SANTA FE.
12. CUT AND CAP WATER LINE @ METER.
13. REMOVE AND DISPOSE WATER LINE.
14. REMOVE AND DISPOSE OF ALL UNDERGROUND COMMUNICATION / ELECTRICAL WIRING AND CONDUIT. THIS IS A TYPICAL CONDITION THROUGHOUT THE SITE, AND IS NOT LIMITED SOLELY TO NOTED LOCATIONS.
15. REMOVAL OF SPRINKLER CONTROL BOXES BY OWNER.
16. REMOVE LIGHT POLE.
17. REMOVE GAS METER.
18. REMOVE EXISTING ELECTRICAL BOX.
19. REMOVE EXISTING ELECTRICAL PANEL.

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.
3. GENERAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF SALVAGE ITEMS WITH OWNER.
4. FOR EXISTING ELECTRICAL AND GAS DEMOLITION, COORDINATE WITH PNM (1-888-342-5766) & NM GAS COMPANY (505-697-4494) .
5. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING UTILITIES. LOCATIONS ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS.
6. OWNER SHALL SALVAGE SPRINKLER CONTROLLER, BACKFLOW PREVENTER, HOT BOX, SPRINKLER HEADS, IRRIGATION MATERIALS AND RELATED APPURTENANCES WITHIN THE PROPERTY BOUNDARY AS DESIRED. CONTRACTOR SHALL REMOVE & DISPOSE ALL REMAINING IRRIGATION MATERIALS AND CAP SYSTEM WATERLINES AT PROPERTY LINE. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND CONDUCT A SITE VISIT TO ESTIMATE TOTAL QUANTITIES OF REMOVAL.
7. ANY EXISTING MATERIALS OR ITEMS WITHIN THE LIMITS OF WORK, NOT SPECIFICALLY IDENTIFIED TO BE SALVAGED, SHALL BE DEMOLISHED OR REMOVED. RIGHT OF FIRST REFUSAL BY OWNER.
8. BUILDING ABATEMENT WILL BE BY SEPARATE CONTRACT WITH OWNER.
9. GENERAL CONTRACTOR TO DEMOLISH ANYTHING THAT WOULD STAND IN THE WAY OF A CLEAR AND UNOBSTRUCTED SITE, SUCH AS : IRRIGATION PIPING, IRRIGATION CONTROLLERS, FENCES, SIGNAGE, BOLLARDS, PARKING BUMPERS, CURBS AND GUTTERS, ETC. INCLUDING ALL UNDERGROUND UTILITIES.
10. GENERAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SITE CONDITIONS. PRIOR TO COMMENCEMENT OF WORK, THE GENERAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE ARCHITECT.
11. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFETY MEASURES FOR PROTECTION OF PEDESTRIANS, VEHICLES AND ALL OTHER EXISTING CONSTRUCTION TO REMAIN RELATIVE TO THE DEMOLISHED SCOPE OF WORK DESCRIBED HEREIN. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ANY DAMAGE CAUSED BY EXECUTION OF CONSTRUCTION ACTIVITIES.
12. UNLESS INDICATED OTHERWISE, ALL DEMOLITION DEBRIS / ITEMS ARE TO BE REMOVED TO A LEGAL WASTE FACILITY.
13. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT EACH SUBCONTRACTOR CLEANS UP AND REMOVES, DAILY, ANY AND ALL DEBRIS GENERATED BY DEMOLITION OPERATIONS.
14. BUILDING, STRUCTURE AND PAVING REMOVAL SHALL INCLUDE THE DISCONNECTION AND CAPPING OF ANY UTILITIES, FOOTINGS, SLABS, ASSOCIATED BASE MATERIAL AND SATISFACTORY OFF-SITE DISPOSAL OF ALL DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
15. TREE AND SHRUB REMOVAL SHALL INCLUDE THE FELLING, CUTTING, GRUBBING OUT OF ROOTS AND SATISFACTORY OFF-SITE DISPOSAL OF ALL STUMPS VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
16. EXISTING TREES AND SHRUBS TO REMAIN SHALL NOT BE ALTERED UNDER ANY CIRCUMSTANCES AND MUST REMAIN IN THE SAME CONDITION AS OBSERVED PRIOR TO CONSTRUCTION.
17. NO HEAVY MACHINERY IS TO BE USED WITHIN THE ROOT SYSTEM OF EXISTING TREES. EXCAVATION WITHIN ROOT SYSTEM ZONES IS TO BE PERFORMED BY HAND.
18. ANY ITEMS SCHEDULED TO REMAIN WHICH ARE DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE AT CONTRACTOR'S EXPENSE.
19. ANY ITEMS SCHEDULED TO BE STOCKPILED ON SITE WHICH ARE DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE AT CONTRACTOR'S EXPENSE.

LEGEND

- EXISTING ROW BOUNDARY
- LIMITS OF WORK
- SAWCUT
- HAND EXCAVATE IN DRIP ZONE
- BUILDING TO DEMOLISH
- MATERIAL TO REMOVE
- PLANTING TO BE REMOVED. LANDSCAPE ARCHITECT TO EVALUATE FOR SALVAGE.
- TREE TO BE REMOVED. LANDSCAPE ARCHITECT TO EVALUATE FOR SALVAGE.

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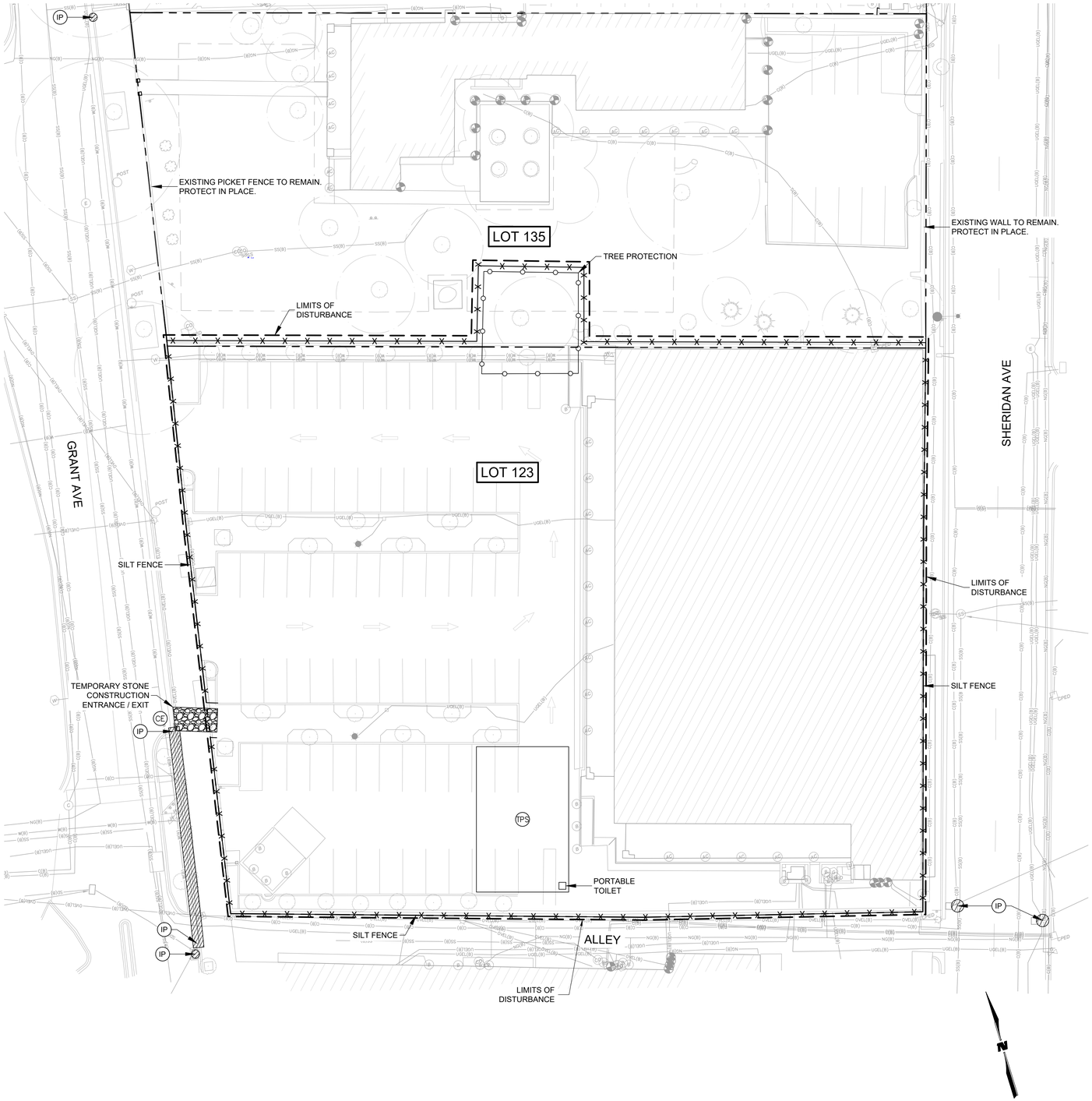
Date	Issue

Date: **December 15, 2023**
Drawn by: DY | Checked by: TJA/JEL
File: M:\MSD\22-600-553-0202_Disciplines_SHEETS\2_Sheets - civil\Demolition Set\20260553-DP01.dwg
Set: **DEMOLITION SET**
Sheet Title: DEMOLITION PLAN

C-101

Sheet 08 of



A1 EROSION CONTROL & SEDIMENTATION PLAN

SCALE: 1" = 20'

0 10' 20'

GENERAL EROSION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, THE PLAN NARRATIVE, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF NEW MEXICO NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY; THE SWPPP, ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA. EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

H. ALL WASH WATER (CONCRETE TRUCKS. VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEANUP FUEL OR CHEMICAL SPILLS AND LEAKS.

J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 21 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING THESE AREAS. PROVIDE ADEQUATE TEMPORARY IRRIGATION FOR GERMINATION.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

D. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

0. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, AS REQUIRED PER THE CONSTRUCTION GENERAL PERMIT. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.

U. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

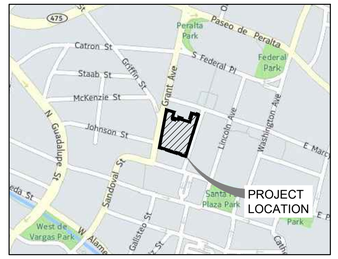
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.

VICINITY MAP



LEGEND

(SF) SILT FENCE

(IP) INLET PROTECTION

(IP) INLET PROTECTION FOR EXISTING TRENCH DRAIN

(CE) TEMPORARY STONE CONSTRUCTION EXIT

LIMITS OF DISTURBANCE

(TPS) TEMPORARY PARKING & STORAGE

TREE PROTECTION

GENERAL SHEET NOTES

1. REFER TO SHEETS C-504 THRU C-505 FOR EROSION CONTROL & SEDIMENTATION DETAILS.

MAINTENANCE:

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5' RAINFALL EVENT. AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING. OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. ANY TEMPORARY PARKING AND STORAGE AREAS SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND. ONCE IDENTIFIED, NOTE ON THE SWPPP PLAN.

6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS. SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY WAS BEEN REDUCED BY 50%.

SEQUENCE OF CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. CONSTRUCT THE SILT FENCES ON THE SITE.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA
4. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
5. PERFORM DEMOLITION ON THE SITE.
6. UNDERCUT GRADE AS REQUIRED.
7. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
8. FINISH GRADING THE SITE RAISE GRADES TO INDUCE DRAINAGE TOWARD TEMPORARY SEDIMENT BASINS

CAUTION:

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

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12/14/2023

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Date	Issue

Date: **December 15, 2023**

Drawn by: DY | Checked by: TJA/JEL

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Set: **DEMOLITION SET**

Sheet Title: EROSION CONTROL & SEDIMENTATION PLAN

C-102

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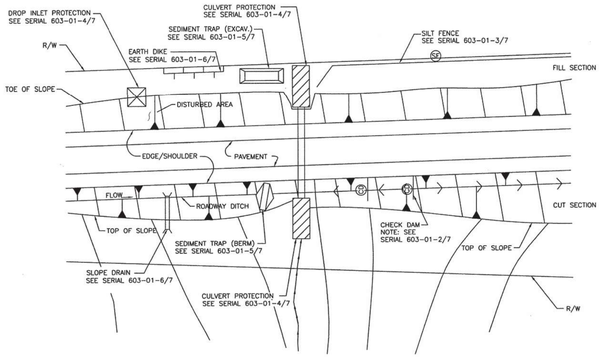


TYPICAL USAGE OF SELECTED EROSION AND SEDIMENT CONTROL MEASURES

STANDARD SYMBOLS FOR EROSION AND SEDIMENT CONTROL MEASURES

SILT FENCE	SF	PIPE SLOPE DRAIN	SEDIMENT TRAP, BERM
STRAW BALE	SB	DROP INLET PROTECTION	SEDIMENT TRAP, EXCAVATED
EARTH DIKE	ED	CULVERT PROTECTION	SEDIMENT BASIN
DIVERSION CHANNEL (SWALE)	DC	CHECK DAM	TRIANGULAR SEDIMENT FILTER DIKE (TSFD)

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES (T.E.S.C.M.)

GENERAL NOTES

1. THE SOIL RETENTION BLANKET INSTALLATION DETAILS SHOWN FOR CULVERT PROTECTION SHALL BE USED FOR ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES UTILIZING SOIL RETENTION BLANKETS UNLESS OTHERWISE NOTED.
2. ROCK PLATING USED IN THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE SHEETS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES UNLESS OTHERWISE INDICATED.
3. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PLACED WITHIN THE CONSTRUCTION CLEAR ZONE SHALL BE INSTALLED WITH 8:1 SLOPES PARALLEL TO TRAFFIC AND 4:1 SLOPES PERPENDICULAR TO TRAFFIC.
4. SEDIMENT TRAPS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN APPROXIMATELY 50% FILLED.
5. CHECK DAMS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE CHECK DAM.
6. CULVERT PROTECTIONS SHALL BE INSTALLED UPON INITIATION OF EARTH WORK ACTIVITIES AND MAINTAINED AS MUCH AS PRACTICAL UNTIL STABILIZATION IS COMPLETED AND ACCEPTED. CULVERT PROTECTIONS MAY BE REMOVED FOR PERIODS OF TIME AS REQUIRED DURING CONSTRUCTION TO COMPLETE ADJACENT IMPROVEMENTS.
7. THE CONTRACTOR MAY CONSTRUCT AN EARTH DIKE AS SHOWN, OR RELOCATE THE CHECK DAMS AS CONSTRUCTION PROGRESSES. NO DIRECT PAYMENT SHALL BE MADE FOR RELOCATION OF THE CHECK DAMS.
8. STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

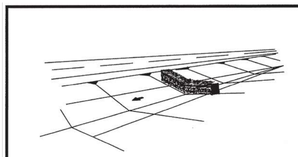
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES

APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-1/7 SERIAL 1 OF 7



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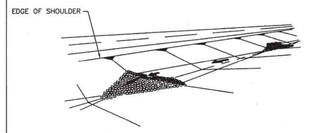

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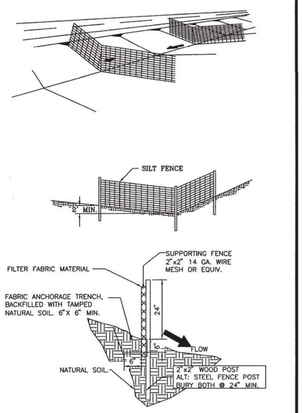


TYPE I SILT FENCE

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

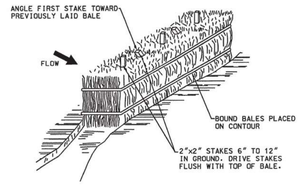
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES CHECK DAMS

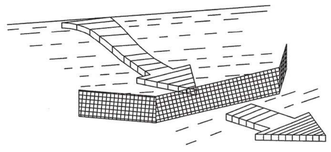
APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-2/7 SHEET 2 OF 7



TYPE II
STRAW BALE OPTION



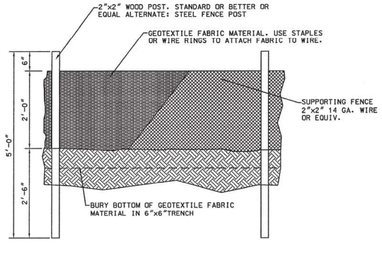
TYPE I
SILT FENCE

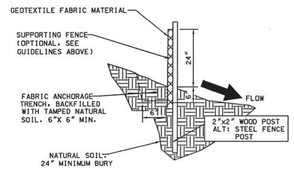
NOTES: SILT FENCE AND CHECK DAM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE POST SPACING FOR SILT FENCES TO MINIMIZE MAINTENANCE.

1. POST SPACING SHALL BE 4 FT. MAXIMUM WITHOUT SUPPORTING FENCE. 10 FT. MAXIMUM WITH SUPPORTING FENCE.
2. POSTS FOR 4 FT. MAXIMUM POST SPACING SHALL BE 2 INCH SQUARE NOMINAL SIZE OR HEAVIER WOOD POSTS. OR STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 2 LBS. PER. LINEAR FOOT.

   POSTS FOR 10 FT. MAXIMUM POST SPACING SHALL BE 4 INCH SQUARE NOMINAL SIZE OR HEAVIER WOOD POSTS. OR STEEL POSTS AS SPECIFIED ABOVE.
3. SUPPORTING FENCE SHALL BE WIRE MESH (14 GA. MIN.. 1 INCH MAX. MESH OPENINGS). SNOW FENCE. PLASTIC FENCE OR APPROVED.
4. SUPPORTING FENCE SHALL BE FASTENED SECURELY TO POSTS WITH STAPLES OR WIRE TIES. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO SUPPORTING FENCE WITH WIRE TIES SPACED AT 2 FT. CENTERS ALONG THE TOP AND MID-SECTION. WHEN A SUPPORTING FENCE IS NOT USED. GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO POSTS WITH STAPLES OR WIRE TIES.
5. WHEN SILT FENCE IS USED FOR CHECK DAMS INSTALLED IN DITCHES. A SUPPORTING FENCE SHALL BE PROVIDED. WITH MAXIMUM POST SPACING OF 10 FT.
6. STANDARD "T" OR "U" SECTION STEEL POSTS SHALL NOT BE USED WITHIN THE CONSTRUCTION CLEAR ZONE RECOVERY AREA.
7. STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.





NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES SILT FENCE

APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY___ CHECKED BY___

603-01-3/7

A1 EROSION CONTROL & SEDIMENTATION DETAILS

SCALE: NTS

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12/14/2023

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Date	Issue

Date
December 15, 2023

Drawn by: DY
Checked by: TJA/JEL

File
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Set
DEMOLITION SET

Sheet Title
EROSION CONTROL & SEDIMENTATION DETAILS

C-103

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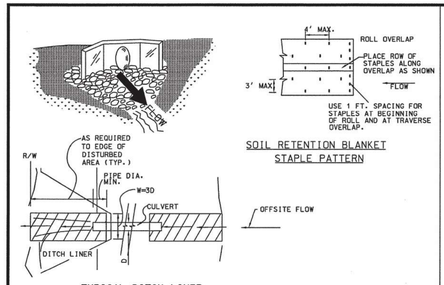
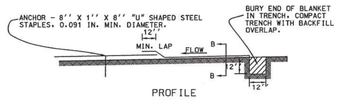


SOIL RETENTION BLANKET
STAPLE PATTERN

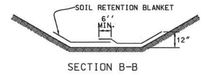
TYPICAL DITCH LINER
INSTALLATIONS AT CULVERTS



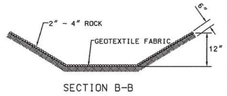
PROFILE
DITCH LINER

NOTES: CULVERT PROTECTION

1. WHEN CULVERT PROTECTION IS SPECIFIED. EITHER SOIL RETENTION BLANKETS OR SOIL RETENTION ROCK MAY BE PROVIDED.
2. THE CULVERT PROTECTION WIDTH REQUIRED SHALL BE IN ACCORDANCE WITH THESE DETAILS UNLESS SPECIFIED OTHERWISE.
3. THE SOIL RETENTION BLANKET INSTALLATION SHOWN OUTLINES MINIMUM REQUIREMENTS. MANUFACTURER'S RECOMMENDATIONS SHALL BE USED IF THEY ARE MORE STRINGENT.

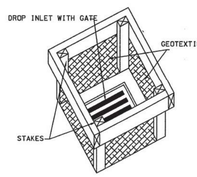


SECTION B-B



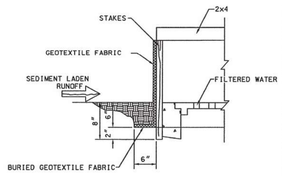
SECTION B-B

CULVERT PROTECTION

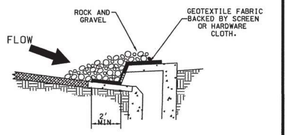


TYPE I

NOTE: WHEN SPECIFIED. ROCKS OR STRAW BALES CAN BE SUBSTITUTED FOR SILT FENCE.



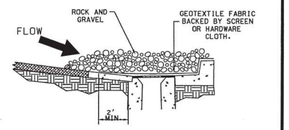
DROP INLET PROTECTION



TYPE I
CURB OPENING

NOTES: GRAVEL INLET PROTECTION

1. THIS INSTALLATION IS FOR A TYPE I CURB DROP INLET ONLY. THE TYPE II. III TO "N" INSTALLATION IS SIMILAR.
2. THE SPACING OF THE LONGITUDINAL BRACING SHALL NOT EXCEED 5 FT.



TYPE II
CURB DROP INLET

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)

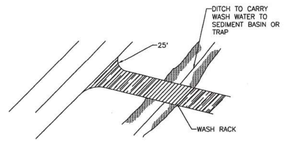
NEW MEXICO
DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

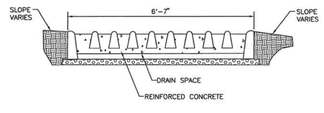
TEMPORARY EROSION & SEDIMENT CONTROL MEASURES
CULVERT & DROP INLET PROTECTION

APPROVED Raymundo Var Haus 11/21/09
DESIGN ENGINEER DATE

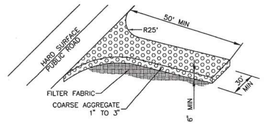
DESIGNED BY___ DRAWN BY___ CHECKED BY___

603-01-4/7

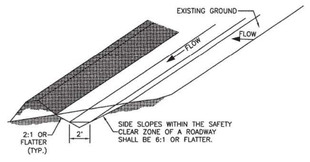




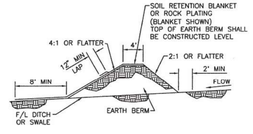
WASH RACK



OFFSITE TRACKING PREVENTION



TYPICAL SWALE CONFIGURATION



FILTER FABRIC DIVERSION DIKE

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)

NEW MEXICO
DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

T.E.S.C.M.
OFFSITE TRACKING
PREVENTION & DIVERSION DIKE

APPROVED Raymundo Var Haus 11/21/09
DESIGN ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-7/7 SHEET 7 OF 7

DIVERSION DIKE

A1 EROSION CONTROL & SEDIMENTATION DETAILS

SCALE: NTS

JAMES E. LOPEZ
NEW MEXICO
24897
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12/14/2023

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
December 15, 2023

Drawn by: DY
Checked by: TJA/JEL

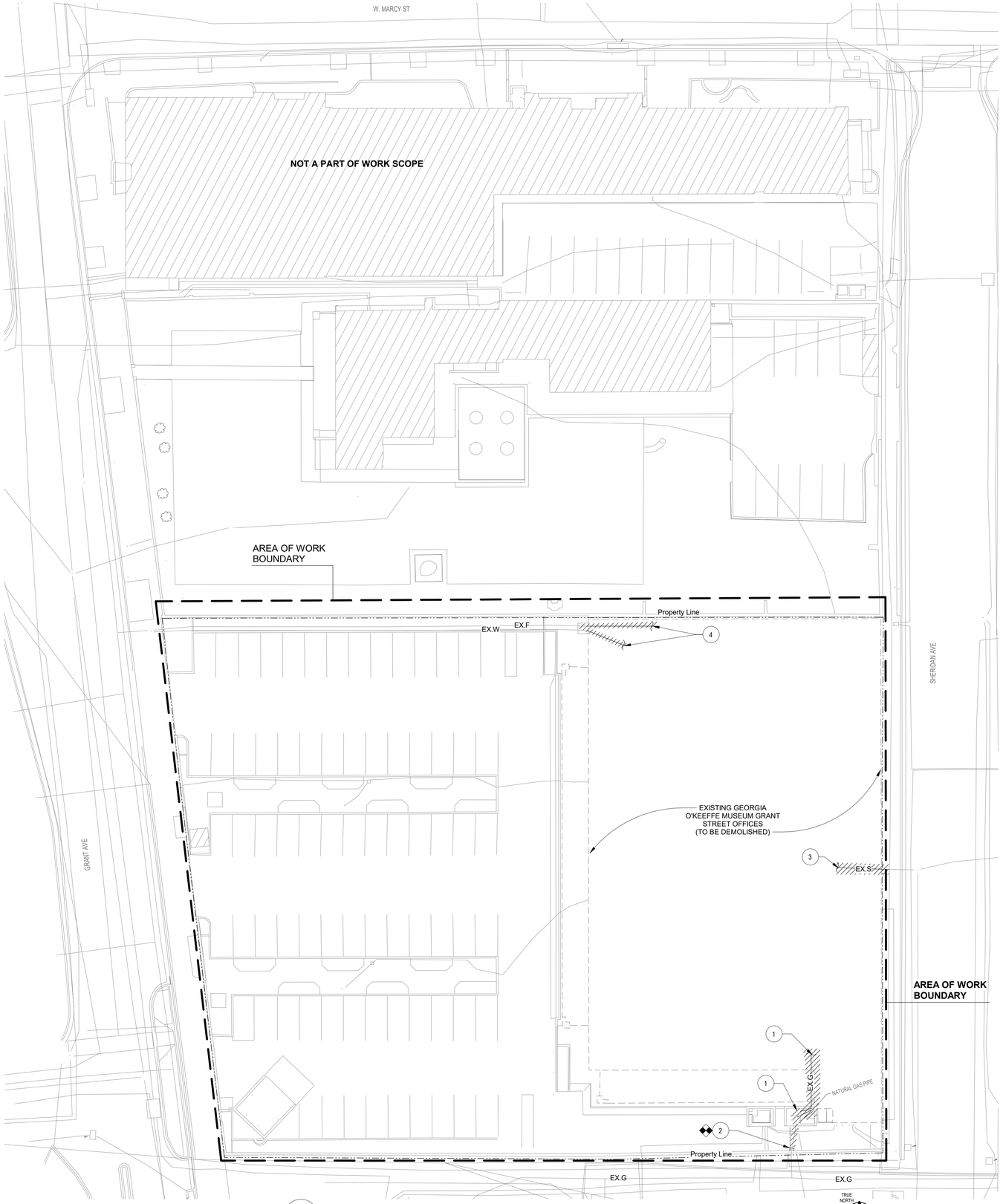
File
M:\MSD\22-600-553-D02_Disciplines_SHEETS\2_Sheets - civil\Demolition Set\220053-EC02.dwg

Set
DEMOLITION SET

Sheet Title
EROSION CONTROL & SEDIMENTATION DETAILS

C-104

Sheet 11 of



1 PDS101 PLUMBING DEMOLITION SITE PLAN
SCALE: 1" = 20'-0"

SCHEMATIC SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
XX		KEYED NOTE
		EXTENT OF DEMOLITION
		EXISTING PIPE TO BE REMOVED
		EXISTING PIPING

PLUMBING SITE SYMBOLS

DESCRIPTION	EXISTING
EXISTING SANITARY SEWER	EX.S
EXISTING COLD WATER SUPPLY	EX.W
EXISTING FIRE PROTECTION	EX.F
EXISTING NATURAL GAS	EX.G
EXISTING CLEANOUT	CO
EXISTING NATURAL GAS METER	G
EXISTING SANITARY MANHOLE	MH
EXISTING BUILDING FOOTPRINT	

DEMOLITION GENERAL NOTES

A. OVERALL DEMOLITION SCOPE OF PROJECT IS TO DEMOLISH THE EXISTING GEORGIA O'KEEFFE MUSEUM GRANT STREET OFFICES BUILDING, STRUCTURES AND SITE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO: PERMANENT STRUCTURES; ABOVE GROUND & UNDERGROUND MEP SYSTEMS INSIDE STRUCTURES, UNDER STRUCTURES AND ACROSS SITE. ALL MEP SYSTEMS ARE TO BE REMOVED IN THEIR ENTIRETY; NONE ARE TO BE ABANDONED IN PLACE.

B. COORDINATE WITH CIVIL DEMOLITION PLAN **C-102** FOR EXISTING BUILDING AND THE UTILITIES ON THE ENTIRE PROPERTY.

C. FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND COORDINATE ALL DISCONNECTION OF UTILITIES WITH ALL APPROPRIATE UTILITY COMPANIES.

D. REMOVE AND DISPOSE BUILDING WATER LINE. COORDINATE WITH CITY OF SANTA FE WATER UTILITY. SEE CIVIL PLAN **C-102**.

E. REMOVE AND DISPOSE OF BUILDING SANITARY SEWER LINE. COORDINATE WITH CITY OF SANTA FE WATER UTILITY. SEE CIVIL PLAN **C-102**.

DEMOLITION KEYED NOTES

1. DISCONNECT EXISTING SOUTH SIDE GAS DISTRIBUTION PIPING FROM GAS METERS TO ALLOW FOR DEMOLITION OF EXISTING BUILDING, INCLUDING ALL GAS PIPING INSIDE, UNDER AND AROUND STRUCTURE. EXISTING GAS METERS ARE LOCATED ON EXTERIOR OF SOUTH SIDE OF EXISTING BUILDING. SEE CIVIL PLAN **C-102**.
2. COORDINATE ALL GAS OUTAGES EFFECTING NEIGHBORING BUILDINGS WITH NM GAS COMPANY (505-697-4494), PRIOR TO DEMOLISHING BELOW GRADE GAS LINE TO WITHIN 5 FEET OF PROPERTY BOUNDARY. CAP AND ABANDON. PROVIDE & BURY WARNING TAPE 18" ABOVE GAS LINE WITH A 30" STANDARD ALUMINUM PIPE MOUNT WITH CAST ALUMINUM BASE THAT HOUSES A STRONG, PERMANENT MAGNET; BERNTSEN STANDARD ALUMINUM BASE MONUMENT OR EQUAL. COORDINATE WITH GAS UTILITY. COORDINATE WITH CIVIL PLAN **C-102**.
3. REMOVE ENTIRE EXISTING BUILDING SANITARY SYSTEM. SEE CIVIL PLAN **C-102**.
4. REMOVE ENTIRE WATER AND FIRE PROTECTION BUILDING SYSTEM. SEE CIVIL PLAN **C-102**.

I LIR MESITI NEW MEXICO 20505 PROFESSIONAL ENGINEER

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
DEMOLITION PERMIT SET
123 & 135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **December 15, 2023**
Drawn by: **SNB** | Checked by: **IM**
File: **8621_MEP_Georgia O'Keeffee Museum.rvt**
Set: **DEMOLITION PERMIT SET**
Sheet Title: **PLUMBING DEMOLITION SITE PLAN**

PDS101

Sheet 12 of

ELECTRICAL SYMBOL LEGEND (NOT ALL SYMBOLS APPLY TO THIS PROJECT)

UPDATED: 09/07/2016

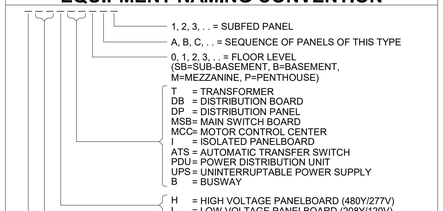
ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CLOCK
CLF	CURRENT LIMITING FUSE
CO	CONDUIT ONLY
CU	COPPER
D	DIMMING
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DIA	DIAMETER
E	EMERGENCY
EC	EMERGENCY, CRITICAL
EG	ENGINE GENERATOR
EL	EMERGENCY, LIFE SAFETY
EQ	EMERGENCY, EQUIPMENT
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FMS	FACILITY MANAGEMENT SYSTEM
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
G OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND.
HOA	HAND-OFF-AUTOMATIC.
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR.
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM
MM	MIXED MEDIA
MTS	MANUAL TRANSFER SWITCH
MVA	MEGAVOLT AMPS
N	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NORMAL
NM	NEW MEXICO
NO	NORMALLY OPEN
O/H	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PC	PHOTOCELL
PH	PHASE
PMCS	POWER MONITORING AND CONTROL SYSTEM
R	REMOVED/REMOVAL
RC	ROOM CONTROLLER
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TEMP	TEMPORARY
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP.	TYPICAL
UC	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WALL MOUNTED
WG	WEATHERPROOF AND GFCI
WP	WEATHERPROOF
XFER	TRANSFER
XFMR (TRANSF)	TRANSFORMER

REFERENCE TAGS

SYMBOL	DEFINITION
⬡	KEYED NOTE REFERENCE
VAV-9	MECHANICAL EQUIPMENT REFERENCE
+44"	DENOTES MOUNTING HEIGHT AFF
▭	KITCHEN EQUIPMENT REFERENCE
⬭	MEDICAL EQUIPMENT REFERENCE

EQUIPMENT NAMING CONVENTION



EXAMPLES:

A. SES1 (SERVICE ENTRANCE SECTION #1)
B. 1H1A (SERVED FROM SES#1, 480/277 NORMAL, LEVEL 1, FIRST BOARD)
C. 1EQH1A (SERVED FROM MAIN EMER SWBD #1, 480/277 EQUIP POWER, LEVEL 1, FIRST BOARD)

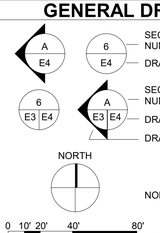
RACEWAY & CONDUCTORS

BRANCH CIRCUIT GENERAL INFORMATION:

BRANCH CIRCUITS FROM OVERCURRENT PROTECTION (20A) TO FURTHEST DEVICE SHALL NOT EXCEED 75 FEET FOR #12AWG COPPER AND 150 FEET FOR #10AWG COPPER; MEASURED ALONG CONDUCTORS ROUTING PATH. BRANCH CIRCUITS EXCEEDING 150 FEET WILL BE SIZED SO THAT VOLTAGE DROP DOES NOT EXCEED 3%.

SYMBOL	DESCRIPTION
= GROUND = HOT/PHASE = NEUTRAL = SWITCH LEG	CONDUCTOR IDENTIFICATION SYMBOLS. REFER TO PLANS FOR COMBINATION USE. CONDUCTOR IDENTIFICATION MOSTLY USED IN HOMERUN LOCATION, BUT CAN ALSO BE USED IN BRANCH CIRCUITING WHERE APPLIED. GROUND CONDUCTORS WILL BE INSTALLED IN ALL RACEWAYS WHETHER SHOWN OR NOT.
LA-1	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). SYMBOL REPRESENTS A MULTI-BRANCH CIRCUIT. NUMBER OF CONDUCTORS IN HOMERUN WILL INCLUDE A SEPARATE NEUTRAL FOR EACH CIRCUIT PHASE CONDUCTOR. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL TWO OR THREE POLE CIRCUIT BREAKERS. CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. NEUTRAL MAY BE USED WHERE INDICATED ON PLAN. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
	CONCEALED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT IN WALLS OR IN CEILING SPACE
	UNDERGROUND RACEWAY BETWEEN DEVICES AND OR EQUIPMENT
	EXPOSED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT ON WALLS OR CEILINGS
DOWN UP	CONDUIT TURNS
	CONDUIT STUBBED AND CAPPED
B	BUSWAY
G	GROUNDING CONDUCTOR
	CABLE TRAY - POWER AND TELECOMMUNICATIONS
T	TELECOMMUNICATIONS RACEWAY
D	DATA RACEWAY
V/D	VOICE/DATA COMBINATION RACEWAY
FA	FIRE ALARM RACEWAY

GENERAL DRAWING SYMBOLS



SECTION/ELEVATION LETTER OR DETAIL NUMBER
DRAWING NUMBER WHERE DETAILED
SECTION/ELEVATION LETTER OR DETAIL NUMBER
DRAWING NUMBER WHERE DETAILED
DRAWING NUMBER WHERE TAKEN
NORTH ARROW OR MATCH ARCHITECT'S
SCALE BAR OR MATCH ARCHITECT'S

DEMOLITION

SYMBOL	DESCRIPTION	NOTES
	DASHED SYMBOL INDICATES EXISTING DEVICE OR EQUIPMENT TO BE REMOVED	REFER TO DEMOLITION PLANS FOR ADDITIONAL INFORMATION
R	REMOVE EXISTING RACEWAY IN ALL ACCESSIBLE AREAS. CAPPED AND ABANDONED IF IN UNACCESSIBLE AREA	
	SOLID SYMBOL, LIGHTER IN COLOR INDICATES EXISTING DEVICE OR EQUIPMENT TO REMAIN	
EX	EXISTING CONDUIT TO BE REUSED	

DEVICES

DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST RECEPTACLE TYPES):

- BLANK FOR NORMAL POWER
- G = GFCI RATED
- IG = ISOLATED GROUND
- T = TAMPERPROOF
- WG = WEATHERPROOF AND GFCI
- WP = WEATHERPROOF (IN-USE COVER)
- CL = CLOCK
- TV = TELEVISION

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
X	IN FLOOR DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS	FLOOR	VARIES
X	IN FLOOR DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	COMBINATION DUPLEX RECEPTACLE AND COMMUNICATIONS FLOORBOX. DEVICE CONFIGURATION AS INDICATED ON PLANS.		
X	CEILING MOUNTED DUPLEX RECEPTACLE	CEILING	FLUSH
X	CEILING MOUNTED DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DUPLEX RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	COMBINATION POWER/COMMUNICATION IN CEILING OUTLET. CONFIGURATION AS INDICATED ON PLANS		
X	SIMPLEX RECEPTACLE	WALL, UON	+18", UON
X	DUPLEX RECEPTACLE		
X	DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	EMERGENCY DUPLEX RECEPTACLE		
X	EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	SPECIAL PURPOSE RECEPTACLE. NEMA CONFIGURATION AND AMPERAGE AS NOTED ON PLANS		
	MULTI-OUTLET ASSEMBLY (SURFACE MOUNTED RACEWAY)	VARIES SEE PLANS	VARIES SEE PLANS
	COMBINATION POWER/COMMUNICATION POLE. CONFIGURATION AS NOTED ON PLANS		
J	WALL MOUNTED CODE SIZE J-BOX	VARIES SEE PLANS	VARIES SEE PLANS
J	CODE SIZE JUNCTION BOX		
P	CODE SIZE PULLBOX (OR AS SIZED ON PLAN)		
	PUSHBUTTON (EMERGENCY POWER OFF - EPO)		
PC	PHOTOCELL		
	LIGHTNING PROTECTION AIR TERMINAL	ROOF	VARIES +44" UON
T	THERMOSTAT	WALL	
CB 30/3R	ENCLOSED CIRCUIT BREAKER. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON	VARIES	VARIES
30/1	NON-FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
30/3R	FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
0/1	MOTOR STARTER. STARTER SIZE INDICATED BY NUMBER/NEMA ENCLOSURE RATING, SINGLE SPEED UON		
1/30/3R	COMBINATION FUSIBLE DISCONNECT SWITCH AND MOTOR STARTER. NEMA STARTER SIZE/AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
5	MOTOR. NUMBER INDICATES HORSEPOWER RATING FOR 1HP AND LARGER	N/A	N/A
F	MOTOR. "F" INDICATES FRACTIONAL HORSEPOWER		

EQUIPMENT

SYMBOL	DESCRIPTION
MSB	MAIN SWITCHBOARD. DASHED LINES INDICATE CLEARANCES.
DB	DISTRIBUTION BOARD OR PANEL. DASHED LINES INDICATE CLEARANCES.
H1A	FLUSH MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
L1A	SURFACE MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
MCC	MOTOR CONTROL CENTER. DASHED LINES INDICATE CLEARANCES.
T1A	DRY TYPE TRANSFORMER (15kVA OR ABOVE), WITH EQUIPMENT TAG (TAG INSIDE OR OUTSIDE, DEPENDING ON SIZE). IN MOST CASES, ACTUAL SIZE SHOWN ON PLANS (ELECTRICAL ROOMS).
T	DRY TYPE TRANSFORMER (LESS THAN 15kVA), WITH NO EQUIPMENT TAG. SIZE, TYPE AND LOCATION NOTED ON PLANS.
VFD	VARIABLE FREQUENCY DRIVE
UPS-A	UNINTERRUPTABLE POWER SUPPLY. DASHED LINES INDICATE CLEARANCES.
ATS-1	AUTOMATIC TRANSFER SWITCH. DASHED LINE INDICATE CLEARANCES.
G	GROUND BAR

LIGHTING

REFER TO LUMINAIRE SCHEDULE FOR ALL LUMINAIRE TYPES WHETHER WALL MOUNTED OR CEILING MOUNTED.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	HATCHING INDICATES EMERGENCY LIGHTING. HATCH WILL BE MODIFIED FOR EACH LUMINAIRE TYPE. EMERGENCY LUMINAIRE DESIGNATED WITH "E" IN TYPE DESIGNATION.	VARIES	REFER TO LIGHTING SCHEDULE
3 A a	RECESSED MOUNTED LUMINAIRE. SMALL CASE "a" DENOTES SWITCHING, NUMBER "3" DENOTES BRANCH CIRCUITING. SYMBOL "A" DENOTES LUMINAIRE TYPE	CEILING	
	SURFACE MOUNTED LUMINAIRE. LUMINAIRE TYPE AS INDICATED ON PLANS		
	LINEAR DIRECT/INDIRECT LUMINAIRE. CABLE OR STEM MOUNTED		
	DOWN LIGHT LUMINAIRE; CEILING MOUNTED		
	WALL MOUNTED LUMINAIRES	WALL	
	TRACK MOUNTED LUMINAIRES	SURFACE	
	STRIP LUMINAIRE		
WALL CEILING	EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS	VARIES	
WALL CEILING	DOUBLE FACE EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS		
	EMERGENCY BATTERY PACK LUMINAIRE (BUG-EYE/FROG-EYE)		
	SINGLE HEAD, POLE MOUNTED LUMINAIRE	EXTERIOR	AS DETAILED
	DOUBLE HEAD, POLE MOUNTED LUMINAIRE		
$ X	DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST SWITCH TYPES): a = SMALL CASE LETTER DENOTES SWITCHING CONTROL; 2 = DOUBLE POLE TOGGLE SWITCH; 3 = THREE-WAY TOGGLE SWITCH; 4 = FOUR-WAY TOGGLE SWITCH; P = PILOT LIGHT TOGGLE SWITCH; M = MOMENTARY CONTACT SWITCH; K = KEY OPERATED SWITCH; WP = WEATHERPROOF TOGGLE SWITCH; T = MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTION; D = DIMMER SWITCH; TW= TWIST TIMER SWITCH	WALL	+44" UON
OS	WALL MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS		
OS	CEILING MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS	CEILING	SURFACE
DL	DAY-LIGHTING SENSOR; TYPE AS INDICATED ON PLANS		
RC	ROOM CONTROLLER; TYPE AS INDICATED ON PLANS		

UTILITIES

SYMBOL	DESCRIPTION
	DISTRIBUTION POLE FOR OVERHEAD ELECTRICAL OR COMMUNICATIONS AS INDICATED ON PLAN.
X X X	OVERHEAD UTILITY AND OR SYSTEM DISTRIBUTION. 3PH = THREE PHASE; 1PH = SINGLE PHASE; P = ELECTRICAL PRIMARY; S = ELECTRICAL SECONDARY; T = TELECOMMUNICATION; TV = TELEVISION; E = EMERGENCY POWER; ATSC = AUTOMATIC TRANSFER SWITCH CONTROL; N = NEW; EX = EXISTING
X X X	UNDERGROUND UTILITY AND OR SYSTEM DISTRIBUTION.
UT	UTILITY OR FACILITY TRANSFORMER
S	PAD MOUNTED SWITCH
CC	CONNECTION CABINET (UTILITY METER MOUNT)
PM	PRIMARY SITE METER ENCLOSURE
ME	METER ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
CT	CT ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
MH	MANHOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
HH	HAND HOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
EG	ENGINE GENERATOR
TP	TELECOMMUNICATION PEDESTAL
TVP	TELEVISION PEDESTAL

FIRE ALARM

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
FACP	FIRE ALARM CONTROL PANEL	WALL	-
FATC	FIRE ALARM TERMINAL CABINET (EQUIPMENT NAMING CONVENTION PER PLANS)		
FAA	FIRE ALARM ANNUNCIATOR PANEL	WALL	+44"
F	PULL STATION		
	FIREMAN'S TELEPHONE OUTLET		
F	HORN NOTIFICATION	WALL	+80" UON
S	SPEAKER NOTIFICATION		
C	CHIME NOTIFICATION		
	COMBINATION SPEAKER AND CHIME NOTIFICATION		
	SPEAKER/HORN WITH STROBE LIGHT		
	STROBE LIGHT ONLY		
B	BELL (GONG)		
P	PHOTOELECTRIC SMOKE DETECTOR	CEILING	SURFACE
I	IONIZATION SMOKE DETECTOR		
R/F	COMBINATION RATE OF RISE / FIXED TEMPERATURE		
F	FIXED TEMPERATURE; TEMPERATURE AS NOTED ON PLANS OR SPECIFICATIONS		
R	RATE OF RISE ONLY		
BT	BEAM TRANSMITTER	CEILING OR WALL	VARIES
BR	BEAM RECEIVER		
U	UNDER FLOOR SMOKE DETECTOR	UNDER FLOOR	SEE PLANS
	DUCT DETECTOR	AT DUCT	SEE PLANS
	FIRE/SMOKE DAMPER		
PS	PRESSURE SWITCH	PIPE	VARIES
TS	TAMPER SWITCH		
FS	FLOW SWITCH		
PIV	POST INDICATOR VALVE		
M	MAGNETIC DOOR HOLDER	VARIES	SEE PLANS
R	CONTROL RELAY		
MM	MONITOR MODULE		
	REMOTE ALARM INDICATING LIGHT		
R	ADDRESSABLE/SUPERVISED RELAY		

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
300/400	CIRCUIT BREAKER; TRIP SETTING/FRAME SIZE OR NO. OF POLES. SETTINGS AND PROTECTION AS NOTED ON PLANS
300/400	DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
300/400	MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
208Y/120V T1A 75kVA K-4 480V	TRANSFORMER. TRANSFORMER NAME, TRANSFORMER kVA RATING, PRIMARY VOLTAGE AND WIRING CONFIGURATION, SECONDARY VOLTAGE, K RATING (IF APPLICABLE)
3000/5	CURRENT TRANSFORMER, NUMBER "3000/5" DENOTES RATIO.
	POTENTIAL TRANSFORMER.
300A	DISCONNECT SWITCH. "300A" DENOTES AMPERAGE RATING
300A	FUSE. "300A" DENOTES AMPERAGE RATING
G	GROUND FAULT PROTECTION
ST	SHUNT TRIP OPERATOR
	GROUND CONNECTION
	TRANSFER SWITCH. SEE PLANS FOR TYPE OF SWITCH
	SURGE ARRESTOR
SPD	SURGE PROTECTIVE DEVICE
KW	KILOWATT METER
M	ELECTRONIC METER
K1	KIRK KEY INTERLOCK No.1
R1	RELAY No.1
AS	AMMETER SWITCH
A	AMMETER
VS	VOLTMETER SWITCH
V	VOLTMETER
	DELTA CONNECTED
	WYE CONNECTED
	GENERATOR
VFD	VFD CONNECTION
5	MOTOR CONNECTION
UPS	UPS

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Permit Set

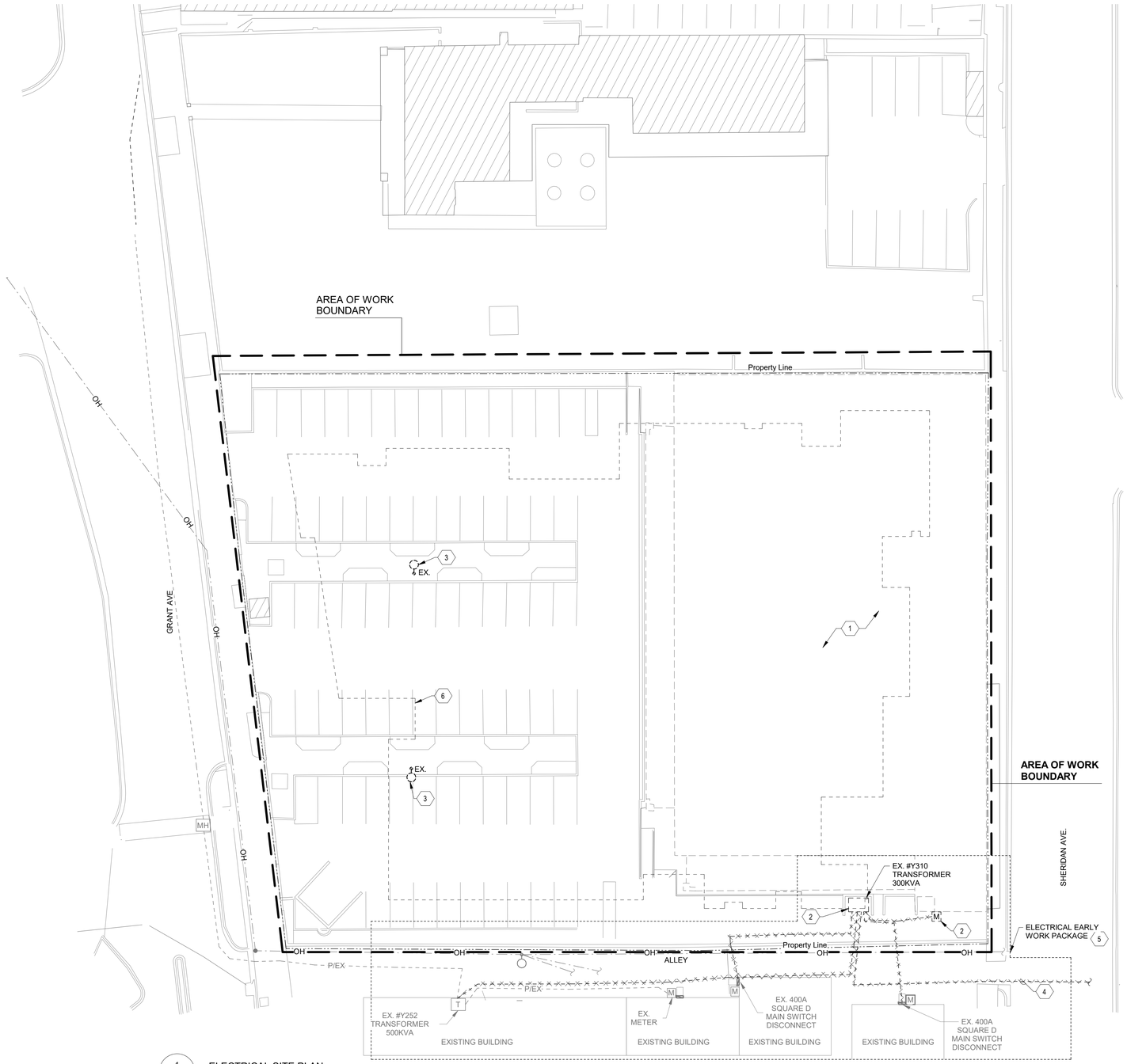
123 & 135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: December 15, 2023
Drawn by: LMC
Checked by: OU
File: 8621_MEP_Georgia O'Keeffe Museum.rvt
Set: Demolition Permit Set
Sheet Title: ELECTRICAL LEGEND

E-001

Sheet 13 of



1 ES101 ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

DEMOLITION GENERAL NOTES

A. INFORMATION SHOWN IS DIAGRAMMATIC AND IS NOT INTENDED TO REPRESENT PHYSICAL ARRANGEMENTS, LOCATIONS, ROUTING OR CONNECTIONS. PHYSICAL LAYOUTS ARE TO BE COORDINATED WITH OTHER UTILITIES, AND PER FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.

B. WHERE CIRCUITS EXTEND FROM AREAS OUTSIDE OF DEMOLISHING SCOPE CONTRACTOR IS TO SPICE, RE-ROUTE, AND EXTEND CIRCUIT AS NECESSARY TO MAINTAIN CONTINUITY TO REMAINING DEVICES.

C. CONTRACTOR SHALL TAKE ADEQUATE MEASURES TO PROTECT EXISTING FLOOR, WALL AND CEILING FINISHES AND EXISTING EQUIPMENT SCHEDULED TO REMAIN FROM DAMAGE. CONTRACTOR SHALL PREVENT THE ACCUMULATION OF AND CONSTRUCTION DEBRIS. PROVIDE SECURE SEALS USING PLASTIC SHEETS OR OTHER SUITABLE BARRIERS TO PROTECT FINISHES AND EQUIPMENT. ANY DAMAGE TO SUCH ITEMS SHALL BE REPAIRED OR THE ITEM REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER. CONTRACTOR TO PROVIDE DOCUMENTATION AND INVENTORY OF ITEMS TO REMAIN/FINISH STATE PRIOR TO CONSTRUCTION ACTIVITIES. INVENTORY TO BE COMPLETED PRIOR TO START OF DEMOLITION WORK.

D. THIS DRAWING INDICATES THE INTENT OF DEMOLITION AT EXISTING BUILDING. NO ATTEMPT HAS BEEN MADE TO SHOW EACH AND EVERY SURFACE, ELEVATION, DETAIL, ETC. THE CONTRACTOR IS ADVISED TO VISIT THE JOB SITE TO BECOME FAMILIAR WITH THE SCOPE OF WORK PRIOR TO BIDDING. EXISTING DRAWINGS OF RECORD FOR THE BUILDING ARE AVAILABLE UPON REQUEST.

E. ALL DEMOLITION WORK SHALL BE COORDINATED WITH RENOVATION PLANS AND NEW CONSTRUCTION PLANS.

F. UTILITIES: LOCATE ALL EXISTING ACTIVE UTILITIES AND DETERMINE ALL REQUIREMENTS FOR DISCONNECTION, RECONNECTION, REROUTING OR CAPPING. CONTRACTOR SHALL PROTECT ALL UTILITIES DESIGNATED TO REMAIN FROM DAMAGE. CONTRACTOR SHALL COORDINATE ANY UTILITY INTERRUPTIONS WITH OWNER A MINIMUM OF 10 DAYS IN ADVANCE.

G. ALL DEMOLITION DRAWINGS INDICATE THE GENERAL SCOPE OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH AND REMOVE ALL EXISTING BUILDING ELEMENTS REQUIRED TO COMPLETE NEW WORK.

KEYED NOTES

1. EXISTING BUILDING AND SERVICES ARE TO BE REMOVED IN ITS ENTIRETY.
2. EXISTING EQUIPMENT TO BE REMOVED IN ITS ENTIRETY.
3. REMOVE EXISTING LUMINAIRE, PLUS ASSOCIATED RACEWAY AND CONDUCTORS BACK TO NEXT REMAINING DEVICE.
4. EXISTING SERVICE UTILITY LINE TO BE REMOVED AND RECONFIGURED PER PNM REQUIREMENTS.
5. FOR ALL ALLEY WORK REFER TO ELECTRICAL EARLY WORK PACKAGE FOR NEW LAYOUT.
6. NEW BUILDING FOOTPRINT. SHOWN FOR REFERENCE.

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GEORGIA O'KEEFFE MUSEUM
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Sheet Title: ELECTRICAL DEMO SITE PLAN

ES101

Sheet 14 of

Bridgers & Paxton Project No: 8621 12/15/2023 7:59:17 AM D:\Revit 2023\Projects\8621_MEP_Georgia O'Keeffe Museum_LMMoreno-Chavez.rvt

The Applicant wishes to amend the previously approved Development Plan, as the design of the new museum building has evolved since the original approval. The project scope includes the construction of a new 56,288 square foot museum building at 123 Grant Avenue and landscape improvements to both 123 Grant Avenue and 135 Grant Avenue. The new building at 123 Grant will be the museum's primary public facility. Programming will include museum exhibition, educational space and classroom, lobby, museum store, visitor amenities, spaces for collection management and museum support, and mechanical and utility rooms. There is no proposed work to the historic Otero-Bergere House at 135 Grant Avenue and its 2001 addition; the building will continue to house the museum's Research Center, Library and Archives. The existing 21,626 square foot, one-story commercial building at 123 Grant Avenue will be demolished and 21,500 square feet of impermeable paving will be removed.

A summary comparison of the previously approved museum building and the amended museum building is presented below:

Gross Floor Area (GFA)	**Previously Approved Museum Building**	**Proposed Museum Building**
Basement	17,342 sf	22,400 sf
Ground Floor	29,707 sf	29,495 sf
Mechanical Penthouse	6,773 sf	4,393 sf
TOTAL GFA	53,822 sf	56,288 sf

Zoning and Dimensional Standards

The project site is in the Business-Capitol District (SFCC §14-4.3E) and the Marcy Street Townscape Subdistrict (SFCC §14-4.3(E)(3)). The new building for the Georgia O'Keeffe Museum at 123 Grant Ave will contribute to the economic viability of the BCD by attracting visitors who will patronize hotels, restaurants, and retail in Santa Fe. The education programs offered by the museum will serve school children from across northern New Mexico, and public programs will serve the people of Santa Fe and nearby communities.

The total site area for the subject property is 1.9845 acres, or 86,445 square feet. There is no maximum lot coverage for the property, per SFCC §14-7.4(A). The existing footprint of the Otero-Bergere House at 135 Grant Avenue is 6,723 square feet. The existing footprint of the former Safeway building (to be demolished) at 123 Grant Avenue is 21,626 square feet. The proposed footprint of the new museum building at 123 Grant Avenue is 31,366 square feet. The resulting lot coverage for the project will therefore be 44%.

The proposed museum building will have a Gross Floor Area of 56,288 square feet spread among a basement level, ground floor, and mechanical penthouse, as broken down in the table above. The maximum allowable height has been calculated to be 33'-8", per SFCC §14-5.2(D)(9). The maximum proposed building height is 32'-2" at its maximum expression on the Grant Avenue facing façade. That said, the site slopes over four feet from east to west, and the majority of the building is lower than the maximum height as articulated in various stepped masses.

The amended building design draws the footprint back from each property boundary to widen the adjacent sidewalks and the adjacent alleyway to provide urban amenity and to support improved pedestrian circulation. It is the hope and intent of the design team that the new Georgia O'Keeffe Museum will contribute positively to the sense of place and richness of its historic urban surroundings. There are no minimum setback requirements for the property, per SFCC §14-7.4(A), note 7. Proposed setbacks for the new museum building are as follows: 22'-7" at the Grant Avenue frontage; 11'-3" at the Sheridan Street frontage; and 14'-2" at the south alley frontage.

Parking

The parking required for the proposed museum is 99 spaces as calculated below:

Occupancy / Use	**Net Leasable Area (NLA)**	**Parking Load Factor**	**Required Parking**
Office / Workroom	7,863 sq.ft.	1 space / 500 sq.ft.	15.73 spaces
Museum	20,684 sq.ft.	1 space / 250 sq.ft.	82.74 spaces
		Total Required Parking =	**99 spaces**

Per the approved Traffic & Parking Study (attached), the actual peak parking demand is 24 spaces. Notwithstanding, the Chappell St. lot provides 23 spaces and the Marcy Plaza parking garage will provide 70, for a total of 93 parking spaces, 94% of the Code requirement and almost four times the peak demand. Based on this analysis, a parking reduction to 93 spaces was approved by the Planning Commission concurrently with the Development Plan approval in Case 2021-3976. As mentioned above two variances were approved to allow for off-site parking that exceeds 600 feet from the subject property, in Cases 2021-3977 and 2023-7081.

Bicycle parking is being provided on site in accordance with Table 14-8.6-3. A minimum of ten bicycle parking spaces are required, and ten will be provided as depicted on the site plan.

Access & Traffic

As discussed above, the design of the new museum accommodates increased setbacks from the current condition such that pedestrian and vehicular circulation will be dramatically improved. The public alley south of the site is presently closed with dumpsters and choked with parking. The proposed design re-opens this public ROW to vehicular circulation and accommodates bus parking for school groups. A covered loading yard for museum deliveries is provided at the southwest corner of the building with an entrance from Sheridan. The City of Santa Fe will be constructing an improved transit center on Sheridan immediately adjacent to the proposed museum, and an accessible loading zone is proposed on the Grant Avenue frontage as a ROW improvement required as a condition of approval for the off-site parking variances. In addition, the creation of pedestrian circulation through the proposed gardens between the new museum and the existing research center will create a valuable open space through which pedestrians can pass on their way to the museum or simply as they walk between Sheridan Street and Grant Avenue. All pedestrian pathways in the proposed design shall be ADA-compliant, and

significant efforts have been made to create opportunities for enhanced accessibility to and through the space. Please see the attached plans for additional details

Terrain Management and Water Harvesting

The subject property is relatively flat with a gradual slope from northeast to southwest and a grade change of approximately 4 feet. There is no significant cut and fill proposed. All requisite terrain management measures will be taken in accordance with SFCC §14-8.2. Flows from the two parcels that make up the proposed site are allowed to discharge freely to Grant Avenue and the existing drainage infrastructure near the intersection of Grant Avenue and Johnson Street. Please refer to the Drainage Narrative on sheet C-105 in the attached plans for more detail.

With the demolition of the existing building and parking lot at 123 Grant Avenue, the impervious area on the site will be reduced from its current condition. The existing site has an impervious area of 65,787 square feet, and the redeveloped site will have an impervious area of 64,190 square feet. There will thus be a reduction in impervious area by approximately 1,597 square feet. As a result of this reduction in impervious area, the propose project does not increase stormwater runoff from over the pre-development condition and there is no requirement to retain stormwater on-site, per SFCC §14-8.2(D)(4)(b). That said, the proposed design incorporates both active and passive stormwater harvesting methods to appropriately manage stormwater on the site. A proposed 30,000-gallon cistern is located beneath the "education garden" at the western side of the open space between the research center and the proposed museum. This cistern will collect stormwater from 20,343 square feet of roofed area at the museum building and will utilize this water in landscape irrigation. Passive water harvesting techniques are also employed throughout the landscape design, such that stormwater will be directed to planting areas on site. Please see the attached landscape, irrigation, and grading/drainage plans for additional details.

Open Space and Landscape Design

The total amount of open space provided at 123 and 135 Grant Avenue is 43,485 square feet, which is approximately 50% of the overall site and exceeds the requirement of the code. The minimum required open space per SFCC §14-7.4(A) is 10% of the site area, or 8,645 square feet, to be located along the Grant Avenue frontage, and the total open space provided along the Grant Avenue frontage is 15,417 square feet.

The open spaces on both properties will be landscaped and will link to the existing public sidewalks on both Grant Avenue and Sheridan Street as required by 14-7.5 (D)(2). The open space exceeds the requirement of 300 square feet and the building setbacks exceeds than ten feet minimum dimension as required for nonresidential open space in 14-7.5 (D)(4).

The proposed landscape and irrigation design at 123 and 135 Grant complies with requirements in SFCC §14-8.4 and includes landscape treatment of trees, shrubs, and ground-cover plantings interspersed with planted terraces. Along the east side of Grant Avenue existing street trees will be supplemented with additional street trees to provide shade. Along the west side of Sheridan Street, the city's proposed Downtown Transit Center project provides new street trees alternating

with new bus shelters, and additional plantings will be provided adjacent to the new museum. New metal fencing and wide, accessible gates enclose the east and west sides of the garden space north of the new museum and south of the existing research center. The existing white picket fence at the Grant Avenue streetscape in front of the historic Otero-Bergere House will be preserved and reduced slightly to accommodate more navigable space around the large cottonwood in the ROW. The existing stucco wall along Sheridan Street will remain, with minor modifications to accommodate proper pedestrian circulation through the site.

Outdoor Lighting

Outdoor lighting will comply with all requirements of SFCC §14-8.9. Exterior lighting has been designed to prevent light pollution of the night sky and minimize light trespassing onto adjacent properties. Lighting at the building will be focused on the entrances to the building; downlights discretely installed at the underside of the portal's roof structure will provide required code-compliant light levels for public safety as well as assisting with wayfinding. Low height bollards with shielded light sources and an asymmetric distribution will wash the walking surfaces approaching each building entrance. Site lighting will be limited to illuminating the primary walking paths through the new garden, connecting the entrances on Grant Avenue and Sheridan Street.

Signage

Exterior building signage will be understated and comply with the requirements of SFCC §14-8.10(H). Signage at the museum entrances identify the museum and will be embedded within the stucco walls that flank the garden entrance and the Grant Avenue entrance. Two low monument signs are proposed to identify the museum – one on Grant Avenue and one on Sheridan Street. Any required off-site wayfinding signage will be coordinated with the City of Santa Fe with the purpose of directing visitors to the museum and from the two off-site parking locations to the museum.

Water and Sewer

Because the City does not have a standard formula to project water consumption for a museum use, an alternative water budget is proposed in accordance with SFCC §14-8.13(B). The proposed water budget is based on reliable water usage data from the existing facility, scaled up appropriately for the new museum building. The proposed Development Water Budget for the new facility is 4.26 AFY, inclusive of domestic use and landscape irrigation, and with the 9.8% contingency the total Water Demand Offset is calculated to be 4.68 AFY.

The project will connect service to the existing sewer main in Grant Avenue. No new sewer mains are proposed to service the project.

Fire Protection and Emergency Access

Access for fire trucks and emergency vehicles can be gained from three sides of the proposed museum building, as the building has frontage on Grant Avenue, Sheridan Street, and the public

alley to the south. The proposed building will have automatic fire suppression, and all requirements for emergency egress will be met.

Archaeology

The project site is located within the Historic Downtown Archaeological Review District. Because of funding secured from the National Endowment for the Humanities (NEH), the project is required to undergo compliance with Section 106 of the National Historic Preservation Act and with the National Environmental Protection Act. Because of this, the State of New Mexico Department of Cultural Affairs along with the NEH have responsibility for archaeological review and clearance, and the project is exempt from City archaeological review, per SFCC §14-3.13(B)(5)(a). Per the requirements of the code, a copy of the archaeological reconnaissance and testing report by the Office of Archaeological Studies has been provided to City staff, and the Applicant has offered to appear before the Archaeological Review Committee to receive comments on this report. The City of Santa Fe is a Consulting Party in the Section 106 review process, and as such is entitled to provide comment and input on archaeological investigations on the property. Presently an archaeological treatment plan is being prepared by SWCA, and this plan will be submitted to staff for a courtesy review by the ARC in December 2023.

Development Plan Amendment Approval Criteria

In accordance with §14-3.8(D)(1), the Development Plan Amendment approval criteria for the proposed Georgia O'Keeffe Museum at 123 and 135 Grant Avenue are addressed below:

(a) that it is empowered to approve the plan under the section of Chapter 14 described in the application;

Applicant Response: The Planning Commission has the authority to approve the Development Plan in accordance with SFCC §14-2.3(C)(1), and staff through a delegation of authority from the Land Use Director can approve minor modifications to the approved Development Plan, as represented in the proposed amendment.

(b) that approving the development plan will not adversely affect the public interest;

Applicant Response: The proposed Development Plan amendment does not adversely impact the public interest. Rather, the project will result in substantial benefits to the public in the form of enhanced access to and experience of the collections of the Georgia O'Keeffe Museum for the many local, national and international visitors to the museum each year, creation of publicly-accessible outdoor gathering spaces for educational and community programming and informal public use, and economic benefits including job creation and indirect spending throughout the community by museum visitors. The O'Keeffe has outgrown its present facilities and cannot adequately store or display its collections or manage the volume of visitors each year. If approved, the proposed Development Plan amendment will allow the museum to increase its capacity to serve Santa Fe and the surrounding region, expand its educational offerings to support the youth and families of Santa Fe and northern New Mexico, and integrate museum facilities on the Grant Avenue

site, including administrative offices, research center, library, archives, collections and exhibits.

(c) that the use and any associated buildings are compatible with and adaptable to buildings , structures and uses of the abutting property and other properties in the vicinity of the premises under consideration.

Applicant Response: The proposed use of the property and associated buildings are compatible with the surrounding buildings and land uses. The proposed new museum building is immediately adjacent to the museum's existing Research Center, Library and Archives at the historic Bergere House at 135 Grant Avenue. In addition, the site is located in Downtown Santa Fe, in close proximity to numerous other museums, cultural and historic sites, hotels, restaurants and businesses. Further, the project is in alignment with the purpose of the BCD zoning, which seeks to *"promote the district's economic well being while preserving the unique architecture and aesthetics that foster a strong tourist industry and sustain the quality of life, sense of community and historic identity in the district and the city,"* per SFCC §14-3(E)(1).

Attachments

In support of this request, the following documentation is submitted herewith for your reference:

1. Development Plan Amendment Application
1a. Owner Authorization Letter
2. Lot of Record Documentation
3. Findings of Fact and Conclusions of Law, Case 2021-0619
4. Findings of Fact and Conclusions of Law, Case 2021-0620
5. Findings of Fact and Conclusions of Law, Case 2023-7081
6. Previously Approved Georgia O'Keeffe Museum Development Plan
7. Vicinity Map of Approved Parking Variances
8. Marcy Plaza Parking Garage Plans
9. Chapelle Street Parking Lot Plan (revised)
10. Water Budget
11. Traffic and Parking Study
12. GOKM Development Plan Amendment Plan Set

Please contact me should you have any questions or require additional information. Thank you.

Sincerely,

Lisa Gavioli

Lisa Gavioli, Senior Project Manager

ABBREVIATIONS

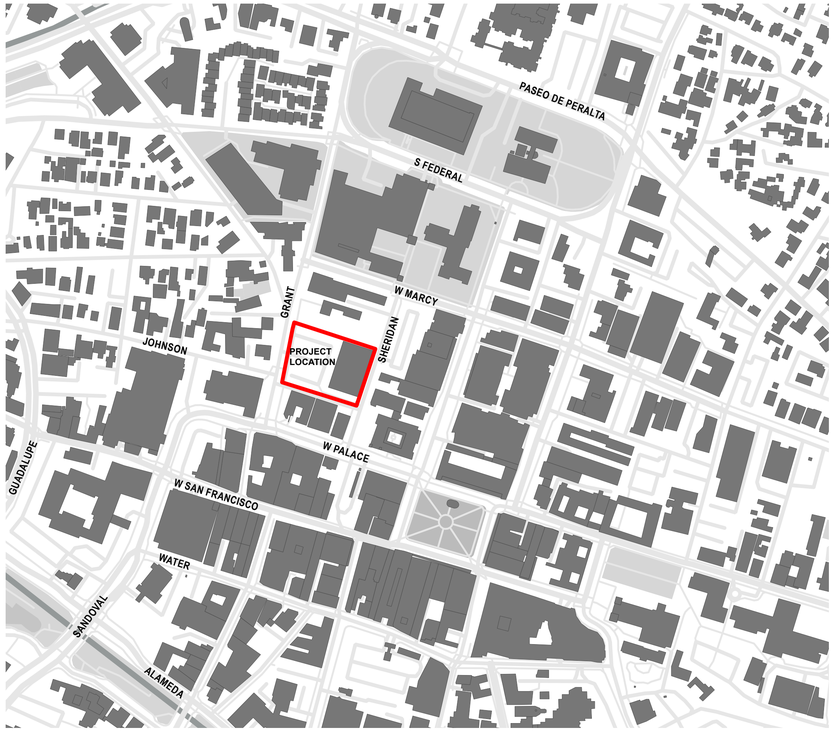
@	AT
A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISHED FLOOR
ANCH.	ANCHOR
∠	ANGLE
APPD.	APPROVED
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT
B.L.	BRICK LEDGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.O.C.	BOTTOM OF CANOPY
BOT. or B.	BOTTOM
B.O.W.	BOTTOM OF WALL
BRG.	BEARING
BRIDG.	BRIDGING
BTWN.	BETWEEN
C.C.	CENTER TO CENTER
℄	CENTER LINE
C.I.P.	CAST IN PLACE
C.J.	CONTROL JOINT
CLR.	CLEAR
CNTR.	CENTER
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
C.W.P.	CONCRETE WALL PANEL
D.A.S.	DEFORMED ANCHOR STUD
D.B.A.	DEFORMED BAR ANCHOR
DBL.	DOUBLE
DEPR.	DEPRESS OR DEPRESSION
DET.	DETAIL
Ø	DIAMETER
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
do	DITTO
DRWG.	DRAWING
DWL.	DOWEL
E.	EAST
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
ENGR.	ENGINEER
EQ.	EQUAL
E.S.	EACH SIDE
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
E.W.	EACH WAY
E-W	EAST-WEST
FAB.	FABRICATION
F.F.	FINISH FLOOR ELEVATION
FIN.	FINISH
FLG.	FLANGE
FLR.	FLOOR
FNDN.	FOUNDATION
F.S.	FAR SIDE
FT.	FOOT
FTG.	FOOTING
GA.	GUAGE
GALV.	GALVANIZED
G.L.	GLU-LAM
GR.	GRADE
GR. BM.	GRADE BEAM
GYP. BD.	GYPSUM BOARD
GYP.	GYPSUM
H.A.S.	HEADED ANCHOR STUD
HDR.	HEADER
HGR.	HANGER
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	1000 LBS. (KIPS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS.	POUNDS
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
LONG.	LONGITUDINAL
L.S.H.	LONG SIDE HORIZONTAL
L.S.V.	LONG SIDE VERTICAL
MANUF.	MANUFACTURER
MAS.	MASONRY
MAX.	MAXIMUM
MC	MISCELLANEOUS CHANNEL
M.C.J.	MASONRY CONTROL JOINT
MECH.	MECHANICAL
MIN.	MINIMUM
M.L.	MICRO-LAM
#	NUMBER OR POUNDS
N.	NORTH
N.S.	NEAR SIDE
N-S	NORTH-SOUTH
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPN'G.	OPENING
OPP.	OPPOSITE
PAR.	PARALLEL
P.C.	PRECAST
PENET.	PENETRATION
PERIM.	PERIMETER
PERPEN.	PERPENDICULAR
P.I.P.	POURED IN PLACE
⏥	PLATE
PLF	POUNDS PER LINEAR FOOT
PRELIM.	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT.	POINT
PTF	POUND TO FIT
P.W.P.	PRECAST WALL PANEL
QTY.	QUANTITY
R.	RISER OR RADIUS
R.D.	ROOF DRAIN
RE:	REFER TO
REF.	REFERENCE
REINF.	REINFORCING
REQ'D.	REQUIRED
REQ'MT.	REQUIREMENT
S.	SOUTH
SCHED.	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SP.	SPACE
SPEC.	SPECIFICATION
SPCG.	SPACING
SQ.	SQUARE
STD.	STANDARD
SS	STAINLESS STEEL
STIFF.	STIFFENER
STL.	STEEL
STRP.	STIRRUP
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
T.& B.	TOP AND BOTTOM
TEMP.	TEMPERATURE
T.& G.	TONGUE AND GROOVE
T.O.C.	TOP OF CANOPY
T.O.F.	TOP OF FOOTING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STRUCTURAL STEEL
T.O.W.	TOP OF WALL
TR.	TREAD
T.S.	STRUCTURAL TUBE
TYP.	TYPICAL
U.N.	UNLESS NOTED
U.N.O.	UNLESS NOTED OTHERWISE
VAR.	VARIES
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.	WEST
W/	WITH
WD.	WOOD
W/0	WITHOUT
W.P.	WATERPROOF
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
YD.	YARD

GENERAL NOTES

1. Work performed shall comply with the following:
   A. These General Notes, and Construction Documents.
   B. All applicable local, state and federal codes, ordinances and regulations. All codes listed in Specifications and Drawings shall be inclusive of all codes, regulations and requirements adopted by the City of Santa Fe and State of New Mexico, including all Amendments.
   C. All work shall be executed in accordance with the best accepted trade practices and per manufacturers' recommendations.
2. On-site verification of all dimensions and conditions shall be the responsibility of the General Contractor.
3. The General Notes and Typical Details apply throughout the job unless otherwise noted or shown on these drawings. Noted dimensions take precedent over scale, larger scale over smaller scale, addenda and clarifications over previous documents.
4. Discrepancies: The General Contractor shall compare and coordinate the information shown on all drawings. Where in the opinion of the General Contractor a discrepancy exists, he shall promptly report it to the Architect for proper clarification or adjustment.
5. Omissions: In the event that certain features of the construction are not fully shown on the drawings, then their construction shall be the same character as the construction of similar conditions that are shown or noted on the drawings and specifications. If there is any doubt concerning the similarity of the condition, the General Contractor shall notify the Architect and request clarification.
6. Changes: The General Contractor shall inform the Owner immediately if any changes requested in the field either verbally or in writing shall impact the project schedule or budget. The Contractor shall prepare a Proposed Change Order within a reasonable agreed upon time frame for review and approval, prior to commencing the work on any proposed changes or directives. Proposed Change Orders submitted by the General Contractor after the the fact shall not be accepted.
7. Contract Documents take precedence when they are more stringent than applicable codes, ordinances, standards and statutes. Codes, ordinances, standards and statutes take precedence when they are more stringent or conflict with drawings and specifications.
8. Use of the Site: The General Contractor's use of the site shall be fully coordinated with the Owner.
9. The General Contractor shall conduct and coordinate weekly site meetings as necessary.
10. General Guaranty: Neither the final certificate of payment nor any provision in the Contract Documents nor partial or entire occupancy of the project by the Owner shall constitute acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any expressed warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy all defects in the work and pay for damages to other work resulting therefrom, which shall appear within a period of one (1) year from the date of Substantial Completion of the work under the Contract. The Owner will give notice of observed defects with reasonable promptness.

DEMOLITION GENERAL NOTES

A. General Contractor shall obtain all permits from City and comply with all City requirements to protect vehicular and pedestrian activity on all public sides of the site from construction and demolition activity.
B. Provide temporary barriers and partitions as necessary. General Contractor shall be responsible for providing safety measures for protection of pedestrians, vehicles, and all other existing construction to remain relative to the demolished scope of work described herein. The General Contractor shall be responsible to correct any damage caused by execution of construction activities.
C. Prior to any demolition, review all salvage items with Owner's Representative and Architect.
   • Salvage items to be returned to Owner shall include: (9) rooftop air handling units (RTUs).
D. Abatement of Hazardous Materials has been completed under separate contract. It is not anticipated that hazardous materials will be encountered on this project. In the event that any materials are encountered that are suspected to be hazardous, immediately inform the Architect and Owner's Representative.
E. Any and all debris generated by construction operations shall be cleaned up and removed DAILY, making the site ready for all subsequent subcontractors.
F. Provide shoring and temporary supports as necessary to insure structural stability and integrity of all elements of the structure during demolition.
G. Refer to Civil, Electrical, and Plumbing drawings and specifications for specific demolition and capping requirements.
H. Contractor shall protect all elements to remain
I. Refer to Landscape for requirements related to protection of existing trees adjacent to Area of Work
J. Unless indicated otherwise, all demolition debris / items are to be removed to a legal waste facility.
K. Refer to Civil for erosion control requirements.
L. General Contractor shall locate all adjacent utilities prior to demolition.
M. General Contractor shall become familiar with the existing site conditions prior to commencement of work and shall report any discrepancies between the drawings and field conditions to the Architect and Owner's Representative.



1 GD100 Vicinity Map — Scale: Actual Size

N

CODE DATA	APPLICABLE CODES
Jurisdiction: City of Santa Fe	• 2021 NM Commercial Building Code (2021 IBC as amended by State of NM)
Address: 123 & 135 Grant Ave, Santa Fe, NM, 98505	• 2021 NM Plumbing Code (2021 UPC as amended by State of NM)
UPC Number	• 2020 NM Electrical Code (2020 NEC as amended by State of NM)
123 Grant: 1054409921323100000	• 2012 NM Electrical Safety Code (2012 NEC as amended by State of NM)
135 Grant: 1054099218245000000	• 2015 International Fire Code and CoSF IFC amendments
Zoning: BCD	• NMAC 14.5.1 General Provisions, 14.5.2 Permits, 14.5.3 Inspections
Townscape: Marcy Street	• 2017 ICC a117.1-2017 Accessible and Usable Buildings and Facilities
Historic Overlay: Downtown & Eastside Historic District	
Site Area:	
123 Grant: 1.2174 Ac (53,030sf)	
135 Grant: 0.7671Ac (33,415sf)	

SCOPE OF WORK

123 Grant Avenue:
• Demolition of a 19,270sf building, a 46sf parking attendant's kiosk.
• Demolition of site wall along alley, dumpster enclosure, planting islands, and paving in parking lot and along south side of the building.
• All mechanical, electrical, plumbing, and fire protection systems will be fully demolished and capped.
• An existing transformer on the site currently serves two adjacent properties; the power for those two properties will be re-routed and the existing transformer will be demolished under separate permit application.
• Hazardous materials abatement has been completed by Owner under separate contract.

135 Grant Avenue:
• Demolition of a 272' long CMU site wall (only) along south property line.

Georgia O'Keeffe Museum

GRANT STREET OFFICES DEMOLITION SET

December 15, 2023

PROJECT TEAM

CLIENT
Georgia O'Keeffe Museum
217 Johnson Street
Santa Fe, NM 87501

LAND USE / OWNER REP
JenkinsGavin
130 Grant Avenue, Suite 101
Santa Fe, NM 87501
ph: 505-820-7444
Contact: Colleen Gavin

ARCHITECTS
DNCA, LLC
924-A Shoofly St.
Santa Fe, NM 87505
ph: 505-255-4033

CIVIL ENGINEERS
Wilson & Co. Inc.
4401 Masthead Street NE Suite 150
Albuquerque, NM 87109
ph: 505-348-4000

MEP ENGINEERS
Bridgers & Paxton
4600 C Montgomery Blvd NE
Albuquerque, NM 87109
ph: 505-883-4111

GENERAL CONTRACTOR
Bradbury Stamm
7110 2nd Street NW
Albuquerque, NM 87107
ph: 505-765-1200

DRAWING DIRECTORY

Page	Label	Sheet Name
GENERAL		
01	G100	Cover Sheet
02	G101	Plats
03	G103	Topo 135
04	G104	Topo 123
05	G105	Site Utility Survey
ARCHITECTURAL		
06	ASD100	Utility Architectural Site Demolition Plan
07	ASD101	Architectural Site Demolition Plan
CIVIL		
08	C-102	Demolition Plan
09	C-503	Erosion Control & Sedimentation Plan
10	C-504	Erosion Control & Sedimentation Details
11	C-505	Erosion Control & Sedimentation Details
PLUMBING / ELECTRICAL		
12	PDS101	Plumbing Demolition Plan
13	E-001	Electrical Legend
14	ES101	Electrical Demo Site Plan

STATE OF NEW MEXICO
DEVENDRAN
CONTRACTOR
No. 3137
12/15/23
REGISTERED ARCHITECT

Consultant

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

December 15, 2023	Plot Date 12/14/23
Drawn by	Checked by

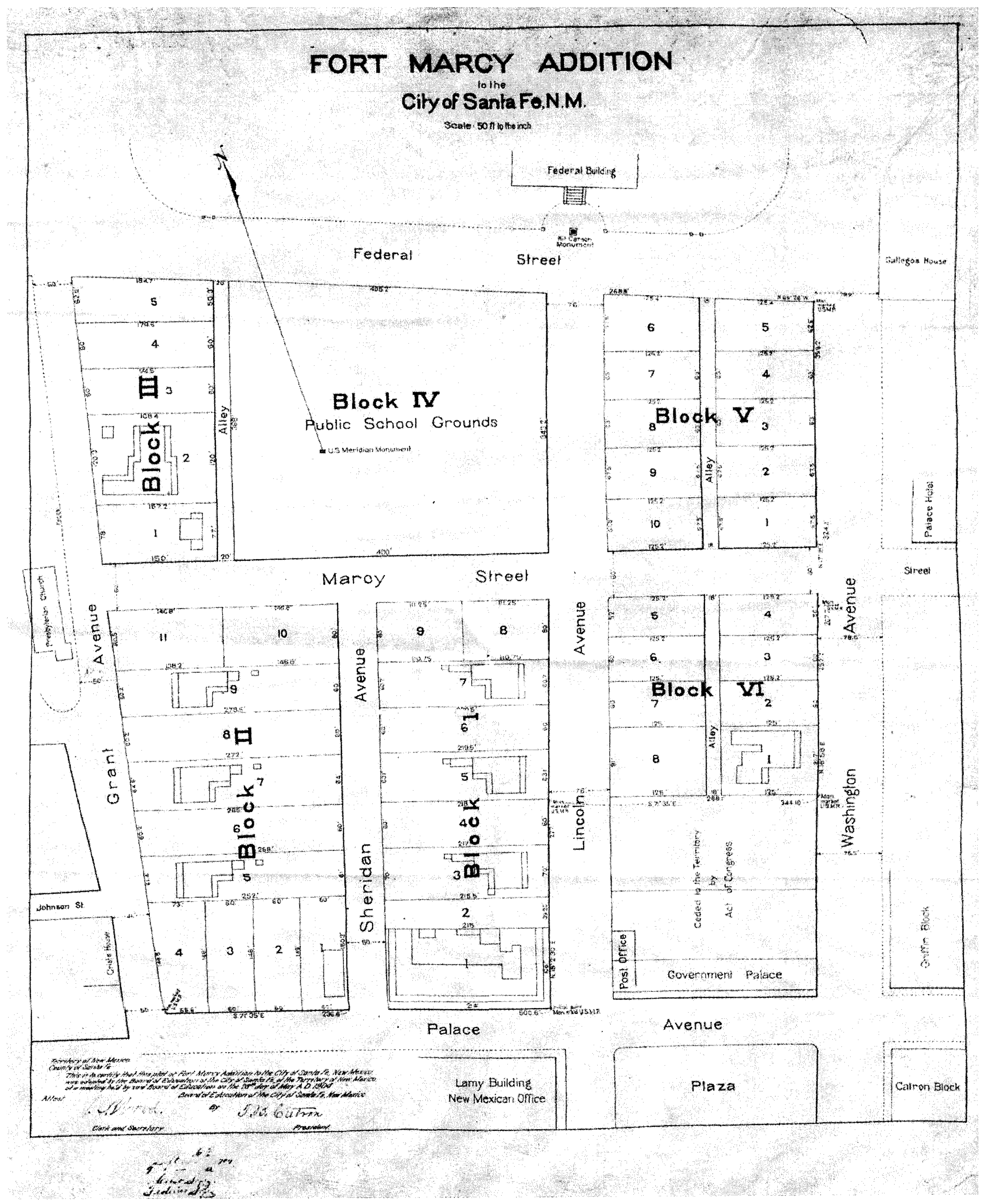
File
GOKM GSO Demo -G1xx 231214 dh.vwx

Set
DEMOLITION SET

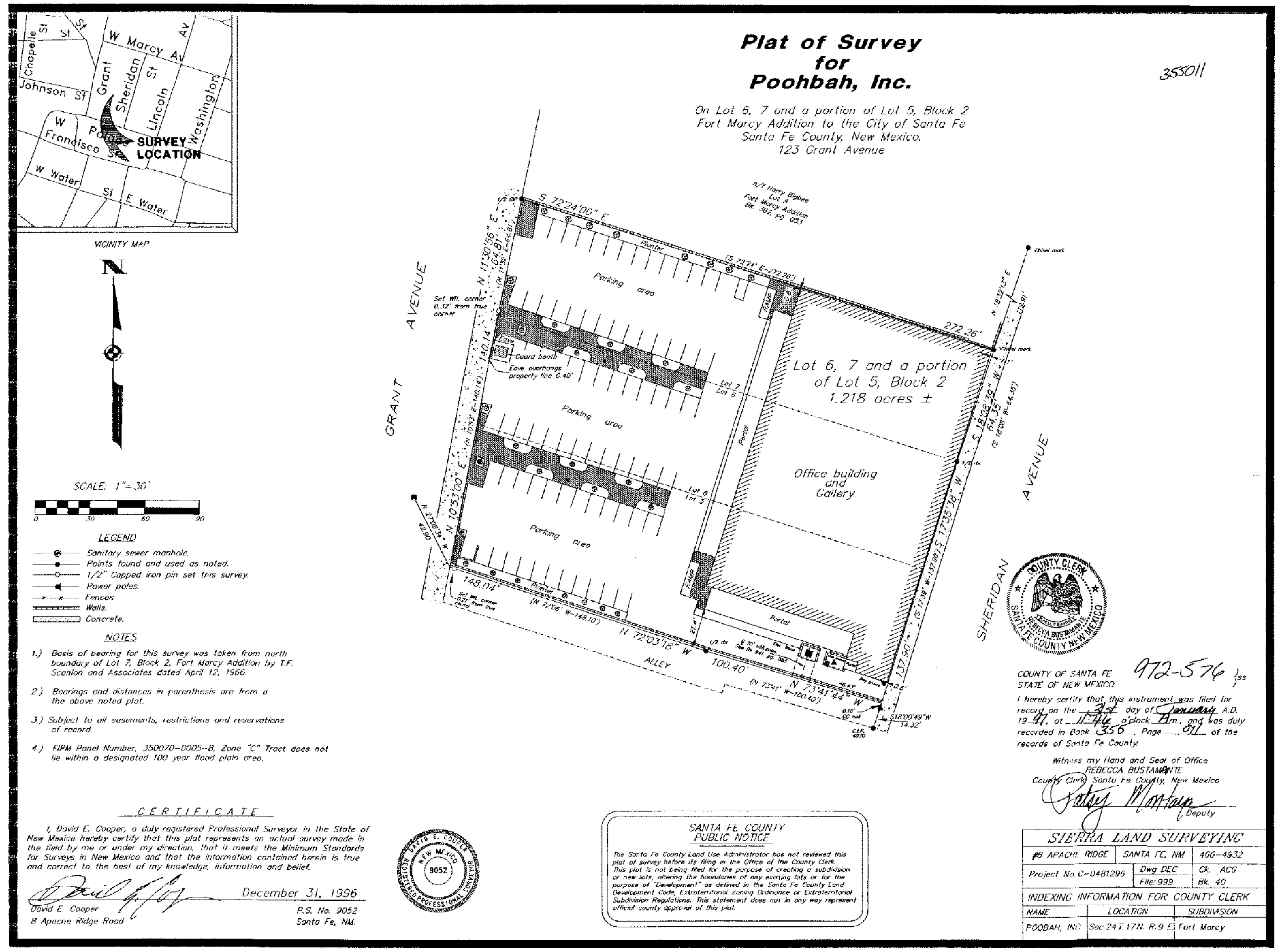
Sheet Title
Cover Sheet

GD100

Sheet 01 of



1 -GD101 Plat : 135 Grant Ave
Scale: Actual Size



2 -GD101 Plat : 123 Grant Ave
Scale: Actual Size

GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

December 15, 2023	Plot Date 12/14/23
Drawn by	Checked by

File
GOKM GSO Demo -G1xx 231214 dh.vwx

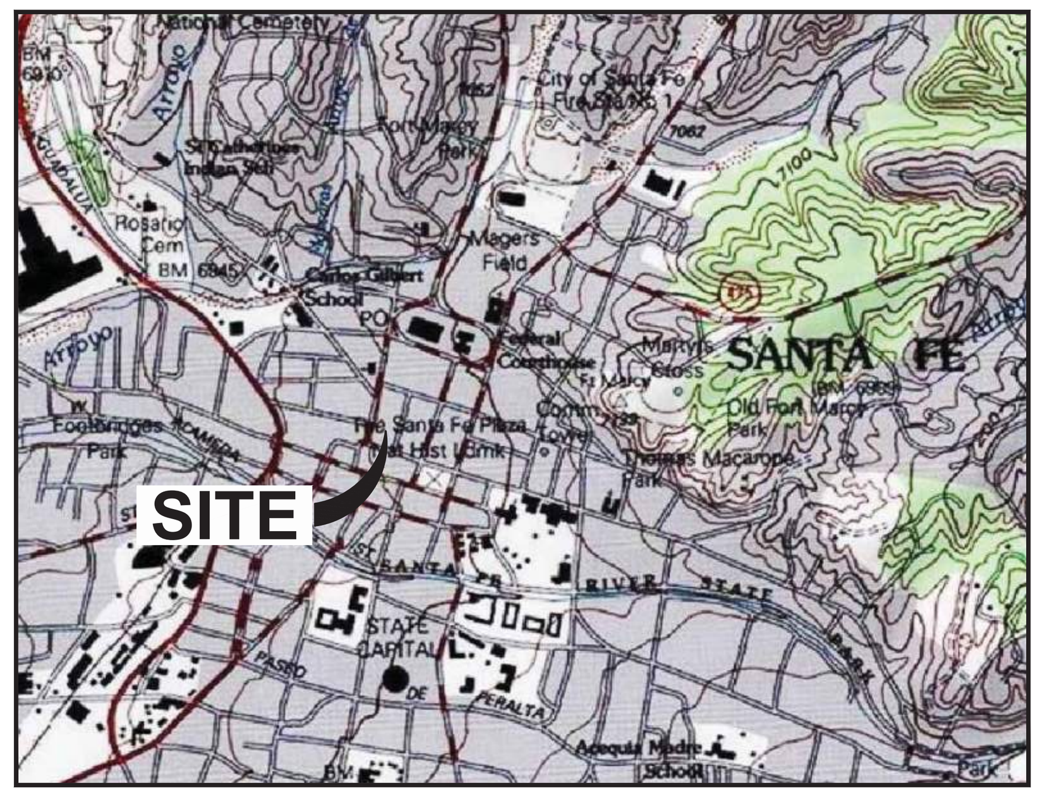
Set
DEMOLITION SET

Sheet Title
Plats

GD101

Sheet 02 of

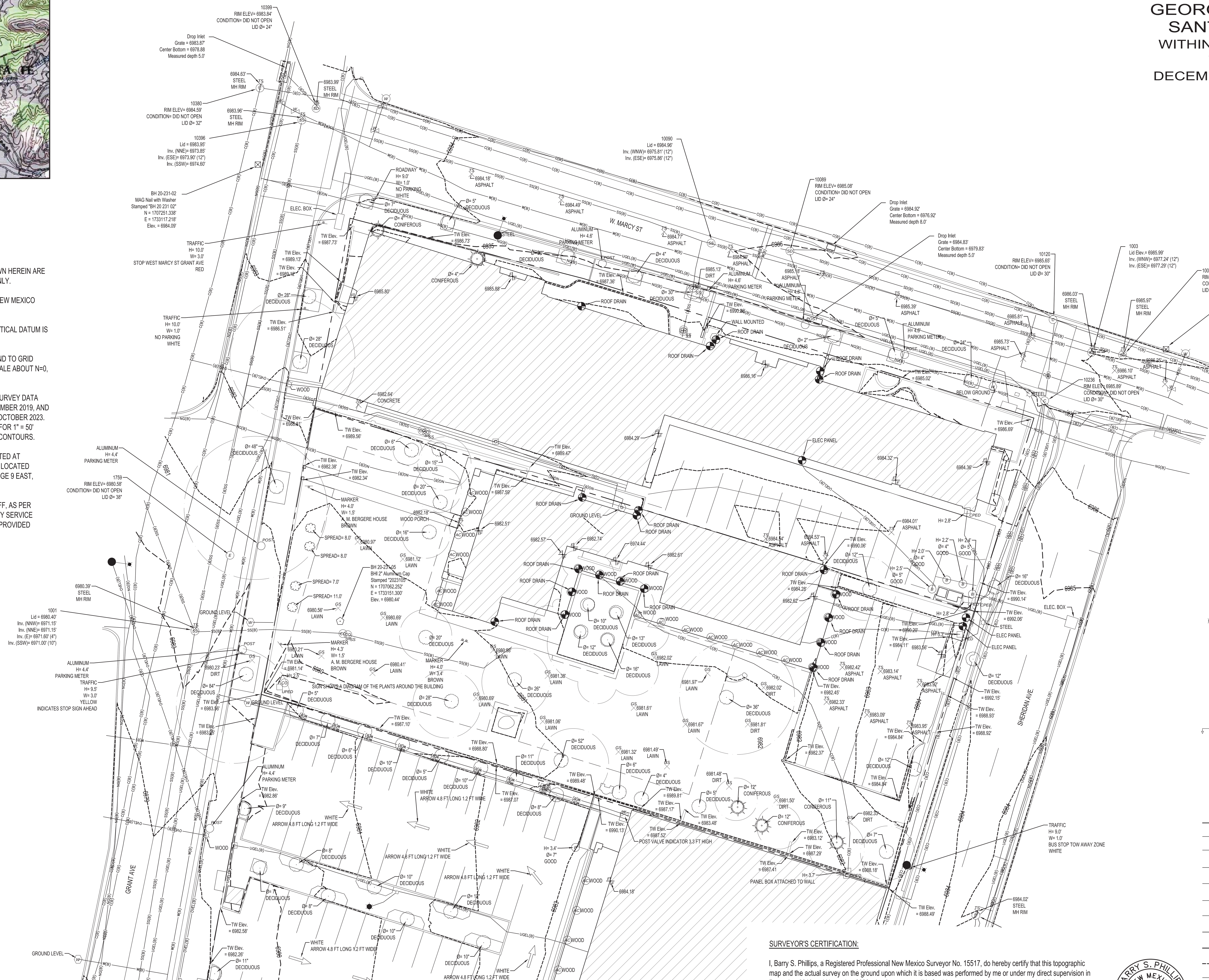
TOPOGRAPHIC MAP
GEORGIA O'KEEFE MUSEUM
SANTA FE, NEW MEXICO
WITHIN PROJECTED SECTION 24, T17N, R9E, N.M.P.M.
DECEMBER 2019, NOVEMBER 2023



LOCATION MAP
NOT TO SCALE

NOTES:

1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN HEREIN ARE APPROXIMATE IN NATURE AND SHOWN FOR REFERENCE ONLY.
2. THE TOPOGRAPHIC MAP IS BASED ON GROUND MODIFIED NEW MEXICO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE.
3. THE HORIZONTAL DATUM IS BASED ON NAD83 AND THE VERTICAL DATUM IS BASED ON NAVD88(GEOID12B).
4. PROJECT COMBINED FACTOR = 0.999578790000 (FOR GROUND TO GRID TRANSFORMATION OF THE HORIZONTAL COORDINATES, SCALE ABOUT N=0, E=0).
5. THIS TOPOGRAPHIC MAP WAS PREPARED FROM GROUND SURVEY DATA COLLECTED BY BHI FIELD SURVEY IN NOVEMBER AND DECEMBER 2019, AND AS TO ADDITIONAL SURVEY FOR THE SOUTH ALLEYWAY IN OCTOBER 2023. THIS SURVEY DATA MEETS ENGINEERING SPECIFICATIONS FOR 1" = 50' MAPPING AND HAS A VERTICAL ACCURACY FOR ONE FOOT CONTOURS.
6. THE APPROXIMATE CENTER OF THE PROJECT SITE IS LOCATED AT N35°41'21.89" LATITUDE, W105°56'22.65" LONGITUDE. SITE IS LOCATED WITHIN PROJECTED SECTION 24, TOWNSHIP 17 NORTH, RANGE 9 EAST, N.M.P.M., SANTA FE COUNTY, NEW MEXICO.
7. UTILITIES SHOWN WERE LOCATED IN THE FIELD BY BHI STAFF, AS PER MARKS SPOTTED ON THE GROUND FROM SUE Level B UTILITY SERVICE PROVIDED BY HIGH MESA CONSULTING GROUP - SEE PLAN PROVIDED SEPARATELY AND DATED 11-2019.



N

20' 10' 0 20'
1" = 20'

LEGEND

- POSTS
- BOLLARD
- BUILDING FINISHED FLOOR
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS PEDESTAL
- ELECTRICAL PEDESTAL
- ELECTRICAL POLE
- ASPHALT SHOT
- GROUND SHOT
- IRRIGATION VALVE
- LIGHTING POLE
- LIGHTING POLE
- LIGHTING RECESSED LIGHTING
- NATURAL GAS VALVE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- SANITARY SEWER VALVE
- SIGNAGE
- SIGNAGE
- SIGNAL POLE
- TREE
- TREE
- UNIDENTIFIED UTILITY CLEANOUT
- WATER VALVE
- TW Elev. = #### TOP OF WALL ELEVATION
- APPROXIMATE BOUNDARY LINE
- C(B) COMMUNICATIONS LINE SUE LEVEL B
- UGEL(B) ELECTRICAL LINE UNDERGROUND SUE LEVEL B
- NG(B) NATURAL GAS LINE SUE LEVEL B
- SS(B) SANITARY SEWER LINE SUE LEVEL B
- SD(B) STORM DRAIN LINE SUE LEVEL B
- W(B) WATER LINE SUE LEVEL B
- FENCE CHAINLINK
- SURFACE CONTOUR MAJOR
- SURFACE CONTOUR MINOR
- OVEL(C) OVERHEAD ELECTRIC LINE (LEVEL C)

SURVEYOR'S CERTIFICATION:

I, Barry S. Phillips, a Registered Professional New Mexico Surveyor No. 15517, do hereby certify that this topographic map and the actual survey on the ground upon which it is based was performed by me or under my direct supervision in December 2019 and November 2023; that I am responsible for this survey; that this survey meets the Minimum Standards for surveying in New Mexico, under N.M.A.C. 12.8.2.7.B(3) and that it is true and correct to the best of my knowledge and belief.

BARRY S. PHILLIPS NEW MEXICO 15517 LICENSED PROFESSIONAL SURVEYOR

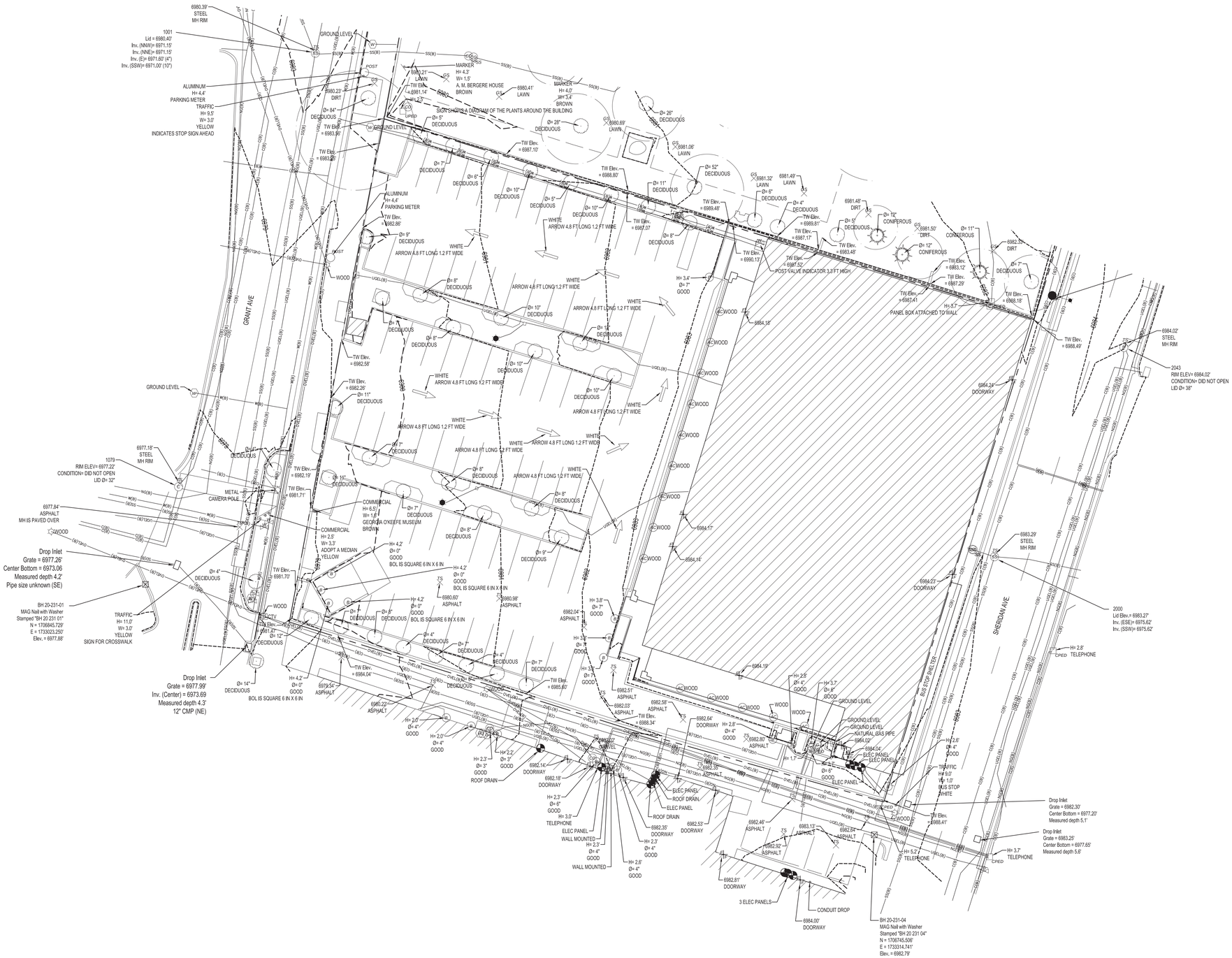
11-16-2023

Barry S. Phillips , PS, NM Professional Surveyor No.15517 — Date
for and on behalf of Bohannan Huston, Inc.
7500 Jefferson St. NE, Albuquerque, NM 87109-4335

SHEET 1 OF 2

Bohannan Huston
www.bhinc.com 03 800.877.5332

TOPOGRAPHIC MAP
GEORGIA O'KEEFE MUSEUM
SANTA FE, NEW MEXICO
WITHIN PROJECTED SECTION 24, T17N, R9E, N.M.P.M.
DECEMBER 2019, NOVEMBER 2023



N

20' 10' 0 20'

1" = 20'

LEGEND

- POSTS
- BOLLARD
- BUILDING FINISHED FLOOR
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS PEDESTAL
- ELECTRICAL PEDESTAL
- ELECTRICAL POLE
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11-16-2023

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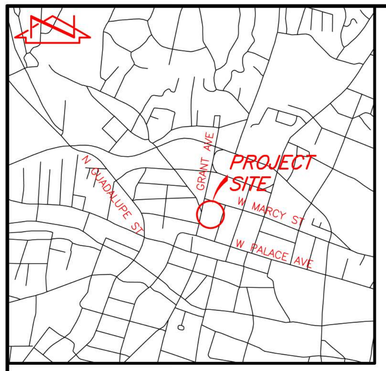
for and on behalf of Bohannan Huston, Inc.

7500 Jefferson St. NE, Albuquerque, NM 87109-4335

BARRY S. PHILLIPS NEW MEXICO 15517 LICENSED PROFESSIONAL SURVEYOR

SHEET 2 OF 2

Bohannan Huston
www.bhinc.com 04 800.877.5332



VICINITY MAP

NOT TO SCALE

SUBSURFACE UTILITY NOTES

- THIS SITE UTILITY DIAGRAM IS A REPRESENTATION OF UTILITY CONDITIONS AND ASCERTAINABLE UTILITY LOCATIONS IDENTIFIED, COLLECTED AND/OR OBSERVED BY HIGH MESA CONSULTING GROUP USING DISCUSSED EQUIPMENT AND METHODOLOGIES. THESE SERVICES WERE PERFORMED IN ACCORDANCE WITH ASCE 38–02 (STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA). SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVELS B AND D HAVE BEEN COMPLETED.

  QUALITY LEVEL B – UTILITY DESIGNATION EFFORTS HAVE BEEN BASED UPON CURRENT SITE CONDITIONS INCLUDING SURFACE FEATURES FOUND WITHIN PROJECT LIMITS THAT INDICATE THE PRESENCE OF SUBSURFACE UTILITIES. THE EXACT PIPE/CABLE SIZE, DEPTH OR MATERIAL OF THE UTILITIES DESIGNATED BY THIS EFFORT IS UNKNOWN. RESULTS OF THIS UTILITY DESIGNATION EFFORTS HAVE BEEN REFERENCED TO EXISTING AS–BUILT RECORD UTILITY DRAWINGS OR SITE UTILITY PLANS (THAT WERE AVAILABLE AT THE TIME THIS WORK WAS PERFORMED). ANY UNRESOLVED DISCREPANCIES RELATED TO THE RECORD DRAWINGS, UTILITY CONNECTIVITY OR PUBLIC UTILITY RESPONSE HAVE BEEN DOCUMENTED. REFER TO KEYED NOTES BELOW.

- PUBLICLY–OWNED UTILITIES REPRESENTED ON THIS DIAGRAM HAVE BEEN IDENTIFIED BY THE OWNER IN RESPONSE TO HMCG NM811 DESIGN LOCATE REQUEST (NM811 TICKET 19OC250196 10/25/19 09:22AM 03:29PM) AND/OR THROUGH SUPPLEMENTAL EFFORTS BY HMCG BASED ON SURFACE EVIDENCE AND UTILITY RECORD INFORMATION OBTAINED FROM THE OWNER AT THE ON–SET OF THE PROJECT.

- THIS UTILITY SURVEY AND UTILITY DESIGNATION EFFORT IS NOT ALL–INCLUSIVE AND MAY NOT REPRESENT UTILITIES/INFRASTRUCTURE THAT HAS BEEN ABANDONED–IN –PLACE.

- AERIAL IMAGERY CAPTURED BY HMCG DRONE NOVEMBER 13, 2019.

KEYED SUBSURFACE UTILITY NOTES

1. STORM DRAINS COULD NOT BE DESIGNATED BEYOND THIS POINT. MANHOLE LID COULD NOT BE OPENED WITHOUT DAMAGE TO THE LID. LOCATION WEST OF MANHOLE BASED ON RECORD DRAWINGS.
2. WATER LINES COULD NOT BE DESIGNATED FROM THE WATER VALVE, METER OR FIRE HYDRANT LOCATED AT THE POINT INDICATED ON DIAGRAM. DESIGNATION IS INCOMPLETE.
3. COMMUNICATION CTV FIBER OPTIC CABLE IN CONDUIT IN HAND HOLE. FIBER OPTIC CABLE WAS NOT ACCOMPANIED BY A TRACER WIRE. DESIGNATION OF FIBER OPTIC PATHWAY IS INCOMPLETE.
4. SANITARY SEWER (SAS) CLEANOUTS WERE NOT ACCESSIBLE. SAS LINE COULD NOT BE DESIGNATED FROM THIS POINT.
5. SAS PIPELINE COULD NOT BE DESIGNATED BEYOND THIS POINT. DESIGNATION IS INCOMPLETE.
6. DOMESTIC WATER LINE WAS NOT DETECTABLE BEYOND THIS POINT. DESIGNATION IS INCOMPLETE.
7. PUBLICLY–OWNED SAS MAIN LOCATED BY UTILITY OWNER. SAS MANHOLE IS PAVED–OVER AND INACCESSIBLE. LOCATION WAS NOT VERIFIED BY HMCG.
8. CUT OFF ELECTRIC AND CTV LINES IN THE CTV HAND HOLE. THE ELECTRIC LINES WERE NOT DETECTABLE FROM THIS POINT. DESIGNATION IS INCOMPLETE ON THESE INACTIVE LINES.
9. STORM DRAIN DROP INLET WAS SURCHARGED PREVENTING ACCESS AND DESIGNATION FROM THIS POINT.

APWA UTILITY COLOR CODE

RED – ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES	E
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS	G
YELLOW – GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS FROM RECORD	G FRD
ORANGE – COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT	C
ORANGE – CABLE TELEVISION LINES	CTV
ORANGE – FIBER OPTIC LINES	FO
ORANGE – FIBER OPTIC LINE FROM RECORD	FO FRD
BLUE – POTABLE WATER	W
BLUE – POTABLE WATER FROM RECORD	W FRD
GREEN – SANITARY SEWER LINES	SAS
GREEN – STORM DRAIN LINES	SD
GREEN – STORM DRAIN LINE FROM RECORD	SD FRD

SCALE: 1" = 30'

30 0 60

15 30

LEGEND

- CATV CABINET
- CATV RISER
- COMM CABINET
- COMM MH
- COMM PULLBOX
- ELEC CABINET
- ELEC MANHOLE
- ELEC PULLBOX
- FLOOD LIGHT
- GAS METER
- SD MANHOLE
- SAS SINGLE CO
- SAS MANHOLE
- WATER METER BOX
- WATER VALVE BOX
- FIRE HYDRANT

HIGH MESA Consulting Group
Engineers, Surveyors & Subsurface Utility Consultants
6010–B Midway Park Blvd. NE • Albuquerque, New Mexico 87109
Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesacg.com

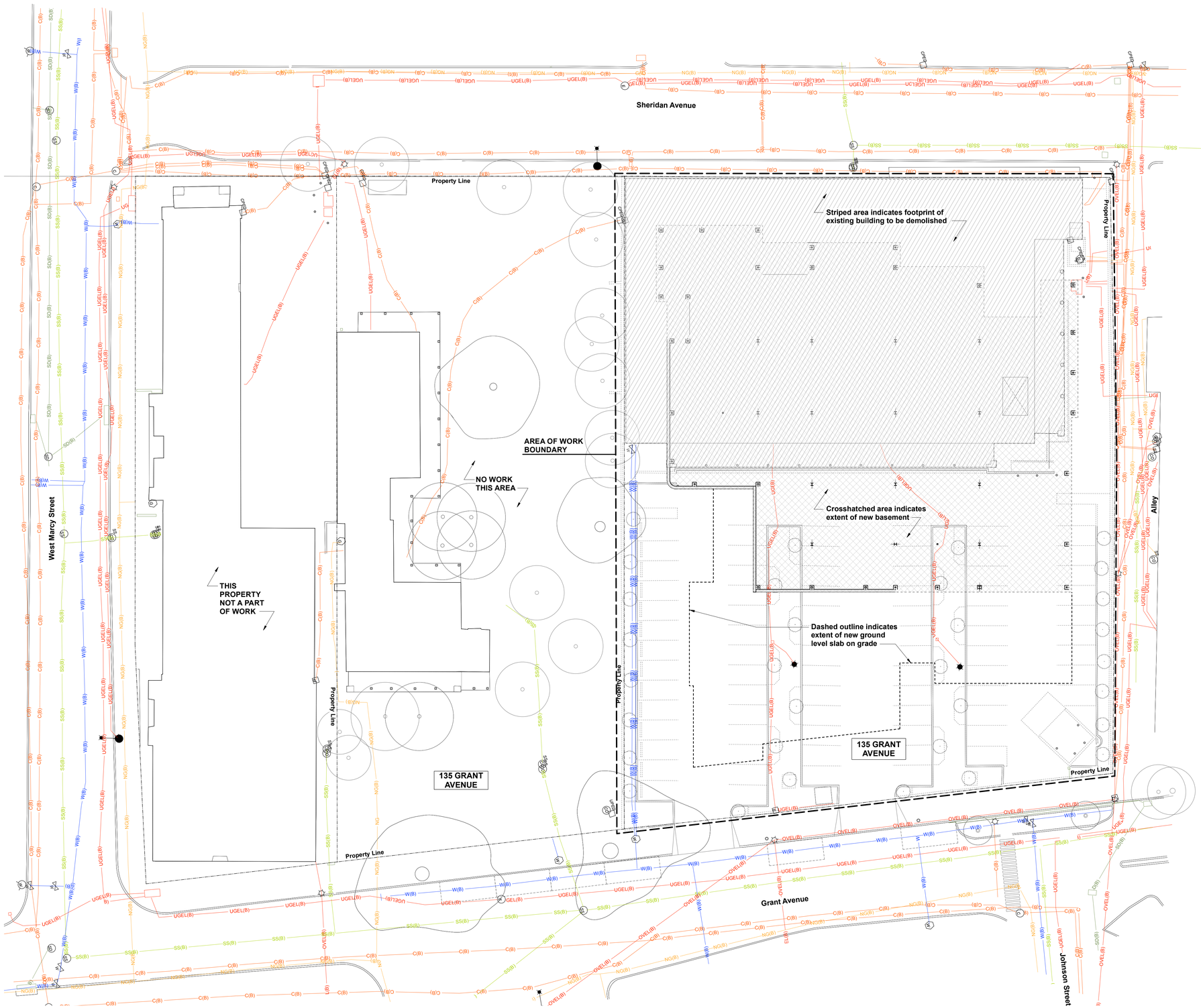
SITE UTILITY DIAGRAM

GEORGIA O'KEEFFE MUSEUM ANNEX – SANTA FE, NEW MEXICO

FLOWN BY D.R.
DRAWN BY R.W.U.
APPROVED BY J.G.

NO.	DATE	BY	REVISIONS

JOB NO. 2019.1083
DATE 11–2019
SHEET 1 OF 1



1 ASD100 UTILITY COORDINATION PLAN: Existing Site w/ New Basement
Scale: 1" = 20'-0"

GENERAL COORDINATION SHEET NOTES

1. **THIS SHEET IS FOR COORDINATION ONLY.**
   - **Utility information on this sheet was taken from the certified Site Utility Survey completed by High Mesa Consulting Group, dated 11/2019.**
   - **Information contained herein is provided for general coordination and is not to be considered as an accurate portrayal of utility locations.**
   - **All utilities shall be accurately located by the Contractor prior to beginning Work.**

LEGEND

- CATV CABINET
- CATV RISER
- COMM CABINET
- COMM MH
- COMM PULLBOX
- ELEC CABINET
- ELEC MANHOLE
- ELEC PULLBOX
- FLOOD LIGHT
- GAS METER
- SD MANHOLE
- SAS SINGLE CO
- SAS MANHOLE
- WATER METER BOX
- WATER VALVE BOX
- FIRE HYDRANT

APWA UTILITY COLOR CODE

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ORANGE – FIBER OPTIC LINES	FO
ORANGE – FIBER OPTIC LINE FROM RECORD	FO FRD
BLUE – POTABLE WATER	W
BLUE – POTABLE WATER FROM RECORD	W FRD
GREEN – SANITARY SEWER LINES	SAS
GREEN – STORM DRAIN LINES	SD
GREEN – STORM DRAIN LINE FROM RECORD	SD FRD

STATE OF NEW MEXICO
DEVENDRAN
CONTRACTOR
No. 3137
12/15/23
REGISTERED ARCHITECT

Consultant

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

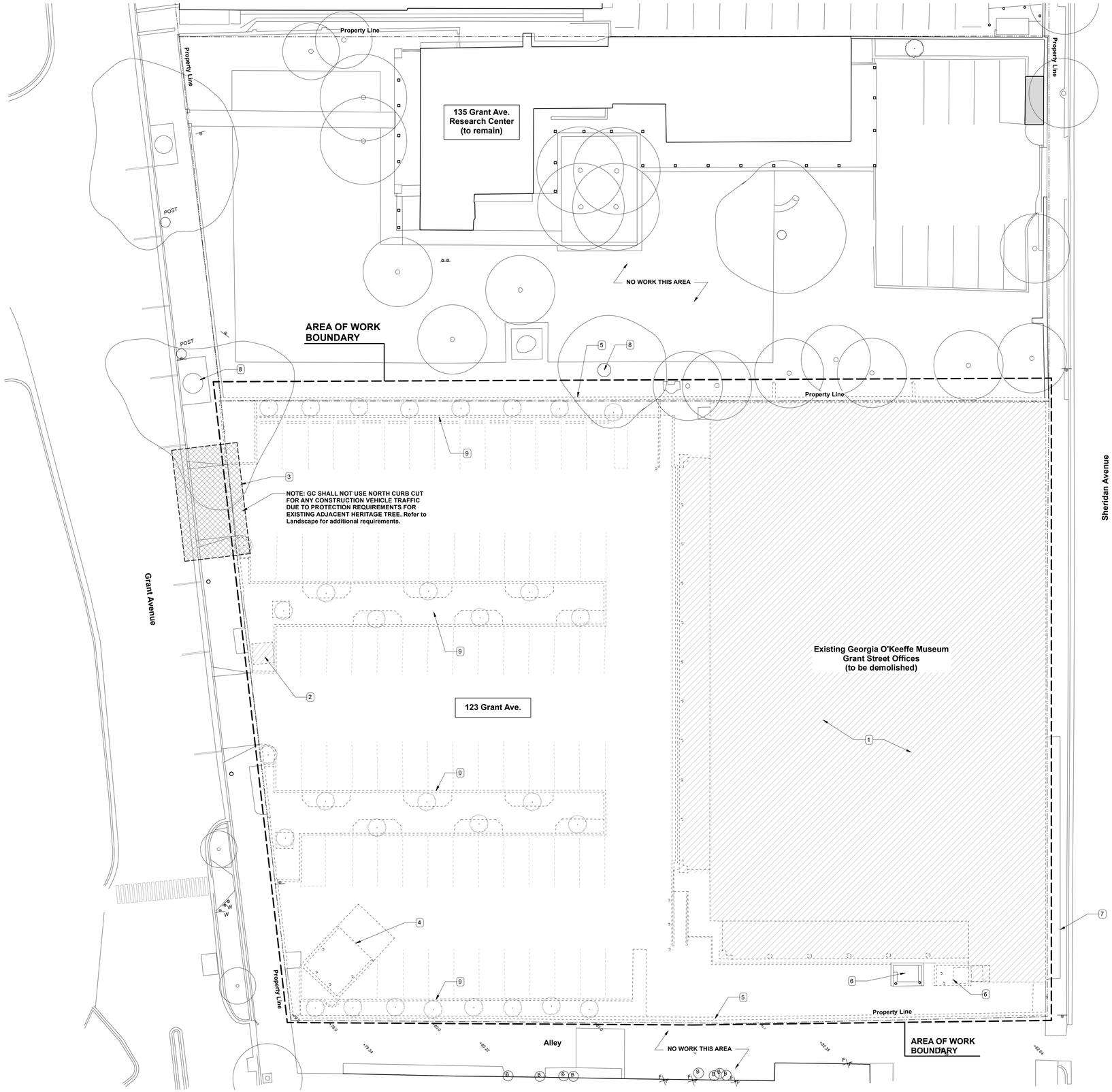
Date	Issue

December 15, 2023 | Plot Date 12/15/23
Drawn by | Checked by
File: GOKM GSO Demo ASD1xx 231214 dh.vwx
Set: **DEMOLITION SET**

UTILITY COORDINATION PLAN: Existing Site w/ New Basement

ASD100

Sheet 07 of



1 ASD101 Demolition Site Plan
Scale: 1/16" = 1'-0"

DEMOLITION PLAN GENERAL NOTES

A. At hatched area remove existing structure complete including exterior walls, foundation, roof, as well as interior walls, furring, and doors and exterior structure as indicated.
B. General Contractor shall obtain all permits from City and comply with all City requirements to protect vehicular and pedestrian activity on all public sides of the site from construction and demolition activity.
C. Provide temporary barriers and partitions as necessary. General Contractor shall be responsible for providing safety measures for protection of pedestrians, vehicles, and all other existing construction to remain relative to the demolished scope of work described herein. The General Contractor shall be responsible to correct any damage caused by execution of construction activities.
D. Prior to any demolition, review all salvage items with Owner's Representative and Architect.
   • Salvage items to be returned to Owner shall include: (9) existing rooftop air handling units (RTUs).
E. Abatement of Hazardous Materials has been completed under separate contract. It is not anticipated that hazardous materials will be encountered on this project. In the event that any materials are encountered that are suspected to be hazardous, immediately inform the Architect and Owner's Representative.
F. Any and all debris generated by construction operations shall be cleaned up and removed DAILY, making the site ready for all subsequent subcontractors.
G. Provide shoring and temporary supports as necessary to insure structural stability and integrity of all elements of the structure during demolition.
H. Refer to Civil, Electrical, and Plumbing drawings and specifications for specific demolition and capping requirements.
I. Contractor shall protect all elements to remain
J. Refer to Landscape for requirements related to protection of existing trees adjacent to Area of Work
K. Unless indicated otherwise, all demolition debris / items are to be removed to a legal waste facility.
L. Refer to Civil for erosion control requirements.
M. General Contractor shall locate all adjacent utilities prior to demolition.
N. General Contractor shall become familiar with the existing site conditions prior to commencement of work and shall report any discrepancies between the drawings and field conditions to the Architect and Owner's Representative.

KEYED NOTES

1. Demolish existing building
2. Demolish parking attendant's kiosk
3. NOTE: GC SHALL NOT USE NORTH CURB CUT FOR ANY CONSTRUCTION VEHICLE TRAFFIC DUE TO PROTECTION REQUIREMENTS FOR EXISTING ADJACENT HERITAGE TREE. Refer to Landscape for additional requirements.
4. Demolish dumpster enclosure, coordinate disposal of dumpster w/ CoSF
5. Demolish site wall, see Civil regarding retaining
6. Demolish transformer, see Electrical
7. Existing CoSF bus shelter, coordinate with City of Santa Fe
8. Existing heritage tree to remain, see Landscape regarding protection
9. Demolish existing curb and paved islands, typ

STATE OF NEW MEXICO
DEVENDRAN
CONTRACTOR
No. 3137
12/15/23
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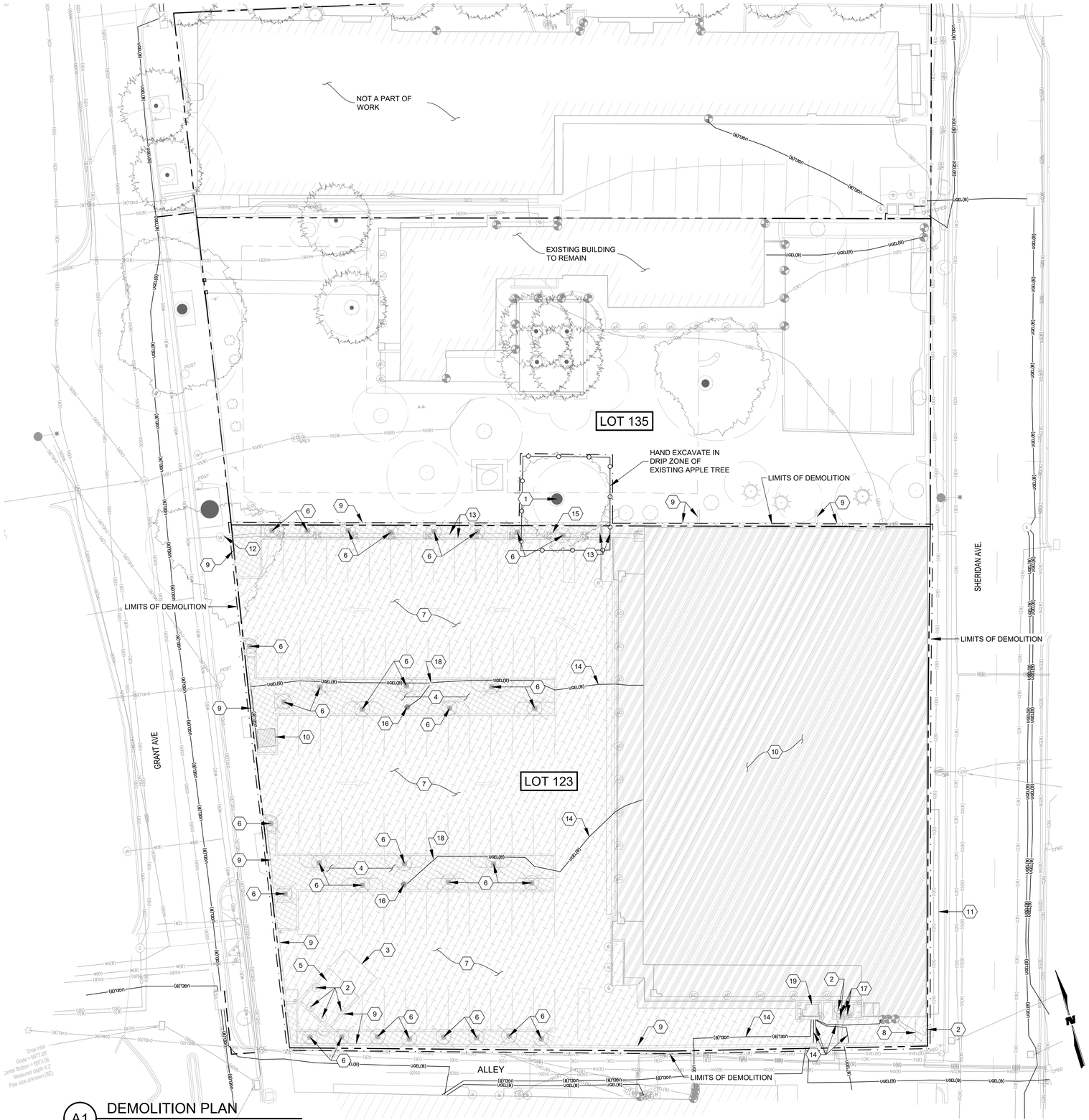
Set
DEMOLITION SET

Sheet Title
Architectural Site Demolition Plan

ASD101

Sheet 08 of



A1 DEMOLITION PLAN

SCALE: 1" = 20'

0 10' 20'

KEYNOTES

1. EXISTING TREE TO REMAIN. PROTECT IN PLACE.
2. REMOVE AND DISPOSE BOLLARD.
3. REMOVE AND DISPOSE CONCRETE.
4. REMOVE AND DISPOSE BRICK PAVERS.
5. TRASH DUMPSTER TO BE REMOVED BY OWNER.
6. EXISTING TREE TO BE REMOVED.
7. REMOVE AND DISPOSE ASPHALT.
8. EXISTING GATE TO BE REMOVED.
9. EXISTING WALL TO BE REMOVED.
10. DEMOLISH AND REMOVE ALL EXISTING BUILDINGS COMPLETELY, INCLUDING CRAWL SPACES AND FOUNDATIONS. BACKFILL AND COMPACT TO MATCH EXISTING GRADE.
11. BUS SHELTER REMOVAL. COORDINATE WITH CITY OF SANTA FE.
12. CUT AND CAP WATER LINE @ METER.
13. REMOVE AND DISPOSE WATER LINE.
14. REMOVE AND DISPOSE OF ALL UNDERGROUND COMMUNICATION / ELECTRICAL WIRING AND CONDUIT. THIS IS A TYPICAL CONDITION THROUGHOUT THE SITE, AND IS NOT LIMITED SOLELY TO NOTED LOCATIONS.
15. REMOVAL OF SPRINKLER CONTROL BOXES BY OWNER.
16. REMOVE LIGHT POLE.
17. REMOVE GAS METER.
18. REMOVE EXISTING ELECTRICAL BOX.
19. REMOVE EXISTING ELECTRICAL PANEL.

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.
3. GENERAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF SALVAGE ITEMS WITH OWNER.
4. FOR EXISTING ELECTRICAL AND GAS DEMOLITION, COORDINATE WITH PNM (1-888-342-5766) & NM GAS COMPANY (505-697-4494) .
5. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING UTILITIES. LOCATIONS ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS.
6. OWNER SHALL SALVAGE SPRINKLER CONTROLLER, BACKFLOW PREVENTER, HOT BOX, SPRINKLER HEADS, IRRIGATION MATERIALS AND RELATED APPURTENANCES WITHIN THE PROPERTY BOUNDARY AS DESIRED. CONTRACTOR SHALL REMOVE & DISPOSE ALL REMAINING IRRIGATION MATERIALS AND CAP SYSTEM WATERLINES AT PROPERTY LINE. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND CONDUCT A SITE VISIT TO ESTIMATE TOTAL QUANTITIES OF REMOVAL.
7. ANY EXISTING MATERIALS OR ITEMS WITHIN THE LIMITS OF WORK, NOT SPECIFICALLY IDENTIFIED TO BE SALVAGED, SHALL BE DEMOLISHED OR REMOVED. RIGHT OF FIRST REFUSAL BY OWNER.
8. BUILDING ABATEMENT WILL BE BY SEPARATE CONTRACT WITH OWNER.
9. GENERAL CONTRACTOR TO DEMOLISH ANYTHING THAT WOULD STAND IN THE WAY OF A CLEAR AND UNOBSTRUCTED SITE, SUCH AS : IRRIGATION PIPING, IRRIGATION CONTROLLERS, FENCES, SIGNAGE, BOLLARDS, PARKING BUMPERS, CURBS AND GUTTERS, ETC. INCLUDING ALL UNDERGROUND UTILITIES.
10. GENERAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SITE CONDITIONS. PRIOR TO COMMENCEMENT OF WORK, THE GENERAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE ARCHITECT.
11. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFETY MEASURES FOR PROTECTION OF PEDESTRIANS, VEHICLES AND ALL OTHER EXISTING CONSTRUCTION TO REMAIN RELATIVE TO THE DEMOLISHED SCOPE OF WORK DESCRIBED HEREIN. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ANY DAMAGE CAUSED BY EXECUTION OF CONSTRUCTION ACTIVITIES.
12. UNLESS INDICATED OTHERWISE, ALL DEMOLITION DEBRIS / ITEMS ARE TO BE REMOVED TO A LEGAL WASTE FACILITY.
13. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT EACH SUBCONTRACTOR CLEANS UP AND REMOVES, DAILY, ANY AND ALL DEBRIS GENERATED BY DEMOLITION OPERATIONS.
14. BUILDING, STRUCTURE AND PAVING REMOVAL SHALL INCLUDE THE DISCONNECTION AND CAPPING OF ANY UTILITIES, FOOTINGS, SLABS, ASSOCIATED BASE MATERIAL AND SATISFACTORY OFF-SITE DISPOSAL OF ALL DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
15. TREE AND SHRUB REMOVAL SHALL INCLUDE THE FELLING, CUTTING, GRUBBING OUT OF ROOTS AND SATISFACTORY OFF-SITE DISPOSAL OF ALL STUMPS VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED THROUGH THE REMOVAL OPERATIONS.
16. EXISTING TREES AND SHRUBS TO REMAIN SHALL NOT BE ALTERED UNDER ANY CIRCUMSTANCES AND MUST REMAIN IN THE SAME CONDITION AS OBSERVED PRIOR TO CONSTRUCTION.
17. NO HEAVY MACHINERY IS TO BE USED WITHIN THE ROOT SYSTEM OF EXISTING TREES. EXCAVATION WITHIN ROOT SYSTEM ZONES IS TO BE PERFORMED BY HAND.
18. ANY ITEMS SCHEDULED TO REMAIN WHICH ARE DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE AT CONTRACTOR'S EXPENSE.
19. ANY ITEMS SCHEDULED TO BE STOCKPILED ON SITE WHICH ARE DAMAGED BY CONTRACTOR'S OPERATIONS SHALL BE AT CONTRACTOR'S EXPENSE.

LEGEND

- EXISTING ROW BOUNDARY
- LIMITS OF WORK
- SAWCUT
- HAND EXCAVATE IN DRIP ZONE
- BUILDING TO DEMOLISH
- MATERIAL TO REMOVE
- PLANTING TO BE REMOVED. LANDSCAPE ARCHITECT TO EVALUATE FOR SALVAGE.
- TREE TO BE REMOVED. LANDSCAPE ARCHITECT TO EVALUATE FOR SALVAGE.

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File: M:\MSD\22-600-553-0202_Disciplines_SHEETS\2_Sheets - civil\Demolition Set\20260553-DP01.dwg
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Sheet Title: DEMOLITION PLAN

C-101

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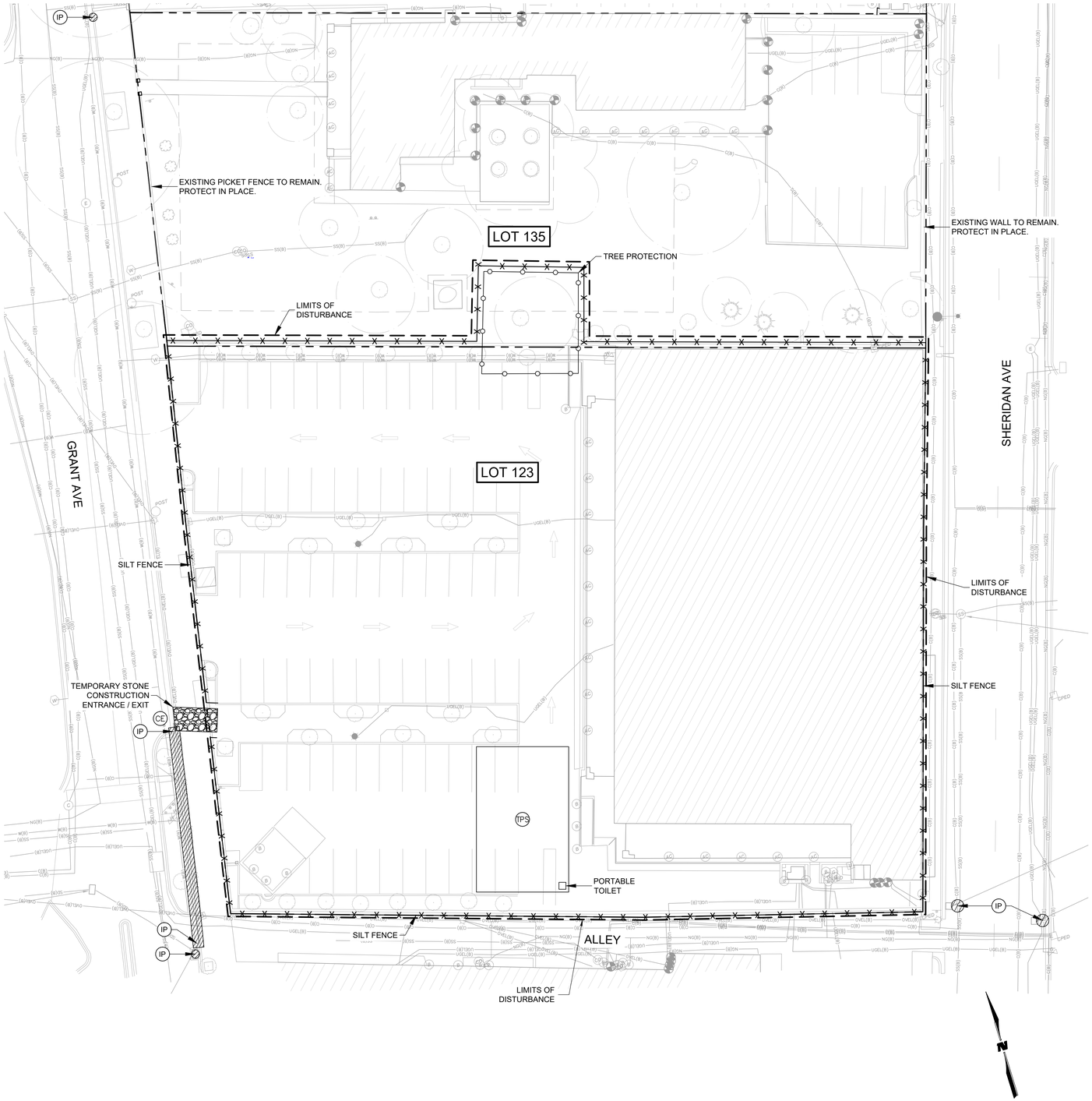


A1 EROSION CONTROL & SEDIMENTATION PLAN

SCALE: 1" = 20'

0 10' 20'

GENERAL EROSION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, THE PLAN NARRATIVE, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF NEW MEXICO NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY; THE SWPPP, ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA. EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

H. ALL WASH WATER (CONCRETE TRUCKS. VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEANUP FUEL OR CHEMICAL SPILLS AND LEAKS.

J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 21 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING THESE AREAS. PROVIDE ADEQUATE TEMPORARY IRRIGATION FOR GERMINATION.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

D. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

0. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, AS REQUIRED PER THE CONSTRUCTION GENERAL PERMIT. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO PREVENT EROSION.

U. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

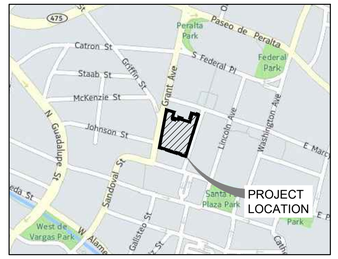
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.

VICINITY MAP



LEGEND

(SF) SILT FENCE

(IP) INLET PROTECTION

(IP) INLET PROTECTION FOR EXISTING TRENCH DRAIN

(CE) TEMPORARY STONE CONSTRUCTION EXIT

LIMITS OF DISTURBANCE

(TPS) TEMPORARY PARKING & STORAGE

TREE PROTECTION

GENERAL SHEET NOTES

1. REFER TO SHEETS C-504 THRU C-505 FOR EROSION CONTROL & SEDIMENTATION DETAILS.

MAINTENANCE:

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5' RAINFALL EVENT. AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING. OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. ANY TEMPORARY PARKING AND STORAGE AREAS SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND. ONCE IDENTIFIED, NOTE ON THE SWPPP PLAN.

6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS. SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY WAS BEEN REDUCED BY 50%.

SEQUENCE OF CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. CONSTRUCT THE SILT FENCES ON THE SITE.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA
4. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
5. PERFORM DEMOLITION ON THE SITE.
6. UNDERCUT GRADE AS REQUIRED.
7. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
8. FINISH GRADING THE SITE RAISE GRADES TO INDUCE DRAINAGE TOWARD TEMPORARY SEDIMENT BASINS

CAUTION:

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

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LICENSED PROFESSIONAL ENGINEER
12/14/2023

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Date: **December 15, 2023**

Drawn by: DY | Checked by: TJA/JEL

File: M:\MD\22-600-553-0\02_Disciplines_SHEETS\2_Sheets - civil\Demolition Set\2280553-EC01.dwg

Set: **DEMOLITION SET**

Sheet Title: EROSION CONTROL & SEDIMENTATION PLAN

C-102

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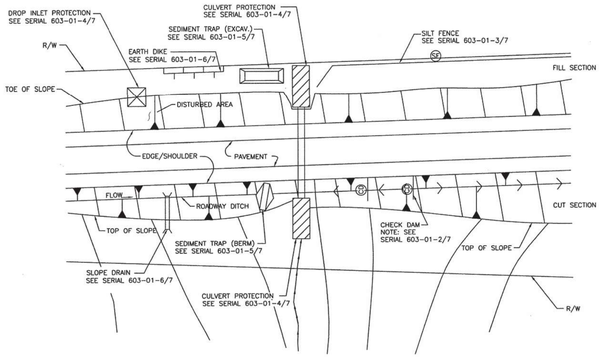


TYPICAL USAGE OF SELECTED EROSION AND SEDIMENT CONTROL MEASURES

STANDARD SYMBOLS FOR EROSION AND SEDIMENT CONTROL MEASURES

SILT FENCE	SF	PIPE SLOPE DRAIN	SEDIMENT TRAP, BERM
STRAW BALE	SB	DROP INLET PROTECTION	SEDIMENT TRAP, EXCAVATED
EARTH DIKE	ED	CULVERT PROTECTION	SEDIMENT BASIN
DIVERSION CHANNEL (SWALE)	DC	CHECK DAM	TRIANGULAR SEDIMENT FILTER DIKE (TSFD)

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES (T.E.S.C.M.)

GENERAL NOTES

1. THE SOIL RETENTION BLANKET INSTALLATION DETAILS SHOWN FOR CULVERT PROTECTION SHALL BE USED FOR ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES UTILIZING SOIL RETENTION BLANKETS UNLESS OTHERWISE NOTED.
2. ROCK PLATING USED IN THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE SHEETS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES UNLESS OTHERWISE INDICATED.
3. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PLACED WITHIN THE CONSTRUCTION CLEAR ZONE SHALL BE INSTALLED WITH 8:1 SLOPES PARALLEL TO TRAFFIC AND 4:1 SLOPES PERPENDICULAR TO TRAFFIC.
4. SEDIMENT TRAPS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN APPROXIMATELY 50% FILLED.
5. CHECK DAMS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE CHECK DAM.
6. CULVERT PROTECTIONS SHALL BE INSTALLED UPON INITIATION OF EARTH WORK ACTIVITIES AND MAINTAINED AS MUCH AS PRACTICAL UNTIL STABILIZATION IS COMPLETED AND ACCEPTED. CULVERT PROTECTIONS MAY BE REMOVED FOR PERIODS OF TIME AS REQUIRED DURING CONSTRUCTION TO COMPLETE ADJACENT IMPROVEMENTS.
7. THE CONTRACTOR MAY CONSTRUCT AN EARTH DIKE AS SHOWN, OR RELOCATE THE CHECK DAMS AS CONSTRUCTION PROGRESSES. NO DIRECT PAYMENT SHALL BE MADE FOR RELOCATION OF THE CHECK DAMS.
8. STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

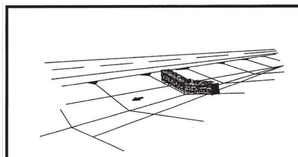
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES

APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-1/7 SERIAL 1 OF 7



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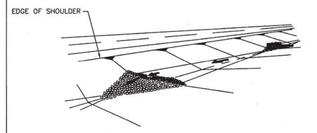

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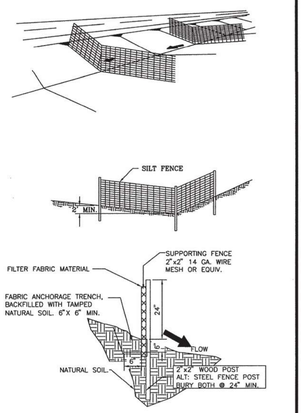


TYPE I SILT FENCE

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

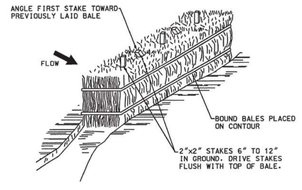
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES CHECK DAMS

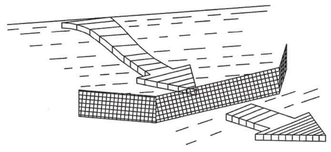
APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-2/7 SHEET 2 OF 7



TYPE II
STRAW BALE OPTION



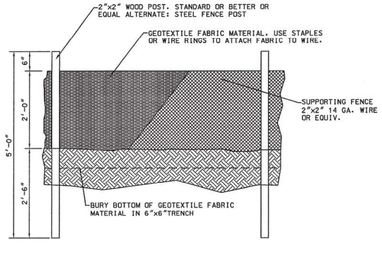
TYPE I
SILT FENCE

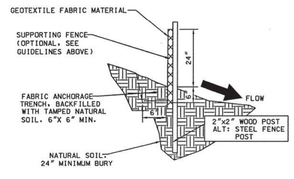
NOTES: SILT FENCE AND CHECK DAM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE POST SPACING FOR SILT FENCES TO MINIMIZE MAINTENANCE.

1. POST SPACING SHALL BE 4 FT. MAXIMUM WITHOUT SUPPORTING FENCE. 10 FT. MAXIMUM WITH SUPPORTING FENCE.
2. POSTS FOR 4 FT. MAXIMUM POST SPACING SHALL BE 2 INCH SQUARE NOMINAL SIZE OR HEAVIER WOOD POSTS. OR STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 2 LBS. PER. LINEAR FOOT.

   POSTS FOR 10 FT. MAXIMUM POST SPACING SHALL BE 4 INCH SQUARE NOMINAL SIZE OR HEAVIER WOOD POSTS. OR STEEL POSTS AS SPECIFIED ABOVE.
3. SUPPORTING FENCE SHALL BE WIRE MESH (14 GA. MIN.. 1 INCH MAX. MESH OPENINGS). SNOW FENCE. PLASTIC FENCE OR APPROVED.
4. SUPPORTING FENCE SHALL BE FASTENED SECURELY TO POSTS WITH STAPLES OR WIRE TIES. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO SUPPORTING FENCE WITH WIRE TIES SPACED AT 2 FT. CENTERS ALONG THE TOP AND MID-SECTION. WHEN A SUPPORTING FENCE IS NOT USED. GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO POSTS WITH STAPLES OR WIRE TIES.
5. WHEN SILT FENCE IS USED FOR CHECK DAMS INSTALLED IN DITCHES. A SUPPORTING FENCE SHALL BE PROVIDED. WITH MAXIMUM POST SPACING OF 10 FT.
6. STANDARD "T" OR "U" SECTION STEEL POSTS SHALL NOT BE USED WITHIN THE CONSTRUCTION CLEAR ZONE RECOVERY AREA.
7. STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.





NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			

NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES SILT FENCE

APPROVED Raymundo Lon Hosa 11/23/09 DIVISION ENGINEER DATE

DESIGNED BY___ DRAWN BY___ CHECKED BY___

603-01-3/7

A1 EROSION CONTROL & SEDIMENTATION DETAILS

SCALE: NTS

JAMES E. LOPEZ NEW MEXICO 24897 REGISTERED PROFESSIONAL ENGINEER

12/14/2023

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
December 15, 2023

Drawn by: DY
Checked by: TJA/JEL

File
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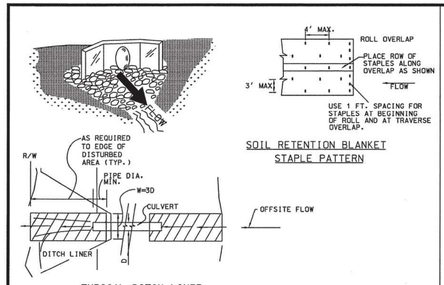
Set
DEMOLITION SET

Sheet Title
EROSION CONTROL & SEDIMENTATION DETAILS

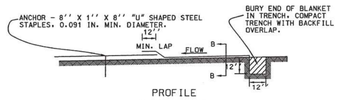
C-103

Sheet 10 of



SOIL RETENTION BLANKET
STAPLE PATTERN

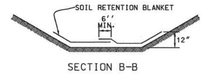
TYPICAL DITCH LINER
INSTALLATIONS AT CULVERTS



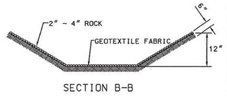
PROFILE
DITCH LINER

NOTES: CULVERT PROTECTION

1. WHEN CULVERT PROTECTION IS SPECIFIED. EITHER SOIL RETENTION BLANKETS OR SOIL RETENTION ROCK MAY BE PROVIDED.
2. THE CULVERT PROTECTION WIDTH REQUIRED SHALL BE IN ACCORDANCE WITH THESE DETAILS UNLESS SPECIFIED OTHERWISE.
3. THE SOIL RETENTION BLANKET INSTALLATION SHOWN OUTLINES MINIMUM REQUIREMENTS. MANUFACTURER'S RECOMMENDATIONS SHALL BE USED IF THEY ARE MORE STRINGENT.

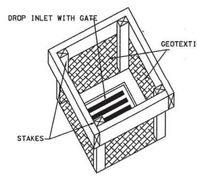


SECTION B-B



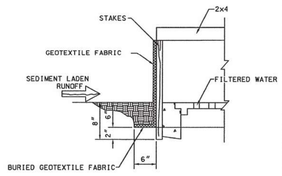
SECTION B-B

CULVERT PROTECTION

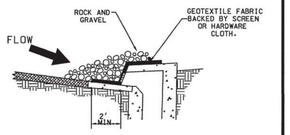


TYPE I

NOTE: WHEN SPECIFIED. ROCKS OR STRAW BALES CAN BE SUBSTITUTED FOR SILT FENCE.



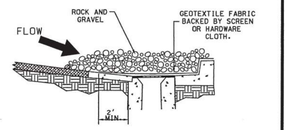
DROP INLET PROTECTION



TYPE I
CURB OPENING

NOTES: GRAVEL INLET PROTECTION

1. THIS INSTALLATION IS FOR A TYPE I CURB DROP INLET ONLY. THE TYPE II. III TO "N" INSTALLATION IS SIMILAR.
2. THE SPACING OF THE LONGITUDINAL BRACING SHALL NOT EXCEED 5 FT.



TYPE II
CURB DROP INLET

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)

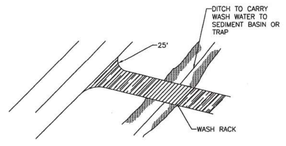
NEW MEXICO
DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

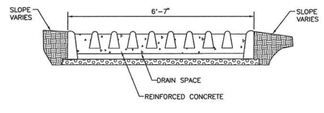
TEMPORARY EROSION & SEDIMENT CONTROL MEASURES
CULVERT & DROP INLET PROTECTION

APPROVED Raymundo Var Haus 11/21/09
DESIGN ENGINEER DATE

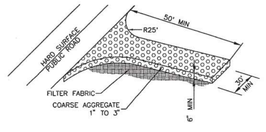
DESIGNED BY___ DRAWN BY___ CHECKED BY___

603-01-4/7

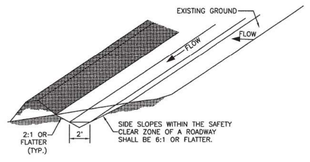




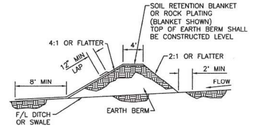
WASH RACK



OFFSITE TRACKING PREVENTION



TYPICAL SWALE CONFIGURATION



FILTER FABRIC DIVERSION DIKE

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)

NEW MEXICO
DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

T.E.S.C.M.
OFFSITE TRACKING
PREVENTION & DIVERSION DIKE

APPROVED Raymundo Var Haus 11/21/09
DESIGN ENGINEER DATE

DESIGNED BY___ DRAWN BY ___ CHECKED BY ___

603-01-7/7 SHEET 7 OF 7

DIVERSION DIKE

A1 EROSION CONTROL & SEDIMENTATION DETAILS

SCALE: NTS

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24897
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12/14/2023

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Set
123&135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
December 15, 2023

Drawn by: DY
Checked by: TJA/JEL

File
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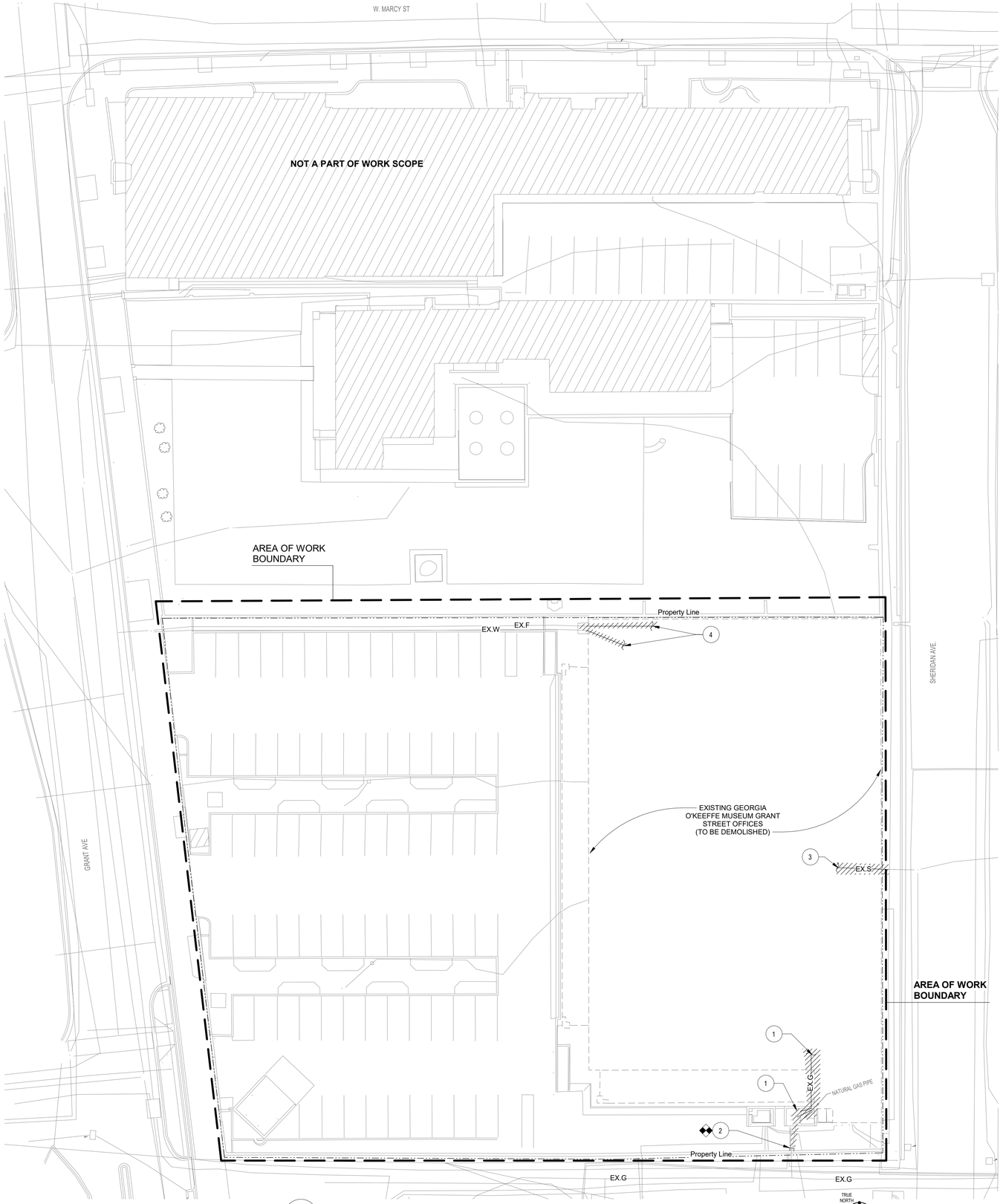
Set
DEMOLITION SET

Sheet Title
EROSION CONTROL & SEDIMENTATION DETAILS

C-104

Sheet 11 of



1 PDS101 PLUMBING DEMOLITION SITE PLAN
SCALE: 1" = 20'-0"

SCHEMATIC SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
XX		KEYED NOTE
		EXTENT OF DEMOLITION
		EXISTING PIPE TO BE REMOVED
		EXISTING PIPING

PLUMBING SITE SYMBOLS

DESCRIPTION	EXISTING
EXISTING SANITARY SEWER	EX.S
EXISTING COLD WATER SUPPLY	EX.W
EXISTING FIRE PROTECTION	EX.F
EXISTING NATURAL GAS	EX.G
EXISTING CLEANOUT	CO
EXISTING NATURAL GAS METER	G
EXISTING SANITARY MANHOLE	MH
EXISTING BUILDING FOOTPRINT	

DEMOLITION GENERAL NOTES

A. OVERALL DEMOLITION SCOPE OF PROJECT IS TO DEMOLISH THE EXISTING GEORGIA O'KEEFFE MUSEUM GRANT STREET OFFICES BUILDING, STRUCTURES AND SITE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO: PERMANENT STRUCTURES; ABOVE GROUND & UNDERGROUND MEP SYSTEMS INSIDE STRUCTURES, UNDER STRUCTURES AND ACROSS SITE. ALL MEP SYSTEMS ARE TO BE REMOVED IN THEIR ENTIRETY; NONE ARE TO BE ABANDONED IN PLACE.

B. COORDINATE WITH CIVIL DEMOLITION PLAN **C-102** FOR EXISTING BUILDING AND THE UTILITIES ON THE ENTIRE PROPERTY.

C. FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND COORDINATE ALL DISCONNECTION OF UTILITIES WITH ALL APPROPRIATE UTILITY COMPANIES.

D. REMOVE AND DISPOSE BUILDING WATER LINE. COORDINATE WITH CITY OF SANTA FE WATER UTILITY. SEE CIVIL PLAN **C-102**.

E. REMOVE AND DISPOSE OF BUILDING SANITARY SEWER LINE. COORDINATE WITH CITY OF SANTA FE WATER UTILITY. SEE CIVIL PLAN **C-102**.

DEMOLITION KEYED NOTES

1. DISCONNECT EXISTING SOUTH SIDE GAS DISTRIBUTION PIPING FROM GAS METERS TO ALLOW FOR DEMOLITION OF EXISTING BUILDING, INCLUDING ALL GAS PIPING INSIDE, UNDER AND AROUND STRUCTURE. EXISTING GAS METERS ARE LOCATED ON EXTERIOR OF SOUTH SIDE OF EXISTING BUILDING. SEE CIVIL PLAN **C-102**.
2. COORDINATE ALL GAS OUTAGES EFFECTING NEIGHBORING BUILDINGS WITH NM GAS COMPANY (505-697-4494), PRIOR TO DEMOLISHING BELOW GRADE GAS LINE TO WITHIN 5 FEET OF PROPERTY BOUNDARY. CAP AND ABANDON. PROVIDE & BURY WARNING TAPE 18" ABOVE GAS LINE WITH A 30" STANDARD ALUMINUM PIPE MOUNT WITH CAST ALUMINUM BASE THAT HOUSES A STRONG, PERMANENT MAGNET; BERNTSEN STANDARD ALUMINUM BASE MONUMENT OR EQUAL. COORDINATE WITH GAS UTILITY. COORDINATE WITH CIVIL PLAN **C-102**.
3. REMOVE ENTIRE EXISTING BUILDING SANITARY SYSTEM. SEE CIVIL PLAN **C-102**.
4. REMOVE ENTIRE WATER AND FIRE PROTECTION BUILDING SYSTEM. SEE CIVIL PLAN **C-102**.

I LIR MESITI NEW MEXICO 20505 PROFESSIONAL ENGINEER

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
DEMOLITION PERMIT SET
123 & 135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **December 15, 2023**
Drawn by: **SNB** | Checked by: **IM**
File: **8621_MEP_Georgia O'Keeffee Museum.rvt**
Set: **DEMOLITION PERMIT SET**
Sheet Title: **PLUMBING DEMOLITION SITE PLAN**

PDS101

Sheet 12 of

ELECTRICAL SYMBOL LEGEND (NOT ALL SYMBOLS APPLY TO THIS PROJECT)

UPDATED: 09/07/2016

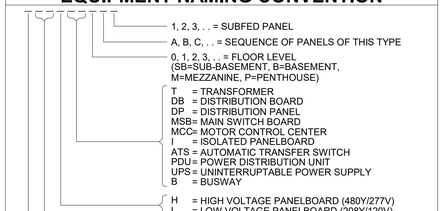
ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CLOCK
CLF	CURRENT LIMITING FUSE
CO	CONDUIT ONLY
CU	COPPER
D	DIMMING
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DIA	DIAMETER
E	EMERGENCY
EC	EMERGENCY, CRITICAL
EG	ENGINE GENERATOR
EL	EMERGENCY, LIFE SAFETY
EQ	EMERGENCY, EQUIPMENT
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FMS	FACILITY MANAGEMENT SYSTEM
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
G OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND.
HOA	HAND-OFF-AUTOMATIC.
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR.
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM
MM	MIXED MEDIA
MTS	MANUAL TRANSFER SWITCH
MVA	MEGAVOLT AMPS
N	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NORMAL
NM	NEW MEXICO
NO	NORMALLY OPEN
O/H	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PC	PHOTOCELL
PH	PHASE
PMCS	POWER MONITORING AND CONTROL SYSTEM
R	REMOVED/REMOVAL
RC	ROOM CONTROLLER
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TEMP	TEMPORARY
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP.	TYPICAL
UC	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WALL MOUNTED
WG	WEATHERPROOF AND GFCI
WP	WEATHERPROOF
XFER	TRANSFER
XFMR (TRANSF)	TRANSFORMER

REFERENCE TAGS

SYMBOL	DEFINITION
⬡	KEYED NOTE REFERENCE
VAV-9	MECHANICAL EQUIPMENT REFERENCE
+44"	DENOTES MOUNTING HEIGHT AFF
▭	KITCHEN EQUIPMENT REFERENCE
⬭	MEDICAL EQUIPMENT REFERENCE

EQUIPMENT NAMING CONVENTION



EXAMPLES:

A. SES1 (SERVICE ENTRANCE SECTION #1)
B. 1H1A (SERVED FROM SES#1, 480/277 NORMAL, LEVEL 1, FIRST BOARD)
C. 1EQH1A (SERVED FROM MAIN EMER SWBD #1, 480/277 EQUIP POWER, LEVEL 1, FIRST BOARD)

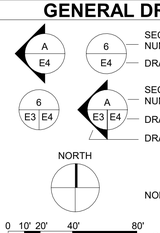
RACEWAY & CONDUCTORS

BRANCH CIRCUIT GENERAL INFORMATION:

BRANCH CIRCUITS FROM OVERCURRENT PROTECTION (20A) TO FURTHEST DEVICE SHALL NOT EXCEED 75 FEET FOR #12AWG COPPER AND 150 FEET FOR #10AWG COPPER; MEASURED ALONG CONDUCTORS ROUTING PATH. BRANCH CIRCUITS EXCEEDING 150 FEET WILL BE SIZED SO THAT VOLTAGE DROP DOES NOT EXCEED 3%.

SYMBOL	DESCRIPTION
= GROUND = HOT/PHASE = NEUTRAL = SWITCH LEG	CONDUCTOR IDENTIFICATION SYMBOLS. REFER TO PLANS FOR COMBINATION USE. CONDUCTOR IDENTIFICATION MOSTLY USED IN HOMERUN LOCATION, BUT CAN ALSO BE USED IN BRANCH CIRCUITING WHERE APPLIED. GROUND CONDUCTORS WILL BE INSTALLED IN ALL RACEWAYS WHETHER SHOWN OR NOT.
LA-1	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). SYMBOL REPRESENTS A MULTI-BRANCH CIRCUIT. NUMBER OF CONDUCTORS IN HOMERUN WILL INCLUDE A SEPARATE NEUTRAL FOR EACH CIRCUIT PHASE CONDUCTOR. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL TWO OR THREE POLE CIRCUIT BREAKERS. CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. NEUTRAL MAY BE USED WHERE INDICATED ON PLAN. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
	CONCEALED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT IN WALLS OR IN CEILING SPACE
	UNDERGROUND RACEWAY BETWEEN DEVICES AND OR EQUIPMENT
	EXPOSED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT ON WALLS OR CEILINGS
DOWN UP	CONDUIT TURNS
	CONDUIT STUBBED AND CAPPED
B	BUSWAY
G	GROUNDING CONDUCTOR
	CABLE TRAY - POWER AND TELECOMMUNICATIONS
T	TELECOMMUNICATIONS RACEWAY
D	DATA RACEWAY
V/D	VOICE/DATA COMBINATION RACEWAY
FA	FIRE ALARM RACEWAY

GENERAL DRAWING SYMBOLS



SECTION/ELEVATION LETTER OR DETAIL NUMBER
DRAWING NUMBER WHERE DETAILED
SECTION/ELEVATION LETTER OR DETAIL NUMBER
DRAWING NUMBER WHERE DETAILED
DRAWING NUMBER WHERE TAKEN
NORTH ARROW OR MATCH ARCHITECT'S
SCALE BAR OR MATCH ARCHITECT'S

DEMOLITION

SYMBOL	DESCRIPTION	NOTES
	DASHED SYMBOL INDICATES EXISTING DEVICE OR EQUIPMENT TO BE REMOVED	REFER TO DEMOLITION PLANS FOR ADDITIONAL INFORMATION
R	REMOVE EXISTING RACEWAY IN ALL ACCESSIBLE AREAS. CAPPED AND ABANDONED IF IN UNACCESSIBLE AREA	
	SOLID SYMBOL, LIGHTER IN COLOR INDICATES EXISTING DEVICE OR EQUIPMENT TO REMAIN	
EX	EXISTING CONDUIT TO BE REUSED	

DEVICES

DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST RECEPTACLE TYPES):

- BLANK FOR NORMAL POWER
- G = GFCI RATED
- IG = ISOLATED GROUND
- T = TAMPERPROOF
- WG = WEATHERPROOF AND GFCI
- WP = WEATHERPROOF (IN-USE COVER)
- CL = CLOCK
- TV = TELEVISION

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
X	IN FLOOR DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS	FLOOR	VARIES
X	IN FLOOR DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	COMBINATION DUPLEX RECEPTACLE AND COMMUNICATIONS FLOORBOX. DEVICE CONFIGURATION AS INDICATED ON PLANS.		
X	CEILING MOUNTED DUPLEX RECEPTACLE	CEILING	FLUSH
X	CEILING MOUNTED DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DUPLEX RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	COMBINATION POWER/COMMUNICATION IN CEILING OUTLET. CONFIGURATION AS INDICATED ON PLANS		
X	SIMPLEX RECEPTACLE	WALL, UON	+18", UON
X	DUPLEX RECEPTACLE		
X	DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	EMERGENCY DUPLEX RECEPTACLE		
X	EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	SPECIAL PURPOSE RECEPTACLE. NEMA CONFIGURATION AND AMPERAGE AS NOTED ON PLANS		
	MULTI-OUTLET ASSEMBLY (SURFACE MOUNTED RACEWAY)	VARIES SEE PLANS	VARIES SEE PLANS
	COMBINATION POWER/COMMUNICATION POLE. CONFIGURATION AS NOTED ON PLANS		
J	WALL MOUNTED CODE SIZE J-BOX	VARIES SEE PLANS	VARIES SEE PLANS
J	CODE SIZE JUNCTION BOX		
P	CODE SIZE PULLBOX (OR AS SIZED ON PLAN)		
	PUSHBUTTON (EMERGENCY POWER OFF - EPO)		
PC	PHOTOCELL		
	LIGHTNING PROTECTION AIR TERMINAL	ROOF	VARIES +44" UON
T	THERMOSTAT	WALL	
CB 30/3R	ENCLOSED CIRCUIT BREAKER. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON	VARIES	VARIES
30/1	NON-FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
30/3R	FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
0/1	MOTOR STARTER. STARTER SIZE INDICATED BY NUMBER/NEMA ENCLOSURE RATING, SINGLE SPEED UON		
1/30/3R	COMBINATION FUSIBLE DISCONNECT SWITCH AND MOTOR STARTER. NEMA STARTER SIZE/AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
5	MOTOR. NUMBER INDICATES HORSEPOWER RATING FOR 1HP AND LARGER	N/A	N/A
F	MOTOR. "F" INDICATES FRACTIONAL HORSEPOWER		

EQUIPMENT

SYMBOL	DESCRIPTION
MSB	MAIN SWITCHBOARD. DASHED LINES INDICATE CLEARANCES.
DB	DISTRIBUTION BOARD OR PANEL. DASHED LINES INDICATE CLEARANCES.
H1A	FLUSH MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
L1A	SURFACE MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
MCC	MOTOR CONTROL CENTER. DASHED LINES INDICATE CLEARANCES.
T1A	DRY TYPE TRANSFORMER (15kVA OR ABOVE), WITH EQUIPMENT TAG (TAG INSIDE OR OUTSIDE, DEPENDING ON SIZE). IN MOST CASES, ACTUAL SIZE SHOWN ON PLANS (ELECTRICAL ROOMS).
T	DRY TYPE TRANSFORMER (LESS THAN 15kVA), WITH NO EQUIPMENT TAG. SIZE, TYPE AND LOCATION NOTED ON PLANS.
VFD	VARIABLE FREQUENCY DRIVE
UPS-A	UNINTERRUPTABLE POWER SUPPLY. DASHED LINES INDICATE CLEARANCES.
ATS-1	AUTOMATIC TRANSFER SWITCH. DASHED LINE INDICATE CLEARANCES.
G	GROUND BAR

LIGHTING

REFER TO LUMINAIRE SCHEDULE FOR ALL LUMINAIRE TYPES WHETHER WALL MOUNTED OR CEILING MOUNTED.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	HATCHING INDICATES EMERGENCY LIGHTING. HATCH WILL BE MODIFIED FOR EACH LUMINAIRE TYPE. EMERGENCY LUMINAIRE DESIGNATED WITH "E" IN TYPE DESIGNATION.	VARIES	REFER TO LIGHTING SCHEDULE
3 A a	RECESSED MOUNTED LUMINAIRE. SMALL CASE "a" DENOTES SWITCHING, NUMBER "3" DENOTES BRANCH CIRCUITING. SYMBOL "A" DENOTES LUMINAIRE TYPE	CEILING	
	SURFACE MOUNTED LUMINAIRE. LUMINAIRE TYPE AS INDICATED ON PLANS		
	LINEAR DIRECT/INDIRECT LUMINAIRE. CABLE OR STEM MOUNTED		
	DOWN LIGHT LUMINAIRE; CEILING MOUNTED		
	WALL MOUNTED LUMINAIRES	WALL	
	TRACK MOUNTED LUMINAIRES	SURFACE	
	STRIP LUMINAIRE		
WALL CEILING	EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS	VARIES	
WALL CEILING	DOUBLE FACE EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS		
	EMERGENCY BATTERY PACK LUMINAIRE (BUG-EYE/FROG-EYE)		
	SINGLE HEAD, POLE MOUNTED LUMINAIRE	EXTERIOR	AS DETAILED
	DOUBLE HEAD, POLE MOUNTED LUMINAIRE		
$ X	DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST SWITCH TYPES): a = SMALL CASE LETTER DENOTES SWITCHING CONTROL; 2 = DOUBLE POLE TOGGLE SWITCH; 3 = THREE-WAY TOGGLE SWITCH; 4 = FOUR-WAY TOGGLE SWITCH; P = PILOT LIGHT TOGGLE SWITCH; M = MOMENTARY CONTACT SWITCH; K = KEY OPERATED SWITCH; WP = WEATHERPROOF TOGGLE SWITCH; T = MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTION; D = DIMMER SWITCH; TW= TWIST TIMER SWITCH	WALL	+44" UON
OS	WALL MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS		
OS	CEILING MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS	CEILING	SURFACE
DL	DAY-LIGHTING SENSOR; TYPE AS INDICATED ON PLANS		
RC	ROOM CONTROLLER; TYPE AS INDICATED ON PLANS		

UTILITIES

SYMBOL	DESCRIPTION
	DISTRIBUTION POLE FOR OVERHEAD ELECTRICAL OR COMMUNICATIONS AS INDICATED ON PLAN.
X X X	OVERHEAD UTILITY AND OR SYSTEM DISTRIBUTION. 3PH = THREE PHASE; 1PH = SINGLE PHASE; P = ELECTRICAL PRIMARY; S = ELECTRICAL SECONDARY; T = TELECOMMUNICATION; TV = TELEVISION; E = EMERGENCY POWER; ATSC = AUTOMATIC TRANSFER SWITCH CONTROL; N = NEW; EX = EXISTING
X X X	UNDERGROUND UTILITY AND OR SYSTEM DISTRIBUTION.
UT	UTILITY OR FACILITY TRANSFORMER
S	PAD MOUNTED SWITCH
CC	CONNECTION CABINET (UTILITY METER MOUNT)
PM	PRIMARY SITE METER ENCLOSURE
ME	METER ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
CT	CT ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
MH	MANHOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
HH	HAND HOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
EG	ENGINE GENERATOR
TP	TELECOMMUNICATION PEDESTAL
TVP	TELEVISION PEDESTAL

FIRE ALARM

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
FACP	FIRE ALARM CONTROL PANEL	WALL	-
FATC	FIRE ALARM TERMINAL CABINET (EQUIPMENT NAMING CONVENTION PER PLANS)		
FAA	FIRE ALARM ANNUNCIATOR PANEL	WALL	+44"
F	PULL STATION		
	FIREMAN'S TELEPHONE OUTLET		
F	HORN NOTIFICATION	WALL	+80" UON
S	SPEAKER NOTIFICATION		
C	CHIME NOTIFICATION		
	COMBINATION SPEAKER AND CHIME NOTIFICATION		
	SPEAKER/HORN WITH STROBE LIGHT		
	STROBE LIGHT ONLY		
B	BELL (GONG)		
P	PHOTOELECTRIC SMOKE DETECTOR	CEILING	SURFACE
I	IONIZATION SMOKE DETECTOR		
R/F	COMBINATION RATE OF RISE / FIXED TEMPERATURE		
F	FIXED TEMPERATURE; TEMPERATURE AS NOTED ON PLANS OR SPECIFICATIONS		
R	RATE OF RISE ONLY		
BT	BEAM TRANSMITTER	CEILING OR WALL	VARIES
BR	BEAM RECEIVER		
U	UNDER FLOOR SMOKE DETECTOR	UNDER FLOOR	SEE PLANS
	DUCT DETECTOR	AT DUCT	SEE PLANS
	FIRE/SMOKE DAMPER		
PS	PRESSURE SWITCH	PIPE	VARIES
TS	TAMPER SWITCH		
FS	FLOW SWITCH		
PIV	POST INDICATOR VALVE		
M	MAGNETIC DOOR HOLDER	VARIES	SEE PLANS
R	CONTROL RELAY		
MM	MONITOR MODULE		
	REMOTE ALARM INDICATING LIGHT		
R	ADDRESSABLE/SUPERVISED RELAY		

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
300/400	CIRCUIT BREAKER; TRIP SETTING/FRAME SIZE OR NO. OF POLES. SETTINGS AND PROTECTION AS NOTED ON PLANS
300/400	DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
300/400	MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
208Y/120V T1A 75kVA K-4 480V	TRANSFORMER. TRANSFORMER NAME, TRANSFORMER kVA RATING, PRIMARY VOLTAGE AND WIRING CONFIGURATION, SECONDARY VOLTAGE, K RATING (IF APPLICABLE)
3000/5	CURRENT TRANSFORMER, NUMBER "3000/5" DENOTES RATIO.
	POTENTIAL TRANSFORMER.
300A	DISCONNECT SWITCH. "300A" DENOTES AMPERAGE RATING
300A	FUSE. "300A" DENOTES AMPERAGE RATING
G	GROUND FAULT PROTECTION
ST	SHUNT TRIP OPERATOR
	GROUND CONNECTION
	TRANSFER SWITCH. SEE PLANS FOR TYPE OF SWITCH
	SURGE ARRESTOR
SPD	SURGE PROTECTIVE DEVICE
KW	KILOWATT METER
M	ELECTRONIC METER
K1	KIRK KEY INTERLOCK No.1
R1	RELAY No.1
AS	AMMETER SWITCH
A	AMMETER
VS	VOLTMETER SWITCH
V	VOLTMETER
	DELTA CONNECTED
	WYE CONNECTED
	GENERATOR
VFD	VFD CONNECTION
5	MOTOR CONNECTION
UPS	UPS

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GEORGIA O'KEEFFE MUSEUM
GRANT STREET OFFICES
Demolition Permit Set

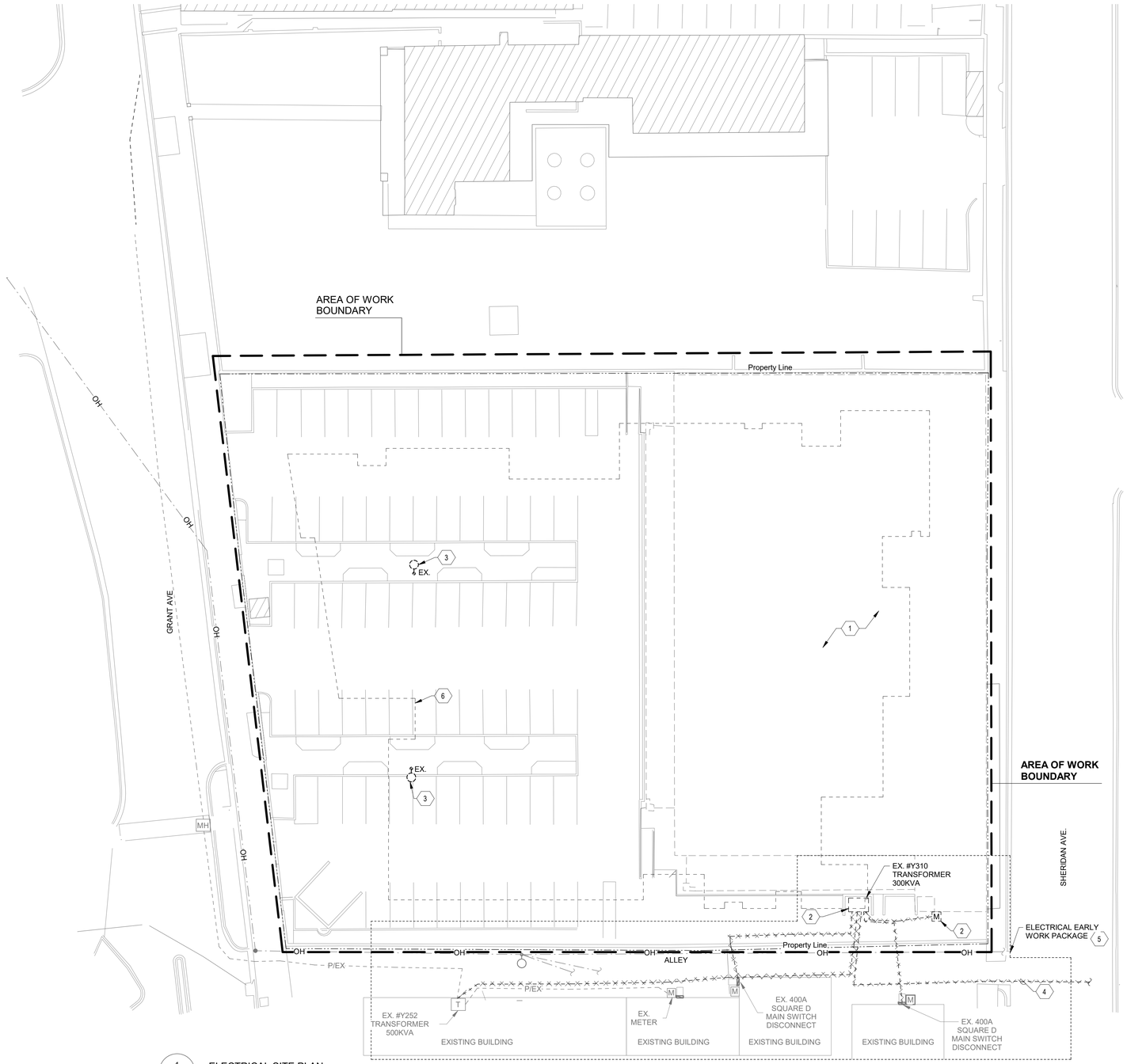
123 & 135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: December 15, 2023
Drawn by: LMC
Checked by: OU
File: 8621_MEP_Georgia O'Keeffe Museum.rvt
Set: Demolition Permit Set
Sheet Title: ELECTRICAL LEGEND

E-001

Sheet 13 of



1 ES101 ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

DEMOLITION GENERAL NOTES

A. INFORMATION SHOWN IS DIAGRAMMATIC AND IS NOT INTENDED TO REPRESENT PHYSICAL ARRANGEMENTS, LOCATIONS, ROUTING OR CONNECTIONS. PHYSICAL LAYOUTS ARE TO BE COORDINATED WITH OTHER UTILITIES, AND PER FIELD CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.

B. WHERE CIRCUITS EXTEND FROM AREAS OUTSIDE OF DEMOLISHING SCOPE CONTRACTOR IS TO SPICE, RE-ROUTE, AND EXTEND CIRCUIT AS NECESSARY TO MAINTAIN CONTINUITY TO REMAINING DEVICES.

C. CONTRACTOR SHALL TAKE ADEQUATE MEASURES TO PROTECT EXISTING FLOOR, WALL AND CEILING FINISHES AND EXISTING EQUIPMENT SCHEDULED TO REMAIN FROM DAMAGE. CONTRACTOR SHALL PREVENT THE ACCUMULATION OF AND CONSTRUCTION DEBRIS. PROVIDE SECURE SEALS USING PLASTIC SHEETS OR OTHER SUITABLE BARRIERS TO PROTECT FINISHES AND EQUIPMENT. ANY DAMAGE TO SUCH ITEMS SHALL BE REPAIRED OR THE ITEM REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER. CONTRACTOR TO PROVIDE DOCUMENTATION AND INVENTORY OF ITEMS TO REMAIN/FINISH STATE PRIOR TO CONSTRUCTION ACTIVITIES. INVENTORY TO BE COMPLETED PRIOR TO START OF DEMOLITION WORK.

D. THIS DRAWING INDICATES THE INTENT OF DEMOLITION AT EXISTING BUILDING. NO ATTEMPT HAS BEEN MADE TO SHOW EACH AND EVERY SURFACE, ELEVATION, DETAIL, ETC. THE CONTRACTOR IS ADVISED TO VISIT THE JOB SITE TO BECOME FAMILIAR WITH THE SCOPE OF WORK PRIOR TO BIDDING. EXISTING DRAWINGS OF RECORD FOR THE BUILDING ARE AVAILABLE UPON REQUEST.

E. ALL DEMOLITION WORK SHALL BE COORDINATED WITH RENOVATION PLANS AND NEW CONSTRUCTION PLANS.

F. UTILITIES: LOCATE ALL EXISTING ACTIVE UTILITIES AND DETERMINE ALL REQUIREMENTS FOR DISCONNECTION, RECONNECTION, REROUTING OR CAPPING. CONTRACTOR SHALL PROTECT ALL UTILITIES DESIGNATED TO REMAIN FROM DAMAGE. CONTRACTOR SHALL COORDINATE ANY UTILITY INTERRUPTIONS WITH OWNER A MINIMUM OF 10 DAYS IN ADVANCE.

G. ALL DEMOLITION DRAWINGS INDICATE THE GENERAL SCOPE OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH AND REMOVE ALL EXISTING BUILDING ELEMENTS REQUIRED TO COMPLETE NEW WORK.

KEYED NOTES

1. EXISTING BUILDING AND SERVICES ARE TO BE REMOVED IN ITS ENTIRETY.
2. EXISTING EQUIPMENT TO BE REMOVED IN ITS ENTIRETY.
3. REMOVE EXISTING LUMINAIRE, PLUS ASSOCIATED RACEWAY AND CONDUCTORS BACK TO NEXT REMAINING DEVICE.
4. EXISTING SERVICE UTILITY LINE TO BE REMOVED AND RECONFIGURED PER PNM REQUIREMENTS.
5. FOR ALL ALLEY WORK REFER TO ELECTRICAL EARLY WORK PACKAGE FOR NEW LAYOUT.
6. NEW BUILDING FOOTPRINT. SHOWN FOR REFERENCE.

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Set: Demolition Permit Set
Sheet Title: ELECTRICAL DEMO SITE PLAN

ES101

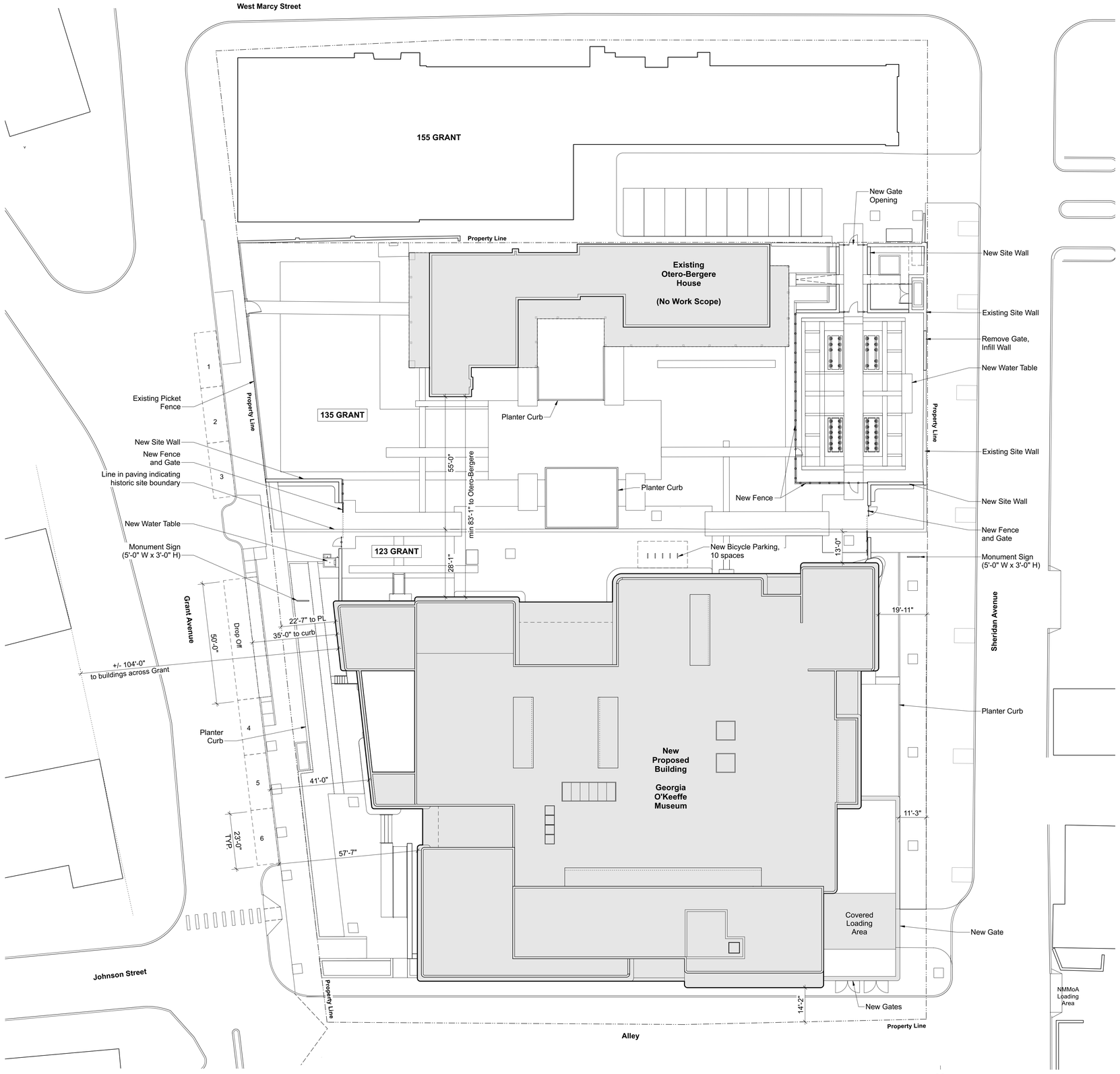
Sheet 14 of

Bridgers & Paxton Project No: 8621 12/15/2023 7:59:17 AM D:\Revit 2023\Projects\8621_MEP_Georgia O'Keeffe Museum_LMMoreno-Chavez.rvt

PROPOSED GEORGIA O'KEEFFE MUSEUM
123 & 135 GRANT AVE.

EXISTING CONDITIONS

NOT TO SCALE



1 AS101h Proposed Site Plan

Scale: 1" = 20'-0"

0 20 40 60 80 FT

N

NOT FOR CONSTRUCTION

Consultant

dnca architects
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ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM

HDRB Design Review

123 & 135 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
December 18, 2023

Drawn by | Checked by

File
GOKM -AS100 Site Plan.vwx

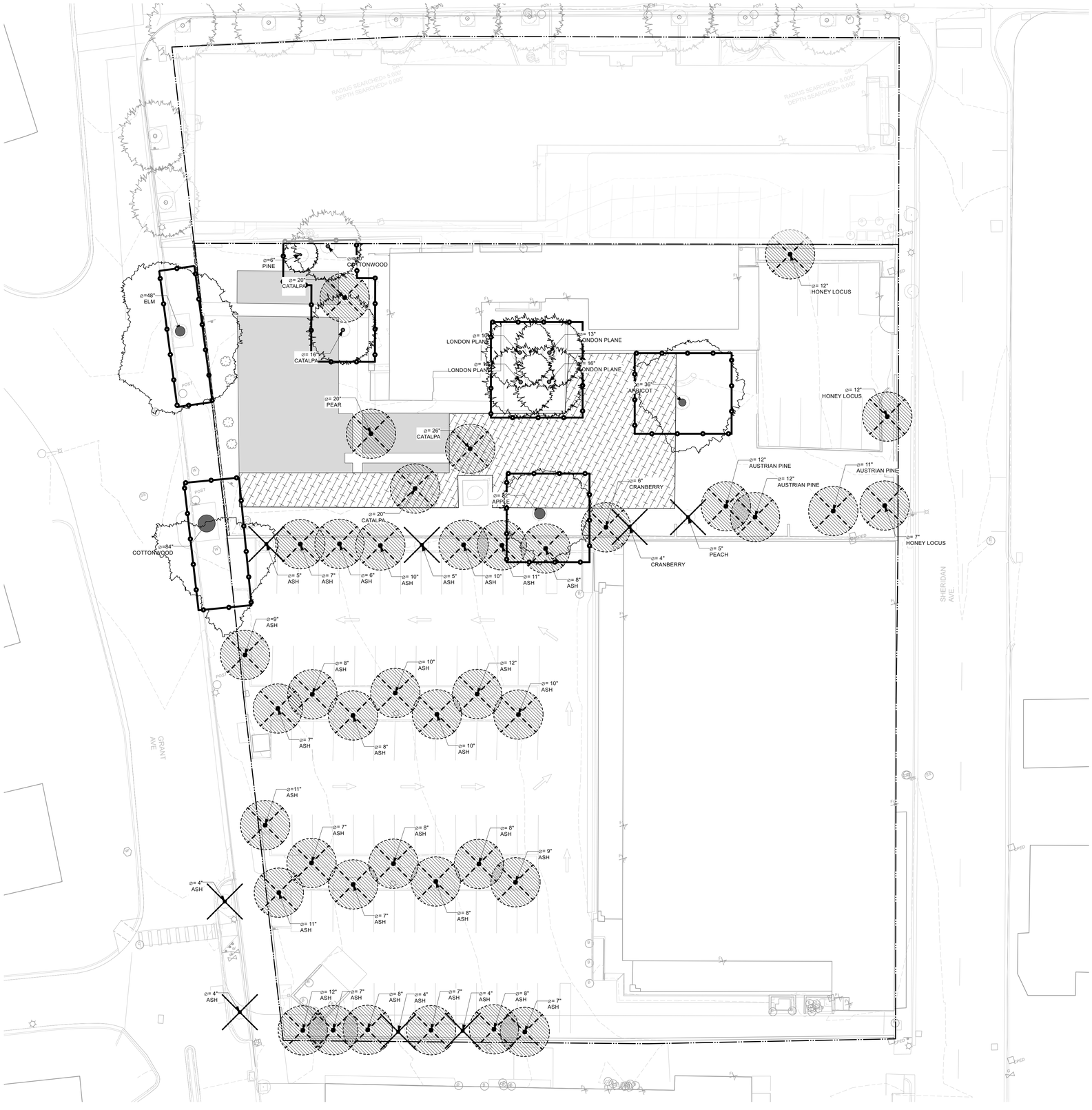
Set
HDRB Schematic Drawings

Sheet Title
Proposed Site Plan

AS101h

Sheet 03 of 49

12/18/23



GENERAL LEGEND

	EXISTING TREE TO REMAIN

PLANTING DEMOLITION AND PROTECTION

	EXISTING LAWN TO BE REMOVED
	TREES TO BE REMOVED

SIGNIFICANT TREES				
DECIDUOUS (> 6" CAL)	44	8	36	SEE L-500
EVERGREEN (> 8' HEIGHT)	4	1	3	SEE L-500
PINON PINE (> 8' HEIGHT)	0	0	0	-
TOTAL	48	9	39	SEE L-500
			LAWN TO BE REMOVED (PERCENTAGE OF EXISTING)	
LAWN	9,552 SF (11.05%)		5,601 SF (58.63%)	

TREE PRESERVATION NOTES

1. The property includes 48 significant trees as defined by City of Santa Fe Land Use Code 14-8.4. Projected disturbance from grading operations and new construction will impact a total of 36 significant deciduous trees and 3 significant evergreen trees: 2 of 36 significant deciduous trees are in Otero-Bergere House parking lot; 26 of 36 significant deciduous trees are in existing Safeway parking lot;1 Catalpa tree in front of Bergere House is declining; 4 significant deciduous trees and 3 significant evergreen trees are along proposed path.

2. Per Section 14-8.4 (F)(5), if relocation of existing significant trees is not possible within these guidelines, then equivalent plant material shall be provided. Replacement evergreen trees shall be six (6) feet tall or taller, replacement deciduous trees shall be two (2) inches caliper or greater. A minimum of 39 trees will be replaced by required sizes.

3. Tree and shrub removal shall include the felling, cutting, grubbing out of roots and satisfactory off-site disposal of all stumps vegetative and extraneous debris produced through the removal operations.

4. Existing trees and shrubs to remain shall not be altered under any circumstances and must remain in the same condition as observed prior to construction.

5. No heavy machinery is to be used within the root system of existing trees. Excavation within root system zones is to be performed by hand.

6. Contractor shall stabilize disturbed areas immediately to prevent the establishment of invasive plants.

NOT FOR CONSTRUCTION

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33 Whitney Avenue
New Haven CT 06517
P 617 923 2422
www.reedhilderbrand.com

Consultant

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924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

Date	Issue

Date
December 18, 2023

Drawn by	Checked by

File

Set
HDRB Schematic Drawings

Sheet Title
Existing Planting Plan

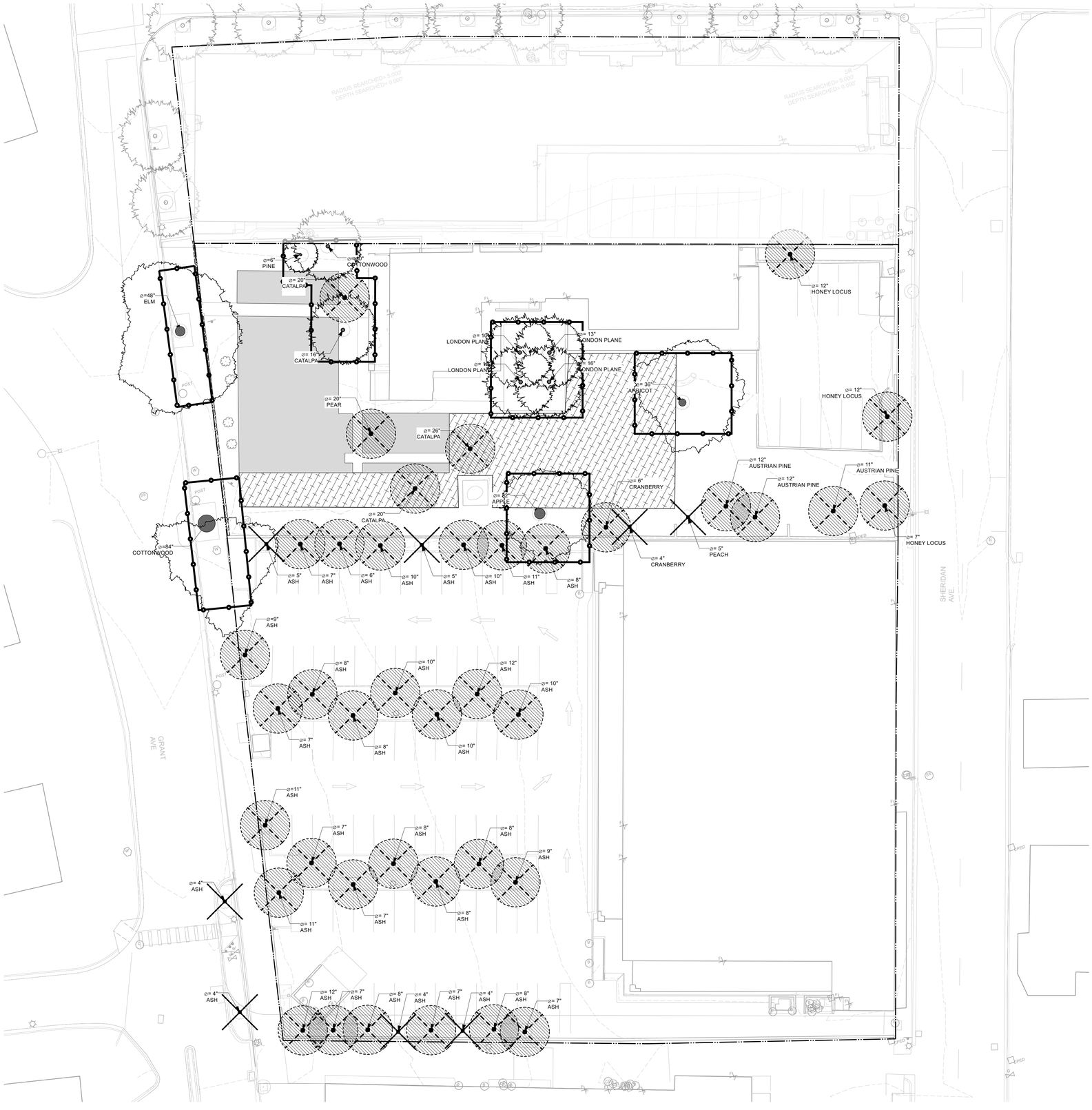
L-210h

Sheet


135


PRIVATE LOT
EXIT
ONLY
PAY
PARKING
AVAILABLE


WARNING
VEHICLES LEFT
OVERNIGHT
STOP
Please See
Attendant
PARKING



GENERAL LEGEND

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PLANTING DEMOLITION AND PROTECTION

	TREES TO BE REMOVED

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ph(505)255-4033

Date	Issue

Date
December 18, 2023

Drawn by	Checked by

File

Set
HDRB Schematic Drawings

Sheet Title
Existing Planting Plan

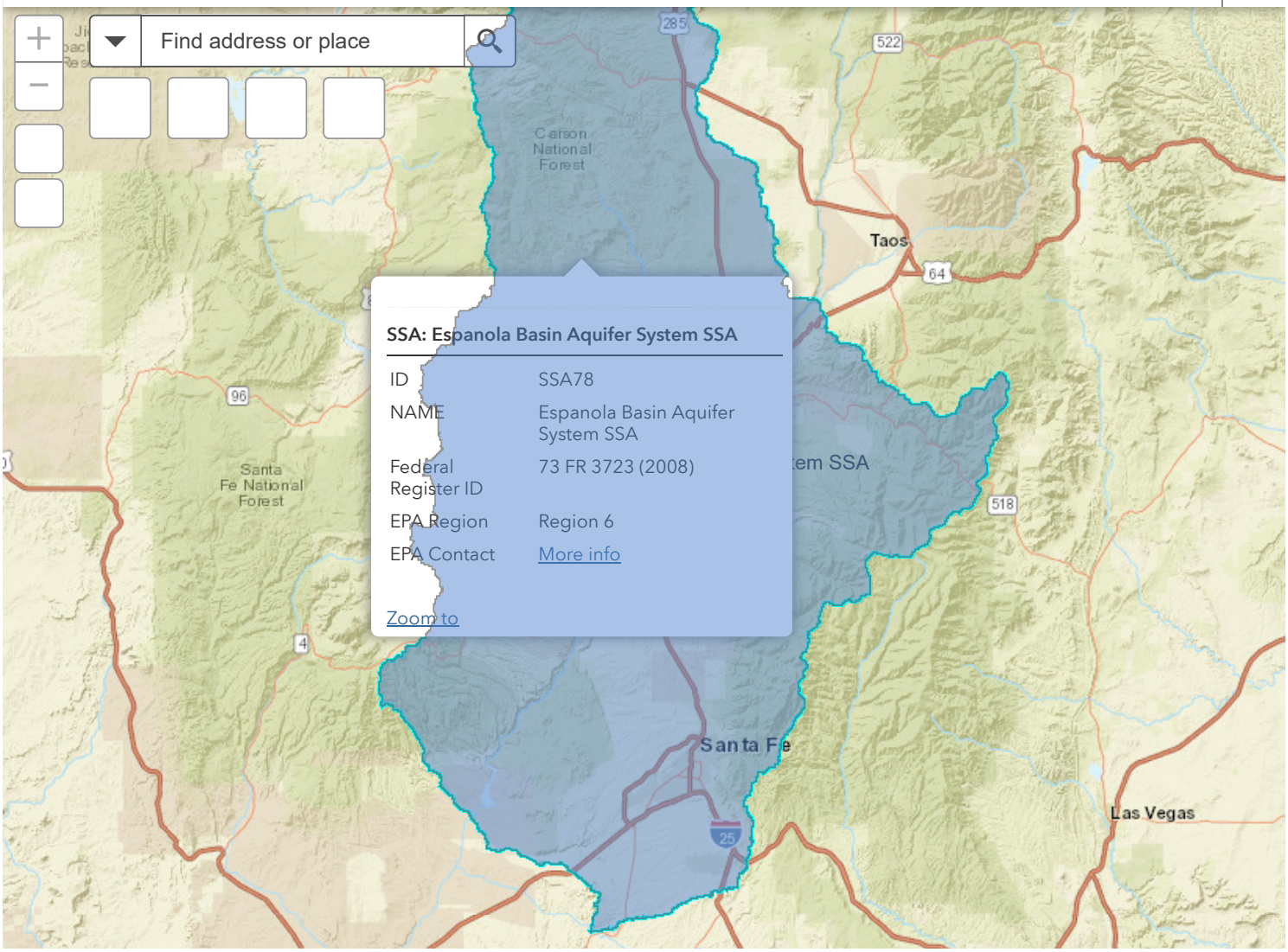
L-210h

Sheet

Attachment C

Water Resources Information

Sole Source Aquifers



20mi

-102.660 36.070 Degrees

1 features 0 selected

https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools

Note: If you selected multiple points or polygons, they all are processed when you click the "Open Report" button.

Managing Your Map

- To delete a point or polygon, select it and click on the trash can icon (🗑) at the top right of the map.
- To remove all points a
- To edit or move a poi
- To save the map, click
  automatically on the m

polygons will populate

123 Grant Ave, Santa Fe, NM,

West Guadalu
Historic

Santa Fe River

XY -105.936305°, 35.6

Guadalupe

Esri Community Maps Contributors

For questions or comments

Discharge Mapping Tool Report

x

Number of Catchments Found: 1

Number of Assessments Found: 2

Catchment ID Related Waters	Causes of Impairment Assessments (Assessment Unit ID)	TMDL (TMDL ID)	TMDL Pollutant
35000600196045 Santa Fe River	ALUMINUM, TOTAL ESCHERICHIA COLI (E. COLI) POLYCHLORINATED BIPHENYLS (PCBS) Santa Fe River (Guadalupe St to Nichols Rsvr) (NM-9000.A_062) Santa Fe River (Santa Fe WWTP to Guadalupe St) (NM-9000.A_061)	Santa Fe River TMDLs (68244)	ESCHERICHIA COLI (E. COLI)

Links (🔗) above open in a new browser tab.

OK

GENERAL NOTES

1. SPECIFICATIONS: THE NEW MEXICO DEPARTMENT OF TRANSPORTATION (NMDOT) 2019 SPECIFICATIONS WILL GOVERN THE CONSTRUCTION OF THIS PROJECT.

2. NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2019 EDITION: MAY BE FOUND ON THE NMDOT'S WEB SITE OR BY USING THE FOLLOWING WEB LINK:
HTTP://NMSHTD.STATE.NM.US/UPLOAD/IMAGES/CONTRACTS_UNIT/2014_SPECS_FOR_HIGHWAY_AND_BRIDGE_CONSTRUCTION.PDF

3. NMDOT STANDARD DRAWINGS: MAY BE FOUND ON THE NMDOT'S WEB SITE OR BY USING THE FOLLOWING WEB LINK:
HTTP://NMSHTD.STATE.NM.US?MAIN.ASP?SECID=14793

4. ELECTRONIC CONTROL DATA: ELECTRONIC CONTROL DATA FOR CONSTRUCTION SURVEY STAKING WILL BE PROVIDED BY THE PROJECT MANAGER.

5. PLAN DIMENSIONS: ALL DIMENSIONS ON THE PLANS ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ALL OTHER PERTINENT INFORMATION THAT MAY BE REQUIRED TO COMPLETE THE WORK.

6. ESTIMATED QUANTITIES: ALL QUANTITIES SCHEDULED IN THE PLANS ARE FOR ESTIMATED PURPOSES ONLY. PAYMENT AND MEASUREMENT OF QUANTITIES SHALL BE DONE IN ACCORDANCE WITH SECTION 109 - MEASUREMENT AND PAYMENT OF THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2014 EDITION.

7. CONFINEMENT TO CONSTRUCTION LIMITS: THE CONTRACTOR WILL BE REQUIRED TO CONFINE HIS WORK WITHIN THE CONSTRUCTION LIMITS AND/OR NEW RIGHT-OF-WAY OR EASEMENT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROHIBIT VEHICLES AND EQUIPMENT FROM DRIVING UPON, ACROSS, OR TURNING ON PRIVATE PROPERTY ADJACENT TO PROJECT LIMITS.

8. NOISE ORDINANCE: CITY OF SANTA FE NOISE ORDINANCE SFCC S 10-2.4 B. (5) (a) PROHIBITS OPERATION OF EQUIPMENT USED IN CONSTRUCTION WORK ON STREETS IN RESIDENTIAL OR COMMERCIALLY ZONED AREAS BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. THE FOLLOWING DAY. IN ACCORDANCE WITH SFCC S 10-2.8 PERMITS, THE CONTRACTOR MAY REQUEST APPROVAL OF A PERMIT TO BE EXEMPT FROM THE AFOREMENTIONED NOISE ORDINANCE FOR THE DURATION OF PROJECT CONSTRUCTION.

9. MAINTENANCE OF AS-BUILT PLANS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A CURRENT SET OF AS-BUILT PLANS FOR THE PROJECT. AS-BUILT PLANS WILL BE MADE AVAILABLE TO THE PROJECT MANAGER AT ALL TIMES. ALL DATA MUST BE PROVIDED PRIOR TO FINAL PAYMENT.

10. PROTECTION OF SURVEY MONUMENTS: THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS (BENCHMARK) FROM DAMAGE PRIOR TO INITIATING CONSTRUCTION. IF DURING THE COURSE OF CONSTRUCTION OPERATIONS THE CONTRACTOR DISTURBS OR DESTROYS A MARK, THE CONTRACTOR SHALL ESTABLISH A NEW MARK IN COMPLIANCE WITH THE STANDARDS ARE PROCEDURES SET FORTH IN THE "GEODETIC MARK PRESERVATION GUIDEBOOK", NATIONAL GEODETIC SURVEY, MARCH 1990, AT CONTRACTORS EXPENSE. CONTACT: NGS MARK, PRESERVATION CENTER - NOAA, TELEPHONE (505) 768 3606.

11. VERIFYING EXISTING: THE CONTRACTOR SHALL FIELD VERIFY ALL CONSTRUCTION CENTERLINES AND EXISTING GROUND LINE PROFILES PRIOR TO INITIATING AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL UTILIZE THE FIELD VERIFICATION DATA TO ADJUST THE PROPOSED HORIZONTAL AND VERTICAL ALIGNMENTS TO BETTER FIT THE EXISTING FIELD CONDITIONS. THE CONTRACTOR SHALL SUBMIT PROPOSED MODIFICATIONS TO THE PROJECT MANAGER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE WORK AND COST ASSOCIATED WITH VERIFYING EXISTING SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM NO. 801000 - CONSTRUCTION STAKING BY THE CONTRACTOR AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR, THE CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS, DIMENSIONS, AND RIGHT-OF-WAY PRIOR TO THE BEGINNING OF CONSTRUCTION. THE ELEVATIONS WERE BASED ON AS-BUILT AND FIELD SURVEY DATA. THE CONTRACTOR SHALL LIMIT ALL WORK ON THIS PROJECT WITHIN THE EXISTING RIGHT-OF-WAY OR PUBLIC EASEMENTS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICE.

12. CONTRACTOR COORDINATION WITH UTILITIES: THE CONTRACTOR IS HEREBY ADVISED THE UTILITY RELOCATION WORK BY UTILITY OWNERS MAY HAVE TO BE PERFORMED CONCURRENTLY WITH CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE FOR UTILITY WORK IN CONJUNCTION WITH CONSTRUCTION OPERATIONS AND IS HEREBY REQUIRED TO COORDINATE THE SCHEDULING OF WORK WITH THE RESPECTIVE UTILITY OWNERS AT LEAST TWO (2) WEEKS AHEAD OF SCHEDULED ACTIVITIES. NO CLAIMS FOR DELAYS DUE TO NEGLECT OF COORDINATION BY THE CONTRACTOR WILL BE ALLOWED. CLAIMS BEYOND THE CONTROL OF THE CONTRACTOR WILL BE HANDLED IN ACCORDANCE WITH SUBSECTION 105.6, COOPERATION WITH UTILITIES, AND SECTION 107.18, CONTRACTOR'S RESPONSIBILITY FOR WORK, OF THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2019 EDITION.

13. LOCATION AND PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE. DAMAGES OR REPAIRS THAT OCCUR DURING CONSTRUCTION SHALL BE MADE AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL PAYMENT WILL BE MADE. THIS INCIDENTAL WORK SHALL ALSO INCLUDE ANY POT HOLING OR OTHER WORK REQUIRED TO VERIFY UTILITIES. CONTACT NEW MEXICO ONE CALL SYSTEMS, INC. 1-800-321-ALER(T).

14. UTILITY DISCLAIMER: UTILITY LOCATIONS SHOWN HEREIN ARE BASED ON THE BEST AVAILABLE EVIDENCE INCLUDING PHYSICAL FEATURES SUCH AS VALVES, PEDESTALS AND WARNING MARKERS. THE SURVEYOR MAKES NO GUARANTEE AS TO COMPLETENESS OR ACCURACY OF THE UTILITY DATA SHOWN. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES PRIOR TO DIGGING.

15. CONSTRUCTION WATER: THE CITY OF SANTA FE MAY PROHIBIT THE USE OF POTABLE WATER (FROM FIRE HYDRANTS) FOR CONSTRUCTION PURPOSED AND THE CONTRACTOR MAY BE REQUIRED TO USE RECLAIMED OR EFFLUENT WATER. THE CONTRACTOR SHOULD CONTACT THE CITY'S WASTEWATER DIVISION AT 955 4650 FOR MORE INFORMATION AND PRICING REGARDING THE AVAILABILITY, USE AND PRICING OF THE FIRE HYDRANT WATER METERING. IT WILL BE THE CONTRACTORS RESPONISIBILY TO SECURE AND SUPPLY WATER FOR THE PROJECT. THE COST WILL BE INCIDENTAL TO COMPLETION OF THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.

16. "R" VALUE: THE DESIGN "R" FOR THE PROJECT IS 50. MATERIAL WITH AN "R" VALUE LESS THAN THE DESIGN "R" VALUE SHALL NOT BE PLACED IN OR BE ALLOWED TO REMAIN WITHIN THE TOP TWO (2) FEET OF THE FINISHED SUBGRADE. THIS SHALL INCLUDE DETOUR SUBGRADE. REMOVAL OF UNSUITABLE MATERIAL SHALL BE PAID FOR AS ITEM 203200 - SUB EXCAVATION.

17. WARPING OF SLOPES: THE CONTRACTOR SHALL WARP SLOPES WHERE NECESSARY TO STAY WITHIN THE RIGHT-OF-WAY OR CONSTRUCTION EASEMENT LIMITS.

18. MISCELLANEOUS PAVING: MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 417, OF THE LATEST NMDOT SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION. MISCELLANOUS PAVING WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD. THE UNIT PRICE SHALL INCLUDE ALL MATERIAL INCLUDING AGGREGATE, BITUMINOUS MATERIALS, HYDRATED LIME, MIXING, HAULING, PLACEMENT AND COMPACTION, AS WELL AS PRIME COAT MATERIAL AND BITUMINOUS MATERIAL FOR TACK COAT.

19. PAVEMENT ABUTMENT: WHEN ABUTTING NEW PAVEMENT TO EXISTING, SAW-CUT EXISTING PAVEMENT TO A NEAR VERTICAL CUT, OR AS APPROVED BY THE PROJECT MANAGER. THE COST OF SAW CUTTINGS SHALL BE INCIDENTAL TO THE PAVEMENT, AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

20. REMOVALS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO COMPLETE THIS PROJECT. IF ADDITIONAL REMOVALS NOT LISTED IN PLANS ARE NECESSARY TO COMPLETE THIS PROJECT, THE WORK AND COSTS ASSOCIATED WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM 601000 - REMOVAL OF STRUCTURES AND OBSTRUCTERS AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

21. DISPOSAL OF ASPHALT MATERIAL: THE CONTRACTOR SHALL PROPERLY HANDLE AND DISPOSE OF MATERIAL (I.E. ASPHALT, CONCRETE, VEGETATION, UNSTABLE EARTH, METAL, & OTHER DEBRIS) REMOVED ON THE PROJECT BY HAULING IT TO AN APPROVED LANDFILL IN ACCORDANCE WITH THE REGULATIONS OF THE NEW MEXICO SOLID WASTE ACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAULING AND DUMPING FEES.

22. ADA COMPLIANCE: THE CONTRACTOR SHALL ENSURE ADA COMPLIANCE FOR CONSTRUCTION OF ADA FEATURES AND APPURTENANCES (INCLUDING, BUT NOT LIMITED TO, SIDEWALK & CURB RAMP CROSS SLOPES, RAMP SLOPES, LEVEL LANDING, ETC) AS DETAILED IN THE PLANS AND IN ACCORDANCE WITH REFERENCED STANDARD DRAWING, SPECIFICATIONS AND ESTABLISHED ADA GUIDELINES AND STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING SLOPES AND DIMENSIONS OF ALL FORM WORK FOR COMPLIANCE PRIOR TO INSTALLATION OF CONCRETE. THE CITY RESERVES THE RIGHT TO INSPECT ANY ADA FEATURES AND APPURTENANCES AT ANY TIME BEFORE FINAL COMPLETION OF THE PROJECT AND MAY REQUIRE THE CONTRACTOR TO REMOVE, REPLACE, AND/OR CORRECT ANY WORK AT THE CONTRACTORS EXPENSE THAT IN NOT IN COMPLIANCE, AS DETERMINED BY THE PROJECT MANAGER.

23. TEMPORARY ACCESS ROUTES FOR PEDESTRIANS: ANY TEMPORARY ACCESS ROUTES FOR PEDESTRIANS SHALL BE ADA COMPLIANT.

24. PUBLIC NOTIFICATIONS OF ROAD AND LANE CLOSURES: THE CONTRACTOR SHALL KEEP THE LOCAL MEDIA INFORMED OF LANE CLOSURES THAT WILL RESTRICT THE NORMAL FLOW OF TRAFFIC. AT LEAST ONE (1) WEEK PRIOR TO SUCH CLOSURES THRU THE PROJECT MANAGER. THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

25. PLANS MUST COMPLY WITH 14-8.2 TERRAIN AND STORMWATER MANAGEMENT SECTION OF THE CITY CODE, INCLUDING DRAINAGE STUDY TO BE PRESENTED WITH VOLUME OF WATER REQUIRED TO BE RETAINED OR DETAINED ON SITE, WITH DETAILS OF ASSOCIATED STRUCTURES PROVIDED.

ENVIRONMENTAL NOTES

1. DISPOSAL OF UNSUITABLE MATERIALS AND DEBRIS: ITEMS DESIGNATED FOR REMOVAL. WITHOUT SALVAGE, UNSUITABLE CONSTRUCTION MATERIALS AND DEBRIS FROM CLEARING AND GRUBBING ARE TO BE PLACED IN AN ENVIRONMENTALLY SUITABLE DISPOSAL SITE SECURED AND COORDINATED BY THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER, IN WRITING, OF THE DETAILS OF THE DISPOSAL OPERATION. BORROW MATERIAL, ROCK WASTE, VEGETATIVE DEBRIS, ETC., SHALL NOT BE PLACED IN WETLAND AREAS OR AREAS WHICH MAY IMPACT ENDANGERED SPECIES OR ARCHAEOLOGICAL RESOURCES. AN ARCHAEOLOGICAL SURVEY AND ENVIRONMENTAL CLEARANCE SHALL BE OBTAINED BY THE CONTRACTOR BEFORE DISPOSAL SITES ARE ACCEPTED IN ACCORDANCE WITH SUBSECTION 107.12 - CONTRACTORS RESPONSIBILITY FOR ARCHEOLOGICAL CLEARANCE.

2. REPORTING AND CLEAN UP OF SPILLS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING AND CLEAN UP OF SPILLS ASSOCIATED WITH PROJECT CONSTRUCTION AND SHALL REPORT AND RESPOND TO SPILLS OF HAZARDOUS MATERIALS SUCH AS GASOLINE, DIESEL, MOTOR OILS, SOLVENTS, CHEMICALS, TOXIC AND CORROSIVE SUBSTANCES, AND OTHER MATERIALS WHICH MAY BE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING PAST SPILLS ENCOUNTERED DURING OF CONSTRUCTION AND OF CURRENT SPILLS NOT ASSOCIATED WITH CONSTRUCTION. REPORTS SHALL BE MADE IMMEDIATELY TO THE NM ENVIRONMENT DEPARTMENT EMERGENCY RESPONSE TEAM AT 827-4308 OR 470-3657 AND THE PROJECT MANAGER. ANY UNREPORTED SPILLS IDENTIFIED AFTER CONSTRUCTION SHALL BE CLEANED UP BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT. THE CONTRACTOR SHALL BEAR THE FULL COST OF CLEAN UP SPILLS.

3. CONTRACTORS ACTIVITIES IN THE VICINITY OF WATERWAYS: ALL WORK IN THE VICINITY OF LIVE STREAMS, WATER IMPOUNDMENTS, AND WETLANDS OF IRRIGATION SUPPLIES SHALL BE AFFECTED IN SUCH A MANNER AS TO MINIMIZE VEGETATION REMOVAL, SOIL DISTURBANCE, AND EROSION. CROSSINGS OF LIVE STREAMS WITH HEAVY EQUIPMENT SHALL BE MINIMIZED, AS DETERMINED BY THE PROJECT MANAGER. EQUIPMENT REFUELING, MAINTENANCE, AND CEMENT DUMPING IN THE VICINITY OF WATER COURSES ARE STRICTLY PROHIBITED AND SHALL BE PERFORMED IN PROPER CONTAINMENT AREAS.

4. RESEEDING: ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESEEDED ACCORDANCE WITH THE REVEGETATION/EROSION CONTROL PLAN.

5. TREE REMOVAL: CONTRACTOR SHALL REMOVE EXISTING OF 2" CALIPER OR LESS TREES WITH NATIVE SOIL LEFT ON THE ROOTS AND THE ROOT BALL WRAPPED IN BURLAP. TREES SHALL BE DELIVERED TO PROPERTY OWNER FOR TRANSPLANTING. THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO ITEM 601000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS AND NO ADDITIONAL MEASUREMENT OR PAYMENT SHALL BE MADE THEREFORE.

6. PRAIRIE DOG AND BURROWING OWL SURVEY: PRIOR TO CONSTRUCTION, A SURVEY FOR PRAIRIE DOGS AND BURROWING OWLS SHALL BE CONDUCTED BY THE CONTRACTOR THROUGHOUT THE PROJECT LIMITS AND WITHIN THE EXISTING RIGHT-OF-WAY. PRAIRIE DOG SURVEYS SHALL BE CONDUCTED BETWEEN APRIL AND SEPTEMBER. IF PRAIRIE DOGS ARE FOUND, THEY SHALL BE RELOCATED IN COMPLIANCE WITH CITY OF SANTA FE ORDINANCES TO AN APPROPRIATE HABITAT OUTSIDE OF THE BREEDING SEASON (MAY 1 - JUNE 15).

7. PRAIRIE DOG LOCATION: IN THE EVENT PRAIRIE DOGS ARE LOCATED WITHIN THE PROJECT LIMITS DURING CONSTRUCTION THE CONTRACTOR SHALL CEASE WORK IN THE AREA IMMEDIATELY AND NOTIFY THE PROJECT MANAGER. THE CONTRACTOR IS HEREBY ADVISED OF THE CITY OF SANTA FE ORDINANCE (ARTICLE 14-8.12) REGARDING THE HUMANE RELOCATION OF GUNNISON PRAIRIE DOGS AND SHALL BE REQUIRED TO ADHERE TO ALL FACETS OF THE ORDINANCE IF THE NEED ARISES.

TESCP ADDITIONAL NOTES

1. CITY OF SANTA FE STORMWATER ILLICIT DISCHARGE CONTROL: SFCC 13-2 PROHIBITS THE DISCHARGE OF POLLUTANTS INCLUDING SEDIMENT, SLURRIES, MUD, PLASTERS, CONCRETE RINSATES AND ANY CONSTRUCTION MATERIALS, WASTES AND GARBAGE, ETC. TO THE STORM DRAIN SYSTEM. THE STORM DRAIN SYSTEM INCLUDES ROADS, STREETS, CURBS, GUTTERS, DROP INLETS, PIPED STORM DRAINS, CULVERTS, RETENTION AND DETENTION BASINS, NATURAL AND MAN-MADE DRAINAGE CHANNELS, ARROYOS, RIVERS AND ANY FACILITY AND APPURTENANCE BY WHICH STORMWATER IS COLLECTED AND/OR CONVEYED.

2. CITY OF SANTA FE TERRAIN AND STORMWATER REGULATIONS: SFCC 14-8.2 REQUIRES THAT CONSTRUCTION DISTURBED AREA SHALL BE PROTECTED AGAINST EROSION. SEDIMENT MUST BE CONTAINED ON THE DISTURBED AREA BY THE USE OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES SUCH AS SILT FENCING, MULCH SOCKS, SWALES, BERMS, GEOTEXTILES, SEDIMENT BASINS AND TRAPS. PROTECTION FOR STORM DRAIN INLETS SHALL BE PROVIDED TO PREVENT THE ENTRY OF SEDIMENT FROM THE SITE WHILE STILL ALLOWING THE ENTRY OF STORMWATER. CONTROL DEVICES SHALL BE KEPT IN PLACE AND USED UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

3. THE CONTRACTOR SHALL NOT REMOVE SILT FENCES AND MULCH SOCKS OR OTHER TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES UNTIL DISTURBED AREAS ARE STABILIZED. THE CONTRACTOR SHALL REMOVE SUCH DEVICES ONLY AT THE DIRECTION OF THE PROJECT MANAGER. SUCH DIRECTION MAY BE GIVEN PRIOR TO OR ON THE DATE OF THE WARRANTY INSPECTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 603280 - SWPPP MANAGMENT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

NMDOT STANDARD SERIALS

	SERIAL
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES	603-01-1/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES CHECK DAMS	603-01-2/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES SILT FENCE	603-01-3/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES CULVERT & DROP INLET PROTECTION	603-01-4/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES SEDIMENT BASIN, SEDIMENT TRAP & EARTH DIKE	603-01-5/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES PIPE SLOPE DRAIN & SURFACE ROUGHENING	603-01-6/7
TEMPORARY EROSION CONTROL & SEDIMENT CONTROL MEASURES OFFSITE TRACKING PREVENTION & DIVERSION DIKE	603-01-7/7
DETECTABLE WARNING SURFACE	608-001-8/12
DRIVEWAY APRONS	608-001-9/12
SMALL SIGN SUPPORT INSTALLATION DETAILS	701-02-1/3
SMALL SIGN SUPPORT INSTALLATION DETAILS	701-02-2/3
MULTI-DIRECTIONAL SLIP BASE POST DETAILS	701-02-3/3
CONSTRUCTION SIGN FACE DETAILS	702-01-1/3
CHANNELIZATION DEVICES AND PORTABLE SIGN SUPPORTS FOR CONST., MAIN., UTIL., AND INCIDENT MGMT. OPERATIONS	702-01-2/3
CONSTRUCTION TRAFFIC NOTES	702-01-3/3

DUST CONTROL NOTE

ALL ON-SITE SOIL DISTURBING CONSTRUCTION ACTIVITIES SHALL BE ADDRESSED AND PROVIDE MEASURES TO MITIGATE OR CONTROL DUST FROM BEING TRANSPORTED OFFSITE AND POLLUTING NEIGHBORING PROPERTIES.

ANY PERSON, OWNER, CONTRACTOR OR OPERATOR WHO CONDUCTS EARTHMOVING AND/OR DUST GENERATING ACTIVITIES IS RESPONSIBLE FOR IMPLEMENTING BEST MANAGEMENT PRACTICES (BMPS) IN ORDER TO MITIGATE OFF-PROPERTY TRANSPORT OF FUGITIVE DUST EMISSIONS.

A PLAN, OR STORM WATER PREVENTION PLAN (SWPPP) WHEN APPLICABLE, LISTING THE BEST MANAGEMENT PRACTICES (BMPS), SHALL BE PROVIDED TO THE CITY ENGINEER, OR THEIR DESIGNEE FOR REVIEW AND APPROVAL. THE APPROVED BMPS SHALL BE APPLIED TO THE GRADED AND/OR DISTURBED SOIL IN ORDER TO STABILIZE THE SITE.

THE INITIAL BMP SHALL ADDRESS HOW THE CONTRACTOR WILL MINIMIZE THE AMOUNT OF DISTURBED SOIL, AND HOW THE CONTRACTOR WILL STABILIZE THE DISTURBED SURFACE AREA EXPOSED TO WIND OR VEHICLE TRAFFIC DURING CONSTRUCTION.

SOME BMPS SHALL INCLUDE:

- THE REDUCTION OF VEHICLE SPEEDS: ESTABLISH A MAXIMUM SPEED LIMIT OR INSTALL TRAFFIC CALMING DEVICES TO REDUCE SPEEDS TO A RATE TO MITIGATE OFF-PROPERTY TRANSPORT OF DUST ENTRAINED BY VEHICLES.
- THE MINIMIZATION OF DROP HEIGHT: DRIVERS AND OPERATORS SHALL UNLOAD TRUCK BEDS AND LOADER OR EXCAVATOR BUCKETS SLOWLY, AND MINIMIZE DROP HEIGHT OF MATERIALS TO THE LOWEST HEIGHT POSSIBLE, INCLUDING SCREENING OPERATIONS.
- HIGH WINDS RESTRICTION: TEMPORARILY HALT WORK ACTIVITIES DURING HIGH WIND EVENTS GREATER THAN 30 MPH IF OPERATIONS WOULD RESULT IN OFF-PROPERTY TRANSPORT.
- RESTRICT ACCESS: RESTRICT ACCESS TO THE WORK AREA TO ONLY AUTHORIZED VEHICLES AND PERSONNEL.

IN THE EVENT THE ABOVE PRACTICES ARE INEFFECTIVE TO PREVENT OFF PROPERTY TRANSPORT, THE OWNER, OR OPERATOR SHALL USE AT ONE OR MORE OF THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS):

- WET SUPPRESSION: APPLY WATER TO DISTURBED SOIL SURFACES, BACKFILL MATERIALS, SCREENINGS, AND OTHER DUST GENERATING OPERATIONS AS NECESSARY AND APPROPRIATE CONSIDERING CURRENT WEATHER CONDITIONS, AND PREVENT WATER USED FOR DUST CONTROL FROM ENTERING ANY PUBLIC RIGHT-OF-WAY, STORM WATER DRAINAGE FACILITY, OR WATERCOURSE.
- WIND BARRIER: CONSTRUCT A FENCE OR OTHER TYPE OF WIND BARRIER TO PREVENT WIND EROSION OF THE GRADED OR DISTURBED SURFACE.
- VEGETATION: PLANT VEGETATION APPROPRIATE FOR RETAINING SOILS OR CREATING A WIND BREAK.
- SURFACE ROUGHENING: STABILIZE AN ACTIVE CONSTRUCTION AREA DURING PERIODS OF INACTIVITY OR WHEN VEGETATION CANNOT BE IMMEDIATELY ESTABLISHED.
- COVER: INSTALL COVER MATERIALS SUCH AS TACKIFIERS, EROSION CONTROL BLANKETS, GRAVEL, VEGETATION (WHEN APPROPRIATE), COLD-MILLINGS, ETC. DURING PERIODS OF INACTIVITY AND PROPERLY ANCHOR THE COVER.
- SOIL RETENTION: STABILIZE DISTURBED OR EXPOSED SOIL SURFACE AREAS THAT WILL BE INACTIVE FOR MORE THAN 30 DAYS OR WHILE VEGETATION IS BEING ESTABLISHED.

GUNNISON'S PRAIRIE DOG NOT

THE PROJECT SHALL COMPLY WITH THE PROVISIONS OF THE GUNNISON'S PRAIRIE DOG ORDINANCE (ARTICLE 14-8.12).

ENGINEER'S STORMWATER INFRASTRUCTURE CERTIFICATION

I, THE UNDERSIGNED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE RECORD INFORMATION SHOWN HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS AND VISUAL INSPECTIONS PERFORMED BY MYSELF OR UNDER MY DIRECT SUPERVISION. I FURTHER CERTIFY THAT THE RECORD CONDITION AS OF _____ IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN PREPARED BY _____, DATED _____.

_____

SIGNATURE NMPE#_____ DATE

UTILITY CONTACTS

UTILITY COMPANY	CONTACT NAME	PHONE NUMBER	UTILITY SERVICE
NEW MEXICO GAS COMPANY	ANDREA MARTINEZ	505-473-7228	GAS
PUBLIC SERVICE CO. OF NM	TOM DOMINGUEZ	505-473-3209	PNM
CENTURY LINK	JEFF CORIA	505-473-1975	PHONE
COMCAST CABLE OF SANTA FE	DAVE AIKIN	505-438-5830	CABLE
CITY OF SANTA FE WATER	ANTONIO TRUJILLO	505-955-4266	WATER
CITY OF SANTA FE SEWER	BRYAN ROMERO	505-955-4623	SEWER

APPROVED BY THE CITY OF SANTA FE PLANNING COMMISSION ON AUGUST 5, 2021.

_____ _____
PLANNING COMMISSION CHAIRPERSON DATE

_____ _____
PLANNING COMMISSION SECRETARY DATE

REVIEWED BY CITY OF SANTA FE LAND USED DEPARTMENT

_____ _____
CITY PLANNER DATE

_____ _____
CITY ENGINEER LAND USE DATE

_____ _____
SANTA FE COUNTY TREASURER DATE

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4055
www.wilsonco.com

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
100% Design Development
123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
October 06, 2023

Drawn by	Checked by
DY	TJA/JEL

File
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Sheet Title
GENERAL NOTES

C-101

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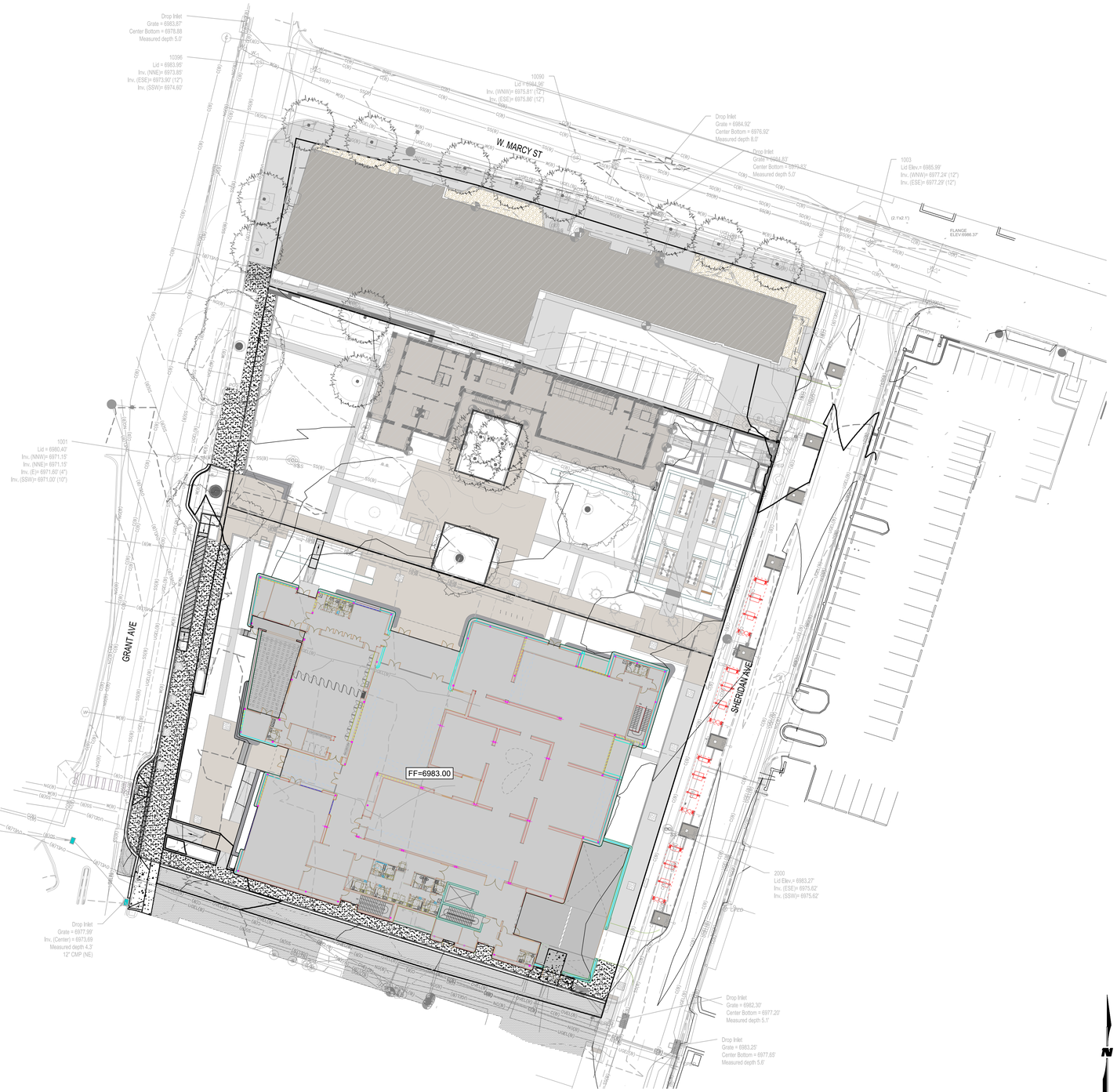

A1 OVERALL GRADING & DRAINAGE PLAN

SCALE: 1" = 30' 0 15' 30'

DRAINAGE NARRATIVE

LEGAL DESCRIPTION: Parcels 123-135 GRANT LLC (corresponding to parcel numbers 10248320 and 12365440 respectively).

AREA: 1.98 acres

FLOOD HAZARD: From FEMA Map Panel 35049C00404E (effective 12/03/12), this site is within Zone "X", areas determined to be oof minimal flood hazard.

EXISTING CONDITIONS: Generally, the existing site drains northeast to southwest. Flows from the two parcels that make up the proposed site are allowed to discharge freely to Grant Ave, and the existing drainage infrastructure near the intersection of Grant Ave. and Johnson St. The overall site has an effective impervious area (impervious area that does not drain to pervious area) of approximately 60%. We therefore interpolated values between the curves corresponding to heavy-urban conditions and moderate urban conditions (70% effective impervious and 40% effective impervious, respectively) for determining the rational C coefficient for developed watersheds from Figure 405-2 of the NMDOT Drainage Design Manual. USDA Web Soil Survey data for the site indicated that the soils were classified as Urban land, which is unrated. We therefore assumed a hydrologic soil group of D.

OFFSITE FLOW: No offsite flows enter the project site.

PROPOSED CONDITIONS: The redeveloped site has an effective impervious area of approximately 22%, so the curve for suburban developed conditions (20% effective impervious area) was used to determine the rational C coefficients for use in the proposed hydrology calculations.

DRAINAGE APPROACH: The proposed site will largely maintain the existing drainage pattern and direct flow west toward the infrastructure in Grant. Ave. The City of Santa Fe limits discharge from proposed developments to that of the pre-development conditions, so the peak discharge to the infrastructure in Grant Ave. must be maintained or reduced in the proposed condition.

RUNOFF: The discharge from the site was calculated using NMDOT Rational Methodology for existing and proposed conditions. The peak 100-year discharge calculated in existing conditions was 7.07 cfs. The peak 100-year discharge calculated in proposed conditions is 5.46 cfs. The proposed condition therefore yields a smaller flow than the pre-development condition and does not require any additional flow attenuation on site to meet the city drainage requirements.

LEGEND

- EXISTING ROW BOUNDARY
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- SAWCUT
- ASPHALT PAVING

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-344-4555
www.wilsonco.com

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
100% Design Development
123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **October 06, 2023**
Drawn by: DY | Checked by: TJA/JEL
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Sheet Title: OVERALL GRADING & DRAINAGE PLAN

C-102

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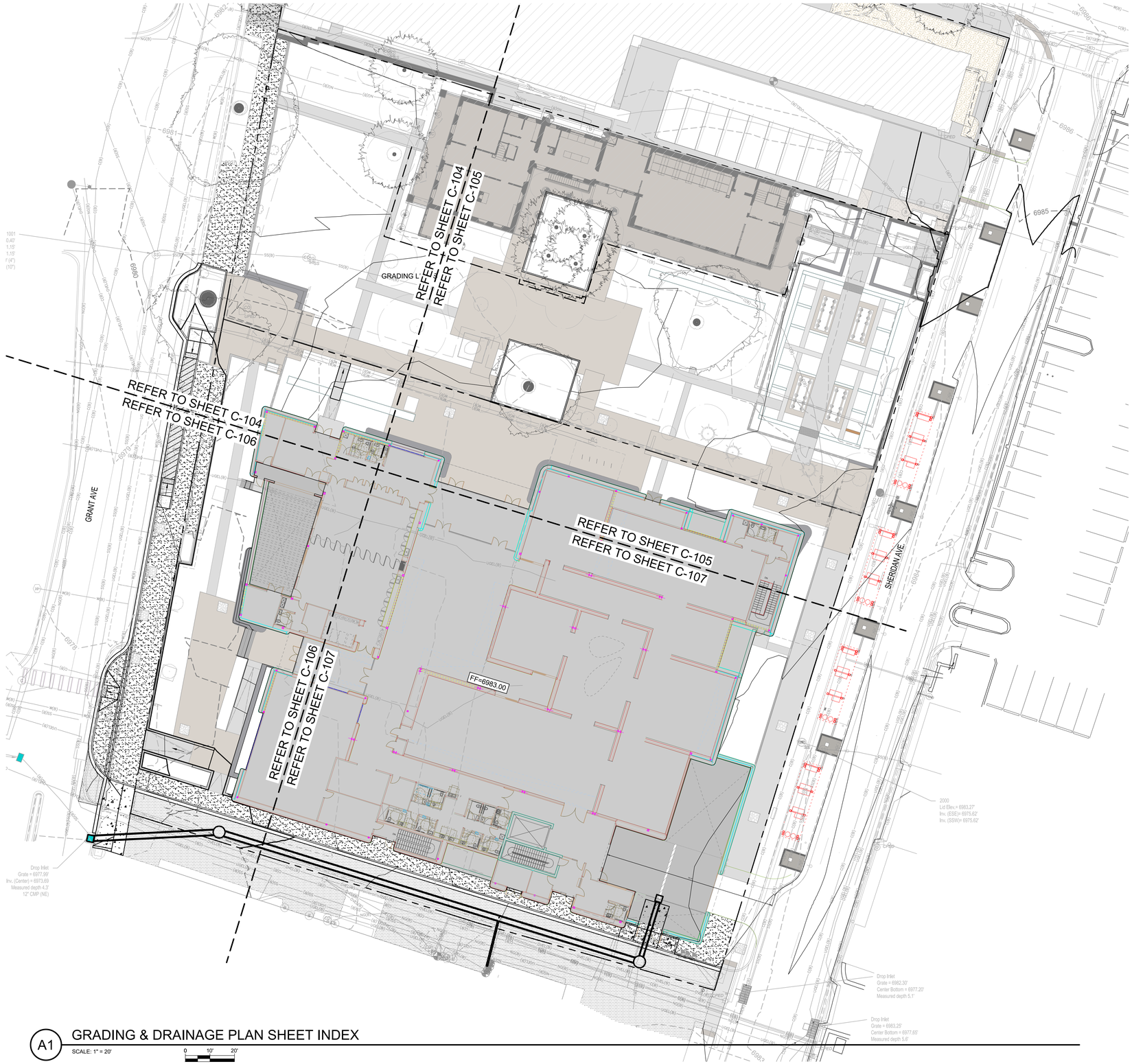

A1 GRADING & DRAINAGE PLAN SHEET INDEX

SCALE: 1" = 20'

0 10' 20'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4055
www.wilsonco.com

dnca architects
924-A Shoofly Street, Santa Fe, NM 87505
ph(505)255-4033

GEORGIA O'KEEFFE MUSEUM
100% Design Development
123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **October 06, 2023**
Drawn by: DY
Checked by: TJA/JEL
File: M:\MSD\22-600-553-0002_Disciplines_SHEETS\2_Sheets - civil\2360553-GD02.dwg
Set: **100% Design Development**
Sheet Title: GRADING & DRAINAGE PLAN SHEET INDEX

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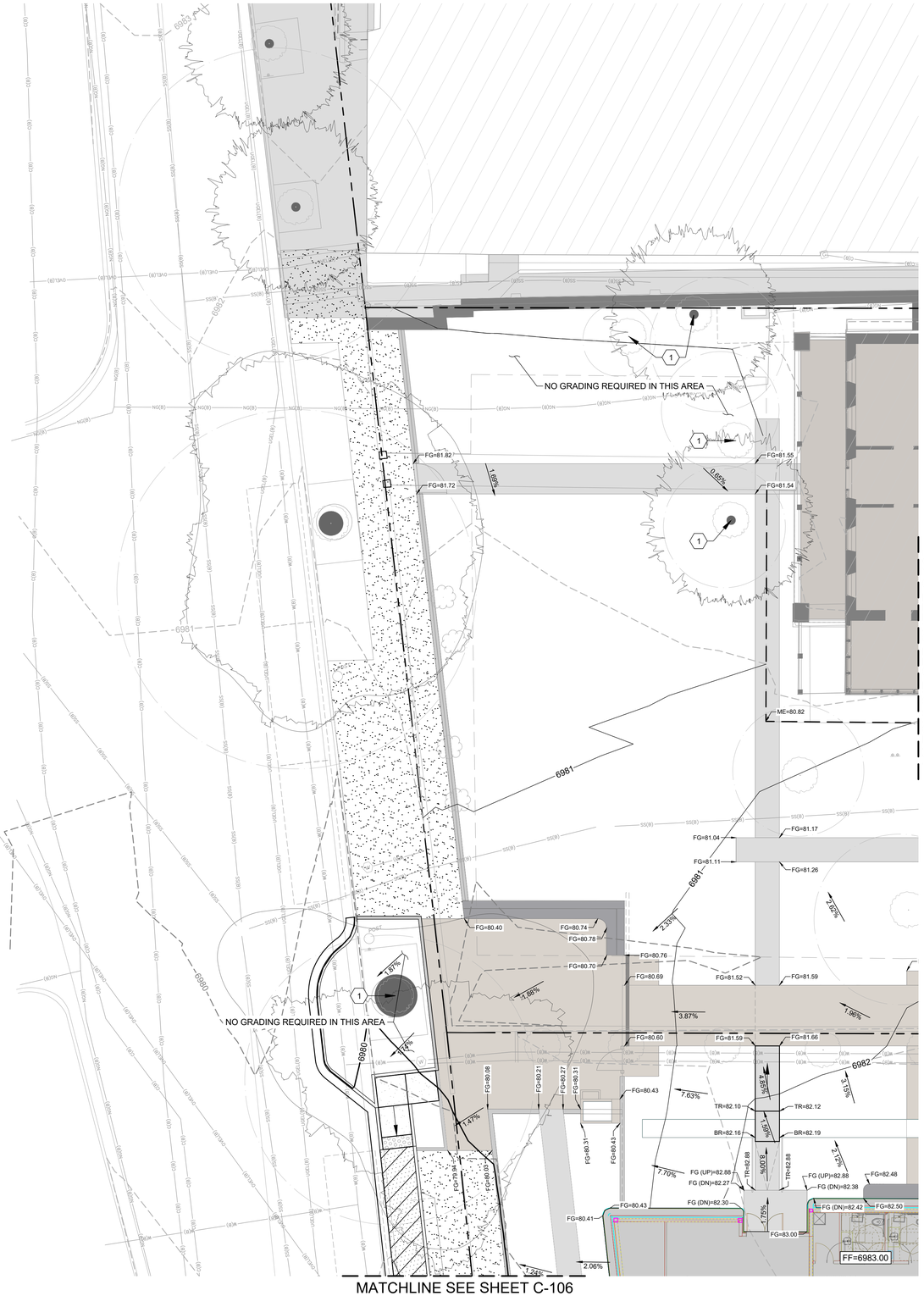

A1 GRADING & DRAINAGE PLAN

SCALE: 1" = 10'

0 5' 10'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. PROTECT TREES & VEGETATION IN PLACE.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

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Set: **100% Design Development**

Sheet Title: GRADING & DRAINAGE PLAN

C-104

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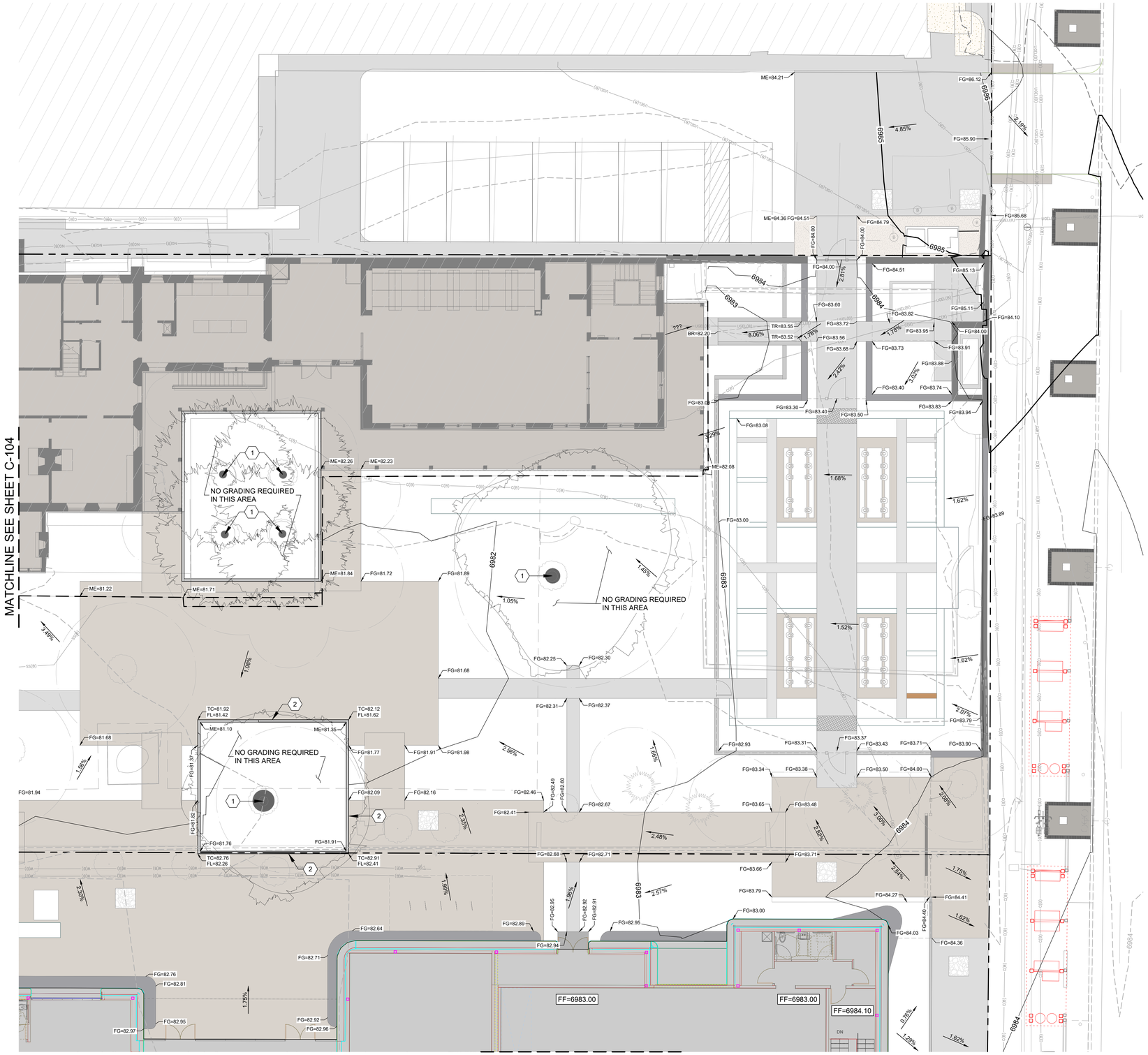

A1 GRADING & DRAINAGE PLAN

SCALE: 1" = 10'

0 5' 10'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. PROTECT TREES & VEGETATION IN PLACE.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

Consultant:
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123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **October 06, 2023**

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Set: **100% Design Development**

Sheet Title: GRADING & DRAINAGE PLAN

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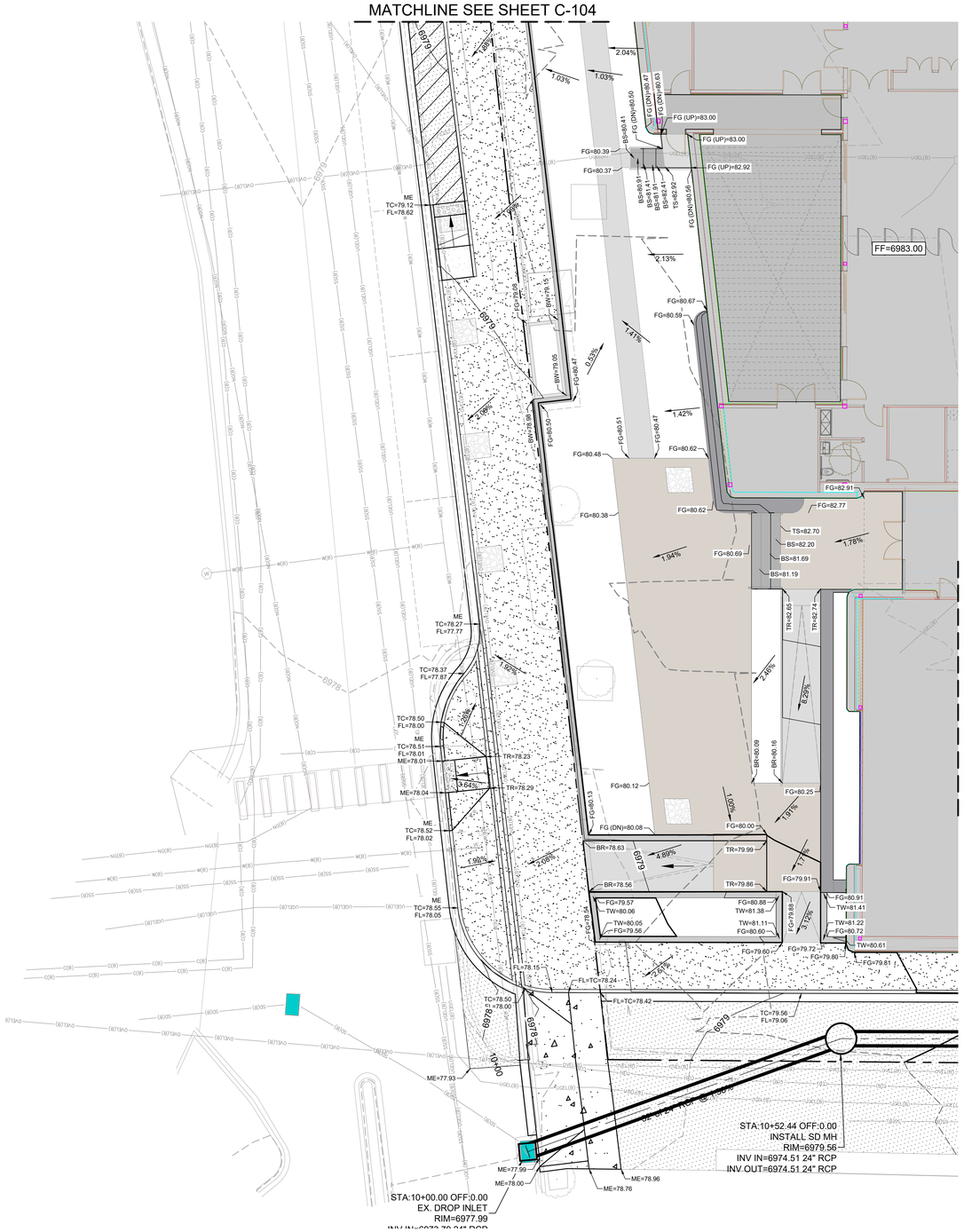

A1 GRADING & DRAINAGE PLAN

SCALE: 1" = 10'

0 5' 10'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. PROTECT TREES & VEGETATION IN PLACE.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

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123 Grant Avenue, Santa Fe, NM 87501

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Sheet Title: GRADING & DRAINAGE PLAN

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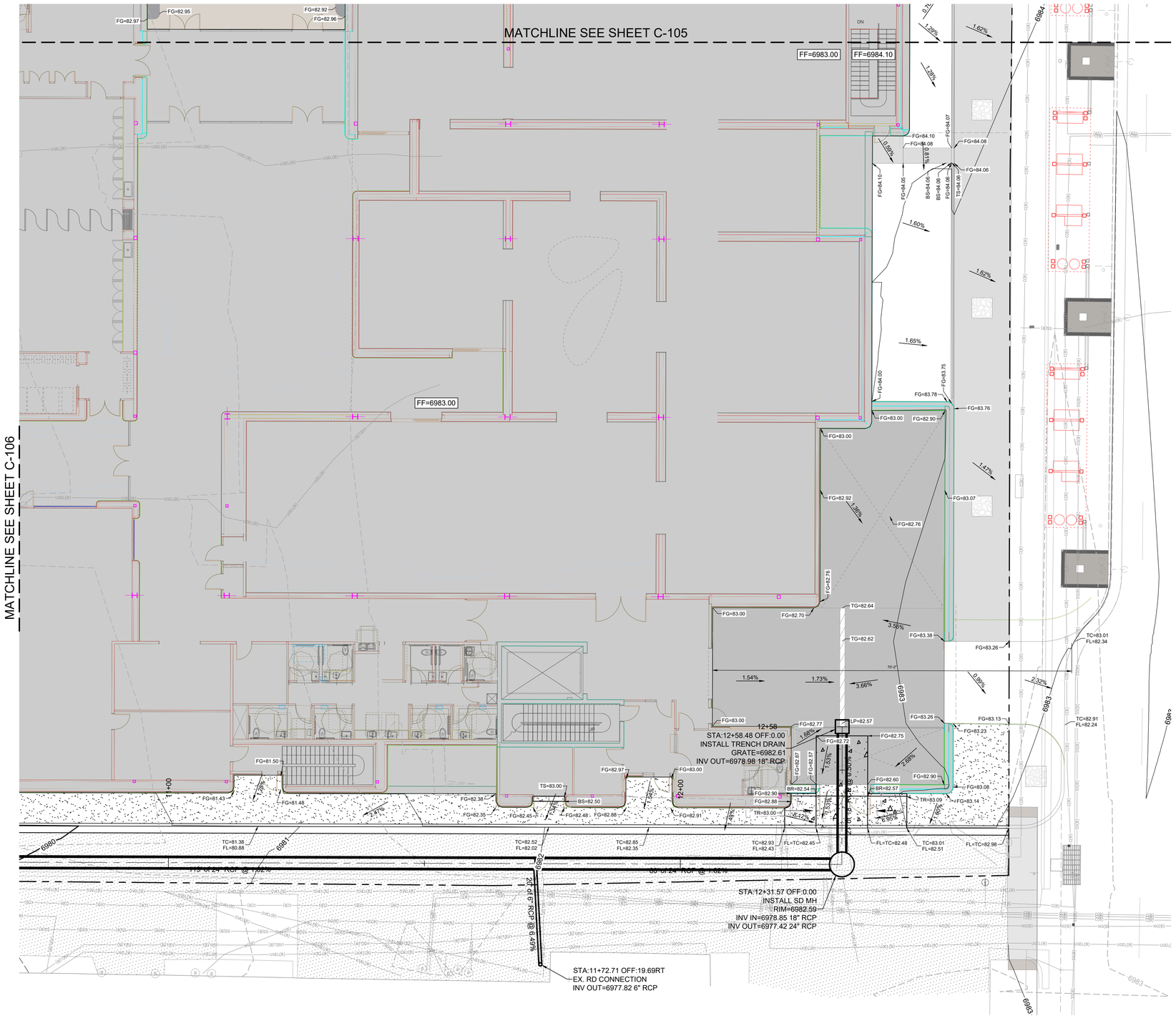

A1 GRADING & DRAINAGE PLAN

SCALE: 1" = 10'

0 5' 10'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. PROTECT TREES & VEGETATION IN PLACE.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

Consultant:
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4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
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123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **October 06, 2023**

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Sheet Title: GRADING & DRAINAGE PLAN

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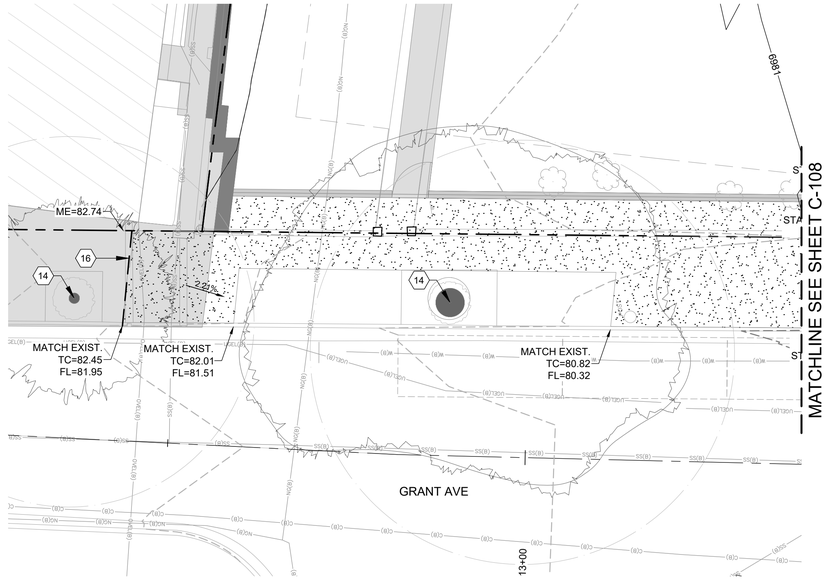


LEGEND

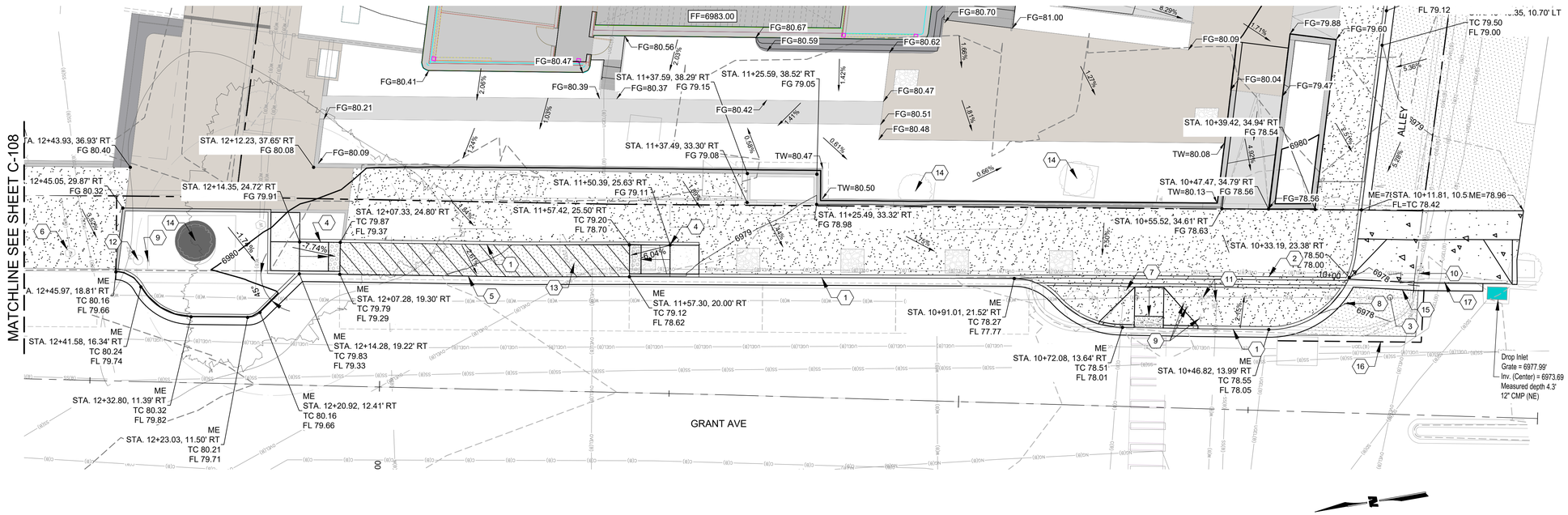
FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. 6-INCH CURB & GUTTER.
2. EXISTING TRENCH DRAIN TO REMAIN. PROTECT IN PLACE.
3. EXISTING IRRIGATION METER TO BE RELOCATED. REFER TO SHEET C-104 FOR NEW LOCATION.
4. ADA RAMP PER DETAIL __
5. ADA STRIPING.
6. EXISTING WATER METER TO REMAIN. PROTECT IN PLACE.
7. EXISTING POWER POLE TO REMAIN. PROTECT IN PLACE.
8. EXISTING TREE TO BE REMOVED.
9. EXISTING SIGN TO REMAIN. PROTECT IN PLACE.
10. EXISTING POWER POLE TO BE RELOCATED.
11. ADJUST EXISTING WATER VALVE TO GRADE.
12. EXISTING PARKING METER TO REMAIN. PROTECT IN PLACE.
13. EXISTING PARKING METER TO BE RELOCATED.
14. EXISTING TREE TO REMAIN. PROTECT IN PLACE.
15. VALLEY GUTTER.
16. SAWCUT.
17. PROTECT EXISTING SLOT DRAIN PIPE.



A1 GRANT AVENUE IMPROVEMENTS

SCALE: 1" = 10'

0 5' 10'

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
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ph(505)255-4033

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123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date
October 06, 2023

Drawn by	Checked by
DY	TJA/JEL

File
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Set
100% Design Development

Sheet Title
GRANT AVENUE IMPROVEMENTS

C-108

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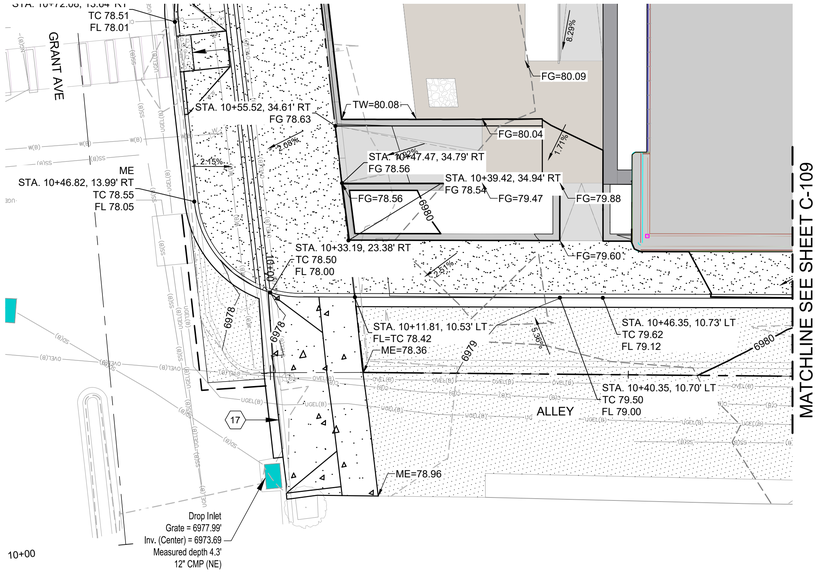

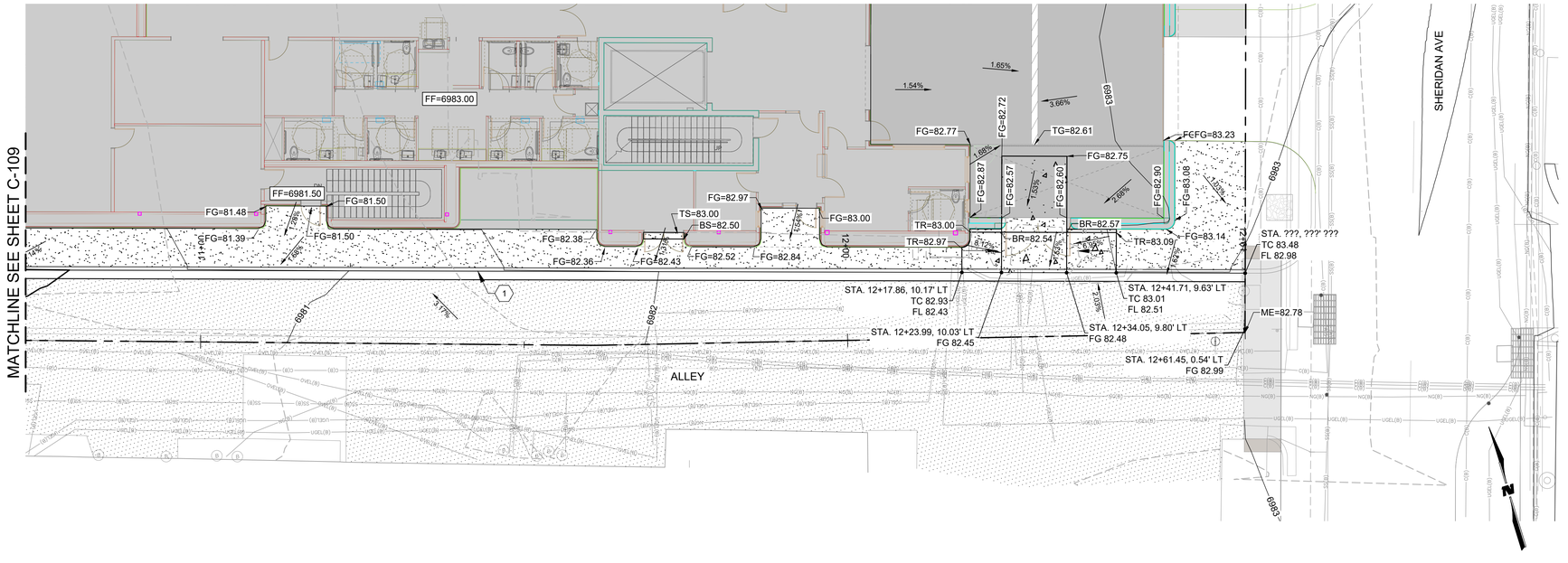

A1 ALLEY IMPROVEMENTS

SCALE: 1" = 10'

0 5' 10'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1. 6-INCH CURB & GUTTER.
2. EXISTING TRENCH DRAIN TO REMAIN. PROTECT IN PLACE.
3. EXISTING IRRIGATION METER TO BE RELOCATED. REFER TO SHEET C-104 FOR NEW LOCATION.
4. ADA RAMP PER DETAIL __
5. ADA STRIPING.
6. EXISTING WATER METER TO REMAIN. PROTECT IN PLACE.
7. EXISTING POWER POLE TO REMAIN. PROTECT IN PLACE.
8. EXISTING TREE TO BE REMOVED.
9. EXISTING SIGN TO REMAIN. PROTECT IN PLACE.
10. EXISTING POWER POLE TO BE RELOCATED.
11. ADJUST EXISTING WATER VALVE TO GRADE.
12. EXISTING PARKING METER TO REMAIN. PROTECT IN PLACE.
13. EXISTING PARKING METER TO BE RELOCATED.
14. EXISTING TREE TO REMAIN. PROTECT IN PLACE.
15. VALLEY GUTTER.
16. SAWCUT.
17. PROTECT EXISTING SLOT DRAIN PIPE.

LEGEND

FG	FINISHED GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
BC	BOTTOM OF CURB ELEVATION
TC	TO OF CURB ELEVATION
BR	BOTTOM OF RAMP ELEVATION
TR	TOP OF RAMP ELEVATION
BS	BOTTOM OF STEP ELEVATION
TS	TO OF STEP ELEVATION
LP	LOW POINT ELEVATION
HP	HIGH POINT ELEVATION
TW	TOP OF WALL ELEVATION
FF	FINISH FLOOR ELEVATION
	EXISTING ROW BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	SAWCUT
	ASPHALT PAVING
	4" PCC SIDEWALK
	6" REINFORCED CONCRETE

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
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File: M:\845\02\0-845-553-202_Disciplines_SHEETS\2_Sheets - civil\2260553-SP02.dwg
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Sheet Title: ALLEY IMPROVEMENTS

C-109

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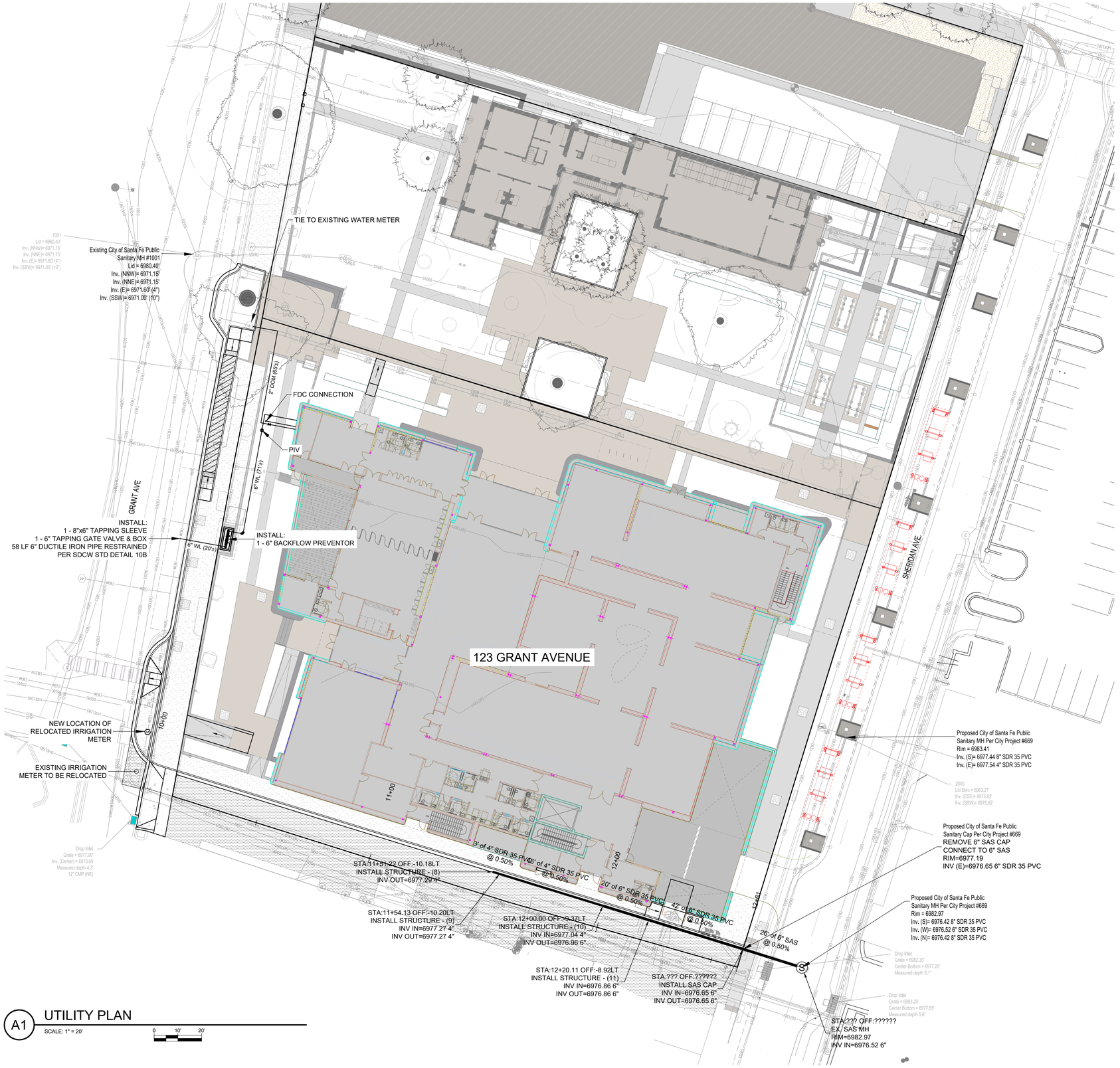

A1 UTILITY PLAN

SCALE: 1" = 20'

0 10' 20'

GENERAL NOTES

1. SEE SHEET C-101 FOR ALL GENERAL NOTES.
2. ANY DAMAGE SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR.

KEYNOTES

1.

LEGEND

- WATERLINE
- SEWERLINE
- GASLINE
- WATERLINE EASEMENT
- EXISTING WATERLINE
- EXISTING SEWERLINE
- FIRE HYDRANT AND WATER VALVE
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- WATER METER

NOT FOR CONSTRUCTION

Consultant:
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ALBUQUERQUE, NM 87109
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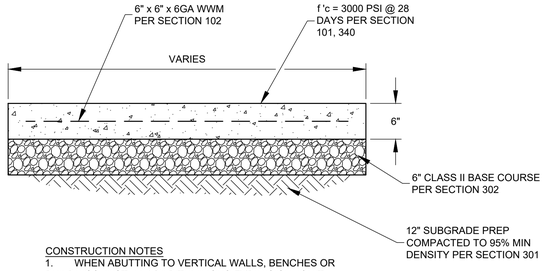
Set: **100% Design Development**

Sheet Title: UTILITY PLAN

C-104

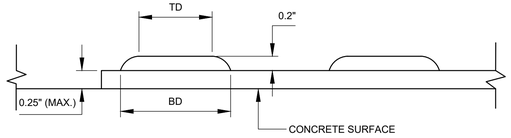
Sheet of



CONSTRUCTION NOTES
1. WHEN ABUTTING TO VERTICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL PER SECTION 107 (TYP)
2. EXPANSION JOINTS SHALL BE SPACED 30' MAX
3. INSTALL CONTRACTION JOINTS AT 6' - 0" OC
4. LIGHT BROOM FINISHED CONCRETE SURFACE REQUIRED.

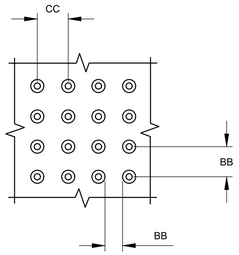
A3 6" REINFORCED CONCRETE

SCALE: 1" = 1'



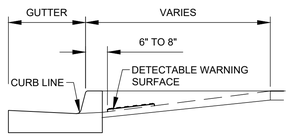
DOME SECTION

BD - BASE DIAMETER
0.9" MIN. TO 1.4" MAX
TD - TOP DIAMETER
50% OF BD MIN TO 65% OF BD MAX

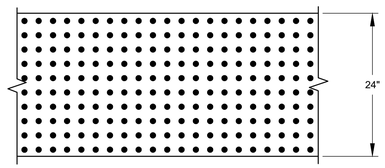


DOME SPACING

CC - CENTER TO CENTER SPACING
1.6" MIN. TO 2.4" MAX
BB - BASE TO BASE SPACING
0.55" MIN



LOCATION



DEFINITIONS:

DETECTABLE WARNINGS - A SURFACE FEATURE BUILT IN OR APPLIED TO WALKING SURFACES OR OTHER ELEMENTS TO WARN OF HAZARDS ON A CIRCULATION PATH TO AID PERSONS WITH VISUAL IMPAIRMENTS
CURB LINE - A LINE AT THE FACE OF THE CURB THAT MARKS THE TRANSITION BETWEEN THE SIDEWALK AND THE GUTTER OR ROADWAY

LOCATION:
1. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE A CURB RAMP OR LANDING CONNECTS TO A CROSSWALK AND OR PEDESTRIAN ROUTE CROSSING A ROADWAY.
2. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" (150 MM) MINIMUM AND 8" (205 MM) MAXIMUM FROM THE CURB LINE.
3. MEDIAN AND REFUGE ISLANDS SHALL HAVE DETECTABLE WARNINGS. DETECTABLE WARNINGS AT CUT THROUGH ISLAND SHALL BE SEPARATED BY A 24" (610MM) MINIMUM LENGTH OF WALKWAY WITHOUT WARNINGS

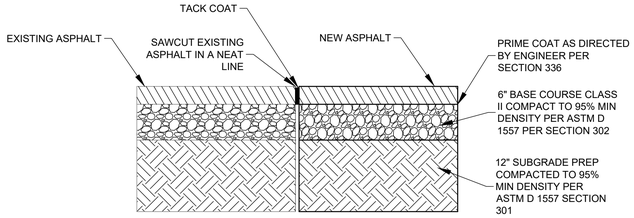
DOME SPACING:
DETECTABLE WARNING SURFACES SHALL EXTEND 24" MIN. IN THE DIRECTION OF TRAVEL AND FULL WIDTH OF THE CURB RAMP, LANDING, OR TRANSITION. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE CROSS WALK TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

EXCEPTION: DETECTABLE WARNINGS SHALL NOT BE REQUIRED ON CUT THROUGH ISLANDS WHERE THE CROSSINGS ARE CONTROLLED BY SIGNALS AND ARE TIMED FOR FULL CROSSING ON MEDIANS LESS THEN 7' WIDE

NOTES:
1. DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE.
2. SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.
4. ALL PRODUCTS USED FOR THE DETECTABLE WARNING SURFACES SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
5. PRODUCTS SHALL BE CAST-IN-TACT AND RED IN COLOR.

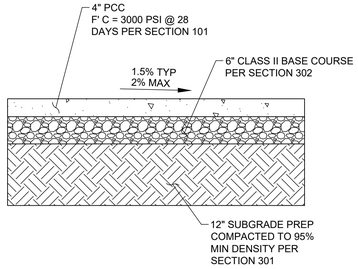
XX DETECTABLE WARNING SURFACE DETAIL

SCALE: 1" = 2'



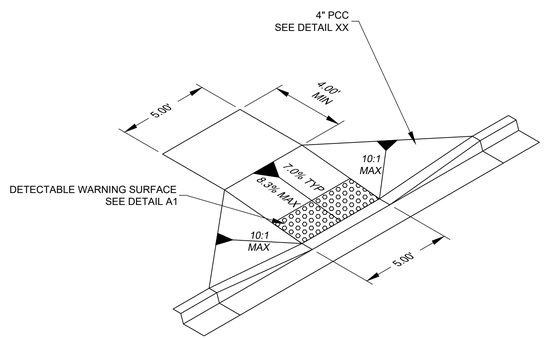
A8 OLD/NEW ASPHALT JOINT DETAIL

N.T.S.



F5 4" PCC SIDEWALK DETAIL

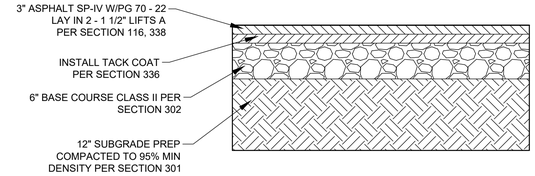
SCALE: NTS



CONSTRUCTION NOTES
1. WHEN ABUTTING TO VERTICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL PER SECTION 107 (TYP).
2. INSTALL CONTRACTION JOINTS @ 6'-0" OC
3. LIGHT BROOM FINISHED CONCRETE SURFACE REQUIRED.

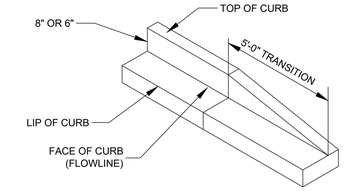
XX ADA PERPENDICULAR RAMP

SCALE: 1" = 1'



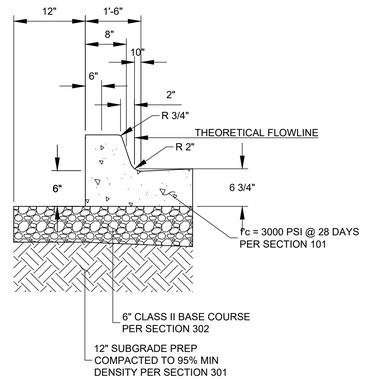
C6 3" PAVEMENT SECTION

SCALE: 1" = 1'



D9 CURB TRANSITION DETAIL

N.T.S.



C5 MEDIAN CURB & GUTTER

SCALE: 1" = 1'

NOT FOR CONSTRUCTION

Consultant:
WILSON & COMPANY
4401 MASTHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
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GEORGIA O'KEEFFE MUSEUM
100% Design Development
123 Grant Avenue, Santa Fe, NM 87501

Date	Issue

Date: **October 06, 2023**
Drawn by: DY | Checked by: TJA/JEL
File: M:\MSD\22-600-553-0202_Disciplines_SHEETS\2_Sheets - civil\22605530T01.dwg
Set: **100% Design Development**
Sheet Title: SITE DETAILS

C-501

Sheet of

For all analyzed flaked stone artifacts, a minimum set of attributes will be recorded. These include raw material type, raw material texture (fine, medium, or coarse), maximum length, maximum width, maximum thickness, weight, and thermal alteration (either accidental or intentional). Raw materials will likely be recorded by generic categories (e.g., chert, chalcedony, obsidian, quartzite, etc.), but specific sources will be identified when possible. XRF analysis will be performed on at least a sample of obsidian artifacts to determine their primary geological source(s) and ascertain whether they could have been obtained from secondary (gravel) sources closer to the project area rather than their primary geological outcrops. XRF analysis will be performed by Dr. Steven Shackley of the Geoarchaeological XRF Laboratory in Albuquerque.

For bifaces, projectile points, drills, or other items with clear directional flaking, the portion of the artifact present will be recorded as one or a combination of the following, wherever possible: complete, proximal, midsection, distal.

5.12.1.1 Debitage Analysis

Debitage will be the most abundant category of artifact, although the number of pieces will likely vary considerably among the targeted sites. All debitage observed will be collected and subjected to laboratory analysis. The debitage may be sampled so that a minimum of 100 such artifacts are individually analyzed from subsurface contexts. Debitage not subjected to individual analysis will be sorted by raw material type, counted, and weighed, and recorded by provenience. The individual debitage analysis will involve recording a suite of objectively defined attributes (axial length, axial width, percent cortex, platform, and condition), which will provide replicable analytical results. In addition, any special attributes will also be recorded, such as collateral flake scarring (typical of channel flakes produced during fluting), overshot flakes, bipolar interior surfaces, etc.

5.12.1.2 Ground Stone

The same basic suite of attributes recorded for flaked stone tools (raw material type and texture, maximum length, maximum width, maximum thickness, weight, completeness, and thermal alteration) will be recorded for ground stone. But additional attributes—specific to the ground stone analyses—will also be recorded. These include number of grinding surfaces, presence or absence of striations (and, if present, their character such as linear, curvilinear, or random), and other attributes. Ground stone will be classified according to functional types whenever possible (Adams 1996, 1999, 2002). It is expected that most ground stone will consist of milling equipment and fragments thereof, specifically manos and metates, and fragments that cannot be distinguished as to these two types. Other kinds of ground stone items are likely to be recovered only in small quantities, if at all.

Distinguishing different mano and metate subtypes is an important step in the analysis. Manos are commonly divided into one- and two-hand forms, and these have important implications for understanding subsistence-related activities. Toward this end, complete manos will be subdivided into two size classes: small and large, with 15 cm for the maximum dimension being the discriminating threshold. Shape is also important for distinguishing one- and two-hand manos, as one-hand forms tend to be rounded, whereas two-hand manos are typically rectangular in shape. Accordingly, shape attributes for manos will be recorded as well.

Metate forms are also important indicators of subsistence-related activities. To the extent possible, recovered metates (or fragments thereof) will be classified as slab, basin, or trough forms. Slab metates have flat grinding surfaces that are not intentionally shaped. Basin metates have circular or elliptical grinding surfaces that form basin surfaces of variable depth. Trough metates have grinding surfaces that are

deeper than basin forms and may be completely enclosed or open at one or both ends. Depth of the grinding surface below the adjacent edges will also be recorded for any recovered metates.

5.12.1.3 Quantitative Methods for Lithic Artifacts

Analysis of the lithic artifacts will involve two-sample t-tests and chi-square tests of significance and examination of adjusted residuals to identify which specific variables were causing significant differences. By convention, adjusted chi-square residual values greater than 1.96 and less than -1.96, often standardized at > 2 and < -2, are considered significant departures from the null hypothesis that no differences exist. Significant results of a chi-square test indicate differences between rows and columns of counts of categorical data at a given confidence level, by convention, 95 percent. It is a valuable statistical method for addressing many questions in lithic artifact analysis, where counts of artifacts are being compared in terms of different variables.

5.12.2 Native American Ceramics

Collected ceramics will be subjected to a visual attribute analysis minimally involving 1) typological identification for the purpose of recovering chronological data; 2) recording of paste, temper, decoration, and vessel form attributes; and 3) recording the number of vessels and range of vessel types to help understand the nature of the occupation(s) at the site. SWCA's Meaghan Trowbridge will conduct the ceramic analysis.

Depending on the size of the ceramic assemblage at any given site, the assemblage may be sampled or may be fully analyzed. Identification of ceramic types and styles provides relative dates and can offer insight into patterns of ceramic production and distribution. The identification of ceramic production and distribution has been a major research issue for Southwestern archaeologists for a long time. Throughout the dynamic prehistory of the Southwest, ceramic production was an evolving process directly linked to the social and economic contexts of vessel use and the transport and exchange of vessels (Blinman 1988; Rice 1984.

Recorded attributes for all sherds typically include sherd type (e.g., rim, handle, body), vessel form (e.g., jar, bowl, ladle, etc.), ceramic type, rim characteristics (e.g., rim form, orifice diameter), thickness, temper, and surface treatment. When present, modifications, such as sooting, ground edges, or drill holes, are recorded for each sherd. Although not always applicable with small samples, orifice diameters and vessel form categories can sometimes be used to evaluate vessel size and infer vessel function from rim sherds (Braun 1980). Independent observations can be used to corroborate these functional assignments—for instance, exterior sooting on a vessel suggests an association with fire, grinding along edges indicates that sherds were recycled and used as scrapers, and repair holes suggest that attempts were made to extend the life of a vessel in some capacity. Rim metrics, such as diameter and angle, provide further information on vessel form, shape, and size. Functional analyses of ceramic vessels are important for providing information on domestic activities. The range of vessel forms and functions within a site assemblage can reflect different practices of consumption, resource processing, storage, and even household size.

5.12.3 Botanical Remains

The analysis of any biological remains recovered will follow standard methods for sorting, identifying, and quantifying macrobotanical specimens and plant microfossils including pollen, starch, and/or phytoliths. Macrobotanical remains will be recovered primarily through water flotation of sediment samples by Paleoscapes Archaeobotanical Services and include individual specimens collected during excavations. Heavy fractions will be scanned for artifacts. These items will be removed, bagged and tagged, and then returned to SWCA for further analysis.

5.12.4 Faunal Remains

Any animal bone recovered will be identified to the lowest possible taxonomic level. Attributes to be recorded will include anatomical part or element, portion, and side. Data regarding the age of the animal at death (e.g., fusion of epiphyses, dental eruption, dental wear) will be recorded, if available, in order to assist in assessing seasonality and prey population dynamics, as well as animal husbandry practices. The presence and degree of burning will be noted, as will butchering marks and other modifications associated with worked bone. Data regarding taphonomic processes, such as presence of root damage, weathering, and rodent and/or carnivore damage, will be documented when present.

The relative abundances of taxa will be described using the Number of Identified Specimens (NISP) and Minimum Number of Individuals (MNI). NISP is the number of specimens identified to a specific taxa or taxonomic category. This unit of quantification is useful in describing the faunal assemblage, but becomes problematic when performing more detailed analyses. These problems have been discussed in the literature ad nauseam, and these arguments are beyond the scope of this analysis. For a summary of these arguments, I direct the reader to Grayson (1984). Several key points regarding the use of NISPs are worth reiterating here. First, NISPs are biased towards carcasses that are transported to the site whole versus those that are field butchered with only selected portions being transported to the site. This "schlepp effect" will often lead to an exaggeration in the importance of small game relative to large game (Klein and Cruz-Uribe 1984) Second, the use of NISP assumes that each bone and bone fragment represents a single element and a single individual. However, individual bones and bone fragments are often produced as a result of taphonomic processes and/or butchering practices, and this includes the completeness of the carcass transported to the site (Grayson 1981:21-22). In this respect, a large mammal whose long bones are fractured for grease production or through weathering will occur in greater abundances than a squirrel whose long bones remained intact, even though both sets of remains represent a single individual. Also, fauna are not treated equally with regards to transport and field processing. Large game animals often require substantial field processing time and energy which may result in the discard of specific portions prior to arrival at the site while other fauna are transported whole with minimal field processing.

For these above reasons, we will supplement the use of the NISP with additional measures for evaluating the relative abundance of taxa, the Minimum Number of Elements (MNE), the Minimum Number of Animal Units (MAU) and the normed derivative, %MAU. Unlike the MNI which is used to measure taxonomic abundance, these measures are used to describe skeletal part representation for individual taxa. As with MNI, there are multiple definitions of and methods for calculating MNE (see Lyman 1994a). The definition employed in this study is "the count of the number of specimens from this part [portion], ignoring side but allowing for fragmentation" (Ringrose 1993:130). I calculate MNE by totaling the number of specimens representing a specific portion, i.e. proximal femur, and subtracting any specimens that refit. This method does not distinguish between different sides or ages of the animal.

The MAU is the MNE values standardized according to their frequency in a particular taxon. This measure is calculated by dividing the MNE by the number of that skeletal portion occurring in that specific taxon. For example, an assemblage with 16 distal left femurs and 13 distal right femurs has an MNE of 29. The MAU is 29 divided by the number of distal femurs occurring in the animal, in this case 2, giving an MAU of 14.5. The %MAU is the normed MAU values calculated by dividing the MAU values for each portion by the greatest observed MAU value, then multiplying by 100 (Binford 1981, 1984; Lyman 1994a). The MNE, MAU, and %MAU are useful tools for investigating transport decisions and the economic importance of certain anatomical portions, the abundance of specific taxa, and taphonomic biases in preservation (Grayson 1989; Lyman 1994a, b; Metcalfe and Jones 1988; Ringrose 1993).

5.12.5 Radiocarbon Samples

Radiocarbon dating will provide some of the most important data from the proposed data recovery investigations. It is anticipated that radiocarbon samples will consist of macroscopic charcoal recovered from flotation processing. Radiocarbon samples will be selected following the macrobotanical analysis, and to the extent possible single taxa will be submitted for dating. Priority will be given to seeds, twigs, and any annual taxa identified. Otherwise, wood charcoal will be submitted. In some cases it may be necessary to submit mixed charcoal for radiocarbon analysis, if single taxa cannot be separated out. Bulk sediment samples may be selected for dating if macroscopic charcoal does not appear to be present. Radiocarbon dates will provide direct evidence pertaining to the age(s) of archaeological materials. SWCA will consult with the Pueblo of Tesuque Tribal Historic Preservation Office to determine which features will be sampled for radiocarbon dating.

5.12.6 Historic-era Artifacts and Archival Research

Analysis of any historic-era artifacts collected will be oriented toward recovering chronological data and the types of activities that generated the refuse. Artifact manufacturing dates are important for determining the time depth and temporal range of historic activity at a site. The most temporally diagnostic historic-era artifacts are retail glass containers, and manufacture dates can be inferred from glassmaker logos embossed on bases, product labeling, or indicators of technology of production (e.g., handmade vs. machine-made). Metal cans and ceramic sherds also have datable attributes, although these are not typically as precise as are those for glass containers. In addition, the types of artifacts found and identification of the production location through maker's marks will be used to address questions of economic status of households, reliance on locally produced items or items acquired through trade the Santa Fe Trail or El Camino Real.

5.12.7 Human Remains

Analysis of human remains will be overseen by SWCA's lead human osteologist, Robin Cordero. Non-invasive methods will be used to collect data on remains to include indicators of age-at-death, non-metric attributes to determine biological sex, and standard cranial and postcranial measurements as outlined in *Standards for Data Collection from Human Remains* (Buikstra and Ubelaker 1994). A paleopathological evaluation of individuals recovered during excavations will be conducted, though documentation will be limited to verbal descriptions or drawings. Photographs of human remains are required documentation under NMAC 4.10.11, however these photos will not be presented in the report except in a confidential appendix that will not be available for public dissemination. 3-D scans or casting of any human remains will not be conducted unless approved in consultation with the NEH, SHPO, and descendant communities.

5.13 REPORT PREPARATION

Within 6 weeks following completion of fieldwork, a preliminary testing and data recovery report will be prepared and submitted to the NEH and SHPO, and a copy will be provided to the City of Santa Fe ARC. This report will describe the results of the fieldwork and specify the remaining laboratory and analytical tasks. The draft treatment report, including comprehensive results of the testing and data recovery activities and post-field analyses, will be submitted to the client and relevant agencies for review within 16 months of the completion of all testing and data recovery fieldwork activities. The final data recovery report will focus on the project findings for both the field and laboratory analyses and related to the research domains outlined in this treatment plan. The report will conclude with a summary of the project findings, NRHP eligibility statements for each site, and recommendations for any future management that may be required. The final report will include an updated site form for LA 200086.

All agency review comments on the draft report will be addressed in the final version, which will also be submitted for review. A copy of the final report will be included with the materials delivered for curation.

5.14 CURATION

Unless other provisions are obtained through consultation, all collected materials and records from the investigations will be curated at the Museum of New Mexico's Museum of Indian Arts and Culture in Santa Fe. SWCA will have all collected materials from the investigations curated within two months of the acceptance of the final data recovery report. A curation agreement is provided in Appendix A.

CHAPTER 6. SITE SPECIFIC TREATMENT

Data recovery at 123 Grant Ave. will proceed in five phases: building demolition monitoring, geophysical survey of the project area, monitoring of the bore holes for the piers, hand and mechanical excavation of the building footprint, and excavation of the cistern.

6.1 BUILDING AND PARKING LOT DEMOLITION

All ground disturbing activities related to building foundation demolition, underground utilities removal, parking lot asphalt removal, and other potentially ground disturbing demolition will be monitored by a qualified archaeologist. A qualified archaeologist is defined here as an archaeologist who is listed on the SHPO directory as a Supervisory Archaeologist, and who will be under direct supervision of an archaeologist that is listed on the City of Santa Fe List of Approved Archaeologists for the Historic Downtown Archaeological Review District unless the individual is already listed on said list. Ground disturbing activities are defined here as those demolition activities that have the potential to cause vertical or horizontal displacement of sediments 6 inches (15 cm) or more.

Upon discovery of a feature, the archaeological monitor will halt demolition as soon as it is safe to do so. The feature will be photographed, mapped, and if the feature can be protected from further damage by demolition, efforts will be made to do so including placing dirt fill on top of the feature, pulling foundation from a different direction, or fracturing the foundation into smaller sections. Methods for limiting damage to any identified feature will be done in consultation with the construction foreman to ensure safe practices are adhered to.

Features will be clearly marked for construction crews in order to minimize damage during demolition. Features will not be excavated during the demolition phase unless the feature will be destroyed by demolition activities or the feature cannot be avoided or protected. Otherwise, the feature will be treated during the subsequent excavation phase (see Section 6.4). Once demolition of the building is complete, the fill will be roughly graded for the Geophysical Survey (see Section 6.2) with the exception of features, which will be avoided during grading.

6.2 GEOPHYSICAL SURVEY

Following demolition of the parking lot and building, the ground surface will be graded and leveled. A GPR and magnetometry survey will be conducted by SRI between Grant Ave and Sheridan St. within the proposed construction footprint, to include the proposed cistern area following the methods outlined in Section 5.2. A map of the property at various depths will then be provided to SWCA in order to identify potential targets for excavation at various elevations. A second GPR and/or magnetometry survey will be conducted within the building footprint at a depth of approximately 8 ft below present ground surface in order to identify possible features not detected by the initial scan, and to provide better resolution of previously identified anomalies at the 8-15 ft depth below present ground surface.

6.3 BORE HOLE/PIER INSTALLATION

As shown in Figure 1-3, a series of 30-inch diameter, 43-foot deep bore holes will be spaced at approximately 8-foot intervals in order to construct piers for retention walls and to support the building. A backhoe trench will be excavated to a maximum depth of 10 feet and monitored by two archaeologists, at least one of which will be listed as a Supervisory Archaeologist on the SHPO directory. Any features that are encountered will be photographed, mapped, and profiled, if possible. If the feature can be safely

excavated within OSHA regulations by stepping the trench, it will be treated according to the Feature Excavation protocol outlined above. If the feature cannot be safely excavated, then the feature will be covered and fill will be packed down. The feature will be re-exposed and excavated once the piers have been poured and it is structurally safe to do so.

As all bore holes must be excavated through compacted earth in order to maintain integrity of the piers, backhoe excavation below the depth of 10 feet would undermine the safety and structural integrity of the building foundation. Therefore, excavation of the bore hole locations will not exceed a depth of 10 feet until after the piers are in place and stable, and until safe to proceed after shoring is in place.

6.4 MAIN PIT EXCAVATION

Excavations in the main pit area will utilize two methods depending on the occupation phase: historic deposits and pre-Hispanic deposits. Due to the depth and areal extent of the excavations, mechanical stripping will be necessary to excavate the site regardless of occupation phase. The main pit will be subdivided into north and south halves. Hand excavations of features and control hand units will proceed in one half while the other half is being mechanically stripped and features exposed. This method is expected to result in the placement of adjacent excavation blocks at differing elevations that will be excavated simultaneously. As a result, each exposure will require an individual subdatum for maintaining elevation control during excavation, and will require detailed stratigraphic controls.

6.4.1 Control Hand Excavation Units

At minimum six 2 by 2 m hand excavation units will be placed in areas defined by the geophysical survey as having no anomalies. The purpose of these units is to provide screened samples of all strata, and to serve as a baseline for mapping strata across the site. These units will be excavated in 10 cm arbitrary levels with stratigraphic controls as outlined in the Hand Excavation methods section (Section 5.5). These units will originate at the top of the initial intact upper stratum, and will be excavated to a depth of at least 3 levels below sterile or 3.5 m bmgs. After each episode of site grading/leveling, the units will be relocated using a GNSS system, and excavations will continue. A 20 cm by 20 cm by 10 cm soil sample will be collected from the southwest corner of the 2 by 2 m block excavation as a control flotation sample.

6.4.2 Historic Strata

For strata associated with the historic deposits, mechanical stripping will be used to expose the horizontal extent of features identified by OAS during trenching and based on anomalies identified by the geophysical survey. All 17 of the features identified by OAS in the main pit area will be reopened and initially exposed with mechanical stripping to within 10 cm of the feature. The feature will then be excavated using the Feature Excavation methods outlined above (Section 5.7). If trash middens are identified, these features will be sampled according to the Large Extramural Feature protocols presented in Section 5.7.2.

6.4.3 Pre-Hispanic Strata

Once in-situ pre-Hispanic strata are identified, mechanical stripping will be used to clear the surface to the level of this stratum. Backhoe trenches will be placed to coincide with the locations of OAS's test trenches. This will provide a stratigraphic map across the excavation area. The east-west oriented trenches will be extended across the site into the area previously covered by the building.

Anomalies identified by the geophysical survey will be targeted for excavation, exposed initially by mechanical stripping. If any large extramural features are identified, these features will be sampled with at

minimum 50 percent of the feature area subjected to hand excavation and screened. All fill from features will be removed by hand, mechanical excavation will not be used to excavate a feature outside of the potential discovery of features during mechanical trenching.

At the request of the Pueblo of Tesuque, a sample of the Pre-Hispanic fill from the mechanically scraped areas will be hand-screened through 1/4-inch mesh. This will include areas where midden or burials were observed and any additional areas where tribal monitors identify as an area of importance.

6.5 CISTERN EXCAVATION

Installation of an approximately 60-foot long cistern will require excavation of a pit up to 100-foot (30.5 m) long and 60-foot wide (18.3 m), and to a depth of 15 feet (4.6 m). Excavations will proceed in two stages: hand excavation of test units alternating with mechanical stripping in 4-foot deep increments. Two 1m by 1m units will be placed at either end of the cistern pit area to provide a vertical control sample to a depth of 4 feet. At the end of each 4 ft excavation, the entire cistern pit will be mechanically stripped to the depth of 4-foot below ground surface where the units will be reopened and continue to a depth of 8 feet below ground surface. If features are encountered, they will be excavated according to the small or large feature excavation methods presented above. Excavations will continue until sterile.

6.6 UTILITIES INSTALLATION

Additional utilities will be installed in as yet undetermined locations. These include water lines, sewer lines, irrigation lines, and electrical utilities. Installation of these utilities will be monitored by an archaeologist listed as a Supervisory Archaeologist on the SHPO directory. If the utility line is on city-owned property, then the monitoring will also be supervised by an archaeologist listed on the City of Santa Fe list of permitted archaeologists for the Historic Downtown Archaeological Review District. If small features are encountered during the excavation, they will be excavated according to the small feature protocol described above, expanding the trench up to a maximum of 2 m wide to accommodate the excavation. For large features, the feature will be photographed and documented within the trench, and excavations will be limited to a total exposure of 2 m wide.

6.7 DIRT MANAGEMENT

Sediments removed from upper historic strata will be disposed of off-site without additional screening or treatment. All sediments from the identified Puebloan strata (as determined by the SWCA geoarchaeologist and/or PI in consultation with the tribal monitor) will be removed and stored off-site at a secured location. To the maximum extent possible, this dirt will be returned to the site to be reused as fill. This fill dirt also may be repurposed and turned into adobe bricks for construction, though any fill used for this purpose will be screened for any artifacts or remains (faunal or human), and any artifacts or remains will be bagged and inventoried. Any human remains will be treated according to the Plan of Action for Human Remains (Appendix B).

6.8 REPATRIATION

All human remains and associated burial accoutrements, and any other objects of cultural patrimony identified by the Pueblo of Tesuque, will be reburied on site at an as yet undetermined location. The location will be identified in consultation with the Pueblo of Tesuque, and the pueblo will have final say in what items associated with the Puebloan strata (to include possible Pueblo Revolt remains, if identified) will be

reburied on-site. Reburial will be to a minimum depth of 6 ft, and excavation of the hole will be performed by SWCA personnel and a Pueblo of Tesuque tribal monitor.

CHAPTER 7. REFERENCES CITED/LITERATURE CITED

Abbott, Alysia L., Cordelia T. Snow and David C. Eck
2007 *Report of 2°/o Archaeological Testing and Archival Research: The First National Bank of Santa Fe Parking Lot, 114 West Palace Ave and 115 West San Francisco, in the National Register of Historic Places Santa Fe Historic District, the State of New Mexico Register of Cultural Properties and the Downtown Historic Archaeological Review District, Santa Fe, New Mexico.* PAS Report #611. Abboteck, Inc., Santa Fe, New Mexico.

Aberts, Lt. J. W.
1962 *New Mexico Report 1946-1847.* Horn and Wallace Publishers, Albuquerque, New Mexico.

1966 *Report of His Examination of New Mexico in the Years 1846-47*, 30th Congress, 1st Session, Senate Executive Document 23, U.S. Government Printing Office, Washington, D.C., 1962 reprint) Horn and Wallace, Albuquerque, New Mexico.

Ackerly, Neal W.
1996 *A Review of the Historic Significance of and Management Recommendations for Preserving New Mexico's Acequia Systems*. Dos Rios Consultants, Inc., Silver City, NM.

Acklen, John C.
1995 *A Fort Over a Town: Results of 1994 Archaeological Investigations of Old Fort Marcy, Santa Fe, New Mexico.* Paper presented at the Archaeology in Your Backyard: A City of Santa Fe Symposium, October 22-25, 1995, Santa Fe, NM.

1997 *Olé, Volume I: Context*. TRC Mariah Associates Inc., Albuquerque, NM.

Adams, Eleanor B. and Fray Angelico Chavez
1956 *Missions of New Mexico, 1776: A Description by Fray Francisco Atansio Dominguez with Other Contemporary Documents*. University of New Mexico Press, Albuquerque, NM.

Adams, Jenny L.
1996 Bringing Stone Tools to Life: The People Behind the Rocks. *Archaeology in Tucson* 10(4):1–5.

1999 Re-focusing the Role of Food-grinding Tools as Correlates for Subsistence Strategies in the U.S. Southwest. *American Antiquity* 64(3):475–498.

2002 *Ground-stone Analysis: A Technological Approach*. University of Utah Press, Salt Lake City.

Ahler, Stanley A.
1989 Mass Analysis of Flaking Debris: Studying the Forest Rather than the Tree. In *Alternative Approaches to Lithic Analysis*, edited by D.O. Henry and G. H. Odell, pp. 85–118. Archeological Papers of the American Anthropological Association No. 1. Arlington.

Ambler, Bridget M., and Lonyta Viklund
1995 *Chert Procurement and Processing at Los Cerros Colorados, Santa Fe County, New Mexico*. Southwest Archaeological Consultants Research Report No. 356b, Santa Fe, NM.

Andrefsky, William Jr.
1991 Inferring Trends in Prehistoric Settlement Behavior from Lithic Production Technology in the Southern Plains. *North American Archaeologist* 12:129–144.

Anschuetz, Kurt F., and S. Beninato
1999 *An Archaeological and Historical Cultural Landscape Study of El Rancho de Las Golondrinas Living History Museum*. Rio Grande Foundation for Communities and Cultural Landscapes, Santa Fe, NM.

Anschuetz, Kurt F. and Lonyta Viklund
1997 *A Cultural Resources Inventory Survey of the Proposed College Hills Subdivision Northwest of Santa Fe, Santa Fe County, New Mexico*. Southwest Archaeological Consultants, Santa Fe, NM.

Aubele, Jayne C.
1978 *Geology of the Cerros del Rio Volcanic Field, Santa Fe, Sandoval and Los Alamos Counties, New Mexico.* Laboratory of Anthropology Notes 73, Museum of New Mexico, Santa Fe, NM.

Bahm, Richard J., Loren W. Crow, Earl K. Fosdick, Keith W. Harrard, W. Scott Morris
1985 *New Mexico Climate Manual: Solar and Weather Data*. New Mexico Energy Research and Development Institute, Santa Fe, NM.

Bamforth, Douglas B.
1986 Technological Efficiency and Tool Curation. *American Antiquity* 51:38–50.

Beal, John D.
1985 *Archaeological Survey and Assessment Adjacent to Santa Fe River, Santa Fe County, New Mexico.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

Bense, Judith A.
2004 Introduction: Presidios of the North American Spanish Borderlands. *Historical Archaeology* 38:1-5.

Berg, Caryn M.
2000 Flaked Stone Technology and Its Relationship to Transitions to Sedentism and Agriculture in Southwestern Colorado. Ph.D. dissertation, Department of Anthropology, University of Colorado.

Bettinger, Robert L.
1999 From Traveler to Processor: Regional Trajectories of Hunter–Gatherer Sedentism in the Inyo-Mono Region, California. In *Settlement Pattern Studies in the Americas: Fifty Years Since Virú*, edited by B. R. Billman and Gary M. Feinman, pp. 39–55. Smithsonian Institution Press, Washington, D.C.

2001 Holocene Hunter-Gatherers. *In Archaeology at the Millennium: A Sourcebook*, edited by Gary M. Feinman and T. Douglas Price, pp. 137–195. Kluwer Academic/Plenum, New York, New York.

Bleed, Peter
1986 The Optimal Design of Hunting Weapons: Maintainability or Reliability. *American Antiquity* 51:737–747.

Blinman, Eric R.
1988 *The Interpretation of Ceramic Variability: A Case Study from the Dolores Anasazi.* Unpublished Ph.D. dissertation, Washington State University, Pullman.

Bowden, J. J.
1969 *Private Land Claims in the Southwest*, vol. 2, pp. 269-342. Unpublished Master's thesis, Southern Methodist University, Dallas, TX.

Boyd, E.
1970 Application for Registration, New Mexico State Register of Cultural properties, Form on file, State Planning Office, Santa Fe, NM.

Braun, David P.
1980 Experimental Interpretation of Ceramic Vessel Use on the Basis of Rim and Neck Formal Attributes. In *The Navajo Project: Archaeological Investigations, Page to Phoenix 500 kV Southern Transmission Line*, by D. Fiero, R. Munson, M. McClain, S. Wilson, and A. Zier, pp. 171–231. Research Paper No. 11. Museum of Northern Arizona, Flagstaff.

Brown, Lorin W.
1939 "Early Days of Settlement of Agua Fria" (informant Nicholas Lopez of Agua Fria), WPA Files, New Mexico State Records Center and Archives, Santa Fe, New Mexico.

Buikstra, Jane E. and Douglas H. Ubelaker (editors)
1994 *Standards for Data Collection from Human Skeletal Remains.* Arkansas Archaeological Survey Research Series No. 44, Fayetteville, Arkansas.

Bunting, Bainbridge
1976 *Early Architecture in New Mexico*. University of New Mexico Press, Albuquerque.

Chapin, Nicholas
2017 *Oshara Revisited: The Archaic Period in Northern New Mexico*. Anthropological Papers No. 10. Maxwell Museum of Anthropology, University of New Mexico, Albuquerque.

Cordell, Linda
1978 A *Cultural Resources Overview of the Middle Rio Grande Valley, New Mexico*. U.S.D.A. Forest Service and Bureau of Land Management, Albuquerque and Santa Fe, NM.

1979 *A Cultural Resources Overview of the Middle Rio Grande Valley, New Mexico.* U.S.D.A. Forest Service and Bureau of Land Management, Albuquerque and Santa Fe, New Mexico.

Cordell, Linda and Maxine McBrinn
2012 *Archaeology of the Southwest*, Third Edition. Left Coast Press, Walnut Creek, CA.

Cowan, Frank L.
1999 Making Sense of Flake Scatters: Lithic Technological Strategies and Mobility. *American Antiquity* 64:593–607.

Davis, Margaret and Sally Lull-Billings
2001 *A Phase I (Class III) Archaeological Survey of 25 Acres for the South Meadows Property, Santa Fe County, New Mexico.* Louis Berger Group, Santa Fe, New Mexico.

Deyloff, Glenda
1997 *Preliminary Results of Archaeological Monitoring of a Backhoe Trench in the Santa Fe City Hall Parking Lot, LA1051*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

1998 *Results of Archaeological Sewer Line Excavations Monitoring in the Santa Fe City Hall Parking Lot*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

2003 *Final Results of Archaeological Investigations and Archival Study at the 125 Guadalupe Street Property, Santa Fe, New Mexico.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

Deyloff, Glenda, Loynta Viklund, Cherie Scheick
1994 *A Cultural Resources Survey of 35 Acres Along Highway 285, South of Camino La Tierra, Santa Fe, New Mexico*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

Deyloff, Glenda, Loynta Viklund, and Cordelia Thomas Snow
1999 *Preliminary Results of Archaeological Investigations and Archival Study at 60 East San Francisco Street, Santa Fe, New Mexico.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

2001 *Archaeological Investigations and Archival Study at the 125 Guadalupe Street Property, Santa Fe, New Mexico.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

Dickson, D. Bruce Jr.
1979 *Prehistoric Pueblo Settlement Patterns: The Arroyo Hondo New Mexico Site Survey.* School of American Research Arroyo Hondo Series, Vol. 2. Santa Fe, NM.

Dominguez, Fray Francisco
1956 *The Missions of New Mexico, 1776*. University of New Mexico Press, Albuquerque, New Mexico.

Ebright, Malcolm
2014 *Advocates for the Oppressed: Hispanos Indians, Genízaros, and Their Land in New Mexico*. University of New Mexico Press, Albuquerque.

Elliot, Michael T.
1988 *The Archaeology of Santa Fe: A Background Report.* Jemez Mountain Research Center 87-13, Albuquerque, NM.

Ellis, Bruce T.
1978 La Garita, Santa Fe's Little Spanish Fort. *El Palacio* 84(2):2-22.

Fallon, Denise P., Brenda Yates, and James Lancaster
1978 *An Archaeological Survey for the Proposed Santa Fe Land Application Project, Santa Fe County, New Mexico*, Laboratory of Anthropology Notes 264, Museum of New Mexico, Santa Fe, NM.

Fenneman, Nevin M.
1931 *Physiography of the Western United States*. McGraw-Hill, New York.

Folks, James J.

1975 *Soil Survey of Santa Fe Area, New Mexico: Santa Fe County and part of Rio Arriba County*, Soil Conservation Service, Washington, D.C.

Frazer, Robert W. (ed.)
1981 *Over the Chihuahua and Santa Fe Trails, 1847-1848*, University of New Mexico Press, Albuquerque, NM.

Gabin, Vickie L. and L. E. Lesperance
1977 *New Mexico Climatological Data: Precipitation, Temperature, Evaporation and Wind, Monthly and Annual Means, 1850-1975*. W.K. Summers and Associates, Socorro, NM

Gallegos, B. Ronald
1976 Agua Fria in SF's Shadow, Article in *The Santa Fe New Mexican*, copy on file at Fray Angelico Chavez Memorial History Library, Santa Fe, NM.

Goetze, Christine E., and Barbara J. Mills
1993 Classification Criteria for Wares and Types. In *Across the Colorado Plateau. Anthropological Studies for the Transwestern Pipeline Expansion Project: Interpretation of Ceramic Artifacts, vol. 16*, edited by Barbara J. Mills, Christine E. Goetze, and Maria Nieves Zedeño, pp. 21–185. Office of Contract Archeology and Maxwell Museum of Anthropology, University of New Mexico, Albuquerque.

Gosset, Cye W.
1989 *Archaeological Survey of 21 Acres at the Proposed Vista Encantada-Unit 7 Development for C.R. Wallbridge and Associates, Suburban Santa Fe, New Mexico*. Rio Abajo Archaeological Services, Socorro, New Mexico.

1993a *Cultural Resources Inventory of Unit 2, Santa Fe Estates, Santa Fe County, New Mexico.* Rio Abajo Archaeological Services, Socorro, New Mexico.

1993b *Archaeological Monitoring at the Proposed Allan Houser Art Park, Downtown Santa Fe, New Mexico.* Rio Abajo Archaeological Services, Socorro, New Mexico.

Grayson, Donald K.
1984 *Quantitative Zooarchaeology*. Academic Press, Orlando, Fl.

Hackett, Charles Wilson
1937 *Historical Documents relating to New Mexico, Nueva Vizcaya, and Approaches Thereto, to 1773*. Carnegie Institution of Washington, Washington, DC.

Hall, Stephen, A.
2010 Geomorphology and Archaeological Geology of the Villa Alegre Property, Santa Fe, New Mexico. In *An Archaeological Inventory and Testing Results of 9.617 Acres for the Santa Fe Civic Housing Authority Villa Alegre Development Project, Santa Fe, New Mexico*, edited by Ron Winters, pp. 69-79. Ron Winters, Santa Fe.

Hannaford, Charles
1986 *Archaeological Survey of the Tierra Contenta Subdivision, Santa Fe County, New Mexico*. Laboratory of Anthropology Notes 356, Museum of New Mexico, Santa Fe, New Mexico.

1997 *Archaeological Monitoring at La 902, The Fine Arts Building, Santa Fe County, New Mexico*. Laboratory of Anthropology Notes 148, Museum of New Mexico, Santa Fe, New Mexico.

2005 *Archaeological Testing at The Museum of Fine Arts, La 930, Santa Fe, New Mexico*. Laboratory of Anthropology Notes 361, Museum of New Mexico, Santa Fe, New Mexico.

Henry, Donald O.
1989 Correlations between Reduction Strategies and Settlement Patterns. In *Alternative Approaches to Lithic Analysis*, edited by Donald O. Henry and George H. Odell, pp. 139–155. Archaeological Papers of the American Anthropological Association No. 1.

Herhahn, Cynthia L.
1995 14th Century Dry Farming Features in the Northern Rio Grande Valley, New Mexico. In *Soil, Water, Biology, and Belief in Prehistoric and Traditional Southwestern Agriculture*, ed. by H. Wolcott Toll, pp. 77-84. Special Publication 2, New Mexico Archaeological Council.

Hicks, Patricia A.
1982 *Archaeological Investigations at the La Bajada (LA 9500) and LA Bajada Annex (LA 9501) Sites: 1966, 1967, and 1970.* Llano Estacado Center for Advanced Professional Studies and Research, Eastern New Mexico University, Portales.

Hill, James N.
1970 *Broken K Pueblo*. Anthropological Papers of the University of Arizona No. 18. University of Arizona, Tucson.

Hogan, Patrick, Robin M. Cordero, and Brian Cribbin
2012 LA 112845. In In *Across the Caja del Rio Plateau IV: Hunters and Farmers in the Northern Rio Grande, Archaeological Investigations at Three Hunting Sites in the NMARNG Camel Tracks Training Area, Santa Fe County, New Mexico*, edited by F. Scott Worman, Robin Cordero, and Patrick Hogan, pp. 19-31. OCA/UNM Report No. 185-918. Office of Contract Archeology, University of New Mexico, Albuquerque.

Hohmann, John W., Margaret P. Davis, Joel D. Irish, Donald C. Irwin, and Christine H. Virden
1998 *A Phase I (Class III) Archaeological Survey of 22.4 Kilometers (14 Miles) Along US 84/285, Santa Fe to Pojoaque, Santa Fe County, New Mexico*. Louis Berger Group, Inc.

Huntley, Deborah L., Cherie L. Scheick, and Glenda Deyloff
2009 *The Cultural Resources Survey of the City of Santa Fe's Northwest Quadrant, Santa Fe County, New Mexico*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

Ingbar, Eric E.
1994 Lithic Material Selection and Technological Organization. In *The Organization of North American Prehistoric Chipped Stone Tool Technologies*, edited by Phillip J. Carr, pp. 45–56. International Monographs in Prehistory, Ann Arbor, Michigan.

Irwin-Williams, Cynthia
1973 *The Oshara Tradition: Origins of Anasazi Culture*, Eastern New Mexico University Contributions in Anthropology 5:1, Portales, NM.

1979 Post-Pleistocene Archaeology, 7000-2000 B.C., In *Handbook of North American Indians*, Edited by Alfonso Ortiz, Vol. 9, Smithsonian Institution, Washington, D.C.

James, Thomas
1984 *Three Years among the Indians and Mexicans.* University of Nebraska Press, Lincoln.

Jenkins, M. E., and A. H. Schroeder
1974 *A Brief History of New Mexico*, University of New Mexico Press, Albuquerque, NM.

Johnson, Allen W., and Timothy Earle
1987 *The Evolution of Human Societies: From Foraging Group to Agrarian State*. Stanford University Press, Stanford, California.

Johnson, Gregory A.
1982 Organizational Structure and Scalar Stress. In *Theory and Explanation in Archaeology: the Southhampton Conference*, edited by Colin Renfrew et al., pp. 389–421. Academic Press, New York, New York.

1989 Dynamics of Southwestern Prehistory: Far Outside-Looking in. In *Dynamics of Southwest Prehistory*, edited by L. S. Cordell and G. J. Gumerman, pp. 371–389. Smithsonian Institution Press, Washington, D.C.

Judge, James
1973 *Paleoindian Occupation of the Central Rio Grande Valley in New Mexico*, University of New Mexico Press, Albuquerque.

Justice, Noel D.
2002 *Stone Age Spear and Arrow Points of the Southwestern United States*. Indiana University Press, Bloomington and Indianapolis.

Kelley, Vincent C.
1952 Tectonics of the Rio Grande Depression of Central New Mexico, In *New Mexico Geological Society Guidebook of the Rio Grande Country, Central New Mexico*, 3rd Field Conference, pp. 93-105, Socorro, NM.

1978 *Geology of the Española Basin, New Mexico*, Geologic Map #48, New Mexico Bureau of Mines and Mineral Resources, New Mexico, Institute of Mining and Technology, Socorro, NM.

1979 Geomorphology of the Española Basin. In *Santa Fe Country: Guidebook for the 30th Field Conference, October 4-6, 1979*, edited by Raymond V. Ingersoll, pp. 281-288. New Mexico Geological Survey, Socorro.

Kidder, Alfred V.
1915 Pottery of the Pajarito Plateau and Some Adjacent Regions in New Mexico. *Memoirs of the American Anthropological Association* 2(6): 407-462.

1927 Southwestern Archaeological Conference. *Science* 66 (1716):489-491.

Kinnaird, Lawrence
1958 *The frontiers of New Spain: Nicolas de LaFora's description, 1766-1768*. Quivira Society Publications, XIII. Berkeley.

Lakatos, Steven A.

2007 Cultural Continuity and the Development of Integrative Architecture in the Northern Rio Grande Valley of New Mexico, A.D. 600-1200. *Kiva* 73:31-66.

Lang, Richard W.

1977 "The Prehistoric Pueblo Cultural Sequence in the Northern Rio Grande", paper delivered at the 1977 Pecos Conference, Pecos, New Mexico.

1980 *An Archaeological Survey near Agua Fria, Santa Fe County, New Mexico*. Contract Archaeological Program Report No. 003, School of American Research, Santa Fe, NM.

1989 *A Cultural Resources Sample Survey of Upper Tesuque Creek, Raven's Ridge and the Lake Peak Divide of the Santa Fe Range, Sangre de Cristo Mountains, New Mexico*. Southwest Archaeological Consultants Report No. 232. Southwest Archaeological Consultants, Inc., Santa Fe, NM.

Lang, Richard W. and Cherie Scheick

1989 *Limited Excavations at LA 2, the Agua Fria Schoolhouse Site, Agua Fria Village, Santa Fe County, New Mexico*. Southwest Archaeological Consultants Research Series 216. Southwest Archaeological Consultants, Inc., Santa Fe, NM.

Lentz, Stephen C.

1988 *A Proposed Data Recovery Plan for LA 61282, Located Adjacent to Airport Road, Santa Fe, New Mexico*. Laboratory of Anthropology Note 437, Laboratory of Anthropology, Museum of New Mexico, Santa Fe, NM.

2004 *Excavations at LA 80000, The Santa Fe Plaza Community Stage Location, Santa Fe, New Mexico*. Museum of New Mexico, Office of Archaeological Studies, Archaeology Noes 343. Santa Fe, New Mexico.

2011 *Ogapoge, the White Shell Water Place: The Prehistoric Component at El Pueblo de Santa Fe (LA 1051)*. Archaeology Notes 438, Museum of New Mexico Office of Archaeological Studies, Santa Fe, New Mexico. (**report embargoed and not for public dissemination**)

Lentz, Stephen C. and Matthew J. Barbour

2011 *Settlers and Soldiers: The Historic Component at El Pueblo de Santa Fe (LA 1051)*. Archaeology Notes 410. Museum of New Mexico Office of Archaeological Studies, Santa Fe, New Mexico.

Lentz, Stephen S., Timothy D. Maxwell, Eric Blinman, C. Dean Wilson, Nancy J. Akins, Mollie S. Toll, James L. Moore, Jeffrey L. Boyer

2005 *A Proposed Data Recovery Program for LA 1051, El Pueblo de Santa Fe*. Archaeology Notes 364a. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

Levine, Francis

1986 La Cieneguilla Has its Own Past. *The Santa Fe Reporter*, June 18, 1986.

1989 Down Under the City Different: An Archaeologist's View of Santa Fe. In *Santa Fe, History of an Ancient City*, edited by David Grant Noble, pp. 9–25. School of American Research Press, Santa Fe, New Mexico.

1995 The Archaeology of Spanish and Mexican Colonialism in New Mexico. In *The Archaeology of Spanish and Mexican Colonialism in the American Southwest*, compiled by James E. Ayres, pp. 53-104. Guides to the Archaeological Literature of the Immigrant Experience in America, Number 3. The Society for Historical Archaeology, Santa Fe, NM.

Levine, Francis, and Thomas W. Merlan

1997 *Bandelier National Monument: Ethnographic Literature Search and Consultations.* Ms. on file, Bandelier National Monument, NM.

1998 *Frijoles Canyon: A Multidisciplinary Approach to the Determination of Cultural and Historic Affiliation.* Presented at the NPS Cultural Affiliation Conference, Fort Lewis College, Durango, Co.

Levine, Frances, John Acklen, Jack Betram, Stephen Lent, and Gale McPherson

1985 *Archaeological Test Excavations at LA 16769*. Public Service Company of New Mexico Environmental Services, Santa Fe, New Mexico.

Loven, Jeremy, James M. Potter, and Kye Miller

2021 *Santa Fe Mainline Looping Project Data Recovery Investigations, Santa Fe County, New Mexico.* PaleoWest Technical Report No. 21-27. PaleoWest, Albuquerque.

Lucas, S. G.

1984 Correlation of Eocene rocks of the northern Rio Grande rift and adjacent areas: implications for Laramide tectonics. In *New Mexico Geological Society Guidebook,35th Field Conferenc*e, p. 123-128. Socorro, New Mexico.

Lycett, Mark T.

1995 *Archaeological Implications of European Contact: Demography, Settlement, and Land Use in the Middle Rio Grande Valley, New Mexico*. Ph.D. Dissertation, Department of Anthropology, University of New Mexico. Albuquerque, New Mexico.

Lyman, Lee R.

1994a Quantitative Units and Terminology in Zooarchaeology. *American Antiquity* 59(1):36-71.

1994b *Vertebrate Taphonomy*. Cambridge University Press, Cambridge, UK.

Mandel, R.D., Goldberg, P., and Holliday, V.T.,

2017 Site Formation Processes. In *Encyclopedia of Earth Sciences Series,* edited by AS Gilbert, P Goldberg, VT Holliday, RD Mandel, and RS Sternberg, pp.797-817. Springer, Netherlands.

Martinez, Eluid L.

2005 *Report on the History and Status of Water Right Lands in the Vicinity of the Traditional Village of Agua Fria, Santa Fe County, New Mexico*. Prepared for Santa Fe County and the Office of the New Mexico State Engineer. Water Resources Management Consultants, LLC, Santa Fe, New Mexico.

Martinez, Guadalupe A.

2009 Archaeological Monitoring at the New Mexico Museum of Art Building, Santa Fe, New Mexico. Laboratory of Anthropology Notes 402, Museum of New Mexico, Santa Fe, New Mexico.

Maxwell, Timothy
1988 *Archaeological Survey of the Proposed Santa Fe By-Pass, Santa Fe County.* Laboratory of Anthropology Notes 413, Museum of New Mexico, Santa Fe.

McIntosh, Thomas A.,
2004 *Phase I Archaeological Survey And Assessment San Francisco Plaza 321 W. San Francisco Street, Santa Fe, New Mexico.*

McIntosh, Thomas A., Toni R. Goar, and Howard C. Higgins
2005 *Cultural Resource Survey of a Proposed Subdivision, City of Santa Fe, Santa Fe County, New Mexico*. TRC Inc. Report No. 44171. TRC Inc, Albuquerque, New Mexico.

Mera, Harold P.
1934 *A Survey of the Biscuit Ware Area in Northern New Mexico*. Laboratory of Anthropology Technical Series Bulletin 6. Museum of New Mexico, Santa Fe, New Mexico.

Metcalfe, Duncan and Kevin T. Jones
1988 A Reconsideration of Animal Body-Part Utility Indices. *American Antiquity* 53(3):486-504.

Miller, Sarah
1981 "Santa Fe Basin Water Users Association vs. Public Service Company of New Mexico", Unpublished manuscript, College of Santa Fe, NM.

Montoya, Richard
2023 *Results of Final Testing and Reconnaissance by OAS at the Georgia O'Keeffe Campus, in Downtown Santa Fe, NM*. Archaeology Notes 525. Museum of New Mexico Office of Archaeological Studies, Santa Fe.

Moore, James L. and Mark E. Harlan
1984 Archaeological Investigations at PNM:BAN-10. In *Archaeological Investigations of Two Sites on the Public Service Company of New Mexico's BA to Norton 345 kV Transmission Line*, ed. by Mark E. Harlan, pp. 3-34. PNM Archaeological Report No. 5. PNM, Albuquerque, New Mexico.

Moore, James L., Nancy Akins, Pam McBride, Susan Moga, Cordelia T. Snow, Mollie S. Toll, Chester P. Walker, and C. Dean Wilson
1984 *Test Excavations and Data Recovery Plan For The La Villa Rivera/Marian Hall Complex (La 161535) In Downtown Santa Fe, Santa Fe County, New Mexico*. Laboratory of Anthropology Notes 408. Museum of New Mexico Office of Archaeological Studies, Santa Fe, New Mexico.

Moorhead, Max L.
1961 The Private Contract System of Presidio Supply in Northern New Spain. *The Hispanic American Historical Review* 41:31-54.

Morrow, Toby A.
1997 A Chip off the Old Block: Alternative Approaches to Debitage Analysis. *Lithic Technology* 22(1):51–69.

Motsinger, Tom N.
1992 *The Rise and Fall of a Village Industry: Specialized Ceramic Production in Protohistoric New Mexico*. Master's Thesis, Northern Arizona University.

Myrick, David F.
1990 *New Mexico's Railroads: A Historical Survey*. UNM Press, Albuquerque, New Mexico.

Naranjo, Tessie
1998 Brief Ethnohistory of El Rito, New Mexico. In *Pre-Columbian Pueblo Agricultural Plots within the Proposed Las Clinicas del Norte Special-use Permit Parcel, El Rito Range District, Carson National Forest, Rio Arriba County, New Mexico*, ed. by K.F. Anschuetz, pp. 106-120. Rio Grande Foundation for Communities and Cultural Landscapes, Santa Fe, NM.

Odell, George H.
1996 Economizing Behavior and the Concept of "Curation." In *Stone Tools: Theoretical Insights into Human Prehistory*, edited by George H. Odell, pp. 51–80. Plenum Press, New York, New York.

1998 Investigating Correlates of Sedentism and Domestication in Prehistoric North America. *American Antiquity* 63:553–572.

O'Laughlin, Thomas C., and Lance Lundquist
2012 Macrobotanical and Faunal Remains. In *Archaeological Data Recovery for Phases 2-3 of the Mariposa East Property Development in Rio Rancho, Sandoval County, New Mexico*, edited by Jim A. Railey and Lance Lundquist, pp. 255–283. SWCA Environmental Consultants, Albuquerque, New Mexico.

Peckham, Stewart L.
1977 *Field Notes for the Fine Arts Museum Excavation*. Manuscript on file, Archaeological Records Management Section, Historic Preservation Division / Museum of New Mexico, Santa Fe.

1982 Nusbaum's Old Headquarters Excavations, 1916. *El Palacio* 88:41–42.

Peckham, Stewart L., and David H. Snow
1982 Clues to Santa Fe's Past: Excavating the Fine Arts Site. *El Palacio* 88:38–42.

Penner, William, Adam Okun, and Nicholas Parker
2011 *The REDI Net Middle-Mile Fiber Optic Project in Lost Alamos, Rio Arriba, and Santa Fe Counties, New Mexico*. Parametrix, Albuquerque, New Mexico.

Phillips, David A., Jr.
1995 *Archaeological Monitoring of a Utility Trench at Palace and Grant Avenues, Santa Fe, New Mexico.* SWCA Archaeological Report No. 95-163. SWCA, Inc. Environmental Consultants, Albuquerque, New Mexico.

Pilz, Wayne B.
1984 *Norton-Tesuque 115 Kv Transmission Project*. Biotic Resources Technical Report. Ms. On file, Public Service Company of New Mexico, Albuquerque.

Plewa, T.M
2009 *A Trickle Runs Through it: An Environmental History of the Santa Fe River, New Mexico.* Ph.D. Dissertation, Department of Geography, University of South Carolina.

Post, Stephen S.

1992 *An Archaeological Survey and Testing at Las Campanas, Santa Fe County, New Mexico*. Archaeology Notes 108. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

1993 *An Archaeological Inventory of 44.1 Acres for the Escorial Project Along US 84-285, South of the Santa Fe Opera, Santa Fe County, New Mexico*. Zia Archaeology, Santa Fe, New Mexico.

1996 *Las Campanas de Santa Fe Sunset Goff Course, and Estates IV, Estates V, and Estates VII Excavations: Small Sites in the Pinon-juniper Piedmont North of the Santa Fe River, Santa Fe County, New Mexico.* Archaeology Notes 193. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

2001 *A Cultural Resource Inventory and Data Recovery Plan for the Proposed 23 Acre Rufina Meadows Subdivision, Along Agua Fria Street, in Santa Fe County, New Mexico*. Zia Archaeology, Santa Fe, New Mexico.

2002 *The Rufina Meadows Project Excavations in Lower Agua Fria, Santa Fe County, New Mexico*. Zia Archaeology, Santa Fe, New Mexico.

2003 *7,000 Years on the Piedmont: Results from the Excavation of Buried Cultural Deposits and Surface Artifact Scatters at Fourteen Archaeological Sites along the Northwest Santa Fe Relief Route, State Road 599 (Phase 2) Santa Fe County, New Mexico*. Post Report No 109, Santa Fe, New Mexico.

2009 *An Archaeological Survey of 19.4 Acres Along San Rafael Road on Tano Ridge, Santa Fe County, New Mexico*. Zia Archaeology, Santa Fe, New Mexico.

In progress *Excavations for the NM History Museum (LA 111322): 350 Years of Occupation and Changing Land Use behind the Palace of the Governors in Santa Fe, New Mexico.* Archaeology Notes 472 (Unpublished Manuscript on file at the Office of Archaeological Studies). Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

Post, Stephen S., and David H. Snow

1982 *Archaeological Investigations for the Gallery Addition to the Museum of Fine Arts.* Laboratory of Anthropology Note 282. Museum of New Mexico, Santa Fe.

Potter, James M.

2006 *Animas-La Plata Project, Vol. 1-Cultural Resources Research and Sampling Design*. SWCA Anthropological Research Paper No. 10, Phoenix, Arizona.

Prufer, Olaf H., and Orrin C. Shane III

1970 *Blaine Village and the Fort Ancient Tradition in Ohio*. Kent State University Press, Kent, Ohio.

Purdy, James H.

1975a The Fort Marcy Officer's Residence – A Case for Renovation. *New Mexico Architecture* July-August, 1975.

1975b *The A.M. Bergere House*. National Register of Historic Places Inventory Nomination Form.

1975c *Fort Marcy Officer's Residence.* New Mexico State Register of Cultural Properties Nomination Form.

Attachment D

Cultural Resources Information

NATIONAL ENDOWMENT FOR THE HUMANITIES

OFFICE OF GRANT MANAGEMENT

September 5, 2023

Jeff Pappas, PhD
State Historic Preservation Officer and Director
Historic Preservation Division
Department of Cultural Affairs
Bataan Memorial Building
407 Galisteo Street, Suite 236
Santa Fe, NM 87501

SUMBITTED VIA EMAIL TO: jeff.pappas@state.nm.us; nm.shpo@dca.nm.gov;

RE: Assessment of Effects for the Georgia O'Keeffe Museum National Endowment for the Humanities Challenge Grant, CHA-268762, titled "Construction Project: Building a New Campus for the 21st Century"

Dear Dr. Pappas:

As you are aware, the National Endowment for the Humanities (NEH) conditionally awarded the Georgia O'Keeffe Museum (GOKM) a Challenge Grant award (CHA 268762), titled "The Georgia O'Keeffe Museum Construction Project: Building a New Campus for the 21st Century." The proposed project ("undertaking") will create a new museum campus at 123 and 135 Grant Avenue, Santa Fe, New Mexico, 87501. NEH support is limited to the proposed gallery and exhibition building at 123 Grant Avenue and landscaping between the museum and Alfred M. Bergere House at 135 Grant Avenue. The project will replace the functions of the existing 18,430 sf, one-story, commercial structure at 217 Johnson Street, Santa Fe.

NEH formally initiated consultation under Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. §306108) with your office on August 25, 2020 (enclosure 1). Previous Section 106 consultation identified that the proposed project site is a historic property within the Santa Fe Historic District, which is listed on the National Register of Historic Places (NHRP) (Ref# 73001150) and is directly adjacent to the NHRP-listed Alfred M. Bergere House (Ref# 75001166). There are also multiple significant and contributing historic buildings within the initially identified Area of Potential Effect.

Please note that while NEH continues Section 106 consultation, a National Environmental Policy Act (NEPA) (42 USC §4331 *et seq*) Environmental Assessment (EA) will also be prepared to identify and determine if there are any potentially significant environmental impacts associated with the proposed project. The final EA will not be issued until NEH completes review and consultation under Section 106.

NEH has reviewed the Museum of New Mexico Office of Archaeological Studies' (OAS) final draft of the Results of Preliminary Testing and Reconnaissance of Georgia O'Keeffe Campus in Downtown Santa Fe (enclosure 2). The subsurface investigation identified a total of 17 features within the 5 trenches excavated. Most of the features were related to the Ft. Marcy era. There was also a mix of prehistoric and historic ceramics, and disarticulated human remains. The OAS report notes that based on the remains found on site and known burials within the vicinity of the project there is a "high possibility that more human remains will be located in future excavations."

The OAS report recommends "archaeological data recovery…for the future construction and demolition on the property of the Georgia O' Keefe Campus, [due to the] presence of intact structural features and the potential for human remains." The OAS report also indicates that "[f]or the demolition of the building, archaeological monitoring of this area will provide information if the further archaeological investigations will be needed or if monitoring will be adequate."

NEH finds that the proposed undertaking and archaeological data recovery will have an adverse effect on historic properties under Section 106 of the NHPA. NEH wishes to continue consultation to avoid, minimize, or mitigate the adverse effect to historic properties through development of a Memorandum of Agreement. NEH will continue to work closely with your office to come to an agreement regarding potential effects to above-ground resources. We respectfully request your review and comment within 30 calendar days of your receipt of this letter. If you have any questions, please contact me contact me at apiesen@neh.gov or 240.354.1729.

We look forward to further consultation with your office on this undertaking.

Sincerely,

Ann Piesen, MCP
Federal Preservation Officer
Senior Grants Policy Analyst
National Endowment for the Humanities

CC: Michelle Ensey, Deputy State Historic Preservation Officer, State Archaeologist
Karla K. McWilliams, Historian CLG & Grants Coordinator, Architectural Review
Daniel Hernandez, Founder, Proyecto
Lisa Gavioli, Senior Project Manager, Jenkins Gavins
John W. Murphy, Architectural Historian and Planner, Architectural History Services
Robin Cordero, Senior Archaeologist/Principal Investigator, SWCA Environmental Consultants
Cody Hartley, Director, Georgia O'Keeffe Museum
Jennifer Foley, Deputy Director for Collections and Engagement, Georgia O'Keeffe Museum
Jamie Hughes, Head of Institutional and Planned Giving, Georgia O'Keeffe Museum

Enclosures (2):

Michelle Lujan Grisham
Governor

STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
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April 4, 2024

Ann E. Piesen, MCP
Federal Preservation and Environmental Officer Senior
Grants Policy Analyst
Office of Grants Management
National Endowment for the Humanities apiesen@neh.gov

VIA EMAIL ONLY

RE: new construction, Georgia O'Keeffe Museum, Santa Fe, Santa Fe County, New Mexico (SR# 260)

Dear Ms. Piesen:

Thank you for submitting the documentation and architectural analysis for the proposed undertaking; the construction of a new museum building to be located at 123 Grant Avenue in Santa Fe, Santa Fe County, New Mexico. The location is within the Santa Fe Historic District, which is listed in the National Register of Historic Places (NRHP) at the national level of significance. The New Mexico State Historic Preservation Office (NM SHPO) reviewed the proposed undertaking under the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended

I am writing in response to the additional building and landscape design information. Consultation on a Memorandum of Agreement (MOA) to resolve adverse effects to archaeological resources is ongoing (HPD Log #121203). NM SHPO reviewed the architecture and landscape set of plans received by our office on December 8, 2023 (HPD Log #121294), and the Built Environment Analysis and supporting documentation received on March 5, 2024 (HPD Log #122016.)

Based on our review, NM SHPO finds that the proposed building and landscape design does not negatively affect the historic character of the NRHP-listed Santa Fe Historic District. The height, massing, setback, design, and materials are compatible with the historic district. The new design retains the residential lot spacing characteristic of Grant Avenue. The design also retains the essential spacing and individual distinction between the NRHP-listed Alfred M. Bergere House and the new museum.

Based on the information provided, NM SHPO concurs with the NEH finding that the design of the new museum and landscaping, as proposed, will have No Adverse Effect to the built environment of the Santa Fe Historic District. NM SHPO looks forward to continuing consultation on the above-referenced MOA.

If you have any questions, please feel free to contact me at gretchen.brock@dca.nm.gov.

Sincerely,

Historian, Architectural Reviewer

HPD LOG# 122016

cc: Michelle Ensey, Deputy State Historic Preservation Officer & State Archaeologist

RE: [EXTERNAL] NEH Assessment of Effects for the Georgia O'Keeffe Museum (NEH Grant CHA-268762)

McWilliams, Karla, DCA <Karla.McWilliams@dca.nm.gov>

Thu 9/7/2023 1:42 PM

To:Piesen, Ann <apiesen@neh.gov>;Pappas, Jeff, DCA <Jeff.Pappas@dca.nm.gov>;SHPO, NM, DCA <NM.SHPO@dca.nm.gov>
Cc:Ensey, Michelle, DCA <michelle.ensey@dca.nm.gov>;Daniel Hernandez <daniel@proyecto.is>;Lisa Roach <Lisa@jenkinsgavin.com>;John Murphey <john@archhistoryservices.com>;Robin Cordero <Robin.Cordero@swca.com>;Jennifer Foley <jfoley@okeeffemuseum.org>;Jamie Hughes <jhughes@okeeffemuseum.org>;chartley@okeeffemuseum.org <chartley@okeeffemuseum.org>;Ausema, Tatiana <tausema@neh.gov>;Thompson, Pamela <pthompson@neh.gov>

Dear Ms. Piesen,

The Historic Preservation Division (HPD) is in receipt of your September 5, 2023, letter and concurs that the proposed undertaking will have an Adverse Effect on historic properties, specifically archaeological, under Section 106 of the NHPA. We look forward to continuing our consultation regarding the above-ground resources, which includes, per our last meeting, a review of the proposed building design and landscaping plans.

Please contact me if you have questions.

Sincerely,
Karla McWilliams

Karla K. McWilliams
Historian
New Mexico Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501
505-827-4451
karla.mcwilliams@dca.nm.gov

From: Piesen, Ann <apiesen@neh.gov>
Sent: Tuesday, September 5, 2023 4:01 PM
To: Pappas, Jeff, DCA <Jeff.Pappas@dca.nm.gov>; SHPO, NM, DCA <NM.SHPO@dca.nm.gov>
Cc: Ensey, Michelle, DCA <michelle.ensey@dca.nm.gov>; McWilliams, Karla, DCA <Karla.McWilliams@dca.nm.gov>; Daniel Hernandez <daniel@proyecto.is>; Lisa Roach <Lisa@jenkinsgavin.com>; John Murphey <john@archhistoryservices.com>; Robin Cordero <Robin.Cordero@swca.com>; Jennifer Foley <jfoley@okeeffemuseum.org>; Jamie Hughes <jhughes@okeeffemuseum.org>; chartley@okeeffemuseum.org; Ausema, Tatiana <tausema@neh.gov>; Thompson, Pamela <pthompson@neh.gov>
Subject: [EXTERNAL] NEH Assessment of Effects for the Georgia O'Keeffe Museum (NEH Grant CHA-268762)

Greetings Dr. Pappas,

Please see the attached letter regarding NEH's determination of adverse of effect for the proposed Georgia O'Keeffe Museum. We look forward to your response. Please let me know if you have any questions.

Sincerely,

Ann E. Piesen, MCP
Federal Preservation and Environmental Officer

Senior Grants Policy Analyst
Office of Grant Management
National Endowment for the Humanities

pronouns are: She/her
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From: McWilliams, Karla, DCA <Karla.McWilliams@dca.nm.gov>
Sent: Thursday, September 7, 2023 1:41 PM
To: Piesen, Ann <apiesen@neh.gov>; Pappas, Jeff, DCA <Jeff.Pappas@dca.nm.gov>; SHPO, NM, DCA <NM.SHPO@dca.nm.gov>
Cc: Ensey, Michelle, DCA <michelle.ensey@dca.nm.gov>; Daniel Hernandez <daniel@proyecto.is>; Lisa Roach <Lisa@jenkinsgavin.com>; John Murphey <john@archhistoryservices.com>; Robin Cordero <Robin.Cordero@swca.com>; Jennifer Foley <jfoley@okeeffemuseum.org>; Jamie Hughes <jhughes@okeeffemuseum.org>; chartley@okeeffemuseum.org <chartley@okeeffemuseum.org>; Ausema, Tatiana <tausema@neh.gov>; Thompson, Pamela <pthompson@neh.gov>
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Please contact me if you have questions.

Sincerely,
Karla McWilliams

Karla K. McWilliams
Historian
New Mexico Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501
505-827-4451
karla.mcwilliams@dca.nm.gov

From: Piesen, Ann <apiesen@neh.gov>

Sent: Tuesday, September 5, 2023 4:01 PM
To: Pappas, Jeff, DCA <Jeff.Pappas@dca.nm.gov>; SHPO, NM, DCA <NM.SHPO@dca.nm.gov>
Cc: Ensey, Michelle, DCA <michelle.ensey@dca.nm.gov>; McWilliams, Karla, DCA <Karla.McWilliams@dca.nm.gov>; Daniel Hernandez <daniel@proyecto.is>; Lisa Roach <Lisa@jenkinsgavin.com>; John Murphey <john@archhistoryservices.com>; Robin Cordero <Robin.Cordero@swca.com>; Jennifer Foley <jfoley@okeeffemuseum.org>; Jamie Hughes <jhughes@okeeffemuseum.org>; chartley@okeeffemuseum.org; Ausema, Tatiana <tausema@neh.gov>; Thompson, Pamela <pthompson@neh.gov>
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Ann E. Piesen, MCP
Federal Preservation and Environmental Officer
Senior Grants Policy Analyst
Office of Grant Management
National Endowment for the Humanities

pronouns are: She/her
202.606.8576 | apiesen@neh.gov

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A Historic Properties Treatment Plan for Data Recovery at LA 200086 for the Georgia O'Keeffe Museum Expansion Project in the City of Santa Fe Downtown Archaeological Review District

APRIL 2024

PREPARED FOR

123-135 Grant, LLC and The Georgia O'Keeffe Museum

PREPARED BY

SWCA Environmental Consultants

A HISTORIC PROPERTIES TREATMENT PLAN FOR DATA RECOVERY AT LA 200086 FOR THE GEORGIA O'KEEFFE MUSEUM EXPANSION PROJECT IN THE CITY OF SANTA FE DOWNTOWN ARCHAEOLOGICAL REVIEW DISTRICT

Prepared for

123-135 Grant, LLC
c/o The Georgia O'Keeffe Museum
123 Grant Avenue
Santa Fe, New Mexico 87501
Attn: Cody Hartley, Director

Prepared by

Robin Cordero, Adam Sullins, and Jim Gallison

SWCA Environmental Consultants
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SWCA Project No. 82663

April 2024

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CHAPTER 1. INTRODUCTION AND PROJECT DESCRIPTION

The Georgia O'Keeffe Museum (GOKM) is proposing construction of a new facility located on two adjacent privately owned lots at 123 and 135 Grant Ave. in downtown Santa Fe, New Mexico (Figures 1.1 and 1.2). SWCA, Inc. was contracted by 123-135 Grant LLC, a subsidiary of GOKM, to develop a Historic Properties Treatment Plan and conduct data recovery of the property in August 2023, following completion of archaeological testing of the location by the New Mexico Office of Archaeological Studies (OAS). The OAS testing resulted in the identification of significant historic archaeological deposits and features underlying this location, and these archaeological deposits are defined as site LA 200086.

GOKM's proposed project will create a new museum campus at 123 and 135 Grant Avenue, Santa Fe, New Mexico 87501. The intent of the new museum is to create a welcoming and accessible campus for visitors and communities through innovative presentations of O'Keeffe's art, the northern New Mexican landscape, and the lived experiences of Georgia O'Keeffe within the region. The new museum building will replace the functions of the existing 18,430-sq ft, one-story, commercial structure at 217 Johnson Street, Santa Fe.

The National Endowment for the Humanities (NEH) has awarded the Georgia O'Keeffe Museum of Santa Fe (GOKM) a Challenge Grant award (CHA 268762), titled "The Georgia O'Keeffe Museum Construction Project: Building a New Campus for the 21st Century." A total of $750,000 was granted in this award. NEH support is limited to the proposed 56,288-square-foot (sq ft) gallery, exhibition and curation building at 123 Grant Avenue, which includes both ground floor and basement levels, and landscaping between the new museum and the historic Alfred M. Bergere House at 135 Grant Avenue, which will continue to serve as the GOKM Research Center. The belowground construction will include spaces for a collections vault, a conservation lab, a digital imaging lab, workspaces, and other storage.

In addition to construction of the new gallery building, this undertaking will include construction of a nearly 56-foot-long cistern in the northeast area of the property (Figure 1-3). The total depth of excavation for the subsurface building will be 26 feet 2 inches (8 m) and will include a ramped construction entry from Grant Ave. The expected depth of the cistern will be 15 feet (4.5 m) with an anticipated excavation area for installation of 100 feet by 60 feet.

As a result of the federal funding through the NEH, this undertaking is considered a federal undertaking under Section 106 of the National Historic Preservation Act (NHPA) with the NEH serving as the lead federal agency for the Section 106 process. The results of OAS's testing of the property resulted in a finding of Adverse Effect to historic properties, specifically to the subsurface archaeological deposits within the project area. The Section 106 consultation process has been initiated by the NEH, and it is anticipated that this consultation will result in the drafting of a Memorandum of Agreement to resolve the Adverse Effects caused by this undertaking.

This project qualifies as a federal undertaking and, as outlined in SFCC 14-3.13(B)(5)(a), this activity is exempted from requirements of the City of Santa Fe Archaeological Review Districts Ordinance with the exception of submitting reconnaissance reports and copies of all other reports to the City as informational items. SWCA intends to adhere to the spirit of the ordinance by staffing the project with a Principal Investigator and Field Director, Robin Cordero (robin.cordero@swca.com), who is currently listed on the City of Santa Fe's list of approved archaeologists for the Historic Downtown Archaeological Review District. This Historic Preservation Treatment Plan is being provided to the City of Santa Fe Archaeological Review Committee as an informational item in compliance with the archaeological permit exemption clause SFCC 14-3.13(B)(5)(a).

As this project occurs on private land and no state funding was applied to this undertaking, the excavations conducted LA 2000086 are exempt from provisions as outlined in NMAC 4.10.08 *Permits to Conduct*

Archaeological Investigations on State Land. As outlined in Chapter 6 of this document, SWCA will be utilizing mechanical earth-moving equipment during this data recovery, and are requesting a Mechanical Excavation Permit pursuant to NMAC 4.10.14 *Cultural Properties on Private Land and Mechanical Excavation Permits* which requires submission of a research design consistent with *NMAC 4.10.16 Standards for Excavation and Test Excavation.* This undertaking is likely to result in the discovery of human remains and burials, and this undertaking is subject to compliance with NMAC 4.10.11 *Issuance of Permits for Unmarked Human Burials.* This location is likely to contain subsurface archaeological occupations associated with the ancestral Tesuque community identified at LA 1051 previously identified during the Santa Fe Convention Center excavations in 2006. Consequently, SWCA is requesting a project-specific burial permit for the duration of fieldwork.

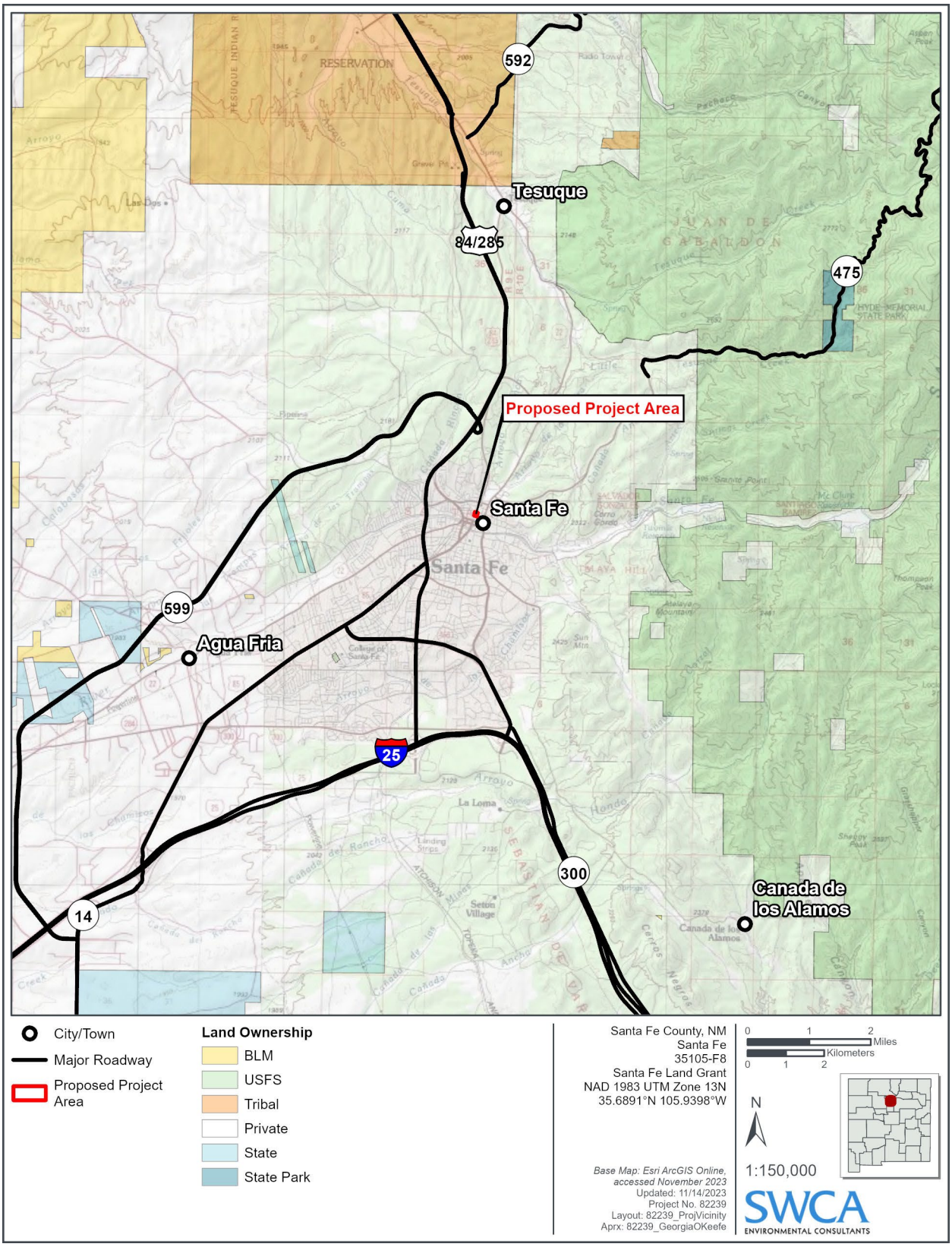

Figure 1-1. Project Vicinity Map.

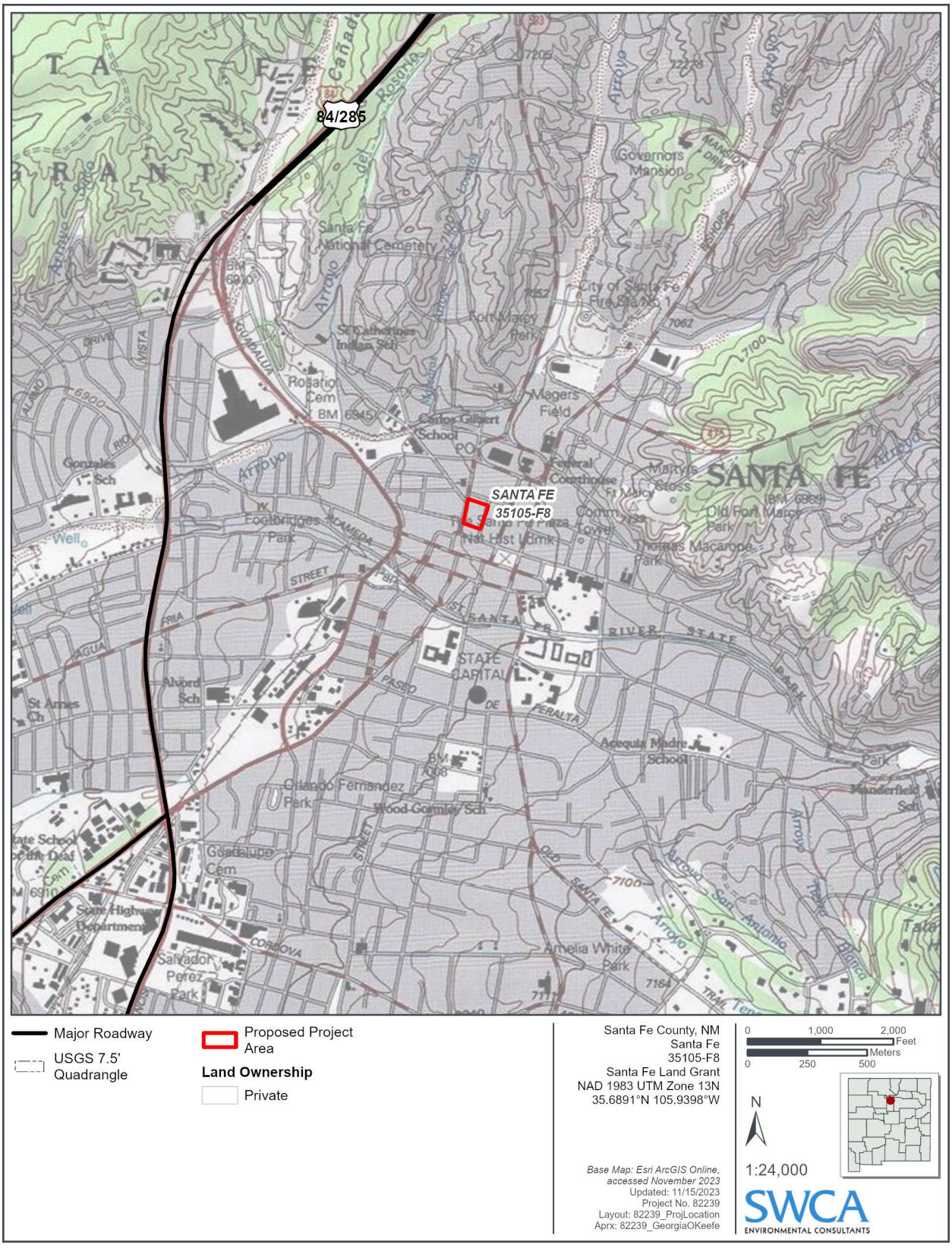

Figure 1-2. Project Location Map.

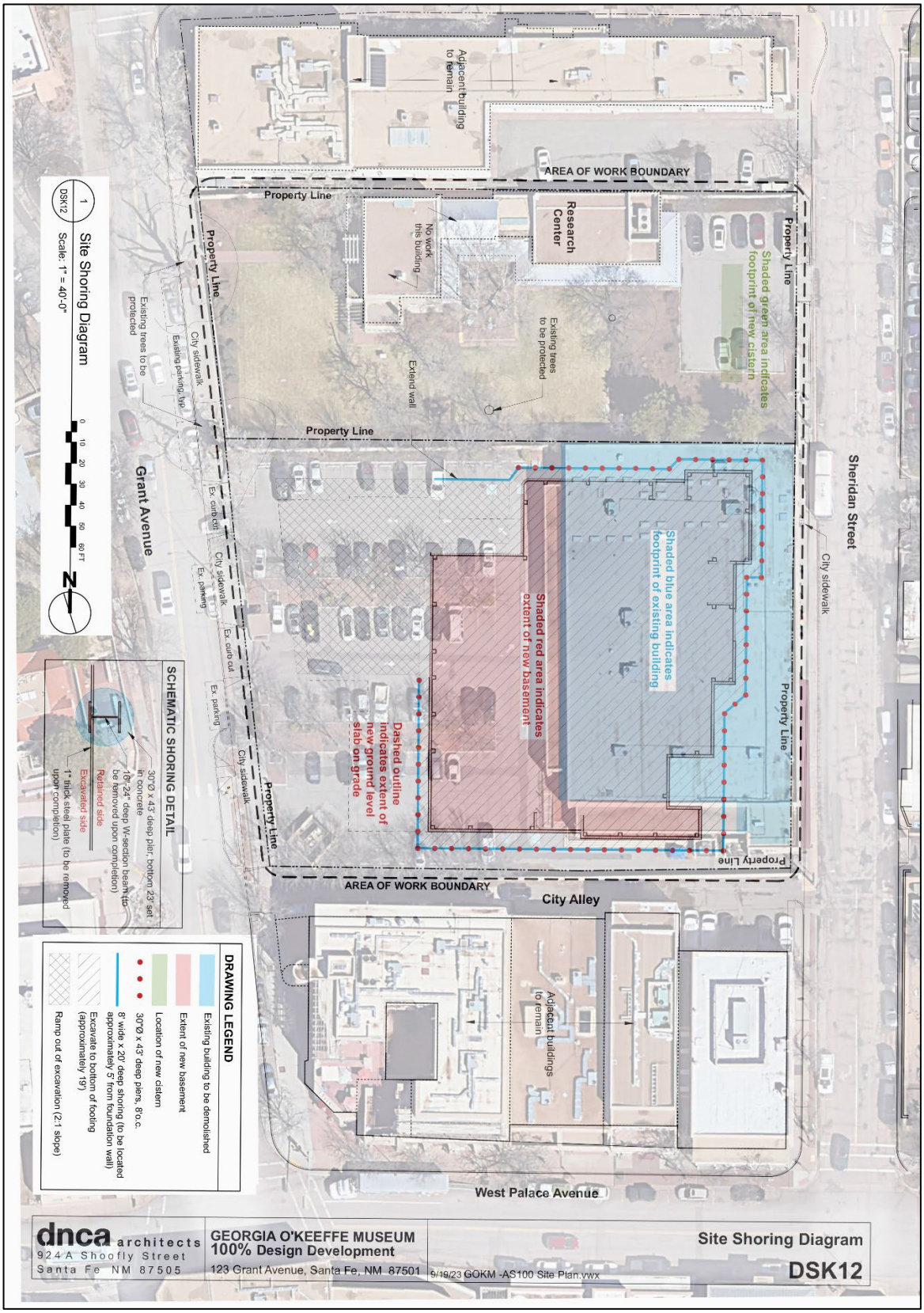

Figure 1-3. Construction Plan with Aerial of 123 and 135 Grant Ave.

CHAPTER 2. ENVIRONMENTAL SETTING

2.1 GEOLOGY

The project area is located in the northern Rio Grande Valley of the Basin and Range physiographic province, New Mexico within the Santa Fe River Valley east of the Rio Grande and south of the Santa Fe River, between various channels that feed into Arroyo Chamisos (Williams 1986). The Santa Fe River is the main drainage of the area and runs northwest to southeast to the north, joining the Rio Grande to the southwest. Other major tributary drainages in the area include Arroyo Chamisos and Arroyo Hondo, among others. Much of the riparian zone adjacent to the Santa Fe River has deposited rich soils ideal for agriculture. The area is in the eastern portion of the Española Basin, which was formed by the subsidence of the Rio Grande Rift and the subsequent deposition of alluvial sediments during the Miocene and Tertiary periods. Sediments within the basin include Miocene and Tertiary sedimentary rocks, Pliocene and Pleistocene alluvial deposits, and Pliocene and Holocene period volcanic rocks and sediments derived from surrounding uplands (Kelley 1952).

North of Santa Fe is a moderately dissected, westward-sloping piedmont consisting of sedimentary deposits of the Santa Fe Group, particularly the Tesuque Formation. To the south, the landform is a gently sloping, less dissected plateau consisting of alluvial deposits of Quaternary Pleistocene terrace gravels (Kelley 1978). Precambrian rocks of the Sangre de Cristo Mountains (an extension of the Southern Rocky Mountains) form the dissected foothills north and east of the city. To the west are the lava-capped La Bajada and Caja del Rio mesas, included in a larger area of Pleistocene activity known as the Cerros del Rio Volcanic Field, with numerous vents and cones recorded in the area (Aubele 1978).

From the foothills of the Sangre de Cristo Mountains westward, an alluvial plain extends to the Rio Grande, dissected by numerous drainages. The Santa Fe Valley is on this alluvial plain, a primarily piñon-juniper piedmont environment that includes the Santa Fe-Tesuque Divide, the headwaters of the main tributaries of the Santa Fe River Basin. Sediments within the Española Basin include Miocene and Tertiary sedimentary rocks, Pliocene and Pleistocene alluvial deposits, and Pliocene and Holocene period volcanic rocks and sediments derived from surrounding uplands (Kelley 1952).

Santa Fe is located within a fault-zone feature within the structural subdivision of the Southern Rocky Mountain physiographic zone known as the Española Basin, one of a chain of six or seven basins comprising the Rio Grande rift, which extends from southern Colorado to southern New Mexico (Kelley 1979:281). The Rio Grande rift was established during the late Oligocene epoch when a cycle of downwarping and extensional faulting succeeded a period of regional uplift (Kelley 1979:281). This basin, considered an extension of the Southern Rocky Mountain Province, is surrounded by uplands of alternating mountain ranges and uplifted plateaus (Fenneman 1931). The Rio Grande flows along the long axis of the feature (Kelley 1979:281). The northern boundary of the Española Basin is composed of the eroded edge of the Taos Plateau. The Sangre de Cristo Mountains form the eastern edge, and the southern boundary is marked by the Cerrillos Hills and the northern edge of the Galisteo Basin. The La Bajada fault escarpment and the Cerros del Rio volcanic hills denote the basin's southwestern periphery. The Española Basin is bounded to the west by the Jemez volcanic field. The Brazos and Tusas Mountains form the northwestern boundary (Kelley 1979).

As the subsidence of the Española Basin proceeded through the subsequent Miocene and Pliocene epochs, erosion from the Nacimiento, Jemez, and Brazos uplifts to the north and northwest, and from the Laramide Sangre de Cristo uplift to the east and northeast, provided most of the sediments for what is known as the Santa Fe group, the prominent geologic unit within the Española Basin (Folks 1975). Formations within the Santa Fe group, such as the Tesuque Formation, consist of deep deposits (more than 1 km thick) of

poorly consolidated sands, gravels and conglomerates, mudstones, siltstones, and volcanic ash beds (Folks 1975; Lucas 1984). Alluvial deposits of ancient and modern gravels are found in arroyos and on adjacent terraces. Tertiary volcanic deposits, Cenozoic sediments, and Precambrian rock are exposed in surrounding areas. When combined with these alluvial deposits, they provide most of the materials needed for flaked stone artifact production, for example chert is available in the Ancha formation (Kelley 1979:11–12). Sandstone, siltstone, andesite, basalt, and silicified wood occur in other nearby formations. The most commonly used chert in the Santa Fe area derives from the Madera limestone formation and occurs in local gravel deposits in the Sangre de Cristo Mountains (Southern Rockies). Lesser amounts of obsidian are found scattered along the basalt-capped mesas to the west of Santa Fe (Kelley 1979:12).

2.2 ENVIRONMENT, FLORA, AND FAUNA

The local climate is semiarid, with an average annual precipitation ranging between 36.1 and 36.6 cm (14.2 and 14.4 in), mostly derived from summer thunderstorms (Folks 1975, Fallon et al. 1978). Precipitation across the City of Santa Fe can vary greatly, with the wettest season typically falling in late summer and June being one of the driest months. Precipitation records from Santa Fe indicate that more than 45 percent of the mean annual precipitation falls between July and September (Gabin and Lesperance 1977). Late summer and fall moisture are derived from the Gulf of Mexico, when air masses from the region push inland, bringing important monsoonal rains that tend to be violent and localized (Tuan et al. 1973:20). The area's growing season varies between 130 and 165 days (Bahm et al. 1985, Tuan et al. 1973). The mean annual temperature reported by the Santa Fe weather station is between 48.6° and 49.3° C (Gabin and Lesperance 1977).

The area's dominant habitat consists of piñon-juniper grasslands, which support a variety of plant and animal species such as piñon, juniper, prickly pear cactus, cholla, yucca, and several species of muhly and grama grass (Pilz 1984). The piñon-juniper community thins as it descends from the Sangre de Cristo foothills and grades into shortgrass plains between the foothills and the Santa Fe River (Kelley 1979:12). The area's open valleys typically contain grama grass, muhly, Indian ricegrass, galleta grass, soapweed yucca, one-seed juniper, Colorado piñon, occasional Gambel's oak, and small stands of mountain mahogany. Arroyo bottoms contain various shrubs, including four-wing saltbush, Apache plume, rabbitbrush, big sagebrush, and wolfberry. The Riparian/Wetlands habitat is found only along perennial streams, such as the Rio Pojoaque and Rio Tesuque north of Santa Fe. Modern vegetation includes willow, cottonwood, salt cedar, rushes, and sedges (Pilz 1984). In the wider valley bottoms to the north, ditch irrigation is practiced.

Fauna native to the project area includes coyote, badger, porcupine, black-tailed jackrabbit, desert cottontail, spotted ground squirrel, prairie dogs, and many species of birds. Mule deer and black bear are known to occur in low numbers (Pilz 1984). Use of the area by elk and black and grizzly bears was likely more common prior to the turn of the century. Plains animals, such as buffalo and pronghorn antelope, may have also been present or within a few days' access at that time.

CHAPTER 3. CULTURE HISTORY

3.1 PALEOINDIAN PERIOD

The earliest occupation of the American Southwest began at least 12,000 BP. and is known collectively as Paleoindian. Sites dating to this time period are primarily identified by diagnostic projectile points and other characteristic stone tools that have been located south of the Rio Salado and the Rio Jemez, and west of the Rio Grande in the Albuquerque area (Judge 1973). A Clovis period site was identified in the Jemez Mountains, suggesting use of mountain environments for hunting and plant gathering (Acklen 1997). Researchers also discovered an Eden style projectile point and scraper in the Cañada Ancha drainage northwest of Santa Fe (Scheick and Viklund 1991) and three large Clovis-style bifaces from Warren's Cache near the contemporary Hispanic village of Tesuque (Warren 1974). The location of Warren's Cache in deep alluvial sediment along the bottomlands of Tesuque Valley highlights the typical low archaeological visibility of Paleoindian assemblages (Anschuetz and Beninato 1999).

There is generally a paucity of evidence for Paleoindian period (9,500 to 6,000 B.C.) occupation in the Santa Fe area; likely due in part to the deep colluvial and alluvial deposition over much of the Santa Fe terrace. The closest reported occurrence of a Paleoindian site in the Santa Fe area is LA 132212, a multi-component artifact scatter that includes a Paleoindian component, recorded to the west of Agua Fria and containing Archaic and historic Hispanic artifact components (Post 2001).

Data from surrounding locations suggest Paleoindian use of higher elevations from the termination of the period into Early Archaic times. Evidence for Paleoindian subsistence is generally limited to killing and butchering of large mammals, which are much more archaeologically visible than sites indicating plant gathering and hunting of smaller animals, which is inferred. It is likely that Paleoindian period remains are deeply buried and therefore rarely detected.

3.2 ARCHAIC PERIOD

Prior to the adoption of ceramic technology, southwestern indigenous groups pursued adaptive strategies that included manipulation of various life zones, diversification of subsistence sources, and, eventually, intensification of food production. Such groups are referred to as Archaic, and in the northern Southwest these groups date between 5,500 B.C. and A.D. 400 (Irwin-Williams 1979). Compared to earlier Paleoindian adaptations, the Archaic period shows a more generalized exploitation of floral and faunal resources along the Rio Grande (Motsinger 1992). Specialized grinding tools for processing seeds and nuts are associated with such adaptive strategies. Smaller projectile points, traps, nets, and snares were used on smaller game, but the atlatl (spearthrower) remained the principal hunting tool.

In the Santa Fe area, the Archaic period has been defined according to the Desert Culture Oshara tradition (Cordell and McBrinn 2012, Irwin-Williams 1979). The tradition begins with the Jay and Bajada phases (5,500 to 3,200 B.C.) and extends to the En Medio or Basketmaker II period (800 B.C. to A.D. 400). The early Archaic period includes the Jay and Bajada phases (5,500 to 3,200 B.C.) and is evidenced by a low frequency of sites and isolated occurrences recognized by diagnostic projectile points and, to lesser extents, stone tool assemblages and site structure (Irwin-Williams 1973, 1979).

Archaic campsites in the upper Rio Grande Valley are typically located near the junctures of two or more biomes, which permitted Archaic peoples to exploit a diversity of resources within a restricted range (Motsinger 1992). Archaic adaptive strategies involved a high degree of mobility and included seasonal rotation of campsite location. Seasonal occupation sites of this sort have been documented on the terraces,

ridges, and occasional canyon rims bordering the Santa Fe River and its major tributaries (Schmader et al. 1994). Schmader and colleagues (1994) provide a synthesis of archaeological references for Archaic Period sites recorded in the vicinity of Santa Fe. Archaic sites recorded in the general area usually consist of surface lithic artifact scatters (Scheick 1991, Anschuetz and Viklund 1997) and ash stains exposed in arroyo cuts (Schmader et al. 1994, Post 2010). These sites are generally located on ridges and terraces above the Rio Grande and its tributaries.

Despite isolated projectile points that date as early as about 4,800 B.C., little is known about use of the area by early Archaic peoples. Only two sites in the region, LA 66874 in the Jemez Mountains and LA 61315 along the Santa Fe Relief Route, have substantial excavated Early Archaic assemblages. At these sites, the abundance of ground stone and paucity of projectile points indicated the Early Archaic groups were adopting a reliance on and mapping on to local plant resources (Post 2010). The La Bajada site on the west edge of the Caja del Rio Plateau represents one of the most substantial Early Archaic Bajada phase sites in the region, with 27 points collected (Hicks 1982). Based on these and other sites with Early Archaic components, Post notes that Early Archaic groups tended to utilize bedrock outcrops, and the environment was a patchwork of pinon-juniper woodland with shrubby grasslands that provided a range of seasonal nuts and fruits as well as larger game.

Following the end of the drier climate regimes of the Altithermal, piñon-juniper woodlands increased and the region saw an increase in Middle Archaic sites in the Santa Fe area. A late San José phase site (3,800 to 1,800 B.C.) was identified in the Las Campañas project area with an assemblage that included obsidian and biface tools, tool production debris, and basin metate fragments (Post 1996). Excavations conducted along the Northwest Santa Fe Relief Route (NM 599) revealed intensively reoccupied base camps with burned remains of structure foundations, processing pits, tool production and plant processing (Post 2003, 2010). The sites were dated between 3,500 and 2,200 B.C. during the San Jose phase of the Middle Archaic. North of the Santa Fe River, small Armijo phase pit structures and base camps have been excavated into the low piedmont area between Arroyo Calabasas and the Santa Fe River (Post 2001, Schmader et al. 1994). Cobble-lined rock overs were common at these sites along the Santa Fe Relief Route, and were generally associated with the processing of roots, tubers, yucca fruits, and cactus pads (Post 2010). However, evidence from LA 123007, located southwest of Santa Fe, indicated that large roasting pits were being used to process bison during the Middle Archaic (Loven *et al.* 2021). Large game procurement during the Middle Archaic also is noted from LA 112845, a game drive located on the Caja del Rio Plateau with two wing walls and 12 broken projectile points including a possible San Augustin and two possible terminal Paleoindian/Early Archaic points (Hogan *et al.* 2012).

In the Santa Fe area, Late Archaic (1800 B.C.-A.D. 400/600) sites frequently occur on floodplains, low terraces, ridges and occasionally on cutbanks bordering the Santa Fe River and its major tributaries, as well as on the upper piedmont northeast of Santa Fe (Ambler and Viklund 1995). Late Archaic sites documented along the foothills east and north of Santa Fe are differently organized, with small lithic artifact scatters representing hunting-gathering activities located on terrace remnants, and large Madera chert quarries dominating the archaeological record for Late Archaic period sites (Post 2002, Stewart 2003). The increased number of Late Archaic sites, especially during the En Medio phase (800 B.C.—A.D. 400), compared with earlier periods indicates a significant shift in settlement patterns and subsistence changes at this time. Structures tend to appear more substantial with well-defined structures that contain complex intramural features. Post (2010: 550-552) further notes that sites may have been occupied with an emphasis towards seasonal access to resources with sites in the Tierra Contenta and Airport Road area focusing on juniper grassland resources of grass seeds and shrub fruits, though he also notes that the presence of activity areas, features, and formalized site structure is consistent with long-term occupation with planned reoccupations.

Late Archaic period sites have been documented along the south and southeast sides of Santa Fe. Surveys of the area conducted as part of the School of American Research's Arroyo Hondo Pueblo (LA 12)

investigations recorded 12 artifact scatters, with nine sites identified by Dickson (1979:29) as chipping stations with probable Archaic components. Late Archaic sites in the nearby Galisteo Basin southeast of Santa Fe include isolated lithic artifacts, rock art panels, campsites, and limited activity locations used for hunting, gathering, and the processing of chert. Campsites occurred in a variety of settings such as drainage valleys, dunes, and upland woodland settings and frequently contained thermal features as well as groundstone tools (Lang 1977). Greater site frequency is evidenced during this time, with longer occupations and shorter spans between occupations. Toward the end of the Archaic between about 1,500 and 1,000 B.C., domestic plant species were cultivated to supplement the hunting and gathering diet (Cordell and McBrinn 2012).

This transitional period from the introduction of cultigens to agriculturalists in the northern Southwest is often ascribed to the En Medio phase (800 B.C. to 400 A.D.) following Irwin-Williams, and much of these interpretations are based on data from the San Juan Basin and southeastern Colorado Plateau (Irwin-Williams 1973). However, Post (2010) notes that this transition to agriculture appears delayed in the Santa Fe area where the transition to agriculture does not appear to have occurred until between A.D. 850 and 900. Further, Post notes that the appearance of circular shallow pit structures with intramural features and extramural roasting pits appear as early as 200 B.C., and these seasonally occupied structures that are devoid of cultigens occur up to A.D. 900. This ca. 200 B.C./A.D. 1 to A.D. 850/900 period is identified as the *Latest Archaic* by Post (2010), and reflects the persistence of a semi-sedentary Archaic lifeway in the Santa Fe area and Northern Rio Grande, and includes a roughly 400-year overlap with Early Developmental sites. Major differences between the two types of sites include smaller storage pits, more formalized site layout emphasizing single structures with evidence of seasonal reuse, and midden formation at the Latest Archaic sites. Most telling, however, is the complete absence of maize and ceramics from any of the Latest Archaic sites. Meanwhile, contemporaneous Early Developmental sites exhibited large storage pits with an abundance of maize and ceramics. To this end, based on the presence of ceramics, Post (2010) notes that only fifteen possible Early Developmental sites have been identified from survey data in the Santa Fe/Galisteo Basin area further indicating that Archaic traditions persisted in the Santa Fe area substantially longer than previously inferred.

3.3 PUEBLO PERIOD

The Pueblo period covers the time frame associated with sedentism, population aggregation and the transition from pithouses to pueblos, establishment of horticulture and transition to agricultural production, and the development of ceramic technologies. Wendorf and Reed (1955) developed a temporal classification for the Northern Rio Grande consisting of four time periods: Developmental (A.D. 600-1200), Coalition (A.D. 1200-1325), Classic (A.D. 1325-1600), and Historic (A.D. 1598-1900s). The early Developmental period (A.D 600-900) correlates to the late Basketmaker III period, the middle Developmental period (A.D. 900-1000) correlates with the Pueblo II (A.D. 900-1100), and the late Developmental period (A.D. 1000-1200) correlates with the Pueblo II (A.D. 900-1100) and early Pueblo III (A.D. 1100-1200) periods of the Pecos Classification (Kidder 1927).

3.3.1 Developmental Period (A.D. 600-1200)

In the eastern Pueblo region, the Developmental period is divided into early (A.D. 600 to 900), middle (A.D. 900 to 1000), and late (A.D. 1000 to 1200), and is represented by a shift to more permanent dwellings and storage structures, the use of ceramic containers, and the location of sites near productive agricultural lands (Wendorf and Reed, 1955, Stuart and Gauthier 1981). Characteristics of the Developmental Period in the Northern Rio Grande include the use of circular or rectangular pit houses with a formalized layout (vertical walls, 4-post roof support, central hearth, and multiple floor pits). Later in the time period, pithouses are associated with D-shaped or rectangular surface structures, and sites increase in size to

between 5 and 20 pit structures with substantial midden deposits that are organized into clusters or communities with concomitant changes in social organization, subsistence, and settlement patterns (Lakatos 2007, Post 2010, Scheick 2007).

While rare in the Santa Fe area, sites dating to the early Developmental period south of La Bajada characteristically consist of between one to three pithouses located at low elevations on terraces above drainages. At the site of LA 1051 in downtown Santa Fe, the earliest stage of occupation was represented by a series of five pit features containing charred maize and beans that dated between ca. A.D. 400 and A.D. 700 (Lentz 2011). It was not until the time period between A.D. 900 and 1200 that prehistoric Puebloan farmers become abundant in the Santa Fe Valley (Cordell and McBrinn 2012, Post 2010). During this time, pithouse villages, one-room farmsteads, and the more classic surface pueblos began to be established along stream terraces above the Rio Grande. Pithouses have been documented on terraces above tributary drainages of the Santa Fe River, in the Tesuque Valley, and in the Santa Fe drainage (Lentz 1988, Scheick 1979, Stubbs and Stallings 1953).

The middle and late phases of the Developmental period are better represented in the Santa Fe area. Dickson's Arroyo Hondo survey revealed 19 middle and 25 late Developmental sites, with 13 middle and 21 late phase sites containing habitation architecture (Dickson 1979:31). The structural sites included isolated pithouses that were organized into larger pithouse communities, and ten to 12-room adobe pueblos. Many of these sites occur in the grassland environments bordering the Rio Grande escarpment, in the bottomlands where Cienega Creek enters the Santa Fe River, and along the major tributaries of the Santa Fe River.

During the late Developmental and Coalition periods of A.D. 1050 to 1325, permanent settlements are seen along secondary and tertiary drainages of the Rio Grande and along mountain and mesa bases (Lang 1977). The increased quantity of small sites, their physical settings, and the abundance of soil- and water-control features found suggest increased reliance on cultivated crops (Cordell and McBrinn 2012). The predominant pottery was Kwahe'e Black-on-white, which is known from several sites in the area, including Arroyo Negro (LA 114, LA 15969) (Wiseman 1978), and a small component at Pindi Pueblo (LA 1) (Stubbs and Stallings 1953). Wiseman (1978) estimates occupation at Arroyo Negro most likely occurred between A.D. 1100 and 1150. The substantial village of La Garita Pueblo occupied Fort Marcy Hill beginning in the 11th century (Acklen 1995), and was part of the .75-mile-long Fort Marcy community of seven late Developmental sites including the Diker Site (LA 618) and the KP Site (LA 46300) (Scheick 2007).

3.3.2 Coalition Period (A.D. 1200-1325)

The Coalition period is marked by concentrations of people at lower elevations along permanent streams, and by the transition from mineral to carbon painted ceramic traditions, with the introduction of Santa Fe Black-on-white ceramics (Cordell and McBrinn 2012). The period is divided into two phases: Pindi (A.D. 1220-1300) and Galisteo (A.D. 1300-1325) (Wendorf and Reed 1955). Ceramics of this period are divided into Santa Fe Black-on-white and its local variants for the Pindi phase and Galisteo Black-on-white for the later phase.

Coalition period inhabitants clearly made extensive use of a broad range of environmental settings within the Española Basin. Hundreds of sites dating to this period have been documented, including a variety of resource extraction and processing loci, agricultural fields, small dwellings, and large villages. Most of the large sites of the area were established during the Pindi phase. Characteristic settlements of the early Coalition period consist of small farmsteads and villages that, by the A.D. 1300s, were clustered around and between several large pueblos. During this period, agricultural fields were located along the margins of streams, arroyos, seeps, and springs, and some extensive rock-bordered gardens were built for floodplain farming (Lang 1977).

During the late Coalition, more formal water control and erosion features were built, and both masonry and puddle adobe were common pueblo construction techniques (Cordell and McBrinn 2012). The presence of check dams in association with cobble-bordered and pebble-mulched agricultural plots indicates Coalition period farming occurred along the margins of the larger arroyos north of the Santa Fe River (Post 1992). It was also during this period that an active trade network is apparent, assisting in the procurement of food, wood, and other raw materials (Lang 1977).

Previous investigations in the Santa Fe area indicate a proliferation of Coalition period villages, seasonal farmsteads, and fieldhouses along the Santa Fe River (Lang 1980, 1989; Schaafsma 1982). Excavations at Pindi Pueblo (LA 1) (Stubbs and Stallings 1953) on the north side of the river, the Agua Fria Schoolhouse site (LA 2) on the south side (Lang and Scheick 1989), and LA 1051 (Lentz 2011) in downtown Santa Fe along with other investigations, indicate the presence of a large Coalition period community that extended along the Santa Fe River.

Habitation sites in the Santa Fe River Valley include LA 3, La Bajada Pueblo (LA 7), Cieneguilla Pueblo (LA 16), LA 149, LA 150, LA 4445, and LA 8993 (Dickson 1979). Although the Santa Fe River Valley saw extensive Coalition period settlement, the number of recorded activity locations and camps southwest of Santa Fe and extending south to La Cienega are surprisingly fewer than those documented for the Santa Fe Basin-Tesuque Valley divide (Anschuetz and Beninato 1999).

Investigations along the Northwest Santa Fe Relief Route yielded 16 components dated to the Coalition or early Classic period consisting of thermal features and flaked stone scatters reflecting material procurement and testing, and debris from all stages of core reduction (Maxwell 1988, Wolfman et al. 1989). Thermal features were mainly shallow, oval-shaped pits with cobble linings or occasionally fire-cracked rock. Artifact and feature distributions indicate single, high-intensity occupation episodes, or many brief visits that left a dispersed artifact scatter (Post 2010).

In the northern Rio Grande region prior to the mid-14th century, most people lived in small communities of 15 to 30 rooms, with occasional villages of 100 to 200 rooms such as Pot Creek Pueblo north of Santa Fe and Pindi Pueblo north of the project area (Stubbs and Stallings 1953, Cordell and McBrinn 2012). Located on the north side of Santa Fe River in the Village of Agua Fria about 8 km (5 mi) south of Santa Fe, Pindi Pueblo (LA 1) dates to the late Coalition and early Classic periods (ca. A.D. 1220-1370) (Stubbs and Stallings 1953). Stanley Stubbs and W.S. Stallings, Jr. of the Museum of New Mexico's Laboratory of Anthropology, excavated Pindi in 1932 and 1933, documenting the use of coursed adobe to build several hundred rooms in complexes that stood up to four stories tall. They also found evidence for the re-use of structural beams from earlier buildings at Pindi Pueblo at succeeding structures at the Agua Fria Schoolhouse site (LA 2), an early Classic period pueblo adjacent to the Santa Fe River. Based on considerable evidence for the domestication of the turkey at Pindi Pueblo, Stubbs and Stallings named the site *Pindi* after the Tewa word for turkey. LA 2/the Agua Fria Schoolhouse site became the focus of settlement in the western Santa Fe area during and after the abandonment of Pindi Pueblo.

The largest sites continued into the Galisteo phase, ranging in size from 2 to 200 rooms, with 30 to 50 rooms the most frequent size (Stuart and Gauthier 1981). La Cieneguilla Pueblo (LA 16), located about 19 km (12 mi) south of Agua Fria, is a Coalition-Classic period pueblo that was occupied until about A.D. 1680. Toward the end of the Coalition period, there is an apparent decline in the number and size of sites, followed by settlement growth in the late A.D. 1200s and early 1300s, with large villages located along Galisteo Creek, the Santa Fe River, and Arroyo Hondo (Lang 1977).

Excavated residential sites around downtown Santa Fe include La Garita Pueblo on Fort Marcy Hill (Ellis 1978), the Santo Niño surface structure and pithouse site (Schmader 1988), and LA 1051 (Lentz 2011) and adjacent Federal Courthouse Site (LA 143460; Scheick 2005). Other substantive deposits of Coalition Pueblo materials were found under the Fine Arts Museum, The Fenn Gallery at the corner of East de Vargas

and Canyon Road, a parking lot at the San Miguel Church, and the putatively oldest Spanish house (e.g., see Mera 1934; Peckham 1977, 1982; B. Ellis 1978; Peckham and Snow 1982; Post and Snow 1982; Schaafsma 1982; Snow 1989a, 1989b, 1990a, 1990b). These settlements were influenced by nearby wetlands that formerly covered areas in the nearby valley bottomland environment and nearby sizable springs.

These combined discoveries at a minimum suggest a proliferation of villages, seasonal farmsteads, and fieldhouses along the Río Santa Fe where downtown Santa Fe now stands. The Coalition material culture density found at La Garita Pueblo, at the Convention Center/Parking Garage and the Federal Oval (LA 1051/LA 143460) and beneath the Awakening Gallery (LA 132712) suggests that some of the settlements were substantial in size and demonstrate a long-term continuous settlement pattern in the downtown Santa Fe area. The pottery found at LA 1051, LA 143460, and La Garita Pueblo also suggest a long-term occupation with an end date around the late Coalition or early Classic period (Ellis 1978; Levine 1989:23; Lentz 2011:349).

3.3.3 Classic Period (A.D. 1325-1600)

A second period of population increase occurred in the 14th century in the northern Rio Grande region. Major technological changes in ceramic production, particularly in the introduction of glaze-decorated pottery, are considered the primary markers of the Classic period (Wendorf and Reed 1955, Warren 1979). Many earlier small villages were abandoned and people aggregated at a few larger villages in agriculturally productive areas near springs and along perennial streams. These larger pueblos frequently consisted of multistoried roomblocks arranged around central plazas (Cordell and McBrinn 2012). Large villages of this period in the Santa Fe area include the Agua Fria Schoolhouse site (LA 2), beneath the Convention Center/Parking garage (LA 1051), Arroyo Hondo (LA 12), Cieneguilla Pueblo (LA 16), and other prehistoric sites along the Santa Fe River (LA 118 and LA 119).

Village reorganization may have taken place during this period as settlements grew to accommodate greater numbers of inhabitants. A change in kiva function at Pindi Pueblo (LA 1) and Arroyo Hondo (LA 12) may be indicated by a lowering in frequency within the village and a change in their location from subterranean to surface placement. Large, open plaza areas became more central, suggesting a more centralized social organization that may have required larger community areas. The large villages of the northern Rio Grande, the Galisteo Basin, and the Rio Chama all showed the same trends in the construction of fewer kivas and the use of larger, more centralized community areas (Cordell and McBrinn 2012).

LA 2, the Agua Fria Schoolhouse Site, is located across the Santa Fe River from LA 1 (Pindi Pueblo). Early mapping and testing of the site in 1915 by A.V. Kidder resulted in the definition of local ceramic type: "Agua Fria Glaze-on-red" (Kidder 1915). W.S. Stallings, Jr. excavated some test pits at the site in 1934, recovering tree-ring material that date the site to the mid-1300s A.D. In 1936, Stanley Stubbs also collected tree ring material from the site. The Laboratory of Anthropology conducted additional work at the site in the 1960s. LA 2 was occupied until A.D. 1425 and later from about 1650/1690 to 1694/1750) (Lang and Scheick 1989).

Aggregation of people into fewer, larger villages was accompanied by the construction of agricultural complexes designed to harvest and conserve water such as terraces, rock piles, grid gardens, gravel mulches, dams, and reservoirs across much of the northern middle Rio Grande region (Anschuetz and Beninato 1999). Classic period agricultural field complexes consisting of cobble piles, grid gardens, and terraces with associated field houses have been documented at the west end of La Bajada Mesa to the south (Moore and Harlan 1984, Herhahn 1995). Smaller numbers of artifact scatters indicate the continued importance of plant collecting, hunting, and other resource procurement activities. A high frequency of Madera chert occurs on Classic period sites in the Española Basin, indicating the quarries in the Sangre de Cristo

Mountains foothills continued to serve as important resources (Viklund and Scheick 1994, Ambler and Viklund 1995).

As described above for the Coalition period, Classic period activity loci and camps southwest of Santa Fe and south to La Cienega were infrequent, although habitation along the Santa Fe River was dense (Dickson 1979, Hannaford 1986, Maxwell 1988, Wolfman et al. 1989). Throughout the early Classic period, Santa Fe Basin's central and southwest portions continued as significant habitation clusters, including the Santa Fe downtown area, the Agua Fria area, the Arroyo Hondo vicinity, and the lower Santa Fe River Valley. Within the Santa Fe area, pre-Columbian population reached its peak between about A.D. 1315 and 1425 when three to five thousand people may have lived along the Santa Fe River and its tributaries (Lang and Scheick 1989). Cieneguilla Pueblo (LA 16), with an estimated 1,000 rooms, dominated the early Classic period occupation of the lower Santa Fe River Valley.

After A.D. 1420, the eastern Santa Fe River valley as well as other settings were mostly abandoned by year-round inhabitants following the droughts of the 1400s and early 1500s (Cordell and McBrinn 2012). By the end of the early Classic period, circa A.D. 1425, occupation of Pindi Pueblo and the Agua Fria Schoolhouse site ended. Settlement at Cieneguilla Pueblo continued during the middle Classic period when the Agua Fria, Arroyo Hondo, and downtown Santa Fe settlement clusters were undergoing population declines (Dickson 1979). A decrease in small villages or large settlements was seen throughout the northern Rio Grande, the Galisteo Basin, and the Rio Chama at this time, with the few remaining villages, such as La Cieneguilla, dramatically increased in size (Stuart and Gauthier 1981). La Cieneguilla was abandoned in the late 1400s or early 1500s but was reoccupied during the late 16th century Spanish *entradas,* with people remaining in residence until 1680 or 1692 (Schroeder 1979, Elliot 1988). Scheick et al. (1993) suggest Classic period peoples left these locations following the droughts of the A.D. 1400s and early 1500s in favor of settlement locations along major river valleys.

Classic period sites that were still occupied at the time of the Spanish *Entrada*s in the mid-16th century include Yunque (San Juan Pueblo), La Cieneguilla (LA 16), Paako Pueblo, San Antonio, Kuaua, San Marcos (LA 98), Pecos (LA 625), Gran Quivira, La Bajada Ruins (LA 7), and Pueblo Pardo (Lambert 1954). The eastern Santa Fe River Valley remained unoccupied until the arrival of Spanish colonists between 1609 and 1610 when *La Villa de Santa Fe* was founded. Spanish colonists soon established farmsteads along the river, using surrounding areas for grazing livestock and gathering wood, activities that continued well into the 20th century (Stewart 2010).

3.4 HISTORIC PERIOD

The Historic period is divided into phases based on the focus of activity: Spanish Exploration (A.D. 1540-1598), Spanish Colonization (A.D. 1598-1680), Pueblo Revolt and Spanish Reconquest (1680-1692), Spanish Colonial (A.D. 1692-1821), Mexican (A.D. 1821-1846), and the American period (A.D. 1846-present). It was during Spanish explorer Vásquez de Coronado's expedition to the American Southwest in A.D. 1540 that the area's indigenous inhabitants encountered the first Europeans (Jenkins and Schroeder 1974). The Coronado Expedition was followed by more than 60 years of Spanish exploration, with *entradas* lasting until Oñate's settlement of New Mexico in 1598, beginning a period of missionization and colonization that lasted until 1680 (Levine 1995).

During the late 16th century, remaining Pueblo peoples in the northern Rio Grande region increasingly clustered at the Tewa Pueblos of Tesuque, Nambé, and Pojoaque in the northern portion of the region, and at the Keresan Pueblos of Cochiti and Kewa (Santo Domingo) in the southern portion. Most of the massive Galisteo Basin pueblos had also suffered large population losses during the 16th century, with only a few settlements surviving into the early 17th century (Scurlock 1986). Despite major contraction of Pueblo settlement to lower, well-watered, warmer locations, archaeologists, ethnographers and present-day Pueblo

peoples maintain that these groups continued to use upland settings such as the Pajarito Plateau and may have periodically reoccupied some of their old settlement and agricultural field sites (Schroeder 1979; Levine and Merlan 1997, 1998; Naranjo 1998).

In 1596, Don Juan de Oñate was named Governor and Captain General of New Mexico and was chosen by the Spanish government to colonize New Mexico. Oñate was the first to travel the length of the *Camino Real de Tierra Adentro* (the Royal Road of the Interior) in 1598, leading a group of settlers into present-day New Mexico at San Gabriel near the modern Pueblo of San Juan. Oñate's expedition established their first settlement, named *San Juan de Los Caballeros* (San Juan of the Gentlemen) near the juncture of the Chama and Rio Grande Rivers in northern New Mexico. The settlement was later moved across the Rio Grande and renamed San Gabriel (Levine 1995). Oñate was still not satisfied, however, and kept looking for a more suitable location for his capitol. An expedition in the spring of 1605 brought him near the present City of Santa Fe, an area that impressed Oñate. Because his expedition was not financially successful, it was unclear whether the colony would be abandoned, but permission to move to the new site was finally granted sometime after 1609 when Governor Pedro de Peralta arrived (Levine 1995).

El Camino Real, commissioned in 1598, was used by prehistoric and Spanish traders to travel up the Rio Grande Valley between the two capital cities of Mexico City and Santa Fe. In the vicinity, the trail followed the prehistoric paths connecting the Pueblo villages along the Rio Grande and surrounding area. To the south, the Camino Real followed many of the Aztec's ancient trade routes that headed north from the Valley of Mexico. The segment between Chihuahua City and El Paso is today known as *La Ruta de Oñate* (Oñate's Route). The desolate 80-mile long Jornada del Muerto (Deadman's Journey) is also attributed to Oñate and his settlers (Sanchez 2004).

3.4.1 Spanish Colonial Period

Santa Fe was established by at least 1610 as the capitol of the new Spanish territory, and was continuously occupied from 1609 until 1680, serving as the principal settlement of New Mexico. Mid-17th century Santa Fe consisted of a small village of one-story adobe buildings clustered around a plaza (Elliot 1988). Surrounding the village were agricultural fields and isolated homesteads. Land and labor rights were awarded as compensation for wages, a practice initiated by Oñate. *Ranchos* were located along the Santa Fe River and were scattered to the north and south along the Rio Grande, with inhabitants farming the Santa Fe River Valley and herding sheep on the surrounding grassy plains (Deyloff et al. 1994).

Santa Fe's earliest *acequias* (irrigation ditches) are said to have resulted from instructions of the Royal Ordinances of 1573 given to Don Pedro de Peralta in 1609 for the layout of the new settlement. The 1610 settlement of Santa Fe focused along the north bank of the Santa Fe River, with the earliest acequias likely diverting from that bank. The main ditches that divert directly from the river are referred to as *acequia madres* (mother ditches), which carried waters above cultivated fields north and south of the Santa Fe River and were diverted to the fields by a series of lateral ditches. By 1628, the *Hermita de San Miguel* area had been established along the foothills above the Santa Fe River, indicating one or more acequias in the area at that time (Snow 1988a).

The earliest Spanish Colonial (A.D. 1650 to 1750) sites in the area are the remains of small haciendas and ranchos located along the Santa Fe River floodplain. At least six sites date to this period. Additionally, excavations at the Agua Fria Schoolhouse site (LA 2) revealed early Spanish Colonial remains located along the Camino Real (Lang and Scheick 1989), and Pindi Pueblo (LA 1) apparently saw reoccupation at this time as well (Fallon et al. 1978). Boyd's 1950 survey (Boyd 1970) identified nine homesteads along the Santa Fe River between Agua Fria and Cieneguilla that consisted of one to three adobe rooms, corrals, and Puebloan ceramics. Occupational dates range from 17th century pre-Revolt, through the Spanish Colonial phase, to the early 19th century. Only four of the nine original sites are still intact however, as most

were located adjacent to the river on second terraces (Scheick 1979). Three of these have been combined as the "Santa Fe River Sites" and are listed on the State Register of Cultural Properties (HPD #200). The homesteads consist of one to three adobe rooms, corrals, and Pueblo pottery (Boyd 1970). Scheick (1979) also recorded four homesteads dating to this period along the Santa Fe River northeast toward Agua Fria. Limited excavations undertaken at the Agua Fria Schoolhouse site (LA 2) in 1988 produced ceramics that indicated a Spanish Colonial reoccupation of that area in the early to mid-18th century (Lang and Scheick 1989). Most of the Spanish Colonial phase cultural remains have been found to be nearly indistinguishable from contemporary pueblo remains.

With the colonization of the northern Rio Grande area and the establishment of Spanish missions, Pueblo culture began to change. Efforts to Catholicize the native peoples led to factionalism both within and among pueblos. Additionally, Spanish taxation (the *encomienda* system by which heads of Indian households were required to pay yearly tribute in corn and blankets to the Spaniards) and the *repartimiento* system of forced labor disrupted native work and trade patterns and traditional ceremonies critical to the maintenance of community cohesion (Lang 1977, Simmons 1977).

By 1680, the Spanish taxation and *repartimiento* system had become unbearable to the Pueblo peoples, and the Pueblo Revolt was mounted, successfully removing the Spanish from control of the area for the next twelve years. The Spanish retreated to El Paso del Norte where they remained until 1692. With the expulsion of the Spanish, old animosities and events between 1680 and 1692 led to an eruption of inter-Puebloan conflict. Changes in Pueblo society had occurred gradually yet irreversibly during the previous years of Spanish rule, leaving it in disarray. A lack of cohesion among the Pueblos is said to have left them vulnerable to the Spanish upon their return to reconquer the area in 1692 (Simmons 1977).

Driven by the desire to reclaim Indian souls lost to Christendom and by the need for the control of New Mexico as a frontier buffer to the other provinces of northern New Spain, the Spanish returned under the command of Governor Diego de Vargas in 1692 to win back sovereignty over the Pueblo people and their lands. The Spanish reoccupied the capitol and Village of Santa Fe, which had been partially destroyed along with all of its archives, and the Tano Indians who had taken up residence there were relocated in the upper Santa Cruz Valley. Puebloan unrest continued and a second major unsuccessful rebellion was mounted in 1696, which appears to have resulted in the displacement and relocation of many Pueblo peoples (Simmons 1977).

After the Spanish reconquest of New Mexico in 1692, a formal land grant procedure was implemented to accommodate the numerous settlers by providing land to communities and heads of large families. From the end of the 17th century to the mid-19th century, Spain (and later Mexico) made land grants to individuals, towns, and groups in order to promote development in the frontier lands of the Southwest. The grants divided arable land among households and designated common lands to be used for community subsistence (Bowden 1969). In New Mexico, these land grants served to encourage settlement, reward patrons of the Spanish government, and create a buffer zone between raiding nomadic tribes of the eastern plains and the more settled areas of the frontier. Land grants were also issued to several indigenous pueblo groups. Literature regarding land grants in New Mexico generally distinguish between two kinds of land grants: "community land grants", which refers to common land set aside as part of the original grant for the use of the entire community, and "individual land grants" (Ebright 2014).

Nicholas de LaFora published a narrative of his travels with Maquis Rubi in a 1769 inspection tour of military posts in New Mexico (Kinnaird 1958). He confirms earlier descriptions of the Rio Grande between El Paso, Texas and Socorro, and southern New Mexico as continuing to be largely uninhabited. Small settlements without agriculture were located at the confluence of the Rio Puerco with the Rio Grande near Nutrias. In contrast, the villages of Tomé, Bethlem, Socorro, Albuquerque, Santa Fe, and Taos contained larger settlements with substantial pastures and cultivated fields, although LaFora does not specifically

mention irrigation systems. These and other chronicles of the late 1700s indicate that acequia systems covered considerable areas of New Mexico by this time (Adams and Chavez 1956). In the northern Rio Grande Valley, the progression of acequia construction coincided with the gradual expansion of Spanish settlements into the outlying regions, with early Spanish settlement and acequia development concentrated in the Santa Fe-Taos region (Snow 1988a).

By the mid-1700s, a more elaborate acequia system appears to have developed around Santa Fe. According to Urrutia's 1768 map of the area, at this time there were two *acequia madres*: one serving the lands on the north side of Santa Fe River, and one serving lands on the south side, in addition to lateral canals branching from each acequia madre (Snow 1988a). These acequia alignments are within today's Village of Agua Fria, and appear to be in about the same locations as acequias referred to in documents from the early 1700s. Most appear to have remained in operation until at least 1832 (Snow 1988a). Other acequias in the area may have been built in the 19th century (Ackerly 1996). According to local residents, many of the ditches visible in the area today are over 100 years old (Stewart 2010).

In the Santa Fe area, cattle husbandry, the primary subsistence activity until the mid-17th century, was augmented by farming and sheep herding. By this time, an extensive acequia system was now in place, and much land north and south of the Santa Fe River was under cultivation. Santa Fe also served as a base for military excursions into surrounding regions to try to prevent raids by Ute, Comanche, and Navajo peoples (Scheick 1979).

With the exception of Galisteo Pueblo, the large villages of the Galisteo Basin were not reoccupied following the Spanish reconquest. The Spanish settlement system required the granting of lands to prospective settlers by the King of Spain. Community grants included large tracts of land to be used as commons for grazing cattle and sheep. In 1706, the Spanish resettled Galisteo Pueblo with Tano refugees. Between 1706 and the 1780s, this settlement functioned as a buffer for Santa Fe and its environs, initially protecting those villages from the Apaches and eventually against the Comanches. Comanche raiding continued throughout the mid- to late 1700s. Combined with drought and general decline in the productivity of the area, continued raids led to the abandonment of Galisteo Pueblo by 1792 (Lang 1977).

18th century colonial settlement patterns shifted away from large land grants and haciendas to smaller dispersed farmsteads with associated ranchos established on lands abandoned by the aggregation of the different Pueblo groups (Cordell 1978). Simmons (1969) attributes this shift to a decrease in native population, reducing the available work force, and to an increased colonial population. The result was a loose coalition of farmsteads along the Rio Grande and Santa Fe River.

3.4.2 Mexican Period to US Statehood

In 1820, the Republic of Mexico was founded and New Mexico came under Mexican jurisdiction, almost immediately initiating legal trade with Mexico over the Santa Fe Trail and by way of the Comanchero trade network (Cordell 1978). Anglo merchants, ranchers, and other settlers soon came to New Mexico. The Camino Real was well established and Agua Fria became a regular stop on the trail before proceeding into Santa Fe. This road was the lifeline of New Mexico from 1598 until the establishment of the Santa Fe Trail in 1821. The Santa Fe Trail linked the northern frontier of Mexico with Missouri, superseding the *Camino Real* as a major trade route. During the Mexican Period, raiding by nomadic Indians intensified due to the absence of supplementary aid which had previously been supplied by the Spanish, but which the Mexican government could not afford (Cordell 1978). Raiding forced the abandonment of numerous communities and the consolidation of others.

18th and 19th century sites along the Santa Fe River and its tributaries include homesteads, corrals, ways stations, and reservoirs (Scheick 1979). Numerous early 19th century homesteads have been identified along

the Santa Fe River and many residences in the Village of Agua Fria date to this period (Deyloff et al. 1994). Dickson's (1979) survey of the Arroyo Hondo area revealed 46 sites, of which 43 are the remains of Hispanic and Anglo homesteads and *ranchitos*, primarily occurring along the Santa Fe River and its major tributaries.

Homestead documents at the BLM Public Room indicate that most of the area south of the Santa Fe River was used for cultivated plots, as land to the north of the river is generally irregular, with irrigation and cultivation of fields impractical. Settlement therefore tended to cluster south of the river, taking advantage of favorable agricultural conditions (Whitmore 1983).

With the signing of the Treaty of Guadalupe Hidalgo in 1848, New Mexico became a holding of the United States. During New Mexico's Territorial period, U.S. military forts were established along the Camino Real and Santa Fe Trail to protect travelers and settlers. The Anglo period saw a population increase, extensive ranching and farming enterprises and, in the 20th century, mineral exploitation. Because mining produced a more reliable and substantial income, the area saw a transition from sheep ranching to mining by the turn of the century. Sites dating to this period typically include homestead and water control features. 18th and 19th century sites documented along the banks of the Santa Fe River and its tributaries also include way stations, line camps, corrals, and reservoirs (Scheick 1979).

By the mid-19th century, the majority of Santa Fe's agricultural population and their fields extended west along both sides of the river to Cieneguilla, necessitating the diversion of more acequias from the river, with laterals between them, to accommodate the growth of the community's agricultural base (Snow 1988a:5). The effects of the expanding Santa Fe River acequia system on the limited water supply was made worse by the explosive growth of the sheep herding industry in the area during the 18th and 19th centuries (D. Snow in Post 2002).

Santa Fe River's first up-stream impoundment known as the Stone or Stonewall Dam was built between 1880 and 1881. Two-Mile Dam was completed on the river in 1894, and additional dams and enlargements continued to be built until 1943 (Snow 1988a:22). Homestead documents at the BLM Public Room indicate that most of the area south of the Santa Fe River was used for cultivated plots and tracts were long and linear in order for farmers to best take advantage of water from the river and the acequias (Stewart 2010). Most lots were less than 2 ha **(**5 ac) and as thin as 1.8 m (6 ft) but carried the coveted water rights and could be cultivated. Such properties were passed along through families that trace their lineage to the first Spanish settlers of the area (Whitmore 1983). Based on late 19th century maps and the 1914 Santa Fe River Hydrographic Survey, lands south of the Santa Fe River and west of the project area were communally used for agriculture and likely grazing. Other crops grown in the area include corn, wheat, alfalfa, beans, chili peppers, and fruit trees. In addition to drinking and irrigation water, the acequias provided the power to operate grist mills along the Santa Fe River, with the earliest dating to 1756 and located upstream from the plaza to the northeast. Grist mills were apparently more numerous in the 19th century (Snow 1988a).

Descriptions of 19th century irrigation in New Mexico derive primarily from Anglo/Euro-American explorers and military expeditions (Ackerly 1996). George McCall inspected the newly-acquired New Mexico territory in 1852, estimating about 2,024 ha (5,000 ac) were cultivated along the Rio Santa Fe (Frazer 1981:92-97). McCall noted a variety of factors contributing to the failure of agriculture to have a more important role in New Mexico's economy, identifying the absence of transportation facilities as the most limiting to agricultural expansion in the state.

The arrival of the railroad through the region in 1880 was a major event, linking the remote territory of New Mexico with the industrial centers of the East. The railroad also accelerated changes in Santa Fe's material culture and economy (Elliot 1988). The New Mexico Territory attained Statehood status in 1912. Many late 19th and early 20th century homesteads formerly lined the Santa Fe River but have subsequently been destroyed by gravelling activities or erosion. Other sites dating to this time period in the area include

way stations, line camps, corrals and reservoirs (Scheick 1979). In the foothills along the Sangre de Christos, early mining explorations were made, wood was cut for construction, and building stone was quarried (Lang 1989).

From Statehood to World War II (A.D. 1912 to 1945), New Mexico continued to become a part of the U.S. political, economic, and social system. During the Great Depression, the City of Santa Fe saw much New Deal activity in the form of the Civilian Conservation Corps (CCC), which built thousands of rock check dams in arroyos all around Santa Fe in attempts to control erosion brought on by their earlier wood cutting on hillslopes above the town.

Problems related to water scarcity were evident in the Agua Fria area as early as 1896 when the "Companía de Agua de Santa Fe", the precursor to the Public Service Company, cut off residents' access to water from the Santa Fe River. The residents sent a petition to the Governor of the Territory of New Mexico, William T. Thornton, in which they explained that they had been deprived of the water to which they had a right and which was necessary to the success of their subsistence. The governor acted in their favor and water once again flowed in the Agua Fria acequias up until 1947 (Miller 1981:2-3).

Following the impoundment of the Santa Fe River, flows subsided in the 1920s and most acequias began to run dry. The natural springs at San Isidro Crossing started to dry up around 1934, at which time farmers became more dependent on irrigation with river water and a hand-dug well had to be used, replaced by a modern well in 1956 (Schieck 1979). A severe water shortage in 1946 forced Santa Fe to increase the size of its reservoirs east of town. The following year, Agua Fria acequias suffered a permanent loss of water and much of the area's lands fell out of cultivation (Gallegos 1976, Whitmore 1983).

3.4.3 History of 123 and 135 Grant Ave and the Santa Fe Presidio

This section is a general summary of the early plan and development of Santa Fe, the buildout of the Presidio and later Fort Marcy Military Reservation and, more specifically, historic use and development of the 123 Grant Ave. property. Detailed histories of the US Territorial Fort Marcy Military Reservation and its predecessor, the Spanish Colonial/Mexican Period Presidio, are provided by Purdy (1975a, 1975b, 1975c) and Snow (2011), and the reader is directed to these resources for more information.

The *Laws of the Indies* were codified by Spanish King Phillip II in 1573 to regulate the location, layout, design and use of colonial towns using Roman and Renaissance planning theory, augmented by the decades of experience Spain already had developing settlements in the new world (Rogers 2001, Wilson 1997). The *Laws* stipulated that town sites be established in elevated, healthful, defensible locations with arable land, fresh water, timber and a nearby native population; a grid of streets was required with a central plaza flanked by government buildings and a church (Wilson 1997). The central plaza was to be rectangular, at least one and a half times longer than it was wide, which was to accommodate festivals where horses were used (Rogers 2001). Four main roads were to extend from each side of the plaza, resulting in an orthogonal grid of streets that was useful in allocating land parcels, while symbolizing royal authority over the native populations and Spanish settlers alike (Rogers 2001).

Santa Fe was generally developed according to the *Laws of the Indies*, although it underwent modifications through time, lacked a widespread street grid (Wilson 1997) and has little supporting evidence confirming early development patterns (Snow 2011). For example, a *plaza de armas* was reported for Santa Fe before 1607 by Captain Juan Martinez de Montoya, suggesting that an early plaza with defensible theme had been established in the area (Snow 2011). By 1609, Pedro de Peralta was ordered to formalize Santa Fe as the new capital, where the Viceroy specified that a square be marked out "for the purpose of erecting Royal Buildings and other public buildings", while in 1629 a gunpowder tower was reported "in the shadow of

the convent and church", although the location of these developments have not been substantiated (Snow 2011).

Historical accounts bear that Santa Fe did not have had a formalized *presidio* prior to the Pueblo Revolt of 1680 (Snow 2011). However, the emergent capital appears to have been fortified by the barrier of buildings—as partial in quality as it might have been—that flanked the perimeter of the central plaza at the center of the orthogonal street grid that had developed in response to the *Laws of the Indies*. Wilson (1997) reports that during the Pueblo Revolt of 1680 Spanish colonists in the region "took refuge in the compound formed by the Palace of the Governors and other *casas reales*, before escaping south", supporting that the Santa Fe Plaza at the time was regarded as defensible among 17th century colonists of the northern Rio Grande. Immediately following the revolt, the settlement had been occupied and significantly modified by Puebloan groups, and by the time the Spanish returned in 1692, extensive tribal developments and alterations included tall building compounds, two plazas, kivas, towers and earthworks (Wilson 1997). Spanish authorities evaluated Santa Fe as indefensible after the Pueblo Revolt, when a proclamation by Governor Cuervo y Valdez ordered the villa be reconstructed around the plaza and its four streets (Snow 2011). The content of this ruling strongly supports that the Santa Fe Plaza and four associated orthogonal streets extending from it have maintained integrity of location since the founding of the capital as it was laid out per the *Laws of the Indies*. The location and orthogonal quality of the plaza and associated street grid, the existing location of the Palace of the Governors and contemporaneous Spanish Colonial development patterns influenced the later development of Santa Fe's *presidio*.

The term *presidio* as a Spanish fortified military outpost or garrison has beginnings in 16th Century Iberia, with roots extending back to Roman military *praesidium* (Williams 2004). These fortifications were important models for global Spanish colonial expansion, including to North America, where approximately 200 *presidios* were established as either "bodies of troops" or "garrisoned places" between 1550 and 1821, through 1848 (Williams 2004). The earliest of these were strategic efforts to expand beyond the Aztec sphere along transportation and communication corridors, to protect the northern New Spain frontier and to protect shipments of silver and bullion (Williams 2004). The design of early fortifications was not standardized, though ranged from small isolated *ayatalas*, or watchtowers, to large masonry *casa fuertes* that recalled Iberian castles (Williams 2004). Large *presidio* compounds known as *casa muros* each generally took the shape of an open rectangular plaza that was defined on the perimeter by contiguous buildings with open though protected galleries that allowed the passage of caravans, using locally available construction materials (Williams 2004). The swift expansion of 17th Century Spanish settlements in North America saw the increased role of individual *presidio* captains, a reduction in the overall number of fortifications and an expansion in the size and strength of each *presidio* stronghold, where increased security attracted additional settlers and a corresponding increase in military strength (Williams 2004).

The word *presidio* is most often used to describe the physical expression of a fortified compound. However, Snow (2011) notes that early use of the term in reference to Santa Fe appears to describe a place that has been equipped with troops, and not necessarily a physical structure. A *presidio* of fifty men was proposed for the villa in 1679, immediately before the Pueblo Revolt, though such a formal fortification was not evidently initiated in the capital until 1697, when a proclamation was issued by Governor Cuervo y Valdez to reconstruct Santa Fe around the plaza and its four streets (Snow 2011). The Santa Fe fortification was originally conceived as a *casa muro* (see above) with *torreones* (towers) and into the 18th century developed into a *presidio villa*, or open settlement by the mid-1700s (Williams 2004). This *presidio* expression was evidently represented by a band of troops that protected the Santa Fe Plaza as it was defined on its perimeter by a semi-contiguous ring of buildings, which included by that time the Palace of the Governors, other *casas reales* and government buildings, churches, dwellings, courtyards and walls.

The form of Spanish colonial buildings in Santa Fe drew from local Puebloan influences as well as Mediterranean precedents (Wilson 1997). The idealized form of these structures took the shape of a

courtyard house, or *placita*, which reflected the plan of the larger fortification organized around the plaza. Buildings were often constructed side-by-side without foundations using adobe bricks of standardized sizes, and grew in an accretional linear sequence of square, multi-purpose rooms, sometimes with larger *sala* (Wilson 1997). As wealth allowed for any rooms to be added, buildings would turn a corner along property lines, forming an L- or U-shape, and might eventually have been realized as a fully enclosed structure organized around a central courtyard (Wilson 1997). Buildings opened onto the courtyards while doors and any windows were minimized or eliminated along the outside of the structure as a means of protection (Bunting 1976). Each building roof was flat using un-milled *viga* beams, which also supported the *portals* that ringed the courtyards and plaza. Gaps between buildings and courtyard entries were enclosed by large, heavy double leaf *zaguan* doors.

Archaeological excavations of the Baca-Garvisu house reported by OAS (Lentz 2011) provide some concrete evidence for the character of Spanish colonial houses in the project vicinity. The house is shown on the 1766 Urrutia map as arranged around two courtyards, to the north of the project area. The excavations encountered the partial foundation of the house, 10 and 20 cm below an asphalt parking lot. The foundation was described as layer of unmodified river cobbles bonded with mud mortar, all set into a shallow trench. The feature was 0.50 to 0.60 m wide and 2 to 3 courses deep, with a total depth of 30 cm. The excavations also encountered Spanish colonial pits, smelter pits, a cistern, a trash pit, a sheet midden, plow furrows and a disarticulated foundation of quartzite, river cobbles and ground stone.

In the 1703 certification of former Governor Diego de Vargas's accomplishments, it was noted that at the time of transfer in 1697 from Diego de Vargas to Rodriguez Cubero as governor, Santa Fe was protected by the construction of a fortification as well as refurbished the *casas reales* and portions of the pueblo. Rodrigues Cubero subsequently constructed a new 2-story, 12 room *casas reales*, allowing the previous structure and pueblo to fall further into disrepair along with the fortifications. The continued disrepair of the fortification was noted in 1705 in a series of letters from Governor Cuervo y Valdez to the Viceroy where he noted that the soldiers were without arms or horses, were poorly clothed and fed, and the presidio buildings was no longer standing. In addition, it appears as though few, if any, troops resided at the presidio.

The location of the earlier *casas reales* and pueblo constructed and refurbished by de Vargas are not known, though Snow (2011) speculates that the pueblo and original *casas reales* were farther east of the present Palace of the Governors, and the present Palace of the Governors is the remnant of Rodrigues Cubero's later construction. It appears, however, that by 1736 the present location of the *presidio* is associated with the Palace of the Governors as discussion of the cost of restoring the *presidio* and fortifying the *plaza de armas*, which was attached to the Palace of the Governors, fell on Governor Cruzat y Gongora (1731-1736). However, the earliest map of the area, the 1766 Urrutia map, does not show the presence of a *presidio* in the project area (Figure 3-1), suggesting that the *plaza de armas* and *presidio* were not as developed, but instead referred to the development around the plaza. Note that the project area on the Urrutia map is shown as an agricultural field. Adjacent to the project area, the map depicts two courtyard buildings and a rectangular building, with L- and U- shaped buildings in the vicinity. The interspersed quality of building development as shown on the 1766 map beyond the plaza core reflects a move by settlers to build houses closer to their agricultural fields, which contrasted with the centralized development prescribed by the *Laws of the Indies* and local government (Wilson 1994). At the time, houses and fields extended three miles along the Santa Fe River Valley (Wilson 1997).

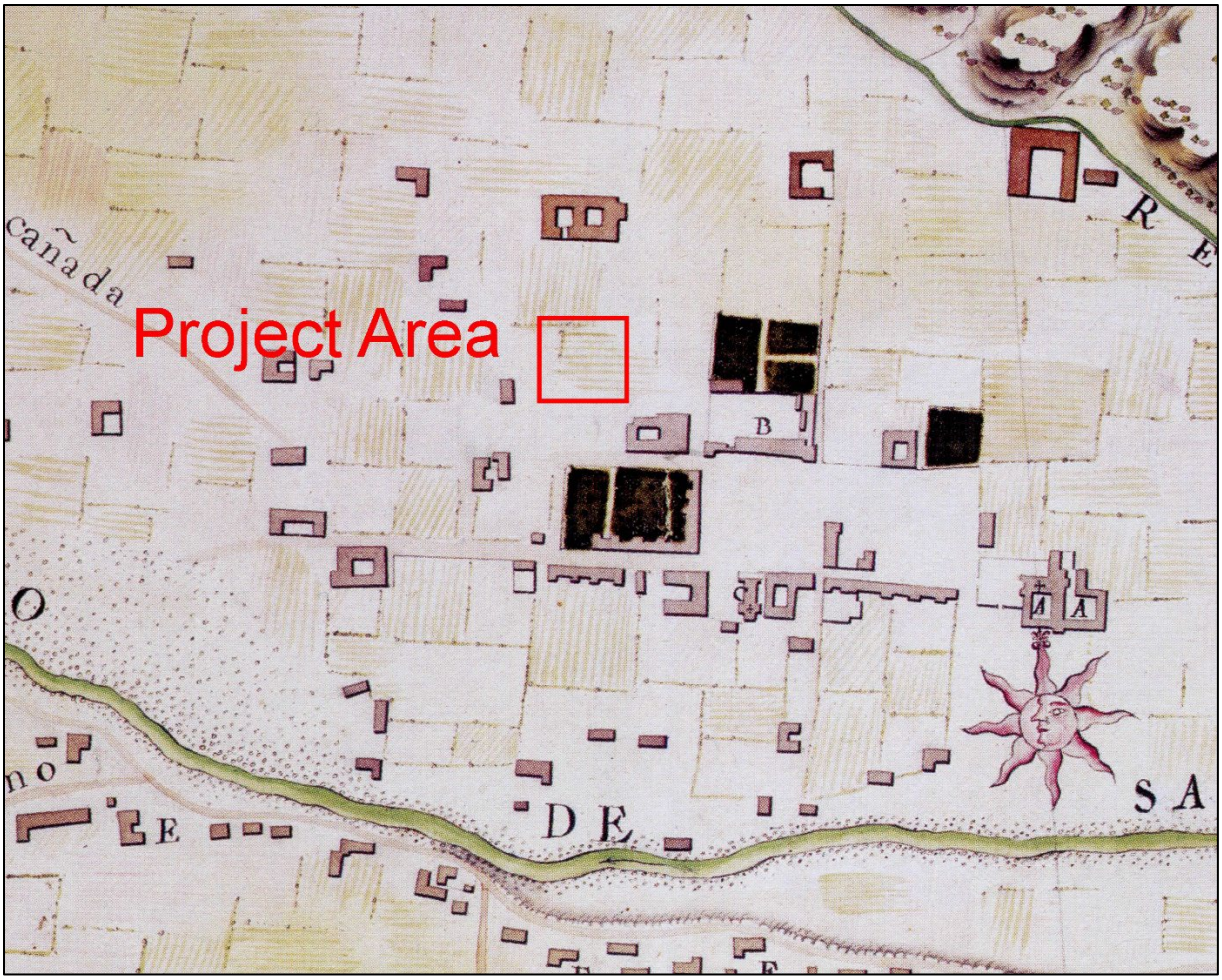

Figure 3-1. 1766 Urrutia map of Santa Fe with Project Area.

Los Reformas Borónicas or Bourbon Reforms were a succession of changes in political and economic policy under Spanish kings of the House of Bourbon during the 18th Century (Williams 2004). Locally, the goal of the reforms was to expand royal tax revenues by bolstering defenses, establishing social order, developing new settlements, centralizing government, and encouraging economic development and trade (Wilson 1994). Towards this goal, a military inspection of the northern frontier in the 1760s resulted in the modification and development of *presidios*, the drafting of the 1766 map of Santa Fe by Urrutia and the idealized *presidio* plan for the villa in 1791 (Figure 3-2). The land, which included three houses and planted lands, were purchased and construction began in the spring of 1789 (Snow 2011). Development of the *presidio* was carried out under Governor de la Concha and Lieutenant Manuel Delgado, who modified the idealized plan to incorporate the existing government buildings and limited resources available locally (Wilson 1994).

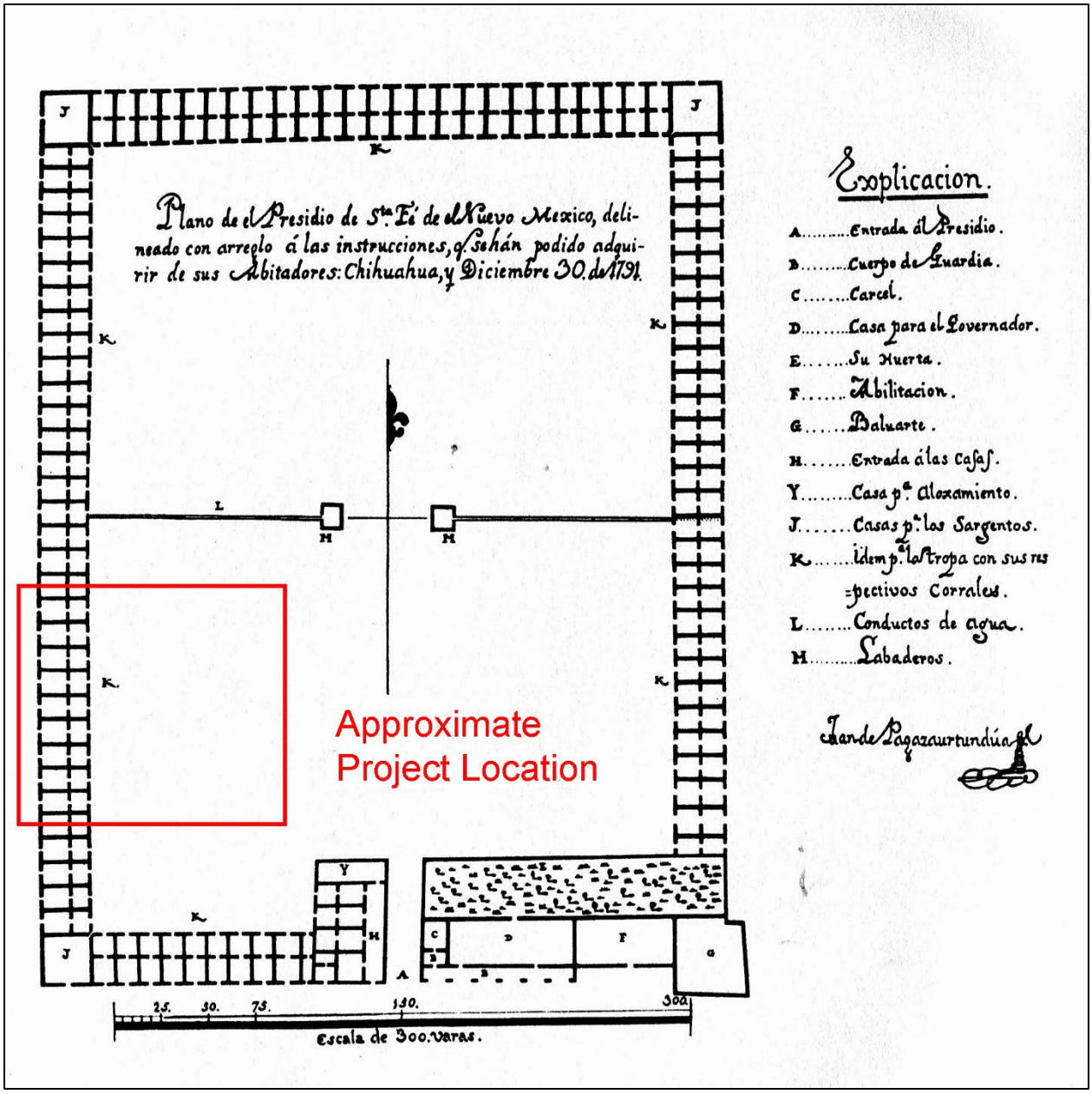

Figure 3-2. 1791 Plan of the Santa Fe Presidio.

The *presidio* as planned grew as an open rectangle, though was realized as larger than typical to harbor an unusually large number of soldiers (Wilson 1994). The fort grew along the north side of the plaza, with the Palace of the Governors and other existing buildings along the southeastern edge (Wilson 1994). Historical specifications included 3-ft-thick perimeter walls to accommodate possible later second stories, narrower interior walls, commander's houses, a *fuerte*, a hall, washrooms, a church, corrals, officer and troop allotments, and space for additional rooms for growing families (Snow 2011). By November of 1798, it was reported that 98 of 100 associated "casas" had been built (Snow 2011). The walls of the 1,400 by 1,050-ft structure were of adobe, apparently without foundations (Wilson 1997). However, the nearby Spanish Colonial Baca-Garviso House was documented with stone foundations during recent excavations (Lentz 2011), suggesting potential use of masonry footings for the *presidio*. The spatial limits of the *presidio* appear to have been dictated by the location of the plaza, existing buildings and the

existing grid of streets that was developed according to the *Laws of the Indies*. For example, today's Palace Avenue along the north side of the plaza formed the south side of the *presidio*, integrating the Palace of the Governors at the southeast corner, with today's Washington Avenue along the eastern margin. Maps dating to 1846 and 1847 (see Figure 3-3 and Figure 3-4) support that today's Grant Avenue formed the western edge of the *presidio*, as supported by the depiction of today's Griffin Street, which intersects Grant Avenue at a distinctive angle at the northwest corner of the project area. Here, discontiguous linear or rectangular buildings—possibly joined by walls—are shown on the maps forming the western perimeter of the *presidio* within the project area.

By 1810, it appears that the Palace of the Governors had again fallen into disrepair and, as postulated by Snow (2011:17), the presidial walls and structures also would have been in disrepair due to melting adobe from winter snow and monsoons and lack of maintenance, and the structures were likely not habitable. During the Mexican Period (1821 to 1846), the walls of said fort were noted to be about 8 feet tall with buildings along the inner square, and the entire *presidio* was in a state of general decay and disrepair with only a few soldiers stationed within (James 1984). To this end, during the 1846 map of Santa Fe made by US Army Lieutenants Emory and Gilmer (Figure 3-3) indicate that the interior of the *presidio* had converted to a corn field with a series of structures, presumably barracks, along the interior of the *presidio* walls. Note that Gilmer's subsequent 1847 map of the same area (Figure 3-4), the interior is now public grounds instead of corn fields, and within the project area at least one structure appears to be a longer structure, possibly reflecting two structures that have been joined. The following year, US Army occupation troops of the 2nd Missouri Volunteers likely occupied the derelict barracks of the old Spanish Presidio rather than using the newly minted Fort Marcy on top of the bluff just northeast of downtown.

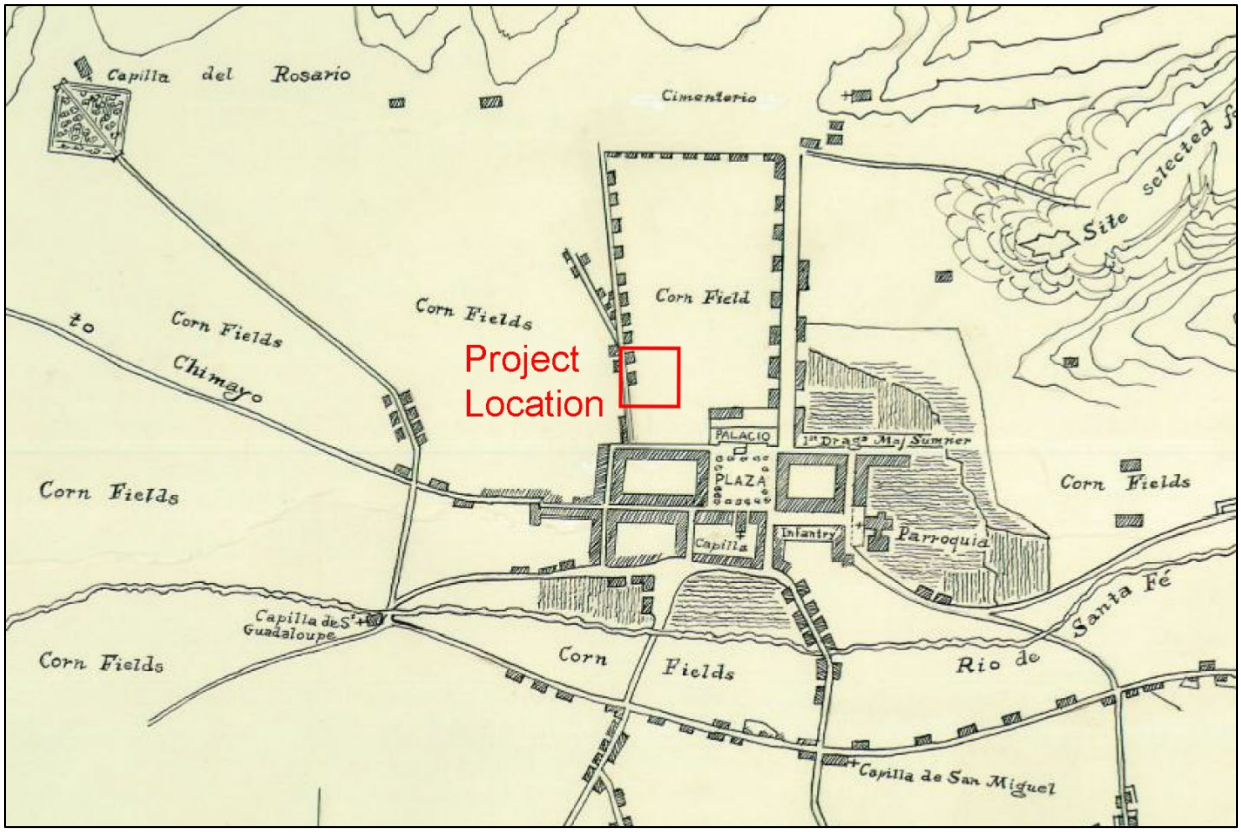

Figure 3-3. 1846 Emory and Gilmer Map of the Mexican Presidio and Santa Fe.

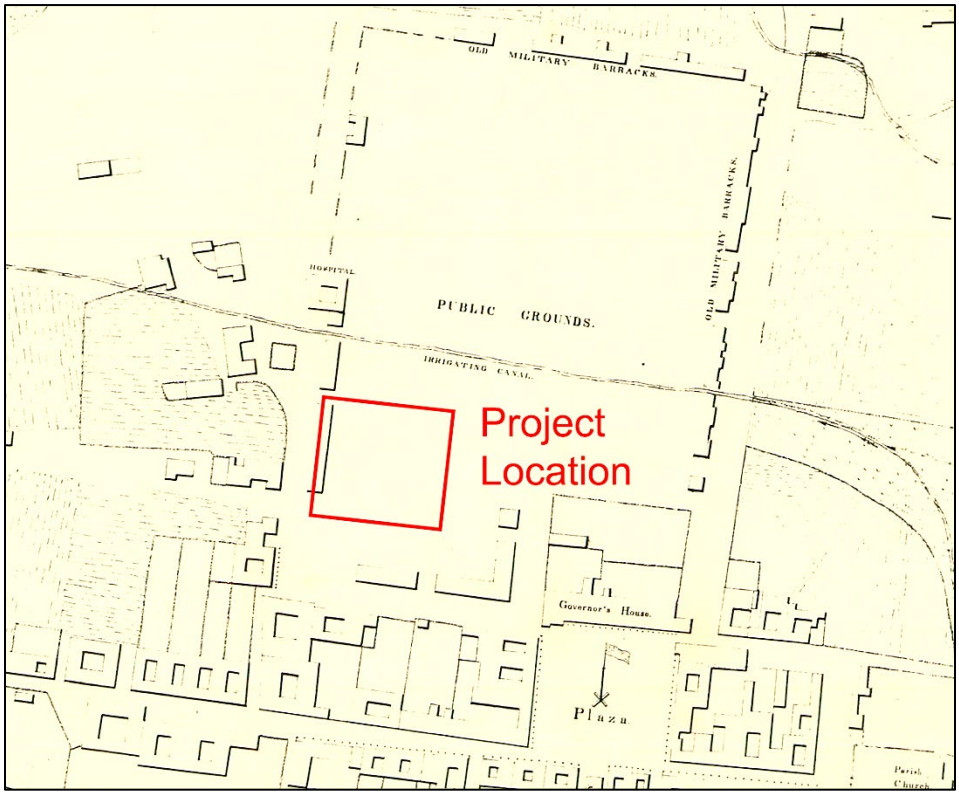

Figure 3-4. 1847 Gilmer Map of Santa Fe.

It was not until after the US Civil War that significant modifications to the Spanish *presidio*, since renamed Fort Marcy Military Reservation, were made. This included demolishing of many of the old military quarters and new buildings were constructed for the troops and officers in the early 1870s (Twitchell 1963). This included construction of six homes for the commissioned officers in the southwest area of the fort with three facing Lincoln Ave and three facing Grant Ave. It is worth noting that in Stoner's 1882 birds eye view of the city of Santa Fe (Figure 3-5), the 3-foot thick adobe wall that once encircled the presidio was entirely absent and was replaced by a fence. Of the six two-story officer's quarters that were constructed, only two buildings remain, the A.M. Bergere House (S.R. 355) on the north side of the project area and the Fort Marcy Officer's residence (S.R. 379) on Lincoln Ave. Additionally, the 1883 Zimmerman map of the Fort Marcy Military Reservation (Figure 3-6) shows a series of small buildings behind each of the officer's quarters, likely outhouses. These buildings do not appear on the Stoner 1882 map, and none of the ancillary buildings between the 6 officer's quarters on the Stoner 1882 map appear on the 1883 map.

The 1870s officers' houses including those at 123 Grant Avenue were built according to the Army's standardized "Plan C" type (Montoya 2023). These houses all used identical floorplans, materials and detailing, each with side-gabled roof, front dormer, pair of interior brick chimneys, quoins, full width front porch, back porch, white Territorial Style trim, symmetrical front façade, centered front door, sidelights, transom and pairs of 6/6 double hung windows with shutters. The floor plan of each house features a central hall that purposefully divided public and private spaces in the Anglo-American idealized tradition. Each was of adobe, likely on masonry foundation. Landscape features included yards enclosed by white picket fences, symmetrically planted trees over possible lawn, walkways, cesspits, gardens and outbuildings, which likely included stables and outhouses. The two "Plan C" houses within the project area were owned by J.A. Martinez and R.N. Miller in 1912.

On October 10, 1894, the Fort Marcy Military Reservation was abandoned and the fort was placed in the custody of the Interior Department for disposal under an executive order dated June 15, 1895. Until disposal was completed, the Governor of New Mexico administered the property as custodian, and the officers' quarters were used by various political leaders and prominent New Mexicans. In January 1904, the property was conveyed to the City of Santa Fe, and in the following month became the property of the Santa Fe Board of Education.

One additional building appears to have been constructed between 1882 and 1912 in the area of the officer's residences south of the A.M. Bergere house. This structure, identified as the Mrs. V. Roberts house on the 1912 King's map of the city (Figure 3-7), is located on a lot between the southern two officer's houses south of the A.M. Bergere house. The house had a shotgun type floor plan with partial-width front porch. This house also is noted on the 1913 Sanborn map of the city (Figure 3-8) where it notes the construction of the adjacent former officer's residences as being constructed of adobe, but the V. Roberts house is of unknown (presumably not adobe?) construction. A review of the 1910 Census records indicates this was likely the home of Virginia Roberts whose son, John W. Roberts, was appointed to the US Consulate in Chihuahua in 1912 (Roberts 1912). The two houses in the southern part of the project area were demolished by 1948, by which time two larger apparent commercial buildings and a house had been built within the area. The A.M. Bergere House at 135 Grant Avenue still stands today as a surviving example of a "Plan C" officer's house, though was altered in 1926 with a flat roof and other modifications to conform with the Spanish-Pueblo Revival Style (Montoya 2023, Wilson 1997).

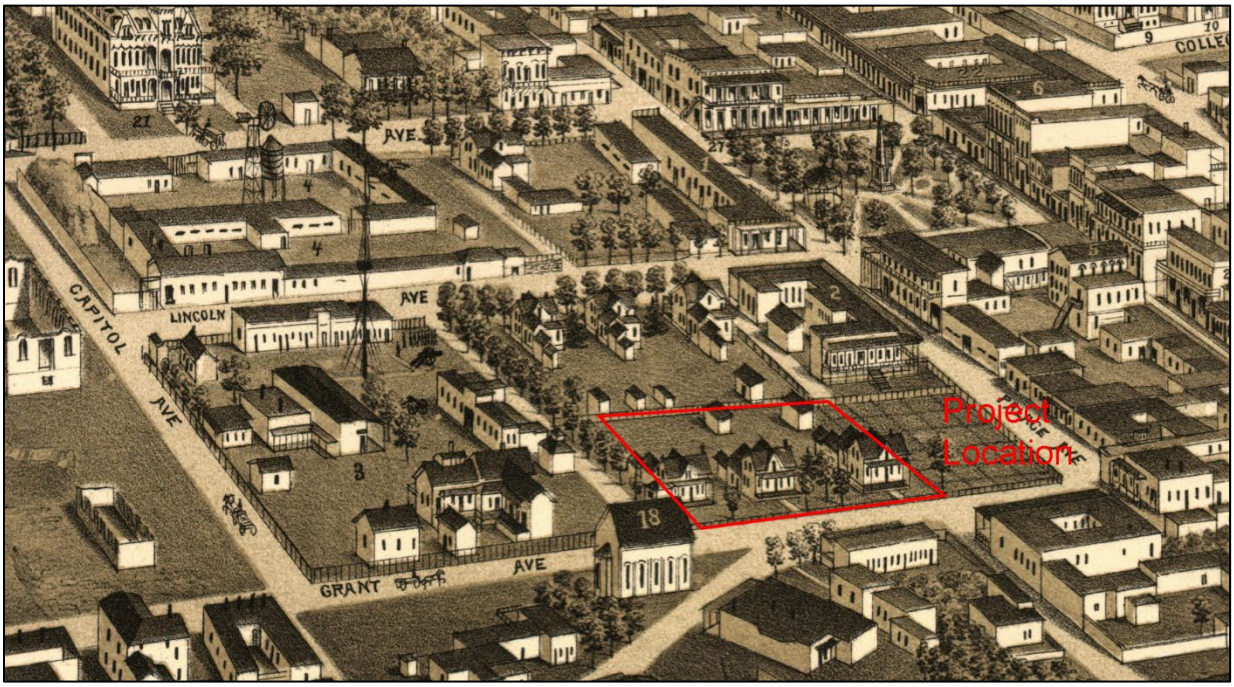

Figure 3-5. 1882 Stoner Bird's Eye View Map of the City of Santa Fe Showing the Fort Marcy Military Reservation.

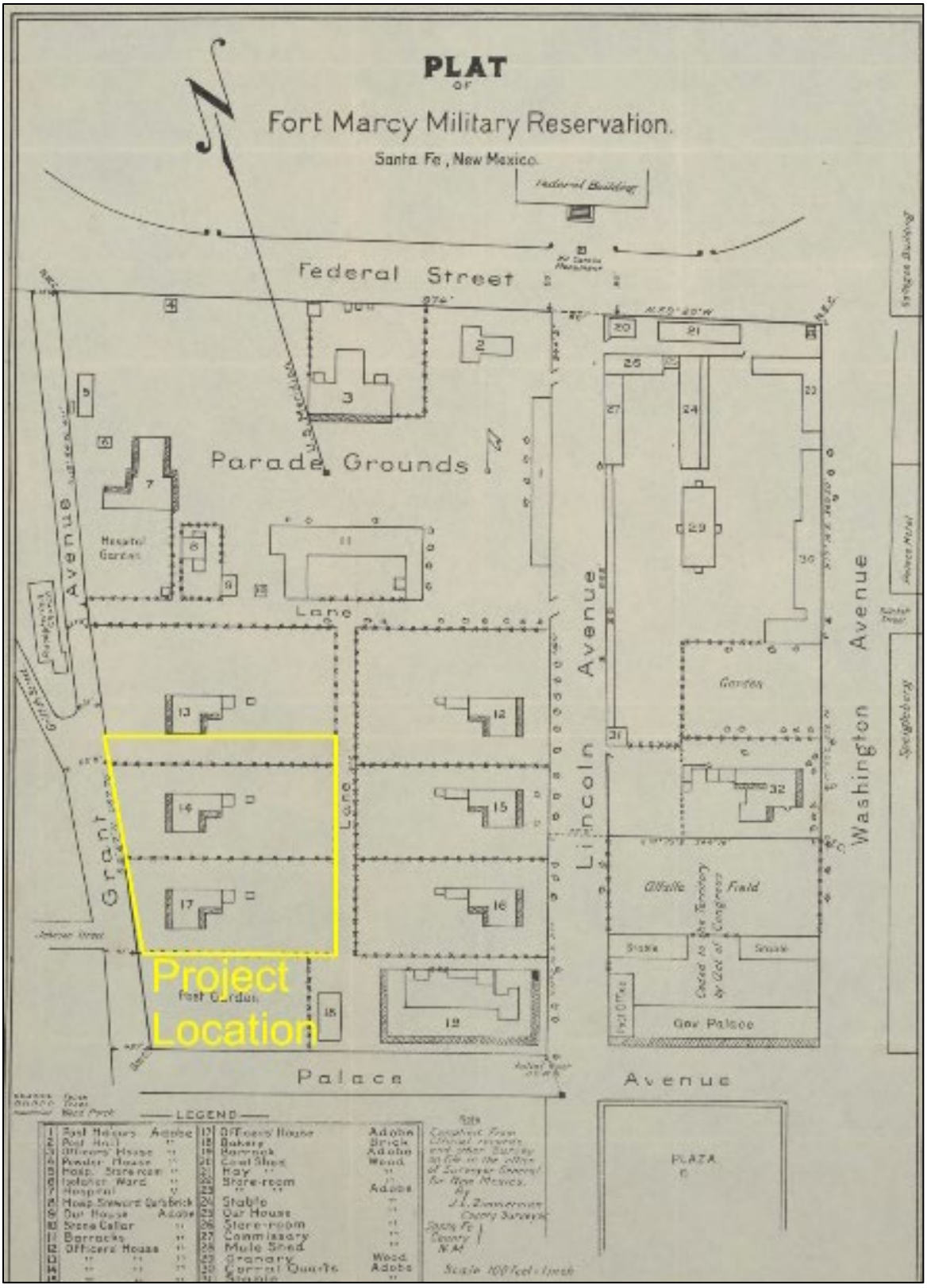

Figure 3-6. Zimmerman 1883 Plat of the Fort Marcy Military Reservation. Project area outlined in yellow.

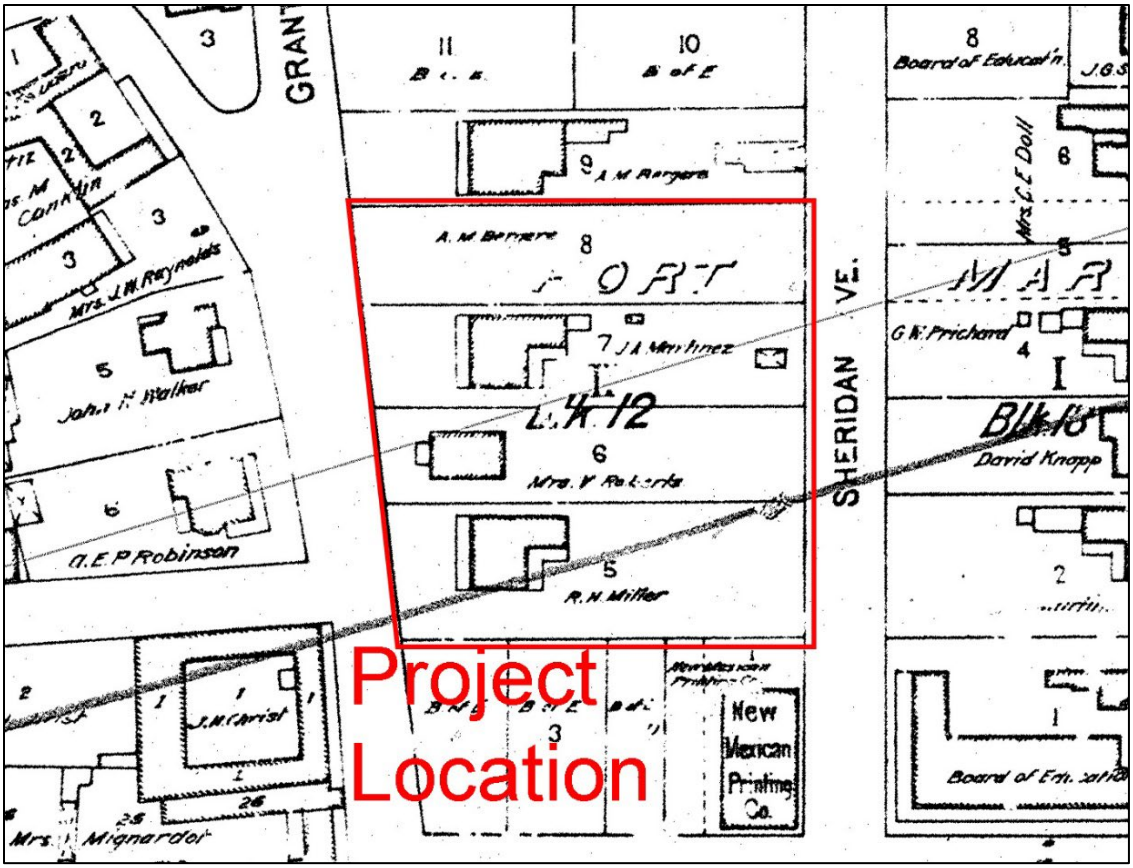

Figure 3-7. 1912 King's Map of Santa Fe with Mrs. V. Roberts House.

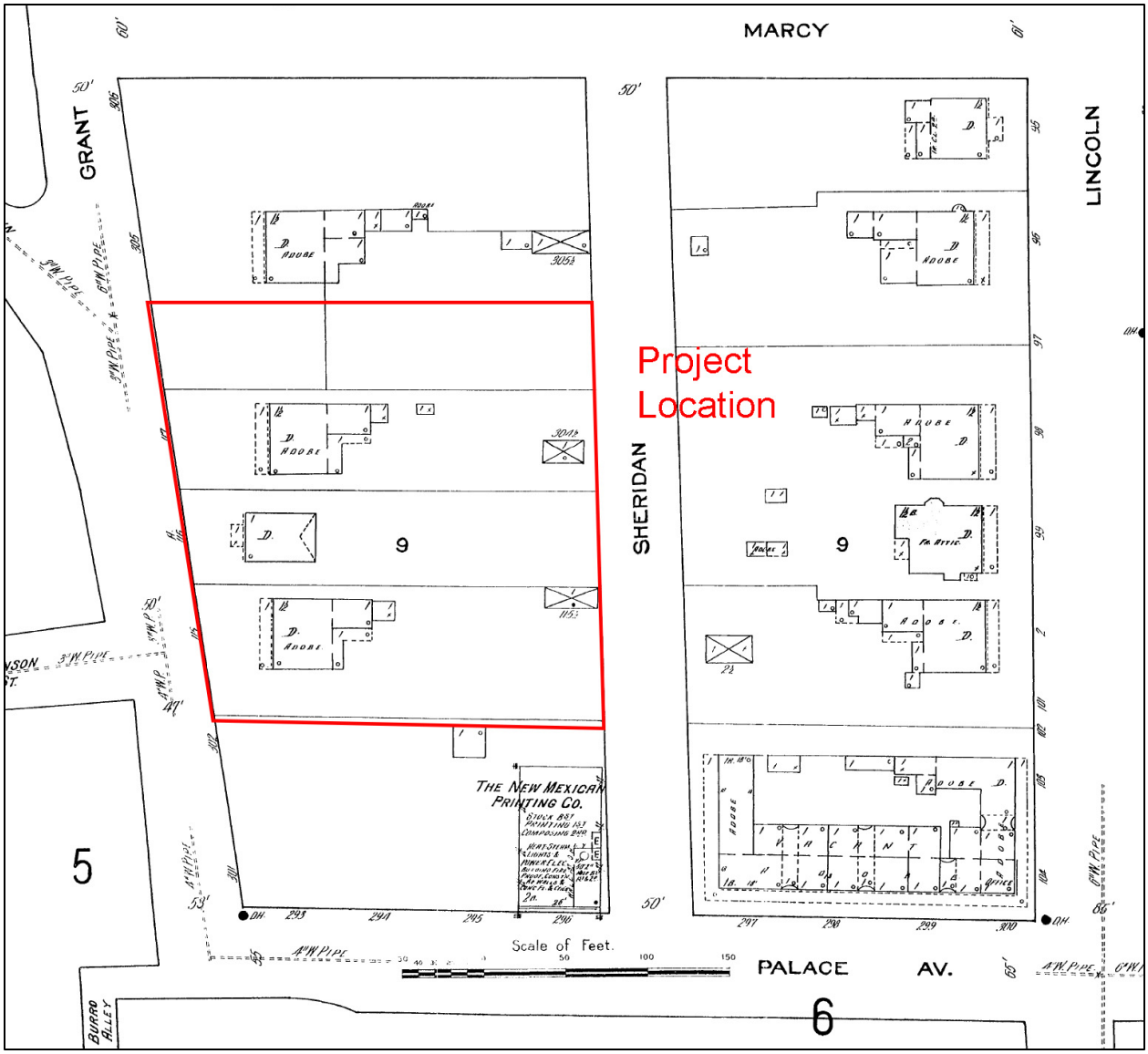

Figure 3-8. 1913 Sanborn Map of the Project Area.

3.5 PREVIOUSLY DOCUMENTED SITES AND NMCRIS ACTIVITIES IN THE PROJECT AREA & VICINITY

An online NMCRIS search for registered cultural resources investigations within 300 meters of the project area was conducted. Within 500 m of the project area there have been over 150 archaeological sites and 41 projects that have been registered with NMCRIS (see Appendix D). Many of these NMCRIS activities and sites represent small monitoring/testing projects in the downtown district where cultural materials have been identified. The majority of these site listings represent the general historic occupation of the downtown Santa Fe area and include primarily mixed and in-situ fill with occasional features. This section will summarize the more significant investigations in the downtown area.

3.5.1.1 NMCRIS 15400

The School of American Research (Whitmore 1979) conducted a survey of the of Arroyo Mascaras in 1979 for the USACE channelization of approximately 6,300 feet of the Arroyo Mascaras as part of a flood control project for the City of Santa Fe. The results of the survey relocated 10 historic properties; the Rosario Chapel, the original depot for the Santa Fe Branch of the Denver and Rio Grande railroad, the Bridge of the Hidalgos, the Hayt-Wientge house, the New Mexico State Penitentiary (currently the United States Post Office), the Federal Court House, the Cross of the Martyrs, the Scottish Rite Temple, the Dr. B. M. Thomas House, and the Roque Lobato House. Although none were observed during the survey, the report results mention previous recordings of Santa Fe Black-on White ceramics within the flood plain area of Arroyo Mascaras.

3.5.1.2 NMCRIS 24915 (LA 184324)

This project involved test trenching at 222 Old Santa Fe Trail for the construction of a new building (Gossett 1989). One test trench reached a length of 18 meters east to west by one meter deep, while the second trench (about 3 meters south of the longer trench) was only two meters in length and one meter deep. Four distinct cement foundation alignments (in the same location as those on the 1947 plat) were found in the northernmost trench along with a 4- to 10-centimeter-thick charcoal stained soil and two trash deposits. There was no evidence of the adobe house foundations from 1868.

3.5.1.3 NMCRIS 26801 (LA 72268)

Excavations involved the identification and recovery of two partial skeletons from a prepared pit in at 427 West San Francisco St. (Snow 1989c). The ancestral remains were encountered during surface disturbance of the lot in preparation for a building being erected at this location, which is also known as the Baca-Larranaga site. The author noted that 19th century artifacts were present in the upper fill of the pit, likely due to disturbances from the past and present. Additionally, the ancestral remains were not removed from the pit, but were gathered together and re-buried at a deeper depth in the same pit.

3.5.1.4 NMCRIS 32117/53876/64201 (LA 4451/111322)

Siefert et al. (1979) was one of the earliest substantial excavations conducted in downtown Santa Fe. These excavations in 1974 and 1975 at the Palace of the Governors revealed multiple occupations dating from 1650 to 1725 that included a pre-Pueblo Revolt and Reconquest-Middle Spanish Colonial occupation. This site also contained one of the few examples of a Pueblo Revolt Occupation (1680 to 1693). Features included pre-Revolt wall foundations and two adobe brick-floored rooms; Pueblo Revolt period hearths, storage pits, room block, and burials; and a post-Revolt occupation superimposed upon the Pueblo Revolt structures. Luxury goods at the site indicate that while the territory was impoverished, the palace occupants had access to higher end goods. However, much of the resources, such as culinary wares, were locally produced by native groups.

Additional small- and large-scale excavations were conducted at the Palace prior to 1974, beginning as early as 1884. However, these excavations exist primarily as notes or personal communications that were summarized by Snow (1996). These include A. R. Green's exhumation of burials in 1884 that have unfortunately since been lost, Jesse Nusbaum's restoration of the Palace between 1909 and 1911, and excavations of a well by Marjorie Lambert.

Although no NMCRIS has been assigned to this unpublished work, OAS conducted three phases of excavations between 2002 and 2004 at this site and LA 111322 behind the Palace of the Governors in the footprint of the New Mexico History Museum. Although the results are unpublished (Post, *in progress*),

the unfinished manuscript was provided by OAS for review. These excavations yielded no contexts that were solely attributable to the pre-Hispanic occupation, and pre-Hispanic artifacts were likely imported and redeposited, possibly incorporated into adobe bricks. Excavations also revealed that the area behind the Palace served as a plowed agricultural field that shifted through the 17th Century to include a range of supporting activities like lead working. Household/kitchen dumping was common in the area behind the palace as evidenced by the numerous pits full of ceramics, faunal bone, and smaller hardware items. Additional features were noted as constructed during the post-reconquest period to include a series of linear roomblock structures associated with refuse pits, a possible butcher, water diversion ditches, and human burials. US Territorial phase improvements that were documented by the OAS excavations included cobble foundations consistent with the locations of the "Guard Houses" noted on historic maps, construction of hornos, and remodeling of existing structures. Multiple large refuse pits also are noted.

3.5.1.5 NMCRIS 39731/41569 (LA 114261)

Wozniak (1992a, b) conducted the survey and test trenching for the Grant Park development and construction project, Phases 1 (NMCRIS 39731) and 2 (NMCRIS 41569). The archaeological investigations for Phase 1 included background research, survey of the Phase 1 project area, and test excavations of two 1m x 1m test units and monitoring the excavation of four test trenches. The Phase 1 pedestrian survey found only the remnants of recent activities related to the vacant land that constitutes the Phase 1 project area. Historic cultural material was found in the top 10 cm of Test Unit 1, and Test Unit 2 contained historic and prehistoric cultural material in the top 40cm in the context of redeposited materials. The results of the Phase 2 survey were negative, but three cultural trash deposits were uncovered in Trench #3 of 5, and one deposit was identified in Trench #4. The cultural material within the deposits was associated with the 1930's.

3.5.1.6 NMCRIS 42898 (LA 101300)

Rio Abajo Archaeological Services conducted archaeological monitoring of trenches for the construction of a foundation for the Allan Houser Art Park located directly west of the Museum and offices of the Institute of American Indian Arts (Gossett 1993b). Gossett reported that the entire area had been previously disturbed to the depth of the trenches, and the few modern items and historic artifacts recovered were mixed together in the context of redeposited materials. No stratigraphy was clearly defined due to the level of disturbance.

3.5.1.7 NMCRIS 48952 (LA 109088)

This project involved the monitoring of a telephone and electrical power trench by SWCA at the intersection of Palace and Grant Avenues and extended down Sandoval St. (Phillips 1995). Trench monitoring revealed the presence of a cobble foundation with soft cement mortar and three courses of adobe bricks on the north side of Sandoval St.in the central area of Trench 3, and a separate cobble foundation in Trench 4 just northwest of the intersection of Burro Alley and Sandoval St. Additionally, stratified cultural deposits containing historic artifacts and faunal remains were identified in the lower 50 cm of fill in Trenches 1 and 2, though the artifact counts decreased considerably to the west. The cultural remains identified during this project were recorded as LA 109088 and were dated to between the mid-1800s to early 1900s.

3.5.1.8 NMCRIS 57909/91060/112300 (LA930)

OAS performed archaeological monitoring during the digging of a trench adjacent to the northeast corner of the Fine Arts Building in Santa Fe, New Mexico, for the purpose of exposing the basement wall in a problem area of water penetration (Hannaford 1997). The dark humus soil contained a moderate quantity of butchered animal bone and pottery fragments. Pottery types included a minority of Santa Fe Black-on-

white sherds from a prehistoric component, but mainly Historic period types representative of the Spanish Colonial and Fort Marcy periods. The deposits were thoroughly mixed with modern glass and plastic throughout the deposit. The fill was characterized as domestic refuse, with construction refuse limited to the probable Fort Marcy Military Reservation concrete fragments deposited in the foundation trench of the Fine Arts Building. The small segments of undisturbed fill in the northeast and southeast corners of the excavation revealed the presence of domestic refuse at least 1.15 m in depth.

OAS conducted additional archaeological investigations at LA 930 under NMCRIS 91060 in advance of the replacement of runoff drainage lines for the Museum of Fine Arts along Palace and Lincoln Avenues (Hannaford 2005). The hand excavation of four test units and the monitoring of 23 m of hand-dug drainage trenches on the east and south sides of the Museum of Fine Arts Excavation revealed evidence of intact cultural deposits dating to the Spanish Colonial era and the Fort Marcy Military Reservation occupation of the locale. Artifact assemblages included chipped stone material, prehistoric and historic period ceramics, fauna! remains, and Euroamerican ceramics. Most of the artifacts were from disturbed contexts. All of the intact cultural resources were preserved in place, and proposed drainage ditches were rerouted along the disturbed foundations of the MFA building to the road by way of previously dug utility trenches.

NMCRIS 112300 (Martinez 2008) involved monitoring the renovations to the East and West Sculpture Galleries at the New Mexico Museum of Art. The archaeologist monitored the hand excavation of the various foundations, pipe and utility trenches, window well improvements, and tree removal. Fill from the excavations was visually examined for temporally and functionally diagnostic artifacts from discrete time periods that might be indicative of undisturbed cultural deposits. No artifacts were collected from mixed or disturbed contexts. However, three features were identified: remnants of the footings of the Fort Marcy Military Reservation post quartermaster building documented by 1979-1980 excavations. The footings consisted of unshaped limestone blocks held together with mortar. Feature 1 consisted of a limestone foundation with lime and sand mortar, a minimal portion of a plastered wall, and the remnants of a joist of milled wood. Feature 2 was a small (15 by 15 cm) cobble of limestone just below (less than 20 cm) the gallery grade surface. Feature 3 was a limestone foundation remnant with lime and sand mortar. Soil strata was not described in the report.

3.5.1.9 NMCRIS 61514 (LA 122584)

Located at the corner of West San Francisco St. and Galisteo St., this OAS investigation involved data recovery of a 3.4 m deep well in the basement of the Original Trading Post building (Williamson 1998). Fill within the well dates to as early as 1875, though the author suggests the well was likely cleaned out prior to being used for trash fill.

3.5.1.10 NMCRIS 65009 (LA 127276)

Southwest Archaeological Consultants, Inc. (SAC) conducted a cultural resources reconnaissance study of the parking lot associated with the building (formerly Woolworth's) at 60 East San Francisco Street, in preparation for building expansion (Deyloff and Snow 1999). SAC excavated a total of 25.9 square meters (m^2) in the parking lot (16 m^2 by hand and 9.9 m^2 with the backhoe for a 7 percent test of the project property, with an additional 6 m^2 in the existing building's basement. Excavations in the Water Street parking lot yielded thousands of artifacts and 5 features older than 75 years, resulting in the registering of site LA 127276 with NMCRIS. Features 1 and 6 are likely the remains of Manuela Baca's yard wall shown in an 1856 document. Features 3 and 4 are posts from either a building shown on maps between 1883 and 1913 or a later building constructed between 1921 and 1930. Feature 7 is a cobble foundation wall from a small one-story building that occupied the southeast corner of the lot from at least 1883. Intact trash deposits occurred along the east and west edges of the property, and both areas yielded artifacts dating from the

middle nineteenth century (possibly earlier) to the twentieth century. The parking lot center is disturbed, although intact deposits occurred below the disturbance in some areas as did at least one intact feature (Feature 1). No significant cultural remains were observed under the old Woolworth Building ' s basement nor behind the east interior support wall.

3.5.1.11 NMCRIS 65857 (LA 126709)

This project was an excavation and backhoe trenching project by SAC for the extension of the Lensic Theater and improvements to the rear parking lot (Viklund 1999). These excavations revealed the presence of a cobble building foundation at the east end of the parking lot and a midden that extended along the north side of the parking lot along Sandoval Ave. From the test pits and backhoe trenching conducted in the east end of the parking lot, SWAC noted the presence cobble wall alignments, a possible floor of fallen wall segment and an asphalt dump. The backhoe trench through the north side of the parking lot also exposed a dense but mixed midden that included car parts, a safe, and large amounts of tar paper and charcoal in the central area. The western third of the parking lot appeared to be less disturbed with the midden extending to a depth of 1.3 m. However, between the central and west sections of the backhoe trench, Viklund noted the presence of a concrete slab covering a layer of tar paper or linoleum that may represent a collapsed wall or floor.

3.5.1.12 NMCRIS 75002/83525 (LA 132712)

SAC conducted hand excavation and backhoe trenching at LA 132712 on Guadalupe St. and Johnson St. in 2001 followed by backhoe trench monitoring in 2002 (Deyloff et al. 2001, 2003). These activities resulted in the excavation of four Late Coalition period burials and identification of intact Coalition period deposits in isolated areas, including a 30 cm thick midden that, based on previous work in the area, extends for 100 m east-to-west.

3.5.1.13 NMCRIS 78881

This project involved archeological and historical investigations prior to constructing a Los Alamos National Bank on a 0.9-acre (39204 square feet) lot located at the northeast corner of Catron and Griffin Streets (Snow 2002). Surface reconnaissance and subsurface testing on the lot disclosed no significant archeological or other cultural remains. Historical research revealed that the property was once owned by Judge Kirby Benedict and Thomas B. Catron, but remained unimproved until the mid-1950s. No significant archeological remains were observed.

3.5.1.14 NMCRIS 84554

Archaeological and historical investigations were conducted by Cross-Cultural Research Systems at 103 Catron in Santa Fe's Downtown Historic District for the construction of new condominiums in the place of the El Seville Apartments (Snow 2003). Archaeological testing across the 2.5-acre property disclosed scarce artifacts, limited to the period of occupancy by Thomas B. Catron and his family. A portion of a cement basement wall of a secondary structure on the site was encountered in one of the backhoe trenches. No significant cultural features or materials were observed below the asphalted portions of the apartment complex. Two test pits and six test trenches revealed a sparse number of artifacts, which dated to the mid-to-late nineteenth century, except for a single sherd of Santa Fe Black on White. Soils across the lot are predominately of loose to compacted sand with a third overlay of sandy humus stemming from use after about 1874.

3.5.1.15 NMCRIS 87471 (LA 143543)

This project was initiated when bone, ceramics, and ash were discovered during routine landscaping activities in San Francisco Plaza (Mcintosh 2004). Landscaping personnel had excavated approximately 10% of the site, with 30-50 cm deep trenches reaching all areas of the plaza. Between 20 and 25 artifacts had been recovered by the landscapers from one trench in the north portion of the plaza. An ash lens had been observed in another trench in the north portion of the plaza. Artifacts consisted primarily of saw-cut animal bone, metal building debris, and late 19th and 20th Century Tewa, Mexican, and domestic ceramics. Artifacts were not observed in the south portion of the plaza. All trenches were inspected by the archaeologist to determine stratigraphic integrity. Over 80 percent of the site was observed to contain disturbed deposits. Intact deposits and late 19th and early 20th Century artifacts associated with an ash lens (Feature 1) were observed in the north portion of the site. Subsequent archaeological investigations determined that the artifacts and Feature 1 are consistent with a small trash discard burn area associated with a late 19th or early 20th Century residence. Archival research indicates the presence of a structure at the site boundary by the middle 1800s. At least two 18th Century structures stood within 40 meters of the site by the middle 1700s.

3.5.1.16 NMCRIS 87632/104466/106775 (LA 143460)

SAC conducted testing and data recovery project at the US Federal Courthouse west alcove that resulted in the excavation of a late Developmental to Coalition period pit structure and discovery of human burials that were left in-situ (Scheick 2005, Huntley and Cordero 2007, Deyloff and Scheick 2007). The Developmental-Coalition period strata were capped by a partially mixed mid-to-late 1800s trash deposit that included portions of a latrine and two pits.

3.5.1.17 NMCRIS 90008 (LA 80000)

The Office of Archaeological Studies investigated the Santa Fe Plaza area prior to the construction of a stage (Lentz 2004). These excavations revealed intact stratified deposits extending back to the late seventeenth century (including Pueblo Revolt) with additional strata from the nineteenth century and modern day. Crews also noted the presence of an alluvial channel crossing through the plaza.

3.5.1.18 NMCRIS 90579/126599 (LA 1051)

These excavations are the most substantial excavation project conducted in the downtown Santa Fe area (Lentz 2011; Lentz and Barbour 2011). This data recover was conducted in advance of the construction of the Santa Fe Community Convention Center, and resulted in the excavation of the site of a portion of the ancestral Tewa village site/Spanish Presidio (El Pueblo de Santa Fe, LA 1051), a Coalition through Classic period village underlying Spanish Colonial, Territorial, and modern-era features. Under agreement between the City of Santa Fe and Tesuque Pueblo, the report on the ancestral Puebloan component at LA 1051 is sequestered and not available for public dissemination. The remains associated with this earlier component represent a substantial occupation consistent with a hamlet or small village, as noted in the Pueblo of Tesuque oral tradition. The property did not yield Spanish Colonial components that predated the Pueblo Revolt, consistent with the interpretation that this area was likely used for agriculture. Post-revolt deposits were associated with the Baca-Garvisu family and included foundation walls, adobe pits, and a midden, and later Territorial Period remains associated with the Fort Marcy Military Reservation included the Enlisted Men's Quarters.

3.5.1.19 NMCRIS 92572

This project involved testing and construction monitoring of the First Presbyterian Church Property (Viklund and Huntley 2005). Hand excavation units placed along the east side of the church adjacent to Grant Ave. contained two intact strata, a lower stratum consisting of a trash midden attributable to the Spanish Colonial and Mexican Period (mid-1700s) with abundant sheep/goat remains, pre-Columbian sherds, chipped stone, and ground stone. An upper stratum associated with the US Territorial period (mid-1800s) was observed in two excavation units but appears to have been mixed with modern fill.

3.5.1.20 NMCRIS 102829 (LA 155456)

Abboteck conducted the testing of 2% of the First National Bank of Santa Fe parking lot at 114 West Palace Ave., and 113 West San Francisco (Abbott et al. 2007). The proposed development is for the construction of two buildings and underground parking covering the entire parcel down to as much as 26 feet below grade. Mechanical excavation of seven trenches and hand testing exposed an approximately 1,500 square meter area of stratified cultural deposits ranging from pre-Revolt Spanish Colonial period domestic trash dump deposits to post-revolt Spanish Colonial domestic dump deposits and Territorial period domestic/ commercial dump deposits. These deposits in some cases are cross-cut by the nineteenth-century building foundations and multiple nineteenth- and twentieth-century utility trenches. All deposits and building foundations were recorded together under LA 155456. Soil stratigraphy across the site was fairly consistent. Below the asphalt cap (Stratum I, which varies between 10 and 15 cm thick), was a deposit of extremely hard-packed, sterile, sandy clay (Stratum II, varying between 15 and 20 cm thick). Beneath this layer was a mixed deposit (Stratum III, approximately 10 to 15 cm thick) of building debris, including brick fragments, sandstone, concrete fragments and tile in a matrix of burned soil. The bottom deposit (Stratum IV, beginning on average 50 cm below the asphalt and extending down to 1.8 m) is a mixed deposit of what appears to be building debris as well, with rocks, and some brick in a matrix of darker, more ashy soil than encountered in Stratum III. No features were described in the report, and the time periods assigned to the artifact assemblage consists of pre-Revolt and post- Revolt deposits, and post-Colonial deposits.

3.5.1.21 NMCRIS 112279 (LA 161535)

OAS performed archaeological testing at the La Villa Rivera Building/Marian Hall complex at the corner of East Palace Avenue and Paseo de Peralta for planned construction that included an interior remodeling of LVR and Marian Hall, expansion of LVR to the south, removal of the garages, and construction of an underground parking facility that encompassed the east parking lot and much of the west parking lot (Moore et al. 2009). Twenty-nine test units, consisting of 12 hand-excavated test pits and 17 mechanically excavated trenches, were used to assess the property for archaeological remains. Testing revealed the presence of historic archaeological remains dating to the seventeenth and late nineteenth to early twentieth centuries, which were designated as LA 161535 with NMCRIS. Seven features were identified during testing; this total did not include the structural foundations of four buildings that were defined during this phase. A trash pit (Feature 1), a kitchen midden (Feature 2), a possible statue base (Feature 3), and a cobble pavement (Feature 7) associated with a possible stable area were dated to the Late nineteenth- to early twentieth-century. Seventeenth century remains included a mostly intact trash midden (Feature 5) overlying a cobble pavement (Feature 6) thought to represent a stable yard or paddock floor, and a spatially discrete but possibly related stratum containing seventeenth century artifacts. An earthen vault or pit with unfinished but whitewashed walls (Feature 4) may also date to this period. A total of 7,479 artifacts were recovered during testing. In addition to the archaeological testing, a geophysical survey was also conducted on the site, and several different anomalies with both modem and historic archaeological significance in the La Villa Rivera/Marian Hall Complex project areas.

3.5.1.22 NMCRIS 141655 (LA 194574)

Winters (2019) performed an archaeological reconnaissance and testing of the property at 401 Old Taos Highway for the construction of a new building. The archaeological study consisted of a pedestrian survey covering 100 percent of the property. The testing phase involved the excavation of two 20-meter trenches, one 17.5-meter trench and two 1.83 meter by 20-meter scrapes, in the unexcavated portions of the project property. The archaeological survey of the project parcel recorded 217 artifacts that were identified as an historic trash scatter that dates between 1880 AD and 1945 AD. During the course of the trench excavations, a stratum bearing historic trash containing 118 artifacts was documented within three trenches. Because of the number and age of the cultural resources recovered the entire project parcel was given a site designation of LA 194574. The historic artifacts recorded during the survey and testing of the project area have an age range from 1880 AD to 1945 AD. No intact cultural deposits or features were identified. A bone fragment was identified as human and was recovered from the back-dirt from Trench 1.

3.5.1.23 NMCRIS 126086/147325/147617 (LA 175277)

Winters (2013) conducted testing and monitoring in the 206 McKenzie Street parking lot where he identified early Statehood period house foundations and mixed refuse from both historic and Coalition contexts.

OAS conducted monitoring of a 51 m long, 67 cm wide trench for a PNM conduit on McKenzie Street west of Griffin Street (NMCRIS 147325, Wening 2022). Results of monitoring included the identification of four features: two foundation segments dating to the late nineteenth century, an early Statehood water meter box, and a possible midden area that may be associated with the two foundation segments.

Under NMCRIS 147617, OAS excavated the remains of four individuals that were discovered during the remodeling construction in the interior courtyard at 206 McKenzie Street (Stodder et al. 2021). The property is within previously recorded site LA 175277. Burial 1 was the secondary deposit of an adult female. A young woman and preterm infant (Burials 2 and 3) were buried together in a partially intact pit. The incomplete postcranial remains of an older juvenile (Burial 4) were collected by workmen without documentation. All individuals are believed to date from the Coalition period component of LA 175277 (Blinman et al. 2020). Following agreement between the Historic Preservation Division, the Pueblo of Tesuque, and the property owners, the remains and associated funerary artifacts were reburied in June 2021, in a secure location on the property. The excavation of a 3 by 3 by 5-foot-deep unit for the reburial yielded artifacts from two distinct cultural layers. Only minor evidence of historic period disturbance was detected below about 30.0 cm depth, and the excavation was terminated before encountering culturally sterile Santa Fe River alluvial deposits. The fill of the excavation was not systematically screened, but samples from two distinct cultural strata were screened to recover pottery for dating interpretations. The lower cultural materials, from 135.0–153.0 cm (5.0 ft) bmgs, yielded 26 sherds that included both smeared indented and indented corrugated utility wares. A larger and more diverse assemblage of artifacts was recovered from the upper deposit (55.0–110.0 cm [3.5 ft] bmgs), including a small number of historic artifacts and a larger amount of pre-European artifacts. The ceramic assemblage suggests a post-1620 component as well as the dominant Coalition period component at this site, but small numbers of Classic period pottery also suggest a later Classic period residential component outside but in the vicinity of the current boundary of LA 175277.

3.5.1.24 NMCRIS 152433/152434 (LA 200086)

Testing of the parking lot and grass area at 123 and 135 Grant Ave. was conducted by OAS in anticipation of construction of a new facility for the Georgia O'Keeffe Museum (Montoya 2023). Testing included excavation of six test units excavated to 4 feet in depth in the grass area south of the Bergere House, and

five backhoe trenches excavated to a maximum of 8 ft below surface. The test units included an acequia and adobe-lined pit, while the backhoe trenches resulted in the identification of 17 features (note several of these are likely aspects of the same building, i.e. foundation walls, floors, posts) associated with the U.S. Territorial the Fort Marcy Military Reservation Officer's Quarters as well as features of unknown historical association. Aside from isolated sherds, none of the trenches encountered prehistoric strata, and none of the test units were deep enough to encounter the prehistoric strata.

3.6 RESULTS OF OAS TESTING AT LA 200086

In 2021 and 2022, the Office of Archaeological Studies conducted archaeological testing at the site including mechanical trenching through the parking lot at 123 Grant Ave and hand excavations of 2 by 2 m and 1 by 2 m units at 135 Grant Ave. (Figure 3-9). The hand excavation units extended to a maximum depth of 1.6 m while mechanical trenches were excavated to a maximum depth of 1.50 m with hand augering in the base of Trenches 4 and 5 an additional 0.5 to 0.8 m depth for a total maximum testing depth of 2.3 m below modern ground surface. Hand augering also occurred in the hand excavation units, reaching a maximum depth of 1.6 m below the terminal level in the unit for a total depth of approximately 3.5 m below ground surface. A total of 17 features were defined by OAS as a result of these excavations (Table 3-1). Due to OSHA safety regulations, none of the excavations or mechanical trenches extended deep enough to expose the pre-Hispanic cultural strata, if present.

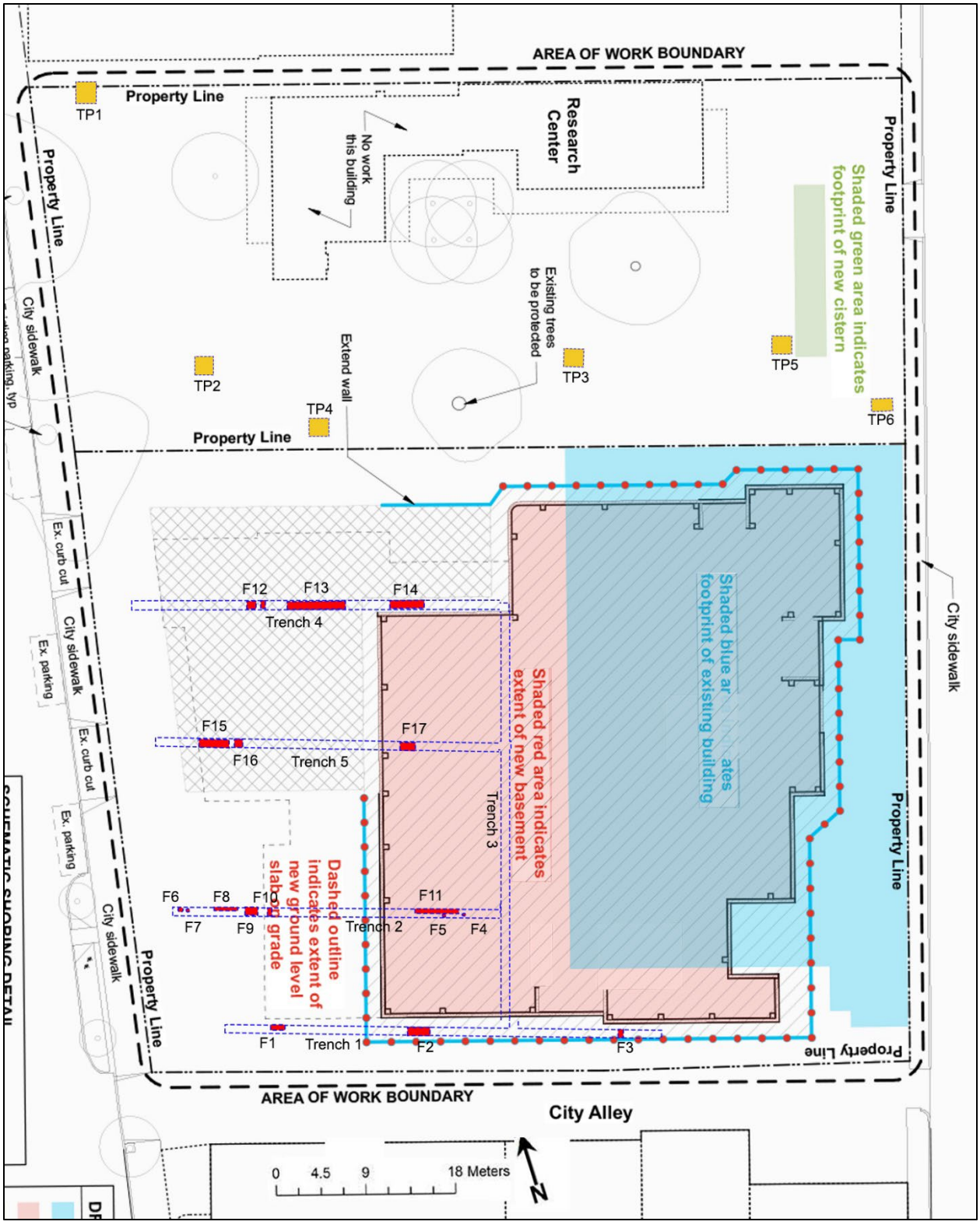

Figure 3-9. Results of 2021-2022 OAS Testing of LA 200086 with Construction Plans.

Of the features that were encountered, it appears that OAS did identify remnants of the foundations for the two the Fort Marcy Military Reservation Officer's Residences, and the post-Fort Marcy house of Mrs. Victoria Roberts (Figure 3-10). All of these foundations with the exception of Features 15 and 16 were encountered within 50 cm of the modern ground surface and extended to depths of 1.1 to 1.5 m below the modern ground surface (bmgs).

There similarly appears to be a cluster of features that originate at a depth of approximately 0.85 to 1.3 m in depth, and these seem to predate the U.S. Territorial features. Several features may be foundations, though unlike the U.S. Territorial period where the foundations are cut stone and mortar with brick floors, the features noted at this depth are largely cobble concentrations. However, the nature of these deeper cobble concentrations and series of postholes is not known.

Table 3-1. Features Identified at LA 200086 by OAS During Testing

Feature	Type	Location	Depth (m bmgs)	Time Period	Feature Association
1	Cobble alignment	Trench 1	0.72-0.88	Spanish Colonial ?	
2	Concrete slab	Trench 1	0.90-1.08	Early 20th century	
3	Concrete and cobble foundation	Trench 1	0.58-0.98	Early 20th century	
4	Posthole	Trench 2	1.30-1.62	Pre-U.S. Territorial?	
5	Posthole	Trench 2	1.30-1.66	Pre-U.S. Territorial?	
6	Posthole	Trench 2	1.36-1.80	Pre-U.S. Territorial?	
7	Wooden post	Trench 2	1.36	Pre-U.S. Territorial?	
8	Cobble alignment with wood	Trench 2	1-1.16	Pre-U.S. Territorial?	
9	Cobble concentration	Trench 2	0.84-0.98	Pre-U.S. Territorial?	
10	Cobble concentration	Trench 2	0.98-1.08	Pre-U.S. Territorial?	
11	Limestone foundation	Trench 2	0.50-1.10	U.S. Territorial	Miller House
12	Limestone foundation w/red brick surface	Trench 4	0.44-0.68	U.S. Territorial	Martinez House
13	Limestone structure (basement)	Trench 4	0.60-1.40	U.S. Territorial	Martinez House
14	Limestone foundations	Trench 4	0.34-0.80	U.S. Territorial	Martinez House
15	Historic refuse pit	Trench 5	0.84-1.48	U.S. Territorial	Roberts House
16	Limestone foundation	Trench 5	1.10-1.48	U.S. Territorial	Roberts House?
17	Upright concrete slabs	Trench 5	0.25-0.55	Modern	
18	Acequia	TU 3	0.72-0.94	Pre-U.S. Territorial?	
N/A	Adobe-lined pit	TU 2	0.40-indet	U.S. Territorial?	

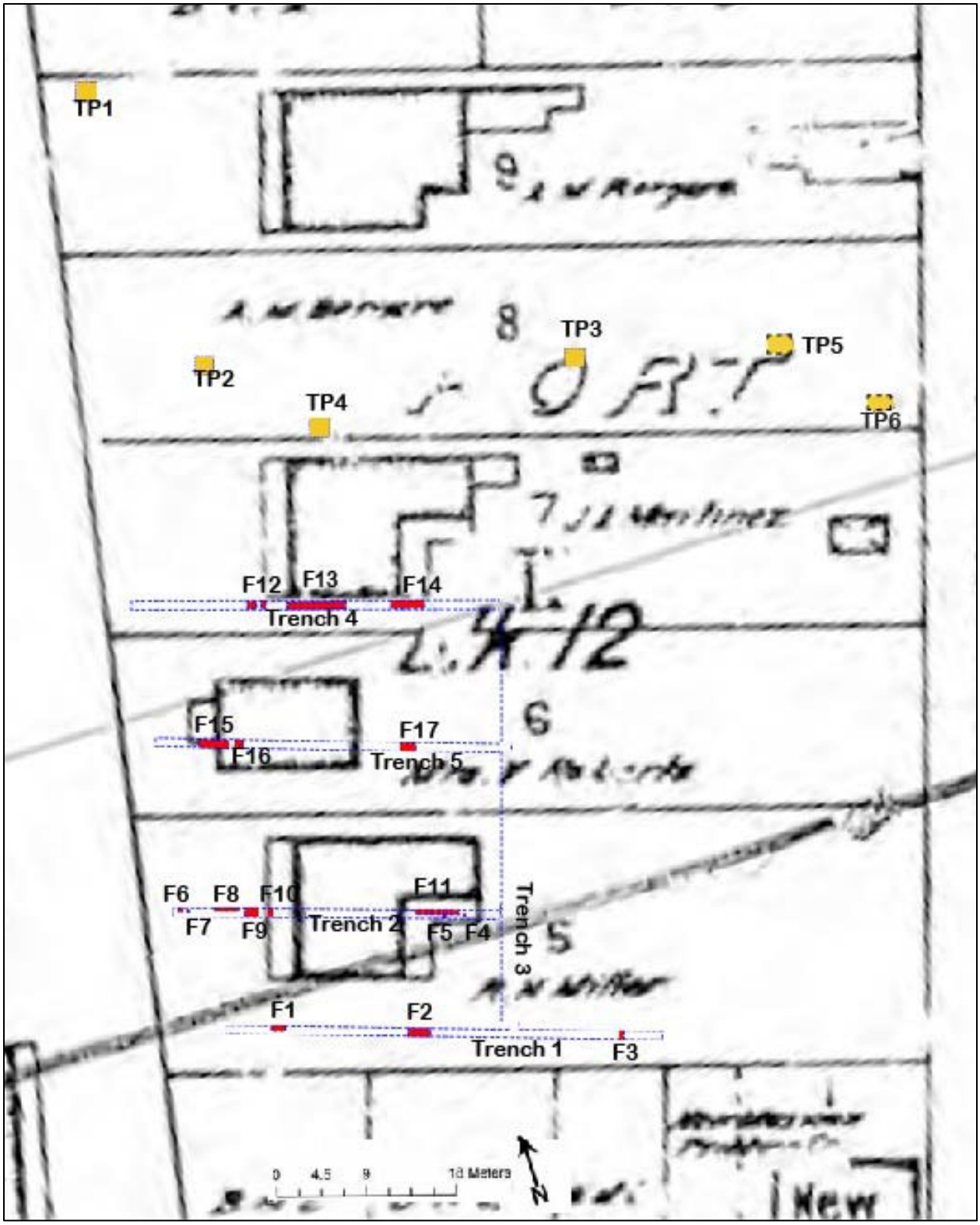

Figure 3-10. OAS Testing of LA 200086 Overlaid with 1912 King's Map of Santa Fe.

CHAPTER 4. RESEARCH DESIGN

This research design orients the proposed data recovery effort to a general theoretical perspective and more specific research domains and questions. The domains and questions arise in part from our current knowledge of regional and local cultural history, which was presented in Chapter 4. In particular, we will investigate not only what data from LA 200086 might tell us with respect to basic questions about chronological age, subsistence information, assemblage patterning, etc., but also how basic information about the site relates to broader patterns at local and regional scales of analysis. Some research issues cannot be fully explored in depth within the context of a data recovery project, either because the available data at local or regional levels are not sufficient, or such an endeavor might be beyond a reasonable scope of work for a particular project. For example, questions about settlement patterns and mobility contexts may be hampered by lack of relevant information from sites in the vicinity, either because investigations have been too few or data have not been sufficiently synthesized. Another potential factor stems from the variable archaeological potential of some sites. There is always some level of uncertainty regarding research possibilities prior to fieldwork, and in many data recovery investigations some specific questions that can be addressed are not clearly evident until after the fieldwork is completed, while for some questions posed the data turn out to be insufficient to explore them in any appreciable detail. Accordingly, the research design presented here is necessarily generalized in some respects, and the potential for recovering data relevant to certain domains and questions remains unknown to an extent.

In many respects, the real value of some of the sites targeted here for testing and data recovery lies in their potential contribution to aggregate datasets drawn from a multitude of sites in a region. But the potential for such aggregate-data analyses depends on several factors, including 1) a sufficiently large number of investigations within a delimited region, 2) data comparability in terms of consistent units of analysis, 3) centralized storage of data collected by different investigators over the years, and 4) a dedicated effort to conduct aggregate-level data analysis at some point. At any rate, to the extent possible the testing and data recovery investigations proposed here will maximize the research potential of the collected data.

4.1 GENERAL THEORETICAL ORIENTATION

The general theoretical approach for this project emphasizes the importance of four factors:

- environmental conditions;
- the structural dynamics and organizational variability of human societies;
- the role of human agency; and
- the role of cultural-evolutionary forces that simultaneously shape human behavioral patterns and serve as a source of cultural variation and the historical contingency of evolutionary change.

This perspective recognizes the value of different approaches to explaining human cultural and social variability and long-term evolutionary change, which can be divided into three main groups: 1) ecological/demographic, 2) social-structural, and 3) neo-Darwinian. These approaches essentially consider the full sweep of factors that shape human cultures, ecological adaptations, technologies, and social structures. The theoretical approach embraced here

> "recognizes that the organization of actors and groups within a region, their perception of the landscape, the decisions they make at the household and community levels, and the actions they ultimately take are largely structured by both the immediate environmental and social conditions in which they live and what has come before, that is, their history. Thus, although environmental and social conditions affect or constrain the behaviors and influence the ideologies of a given group, that group's history, its place of origin, its established connections to places and other groups, and

> the ways it has coped in the past with environmental, population, and resource stresses, all directly affect its response to these stimuli at any given point. In addition, human agency – the choices people make as they take action to realize their goals – plays a role in their responses. In other words, individuals are not just passive receptacles of cultures and "norms," they are conscious actors or agents with diverse aims who draw upon and manipulate resources to their strategic advantage. Yet these actors are socially constituted beings who are embedded in socio-cultural structures and ecological surroundings that both define their goals and constrain their actions. In this view, cultural patterning is viewed as a long-term process resulting from the interplay of historically constituted structure(s), human agency, and environmental adaptations, rather than simply as an adaptive response to particular environmental stimuli." (Potter 2006:7)

The atomizing effect of historical contingency works in conjunction with forces of cultural transmission and environmental variation to produce both a remarkable patterning of behavior within a particular culture, as well as the exceeding divergence of behavioral patterns among cultures. At the same time, biological evolution has produced equally remarkable recurrences of behavioral patterns shared cross-culturally by the human species. Thus, cross-cultural patterns of human behavior can be recognized, for example, in recurrent organizational structures, such as the family group–local group–chiefdom–state evolutionary taxonomy (Johnson and Earle 1987), Johnson's (1982, 1989) sequential versus simultaneous hierarchy model, the transmission of information involving culturally constituted symbols or material marker traits (Wobst 1977), exchange patterns of prestige goods, and peer-polity interaction (Renfrew and Cherry 1986). In the end, though, a central challenge in explaining the past is to understand how cross-cultural (or region-wide) patterns of human behavior play out on a particular, historically unique stage like the City of Santa Fe.

4.2 OBJECTIVES AND RESEARCH PROBLEMS

The research objectives of the proposed testing and data recovery investigations are divisible into seven research domains: 1) geomorphology; 2) the number of temporal components at each site and their chronological ages; 3) the nature, intensity, and settlement context of the prehistoric occupation; 4) subsistence and land use; 5) flaked stone technology, 6) prehistoric ceramics, 7) the development and evolution of the historic use of the location from the Spanish Presidio to the abandonment of the Fort Marcy Military Reservation. Specific analytical methods are referred to here, but are described in detail in Chapter 5.

4.2.1 Research Domain 1: Geomorphology

The primary purpose of this research design is to provide a geomorphic, sedimentary, and pedogenic context for the multiple components found at the site. Such a context is critical to understanding the site formation processes that created and preserved the archaeological remains (Schiffer 1987). It also helps to understand the human behavior responsible for the spatial patterning of the artifacts and features at the site (Mandel et al. 2016). This includes understanding both the natural and anthropogenic forces in operation to account for the depositional environments and factors contributing to post depositional disturbances.

The site area is within the Santa Fe River valley and broadly mapped to consist of middle to upper Holocene alluvial deposits that comprise an upper terrace of the Santa Fe River (Read et al. 2000). The deposits (Qts3) consist of sandy gravel with areas of cross bedding and the presence of buried soils that have accumulated during the past 5000 years (Read et al. 2000). Nearby, at the base of the bluffs to the northeast are alluvial fan deposits (Qfy) consisting of sandy gravel and gravelly sand plus minor mud. Soils in the area are described as consisting of mostly Urban Land but in places may preserve evidence of alluvial and eolian soils (Alire, Panky, Altazano, and Predawn Series) found on eroded fan remnants and relic floodplains

(NRCS 2024). The soils are generally deep, well drained and formed in clay loam, loam, and gravelly sandy loam to depths of over 5 to 6 meters.

The research of historians, archaeologists, and cultural geographers indicate the project area was likely along an area of elevated topography that was relatively well drained and bordered by low lying areas on the north, east, and southeast that held a large wet land or cienega (Lentz 2005, 2011; Tiggs 1990). The cienega perhaps formed in an abandoned oxbow of the Santa Fe River (Plewa 2009) that later infilled with surface and subsurface waters draining from the northern hillside and northern drainages of Aroyos Barramca, Arroyo del Rosario, Arroyo de la Piedra, Arroyo Ranchito, and Arroyo de los Lavatos. The more elevated terrain, perhaps representing eroded terrace features or fan segments, are dissected by the smaller south flowing drainage mentioned above and by the Rio Chiquito fed by a cienega spring that flowed into a gravelly floodplain of the Santa River. The landscape was likely not flat, but an undulating surface that later historic settlements further modified to accommodate farming and the expansion of building sites.

The geomorphological work at the site will be built on the research questions posed by investigators working in the immediate area of the site (Lentz 2004; Lentz et al. 2005; Lentz and Barbour 2011; Lentz 2011; Montoya 2023; Scheick 2005; Tigges 1990). In these studies, the geomorphic research domains have generally focused on understanding the evolutionary history behind the development of Santa Fe and its relationship to the local topography and water sources and what changes have occurred to accommodate growth and development in the last three decades of occupation. Foremost of these investigations is determining the location of the original early Santa Fe Plaza and the reconstruction of the land occupation around the plaza (Lentz 2005).

Much of the area was bordered by low lying areas of poor drainage and therefore the initial occupations likely took advantage of higher and better drained landforms. Based on historical accounts and more recent soil testing, the outline of the former cienega has been reconstructed along with plotting the location of springs and drainage ways (Lentz 2005; Tigges 1990:75–84). At LA 1051 to the north, cienega deposits occur at depth along what is today Marcy Street (Lentz 2011). This data shows that the project area was within or bordered the western edge of the cienega. The question then becomes, what influence would the wetland fringe have had on the ability to occupy the area and what steps may have been taken by the occupants to improve the land. Is there historical evidence that fill was used to level the landscape and that canals were dug to drain the area to accommodate building sites and redistribute the drained water to irrigate fields?

The answer to these questions comes in part from OAS trenching and testing of the parking lot at the site (Montoya 2023). Their investigation revealed the upper two meters of the site contained a redeposited mix of prehistoric and historic ceramics that likely represents fill. The western test units also showed that the lower soil profiles are the remnants of an old arroyo bed. On the east side of the property the lower strata of the test units consisted of clayey deposits that the investigators suggest represents cienega deposits. They also suggest that the cultural fill over the clays was an intentional act to reclaim the marsh area for further development. The team also documented the location of an acequia to the west that contained thin stratified layers of fine water laid silts and sand confined to a narrow drainageway. The acequia was likely used to water the agricultural fields documented for the area.

Historically documented acequias occur in the downtown area (Snow 1988b, 1991). Lentz (2004) exposed a cobble-lined feature beneath Palace Avenue that is attributed to the former location of the Acequia Madre that once provided water to Palace of the Governors from the spring/cienega to the east (Lentz 2005). Another is in the plaza area (Peckham 1982). To the north is the Acequia de la Muralla that extends along the base of northern hillsides. Others acequia locations include present-day Marcy Street and Washington

Avenue. According to Snow (1988b) several ditches crisscross along the roads bordering the project area. Therefore, additional ditches may be present at the site.

The second research objective is to provide a better understanding of the alluvial stratigraphy of the Santa Fe River valley in the downtown area of Santa Fe. Little geomorphic study has centered upon the Santa Fe River system. Hall (2010), in a study conducted on the archeology and geomorphology of the Villa Alegra Property in the western portion of the downtown Santa Fe, improved on Read et al.'s (2000) quaternary geology map of the valley and differentiated three subunits in the Qts3 deposit. However, radiocarbon dating of the sediments is missing. Age estimates are based on degrees of calcic development with the oldest of the three units consisting of coarse gravel estimated to be mid-Holocene in age, followed by younger overbank silty sands that probably range from 3000 to 1000 BP. The most recent unit is incised channel fills of bedded gravelly sand. In the project area, the oldest radiocarbon sample is from LA 1051 that provides a date of 5000 BC for a three-meter-deep gravelly sand deposit (Lentz 2011). Obviously, additional sampling is needed at depth to provide a full chronological record of the alluvial deposition represented in the downtown area of Santa Fe.

At the local level, additional details on fluvial deposits in downtown Santa Fe are known from the several data recovery projects in the area (e.g., LA 1051, LA 143460, LA 80000) and the preliminary work at the current site (Montoya 2023). The deposits encountered during these investigations provide general information on the depth of the sediments and the number of stratigraphic units identified for the site. The chronology is largely based on the material culture contained in these sediments and at a few the sites are radiocarbon and archaeomagnetic dates from occupations dating to roughly to AD 1100. However, more concise, and complete data reporting is needed. Most of the available stratigraphic studies are limited to the upper and more recent portions of the Holocene record. With some exceptions the stratigraphic descriptions for these deposits are generally inadequate to provide full geomorphic interpretations. Most of the studies focus on descriptions of the sedimentary fills of the various features and identifying the stratigraphic layers that are discontinuous or contain mixed cultural deposits. Absent are geomorphic interpretations to describe the geological history of the sites.

The excavation work at the site will expose one or more of a series of fluvial processes that account for the preservation or alteration of the prehistoric components. The deep exposures provided from foundation work and the construction of a basement parking garage will offer the opportunity to examine the stratigraphic record more fully at this location. The deep 20 ft geotechnical bore holes dug along the planned foundation indicate the presence of stratified layers of fines and bedded gravel (Stenson and Butts 2023). The reported sequence suggests a long history of alluvial activity that likely included flooding events punctuated by periods of stability. Stable periods are perhaps represented by the presence of buried soils. The relic soils or buried fluvial features can provide sources for radiocarbon and perhaps optically stimulated luminescence (OSL) dating techniques. If stable surfaces are identified, they may contain evidence for human occupation. The overlying historic components will also show the influences of alluviation. Floods may have destroyed structures and altered the landscape (Lentz 2011) resulting in human activity transforming the hydrology of the area. As noted earlier, such modifications include the creation of water control features to direct water resources from nearby cienega, springs, and arroyos for farming and household consumption. Further changes may include evidence of landscape leveling. As the town grew and available space was becoming limited, historic activities likely included the addition of rubble and discarded trash to assist in the in-filling-of the areas of poor drainage. Such activity was necessary to allow for the expansion of the town site that perhaps began with the construction and later renovation to the location of the Spanish presidio.

The geomorphological investigations will supplement information gained during the data recovery investigation of the site. The focus of the investigations will be to describe and evaluate the nature of the cultural strata and features and provide an interpretation of the depositional history of the site. This will involve defining the stratigraphy of the site and identifying the various cultural components represented.

4.2.1.1 Data Needs and Considerations

The geoarchaeological investigations will involve examination of the stratigraphic profiles exposed during data recovery. The profiles will be documented and sampled as appropriate. The profiles examined will provide soil documentation and contextual information on site formation and setting. As part of the chronological research questions, AMS of organic residues and OSL dating of sand rich deposits may be utilized to determine the age of the stratigraphic units. Various sedimentological and soil chemistry analyses may be used to provide data relevant to the degree of mixing of archaeological-bearing sediments and alterations of soil and sediment characteristics that could be due to human activity.

4.2.2 Research Domain 2: Number of Components and Chronological Ages of the Site's Occupations

The pre-Hispanic component at this location is poorly documented, consisting of only a handful of artifacts recovered from auger testing (Montoya 2023). This was largely due to having to terminate units and trenches prior to reaching the pre-Hispanic strata for safety concerns. However, the pre-Hispanic early Coalition to early Classic components (AD 1200-1425) are well-documented from the Sweeny Center excavations (Lentz 2011) and at the Federal Oval (Scheick 2005) in the immediate site vicinity, whereas the Developmental period sites are only sparsely documented within the downtown area, but are observed on the terrace overlooking the downtown area (Wiseman 1989; Snow 1989c; Scheick 2003, 2005). The Coalition period is well represented in the immediate vicinity at LA 1051 and LA 175277, though the extent of structural remains outside LA 1051 has not been adequately synthesized. Lastly, there appears to be a 150-year period of depopulation in the downtown area associated with the end of the Classic period occupation and settlement by the Spanish in 1609. Although ceramics associated with this depopulation episode have been found, no discrete features have been identified in the downtown area.

Based on diagnostic artifacts and features from OAS testing of the property (Montoya 2023) as well as excavations in the immediate vicinity, this location is likely to contain an occupation sequence that extends from the 1950s when the grocery store at 123 Grant Ave. was constructed, through the U.S. Territorial, Mexican, and Spanish Colonial periods where the site was continuously occupied as a military outpost. The Spanish Colonial occupation history prior to 1697 is not well-represented, and previous excavations at the Sweeny Center (Lentz and Barbour 2011) resulted in only minimal evidence of Spanish Colonial presence, though it is noted that much of that excavation would have been parade grounds and the Spanish Colonial structures, if present, would have been destroyed by the construction of the Sweeny Center in 1954. Testing at the First Presbyterian Church opposite the property on Grant Ave. yielded Spanish Colonial artifacts dating to the Spanish Colonial and Mexican periods, and included a trash deposit with abundant faunal remains and ceramics that dated to the mid-1700s (Viklund and Huntley 2005). Additionally, there appears to have been a significant shift in the use of the area following the post-Pueblo Revolt occupation of the site. At the Palace of the Governors, Post (in progress) noted evidence of remodeling of the structure by Puebloans following the Pueblo Revolt, and archival records seem to indicate that the Puebloans constructed a pueblo on the site.

The archival data presents a detailed occupation history of the Presidio from the latter half of the Spanish Colonial period through to present day, though there are notable gaps in the record of the intensity of this occupation. As presented by Snow (2011) and summarized in Section 3.4.3 of this report, the original

settlement of Santa Fe is not well documented and the initial date of construction for the site is poorly understood from the archival data. While presidios do have some patterns in terms of their construction (3-ft thick adobe outer walls with structures, such as soldier's quarters, kitchens, stables, etc. circumscribing the inner walls), it is not clear to how much of the Presidio plan for construction was completed. In addition, archival data suggests that although constructed, the residential occupation of the Presidio may have been discontinuous or less intensive with much of the garrison residing outside the Presidio. During the Mexican Period, it appears as though a large portion of the location was converted to agricultural fields.

Given current information and, especially, the uncertainties in some cases surrounding cultural-historical affiliations, the following questions are posed:

1. Is there evidence of an Early Developmental component at LA 200086? If present, what do the features tell us about the nature of use of the area during this period? How do the features relate to the Developmental Period components at LA 1051 and other sites along the terrace overlooking downtown Santa Fe?

2. Does the Coalition period residential use of the downtown area as represented by pithouses and other features at LA 1051 extend south into the project area? If present, what does the nature of the Coalition period within the project area indicate about settlement patterns and use within the downtown area.

3. What is the nature of the pre-U.S. Territorial features identified at LA 200086 that were identified by OAS during testing?

4. Are there discrete strata and/or features that are representative of the Pueblo Revolt period of reoccupation by Puebloans?

5. How might these features relate to the Spanish Colonial/Mexican Period Presidio?

6. If present, what does the Spanish Colonial component indicate about changing use and development of downtown area, and how does this component compare with the use of the project area as depicted on the Urrita and later maps?

4.2.2.1 Data Needs and Considerations

As with most excavation projects, two lines of evidence will be used to acquire chronological data for this project: temporally diagnostic artifacts and radiocarbon dating. A continuous vertical control artifact and stratigraphic sample will be collected from multiple locations across the site to identify the occupation and abandonment episodes of the project area. Artifacts will be collected from the surface, and from the subsurface through excavations, within the work area. Any temporally diagnostic artifacts collected may provide information on the chronological age(s) of occupations in this part of the site. If intact archaeological features containing charcoal are encountered in the pre-Hispanic strata, chronometric dates will be obtained through radiocarbon analysis and additional methods (dendrochronology or archaeomagnetism) if possible. Chronometric dating will not be employed for historical-period contexts, given that artifacts and archival data offer a more precise dating method.

Artifact analyses will be conducted according to the methods specified in Chapter 5, and assemblage richness will be measured and compared between Developmental, Coalition, and Classic period assemblages in the downtown Santa Fe area. Additional assemblages may be included to provide a more meaningful comparative analysis and interpretation of the nature and intensity of occupations in downtown Santa Fe.

To search for all preserved features within the portion of the site in the construction area, this entire area will be machine excavated to the base of the Holocene sediments. Any new features uncovered will be carefully excavated, according to the methods specified in Chapter 5. Any structural feature encountered will be excavated in its entirety (assuming it falls completely within the investigation corridor), and architectural details will be carefully recorded (point-provenienced). Artifacts from the fill and floor contexts of any pit structures encountered will be carefully recovered to measure density of materials associated with the structure, assess any possible indicators of abandonment mode, and analyze any possible post-pit house use of the site (including use of an abandoned house pit as a trash receptacle).

4.2.3 Research Domain 3: Ancestral Puebloan Subsistence Practices and Paleoenvironments

Faunal and floral remains provide the most prominent empirical evidence needed to explore questions concerning subsistence behavior and paleoenvironments, although the types and diversity of other material remains—especially ground stone milling equipment—are relevant to this research domain as well. Modern techniques for analyzing faunal and floral assemblages have provided remarkable insights into prehistoric subsistence economies, fuel wood use, and environmental impact. In historical contexts, these data can yield information on the use of native versus imported resources, animal husbandry and pastoralism versus hunting wild game, and commerce.

Sites occupied by more sedentary groups tend to produce meaningful subsistence evidence more than those of mobile hunter-gatherers. Spatial zoning within more sedentary sites typically translates into repeated processing consumption of foods at particular loci, and the formation of designated trash disposal areas. This leads to higher probability of processed plant-food parts becoming charred and ending up in discoverable contexts, such as storage and cooking pits or trash middens.

The data potential of macrobotanical analyses (particularly pollen and phytoliths) is much better at intensively occupied, sedentary sites, for the same reasons that macrobotanical food remains have a higher probability for preservation at these types of sites. The data potential of faunal remains may also be used to evaluate the intensity of occupation as intensity and duration of occupation often results in significant shifts in population density and distribution of various species, as well as the demographic profiles of high-ranked species.

The excavations at LA 200086 will attempt to address the following questions:

1. Are the remains of plant and/or animal food items present at the sites, and if so what specific taxa are represented and what do such remains indicate about subsistence practices and local environments?
2. To what extent were resident populations reliant on local indigenous plants and game versus domesticated resources?
3. What do the identified taxa indicate about the role of imported and exotic resources in the economic systems of the community?
4. Does there appear to be shifts in the abundance of high-ranked fauna in response to the duration and intensity of occupation?
5. How is the arrival of the Santa Fe Trail and/or the railroad reflected in the types of goods present at LA 200086?

If intact features or midden deposits are encountered, it is likely that wood charcoal will be recovered from collected flotation samples from the site, and these remains could be used to examine patterns of fuel wood

use. O'Laughlin (O'Laughlin and Lundquist 2012) examined patterns of fuel wood use from numerous features, excavated during several data recovery projects on Albuquerque's West Mesa. His data suggest the following trends. Dead tree wood (mostly juniper) on the ground surface would have presented the best and most easily collected fuel, and Archaic occupants of the mesa probably first depleted this source, followed by dead wood pulled and chopped from otherwise living or recently dead trees. As dead wood was depleted, people were forced to burn more green wood and leaves, with one result being the common occurrence, and increasing frequency, of charred juniper seeds in archaeological features on the West Mesa. Finally, as tree wood became less and less available, people turned to the more abundant (but lower-quality) saltbush and greasewood, whose ubiquity peaks in West Mesa flotation samples during the Late Archaic period. O'Laughlin's findings at West Mesa sites provide an important baseline against which data from the proposed NM 6 data recovery can be compared and prompt the following question for the proposed data recovery:

6. What fuel woods were used by the occupants of Santa Fe, and what do these data indicate about impacts to the local environment, including the possible depletion of wood resources over time?

4.2.3.1 Data Needs and Considerations.

A multi-pronged approach will be employed to explore the questions posed for this research domain. If intact features are encountered, sediment samples will be collected and processed through a flotation device for the recovery of charred plant remains and other materials. Macrobotanical analyses will be conducted by Dr. Kathy Puseman (PaleoScapes Archaeobotanical Services Team, LLC). Sediment samples will be collected from non-feature contexts for control purposes.

Faunal remains, if present, will be collected through in-field screening (through ⅛-inch mesh) of hand units and features, and analysis will identify taxa, age, basic taphonomic indicators, and evidence of butchering, processing, and transport (element/portion represented, fragmentation, etc.). SWCA's Robin Cordero is an experienced southwestern faunal analyst who maintains his own comparative collection, and the University of New Mexico Museum of Southwest Biology also maintains a comparative faunal collection that can accessed if necessary. Assisting Mr. Cordero will be Dr. Ad Muniz for historic fauna, and Christine Kendrick for the pre-Hispanic fauna. Dr. Muniz has extensive experience in working with domesticated fauna through his research on bronze and iron age assemblages in Jordan, while Christine Kendrick has experience analyzing fauna from a broad range of archaic, Jornada Mogollon, and Chacoan sites.

4.2.4 Research Domain 4: Lithic Technology

Lithic artifacts are an important data source that can be used to explore a variety of research issues. They are both abundant and ubiquitous, and on many sites they are the only archaeological remains encountered. Because of their sheer abundance, lithic artifacts (especially waste debris or *debitage*) offer tremendous data potential and are well suited to quantitative methods. The analysis of lithic artifacts over the years has resulted in a staggering volume of literature touching on a wide range of research issues, including technology, mobility, trade and exchange, and even ritual behavior. Lithic assemblage variation has been attributed to:

- the nature and availability of utilized raw materials and distance from sources of usable tool stone (e.g., Andrefsky 1994; Bamforth 1986; Henry 1989; Ingbar 1994);

- long-term changes in settlement and/or subsistence strategies (e.g., Bamforth 1986; Berg 2000; Bettinger 1999, 2001; Bleed 1986; Odell 1986, 1998), including a purported long-term shift from "formal" to "expedient" technologies with reduced mobility;

- increasing spatial zoning in sedentary settlements that may include specific loci dedicated to production of formal flaked stone tools (e.g., Hill 1970; Prufer and Shane 1970; Whittaker and Kaldahl 2001);

- site function and intensity of occupation (e.g., Cowan 1999; Railey and Gonzales 2015); and

These research topics touch on issues already introduced in this chapter, especially Research Domain 3. But given their tremendous research potential, lithic artifacts merit consideration as a standalone research domain.

One problem that has inhibited the full research potential of lithic analysis relates to a severe lack of data comparability in debitage analysis. The collective state of classificatory chaos in debitage analysis has been repeatedly criticized by researchers who advocate an approach based on more objectively defined attributes (e.g., Ahler 1989:87; Ingbar et al. 1989; Morrow 1997:51; Railey and Gonzales 2015; Shott 1994; Sullivan and Rozen 1985). Yet the problem persists, including among lithic analysts working in New Mexico. At SWCA an attribute approach to debitage analysis is routinely employed and is planned for this project.

Although a systematic study of lithic sources in the project area is beyond the scope of this project, as much information as possible concerning available tool stone will be collected. Some of this information will come from the site assemblages themselves, as raw material representation among cores, bifaces, and debitage (including percentages and artifact sizes) are typically good indicators of what is locally available and what is not, and the variable quality of available materials and the suitability for different kinds of tools.

Obsidian presents a special case in that long-term research and x-ray florescence (XRF) analyses have made identifying specific sources rather straightforward (cf. Shackley 2005). Obsidian artifacts were reported by Lentz (2011) at the Sweeny Center excavations, and it is likely that obsidian artifacts will be collected from at least some of the pre-Hispanic contexts during the proposed project. The closest obsidian sources are the widely transported Jemez Mountain sources, and it is of interest to know the representation of these sources among the collected obsidian artifacts. Such data could provide information on extra-regional interaction and mobility. Determining or reasonably estimating the temporal affiliation of any obsidian or other non-local artifacts is, of course, also crucial to addressing this research issue.

The following questions are posed for this lithic technology research domain.

1. How do the debitage assemblages from LA 200086 compare quantitatively through time and between households, and to surrounding sites like LA 1051, LA 143460, and the Fort Marcy Hill complex of Developmental sites? What implications can be drawn from these comparisons?
2. What data can lithic tools and other non-debitage lithic artifacts contribute to interpretations concerning raw material utilization, expediency in tool production, site function?
3. What do obsidian and any other non-local materials signify in terms of extra-local interaction?
4. What does the use history of manos and metates indicate about raw material selection and quality of locally available raw materials?

4.2.4.1 Data Needs and Considerations

Lithic artifacts will be analyzed according to the standard method employed by SWCA's Albuquerque office. This method is geared toward identifying statistically significant differences between sites and components using objectively defined analytical units. Lithic cores, bifaces, and tools can also inform interpretations of assemblage variation across time and between sites, although it remains unclear how many of these items will be encountered and collected during the proposed testing and data recovery.

External comparisons of lithic artifact category and raw material representation can likely include a larger sample of project data than is the case with debitage. XRF analysis will be performed on at least a sample of collected obsidian artifacts to determine their primary geological source(s). XRF analysis would be performed by Dr. Steven Shackley of the Geoarchaeological XRF Laboratory in Albuquerque. If sufficient numbers of artifacts are collected, raw material counts will be compared with those from a selected sample of excavation reports from the surrounding area. The comparative data will be analyzed statistically to discern significant differences (or lack thereof) in local patterns of raw material availability and utilization.

4.2.5 Research Domain 5: Prehistoric Ceramic Technology

Ceramics have been used to address a variety of research interests in the prehistoric U.S. Southwest, including questions about chronology, land use, trade, socio-cultural behavior, subsistence patterns, community organization, migration, and vessel production and distribution. Issues pertinent to this particular project are focused primarily on typological identification for the purpose of recovering chronological data and characterizing site occupations. Ceramic classification for temporal purposes has a long history in the Southwest, and the type-variety approach first developed in the 1930s remains the backbone of the ceramic taxonomy used to this day (Goetze and Mills 1993). The assignment of traditionally defined wares and types to a ceramic assemblage can provide a basic understanding of the relative chronology of the sites from which the ceramics are recovered and to construct a timeline for the materials in question that fits into the larger picture of the prehistoric occupation of the region. Changes in painted design styles through time have been demonstrated throughout the culture areas of the Southwest and have been used extensively to date site contexts based on manufacturing date ranges established by absolute chronometric dating techniques, particularly. Ceramic data may also be used to gather information on vessel form, function, and distribution, all of which are important to our understanding of everyday domestic and social activities.

The identification of ceramic production and distribution can offer support to broader studies of issues such as technology, migration, and social interaction. Throughout the dynamic prehistory of the Southwest, ceramic production was an evolving process directly linked to the social and economic contexts of vessel use and the transport and exchange of vessels (Blinman 1988; Rice 1984). Functional analyses of ceramic vessels are important for providing information on domestic activities. The range of vessel forms and functions within a site assemblage can reflect different practices of consumption, resource processing, storage, and even household size.

Typically, ceramic analyses conducted involve a comparative analysis with assemblages collected from other projects to provide a broader context for interpreting the assemblage patterns in the project at hand. The current project area is located within a region from which prehistoric ceramics have been rather thoroughly researched and documented over the decades. A background review will be conducted prior to the analysis of ceramics from project sites and broad-level comparisons to regional data will be undertaken as a part of the analyses.

The following questions are posed for the ceramic technology research domain:

1. What general conclusions can be drawn based on the distribution of ceramic wares and types within the site assemblage, both in terms of chronology and general vessel function?
2. How do the ceramic assemblages from the Developmental and Coalition/early Classic at LA 200086 compare quantitatively to each other and to other previously analyzed assemblages at LA 1051, LA 143460, and the Fort Marcy Hill complex of sites? What implications can be drawn from these comparisons regarding local production and regional trade networks both within the Northern Rio Grande and extending to the broader southwest?

3. What can data pertaining to ceramic vessel form and function contribute to interpretations concerning subsistence and domestic activities at LA 200086? Are there any discernible changes in these activities indicated in the ceramic assemblage through time?
4. What does the presence of any intrusive or non-local ceramic types signify in terms of social interaction on a regional scale?

4.2.5.1 Data Needs and Consideration

Prehistoric ceramic artifacts will be analyzed according to the standard methodologies. The size and nature of the recovered assemblages will determine the extent and detail of the analyses, but the standard attribute analysis of ceramics from the five prehistoric sites within this project will focus primarily on typological identification for the purpose of recovering chronological data and characterizing site occupations and activities using vessel form, function, and distribution.

4.2.6 Research Domain 6: Spanish Colonial/Mexican Period Presidio and the Fort Marcy Military Reservation Architecture and Occupation

A presidio of fifty men was proposed for Santa Fe immediately before the Pueblo Revolt of 1680, though—other than a "gunpowder tower" near the convent and church—a such formal fortification was not evidently constructed in the capital until 1697, when a group of houses or rooms known as the *Casas Reales* was built by Rodriguez Cubero, likely representing a precursor to the Palace of the Governors building (Snow 2011). Adjacent to the project area, a relatively large rectangular building with perimeter rooms and two courtyards had been built by 1766, as shown on the map by Urrutia (Lentz et. al 2005). Following the local establishment of the *Provincias Internas* Spanish military in 1776, construction began in 1798 on a formalized Spanish frontier garrison fort, or presidio, which included a central parade ground surrounded by abutting rows of barracks, officer's quarters, a laundry, commissary, and other facilities, with the Palace of the Governors along the southeast corner (Lentz et. al 2005, Snow 2011, Wilson 1997). An idealized layout of the presidio shown in a map from 1781 included a rectangular plan, southern main entry and contiguous perimeter rooms, although it is unclear to what extent the plan was built (Snow 2011; see Figure 4-2). Historical specifications included 3-ft-thick perimeter walls to accommodate possible later second stories, narrower interior walls, commander's houses, a fuerte, a hall, washrooms, a church, corrals, officer and troop allotments, and space for additional rooms for growing families. By November of 1798, it was reported that 98 of 100 associated "casas" had been built (Snow 2011). The walls of the 1,400 by 1,050-ft structure were of adobe, apparently without foundations (Wilson 1997). However, the nearby Spanish Colonial Baca-Garviso House was documented with stone foundations during recent excavations (Lentz 2011), supporting that the wall or rooms that represented the exterior perimeter of the presidio might have included stone foundations.

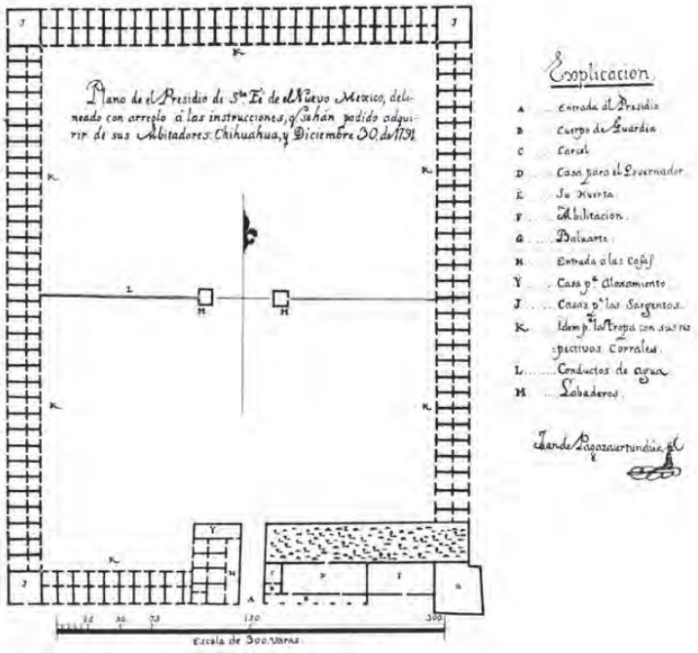

Figure 4-1. Map dating to 1781 showing idealized presidio layout.

The presidio and palace were left largely abandoned during the Mexican period (1821-1846), when associated army use of the area was more dispersed although integrated among the local population (Lentz et. al 2005, Snow 2011). The old garrison fort was mapped as a cornfield with irrigation ditch in 1846 by U.S. Army officers, who then transformed the presidio as the Fort Marcy Military Reservation following the Treaty of Guadalupe Hidalgo in 1848, when a second fort was planned above the city to the northeast (Lentz et. al 2005, Snow 2011). An 1847 map by Gilmer shows discontiguous linear buildings and a courtyard house in the vicinity of the project area, with a nearby acequia (Figure 4-3). Gaps between discontiguous buildings might have been enclosed by large Zaguan-type wooden double doors. During the U.S. Territorial period, the presidio was renovated for army use with remodeled existing wall and buildings, a new hospital was constructed and a new territorial capital building was funded for the northern end of the presidio in 1851, by which time the fort's 8-ft perimeter wall may have been removed and a "Post Garden" was included in the compound near the project area by 1868 (Lentz et. al 2005, Snow 2011, Figure 4-4). However, most of Santa Fe's soldiers were restationed at Fort Union following 1851, through the Civil War and until 1875, when the U.S. Army presence at the presidio was renewed (Snow 2011).

Figure 4-2. 1847 Gilmer map of Santa Fe showing discontiguous linear buildings along the west side of the presidio in the project vicinity.

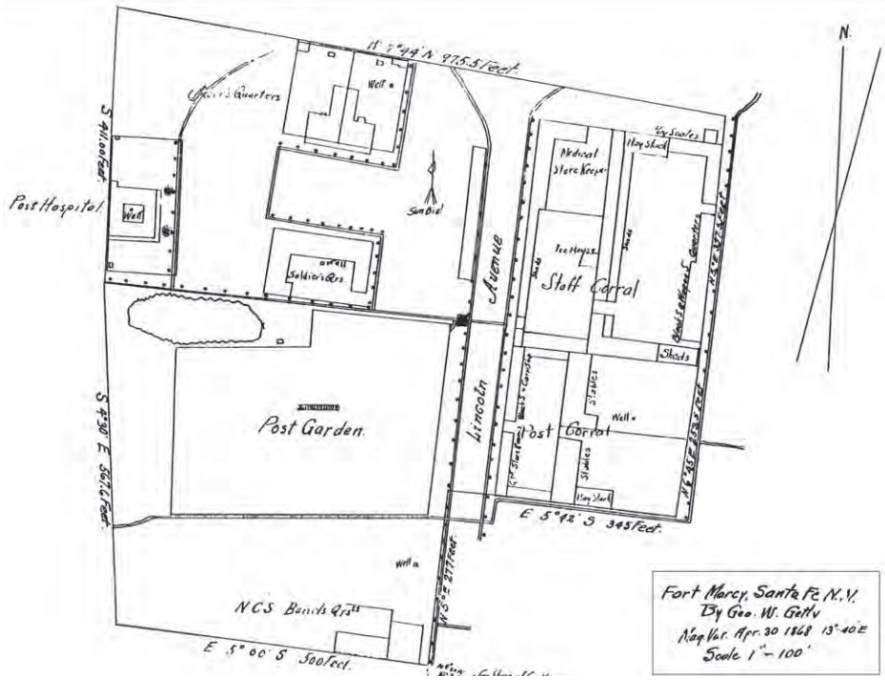

Figure 4-3. 1868 Getty map of the presidio area showing "Post Garden" partially within the project area.

Seven officer's houses were constructed in the early 1870s according to the Army's standardized "Plan C" type along Lincoln Avenue and Grant Avenue, including two at 123 Grant Avenue that evidently once stood within the current project area (Montoya 2023, Figure 4-5 through Figure 4-8). These houses all used identical floorplans, materials and detailing, each with side-gabled roof, front dormer, pair of interior brick chimneys, quoins, full width front porch, back porch, white Territorial Style trim, symmetrical front façade, centered front door, sidelights, transom and pairs of 6/6 double hung windows with green shutters. The floor plan of each house features a central hall that purposefully divided public and private spaces in the Anglo-American idealized tradition (Figure 4-5 and Figure 4-9). Each was likely of adobe on stone foundations. Landscape features included yards enclosed by white picket fences, symmetrically planted trees over possible lawn, walkways, cesspits, gardens and outbuildings, which likely included stables and outhouses. The two "Plan C" houses within the project area were owned by J.A. Martinez and R.N. Miller in 1912, at which time a smaller pre-1908 house owned by Mrs. Y. Roberts was in-between and included an apparent Shotgun type floor plan with partial-width front porch (Figure 4-6). The two houses in the southern part of the project area were demolished by 1948, by which time two larger apparent commercial buildings and a house had been built within the area (Figure 4-10). The A.M. Bergere House at 135 Grant Avenue still stands today as a surviving example of the "Plan C" officers houses, though was altered in 1926 with a flat roof and other modifications to conform with the Spanish-Pueblo Revival Style which was regionally popular at the time (Montoya 2023, Wilson 1997).

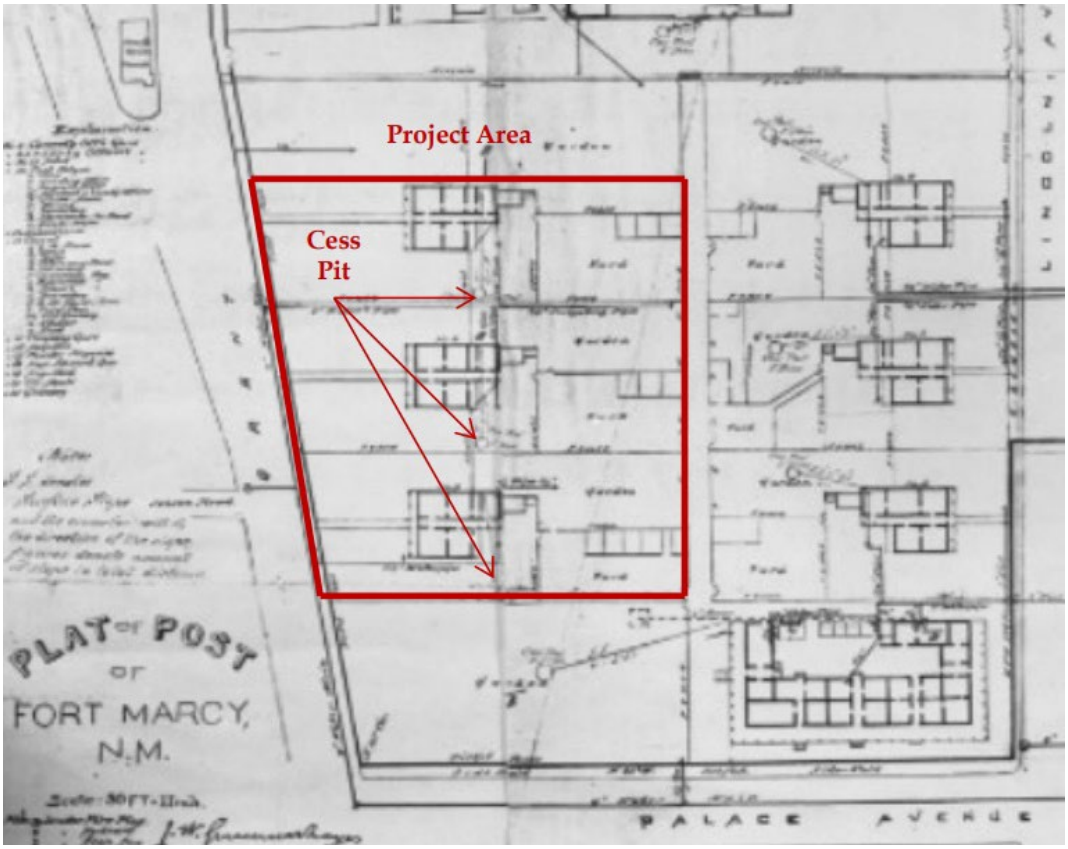

Figure 4-4. J.W. Summerhayes' 1890 map of the Fort Marcy Military Reservation with project area in red. (image from Montoya 2023)

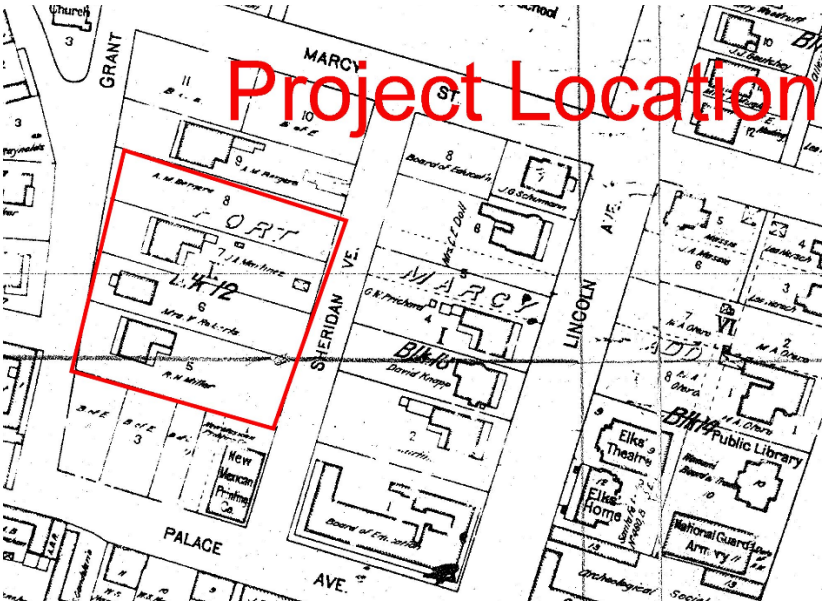

Figure 4-5. King's 1912 map of Santa Fe with project area shown in red.

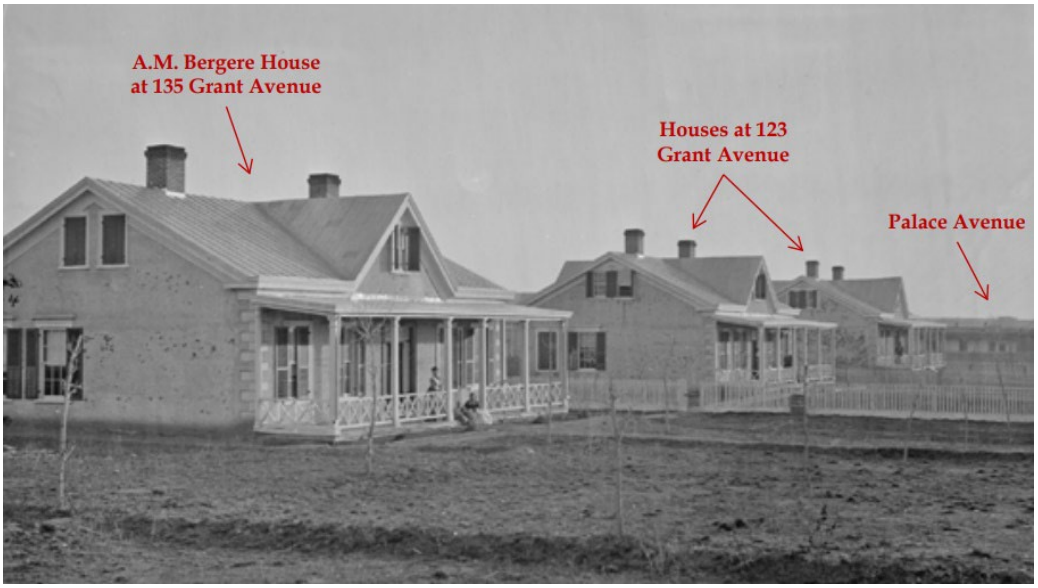

Figure 4-6. Officer's houses along Grant Avenue, including those at 123 Grant Avenue, which lay within the project area. View is to the southeast. (Image from Montoya 2023)

Figure 4-7. Photo from 1920 of R.N. Miller House at 123 Grant Avenue, whose location is within the project area. (Image from Montoya 2023)

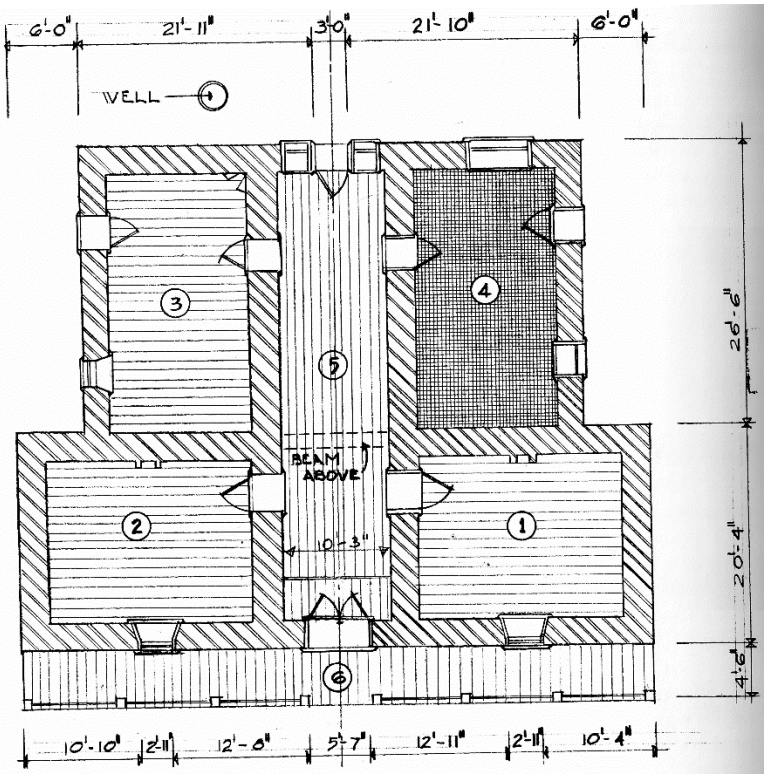

Figure 4-8. Typical floor plan of a Territorial Style house in Taos with central hall. (Image from Bunting 1976)

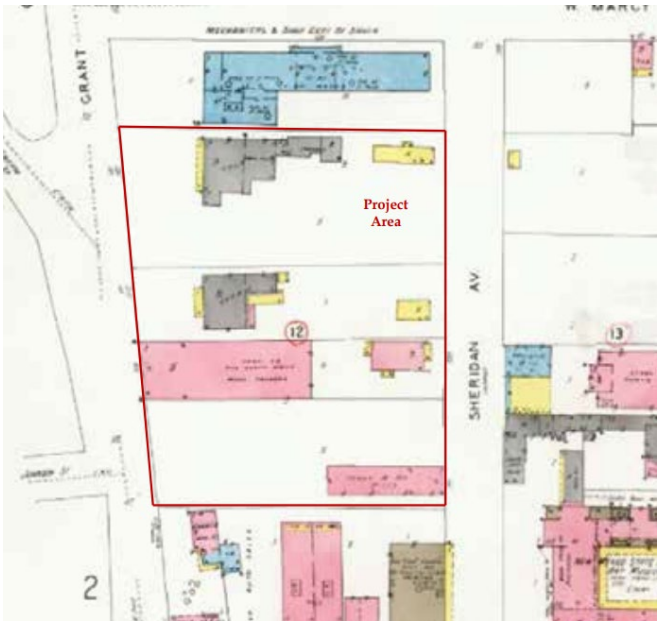

Figure 4-9. 1948 Fire Insurance map showing more recent development within project area. (Image from Montoya 2023)

Several research questions can be asked based on existing documentary information.

1. What was the character including materials and design of the western perimeter of the Spanish Colonial presidio within the project area? Was it represented by a wall or by a linear row of contiguous buildings? Were any gaps between any buildings enclosed by wooden, Zaguan-type double doors? What do any recovered artifacts reveal about intensity of use, type of use, diet and social structure?
2. Can any Spanish Colonial or Mexican-period gardens or other agricultural efforts be substantiated by botanical remains or archaeological acequia features?
3. Mexican-period use of the presidio was reportedly limited in scope, though evidently included a corn field. Can archaeological evidence substantiate use as a corn field? Can any evidence show any additional Mexican-period use(s) of the presidio?
4. How were the U.S. Territorial Officer's houses used? Was there a clear separation between public and private spaces? Are women, children and family life represented by artifactual evidence? Do any associated artifacts reveal social stratification across the Fort Marcy Military Reservation? Did each house have wooden floors, preventing interior deposition of artifacts?
5. How were the associated yards of the U.S. Territorial Officer's Houses used? Can archaeological evidence reveal walkways, fences, outbuildings, ornamental plantings, cesspits, or seasonal use of porches? What is the character and relationship of any landscape features? Where was refuse disposed?
6. What were the materials, design and character of the smaller, apparent Shotgun-type house that was constructed by 1908 between the two Officer's houses within the project area? Was this house associated with the Officer's houses in any way? If so, how? Did the pre-1948 apparent commercial building destroy any archaeological evidence associated with the small house? What were the materials, design, character and use of the apparent commercial building?

4.2.7 Spanish Colonial and Mexican Period Logistics and Supply

The Santa Fe Presidio was one of several such fortified settlements established along the northern periphery of the Spanish colonial empire in North America. As noted by Moorhead (1961) and Bense (2004), these presidios were often poorly supported by the government of New Spain with consistent supply chain issues and inadequate supply of basic dietary and defensive needs. In addition, corruption was rampant in supplying troops with provisions with individual troops often having to pay exorbitant prices for supplies. As a result, these frontier communities and the presidios were forced to adapt to local conditions by engaging in commerce with local populations and exploiting local resources to meet basic needs.

Three research questions are proposed to address this research domain:

1. To what extent are luxury imported items, such as majolica pottery, present at the site?
2. To what degree were presidial occupants relying on local resources for subsistence needs?
3. With the transition in government from the Spanish crown to Mexico, was there a notable shift in provisions supplied to the Presidio?
4. How did the arrival of trade via the Santa Fe Trail and later the railroad change the economy and supply of resources to the Presidio and later Fort Marcy?

4.2.7.1 Data Needs and Considerations

The primary data needs to address these research questions will rely on artifact data. Artifacts will be subdivided into local vs non-locally produced items, and luxury vs household items. If possible, the artifacts will be categorized by their point of origin/production in order to assess how those materials were being transported to Santa Fe. Comparisons will be made with other Spanish Colonial and Mexican period remains in the surrounding area to evaluate the nature of supplies between those supplied directly by the government of New Spain (e.g., presidial soldiers), and those engaged in an open market commerce (households).

CHAPTER 5. PROPOSED METHODS

This chapter describes the field and analytical methods to be used during the proposed investigations. The methodological approach is designed to address the research questions posed in the previous chapter and meet the compliance obligations for this project. SWCA's integrated data collection and management will be employed through all phases of the project and is described below. Site-specific field methods are described in the next chapter. Examples of field forms are provided in Appendix C.

The proposed archaeological field investigations involve mitigating the adverse effects to the site of LA 200086. The proposed methods include the following: 1) ground-penetrating radar, 2) site mapping, 2) mechanical stripping, 3) excavation of hand units, 4) hand augering, 5) hand excavation of features, and 6) site photography. Given the depth of the site and demonstrated presence of cultural materials, excavations will be confined entirely to the construction footprint and will extend to a maximum depth of 30 feet below modern ground surface (bmgs) or sterile, though cultural deposits are likely only within 15 feet of the modern ground surface.

The field investigations will be supervised by SWCA staff who are listed as Field Supervisors in the SHPO Directory. Project Principal Investigator Robin Cordero, who is also permitted by the Santa Fe Archaeological Review Committee for the Historic Downtown Archaeological Review District, will also be present on-site during the excavation. Additional senior field staff that are anticipated to assist Robin Cordero during the excavation are presented in Table 5-1.

Examples of the field forms to be used are provided in Appendix C.

Table 5-1. Proposed Project Staffing and Roles

Individual	Organization	Project Role
Robin Cordero	SWCA	Principal Investigator, Field Director, Human Osteologist
Dr. James Gallison	SWCA	Co-Field Director, Geomorphologist, Lead Monitor
Dr. Jennie Strum	SRI	Geophysical Survey
Adam Sullins	SWCA	Architectural Historian
Ryan Brucker	SWCA	Crew Chief, Monitor
Thaddeus Liebert	SWCA	Crew Chief
Jacob Borchardt	SWCA	Crew Chief/Historical Archaeologist
Brian Davis	SWCA	Crew Chief
Gabriella Martinez	SWCA	Burial Excavation
Christine Kendrick	SWCA	Burial Excavation
Dr. William Whitehead	SWCA	Drone Operator/Mapping
Patrick Lagodney	SWCA	Drone Operator/Photogrammetry

5.1 INTEGRATED ELECTRONIC DATA COLLECTION AND MANAGEMENT

SWCA's data collection and processing system entails current technology that integrates geographic information system (GIS) and other database information, beginning in the field and continuing through all

post-field phases. We use two apps for in-field recording: Open Data Kit (ODK) Collect and a mobile data collection app. ODK Collect documents archaeological data (artifacts, features, etc.), and the mobile data collection app records spatial data (site and survey boundaries). Both programs run on Samsung Galaxy Android tablets connected to a Juniper Geode GPS receiver (Figure 5.1). In this way, each crew member has GPS access, which greatly expedites field recording. The Geode GPS receiver provides sub-meter spatial resolution. On a daily basis we will upload the data on each tablet to an SWCA-owned server and an ArcGIS Online fieldmap is automatically populated.

Figure 5-1. Samsung Galaxy tablet (left) and Geode GPS receiver.

Identification tags will be placed in bags of artifacts and samples (or attached to artifacts too large to be bagged) and will have the following information fields: SWCA project number, Laboratory of Anthropology (LA) site number, feature number (if applicable), field specimen (FS) number, block, unit, level, recorder's initials, and the collection date (Figure 5.2). Each tag has a unique QR code that associates a bag's contents with its information fields. The tablets can scan the tags' QR codes, which expedites data integration in the field. Site inventories will be generated in the field electronically on the computer tablets but will be backed up with paper records. This integrated system expedites creation and management of the database for the laboratory and analysis phases.

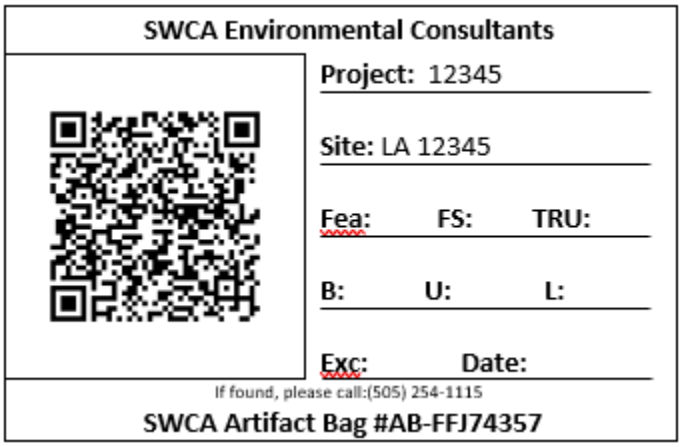

Figure 5-2. Example of a bag tag.

5.2 GROUND-PENETRATING RADAR AND MAGNETOMETRY

Following demolition of the existing building and removal of the asphalt parking area, SWCA in partnership with Statistical Research, Inc., will conduct a ground-penetrating radar and magnetometry survey of the project area. GPR is a very precise, high-resolution mapping method that is excellent for mapping buried features in three-dimensions, including stratigraphic changes and potential cultural features. The GPR method is particularly effective at mapping features in urban settings, including utilities, stratigraphic units, and buried cultural features that may overlay each other such as ditches, building foundations, surfaces, or pit features. Magnetometry measures changes in the magnetic properties of the subsurface, and can be quite effective at mapping features such as ditches, foundations, and burned features. GPR and magnetometry are complementary; when used in combination, the likelihood that features of interest will be mapped increases. To maintain spatial control over the data and aid in subsequent testing, the collection areas will be mapped in with a real time kinematic global navigation satellite system (RTK GNSS), which generally provides +/- 1 cm horizontal positional accuracy.

For this project, the GPR data will be collected with a GSSI SIR-4000 system with 350HS MHz antennas. This antenna frequency is common for archaeological contexts. In most geologic contexts, it allows depth penetration of approximately 3 m (10 feet) with object resolution of about 10 cm (4 inches). The magnetometry data will be collected with a Bartington Grad601-2 dual sensor system.

Multiple configurations are available for the GPR and magnetometer systems to accommodate a variety of environmental contexts. For this project, data would be collected within established grids, with the larger project area being subdivided into smaller grids using the RTK GNSS described above to facilitate both GPR and magnetometry collection. This field strategy ensures that individual GPR profiles can be better analyzed and visualized back in the laboratory, which is a critical component of archaeological analysis in complex settings. GPR transects will be collected using 50-cm transect spacing and a sampling density of one sample every 2.5 cm, while the magnetometry data will be collected using a sampling density of 50-cm transect spacing and 8 samples/m. These parameters meet or exceed standards-of-practice for the majority of archaeological applications.

For a project with a potentially complex mix of buried features such as this, data processing and analysis is extremely important. The GPR data will be processed to yield both two-dimensional reflection profiles and three-dimensional amplitude slice-maps, and both will be used to identify potential features of interest. The magnetometry data will be processed to yield magnetic gradient maps. Both the slice-maps and the magnetic gradient maps will be integrated into a Geographic Information System (GIS) platform, spatially rectified, and placed on other maps or aerial photos so that all features identified in the geophysical data can be accurately placed in relation to the buildings and surface features in the Project area. In complex urban environments such as this, this mapping and analysis approach is often the most efficient and effective way to locate buried features of potential interest.

5.3 SITE-LEVEL MAPPING

SWCA will use two cutting-edge technologies to accomplish site mapping and collection of spatial information in the field: 1) RTK/GNSS units and 2) unmanned aerial vehicle

5.3.1 GNSS Mapping

The RTK/GNSS units entail real-time kinematic (RTK) GNSS technology capable of extremely high (up to or exceeding centimeter-scale) resolution. As such, they are used for horizontal mapping of archaeological features, excavation units, backhoe trenches, and other data where greater than sub-meter

resolution is required. This method will be utilized to geolocate individual mapping points, corners of excavation units, features, and point-located artifacts as well as any other aspects of the excavation that requires precision mapping.

Data collection involves two RTK/GNSS units. One unit is set up to be a base station on a stationary tripod, that continually transmits correction data to the other receiver unit, which is mounted on an adjustable survey pole, and is set up to receive the correction data and take mapping points. An Android tablet is used to control the RTK/GNSS units and collect data points. The RTK/GNSS base station unit can be set up in several ways, but the most accurate is to establish a known point with previously established latitude, longitude, and altitude positions, using this location for correction signal transmission. The most common way to set up the base station is to allow the base unit to establish its location on an unknown point by averaging the data for up to 30 minutes and using this average location for correction data. The rover unit collects a data point by receiving GPS signals from multiple satellite systems and then factors the base station correction data to accurately locate the position. The rover unit reads satellite data and correction data for at least 5 seconds before recording a data point. Most readings have less than 1 cm of error in the three directional axes (x, y, and z). Notation data are recorded with the data point, and all data are downloaded as a shapefile for use in map production. Compared to the Geodes, data collection using the RTK/GNSS units requires more time, and for this reason the Geodes will be used for high-volume data collection such as point-plotted surface artifacts. Also, the RTK/GNSS system can collect high-resolution elevation (z-axis) data, which can used to maintain site-level vertical controls during excavation. Note that the vertical accuracy of this instrument, while accurate enough for mapping topography, does not have the accuracy necessary for high resolution mapping of levels, features, and documenting stratigraphic units.

5.3.2 UAV Mapping

SWCA will bring multiple levels of documentation to bear to fully record the events and progress of the excavations, provide cutting edge visualizations, and present this information in both traditional and online formats. We will rely on the following technology:

UAS based mapping using photogrammetry

Ground based point cloud production

Ground based 360 imaging with high resolution 360 cameras

All of these combined will create not only a data rich geospatial environment to coordinate the locations, areas, and volumes of excavations, but visual resources to better understand the entire process.

Before excavations begin, a series of permanent datums will be established that are not within the excavation area, and at a density that at least two datums are visible at all points within the excavation area. These will be recorded with survey grade instrumentation and will serve as the geospatial backbone of the entire recording process. Sub-datums will be used closer to the excavation areas, and will serve as locations for recording spatial information in smaller areas, and will be tied into the larger excavation datum network. During all data recording procedures, the network of datums will allow for placing the individual data products into the grid of known points.

The data recording process will follow the following base protocol:

- Place a north area, scale, and standard color reference bar in view of the recording instrument.

- Fly a mapping mission to record the surface of an area just excavated (bottom of the just excavated area, top of the next excavation step), this will be analyzed with Pix4D software (further explained below).

- Record a 3D point cloud of the area with a Leica BLK360 at one or multiple points depending on the area to be mapped, this data will be processed with Hexagon's - Reality Cloud Studio.

- Take a 360 image of the area with either a drone or ground-based camera, this will be used to put the area to be investigated into context within the larger excavation area.

- Since the top of every excavation step will be recorded, we can also use this information as the bottom of the excavation step just completed. Since all the data will be imbedded in a web of datums and sub-datums, the ability to place and measure the excavations can be done digitally after the excavation is completed.

This data will be recorded in the field and then backed up on an external drive. In the office, the data will be uploaded to SWCA servers and processed according to the data type. An internal database of geospatial data, images, point clouds, and 360 images will be maintained, so the excavation team will have access to the data as the work progresses over the field season.

5.3.3 Unmanned Aerial Vehicle Imagery Collection and Photogrammetry

Unmanned aerial vehicle (UAV, or drone) technology is becoming an increasingly important tool in archaeology with the advent of aircraft that are inexpensive, small, and easy to use—yet also powerful in their data collection abilities. This imagery is processed using photogrammetry to provide three-dimensional (3-D) data and various topographic and object analytical tools, all at a modest cost. Our photogrammetry capabilities allow us to produce microtopographic data with centimeter-scale image resolution and elevation mapping. Using ground-based points of reference, produced with our high-resolution GPS devices, and USGS LiDAR data sets, the UAV-acquired data are georeferenced to the Universal Transverse Mercator (UTM) coordinates. All UTM location data will be recorded using North American Datum (NAD) 83 points. Using Pix4D software, we can produce multiple outputs of photogrammetry-generated data, including both static and movable (user-manipulated, 3-D models) products. For reports, static products include color-coded topographic and slope maps, imagery overlays, and oblique renderings. All data are archived for up to 7 years on SWCA servers and can be provided to the agency as raw and processed files.

5.3.3.1 UAV Data Acquisition

Given the archaeological features known to be present, this project is particularly well suited to UAV recording and analysis. The goals for the UAV work, and the procedures we will use to accomplish them, are provided below. UAV-collected data and photogrammetry processing offer several key advantages over more traditional methods of site mapping, including other methods that produce 3-D data:

1. UAV imagery is higher in resolution than available satellite imagery for initial documentation.

2. Photogrammetry digital elevation models (DEMs) generated from high-resolution imagery are better than LiDAR models for large area work, in both speed of data collection and resolution.

3. The resulting data sets allow for novel analyses of archaeological features, landscapes, and site terrain.

4. Use of UAVs and photogrammetry can easily integrate and even obviate the need for some traditional archaeological data-collection techniques, such as use of total stations, if completed at regular intervals during the excavation process.

5.3.3.2 Methodology

SWCA has established a well-developed UAV program to document archaeological resources and their surrounding landscapes. Using the latest technology, we have documented more than four dozen sites in New Mexico and hundreds of square miles of landscapes in southeast New Mexico. Our methodology will be focused on the concept of "Drone first – Dig next," a simple idea based on the advantages gained by having recently acquired, high-quality topographic maps and imagery of the landscape or target areas prior to conducting site visits, TRU collection, and excavations. The UAV work will enhance the efficiency and quality of all archaeological activities and will be integral to analyzing, assessing, and interpreting project results.

The UAV data will be collected with a small quadcopter drone, mounted with at least a 20-megapixel RGB camera for photography. Data collection will be automated using *DroneDeploy* flight control software using the "structures mode." Data collection involves two flight passes, at 90-degree offset grids, over the area of interest, with the camera at a 60-degree angle perpendicular to the ground (see Figure 3 for a sample flight plan created using this software). These data are superior to "Nadir," or images that are perpendicular to the ground, because variations in height can be more easily seen in the images. A buffer of 50 m will be added to every site boundary and artifact location to ensure that the flyovers cover each cultural resource in its entirety. The flights will be 60 feet above the ground surface, giving a 0.25- to 0.3-inch ground-sampling resolution (which varies due to elevation differences in the ground surface). Ground control points will not be used because the GPS technology of the drone and large image number interpolation of position usually give absolute error rates of less than 15 centimeters (cm) on the horizontal axes and 30 cm on the vertical axis. Absolute position can be corrected using freely available elevation and satellite data for the region from the U.S. Geological Survey and the University of New Mexico.

5.3.3.3 UAV-Obtained Imagery Processing

5.3.3.3.1 PIX4D

Pix4D (www.pix4d.com) is a commercial analysis package used to produce two primary products: orthomosaics and point clouds. These two products are then used to create secondary products and analyses. All photographs taken during flight are uploaded via a web interface to Pix4D's secure online cloud processing service, with results files usually available 6 to 8 hours after upload is finished. Pix4D also has an online data viewing application, which allows users to view the orthomosaics, digital surface model, a textured mesh, and raw point cloud directly from the analysis. In addition, annotations; screenshots; length, area, and volume measurements; and cross-sections can be made with the online viewer.

5.3.3.3.2 POINT CLOUD

The point cloud is produced by using photogrammetry, a technique using multiple photographs of the same object taken at different locations, distances, and angles to reconstruct the surface of the object. The point cloud is saved in the same format as LiDAR files (LAS format) and records UTM coordinates (latitude, longitude, and altitude) of each point, using the WGS 84 datum. All data will be transformed to NAD 83 UTM Zone N13 before being submitted to the BLM. The color of each point is also recorded, allowing for

almost photographic rendering of each mission with the web application (Figure 5-3). The point cloud is the basis of several products used in this analysis.

Figure 5-3. Walls rendered as a point cloud using photogrammetry.

5.3.3.3.3 ORTHOMOSAICS

The orthomosaics are created and saved in a georeferenced TIFF format, either as one large image or tiled for faster viewing. The orthomosaics are created by taking pieces of each image and stitching them together using the point cloud as the base reference system. This is more sophisticated than normal photographic tiling and allows images from any angle to be merged into an orthomosaic. The orthomosaics provide an extremely high-resolution view of the site's surface, allowing for extremely detailed locational referencing for artifacts, features, etc. (Figure 5-4).

Figure 5-4. Walls visualized from low level drone flights using photogrammetry.

5.3.3.3.4 DIGITAL ELEVATION MODELS

Pix4D produces a georeferenced, single-channel DEM that translates the point cloud into a raster image (Figure 5-5). These can be clipped and combined to form larger mosaics and given false color rendering to highlight relief.

5.3.3.3.5 3D SURFACE MODELS

The photogrammetry data will also be used to create a 3D surface mesh, which can be viewed natively in Windows 3D viewer software (Figure 5-6). Pont cloud production using the Leica BLK360 is a simple process of setting up the recorder and running the 360 scan in the area of interest. Since the scanner will be recording large open surfaces primarily it will be placed at an elevation of 5 feet or higher and at multiple points around the area to ensure proper recording of the surfaces. Within trenches or inside of excavation units, the scanner will be able to see the walls and features easily, with multiple set ups used to ensure full coverage. Every scan location will be able to see at least two of the permanent or sub-datums to allow for easy reconciliation of the data into the larger point cloud project. At the same time as the camera is scanning for points, it also records a 360 image of the location. This will also be useful for visualizing the excavations and will be archived with the point cloud data.

Reality Cloud Studio will be used to download, process and combine the growing data as it is collected from the field. This software will be able to automatically combine data that share common points and will be useful in storing the data as one project. As the excavations proceed a growing point cloud of surfaces and features will be created, allowing for the team to virtually recreate the excavations by turning off excavation layers and features. This data will also be useful for establishing the volume of sediments excavated, sub-centimeter placement of archaeological features, and presenting the data as point cloud surfaces. The data will be archived in the native Leica file format, but also in .LAS format that is a public standard for sharing 3D point cloud information.

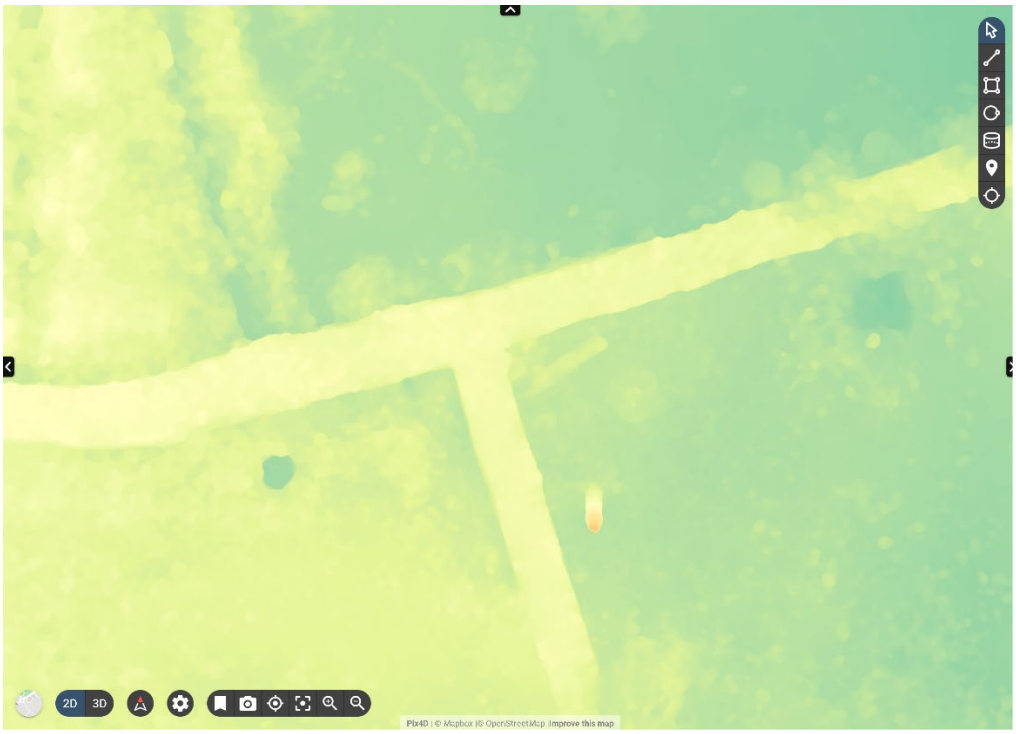

Figure 5-5. Digital surface model of the walls seen in the point cloud and orthomosaic above.

Figure 5-6. A 3D mesh representation of rock walls with a surface texture draped over the fine scale mesh model3D Point Cloud Production.

5.3.3.4 Data Storage, Access, and Integration Plan

All data from this system will be stored on SWCA servers and be made available to the GIS team, and Data Acquisition team. The primary storage system will have folders created for each day of excavations, with sub-folders used to store each data type produced. There will be a simple excel file created and maintained in the parent folder with data descriptions and file names of all the data created by the project for easy referencing.

5.4 MECHANICAL EXCAVATION

Mechanical trenching provides an expedient method for defining the stratigraphic sequence at a site as well as identifying buried features. Due to the depth of cultural deposits and extent of disturbance at the site, it is imperative that SWCA map the stratigraphic sequence at LA 200086. Backhoe trenching will involve the use of a 4-ft wide finishing bucket with a flat edge. Due to site depth, backhoe trenching can only extend to a depth of 4 feet before terminating without stepping the trench walls due to OSHA safety concerns. Trenches will not extend deeper than 8 feet with stepping. Two archaeological monitors will be positioned with the backhoe to monitor the trench base and walls as well as the backdirt pile.

Mechanical stripping (Figure 5-1) will be carried out at LA 200086 in order to assist in delineating the extent of features and to remove overburden. Any archaeological features uncovered during machine scraping will be flagged and geospatially located using the RTK/GNSS system, and further scraping will be used to remove overburden to within 20 cm of the feature. Uncovered features will be documented and manually excavated per standard feature methods (see below). Temporally diagnostic artifacts observed during stripping will be collected by point provenience using the GNSS receiver. Depending on specific circumstances, scraping may resume at a particular locus within the site following excavation of exposed features. An archaeologist will monitor machine scraping at all times, and appropriate safety measures will be implemented.

Figure 5-7. Example of machine scraping. Note the dark feature stain in the foreground.

5.5 HAND UNITS

Hand units will be employed for at least four objectives: 1) to explore for subsurface archaeological remains; 2) to acquire information on the densities and distributions (both vertically and horizontally) of subsurface artifacts; 3) to provide exposures of subsurface stratigraphy; and 4) to investigate features, artifact concentrations, or anthropogenic strata or staining visible on the ground surface or exposed during excavations. Blocks of hand units will be employed in some cases to investigate features or archaeological remains.

Standard hand unit sizes will be 1 × 1 m. Dimensions may vary, however, depending upon the nature of archaeological features or other remains targeted by hand units. All hand units will be excavated in arbitrary, 10-cm levels. However, if natural stratigraphic breaks are discernible during excavation, then either the arbitrary levels will be subdivided by these natural divisions, or excavations will simply proceed according to the natural strata (if strata are less than 20 cm in thickness; otherwise, natural strata will be subdivided into arbitrary, 10-cm levels).

Fill from hand units will be dry-screened through ⅛-inch mesh, and all artifacts will be collected (including debitage). Exceptions to this may include the identification of non-cultural fill or intrusive modern fill into earlier features, such as a basement that has been backfilled during ground leveling or a pithouse that has infilled with sterile flood deposits. In these circumstances the Field Director may remove said intrusive or non-cultural fill by either removal of the entire strata with a judgmental sample of screened fill, by screening the intrusive or non-cultural stratum through ¼-inch mesh, or removing the entire stratum without screening but monitoring the backdirt.

A detailed stratigraphic description and, if appropriate, a stratigraphic profile drawing will be completed for at least one hand unit at each site and for additional units if notable stratigraphic variation is observed. Information from hand units will be recorded on standardized paper unit forms that includes level excavated, depth below datum for beginning and ending level, artifacts collected, QR codes, soil Munsell color name and code, soil texture, and general description of the level.

5.6 HAND AUGERING

Hand augering may be carried out during the proposed investigations, but only under particular circumstances. Specifically, hand augering will be used beginning at a depth of 3 m below ground surface in hand units that produce no artifacts for at least three successive levels (30 cm), and does not encounter pre-Holocene matrix. Hand augering will proceed to a depth of 4 m below surface, or until a carbonate horizon, Pleistocene gravel deposit, or other clearly pre-Holocene matrix is encountered, whichever comes first. Hand augering may also be used to explore around any units that encounter dark-stained features or sediments in the subsurface, and/or high artifacts densities that might signal buried living surfaces. In these instances, augering may be used to delimit any such subsurface findings, and this can help guide the placement of additional hand units at that location.

Each hand auger will extract sediment in 10-cm increments (i.e., roughly the length of the auger's collection tube, plus loose sediment that falls back into hole after each extraction). Each 10-cm level will be dry-screened in the field through ⅛-inch mesh. All artifacts will be collected. Sediment characteristics (minimally, consistence and soil color, the latter recorded using Munsell soil color charts) will be recorded for each 10-cm level for at least one representative bucket auger at each site, along with a photograph of the extracted sediment from each level laid out on a plastic tarp (Figure 5.3). If notable stratigraphic variation is observed among bucket augers within a site, additional descriptions of sediment characteristics and photographs of extracted sediment will be recorded. An inventory form will be maintained for hand

augers at each site, and will include the following fields: 1) auger number, 2) FS number and 3) QR numbers (if any artifacts are recovered and collected), 4) maximum depth, 5) depth of any observed stratigraphic break, 6) photograph (if applicable), and 7) notes. If the auger tests indicate subsurface cultural materials or deposits, then the hand unit will be excavated down to that level to fully investigate the cultural deposit.

Figure 5-8. Examples of extracted sediment from auger tests, laid out by level.

5.7 FEATURES

Feature excavation will utilize both mechanical and hand excavation methods in order to achieve our goal of identifying, exposing, and documenting the features and their contextual placement within the site and associations with adjacent features at 123 Grant Ave. Although several features were identified at 123 Grant Ave. during testing by OAS, these features were not fully exposed and several are likely associated with the same construction. As a result, this proposed data recovery will not utilize the existing feature numbering sequence and will instead renumber all previously encountered features as they are exposed.

5.7.1 Small Features

For small features covering less than 1 m^2 at the surface (i.e., hearths, storage pits, post holes), excavation will begin with fully exposing the horizontal limits of the feature by stripping surface sediments to the upper limits of the feature in plan and a pre-excavation plan view and photo will be taken. The fill from one-half of the feature will then be removed and reserved for flotation, taking care to exclude any fill associated with krotovina or other non-feature fill. A cross-section photo and drawing of the feature will be taken. The remaining fill will be removed and, if the total fill removed from the feature is less than 4L, the remaining half will be reserved for flotation. If the fill that was removed from the first half was at minimum 4L, then the remaining fill will be screened through 1/16-inch mesh. If the feature has more than 4L of fill present in the initial half being excavated, or if different strata are observed within the feature, then a 4L sample should be collected from each stratum. Any macrobotanical remains (e.g., seeds, maize) or wood fragments suitable for AMS dating (i.e., twigs) encountered during feature excavation will be collected and placed in a vial to prevent damage to the specimen.

Once excavation is completed, a post-excavation photo and plan-view will be drawn, and the cross-section will be reevaluated to ensure accuracy. The base of the feature and the two mapping points will be shot in.

Additional hand units will be excavated around small features to capture artifact debris that may be associated with the feature's use and to identify additional associated features or activity surfaces, if present. After excavation of small features, a 3 × 3–m grid of hand units will be centered atop the feature.

5.7.2 Large Extramural Features

These types of features include middens, artifact concentrations, outdoor work areas, fire-cracked rock concentrations, etc. Once encountered, the fill above said feature will be removed either through hand or mechanical stripping to expose the limits of the feature. Pre-excavation photos of the feature will then be collected and a plan view will be drafted. The feature will then be excavated using a hand trench through the long axis of the feature and a perpendicular trench, if warranted. If the feature is greater than 5 m in its long axis, then a mechanical trench may be used to expedite definition of the feature. The purpose of the trench is to define the lower limits and margins of the feature, to assist in identifying the feature type, and to define any stratigraphy within the feature. As such, the trench may not be screened if additional hand units are anticipated. A minimum of 20 percent or 15 m^2, whichever is reached first, of the surface area of the feature will be excavated with hand units. Additional units may be excavated with hand units as warranted. A profile of the cross-section(s) will be drawn and photographed.

Hand excavation of these large extramural features may be conducted in a checkerboard pattern or through the judgmental placement of units. All hand units will be excavated in 10 cm levels and screened through 1/8-inch mesh. Flotation samples may be collected when warranted, and these may include 20 cm by 20 cm by 10 cm thick vertical column samples through the feature fill.

5.7.3 Architectural Features

5.7.3.1 Ancestral Puebloan Structures

For structural features, such as pithouses or room within a roomblock, the feature itself will be excavated using subunits (quarters or halves) determined in the field based on the logistics of excavation and the shape and size of the feature. The horizontal extent of a feature will first be defined through hand or mechanical stripping or, if the surface delineation does not readily reveal the spatial extent or boundaries of the feature, a hand trench may be placed through the feature without screening to define its depth, extent, and stratigraphy. A stratigraphic profile of feature fill will be drawn after one half of the feature has been excavated or after the feature has been trenched. One or more 1 by 1 m test units will be placed within each quadrant and excavated in 10 cm levels to the floor with all fill being screened through 1/8-inch mesh. Once the nature of the fill and distribution of artifacts are defined, additional 1 by 1 m hand units may be excavated for control or the structure can be excavated by stratigraphical levels by quadrants. Structural infilling, if sterile and non-cultural, may be removed using stratigraphic levels and discarded without screening.

Once either roof fall is encountered or, if roof fall is not present, the unit is 10 cm above the floor, all fill will be screened through 1/8-inch mesh. All excavation through roof fall to the floor will be in 1 by 1 m units, and artifacts and structural remains will be piece plotted and mapped. Structural remains, if present, will be collected for dendrochronological analysis and/or radiometric dating. Pollen and 2L flotation samples will be collected from within 5 cm of the floor of each 1 by 1 m unit and mapped. Once the entire floor is exposed, any floor features will be excavated following the methods described above for Small Features. The structure will then be mapped and at least one cross-section will be drawn. The structure and all features will be photographed and, if warranted, a 3-dimensional scan of the structure will be collected.

Once all floor features have been excavated and the structure mapped and photographed, a subfloor test unit will be excavated to evaluate the presence of additional floors or subsurface features.

5.7.3.2 Historic Structures

The limits of historic structures, such as house foundations, will be defined first through mechanical or hand stripping. The interior of the structure will be subdivided into quadrants and a hand or mechanical trench oriented to the long axis of the feature will be excavated through the middle of the feature to define the horizontal and vertical limits of the fill and to identify the stratigraphic context of the feature fill. At a minimum one 1 by 1 m control unit will be excavated to the floor in each quadrant and screened in 10 cm levels through 1/8-inch mesh. The remaining infilling may be removed stratigraphically by quadrant and, if the stratum is modern intrusive or sterile, then that stratum will be discarded without screening. If cultural, the field supervisor will determine if additional screened levels are necessary based on the amount of artifacts recovered and nature of the deposit. Once the excavation is within 10 cm of the floor, excavations will be in 1 by 1 m hand excavation units. All fill within 10 cm of the floor will be screened through 1/8-inch mesh. And artifacts will be piece-plotted. Any floor features will be excavated using the Small Feature methods presented above.

On the exterior of the structure, a minimum of 8 hand units will be excavated within 3 m of the foundations for the purpose of identifying any midden deposits associated with the structure. The area within 4 m of the structure will then be mechanically stripped to assess for features.

Once excavation of the interior and exterior of the structure is completed, a detailed plan view will be drafted of the feature, and the structure will be photographed and, if warranted, a 3-dimensional scan of the structure will be collected. An architectural historian will then document the structure's construction and other architectural details.

5.8 MONITORING OF UTILITIES

For the installation of underground utilities within the APE that require trenching, an SWCA archaeological monitor, who is listed on the New Mexico SHPO directory as a Supervisory Archaeologist, will observe all hand or mechanical excavations. Monitors will perform a cursory examination of the back dirt and will examine stratigraphy and hand scrape sections of the excavated trench wall. Any potential cultural resources identified in trench profiles or in the backdirt will be documented. If cultural features are encountered, additional SWCA archaeologists may be called to assist with any test units that are excavated or to shovel scrape side walls while the monitor continues to observe mechanical excavation.

Functionally or temporally diagnostic artifacts will be opportunistically collected from the back dirt or from feature cross-sections exposed in the trench sidewalls. Trench profiles will be faced with hand tools and will be examined for exposed cultural deposits and features. A closer examination of the trench profile will be done in areas with artifact content, in areas of darkened soil that may indicate cultural organic content, in areas of foundations or other architectural features, and in areas with changing sediment composition. Features identified during excavations will be mapped and recorded. This may include temporary suspension of hand or mechanical excavation to allow archaeologists to manually expose deposits, recover artifacts and samples, and document cultural deposits and features within the trench using standard SWCA feature forms.

These features will be profiled in detail, photographed, and artifact samples will be collected from the excavated wall when appropriate. For any feature, additional excavations will be limited to within 50 cm of the edge of the trench in order to preserve the integrity of the feature, if possible. If large features are encountered within the excavations the archaeologists will expose and document each feature using standardized feature forms, scaled drawings, and photography. A feature number will be assigned, and the artifact content, stratigraphy, morphology, construction methods, and age recorded. A profile of the feature

will be drawn and photographed. Any excavations of features, if needed, will follow the procedures for feature excavation presented in Section 5.2.6 of this document.

5.9 PHOTOGRAPHY, INVENTORIES, AND OTHER FIELD RECORDING

Photography will be an integral part of the proposed testing and data recovery work. Digital photographs of site overviews, excavation activities, plans and profile views for units and features, and general fieldwork action photographs will be taken throughout work at all sites. The Android tablets will be used for digital photography, and the tablets will auto-generate a detailed photo log.

Each bag containing artifacts or samples will be given a unique field specimen (FS) number and recorded on a bag list inventory form. Relevant FS numbers will also be recorded on all excavation and feature forms. Each bag of artifacts or sample is given an identification tag; each tag has a unique QR code that associates a bag's contents with its information fields. Our tablets can scan the tags' QR codes, which expedites data integration in the field. Site inventories will be generated in the field electronically on the tablets but will be backed up with paper records. This integrated system expedites creation and management of the database for the laboratory and analysis phases.

Field excavation forms include a combination of both digital forms filled out on a Samsung tablet, along with paper forms and hand-drawn maps. Field forms will be scanned and uploaded daily to a server for secure storage.

5.10 HUMAN REMAINS/BURIALS OF HUMANS AND ANIMALS

In the event that a burial is encountered, all excavations will cease in the vicinity of the burial and the SHPO will be notified. The interred individual will be treated according to the specifications in Appendix B. Excavations will be by hand using trowel to remove the surrounding sediments, and wooden or plastic tools closer to the bone. All associated funerary items will be piece-plotted, mapped, and removed. If intact or partial vessels are present, any fill inside the vessel will remain in the vessel, if possible. Otherwise, the fill will be bagged without screening and retained with the vessel. The individual will be mapped on graph paper and photographic documentation of the burial or individual will be taken with a north arrow and meter stick as required under 4.10.11 NMAC *Issuance of Permits for Unmarked Human Burials*. All fill immediately surrounding the individual will be collected and bagged without screening for reburial. Human remains will not be cleaned aside from light brushing with a fine-haired brush to remove loose dirt. The individual and all associated funerary items and associated fill will be placed in boxes and transported to a secure location on-site until reburial. The individual and associated funerary items, if in multiple boxes, will be placed adjacent to one another. Analysis of human remains will be conducted by Robin Cordero on-site, and analyses are to include an osteological inventory, age assessment, biological sex determination, and description of life history/health markers, as well as collection of standard osteometric data.

5.11 LABORATORY PROCESSING

All collected artifacts and samples will be housed at SWCA's Albuquerque Laboratory for processing. Laboratory processing will include initial intake/inventory of artifacts, washing of artifacts, and rebagging and counting of artifacts. A database will be generated from data entered into the electronic tablets in the field and updated as processing and analyses proceed. As artifacts are washed and samples processed, the contents of any bags containing mixed artifact classes (e.g., ceramics, lithic materials, bone) will be separated into the respective classes and the database updated. FS numbers assigned in the field will not be

changed, but new QR codes will be assigned for artifacts and other materials separated out during processing and analysis. Once all of the bags have been washed and/or processed through flotation, and the material classes separated out, each material class will be delivered to the respective analysts (Table 5-1).

Table 5-2. Proposed Laboratory Personnel and Analysts

Laboratory Analysis	Analyst/Organization
Historic Artifacts	Jacob Borchardt (SWCA)
Native American Ceramics	Meaghan Trowbridge (SWCA),
Lithic Artifacts	Dr. James Gallison, Joseph Birkmann (SWCA)
Obsidian Sourcing	Dr. Steven Shackley (Geoarchaeological XRF Laboratory)
Faunal Remains	Robin Cordero, Dr. Ad Muniz (historic), Christine Kendrick (Puebloan) (SWCA)
Human Osteology	Robin Cordero (SWCA), Gabriella Martinez (SWCA)
Macrobotanical Remains	Kathy Puseman (Paleoscapes Archaeobotanical Services)
Radiocarbon Dating	International Chemical Analysis
Laboratory Director	Ryan Brucker (SWCA)
Laboratory Assistant	Jamie Stevens (SWCA)

5.12 MATERIAL ANALYSES

Analytical methods will be geared toward addressing the questions in the research design and will minimally include analyses of historic artifacts (glass, ceramics, and metal), lithic artifacts, Native American ceramics, both historic and Ancestral Puebloan faunal remains, and macrobotanical remains. If found, Ancestral Puebloan ornaments, minerals, and dendrochronological samples will be collected and analyzed.

5.12.1 Lithic Artifact Analysis

The lithic artifact analysis will be overseen by Dr. James Gallison and Joseph Birkmann. Lithic artifacts include flaked and ground stone items. Flaked stone artifacts will first be subdivided into one of several categories: 1) tested cobbles or nodules (with fewer than four major flake scars), 2) cores, 3) debitage (including unmodified flakes, shatter, and incidentally modified flakes), 4) bifaces, 5) projectile points, and 7) other flaked stone tools. Cores will be subdivided into amorphous (multidirectional), unidirectional, bidirectional, and blade cores. Debitage will be subjected to a detailed, attribute-based analysis consistent with that employed on other SWCA Albuquerque office projects. Biface classification will follow the stage model formulated by Roxlau et al. (1997:61–70), which divides bifaces into six stages. Projectile points are morphologically distinctive bifaces that may exhibit late-stage flaking, more or less symmetrical outlines, and often notches for hafting. Projectile points can often be distinguished between spear or dart points (which tend to be relatively large and thick) on the one hand, and arrow points (which tend to be smaller and thinner) on the other. To the extent possible, projectile points will be identified in relation to named types as defined by Chapin (2017), Justice (2002), Turnbow (1997), and potentially other sources. Other flaked stone tools may include bifacial implements, or intentionally retouched cores, flakes, or angular pieces, encompassing such functional types as scrapers, gravers, wedges, drills, etc. Incidentally modified flakes will be distinguished from flake tools (i.e., those with marginal retouch that is assumed to have been intentional) by the length of the marginal flake scars; flakes with regular, edge-retouch scars greater than 3 mm long will be classified as flake tools, while others will be considered incidentally modified flakes and included with debitage for analysis.

Railey, Jim A., and Eric J. Gonzales
2015 The Problems with Flake Types and the Case for Attribute Analysis of Debitage Assemblages. In *Works in Stone: Contemporary Perspectives on Lithic Analysis*, edited by Michael J. Shott, pp. 11–32. University of Utah Press, Salt Lake City.

Raymond, Gerry and Stephen Townsend
2007 *Cultural Resource Survey for the Proposed Arroyo Chamiso Trail, City of Santa Fe, Santa Fe County, New Mexico*. Criterion Consulting Report No. CEC-2007-14. Criterion Consulting, Albuquerque, New Mexico.

Read, A.S., D.J Koning, G.A. Smith, S. Ralser, J.B. Rodgers, and P. A. Bauer
2000 *Geologic Map of Santa Fe Quadrangle, Santa Fe County, New Mexico*. New Mexico Bureau of Geology and Mineral Resources, Open-file Geologic Map.

Renfrew, C., and J. F. Cherry (editors)
1986 *Peer Polity Interaction and Socio-political Change*. Cambridge University Press, Cambridge.

Ringrose, Todd J.
1993 Bone Counts and Statistics: A Critique. *Journal of Archaeological Science* 20:121-157.

Roberts, John W.
1912 John W Roberts Writes Regarding Old Mexico. *The Santa Fe New Mexican*, Vol. 49, Issue 210, Oct. 15, 1912. digitalrepository.unm.edu/cgi/viewcontent.cgi?article=4616&context=sfnm_news [accessed Nov. 11, 2023]

Rogers, Elizabeth Barlow
2011 *Landscape Design: A Cultural and Architectural History*. Abrams, in imprint of Harry N. Abrams, Inc., New York.

Roxlau, Blake, Gary M. Brown, and Rachel Loehman
1997 Lithic Typology for the Jemez Mountains. In *OLE Volume II: Artifacts*, edited by John C. Acklen, pp. 31–90. TRC Mariah Associates and Public Service Company of New Mexico, Albuquerque.

Rice, Prudence
1984 *Pottery Analysis: A Sourcebook*. University of Chicago Press, Chicago.

Sanchez, Joseph, P.
2004 *The Camino Real de Tierra Adentro.* Spanish Colonial Research Center and Petroglyph National Monument, Albuquerque, NM.

Schaafsma, Curtis
1982 A Window on Santa Fe's History. *El Palacio* 88(3):29-39, Santa Fe, NM.

Scheick, Cherie L.
1979 *Archaeological Survey near Agua Fria, New Mexico and Limited Testing of a 17th Century Colonial Site, LA 16773.* Contract Archaeology Program Report 940, School of American Research, Santa Fe, NM.

1991 *The Agua Fria Schoolhouse Site: A Contemporary Caution*. Paper presented at the 56th Annual Meeting of the Society for American Archaeology, New Orleans.

2003a *Archaeological Investigations of a Middle to Late Developmental Period Site adjacent to Fort Marcy Hill, Santa Fe, New Mexico*. Southwest Archaeological Consultants Research Series 454d. Southwest Archaeological Consultants, Santa Fe, New Mexico.

2003b *Final Report: Archaeological Resources of "La Otra Banda del Rio" City of Santa Fe Railroad Properties*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

2005 *Coalition Period Remains under the West Alcove, U.S. Federal Courthouse, Santa Fe, New Mexico*. Southwest Archaeological Consultants, Research Series 477c. Santa Fe.

2007 The Late Developmental and Early Coalition of the Northern Middle Rio Grande: Time or Process?. *Kiva* 73(2):131-154

Scheick, Cherie L., Stanley M. Hordes, and Cordelia T. Snow

1993 *Archaeological and Historical Research of "La Otra Banda del Rio": The SF Railroad Properties between Montezuma Street and St. Francis Drive*, Ms. On file, Southwest Archaeological Consultants, Inc., Santa Fe, NM.

Scheick, Cherie L., and Lonyta Viklund

1991 *Cultural Resources of Piedmont Slopes Northwest of Santa Fe: Estates III, the West Golf Course and Adjacent Properties*. Southwest Archaeological Consultants Report No. 278. Southwest Archaeological Consultants, Santa Fe, NM.

Schiffer, M.B.,

1987 *Formation Processes of the Archaeological Record*. University of the New Mexico Press, Albuquerque, New Mexico.

Schmader, Matthew F.

1988 *Excavation of the Santo Niño Site (LA64677): An Early Coalition Period Pithouse in North Santa Fe*. Rio Grande Consultants, Albuquerque, New Mexico.

Schmader, Matthew, C. Wayne Oakes, and Timothy Binzen

1994 *Archaic Occupations of the Santa Fe Area: Results of the Tierra Contenta Archaeological Project.* Final report submitted to the Archaeological Review Committee, Rio Grande Consultants, Albuquerque, NM.

Schroeder, Albert H.

1979 Pueblos Abandoned in Historic Times. In *Handbook of North American Indians: Southwest*, vol. 9, ed by Alfonso Ortiz, pp. 236-254. Smithsonian Institution, Washington, D.C.

Scurlock, Daniel

1986 Spanish Expansion, 1710-1821; Trade and Expansion, 1821-1846. In *New Mexico In Maps*, Second edition, ed. by Jerry L. Williams, pp. 102-104. University of New Mexico Press, Albuquerque, NM.

Seifert, Donna J. Laura A. Carter, John Dillon, Betty Kolner, James A. Lancaster, and Cordelia Thomas Snow

1979 *Archaeological Excavations at the Palace of the Governors, Santa Fe, New Mexico 1974 and 1975*. New Mexico Office of Cultural Affairs Museum of New Mexico History Division, Santa Fe, New Mexico.

Shackley, Steven M.
2005 *Obsidian: Geology and Archaeology in the North American Southwest*. University of Arizona Press, Tucson.

Shott, Michael J.
1994 Size and Form in the Analysis of Flake Debris: Review and Recent Approaches. *Journal of Archaeological Method and Theory* 1(1):69–110.

Simmons, Marc
1969 "Settlement Patterns and Village Plans in Colonial New Mexico". *Journal of the West*, 8:7-21.

1977 *New Mexico: An Interpretive History*. University of New Mexico Press, Albuquerque, NM.

Snow, Cordelia T.
1996 Archaeological Excavations at the Palace of the Governors, Santa Fe, New Mexico, 1884-1995. *Compadres* 5(3):4-7.

2002 Archival Research for LA 132213 and LA 132214 within the Rufina Meadows Subdivision. In *The Rufina Meadows Project Excavations in Lower Agua Fria, Santa Fe County, New Mexico*, by Stephen Post. Consulting Archaeologist Report No. 103, New Mexico.

Snow, David H.
1988a *The Santa Fe Acequia Systems: Summary Report on Their History and Present Status, with Recommendations for Use or Protection*. Cross Cultural Research Systems, Santa Fe, New Mexico.

1988b *Report of Archaeological Survey: Proposed Development of a Lot at 429 West San Francisco Street, Santa Fe, New Mexico*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe.

1989a *Survey and Testing: 320 Kearny Street, Santa Fe, New Mexico for M. Fischer*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe, New Mexico.

1989b *Archaeological Investigation: 301 Otero Street, Santa Fe, New Mexico*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe, New Mexico.

1989c *Survey and Testing: 334 Otero Street, Santa Fe, New Mexico for Monroe and Associates*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe.

1989d *Report of Human Remains Recorded at the Baca-Iarranaga Site, 427 West San Francisco St., Santa Fe, New Mexico*. Cross Cultural Research Systems, Santa Fe, New Mexico.

1990a *Report of Archaeological Testing: 113 Washington Street, Santa Fe, New Mexico*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe, New Mexico.

1990b *Archaeological Survey and Testing: 751 W. Manhattan Street, Santa Fe, New Mexico.* Cross-Cultural Research Systems, Santa Fe. Manuscript on file, City of Santa Fe Planning Division, Santa Fe, New Mexico.

1991 *Archaeological and Historical Investigations, 1000 Paseo de Peralta, Santa Fe, New Mexico*. Cross-Cultural Research Systems, Santa Fe. Manuscript on file, Archeological Records Management Section, Historic Preservation Division, Santa Fe / Museum of New Mexico, Santa Fe.

2001 *Archaeological and Historic Investigations of 9.586 Acres at Viento Segundo, Santa Fe, New Mexico*. Cross Cultural Research Systems, Santa Fe, New Mexico.

2002 *Archeological and Historical Investigations 0.9 Acre at The Northeast Corner of Grant and Griffin Streets, Santa Fe Downtown Historic District*. Cross Cultural Research Systems, Santa Fe, New Mexico.

2003 *Archeological and Historical Investigations: 103 Catron Street, The Catron Site Downtown Historic District Santa Fe, New Mexico.* Cross Cultural Research Systems, Santa Fe, New Mexico.

2011 The Historic Use and Occupation of the Project Area. In *Ogapoge, the White Shell Water Place: The Prehistoric Component at El Pueblo de Santa Fe (LA 1051),* edited by Stephen C. Lentz and Matthew J. Barbour, pp. 5-26. Laboratory of Anthropology Note 410. Laboratory of Anthropology, Museum of New Mexico, Santa Fe, NM.

Soil Survey Staff

2024 *Web Soil Survey.* Natural Resources Conservation Service, United States Department of Agriculture. Available online: http://websoilsurvey.sc.egov.usda.gov/. Accessed [March 27, 2024].

Stenson, Lee, D., and Brandi L. Butts

2023 *Geotechnical Engineering Report for the Georgia O'Keefe Museum New Exhibition Building, Santa Fe, New Mexico*. Terracon Consultants, Project No. 66205014, Albuquerque, New Mexico.

Stewart, Tamara J.

2003 *Archaeological Survey of 166 Acres for Santa Fe Summit Subdivision III, Santa Fe County, New Mexico*. TAMARCH Report No. 03-09. Tamarch, Madrid, NM.

2006 *Archaeological Survey of 5.7 Acres between the Santa Fe River and Agua Fria Street in the Village of Agua Fria, Santa Fe County, New Mexico*. TAMARCH Report No. 06-03. Tamarch Cultural Resources, Madrid, New Mexico.

2010 *Historical Study of the South Meadows Open Space on the Western Edge of the Village of Fria, Santa Fe County, New Mexico*. Tamarch Research Reports No. 10-01. Tamarch, Madrid, NM.

Stodder, Ann L. W., Eric Blinman, and Susan L. Stinson

2021 *Before the White Building: Recovery and Analysis of the Coalition Period Burials from LA 175277, 206 McKenzie Street, Santa Fe, New Mexico*. Administrative Report No. 148. Museum of New Mexico, Office of Archaeological Studies, Santa Fe, New Mexico.

Stuart, David E., and Rory P. Gauthier
1981 *Prehistoric New Mexico: Background for Survey*. University of New Mexico Press, Albuquerque, NM.

Stubbs, Stanley A. and Bruce T. Ellis
1955 *Archaeological Investigations at the Chapel of San Miguel and the Site of La Castrense, Santa Fe, New Mexico.* Monograph No. 20. School of American Research, Santa Fe.

Stubbs, Stanley A. and W. S. Stallings, Jr.
1953 *The Excavation of Pindi Pueblo, New Mexico*. Laboratory of Anthropology and School of American Research Monograph 18. Laboratory of Anthropology, Museum of New Mexico, School of American Research, Santa Fe, NM.

Sullivan, Alan P., and K. C. Rozen
1985 Debitage Analysis and Archaeological Interpretation. *American Antiquity* 50:755–779.

Tainter, J. A., and F. Levine
1987 *Cultural Resources Overview: Central New Mexico*. USDA Forest Service and USDI Bureau of Land Management, Albuquerque and Santa Fe, New Mexico.

Tigges, Linda (editor)
1990 *Santa Fe Historic Plaza Study I, with Translations from Spanish Colonial Documents.* City Planning Department. Santa Fe.

Townsend, Stephen
2004 *A Class III Cultural Resources Inventory for the Proposed South Meadows Road Extension Project, Santa Fe County, New Mexico.* Townsend Archaeological Consultants Report No. 2002-21. Townsend Archaeological Consultants, Las Vegas, New Mexico.

Turner, Robert
1979 "Agua Fria Battles for Water", *New Mexican*: April 15, 1979, Santa Fe, New Mexico.

Twitchell, Ralph Emerson
1963 *Old Santa Fe: The Story of New Mexico's Ancient Capital*. Reprint, Rio Grande Press, Glorieta, New Mexico.

Tuan, Yi-Fu, Cyril E. Everard, Jerold G. Widdison, and Ivan Bennett
1973 *The Climate of New Mexico*. New Mexico State Planning Office, Santa Fe, NM.

Turnbow, Christopher A.
1997 Projectile Points as Chronological Indicators. In *OLE Volume II: Artifacts*, edited by John C. Acklen, pp. 161–230. Public Service Company of New Mexico, Albuquerque.

Viklund, Lonyta
1990 *An Archaeological Survey of Tano-Santa Fe Estates- Revisited.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

1996 Roads Old and New to Santa Fe. In *Archaeology in Your Backyard: Proceedings of a City of Santa Fe Symposium*. City of Santa Fe, New Mexico.

1999 *Preliminary Results on Archaeological Investigations of the Lensic Property, Santa Fe, New Mexico.* Southwest Archaeological Consultants, Santa Fe, New Mexico.

2004 *Results of Archival Study and Archaeological Testing on the First Presbyterian Church Property, Santa Fe, New Mexico*. Southwest Archaeological Consultants, Santa Fe, New Mexico.

Viklund, Lonyta and Cherie L. Scheick

1994 *A Preliminary Report for Excavations at Los Cerros Colorados, Santa Fe County, New Mexico*. Southwest Archaeological Consultants Report No. 356. Southwest Archaeological Consultants, Inc., Santa Fe, NM.

Warren, A. Helene.

1974 The Ancient Mineral Industries of Cerro Pedernal, Rio Arriba County, New Mexico, In *NM Geological Society Guidebook*, 25th Field Conference, Ghost Ranch Central-Northern New Mexico, ed. by C.T. Siemers, pp. 87-93, NM Bureau of Mines and University of New Mexico, Socorro and Albuquerque.

1979 Historic Pottery of the Cochiti Reservoir Area., In *Archaeological Investigations in Cochiti Reservoir, New Mexico*, vol. 4, *Adaptive Change to the Northern Rio Grande Valley*, ed. by J. Biella and R. Chapman, pp. 235-245. Office of Contract Archeology, University of New Mexico, Albuquerque, NM.

Wendorf, F. and E. Reed

1955 An Alternative Reconstruction of Northern Rio Grande Prehistory. *El Palacio* 62:131-173.

Whitmore, Jane

1983 *The Traditional Village of Agua Fria*. Office of Cultural Affairs, NM Historic Preservation Division, Santa Fe.

Whittaker, John C., and Eric J. Kaldahl

2001 Where the Waste Went: A Knappers' Dump at Grasshopper Pueblo. In *Lithic Debitage: Context, Form, Meaning*, edited by William Andrefsky Jr., pp. 32–60. The University of Utah Press, Salt Lake City.

Williams, Jack S.

2004 The Evolution of the Presidio in Northern New Spain. *Historical Archaeology* 38(3):6-23.

Williams, Jerry L., ed.

1986 *New Mexico in Maps*, Second Edition. University of New Mexico Press, Albuquerque.

Williamson, Natasha

1998 *The Old Well Excavation*. Laboratory of Anthropology Notes No. 197. Museum of New Mexico Office of Archaeological Studies, Santa Fe, New Mexico.

Wilson, Christopher Montgomery

1997 *The Myth of Santa Fe: Creating a Modern Regional Tradition*. University of New Mexico Press, Albuquerque.

Winters, Ron

2013 *An Archaeological Inventory and Testing of 0.6104 Acres at 206 McKenzie Street, Santa Fe, New Mexico*. Ron Winters, Santa Fe.

2019 *An Archaeological Inventory and Testing for the Proposed El Castillo Retirement Community Project at 401 Old Taos Highway at Paseo de Peralta in Santa Fe, New Mexico*. Ron Winters, Santa Fe.

Wiseman, Regge N.

1978 *An Archaeological Survey for the Community Development Program, Santa Fe, New Mexico.* Laboratory of Anthropology Notes No. 197. Museum of New Mexico, Santa Fe, New Mexico.

1979 *The KP Site and Late Developmental Period Archaeology in the Santa Fe District*. Laboratory of Anthropology Notes 494. Museum of New Mexico, Santa Fe.

Wobst, H. M.

1977 Stylistic Behavior and Information Exchange. In *Papers for the Director*, edited by C. Cleland, pp. 317–342. Museum of Anthropology Anthropological Papers No. 61. University of Michigan, Ann Arbor.

Wolfman, Daniel, Timothy Maxwell, David Phillips, Joan Gaunt, and Mollie Toll

1989 *The Santa Fe Relief Route: Initial Results and Data Recovery Plan, Santa Fe County, New Mexico.* Laboratory of Anthropology Notes No. 496. Museum of New Mexico, Santa Fe, NM.

Wozniak, Frank E.

1992a *Archaeological and Historical Investigation of the Phase One Area of the Grant Park Site, Santa Fe*. Prepared for Morrow and Company, Landscape Architects, Albuquerque, New Mexico.

1992b *Archaeological and Historical Investigation of the Phase Two Area of the Grant Park Site, Santa Fe*. Prepared for Morrow and Company, Landscape Architects, Albuquerque, New Mexico.

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APPENDIX A

Curation Agreement

MUSEUM OF INDIAN ARTS + CULTURE
LABORATORY OF ANTHROPOLOGY
CENTER FOR NEW MEXICO ARCHAEOLOGY

November 17, 2023

Robin M. Cordero
Senior Archaeologist/Principal Investigator
SWCA Environmental Consultants
7770 Jefferson Street NE, Suite 410
Albuquerque, New Mexico 87109
P 505.254.1115 | C 505.379.5864
robin.cordero@swca.com

2024 CURATION AGREEMENT

Dear Robin Cordero,

This letter certifies the willingness of the Museum of Indian Arts and Culture/Laboratory of Anthropology, Museum of New Mexico System, to curate archaeological collections recovered, and archaeological records produced, by you and by SWCA Environmental Consultants within the State of New Mexico. It is understood that this curation agreement is contingent upon you qualifying for the necessary federal and/or state archaeological permits. Collections will be managed in accordance with state law (18-6-6 NMSA 1978), federal regulations (36 CFR 79), and museum policies. A copy of this letter has been provided to the State Archaeological Permit Coordinator at the New Mexico Historic Preservation Division. **This curation agreement is specific to the Historic Properties Treatment Plan for an upcoming large-scale excavation in Santa Fe for the Georgia O'Keeffe Museum's Education Outreach facility at 123 Grant Ave starting in the spring of 2024 and continuing to the end of the project (likely 2026). The current curation fees will apply, even if they are increased before the project is completed.**

You must follow the procedures described in our *Procedures Manual for Submission of Archaeological Artifact and Record Collections* when you prepare artifacts and records for curation. The current copy of the manual is available at the Museum's website: http://www.indianartsandculture.org/assets/files/submission.pdf, or may be obtained from the ARC Collections Manager. You may use your own boxes for transporting materials to the Museum. Final boxing in our standard boxes will be done at the Museum and the invoice for curation fees will be based on the number and size of the repository's standard boxes that are filled. An invoice will be sent after the collection is processed.

You must submit a completed Deed of Gift or a Deferred Donation Form (copies available upon request) transferring title of any collections from private land to the Museum of New Mexico. No collection from private land will be accepted without one of these forms. In addition, it is essential that any tribal consultation required for sensitive materials be conducted prior to depositing these materials at the Museum, and that documents confirming these consultations and detailing agreements affecting curation methods and procedures are submitted with the collection.

Please be advised that effective January 1, 2024, the fee for curation of artifacts and records remains at $525 per standard box (about 1 cubic ft. for artifacts & samples or 1 linear foot for records) at the rate assigned in 2017. Unless you have a written agreement with the Museum to accept a collection for a fee from a previous rate schedule, you will be charged the fee in effect at the time the collection is submitted. Please contact the Collections Manager of the Archaeological Research Collections if you believe you have a collection that will require billing from a prior fee schedule. A detailed Schedule of Curation Fees can be found at the Museum's website: http://www.indianartsandculture.org/assets/files/arc_fee.pdf.

Sincerely,

Diana Sherman
Collections Manager Archaeological Research Collections
(505)476-4443
Diana.sherman@dca.nm.gov

APPENDIX B

Plan of Action for Human Remains

Plan of Action for Human Remains

This plan describes the protocols that will be followed if human remains and/or funerary objects, sacred objects, and objects of cultural patrimony are exposed during intentional excavations performed by archaeologists during data recovery and/or testing at sites in the area of potential effects (APE) identified for the undertaking. It is intended to comply with applicable federal and state laws and regulations, particularly 36 CFR 800 (2007) of the regulations that implement Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended; 36 CFR 63; 36 CFR 61; .

Discoveries of human remains and funerary objects on state and private lands must comply with Section 18-6-11.2 of the Cultural Properties Act, NMSA 1978 and implementing regulations, 4.10.11 New Mexico Administrative Code (NMAC), while compliance with NAGPRA and ARPA is required for discoveries made on undertakings that include federal funding.

Tribal consultations

Native American consultation for this undertaking is ongoing, carried out on a government-to-government basis, with NEH and the SHPO acting as the non-Tribal government agencies. SWCA will have no direct role in Native American consultations unless specifically directed by the NEH.

Kinds of objects considered cultural items

For data recovery, human remains and all funerary or associated funerary objects will be considered cultural items.

Funerary objects are defined as objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later (25 USC 300 (3)(A)).

Sacred objects are defined as specific ceremonial objects that are needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents (25 USC 3001 (3)(C)).

Objects of cultural patrimony are objects having ongoing historical, traditional, or cultural importance central to the Native American group or culture itself, rather than property owned by an individual Native American, and which, therefore, cannot be alienated, appropriated, or conveyed by any individual regardless of whether or not the individual is a member of the Native American tribe or Native Hawaiian organization and such object shall have been considered inalienable by such Native American group at the time the object was separated from such group (25 USC 3001 (3)(D)).

Specific information used to determine custody

Pursuant to 43 CFR 10.5:

(i) The Pueblo of Tesuque has previously noted that the entire area associated with downtown Santa Fe as an ancestral site.

(ii) Prehistorically, the project area was inhabited by Tanoan and Tewa peoples. Historically, the Pueblos of Tesuque, Pojoaque, and the pueblos of the Galisteo Basin occupied the general area.

Notification procedures in the event of the discovery of remains

Once the nature and extent of the burial has been determined, further work on the burial will cease and the following officials will be notified immediately: City of Santa Fe Police Department (SFPD), the Office of the Medical Investigator (OMI), the New Mexico State Archaeologist, and NEH. The SFPD, and will then notify the OMI. When law enforcement is notified, the NEH and SHPO should also be notified. The OMI and/or county coroner or other medical examiner will make the official ruling on the nature of the remains, as either forensic or archaeological. The field director for the archaeological investigations will make the required immediate notifications, and will notify the NEH and SHPO of the medical examiner's official ruling. The field director and their staff will assist the OMI and law enforcement personnel, but will also ensure that the archaeological context of the remains stays intact. If it is determined that the remains are forensic (i.e., they represent a modern crime scene), the archaeologists will cooperate with the law enforcement investigation, and assist the law enforcement personnel in obtaining the necessary evidence without destruction of the site. The SHPO will coordinate appropriate follow-up as described below.

Tribal notification

The SHPO will notify the tribes within 3 business days of discovery of remains of unknown affiliation following protocols outlined in NMAC 4.10.11.11 *Guidelines for Identification and Notification of Living Persons Who May Be Related to a Burial*. Consultations will be conducted as necessary and appropriate to determine cultural affiliation and a single consulting Tribe or a lead consulting Tribe, to be clarified during consultations and codified in the MOA.

Planned treatment, care, and handling of human remains, funerary objects, and sacred objects of cultural patrimony recovered

If burials are encountered, archaeological work on those remains will continue to the point that the nature and extent of the remains can be determined. If the burial is archaeological (i.e., they do not represent a modern crime scene) and determined to be Native American, the SHPO will proceed as follows after the OMI has terminated jurisdiction of the remains. Work will not resume until the SHPO gives notification. It is anticipated that it will not be possible to redesign the project to avoid impacts to burials. If it is determined that removal of the remains is necessary, standard archaeological field methods will be used with individual-specific stipulations outlined below.

If the human remains are archaeological and determined to be Euro-American, the remains will be excavated following standard excavation protocols. Euro-American remains and associated funerary items will be transported to the SWCA Laboratory for analysis.

There will be no public exposure of the remains or objects. No photographs of the burial, human remains, or associated funerary objects will be taken. Scaled drawings of the burial will be drafted to document the burial context. After removal, the remains will be secured at an appropriate facility on-site until arrangements the conclusion of construction when the individuals will be reinterred at an undisclosed location on the property.

If ethnicity of the remains cannot be determined, it will be assumed that the remains are Native American and the procedures outlined above will be followed.

If the discovery consists of Native American funerary objects, sacred objects, and/or objects of cultural patrimony that are not associated with human remains, the objects will be protected and the SHPO and NEH will be notified immediately.

The SHPO, working with the NEH, will consult with the appropriate Tribes to determine an appropriate course of action that will be codified in the MOA. Funerary objects, sacred objects, and/or objects of cultural patrimony will likely require removal as redesigning the project is unlikely. Standard archaeological field methods will be used to remove these objects. Work will not resume until SHPO gives notification. There will be no public exposure of the objects. No images will be taken other than those necessary for archaeological documentation. After removal, the objects will be secured at an appropriate facility on-site until arrangements are made in consultation with the appropriate Tribe(s) for the disposition of the objects.

The planned archaeological recording of the human remains, funerary objects, or objects of cultural patrimony recovered

The archaeological documentation of human remains will be limited to visually evident characteristics that indicate such things as age, gender, obvious pathologies, and any obvious visual traits that may help to indicate cultural affiliation. There will be no washing, cleaning, or mending of the remains. No actions will be taken to conserve or stabilize bone that might prevent effective reburial. Laboratory photos of human remains may be collected, but only to document specific osteological conditions. Use of photographs of human remains will not be made public and will not be used in technical reports, presentations, or other publications, or digitally archived in any public or private database, without consent from the lead consulting Tribe as determined on a case-by-case basis as outlined in the MOA. Funerary objects, sacred objects, and/or objects of cultural patrimony will be illustrated by laboratory photographs or drawings, but illustrations will not be made public and will not be used in technical reports, presentations, or other publications, or digitally archived in any public or private database, without consent from the lead consulting Tribe as determined on a case-by-case basis as outlined in the MOA.

The kinds of analysis planned for each kind of object

Unless otherwise agreed to by the appropriate Tribe(s), human remains will not be subjected to invasive or destructive analysis, or other analyses that produce an image of the remains such as x-rays or CT-scans. Analysis of human remains will be restricted to collecting standard metric and non-metric data as needed to provide an assessment of age, biological sex, stature, and indicators of health. Further laboratory analysis will be conducted if deemed necessary and agreed to by the lead consulting Tribe as defined in the MOA. Funerary objects will not be analyzed past a descriptive, non-invasive level. Funerary objects will be recorded at a descriptive, non-invasive level including measurements, type, and morphology.

The kind of traditional treatment, if any, to be afforded the human remains, funerary objects, sacred objects, or objects of cultural patrimony by members of the Native American tribe

The Tribe(s), as outlined in the MOA, will be afforded the opportunity to examine the remains prior to removal, and attend removal and reburial of remains. The Pueblo of Tesuque and/or other Tribe(s) as outlined in the MOA will be afforded the opportunity to perform traditional treatments of the remains as needed.

Reporting of results

Analyses of the remains will be summarized in the final data recovery report, and individual data will be presented in a confidential appendix. There will be no photographs of human remains included in documentary reporting unless agreed to by the appropriate descendant communities. Reporting of field burial observations will be limited to scaled drawings and photo documentation as required under . In accordance with 4.10.11 NMAC, the report should describe where photographs taken during excavations will be stored.

The disposition of human remains, funerary objects, sacred objects, and objects of cultural patrimony

All human remains and/or objects will be secured by SWCA and the Georgia O'Keeffe Museum on-site until reburial. All required notifications of disposition will be made to all interested tribal parties or other groups who may be related to the remains prior to disposition. Actual physical custody of human remains is expected to remain with the Georgia O'Keeffe Museum in a secure location with no public access. Claims of custody or ownership under NAGPRA will be outlined during the Section 106 consultations by the NEH and it is expected that remains recovered from this project will be reburied on the 123-135 Grant Ave property at a location that will be excluded from all future development. If there are conflicting claims of custody or ownership, the repatriation process as outlined in 43 CFR 10 will be followed.

If the remains are determined to be Euro-American, the remains and associated funerary items will be secured by SWCA until acceptance of a final report, at which time the remains will be curated at the Center for New Mexico Archaeology.

List of Contacts

Ann Piesen, Federal Preservation and Environment Officer
National Endowment for the Humanities
apiesen@neh.gov
(202) 606-8576

Santa Fe Police Department
(505) 428-3710 (non-emergency)

Michelle Ensey, Deputy State Historic Preservation Officer and State Archaeologist
New Mexico Historic Preservation Division
(505) 827-4064 or (505) 490-3928
michelle.ensey@dca.nm.gov

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APPENDIX C

Field Forms

Field Specimen Log

FS Log:
Site Number: **Recorded by:** **Date:**

FS	Site	Block	Unit	Level	Date	Initials	QR CODE(S)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							

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Feature Log

Project: _____ Site: _____ Date _____/_____/_____ Recorder _____

Feature No.	Assoc. Unit(s)	Feature Type	COMMENTS	Excavated	Form	Profile	Mapped

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Project: _____

Site: _____

FEATURE FORM **Feature #:** _____

Date: ____/____/_____ **Excavators:** _____ **Block:** _____ **Unit(s):** _____

Grid Coordinates (UTM/Relative) (Nail A) N _____ **E** _____ **H** _____

(Nail A') N _____ **E** _____ **H** _____

Plan View Shape (circle one): circular / oval / rectangular / amorphous / irregular / unknown

other: _____

Profile Shape (circle one): basin / bell / lens / irregular / unknown

other: _____

Feature Type (circle one): stain / thermal feature / pit / midden / structure

other: _____

Confidence in Feature Type designation (circle one): low / medium / high

Original Depth (cm below original ground surface): _____**Percent Excavated:** _____

Max Length (cm) _____ **Max Width (cm)** _____ **Maximum Thickness (cm)** _____

Discovery Method (circle one): Surface / Backhoe Trench / Coring / Excavation Unit / Mechanical Scraping

Feature Origin (circle one): Cultural / Natural / Unknown **Cultural Affiliation (circle one):** Prehistoric / Historic / Unknown

Feature Description (include excavation methods, soil descriptions (color, texture, inclusions), locations and types of samples collected, internal stratigraphy, artifact types/densities, feature boundaries, and **other important observations**.):

Feature Interpretation (based on description above, what was feature function? How does this relate to the site and other features, etc): ***Please use continuation sheets if additional space is needed***

DEPOSITS/DISTURBANCES (Presence/Quantity: Light/Moderate/Heavy)				*SAMPLES (FS No. / Bag No.)*		*ARTIFACTS: (FS / Bag No. / No. of Artifacts)*	
Charcoal	_____			*Radiocarbon* ***C-14***	_____	*Flaked Stone* ***F***	_____
FCR (Material) Ct.	_____	*Weight:*	_____*(kg)*	*Flotation* ***B***	_____	*Ceramics* ***C***	_____
Rodent Burrows	_____			*Pollen* ***P***	_____	*Ground Stone* ***GS***	_____
Roots	_____			*Phytolith* ***Y***	_____	*Fauna* ***FAUN***	_____
Rootlets	_____			*Tree-Ring/Dendro* ***D***	_____	*Shell* ***S***	_____
Daub	_____	*weight:*	_____ *(g)*	*Archaeomag* ***A***	_____	*Historic Ceramic* ***HC***	_____
Adobe	_____	*weight:*	_____ *(g)*	*OSL Dating* ***OSL***	_____	*Glass* ***G***	_____
Masonry	_____	*weight:*	_____*(g)*	*Finescreen* ***N***	_____	*Metal* ***M***	_____
Mechanical Dist.	_____			*Other* ***O***	_____	*Other* ***O***	_____

Digital Roll (Tablet No.): _____ **Frame(s)**: _____

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Project: _____

Site: _____

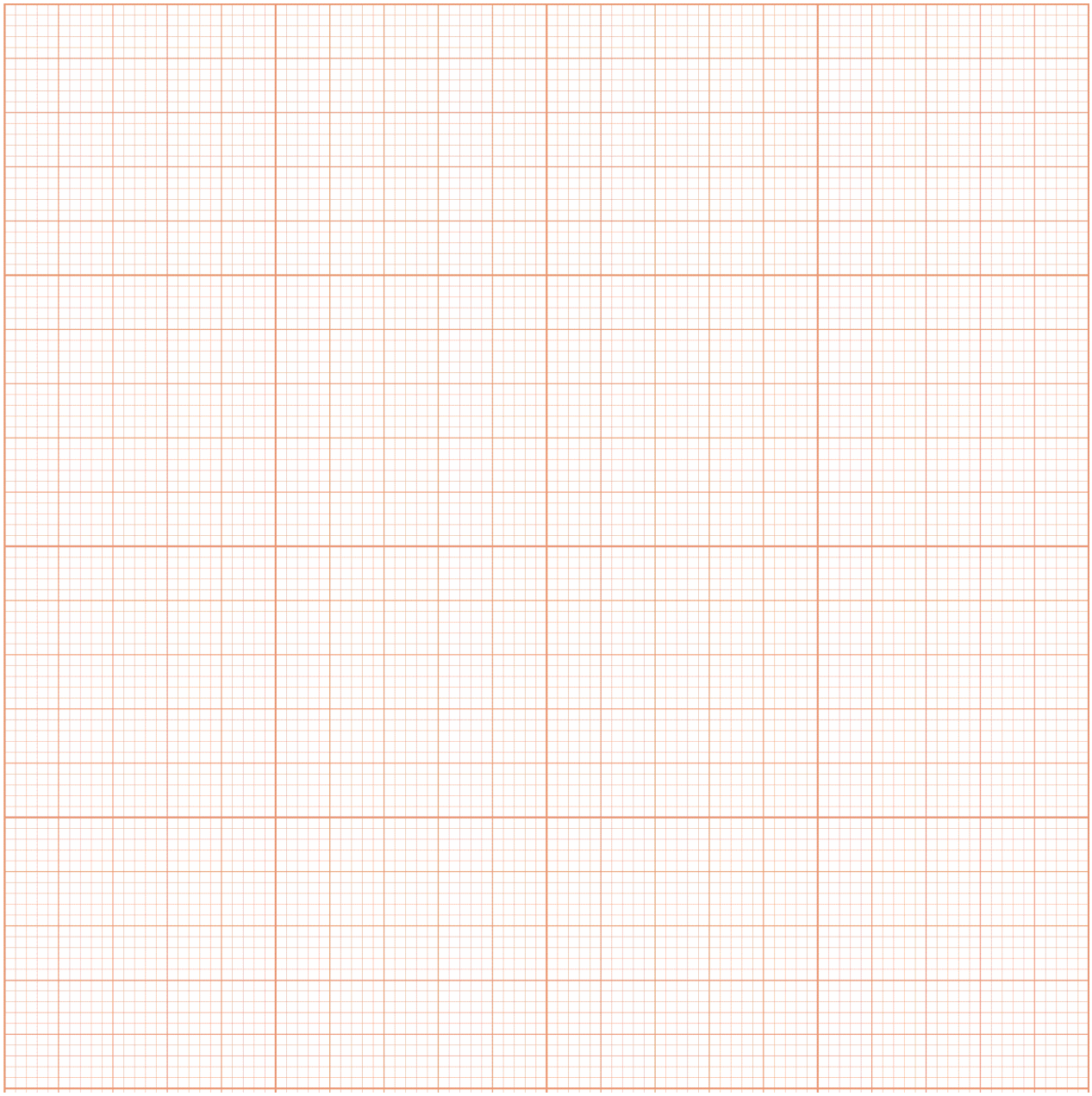
Feature # _____ Block: _____ Unit(s): _____

Scale: _____

_____cm

Draw plan & profile on this page
Indicate direction of **North** on plan view

Show cross-section/profile nails on both plan & profile
Indicate direction of view on profile
Show at least one Excavation Unit corner (if applicable)



Notes:

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Project: ____________________

Site: ____________________

EXCAVATION UNIT FORM (For all Levels in Unit)

Block: _______ **Unit:** ________

Date: ___/____/ ______ Excavators: ______________________ Unit Size (circle one): 1×1, 1×2, 2×2 Other: _____________

Corner: _____ N ____________________ E ___________________ H _____________ Digital Roll (Tablet): ___________________

Datum: _____ N ____________________E ____________________ H _____________ Screen Size: __________________

Excavation method(s): shovel trowel other (specify): ________________________ Feature(s) encountered: _________

Why was this unit excavated? (Surrounds a feature, artifact scatter, positive probe/auger, etc.) _______________________

____

Note: All artifact types and samples per level share the same FS No., but individual QRCodes per bag.

Level	***Depth Start***	***Depth End***	***FS / QRCode / Artifact or Sample Contents (see codes below)***	***Comments (Remarks about level outside of basic information)***
Negative Y N	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*FS* ___ *QRCode(s)* *Contents*	*Soil Munsell Color :* ___ *Soil Color Name:* ___ *Texture:* ___ *Narrative:* *Buckets:* ___ *Photo JPGs #s* ___
Negative Y N	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*FS* ___ *QRCode(s)* *Contents*	*Soil Munsell Color :* ___ *Soil Color Name:* ___ *Texture:* ___ *Narrative:* *Buckets:* ___ *Photo JPGs #s* ___
Negative Y N	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*SW* ___ *NW* ___ *NE* ___ *SE* ___ *C* ___ *Tot. Stat./BD/BS*	*FS* ___ *QRCode(s)* *Contents*	*Soil Munsell Color :* ___ *Soil Color Name:* ___ *Texture:* ___ *Narrative:* *Buckets:* ___ *Photo JPGs #s* ___

Artifact or Sample Contents : C = Ceramic F = Flaked Stone C = Core TS = Tested Cobble LT = Lithic Tool PP = Projectile Point GS = Ground Stone S = Shell SS = Soil Sample FLOT = Flotation C14 = C14 Sample P = Pollen FAUN = Faunal MET = Metal GL = Glass O = Other (Describe)

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Project: _____

Site: _____

UNIT NARRATIVE use continuation sheet if necessary:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Scale: 0 [ ]___ cm Indicate Locations of depths taken from front of form.

Level _____ Level _____ Level _____

Grid Points for Unit: _____

	N	E	A
SW			
NW			
NE			
SE			
C			
Datum			

Notes:

NW	N	NE
W	Current Unit	E
SW	S	SE

Relationship of other units to Current Unit
Sketch map features that overlap units

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Project: _____

Site: _____

Auger Form

Date: ____/____/ _____ Excavators: _____ Screen Size: _____

Note: All artifact types and samples per level share the same FS No., but different Bag Nos. [e.g. FS 1 / Bag 1 / F (6); FS 1 / Bag 2 / FLOT (1)]

Auger No.	*Pos/Neg*	*Depth End (BGS)*	*Comments (soil/sediment characteristics, strat changes, any features encountered, why terminated, etc.)*	*FS Nos.*

APPENDIX D
Locational Information and ARMS Screen Shot

Table D. 1 Previous Investigations within 500 m of the Project Area

NMCRIS#	Report Title	Author	Date
15317	A Cultural Resources Inventory of the Fort Marcy-Magers Field Recreation Area, Santa Fe, New Mexico	Lang. Richard W.	1981
15400	The Cultural Resources of the Arroyo Mascaras Flood Plain, Santa Fe County, New Mexico	Whitmore, Jane	1979
16428	An Archeological Clearance Survey of the Construction Site for the Gallery Addition to the Museum of Fine Arts, Museum of New Mexico, Santa Fe, New Mexico	Seifert, Donna J.	1979
20722	Construction Monitoring at La Campanilla Compound, 334 Otero Street, Santa Fe, New Mexico: An Archeological Reconnaissance Report	Elliot, Michael L.	1987
24915	Cultural Resource Survey and Testing Phase at 222 Old Santa Fe Trail, Urban Santa Fe, New Mexico	Gossett, Cye W.	1989
24985	Report of Archeological Survey: Proposed Development of a Lot at 429 West San Francisco St., Santa Fe, NM	Snow, David H.	1988
28940	Report of Archeological Survey and Testing: 334 Otero St., Santa Fe	Snow, David H.	1989
35800	Report of Historical Research and Archeological Testing Paseo de Peralta at Griffin and Rio Grande Streets, The Former Star Lumber Company Property Santa Fe, New Mexico	Snow, David H.	1990
39731	Archaeological and Historical Investigation of the Phase One Area of the Grant Park Site, Santa Fe	Wozniak, Frank E.	1992
41569	Archaeological Investigation of the Phase Two Area of the Grant Park Site, Santa Fe	Wozniak, Frank E.	1992
42898	Archaeological Monitoring at the Proposed Allan Houser Art Park, Downtown Santa Fe, New Mexico	Gossett, William J.	1993
48952	Archaeological Monitoring of a Utility Trench at Palace and Grant Avenues, Santa Fe, New Mexico	Phillips, David A., Jr	1995
50545	Archeological and Historical Investigations on a Vacant Lot Identified as 322 Magdalena Street (Units 8, 9, 10, Magdalena Compound) Santa Fe, New Mexico	Snow, David H.	1994
55065	Cultural Resource Survey and Testing of 0.16 Acres for the Amacher Property within the City of Santa Fe Historic District Santa Fe County, New Mexico	Cunningham, Vicky J. Deni J. Seymour, J. D. Kilby, Nancy Hanks and Lori E. Rhodes	1997
56207	Archeological and Historical Investigations for Peter Amacher, Parcel 216A, Alto Street, Barrio de Guadalupe Historic Neighborhood Santa Fe, New Mexico	Snow, David H.	1997
56208	Archeological and Historical Investigations for Mr. Charles Azzue: 138 Park Ave., Historic Downtown Archeological Review District Santa Fe, New Mexico	Snow, David H.	1997
56393	Archeological and Historical Investigations: 148 Elena St. within the Santa Fe Downtown Historic District, for Auerbach Southwest, Santa Fe, New Mexico	Snow, David H.	1997

NMCRIS#	Report Title	Author	Date
63327	Archaeological and Historical Investigations 109 and 111 Elena St., Santa Fe New Mexico (Downtown Historic District)	Snow, David H.	1999
64451	An Early Eighteenth-Century Occupation along the Camino Real: Results of Archaeological Investigations and Archival Study of Sanbusco and 544 Agua Fria Street, Santa Fe County, New Mexico	Deyloff, Glenda	1999
65002	Archeological and Historical Investigations: 221 1/2 Shelby Street - 222 Old Santa Fe Trail, Santa Fe, New Mexico "The Old Santa Fe Market" Historic Downtown District	Snow, David H.	1999
65009	Preliminary Results of Archaeological Investigations and Archival Study at 60 East San Francisco Street, Santa Fe, New Mexico	Deyloff, Glenda	1999
65716	Archaeological and Historical Investigations 135 Grant Avenue, Santa Fe, New Mexico Santa Fe Downtown Historic District	Snow, David H.	1999
78881	Archeological and Historical Investigations 0.9 Acres and the Northeast Corner of Catron and Griffin Streets Santa Fe Downtown Historic District Santa Fe, New Mexico	Snow, David H.	2002
84554	Archaeological and Historical Investigations 103 Catron Street, The Catron Site Downtown Historic District Santa Fe, New Mexico	Snow, David H. and Linda Tigges	2003
87471	Phase I Archaeological Survey and Assessment San Francisco Plaza 321 W. San Francisco Street, Santa Fe, New Mexico	McIntosh, Thomas I.	2004
91414	Results of Archival Study and Archaeological Testing West of 515 Paseo de Peralta, Santa Fe, New Mexico	Viklund, Lonyta and Robin Cordero	2005
92572	Final Results of Archival Study, Archaeological Testing and Monitoring on the First Presbyterial Church Property, Santa Fe, New Mexico	Viklund, Lonyta and Deborah L. Huntley	2005
99153	Report on Archaeological Reconnaissance, Rio Chama Steakhouse Addition, 414 Old Santa Fe Trail, Santa Fe Trail, New Mexico	McIntosh, Tom, Bettina Kuru'es, and David Snow	2006
102829	Report of 2% Archaeological Testing and Archival Research: The First National Bank of Santa Fe Parking Lot, 114 West Palace Ave and 115 West San Francisco, in the National Register of Historic Places Santa Fe Historic District, the State of New Mexico Re	Abbott, Alysia L. David C. Eck and Cordelia T Snow	2007
103205	Cultural Resource Investigations for the New Mexico Rail Runner Phase 2 Santa Fe County, New Mexico	Arms, George Kirsten Campbell and Mary Quirolo	2007
104955	The First Judicial District Courthouse Complex: Archaeological Investigations at LA 156207 in Santa Fe, Santa Fe County, New Mexico	Hannaford, Charles A.	2007

NMCRIS#	Report Title	Author	Date
106775	A Second Addendum to Coalition period Remains Under the west Alcove, U.S. Federal Courthouse, Santa Fe, New Mexico: Archaeological Monitoring at the Montoya Federal Building/U.S. Post Office and U.S. Federal Courthouse, Santa Fe, New Mexico	Deyloff, Glenda and Cherie Scheick	2007
112279	Test Excavations at the La Villa Rivera/Marian Hall Complex in Downtown Santa Fe, Santa Fe, New Mexico, Archaeology Notes 408, Office of Archaeological Studies.	Moore, James L.	2009
112598	An Archaeological Inventory and Testing Results of 9.617 Acres for the Santa Fe Civic Housing Authority Villa Alegre Development Project, Santa Fe, New Mexico	Winters, Ron	2010
122498	Cultural Resources Report for the New Mexico Statewide Interoperable Radio Communications Internet Transportation System (SIRCITS) Middle-mile Project	Okun, Adam	2012
126666	Cultural Resource Survey/Reconnaissance For Proposed Replacement and Rehabilitation of DeFouri Street Bridge and Guadalupe Street Bridge Across the Santa Fe River, City of Santa Fe, New Mexico	Post, Stephen, Cordelia Snow, and Gerry Raymond	2013
131362	Archaeological Monitoring for the CenturyLink Project on Paseo de Peralta and Old Taos Highway in Santa Fe, New Mexico	Winters, Ron	2015
135192	An Archaeological Inventory and Testing of 0.647 Acres at the Old Santa Fe Inn Located at 320 Galisteo Street, Santa Fe, New Mexico	Winters, Ron	2016
136896	Cultural Resource Survey for Proposed Soil Boring in Support of Future Landscaping in Front of the State Supreme Court Building, Santa Fe River State Park, Santa Fe County, New Mexico	Stokes, Robert J.	2016
139731	An Archaeological Inventory and Testing Report for the Proposed Development at 924 Paseo de Peralta, Santa Fe, New Mexico	Winters, Ron	2018
141655	An Archaeological Inventory and Testing Report for the Proposed El Castillo Retirement Community Project at 401 Old Taos Highway at Paseo de Peralta in Santa Fe, New Mexico	Winters, Ron	2019
141840	An Archaeological Monitoring Report for the CenturyLink Project on Cerrillos Road at 408 Galisteo Street in Santa Fe, New Mexico (includes monitoring plan and monitoring plan addendum)	Winters, Ron	2019
141849	A Class III Cultural Resources Inventory for the Guadalupe Street Reconstruction Project from Agua Fria Street to Paseo de Peralta in Santa Fe, Santa Fe County, New Mexico, NMDOT District 5	Rude, Trisha and John Cater	2018

NMCRIS#	Report Title	Author	Date
144352	A Cultural Resources Survey of a Portion of 314 North Guadalupe Street, Downtown Santa Fe Historic District, Santa Fe, New Mexico	Boggess, Douglas, Kim Parker, and Kobi Weaver	2019

* Note list is derived from a NMCRIS records search by location. Some previous investigations in the search area may not have locational information in NMCRIS.

Table D. 2 Previously Documented Sites within 500 m of the Project Area

LA Number	Site Name	NR Determination
111	Fort Marcy Hill, Fort Marcy moat (320 Kearny St), Fort Marcy Ruins, Old Fort Marcy	Yes
608	City of Santa Fe, La Garita	Yes
609	Fort Marcy	Yes
930	Fine Arts Museum, Ft. Marcy Officer's Quarters, Ft. Marcy Officer's Residence, Ogapoge (Tewa name for Santa Fe), The Edgar Lee Hewett House	Yes
1051	City Hall & parking lot (Marcy St), City of Santa Fe	Yes
1051	City Hall & parking lot (Marcy St), City of Santa Fe	Yes
1111	Barrio de Analco Historic District, Oldest House (Santa Fe, NM)	Yes
1742		
1838		Yes
1876		Yes
1890	239 Johnson St burial, City of Santa Fe	
4449	Barrio de Analco Historic District, San Miguel Chapel, San Miguel Chapel and Collections	Yes
4450	City of Santa Fe, NM (General), Santa Fe Historic District	Yes
4451	Palace of the Governors, Palace of the Governors (NHL)	Yes
6185	City of Santa Fe, Padre Gallegos House (231 Washington), Padre Gallegos Well	
8770	La Conquistadora Chapel (Santa Fe), Saint Francis Cathedral (Santa Fe), San Jose Chapel (Santa Fe)	
8868	City of Santa Fe, Rosario Chapel	Yes
9077	Saint Francis Cathedral (Santa Fe)	
20195	Second Ward School	Yes
35100	City of Santa Fe, First Interstate Bank underground parking lot, Presidio Site	Yes
46174	BIG JO SITE	
46300	K P Site	
47695	Pink Adobe Site (Santa Fe, NM)	
54000	LA FONDA	
54000	LA FONDA	

LA Number	Site Name	NR Determination
54000	LA FONDA	
54312		
55368	Sena Plaza	
65040		
65501	City of Santa Fe, Sewer line burial (434 W San Francisco St), Victor's Restaurant burial	
69193		
70092	Spiegelberg #1, Spiegelberg/Spitz	
71605		
71825	City of Santa Fe, Guadalupe Church, Old Chapel of Our Lady of Guadalupe, Our Lady of Guadalupe Church, Santuario de Guadalupe	Yes
72268	Baca-Larranaga Site, I. Harrison Site	
72392		
78560		
80000	Santa Fe Plaza National Historic Landmark	Yes
87035	City of Santa Fe, Juan Holmes House (301 Otero St)	
101300		
101303		
101307		
103293	Manuela Baca Property, Schumann Building	
103294	Firestone Building Site	
103295		
104212	Acequia de la Muralla, City of Santa Fe	
109088		
111322	History Library Addition	Yes
112663	418 Sandoval Street	
114208	City of Santa Fe, Marcy Street pipeline (Sheridan to Grant)	
114210	City of Santa Fe, Lincoln Ave ditch (Marcy to Palace)	
114212	Burro Alley gas line, City of Santa Fe	
114213	City of Santa Fe, La Fonda Hotel swimming pool	
114214	Behind Scottish Rite Temple on Washington, City of Santa Fe, Fischer (sic?) House, Fisher (sic?) House	
114215	City of Santa Fe, East DeVargas Street paving	
114216	"Improvement Row" College Street, City of Santa Fe	
114217	City of Santa Fe, First National Bank trench (west/rear)	
114218	City of Santa Fe, College Street bridge replacement, Old Santa Fe Trail	
114219	City of Santa Fe, Old F. Valdez House (DeVargas Street)	
114221	Chapel of Our Lady of Light, City of Santa Fe, La Castrense	
114222	City of Santa Fe, Prince Plaza	

LA Number	Site Name	NR Determination
114224	City of Santa Fe, Palace Ave water (Washington to Cathedral Pl)	
114225	City of Santa Fe, Kaune Store (Washington St)	
114226	City of Santa Fe, La Cuma (Del Norte, Rosario Blvd, Rio Grande)	
114231	City of Santa Fe, Santa Fe River bank (Alameda & Cerrillos)	
114232	City of Santa Fe, Lensic Theater (Sandoval & San Francisco)	
114233	City of Santa Fe, Jefferson & W San Francisco St trench	
114235	City of Santa Fe, El Patio well (117 Jefferson St)	
114237	City of Santa Fe, Tunnel (311 Washington Ave)	
114239	City of Santa Fe, Well (507 Agua Fria)	
114241	City of Santa Fe, Nusbaum House (150 Washington St), Spiegelberg House (150 Washington St)	
114243	Bonal Property (Paseo de Peralta & Cerrillos), City of Santa Fe	
114244	City of Santa Fe, Old St Vincent's Hospital parking (Paseo)	
114245	City of Santa Fe, Community Theater (S of DeVargas)	
114246	City of Santa Fe, State Securities Bldg (113 Washington)	
114247	City Hall telephone trench (Lincoln & Marcy), City of Santa Fe	
114248	City of Santa Fe, Water St (W of city parking garage)	
114249	City of Santa Fe, Well (517-521 Agua Fria)	
114252	Burial (217 Johnson St), City of Santa Fe	
114255	City of Santa Fe, Courtyard (128-130 E. Palace)	
114257	Cienega St trench, City of Santa Fe	
114261	City of Santa Fe, Grant Park (west side F. Wozniak 1992)	Yes
114265	1000 Paseo de Peralta or 338 E. DeVargas St, City of Santa Fe, Jose Alarid House	
120279	Boyle Floral Company	
120280		
120281		
120282		
120430	124 Kearney Avenue	
122584	Original Trading Post Well	
125367	Sena Plaza	
125720		
126709		
127276	60 East San Francisco	
129141	La Posada de Santa Fe Resort and Spa	
132712		

LA Number	Site Name	NR Determination
137736	FERA Administrative Building, Harry Hopkins Public Relief Building, New Mexico Public Welfare Building, Villagra Building, Villagras Property	Yes
137736	FERA Administrative Building, Harry Hopkins Public Relief Building, New Mexico Public Welfare Building, Villagra Building, Villagras Property	Yes
138659		
143460		Yes
143543		
144329	Griffin/Grant Triangle Historic Neighborhood	Yes
146042		
146402		No
146403		Yes
146404		No
146654		
148141		Yes
148216		
149445		
153441	Atchinson, Topeka, & Santa Fe Railway, Santa Fe Southern Railway	Yes
153442		No
153442		No
153992		
154742		Unknown
155456		
156207		Yes
158037	Capital Complex Historic Neighborhood	No
161535	Sisters of Charity Complex	Unknown
167408		Yes
168891		
174241		
174243		
174246		
175277		
175277		
175893		Yes
179292		Unknown
179293		Unknown
179294		Unknown
179294		Unknown
179294		Unknown
179295		Unknown
179296		Unknown
181455		

LA Number	Site Name	NR Determination
181455		
182104		Unknown
183489		
188587		
191580		
193512		
194068		No
194261		No
194574		No
195243		
201798		

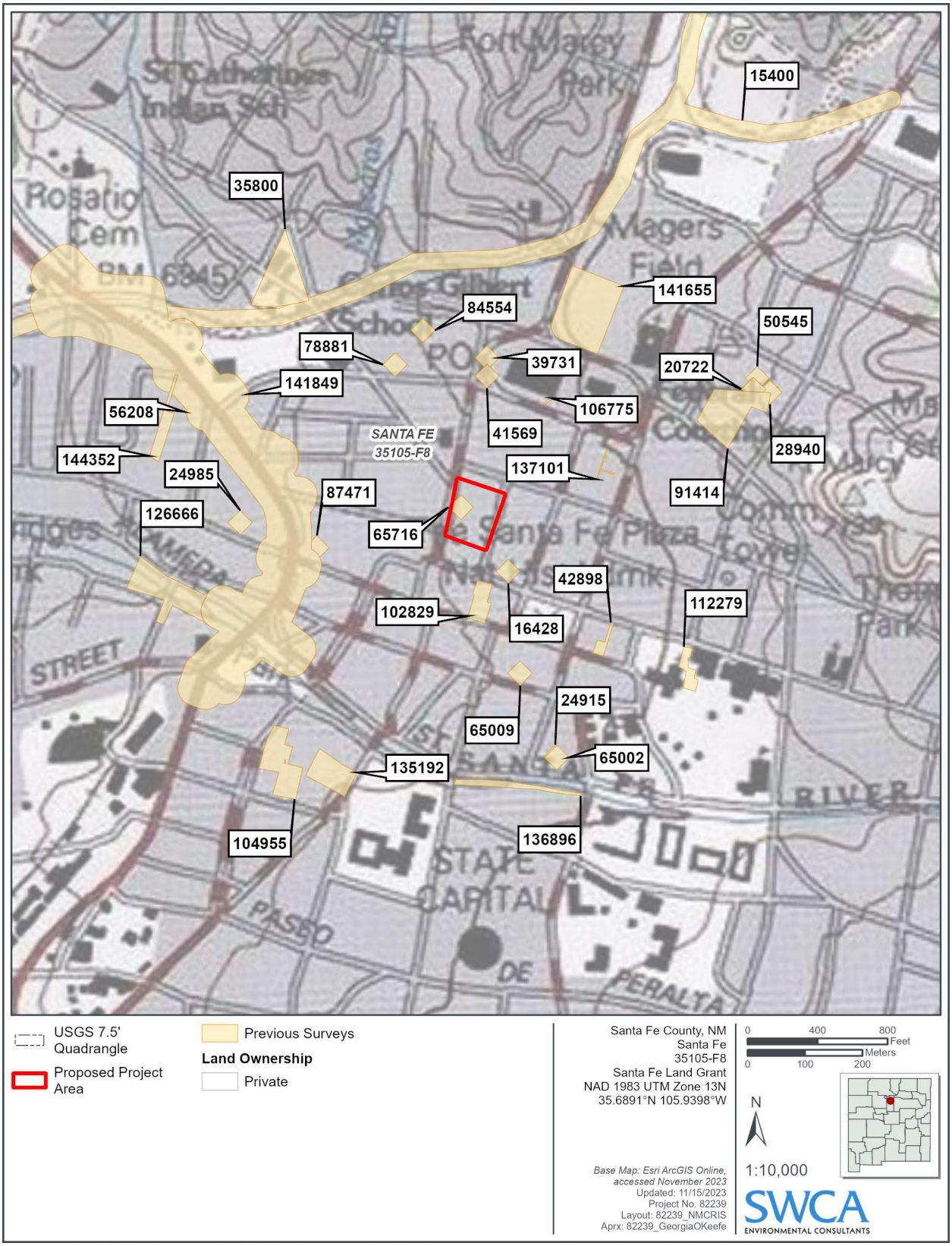

Figure D-1. NMCRIS Search of Previous NMCRIS Activities (Note – map based on NMCRIS data and are incomplete; see Section 3.5, this report).

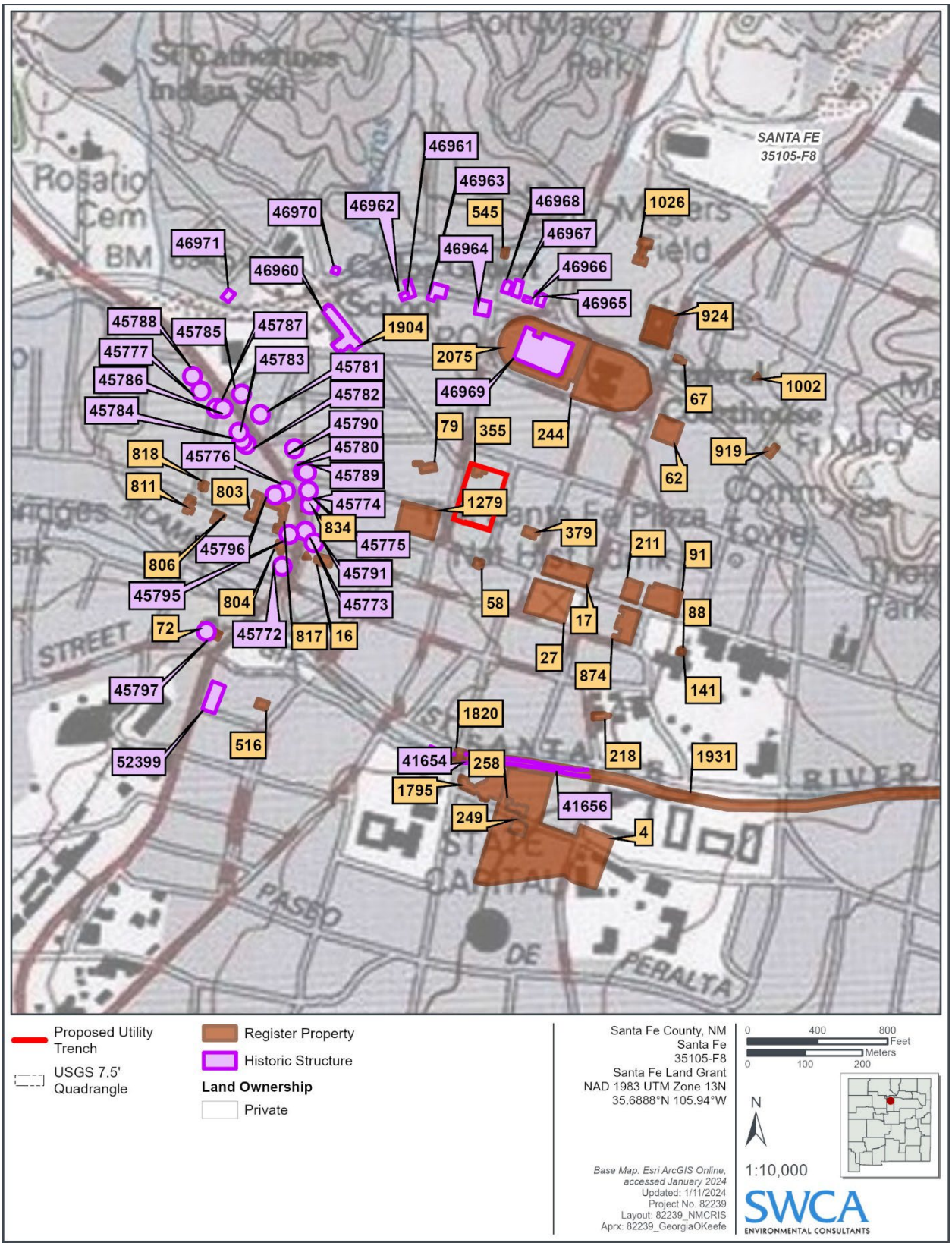

Figure D-2. NMCRIS Search of Previously Documented Historic Properties and State Register Properties.

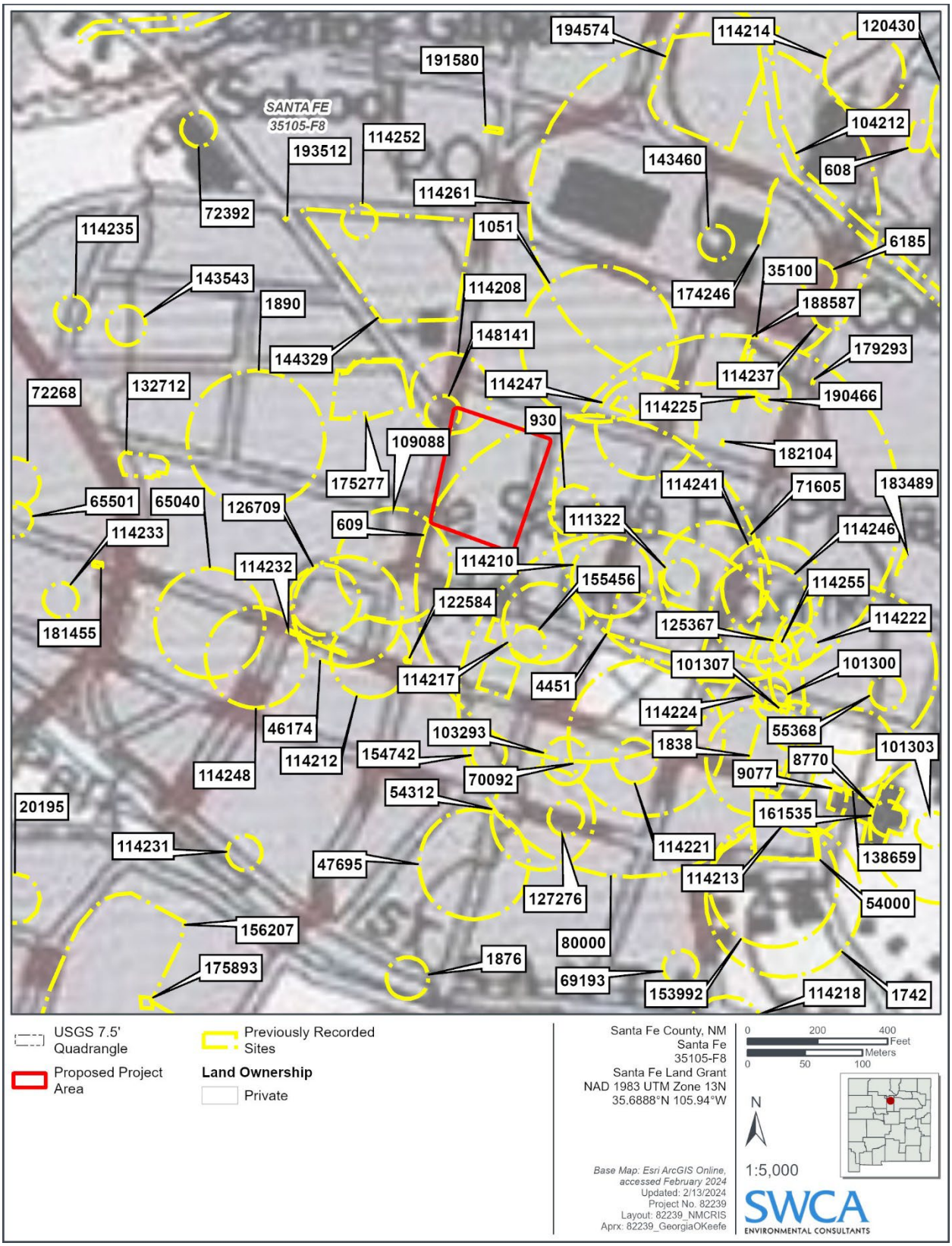

Figure D-3. NMCRIS Search of Previously Documented Archaeological Sites.

PREVIOUS INVESTIGATION REFERENCES CITED

Abbott, Alysia L. David C. Eck and Cordelia T Snow

2007 *Report of 2% Archaeological Testing and Archival Research: The First National Bank of Santa Fe Parking Lot, 114 West Palace Ave and 115 West San Francisco, in the National Register of Historic Places Santa Fe Historic District, the State of New Mexico Register of Cultural Properties and the Downtown Historic Archaeological Review District, Santa Fe, New Mexico*.

Arms, George Kirsten Campbell and Mary Quirolo

2007 *Cultural Resource Investigations for the New Mexico Rail Runner Phase 2 Santa Fe County*, *Santa Fe, New Mexico,* Parsons Brinckerhoff Report No. 2007-33582-1, Santa Fe, New Mexico.

Boggess, Douglas, Kim Parker, and Kobi Weaver

2019 *A Cultural Resources Survey of a Portion of 314 North Guadalupe Street, Downtown Santa Fe Historic District, Santa Fe, New Mexico*, Lone Mountain Archaeological Services Report No. 2964, Albuquerque, New Mexico.

Cunningham, Vicky J. Deni J. Seymour, J. D. Kilby, Nancy Hanks and Lori E. Rhodes

1997 *Cultural Resource Survey and Testing of 0.16 Acres for the Amacher Property within the City of Santa Fe Historic District, Santa Fe County, Santa Fe, New Mexico*, Lone Mountain Archaeological Services Report No. 160, Albuquerque, New Mexico.

Deyloff, Glenda

1999a *An Early Eighteenth-Century Occupation along the Camino Real: Results of Archaeological Investigations and Archival Study of Sanbusco and 544 Agua Fria Street*, *Santa Fe, New Mexico,* Southwest Archaeological Consultants Report No. 433b, Santa Fe County, New Mexico.

1999b *Preliminary Results of Archaeological Investigations and Archival Study at 60 East San Francisco Street, Santa Fe, New Mexico*, Southwest Archaeological Consultants Report No. SW #442, Santa Fe, New Mexico.

Deyloff, Glenda and Cherie Scheick

2007 *A Second Addendum to Coalition period Remains Under the west Alcove, U.S. Federal Courthouse, Santa Fe, New Mexico: Archaeological Monitoring at the Montoya Federal Building/U.S. Post Office and U.S. Federal Courthouse, Santa Fe, New Mexico*, Southwest Archaeological Consultants Report No. SW 477F, Santa Fe, New Mexico.

Elliot, Michael L.

1987 *Construction Monitoring at La Campanilla Compound*, 334 Otero Street, Jemez Mountains Research Center Report No. 87-21, Santa Fe, New Mexico: An Archeological Reconnaissance Report.

Gossett, Cye W.

1989 *Cultural Resource Survey and Testing Phase at 222 Old Santa Fe Trail, Santa Fe, New Mexico*, Rio Abajo Archaeological Services, Santa Fe, New Mexico.

Gossett, William J.

1993 *Archaeological Monitoring at the Proposed Allan Houser Art Park, Santa Fe, New Mexico*, Rio Abajo Archaeological Services, Santa Fe, New Mexico.

Hannaford, Charles A.

2007 *The First Judicial District Courthouse Complex: Archaeological Investigations at LA 156207 in Santa Fe*, Office of Archaeological Studies MNM/DCA Report No. Archaeology Notes 390, Santa Fe County, New Mexico.

Land, Richard W.

1981 *A Cultural Resources Inventory of the Fort Marcy-Magers Field Recreation Area, Santa Fe, New Mexico*, School of American Research Report No. 062.

McIntosh, Thomas I.

2004 *Phase I Archaeological Survey and Assessment San Francisco Plaza 321 W. San Francisco Street, Santa Fe, New Mexico*, ARCCOM Thomas McIntosh [(Activity ID: 04001) (HPD Log No. 71000)], Santa Fe, New Mexico.

McIntosh, Thomas I., Bettina Kuru'es, and David Snow

2006 *Report on Archaeological Reconnaissance, Rio Chama Steakhouse Addition, 414 Old Santa Fe Trail, Santa Fe, New Mexico*, ARCCOM Thomas McIntosh Report No. ArcCom 2006-027, Santa Fe, New Mexico.

Moore, James L.

2009 *Test Excavations at the La Villa Rivera/Marian Hall Complex in Downtown Santa Fe*, Office of Archaeological Studies MNM/DCA Report No. Archaeology Notes 408, MNM Project No. 41.869, Santa Fe, New Mexico, Archaeology Notes 408, Office of Archaeological Studies.

Okun, Adam

2012 *Cultural Resources Report for the New Mexico Statewide Interoperable Radio Communications Internet Transportation System (SIRCITS) Middle-mile Project,* Parametrix Report No. PMX-2011-25, Albuquerque, New Mexico.

Phillips, David A., Jr.

1995 *Archaeological Monitoring of a Utility Trench at Palace and Grant Avenues*, SWCA Environmental Consultants Report No. Project 75-51129, Albuquerque, New Mexico.

Post, Stephen, Cordelia Snow, and Gerry Raymond

2013 *Cultural Resource Survey/Reconnaissance for Proposed Replacement and Rehabilitation of DeFouri Street Bridge and Guadalupe Street Bridge Across the Santa Fe River, City of Santa Fe, New Mexico,* Parametrix Report No. PMX-2011-25, Albuquerque, New Mexico.

Rude, Trisha and John Cater

2018 *A Class III Cultural Resources Inventory for the Guadalupe Street Reconstruction Project from Agua Fria Street to Paseo de Peralta in Santa Fe, Santa Fe County, New Mexico, NMDOT District 5,* Tierra Right of Way Services Report No. 17TO-078, Santa Fe, New Mexico.

Seifert, Donna J.

1979 *An Archeological Clearance Survey of the Construction Site for the Gallery Addition to the Museum of Fine Arts, Santa Fe, New Mexico*, Museum of New Mexico Project No. 68.01, Lab Note 147, Santa Fe, New Mexico.

Snow, David H.

1988 *Report of Archeological Survey: Proposed Development of a Lot at 429 West San Francisco St., Cross Cultural Research Systems, Santa Fe, New Mexico*.

1989 *Report of Archeological Survey and Testing: 334 Otero St., Cross Cultural Research Systems, Santa Fe, New Mexico*.

1990 *Report of Historical Research and Archeological Testing Paseo de Peralta at Griffin and Rio Grande Streets, The Former Star Lumber Company Property, Santa Fe, New Mexico*, Cross Cultural Research Systems, Santa Fe, New Mexico.

1994 *Archeological and Historical Investigations on a Vacant Lot Identified as 322 Magdalena Street (Units 8, 9, 10, Magdalena Compound), Santa Fe, New Mexico*, Cross Cultural Systems, Santa Fe, New Mexico

1997a *Archeological and Historical Investigations for Peter Amacher*, *Parcel 216A, Alto Street, Barrio de Guadalupe Historic Neighborhood, Santa Fe, New Mexico*, Cross Cultural Research Systems Report No. 210, Santa Fe, New Mexico.

1997b *Archeological and Historical Investigations for Mr. Charles Azzue: 138 Park Ave*., *Santa Fe, New Mexico*, Historic Downtown Archeological Review District Santa Fe, New Mexico.

1997c *Archeological and Historical Investigations: 148 Elena St. within the Santa Fe Downtown Historic District, Santa Fe, New Mexico*, for Auerbach Southwest, Santa Fe, New Mexico.

1999a *Archaeological and Historical Investigations 109 and 111 Elena St., Santa Fe, New Mexico*, Cross Cultural Systems Report No. 224, Santa Fe New Mexico (Downtown Historic District).

1999b *Archeological and Historical Investigations: 221 1/2 Shelby Street - 222 Old Santa Fe Trail, Santa Fe, New Mexico*, Cross Cultural Research Systems Report No. 225, Santa Fe, New Mexico "The Old Santa Fe Market" Historic Downtown District.

1999c *Archaeological and Historical Investigations 135 Grant Avenue, Santa Fe, New Mexico*, Cross Cultural Research Systems Report No. 228, Santa Fe, New Mexico Santa Fe Downtown Historic District.

2002 *Archeological and Historical Investigations 0.9 Acres and the Northeast Corner of Catron and Griffin Streets Santa Fe Downtown Historic District, Santa Fe, New Mexico*, Cross Cultural Research Systems Report No. 248 (HPD Log No. 66120), Santa Fe, New Mexico.

Snow, David H. and Linda Tigges

2003 *Archaeological and Historical Investigations 103 Catron Street, The Catron Site Downtown Historic District, Santa Fe, New Mexico*, Cross Cultural Research Systems Report No. 253, Santa Fe, New Mexico.

Stokes, Robert J.

2016 *Cultural Resource Survey for Proposed Soil Boring in Support of Future Landscaping in Front of the State Supreme Court Building, Santa Fe River State Park, Santa Fe County, New Mexico,* New Mexico State Parks Report No. NMSP-16-41, Santa Fe, New Mexico.

Viklund, Lonyta and Deborah L. Huntley

2005 *Final Results of Archival Study, Archaeological Testing and Monitoring on the First Presbyterial Church Property, Santa Fe, New Mexico*, Southwest Archaeological Consultants Report No. 480e, Santa Fe, New Mexico

Viklund, Lonyta and Robin Cordero

2005 *Results of Archival Study and Archaeological Testing West of 515 Paseo de Peralta, Santa Fe, New Mexico*, Southwest Archaeological Consultants Report No. 488, Santa Fe, New Mexico.

Whitmore, Jane

1979 *The Cultural Resources of the Arroyo Mascaras Flood Plain, Santa Fe, New Mexico*, School of American Research Report No. 905, Santa Fe County, New Mexico.

Winters, Ron

2010 *An Archaeological Inventory and Testing Results of 9.617 Acres for the Santa Fe Civic Housing Authority Villa Alegre Development Project*, *Santa Fe, New Mexico,* Ron Waters, Archaeologist, Santa Fe, New Mexico.

2016 *An Archaeological Inventory and Testing of 0.647 Acres at the Old Santa Fe Inn Located at 320 Galisteo Street, Santa Fe, New Mexico.*

2018 *An Archaeological Inventory and Testing Report for the Proposed Development at 924 Paseo de Peralta, Santa Fe, New Mexico,* Ron Winters, Archaeologist Report No. AR-09-2018 (HPD Log No. 110840), Santa Fe, New Mexico.

2019a *An Archaeological Inventory and Testing Report for the Proposed El Castillo Retirement Community Project at 401 Old Taos Highway at Paseo de Peralta in Santa Fe, New Mexico,* Ron Winters, Archaeologist Report No. AR-35-2019, Santa Fe, New Mexico.

2019b *An Archaeological Monitoring Report for the CenturyLink Project on Cerrillos Road at 408 Galisteo Street in Santa Fe, New Mexico*, Ron Winters, Archaeologist Report No. AR-35-2018, Santa Fe, New Mexico.

Wozniak, Frank E.

1992a *Archaeological and Historical Investigation of the Phase One Area of the Grant Park Site, Santa Fe, New Mexico*.

1992b *Archaeological Investigation of the Phase Two Area of the Grant Park Site, Santa Fe, New Mexico*.

JENKINSGAVIN
LAND USE | PROJECT MANAGEMENT

Georgia O'Keeffe Museum
NEH Section 106 Review Meeting
February 27, 2024

A meeting was held at the Pueblo of Tesuque among Pueblo and O'Keeffe Museum (GOKM) representatives to discuss the Historical Properties Treatment Plan (HPTP) and the draft Memorandum of Agreement (MOA) pursuant to the Section 106 process required as part of the NEH grant for the proposed new Georgia O'Keeffe Museum in downtown Santa Fe.

Attendees:

- Governor Milton Herrera, Pueblo of Tesuque
- Lt. Governor Floyd Samuel, Pueblo of Tesuque
- Councilman Leon Herrera, Pueblo of Tesuque
- Larry Samuel, Director of the Tribal Historic Preservation Office
- Mark Mitchell, Pueblo of Tesuque
- Jennifer Jenkins, JenkinsGavin – GOKM Owner's Representative
- Matt Edwards, SWCA – GOKM Consulting Archaeologist
- Robin Cordero, SWCA – GOKM Consulting Archaeologist

Meeting Notes:

1. Security: During the archaeological excavation, Tesuque requested an 8' chain link fence with a visibility screen and 24-hour security. They do not want anyone speaking to the media regarding the investigations or findings.
2. Human Remains: All associated funerary items stay with the burial, and burials are returned to the site at a minimum depth of 6'. Burials are not to leave the site. Tesuque wants the GPS location of the reinterment. The reinterment area should be assessed using GPR and possibly hand excavated or tested. GOKM shared that a potential reinterment site had been identified on the adjacent Bergere House property and the Pueblo generally seemed comfortable with this approach. All tribes (Pueblo, Navajo, Apache, and Comanche) should be notified of any discovery of human remains.
3. Tesuque requested that excavated material be screened on-site to ensure that no artifacts or remains are inadvertently disposed of.
4. A request was made to SWCA to try and incorporate Tesuque members on the archaeology crew, maybe as paid internships.

5. Tesuque wants copies of all reports, e.g., monthly progress reports, preliminary post-field report, and final report. They did not request a restricted distribution of the report, nor did they request production of two separate reports (one on Puebloan and one on historic) as they did for the Sweeny Center.
6. Tesuque requested that they be included in any discussion of the ancestral Puebloan deposits and stated that the City of Santa Fe has not acted in good faith in protecting their ancestral site so they wish to have their concerns/needs addressed regardless of the City's requests with respect to the ancestral Pueblo component.
7. Tesuque specifically asked that we refrain from using the term "Ogapogeh" to refer to the site as that is their traditional name for all of Santa Fe and it has been misused by archaeologists. We agreed to refer to the site by their LA numbers or a generic term.
8. Final disposition of artifacts - we made the offer to have any of the ancestral Puebloan artifacts donated/curated with Tesuque Pueblo.
    a. Also suggested that we could explore setting up a lab at Tesuque for processing of the ancestral Puebloan artifacts for transparency and security, and to work with the tribe as partners.
    b. Tesuque would explore both of these ideas.
9. The possibility was discussed of utilizing the screened material to fabricate the adobe bricks for the building construction. The Pueblo was open to this idea, as long as the screening was properly conducted and monitored by the Pueblo.
10. Mr. Mitchell requested that we work with the Pueblo to determine which features should be carbon dated.
11. The Pueblo emphasized the importance of maintaining open communication during the archaeological investigation process and GOKM representatives agree wholeheartedly.

Register Property

Back Print

S.R. No. 260

Property Name Santa Fe Historic District

S.R. Category District (Historic) **LA** **HCPI** **N.R. No.** 73001150

Status

S.R. Status	Listed	**N.R. Status**	Listed	**NHL Status**	
Date	9/29/1972	**Date**	7/23/1973	**Date**	

Resource Counts **Contributing** 31 **Non-Contributing** 0

Associated District **Assoc. District Name** Santa Fe National Register Historic District **Assoc. District S.R. No.** 260

County(ies) Santa Fe

Public Address

Address 1 (non-public)

Address 2 (non-public)

City Santa Fe **ZIP Code**

Not For Publication ☐

Notes On NMCRIS import District Type in HPD database was: Historic

In GIS ☑ **GIS QC Complete** ☑

Up View Refresh

0260 ([0])

Cathedral Pa survey 229 G Thumbs.db

Created 2/13/2011 NMCRIS IMPORT Edited 2/13/2011 NMCRIS IMPORT

Back Print

SR- 355

BERGERE, A. M.

HOUSE

Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC
The A.M. Bergere House

AND/OR COMMON

2 LOCATION

STREET & NUMBER
135 Grant Avenue — NOT FOR PUBLICATION

CITY, TOWN
Santa Fe — VICINITY OF

CONGRESSIONAL DISTRICT
One (1)

STATE	CODE	COUNTY	CODE
New Mexico	35	Santa Fe	049

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	__PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
X BUILDING(S)	X PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
__STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	X PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	__INDUSTRIAL	__TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME
Eloisa Luna Otero Bergere Trust, c/o Miss Anita Bergere

STREET & NUMBER
135 Grant Avenue

CITY, TOWN
Santa Fe — VICINITY OF

STATE
New Mexico

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.
Santa Fe County Clerk's Office

STREET & NUMBER

CITY, TOWN
Santa Fe

STATE
New Mexico

6 REPRESENTATION IN EXISTING SURVEYS

TITLE
New Mexico State Register of Cultural Properties

DATE
12/6/74 — __FEDERAL X STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS
State Planning Office, 200 West DeVargas Street

CITY, TOWN
Santa Fe

STATE
New Mexico

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	__UNALTERED	XORIGINAL SITE
XGOOD	__RUINS	XALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The A.M. Bergere House at 135 Grant Avenue is one of the two remaining structures constructed by the U.S. Army in the early 1870's as part of the Fort Marcy Military Reservation in Santa Fe which served as headquarters for the Military District of New Mexico. From U.S. occupation of New Mexico on August 18, 1846 until initiation of this building program, army officials utilized the barracks of the Presidio of Santa Fe, built in the early 1700's and used during both the Spanish and Mexican periods.

The building at 135 Grant Avenue was one of six adobe houses constructed for commissioned officers and their families in accordance with the U.S. Army's standard "Plan C." These residences were symmetrically positioned so that half faced Lincoln Avenue and half faced Grant Avenue. Quarters for the commanding officer were established north of the Palace of the Governors and fronting Washington Avenue. Of these seven officers' residences and the twenty-five service and housing structures including an earlier officers' quarters south of the Federal Building, only the A.M. Bergere House at 135 Grant Avenue and a second one, the Fort Marcy Officer's Residence at 116 Lincoln Avenue, have survived.

At the time of construction, the A.M. Bergere House formed an "L" shaped structure having a cross gabled tin-pleated roof crowned with three fired brick chimneys. The exterior walls were adobe plastered and the two front corners were rectangularly etched to simulate dressed stone corner trim. A full porch supported by eight squared beams and having a wooden floor and decorative railing was situated on the front of the building, while an "L" shaped porch of similar construction, minus the railing, ran along the rear of the house. The original building also contained eighteen double hung windows with dark green shutters. The front door was framed with panels containing fourteen panes of glass and has not been altered. Four solid doors existed in the original structure and provided access to the rear porch from the southeastern corner room as well as the eastern wing or kitchen. Adjacent to the east wall of the kitchen were two small rooms which were most likely used as storerooms. The exterior of the A.M. Bergere House has been altered over the years. The cross-gabled roof on the main portion of the house was removed in 1926 and the upper-story was squared and a flat roof added to make the structure conform to the Spanish-Pueblo style of architecture which was then experiencing a revival in the capital city. One result of this modification was the creation of five large bedrooms on the second floor. A new front porch as well as first floor windows, consisting of four large rectangular panes of glass and replacing the earlier twelve pane windows, were installed at this time. A sun room was added to the south and several small utility rooms and a bathroom were added on the east side of the structure where originally the rear porch was located. The small storage sheds were likewise modified in Spanish-Pueblo style and a single car garage was added to the east. The stables and tennis court constructed by Bergere no longer exist but the fruit trees he planted are still producing fruit.

Having a central hallway, the interior of the A.M. Bergere House has been somewhat altered. Of the original four wooden military fireplaces in the main portion of the house, only one is extant. Three marble fireplaces from Solomon Luna's home at Los Lunas have replaced the earlier military ones.

(See Continuation Sheet #1)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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A fifth fireplace in the original kitchen, which was converted into a master bedroom by the Bergeres and reused as a kitchen by their children, has been removed. Throughout the house hardwood flooring has been placed directly on the wooden plank flooring. However, much of the original interior door and window trim are still in place as well as some of the interior doors and accompanying hardware. The staircase situated in the central hallway has not been altered and is used daily.

Located on two city lots, the A.M. Bergere House has retained much of its original environment and as one of two surviving Fort Marcy Military Reservation officer's residences in addition to being the home of a politically and socially prominent New Mexico family is worthy of preservation.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	X ARCHITECTURE	__EDUCATION	X MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
X 1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
X 1900-	__COMMUNICATIONS	__INDUSTRY	X POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES early 1870's BUILDER/ARCHITECT U.S. Army

STATEMENT OF SIGNIFICANCE

Constructed in the early 1870's, the A.M. Bergere House has played a prominent role in U.S. Military history in the Southwest as well as in the social and political life of New Mexico.

On August 18, 1846 Brigadier-General Stephen Watts Kearny accepted the peaceful surrender of New Mexico from Acting Governor Juan Bautista Vigil y Alarfd. The following day, Kearny ordered Lieutenants William H. Emory and Jeremy F. Gilmer to reconnoiter Santa Fe for a location suitable for the construction of a fort. A site about 600 yards northeast of the Plaza on a hill which was "the only point which commands the entire town and which itself is commanded by no other" was quickly selected and an adobe fort named for Secretary of War William L. Marcy was built but was never garrisoned or used. Instead, the buildings directly north of the Palace of the Governors which had housed troops of the Presidio of Santa Fe since the 1700's during both Spanish and Mexican periods were utilized by the Army of Occupation. These structures were bounded by present Grant Avenue on the west, Paseo de Peralta on the north, Washington Avenue on the east and Palace Avenue on the south.

Confederate forces from Texas under the command of General Henry H. Sibley invaded New Mexico from the El Paso area in January, 1862 and moved up the Rio Grande. To meet the threat Colonel Edward R. S. Canby, Commander of the Department of New Mexico, marched rapidly from Santa Fe with most of the regular army, reinforced by the territorial militia, leaving Major James L. Donaldson in charge of a small garrison in the capital. Following the defeat of the Union force at the Battle of Valverde February 21, 1862, the Texans, whose goal was the capture of Fort Union, the "guardian of the Santa Fe Trail," marched up the Rio Grande and occupied Albuquerque. With the imminent threat of occupation, Major Donaldson on March 5 abandoned the capital and escorted Territorial Governor Henry Connelly to Las Vegas and then marched to the comparative safety of Fort Union. Eight days later, Santa Fe fell easy prey to the Confederates and was occupied by Major Charles L. Pyron with a force of seventy men. On March 23, Major Pyron was joined by the remainder of his command bringing his total strength to 270. This force was quartered in the Palace of the Governors and the old military buildings to the north until March 25 when Major Pyron marched his troops east toward Fort Union.

At the same time troops from Fort Union reinforced by the Colorado Volunteers were marching toward Santa Fe. March 26 Pyron's forces were defeated by a large Union force led by Major John M. Chivington at the western entrance to Glorieta Pass. The 7th and part of the 4th Regiments of Texas Mounted Volunteers commanded by Lieutenant-Colonel William R. Scurry reinforced Pyron

(See Continuation Sheet #2)

on the 27th. The following day, the combined Confederate troops engaged Union forces consisting of U.S. Army regulars, New Mexico Militia and the Colorado Volunteers at Glorieta Pass in a battle often called "the Gettysburg of the West." Scurry had all but won the battle when he learned that his supply train had been destroyed by a rear action attack.

With their dreams of conquest crushed, the Confederate troops withdrew to Santa Fe briefly before beginning their retreat down the Rio Grande on April 7. Captain George W. Howland, U.S.A., reoccupied Santa Fe on April 10 and found about 250 sick and wounded Confederates as well as some deserters still in the military complex.

Fort Marcy Military Reservation consisting of about 17 acres was created by President Andrew Johnson's Executive Order of August 28, 1868. This reservation incorporated the earlier Spanish and Mexican period military quarters which were subsequently razed and replaced in the early 1870's by new and larger military structures.

Quarters for the commanding officer were established north of the Palace of the Governors fronting Washington Avenue where the Santa Fe National Bank is now located. Six other adobe houses for commissioned officers and their families were also constructed utilizing a modification of the U.S. Army's standard "Plan C." These six homes consisting of two-story buildings with a cross-gable roof were symmetrically positioned so that half of the houses faced Lincoln Avenue and half faced Grant Avenue. Of these six structures only the Bergere residences at 135 Grant Avenue and officer's residence at 116 Lincoln Avenue now survive.

The activities at Fort Marcy Military Reservation were somewhat limited and consisted mainly of presenting band concerts and firing gun salutes for such occasions as the misnamed "Tertio-Millenial Celebration of 1882." One of the few highlights in the post's history was the visit of General, and former President, Ulysses S. Grant, Mrs. Grant and Mrs. Fred Grant during July of 1880. The distinguished party visited both Las Vegas and Santa Fe and while in the capital city, was furnished quarters by the military in the Bergere House.

With little apparent need for the post, the Army abandoned Fort Marcy military Reservation on October 10, 1894 and "was by Executive Order of June 15, 1895, placed under the custody of the Interior Department for disposal under the Act of July 5, 1884, being 'An Act to Provide for the disposal of abandoned and useless military reservations,'...." Until disposal could be accomplished, the property was to be administered by the Governor of New Mexico in his capacity of Custodian of the Fort Marcy Abandoned Military Reservation.

During this period, the six officers' quarters were utilized by politicians and prominent New Mexicans as rent free residences. On June 3, 1899, Solomon Luna was granted permission to occupy the Bergere House. Whether he and his wife ever lived in the house is not known since Luna also maintained a large home at Los Lunas (south of Albuquerque) at this time. Probably the structure

(See Continuation Sheet #3)

was acquired only for his mother, Isabel Baca de Luna, who lived in the house for about two years.

Solomon Luna, son of merchant-farmer José Antonio Luna and his wife Isabel Baca, was a direct descendant of Domingo de Luna who settled in the Los Lunas area shortly after the Reconquest of New Mexico in 1693 by General Diego de Vargas Zapata Luján Ponce de León. Solomon, in addition to being a wealthy sheep raiser and president of the Bank of Commerce in Albuquerque, also held various important political offices including that of Valencia County probate clerk in 1885, sheriff in 1892 and treasurer in 1894. He was the most influential delegate serving in the Constitutional Convention of 1910. From 1896 until his death in 1912 he was a member of the National Republican Committee. His wife, Adelaida Otero de Luna, was the daughter of Manuel Rito Otero and the granddaughter of Antonio José Otero who was appointed as a justice of the New Mexico Supreme Court by Kearny.

The Lunas, Oteros and Chaveses were the three most influential and politically powerful families of the Rio Abajo (lower river) region during the Mexican and Territorial period. In addition to Solomon, the family also included Tranquilino, Jesús María, Luz and Eloisa. Jesús María was a captain in the New Mexico Militia, an Indian fighter and politician while his other brother Tranquilino engaged in sheep raising and was also politically active. He was delegate to the Republican National Conventions in 1880 and 1884; elected as a Republican to the 47th Congress (March 4, 1881-March 3, 1883); presented credentials as a Delegate-elect to the 48th Congress and served from March 4, 1883 until March 5, 1884, when he was succeeded by Francisco A. Manzanares, who contested his election; and sheriff of Valencia county 1888-1892. Tranquilino had one son, Maximiliano, who was a captain of Troop F 1st U.S. Vol. Cav. during the Spanish-American War and later drowned while serving in the Philippines.

Solomon's sister Luz married José María Romero while a second sister, Eloisa, married Manuel B. Otero in 1879. The nephew of previously mentioned Judge Antonio José Otero, Manuel B. Otero was a prominent rancher in the Los Lunas area. At Estancia Springs in the summer of 1883, he was shot and killed by James G. Whitney in a dispute over a land grant.

The Otero-Luna marriage produced three children: Eduardo Manuel, prominent sheep raiser and politician; Adelina Isabel Emilia, superintendent of schools in Santa Fe County, candidate for Congress in 1922 and later an inspector at large for the Department of the Interior; and Manuel Basilio, Republican candidate for governor in 1924.

On August 15, 1886, three years after the death of her husband, Eloisa Luna Otero married Alfred Maurice Bergere. Born in Liverpool, England on October 10, 1859, Bergere was the son of Joseph Charles and Nina Bergere who were both of Italian ancestry. His father was the owner and builder of the first line of steamships sailing from Liverpool to the Mediterranean Sea. Alfred Bergere immigrated to the United States in 1872 and six years later moved to Valencia county where he was involved in mercantile, stock raising

(See Continuation Sheet #4)

and insurance interests. A Republican, he also exhibited a keen interest in public affairs and served as chairman of the board of county commissioners for two years, county assessor for two years and county treasurer for six years.

In 1898 with the appointment of John R. McFie as judge of the first judicial district, Bergere became clerk of the district court and the family moved to Santa Fe. He held this position until his resignation in July of 1907. Bergere, who was at one time Register and Receiver of the U.S. Land Office, also served as secretary to U.S. Congressman Benigno Cardenas Hernandez who was representative at large from New Mexico (1915 to 1917 and again from 1919 to 1921). An accomplished musician, Bergere was active in the Knights of Columbus and during World War I, he traveled to France to perform with the Knights who provided entertainment for American Servicemen. Physically disqualified from serving in the earlier Spanish-American War, Bergere had offered to donate a hundred horses from his ranch at Galisteo to the United States Government.

Nine children resulted from the marriage of Eloisa and Alfed Bergere: Anita Isabel Eloisa; Elvira Estella, who married Aldo Leopold; Mary Bernadita, who married John J. Kenney; Antonio Jose Luna; Maria Eduvigen Consuelo, who married Herbert Mendenhall; Maria Rosina, who married Leonard Smith; Maria Nestora Christina Ysabel; Joseph Charles; and Maria Dolores Bergere, who married Charles Carl Leopold.

On February 28, 1901, the Secretary of the Interior authorized Governor and Custodian Miguel A. Otero (Governor of New Mexico 1897-1906) to permit Bergere and his family to occupy a building on the Fort Marcy Abandoned Military Reservation as soon as one became available. In a letter dated May 4, of the same year, Governor Otero informed Binger Hermann, of the Dept. of the Interior that no houses were vacant but that A.M. Bergere was occupying the house assigned to his brother-in-law Solomon Luna. The Bergere House was the center for many social events in Santa Fe. For instance on one occasion, the Bergeres gave a dinner party in honor of Governor Otero and his wife which was attended by former Governor L. Bradford Prince and Mrs. Prince, Captain and Mrs. Maximiliano Luna, as well as important attorneys and their wives.

On January 5, 1904, the Fort Marcy Abandoned Military Reservation was conveyed to the City of Santa Fe which in turn transferred the property to the Santa Fe Board of Education on the 9th of the following month. Eloisa purchased the house and two lots from the board of education on December 22, 1905 for $2,700. On October 29, 1912, Eloisa conveyed the property in trust to her son Eduardo Manuel Otero and after a brief illness, died on September 3, 1914. Alfred Bergere continued to live in the house until his own death on May 26, 1939. In 1932, Manuel Basilio Otero was placed in charge of the property and after his death in 1963, Nina Otero Warren (Adelina Isabel Emilia) administered the estate until her own death two years later. The house is presently occupied by Anita Bergere (Anita Isabel Eloisa) and May Kenney (Mary Bernadita Bergere).

J. J. Stoner, Bird's Eye View of the City of Santa Fe, N.M., 1882 (map) State Records Center and Archives, 404 Montezuma, Santa Fe, New Mexico.

"Headquarters Military District of New Mexico," reproduced from Illustrated New Mexico by Wm. G. Ritch, State Records Center and Archives, 404 Montezuma, Santa Fe, New Mexico.

Deed Book M-1, pp. 261 & 263 and L-1, p. 234. Santa Fe County Clerk's Office.

Book C of Contracts, p. 262, Santa Fe County Clerk's Office.

Interview of Mrs. May Kenney and Miss Anita Bergere by James H. Purdy at 135 Grant Avenue on May 7, 1974.

Santa Fe New Mexican, July 19, 1880; July 29, 1907.

Frazer, Robert W. Forts of the West. Norman: University of Oklahoma Press.

Hall, Martin Hardwick. Sibley's New Mexico Campaign. Austin: University of Texas Press, 1960.

Heyman, Max L., Jr. Prudent Soldier, a Biography of Major General E.R.S. Canby 1817-1873. Glendale: The Arthur H. Clark Company, 1959.

Otero, Miguel Antonio. My Nine Years as Governor of the Territory of New Mexico 1897-1906. Albuquerque: The University of New Mexico Press, 1940.

Twitchell, Ralph Emerson. Old Santa Fe. Chicago: The Rio Grande Press, Inc., 1963 reprint.

_____. The Leading Facts of New Mexican History, Vol. 3 and 4, Cedar Rapids: The Torch Press, 1917.

Anderson, George B. (comp.). History of New Mexico, Its Resources and People, Vol. 1, New York: Pacific States Publishing Company, 1907.

Dunne, Brian Boru. "Necrology, Alfred M. Bergere," New Mexico Historical Review (July, 1939), pp. 300-303.

Westermeier, Clifford P. "Teddy's Terrors: The New Mexican Volunteers of 1898," New Mexico Historical Review (April, 1952), p. 111.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Governors Papers, Miguel A. Otero, 1897-1906. State Records Center and Archives 404 Montezuma, Santa Fe, New Mexico.
Frank McNitt Collection, State Records Center and Archives, 404 Montezuma, Santa Fe, New Mexico.
WPA Files, State Records Center and Archives, 404 Montezuma, Santa Fe, New Mexico. (See Continuation Sheet #5)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY approx. 3/4 acre

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	13	415000	3949690
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
James H. Purdy, Historian

ORGANIZATION
State Records Center and Archives

DATE
6/3/75

STREET & NUMBER
404 Montezuma

TELEPHONE
827-2321

CITY OR TOWN
Santa Fe

STATE
New Mexico

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X STATE ____ LOCAL ____

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE Thomas William Merlan

TITLE State Historic Preservation Officer DATE 6-5-75

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES PROPERTY PHOTOGRAPH FORM

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DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES --ENCLOSE WITH PHOTOGRAPH

1 NAME

HISTORIC
The A.M. Bergere House
AND/OR COMMON

2 LOCATION

CITY, TOWN Santa Fe ___VICINITY OF COUNTY Santa Fe STATE New Mexico

3 PHOTO REFERENCE

PHOTO CREDIT Richard Federici DATE OF PHOTO May, 1974

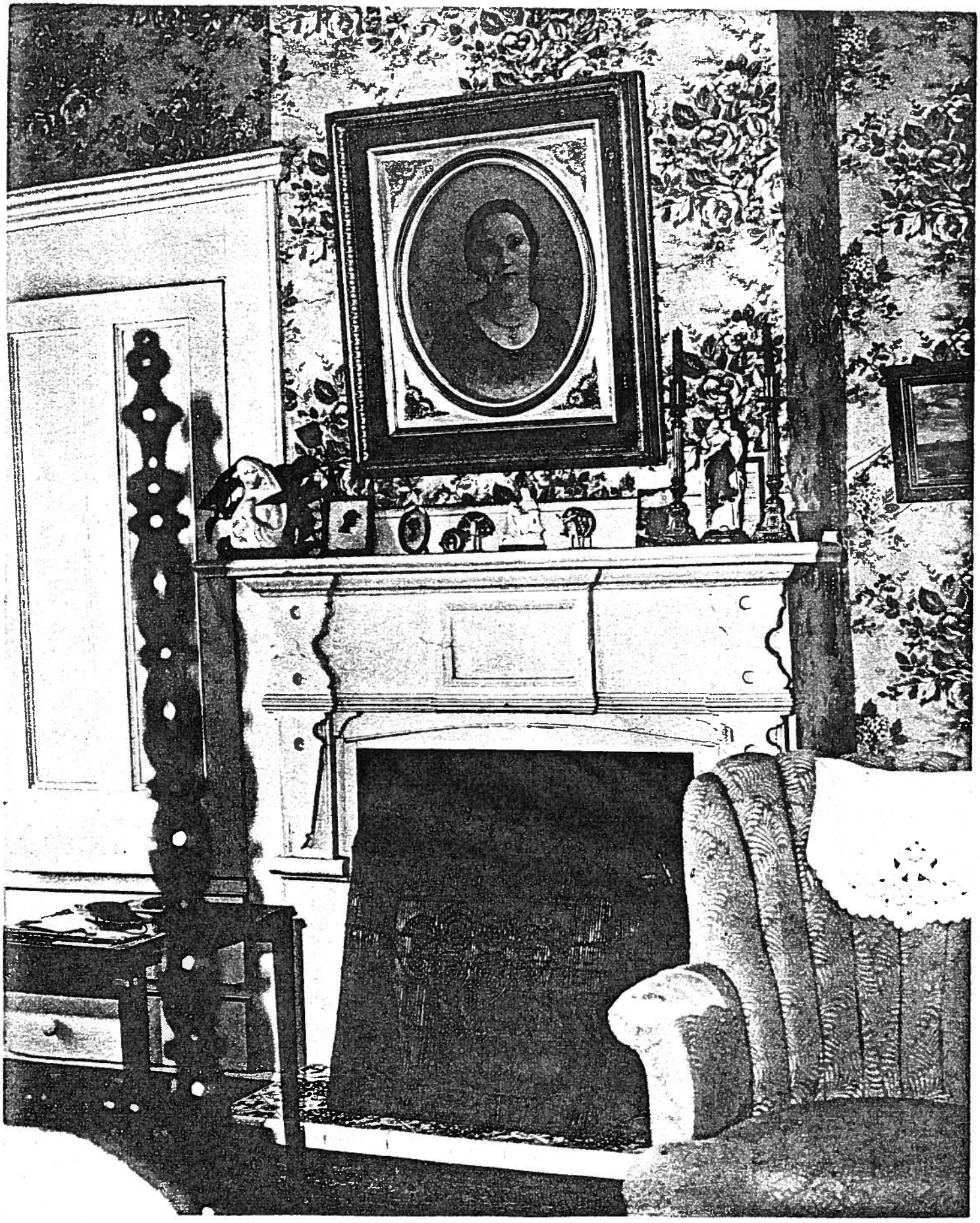
NEGATIVE FILED AT State Planning Office, 200 West DeVargas St., Santa Fe, N.M.

4 IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC. IF DISTRICT, GIVE BUILDING NAME & STREET PHOTO NO

Original military fireplace in A.M. Bergere House.

INT: 2983-75



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AND/OR COMMON

2 LOCATION

CITY, TOWN Santa Fe ___VICINITY OF COUNTY Santa Fe STATE New Mexico

3 PHOTO REFERENCE

PHOTO CREDIT Richard Federici DATE OF PHOTO May, 1974

NEGATIVE FILED AT State Planning Office, 200 West DeVargas St., Santa Fe, N.M.

4 IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC. IF DISTRICT. GIVE BUILDING NAME & STREET PHOTO NO

Front of A.M. Bergere House. Photo taken facing east.

INT: 2983-75

Form No. 10-301a
Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
PROPERTY PHOTOGRAPH FORM

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DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES --ENCLOSE WITH PHOTOGRAPH

1 NAME

HISTORIC
The A.M. Bergere House

AND/OR COMMON

2 LOCATION

CITY, TOWN: Santa Fe
___VICINITY OF
COUNTY: Santa Fe
STATE: New Mexico

3 PHOTO REFERENCE

PHOTO CREDIT: Richard Federici
DATE OF PHOTO: May, 1974

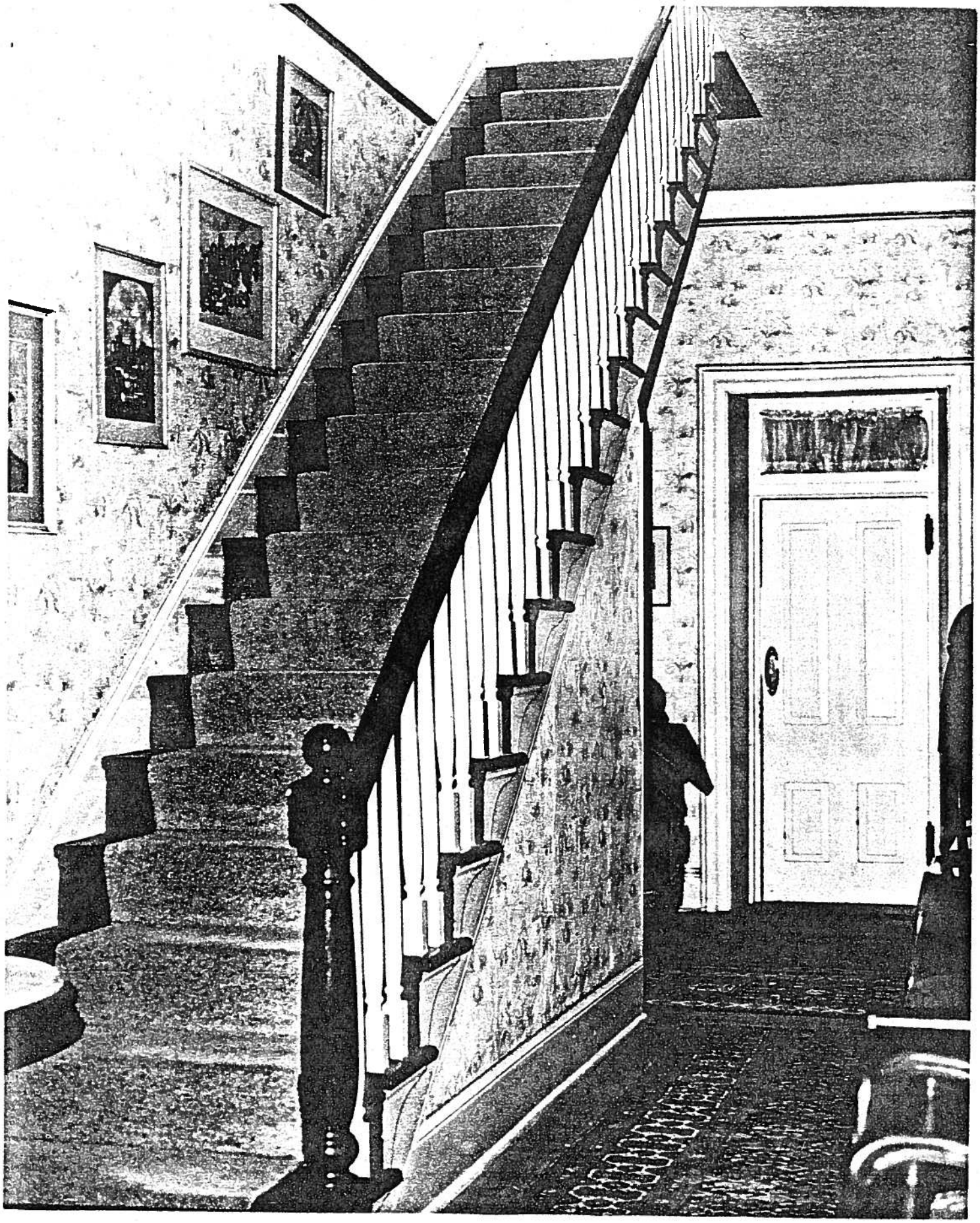
NEGATIVE FILED AT: State Planning Office, 200 West DeVargas St., Santa Fe, N.M.

4 IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC. IF DISTRICT, GIVE BUILDING NAME & STREET
PHOTO NO

Original staircase in A.M. Bergere House.
Photograph taken after entering front door
and facing east

INT: 2983-75



Form No. 10-301a
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TYPE ALL ENTRIES --ENCLOSE WITH PHOTOGRAPH

1 NAME

HISTORIC
The A.M. Bergere House
AND/OR COMMON

2 LOCATION

CITY, TOWN Santa Fe ____VICINITY OF COUNTY Santa Fe STATE New Mexico

3 PHOTO REFERENCE

PHOTO CREDIT Richard Federici DATE OF PHOTO May, 1974

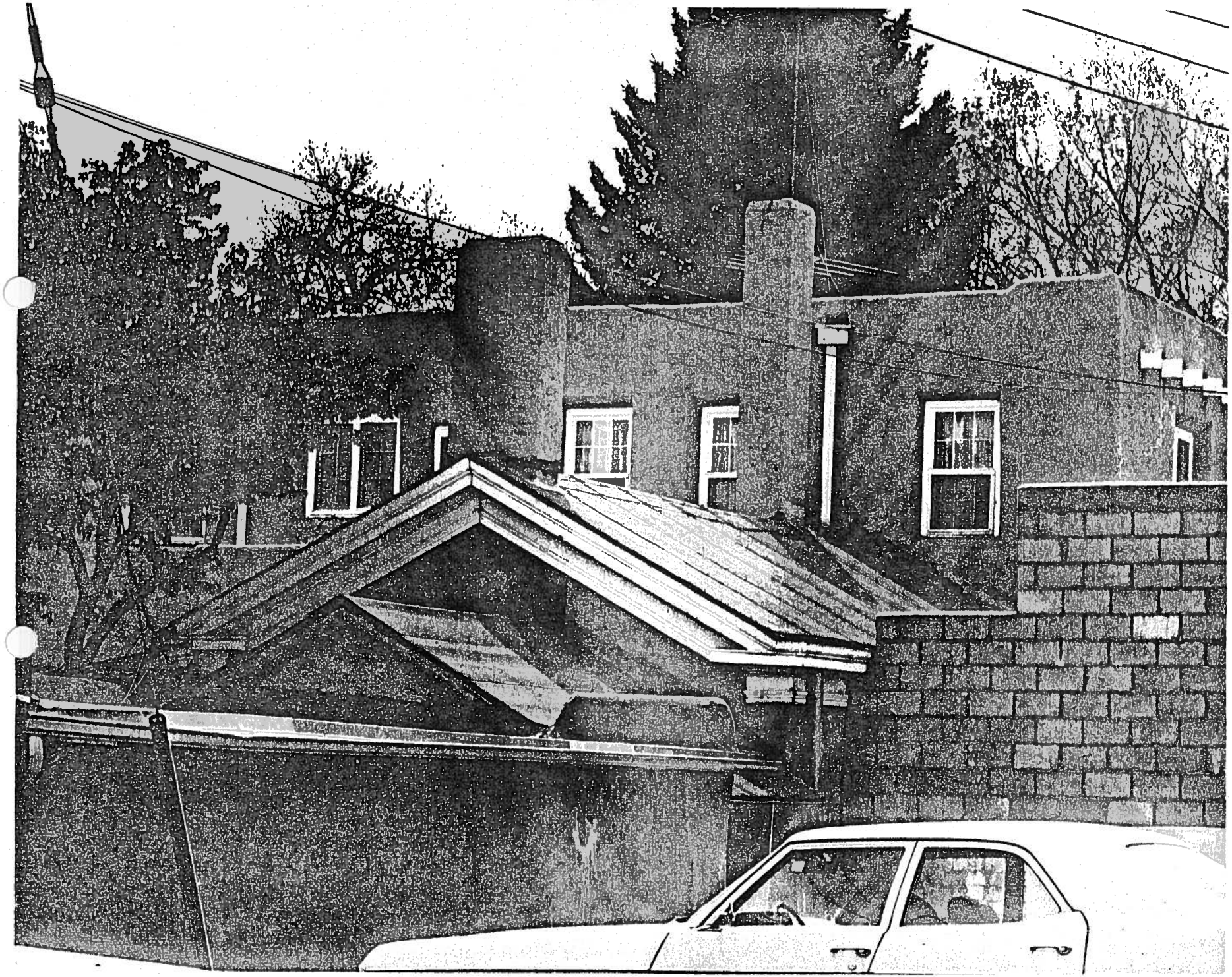
NEGATIVE FILED AT State Planning Office, 200 West DeVargas St., Santa Fe, N.M.

4 IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC. IF DISTRICT, GIVE BUILDING NAME & STREET PHOTO NO

Rear of A.M. Bergere House looking west. The pitched roof is over the east wing or kitchen.

INT: 2983-75



Form No. 10-301
(Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
PROPERTY MAP FORM

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DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- ENCLOSE WITH MAP

1 NAME

HISTORIC
The A.M. Bergere House

AND/OR COMMON

2 LOCATION

CITY, TOWN
Santa Fe

___VICINITY OF

COUNTY
Santa Fe

STATE
New Mexico

3 MAP REFERENCE

SOURCE U.S.G.S.

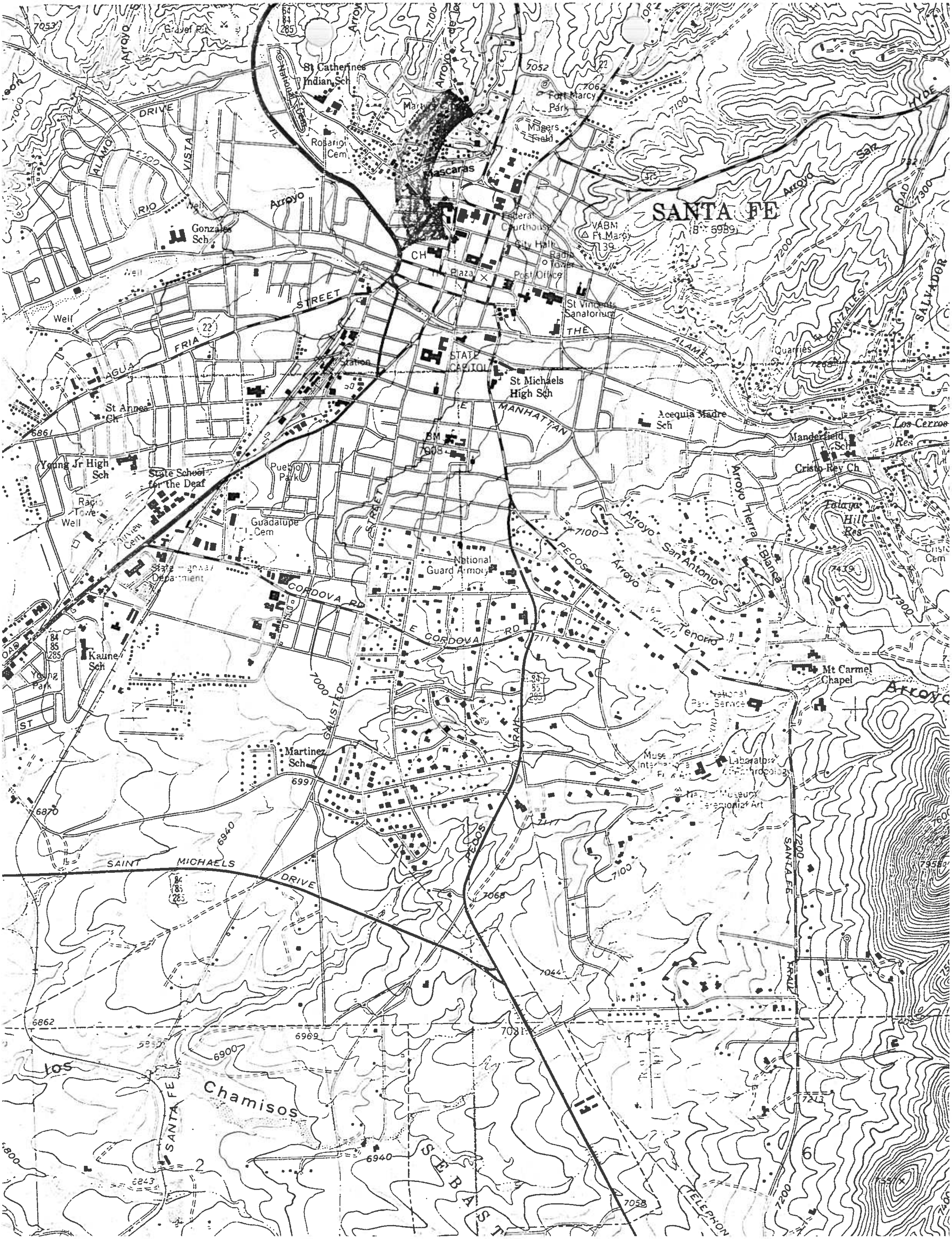
SCALE 1:24000

DATE 1961

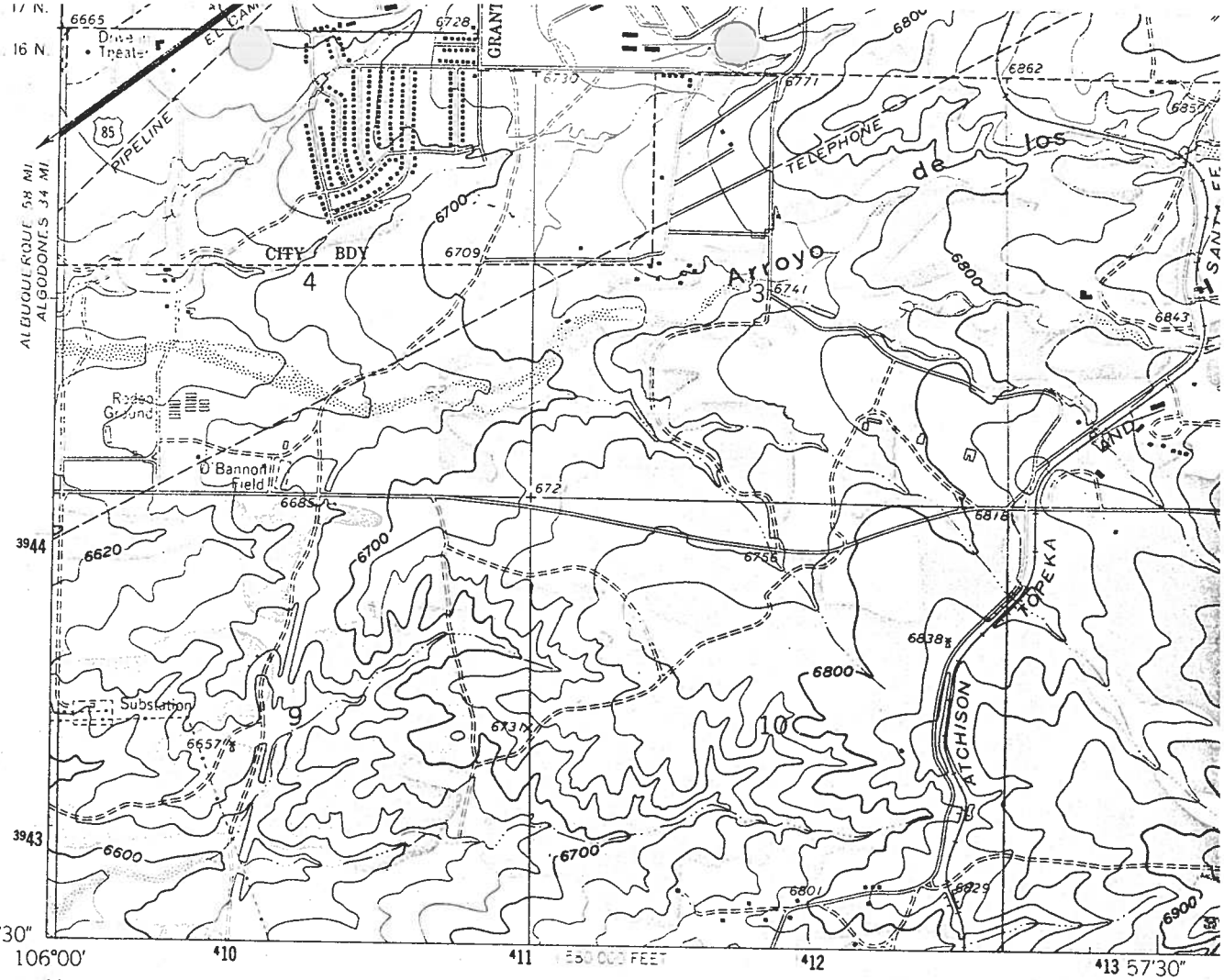
4 REQUIREMENTS

TO BE INCLUDED ON ALL MAPS
1. PROPERTY BOUNDARIES
2. NORTH ARROW
3. UTM REFERENCES

NT: 3464-75



SANTA FE
St Catherines Indian Sch
Fort Marcy Park
Magers Field
Rosario Cem
Mascaras
Federal Courthouse
City Hall
Radio Tower
Post Office
Plaza
CH
Gonzales Sch
St Vincents Sanatorium
THE ALAMEDA
STATE CAPITOL
Station
St Michaels High Sch
Acequia Madre Sch
Manderfield Sch
Cristo Rey Ch
Los Cerros
Talaya Hill Res
St Annes Ch
AGUA FRIA STREET
ALAMO DRIVE
VISTA
RIO
E MANHATTAN
Young Jr High Sch
State School for the Deaf
Pueblo Park
Guadalupe Cem
National Guard Armory
CORDOVA RD
E CORDOVA RD
Kaune Sch
Young Park
Arroyo San Antonio
Arroyo Tenorio
Arroyo Tierra Blanca
PECOS TRAIL
Mt Carmel Chapel
National Park Service
Martinez Sch
GALISTEO STREET
Quarries
GONZALES
SALVADOR
HYDE
SAINT MICHAELS DRIVE
SANTA FE TRAIL
Chamisos
SANTA FE
SEBAST
TELEPHON



(TURQUOISE HILL 4755 II SE)

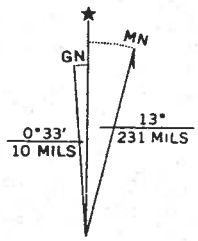
Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1951 and planetable surveys 1952. Revised from aerial photographs taken 1960. Field checked 1961

Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

Fine red dashed lines indicate selected fence and field lines



UTM GRID AND 1961 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	13	411,500	3,914,690
B			
C			
D			

Attachment E

Natural Resources Information

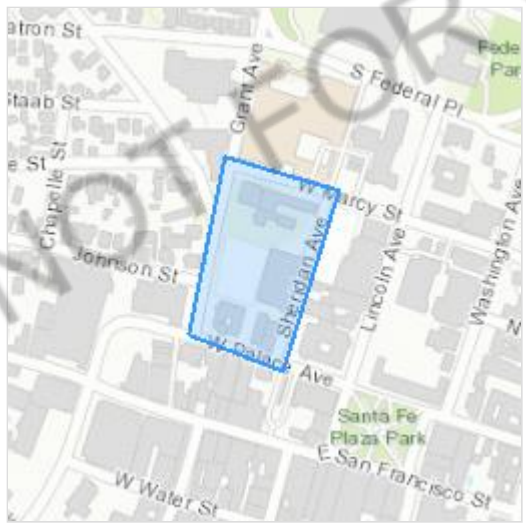
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Fe County, New Mexico



Local office

New Mexico Ecological Services Field Office

(505) 346-2525
(505) 346-2542

2105 Osuna Road Ne
Albuquerque, NM 87113-1001

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Mexican Spotted Owl Strix occidentalis lucida Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Rio Grande Cutthroat Trout Oncorhynchus clarkii virginalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/920	Candidate

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted

Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

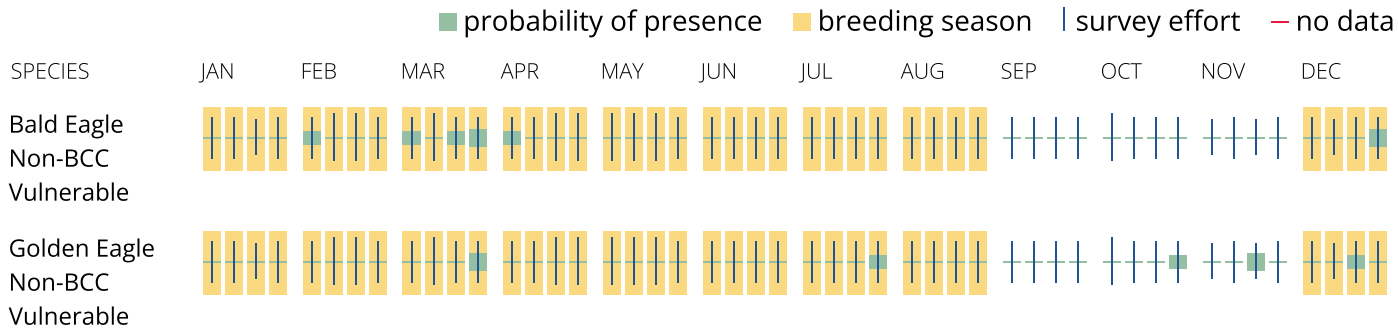
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-chinned Sparrow Spizella atrogularis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Clark's Nutcracker Nucifraga columbiana This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Jan 15 to Jul 15

Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay Gymnorhinus cyanocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

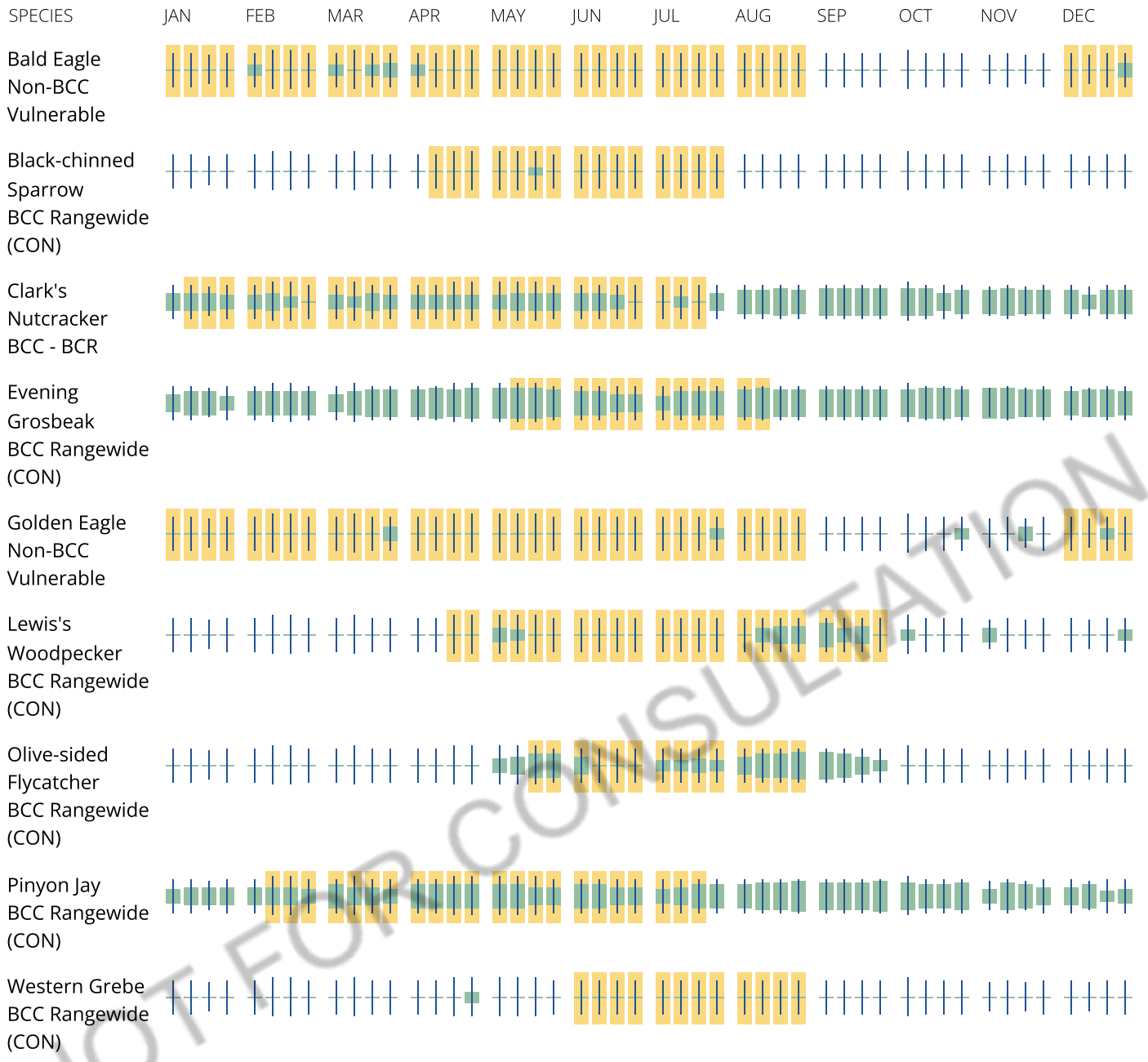
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or

submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Federal or State Threatened/Endangered Species

Santa Fe

Taxonomic Group	# Species	Taxonomic Group	# Species
Birds	12	Fish	1
Lepidoptera; moths and butterflies	1	Mammals	3
Molluscs	1		

TOTAL SPECIES: 18

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Spotted Bat	Euderma maculatum	T			Y	View
Pacific Marten	Martes caurina	T			Y	View
Meadow Jumping Mouse	Zapus luteus luteus	E	E	Y	Y	View
White-tailed Ptarmigan	Lagopus leucura	E			Y	View
Yellow-billed Cuckoo (western pop)	Coccyzus americanus occidentalis		T	Y	Y	View
Broad-billed Hummingbird	Cynanthus latirostris	T			Y	View
Violet-crowned Hummingbird	Leucolia violiceps	T			Y	View
Least Tern	Sternula antillarum	E			Y	View
Bald Eagle	Haliaeetus leucocephalus	T			Y	View
Mexican Spotted Owl	Strix occidentalis lucida		T	Y	Y	View
Boreal Owl	Aegolius funereus	T			Y	View
Peregrine Falcon	Falco peregrinus	T			Y	View
Southwestern Willow Flycatcher	Empidonax traillii extimus	E	E	Y	Y	View
Gray Vireo	Vireo vicinior	T			Y	View
Baird's Sparrow	Centronyx bairdii	T			Y	View
Rio Grande Cutthroat Trout	Oncorhynchus clarkii virginalis		C			View
Monarch Butterfly	Danaus plexippus		C			View
Lilljeborg's Peaclam	Pisidium lilljeborgi	T			Y	No Photo

Attachment E-3. Special-status Species Listed for Santa Fe County, New Mexico

Common Name (scientific name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area
Plants			
Great Plains Ladies' tresses (*Spiranthes magnicamporum*)	NM E	This species is widely distributed in the Great Plains and Great Lakes regions north to Ontario, Canada and is rare in New Mexico. The plant occurs in wetlands, ciénegas, and stream sides in New Mexico from 4,560 to 6,500 feet amsl. Flowers from mid-July to August.	Unlikely to occur within the proposed project area because of the lack of wetlands, ciénegas, and streams there.
Holy Ghost ipomopsis (*Ipomopsis sancti-spiritus*)	USFWS E NM E	This species grows on relatively dry, steep west to southwest-facing slopes in open ponderosa pine (Pinus ponderosa) or mixed conifer forest at 2,400 to 2,500 meters (m) (7,730-8,220 feet) amsl in San Miguel County and is found only in one canyon in the upper Pecos River drainage of the southern Sangre de Cristo Mountains. The geologic substrate is partly weathered Tererro limestone. This plant appears to grow best in bare mineral soils and is highest in density on disturbed sites such as road cuts. Flowers from July to September.	Unlikely to occur within the proposed project area, as the only known population is restricted to one canyon in the Sangre de Cristo Mountains.
Santa Fe cholla (*Cylindropuntia viridiflora*)	NM E	The Santa Fe cholla is known from only three areas between Santa Fe and Chimayo and occurs in gravelly rolling hills in pinion-juniper *(Pinus* and *Juniperus* spp.) woodland at 1,770 to 2,200 m (5,800-7,200 feet) amsl. Flowers in July.	Unlikely to occur within the proposed project area due to the projects previous land use, limited vegetation, and location on a flat site in high dense urban area.
Wood lily (*Lilium philadelphicum* var. *andinum*)	NM E	This species occurs in moist woodlands and meadows in mixed conifer forests and canyon bottoms between 7,550 and 10,000 feet in Sandoval, Otero, Santa Fe, San Miguel, Los Alamos, and Colfax Counties. The plant is widespread in Canada and the United States. Flowers late spring- through summer (late May through August).	Unlikely to occur within the proposed project area because of the lack of mixed conifer forests and canyon bottoms there. The project area is also below the elevation range of the species.
Arthropods			
Monarch butterfly (*Danaus plexippus plexippus)*	USFWS C	In New Mexico, this species' migration peaks in April and subsides by mid-May. Breeding occurs within the state, and a new generation matures in New Mexico by each July. In-state population numbers peak in August and September. The southward migration back to Mexico begins in late August and September. During the breeding season in New Mexico, young monarch butterfly caterpillars require milkweed species (*Asclepias* spp.) as a food source (Cary and DeLay 2016). Overall, monarch butterflies seem to be most abundant in southeast New Mexico. There is currently no evidence that monarchs overwinter in New Mexico.	May occur within the proposed project area for foraging if the area contains herbaceous flowering plants, including milkweed species, during breeding periods. Due to the previous land use and limited vegetation on site, it is unlikely to occur within the proposed project area.
Mollusks			
Lilljeborg peaclam (*Pisidium lilljeborgi*)	NM T	In New Mexico, this species occurs in cold, alpine Nambe Lake, which is surrounded by rocky talus, stands of Engelmann spruce (*Picea engelmannii*) and subalpine fir (*Abies lasiocarpa*), and grass-sedge-forb communities at approximately 11,350 m amsl.	Unlikely to occur in proposed project area because of the lack of wetlands and the species restriction to Nambe Lake, which is approximately 16 miles northeast of the project area.
Fish			
Rio Grande cutthroat trout (*Oncorhynchus clarkia virginalis*)	USFWS C	This subspecies of cutthroat trout is endemic to the Rio Grande, Pecos, and possibly the Canadian River Basins in New Mexico and Colorado. The species' historical range included Colorado, New Mexico, Texas.	Unlikely to occur in the proposed project area because of the lack of major rivers.

Common Name (scientific name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area
Amphibians			
Birds			
Baird's sparrow (*Ammodramus bairdii*)	NM T	A winter resident in New Mexico, this species has been found on Otero Mesa and in the Animas Valley and may occur in other areas of suitable winter habitat, particularly in the southern portion of state. Generally, this species prefers dense, extensive grasslands with few shrubs and avoids heavily grazed areas.	Not known to occur in this area. The species is known to occur only in the southern portion of the state.
Bald eagle (*Haliaeetus leucocephalus*)	NM T BGEPA	This species occurs in New Mexico year-round. Bald eagle breeding is restricted to a few areas mainly in the northern part of the state or near lakes. During migration and winter months, the species is found chiefly along or near rivers and streams and in grasslands associated with large prairie dog (*Cynomys* spp.) colonies. Bald eagles typically perch in trees.	This species is unlikely to occur in the proposed project area because of lack suitable habitat and water features.
Boreal owl (*Aegolius funereus*)	NM T	This species is found predominantly in spruce-fir (*Picea* and *Abies* spp.) forests. Populations are thought to be unviable in New Mexico because the state lacks adequate spruce-fir habitat in isolated mountain ranges, but small populations have been found in in spruce- fir and similar habitats in the San Juan, Sangre de Cristo, and Jemez Mountains (Stahlecker and Duncan 1996).	Unlikely to occur within the proposed project area because of the lack of spruce-fir forests. The project area is located in dense urban area and has been previously cleared.
Broad-billed hummingbird (*Cynanthus latirostris*)	State T	Occurs in riparian habitat or dense mesquite (*Prosopis* spp.) in canyons in southwestern New Mexico. Found in Guadalupe Canyon in Hidalgo County and rarely found in the Peloncillo Mountains. Not known to occur in the BLM FFO planning area.	Unlikely to occur in the proposed project area due to lack of riparian or dense mesquite habitat within canyons and because the project area is outside its known range.
Golden eagle (*Aquila chrysaetos)*	BGEPA	Golden eagles are typically found in mountainous regions of open country, prairies, arctic and alpine tundra, open wooded areas, and barren areas. The species is a year-round resident in open country and desert grasslands throughout most of New Mexico and nests from 4,000 to 9,500 feet above mean sea level (amsl) (Cartron 2010). Nests are primarily located on rock ledges or cliffs greater than 100 feet high, although shorter cliffs greater than 30 feet high are infrequently used (Talkington and Mikesic 2019). Golden eagles are known to be sensitive to human activity and are known to avoid developed areas (USFWS 2024b).	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Gray vireo (*Vireo vicinior*)	NM T	This species is strongly associated with piñon-juniper (*Pinus* and *Juniperus* spp.) and scrub oak (*Quercus* spp.) habitats and is distributed mainly across the western two-thirds of the state. The gray vireo [refers gently sloped canyons, rock outcrops, ridgetops, and moderate scrub cover. This species is known to be sensitive to human activity and are known to avoid developed areas (USFWS 2024	Unlikely to occur within the proposed project area because of lack of canyon habitat and exposed rock outcropping.
Least tern (*Sterna antillarum*)	NM E	This migratory species occurring in North America during the breeding season and is associated with water (e.g., lakes, reservoirs, and rivers). In New Mexico, the species' breeding is restricted to the Pecos River Basin, primarily at Bitter Lake National Wildlife Refuge in Chaves County. The least tern may occur in the Bureau of Land Management Farmington Field Office planning area during migration but has not been recorded there. Suitable least tern habitat along rivers consists of bare sandy shorelines and salt flats.	Unlikely to occur in the proposed project area because of the lack of perennial river bodies. The project area is also more than 150 miles north of the species' known breeding range within the state.

Common Name (scientific name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area
Mexican spotted owl (*Strix occidentalis lucida*)	USFWS T	This species occupies mountainous areas and deep canyons incised within flat plateaus. The owl's habitat consists typically of mixed-conifer, ponderosa pine (*Pinus ponderosa*), and ponderosa pine–Gambel oak (*Quercus gambelii*) forest. The species prefers shaded mesic environments such as canyon bottoms and mountainous riparian areas.	Unlikely to occur within the proposed project area because of the lack of mountainous habitat, old-growth mixed conifer forest, and deep canyons preferred by the species.
Peregrine falcon (*Falco peregrinus*)	NM T	This species occurs in New Mexico year-round. All peregrine falcon nests in New Mexico are found on cliffs. During migration and winter, New Mexico's peregrine falcons are typically associated with water and large wetlands.	Unlikely to occur in the proposed project area because of the lack of water, dense riparian habitat, large wetlands, and cliff roosting habitat.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	USFWS E NM E	This species breeds and migrates through relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. The southwestern willow flycatcher historically nested in native vegetation such as willow (*Salix* spp.), seepwillow (*Baccharis salicifolia*), boxelder (*Acer negundo*), buttonbush (*Cephalanthus* spp.), and cottonwood (*Populus* spp.). This subspecies nests in native vegetation but also uses thickets dominated by non-native tamarisk (*Tamarix* spp.) and Russian olive (*Elaeagnus angustifolia*) and mixed native and non-native stands of vegetation. In New Mexico the southwestern willow flycatcher is known to breed along the Gila River and the Rio Grande.	Unlikely to occur in the proposed project area due to the lack of dense riparian habitat.
Violet-crowned hummingbird (*Leucolia violiceps*)	NM T	In New Mexico, this species is found primarily in riparian woodlands at low to moderate elevations (Baltosser et al. 1985) and seeks only well-developed riparian areas of Guadalupe Canyon in the summer (NMDGF 1994).	Unlikely to occur in the proposed project area due to a lack of riparian woodlands. In addition, the proposed project area is not near the Guadalupe Canyon.
White-tailed ptarmigan (*Lagopus leucura*)	NM E	This species inhabits alpine tundra and timberline habitat in New Mexico above about 10,500 feet (Hubbard and Eley 1985). Associated with sedges (*Carex spp.*) and grasslike plants (*Heleocharis*, *Scirpus spp.*) above the tree line.	Unlikely to occur in the proposed project area due to a lack of suitable tundra habitat and elevation.
Yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	USFWS T	Only the western population of this species beyond the Pecos River drainage has been listed as threatened under the ESA. The yellow-billed cuckoo breeds and migrates through riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation; and deciduous woodlands with cottonwoods and willows. Dense understory foliage is important for nest site selection. The species nests in willow, mesquite, cottonwood, and hackberry; forages in similar riparian woodlands; and requires patches of at least 25 acres for breeding and nesting.	Unlikely to occur. The proposed project area lacks riparian and deciduous woodland habitat.
Mammals			
New Mexico meadow jumping mouse (*Zapus hudsonius luteus*)	USFWS E State E	The New Mexico meadow jumping mouse is endemic to New Mexico, Arizona, and a small area of southern Colorado. The mouse appears to only use two riparian community types: 1) persistent emergent herbaceous wetlands (i.e., beaked sedge [*Carex utriculate*] and reed canary grass [*Phalaris arundinacea*] alliances) and 2) scrub-shrub wetlands (i.e., riparian areas along perennial streams that are composed of willows [*Salix* spp.] and alders [*Alnus* spp.]). Designated critical habitat exists in Sandoval County, New Mexico.	Unlikely to occur in the proposed project area due to lack of suitable riparian or wetland habitat.

Common Name (scientific name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area
Pacific marten (*Martes caurina*)	NM T	This species has been observed in the San Juan and Sangre de Cristo Mountains. The Pacific marten prefers late successional stands of conifer-dominated mesic forest of spruce (*Picea* spp.), fir (*Abies* spp.), Douglas fir (*Pseudotsuga menziesii*), and associated trees. Optimal habitat likely consists of mature old-growth spruce-fir communities with more than 30% canopy cover, a well-established understory of fallen logs and stumps, and lush shrub and forb vegetation. The species avoids large openings.	Unlikely to occur in the proposed project area due to the lack of mature conifer habitat of spruce, fir, or Douglas fir.
Tricolored bat (*Perimyotis subflavus)*	USFWS PE	It is a small bat that ranges across the eastern half of the United States into Texas, New Mexico, Colorado, Wyoming, and South Dakota (USFWS 2021). In New Mexico, it has been found in the eastern portion of the state (Geluso et al. 2005; Valdez et al. 2009; USFWS 2021). When not hibernating, tricolored bats roost in leaf clusters along branches of deciduous trees but will use pine trees and human-made structures such as barns and bridges. In the southern part of their range, tricolored bats will also roost in Spanish moss (Tillandsia usneoides) (Davis and Mumford 1962; Menzel et al. 1999). Females and young stay in maternity colonies from May to August when they travel back to the hibernation sites (USFWS 2021). In New Mexico and west Texas, tricolored bats have been captured over ponds or along creek beds and have been found in gypsum caves (Valdez et al. 2009; Hanttula and Valdez 2021).	The presence of the species on-site is unlikely to occur due to the distance of the last known recording location of the tricolored bats in northeastern New Mexico and due to the site occurring within a high dense urban area.
Spotted bat (*Euderma maculatum*)	NM T	In New Mexico, spotted bats have been taken in areas near cliffs, including areas with pinyon-juniper (*Pinus* and *Juniperus* spp.) woodlands, and from streams or water holes within ponderosa pine (*Pinus ponderosa*) or mixed coniferous forest. The species has also been recorded over cattle tanks in a meadow surrounded by mixed coniferous forest and near a ridge with cliffs and limestone outcroppings. Foraging habitat is typically found in areas near wetlands, water sources, and moist depressions that contain a higher level of prey availability compared to the surrounding landscape (Luce and Keinath 2007). It also may use rivers or desert washes as travel corridors. Known to occur in the BLM FFO planning area as a permanent resident.	Unlikely to occur because the proposed project area lacks suitable roosting habitat, such as cliffs and limestone outcroppings, dense forests, and marshes.

Sources: Except where otherwise noted, range or habitat information for wildlife species comes from the BISON-M (2024) website, IPaC (USFWS 2023), EMNRD (2021), and NatureServe (2024)

* Federal (USFWS) status: E = Endangered, T = Threatened, C = Candidate, PE = Proposed Endangered

State of New Mexico status: NM E = Endangered, NM T = Threatened.

Cartron, J.L. 2010. Raptors of New Mexico. Albuquerque: University of New Mexico.

Cary, J.C., and L.S. DeLay. 2016. Monarch Butterfly (Danaus plexippus) in New Mexico and a Proposed *Framework for Its Conservation*. Santa Fe, New Mexico: Natural Resources Institute. Available at: http://dk-media.s3.amazonaws.com/AA/AI/nri-nm-org/downloads/305724/STATUS_OF_DANAUS_PLEXIPPUS_IN_New_Mexico_20160501_final_final.pdf. Accessed April 2024.

Geluso, K., T. R. Mollhagen, J. M. Tigner, and M. A. Bogan. 2005. Westward expansion of the eastern pipistrelle (*Pipistrellus subflavus*) in the United States, including new records from New Mexico, South Dakota, and Texas. Western North American Naturalist 65(3): 405–409.

Hanttula, M. K. and E. W. Valdez. 2021. First record and diet of the tri-colored bat (*Perimyotis subflavus*) from Guadalupe Mountains National Park and Culberson County, Texas. Western North American Naturalist 81(1): 131–134.

Luce, R.J. and D. Keinath. 2007. Spotted Bat (*Euderma maculatum*): a technical conservation assessment.

NatureServe. 2024. NatureServe explorer. Available at: http://explorer.natureserve.org/. Accessed April 2024.

New Mexico Department of Game and Fish (NMDGF). 1994. *Endangered Species of New Mexico -- 1994 Biennial Review and Recommendations*. Authority: New Mexico Wildlife Conservation Act (NMSA 17-2-37, 1978).

———. 2024a. Biota Information System of New Mexico (BISON-M). 2024. BISION-M home page. Available at: https://www.bison-m.org/Index.aspx. Accessed April 2024.

New Mexico Energy, Minerals and Natural Resources Department (EMNRD). 2021. New Mexico State Endangered Plant Species (19.21.2.8 NMAC). Available at: https://www.emnrd.nm.gov/sfd/rare-plants/state-rare-plant-list/. Accessed April 2024.

Stahlecker, D.W., and H.A. Walker. 2010. Bald eagle. In Raptors of New Mexico, edited by J.-L. E. Cartron, pp. 131–149. Albuquerque: University of New Mexico Press.

Talkington, N. and D. Mikesic. 2019. Species Accounts, Version 4.20. In Navajo Nation Endangered Species List: Species Accounts. Window Rock, Arizona: Navajo Natural Heritage Program, Navajo Nation Department of Fish and Wildlife. Available at: https://www.nndfw.org/nnhp/species_acct.pdf. Accessed April 2024.

U.S. Department of Agriculture Forest Service, Rocky Mountain Region. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5181916.pdf. Accessed April 2024.

U.S. Fish and Wildlife Service (USFWS). 2021. Species Status Assessment (SSA) Report for the tricolored bat (*Perimyotis subflavus*), Version 1.1. Hadley, MA. Available at: https://ecos.fws.gov/ServCat/DownloadFile/221212. Accessed April 2024.

———. 2024a. Information for Planning and Consultation (IPaC) System. Available at: https://ecos.fws.gov/ipac/. Accessed April 2024.

———. 2024b. Golden Eagle Characteristics – Habitat. Available at: https://www.fws.gov/species/golden-eagle-aquila-chrysaetos. Accessed April 2024.

Valdez, E. W., K. Geluso, J. Foote, G. Allison-Kosior, and D. M. Roemer. 2009. Spring and winter records of the eastern pipistrelle (*Perimyotis subflavus*) in southeastern New Mexico. Western North American Naturalist 69: 396–398.

Figure 1.

Map of terrestrial Bird Conservation Regions (BCRs) Marine Bird Conservation Regions (MBCRs) of North America (Bird Studies Canada and NABCI 2014). See Table 2 for BCR and MBCR names.

Attachment E-4. Avian Species Listed as Birds of Conservation Concern with Potential to Occur in BCR 16

Common Name	Scientific Name	Potential for Occurrence in Project Area
Bendire's thrasher	*Toxostoma bendirei*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Black-chinned sparrow‡	*Spizella atrogularis*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Black rosy-finch	*Leucosticte atrata*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Black swift	*Cypseloides niger*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Broad-tailed hummingbird	*Selasphorus platycercus platycercus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Brown-capped rosy-finch	*Leucosticte australis*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
California gull	*Larus californicus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Cassin's finch	*Haemorhous cassinii*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Clark's grebe	*Aechmophorus clarkii*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Clark's nutcracker‡	*Nucifraga columbiana*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Evening grosbeak‡	*Coccothraustes vespertinus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Flammulated owl	*Psiloscops flammeolus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Grace's warbler	*Setophaga graciae*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Lesser yellowlegs*	*Tringa flavipes*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Lewis's woodpecker‡	*Melanerpes lewis*	Although this species may occur in the project area according to IPaC, the project area occurs within a high dense urban area and lacks suitable habitat.
Long-eared owl	*Asio otus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Mountain plover	*Charadrius montanus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Olive-sided flycatcher‡	*Mionectes olivaceus*	Although this species may occur in the project area according to IPaC, the project area occurs within a high dense urban area and lacks suitable habitat.
Pectoral sandpiper*	*Calidris melanotos*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Pinyon jay‡	*Gymnorhinus cyanocephalus*	Although this species may occur in the project area according to IPaC, the project area occurs within a high dense urban area and lacks suitable habitat.
Short-eared owl	*Asio flammeus flammeus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Snowy plover	*Charadrius nivosus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.
Virginia's warbler	*Leiothlypis virginiae*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.

Common Name	Scientific Name	Potential for Occurrence in Project Area
Western grebe‡	*Aechmophorus occidentalis*	Although this species may occur in the project area according to IPaC, the project area occurs within a high dense urban area and lacks suitable habitat.
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	Unlikely to occur due to the previous land use and the location of the site occurring within a high dense urban area.

Source: USFWS (2021c).

*denotes nonbreeding status

‡ denotes bird of conservation concern found within the project site in accordance to IPaC.

———. 2021c. Birds of Conservation Concern. Available at: https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf. Accessed April 2024.

Site Traffic & Parking Analysis
Georgia O'Keeffe Museum Expansion
Santa Fe, NM

October 2021

Prepared for:

Georgia O'Keeffe Museum
217 Johnson Street
Santa Fe, NM 87501

Prepared by:

Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309
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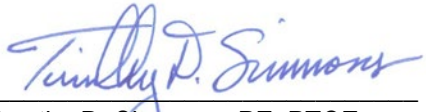
The technical material and data contained in this document were prepared by the undersigned, whose seal as a Professional Engineer, licensed to practice in the State of New Mexico, is affixed below.



Timothy D. Simmons, PE, PTOE
10/02/2021 Revision
8/16/2021 Original

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EXECUTIVE SUMMARY

The existing Georgia O'Keeffe Museum (GOKM) located at 217 Johnson St. in Santa Fe, New Mexico is proposed to be relocated to 123 Grant Ave. and expanded. This site traffic and parking analysis was conducted in accordance with the City of Santa Fe (COSF) requirements and following the New Mexico Department of Transportation (NMDOT) *State Access Management Manual (SAMM)* to evaluate potential impacts attributed to the site development on the transportation network.

While the estimated site traffic volumes did not meet threshold requirements for a traffic impact study, this analysis was conducted to demonstrate that this proposed project would not exacerbate existing traffic in the downtown area, and also to provide an estimate of anticipated parking demand. This study has demonstrated that the proposed relocation and expansion of the Georgia O'Keeffe Museum (GOKM) is not expected to have significant impacts to the adjacent transportation system provided that the recommendations outlined herein are implemented. Existing intersections evaluated in this study are expected to operate satisfactorily.

Recommendations

All proposed roadway improvements within the public right-of-way should be designed in accordance with City of Santa Fe (COSF) standards and specifications unless otherwise recommended in this study. Following is a summary of the recommendations.

A. Passenger Loading Zone – provide modifications along Grant Ave. for a passenger loading zone as described in Section 5.6 of this report.

B. Alley Access Improvements – provide modifications to accommodate truck deliveries in the alley at the south boundary and access drives at Grant Ave. and Sheridan Ave. as detailed in Section 5.6 of this report.

C. Off-Site Parking – provisions for parking of personal vehicles will be made available to visitors and staff at the locations defined in Section 6 of this report.

1.0 INTRODUCTION

1.1 Purpose of Study

This report documents the results of a Site Traffic Analysis (STA) for a proposed expansion of the Georgia O'Keeffe Museum (GOKM) in Santa Fe, New Mexico. The purpose of this STA is to assess traffic operations associated with traffic generated by this proposed project on the transportation network, in particular the adjacent route Grant Ave. at W. Palace Ave. and Johnson Ave. The City of Santa Fe (COSF) applies the New Mexico Department of Transportation (NMDOT) *State Access Management Manual (SAMM)* for traffic requirements, and while the proposed project did not meet the threshold for a traffic study, the scope was discussed with the City of Santa Fe (COSF) Traffic Engineer (see Appendix A) as a means to address potential zoning variances. This study evaluated both the existing and proposed conditions of the corridor adjacent to the proposed project.

Primary tasks incorporated into this analysis include:

A. **Data Collection** – including traffic volume counts and other roadway network parameters for the traffic analysis as well as regional data.
B. **Traffic Operations Analysis** – utilizing the collected data, computerized models were developed *Synchro 10* software for analysis utilizing *Highway Capacity Manual (HCM)* procedures.
C. **Geometric Evaluation** – consideration of safe access measures such as auxiliary lanes and access geometry.
D. **Parking Evaluation** – an analysis of measures to accommodate staff and visitors to the site.

1.2 Project Location

The proposed project is located in downtown Santa Fe within a city block bounded by Grant Ave., W. Marcy St., and Sheridan Ave. as depicted in Figure 1.

2.0 DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 Site Plan

The existing museum is currently located at 217 Johnson St. and is proposed to be relocated to 123 Grant St. adjacent to the existing Research Center and Education Annex located at 135 Grant St. An existing mixed-use retail/office building and associated parking will be demolished and a new 54,000 square foot (s.f.) museum will be constructed in its place, along with other site amenities. No additional parking is proposed on site as a significant amount of visitors access the museum on foot (see Section 6.1 for further details). The proposed site plan is depicted in Figure 2.

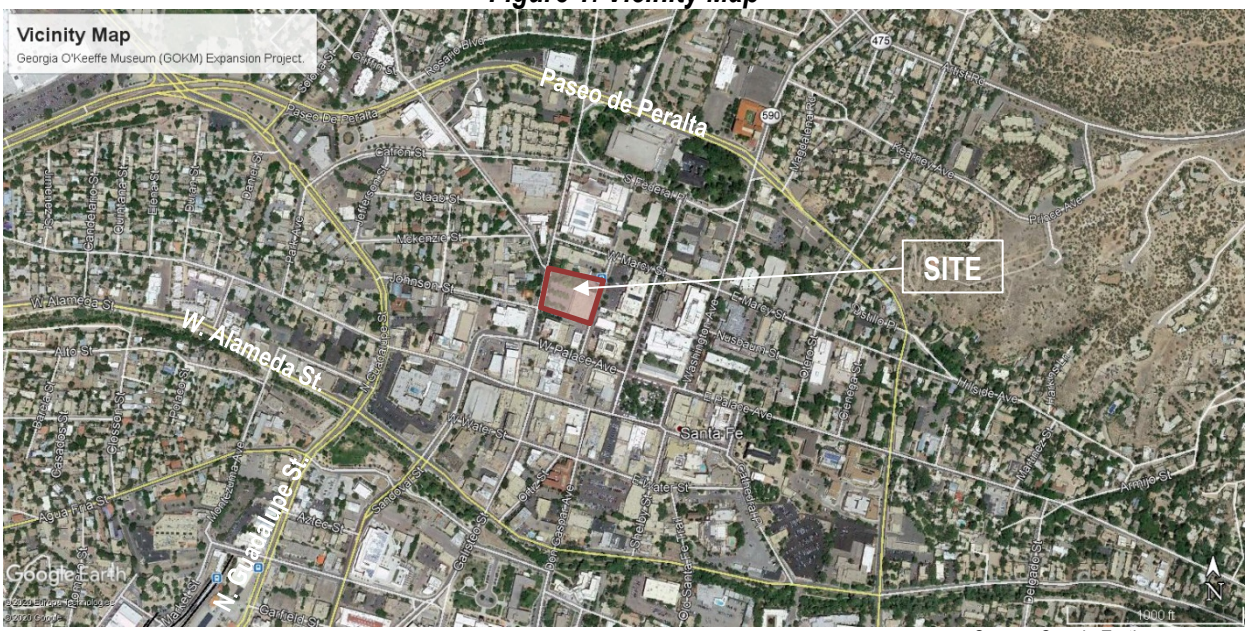
2.2 Development Phasing and Timing

Construction is projected to commence in calendar year 2022 and the site is expected to fully open by the end of 2024.

2.3 Proposed Access

On-site parking is not proposed for the new museum building. Access to the site will be predominantly by foot traffic while a bus/shuttle drop-off zone is proposed at the Grant Ave. curb. Deliveries will be routed along Sheridan Ave. and arrive via the alley at the south of the building.

Figure 1: Vicinity Map



Source: Google Earth

3.0 STUDY AREA CONDITIONS

3.1 Study Area Definition and Characteristics

The study area encompasses the site and adjacent streets Grant Ave. and Johnson St. The environs are generally urban in nature with mixed development in the area consisting of commercial, retail, and institutional uses.

3.2 Existing Land Use and Zoning

The existing site is zoned as BCDMAR for Business Capital District\Marcy Subdistrict and is currently occupied with office buildings. The site is bounded by Grant Ave. on the west, Marcy St. on the north, and Sheridan Ave. on the east which serves as a transit transfer station.

3.3 Other Known Development Activity

No other imminent land development projects have been identified adjacent to the site. The COSF Transit Dept. is planning upgrades to the Downtown Transit Center (DTC) transfer station at Sheridan Ave.

3.4 Existing Roadway System

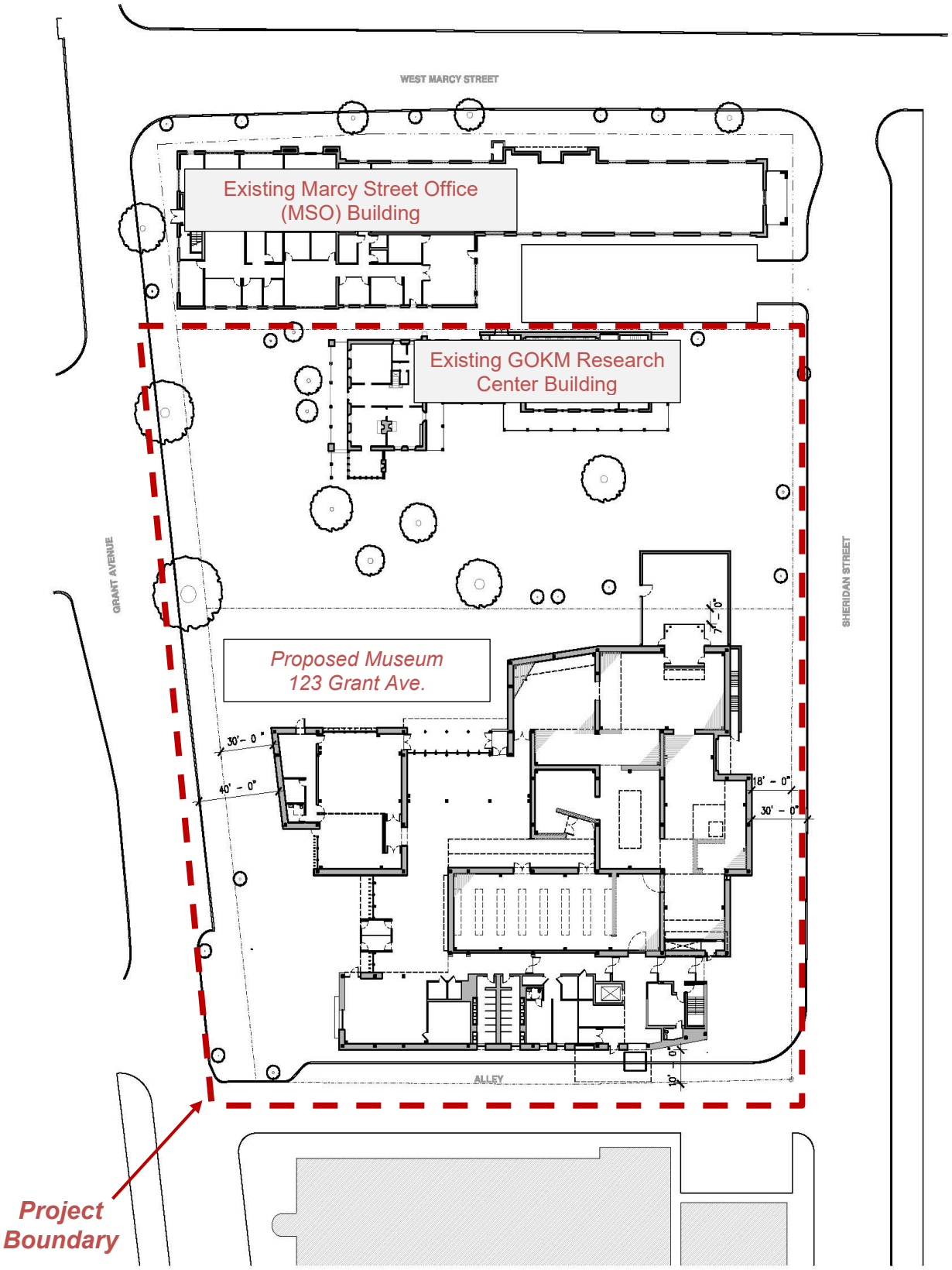
The existing street network is depicted in Figure 1 and described below.

A. **Grant Ave.** – designated as a Major Collector roadway from W. Palace Ave. to Paseo de Peralta, Grant Ave. has a posted speed of 25 mph and consists of two travel lanes, curb & gutter, sidewalk, and on-street parking. There is an enhanced pedestrian crossing at Johnson Ave. with bump-out, marked crosswalk, pedestrian detection, and in-pavement flashing beacons (currently inoperable).

B. **Marcy St.** – designated as a Minor Collector roadway from Grant Ave. to Pas. de Peralta with a posted speed of 20 mph, two travel lanes, curb & gutter, sidewalk, and on-street parking along the south side.

C. **Sheridan Ave.** – this local, 2-lane road provides access to parking and serves as the transit transfer station for the DTC.

Figure 2: Proposed Site Plan



4.0 ANALYSIS OF EXISTING CONDITIONS

4.1 Traffic Data

4.1.1 Background Traffic

Historic traffic volumes were obtained from the NMDOT Traffic Monitoring Program as published on the *MS2 Transportation Data Management System* website. Data collected by the Santa Fe Metropolitan Transportation Organization (SFMPO) has migrated to this site. Relevant volume counts are available at the following locations:

1. Sandoval St. west of Grant Ave.
2. W. Palace Ave. east of Grant Ave.
3. Marcy St. east of Grant Ave.

At each location, Annual Average Daily Traffic (AADT) volumes were reported for 2020; however, these volumes had been "grown" from prior years and no recent coverage counts were readily available. Consideration was also given to traffic impacts associated with the COVID-19 pandemic and government-mandated closures. The Mid Region Council of Governments (MRCOG) in Albuquerque has periodically monitored traffic patterns during the pandemic and reported that, in the spring of 2020, traffic volumes had dropped between 40% to 60% and 32.5% overall throughout the metro area.

Therefore, the historic data were not used to adjust for pandemic-related closures but rather were used to develop traffic forecasts. Historic traffic volumes for W. Palace Ave. east of Grant Ave. are summarized in Table 1 below. Trend line analysis was used to calculate growth rates along W. Palace East of Grant Ave. as follows:

1. Annualized compound growth rate between 2009 and 2020 was -2.24%;
2. Discarding 2020 data because it had not been actually measured, the annualized compound growth rate between 2009 and 2019 was 0.01%;
3. The population growth trend for Santa Fe from 2011 through 2019 was 0.40%;
4. A minimum growth rate of +0.5% per year was selected for analysis yielding growth factors of 1.025 and 1.078 for the implementation and horizon years, respectively.

Table 1: Historic Traffic Volumes – W. Palace East of Grant Ave.

Year	AADT
2009	4103
2010	4050
2011	4163
2012	4134
2013	4116
2014	4147
2015	4116
2016	--
2017	4116
2018	4058
2019	4107
2020	3199

The calculated growth factors applied were to the baseline traffic volumes to expand background traffic volumes for analysis of the forecast traffic scenarios (see Appendix B for historic traffic data and projections). It should also be noted that the calculated growth rate was not indicative of statewide economic and related traffic growth but reflected local and regional activity in recent years. The recession associated with COVID-19 pandemic closures could be expected to negatively impact economic growth and therefore these growth rates may not be expected to continue unaltered but may result in a somewhat conservative traffic forecast estimate.

4.2.1 Turning Movement Counts

Manual turning movement counts (TMCs) were collected on Thursday, October 8, 2020 during the AM (7-9 a.m.) and PM (4-6 p.m.) peak periods for use in analyzing traffic operations at the study intersections. These occurred during a period of government-mandated restrictions that limited public access to 25% capacity; consequently, traffic volumes were very low.

A report entitled "Traffic Impact Analysis for the 200 Block Hotel" was prepared in 2019 by Santa Fe Engineering Consultants, LLC for an analysis that encompassed the intersections of Sandoval / E. San Francisco and Sandoval / Grant / West Palace Ave. TMCs for that analysis were collected in November, 2019, which is within the 4-year window as allowed in the *Alternative Methods for Traffic Counts* memorandum issued by the NMDOT State Traffic Engineer and dated October 5, 2020. These TMCs were 105% to 316% higher in the AM and PM peaks, respectively, than the October 2020 TMCs.

It was determined that the 2019 TMC data represented more reliable conditions than during COVID-related closures and were therefore incorporated to this study. A seasonal adjustment factor obtained NMDOT permanent count data was applied to these counts to normalize for average conditions. Also, traffic volumes on Grant Ave. between Sandoval/Palace Ave. and Johnson Ave. were "smoothed" to adjust for differences. The resulting baseline traffic volumes are illustrated in Figures 3 and 4. Detailed reports of the traffic data used in this study are contained in Appendix B.

4.2 Existing Roadway Capacity

An analysis of the study intersections was conducted for the baseline (existing) condition and is presented in Section 5.4. For the baseline scenario, the intersections operate at satisfactory levels of service (LOS) as summarized in Table 5. LOS worksheets are contained in Appendix D.

Figure 3: AM Peak Hour Volumes (Baseline, Adjusted)

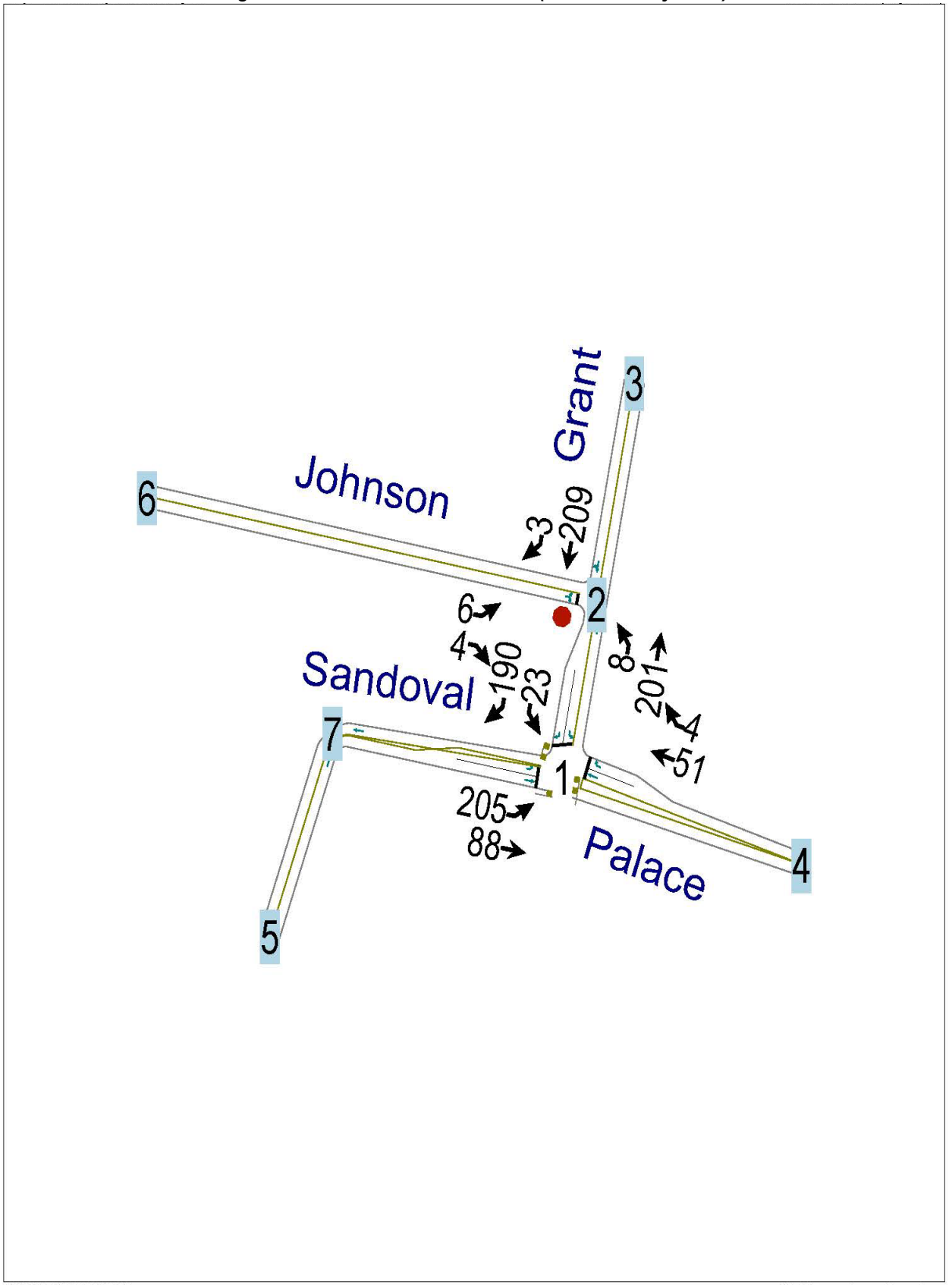
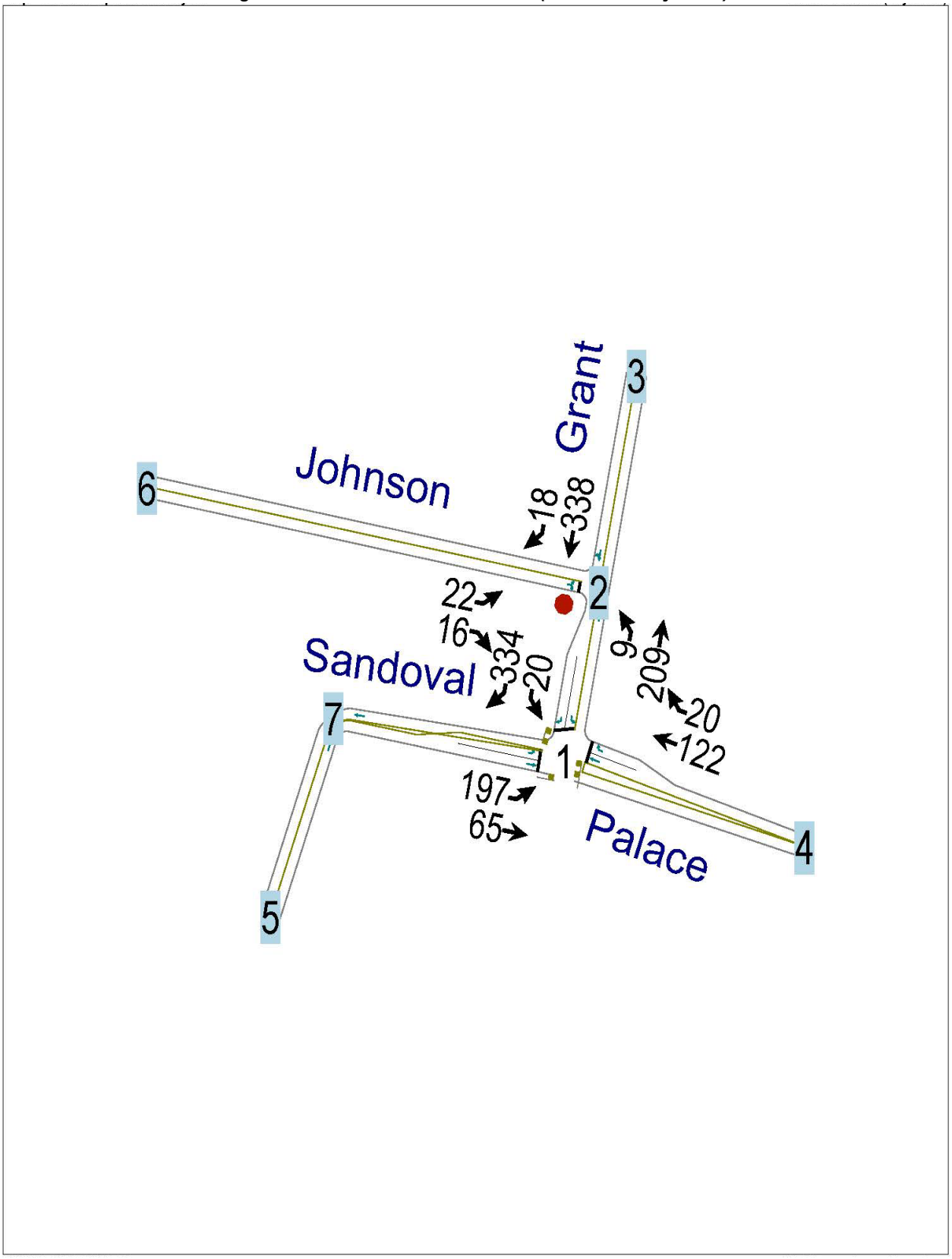


Figure 4: PM Peak Hour Volumes (Baseline, Adjusted)



5.0 ANALYSIS OF DEVELOPED CONDITIONS

5.1 Background Traffic Projection

As discussed in Section 2.2, the project is proposed to be open by late 2024. Thus the baseline year is 2019, the Implementation Year is 2024, and the Horizon Year is 2034 (implementation year plus 10). Data obtained from the NMDOT Traffic Monitoring Program and summarized in Table 1 indicate no growth or a slight decline in traffic growth along study streets. The population growth rate for Santa Fe City grew by approximately 0.4% per year from 2011 through 2019 (see Appendix B). While population growth may not directly translate to traffic growth, a background traffic growth rate of 0.5% per year was assumed for the study horizon period to account for potential growth. This yields a background growth factor of $G = (1.005)^5 = 1.025$ for the implementation year and 1.078 for the horizon year. These calculated growth factors were input into the *Synchro* traffic models to expand background traffic volumes for analysis of the forecast traffic scenarios (see LOS worksheets in Appendix D).

5.2 Trip Generation

ITE Trip Generation, 10th Edition (Institute of Transportation Engineers, 2017) was used to estimate traffic generated by the proposed development. ITE Land Use category 580 – Museum was selected to estimate traffic generated by the proposed project. The proposed new building is approximately 54,000 s.f., and the existing Research Center Building measures approximately 9,400 s.f. for a total use of 63,400 s.f. of gross floor area (GFA). Because the site is situated in an urban setting, the *peak of the adjacent street* was selected for the calculations indicative of urban/suburban traffic patterns for typical AM and PM peak periods (e.g., 7-9 a.m., 4-6 p.m., respectively). The calculated site traffic volume estimates are contained in Appendix C and summarized in Table 2 below.

Table 2: Estimated Site Trip Generation

Description	ITE Code	Quant.	Units	Daily Total	AM[3]			PM		
					Enter	Exit	Total	Enter	Exit	Total
Museum	580	63.4	GFA	n.a.	15	3	18	2	9	11
Pass-by Trips				n.a.	0	0	0	0	0	0
Total				n.a.	**15**	**3**	**18**	**2**	**9**	**11**

The following steps and assumptions were applied to the data:

1. Daily totals were not available for this land use code.
2. Pass-by or internal trips were not provided for this land use.
3. Fitted equations were not available for this land use and thus average rates were used.
4. Transit trip reductions are applicable but were not applied to this analysis as a patron survey revealed low transit usage to the existing museum (see Section 6).
5. It should be noted that this land use category has limited data. A count was undertaken at the Museum of Art (MOA) on W. Palace Ave. to compare a local site with the ITE published trip generation data, with the following results:
   a. Capacity was limited to 25% but activity was reasonably normal;
   b. The count extended from 8:00 a.m. to 5:00 p.m. to coincide with business hours;
   c. Visiting hours were from 10:00 a.m. to 4:00 p.m.;

d. Only the main entrance on W. Palace was open, and all individuals entering and exiting were recorded including staff and visitors (some who entered/exited in a short time frame did not tour the facility and were therefore not counted);
e. Based on this criterion, 104 individuals entered and 113 exited for a total of 217 during the count period;
f. The MOA recorded 65 ticket sales on that date, which would translate to approximately 130 visitor entry/exits;
g. While some worked remotely during the pandemic, the MOA maintains 28 staff which, along with other business (deliveries, etc.) presumably made up the remaining entries and exits;
h. With a gross floor area (GFA) of 55,125, the calculated trip generation rates during the AM and PM peak periods, respectfully, were 0.27 and 0.18 trips per 1,000 s.f. of GFA;
i. This compared with the ITE average rates for LU 580 of 0.28 and 0.18 for the AM and PM peak periods, respectively.

Therefore, it can be concluded that this local trip generation count was consistent with the national data published by ITE and thus the estimated trips represent a realistic estimate of expected activity for the project during the peak periods. Furthermore, the ITE parking generation rates would also be expected to reasonably estimate demand as discussed in Section 6 of this report.

5.3 Site Traffic Distribution and Assignment

Trip distribution percentages were calculated from the signalized intersection traffic count approach volumes, as presented in Table 3:

Table 3: Site Trip Distribution Summary

Intersection and Traffic Movement	Inbound		Outbound	
	AM	PM	AM	PM
Sandoval/Palace/Grant	47%	35%	49%	58%
Grant/Johnson	53%	65%	51%	42%
Total	100%	100%	100%	100%

These distribution rates were applied as if the site would provide a proposed driveway opposite Johnson Ave. for a hypothetical analysis of possible impacts due to traffic. The resulting "access driveway" volumes were calculated by applying the distribution and assignment percentages from Table 3 to the estimated trips in Table 2. These were then routed to the external nodes north or south on Grant Ave. and west on Johnson Ave. through the intersections in proportion to the directional traffic movements as detailed in Appendix C. In addition, the distributed trips are shown in the level of service worksheets contained in Appendix D on the "Future Volume" rows.

5.4 Site Traffic Operations Analysis

Intersection "nodes" constrain the capacity of a roadway segment, and therefore the baseline capacity of the study intersection was analyzed using the *Highway Capacity Manual 6th Edition (HCM)* methodology. The *Synchro 10* software package by *Trafficware Ltd.*, was utilized to compute the results in HCM format. A saturation flow rate of 1,750 vehicles per hour per lane (vphpl) was utilized in this analysis, rather than the ideal saturation flow rate of 1,900 vphpl which is more indicative of urbanized areas, to reflect the lower population of the area per Exhibit 19-11 of the HCM.

The Level of Service (LOS) for an intersection is determined by the computed or measured delay and is defined for each minor movement at signalized, unsignalized, and roundabout intersections. LOS is assigned

a letter grade from A (best) through F (worst), as summarized in Table 4 for signalized and unsignalized intersections (signalized intersection have higher levels of delays due to higher volumes and driver expectation of greater delays). LOS D is generally considered acceptable in urban areas with right-of-way constraints.

Table 4: Intersection Level of Service (LOS) Criteria (HCM 6th Ed.)

LOS[1]	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	0 – 10	0 – 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

[1]For Volume-to-Capacity Ratio (V/C) ≤1.0; LOS = F for V/C > 1.

Traffic signal timing settings for the Sandoval/Palace/Grant signalized intersection were provided by COSF Traffic Engineering staff and input into the traffic models for analysis. This intersection is not currently coordinated and is running in actuated-uncoordinated mode with a cycle length of 60 seconds. Splits were then optimized in *Synchro* to achieve efficient timing plans for the Horizon AM and PM peak periods.

While the site will not provide on-site parking, capacity analyses of the adjacent intersections were conducted to evaluate potential impact as if visitors would access the site via personal vehicles, representing a hypothetical "worst case" scenario. Capacity analyses were computed using the same, systematic method so results could be compared for the following alternative scenarios:

1. **Scenario 1: Baseline (2019)** – represents baseline conditions with the existing traffic prior to development of the project.
2. **Scenario 2: Implementation Year NO-Build (2024)** – baseline conditions plus background traffic growth without development, representing the implementation year operating conditions.
3. **Scenario 3: Implementation Year BUILD (2024)** – existing traffic plus background traffic growth and completion of the project (hypothetical access to the site).
4. **Scenario 4: Horizon NO-Build (2034)** – existing traffic conditions plus background traffic growth without development, representing the horizon year operating conditions.
5. **Scenario 5: Horizon BUILD (2034)** – forecast conditions including background traffic growth and site traffic, to assess forecast traffic operations with developed conditions (hypothetical access to the site).

Computed results are contained in Appendix D and summarized in Table 5.

5.5 Assessment of Impacts

5.5.1 Traffic Operations

Several observations were drawn from the results of these capacity analyses:

1. All movements operated at satisfactory LOS for all scenarios including with developed conditions.
2. The addition of site traffic had negligible impact to the adjacent intersections.
3. Eastbound left turns (EBL) did not exceed the available storage in the horizon year.
4. Southbound right turns (SBR) exceeded the available storage in the horizon year for the no-build and increased about a half vehicle with the hypothetical build volumes; however, this was an existing

condition even for the baseline no-build scenario that is constrained by the parking area in front of the Santa Fe County office building.
5. Additional capacity would be available by virtue of extending the cycle length.
6. Less traffic delay would be expected as a significant proportion of visitors would be expected to access the site via non-vehicular modes as described in Section 6 of this report.

The traffic operations are expected to function at or above acceptable LOSs as summarized in Table 5. Given the suitable operations at the signalized intersections, no further mitigation measures were required as further signal timing adjustments could be made to accommodate additional traffic in the future. Thus, no detrimental traffic impacts are anticipated from the proposed site development.

Table 5: LOS Summary for Alternative Concepts

Scenario	Intersection	AM Peak				PM Peak			
			Control Movement				*Control Movement*		
		Delay* (s/veh)	*V/C*	*Control Delay*	*LOS*	Delay* (s/veh)	*V/C*	*Control Delay*	*LOS*
1	**Grant/Palace**	11.5 (B)	0.85	22.6	C	15.1 (B)	0.78	21.0	C
	Grant/Johnson	0.4	0.018	10.9	B	1.0	0.103	13.7	B
2	**Grant/Palace**	11.6 (B)	0.85	21.9	C	15.7 (B)	0.80	22.4	C
	Grant/Johnson	0.4	0.018	11.1	B	1.0	0.114	14.5	B
3	**Grant/Palace**	11.6 (B)	0.85	22.6	C	16.4 (B)	0.82	23.8	C
	Grant/Johnson	0.6	0.020	11.7	B	1.3	0.127	15.7	C
4	**Grant/Palace**	11.8 (B)	0.85	22.8	C	17.1 (B)	0.84	25.6	C
	Grant/Johnson	0.4	0.023	11.2	B	1.0	0.125	15.0	C
5	**Grant/Palace**	11.9 (B)	0.85	22.3	C	18.1 (B)	0.86	27.5	C
	Grant/Johnson	0.6	0.025	11.9	B	1.3	0.140	16.4	C

*Notes:
1. Delay is measured in seconds/vehicle
2. V/C = volume-to-capacity ratio for traffic movement
3. Only critical movement LOS at unsignalized intersections is reported.

5.5.2 Gap Analysis

A gap study was conducted according to the procedures outlined in ITE's Manual of Transportation Engineering Studies, 2nd Ed., at the Grant/Johnson intersection marked pedestrian crossing. This section describes the purpose, procedure, and results of the gap study.

5.5.2.1 Purpose

Marked crosswalks provide access across Grant Ave. at Sandoval St., Johnson St. north side, and at Marcy St. Under a project of indeterminate origin, the marked crosswalk on the north side of Johnson St. was installed along with a bump-out on the east side to reduce crossing distance, passive pedestrian detection, signing, and in-pavement flashing beacons although the in-pavement flashing beacons no longer operate (Figure 5). The purpose of this analysis was to determine whether adequate gaps in the traffic stream exist to accommodate pedestrian crossings, whether the crossing still meets demand, or whether it should be eliminated or certain modifications should be made.

5.5.2.2 Procedure

The minimum adequate gap length is defined as the time in seconds for a pedestrian to perceive and react to the traffic situation and cross the roadway from a point of safety on one side to a point of safety on the other side. Equation 12-2 of the *Manual of Transportation Engineering Studies, 2nd Ed.,* was used to calculate adequate gap times as follows:

$t_c = L/S_p + t_s$

where t_c = critical gap for a single pedestrian in seconds
L = crosswalk length in feet
S_p = average pedestrian walking speed in feet per second
t_s = pedestrian start up time and end clearance time in seconds

Values that are commonly applied include: S_p = 4.0 or 3.5 ft/sec and t_s = 3 sec. The roadway section consists of two and on-street parking. The full width to be crossed is L = 38 feet. Given the prevalence of older pedestrians observed, the walking speed of 3.5 ft/sec was used. From the equation above, the critical gap was t_c = 13.85 sec, rounded to 14 sec. Concurrent with the TMCs, gap counts were conducted during the AM and PM peak periods using an electronic counter board with a gap study template that records gaps by direction with time stamps that are then processed through proprietary software to tabulate the gaps.

Figure 5: Marked Pedestrian Crossing (Grant at Johnson)

5.5.2.3 Results

Following the conventional procedure, gaps lower than 14 sec were not considered. The results are summarized as follows: (output is included in Appendix B).

1. AM Peak (7:05-9:05 p.m.) – average gaps were 8-9 sec; gaps over 14 sec = 186.
2. PM Peak (4:00-6:00 p.m.) – average gaps were 4-5 sec; gaps over 14 sec = 126.

To account for the pandemic-related closures, it was assumed that the traffic and pedestrian volumes were approximately 33% lower than normal. Reducing the tabulated gaps by 1/3 yielded 125 and 84 gaps during the AM and PM peak (2-hour) periods. During the traffic counts, 40 pedestrians in the AM and 46 in the PM peak period were recorded. Given these results, ample gaps were available to serve pedestrian crossings at this location.

5.5.3 Crash Record Evaluation

Crash records within the study area were obtained from the NMDOT Traffic Safety Division's database for a 3-year period from 2017 through 2019, the most recent data available at the time of this evaluation, for evaluation of potential safety issues at the Grant/Johnson intersection. The focus for this study was on a review of recurring crash patterns that could represent safety concerns relative to the marked crosswalk and that could be addressed in the design stage of project development. The raw crash data spreadsheet is contained in Appendix E with the most relevant columns displayed for clarity.

The records included 1 crash in 2017 at 120 Grant Ave., which adjacent to Johnson St. This crash was attributed to improper backing from a driveway and did not involve a pedestrian. Based on this review, a clear, recurring crash pattern related to pedestrian safety concerns was not exhibited through this data and thus no required mitigation measures were identified.

5.6 Access Design Specifications

The proposed museum expansion project will eliminate the two existing driveways on Grant Ave. as well as the existing driveway on Sheridan Ave. adjacent to the Research Center. Therefore, specifications pertaining to driveway widths, returns, lanes, etc., do not apply. Following are access design recommendations relevant to group access and deliveries.

5.6.1 Passenger Loading Zone

As depicted in Figure 2, a bump-out is shown opposite of Johnson Ave. To the north of this bump-out, group access is proposed for school buses, VIP drop-off, etc., for efficient access to the main entrance at the west face of the building. Proposed modifications to Grant Ave. at Johnson Ave. may include the following.

1. A passenger loading zone sufficient to accommodate a 40' bus could be defined with painted curb, pavement markings and signs.
2. An accessible ramp would need to be provided in compliance with PROWAG accessibility criteria.

5.6.2 Alley Delivery Access

The museum periodically receives shipments of exhibits from long-road haulers to include WB-62 or WB-67 semi-trucks. A loading dock is proposed on the south side of the building within the one-way westbound alley west of Sheridan Ave. (see Figure 2). Truck access will need to be restricted to arrive via Grant Ave. from Paseo de Peralta and then proceed in a clockwise manner to and from the site. In order to accommodate such access, the following modifications may be needed.

1. Widen the existing drivepad at Sheridan Ave. and/or provide return radii sufficient to accommodate a truck turning template from southbound Sheridan.
2. The proposed DTC bus bays will need to be shifted northward approximately 15'-20' to accommodate this maneuver.
3. Portland cement concrete pavement (PCCP) should be considered within the alley access to reduce pavement deformation and provide a smooth transition from proposed PCCP at Sheridan Ave.

4. At the alley egress to Grant Ave., an enlarged return radius and/or graded transitional area will be needed to provide a smooth transition for trucks exiting the ally; this may need to extend into Grant Ave. north of the median.
5. Sidewalk transitions and access ramps across the alley ingress and egress driveways will need to be replaced to comply with PROWAG accessibility criteria.

6.0 PARKING EVALUATION

Presently the site contains a surface parking lot with two access driveways that serve the existing building, which previously constituted a grocery store but currently consists of office space. This existing 21,463 square foot building will be demolished along with the adjacent parking lot containing 79 spaces, 19 of which are leased by GOKM. In addition, a small 10-space parking lot at the east side of the Research Building (135 Grant Ave.) will be demolished. Given the size of the lot, proposed building footprint, and plaza area, sufficient surface area is not available to provide ample parking. Therefore, off-site parking accommodations are proposed.

6.1 Parking Demand

ITE Parking Generation, 5th Edition (Institute of Transportation Engineers, 2019) provides state-of-the-practice data for estimating parking demand based on nationwide studies. ITE Land Use category 580 – Museum was selected to estimate parking demand generated by the proposed project. LU 580 is described as follows: *"A museum is a facility that includes displays, shows, exhibits, and/or demonstration of historical, science, nature, art, entertainment, or other cultural significance."*

Data published in *Parking Generation* encompassed studies conducted in six states. However, data provided for weekday (Monday – Friday) analysis included three studies with an average gross floor area (GFA) of 136,000 square feet. While locally available data would be desirable, such data were not readily available. Furthermore, collection of such data would be unfeasible given a) existing museums in downtown Santa Fe do not provide parking; b) similar museums outside the downtown area may exhibit different peaking characteristics. Nevertheless, *Parking Generation* provided reliable data for analysis as documented in Section 5.2 of this report and was therefore was used to estimate traffic generated by the proposed development.

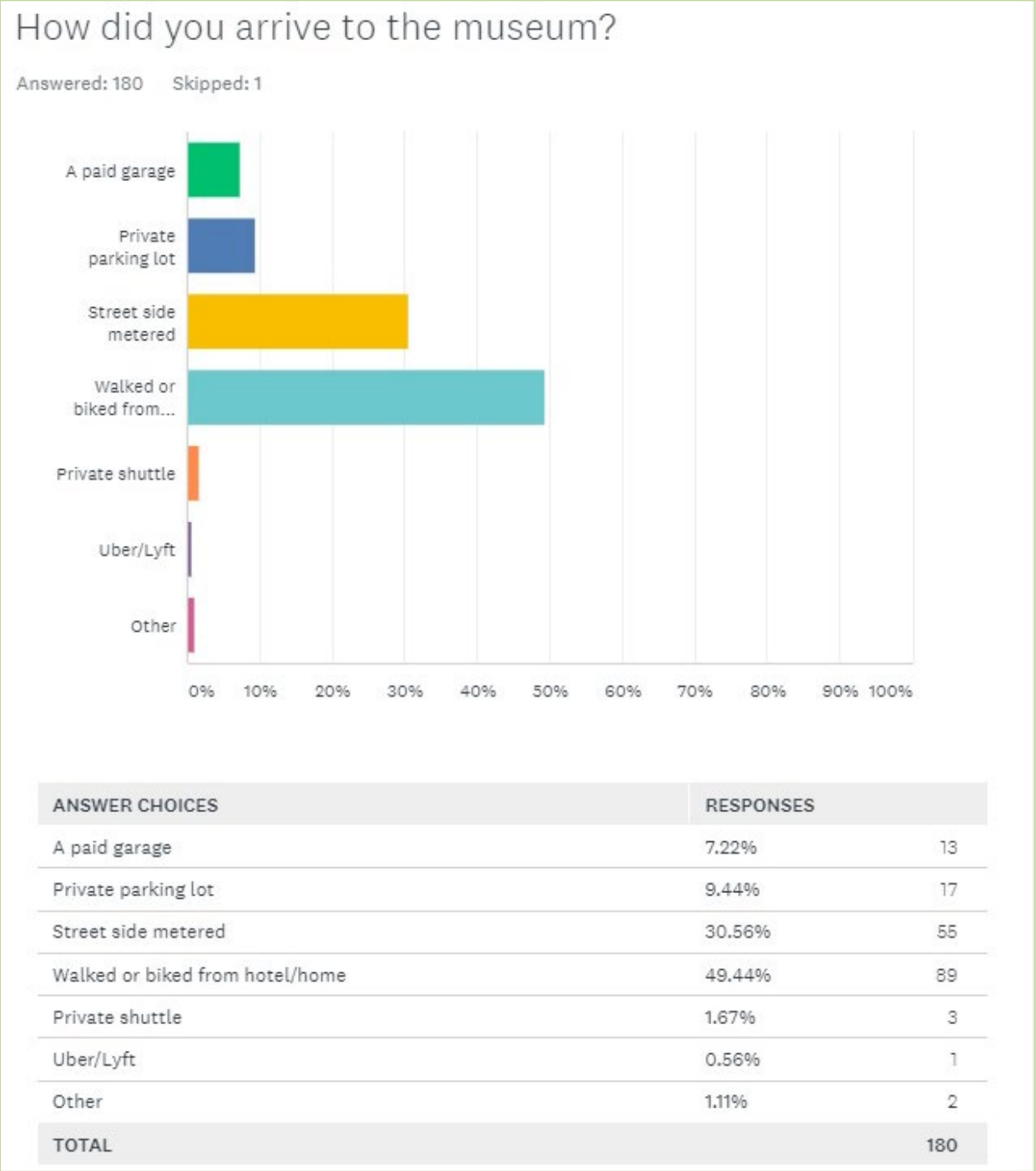
The proposed new building is approximately 54,000 s.f., and the existing Research Center Building measures approximately 9,400 s.f. for a total of 63,400 s.f. of gross floor area (GFA). Since the Research Center is closed on weekends, only the museum footage was used to estimate weekend parking demand. Because the site is situated in an urban setting of moderate density, the *General Urban/Suburban* category was applicable for estimating parking demand for the period extending from 10:00 a.m. to 2:00 p.m. on weekdays and 12:00 – 4:00 p.m. on Saturdays. The data used to estimate parking demand are contained in Appendix F and summarized in Table 6 below.

Table 6: Estimated Parking Demand

Day	Period	ITE Code	Independent Variable Quantity	Units	Average Rate	Spaces	REMARKS
Parked vehicles estimated using ITE average rate: General Urban/Suburban							
Weekday	10a-2p	580	63.4	GFA	0.76	48	Average GFA = 136ksf (3 studies)
Saturday*	12p-4p	580	54.0	GFA	0.92	50	Average GFA = 136ksf (3 studies)
**GFA of museum only (research center closed on weekends).*							

The ITE parking demand rates account for vehicular demand. To account for multi-modal access via transit, bicycle and pedestrian modes, the Georgia O'Keeffe Museum undertook a survey of visitors in the 2nd quarter of 2021 and verified that less than half (47.22%) required parking while slightly more than half (52.78%) arrived via walk/bike or other means of transport as depicted in Figure 6. This supplemental information supported the prospect that opportunities for multi-modal access exist in downtown Santa Fe that may help moderate the need for on-site parking facilities.

Figure 6: Survey of Transport to Georgia O'Keeffe Museum



ANSWER CHOICES	RESPONSES	
A paid garage	7.22%	13
Private parking lot	9.44%	17
Street side metered	30.56%	55
Walked or biked from hotel/home	49.44%	89
Private shuttle	1.67%	3
Uber/Lyft	0.56%	1
Other	1.11%	2
TOTAL		180

6.2 Off-Site Parking Supply

The amount of off-site parking supplied for this project should meet the estimated demand values listed in Table 6. A reduction for multi-modal users could be applied based on the survey results of Figure 6:

Table 7: Minimum Parking Supply

Estimated Parking Demand		Parking Rate	Supply
Weekday	48	47.22%	23
Weekend	50	47.22%	24

Thus, the minimum number of 24 spaces should be provided as summarized in Table 7. On-street, metered parking is available throughout the Santa Fe downtown area as indicated on the COSF Parking Meter Permit Zones map (see Appendix F). In addition, municipal parking garages exist in the vicinity at the Santa Fe Community Convention Center (119 S. Federal Pl.) and at the Sandoval Garage (216 W. San Francisco St.), see also Appendix F. However, space for long-term leases was not available at these locations at the time this study was completed. As part of this museum expansion project, space is proposed for visitor and staff parking at the following locations illustrated in the Development Plan Parking exhibit, Appendix F (p. F-4).

6.2.1 Chapelle St. Parking Lot @ McKenzie St.

As shown in Appendix F (p. F-4), an existing surface parking lot provides 25 spaces within a facility owned by GOKM a short distance from the existing museum on Johnson St. Access is available via Chapelle St. This location lies approximately 615 feet from the new site.

6.2.2 San Francisco St. Parking Lot

An existing parcel located at 436 W. San Francisco St. was identified by GOKM for the purpose of providing controlled-access parking. This location lies approximately 1,275 feet from the new site and is accessible from W. Water St. Proposed improvements to this facility would provide 67 spaces as presented in Appendix F.

The combined total of 92 proposed spaces would exceed the adjusted demand shown in Table 7. These spaces would be managed by GOKM and information provided to visitors and staff for parking purposes.

7.0 CONCLUSION AND RECOMMENDATIONS

This study has demonstrated that the proposed relocation and expansion of the Georgia O'Keeffe Museum (GOKM) from 217 Johnson Street to 123 Grant Ave. is not expected to have significant impacts to the adjacent transportation system provided that the recommendations outlined herein are implemented.

Recommendations

All proposed roadway improvements within the public right-of-way should be designed in accordance with City of Santa Fe (COSF) standards and specifications unless otherwise recommended in this study. Following is a summary of the recommendations.

A. Passenger Loading Zone – provide modifications along Grant Ave. for a passenger loading zone as described in Section 5.6 of this report.

B. Alley Access Improvements – provide modifications to accommodate truck deliveries in the alley at the south boundary and access drives at Grant Ave. and Sheridan Ave. as detailed in Section 5.6 of this report.

C. Off-Site Parking – provisions for parking of personal vehicles will be made available to visitors and staff at the locations defined in Section 6 of this report.

APPENDIX A
Traffic Scoping Meeting Minutes

Civil Transformations Inc.
2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120
505.508.3374
www.civiltransformations.com

Minutes

To: Distribution

From: Timothy D. Simmons, PE, PTOE - Civil Transformations Inc.

Date: July 15, 2020

Re: Traffic Scoping Meeting for Georgia O'Keeffe Museum (GOKM) Expansion Project

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An online meeting was held on the above date to discuss whether a traffic study would be required for the referenced project. The following individuals participated:

- John Romero, PE – City of Santa Fe PWD, Engineering Division Director
- Anson Rane – City of Santa Fe PWD, Project Administrator
- Daniel Hernandez – Proyecto, Owner's Representative
- Robert White – Gluckman Tang Architects, Principal Architect
- Tim Simmons, PE, PTOE – Civil & Traffic Engineer

- Following introductions, Robert described the project as consisting of the relocation of exhibition and associated operations of the Georgia O'Keeffe museum from the existing site on Johnson St. to the proposed new exhibition hall on the site. The existing site would no longer serve as a museum.
- John noted that the estimated peak hour trips fell below the threshold required for a site traffic analysis. However, the Museum should consider conducting on in anticipation of public concerns regarding traffic raised during the early neighborhood notification (ENN) process, as issues raised in later stages of the project could cause delays. Daniel indicated that an ENN meeting is proposed for this fall.
- Should a traffic study be conducted for this project, the following issues should be addressed:
  - Decreased travel demand during the COVID-19 pandemic has resulted in reduced traffic volumes.
  - Data collected as part of the traffic study for the recent Lensic project encompassed Palace, Grant, and Sandoval Streets and can be provided by COSF for use in this study.
  - Traffic study limits should include site driveway(s), the Grant/Palace/Sandoval intersection, and the Grant/Johnson intersection pedestrian crossing.
  - It was noted that the existing driveways serving the parking lot at 123 Grant Ave. will be removed, thus no site driveways will require analysis.
  - Evening and weekend traffic as well as special events should be discussed in the study.
- The Grant/Johnson pedestrian crossing previously generated much comment, and therefore the following issues should be addressed in a traffic study:
  - Gap study to determine if sufficient gaps exist; due to reduced traffic during COVID-19, alternative measures may be needed to extrapolate the data.
  - A crash evaluation encompassing vehicular-pedestrian crash records for the last 3 years should be included.
  - If rectangular rapid flashing beacons (RRFBs) are considered as a treatment, these would have to be coordinated with NMDOT per current FHWA policy.
- On-site parking is not proposed for the new building:
  - The existing small parking lot serving the Marcy Street Office Building at 135 Grant will remain, but the existing 123 Grant parking lot will be removed and replaced with the building and a park.
  - Museum patrons and employees will access the site as pedestrians; it was also noted that many of the Museum patrons are from out of town and currently access the existing site as pedestrians.
  - Coordination with the Land Use Dept. will be required to process variances for number of parking spaces and off-site parking requirements.

- A loading zone will be designated at the southwest corner of the site for bus loading and unloading via the alley at the south boundary of the site.
- This alley will also provide delivery access and will need to accommodate large trucks.

- Anson advised that the proposed Downtown Transit Center (DTC) project will be advertised for construction in the near future:
  - Bidding will occur in the next few months and construction should commence in early 2021.
  - Plans were previously provided to the team.
  - Proximity of the DTC to the new museum may provide additional justification for a traffic and parking analysis.
  - The southernmost bus shelter could be impacted by geometric modifications to serve truck access into the alley; the project team will forward comments to Anson for coordination of any constructability concerns.

- Action items:
  - COSF – provide traffic study and/or traffic data from the Lensic project.
  - GOKM Team – coordinate parking issues and variance requests with COSF Land Use Dept.
  - GOKM Team – provide constructability comments to Anson regarding the DTC project.

END OF MEETING MINUTES

These meeting minutes represent a summary of the items discussed. Any corrections or revisions should be directed to the author within 5 business days, after which time they will be considered as final.

Timothy D. Simmons
_____ July 22, 2019
Prepared by: *Date:*

Distribution: Attendees

SITE THRESHOLD ASSESSMENT (STH)

A Site Threshold Assessment (STH) is required of all developing or redeveloping properties that directly or indirectly access a state highway.

District No.: _____

Project No.: _____

Date: 7/13/2020

Applicant Name: Georgia O'Keeffe Museum

Business Name: Georgia O'Keeffe Museum

Address: 217 Johnson St, Santa Fe, NM 87501

SITE DESCRIPTION

- ☐ Residential
- ☐ Retail
- ☐ Office
- ☐ Industrial
- ☐ Institutional
- ☐ Lodging
- ☐ Restaurant
- ☐ Convenience/Gas
- ☒ Other: Museum

Building Size (SF) 46,000 SF +/-
Parcel Size (ac) _____
Roadway Frontage (ft) _____
Parking Spaces _____
Employees _____
Other: _____

Dwelling Unit _____
Rooms _____
Beds _____
Students _____
Seats _____
Fuel Pumps _____
Courts _____
Storage Units _____

The STH examines existing roadway volumes and anticipated site trip generation for the purpose of determining if additional analyses are required. If the site characteristics and the trip generation estimate for a proposed development do not satisfy the requirements for a STA or a TIA as determined by the District Traffic Engineer, the STH should be approved and the traffic study requirement for the proposed development will be complete. If additional analysis is required based on the results of the STH, the District Traffic Engineer should indicate to the applicant the level of analysis that is required.

TRIP GENERATION

Option A (Commercial Access)

ITE Trip Generation Land Use Category: 580-Museum

AM Peak Hour Trips	Entering: 11	Exiting: 2
PM Peak Hour Trips	Entering: 1	Exiting: 7

Option B (Residential Access)

Daily Trips	Entering: _____	Exiting: _____

FOR OFFICIAL USE ONLY

EXISTING ROADWAY DATA

Highway No.: _____ Site Mile Post: _____

Highway ADT: _____ Count Year: _____

Number of Lanes (two way): _____ Function Class: _____

EXCEEDS THRESHOLD ☐ Yes ☐ No ☐ STA Required ☐ TIA Required

Thresholds:

STA: 25 to 99 Peak Hour Total Trips AND more than 1,000 Vehicles per Lane per Day on adjacent Highway

TIA: 100 or more Peak Hour Total Trips

OTHER REQUIREMENT BASIS/DTE COMMENTS: _____

APPENDIX B
Existing Traffic Volumes

Civil Transformations Inc.
2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374

Georgia O'Keefe Museum
Turning Movement Count for
Traffic Impact Analysis

File Name : W. Palace @ Grant Ave (with combined)
Site Code : 1
Start Date : 10/8/2020
Page No : 1

Groups Printed- Cars - Trucks

	GRANT AVE From North					W PALACE From East					GRANT AVE From South					W PALACE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	16	0	16	0	7	0	0	7	0	0	0	1	1	17	6	0	1	24	48
07:15 AM	0	0	12	0	12	0	5	2	0	7	0	0	0	6	6	23	5	0	0	28	53
07:30 AM	3	0	16	1	20	0	9	1	0	10	0	0	0	2	2	33	9	0	2	44	76
07:45 AM	2	0	20	5	27	0	6	2	5	13	0	0	0	5	5	36	13	0	2	51	96
Total	5	0	64	6	75	0	27	5	5	37	0	0	0	14	14	109	33	0	5	147	273
08:00 AM	2	0	26	2	30	0	7	2	4	13	0	0	0	0	0	32	8	0	4	44	87
08:15 AM	5	0	34	5	44	0	12	4	6	22	0	0	0	9	9	38	14	0	7	59	134
08:30 AM	4	0	32	2	38	0	19	2	6	27	0	0	0	4	4	33	10	0	3	46	115
08:45 AM	3	0	46	2	51	0	14	5	1	20	0	0	0	3	3	31	12	0	2	45	119
Total	14	0	138	11	163	0	52	13	17	82	0	0	0	16	16	134	44	0	16	194	455
*** BREAK ***																					
04:00 PM	8	0	68	3	79	0	38	13	7	58	0	0	0	9	9	36	10	0	7	53	199
04:15 PM	4	0	75	11	90	0	27	6	7	40	0	0	0	5	5	38	15	0	4	57	192
04:30 PM	4	0	64	2	70	0	35	5	5	45	0	0	0	3	3	33	12	0	5	50	168
04:45 PM	6	0	52	2	60	0	38	4	6	48	0	0	0	6	6	43	21	0	15	79	193
Total	22	0	259	18	299	0	138	28	25	191	0	0	0	23	23	150	58	0	31	239	752
05:00 PM	8	0	99	13	120	0	36	9	11	56	0	0	0	18	18	43	11	0	25	79	273
05:15 PM	3	0	62	5	70	0	26	7	5	38	0	0	0	6	6	28	12	0	17	57	171
05:30 PM	5	0	42	3	50	0	25	3	6	34	0	0	0	0	0	20	8	0	2	30	114
05:45 PM	8	0	45	8	61	0	26	6	6	38	0	0	0	4	4	27	10	0	7	44	147
Total	24	0	248	29	301	0	113	25	28	166	0	0	0	28	28	118	41	0	51	210	705
Grand Total	65	0	709	64	838	0	330	71	75	476	0	0	0	81	81	511	176	0	103	790	2185
Apprch %	7.8	0	84.6	7.6		0	69.3	14.9	15.8		0	0	0	100		64.7	22.3	0	13		
Total %	3	0	32.4	2.9	38.4	0	15.1	3.2	3.4	21.8	0	0	0	3.7	3.7	23.4	8.1	0	4.7	36.2	
Cars	64	0	703	64	831	0	280	67	75	422	0	0	0	81	81	467	176	0	103	746	2080
% Cars	98.5	0	99.2	100	99.2	0	84.8	94.4	100	88.7	0	0	0	100	100	91.4	100	0	100	94.4	95.2
Trucks	1	0	6	0	7	0	50	4	0	54	0	0	0	0	0	44	0	0	0	44	105
% Trucks	1.5	0	0.8	0	0.8	0	15.2	5.6	0	11.3	0	0	0	0	0	8.6	0	0	0	5.6	4.8

Civil Transformations Inc.
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Georgia O'Keefe Museum
Turning Movement Count for
Traffic Impact Analysis

File Name : W. Palace @ Grant Ave (with combined)
Site Code : 1
Start Date : 10/8/2020
Page No : 2

	GRANT AVE From North					W PALACE From East					GRANT AVE From South					W PALACE From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	0	26	2	30	0	7	2	4	13	0	0	0	0	0	32	8	0	4	44	87
08:15 AM	**5**	0	34	**5**	44	0	12	4	**6**	22	0	0	0	**9**	**9**	**38**	**14**	0	**7**	**59**	**134**
08:30 AM	4	0	32	2	38	0	**19**	2	6	**27**	0	0	0	4	4	33	10	0	3	46	115
08:45 AM	3	0	**46**	2	**51**	0	14	**5**	1	20	0	0	0	3	3	31	12	0	2	45	119
Total Volume	14	0	138	11	163	0	52	13	17	82	0	0	0	16	16	134	44	0	16	194	455
% App. Total	8.6	0	84.7	6.7		0	63.4	15.9	20.7		0	0	0	100		69.1	22.7	0	8.2		
PHF	.700	.000	.750	.550	.799	.000	.684	.650	.708	.759	.000	.000	.000	.444	.444	.882	.786	.000	.571	.822	.849
Cars	13	0	136	11	160	0	39	12	17	68	0	0	0	16	16	124	44	0	16	184	428
% Cars	92.9	0	98.6	100	98.2	0	75.0	92.3	100	82.9	0	0	0	100	100	92.5	100	0	100	94.8	94.1
Trucks	1	0	2	0	3	0	13	1	0	14	0	0	0	0	0	10	0	0	0	10	27
% Trucks	7.1	0	1.4	0	1.8	0	25.0	7.7	0	17.1	0	0	0	0	0	7.5	0	0	0	5.2	5.9
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	0	75	11	90	0	27	6	7	40	0	0	0	5	5	38	15	0	4	57	192
04:30 PM	4	0	64	2	70	0	35	5	5	45	0	0	0	3	3	33	12	0	5	50	168
04:45 PM	6	0	52	2	60	0	**38**	4	6	48	0	0	0	6	6	**43**	**21**	0	15	**79**	193
05:00 PM	**8**	0	**99**	**13**	**120**	0	36	**9**	**11**	**56**	0	0	0	**18**	**18**	43	11	0	**25**	79	**273**
Total Volume	22	0	290	28	340	0	136	24	29	189	0	0	0	32	32	157	59	0	49	265	826
% App. Total	6.5	0	85.3	8.2		0	72	12.7	15.3		0	0	0	100		59.2	22.3	0	18.5		
PHF	.688	.000	.732	.538	.708	.000	.895	.667	.659	.844	.000	.000	.000	.444	.444	.913	.702	.000	.490	.839	.756
Cars	22	0	288	28	338	0	123	23	29	175	0	0	0	32	32	144	59	0	49	252	797
% Cars	100	0	99.3	100	99.4	0	90.4	95.8	100	92.6	0	0	0	100	100	91.7	100	0	100	95.1	96.5
Trucks	0	0	2	0	2	0	13	1	0	14	0	0	0	0	0	13	0	0	0	13	29
% Trucks	0	0	0.7	0	0.6	0	9.6	4.2	0	7.4	0	0	0	0	0	8.3	0	0	0	4.9	3.5

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2929 Coors Blvd. NW, Ste. 309
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Georgia O'Keefe Museum
Turning Movement Count for
Traffic Impact Analysis

File Name : Grant Ave @ Johnson Both Peaks
Site Code : 2
Start Date : 10/8/2020
Page No : 1

Groups Printed- Cars - Trucks

	GRANT From North					JOHNSON From East					GRANT From South					JOHNSON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	15	0	4	19	0	0	0	6	6	1	16	0	2	19	3	0	0	0	3	47
07:15 AM	0	13	1	0	14	0	0	0	3	3	2	25	0	1	28	2	0	0	0	2	47
07:30 AM	0	16	0	2	18	0	0	0	5	5	1	32	0	5	38	8	0	1	0	9	70
07:45 AM	0	19	1	2	22	0	0	0	2	2	3	34	0	9	46	2	0	0	0	2	72
Total	0	63	2	8	73	0	0	0	16	16	7	107	0	17	131	15	0	1	0	16	236
08:00 AM	0	26	1	9	36	0	0	0	3	3	1	33	0	4	38	3	0	1	0	4	81
08:15 AM	0	35	4	7	46	0	0	1	6	7	1	39	0	12	52	4	0	4	3	11	116
08:30 AM	0	34	1	4	39	0	0	0	2	2	0	34	0	10	44	3	0	1	7	11	96
08:45 AM	0	44	3	0	47	0	0	0	3	3	1	37	0	3	41	5	0	2	0	7	98
Total	0	139	9	20	168	0	0	1	14	15	3	143	0	29	175	15	0	8	10	33	391
*** BREAK ***																					
04:00 PM	0	64	3	4	71	0	0	0	10	10	4	49	0	9	62	8	0	9	1	18	161
04:15 PM	0	75	3	11	89	0	0	0	3	3	0	43	0	5	48	6	0	3	0	9	149
04:30 PM	0	66	4	6	76	0	0	0	7	7	2	36	1	6	45	3	0	1	2	6	134
04:45 PM	0	54	3	4	61	0	0	0	5	5	1	47	0	5	53	8	0	6	0	14	133
Total	0	259	13	25	297	0	0	0	25	25	7	175	1	25	208	25	0	19	3	47	577
05:00 PM	0	104	7	8	119	0	0	0	8	8	2	51	0	23	76	4	0	5	0	9	212
05:15 PM	0	62	3	9	74	0	0	0	5	5	1	36	0	17	54	6	0	1	0	7	140
05:30 PM	0	46	1	7	54	0	0	0	3	3	1	19	0	11	31	2	0	3	0	5	93
05:45 PM	0	49	2	4	55	0	0	0	2	2	2	31	0	11	44	3	0	3	0	6	107
Total	0	261	13	28	302	0	0	0	18	18	6	137	0	62	205	15	0	12	0	27	552
Grand Total	0	722	37	81	840	0	0	1	73	74	23	562	1	133	719	70	0	40	13	123	1756
Apprch %	0	86	4.4	9.6		0	0	1.4	98.6		3.2	78.2	0.1	18.5		56.9	0	32.5	10.6		
Total %	0	41.1	2.1	4.6	47.8	0	0	0.1	4.2	4.2	1.3	32	0.1	7.6	40.9	4	0	2.3	0.7	7	
Cars	0	716	37	81	834	0	0	1	73	74	23	514	1	132	670	68	0	40	13	121	1699
% Cars	0	99.2	100	100	99.3	0	0	100	100	100	100	91.5	100	99.2	93.2	97.1	0	100	100	98.4	96.8
Trucks	0	6	0	0	6	0	0	0	0	0	0	48	0	1	49	2	0	0	0	2	57
% Trucks	0	0.8	0	0	0.7	0	0	0	0	0	0	8.5	0	0.8	6.8	2.9	0	0	0	1.6	3.2

Civil Transformations Inc.
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File Name : Grant Ave @ Johnson Both Peaks
Site Code : 2
Start Date : 10/8/2020
Page No : 2

	GRANT From North					JOHNSON From East					GRANT From South					JOHNSON From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	26	1	**9**	36	0	0	0	3	3	**1**	33	0	4	38	3	0	1	0	4	81
08:15 AM	0	35	**4**	7	46	0	0	**1**	**6**	**7**	1	**39**	0	**12**	**52**	4	0	**4**	3	**11**	**116**
08:30 AM	0	34	1	4	39	0	0	0	2	2	0	34	0	10	44	3	0	1	**7**	11	96
08:45 AM	0	**44**	3	0	**47**	0	0	0	3	3	1	37	0	3	41	**5**	0	2	0	7	98
Total Volume	0	139	9	20	168	0	0	1	14	15	3	143	0	29	175	15	0	8	10	33	391
% App. Total	0	82.7	5.4	11.9		0	0	6.7	93.3		1.7	81.7	0	16.6		45.5	0	24.2	30.3		
PHF	.000	.790	.563	.556	.894	.000	.000	.250	.583	.536	.750	.917	.000	.604	.841	.750	.000	.500	.357	.750	.843
Cars	0	136	9	20	165	0	0	1	14	15	3	131	0	29	163	14	0	8	10	32	375
% Cars	0	97.8	100	100	98.2	0	0	100	100	100	100	91.6	0	100	93.1	93.3	0	100	100	97.0	95.9
Trucks	0	3	0	0	3	0	0	0	0	0	0	12	0	0	12	1	0	0	0	1	16
% Trucks	0	2.2	0	0	1.8	0	0	0	0	0	0	8.4	0	0	6.9	6.7	0	0	0	3.0	4.1
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	75	3	**11**	89	0	0	0	3	3	0	43	0	5	48	6	0	3	0	9	149
04:30 PM	0	66	4	6	76	0	0	0	7	7	**2**	36	**1**	6	45	3	0	1	**2**	6	134
04:45 PM	0	54	3	4	61	0	0	0	5	5	1	47	0	5	53	**8**	0	**6**	0	**14**	133
05:00 PM	0	**104**	**7**	8	**119**	0	0	0	**8**	**8**	2	**51**	0	**23**	**76**	4	0	5	0	9	**212**
Total Volume	0	299	17	29	345	0	0	0	23	23	5	177	1	39	222	21	0	15	2	38	628
% App. Total	0	86.7	4.9	8.4		0	0	0	100		2.3	79.7	0.5	17.6		55.3	0	39.5	5.3		
PHF	.000	.719	.607	.659	.725	.000	.000	.000	.719	.719	.625	.868	.250	.424	.730	.656	.000	.625	.250	.679	.741
Cars	0	297	17	29	343	0	0	0	23	23	5	163	1	39	208	21	0	15	2	38	612
% Cars	0	99.3	100	100	99.4	0	0	0	100	100	100	92.1	100	100	93.7	100	0	100	100	100	97.5
Trucks	0	2	0	0	2	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	16
% Trucks	0	0.7	0	0	0.6	0	0	0	0	0	0	7.9	0	0	6.3	0	0	0	0	0	2.5

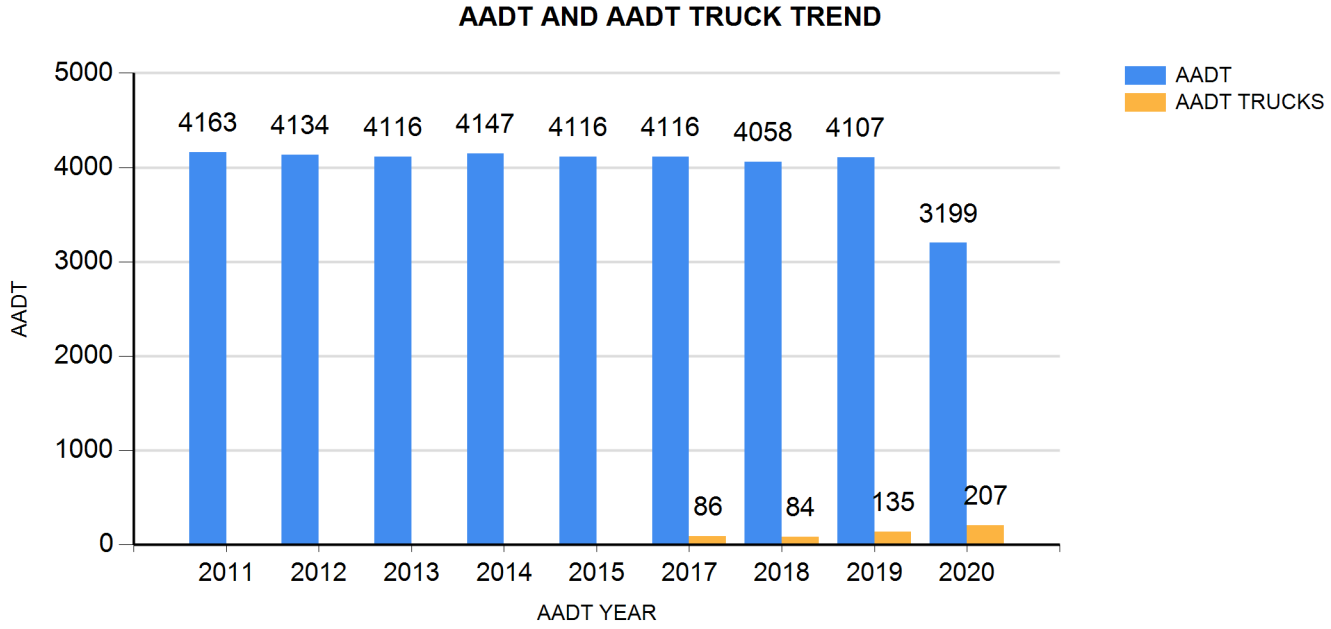
PALACE E. OF GRANT

AADT and AADT Trucks by Year for 1/1/2011 - 12/31/2020
Criteria: From 1/1/1900 To 12/31/2049 12:00:00 AM

District 5 **Location ID** 12170

County 49 - SANTA FE **Located On** FL-4808-P **At**

Community **LRS ID** FL4808P **LRS Point** 0.2413201

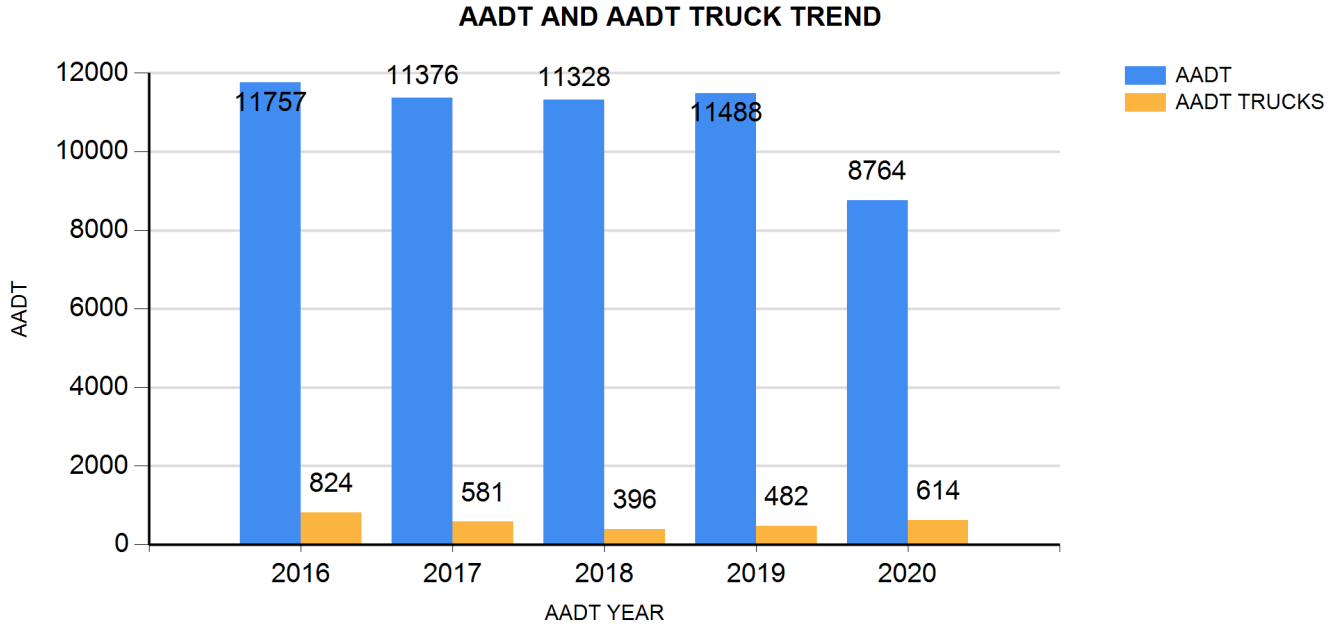


B-5

W. ALAMEDA (used for seasonal factors)

AADT and AADT Trucks by Year for 1/1/2016 - 12/31/2020
Criteria: From 1/1/1900 To 12/31/2049 12:00:00 AM

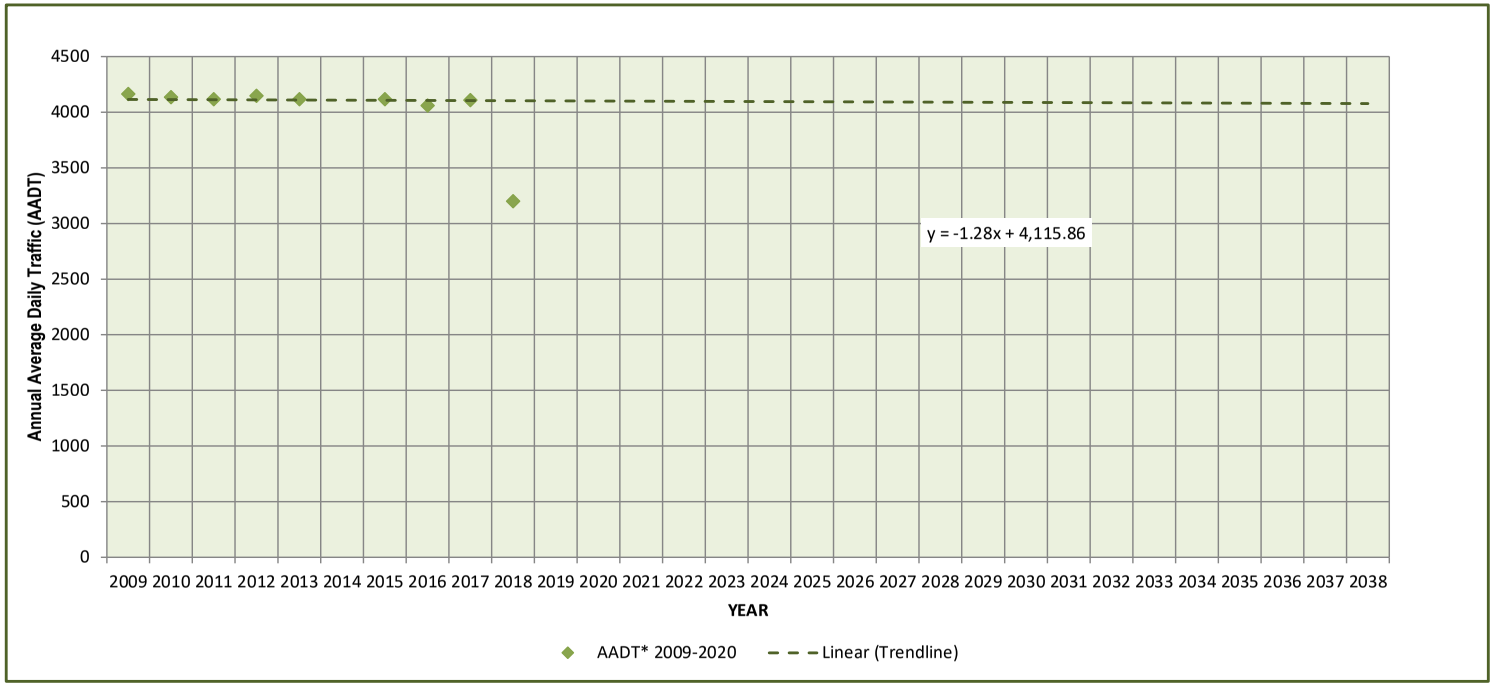
District 5 **Location ID** 22823
County 49 - SANTA FE **Located On** FL-4805-P **At**
Community **LRS ID** FL4805P **LRS Point** 0.6117350



PROJECT: Georgia O'Keefe Museum Expansion

Background Traffic Projection - Palace West of Sheridan

YEAR	AADT* 2009-2020	TRENDLINE
2009	4103	*4117*
2010	4050	*4116*
2011	4163	*4115*
2012	4134	*4113*
2013	4116	*4112*
2014	4147	*4111*
2015	4116	*4109*
2016		*4108*
2017	4116	*4107*
2018	4058	*4106*
2019	4107	*4104*
2020	*3199*	*4103*
2021		*4102*
2022		*4101*
2023		*4099*
2024		*4098*
2025		*4097*
2026		*4095*
2027		*4094*
2028		*4093*
2029		*4092*
2030		*4090*
2031		*4089*
2032		*4088*
2033		*4086*
2034		*4085*
2035		*4084*
2036		*4083*
2037		*4081*
2038		*4080*
2039		*4079*
2040		*4078*
	4	-33 growth
	0.40	-1.28 rate



G_1 = 0.01% 2009-2019 AADT compounded annual rate

G_2 = -0.03% 2009-2019 Trendline compounded annual rate

G_3 = 0.40% 2011-2019 Santa Fe City Growth Rate (US Census)

Use +0.5% / year traffic growth rate for W. Palace GF_5= 1.025251

GF_{15}= 1.077683

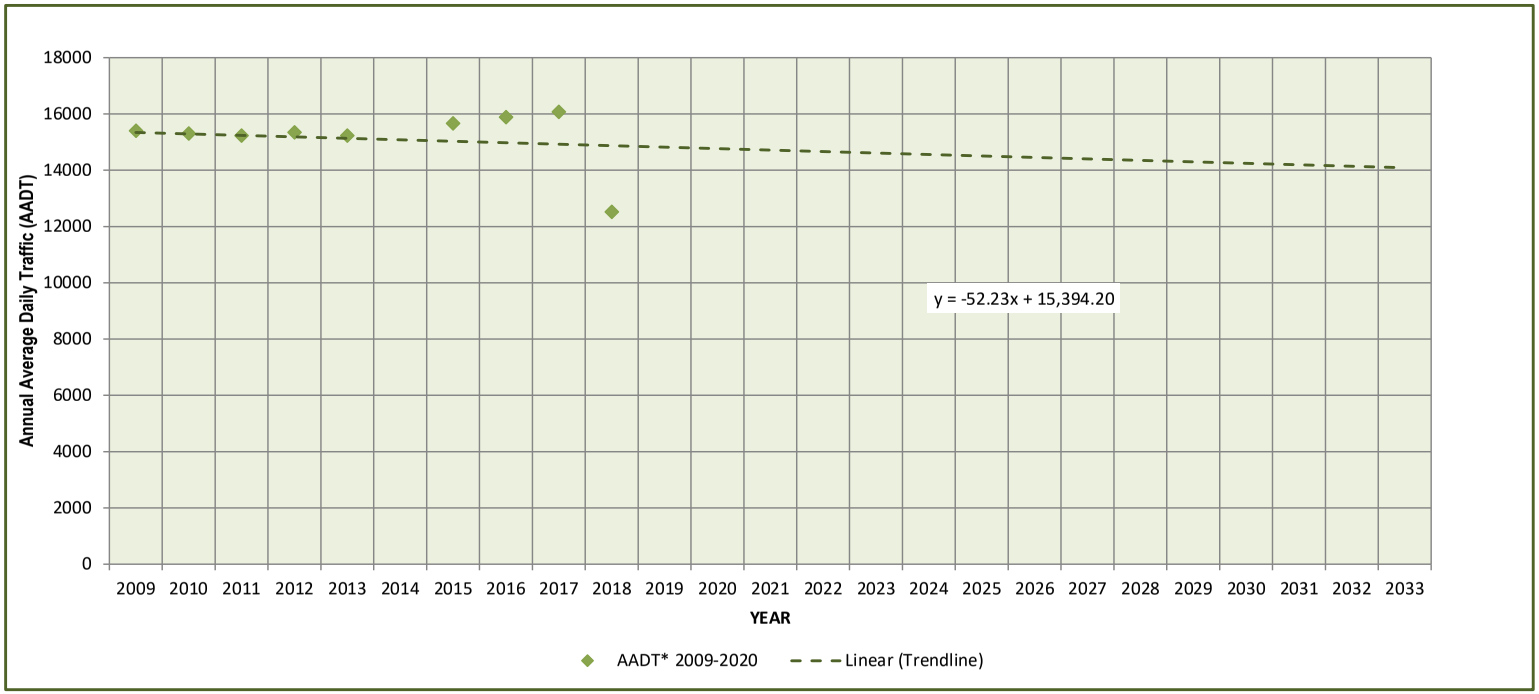
Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via *https://nmdot.public.ms2soft.com/tcds/tsearch.asp?loc=nmdot*
(LRS ID FL4808P, Location ID #12170)

PROJECT: Georgia O'Keefe Museum Expansion

Background Traffic Projection - Sandoval West of Grant

YEAR	AADT* 2009-2020	TRENDLINE
2009	15184	*15446*
2010	14987	*15394*
2011	15406	*15342*
2012	15300	*15290*
2013	15232	*15237*
2014	15347	*15185*
2015	15234	*15133*
2016		*15081*
2017	15663	*15029*
2018	15882	*14976*
2019	16073	*14924*
2020	*12521*	*14872*
2021		*14820*
2022		*14767*
2023		*14715*
2024		*14663*
2025		*14611*
2026		*14558*
2027		*14506*
2028		*14454*
2029		*14402*
2030		*14350*
2031		*14297*
2032		*14245*
2033		*14193*
2034		*14141*
2035		*14088*
	-2663	-1358 growth
	-242.09	-52.23 rate



G_1 = -1.74% 2009-2020 AADT compounded annual rate

G_2 = -0.34% 2009-2020 Trendline compounded annual rate

G_3 = 0.67% 2010-2018 U.S. Census annual pop. rate

Use +0.5% / year traffic growth rate for Sandoval GF_4= 1.020151

GF_{14}= 1.072321

Source:

2011-2020 = NMDOT Traffic Monitoring Program: "AADT and AADT Trucks by Year"
accessed via *https://nmdot.public.ms2soft.com/tcds/tsearch.asp?loc=nmdot*
(LRS ID FL4808P, Location ID #12169)

File Name: AM_SANDOVAL STREET and W PALACE AVENUE and GRANT AVENUE
Start Date: 11/13/2019
Start Time: 6:30:00 AM
Person Counting: VIDEO / ELIZER PENA

	SANDOVAL STREET EASTBOUND						W PALACE AVENUE WESTBOUND						NORTHBOUND						GRANT AVENUE SOUTHBOUND						
Start Time	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	12	3	0	0	2	0	0	2	2	0	2	3	0	0	0	0	0	0	1	0	12	0	3	0	32
6:45 AM	8	2	0	0	2	0	0	4	1	0	4	0	0	0	0	0	0	2	2	0	15	0	1	2	32
7:00 AM	18	6	0	0	3	0	0	7	0	0	4	0	0	0	0	0	0	2	1	0	15	0	0	2	47
7:15 AM	30	6	0	0	4	0	0	3	1	0	2	1	0	0	0	0	0	0	0	0	13	0	0	3	53
7:30 AM	26	11	0	0	4	0	0	10	2	0	6	0	0	0	0	0	0	1	4	0	34	0	2	2	87
7:45 AM	52	18	0	0	3	0	0	14	1	0	6	0	0	0	0	0	0	1	7	0	49	1	2	7	142
8:00 AM	54	20	0	0	0	3	0	10	1	0	3	0	0	0	0	0	0	1	3	0	37	0	2	10	125
8:15 AM	53	25	0	0	6	0	0	13	1	0	4	0	0	0	0	0	0	1	3	0	49	0	0	2	144
8:30 AM	35	20	0	0	3	2	0	11	1	0	4	0	0	0	0	0	0	4	9	0	45	0	5	1	121
8:45 AM	49	19	0	0	4	2	0	15	1	0	7	0	0	0	0	0	0	6	4	0	47	0	2	7	135
Total	337	130	0	0	31	7	0	89	11	0	42	4	0	0	0	0	0	18	34	0	316	1	17	36	918

File Name: AM_SANDOVAL STREET and W PALACE AVENUE and GRANT AVENUE
Start Date: 11/13/2019
Peak Hour 7:45 to 8:45 AM
Person Counting: VIDEO / ELIZER PENA

	SANDOVAL STREET EASTBOUND						W PALACE AVENUE WESTBOUND						NORTHBOUND						GRANT AVENUE SOUTHBOUND						
Start Time	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Total
7:45 AM	52	18	0	0	3	0	0	14	1	0	6	0	0	0	0	0	0	1	7	0	49	1	2	7	142
8:00 AM	54	20	0	0	0	3	0	10	1	0	3	0	0	0	0	0	0	1	3	0	37	0	2	10	125
8:15 AM	53	25	0	0	6	0	0	13	1	0	4	0	0	0	0	0	0	1	3	0	49	0	0	2	144
8:30 AM	35	20	0	0	3	2	0	11	1	0	4	0	0	0	0	0	0	4	9	0	45	0	5	1	121
Total	194	83	0	0	12	5	0	48	4	0	17	0	0	0	0	0	0	7	22	0	180	1	9	20	532
PHF	0.90	0.83						0.86	1.00										0.61		0.92				0.92

File Name: PM_SANDOVAL STREET and W PALACE AVENUE and GRANT AVENUE
Start Date: 11/13/2019
Start Time: 03:00 PM
Person Counting: VIDEO / ELIZER PENA

	SANDOVAL STREET EASTBOUND						W PALACE AVENUE WESTBOUND						NORTHBOUND						GRANT AVENUE SOUTHBOUND						
Start Time	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Total
03:00 PM	41	18	0	0	3	0	0	23	9	0	4	0	0	0	0	0	0	3	3	0	102	0	2	2	196
03:15 PM	40	17	0	0	3	0	0	18	3	0	4	0	0	0	0	0	0	3	3	0	73	0	2	6	154
03:30 PM	43	11	0	0	2	0	0	13	3	0	3	0	0	0	0	0	0	1	9	0	73	0	0	3	152
03:45 PM	46	13	0	0	7	0	0	11	5	0	2	0	0	0	0	0	0	1	8	0	72	0	3	6	155
04:00 PM	37	12	0	0	2	3	0	20	4	0	4	0	0	0	0	0	0	7	5	0	73	0	2	14	151
04:15 PM	32	13	0	0	4	1	0	27	3	0	5	0	0	0	0	0	0	2	4	0	71	0	4	8	150
04:30 PM	46	17	0	0	3	0	0	20	3	0	3	0	0	0	0	0	0	1	5	0	59	0	1	6	150
04:45 PM	46	19	0	0	3	0	0	32	5	0	5	0	0	0	0	0	0	3	5	0	77	0	1	12	184
05:00 PM	45	17	0	0	7	0	0	37	9	0	3	0	0	0	0	0	0	11	6	0	114	0	0	6	228
05:15 PM	50	9	0	0	6	2	0	27	2	0	5	0	0	0	0	0	0	2	3	0	67	0	3	7	158
05:30 PM	42	8	0	0	3	1	0	15	1	0	2	0	0	0	0	0	0	5	5	0	64	0	0	4	135
05:45 PM	29	10	0	0	4	0	0	10	2	0	3	0	0	0	0	0	0	6	5	0	51	0	0	7	107
Total	497	164	0	0	47	7	0	253	49	0	43	0	0	0	0	0	0	45	61	0	896	0	18	81	1920

File Name: PM_SANDOVAL STREET and W PALACE AVENUE and GRANT AVENUE
Start Date: 11/13/2019
Peak Hour 4:30 to 5:30 PM
Person Counting: VIDEO / ELIZER PENA

	SANDOVAL STREET EASTBOUND						W PALACE AVENUE WESTBOUND						NORTHBOUND						GRANT AVENUE SOUTHBOUND						
Start Time	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Left	Thru	Right	Uturn	Truck	Peds	Total
04:30 PM	46	17	0	0	3	0	0	20	3	0	3	0	0	0	0	0	0	1	5	0	59	0	1	6	150
04:45 PM	46	19	0	0	3	0	0	32	5	0	5	0	0	0	0	0	0	3	5	0	77	0	1	12	184
05:00 PM	45	17	0	0	7	0	0	37	9	0	3	0	0	0	0	0	0	11	6	0	114	0	0	6	228
05:15 PM	50	9	0	0	6	2	0	27	2	0	5	0	0	0	0	0	0	2	3	0	67	0	3	7	158
Total	187	62	0	0	19	2	0	116	19	0	16	0	0	0	0	0	0	17	19	0	317	0	5	31	720
PHF	0.94	0.82						0.78	0.53										0.79		0.70				0.79

NAME	CENSUS2010 POP	ESTIMATES BASE2010	POPESTIMATE 2010	POPESTIMATE 2011	POPESTIMATE 2012	POPESTIMATE 2013	POPESTIMATE 2014	POPESTIMATE 2015	POPESTIMATE 2016	POPESTIMATE 2017	POPESTIMATE 2018	POPESTIMATE 2019
House village	68	68	68	68	66	65	64	64	64	63	62	62
Hurley town	1297	1297	1291	1288	1284	1275	1265	1242	1225	1206	1191	1176
Jal city	2047	2052	2048	2060	2100	2167	2209	2205	2129	2075	2083	2117
Jemez Springs village	250	262	263	265	265	264	264	264	267	267	267	267
Kirtland town	A	647	647	643	639	637	633	629	625	617	611	601
Lake Arthur town	436	424	424	426	428	428	429	428	428	423	421	420
Las Cruces city	97618	97706	98284	100212	101045	101238	101192	101113	101313	101963	102812	103432
Las Vegas city	13753	14043	14047	14019	13885	13750	13576	13430	13315	13163	13035	12919
Logan village	1042	1041	1045	1045	1022	1009	988	988	984	977	973	979
Lordsburg city	2797	2809	2789	2776	2739	2648	2606	2540	2474	2459	2420	2398
Los Lunas village	14835	15030	15115	15288	15318	15279	15161	15225	15342	15548	15800	16061
Los Ranchos de Albuquerque	6024	6068	6073	6122	6139	6149	6125	6110	6115	6115	6102	6108
Loving village	1413	1380	1383	1385	1381	1395	1408	1419	1405	1377	1387	1393
Lovington city	11009	11058	11039	11114	11328	11687	11919	11905	11531	11245	11302	11489
Magdalena village	938	940	937	937	921	924	912	905	897	889	882	878
Maxwell village	254	243	242	241	234	232	225	221	217	216	215	212
Melrose village	651	653	659	669	674	668	666	651	651	643	636	629
Mesilla town	2196	1904	1907	1918	1919	1898	1880	1868	1857	1854	1840	1828
Milan village	3245	3616	3637	3660	3665	3675	3660	3658	3676	3671	3668	3669
Moriarty city	1910	1985	1987	1993	1954	1912	1891	1880	1868	1871	1867	1860
Mosquero village	93	93	92	96	94	93	93	96	93	92	87	85
Mountainair town	928	938	939	941	922	902	890	885	879	880	877	873
Pecos village	1392	1398	1401	1400	1390	1377	1365	1353	1347	1335	1326	1320
Peralta town	3660	3652	3661	3657	3644	3627	3592	3575	3561	3565	3576	3584
Portales city	12280	12306	12416	12689	12657	12500	12286	11980	11998	11850	11765	11610
Questa village	1770	1775	1773	1777	1772	1785	1783	1770	1774	1764	1756	1755
Raton city	6885	6876	6862	6805	6615	6523	6337	6194	6102	6051	6006	5938
Red River town	477	477	477	476	474	477	475	471	472	468	465	463
Reserve village	289	292	293	292	285	281	279	272	276	279	279	277
Rio Communities city	A	4729	4736	4728	4702	4675	4625	4590	4566	4559	4559	4552
Rio Rancho city	87521	87387	87977	89499	90444	91334	91963	93116	94511	96285	97982	99178
Roswell city	48366	48417	48463	48442	48426	48594	48438	48443	48283	47938	47532	47551
Roy village	234	234	232	240	236	232	233	243	232	231	219	211
Ruidoso village	8029	8043	8032	8032	7962	7895	7768	7694	7737	7792	7845	7901
Ruidoso Downs city	2815	2776	2767	2751	2714	2678	2618	2578	2577	2580	2577	2574
San Jon village	216	223	223	222	217	213	208	207	205	204	202	202
Santa Clara village	1686	1908	1900	1898	1895	1886	1873	1842	1823	1800	1778	1761
Santa Fe city	67947	80871	81012	81706	82144	82584	82824	83117	83515	83954	84211	84683
Santa Rosa city	2848	2848	2852	2814	2794	2761	2712	2662	2673	2697	2654	2636
San Ysidro village	193	193	194	197	196	198	197	199	199	199	202	201
Silver City town	10315	10301	10255	10236	10198	10141	10046	9864	9759	9617	9498	9386
Socorro city	9051	9049	9010	8987	8822	8824	8690	8628	8530	8457	8385	8348
Springer town	1047	1043	1041	1034	1005	992	964	943	929	922	916	906
Sunland Park city	14106	14260	14332	14653	14871	15240	15552	16053	16603	17130	17626	17978
Taos town	5716	6050	6041	6029	5998	6026	6053	6020	6031	5988	5950	5929
Taos Ski Valley village	69	71	71	71	71	71	70	70	70	69	69	71
Tatum town	798	795	793	799	814	841	859	858	831	810	815	829
Texico city	1130	1109	1123	1136	1143	1133	1128	1104	1103	1089	1079	1067
Tijeras village	541	529	529	534	537	537	536	534	535	534	534	535

APPENDIX C
Trip Generation Data

Detailed Land Use Data

For 63.4 1000 Sq. Ft. GFA of GOKM

(580) Museum

Project: GOKM

Open Date: 6/1/2022

Analysis Date: 10/8/2020

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Adjacent Street Traffic	18	0	0.28	0.28	0.28		176	86	14	False		
Source : Trip Generation Manual 10th Edition												
Weekday PM Peak Hour of Adjacent Street Traffic	11	0	0.18	0.18	0.18		176	16	84	False		
Source : Trip Generation Manual 10th Edition												

C-1

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: GOKM

Open Date: 6/1/2022
Analysis Date: 10/8/2020

ITE	Land Use		Weekday Average Daily Trips *	Enter	Exit	Total	Weekday AM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total	Weekday PM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total
580	GOKM					0		15	3	18		2	9	11
	63.4	1000 Sq. Ft. GFA												
Unadjusted Volume				0	0	0		15	3	18		2	9	11
Internal Capture Trips				0	0	0		0	0	0		0	0	0
Pass-By Trips				0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets				0	0	0		15	3	18		2	9	11

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

C-2

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

Traffic Distribution - Georgia O'Keeffe Museum Expansion Project								
Intersection and Traffic Movement	Inbound[1]				Outbound[1]			
	AM	%	PM	%	AM	%	PM	%
Sandoval/Palace/Grant								
EBL	210	46.4%	202	31.6%	-		-	
WBR	4	1.0%	21	3.2%	-		-	
SBL	-		-		24	5.4%	21	3.3%
SBR	-		-		195	44.0%	343	54.7%
Grant/Johnson								
SBT	228	50.3%	378	59.1%	-		-	
EBL/R	11	2.4%	39	6.2%	-		-	
SBR	-		-		3	0.7%	18	2.9%
NBL	-		-		9	1.9%	9	1.4%
NBT/EBL					212	47.9%	237	37.7%
Total Volumes	**452**	100%	**640**	100%	**442**	100%	**627**	100%
[1] *From 2024AMX & 2024PMX traffic volumes.*								

Data For Station: NM MUSEUM of ART ENTRANCE

Day	Date	Time	Enter	Exit	Sum	*IN*	*OUT*	*HOURLY*	*Distribution*
THR	09/23/10	00:00	0	0	0				
THR	10/18/20	00:15	0	0	0				
THR	10/18/20	00:30	0	0	0				
THR	10/18/20	00:45	0	0	0	0	0	0	
THR	10/18/20	01:00	0	0	0				
THR	10/18/20	01:15	0	0	0				
THR	10/18/20	01:30	0	0	0				
THR	10/18/20	01:45	0	0	0	0	0	0	
THR	10/18/20	02:00	0	0	0				
THR	10/18/20	02:15	0	0	0				
THR	10/18/20	02:30	0	0	0				
THR	10/18/20	02:45	0	0	0	0	0	0	
THR	10/18/20	03:00	0	0	0				
THR	10/18/20	03:15	0	0	0				
THR	10/18/20	03:30	0	0	0				
THR	10/18/20	03:45	0	0	0	0	0	0	
THR	10/18/20	04:00	0	0	0				
THR	10/18/20	04:15	0	0	0				
THR	10/18/20	04:30	0	0	0				
THR	10/18/20	04:45	0	0	0	0	0	0	
THR	10/18/20	05:00	0	0	0				
THR	10/18/20	05:15	0	0	0				
THR	10/18/20	05:30	0	0	0				
THR	10/18/20	05:45	0	0	0	0	0	0	
THR	10/18/20	06:00	0	0	0				
THR	10/18/20	06:15	0	0	0				
THR	10/18/20	06:30	0	0	0				
THR	10/18/20	06:45	0	0	0	0	0	0	
THR	10/18/20	07:00	0	0	0				
THR	10/18/20	07:15	0	0	0				
THR	10/18/20	07:30	0	0	0				
THR	10/18/20	07:45	0	0	0	0	0	0	
THR	10/18/20	08:00	5	3	8				
THR	10/18/20	08:15	5	3	8				
THR	10/18/20	08:30	0	0	0				
THR	10/18/20	08:45	0	0	0	10	6	16	7%
THR	10/18/20	09:00	1	1	2				
THR	10/18/20	09:15	3	0	3				
THR	10/18/20	09:30	0	2	2				
THR	10/18/20	09:45	1	2	3	5	5	10	5%
THR	10/18/20	10:00	1	1	2				
THR	10/18/20	10:15	3	1	4				
THR	10/18/20	10:30	2	3	5				
THR	10/18/20	10:45	5	2	7	11	7	18	8%
THR	10/18/20	11:00	1	1	2				
THR	10/18/20	11:15	7	3	10				
THR	10/18/20	11:30	9	4	13				
THR	10/18/20	11:45	10	9	19	27	17	44	20%

Data For Station: NM MUSEUM of ART ENTRANCE

Day	Date	Time	Enter	Exit	Sum	*IN*	*OUT*	*HOURLY*	*Distribution*
THR	10/18/20	12:00	2	10	12				
THR	10/18/20	12:15	4	14	18				
THR	10/18/20	12:30	12	11	23				
THR	10/18/20	12:45	3	1	4	21	36	57	26%
THR	10/18/20	13:00	2	6	8				
THR	10/18/20	13:15	1	6	7				
THR	10/18/20	13:30	2	5	7				
THR	10/18/20	13:45	1	0	1	6	17	23	11%
THR	10/18/20	14:00	7	1	8				
THR	10/18/20	14:15	0	0	0				
THR	10/18/20	14:30	5	2	7				
THR	10/18/20	14:45	3	2	5	15	5	20	9%
THR	10/18/20	15:00	1	0	1				
THR	10/18/20	15:15	3	7	10				
THR	10/18/20	15:30	3	4	7				
THR	10/18/20	15:45	1	0	1	8	11	19	9%
THR	10/18/20	16:00	0	5	5				
THR	10/18/20	16:15	1	2	3				
THR	10/18/20	16:30	0	2	2				
THR	10/18/20	16:45	0	0	0	1	9	10	5%
THR	10/18/20	17:00	0	0	0				
THR	10/18/20	17:15	0	0	0				
THR	10/18/20	17:30	0	0	0				
THR	10/18/20	17:45	0	0	0	0	0	0	
THR	10/18/20	18:00	0	0	0				
THR	10/18/20	18:15	0	0	0				
THR	10/18/20	18:30	0	0	0				
THR	10/18/20	18:45	0	0	0	0	0	0	
THR	10/18/20	19:00	0	0	0				
THR	10/18/20	19:15	0	0	0				
THR	10/18/20	19:30	0	0	0				
THR	10/18/20	19:45	0	0	0	0	0	0	
THR	10/18/20	20:00	0	0	0				
THR	10/18/20	20:15	0	0	0				
THR	10/18/20	20:30	0	0	0				
THR	10/18/20	20:45	0	0	0	0	0	0	
THR	10/18/20	21:00	0	0	0				
THR	10/18/20	21:15	0	0	0				
THR	10/18/20	21:30	0	0	0				
THR	10/18/20	21:45	0	0	0	0	0	0	
THR	10/18/20	22:00	0	0	0				
THR	10/18/20	22:15	0	0	0				
THR	10/18/20	22:30	0	0	0				
THR	10/18/20	22:45	0	0	0	0	0	0	
THR	10/18/20	23:00	0	0	0				
THR	10/18/20	23:15	0	0	0				
THR	10/18/20	23:30	0	0	0				
THR	10/18/20	23:45	0	0	0	0	0	0	
		TOTALS:	**104**	**113**	**217**	**104**	**113**	**217**	

HOURS AND ADMISSION

The New Mexico Museum of Art is open to the public as of Saturday, February 20, 2021!

COVID GUIDELINES

All visitors and employees will be required to wear masks or cloth face coverings at all times.

The number of visitors allowed into the building will be limited in accordance with the most current New Mexico Public Health Order. Reduced occupancy might result in a wait to gain entry.

There will be 6-foot social distancing markers and one-way directional flow in high traffic areas within the museum in order to promote a physically distanced and safe environment.

All theaters, auditoriums, interactive exhibits, engagement stations, libraries, archives, collections, and attractions, etc. will

VISIT

GETTING HERE

HOURS AND ADMISSION

VIRTUAL TOURS

UPCOMING EVENTS

GROUP VISITS/TOURS

SHOP

only.

Learn more about how the New Mexico Museum of Art and Department of Cultural Affairs are keeping you safe!

HOURS

Regular Hours: Tuesdays through Sundays, 10AM to 4PM

Wednesdays from 10AM to noon will be reserved for higher-risk populations. This correspondeds with DCA's weekly free day for state residents 60 and older.

Closed on Mondays

Holiday hours: The museum is closed on January 1, Thanksgiving, and Christmas Day. Call ahead if you plan to visit on Christmas Eve or New Years Eve as we usually close early on those days.

Winter weather conditions may require the museum to close. Please contact the front desk at 505-476-5063.

ADMISSION

Admission Costs

- General admission: $12 | New Mexico residents with ID: $7
- Some special exhibitions or events may require an additional fee.
- Group admission is $8 for parties of 10 or more.
-

Timothy Simmons

From: Roberts, Michelle, DCA <Michelle.Roberts@state.nm.us>
Sent: Tuesday, October 20, 2020 12:56 PM
To: Timothy Simmons; Cody Hartley; Daniel Hernandez
Cc: Jennifer Pedneau; White, Mark A, DCA
Subject: RE: [EXT] Re: Museum Traffic Study

Here you go:

Thursday	10/8/2020	65

-Michelle

Michelle Gallagher Roberts, Deputy Director
New Mexico Museum of Art | on the Plaza in Santa Fe
Office 505.476.5069 | Fax 505.476.5076 | Cell 505.469.7000

New Mexico Museum of Art

From: Timothy Simmons [mailto:tsimmons@civiltransformations.com]
Sent: Tuesday, October 20, 2020 12:53 PM
To: Roberts, Michelle, DCA; Cody Hartley; Daniel Hernandez
Cc: Jennifer Pedneau; White, Mark A, DCA
Subject: RE: [EXT] Re: Museum Traffic Study

Michelle,

Would it be possible to obtain a visitor's log or tabulation of tickets issued on October 8? This would serve as backup to our data collection effort (we don't need any personally-identifiable information, just a headcount of all who entered/exited on that date). Thanks.

Tim

From: Timothy Simmons
Sent: Tuesday, October 6, 2020 2:15 PM
To: Roberts, Michelle, DCA <Michelle.Roberts@state.nm.us>; Cody Hartley <chartley@okeeffemuseum.org>; Daniel Hernandez <daniel@proyecto.is>
Cc: Jennifer Pedneau <jpedneau@okeeffemuseum.org>; White, Mark A, DCA <MarkA.White@state.nm.us>
Subject: RE: [EXT] Re: Museum Traffic Study

Michelle – thanks for the data and your cooperation, it's much appreciated. We're scheduling the count for this Thursday, October 8. Please don't hesitate to contact me if there are any further questions.

Tim

Timothy D. Simmons, PE, PTOE

President and Principal Engineer
Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309 | Albuquerque, NM 87120-1425
Office: (505) 508-3374 | Cell (505) 977-9454
tsimmons@civiltransformations.com
www.civiltransformations.com

From: Roberts, Michelle, DCA [mailto:Michelle.Roberts@state.nm.us]
Sent: Tuesday, October 6, 2020 1:53 PM
To: Timothy Simmons <tsimmons@civiltransformations.com>; Cody Hartley <chartley@okeeffemuseum.org>; Daniel Hernandez <daniel@proyecto.is>
Cc: Jennifer Pedneau <jpedneau@okeeffemuseum.org>; White, Mark A, DCA <MarkA.White@state.nm.us>
Subject: RE: [EXT] Re: Museum Traffic Study

Tim,
Thank you for the clarification. This clears up any of our concerns. We have no objection to what you are proposing to do, but also don't believe we have any interest in it either as your activities will occur in the public right of way. We appreciate the courtesy of being informed.

As to your other questions:
Currently we have 28 employees
Current gross square feet: 55,125

-Michelle

Michelle Gallagher Roberts, Deputy Director
New Mexico Museum of Art | on the Plaza in Santa Fe
Office 505.476.5069 | Fax 505.476.5076 | Cell 505.469.7000

New Mexico Museum of Art

From: Timothy Simmons [mailto:tsimmons@civiltransformations.com]
Sent: Monday, October 5, 2020 4:33 PM
To: Roberts, Michelle, DCA; Cody Hartley; Daniel Hernandez
Cc: Jennifer Pedneau; White, Mark A, DCA
Subject: RE: [EXT] Re: Museum Traffic Study

Hi, Michelle – thank you for your reply, please see my responses below. I trust these adequately address your questions, but please feel free to call with any further questions. Thanks.

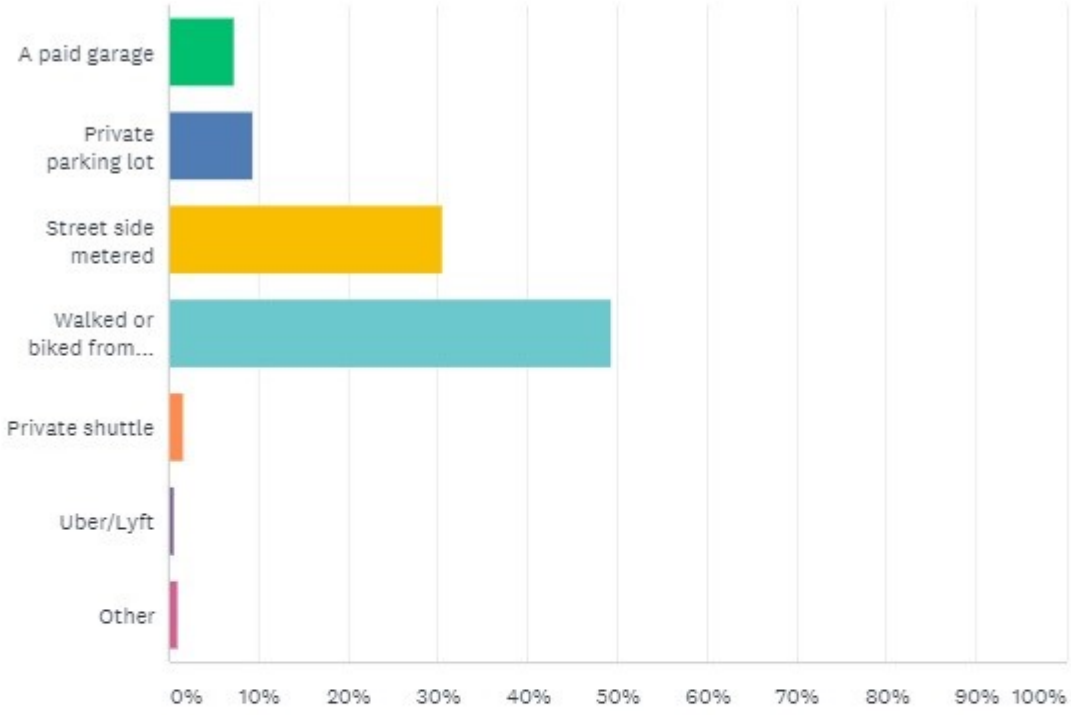
Tim

Timothy D. Simmons, PE, PTOE
President and Principal Engineer
Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309 | Albuquerque, NM 87120-1425
Office: (505) 508-3374 | Cell (505) 977-9454
tsimmons@civiltransformations.com
www.civiltransformations.com

Q4

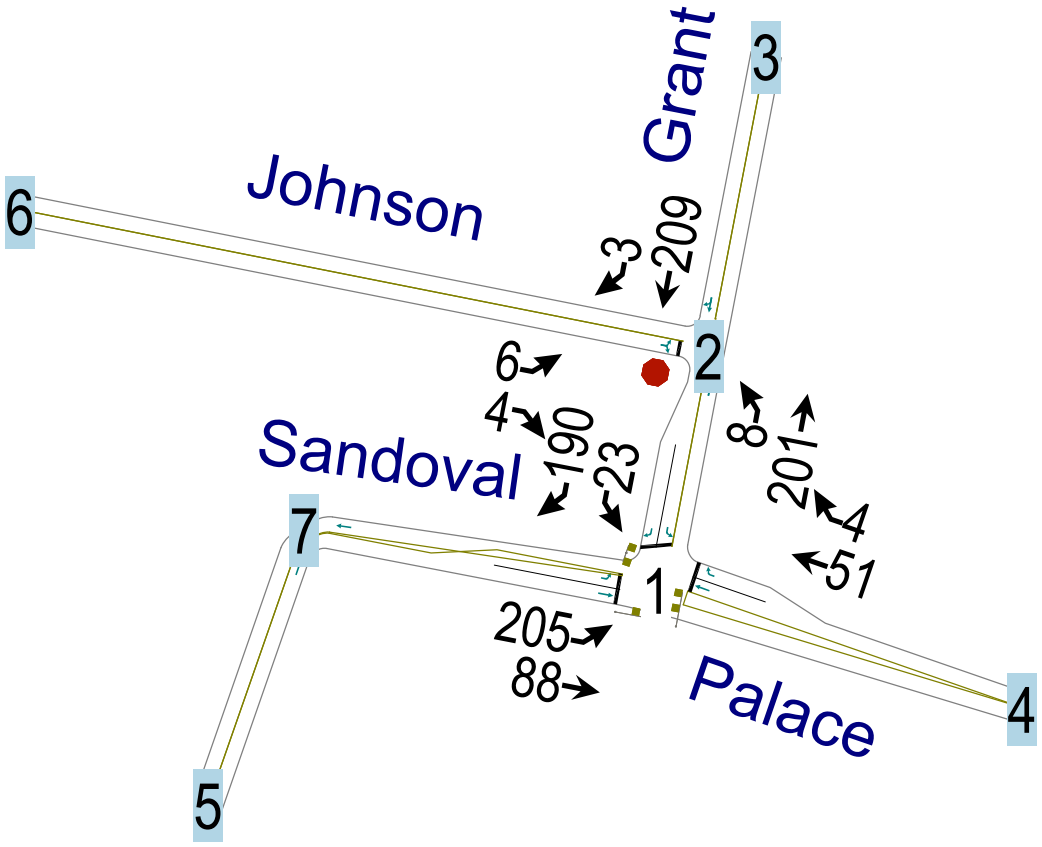
How did you arrive to the museum?

Answered: 180 Skipped: 1



ANSWER CHOICES	RESPONSES	
A paid garage	7.22%	13
Private parking lot	9.44%	17
Street side metered	30.56%	55
Walked or biked from hotel/home	49.44%	89
Private shuttle	1.67%	3
Uber/Lyft	0.56%	1
Other	1.11%	2
TOTAL		180

APPENDIX D
Level of Service (LOS) Reports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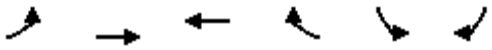


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	205	88	51	4	23	190
Future Volume (veh/h)	205	88	51	4	23	190
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	228	98	57	4	26	211
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	910	1106	743	554	281	250
Arrive On Green	0.13	0.64	0.43	0.43	0.20	0.20
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	228	98	57	4	26	211
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	3.3	1.1	1.0	0.1	0.8	8.3
Cycle Q Clear(g_c), s	3.3	1.1	1.0	0.1	0.8	8.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	910	1106	743	554	281	250
V/C Ratio(X)	0.25	0.09	0.08	0.01	0.09	0.85
Avail Cap(c_a), veh/h	919	1115	743	554	520	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	3.5	8.5	8.3	16.6	19.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.5	0.6	0.0	0.4	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.8	3.5	8.7	8.3	16.6	22.6
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h		326	61		237	
Approach Delay, s/veh		4.4	8.7		22.0	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	14.3	36.7	10.7	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	10.3	3.1	5.3	3.0
Green Ext Time (p_c), s	0.3	0.3	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

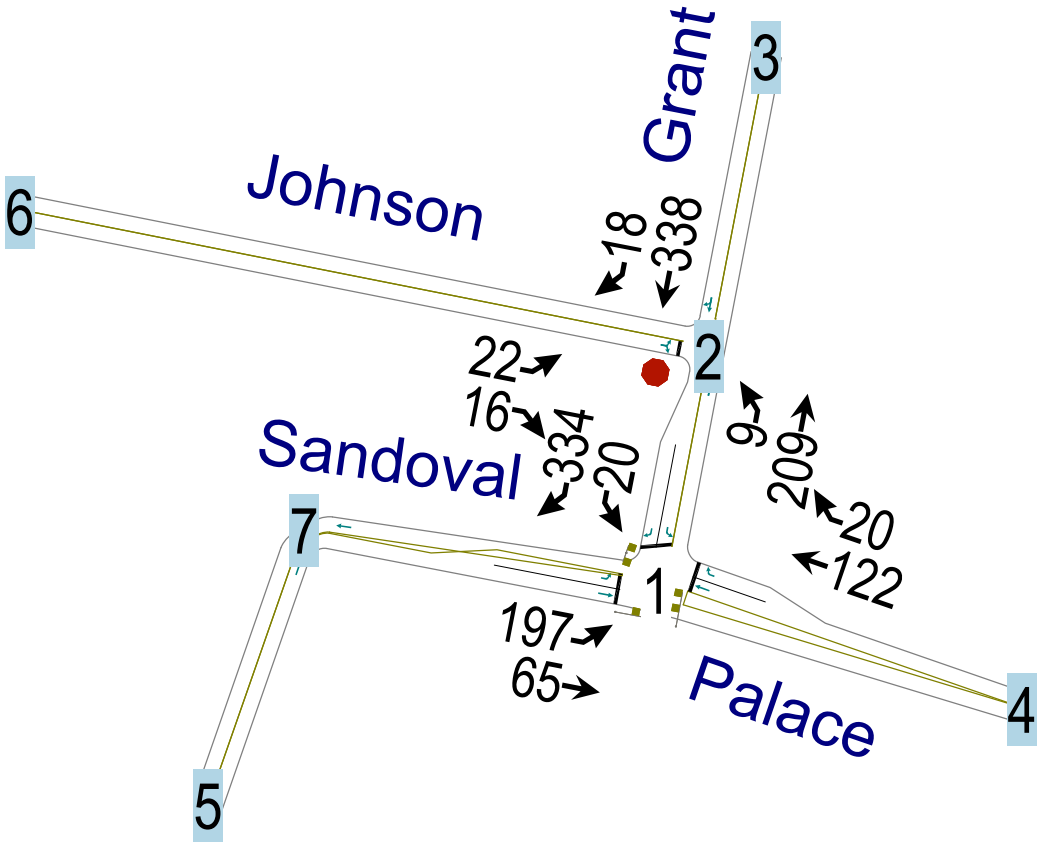
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	4	8	201	209	3
Future Vol, veh/h	6	4	8	201	209	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	4	9	223	232	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	475	234	235	0	-	0
Stage 1	234	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	548	805	1332	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	544	805	1332	-	-	-
Mov Cap-2 Maneuver	544	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1332	-	625	-	-
HCM Lane V/C Ratio	0.007	-	0.018	-	-
HCM Control Delay (s)	7.7	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-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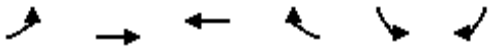


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	197	65	122	20	20	334
Future Volume (veh/h)	197	65	122	20	20	334
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	246	81	152	25	25	418
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	680	947	632	471	442	538
Arrive On Green	0.12	0.55	0.37	0.37	0.32	0.32
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	246	81	152	25	25	418
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	5.1	1.3	3.7	0.8	0.7	17.3
Cycle Q Clear(g_c), s	5.1	1.3	3.7	0.8	0.7	17.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	680	947	632	471	442	538
V/C Ratio(X)	0.36	0.09	0.24	0.05	0.06	0.78
Avail Cap(c_a), veh/h	680	948	632	471	442	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	6.4	13.2	12.3	14.3	14.5
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.2	0.0	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.7	2.6	1.3	0.4	17.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7	6.4	14.1	12.5	14.3	21.0
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		327	177		443	
Approach Delay, s/veh		8.1	13.9		20.6	
Approach LOS		A	B		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	23.0	37.0	11.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	19.3	3.3	7.1	5.7
Green Ext Time (p_c), s	0.0	0.3	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

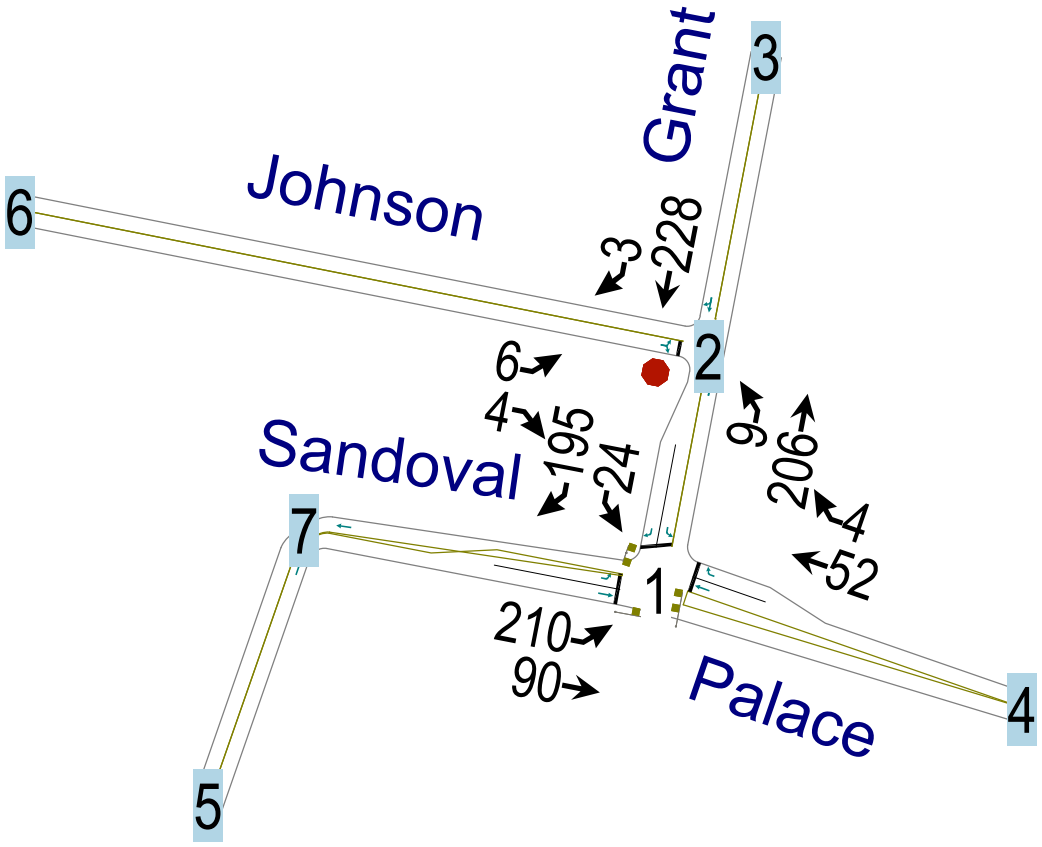
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	16	9	209	338	18
Future Vol, veh/h	22	16	9	209	338	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	20	11	261	423	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	718	435	446	0	-	0
Stage 1	435	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	396	621	1114	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	391	621	1114	-	-	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1114	-	463	-	-
HCM Lane V/C Ratio	0.01	-	0.103	-	-
HCM Control Delay (s)	8.3	0	13.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-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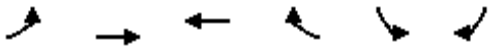


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	210	90	52	4	24	195
Future Volume (veh/h)	210	90	52	4	24	195
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	233	100	58	4	27	217
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	904	1099	738	551	288	256
Arrive On Green	0.13	0.64	0.43	0.43	0.21	0.21
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	233	100	58	4	27	217
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	3.4	1.1	1.0	0.1	0.8	8.6
Cycle Q Clear(g_c), s	3.4	1.1	1.0	0.1	0.8	8.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	904	1099	738	551	288	256
V/C Ratio(X)	0.26	0.09	0.08	0.01	0.09	0.85
Avail Cap(c_a), veh/h	912	1107	738	551	516	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.9	3.6	8.7	8.4	16.5	19.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.5	0.7	0.0	0.4	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.0	3.6	8.9	8.4	16.5	22.6
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h		333	62		244	
Approach Delay, s/veh		4.6	8.9		21.9	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	14.6	36.7	10.7	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	10.6	3.1	5.4	3.0
Green Ext Time (p_c), s	0.3	0.3	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

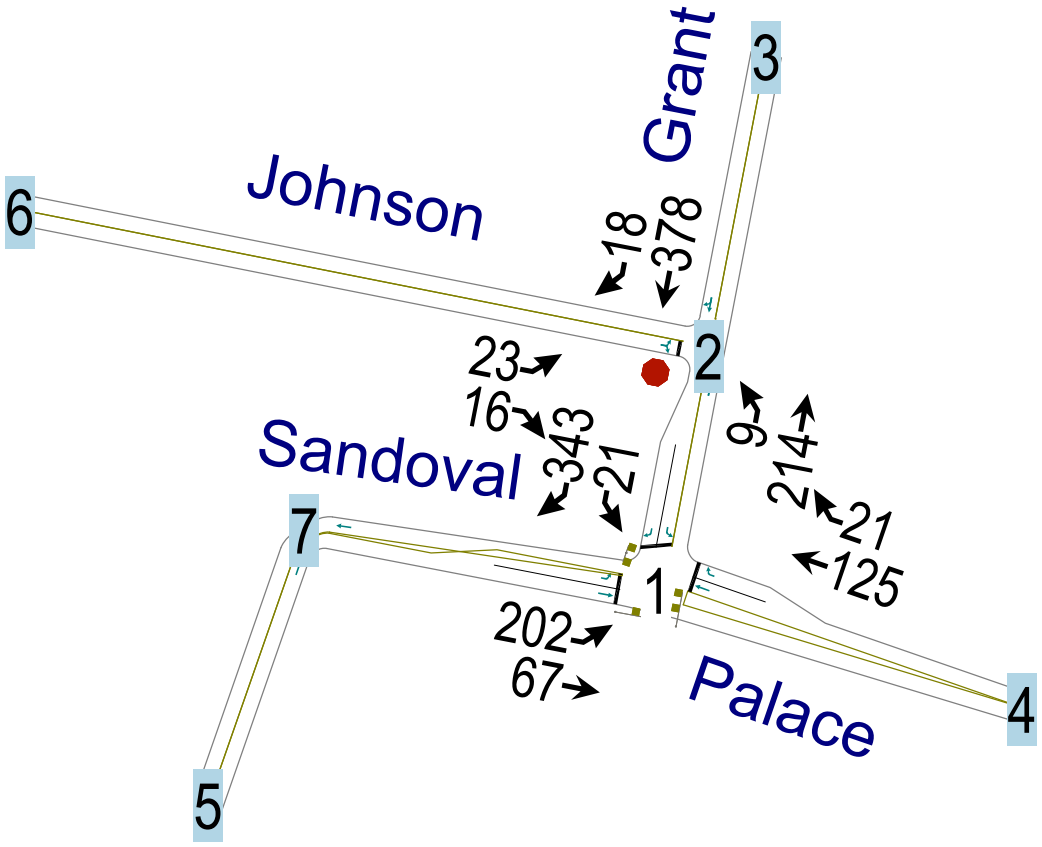
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	4	9	206	228	3
Future Vol, veh/h	6	4	9	206	228	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	4	10	229	253	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	504	255	256	0	-	0
Stage 1	255	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	528	784	1309	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	523	784	1309	-	-	-
Mov Cap-2 Maneuver	523	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1309	-	603	-	-
HCM Lane V/C Ratio	0.008	-	0.018	-	-
HCM Control Delay (s)	7.8	0	11.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-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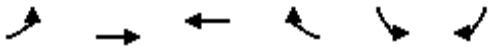


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	202	67	125	21	21	343
Future Volume (veh/h)	202	67	125	21	21	343
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	252	84	156	26	26	429
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	947	632	471	442	538
Arrive On Green	0.12	0.55	0.37	0.37	0.32	0.32
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	252	84	156	26	26	429
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	5.3	1.4	3.8	0.8	0.8	18.0
Cycle Q Clear(g_c), s	5.3	1.4	3.8	0.8	0.8	18.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	676	947	632	471	442	538
V/C Ratio(X)	0.37	0.09	0.25	0.06	0.06	0.80
Avail Cap(c_a), veh/h	676	947	632	471	442	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	6.4	13.2	12.3	14.3	14.7
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.2	0.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.8	2.7	1.3	0.4	18.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	6.4	14.2	12.5	14.3	22.4
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		336	182		455	
Approach Delay, s/veh		8.2	13.9		21.9	
Approach LOS		A	B		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	23.0	37.0	11.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	20.0	3.4	7.3	5.8
Green Ext Time (p_c), s	0.0	0.3	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

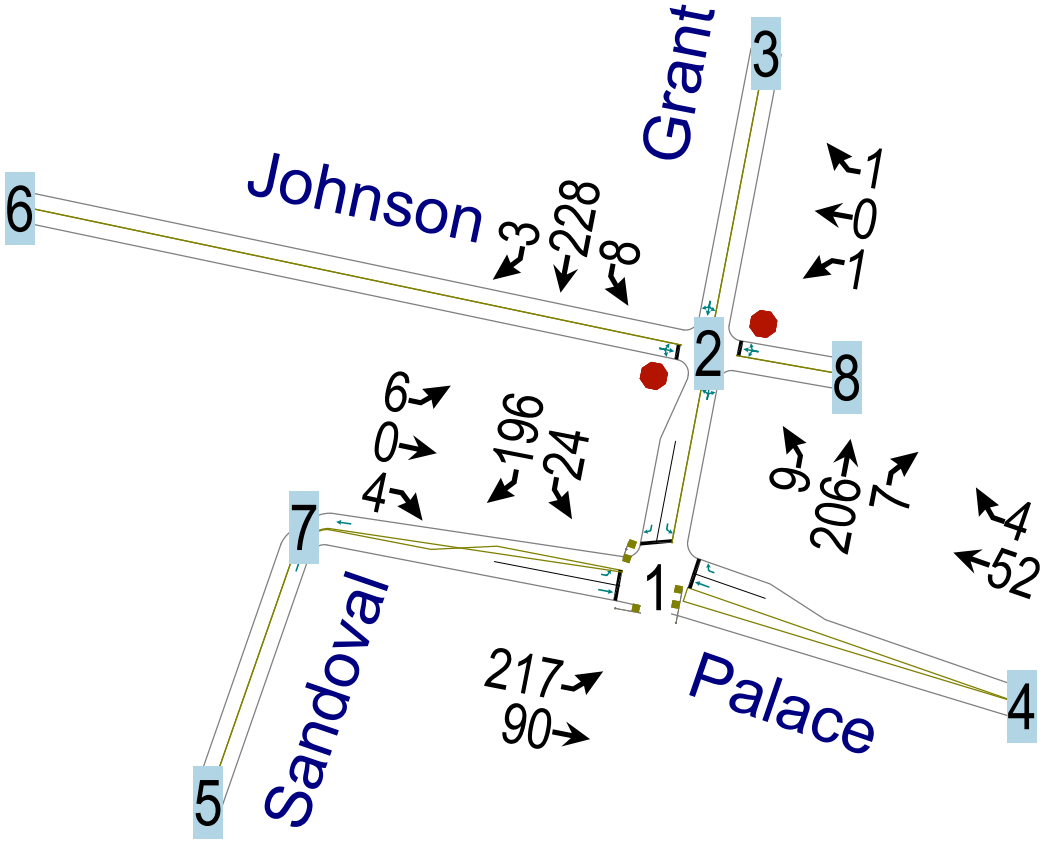
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	16	9	214	378	18
Future Vol, veh/h	23	16	9	214	378	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	20	11	268	473	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	775	485	496	0	-	0
Stage 1	485	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	366	582	1068	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	362	582	1068	-	-	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	612	-	-	-	-	-
Stage 2	759	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1068	-	428	-	-
HCM Lane V/C Ratio	0.011	-	0.114	-	-
HCM Control Delay (s)	8.4	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-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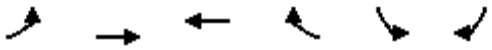


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	210	90	52	4	24	195
Future Volume (veh/h)	217	90	52	4	24	196
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	241	100	58	4	27	218
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	903	1098	737	550	289	257
Arrive On Green	0.13	0.64	0.43	0.43	0.21	0.21
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	241	100	58	4	27	218
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	3.6	1.1	1.0	0.1	0.8	8.7
Cycle Q Clear(g_c), s	3.6	1.1	1.0	0.1	0.8	8.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	903	1098	737	550	289	257
V/C Ratio(X)	0.27	0.09	0.08	0.01	0.09	0.85
Avail Cap(c_a), veh/h	910	1106	737	550	515	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.0	3.6	8.7	8.4	16.5	19.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.5	0.7	0.0	0.4	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.0	3.6	8.9	8.5	16.5	22.6
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h		341	62		245	
Approach Delay, s/veh		4.6	8.9		22.0	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	14.6	36.8	10.8	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	10.7	3.1	5.6	3.0
Green Ext Time (p_c), s	0.3	0.3	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

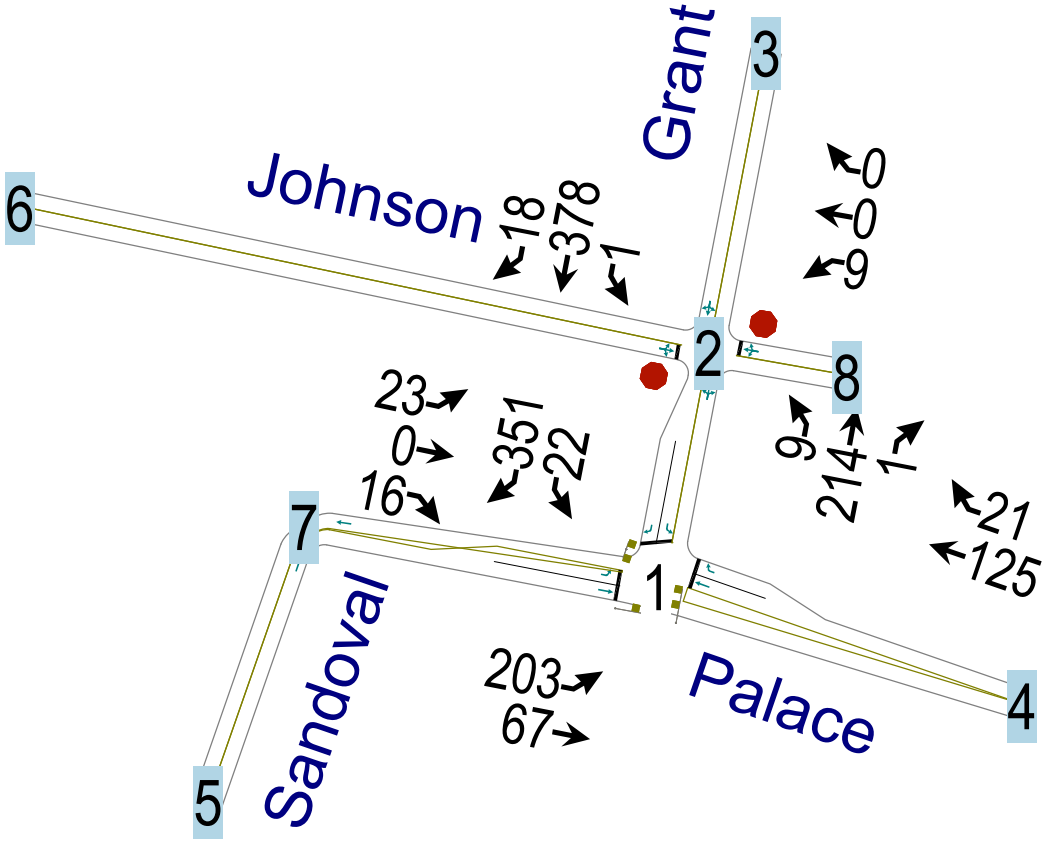
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	4	0	0	0	9	206	0	0	228	3
Future Vol, veh/h	6	0	4	1	0	1	9	206	7	8	228	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	4	1	0	1	10	229	8	9	253	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	527	530	255	528	527	233	256	0	0	237	0	0
Stage 1	273	273	-	253	253	-	-	-	-	-	-	-
Stage 2	254	257	-	275	274	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	462	455	784	461	456	806	1309	-	-	1330	-	-
Stage 1	733	684	-	751	698	-	-	-	-	-	-	-
Stage 2	750	695	-	731	683	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	456	447	784	452	448	806	1309	-	-	1330	-	-
Mov Cap-2 Maneuver	456	447	-	452	448	-	-	-	-	-	-	-
Stage 1	726	679	-	744	692	-	-	-	-	-	-	-
Stage 2	742	689	-	721	678	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	11.2	0.3	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1309	-	-	548	579	1330	-	-
HCM Lane V/C Ratio	0.008	-	-	0.02	0.004	0.007	-	-
HCM Control Delay (s)	7.8	0	-	11.7	11.2	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-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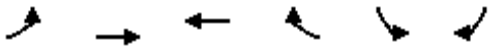


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	202	67	125	21	21	343
Future Volume (veh/h)	203	67	125	21	22	351
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	254	84	156	26	28	439
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	947	632	471	442	538
Arrive On Green	0.12	0.55	0.37	0.37	0.32	0.32
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	254	84	156	26	28	439
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	5.3	1.4	3.8	0.8	0.8	18.6
Cycle Q Clear(g_c), s	5.3	1.4	3.8	0.8	0.8	18.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	676	947	632	471	442	538
V/C Ratio(X)	0.38	0.09	0.25	0.06	0.06	0.82
Avail Cap(c_a), veh/h	676	947	632	471	442	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	6.4	13.2	12.3	14.3	14.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.2	0.0	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.8	2.7	1.3	0.5	18.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	6.4	14.2	12.5	14.3	23.8
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		338	182		467	
Approach Delay, s/veh		8.2	13.9		23.2	
Approach LOS		A	B		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	23.0	37.0	11.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	20.6	3.4	7.3	5.8
Green Ext Time (p_c), s	0.0	0.3	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

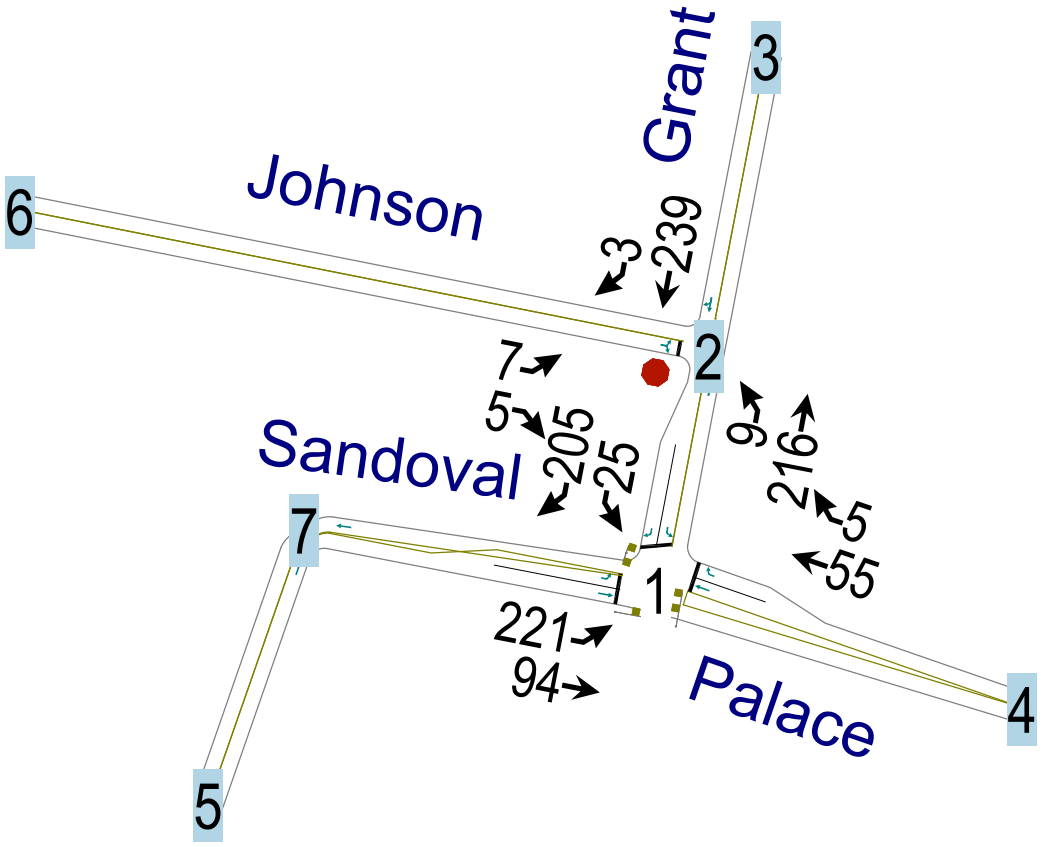
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	0	16	0	0	0	9	214	0	0	378	18
Future Vol, veh/h	23	0	16	9	0	0	9	214	1	1	378	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	0	20	11	0	0	11	268	1	1	473	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	778	778	485	788	789	269	496	0	0	269	0	0
Stage 1	487	487	-	291	291	-	-	-	-	-	-	-
Stage 2	291	291	-	497	498	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	314	328	582	309	323	770	1068	-	-	1295	-	-
Stage 1	562	550	-	717	672	-	-	-	-	-	-	-
Stage 2	717	672	-	555	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	311	324	582	295	319	770	1068	-	-	1295	-	-
Mov Cap-2 Maneuver	311	324	-	295	319	-	-	-	-	-	-	-
Stage 1	555	549	-	708	664	-	-	-	-	-	-	-
Stage 2	708	664	-	535	543	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	17.7	0.3	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1068	-	-	384	295	1295	-	-
HCM Lane V/C Ratio	0.011	-	-	0.127	0.038	0.001	-	-
HCM Control Delay (s)	8.4	0	-	15.7	17.7	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-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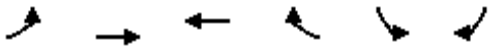


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	221	94	55	5	25	205
Future Volume (veh/h)	221	94	55	5	25	205
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	246	104	61	6	28	228
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	889	1087	729	544	300	267
Arrive On Green	0.13	0.63	0.42	0.42	0.22	0.22
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	246	104	61	6	28	228
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	3.7	1.2	1.1	0.1	0.8	9.2
Cycle Q Clear(g_c), s	3.7	1.2	1.1	0.1	0.8	9.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	889	1087	729	544	300	267
V/C Ratio(X)	0.28	0.10	0.08	0.01	0.09	0.85
Avail Cap(c_a), veh/h	896	1093	729	544	510	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	3.8	9.0	8.7	16.3	19.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.5	0.7	0.1	0.5	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.3	3.8	9.2	8.7	16.4	22.8
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h		350	67		256	
Approach Delay, s/veh		4.8	9.2		22.1	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	15.2	36.8	10.8	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	11.2	3.2	5.7	3.1
Green Ext Time (p_c), s	0.3	0.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

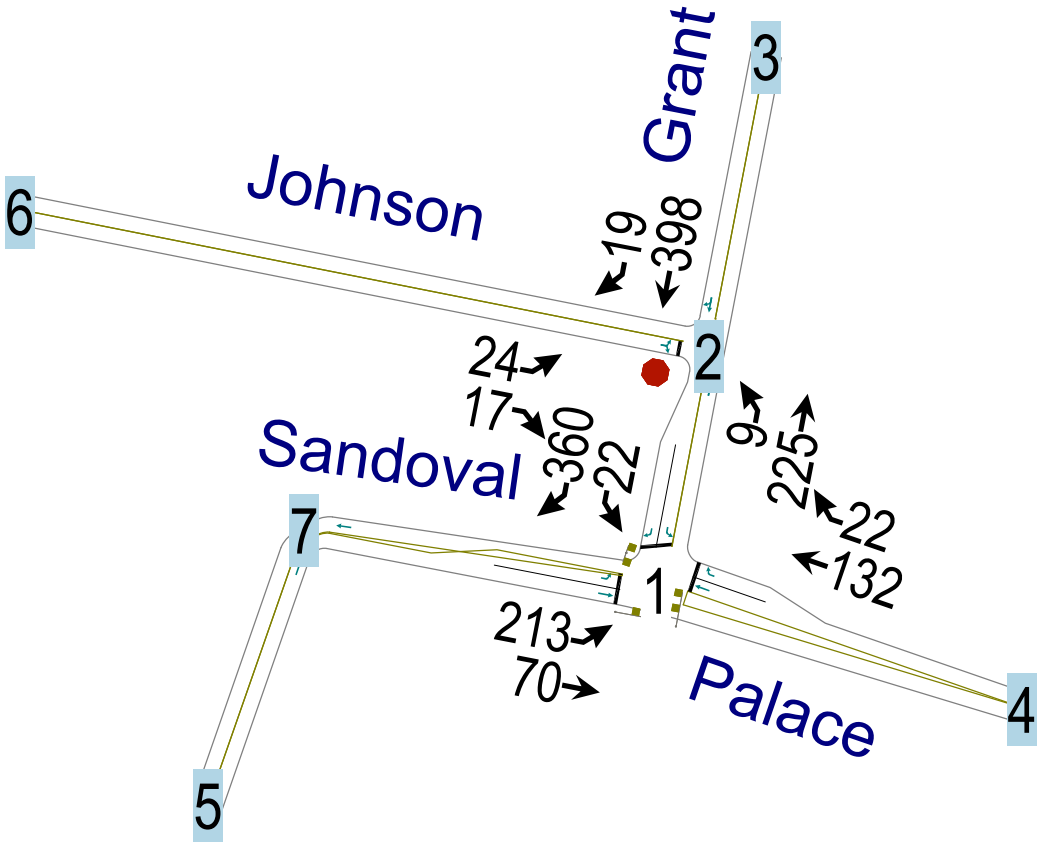
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	5	9	216	239	3
Future Vol, veh/h	7	5	9	216	239	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	6	10	240	266	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	528	268	269	0	-	0
Stage 1	268	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	511	771	1295	-	-	-
Stage 1	777	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	506	771	1295	-	-	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	591	-	-
HCM Lane V/C Ratio	0.008	-	0.023	-	-
HCM Control Delay (s)	7.8	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-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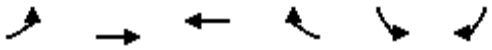


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	213	70	132	22	22	360
Future Volume (veh/h)	213	70	132	22	22	360
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	266	88	165	28	28	450
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	668	947	632	471	442	538
Arrive On Green	0.12	0.55	0.37	0.37	0.32	0.32
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	266	88	165	28	28	450
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	5.6	1.5	4.0	0.8	0.8	19.0
Cycle Q Clear(g_c), s	5.6	1.5	4.0	0.8	0.8	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	668	947	632	471	442	538
V/C Ratio(X)	0.40	0.09	0.26	0.06	0.06	0.84
Avail Cap(c_a), veh/h	668	947	632	471	442	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	6.4	13.3	12.3	14.3	15.1
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	0.8	2.9	1.4	0.5	19.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	6.4	14.3	12.5	14.3	25.6
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		354	193		478	
Approach Delay, s/veh		8.3	14.1		25.0	
Approach LOS		A	B		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	23.0	37.0	11.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	21.0	3.5	7.6	6.0
Green Ext Time (p_c), s	0.0	0.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

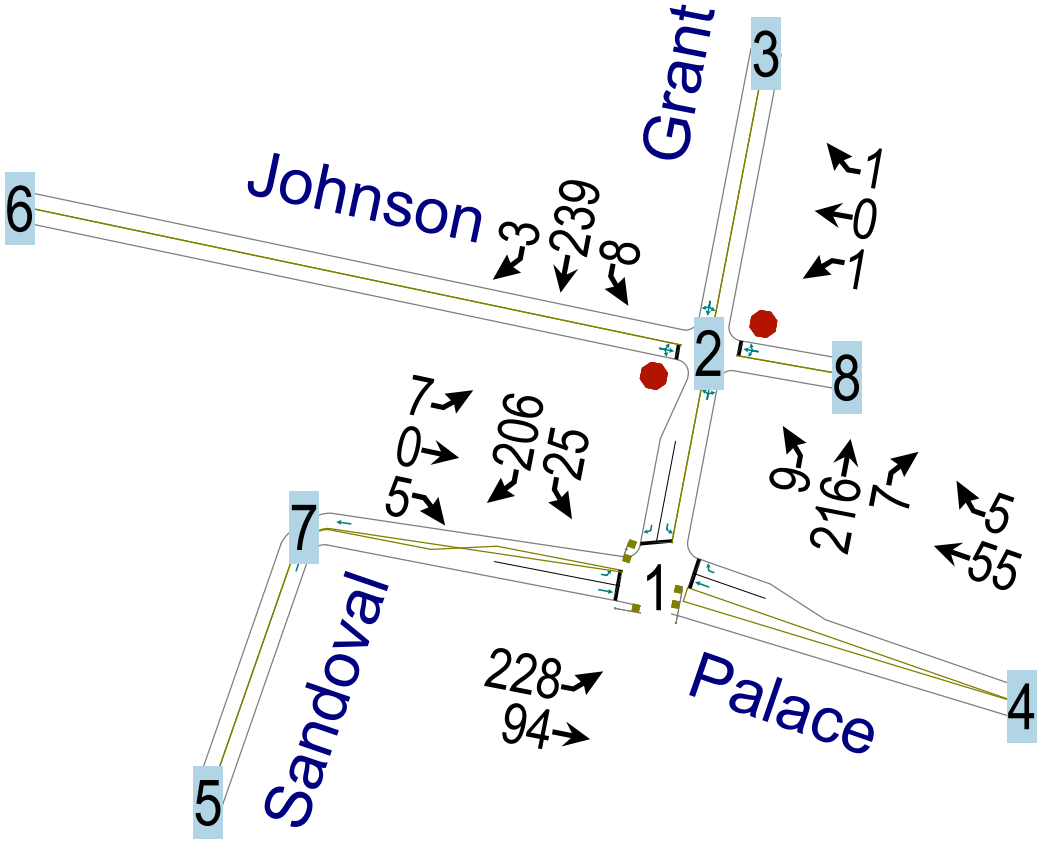
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	17	9	225	398	19
Future Vol, veh/h	24	17	9	225	398	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	21	11	281	498	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	813	510	522	0	-	0
Stage 1	510	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	348	563	1044	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	344	563	1044	-	-	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1044	-	410	-	-
HCM Lane V/C Ratio	0.011	-	0.125	-	-
HCM Control Delay (s)	8.5	0	15	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-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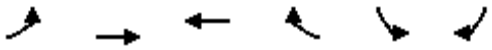


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	221	94	55	5	25	205
Future Volume (veh/h)	228	94	55	5	25	206
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	253	104	61	6	28	229
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	889	1086	728	543	301	268
Arrive On Green	0.13	0.63	0.42	0.42	0.22	0.22
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	253	104	61	6	28	229
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	3.9	1.2	1.1	0.1	0.8	9.2
Cycle Q Clear(g_c), s	3.9	1.2	1.1	0.1	0.8	9.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	889	1086	728	543	301	268
V/C Ratio(X)	0.28	0.10	0.08	0.01	0.09	0.85
Avail Cap(c_a), veh/h	894	1092	728	543	509	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	3.8	9.0	8.7	16.3	19.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.5	0.7	0.1	0.5	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.3	3.8	9.2	8.8	16.4	23.0
LnGrp LOS	A	A	A	A	B	C
Approach Vol, veh/h		357	67		257	
Approach Delay, s/veh		4.9	9.2		22.3	
Approach LOS		A	A		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	15.3	36.8	10.8	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	11.2	3.2	5.9	3.1
Green Ext Time (p_c), s	0.3	0.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

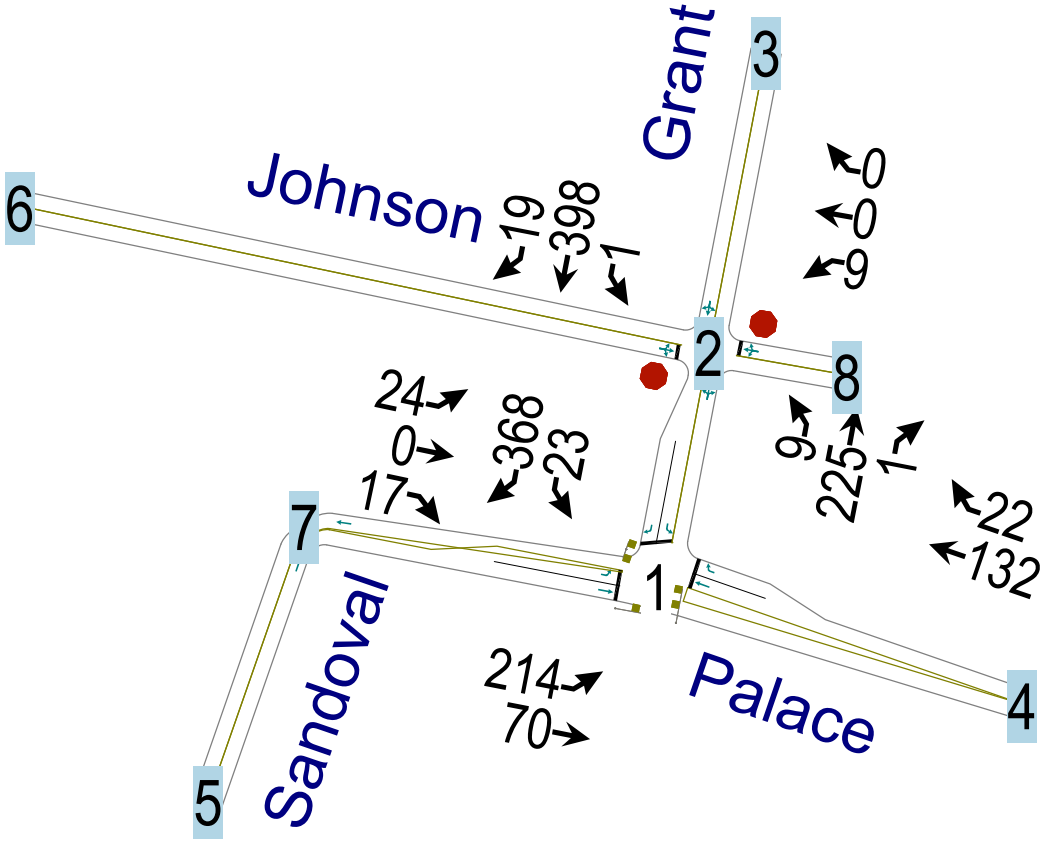
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	5	0	0	0	9	216	0	0	239	3
Future Vol, veh/h	7	0	5	1	0	1	9	216	7	8	239	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	6	1	0	1	10	240	8	9	266	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	551	554	268	553	551	244	269	0	0	248	0	0
Stage 1	286	286	-	264	264	-	-	-	-	-	-	-
Stage 2	265	268	-	289	287	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	445	440	771	444	442	795	1295	-	-	1318	-	-
Stage 1	721	675	-	741	690	-	-	-	-	-	-	-
Stage 2	740	687	-	719	674	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	439	433	771	435	434	795	1295	-	-	1318	-	-
Mov Cap-2 Maneuver	439	433	-	435	434	-	-	-	-	-	-	-
Stage 1	715	670	-	734	684	-	-	-	-	-	-	-
Stage 2	732	681	-	708	669	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11.4	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1295	-	-	535	562	1318	-	-
HCM Lane V/C Ratio	0.008	-	-	0.025	0.004	0.007	-	-
HCM Control Delay (s)	7.8	0	-	11.9	11.4	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-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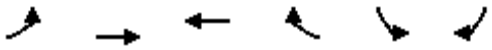


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	213	70	132	22	22	360
Future Volume (veh/h)	214	70	132	22	23	368
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	0.88	0.85	0.85
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	268	88	165	28	29	460
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	668	947	632	471	442	538
Arrive On Green	0.12	0.55	0.37	0.37	0.32	0.32
Sat Flow, veh/h	1641	1723	1723	1285	1395	1241
Grp Volume(v), veh/h	268	88	165	28	29	460
Grp Sat Flow(s),veh/h/ln	1641	1723	1723	1285	1395	1241
Q Serve(g_s), s	5.7	1.5	4.0	0.8	0.9	19.0
Cycle Q Clear(g_c), s	5.7	1.5	4.0	0.8	0.9	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	668	947	632	471	442	538
V/C Ratio(X)	0.40	0.09	0.26	0.06	0.07	0.86
Avail Cap(c_a), veh/h	668	947	632	471	442	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	6.4	13.3	12.3	14.3	15.3
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	12.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	0.8	2.9	1.4	0.5	19.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	6.4	14.3	12.5	14.3	27.5
LnGrp LOS	A	A	B	B	B	C
Approach Vol, veh/h		356	193		489	
Approach Delay, s/veh		8.3	14.1		26.8	
Approach LOS		A	B		C	

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	23.0	37.0	11.0	26.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	19.0	33.0	7.0	22.0
Max Q Clear Time (g_c+I1), s	21.0	3.5	7.7	6.0
Green Ext Time (p_c), s	0.0	0.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	0	17	0	0	0	9	225	0	0	398	19
Future Vol, veh/h	24	0	17	9	0	0	9	225	1	1	398	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	0	21	11	0	0	11	281	1	1	498	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	816	816	510	827	828	282	522	0	0	282	0	0
Stage 1	512	512	-	304	304	-	-	-	-	-	-	-
Stage 2	304	304	-	523	524	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	296	311	563	291	306	757	1044	-	-	1280	-	-
Stage 1	545	536	-	705	663	-	-	-	-	-	-	-
Stage 2	705	663	-	537	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	307	563	277	302	757	1044	-	-	1280	-	-
Mov Cap-2 Maneuver	293	307	-	277	302	-	-	-	-	-	-	-
Stage 1	538	535	-	697	655	-	-	-	-	-	-	-
Stage 2	697	655	-	516	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	18.5	0.3	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1044	-	-	366	277	1280	-	-
HCM Lane V/C Ratio	0.011	-	-	0.14	0.041	0.001	-	-
HCM Control Delay (s)	8.5	0	-	16.4	18.5	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0	-	-

APPENDIX E
Crash Data

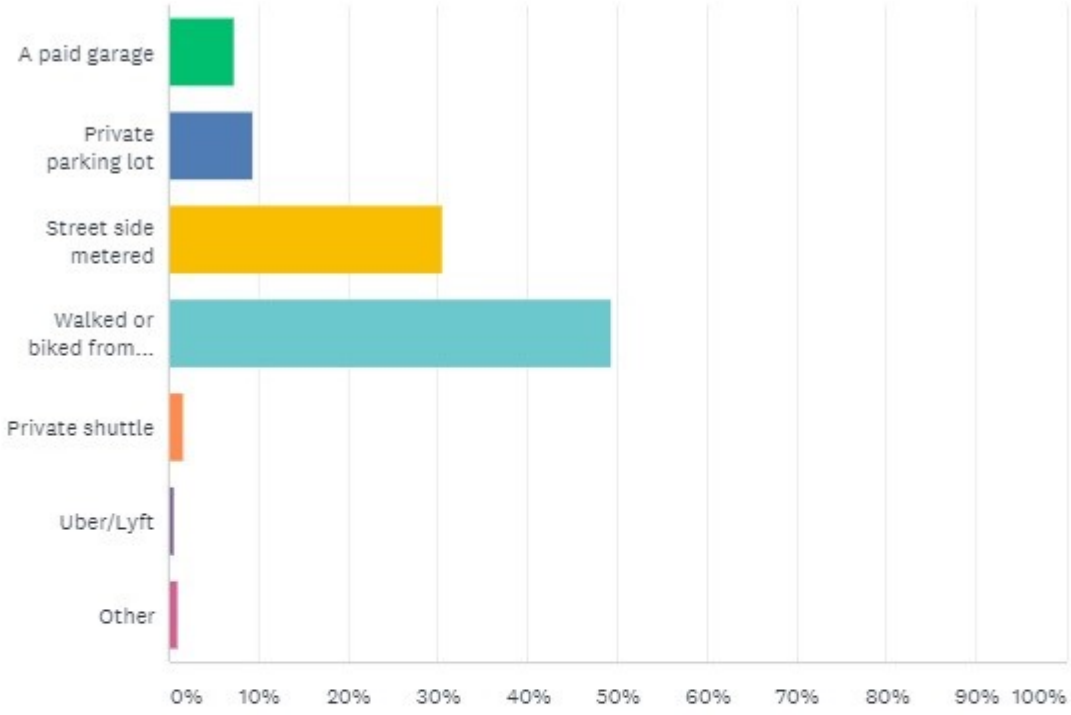
CRASH DATE	TIME OF CRASH	PRIMARY STREET	SECONDARY STREET	LANDMARK	CRASH DIRECTION	NUMBER OF PEOPLE KILLED IN CRASH	NUMBER OF VEHICLES, BICYCLES, AND PEDESTRIANS INVOLVED	NUMBER OF PEOPLE IN MOTOR VEHICLES	NUMBER OF PEOPLE NOT IN MOTOR VEHICLES	CRASH SEVERITY	CRASH CLASSIFICATION	CRASH ANALYSIS	HIGHEST CONTRIBUTING FACTOR TO CRASH	WEATHER	LIGHTING	ALCOHOL INVOLVEMENT	DRUG INVOLVEMENT	PEDESTRIAN INVOLVEMENT	PEDALCYCLE INVOLVEMENT
8/14/2017	10:05	GRANT AVE	102 GRANT AVENUE		N	0	2	1	1	Property Damage Only Crash	Other Vehicle	Other Vehicle - One Vehicle/Backing From Driveway Access	Improper Backing	Clear	Daylight	Not Involved	Not Involved	Not Involved	Not Involved
11/10/2017	12:05	LINCOLN AVE			S	0	1	1	0	Property Damage Only Crash	Other (Object)	Invalid Code	Improper Backing	Clear	Daylight	Not Involved	Not Involved	Not Involved	Not Involved
8/3/2018	12:13	LINCOLN AVE		WEST MARCY STREET	S	0	1	1	0	Property Damage Only Crash	Other Vehicle	Other Vehicle - From Opposite Direction	None	Clear	Daylight	Not Involved	Not Involved	Not Involved	Not Involved
10/3/2018	17:05	GRANT AVE		PALACE AVE	N	0	2	3	0	Property Damage Only Crash	Other Vehicle	Other Vehicle - From Same Direction/Rear End Collision	Following Too Closely	Clear	Daylight	Not Involved	Not Involved	Not Involved	Not Involved
10/12/2018	9:51	LINCOLN AVE		MARCY ST	W	0	2	2	0	Property Damage Only Crash	Other Vehicle	Other Vehicle - One Vehicle/Back From Parked Position	Improper Backing	Clear	Daylight	Not Involved	Not Involved	Not Involved	Not Involved
6/7/2019	0:53	GRANT AVE			N	0	1	2	0	Property Damage Only Crash	Fixed Object	Fixed Object - Tree	Alcohol/Drug Involved	Clear	Dark-Lighted	Involved	Not Involved	Not Involved	Not Involved

APPENDIX F
Parking Generation

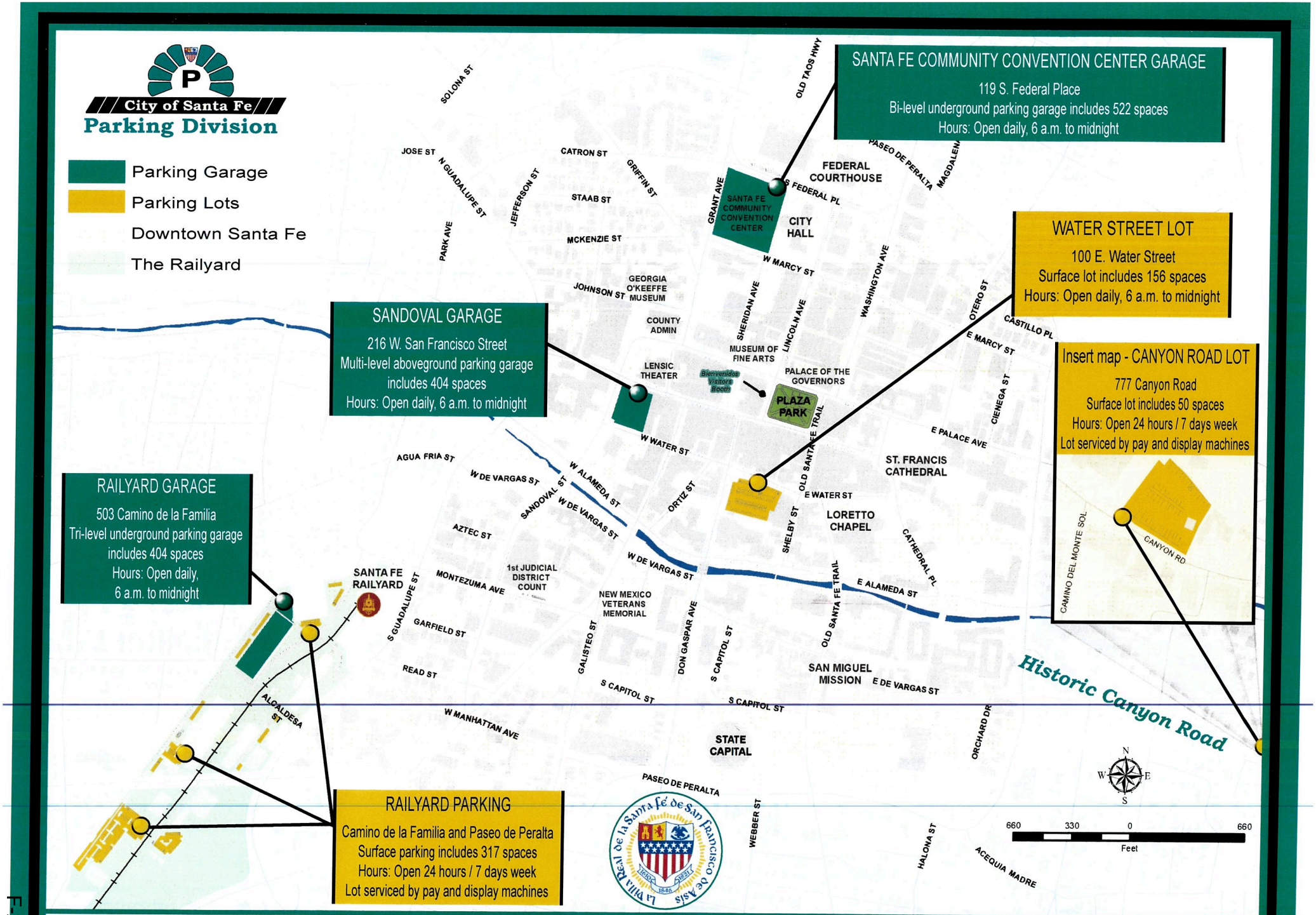
Q4

How did you arrive to the museum?

Answered: 180 Skipped: 1

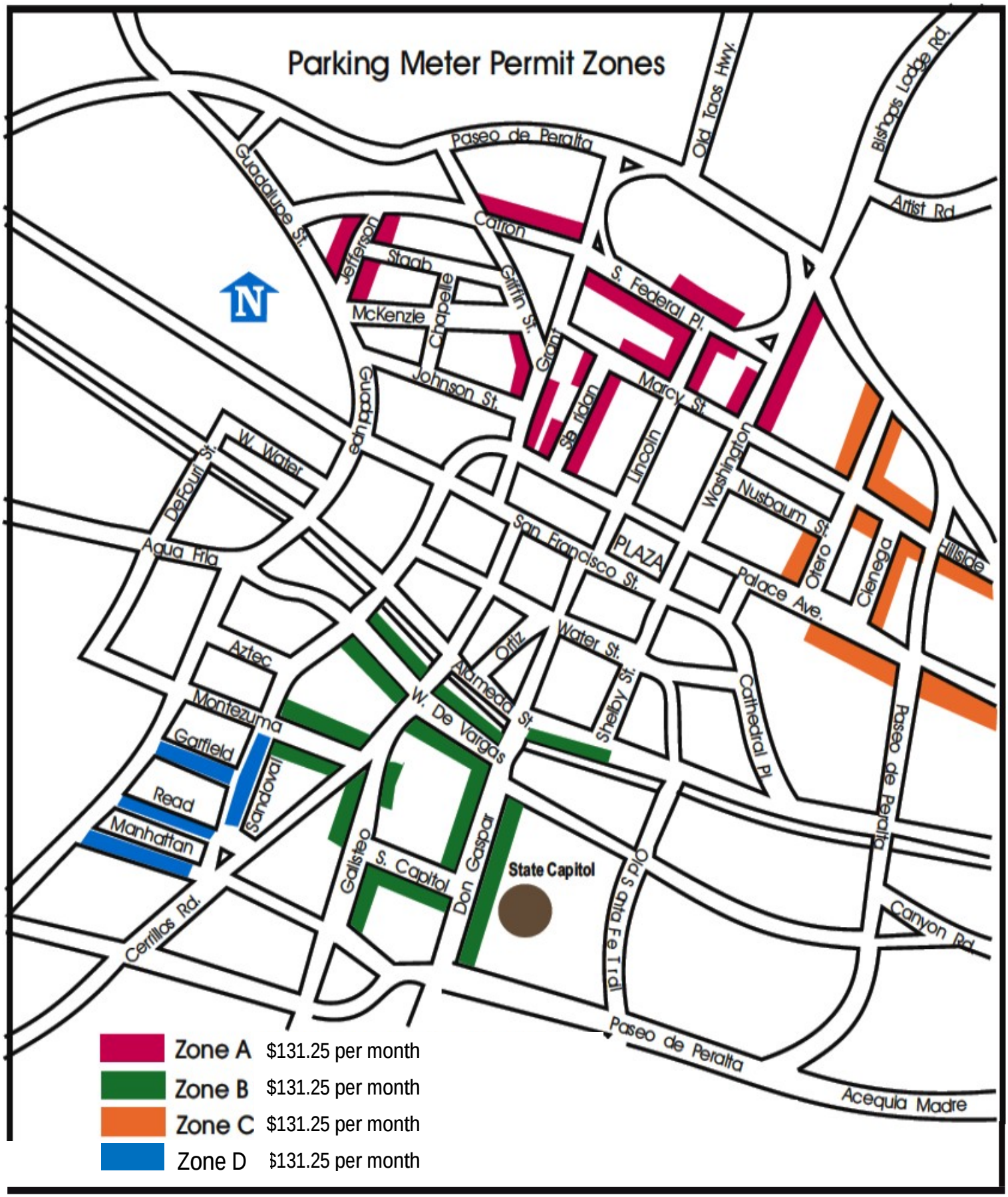


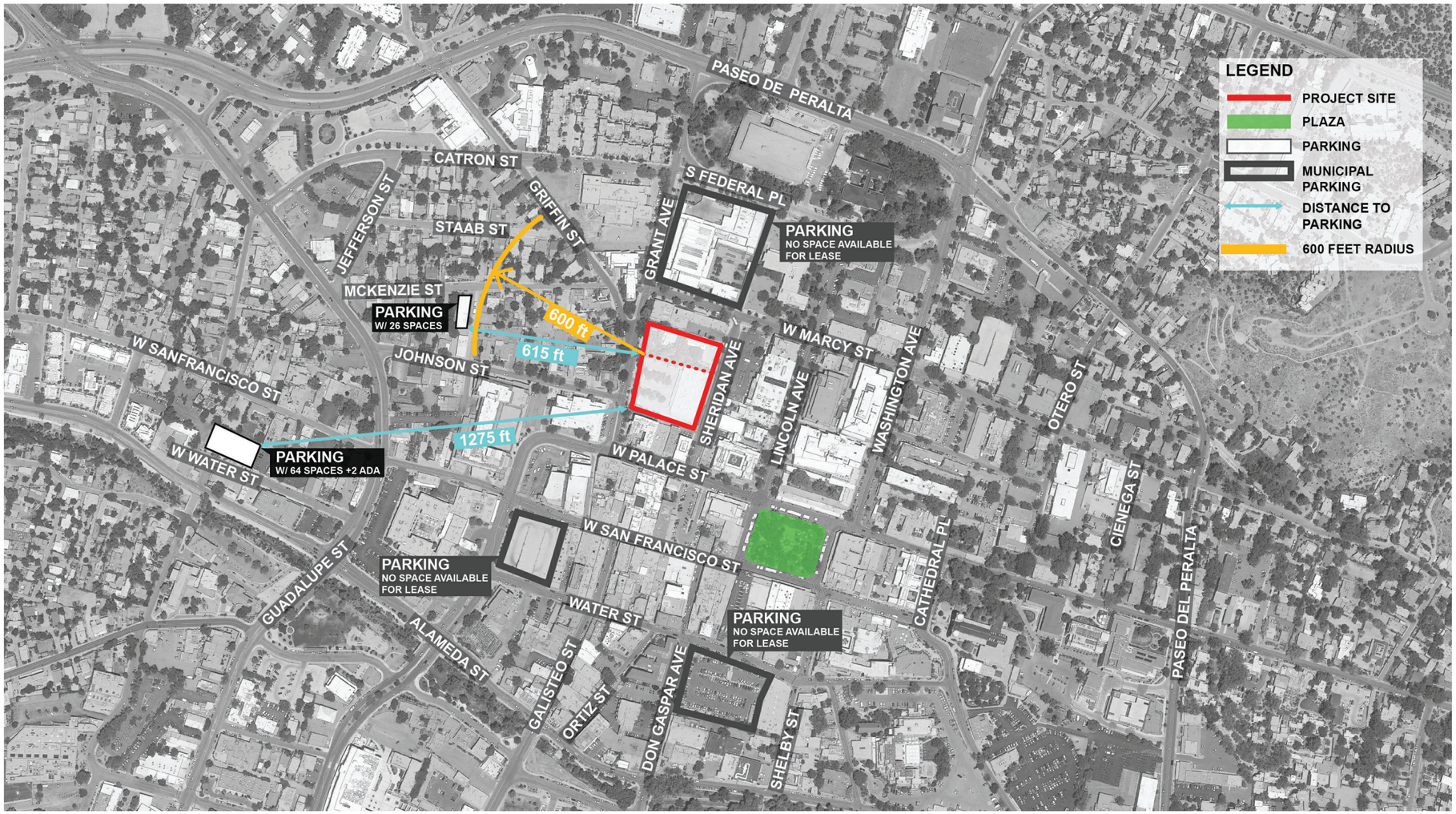
ANSWER CHOICES	RESPONSES	
A paid garage	7.22%	13
Private parking lot	9.44%	17
Street side metered	30.56%	55
Walked or biked from hotel/home	49.44%	89
Private shuttle	1.67%	3
Uber/Lyft	0.56%	1
Other	1.11%	2
TOTAL		180



The Parking Division would like to make your parking experience in Santa Fe a pleasurable one. Please contact us to find information on our parking services and accommodations.
•ADA Parking Accommodations •Parking Lots and Garages •Special Event Parking •Parking Meters •Motorcycle Parking •Parking Solutions (505) 955-6581 www.santafenm.gov/parking

City of Santa Fe Parking Division





1 PARKING
1" = 200'-0"

N

NO.	DATE	SUBMISSION

EXHIBITS:

Thinc™
110 Wall Street, 2nd Floor
New York, NY 1005
T: 212.741.3844
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436 W San Francisco Street,
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T: 505.982.5340

ARCHITECT:
GLUCKMAN TANG
250 Hudson Street
New York NY 10013
Tel : 212 929 0100

GEORGIA O'KEEFFE MUSEUM

SANTA FE, NM

PROJECT NUMBER : 17008

DEVELOPENT PLAN
PARKING

DATE : 06/15/21
SCALE : AS NOTED
DRAWN : Author

DP060

KEYED NOTES:

1 EXISTING STONE WALL AND STEPS TO REMAIN

2 EXISTING WALL TO REMAIN

3 DEMOLISH WALL

4 EXISTING COYOTE FENCE AND GATE TO REMAIN

5 PEDESTRIAN EASEMENT FOR VANESSIE ONLY

6 EXISTING LIGHT POLE TO REMAIN

7 EXISTING WALL AND PILASTERS TO REMAIN

8 REPAVE EXISTING LOT - REMOVE EXISTING 2" TO 3" LAYER - REPAVE WITH 3" ASPHALT. RESTRIPE AS SHOWN WITH 4" WHITE REFLECTIVE TRAFFIC PAINT.

9 PAVE EXISTING GRAVEL LOT WITH 3" ASPHALT - RESTRIPE AS SHOWN

10 REMOVE REMOVE EXISTING FENCING AND GATES

11 EXISTING POLE LIGHT TO BE REMOVED

12 NEW POLE LIGHT - SEE DETAIL

13 SAWCUT AND REMOVE PORTION OF CONCRETE RAMP UP TO 4' FROM FENCE LINE

14 PARKING PAY STATION, WALK-UP PAY-BY-SPACE "MINI PAY BOXX" SMART PARKING METER BY PARKING BOXX WITH 4G MODEM, 2D SCANNER, P-123 PAY-BY-PHONE AND VALIDATION

15 DEMOLISH STORAGE SHED

SCALE: 1/16" = 1'-0"

0 16 32 48 64

1 Parking Plan
1/16" = 1'-0"

W San Francisco Parking Plan\436-442-492 Composite Parking Plan 6.rvt

GENERAL NOTE:

NO.	DATE	SUBMISSION

EXHIBITS:

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ARCHITECT:
GLUCKMAN TANG
250 Hudson Street
New York NY 10013
Tel : 212 929 0100

GEORGIA O'KEEFFE MUSEUM

SANTA FE, NM

PROJECT NUMBER : 17008

PROPOSED PARKING
W SANFRANCISCO & W WATER STREET PARKING

DATE : 07/19/21
SCALE : AS NOTED
DRAWN : Author

DP061

F-5

Attachment G

Hazardous Materials Support Information

Phase I Environmental Site Assessment

Georgia O'Keeffe Museum Expansion

123, 135, and 155 Grant Avenue and

200 West Marcy Street

Santa Fe, Santa Fe County, NM

May 22, 2020

Terracon Project No. 66197226

Prepared for:
The Georgia O'Keeffe Museum
Santa Fe, New Mexico

Prepared by:
Terracon Consultants, Inc.
Albuquerque, New Mexico

May 22, 2020

The Georgia O'Keeffe Museum
135 Grant Avenue
Santa Fe, NM 87501

Attn: Mr. Cody Hartley
P: (505) 946-1000
E: chartley@okeeffemuseum.org

Re: Phase I Environmental Site Assessment
Georgia O'Keeffe Museum Expansion
123, 135, and 155 Grant Avenue and
200 West Marcy Street
Santa Fe, Santa Fe County, New Mexico
Terracon Project No. 66197226

Dear Mr. Hartley:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal No. P66197226 dated April 6, 2020.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

Flynn A. Holland
Project Manager

David M. Matson, CHMM
Principal

Attachments

TABLE OF CONTENTS

APPENDICES

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with Terracon Proposal No. P66197226 dated April 6, 2020, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of David Matson, Environmental Professional. Flynn Holland performed the site reconnaissance on May 7, 2020.

Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Site Description and Use

The site comprises three parcel properties located at 123 Grant Avenue (Santa Fe County Assessor Parcel Number (APN) 12365440), 135 Grant Avenue (APN 10248320), and 155 Grant Avenue / 200 West Marcy Street (APN 18100105) totaling approximately 2.5 acres of land in Santa Fe, Santa Fe County, New Mexico. The property at 123 Grant Avenue is developed with a 19,170-square-foot (SF) office-warehouse (identified as 'Grant Street Offices' or 'GSO building') occupied by Georgia O'Keeffe Museum Annex and Prima Title; 135 Grant Avenue is developed with a 9,470-SF multi-use building (identified as the Bergere House) occupied by the Georgia O'Keeffe Research Center; and, 155 Grant Avenue / 200 West Marcy Street is developed with a 22,324-SF office building (identified as 'Marcy Street Offices' or 'MSO building') occupied by multiple law firms.

Historical Information

Based on a review of the available historical information, the site was developed with three residences sometime prior to 1902. One of the existing on-site buildings, known as the Bergere House, was initially developed in the 1880's. Between 1902 to 1930, a fourth residence was added to the site. Between 1930 to 1948, a warehouse was developed in the southern portion of the site and part of the MSO Building was constructed in the northern portion of the site and occupied by the Mechanical & Shop Department of Santa Fe Mid High School. The MSO Building was further expanded into its existing configuration in 1952. By 1970, the previous on-site structures had been razed with the exception of the existing Bergere House and MSO Building, and the GSO Building was constructed and occupied by a Safeway grocery store in the southern portion of the site. By the 1980's, the MSO Building and Bergere House began being used as commercial offices. By 1995, the GSO Building ceased use as a grocery store and began to be occupied by art galleries and office space.

The north-adjoining property was developed with multiple residences and stores sometime prior to 1902. By 1908, the property began being developed as a high school that was expanded over the years. By 1948, the residences were no longer apparent, and the school had expanded significantly. The buildings continued to be expanded between 1948 and 1996 and was redeveloped into its existing configuration between 1996 and 2009. Sometime prior to the mid-1990's, the building ceased use as a school and became a city convention center and is used as such through the present.

The east-adjoining properties were developed with residences sometime prior to 1883. Between 1902 and 1930, additional residences and shops were added to the properties. By 1948, the previous residences had been razed and replaced with additional shops. By 1951, the existing multi-tenant building was developed and occupied by Sears Department Stores, and by 1955 the building south of the Sears Department Store began being used as the New Mexico Museum of Art. A tire service shop was constructed in the existing paved parking area and operated from approximately 1970 until it was razed sometime between 1987 and 1991. Sears ceased to occupy the building east of the northern and central portions of the site and began being used as multi-tenant commercial space sometime in the early 1980's through the present.

The south-adjoining properties comprised undeveloped land prior to 1890 and were developed with a kindergarten between 1890 and 1898. Between 1898 and 1902 the properties were developed with a steam laundry operation and the kindergarten was replaced with a steam laundry operation. By 1913, the previous buildings were razed, and a printing and publishing operation was developed. By 1930, two shops and a filling station were added to the properties. A vehicle lubrication shop and used auto sales operation was developed on the properties between 1930 and 1948, and no longer apparent by 1970. The filling station was razed by 1987 and replaced with the existing retail building, and by 1996 the remaining previous shops were re-developed with the existing retail buildings.

The west-adjoining properties were developed with residences prior to 1883. Sometime prior to 1902, the west-adjoining Presbyterian church was constructed. Between 1930 and 2009, the Presbyterian church was remodeled and expanded multiple times. Residence buildings west of the site appeared to be largely unchanged over the years, although they appear to begin being occupied predominantly as office spaces by approximately the late 1950's.

Recognized environmental conditions (RECs) were not identified during the historical review.

Records Review

Based on a review of the available regulatory records, the site and adjoining properties were not identified as listed facilities. The site is within the general vicinity of a petroleum hydrocarbon and tetrachloroethylene (PCE) plume that affects parts of the downtown area of Santa Fe. Based on Terracon's review, the PCE plume does not appear to extend to the site and is not

considered a REC at this time based on distance and hydrogeologic gradient. Findings are discussed further in the report text. RECs were not identified during the regulatory review.

Site Reconnaissance

During the site reconnaissance, a natural gas-fired generator, two elevator mechanical rooms, multiple interior floor drains, three pad-mounted transformers, and a dumpster were observed. Indications of RECs were not identified.

Adjoining Properties

The site is adjoined by: West Marcy Street followed by the Santa Fe Convention Center to the north; Sheridan Avenue followed by multiple retail, art gallery, and museum tenants of non-environmental concern to the east; El Flaminco Restaurant, Wow! Art Gallery, Patina Gallery, Sorrel Sky Gallery, and Manitou Galleries to the south; and, Grant Avenue followed by Andrew Smith Gallery, a single-family residence, and First Presbyterian Church to the west. Indications of RECs were not identified with the adjoining properties.

Significant Data Gaps

Significant data gaps were not identified.

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 at 123, 135, and 155 Grant Avenue and 200 Marcy Street, Santa Fe, Santa Fe County, New Mexico, the site. Recognized Environmental Conditions (RECs) or Controlled RECs (CRECs) were not identified in connection with the site.

Recommendations

Based on the scope of services, limitations, and conclusions of this assessment, Terracon did not identify RECs or CRECs. As such, no additional investigation appears warranted at this time.

1.0 INTRODUCTION

1.1 Site Description

Site Name	Georgia O'Keeffe Museum Expansion
Site Location/Address	123, 135, and 155 Grant Avenue and 200 Marcy Street, Santa Fe, Santa Fe County, New Mexico
Land Area	Approximately 2.5 acres
Site Improvements	An approximately 18,600-SF office-warehouse, an approximately 7,500-SF multi-use building, an approximately 19,000-SF office building, paved parking areas, landscaping, and utilities.
Anticipated Future Site Use	Continued use as current development/use
Purpose of the ESA	Environmental due diligence prior to acquisition/donation

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

1.2 Scope of Services

This Phase I ESA was performed in accordance with Terracon Proposal No. P66197226 dated April 6, 2020, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

ASTM E1527-13 contains a definition of "migrate/migration," which refers to "the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." By including this explicit reference to migration in ASTM E1527-13, the Standard clarifies that the potential for vapor migration should be addressed as part of a Phase I ESA. This Phase I ESA has considered vapor migration in evaluation of RECs associated with the site.

1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e. evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited by the following:

- At the issuance of this report, Terracon has not received a response from the City of Santa Fe. However, based on historical and regulatory information reviewed by Terracon, this data gap is not considered significant.
- Terracon was unable to observe the base of elevator pits located in the MSO Building and Bergere House. However, based on maintenance documents

observed by Terracon indicating regular inspection and maintenance, the identified data gap is not considered significant.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of The Georgia O'Keeffe Museum. Use or reliance by any other party is prohibited without the written authorization of The Georgia O'Keeffe Museum and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-13.

1.6 Client Provided Information

Prior to the site visit, Mr. Daniel Hernandez, the client's representative, was asked to provide the following user questionnaire information as described in ASTM E1527-13 Section 6.

Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.	X		
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.	X		
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.	X		
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.	X		
Obvious Indicators of Contamination at the site.	X		

The client did not provide the requested User's information as of the issuance date of the report, which represents a data gap. Terracon assumes the client is evaluating the questionnaire information outside the context of Terracon's Phase I ESA scope of work and report.

2.0 PHYSICAL SETTING

Physical Setting Information		Source
Topography		
Site Elevation	Approximately 6,990 feet above sea level	USGS Topographic Map, Santa Fe, New Mexico, published in 2002
Topographic Gradient	Gently sloping towards the west-southwest	
Closest Surface Water	Santa Fe River located approximately 1,100 feet south-southwest	
Soil Characteristics		
Soil Type	Urban land (207)	Santa Fe Area, New Mexico, USDA, Soil Conservation Service Web Soil Survey issued 2014
Description	Urban land consists of areas covered by buildings, parking lots, storage yards, roads, streets, sidewalks, and railroad grades. Urban land is hard and impermeable and surface runoff is very rapid.	
Geology/Hydrogeology		
Formation	Quaternary Piedmont Alluvial Deposits (Qp) and Older Quaternary Alluvium (Qoa)	Geological Map of New Mexico, NM Bureau of Geology and Mineral Resources, Scholle, 2003

Physical Setting Information		Source
Description	Quaternary Piedmont Alluvial Deposits includes deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. Older Quaternary Alluvium includes scattered lacustrine, playa and alluvial deposits consisting of gravels, sands, silts and clays.	
Estimated Depth to First Occurrence of Groundwater	Approximately 35 feet below ground surface (bgs)	Targeted Brownfields Assessment Phase II ESA, Santa Fe River Corridor TBA, ALL Consulting 2015
*Hydrogeologic Gradient	Generally towards the southwest	

* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10 to 15 year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs and Sanborn maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from GeoSearch to evaluate past uses and relevant characteristics of the site and surrounding properties. GeoSearch provided Sanborn maps as summarized below.

- Topographic map: Santa Fe, New Mexico, published in 1952 from **1951** aerial photographs; published in 1961 from **1960** aerial photographs; published in 1961 and photorevised in 1977 from **1960** aerial photographs; published in 1952 and photorevised in 1993 from **1990** aerial photographs; published in 2002 from **1996** aerial photographs (1:24,000)
- Aerial photograph: GeoSearch, **1935**, **1948**, **1951, 1960, 1976**, **1982**, **1987**, **1991**, **1996**, **2009**, **2011**, **2014** and **2016** (1"=500')

- Aerial photograph: Google Earth Pro, **2017**
- Sanborn Fire Insurance Map(s): GeoSearch, **1883**, **1886**, **1890**, **1898**, **1902**, **1908**, **1913**, **1921**, **1930**, **1948**, and **1970** (1'=150')

Historical Maps and Aerial Photographs

Direction	Description
Site	Developed with a residence near the southern portion of the site, site labeled as part of a US Military Reservation, central and northern portions of the site not visible on Sanborn Maps (1883 – 1886); site not visible on Sanborn Maps (1890 – 1898); site developed with three residences including the existing Bergere House, no longer labeled as part of a US Military Reservation (1902); site developed with a fourth residence (1908 – 1930); two residences razed, developed with an additional residence and building labeled 'Furniture Warehouse' in the southern portion of the site and developed with a portion of the existing MSO Building in the northern portion of the site, with the labels 'Built 1942' and 'Mechanical & Shop Department of Santa Fe' (1948); MSO Building in the northern portion of the site expanded into its current configuration (1951 – 1960); previous structures razed with the exception of the MSO building in the northern portion of the site, the existing Bergere House in the central portion of the site; the existing GSO Building is apparent in the southern portion of the site with the label '1967'; the MSO building is labeled as Mechanical & Shop Department of Santa Fe Mid High School; paved parking areas developed (1970); no further changes apparent to site (1976 – 2017).
North	Northern properties not visible on Sanborn Maps (1883 – 1898); developed with multiple residences and vacant buildings (1902); one previous residence and vacant building removed, developed with Marcy Street; developed with a high school (1908); an additional residence developed, one of the previous residences re-developed into a high school; previous building labeled as high school now labeled as 'Grade School' (1913); high school building removed or expanded and labeled 'Santa Fe High School'; previous 'Grade School' building now labeled as 'Catron Grade School' (1921); schools further expanded, schools appear merged, use of the property for residences no longer apparent (1948 – 1951); portions of school buildings razed and expanded with additional buildings (1960 – 1996); portions of buildings razed and redeveloped into its existing configuration (2009 – 2017).
East	Developed with a residence east of the southern portion of the site; labeled as part of a US Military Reservation; only southern portion of east properties visible on Sanborn Maps (1883 – 1898); developed with an apparent driveway followed by three residences (1902); developed with two additional residences (1908); driveway developed into or re-labeled as Sheridan Street (1913 – 1921); developed with a carpenter's shop (1930); previous residences razed, developed with an additional shop and warehouse (1948); developed with the existing multi-tenant building (1951 – 1960); existing multi-tenant building is labeled as a 'Department Store' in the Sanborn Maps, a '**Tire Service**' shop is apparent east of the central portion of the site (1970 – 1987); Tire Service shop building no longer apparent (1991 – 2017).

Direction	Description
South	Property labeled as part of a US Military Reservation, property appears undeveloped (1883 – 1890); developed with a kindergarten south of the eastern portion of the site (1898) US Military Reservation designation no longer apparent on Sanborn Maps (1902); former kindergarten re-occupied by a steam laundry operation; roller skating rink developed (1908); previous buildings razed, developed with a building labeled '**The New Mexican Printing Co.**' (1913); previously mentioned building re-labeled as '**The Santa Fe New Mexico Publishing Corporation**' (1921); two additional shops developed and a **filling station** developed south of the western portion of the site (1930); two additional shops, a **vehicle lubrication** shop and a **used auto sales** operation developed near the **filling station** (1948 – 1960); used auto sales and vehicle lubrication operations no longer apparent, **filling station** remains; **printing operation** still apparent as an occupant south of the western portion of the site (1970 – 1982); previous filling station building razed and developed with the existing retail building (1987 – 1991); two previous shops removed and developed with the existing retail buildings (1996 – 2017).
West	Grant Avenue followed by residences west of the southern portions of the site; properties west of the central and northern portions of the site not visible in Sanborn Maps (1883 – 1898); Grant Avenue followed by residences and a Presbyterian church (1902 – 1930); Presbyterian church west of the northern portion of the site expanded (1948 – 1960); Presbyterian church further expanded; previous residence west of the central portion of the site converted into offices (1970 – 1996); Presbyterian church remodeled/expanded into its existing configuration (2009 – 2017).

A tire service shop was identified on the east-adjoining property in the 1970 – 1987 historical maps and historical aerial photographs. Based on the limited timeframe of occupancy, they type of operation, and absence of regulatory listings indicating a release associated with this facility, the historical tire service shop is not considered a REC in connection with the site.

A printing operation was identified as an occupant of the building on one of the south-adjoining properties in the 1913 – 1970 historical maps. Based on the type of operation, an absence of regulatory listings indicating a release associated with this facility, and down-gradient position of the south-adjoining properties relative to the site, the printing operation is not considered a REC in connection with the site.

A filling station was identified as an occupant of one of the south-adjoining properties in the 1930 – 1982 historical maps and aerial photographs. Additionally, a vehicle lubrication shop and used auto sales operation was identified on the same property from approximately 1948 – 1960. Based on the downgradient location of the historical facilities, absence of regulatory release records associated with the property, and the successful redevelopment of the property, the historical filling station, vehicle lubrication shop, and used auto sales operation is not considered a REC in connection with the site.

3.2 Historical City Directories

The Hudspeth, R.L. Polk & Co., and InfoUSA City Directories used in this study were made available through GeoSearch (selected years reviewed: 1928-1929, 1934-35, 1940, 1944, 1951, 1955, 1959, 1966, 1970, 1975, 1980, 1985, 1991, 1995, 2000, 2006, 2010, 2016, and 2019) and were reviewed at approximate five-year intervals, if readily available. Coverage was not available prior to 1928. The current street address for the site was identified as 123, 135, and 155 Grant Avenue, and 200 West Marcy Street.

Historical City Directories

Direction	Description
Site	**123 Grant Avenue**: No listings prior to 1944; Safeway Stores (1944-1985); X [Griffin Begins Ws] (1966-1991); Furr's (1991); Riva Yares Gallery [Galleries] (1995); Santa Fe Abstract Ltd [Titles] (1995-2000); Castillo Francisco R (2000); Pueblo Arts Corporation [Misc Rtl Strs] (2000); Quiet Title Co Llc [Title Companies] (2006-2010); Yares Dennis D (2006); Yares Riva (2010); Prima Title Llc (2016-2019); St Clair Suzy (2016). **125 Grant Avenue**: Martinez J A (1928/29-1940); Raizizun Y (1944); Alanquist Robt (1944); Raizizun Y [Naturopath] (1951); Martinez Benj L (1951); No Listing (1955); Dependable Cab Co (1959); No Listing (1966-2019) **135 Grant Avenue**: Bergere A M (1928/29-1940); Bergrere Anita (1944); Warren Nina Mrs (1944); Warren Otero N Mrs [Real Est] (1951); Warren Nina O Mrs (1955-1959); Bergere Anita (1966-1970); Kenney J J Mrs (1975); **B C O Incorporated Mgmnt Oil & Gas Properties** (1980-1985); No Listing (1991); **B C O Incorporated Management Oil & Gas Properties oil well Op** [**Oilwell Opr**] (1995); Zimmer Kaye F (2000); No Listing (2006-2016); Georgia O'keeffe Research Ctr (2019). **155 Grant Avenue**: No listings prior to 1985; La Fuente A Design Collaborative [Archt & Planning] (1985); No Listing (1991); Vacant (1995); Ludi Celia [Atty] (1995); Bagley Edward C (2000); Conway Ann M (2000-2006); Huffaker Gregory D Jr (2000); Huffaker & Conway Pc [Attys] (2000-2006); X [W Marcy St Ends] (2000); No Listing (2010-2019)
North	**201 Grant Avenue**: No listings prior to 1951; Santa Fe High School (1951-1955); No Listing (1959-2019). **201 West Marcy Street**: Street listings not available.

Direction	Description
East	**120 Sheridan Avenue**: No listings prior to 1995; New Mexico Statewide Programs (1995-2000); No Listing (2005); Museum Of New Mexico (2010); New Mexico Statewide Programs (2010); No Listing (2014); Museum Of New Mexico (2019); New Mexico Statewide Programs (2019); X [End Of Listing] (2019). **130 Lincoln Avenue**: No listings prior to 1963; Sears Roebuck & Co [Dept Store] (1963-1983); Allstate Ins Co (1963-1983); Vacant (1988); E & H Construction (1992); Talbots (1992-2010); Tapas-Papa-Frita (1992); Young Group The (1992); Ann Taylor (1995-2005); Cafe Escalera (1995-2000); Contemporary Craftsman (1995); Eddie Bauer Inc (1995-2000); Gardunos Of Santa Fe (1995-2000); Mati (1995); Kokin, Michael (2000); Mati Jewelers (2000); Sherwoods Spirit Of America (2000); Mati By Kabana (2005); Rivera, Susan A (2005); Blue Rain Gallery (2010-2014); J Crew (2010); Kokin, Michael (2010); Lincoln Place Ltd Partnership (2010); Morgan Stanley Smith Barney (2010); Adt Security Services (2014); C G Higgins Downtown (2014); Evoke Contemporary (2014); Jos A Bank (2014-2019); Lincoln Place (2014); 130 Lincoln (2019); Allen Glenn (2019); Bixby Tai (2019); Evoke Contemporary (2019); Fino Peggy Agt (2019); Garduno's Restaurants (2019); Gardunos Of Sante Fe (2019); Keller Williams Realty (2019); Living & Hiking In The Park (2019); Maribou Latour (2019); Santafehomehub.Com (2019); Team Invest (2019); True West Gallery (2019). **107 West Palace Avenue**: No listings prior to 1955; Museum Of Nm (Art Gallery) (1955-1959); Museum Of New Mexico (Fine Arts) (1966-1980); X [Sheridan Av Begins] (1975-1991); State Office Of Cultural Affairs [Museum Of Fine Arts] (1985); Vacant (1991); Museum Of New Mexico (1995); Crumpton William D (2000); New Mexico State Of Office Of Cultural Affairs [Govt Ofc] (2000); X [Sheridan St Begins] (2000-2010); Museum Of Fine Arts [Museums] (2006-2010); Museum Of New Mexico [Government Offices-State] (2006); X [Lincoln Ave Itns] (2010); Ihm Retreat Ctr (2016); New Mexico Museum Of Art (2016).

Direction	Description
South	**123 West Palace Avenue**: Santa Fe New Mexican Pub Corp (1928/29-1940); El Nuevo Mexicano (1934/35); Associated Press (1934/35); Capital Examiner (1940); Bishop Building (1944-1980); Bishop C A & Co [Ins] (1944-1980); Kirk S L [Contr] (1944); Contractors Licensing Board (1944); Hutchison Abstract Co (Inc) (1944-1955); Rooms (1951-1980); Neal W C [Acct] (1951-1959); Equitable Life Assurance Soc Of U S (1951-1975); Lucas David M [Acct] (1951); Neel Norman M [Lwyr] (1951); Montoya Saml Z [Lwyr] (1951); X [Street Continued] (1951-1980); Avery-Bowman Co (1955-1959); Commercial Standard Ins Co Of Ft Worth (1955-1959); Vacant (1955); Santa Fe Holding Co [Real Est] (1955); Koch Sumner S [Lwyr] (1955-1959); Piper Edwin E Jr [Lwyr] (1959); Previews Inc (Br Ofc) Natl Real Est Listings (1966-1970); Meade E Clayton Business Consultant (1966-1975); Avery-Bowman Insurance Agency (1966); Vacant (1966-1970); Pattison H H [Real Est] (1970-1975); Arrison John B [Architect] (1970); Graham Geo A Jr [Lwyr] (1970); Millington-Lugton Architects Inc (1970); State Planning Office (1975); Adobe Realty (1975); S F Chamber Music Festival (1975); Blair Galleries Ltd [Art] (1980); United Nuclear Corp (1980); Vacant (1980); New Mexico Banquest Corporation [Chairman's Ofc & Loan Dept] (1985); Contemporary Southwest Galleries [Art] (1991-2010); Phelps Clifford (2000); No Listing (2016). **125 West Palace Avenue**: No listings prior to 1944; Vic's Dispensary [Liquors] (1944-1970); Artist Co-Op Gallery (1975-1980); Vacant (1985-1991); Horwitch Lew Allen Galleries [Overflow] (1995); No Listing (2000-2010); Lewallen Contemporary (2016). **127 West Palace Avenue**: No listings prior to 1934/35; Native Mkt (1934/35); No Listing (1940); Unique Beauty Service (1944-1966); Merle Norman Cosmetic Studio (1951); Celia's Beauty Salon (1970); Polka Dot [Womens Clo] (1975); Vacant (1980-1985); No Listing (1991-2016). **129 West Palace Avenue**: No listings prior to 1934/35; Vacant (1934/35); No Listing (1940-1955); Western Blue Print & Sup (1959-1975); Mountain States Mapping Co (1966-1975); Conkling Robt N Real Est Broker (1966); Horwitch Elaine Gallery (1980-1995); Lewallen Contemorary [Misc Rtl Strs] (2000-2010); Marvel Kenneth R (2006); Huey's Fine Art (2016). **135 West Palace Avenue**: No listings prior to 1940; **Standard Stas Inc** (1940-1944); **Charlie & Cecil Chevron Station [Fill Sta]** (1951-1980); No Listing (1985); Palace Court Building (1991-1995); Suites (1991-1995); Chico's Incorporated [Casual Clo-Ret] (1991-1995); Mandani Jwlry (1991); Vacant (2 Suites) (1991); Palace Fete [Ladies Apparel & Access Ret] (1991); Elusive Image [Art Gallery] (1991); X [Street Continued] (1991); Montez Gold [Clo Jewelery Retail] (1995); Ray Tracey Galleries [Overflow] (1995-2000); Mucho The Gourmet Sandwich Shoppe (1995); Liquidation Art [Galleries] (1995); D & M Rug Services (1995); Chuck Jones Showroom The [Animation Art Gallery] (1995); Edge [Restaurant Discotheque] (1995); Jacks [Eating Places] (2000); Palace Chicos [Womens Clothing Strs] (2000); Rooney Catheleen A (2000); Best Joey L (2000); Ives Tobi E (2000); Chuck Jones Studio Gallery [Art Galleries & Dlrs] (2006-2010); Debilzan William M Jr (2006); Swig [Night Clubs] (2006); William Siegal Galleries [Antiques-Dlrs] (2006); Museum Works Gallery [Museums] (2010); Mclaren James P (2010); 32 Stairs Restaurant [Restaurants] (2010); Nureteka Limited (2016); Palacios (2016); Santa Fe Residential (2016); Bad Ass Sandwich Co (2016); Southwestern Growth Partners (2016); Tinsley Hospitality Group (2016).

Direction	Description
West	**122 Grant Avenue**: Robinson A E P (1928/29-1944); Dodds N L Mrs [Bdg Hse] (1944); Dulanty J L [Osteo] (1951); Robinson Eleanor P Mrs (1955); Lacorte Bldg (1959); Rocky Mt Abstract Co (1959); Martinez Alfredo D [Justice Of The Peace] (1959-1966); Miera Del Ins Agcy (1959); New Mexico Bkpg & Tax Serv (1959); Trimmer Vernon R [Acct] (1959); Gonzales Albert T [Lwyr] (1959-1980); Leroy Ramirez Insurance Agency (1966-1970); Gutierrez Marcelino P Lwyr (1966); Robin Davis Advertising (1966); X [Street Continued] (1966-1980); La Corte Building (1970-1980); New Mexico Bookkeeping & Income Tax Service (1970-1975); Martinez Eloy A Bail Bonds Service (1970-1975); Lucero's Claude Agency [Real Est] (1970); Santa Fe Bureau Of Collections (1970); Floors (1970-1980); Archuleta Issac Agency [Ins] (1975); Vacant (1975); Rooms (1980); Ramirez Le Roy Agency (1980); Santa Fe Chamber Mus Festival (1980); Grant Corner Inn [Restr] (1985-2000); Stewart Louise S (2000); No Listing (2006-2010); Andrew Smith Gallery (2016-2019). **130 Grant Avenue**: Gerhart H B (1928/29-1944); Y [Nw Cor] First Presbyterian Ch (1928/29-1951); Spanish Presbyt Ch (1940-1944); Davis Grace B Mrs (1951-1959); X [Griffin Begins Ws] (1951-1959); Wilson Evan B [Ice Cream Plant] (1955-1959); Santa Fe Day Care Center Child Care (1966); Avery-Bowman Abstract Co (1970-1975); Dictaphone Corporation (1980); Sierra Madre Realty Inc (1980); Martinez Eloy A Bail Bond Serv (1980); Smith David C [Lwyr] (1985); Chavez Fabian Inc (1985); Santa Fe Design Associates (1985); No Listing (1991); Office Building (1995); Bell's Executive (1995); City Different Realty (1995-2000); Anderson John (1995); Not Verified (1995); Blagg & Company (1995); Northern New Mexico Mortgage Co (1995-2006); Blair Don (1995); Butler Tish (2000); Moor Donell (2000); Pierson Marrily (2000); Professional Health Services [Employment Agencies] (2000); Schwartz Diana J (2000); Wagner T J (2000); Music From Angel Fire [Mbrshp Orgs] (2000); X [Griffin St Begins] (2000); Atwell Real Estate Investments [Real Estate] (2006); Blagg & Co [Real Estate] (2006-2019); Design Collaborative Sw Arch [Architects] (2006); High Desert Currency Mgmt [Financial Advisory Serv] (2006); L A Bealle [Artists-Fine Arts] (2006-2010); Giovando John W (2010); California Apartment Assn (2016-2019); Studio Southwest Architects (2016-2019); Music At Angel Fire Inc (2016-2019). **208 Grant Avenue**: No listings prior to 1934/35; Reiter D J (1934/35); Keeler K M (1940-1944); X [Es] High School (1940-1944); No Listing (1951-1955); First Presbyterian Ch (1959-1985); X [Federal Pl Ends Es] (1959-1985); Y [Catron Begins Ws] (1959-1985); No Listing (1991); First Presbyterian Church (1995-2019); Griffin Street Pre-Sch & Parents Day Out [Day Care] (1995-2000); Not Verified (2000); Y [Catron St Begins] (2000); Bregier Voice Studio (2019)

A tenant named BCO Inc. Management Oil & Gas Properties [oil well operations] was identified as an occupant of the Bergere House in the 1980 – 1995 historical city directories. Based on Terracon's historical research, this occupant is assumed to be managerial in nature and oil field operations are not suspected to have occurred on-site. Indications of RECs were not identified.

A filling station was identified as an occupant of one of the south-adjoining properties in the 1940 – 1980 historical city directories. This occupant was previously discussed in Section 3.1. Based on the downgradient location of the historical facilities, absence of regulatory release

records associated with the property, and the successful redevelopment of the property, the historical filling station is not considered a REC in connection with the site.

3.3 Site Ownership

According to records obtained from the Santa Fe County Assessor, the current site owner is BSF Foundation.

3.4 Title Search

At the direction of the client, a title search was not included as part of the scope of services. Unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.5 Environmental Liens and Activity and Use Limitations

The GeoSearch regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases. Please note that in addition to these federal and state listings, AULs can be recorded at the county and municipal level that may not be listed in the regulatory database report. Environmental lien and activity and use limitation records recorded against the site were not provided by the client. At the direction of the client, performance of a review of these records was not included as part of the scope of services and unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.6 Interviews Regarding Current and Historical Site Uses

The following individual was interviewed regarding the current and historical use of the site.

Interview

Interviewer	Name / Email	Title	Date / Time
Flynn Holland	V. Neils Agather / vhatley@burnettoil.com	Vice President of BSF Foundation	May 20, 2020 / 15 40

Terracon interviewed Mr. V. Neils Agather, Vice President of BSF Foundation. Mr. Agather explained that his entity acquired 123 Grant Avenue in 1996, 135 Grant Avenue in 1997, and 200 West Marcy Street in 1998. The Bergere House (135 Grant Avenue) was originally constructed in the 1880's and was remodeled in 1999. It was converted into law offices in the 1980's and is currently used as an art archive and research space. The GSO Building (123 Grant Avenue) was originally constructed as a Safeway grocery store and was remodeled by approximately 1992. It is currently used as office and art gallery space. The MSO Building (200 West Marcy Street) was originally built in 1942, with additions constructed in 1950, and was remodeled by 1979-1980 and is currently used as office space. Mr. Agather did not have

knowledge of other former structures or operations located on the site. Mr. Agather did not have knowledge of chemical storage, former septic tanks, water wells, pipelines, storage tanks, former dry cleaners, waste disposal activities, or environmental liens against the property.

- Pending environmental litigation: no knowledge.
- Threatened environmental litigation: no knowledge.
- Past environmental litigation: no knowledge.
- Notices of possible violations of environmental laws: no knowledge.
- Notices of possible liability: no knowledge.
- Notices of potential environmental concerns: no knowledge.

3.7 Prior Report Review

Terracon requested the client provide any previous environmental reports they are aware of for the site. Previous reports were not provided by the client to Terracon for review.

4.0 RECORDS REVIEW

Regulatory database information was provided by GeoSearch, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the hydrogeologic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

Federal Databases

Database	Description	Distance (miles)	Listings
BF	Brownfields Management System	0.5	4
CERCLIS	Comprehensive Environmental Response Compensation & Liability Information System	0.5	0

Database	Description	Distance (miles)	Listings
DNPL	Delisted National Priorities List	1	0
EC	Federal Engineering Institutional Control Sites	Site	0
ERNSNM	Emergency Response Notification System	Site	0
LUCIS	Land Use Control Information System	0.5	0
NFRAP	No Further Remedial Action Planned Sites	0.5	0
NLRRCRAG	No Longer Regulated RCRA Generator Facilities	Site/Adjoining	0
NLRRCRAT	No Longer Regulated RCRA Non-CORRACTS TSD Facilities	0.5	0
NPL	National Priorities List	1	0
PNPL	Proposed National Priorities List	1	0
RCRAC	Resource Conservation & Recovery Act - Corrective Action Facilities	1	0
RCRAT	Resource Conservation & Recovery Act - Treatment Storage & Disposal Facilities	0.5	0
SEMS	Superfund Enterprise Management System	0.5	1

State/Tribal Databases

Database	Description	Distance (miles)	Listings
ERNSNM	Emergency Response Notification System	Site	0
LUSTR06	Leaking Underground Storage Tanks On Tribal Lands (Region 6 States)	0.5	0
AST	Aboveground Storage Tanks	Site/adjoining	0
CDL	Clandestine Drug Lab Locations	Site	0
CEPCS	Compliance And Enforcement Program Cleanup Sites	1	5
DPERMITS	Discharge Permits	Site	0
IC	Sites With Institutional Controls	0.5	0
LST	Leaking Aboveground And Underground Storage Tanks	0.5	6
LUST	Leaking Underground Storage Tanks	0.5	7
OG	Oil And Gas Wells	0.5	0
PST	Petroleum Storage Tanks	Site/adjoining	0
RCY	Recycling Centers	0.5	0
SWLF	Solid Waste Facilities	0.5	3
US	Southwest Research And Information Center Uranium Sites	0.5	0
UST	Underground Storage Tanks	Site/adjoining	0
VRP	Voluntary Remediation Program Sites	0.5	3
WATERS	Water Administration Technical Engineering Resource System	0.5	0

Database	Description	Distance (miles)	Listings
USTR06	Underground Storage Tanks On Tribal Lands (Region 6 States)	Site/adjoining	0

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The following table summarizes the site-specific information provided by the database and/or gathered by this office for identified facilities. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities follows the summary table.

Listed Facilities

Facility Name And Location	Estimated Distance / Direction/Gradient	Database Listings	Is a REC, CREC, or HREC to the Site
Santa Fe County Illegal Dumping Grant 102 Grant Avenue	Approximately 200 feet / southwest / down-gradient	SWLF	No, based on regulatory status, distance, and gradient
Huakos Property Section 25, T. 19N, R9E	Approximately 265 feet / east-northeast / up-gradient	BF	No, based on regulatory status and distance
Santa Fe River PCE Site and Santa Fe River Assessment Washington Avenue and Palace Avenue	Approximately 670 feet / east-southeast / cross-gradient	SEMS, BF	No, based on distance and gradient

Santa Fe County Illegal Dumping

Santa Fe County Illegal Dumping is listed in the database report as a solid waste landfill facility (SWLF) located approximately 235 feet west of the site in a hydrogeologically down-gradient position relative to the site. The database report listing does not include a date or incident description. Based on the type of listing, current regulatory status, distance, and the hydrogeologically down-gradient position relative to the site, the listing does not represent a REC in connection with the site.

Huakos Property

The Huakos property is a Brownfields listing with a location assigned by the database report and online Brownfields Mapper accessed through the EPA website of a point located approximately 265 east-northeast of the site. The property is described as a 4-acre vacant lot owned by the Pueblo of Pojaque. Contamination or cleanup details are not included in the listing. The Brownfield listing appears to be associated with US EPA funding of a Phase I ESA of the subject property dated December 8, 2014. The description of a 4-acre vacant lot does not match the point indicated by GeoSearch or the Brownfields Mapper accessed through the EPA website. Furthermore, the Public Lands Survey System (PLSS) coordinates provided indicate a

tract of land on Pojaque Tribal lands approximately 12 miles north of the site. The point indicated in the database report appears to be in error, and based on the current regulatory status, the listing is not considered a REC in connection with the site.

Santa Fe River PCE Site and Santa Fe River Assessment
The Santa Fe River PCE Site is located approximately 670 feet east-southeast of the site in a hydrogeological cross-gradient position. The property was identified as a Superfund Enterprise Management System (SEMS) and BF facility.

Records provided by the New Mexico Environmental Department (NMED) Groundwater Quality Bureau (GWQB) included a Targeted Brownfields Assessment (TBA) Phase II ESA, prepared by All Consulting (November 2015); a Groundwater/Indoor Air/ Soil Vapor Sampling Letter Report for Various Sites in Santa Fe and Albuquerque, prepared by Intera Geoscience and Engineering Solutions (July 18, 2017); and the results of groundwater sampling conducted on June 21, 2017 by the GWQB. Based on reviewed reports the areas east and south of the site have undergone extensive environmental investigation totaling an approximately 13-block area. Groundwater samples collected from the closest monitoring well DSF-03, located approximately 670 feet east-southeast of the site, reported concentrations of PCE at 220 µg/L. Based on distance and cross-gradient location of the groundwater contamination relative to the site, the Santa Fe River PCE Site is not considered a REC in connection with the site.

The remaining facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent hydrogeologic gradient, and distances over 500 feet from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report did not list facilities in the unmapped section.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
New Mexico Environment Department (NMED) / by email / melissa.mascaranes@state.nm.us	According to Ms. Charlotte Duran of the Hazardous Waste Bureau, no records pertinent to Terracon's request were identified. According to Mr. John Offersen of the Solid Waste Bureau, no records pertinent to Terracon's request were identified. According to Mr. Avery Young of the Groundwater Quality Bureau, records were identified pertaining to a groundwater PCE plume located approximately 670 feet east of the site. Reviewed records are discussed in Section 4.1. According to Mr. Chris Hamilton of the Petroleum Storage Tank Bureau, no records pertinent to Terracon's request were identified.

Agency Contacted/ Contact Method	Response
City of Santa Fe / Request Public Records / website/ https://www.santafenm.gov/request_public_records	At the issuance of this report, a response has not been received from the City of Santa Fe which represents a data gap in connection with the report. Based on the reviewed historical and regulatory information a significant data gap was not identified.

5.0 SITE RECONNAISSANCE

5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site Diagram, which is included in Exhibit 2 of Appendix A. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

General Site Information

Site Reconnaissance	
Field Personnel	Flynn A. Holland
Reconnaissance Date	May 7, 2020
Weather Conditions	Clear skies, good visibility, approximately 75° F
Site Contact/Title	Gilbert Romero / Maintenance Manager

Building Description				
Building Identification	**Building Use**	**Approx. Construction Date**	**Number of Stories**	**Approx. Size (ft²)**
GSO Building (123 Grant Avenue)	Offices and Art Gallery/Storage Space	1967	1	19,170
Bergere House (135 Grant Avenue)	Offices, Art Archive, and Research Center	1880's	1	9,470
MSO Building (200 West Marcy Street)	Offices	1942	2	22,324
Site Utilities				
Drinking Water	City of Santa Fe			
Wastewater	City of Santa Fe			
Electric	Public Utility Company of New Mexico (PNM)			

Building Description				
Building Identification	**Building Use**	**Approx. Construction Date**	**Number of Stories**	**Approx. Size (ft²)**
NaturalGas	New Mexico Gas Company (NMGCO)			

5.2 Overview of Current Site Occupants

The site is currently occupied by Georgia O'Keeffe Museum Annex, Prima Title, Georgia O'Keeffe Research Center, and multiple law firms.

5.3 Overview of Current Site Operations

Site operations comprise use of office space, art research, art galleries, and storage.

5.4 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an "X") are discussed in more detail following the table.

Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	X
	Elevators	X
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	X
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	

Category	Item or Feature	Observed or Identified
	Oil, gas or mineral production	
	Other processes or equipment	
Aboveground Chemical or Waste Storage	Aboveground storage tanks	
	Drums, barrels and/or containers ³ 5 gallons	
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	
	Interior floor drains	X
Electrical Transformers/ PCBs	Transformers and/or capacitors	X
	Other equipment	
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	X
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Site Operations, Processes, and Equipment

Emergency generators
A natural gas-fired generator was observed in the sub-grade boiler room of the Bergere House. Staining or signs of a release were not observed. Indications of RECs were not identified.

Elevators
Two elevator mechanical rooms were observed during the site reconnaissance; one located in the Bergere house connecting the main floor with a sub-grade research area and one located in the MSO Building connecting the 1st and 2nd floors. Signs of hydraulic fluid staining or indications of a release were not observed. Terracon was unable to observe the base of the elevator pits, which represents a data gap. However, based on a review of maintenance documents, the elevator systems are inspected and serviced on a bi- to tri-monthly basis by Thyssenkrupp Elevators. As such the identified data gap is not considered significant. Indications of RECs were not identified.

Heating and/or cooling systems
The Bergere house is equipped with a sub-grade natural gas-fired boiler and boiler room. The on-site buildings are heated with natural gas and cooled with roof-mounted refrigerated air units. Indications of RECs were not identified.

Underground Chemical or Waste Storage, Drainage or Collection Systems

Interior floor drains
Interior floor drains were observed in the restrooms and janitorial closets of the GSO Building and MSO Building, and the boiler room of the Bergere house. The drains discharge to the City of Santa Fe municipal sewer system. Potentially hazardous materials and/or petroleum products were not observed in the vicinity of the drains. Staining and/or releases to the floor drains were not observed. Indications of RECs were not identified.

Electrical Transformers/PCBs

Transformers and/or capacitors
During Terracon's site visit, one pad-mounted transformer located in the southern portion of the site and two pad-mounted transformers located in the northern portion of the site were observed. The transformers are owned and serviced by PNM; however, no information with regard to PCB content of the transformer fluids was observed. Some transformers contain mineral oil which may contain PCBs.

PNM maintains responsibility for the transformers, and if the transformers were "PCB contaminated," PNM is not required to replace the transformer fluids until a release is identified.

However, evidence of current or prior releases was not observed in the vicinity of the electrical equipment during the site reconnaissance.

Releases or Potential Releases

Trash, debris and/or other waste materials

A solid-waste disposal dumpster was observed in the southwestern portion of the site. Signs of disposal of hazardous waste, staining, or noxious odors were not observed. Indications of RECs were not identified.

6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

Adjoining Properties

Direction	Description
North	West Marcy Street followed by: **201 West Marcy Street**: Santa Fe Convention Center
East	Sheridan Avenue followed by: **130 Lincoln Avenue**: King Galleries, Rugman of Santa Fe, True West, Keller Williams, Design Warehouse, Mamunia **120 Sheridan Avenue**: New Mexico Statewide Programs **107 West Palace Avenue**: St. Francis Auditorium and New Mexico Museum of Art
South	**123 West Palace Avenue**: Manitou Galleries **125 West Palace Avenue**: Sorrel Sky Gallery Gallery **129 West Palace Avenue**: Patina Gallery **135 West Palace Avenue**: El Flaminco Restaurant and Wow! Art Gallery
West	Grant Avenue followed by: **122 Grant Avenue**: Andrew Smith Gallery **130 Grant Avenue**: Single-family residence **208 Grant Avenue**: First Presbyterian Church

RECs were not identified with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, additional services (e.g. asbestos sampling, lead-based paint sampling, wetlands evaluation, lead in drinking water testing, radon testing, vapor encroachment screening, etc.) were not conducted.

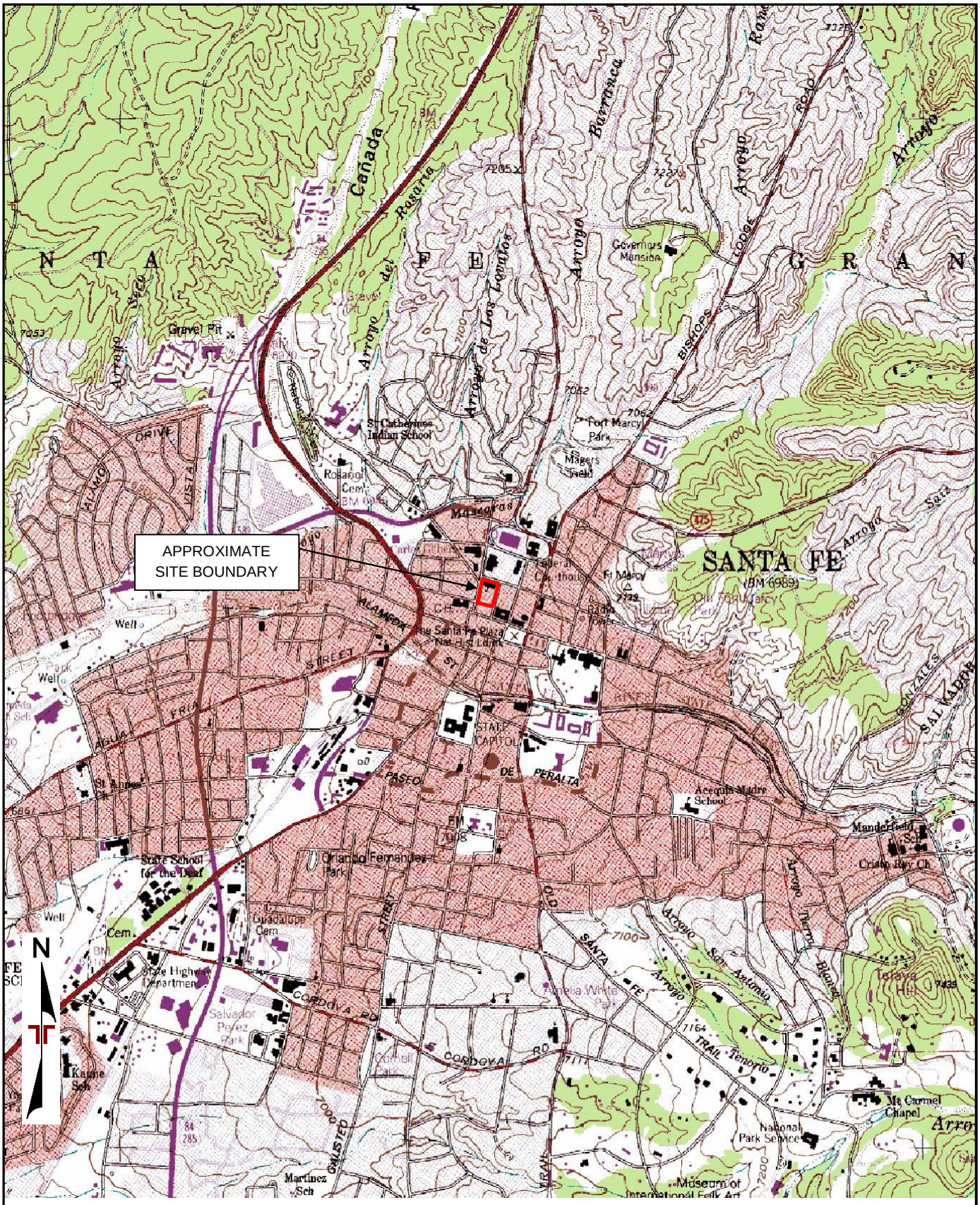
8.0 DECLARATION

I, David Matson, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____

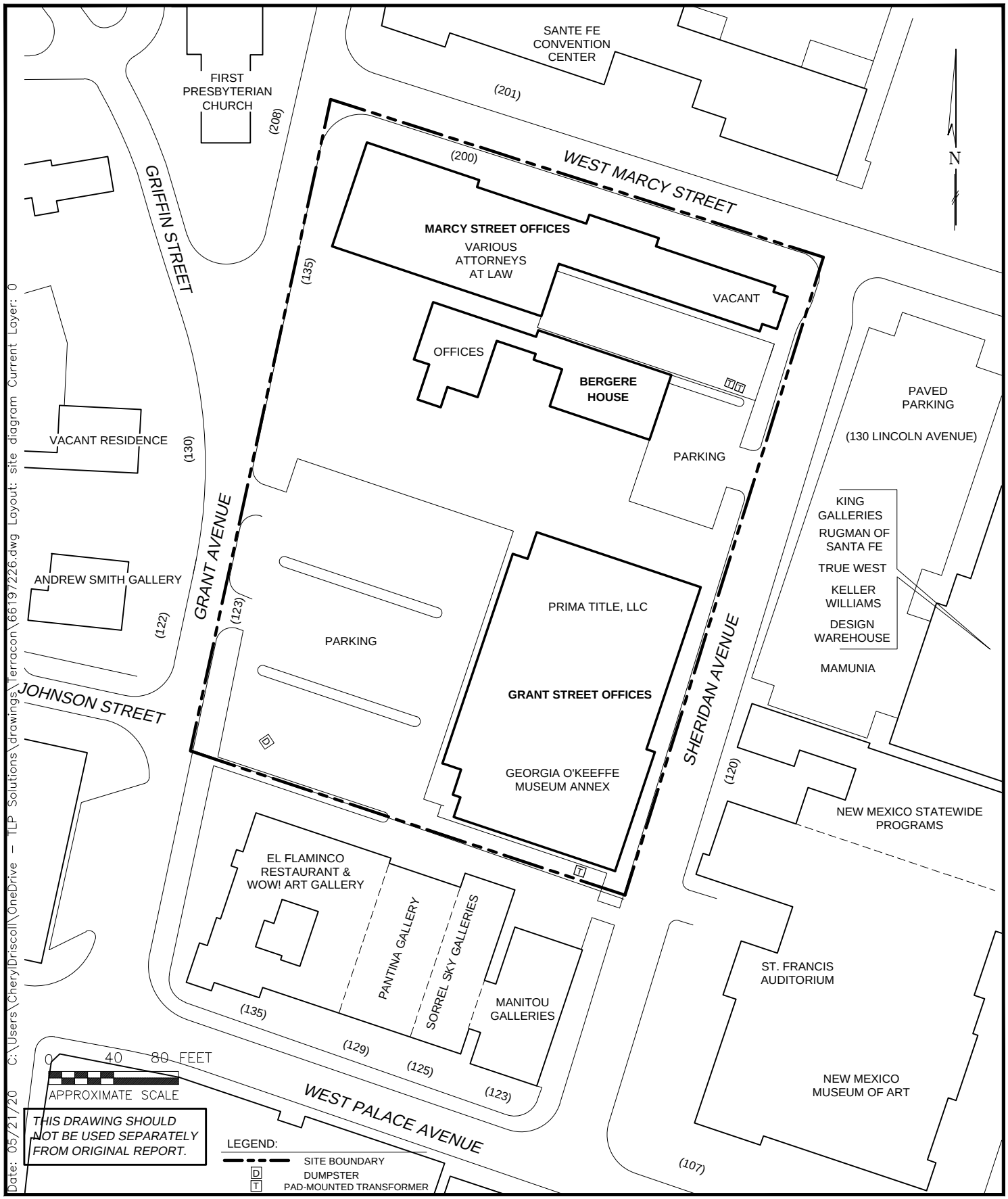
David M. Matson, CHMM
Principal

APPENDIX A
EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: SANTA FE, NM (1/1/1961) and SANTA FE, NM (1/1/2002).

Project Manager: FAH	Project No. 66197226	Terracon 6805 Academy Pkwy West NE Albuquerque, NM 87109	TOPOGRAPHIC MAP GEORGIA O'KEEFFE MUSEUM EXPANSION 123 AND 135 GRANT AVENUE 200 WEST MARCY STREET SANTA FE, SANTA FE COUNTY, NEW MEXICO	Exhibit 1
Drawn by: FAH	Scale: 1"=2,000'			
Checked by: DMM	File Name: N/A			
Approved by: DMM	Date: MAY 2020			



Project Mngr:	FAH
Drawn By:	CDD
Checked By:	FAH
Approved By:	DDM

Project No.	66197226
Scale:	AS SHOWN
Date:	05/21/20

Terracon
Consulting Engineers and Scientists
6805 Academy Pkwy West NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

SITE DIAGRAM

GEORGIA O'KEEFFE MUSEUM EXPANSION
123 & 125 GRANT AVENUE, 200 WEST MARCY STREET
SANTE FE, SANTA FE COUNTY, NEW MEXICO

EXHIBIT 2

APPENDIX B
SITE PHOTOGRAPHS

Photo #1 View of the front of the Marcy Street Offices (MSO) (155 Grant Avenue / 200 West Marcy Street) facing south.

Photo #2 View of the front of the Bergere House (135 Grant Avenue) facing east.

Photo #3 View of the Grant Street Offices (GSO) (123 Grant Avenue) facing east.

Photo #4 View to the northeast from near the southwestern portion of the site.

Photo #5 View to the southwest from near the northeastern portion of the site.

Photo #6 View to the north from near the northern boundary of the site.

Photo #7 View to the east from near the eastern boundary of the site.

Photo #8 View to the south from near the southern boundary of the site.

Photo #9 View to the west from near the western boundary of the site.

Photo #10 View of natural gas-fired generator located in the sub-grade boiler room of the Bergere House.

Photo #11 View of elevator mechanical room located in the basement area of the Bergere House.

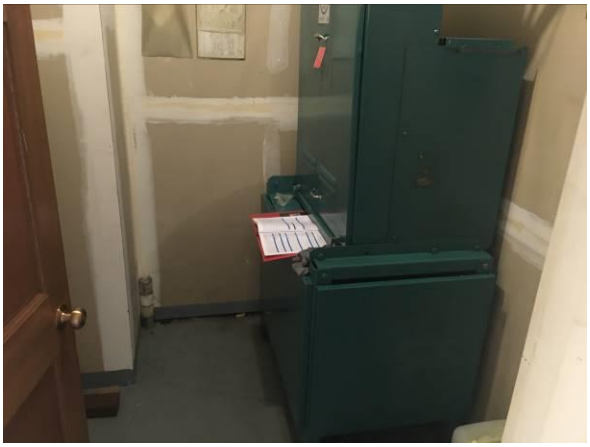


Photo #12 View of elevator mechanical room in the MSO Building.

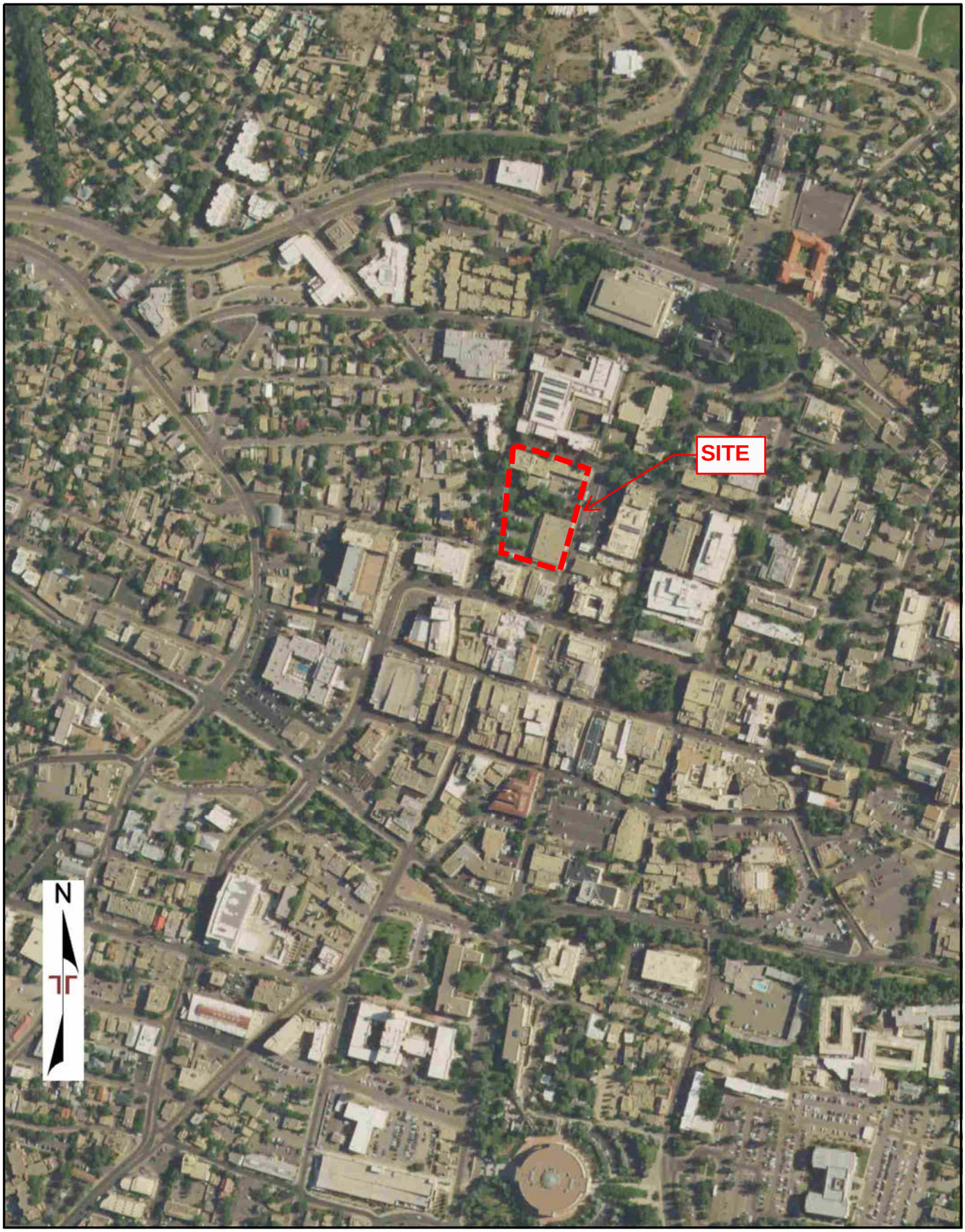
Photo #13 View of boiler located in the sub-grade boiler room of the Bergere House.

Photo #14 View of one of multiple floor drains located throughout the on-site buildings.

Photo #15 View of one of three pad-mounted transformers located in the southern and northern portions of the site.

Photo #16 View of solid-waste disposal dumpster located near the southwestern boundary of the site.

APPENDIX C
HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE



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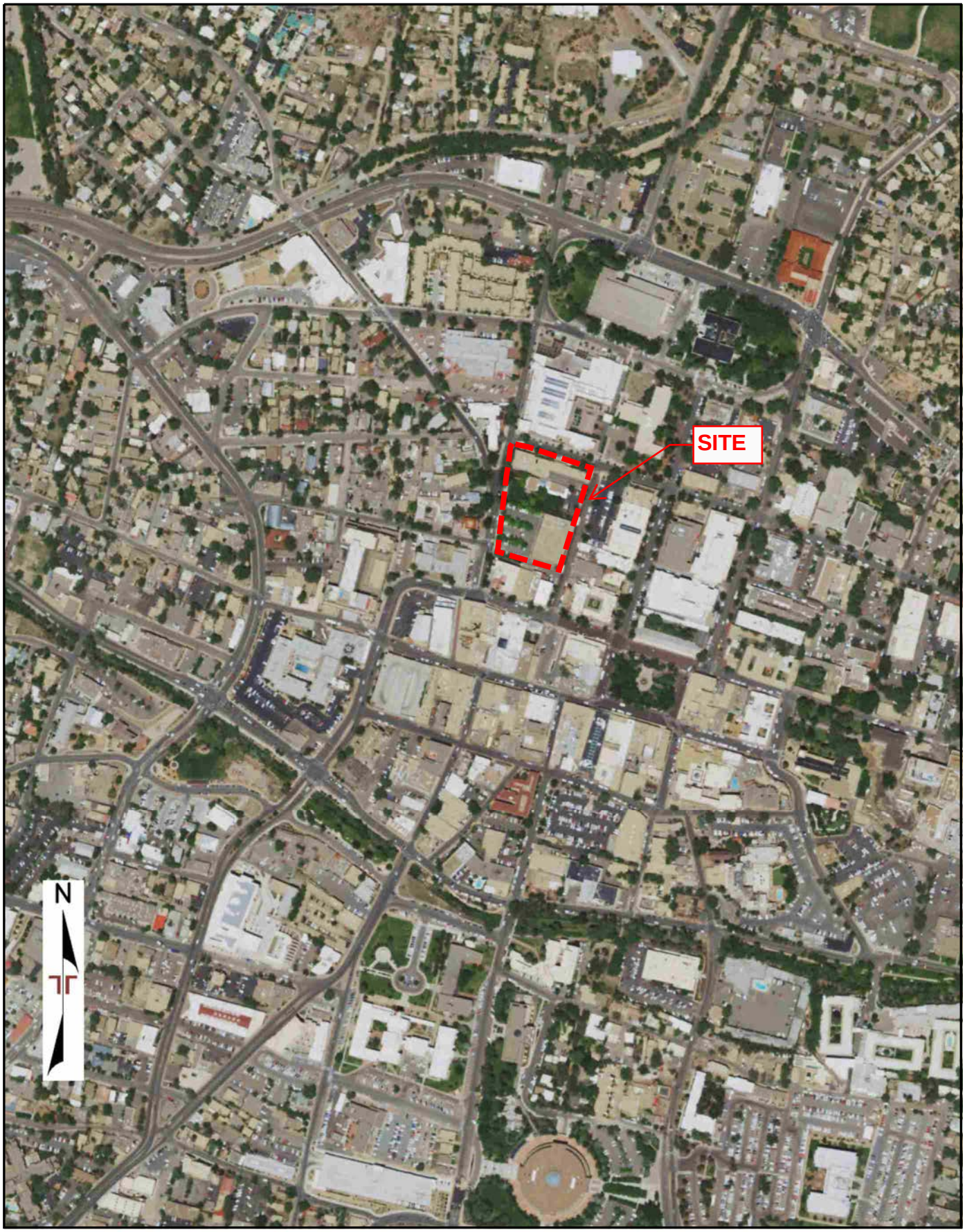

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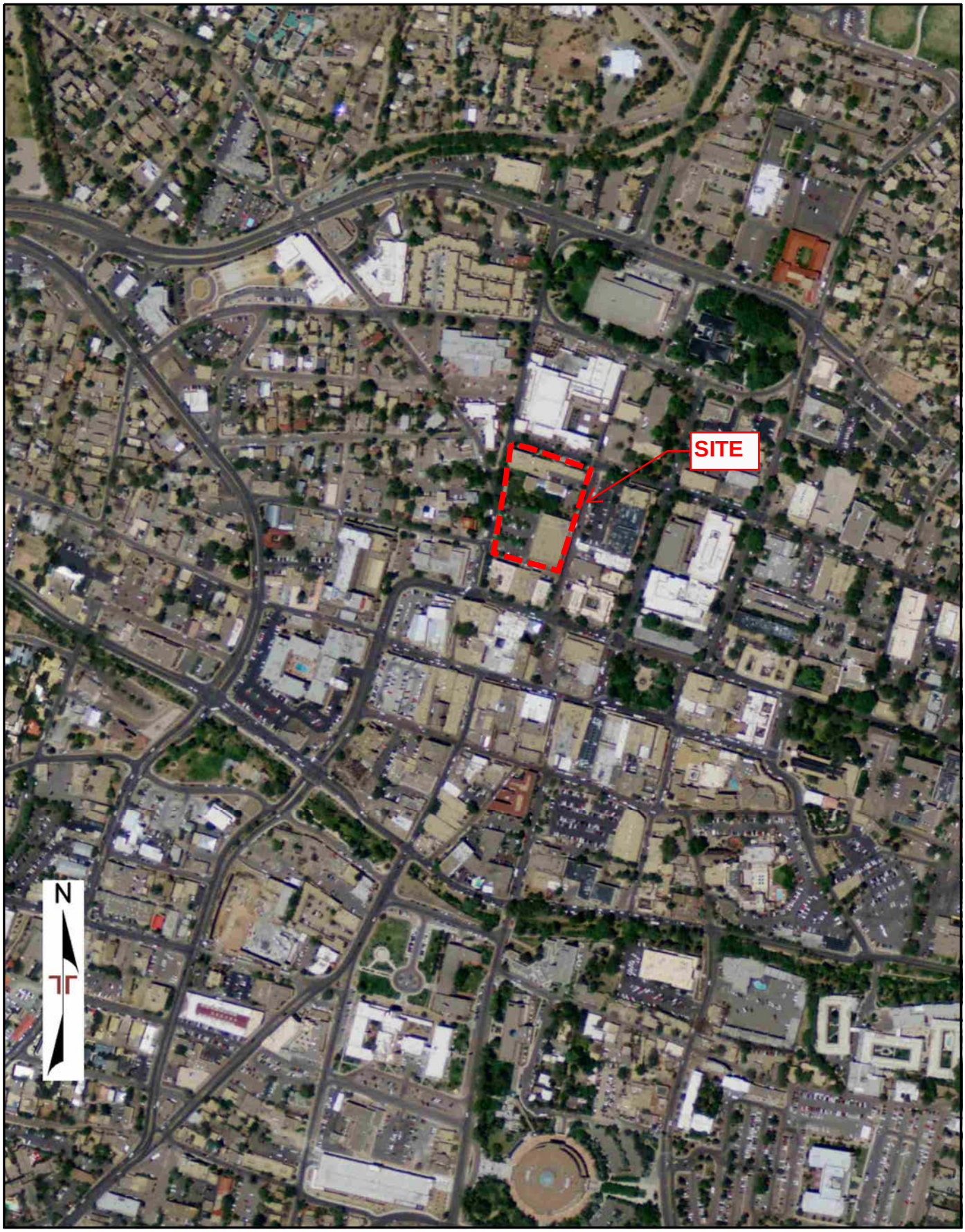

Project Manager:	**Project No:** 66197226	Terracon 4905 Hawkins NE Albuquerque, New Mexico 87109	AERIAL PHOTOGRAPH GEORGIA O'KEEFFE MUSEUM EXPANSION 123 AND 135 GRANT AVENUE, 200 WEST MARCY STREET SANTA FE, SANTA FE COUNTY, NEW MEXICO	Appendix C
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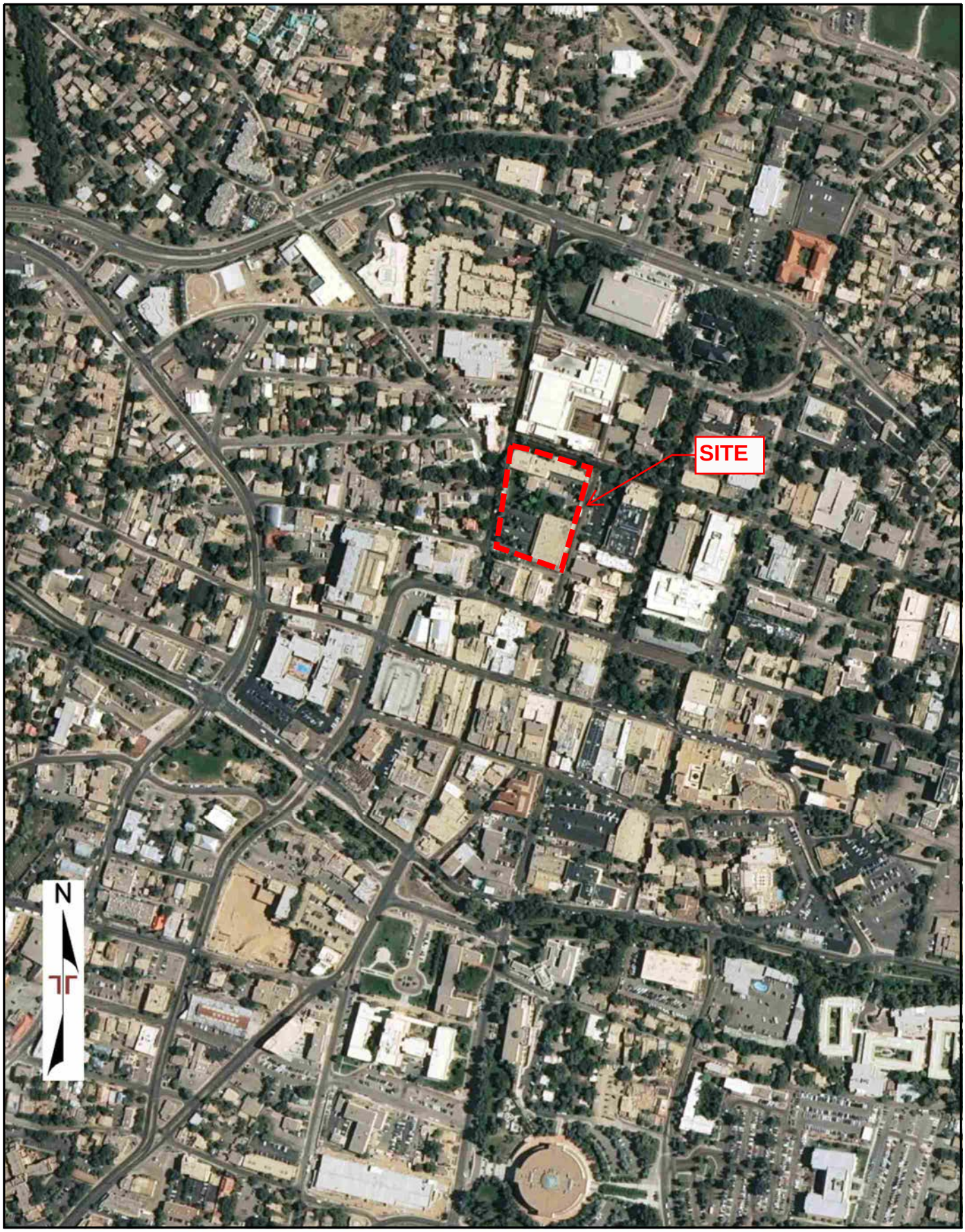
Approved by:	**Date:** 2011			



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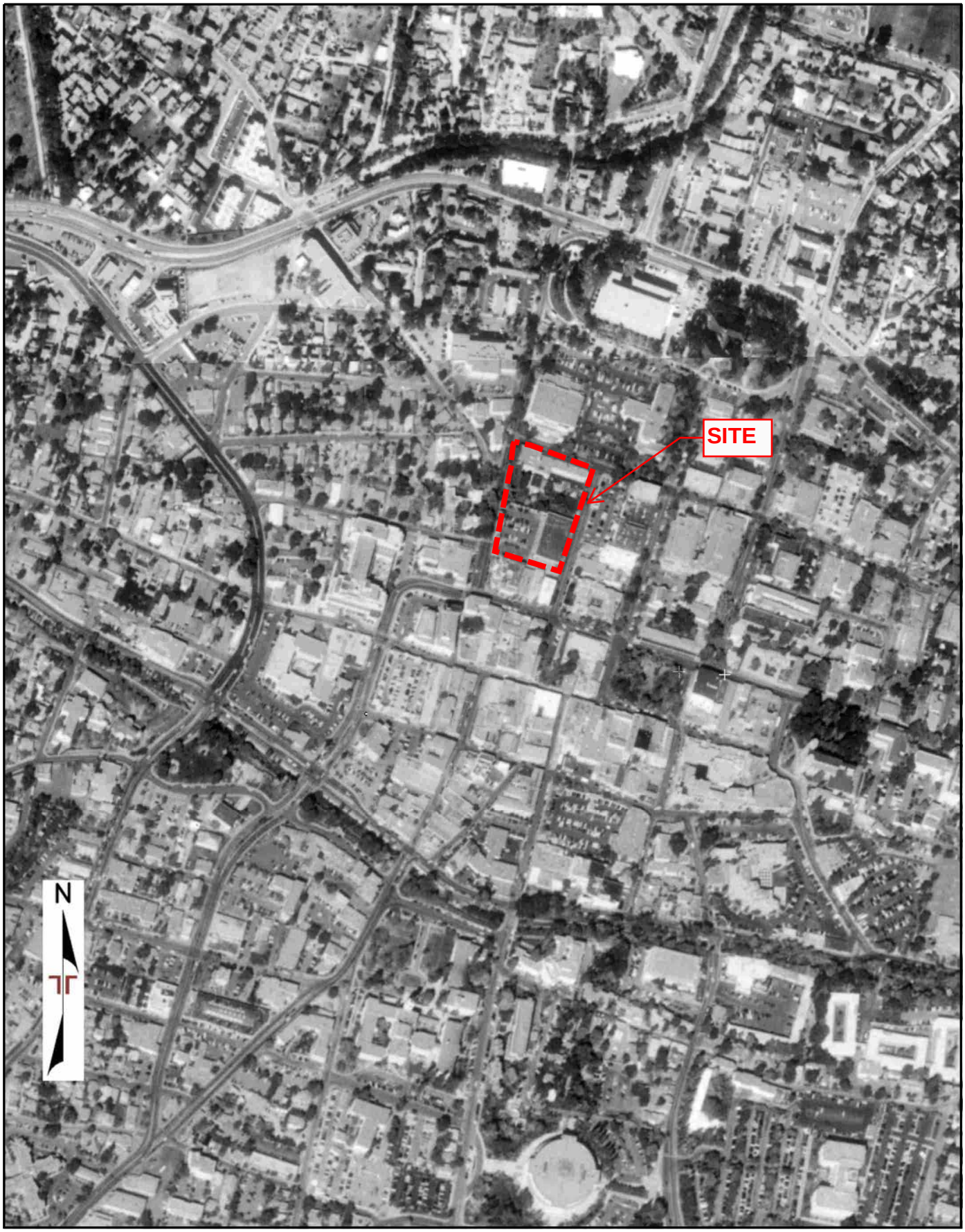

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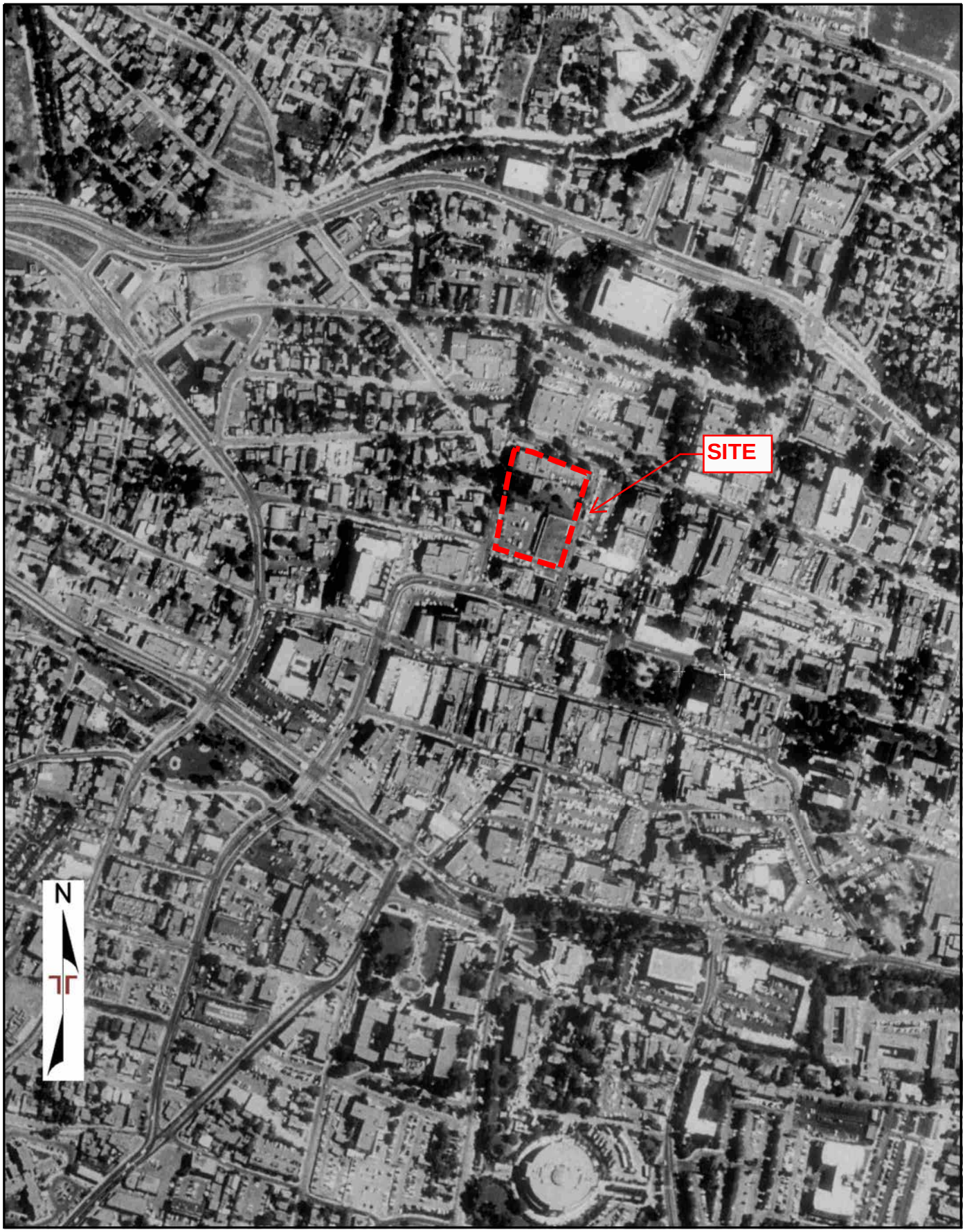

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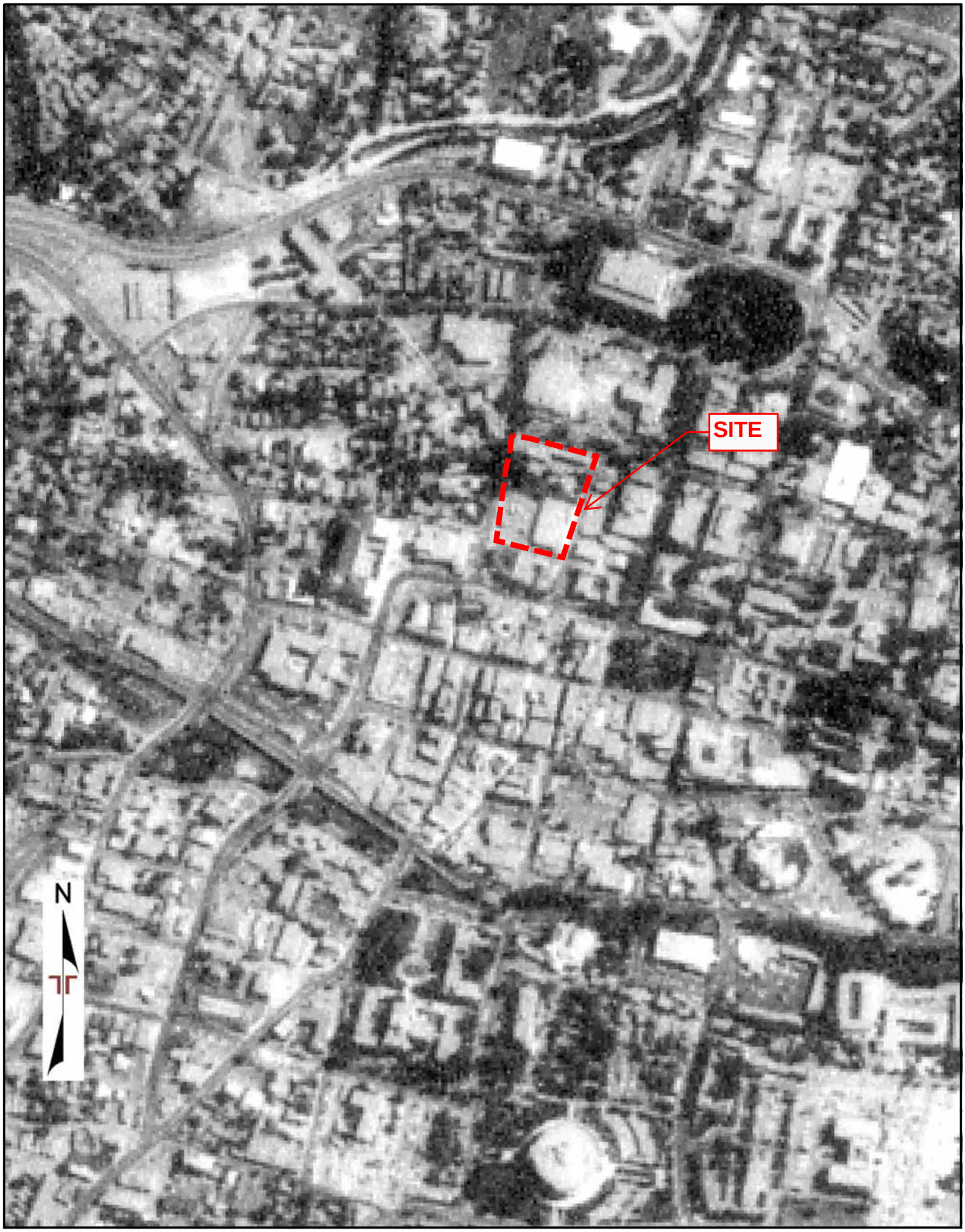

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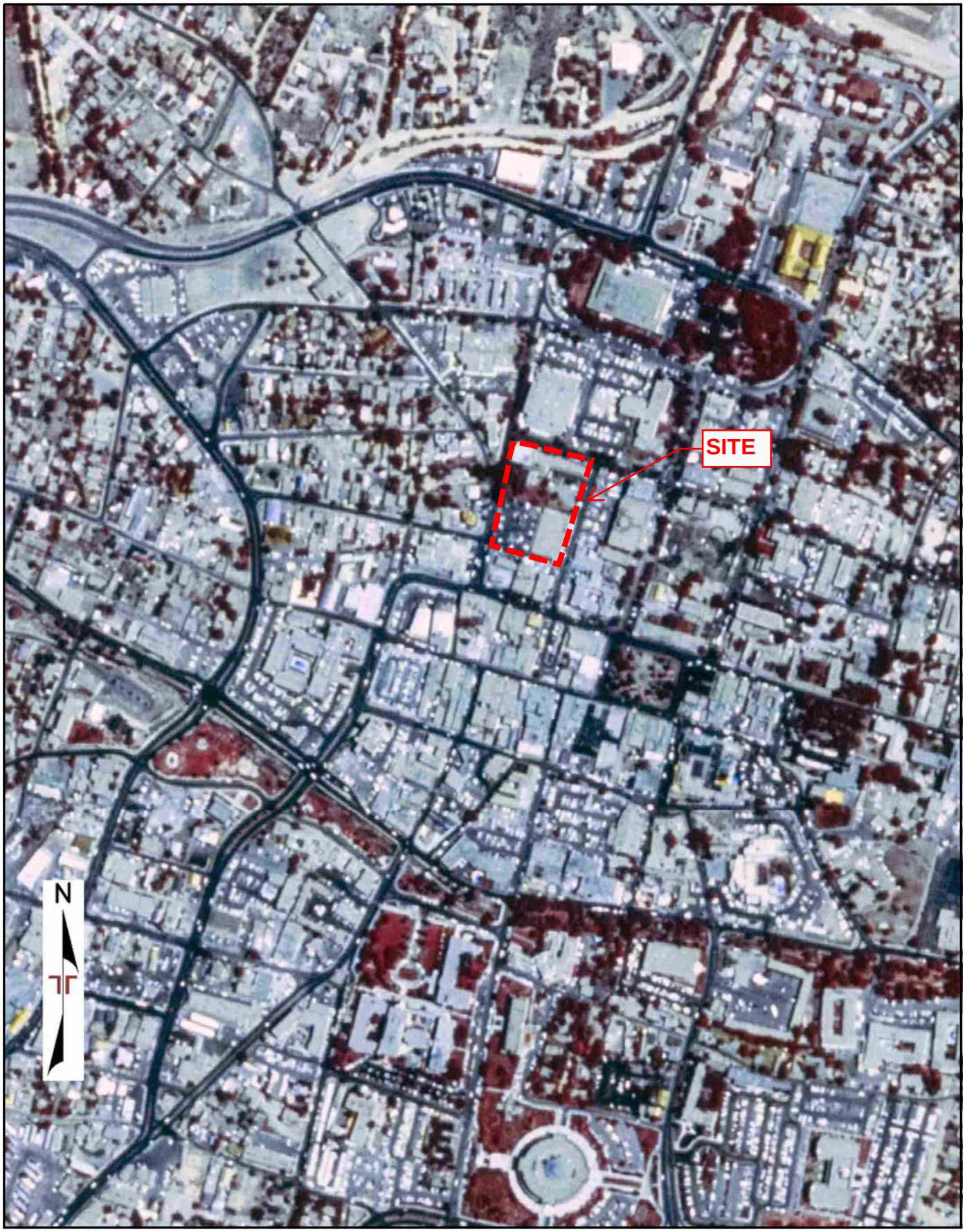

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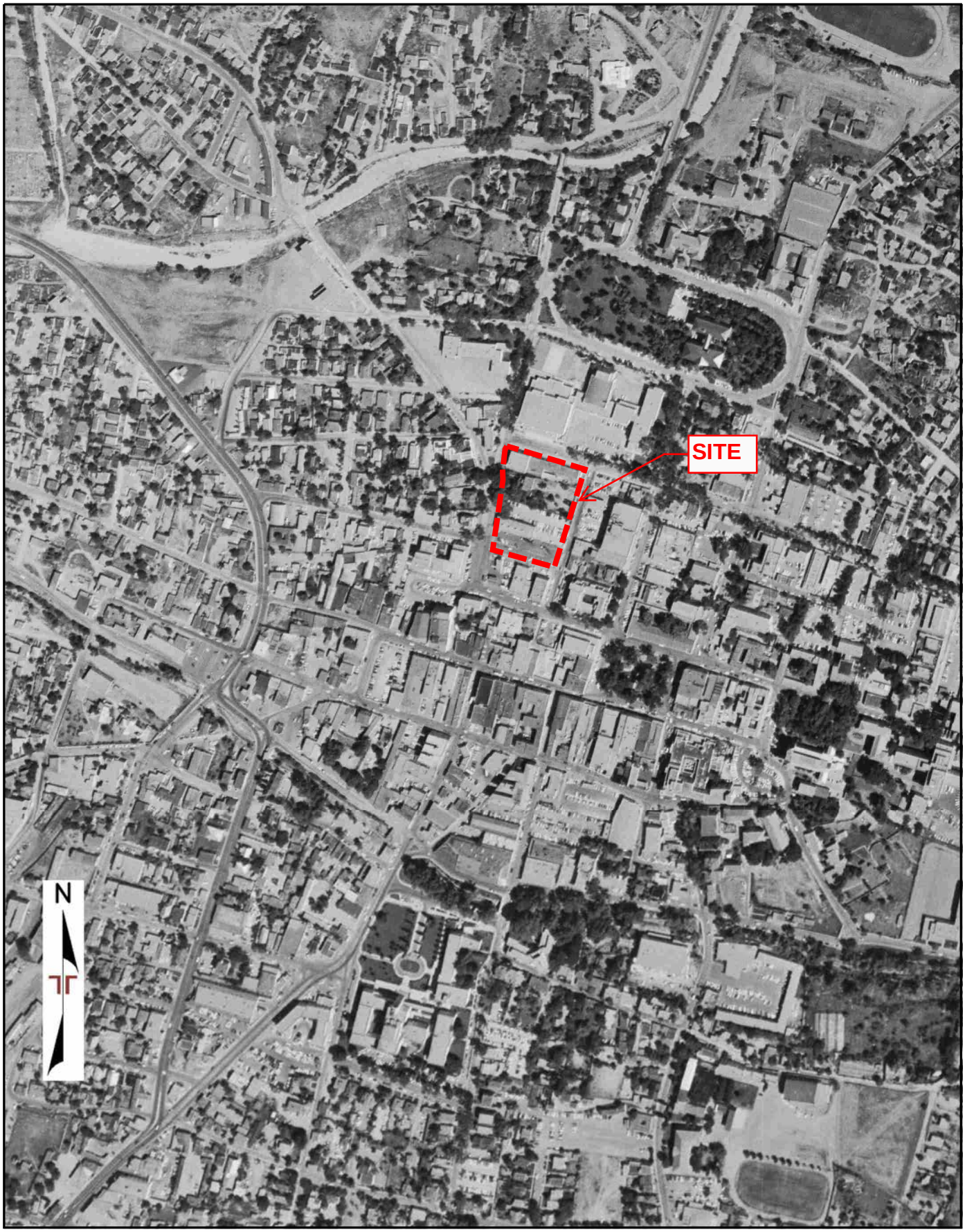

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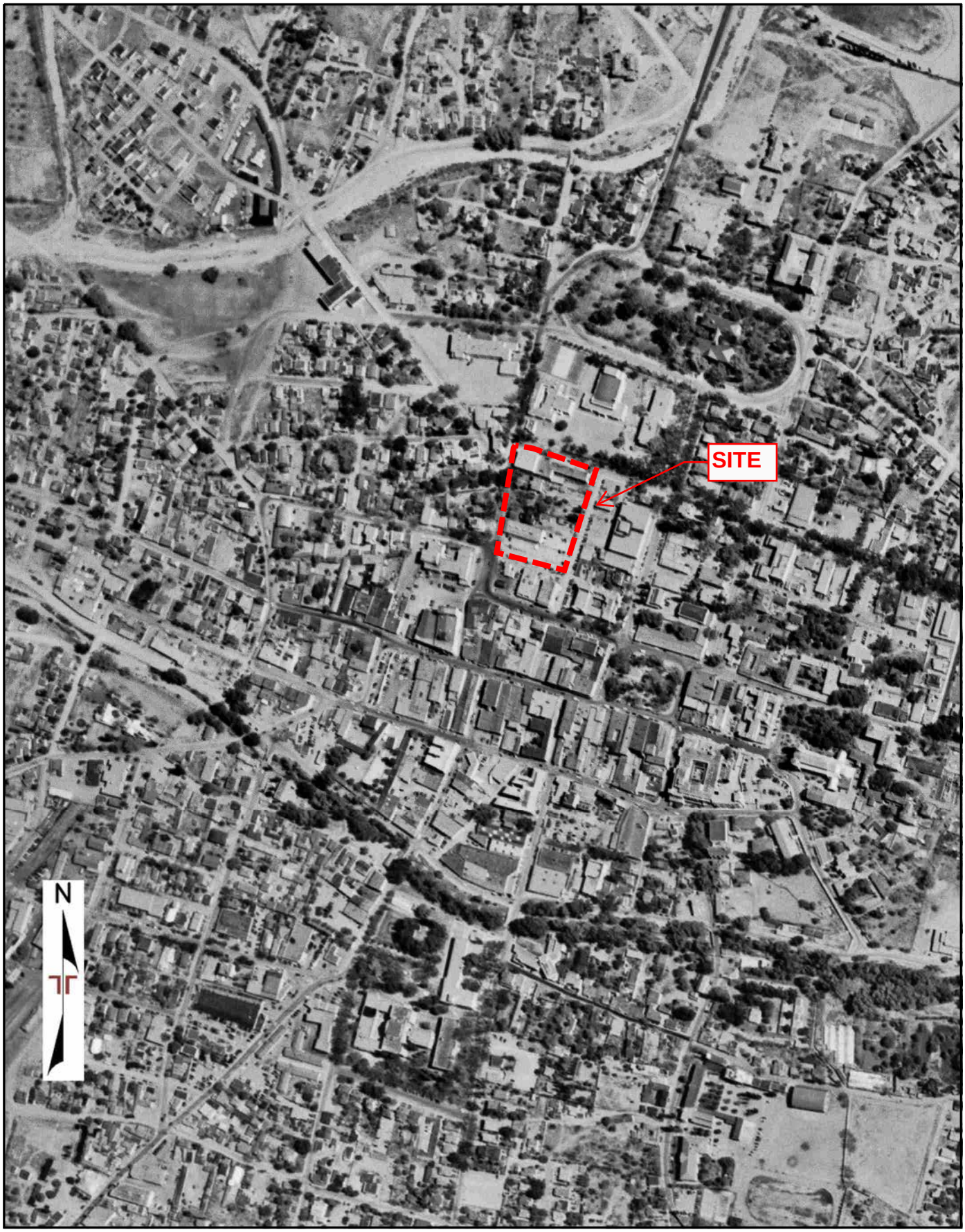

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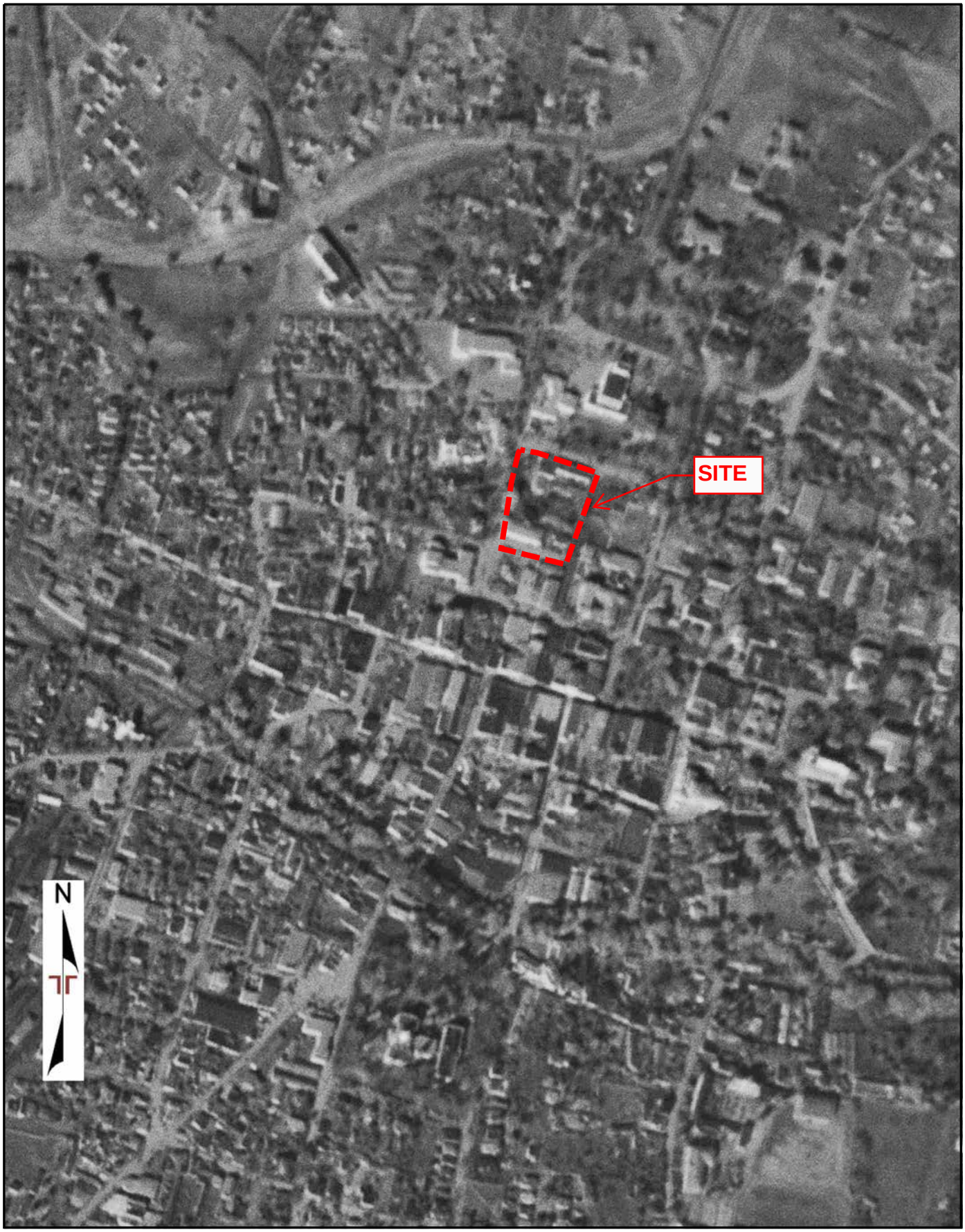

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Approved by:	**Date:** 1935			

GeoSearch

On time. On target. In touch.™

Fire Insurance Map Abstract

Target Property:

Georgia O'Keeffe Museum

123, 135, and 155 Grant Ave,
Santa Fe, NM 87501

Prepared For:

Terracon Consultants-Albuquerque

Order #: 145645
Job #: 350607
Project #: 66197226
Date #: 05/06/20

phone: 888-396-0042 · fax: 512-472-9967 · www.Geo-Search.com

FIRE INSURANCE MAP ABSTRACT RESEARCH RESULTS

Report Date: 05/06/20
Order Number: 145645
Job Number: 350607
Site Address(es): 123, 135, and 155 Grant Ave,
Santa Fe, NM 87501

This abstract is the result of a visual inspection of various Fire Insurance Map collections. Supporting documentation follows in the Appendix to validate our research. Use of this material is meant for research purposes only. Copyrighted Sanborn Maps can be purchased upon request.

Listed below, please find the results of our search for historic fire insurance maps

State	City	Date	Volume	Sheet Number(s)
NM	Santa Fe	1970	1	7
NM	Santa Fe	1970	1	6
NM	Santa Fe	1970	1	3
NM	Santa Fe	1970	1	2
NM	Santa Fe	1948	1	7
NM	Santa Fe	1948	1	6
NM	Santa Fe	1948	1	3
NM	Santa Fe	1948	1	2
NM	Santa Fe	1930	1	7
NM	Santa Fe	1930	1	6
NM	Santa Fe	1930	1	3
NM	Santa Fe	1930	1	2
NM	Santa Fe	1921	1	6
NM	Santa Fe	1921	1	5
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NM	Santa Fe	1913	1	6
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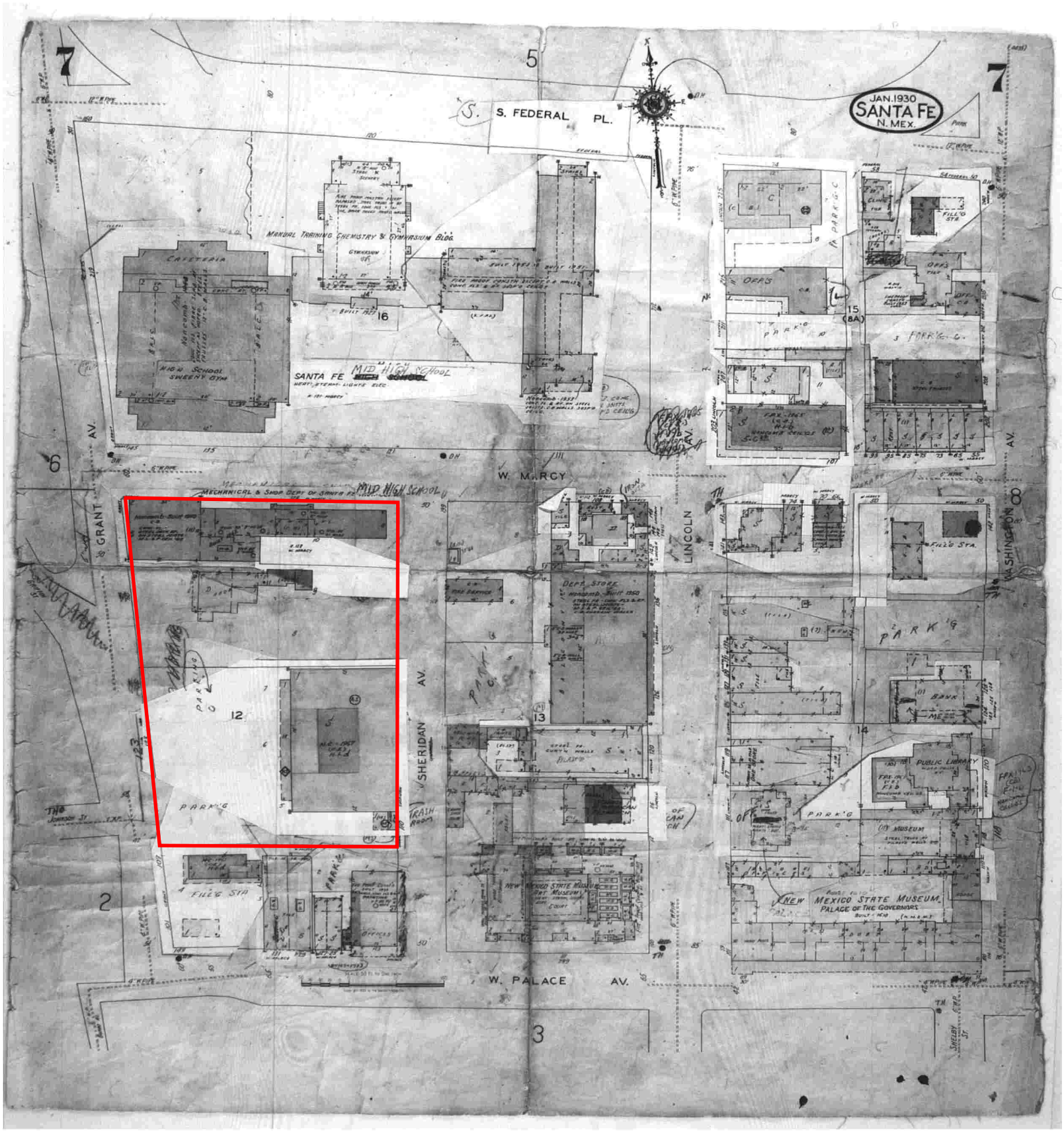
NM	Santa Fe	1902	1	8
NM	Santa Fe	1902	1	7
NM	Santa Fe	1902	1	5
NM	Santa Fe	1902	1	4
NM	Santa Fe	1898	1	4
NM	Santa Fe	1890	1	4
NM	Santa Fe	1886	1	3
NM	Santa Fe	1883	1	2

Appendix
Supporting Documentation



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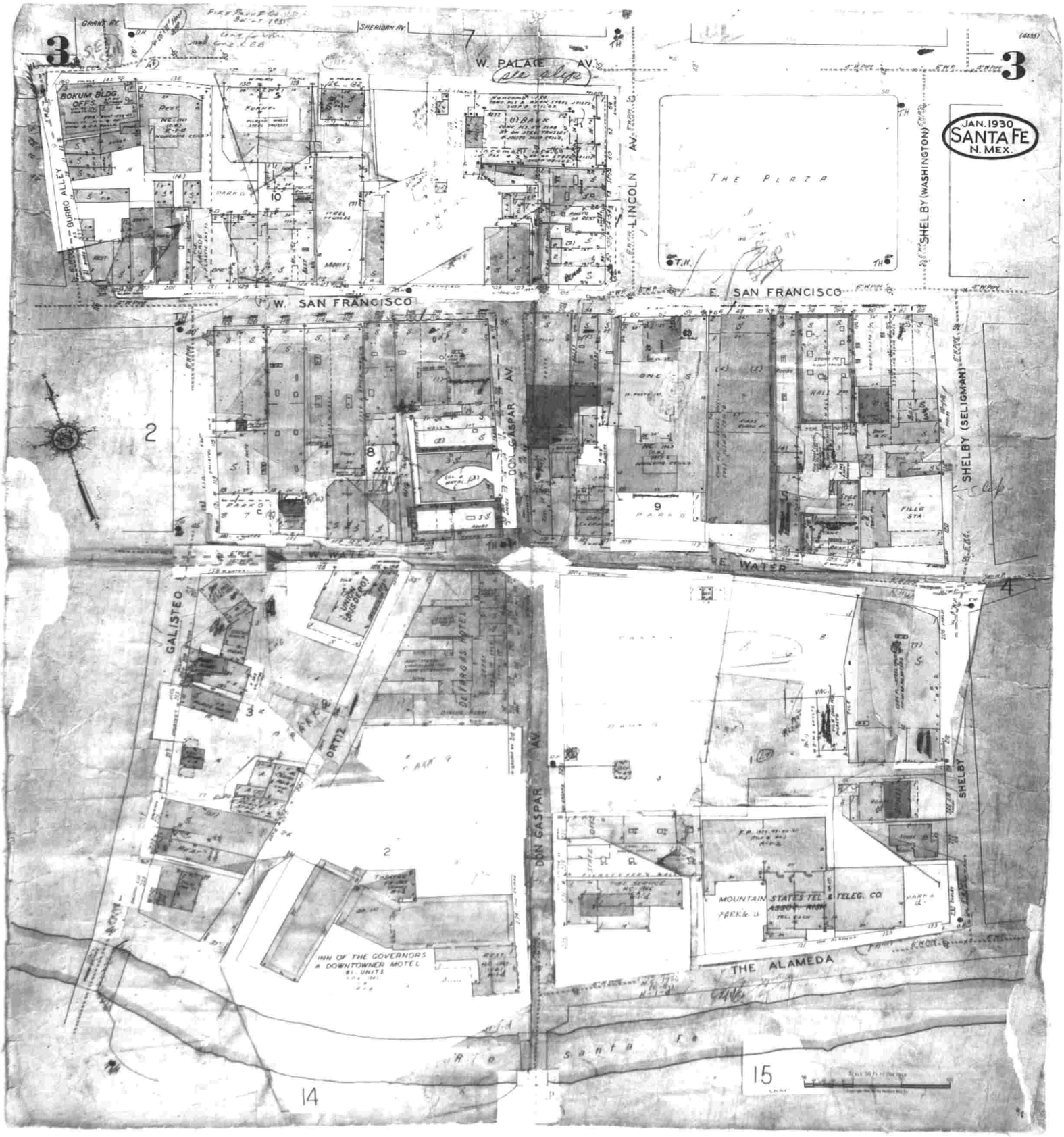

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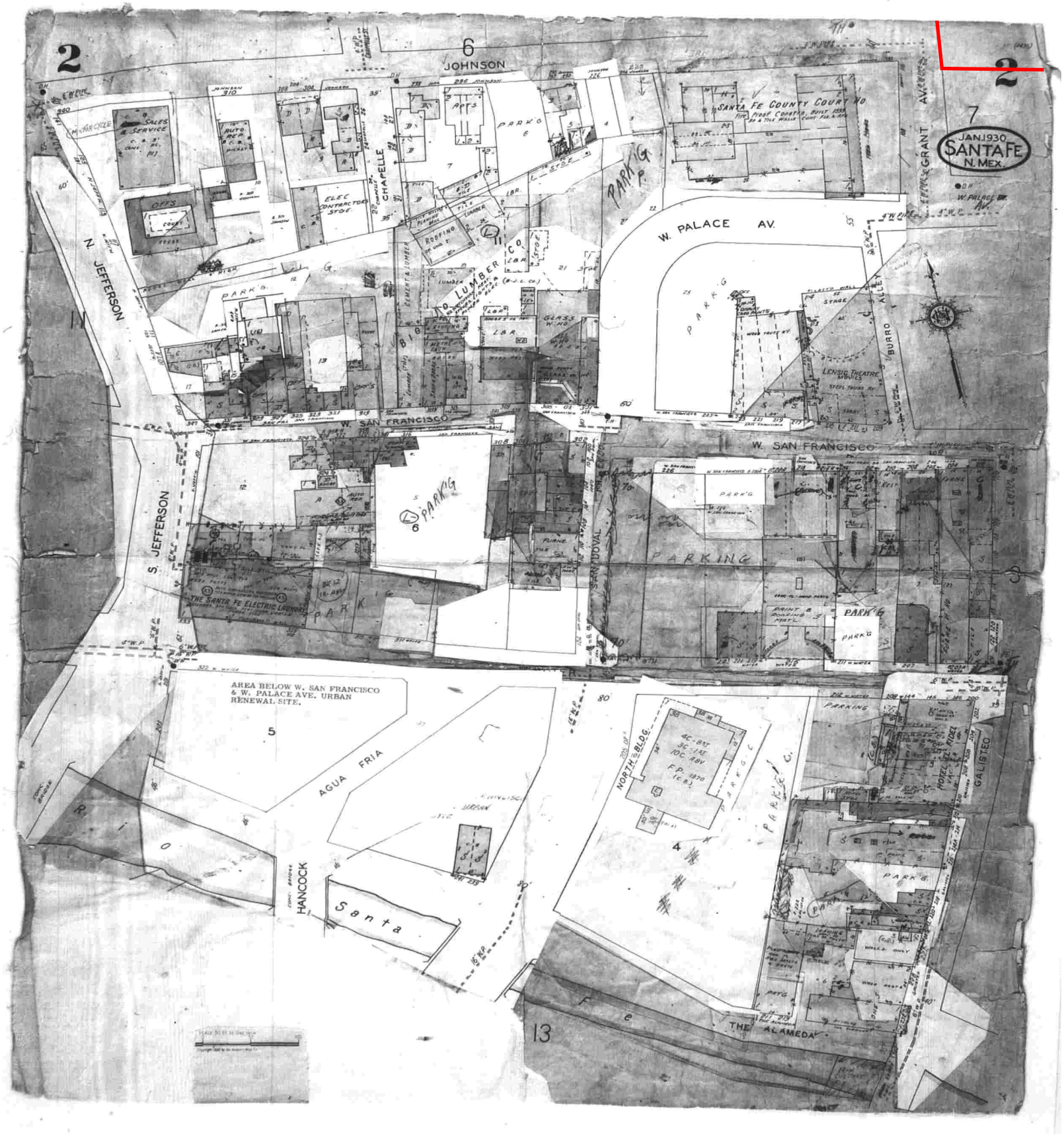

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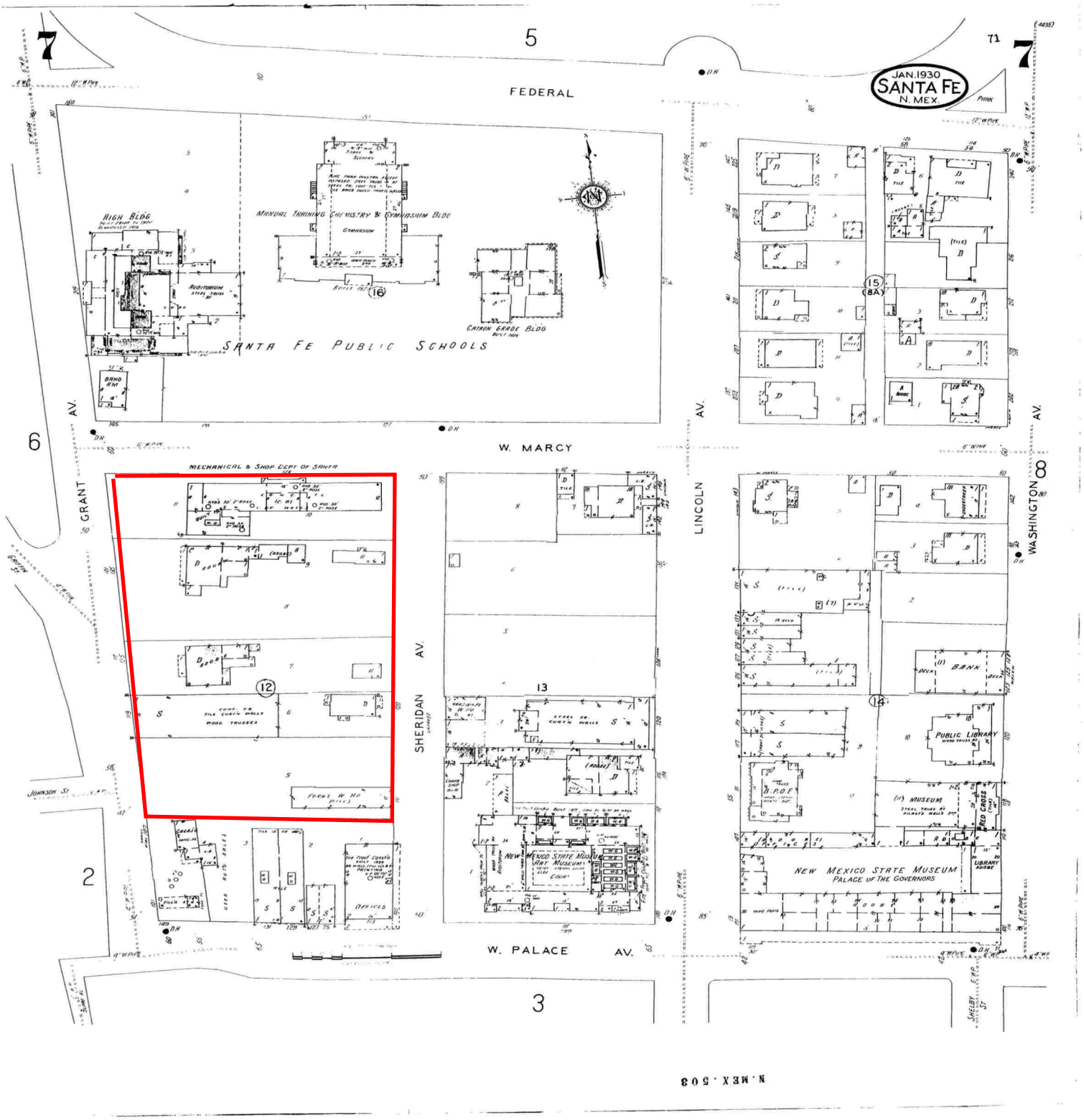

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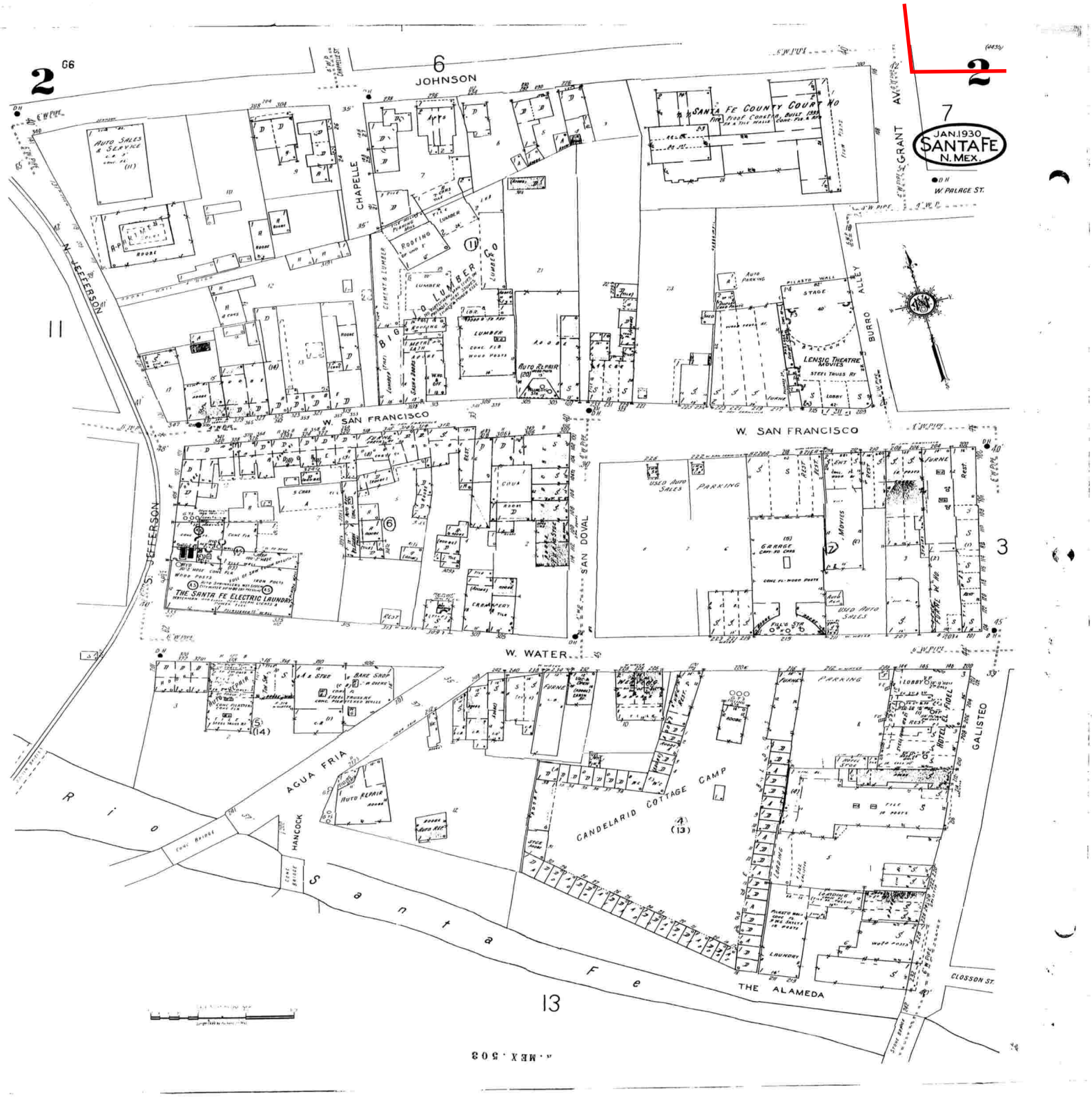

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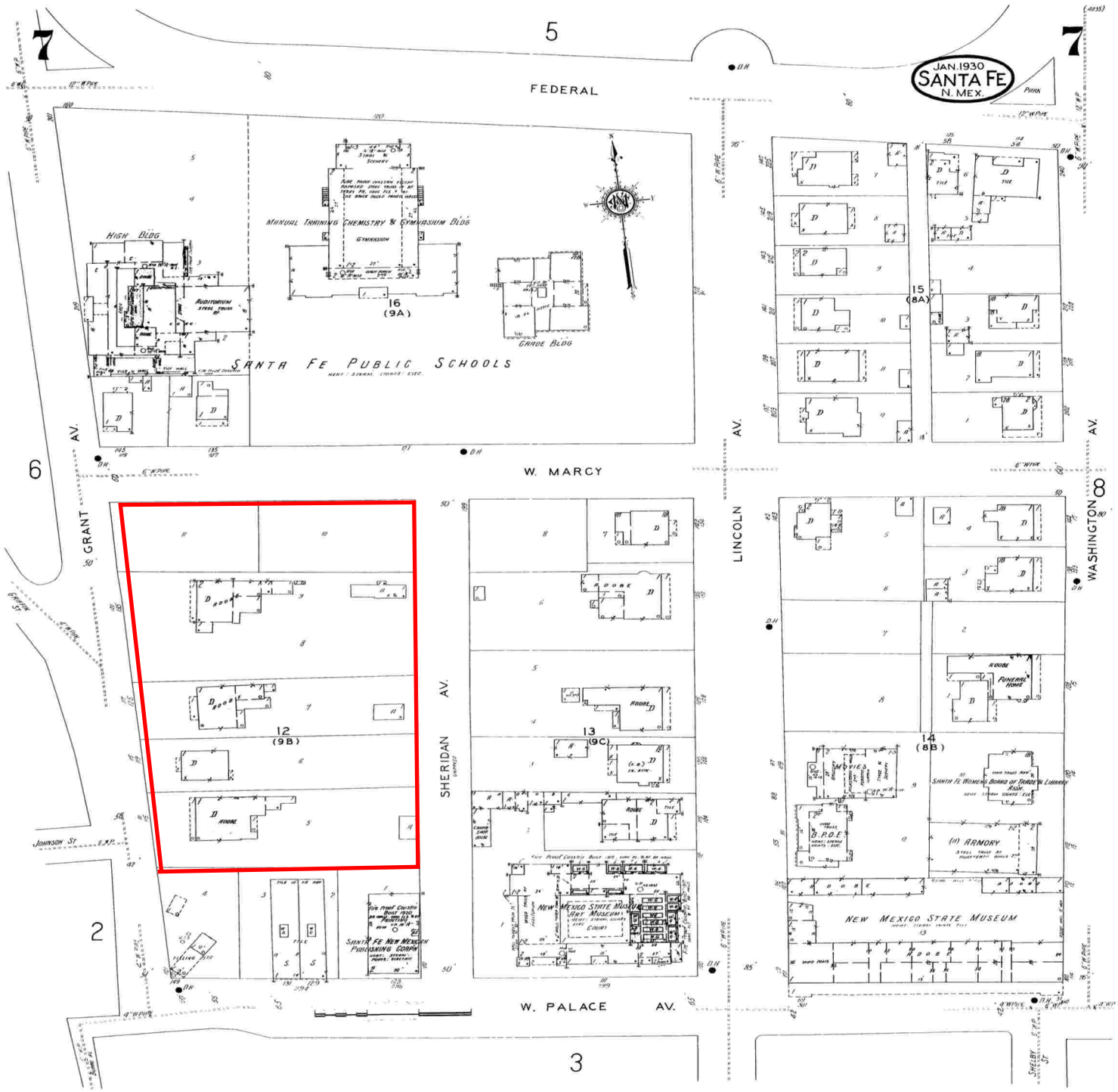

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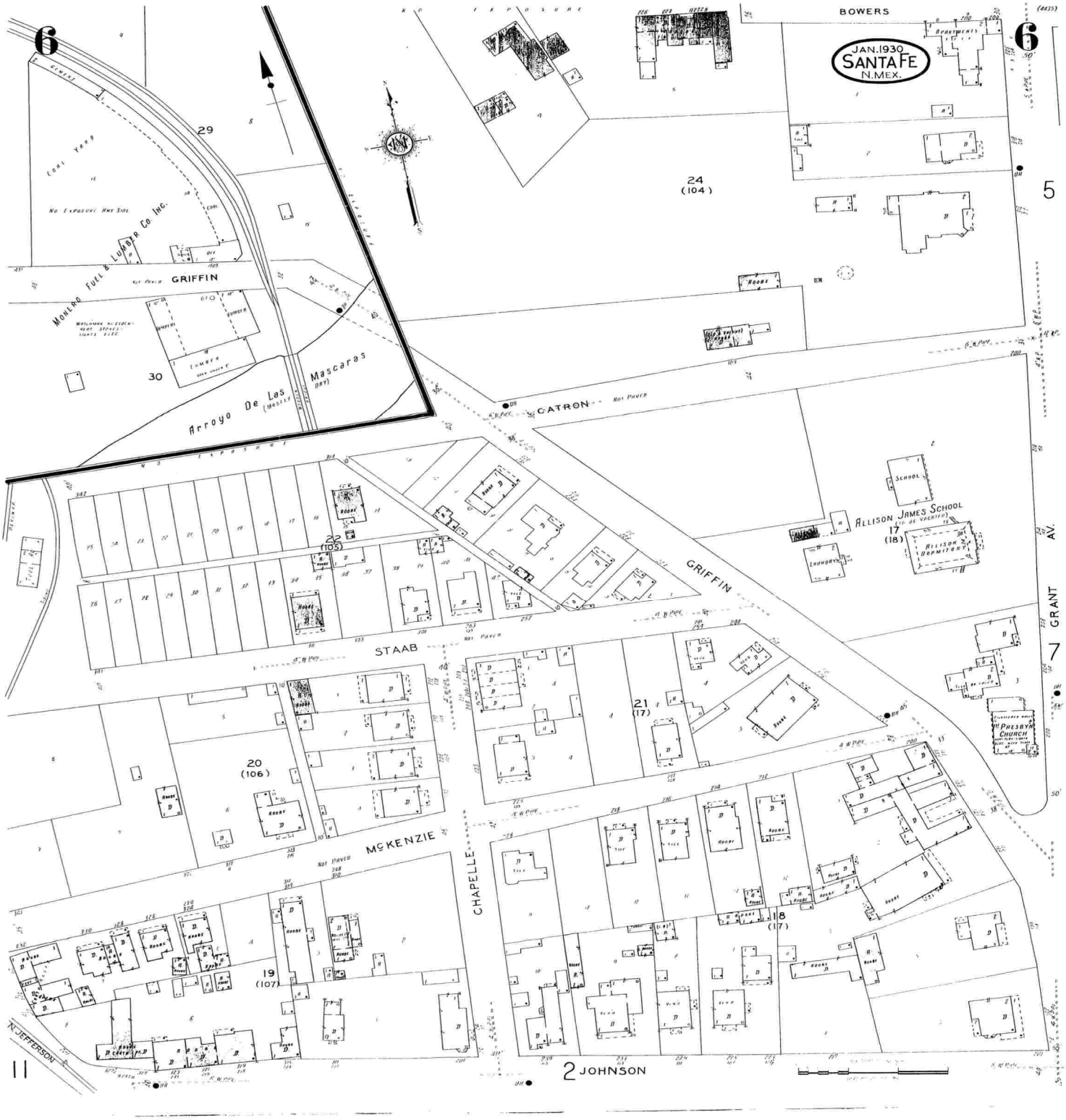

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Sheet 3
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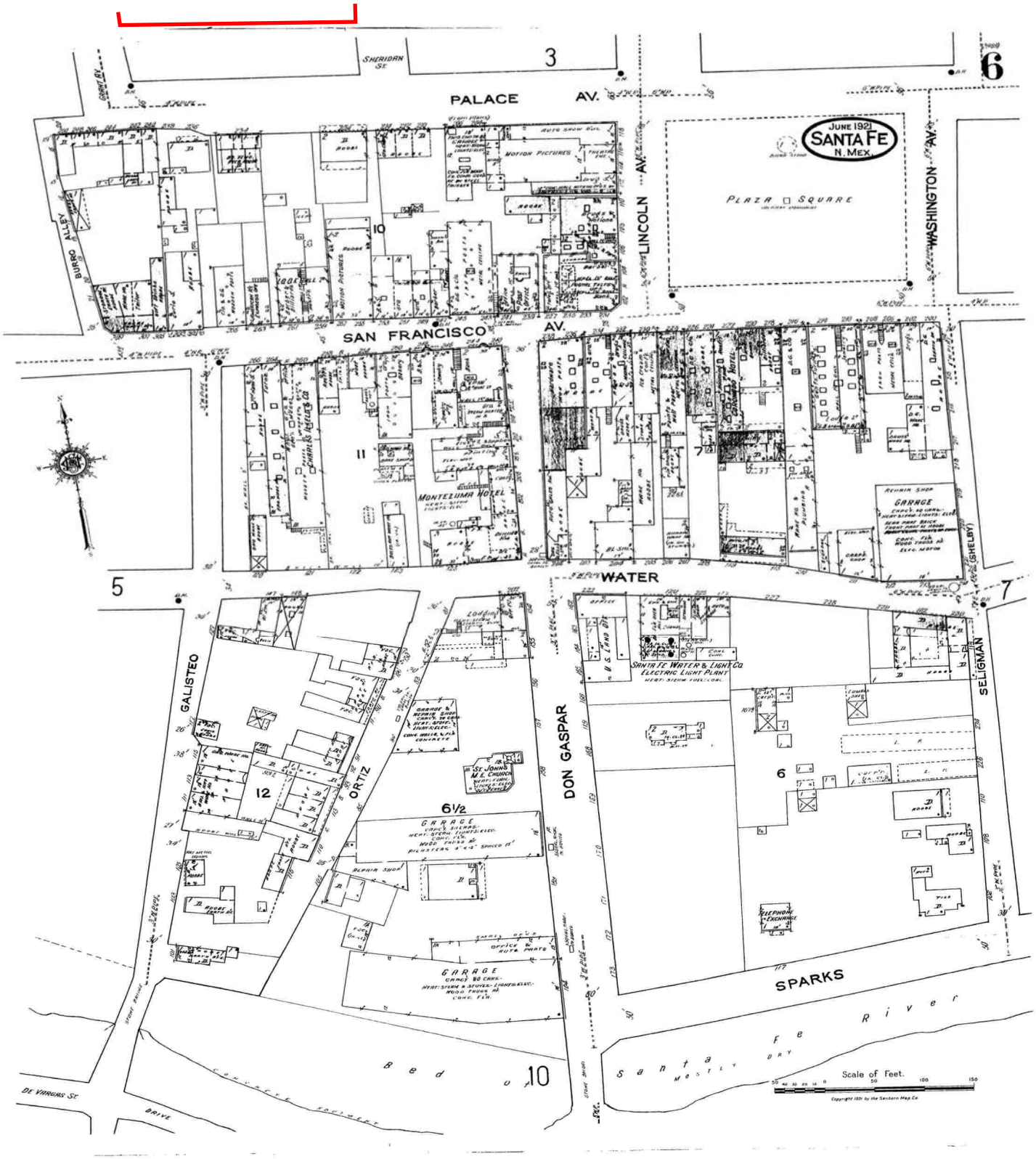

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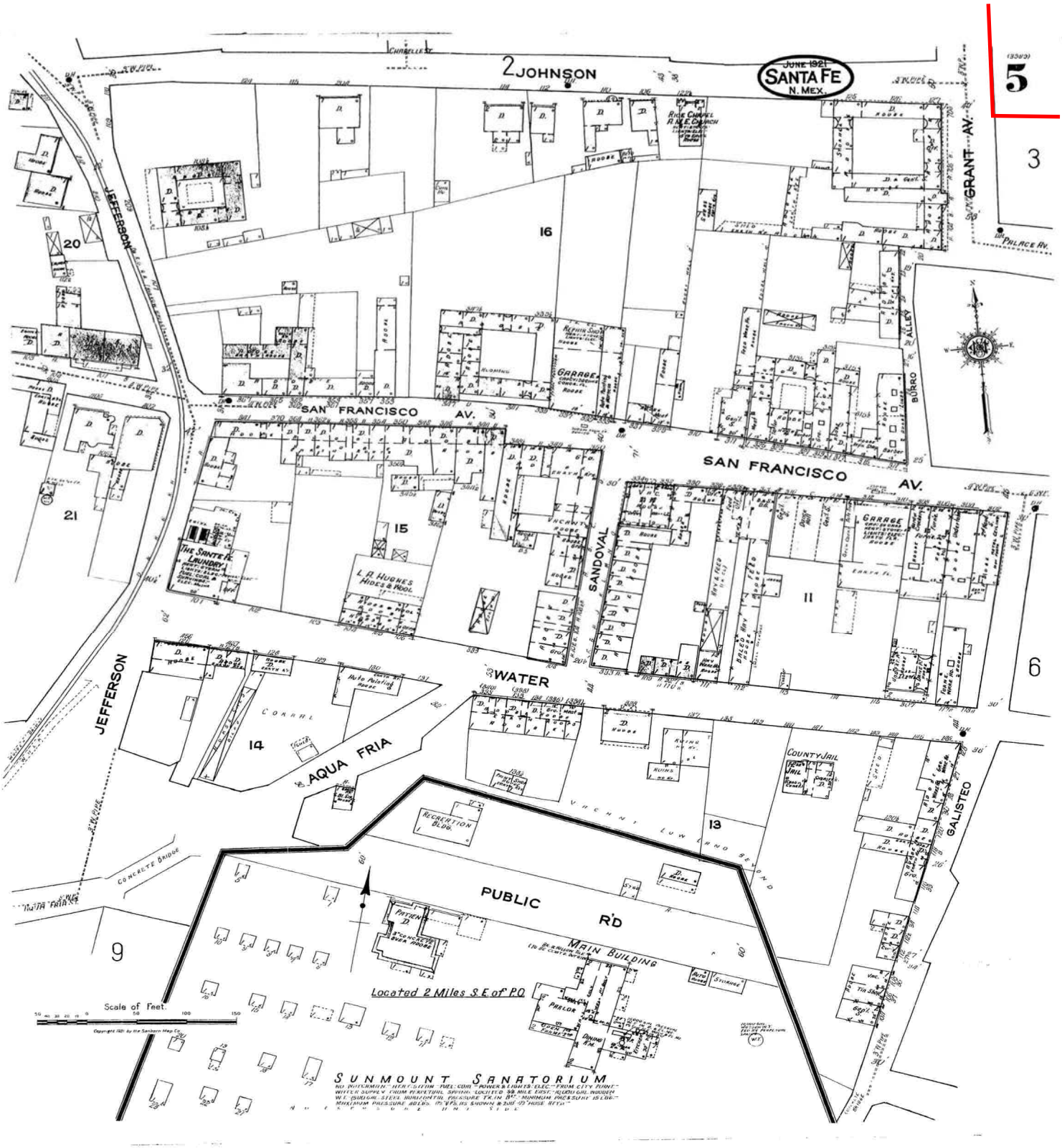

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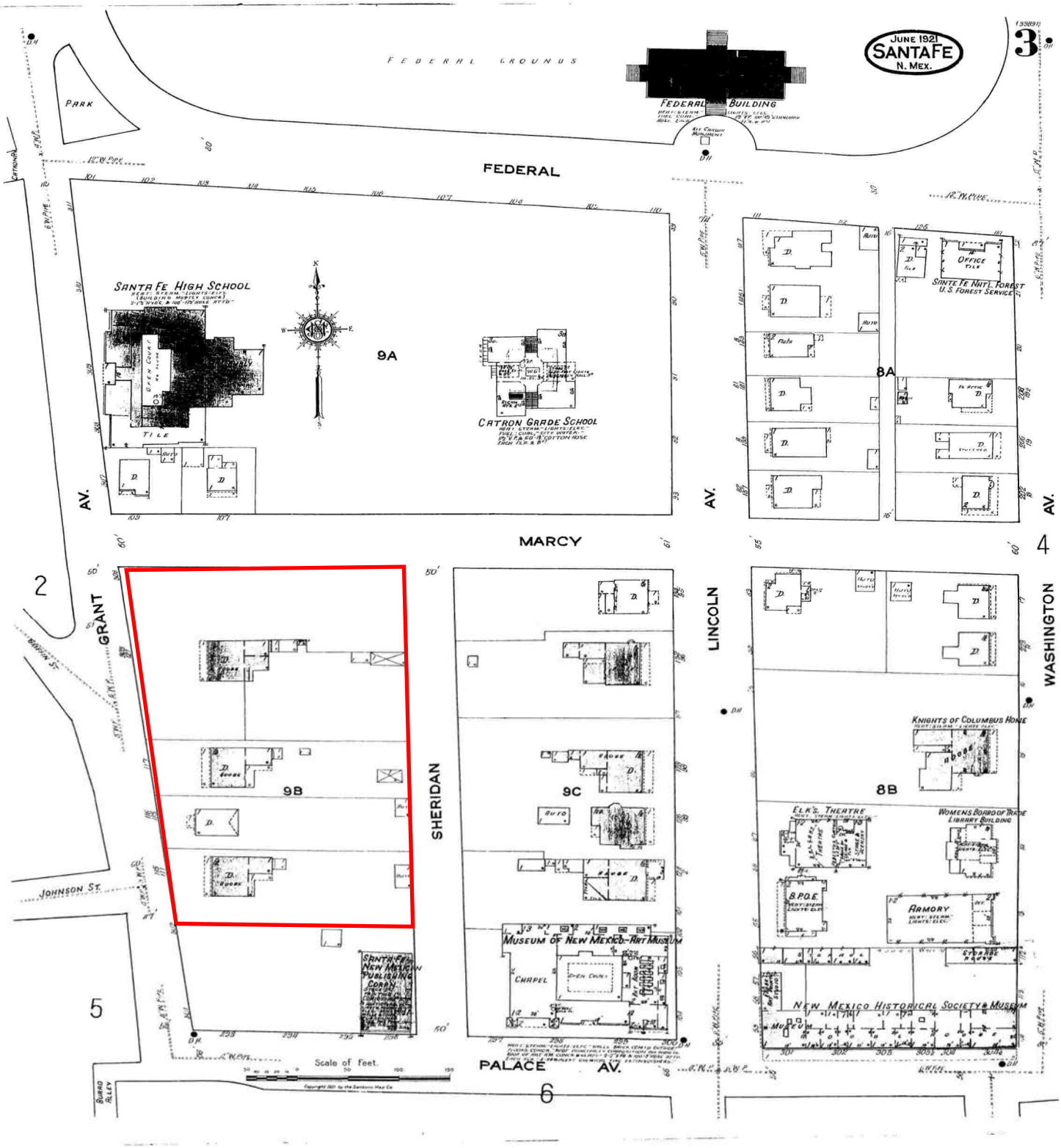

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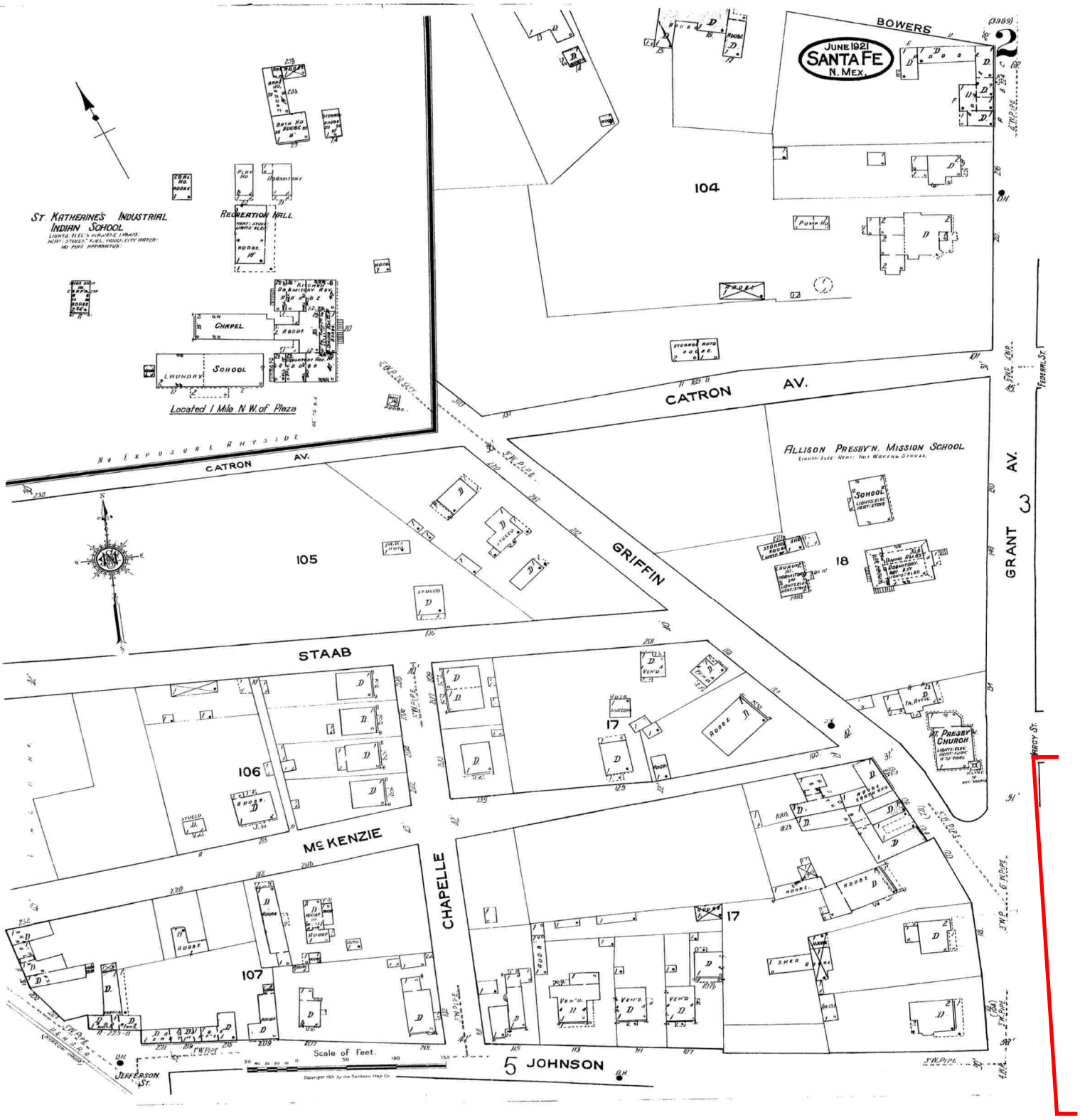

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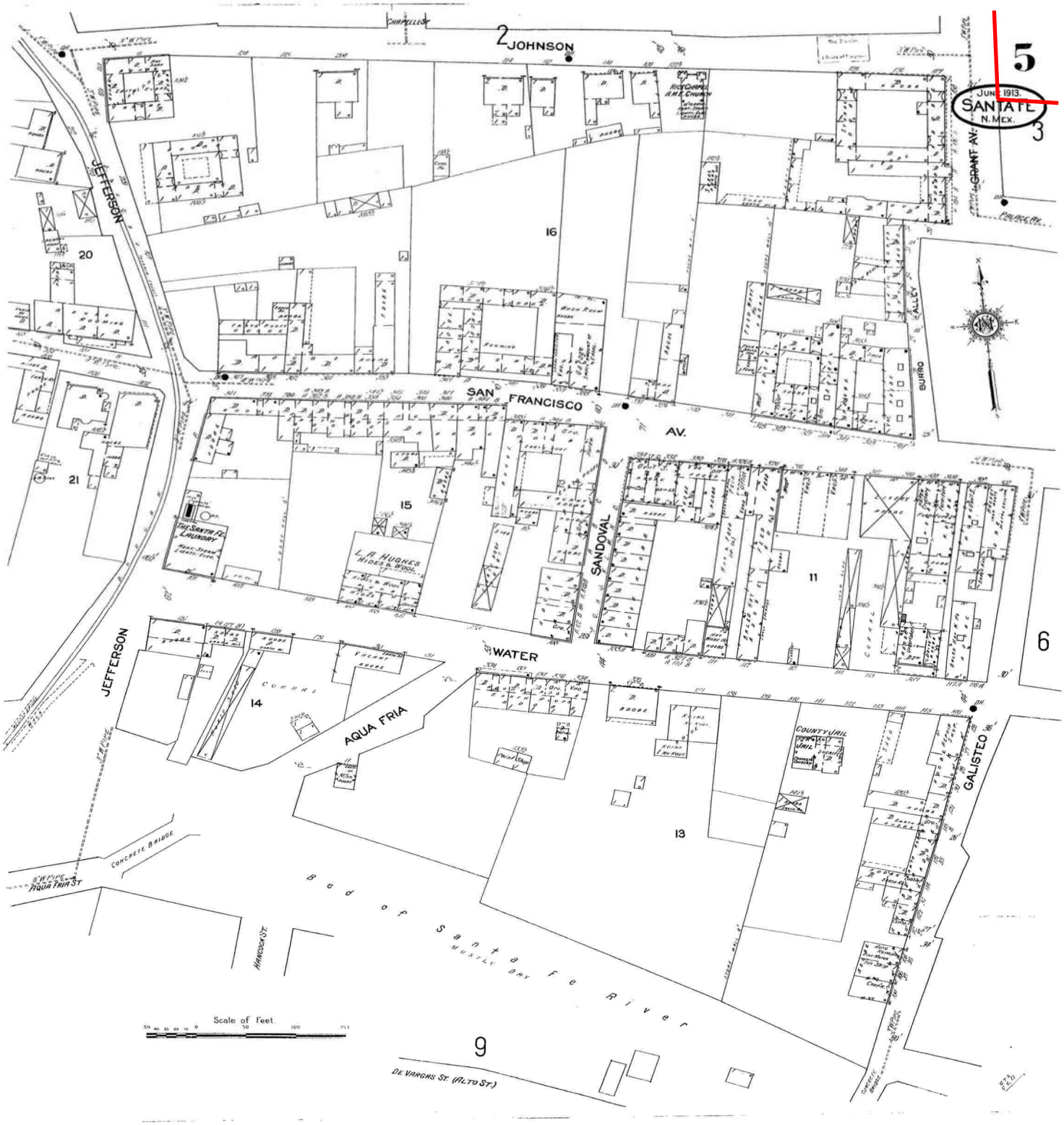

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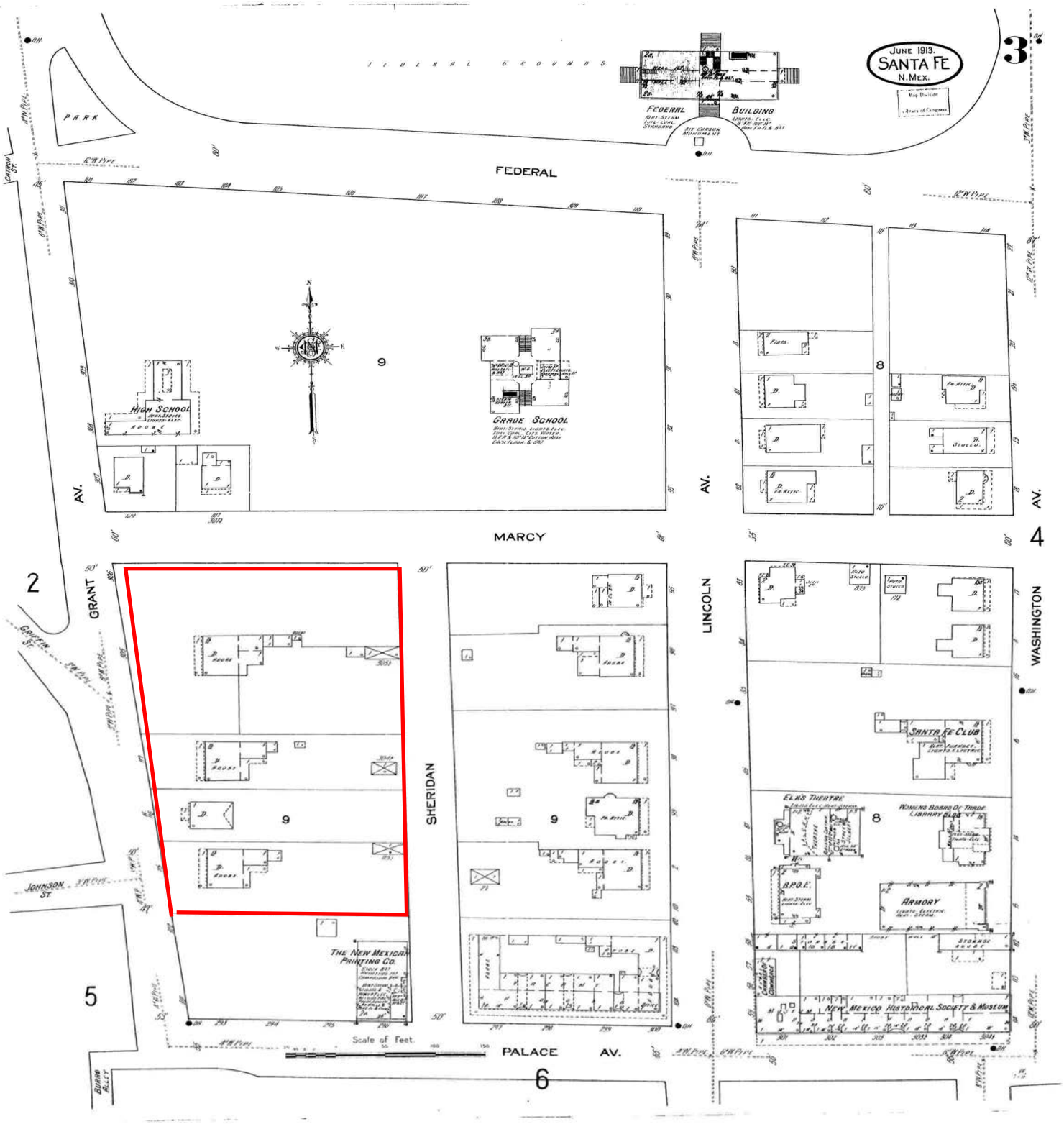

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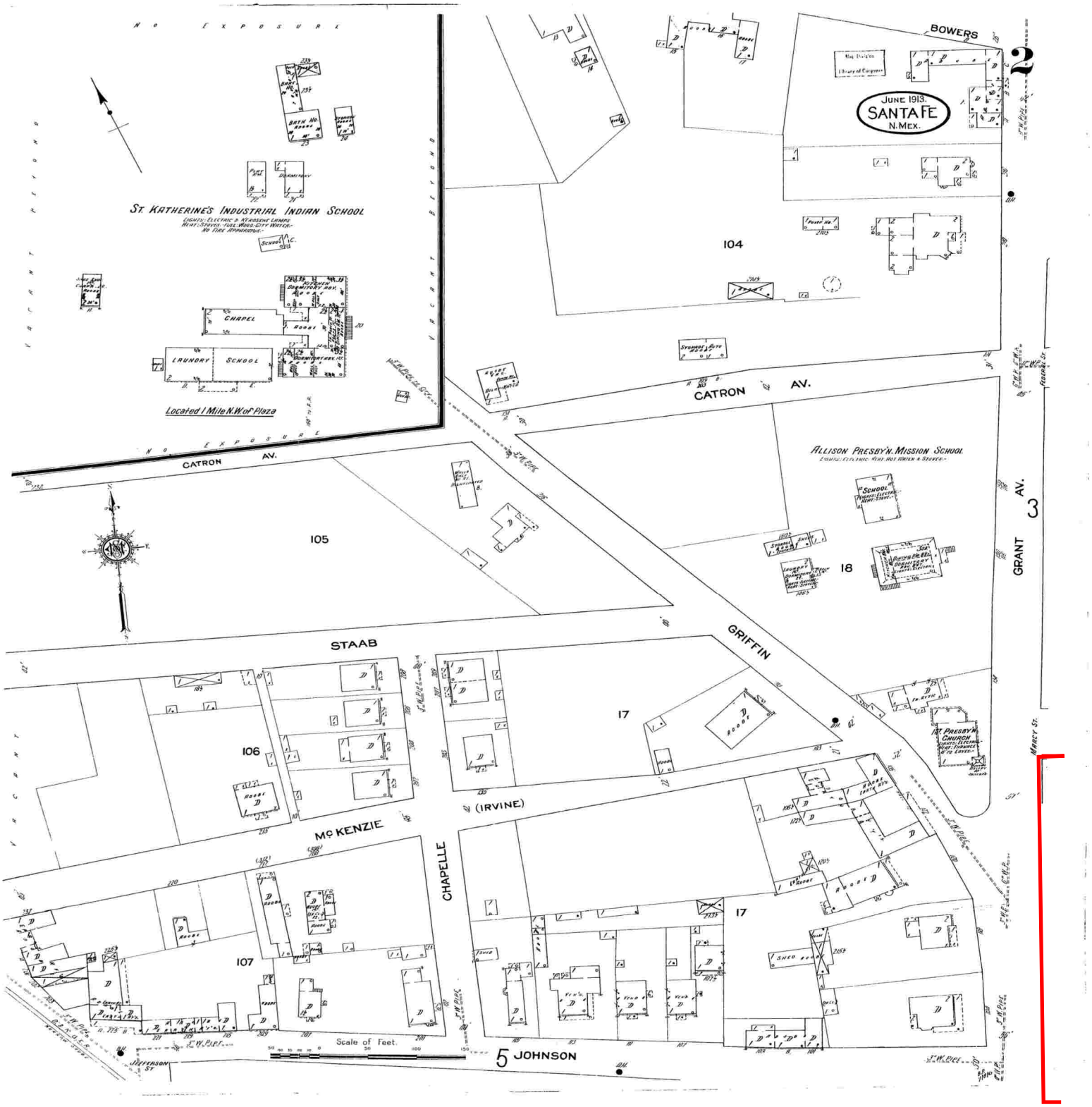

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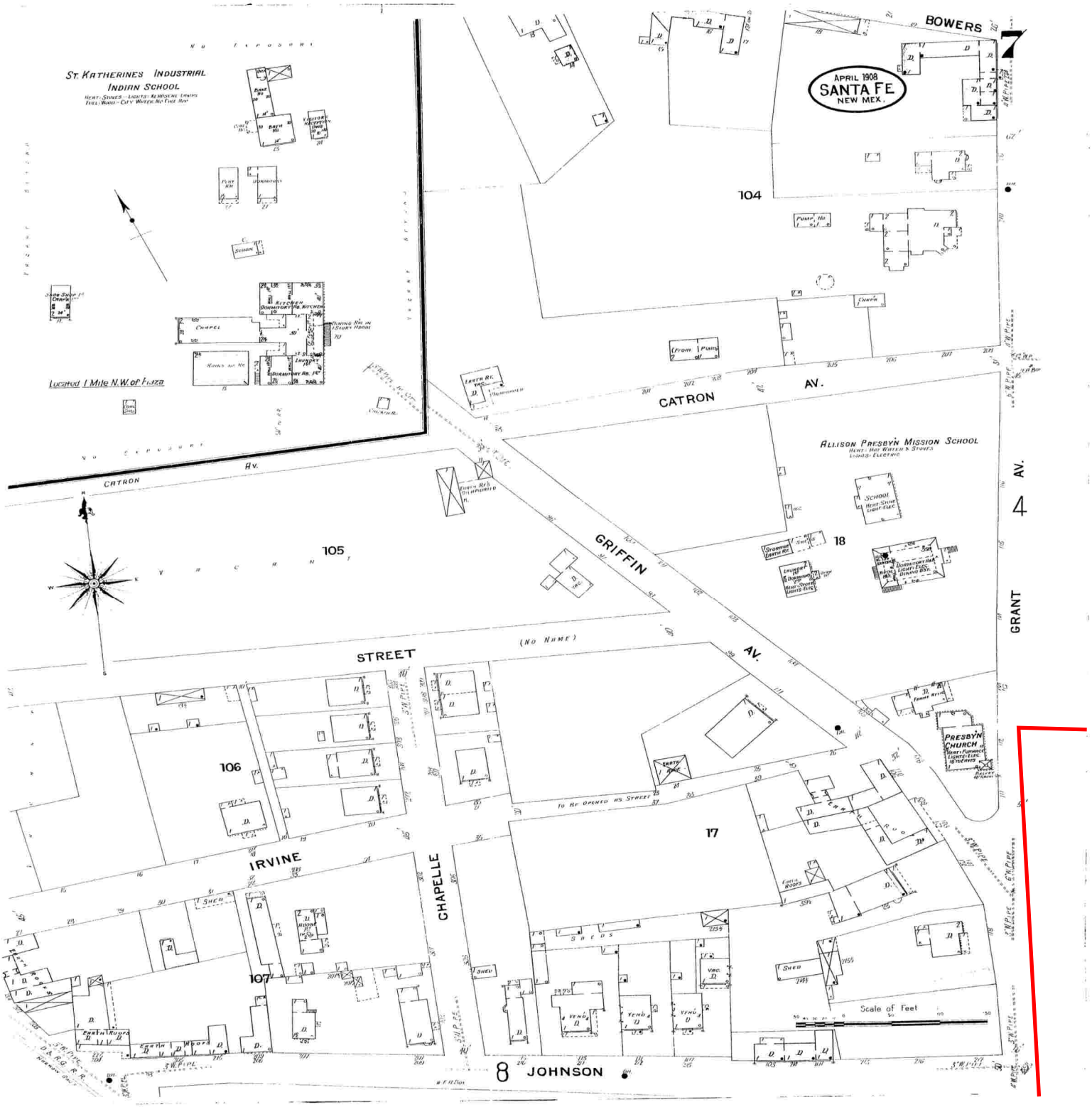

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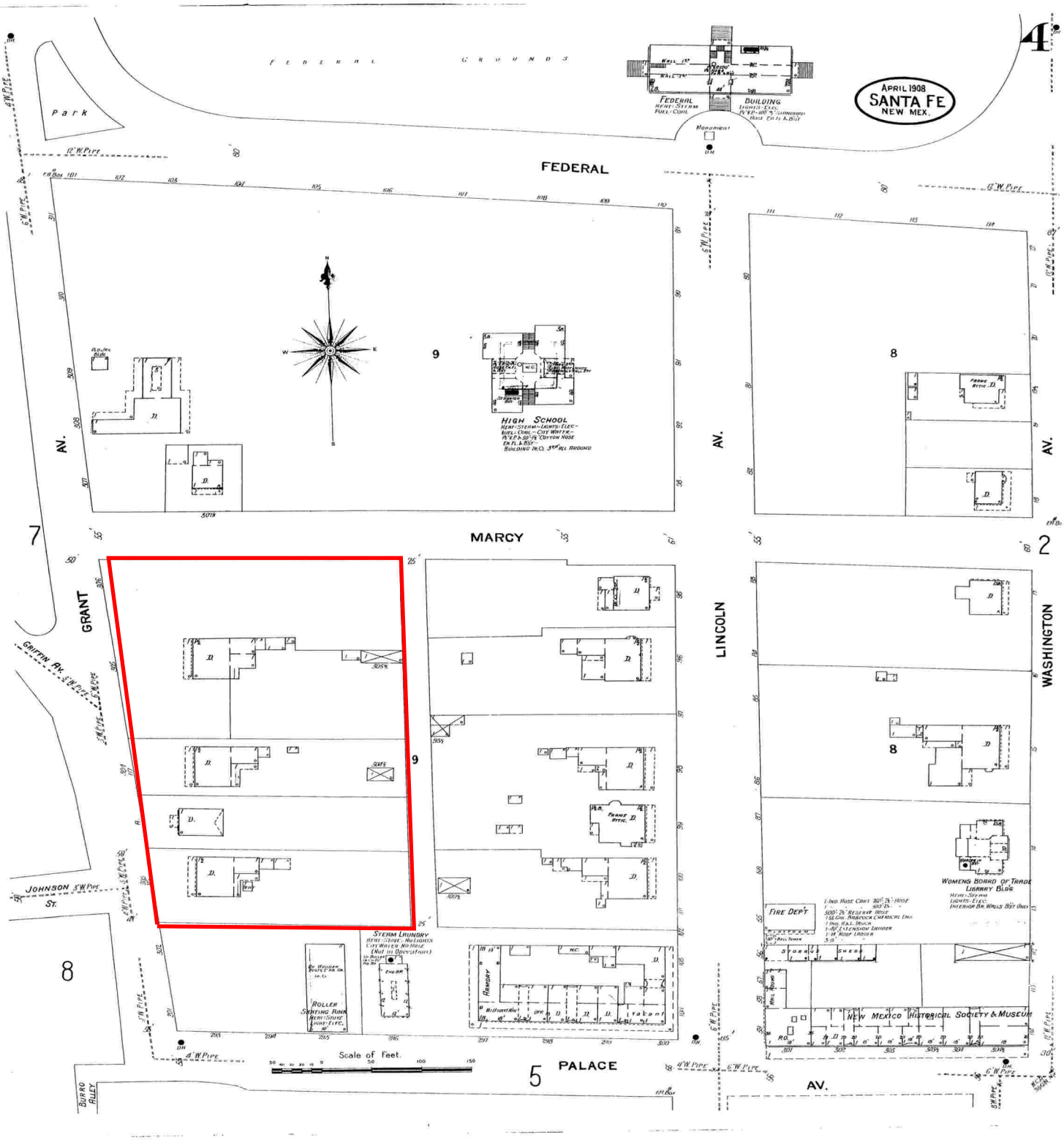

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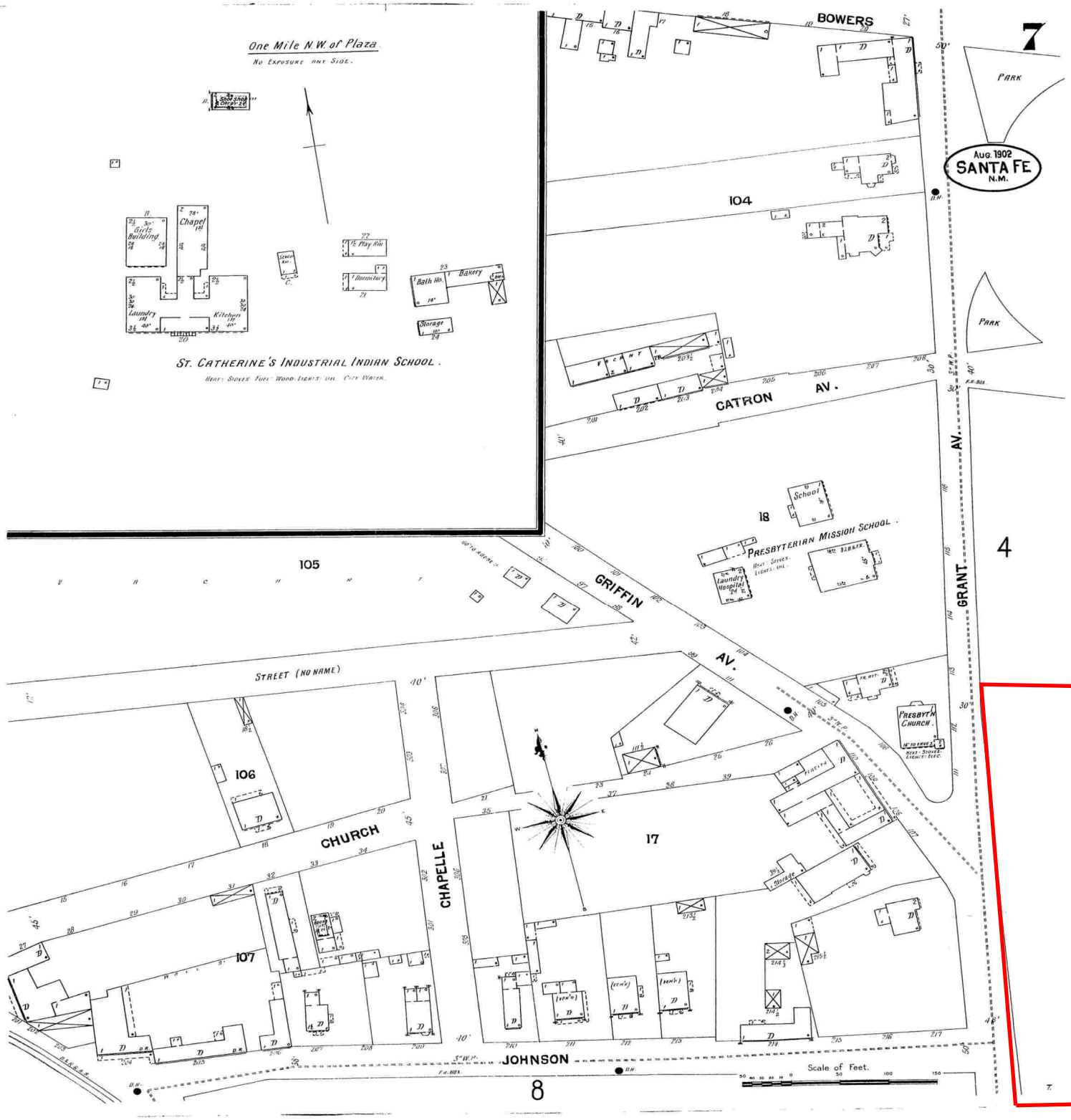

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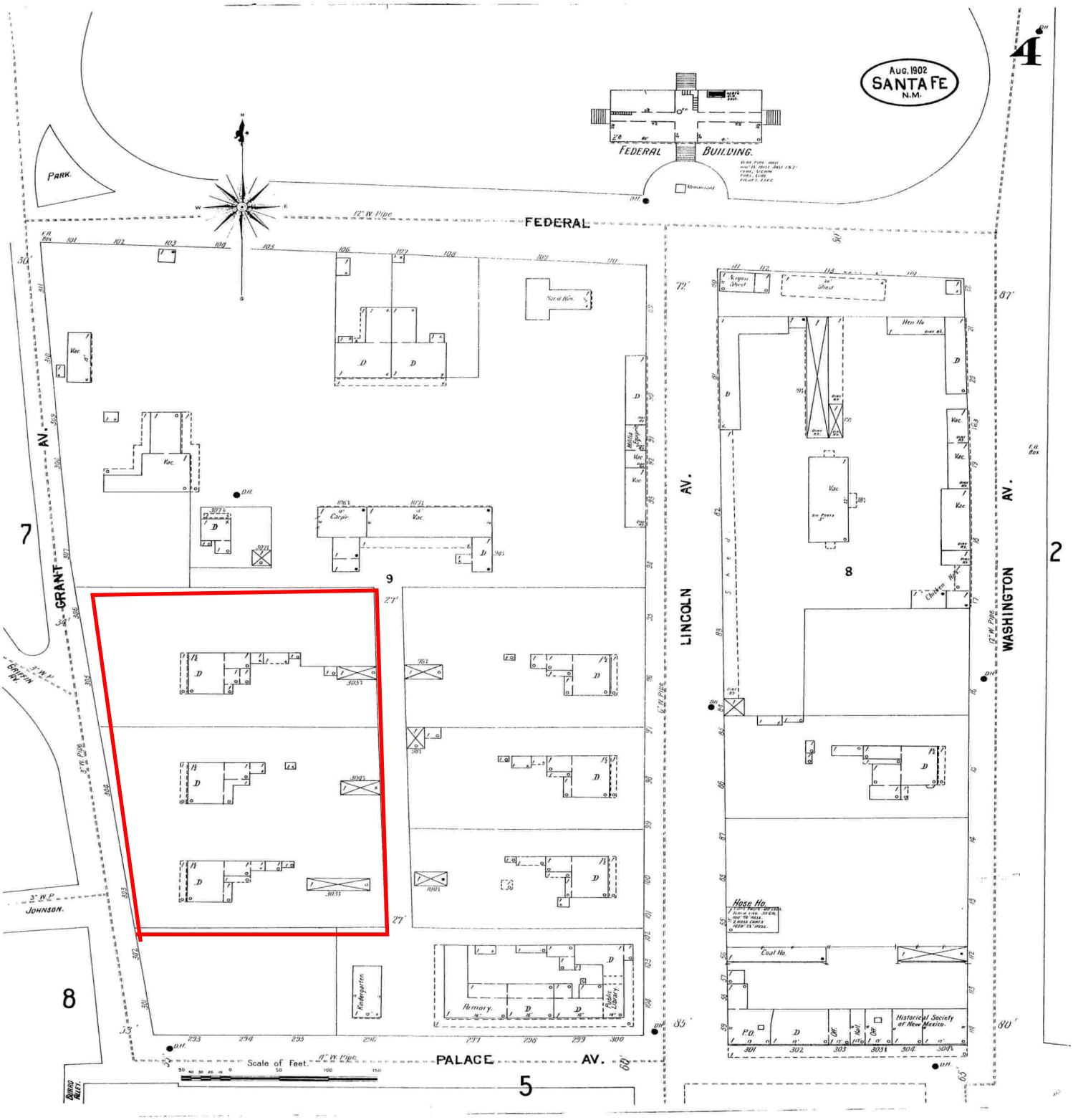

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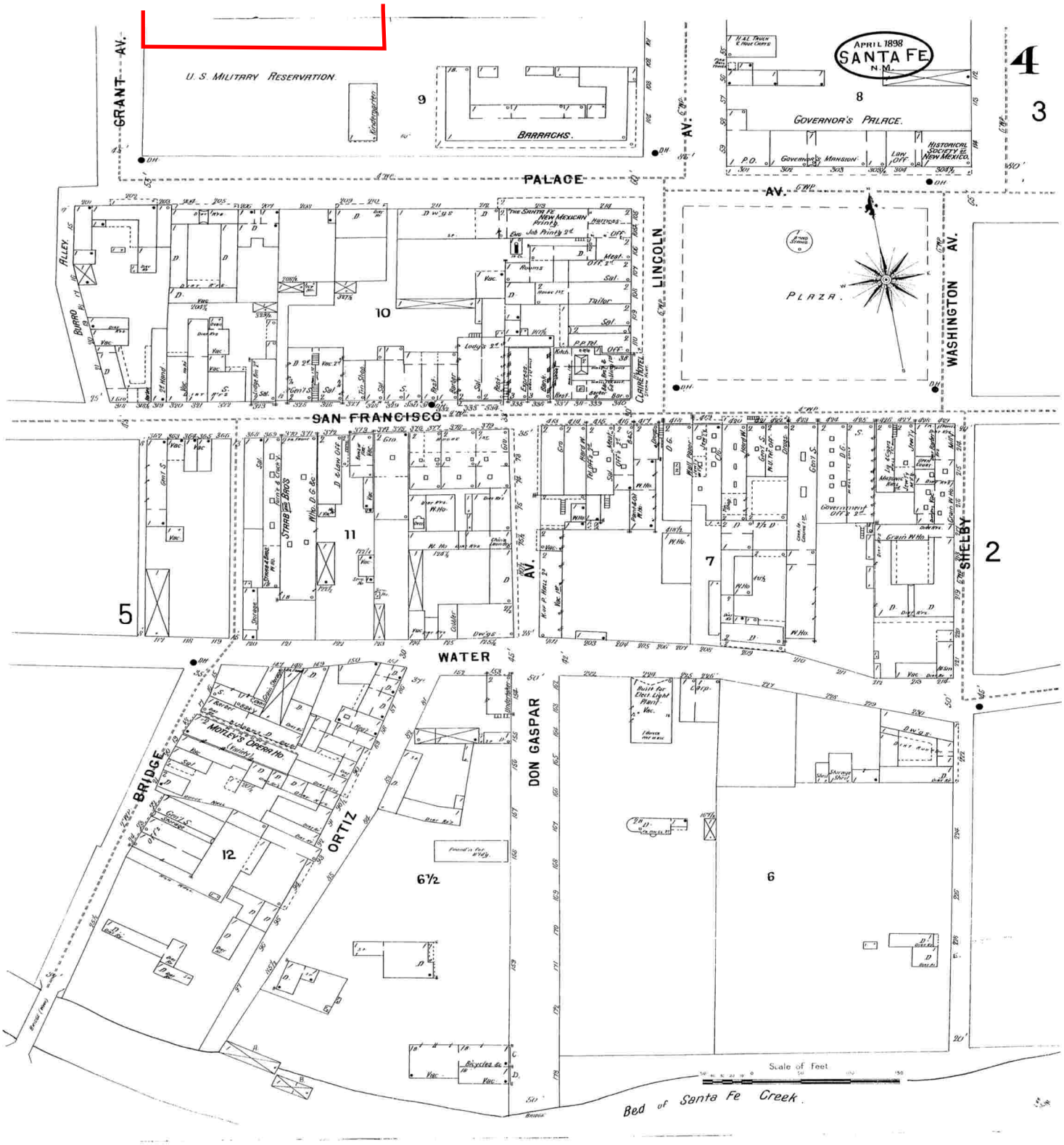

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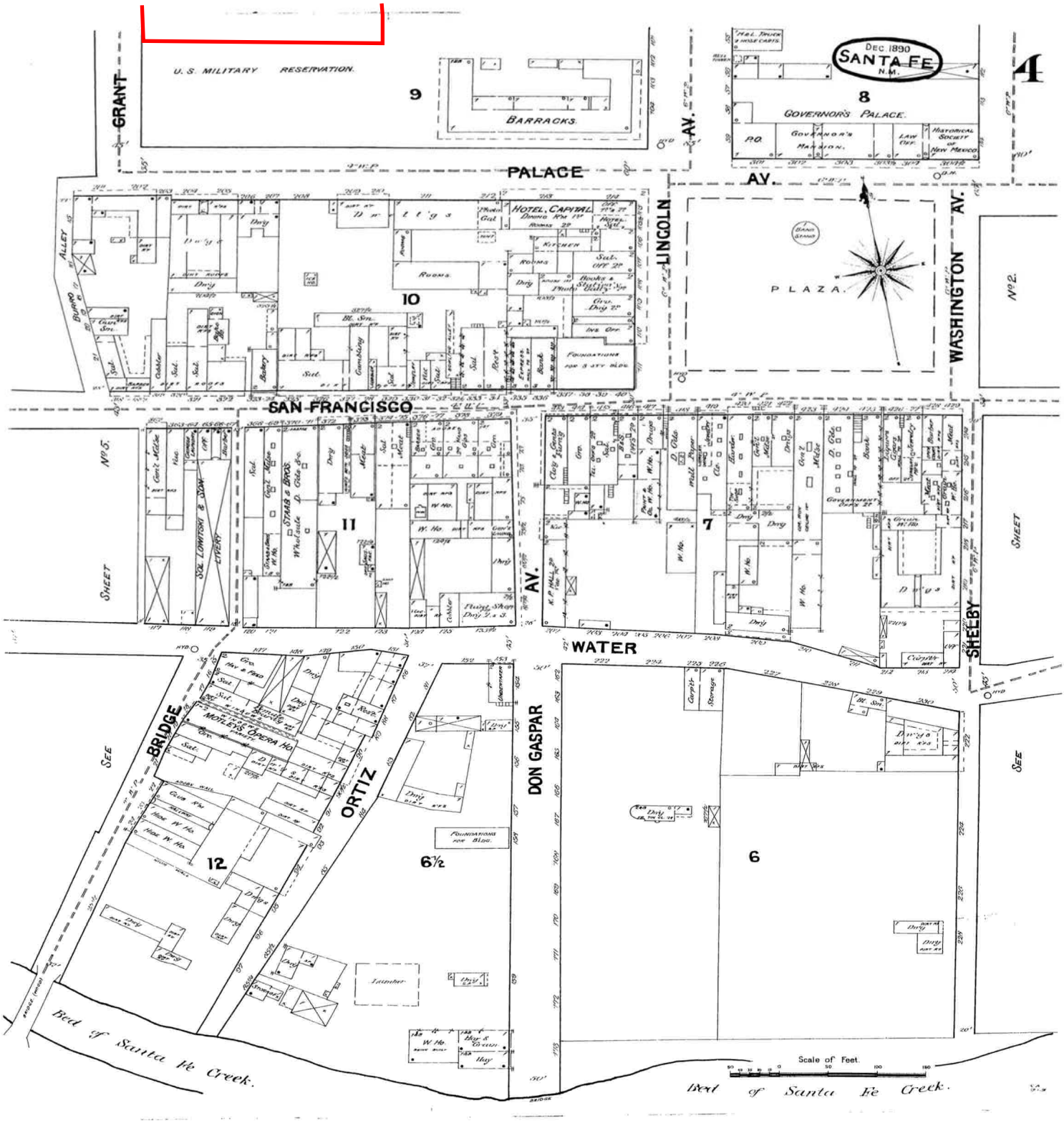

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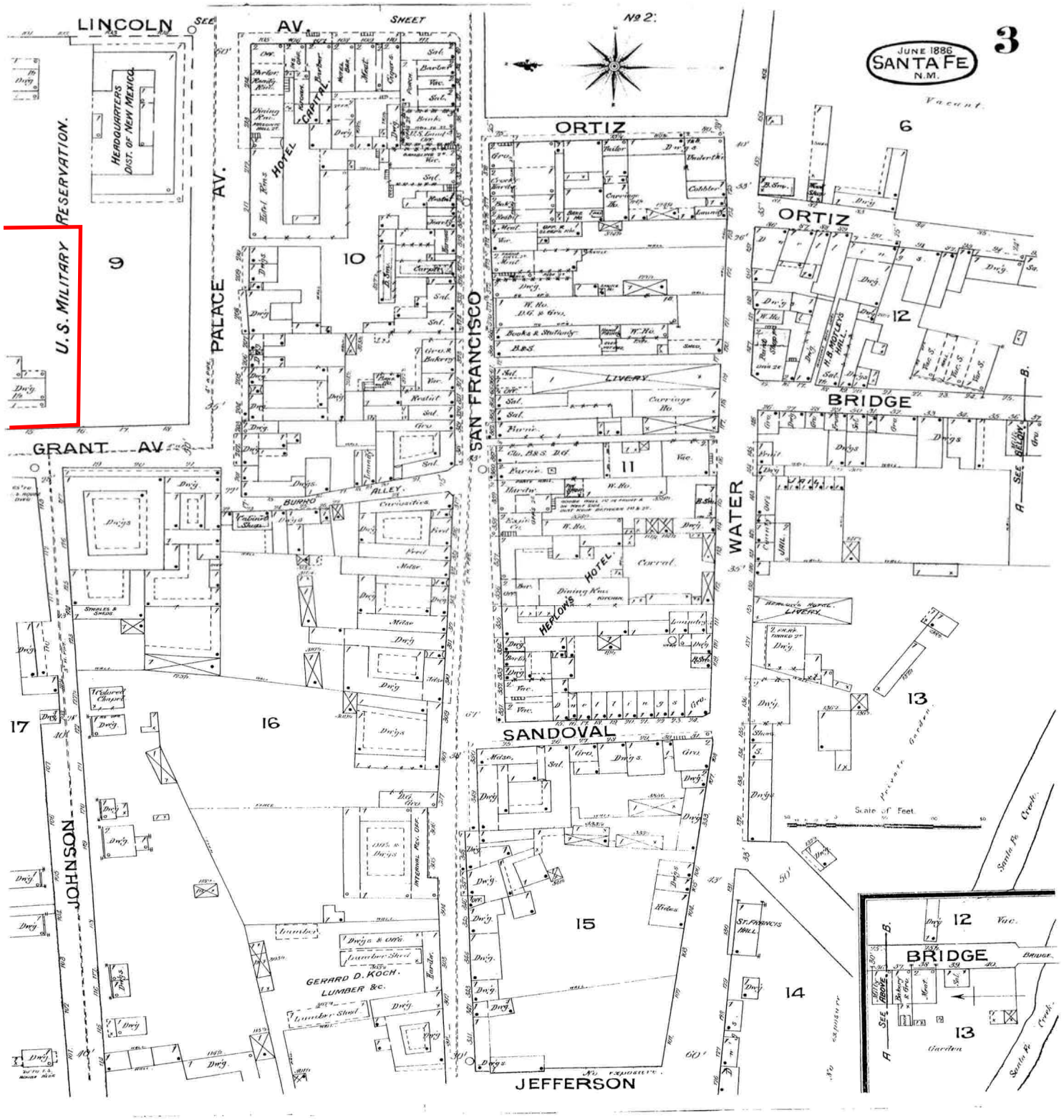

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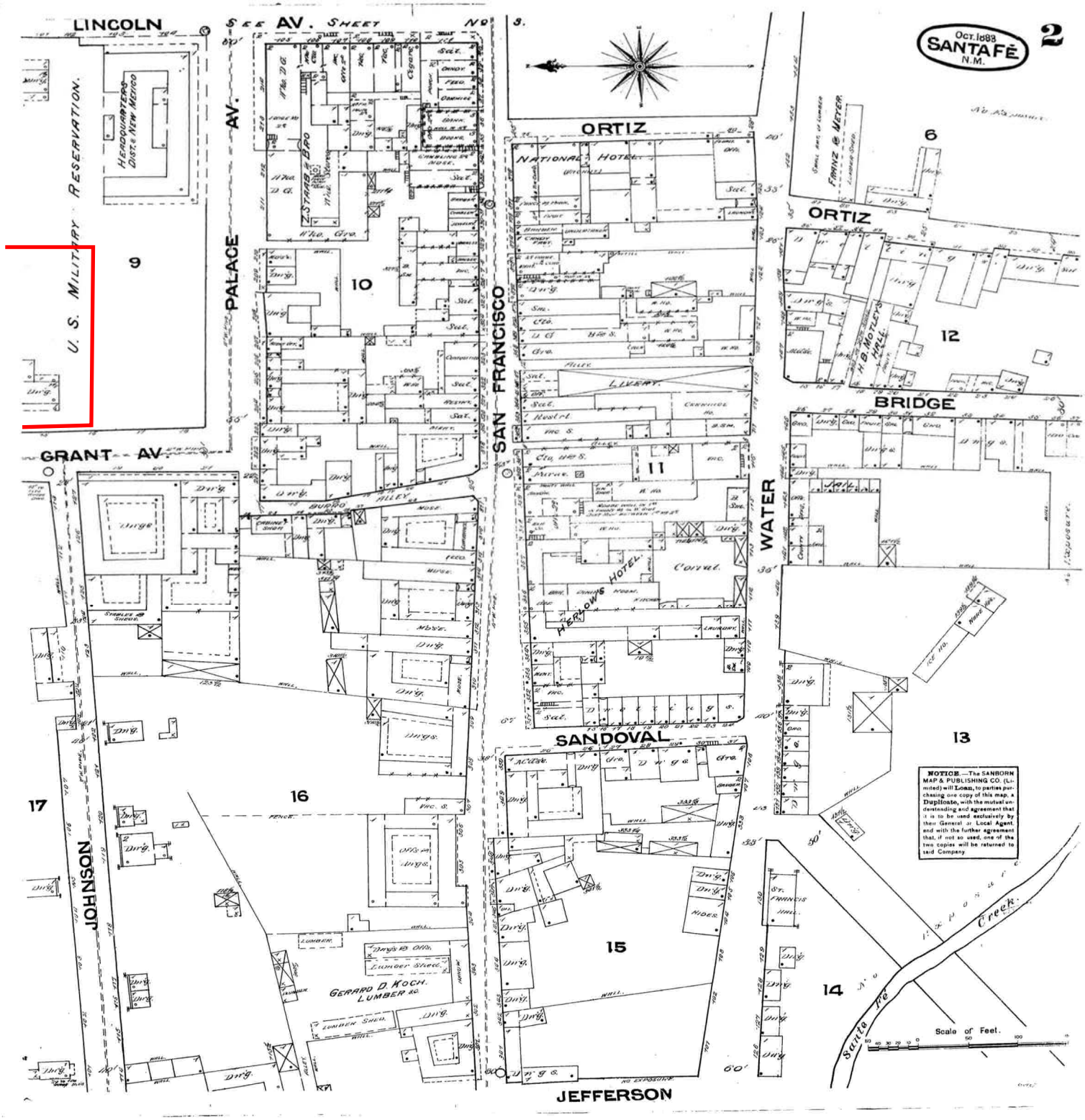

Sheet 2
1883

APPENDIX D
ENVIRONMENTAL DATABASE INFORMATION

GeoSearch
On time. On target. In touch.™

Radius Report

GeoLens by GeoSearch

Target Property:

Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, Santa Fe County, New Mexico 87501

Prepared For:

Terracon Consultants-Albuquerque

Order #: 145645
Job #: 350605
Project #: 66197226
Date: 05/06/2020

Table of Contents

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR ï¿½312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR ï¿½312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Target Property Information

Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, New mexico 87501

Coordinates
Area centroid (-105.93984, 35.6892165)
6,986 feet above sea level

USGS Quadrangle
Santa Fe, NM

Geographic Coverage Information

County/Parish: Santa Fe (NM)
ZipCode(s):
Santa Fe NM: 87501, 87505, 87506

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSNM	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR06	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR	RCRANGR06	0	0	0.1250
BROWNFIELDS MANAGEMENT SYSTEM	BF	4	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	1	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	0	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000

SUB-TOTAL		5	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	BRS	0	0	TP/AP
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR06	2	0	TP/AP
FACILITY REGISTRY SYSTEM	FRSNM	3	0	TP/AP

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR06	0	0	TP/AP
HAZARDOUS WASTE COMPLIANCE DOCKET FACILITIES	HWCD	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	MLTS	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR06	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR06	0	0	TP/AP
SEMS LIEN ON PROPERTY	SEMSLIENS	0	0	TP/AP
SSEHRI PFAS CONTAMINATION SITES	SSEHRIPFAS	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	ALTFUELS	3	0	0.2500
FEMA OWNED STORAGE TANKS	FEMAUST	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	MSHA	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	MRDS	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	SMCRA	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	USUMTRCA	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	NMS	0	0	1.0000
FORMERLY USED DEFENSE SITES	FUDS	1	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	FUSRAP	0	0	1.0000
RECORD OF DECISION SYSTEM	RODS	0	0	1.0000

SUB-TOTAL		9	0	

Database Summary

STATE (NM) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
SITES WITH INSTITUTIONAL CONTROLS	IC	0	0	TP/AP
ABOVEGROUND STORAGE TANKS	AST	0	0	0.2500
PETROLEUM STORAGE TANKS	PST	3	0	0.2500
UNDERGROUND STORAGE TANKS	UST	3	0	0.2500
BROWNFIELD SITES	BF	2	0	0.5000
LEAKING ABOVEGROUND AND UNDERGROUND STORAGE TANKS	LST	7	0	0.5000
LEAKING UNDERGROUND STORAGE TANKS	LUST	8	0	0.5000
SOLID WASTE FACILITIES	SWLF	3	0	0.5000
VOLUNTARY REMEDIATION PROGRAM SITES	VRP	3	0	0.5000
COMPLIANCE AND ENFORCEMENT PROGRAM CLEANUP SITES	CEPCS	5	0	1.0000

SUB-TOTAL		34	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CLANDESTINE DRUG LAB LOCATIONS	CDL	0	0	TP/AP
DISCHARGE PERMITS	DPERMITS	0	0	TP/AP
RECYCLING CENTERS	RCY	1	0	0.5000
SOUTHWEST RESEARCH AND INFORMATION CENTER URANIUM SITES	US	0	0	0.5000

SUB-TOTAL		1	0	

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR06	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR06	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	

TOTAL		49	0	

Database Radius Summary

FEDERAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
ECHOR06	0.0200	2	NS	NS	NS	NS	NS	2
ERNSNM	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
FRSNM	0.0200	3	NS	NS	NS	NS	NS	3
HMIRSR06	0.0200	0	NS	NS	NS	NS	NS	0
HWCD	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR06	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR06	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSEHRIPFAS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR06	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
RCRANGR06	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
ALTFUELS	0.2500	0	2	1	NS	NS	NS	3
FEMAUST	0.2500	0	0	0	NS	NS	NS	0
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	**0.5000**	**0**	**1**	**2**	**1**	**NS**	**NS**	**4**
DNPL	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
NLRRCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMS	**0.5000**	**0**	**0**	**1**	**0**	**NS**	**NS**	**1**
SEMSARCH	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	1	NS	1
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
NMS	1.0000	0	0	0	0	0	NS	0
NPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
PNPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRASUBC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RODS	1.0000	0	0	0	0	0	NS	0

SUB-TOTAL		5	3	4	1	1	0	14

Database Radius Summary

STATE (NM) LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DPERMITS	0.0200	0	NS	NS	NS	NS	NS	0
IC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
AST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
PST	**0.2500**	**0**	**1**	**2**	**NS**	**NS**	**NS**	**3**
UST	**0.2500**	**0**	**1**	**2**	**NS**	**NS**	**NS**	**3**
BF	**0.5000**	**0**	**0**	**1**	**1**	**NS**	**NS**	**2**
LST	**0.5000**	**0**	**0**	**1**	**6**	**NS**	**NS**	**7**
LUST	**0.5000**	**0**	**0**	**1**	**7**	**NS**	**NS**	**8**
RCY	0.5000	0	1	0	0	NS	NS	1
SWLF	**0.5000**	**0**	**2**	**0**	**1**	**NS**	**NS**	**3**
US	0.5000	0	0	0	0	NS	NS	0
VRP	**0.5000**	**0**	**0**	**1**	**2**	**NS**	**NS**	**3**
CEPCS	**1.0000**	**0**	**0**	**0**	**3**	**2**	**NS**	**5**

SUB-TOTAL		0	5	8	20	2	0	35

Database Radius Summary

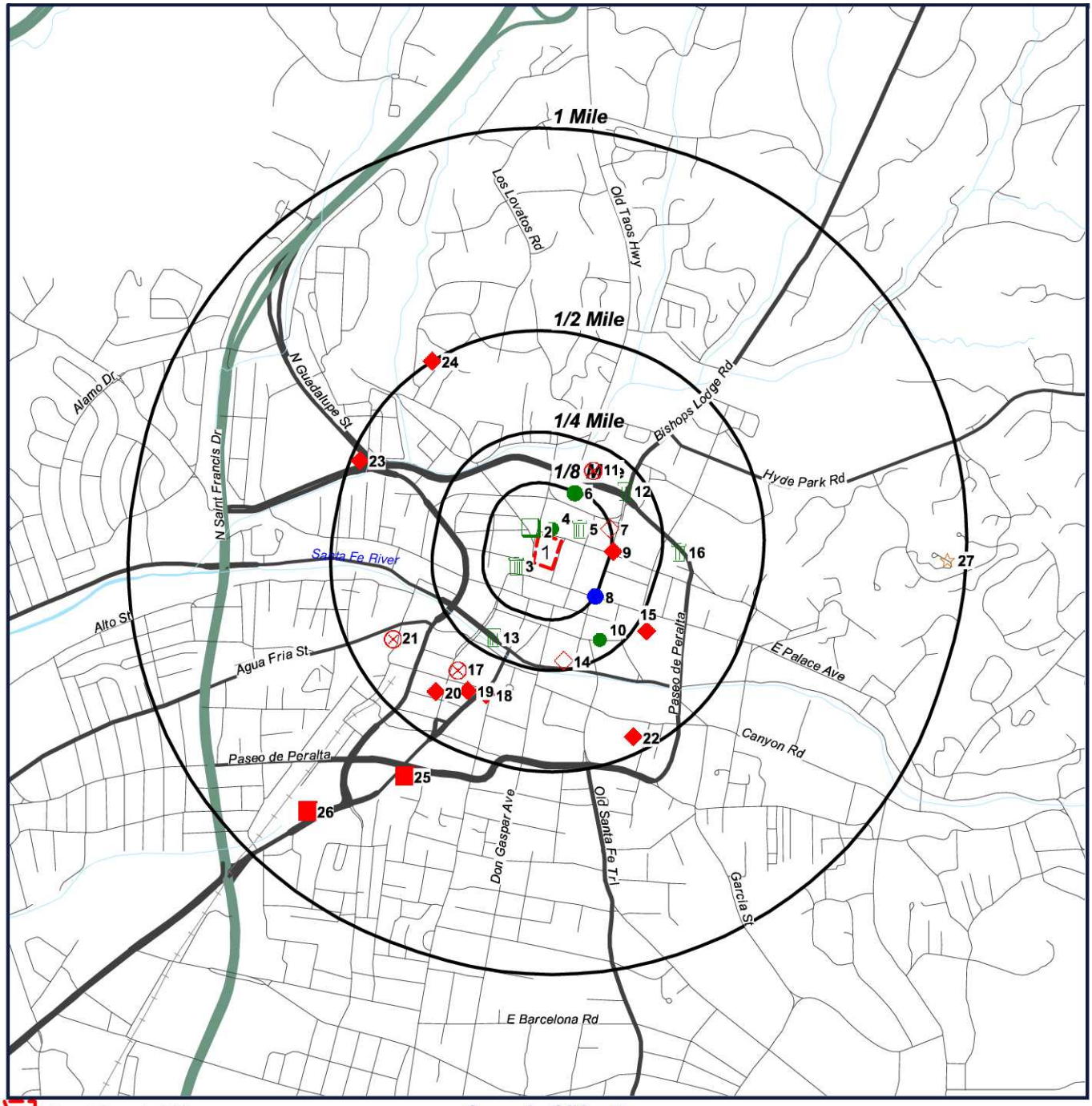
TRIBAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR06	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
LUSTR06	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODINDIAN	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		5	8	12	21	3	0	49

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



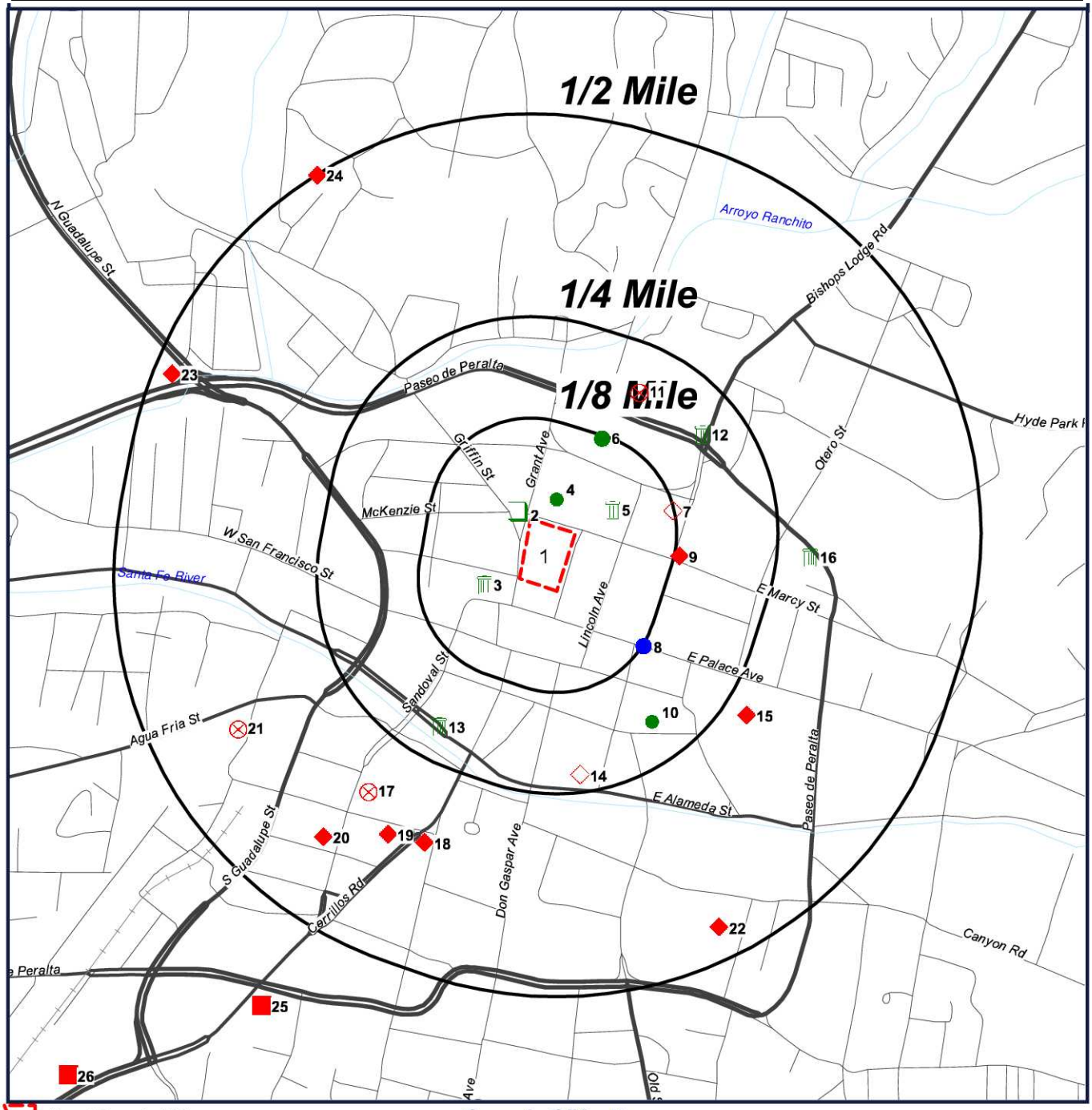
Target Property (TP)
FRSNM
SWLF
ALTFUELS
BF
UST
SEMS
LUST
VRP
CEPCS
FUDS

Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, New Mexico 87501

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Radius Map 2



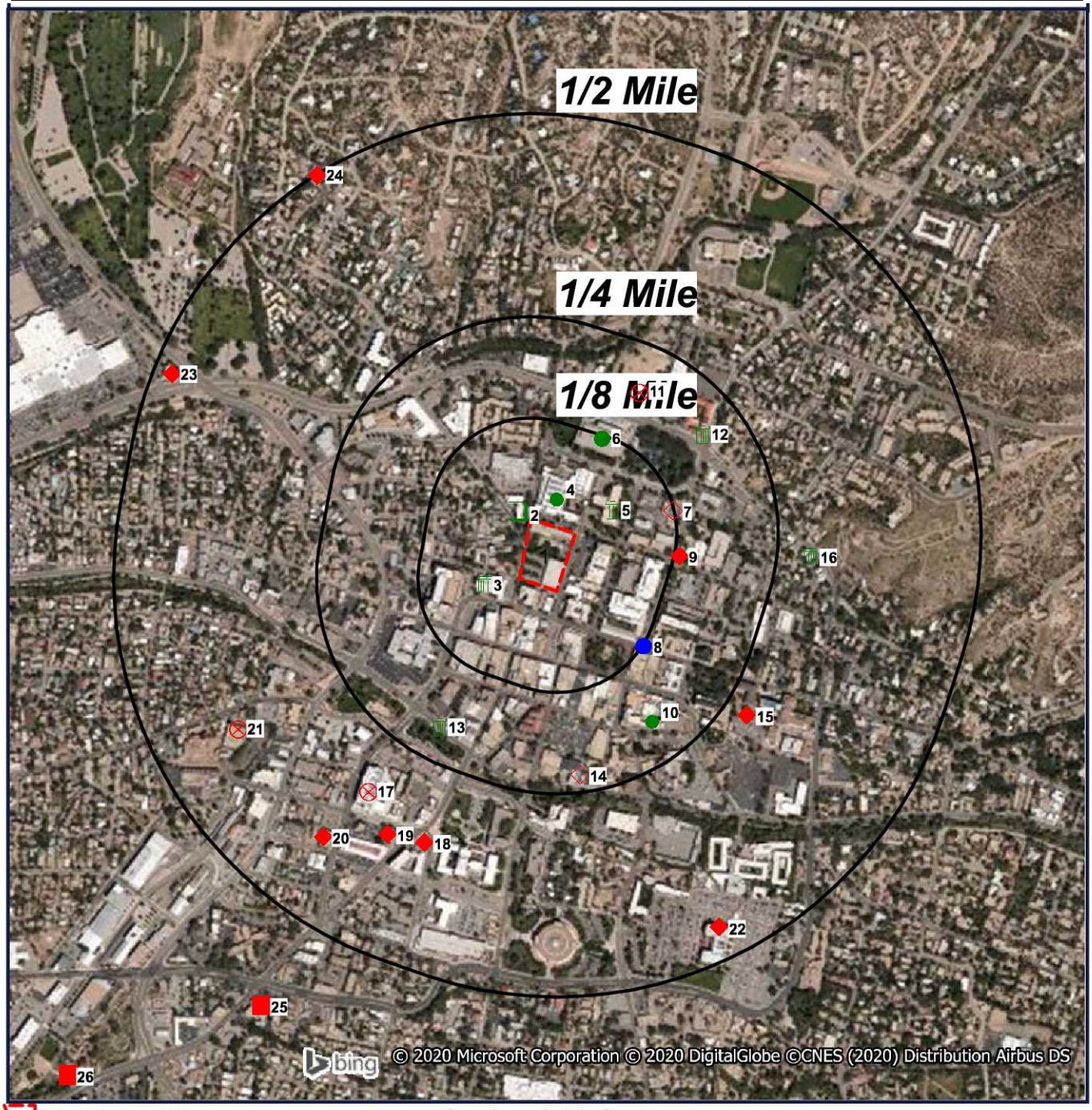
Target Property (TP)
FRSNM
SWLF
ALTFUELS
BF
UST
SEMS
LUST
VRP
CEPCS
FUDS

Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, New Mexico 87501

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

Ortho Map



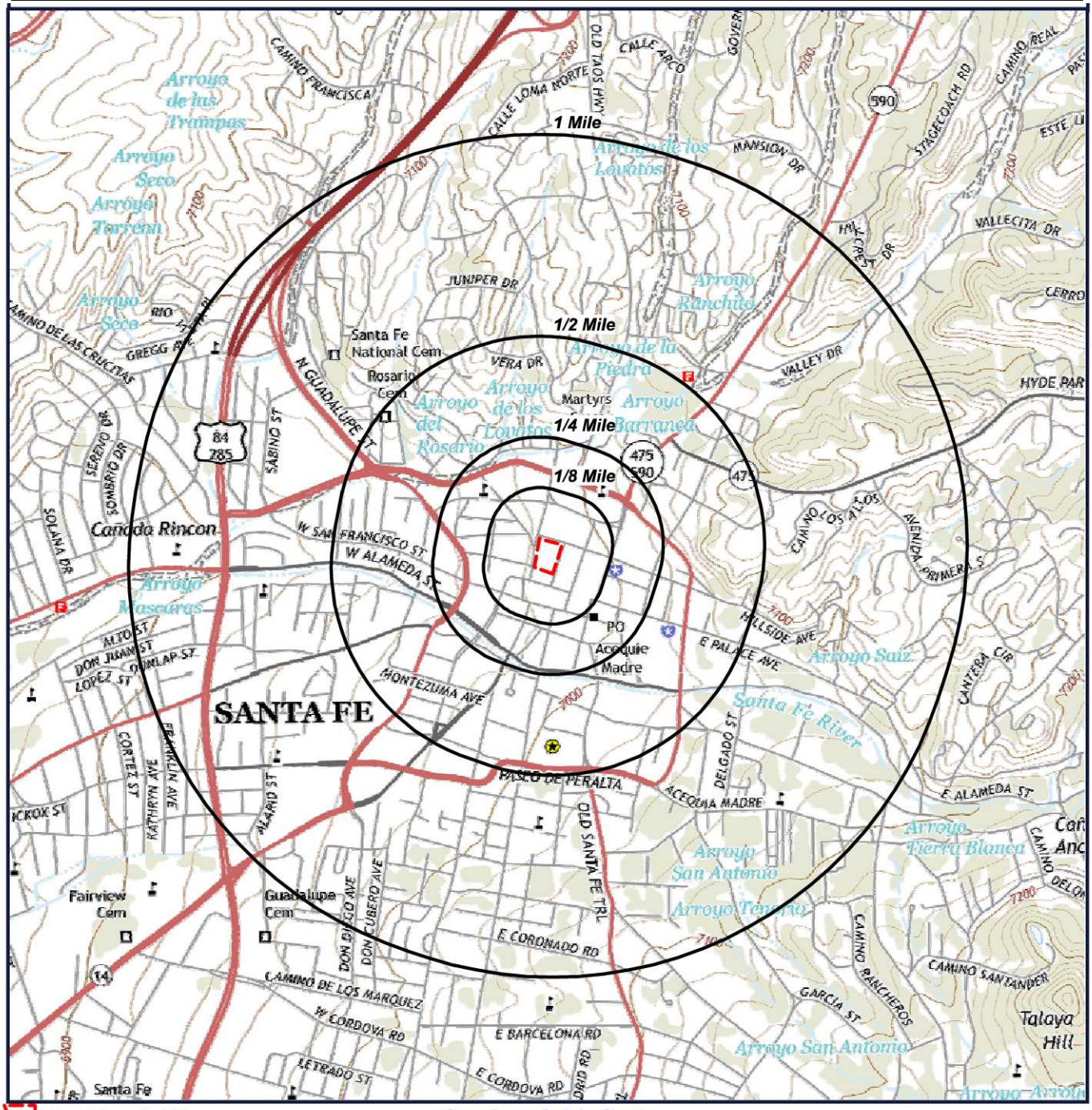
Target Property (TP)
FRSNM
SWLF
ALTFUELS
BF
UST
SEMS
LUST
VRP
CEPCS
FUDS

Quadrangle(s): Santa Fe
Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, New Mexico 87501

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

Topographic Map



Target Property (TP)

Quadrangle(s): Santa Fe
Source: USGS, 11/08/2013
Georgia O'Keeffe Museum
123, 135, and 155 Grant Ave
Santa Fe, New Mexico

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	ECHOR06	110022690523	Equal (6,986 ft.)	TP	O'FRIEL LAW FIRM	155 GRANT AVE, SANTA FE, NM 87501	20
1	ECHOR06	110062702204	Equal (6,986 ft.)	TP	OLD FURRS SUPERMARKET	123 GRANT STREET, SANTA FE, NM 87501	21
1	FRSNM	110022690523	Equal (6,986 ft.)	TP	O'FRIEL LAW FIRM	155 GRANT AVE, SANTA FE, NM 87501	22
1	FRSNM	110062702204	Equal (6,986 ft.)	TP	OLD FURRS SUPERMARKET	123 GRANT STREET, SANTA FE, NM 87501	23
2	FRSNM	110022718521	Equal (6,986 ft.)	0.013 mi. WNW (69 ft.)	FIRST PRESBYTERIAN CHURCH FIRST PRESBYTERIAN CHURCH	208 GRANT, SANTA FE, NM 87501	24
3	RCY	17550884	Lower (6,976 ft.)	0.045 mi. W (238 ft.)	SANTA FE COUNTY RECYCLING GRANT	102 GRANT AVE., P.O. BOK 276, SANTA FE, NM 87504	25
3	***SWLF***	***1830854748***	***Lower (6,976 ft.)***	***0.045 mi. W (238 ft.)***	***SANTA FE COUNTY ILLEGAL DUMPING GRANT***	***P.O. BOX 276, SANTA FE, NM 87504***	***26***
3	***SWLF***	***753066615***	***Lower (6,976 ft.)***	***0.045 mi. W (238 ft.)***	***SANTA FE COUNTY RECYCLING GRANT***	***P.O. BOX 276, SANTA FE, NM 87504***	***27***
4	ALTFUELS	69877	Higher (6,992 ft.)	0.045 mi. NNE (238 ft.)	CITY OF SANTA FE - CONVENTION CENTER PARKING GARAGE	201 W MARCY ST, SANTA FE, NM 87502	28
5	***BF***	***235532***	***Higher (6,995 ft.)***	***0.054 mi. ENE (285 ft.)***	***HUAKOS PROPERTY***	***SECTION 28, T.19N.,R.9E. N.M.P.M, SANTA FE, NM 87501***	***29***
6	ALTFUELS	51674	Higher (6,992 ft.)	0.122 mi. NNE (644 ft.)	SANTA FE CONV	120 S FEDERAL PL, SANTA FE, NM 87501	31
7	***PST***	***27948PST***	***Higher (7,003 ft.)***	***0.124 mi. E (655 ft.)***	***EXXON RAS 60435***	***220 WASHINGTON, SANTA FE, NM 87501***	***32***
7	***UST***	***27948***	***Higher (7,003 ft.)***	***0.124 mi. E (655 ft.)***	***EXXON RAS 60435***	***220 WASHINGTON, SANTA FE, NM 87501***	***33***
8	***SEMS***	***NMN000605340***	***Higher (6,999 ft.)***	***0.127 mi. ESE (671 ft.)***	***SANTA FE RIVER PCE SITE***	***WASHINGTON AVENUE AND PALACE AVENUE, SANTA FE, NM 87501***	***34***
9	***LST***	***31537***	***Higher (7,003 ft.)***	***0.131 mi. E (692 ft.)***	***WASHINGTON AVE GULF***	***201 WASHINGTON AVE, SANTA FE, NM***	***35***
9	***LUST***	***1993271991***	***Higher (7,003 ft.)***	***0.131 mi. E (692 ft.)***	***WASHINGTON AVE GULF***	***201 WASHINGTON AVE, SANTA FE, NM 87501***	***36***
9	***PST***	***31537PST***	***Higher (7,003 ft.)***	***0.131 mi. E (692 ft.)***	***WASHINGTON AVE GULF***	***201 WASHINGTON AVE, SANTA FE, NM 87501***	***37***
9	***UST***	***31537***	***Higher (7,003 ft.)***	***0.131 mi. E (692 ft.)***	***WASHINGTON AVE GULF***	***201 WASHINGTON AVE, SANTA FE, NM 87501***	***38***
10	ALTFUELS	123045	Higher (7,000 ft.)	0.189 mi. SE (998 ft.)	LA FONDA HOTEL	100 E SAN FRANCISCO ST, SANTA FE, NM 87501	39
11	***VRP***	***2581841446***	***Higher (7,011 ft.)***	***0.192 mi. NNE (1014 ft.)***	***EL CASTILLO NORTE***	***401 OLD TAOS HIGHWAY, SANTA FE, NM***	***40***
12	***BF***	***11942***	***Higher (7,019 ft.)***	***0.198 mi. ENE (1045 ft.)***	***BACA STREET SITE***	***499 PASEO DE PERALTA, SANTA FE, NM 87501***	***41***

Located Sites Summary

NOTE: Standard environmental records are displayed in **bold**.

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
13	BF	1085230204	Lower (6,970 ft.)	0.208 mi. SW (1098 ft.)	SANTA FE RIVER ASSESSMENT	SANTA FE, NM 87501	43
13	BF	115927	Lower (6,970 ft.)	0.208 mi. SW (1098 ft.)	SANTA FE RIVER ASSESSMENT	13-BLOCK AREA IN HISTORIC SANTA FE, SANTA FE, NM 87502	44
14	PST	30454PST	Higher (6,989 ft.)	0.229 mi. S (1209 ft.)	SANTA FE MAIN	121 E ALAMEDA, SANTA FE, NM 87501	47
14	UST	30454	Higher (6,989 ft.)	0.229 mi. S (1209 ft.)	SANTA FE MAIN	121 E ALAMEDA, SANTA FE, NM 87501	48
15	LST	29006	Higher (7,011 ft.)	0.280 mi. ESE (1478 ft.)	LA VILLA RIVERA BUILDING	224 PALACE, SANTA FE, NM	49
15	LUST	4135588808	Higher (7,011 ft.)	0.280 mi. ESE (1478 ft.)	LA VILLA RIVERA BUIL	224 PALACE, SANTA FE, NM 87501	50
16	SWLF	1449922429	Higher (7,031 ft.)	0.291 mi. E (1536 ft.)	MANDALA MEDICINE, LLC	618 A PASEO DE PERALTA, SANTA FE, NM 87501	51
17	BF	125382	Lower (6,982 ft.)	0.321 mi. SW (1695 ft.)	SANTA FE COUNTY JUDICIAL COMPLEX	327 SANDOVAL STREET, SANTA FE, NM, SANTA FE, NM 87501	52
17	BF	3685453409	Lower (6,982 ft.)	0.321 mi. SW (1695 ft.)	SANTA FE COUNTY JUDICIAL COMPLEX	327 SANDOVAL ST, SANTA FE, NM 87501	55
17	CEPCS	2649164977	Lower (6,982 ft.)	0.326 mi. SW (1721 ft.)	MASTERS CLEANERS	238 SANDOVAL ST., SANTA FE, NM	56
17	VRP	2090750836	Lower (6,982 ft.)	0.321 mi. SW (1695 ft.)	SANTA FE COUNTY JUDICIAL COMPLEX	327 SANDOVAL ST, SANTA FE, NM	57
18	LST	27219	Higher (6,987 ft.)	0.346 mi. SSW (1827 ft.)	CAPITOL 66	204 MONTEZUMA, SANTA FE, NM 87501	58
18	LUST	258248932	Higher (6,987 ft.)	0.346 mi. SSW (1827 ft.)	CAPITOL 66	204 MONTEZUMA, SANTA FE, NM 87501	59
19	CEPCS	1290855117	Higher (6,987 ft.)	0.355 mi. SSW (1874 ft.)	PKG BUILDING	218 MONTEZUMA, SANTA FE, NM	60
19	LST	47997	Higher (6,987 ft.)	0.355 mi. SSW (1874 ft.)	210 AND 218 MONTEZUMA AVENUE	210 MONTEZUMA AVE, SANTA FE, NM 87501	61
19	LUST	554176530	Higher (6,987 ft.)	0.355 mi. SSW (1874 ft.)	210 AND 218 MONTEZUM	210 MONTEZUMA AVE, SANTA FE, NM 87501	62
20	CEPCS	290360134	Lower (6,982 ft.)	0.386 mi. SW (2038 ft.)	SANTA FE BEAVER REINTRODUCTION BY FOREST GUARDIANS	312 MONTEZUMA, SANTA FE, NM	63
20	LST	28118	Lower (6,982 ft.)	0.400 mi. SW (2112 ft.)	FORMER GARFIELD	418 SANDOVAL ST, SANTA FE, NM	64
20	LUST	3595586499	Lower (6,982 ft.)	0.400 mi. SW (2112 ft.)	FORMER GARFIELD	418 SANDOVAL ST, SANTA FE, NM 87501	65
21	VRP	1074673561	Lower (6,963 ft.)	0.392 mi. WSW (2070 ft.)	SANBUSCO MARKET CENTER	560 MONTEZUMA AVENUE, SANTA FE, NM	66
22	LST	30766	Higher (7,033 ft.)	0.460 mi. SSE (2429 ft.)	PERA BLDG	PASEO DE PERALTA, SANTA FE, NM	67

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
22	***LUST***	***3499036257***	***Higher (7,033 ft.)***	***0.460 mi. SSE (2429 ft.)***	***PERA BLDG***	***PASEO DE PERALTA, SANTA FE, NM***	***68***
23	***LST***	***30150***	***Lower (6,949 ft.)***	***0.477 mi. WNW (2519 ft.)***	***EXXON GUADALUPE***	***500 N GUADALUPE, SANTA FE, NM***	***69***
23	***LUST***	***2486367162***	***Lower (6,949 ft.)***	***0.477 mi. WNW (2519 ft.)***	***EXXON GUADALUPE***	***500 N GUADALUPE, SANTA FE, NM 87501***	***70***
24	***LUST***	***2644034086***	***Higher (7,031 ft.)***	***0.499 mi. NW (2635 ft.)***	***ALLSUPS TEXACO NEW B***	***NUMBER TWO CAMINO ALTO, SANTA FE, NM***	***71***
25	***CEPCS***	***871912479***	***Lower (6,977 ft.)***	***0.615 mi. SW (3247 ft.)***	***GARCIA HONDA***	***607 CERRILLOS, SANTA FE, NM***	***72***
26	***CEPCS***	***4056005496***	***Lower (6,949 ft.)***	***0.827 mi. SW (4367 ft.)***	***SANTA FE RAILYARD/CONOCOP HILLIPS/LA UNICA DRY CLEANERS***	***760 CERRILLOS ROAD, SANTA FE, NM***	***73***
27	FUDS	K06NM0417	Higher (7,183 ft.)	0.954 mi. E (5037 ft.)	FORT MARCY	SANTA FE COUNTY, SANTA FE, NM 87501	74

Site Summary By Database

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address
4	ALTFUELS	69877	Higher (6,992 ft.)	0.045 mi. NNE (238 ft.)	CITY OF SANTA FE - CONVENTION CENTER PARKING GARAGE	201 W MARCY ST, SANTA FE, NM 87502
6	ALTFUELS	51674	Higher (6,992 ft.)	0.122 mi. NNE (644 ft.)	SANTA FE CONV	120 S FEDERAL PL, SANTA FE, NM 87501
10	ALTFUELS	123045	Higher (7,000 ft.)	0.189 mi. SE (998 ft.)	LA FONDA HOTEL	100 E SAN FRANCISCO ST, SANTA FE, NM 87501
5	***BF***	***235532***	***Higher (6,995 ft.)***	***0.054 mi. ENE (285 ft.)***	***HUAKOS PROPERTY***	***SECTION 28, T.19N.,R.9E. N.M.P.M, SANTA FE, NM 87501***
12	***BF***	***11942***	***Higher (7,019 ft.)***	***0.198 mi. ENE (1045 ft.)***	***BACA STREET SITE***	***499 PASEO DE PERALTA, SANTA FE, NM 87501***
13	***BF***	***1085230204***	***Lower (6,970 ft.)***	***0.208 mi. SW (1098 ft.)***	***SANTA FE RIVER ASSESSMENT***	***SANTA FE, NM 87501***
13	***BF***	***115927***	***Lower (6,970 ft.)***	***0.208 mi. SW (1098 ft.)***	***SANTA FE RIVER ASSESSMENT***	***13-BLOCK AREA IN HISTORIC SANTA FE, SANTA FE, NM 87502***
17	***BF***	***125382***	***Lower (6,982 ft.)***	***0.321 mi. SW (1695 ft.)***	***SANTA FE COUNTY JUDICIAL COMPLEX***	***327 SANDOVAL STREET, SANTA FE, NM, SANTA FE, NM 87501***
17	***BF***	***3685453409***	***Lower (6,982 ft.)***	***0.321 mi. SW (1695 ft.)***	***SANTA FE COUNTY JUDICIAL COMPLEX***	***327 SANDOVAL ST, SANTA FE, NM 87501***
17	***CEPCS***	***2649164977***	***Lower (6,982 ft.)***	***0.326 mi. SW (1721 ft.)***	***MASTERS CLEANERS***	***238 SANDOVAL ST., SANTA FE, NM***
19	***CEPCS***	***1290855117***	***Higher (6,987 ft.)***	***0.355 mi. SSW (1874 ft.)***	***PKG BUILDING***	***218 MONTEZUMA, SANTA FE, NM***
20	***CEPCS***	***290360134***	***Lower (6,982 ft.)***	***0.386 mi. SW (2038 ft.)***	***SANTA FE BEAVER REINTRODUCTION BY FOREST GUARDIANS***	***312 MONTEZUMA, SANTA FE, NM***
25	***CEPCS***	***871912479***	***Lower (6,977 ft.)***	***0.615 mi. SW (3247 ft.)***	***GARCIA HONDA***	***607 CERRILLOS, SANTA FE, NM***
26	***CEPCS***	***4056005496***	***Lower (6,949 ft.)***	***0.827 mi. SW (4367 ft.)***	***SANTA FE RAILYARD/CONOCOP HILLIPS/LA UNICA DRY CLEANERS***	***760 CERRILLOS ROAD, SANTA FE, NM***
1	ECHOR06	110022690523	Equal (6,986 ft.)	TP	O'FRIEL LAW FIRM	155 GRANT AVE, SANTA FE, NM 87501
1	ECHOR06	110062702204	Equal (6,986 ft.)	TP	OLD FURRS SUPERMARKET	123 GRANT STREET, SANTA FE, NM 87501
1	FRSNM	110022690523	Equal (6,986 ft.)	TP	O'FRIEL LAW FIRM	155 GRANT AVE, SANTA FE, NM 87501
1	FRSNM	110062702204	Equal (6,986 ft.)	TP	OLD FURRS SUPERMARKET	123 GRANT STREET, SANTA FE, NM 87501
2	FRSNM	110022718521	Equal (6,986 ft.)	0.013 mi. WNW (69 ft.)	FIRST PRESBYTERIAN CHURCH FIRST PRESBYTERIAN CHURCH	208 GRANT, SANTA FE, NM 87501
27	FUDS	K06NM0417	Higher (7,183 ft.)	0.954 mi. E (5037 ft.)	FORT MARCY	SANTA FE COUNTY, SANTA FE, NM 87501

Site Summary By Database

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address
9	LST	31537	Higher (7,003 ft.)	0.131 mi. E (692 ft.)	WASHINGTON AVE GULF	201 WASHINGTON AVE, SANTA FE, NM
15	LST	29006	Higher (7,011 ft.)	0.280 mi. ESE (1478 ft.)	LA VILLA RIVERA BUILDING	224 PALACE, SANTA FE, NM
18	LST	27219	Higher (6,987 ft.)	0.346 mi. SSW (1827 ft.)	CAPITOL 66	204 MONTEZUMA, SANTA FE, NM 87501
19	LST	47997	Higher (6,987 ft.)	0.355 mi. SSW (1874 ft.)	210 AND 218 MONTEZUMA AVENUE	210 MONTEZUMA AVE, SANTA FE, NM 87501
20	LST	28118	Lower (6,982 ft.)	0.400 mi. SW (2112 ft.)	FORMER GARFIELD	418 SANDOVAL ST, SANTA FE, NM
22	LST	30766	Higher (7,033 ft.)	0.460 mi. SSE (2429 ft.)	PERA BLDG	PASEO DE PERALTA, SANTA FE, NM
23	LST	30150	Lower (6,949 ft.)	0.477 mi. WNW (2519 ft.)	EXXON GUADALUPE	500 N GUADALUPE, SANTA FE, NM
9	LUST	1993271991	Higher (7,003 ft.)	0.131 mi. E (692 ft.)	WASHINGTON AVE GULF	201 WASHINGTON AVE, SANTA FE, NM 87501
15	LUST	4135588808	Higher (7,011 ft.)	0.280 mi. ESE (1478 ft.)	LA VILLA RIVERA BUIL	224 PALACE, SANTA FE, NM 87501
18	LUST	258248932	Higher (6,987 ft.)	0.346 mi. SSW (1827 ft.)	CAPITOL 66	204 MONTEZUMA, SANTA FE, NM 87501
19	LUST	554176530	Higher (6,987 ft.)	0.355 mi. SSW (1874 ft.)	210 AND 218 MONTEZUM	210 MONTEZUMA AVE, SANTA FE, NM 87501
20	LUST	3595586499	Lower (6,982 ft.)	0.400 mi. SW (2112 ft.)	FORMER GARFIELD	418 SANDOVAL ST, SANTA FE, NM 87501
22	LUST	3499036257	Higher (7,033 ft.)	0.460 mi. SSE (2429 ft.)	PERA BLDG	PASEO DE PERALTA, SANTA FE, NM
23	LUST	2486367162	Lower (6,949 ft.)	0.477 mi. WNW (2519 ft.)	EXXON GUADALUPE	500 N GUADALUPE, SANTA FE, NM 87501
24	LUST	2644034086	Higher (7,031 ft.)	0.499 mi. NW (2635 ft.)	ALLSUPS TEXACO NEW B	NUMBER TWO CAMINO ALTO, SANTA FE, NM
7	PST	27948PST	Higher (7,003 ft.)	0.124 mi. E (655 ft.)	EXXON RAS 60435	220 WASHINGTON, SANTA FE, NM 87501
9	PST	31537PST	Higher (7,003 ft.)	0.131 mi. E (692 ft.)	WASHINGTON AVE GULF	201 WASHINGTON AVE, SANTA FE, NM 87501
14	PST	30454PST	Higher (6,989 ft.)	0.229 mi. S (1209 ft.)	SANTA FE MAIN	121 E ALAMEDA, SANTA FE, NM 87501
3	RCY	17550884	Lower (6,976 ft.)	0.045 mi. W (238 ft.)	SANTA FE COUNTY RECYCLING GRANT	102 GRANT AVE., P.O. BOK 276, SANTA FE, NM 87504
8	SEMS	NMN000605340	Higher (6,999 ft.)	0.127 mi. ESE (671 ft.)	SANTA FE RIVER PCE SITE	WASHINGTON AVENUE AND PALACE AVENUE, SANTA FE, NM 87501

Site Summary By Database

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address
3	SWLF	1830854748	Lower (6,976 ft.)	0.045 mi. W (238 ft.)	SANTA FE COUNTY ILLEGAL DUMPING GRANT	P.O. BOX 276, SANTA FE, NM 87504
3	SWLF	753066615	Lower (6,976 ft.)	0.045 mi. W (238 ft.)	SANTA FE COUNTY RECYCLING GRANT	P.O. BOX 276, SANTA FE, NM 87504
16	SWLF	1449922429	Higher (7,031 ft.)	0.291 mi. E (1536 ft.)	MANDALA MEDICINE, LLC	618 A PASEO DE PERALTA, SANTA FE, NM 87501
7	UST	27948	Higher (7,003 ft.)	0.124 mi. E (655 ft.)	EXXON RAS 60435	220 WASHINGTON, SANTA FE, NM 87501
9	UST	31537	Higher (7,003 ft.)	0.131 mi. E (692 ft.)	WASHINGTON AVE GULF	201 WASHINGTON AVE, SANTA FE, NM 87501
14	UST	30454	Higher (6,989 ft.)	0.229 mi. S (1209 ft.)	SANTA FE MAIN	121 E ALAMEDA, SANTA FE, NM 87501
11	VRP	2581841446	Higher (7,011 ft.)	0.192 mi. NNE (1014 ft.)	EL CASTILLO NORTE	401 OLD TAOS HIGHWAY, SANTA FE, NM
17	VRP	2090750836	Lower (6,982 ft.)	0.321 mi. SW (1695 ft.)	SANTA FE COUNTY JUDICIAL COMPLEX	327 SANDOVAL ST, SANTA FE, NM
21	VRP	1074673561	Lower (6,963 ft.)	0.392 mi. WSW (2070 ft.)	SANBUSCO MARKET CENTER	560 MONTEZUMA AVENUE, SANTA FE, NM

Enforcement and Compliance History Information (ECHOR06)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 6,986 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **110022690523**
REGISTRY ID: **110022690523**
NAME: **O'FRIEL LAW FIRM**
ADDRESS: **155 GRANT AVE**
SANTA FE, NM 87501
COUNTY: **SANTA FE**
FACILITY LINK: *Facility Detail Report*

Back to Report Summary

Enforcement and Compliance History Information (ECHOR06)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 6,986 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **110062702204**
REGISTRY ID: **110062702204**
NAME: **OLD FURRS SUPERMARKET**
ADDRESS: **123 GRANT STREET**
SANTA FE, NM 87501
COUNTY: **SANTA FE**
FACILITY LINK: *Facility Detail Report*

Back to Report Summary

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 6,986 ft. (Equal to TP)

FACILITY INFORMATION

REGISTRY ID: **110022690523**

NAME: **O'FRIEL LAW FIRM**

LOCATION ADDRESS: **155 GRANT AVE**
SANTA FE, NM 87501

COUNTY: **SANTA FE**

EPA REGION: **06**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

O'FRIEL LAW FIRM DAN O'FRIEL

O'FRIEL LAW FIRM

PROGRAM/S LISTED FOR THIS FACILITY

AIR - AIR

NM-TEMPO - NEW MEXICO-TOOLS FOR ENVIRONMENTAL MANAGEMENT AND PROTECTION ORGANIZATIONS

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

1542 - GENERAL CONTRACTORS-NONRESIDENTIAL BUILDINGS, OTHER THAN INDUSTRIAL BUILDINGS AND WAREHOUSES

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSNM)

MAP ID# 1

Distance from Property: 0.000 mi. (0 ft.) X
Elevation: 6,986 ft. (Equal to TP)

FACILITY INFORMATION

REGISTRY ID: **110062702204**

NAME: **OLD FURRS SUPERMARKET**

LOCATION ADDRESS: **123 GRANT STREET**
SANTA FE, NM 87501

COUNTY: **SANTA FE**

EPA REGION: **06**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

OLD FURRS SUPERMARKET

PROGRAM/S LISTED FOR THIS FACILITY

AIR - AIR

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

NO SIC DATA REPORTED

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Facility Registry System (FRSNM)

MAP ID# 2

Distance from Property: 0.013 mi. (69 ft.) WNW
Elevation: 6,986 ft. (Equal to TP)

FACILITY INFORMATION

REGISTRY ID: **110022718521**

NAME: **FIRST PRESBYTERIAN CHURCH FIRST PRESBYTERIAN CHURCH**

LOCATION ADDRESS: **208 GRANT**
SANTA FE, NM 87501

COUNTY: **SANTA FE**

EPA REGION: **06**

FEDERAL FACILITY: **NOT REPORTED**

TRIBAL LAND: **NOT REPORTED**

ALTERNATIVE NAME/S:

FIRST PRESBYTERIAN CHURCH FIRST PRESBYTERIAN CHURCH

PROGRAM/S LISTED FOR THIS FACILITY

NM-TEMPO - NEW MEXICO-TOOLS FOR ENVIRONMENTAL MANAGEMENT AND PROTECTION ORGANIZATIONS

STANDARD INDUSTRIAL CLASSIFICATION/S (SIC)

1542 - GENERAL CONTRACTORS-NONRESIDENTIAL BUILDINGS, OTHER THAN INDUSTRIAL BUILDINGS AND WAREHOUSES

NORTH AMERICAN INDUSTRY CLASSIFICATION/S (NAICS)

NO NAICS DATA REPORTED

Back to Report Summary

Recycling Centers (RCY)

MAP ID# 3

Distance from Property: 0.045 mi. (238 ft.) W
Elevation: 6,976 ft. (Lower than TP)

FACILITY INFORMATION

GS ID#: **17550884**
NAME: **SANTA FE COUNTY RECYCLING GRANT**
ADDRESS: **102 GRANT AVE., P.O. BOK 276**
SANTA FE, NM 87504-1985
COUNTY: **SANTA FE**

FACILITY DETAILS

FACILITY TYPE: **GRANT - RECYCLING**
STATUS: **OPEN**
FACILITY OPERATOR: **NOT REPORTED**
OWNER OPERATOR: **NOT REPORTED**
LAND OWNER: **NOT REPORTED**
CONTACT NAME: **MIA BARELA**
MAILING ADDRESS: **SANTA FE, NM. 87504**

Back to Report Summary

Solid Waste Facilities (SWLF)

MAP ID# 3

Distance from Property: 0.045 mi. (238 ft.) W
Elevation: 6,976 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **1830854748**
FACILITY NAME: **SANTA FE COUNTY ILLEGAL DUMPING GRANT**
ADDRESS: **P.O. BOX 276**
SANTA FE, NM 87504

FACILITY DETAILS

OTHER FACILITY NAME: **SANTA FE COUNTY ILLEGAL DUMPING GRANT**
TYPE: **GRANT - ILLEGAL DUMPING**
STATUS: **OPEN**
PHONE: **505-992-3025**
OWNER / OPERATOR: **NOT REPORTED**
OWNER ADDRESS: **NOT REPORTED**
NOT REPORTED, NOT REPORTED NOT REPORTED
CONTACT: **NOT REPORTED**
CONTACT PHONE: **NOT REPORTED**

Back to Report Summary

Solid Waste Facilities (SWLF)

MAP ID# 3

Distance from Property: 0.045 mi. (238 ft.) W
Elevation: 6,976 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **753066615**
FACILITY NAME: **SANTA FE COUNTY RECYCLING GRANT**
ADDRESS: **P.O. BOX 276**
SANTA FE, NM 87504

FACILITY DETAILS

OTHER FACILITY NAME: **SANTA FE COUNTY RECYCLING GRANT**
TYPE: **GRANT - RECYCLING**
STATUS: **OPEN**
PHONE: **505-992-3025**
OWNER / OPERATOR: **NOT REPORTED**
OWNER ADDRESS: **NOT REPORTED**
NOT REPORTED, NOT REPORTED NOT REPORTED
CONTACT: **NOT REPORTED**
CONTACT PHONE: **NOT REPORTED**

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Alternative Fueling Stations (ALTFUELS)

MAP ID# 4

Distance from Property: 0.045 mi. (238 ft.) NNE
Elevation: 6,992 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **69877**
UNIQUE IDENTIFIER FOR THIS SPECIFIC STATION: **69877**
STATION NAME: **CITY OF SANTA FE - CONVENTION CENTER PARKING GARAGE**
ADDRESS: **201 W MARCY ST**
SANTA FE, NM 87502
INTERSECTION DIRECTIONS: **NOT REPORTED**
STATION PHONE: **505-955-6581**
STATION CURRENT STATUS: **OPEN: THE STATION IS OPEN.**
TYPE OF ALTERNATIVE FUEL THE STATION PROVIDES: **NOT REPORTED**
OWNER TYPE: **LOCAL GOVERNMENT OWNED**
FEDERAL AGANCY ID: **NOT REPORTED**
FEDERAL AGENCY NAME: **NOT REPORTED**
DATE THAT THE STATION BEGAN OFFERING THE FUEL: **5/1/2015**
DATE THE STATION'S DETAILS WERE LAST CONFIRMED: **10/4/2016**
TIME THE STATION'S DETAILS WERE LAST UPDATED (ISO 8601 FORMAT).: **2017-01-18 00:38:00 UTC**

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MAP ID# 5

Distance from Property: 0.054 mi. (285 ft.) ENE
Elevation: 6,995 ft. (Higher than TP)

SITE INFORMATION

ID#: **235532**

NAME: **HUAKOS PROPERTY**

ADDRESS: **SECTION 28, T.19N.,R.9E. N.M.P.M**
SANTA FE, NM 87501

TYPE FUNDING: **HAZARDOUS**

PREDOMINANT PAST USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**4**	**NOT REPORTED**	**NOT REPORTED**

FUTURE USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**NOT REPORTED**	**NOT REPORTED**

PROPERTY HIGHLIGHT:

NOT REPORTED

PROPERTY SIZE (Acres): **4**

CURRENT OWNER: **PUEBLO OF POJOAQUE**

PROPERTY DESCRIPTION/ FORMER USE:

PROPERTY WAS A PRIVATELY OWNED VACANT LOT. PROPERTY WAS ACQUIRED AND PUT INTO TRUST BY THE TRIBE.

CONTAMINANT(S): **NOT REPORTED**

CONTAMINANT(S) CLEANED UP: **NOT REPORTED**

MEDIA(S) AFFECTED: **OTHER MEDIA**

MEDIA(S) CLEANED UP: **NOT REPORTED**

COOPERATIVE AGREEMENT NUMBER: **00F68201**

TYPE OF BROWNFIELD GRANT: **SECTION 128(A) STATE/TRIBAL**

ENVIRONMENTAL ASSESSMENT ACTIVITY: **PHASE I ENVIRONMENTAL ASSESSMENT**

ASSESSMENT START DATE: **12/8/2014**

ASSESSMENT COMPLETION DATE: **NOT REPORTED**

CLEANUP REQUIRED: **NO**

STATE & TRIBAL ENROLLMENT ID: **NOT REPORTED**

STATE & TRIBAL ENROLLMENT DATE: **NOT REPORTED**

PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **NOT REPORTED**

ARE INSTITUTIONAL CONTROLS REQUIRED?: **NO**

INSTITUTIONAL CONTROL IN PLACE: **NO**

INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**

PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**

GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**

OWNERSHIP ENTITY: **GOVERNMENT**

#GRANT RECIPIENT NAME : **EIGHT NORTHERN INDIAN PUEBLO COUNCIL**

GRANT ID: **69601200**

CLEANUP START DATE: **NOT REPORTED**

CLEANUP COMPLETION DATE : **NOT REPORTED**

STATE & TRIBAL NO FURTHER ACTION DATE: **NOT REPORTED**

ASSESSMENT AMOUNT: **3500**

ASSESSMENT FUNDING ENTITY: **US EPA - STATE & TRIBAL SECTION 128(A) FUNDING**

CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

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MAP ID# 6

Distance from Property: 0.122 mi. (644 ft.) NNE
Elevation: 6,992 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **51674**

UNIQUE IDENTIFIER FOR THIS SPECIFIC STATION: **51674**

STATION NAME: **SANTA FE CONV**

ADDRESS: **120 S FEDERAL PL**
SANTA FE, NM 87501

INTERSECTION DIRECTIONS: **SF CONV CTR; THE CHARGEPOINT STATION IS LOCATED ON THE FIRST FLOOR OF THE CONVENTION CENTER PARKING GARAGE. IT IS LOCATED ON THE RIGHT AT THE BOTTOM OF THE RAMP.**

STATION PHONE: **888-758-4389**

STATION CURRENT STATUS: **OPEN: THE STATION IS OPEN.**

TYPE OF ALTERNATIVE FUEL THE STATION PROVIDES: **NOT REPORTED**

OWNER TYPE: **NOT REPORTED**

FEDERAL AGANCY ID: **NOT REPORTED**

FEDERAL AGENCY NAME: **NOT REPORTED**

DATE THAT THE STATION BEGAN OFFERING THE FUEL: **NOT REPORTED**

DATE THE STATION'S DETAILS WERE LAST CONFIRMED: **1/4/2018**

TIME THE STATION'S DETAILS WERE LAST UPDATED (ISO 8601 FORMAT).: **2018-01-04 21:29:14 UTC**

Back to Report Summary

MAP ID# 7

Distance from Property: 0.124 mi. (655 ft.) E
Elevation: 7,003 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **27948PST**
FACILITY #ID: **27948**
NAME: **EXXON RAS 60435**
ADDRESS: **220 WASHINGTON**
SANTA FE, NM 87501
COUNTY: **SANTA FE**

ABOVE GROUND STORAGE TANKS IN USE: **0**
UNDER GROUND STORAGE TANKS IN USE: **0**
TOTAL TANKS IN USE: **0**

ABOVE GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
UNDER GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
TOTAL TANKS TEMPORARILY OUT OF USE: **0**

ABOVE GROUND STORAGE TANKS SOLD: **0**
UNDER GROUND STORAGE TANKS SOLD: **0**
TOTAL TANKS SOLD: **0**

ABOVE GROUND STORAGE TANKS REMOVED: **0**
UNDER GROUND STORAGE TANKS REMOVED: **4**
TOTAL TANKS REMOVED: **4**

ABOVE GROUND STORAGE TANKS NO DATA: **0**
UNDER GROUND STORAGE TANKS NO DATA: **0**
TOTAL TANKS NO DATA: **0**

ABOVE GROUND STORAGE TANKS EXEMPT: **0**
UNDER GROUND STORAGE TANKS EXEMPT: **0**
TOTAL TANKS EXEMPT: **0**

OWNER INFORMATION

OWNER ID #: **14242**
OWNER NAME: **EXXON CO USA**

Back to Report Summary

Underground Storage Tanks (UST)

MAP ID# 7

Distance from Property: 0.124 mi. (655 ft.) E
Elevation: 7,003 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID#: **27948**
NAME: **EXXON RAS 60435**
ADDRESS: **220 WASHINGTON**
SANTA FE, NM 87501

OWNER INFORMATION

OWNER ID #: **14242**
NAME: **EXXON CO USA**
ADDRESS: **4545 FULLER DR SUITE 250**
IRVING, TX 75038

SITE DETAILS

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **24291**
CAPACITY (GAL) : **6000**
CONTENTS: **UNLEADED GASOLINE**

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **24292**
CAPACITY (GAL) : **6000**
CONTENTS: **UNLEADED GASOLINE**

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **24293**
CAPACITY (GAL) : **550**
CONTENTS: **USED OIL**

Back to Report Summary

MAP ID# 8

Distance from Property: 0.127 mi. (671 ft.) ESE
Elevation: 6,999 ft. (Higher than TP)

FACILITY INFORMATION

EPA ID#: **NMN000605340**
SITE ID#: **0605340**
NAME: **SANTA FE RIVER PCE SITE**
ADDRESS: **WASHINGTON AVENUE AND PALACE AVENUE**
SANTA FE, NM 87501
COUNTY: **SANTA FE**
FEDERAL FACILITY: **NO - NOT A FEDERAL FACILITY**
NPL: **NOT ON THE NPL**
NON NPL STATUS: **NFRAP-SITE DOES NOT QUALIFY FOR THE NPL BASED ON EXISTING INFORMATION**

Below information was gathered from the prior CERCLIS update completed in 10/2013 update:
NON-NPL STATUS DATE: **NOT REPORTED**
PHYSICAL CLASSIFICATION OF SITE / INCIDENT: **NO INFORMATION AVAILABLE**
SITE DESCRIPTION **- NO SITE DESCRIPTION INFORMATION AVAILABLE -**
SITE HISTORY **- NO SITE HISTORY INFORMATION AVAILABLE -**
ACTIONS **- NO ACTION INFORMATION AVAILABLE -**
CONTAMINANTS **- NO CONTAMINATION INFORMATION AVAILABLE -**
LISTING OF PUBLISHED INSTITUTIONAL CONTROL SITE REPORT **- NOT AN INSTITUTIONAL CONTROL SITE -**

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MAP ID# 9

Distance from Property: 0.131 mi. (692 ft.) E
Elevation: 7,003 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **31537**
FACILITY ID: **31537**
NAME: **WASHINGTON AVE GULF**
ADDRESS: **201 WASHINGTON AVE**
SANTA FE, NM
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
FACILITY LINK: Click Here
OTHER FACILITY NAME(S): **WASHINGTON AVE GULF**

FACILITY DETAILS

RELEASE ID: **1320**
STATUS: **NOT REPORTED**
NFA STATUS: **NO FURTHER ACTION, CONFIRMED RELEASE**
NFA DATE: **2/11/1993**

Back to Report Summary

Leaking Underground Storage Tanks (LUST)

MAP ID# 9

Distance from Property: 0.131 mi. (692 ft.) E
Elevation: 7,003 ft. (Higher than TP)

SITE INFORMATION

GS ID: **1993271991**
FACILITY ID: **31537**
NAME: **WASHINGTON AVE GULF**
ADDRESS: **201 WASHINGTON AVE**
SANTA FE, NM 87501-1926

RESPONSIBLE PARTY

NAME: **WISENTEINER**

SITE DETAILS

FORM #: **1320**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **118**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **NOT REPORTED**
WATER SUPPLY IMPACTS: **NO**
VAPOR EXPLOSIVE IMPACTS: **NO**
PROPERTY DAMAGE IMPACTS: **NO**
DATE REPORTED: **12-JUN-92**
STATUS: **NO FURTHER ACTION**
STAFF: **UNK**

Back to Report Summary

Petroleum Storage Tanks (PST)

MAP ID# 9

Distance from Property: 0.131 mi. (692 ft.) E
Elevation: 7,003 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **31537PST**
FACILITY #ID: **31537**
NAME: **WASHINGTON AVE GULF**
ADDRESS: **201 WASHINGTON AVE**
SANTA FE, NM 87501
COUNTY: **SANTA FE**

ABOVE GROUND STORAGE TANKS IN USE: **0**
UNDER GROUND STORAGE TANKS IN USE: **0**
TOTAL TANKS IN USE: **0**

ABOVE GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
UNDER GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
TOTAL TANKS TEMPORARILY OUT OF USE: **0**

ABOVE GROUND STORAGE TANKS SOLD: **0**
UNDER GROUND STORAGE TANKS SOLD: **0**
TOTAL TANKS SOLD: **0**

ABOVE GROUND STORAGE TANKS REMOVED: **0**
UNDER GROUND STORAGE TANKS REMOVED: **5**
TOTAL TANKS REMOVED: **5**

ABOVE GROUND STORAGE TANKS NO DATA: **0**
UNDER GROUND STORAGE TANKS NO DATA: **0**
TOTAL TANKS NO DATA: **0**

ABOVE GROUND STORAGE TANKS EXEMPT: **0**
UNDER GROUND STORAGE TANKS EXEMPT: **0**
TOTAL TANKS EXEMPT: **0**

OWNER INFORMATION

OWNER ID #: **15989**
OWNER NAME: **HORN DISTRIBUTING CO INC**

Back to Report Summary

Underground Storage Tanks (UST)

MAP ID# 9

Distance from Property: 0.131 mi. (692 ft.) E
Elevation: 7,003 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID#: **31537**
NAME: **WASHINGTON AVE GULF**
ADDRESS: **201 WASHINGTON AVE**
SANTA FE, NM 87501

OWNER INFORMATION

OWNER ID #: **15989**
NAME: **HORN DISTRIBUTING CO INC**
ADDRESS: **PO BOX 4999**
SANTA FE, NM 87502

SITE DETAILS

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **32576**
CAPACITY (GAL) : **1000**
CONTENTS: **UNLEADED GASOLINE**

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **32577**
CAPACITY (GAL) : **1000**
CONTENTS: **UNLEADED GASOLINE**

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **32578**
CAPACITY (GAL) : **3000**
CONTENTS: **UNLEADED GASOLINE**

STATUS: **REMOVED**
TANK TYPE: **UNDERGROUND**
TANK ID: **32579**
CAPACITY (GAL) : **1000**
CONTENTS: **UNLEADED GASOLINE**

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Alternative Fueling Stations (ALTFUELS)

MAP ID# 10

Distance from Property: 0.189 mi. (998 ft.) SE
Elevation: 7,000 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **123045**
UNIQUE IDENTIFIER FOR THIS SPECIFIC STATION: **123045**
STATION NAME: **LA FONDA HOTEL**
ADDRESS: **100 E SAN FRANCISCO ST**
SANTA FE, NM 87501
INTERSECTION DIRECTIONS: **STATION 1**
STATION PHONE: **888-758-4389**
STATION CURRENT STATUS: **OPEN: THE STATION IS OPEN.**
TYPE OF ALTERNATIVE FUEL THE STATION PROVIDES: **ELECTRIC**
OWNER TYPE: **NOT REPORTED**
FEDERAL AGANCY ID: **NOT REPORTED**
FEDERAL AGENCY NAME: **NOT REPORTED**
DATE THAT THE STATION BEGAN OFFERING THE FUEL: **NOT REPORTED**
DATE THE STATION'S DETAILS WERE LAST CONFIRMED: **9/24/2019**
TIME THE STATION'S DETAILS WERE LAST UPDATED (ISO 8601 FORMAT).: **2019-09-24 09:09:21 UTC**

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Voluntary Remediation Program Sites (VRP)

MAP ID# 11

Distance from Property: 0.192 mi. (1,014 ft.) NNE
Elevation: 7,011 ft. (Higher than TP)

SITE INFORMATION

GEOSEARCH ID: **2581841446**
NAME: **EL CASTILLO NORTE**
ADDRESS: **401 OLD TAOS HIGHWAY**
SANTA FE, NM
COUNTY: **SANTA FE**

SITE DETAILS

VRP ID#: **53171002**
TEMPOAI: **19904**
ACRES: **2.52**
APPLICATION DATE: **14-APR-17**
FINAL ELIGIBILITY DATE: **30-AUG-17**
CONTAMINANT/S: **NAPHTHALENE COMPOUNDS IN SOILS**
INSTITUTIONAL CONTROL: **NOT REPORTED**
EPA CERCLIS# : **NOT REPORTED**
COMPLETION DATE: **NOT REPORTED**
COVENANT DATE: **14-NOV-18**
LAND USE: **NOT REPORTED**
STATUS: **CLOSED**
FINAL WORK PLAN RECEIVED: **18-FEB-18**
FINAL WORK PLAN APPROVED: **2-APR-18**
COMPLETION REPORT RECEIVED: **6-SEP-18**
COMPLETION REPORT APPROVAL: **10-SEP-18**
TERMINATION: **NOT REPORTED**
RECISSION: **NOT REPORTED**
COMMENTS: **NOT REPORTED**

APPLICANT INFORMATION

ORGANIZATION: **PRESBYTERIAN CHURCH USA**
CONTACT: **NOT REPORTED**

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MAP ID# 12

Distance from Property: 0.198 mi. (1,045 ft.) ENE
Elevation: 7,019 ft. (Higher than TP)

SITE INFORMATION

ID#: **11942**

NAME: **BACA STREET SITE**

ADDRESS: **499 PASEO DE PERALTA**
SANTA FE, NM 87501

TYPE FUNDING: **NOT REPORTED**

PREDOMINANT PAST USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**NOT REPORTED**	**NOT REPORTED**

FUTURE USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**NOT REPORTED**	**NOT REPORTED**

PROPERTY HIGHLIGHT:
NOT REPORTED

PROPERTY SIZE (Acres): **16**

CURRENT OWNER: **NOT REPORTED**

PROPERTY DESCRIPTION/ FORMER USE:
POSSIBLY DRY CLEANING & GASOLINE STORAGE

CONTAMINANT(S): **NOT REPORTED**

CONTAMINANT(S) CLEANED UP: **NOT REPORTED**

MEDIA(S) AFFECTED: **SOIL, GROUND WATER**

MEDIA(S) CLEANED UP: **NOT REPORTED**

COOPERATIVE AGREEMENT NUMBER: **98612101**

TYPE OF BROWNFIELD GRANT: **ASSESSMENT**

ENVIRONMENTAL ASSESSMENT ACTIVITY: **PHASE I ENVIRONMENTAL ASSESSMENT**

ASSESSMENT START DATE: **6/30/2001**

ASSESSMENT COMPLETION DATE: **6/30/2001**

CLEANUP REQUIRED: **YES**

STATE & TRIBAL ENROLLMENT ID: **NOT REPORTED**

STATE & TRIBAL ENROLLMENT DATE: **NOT REPORTED**

PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **NOT REPORTED**

ARE INSTITUTIONAL CONTROLS REQUIRED?: **NOT REPORTED**

INSTITUTIONAL CONTROL IN PLACE: **UNKNOWN**

INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**

PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**

GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**

OWNERSHIP ENTITY: **NOT REPORTED**

#GRANT RECIPIENT NAME : **SANTA FE, CITY OF**

GRANT ID: **41042320**

CLEANUP START DATE: **NOT REPORTED**

CLEANUP COMPLETION DATE : **NOT REPORTED**

STATE & TRIBAL NO FURTHER ACTION DATE: **NOT REPORTED**

ASSESSMENT AMOUNT: **NOT REPORTED**

ASSESSMENT FUNDING ENTITY: **NOT REPORTED**

CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

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MAP ID# 13

Distance from Property: 0.208 mi. (1,098 ft.) SW
Elevation: 6,970 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **1085230204**
SITE ID: **51573081 51573093**
PROPERTY ID: **115927**
PROPERTY NAME: **SANTA FE RIVER ASSESSMENT**
ADDRESS: **NOT REPORTED**
SANTA FE, NM 87501
COUNTY: **SANTA FE**
ALIAS: **NOT REPORTED**
ACRES: **444**
HORIZONTAL COLLECTION: **NOT REPORTED**
SOURCE MAP SCALE: **NOT REPORTED**
REFERENCE POINT: **OTHER POINT**
HORIZONTAL REFERENCE DATUM: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
EPA REGIONAL REPRESENTATIVE: **KAREN PEYCKE**
DIGITAL FILES?: **YES**
PHYSICAL FILES?: **YES**
TOTAL SPENT: **$186,546.00**
SITE DESCRIPTION: **SEVERAL HUNDRED ACRES BORDERING THE SANTA FE RIVER, WITH A FOCUS IN DOWNTOWN**
NATURE OF CONTAMINATION: **PETROLEUM HYDROCARBONS; CHLORINATED SOLVENTS**
ASSISTANCE REQUESTOR: **CITY OF SANTA FE**
ASSISTANCE REQUESTED: **NOT REPORTED**
REQUEST DATE: **NOT REPORTED**
COMPLETION DATE: **NOT REPORTED**
INSTITUTIONAL CONTROL IN PLACE?: **NOT REPORTED**
PROJECT HISTORY: **NOT REPORTED**
STATUS/USE: **MIXED; GREENSPACE, COMMERCIAL, RESIDENTIAL**
VOLUNTARY REMEDIATION PROGRAM: **NOT REPORTED**
GRANT RECIPIENT: **NOT REPORTED** \ASSESSMENT 1: **PHASE II**
AMOUNT 1: **$58,926.00**
COMPLETION DATE 1: **12/22/2010**
FUNDING SOURCE 1: **NEW MEXICO ENVIRONMENT DEPARTMENT, SECTION 128(A) STATE/TRIBAL FY 2008** \ASSESSMENT 2: **SUPPLEMENTAL ASSESSMENT**
AMOUNT 2: **$127,620.00**
COMPLETION DATE 2: **6/30/2014**
FUNDING SOURCE 2: **NEW MEXICO ENVIRONMENT DEPARTMENT, BF00F13901, ASSESSMENT FY 2010** \ASSESSMENT 3: **NOT REPORTED**
AMOUNT 3: **NOT REPORTED**
COMPLETION DATE 3: **NOT REPORTED**
FUNDING SOURCE 3: **NOT REPORTED**

Back to Report Summary

MAP ID# 13

Distance from Property: 0.208 mi. (1,098 ft.) SW
Elevation: 6,970 ft. (Lower than TP)

SITE INFORMATION

ID#: **115927**

NAME: **SANTA FE RIVER ASSESSMENT**

ADDRESS: **13-BLOCK AREA IN HISTORIC SANTA FE**
SANTA FE, NM 87502

TYPE FUNDING: **HAZARDOUS & PETROLEUM**

PREDOMINANT PAST USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
43	**200**	**201**	**NOT REPORTED**

FUTURE USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**NOT REPORTED**	**NOT REPORTED**

PROPERTY HIGHLIGHT:

THE SITE CONSISTS OF THE SANTA FE RIVER CORRIDOR THAT RUNS THROUGH THE DOWNTOWN AREA OF THE CITY OF SANTA FE.

PROPERTY SIZE (Acres): **444**

CURRENT OWNER: **VARIOUS**

PROPERTY DESCRIPTION/ FORMER USE:

THE AREA CONSISTS OF MANY TRACTS UNDER VARIOUS OWNERSHIP IN A MOSTLY COMMERCIAL AREA.

CONTAMINANT(S): **PETROLEUM, VOCS**

CONTAMINANT(S) CLEANED UP: **NOT REPORTED**

MEDIA(S) AFFECTED: **SOIL, GROUND WATER**

MEDIA(S) CLEANED UP: **NOT REPORTED**

COOPERATIVE AGREEMENT NUMBER: **00F13901**

TYPE OF BROWNFIELD GRANT: **ASSESSMENT**

ENVIRONMENTAL ASSESSMENT ACTIVITY: **SUPPLEMENTAL ASSESSMENT**

ASSESSMENT START DATE: **10/11/2012**

ASSESSMENT COMPLETION DATE: **6/30/2014**

CLEANUP REQUIRED: **UNKNOWN**

STATE & TRIBAL ENROLLMENT ID: **NOT REPORTED**

STATE & TRIBAL ENROLLMENT DATE: **NOT REPORTED**

PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **NOT REPORTED**

ARE INSTITUTIONAL CONTROLS REQUIRED?: **NO**

INSTITUTIONAL CONTROL IN PLACE: **NO**

INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**

PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**

GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**

OWNERSHIP ENTITY: **PRIVATE**

#GRANT RECIPIENT NAME : **NEW MEXICO ENVIRONMENT DEPARTMENT**

GRANT ID: **10000016**

CLEANUP START DATE: **NOT REPORTED**

CLEANUP COMPLETION DATE : **NOT REPORTED**

STATE & TRIBAL NO FURTHER ACTION DATE: **NOT REPORTED**

ASSESSMENT AMOUNT: **127620**

ASSESSMENT FUNDING ENTITY: **US EPA - TBA FUNDING**
CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

COOPERATIVE AGREEMENT NUMBER: **96678901**
TYPE OF BROWNFIELD GRANT: **SECTION 128(A) STATE/TRIBAL**
ENVIRONMENTAL ASSESSMENT ACTIVITY: **PHASE II ENVIRONMENTAL ASSESSMENT**
ASSESSMENT START DATE: **12/14/2009**
ASSESSMENT COMPLETION DATE: **12/22/2010**
CLEANUP REQUIRED: **UNKNOWN**
STATE & TRIBAL ENROLLMENT ID: **NOT REPORTED**
STATE & TRIBAL ENROLLMENT DATE: **NOT REPORTED**
PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **NOT REPORTED**
ARE INSTITUTIONAL CONTROLS REQUIRED?: **NO**
INSTITUTIONAL CONTROL IN PLACE: **NO**
INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**
PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**
GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**
OWNERSHIP ENTITY: **PRIVATE**
#GRANT RECIPIENT NAME : **NEW MEXICO ENVIRONMENTAL DEPARTMENT**
GRANT ID: **10000016**
CLEANUP START DATE: **NOT REPORTED**
CLEANUP COMPLETION DATE : **NOT REPORTED**
STATE & TRIBAL NO FURTHER ACTION DATE: **NOT REPORTED**
ASSESSMENT AMOUNT: **58926**
ASSESSMENT FUNDING ENTITY: **US EPA - TBA FUNDING**
CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

COOPERATIVE AGREEMENT NUMBER: **N/A**
TYPE OF BROWNFIELD GRANT: **TBA**
ENVIRONMENTAL ASSESSMENT ACTIVITY: **PHASE II ENVIRONMENTAL ASSESSMENT**
ASSESSMENT START DATE: **4/17/2015**
ASSESSMENT COMPLETION DATE: **12/18/2015**
CLEANUP REQUIRED: **UNKNOWN**

STATE & TRIBAL ENROLLMENT ID: **NOT REPORTED**
STATE & TRIBAL ENROLLMENT DATE: **NOT REPORTED**
PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **NOT REPORTED**
ARE INSTITUTIONAL CONTROLS REQUIRED?: **NO**
INSTITUTIONAL CONTROL IN PLACE: **NO**
INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**
PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**
GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**
OWNERSHIP ENTITY: **PRIVATE**
#GRANT RECIPIENT NAME : **R6 TBA (STAG FUNDED)**
GRANT ID: **10000016**
CLEANUP START DATE: **NOT REPORTED**
CLEANUP COMPLETION DATE : **NOT REPORTED**
STATE & TRIBAL NO FURTHER ACTION DATE: **NOT REPORTED**
ASSESSMENT AMOUNT: **85702**
ASSESSMENT FUNDING ENTITY: **US EPA - TBA FUNDING**
CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

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Petroleum Storage Tanks (PST)

MAP ID# 14

Distance from Property: 0.229 mi. (1,209 ft.) S
Elevation: 6,989 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **30454PST**
FACILITY #ID: **30454**
NAME: **SANTA FE MAIN**
ADDRESS: **121 E ALAMEDA**
SANTA FE, NM 87501
COUNTY: **SANTA FE**

ABOVE GROUND STORAGE TANKS IN USE: **0**
UNDER GROUND STORAGE TANKS IN USE: **0**
TOTAL TANKS IN USE: **0**

ABOVE GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
UNDER GROUND STORAGE TANKS TEMPORARILY OUT OF USE: **0**
TOTAL TANKS TEMPORARILY OUT OF USE: **0**

ABOVE GROUND STORAGE TANKS SOLD: **0**
UNDER GROUND STORAGE TANKS SOLD: **0**
TOTAL TANKS SOLD: **0**

ABOVE GROUND STORAGE TANKS REMOVED: **0**
UNDER GROUND STORAGE TANKS REMOVED: **1**
TOTAL TANKS REMOVED: **1**

ABOVE GROUND STORAGE TANKS NO DATA: **0**
UNDER GROUND STORAGE TANKS NO DATA: **0**
TOTAL TANKS NO DATA: **0**

ABOVE GROUND STORAGE TANKS EXEMPT: **0**
UNDER GROUND STORAGE TANKS EXEMPT: **0**
TOTAL TANKS EXEMPT: **0**

OWNER INFORMATION

OWNER ID #: **14976**
OWNER NAME: **QWEST CORPORATION DBA CENTURYLINK QC**

Back to Report Summary

Underground Storage Tanks (UST)

MAP ID# 14

Distance from Property: 0.229 mi. (1,209 ft.) S
Elevation: 6,989 ft. (Higher than TP)

FACILITY INFORMATION

FACILITY ID#: **30454**
NAME: **SANTA FE MAIN**
ADDRESS: **121 E ALAMEDA**
SANTA FE, NM 87501

OWNER INFORMATION

OWNER ID #: **14976**
NAME: **QWEST COMMUNICATION**
ADDRESS: **3640 E INDIAN SCHOOL RD NO - 330**
PHOENIX, AZ 85018

SITE DETAILS

Back to Report Summary

Leaking Aboveground and Underground Storage Tanks (LST)

MAP ID# 15

Distance from Property: 0.280 mi. (1,478 ft.) ESE
Elevation: 7,011 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **29006**
FACILITY ID: **29006**
NAME: **LA VILLA RIVERA BUILDING**
ADDRESS: **224 PALACE**
SANTA FE, NM
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
FACILITY LINK: Click Here
OTHER FACILITY NAME(S): **LA VILLA RIVERA BUILDING**

FACILITY DETAILS

RELEASE ID: **3452**
STATUS: **NOT REPORTED**
NFA STATUS: **NO FURTHER ACTION, CONFIRMED RELEASE**
NFA DATE: **10/15/1999**

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Leaking Underground Storage Tanks (LUST)

MAP ID# 15

Distance from Property: 0.280 mi. (1,478 ft.) ESE
Elevation: 7,011 ft. (Higher than TP)

SITE INFORMATION

GS ID: **4135588808**
FACILITY ID: **29006**
NAME: **LA VILLA RIVERA BUIL**
ADDRESS: **224 PALACE**
SANTA FE, NM 87501-2550

SITE DETAILS

FORM #: **3452**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **154**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **4**
WATER SUPPLY IMPACTS: **NO**
VAPOR EXPLOSIVE IMPACTS: **NO**
PROPERTY DAMAGE IMPACTS: **NO**
DATE REPORTED: **08-OCT-98**
STATUS: **NO FURTHER ACTION**
STAFF: **LLG**

RESPONSIBLE PARTY

NAME: **UNKNOWN**

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MAP ID# 16

Distance from Property: 0.291 mi. (1,536 ft.) E
Elevation: 7,031 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **1449922429**
FACILITY NAME: **MANDALA MEDICINE, LLC**
ADDRESS: **618 A PASEO DE PERALTA**
SANTA FE, NM 87501

FACILITY DETAILS

OTHER FACILITY NAME: **MANDALA MEDICINE, LLC**
TYPE: **INFECTIOUS WASTE GENERATOR**
STATUS: **OPEN**
PHONE: **505-989-1818**
OWNER / OPERATOR: **NOT REPORTED**
OWNER ADDRESS: **NOT REPORTED**
NOT REPORTED, NOT REPORTED NOT REPORTED
CONTACT: **NOT REPORTED**
CONTACT PHONE: **NOT REPORTED**

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MAP ID# 17

Distance from Property: 0.321 mi. (1,695 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

SITE INFORMATION

ID#: **125382**

NAME: **SANTA FE COUNTY JUDICIAL COMPLEX**

ADDRESS: **327 SANDOVAL STREET, SANTA FE, NM**
SANTA FE, NM 87501

TYPE FUNDING: **PETROLEUM**

PREDOMINANT PAST USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**2.4**	**NOT REPORTED**

FUTURE USE (ACREAGE):

GREENSPACE:	RESIDENTIAL:	COMMERCIAL:	INDUSTRIAL:
NOT REPORTED	**NOT REPORTED**	**NOT REPORTED**	**NOT REPORTED**

PROPERTY HIGHLIGHT:

NOT REPORTED

PROPERTY SIZE (Acres): **2.4**

CURRENT OWNER: **SANTA FE COUNTY**

PROPERTY DESCRIPTION/ FORMER USE:

THE PROPERTY COMBINES FOUR FORMER PARCELS WHICH WERE HISTORICALLY USED FOR RESIDENCES AND A VARIETY OF SMALL BUSINESSES. THE PETROLEUM CONTAMINATION IN THE GROUND WATER IS BELIEVED TO ORIGINATE FROM ONE OF SEVERAL FORMER GASOLINE STATIONS OR OTHER BUSINESSES IN THE VICINITY THAT HANDLED PETROLEUM PRODUCTS, AND IS BEING ADDRESSED BY NMED'S PETROLEUM CORRECTIVE ACTION FUND.

CONTAMINANT(S): **PETROLEUM**

CONTAMINANT(S) CLEANED UP: **PETROLEUM**

MEDIA(S) AFFECTED: **SOIL, GROUND WATER**

MEDIA(S) CLEANED UP: **SOIL**

COOPERATIVE AGREEMENT NUMBER: **00F08601**

TYPE OF BROWNFIELD GRANT: **BCRLF**

ENVIRONMENTAL ASSESSMENT ACTIVITY: **NOT REPORTED**

ASSESSMENT START DATE: **NOT REPORTED**

ASSESSMENT COMPLETION DATE: **NOT REPORTED**

CLEANUP REQUIRED: **YES**

STATE & TRIBAL ENROLLMENT ID: **53092001**

STATE & TRIBAL ENROLLMENT DATE: **08/06/2010 00:00:00**

PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **8/6/2010**

ARE INSTITUTIONAL CONTROLS REQUIRED?: **YES**

INSTITUTIONAL CONTROL IN PLACE: **NO**

INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**

PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**

GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**

OWNERSHIP ENTITY: **GOVERNMENT**

#GRANT RECIPIENT NAME : **NEW MEXICO ENVIRONMENT DEPARTMENT**

GRANT ID: **69599638**

CLEANUP START DATE: **4/15/2011**

CLEANUP COMPLETION DATE : **5/31/2012**

STATE & TRIBAL NO FURTHER ACTION DATE: **9/27/2013**
ASSESSMENT AMOUNT: **NOT REPORTED**
ASSESSMENT FUNDING ENTITY: **US EPA - STATE & TRIBAL SECTION 128(A) FUNDING**
CLEANUP ACRES: **2**
CLEANUP AMOUNT: **382000**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **2/1/2011**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **8000000**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **6/10/2013**

COOPERATIVE AGREEMENT NUMBER: **00F08601**
TYPE OF BROWNFIELD GRANT: **BCRLF**
ENVIRONMENTAL ASSESSMENT ACTIVITY: **NOT REPORTED**
ASSESSMENT START DATE: **NOT REPORTED**
ASSESSMENT COMPLETION DATE: **NOT REPORTED**
CLEANUP REQUIRED: **YES**
STATE & TRIBAL ENROLLMENT ID: **53092001**
STATE & TRIBAL ENROLLMENT DATE: **08/06/2010 00:00:00**
PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **8/6/2010**
ARE INSTITUTIONAL CONTROLS REQUIRED?: **YES**
INSTITUTIONAL CONTROL IN PLACE: **NO**
INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**
PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**
GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**
OWNERSHIP ENTITY: **GOVERNMENT**
#GRANT RECIPIENT NAME : **NEW MEXICO ENVIRONMENT DEPARTMENT**
GRANT ID: **69599638**
CLEANUP START DATE: **4/15/2011**
CLEANUP COMPLETION DATE : **5/31/2012**
STATE & TRIBAL NO FURTHER ACTION DATE: **9/27/2013**
ASSESSMENT AMOUNT: **NOT REPORTED**
ASSESSMENT FUNDING ENTITY: **US EPA - STATE & TRIBAL SECTION 128(A) FUNDING**
CLEANUP ACRES: **2**
CLEANUP AMOUNT: **382000**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **2/1/2011**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **55000000**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **6/10/2013**

COOPERATIVE AGREEMENT NUMBER: **96678901**
TYPE OF BROWNFIELD GRANT: **SECTION 128(A) STATE/TRIBAL**
ENVIRONMENTAL ASSESSMENT ACTIVITY: **CLEANUP PLANNING**
ASSESSMENT START DATE: **1/19/2011**

ASSESSMENT COMPLETION DATE: **3/14/2011**
CLEANUP REQUIRED: **YES**
STATE & TRIBAL ENROLLMENT ID: **53092001**
STATE & TRIBAL ENROLLMENT DATE: **08/06/2010 00:00:00**
PROPERTY ENROLLED IN A STATE & TRIBAL PROGRAM?: **8/6/2010**
ARE INSTITUTIONAL CONTROLS REQUIRED?: **YES**
INSTITUTIONAL CONTROL IN PLACE: **NO**
INSTITUTIONAL CONTROL IN PLACE DATE: **NOT REPORTED**
PROPRIETARY CONTROL INDICATOR: **NOT REPORTED**
GOVERNMENTAL CONTROL INDICATOR: **NOT REPORTED**
OWNERSHIP ENTITY: **GOVERNMENT**
#GRANT RECIPIENT NAME : **NEW MEXICO ENVIRONMENTAL DEPARTMENT**
GRANT ID: **69599638**
CLEANUP START DATE: **NOT REPORTED**
CLEANUP COMPLETION DATE : **NOT REPORTED**
STATE & TRIBAL NO FURTHER ACTION DATE: **9/27/2013**
ASSESSMENT AMOUNT: **17181**
ASSESSMENT FUNDING ENTITY: **US EPA - STATE & TRIBAL SECTION 128(A) FUNDING**
CLEANUP ACRES: **NOT REPORTED**
CLEANUP AMOUNT: **NOT REPORTED**
CLEANUP FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT START DATE: **NOT REPORTED**
REDEVELOPMENT ACRES: **NOT REPORTED**
REDEVELOPMENT AMOUNT: **NOT REPORTED**
REDEVELOPMENT FUNDING ENTITY: **NOT REPORTED**
REDEVELOPMENT COMPLETION DATE: **NOT REPORTED**

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MAP ID# 17

Distance from Property: 0.321 mi. (1,695 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **3685453409**
SITE ID: **51573089**
PROPERTY ID: **125382**
PROPERTY NAME: **SANTA FE COUNTY JUDICIAL COMPLEX**
ADDRESS: **327 SANDOVAL ST**
SANTA FE, NM 87501
COUNTY: **SANTA FE**
ALIAS: **NOT REPORTED**
ACRES: **2**
HORIZONTAL COLLECTION: **NOT REPORTED**
SOURCE MAP SCALE: **NOT REPORTED**
REFERENCE POINT: **ENTRANCE POINT OF A FACILITY OR STATION**
HORIZONTAL REFERENCE DATUM: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
EPA REGIONAL REPRESENTATIVE: **KAREN PEYCKE**
DIGITAL FILES?: **YES**
PHYSICAL FILES?: **YES**
TOTAL SPENT: **$17,181.00**
SITE DESCRIPTION: **NOT REPORTED**
NATURE OF CONTAMINATION: **NOT REPORTED**
ASSISTANCE REQUESTOR: **NOT REPORTED**
ASSISTANCE REQUESTED: **NOT REPORTED**
REQUEST DATE: **NOT REPORTED**
COMPLETION DATE: **NOT REPORTED**
INSTITUTIONAL CONTROL IN PLACE?: **NOT REPORTED**
PROJECT HISTORY: **NOT REPORTED**
STATUS/USE: **NOT REPORTED**
VOLUNTARY REMEDIATION PROGRAM: **YES**
GRANT RECIPIENT: **NOT REPORTED** \ASSESSMENT 1: **CLEANUP PLANNING**
AMOUNT 1: **$17,181.00**
COMPLETION DATE 1: **3/14/2011**
FUNDING SOURCE 1: **NEW MEXICO ENVIRONMENT DEPARTMENT, SECTION 128(A) STATE/TRIBAL FY 2008** \ASSESSMENT 2: **NOT REPORTED**
AMOUNT 2: **NOT REPORTED**
COMPLETION DATE 2: **NOT REPORTED**
FUNDING SOURCE 2: **NOT REPORTED** \ASSESSMENT 3: **NOT REPORTED**
AMOUNT 3: **NOT REPORTED**
COMPLETION DATE 3: **NOT REPORTED**
FUNDING SOURCE 3: **NOT REPORTED**

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Compliance and Enforcement Program Cleanup Sites (CEPCS)

MAP ID# 17

Distance from Property: 0.326 mi. (1,721 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **2649164977**

NAME: **MASTERS CLEANERS**

ADDRESS: **238 SANDOVAL ST.**
SANTA FE, NM

COUNTY: **SANTA FE**

SITE DETAILS

EVENT: **PHASE 2 SHOWED PCE OF 12 MG/KG AT 1-5 FT.**

DISCHARGE DATE: **UNKNOWN**

ACTION TAKEN: **3 SOIL BORINGS TO 50 AND 100 FT SHOWED NO GW AND ND FOR VOCS, SOIL VAPOR AT 25' SHOWED 19 UG/LAIR.**

QWQB STATUS: **CLOSED**

CLOSED DATE: **1/18/2006**

Back to Report Summary

Voluntary Remediation Program Sites (VRP)

MAP ID# 17

Distance from Property: 0.321 mi. (1,695 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **2090750836**
NAME: **SANTA FE COUNTY JUDICIAL COMPLEX**
ADDRESS: **327 SANDOVAL ST**
SANTA FE, NM
COUNTY: **SANTA FE**

SITE DETAILS

VRP ID#: **53092001**
TEMPOAI: **NOT REPORTED**
ACRES: **2.35**
APPLICATION DATE: **29-APR-09**
FINAL ELIGIBILITY DATE: **9-MAY-14**
CONTAMINANT/S: **PETROLEUM HYDROCARBONS IN SOIL AND GROUND WATER.**
INSTITUTIONAL CONTROL: **NOT REPORTED**
EPA CERCLIS# : **NOT REPORTED**
COMPLETION DATE: **26-FEB-16**
COVENANT DATE: **NOT REPORTED**
LAND USE: **NOT REPORTED**
STATUS: **ACTIVE - CCOC**
FINAL WORK PLAN RECEIVED: **16-FEB-15**
FINAL WORK PLAN APPROVED: **23-FEB-15**
COMPLETION REPORT RECEIVED: **23-SEP-15**
COMPLETION REPORT APPROVAL: **19-FEB-16**
TERMINATION: **NOT REPORTED**
RECISSION: **NOT REPORTED**
COMMENTS: **8/28/18 SEMI-ANNUAL GROUNDWATER MONITORING REPORT SUBMITTED BY SMA; COMPLETION REPORT SUBMITTED 9/23/15. CCOC BEING NEGOTIATED. WAITING ON REVISIONS TO COMPLETION REPORT**

APPLICANT INFORMATION

ORGANIZATION: **SANTA FE COUNTY**
CONTACT: **NOT REPORTED**

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Leaking Aboveground and Underground Storage Tanks (LST)

MAP ID# 18

Distance from Property: 0.346 mi. (1,827 ft.) SSW
Elevation: 6,987 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **27219**
FACILITY ID: **27219**
NAME: **CAPITOL 66**
ADDRESS: **204 MONTEZUMA**
SANTA FE, NM 87501
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **SUSAN VON GONTEN**
FACILITY LINK: **NOT REPORTED**
OTHER FACILITY NAME(S): **CAPITOL 66**

FACILITY DETAILS

RELEASE ID: **324**
STATUS: **AGGR CLEANUP COMPLETED, RESP PARTY**
NFA STATUS: **NOT REPORTED**
NFA DATE: **NOT REPORTED**

RELEASE ID: **324**
STATUS: **AGGR CLEANUP COMPLETED, RESP PARTY**
NFA STATUS: **NOT REPORTED**
NFA DATE: **NOT REPORTED**

Back to Report Summary

Leaking Underground Storage Tanks (LUST)

MAP ID# 18

Distance from Property: 0.346 mi. (1,827 ft.) SSW
Elevation: 6,987 ft. (Higher than TP)

SITE INFORMATION

GS ID: **258248932**
FACILITY ID: **27219**
NAME: **CAPITOL 66**
ADDRESS: **204 MONTEZUMA**
SANTA FE, NM 87501-2625

SITE DETAILS

FORM #: **324**
SITE PRIORITY RANK: **360**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **208**
AGGRAVATING FACTOR SCORE: **2**
MITIGATING FACTOR SCORE: **1**
WATER SUPPLY IMPACTS: **NO**
VAPOR EXPLOSIVE IMPACTS: **NO**
PROPERTY DAMAGE IMPACTS: **NO**
DATE REPORTED: **12-SEP-90**
STATUS: **CLEANUP, RP LEAD**
STAFF: **CTH**

RESPONSIBLE PARTY

NAME: **CHAMPION OIL CO**

Back to Report Summary

MAP ID# 19

Distance from Property: 0.355 mi. (1,874 ft.) SSW
Elevation: 6,987 ft. (Higher than TP)

SITE INFORMATION

GEOSEARCH ID: **1290855117**
NAME: **PKG BUILDING**
ADDRESS: **218 MONTEZUMA**
SANTA FE, NM
COUNTY: **SANTA FE**

SITE DETAILS

EVENT: **INDOOR AIR AND SOIL VAPOR SHOWED LOW LEVELS OF CCL2F2**
DISCHARGE DATE: **1984**
ACTION TAKEN: **NOT REPORTED**
QWQB STATUS: **CLOSED**
CLOSED DATE: **6/15/1984**

Back to Report Summary

Leaking Aboveground and Underground Storage Tanks (LST)

MAP ID# 19

Distance from Property: 0.355 mi. (1,874 ft.) SSW
Elevation: 6,987 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **47997**
FACILITY ID: **47997**
NAME: **210 AND 218 MONTEZUMA AVENUE**
ADDRESS: **210 MONTEZUMA AVE**
SANTA FE, NM 87501
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **SUSAN VON GONTEN**
FACILITY LINK: **NOT REPORTED**
OTHER FACILITY NAME(S): **210 AND 218 MONTEZUMA AVENUE**

FACILITY DETAILS

RELEASE ID: **3604**
STATUS: **CLEANUP, RESPONSIBLE PARTY**
NFA STATUS: **NOT REPORTED**
NFA DATE: **NOT REPORTED**

RELEASE ID: **3604**
STATUS: **CLEANUP, RESPONSIBLE PARTY**
NFA STATUS: **NOT REPORTED**
NFA DATE: **NOT REPORTED**

Back to Report Summary

Leaking Underground Storage Tanks (LUST)

MAP ID# 19

Distance from Property: 0.355 mi. (1,874 ft.) SSW
Elevation: 6,987 ft. (Higher than TP)

SITE INFORMATION

GS ID: **554176530**
FACILITY ID: **47997**
NAME: **210 AND 218 MONTEZUM**
ADDRESS: **210 MONTEZUMA AVE**
SANTA FE, NM 87501-2681

SITE DETAILS

FORM #: **3604**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **NOT REPORTED**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **NOT REPORTED**
WATER SUPPLY IMPACTS: **UNKNOWN**
VAPOR EXPLOSIVE IMPACTS: **UNKNOWN**
PROPERTY DAMAGE IMPACTS: **UNKNOWN**
DATE REPORTED: **03-MAR-99**
STATUS: **INVESTIGATION, RP LEAD**
STAFF: **SVG**

RESPONSIBLE PARTY

NAME: **218 MONTEZUMA A**

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Compliance and Enforcement Program Cleanup Sites (CEPCS)

MAP ID# 20

Distance from Property: 0.386 mi. (2,038 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **290360134**

NAME: **SANTA FE BEAVER REINTRODUCTION BY FOREST GUARDIANS**

ADDRESS: **312 MONTEZUMA**
SANTA FE, NM

COUNTY: **SANTA FE**

SITE DETAILS

EVENT: **BEAVER DAM CREATED BY BEAVER REINTRODUCTION PROJECT CREATING DIVERSION OF POTENTIALLY CONTAMINATED WATER MAKING A REPORTED THREAT TO RESIDENTS**

DISCHARGE DATE: **UNKNOWN**

ACTION TAKEN: **INVESTIGATION SHOWED NO GROUND WATER CONCERNS**

QWQB STATUS: **REFERRED TO SWQB**

CLOSED DATE: **2/1/2014**

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MAP ID# 20

Distance from Property: 0.400 mi. (2,112 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **28118**
FACILITY ID: **28118**
NAME: **FORMER GARFIELD**
ADDRESS: **418 SANDOVAL ST**
SANTA FE, NM
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
FACILITY LINK: Click Here
OTHER FACILITY NAME(S): **FORMER GARFIELD**

FACILITY DETAILS

RELEASE ID: **1206**
STATUS: **NOT REPORTED**
NFA STATUS: **NO FURTHER ACTION, CONFIRMED RELEASE**
NFA DATE: **6/12/2001**

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Leaking Underground Storage Tanks (LUST)

MAP ID# 20

Distance from Property: 0.400 mi. (2,112 ft.) SW
Elevation: 6,982 ft. (Lower than TP)

SITE INFORMATION

GS ID: **3595586499**
FACILITY ID: **28118**
NAME: **FORMER GARFIELD**
ADDRESS: **418 SANDOVAL ST**
SANTA FE, NM 87501-2633

SITE DETAILS

FORM #: **1206**
SITE PRIORITY RANK: **384**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **208**
AGGRAVATING FACTOR SCORE: **1**
MITIGATING FACTOR SCORE: **NOT REPORTED**
WATER SUPPLY IMPACTS: **NO**
VAPOR EXPLOSIVE IMPACTS: **NO**
PROPERTY DAMAGE IMPACTS: **NO**
DATE REPORTED: **17-APR-92**
STATUS: **NO FURTHER ACTION**
STAFF: **JLK**

RESPONSIBLE PARTY

NAME: **WITCHER SR**

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Voluntary Remediation Program Sites (VRP)

MAP ID# 21

Distance from Property: 0.392 mi. (2,070 ft.) WSW
Elevation: 6,963 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **1074673561**
NAME: **SANBUSCO MARKET CENTER**
ADDRESS: **560 MONTEZUMA AVENUE**
SANTA FE, NM
COUNTY: **SANTA FE**

SITE DETAILS

VRP ID#: **53012001**
TEMPOAI: **NOT REPORTED**
ACRES: **4.8**
APPLICATION DATE: **7-JUN-01**
FINAL ELIGIBILITY DATE: **15-JUL-01**
CONTAMINANT/S: **HYDRAULIC OIL.**
INSTITUTIONAL CONTROL: **NOT REPORTED**
EPA CERCLIS# : **NOT REPORTED**
COMPLETION DATE: **NOT REPORTED**
COVENANT DATE: **NOT REPORTED**
LAND USE: **NOT REPORTED**
STATUS: **CLOSED**
FINAL WORK PLAN RECEIVED: **NOT REPORTED**
FINAL WORK PLAN APPROVED: **NOT REPORTED**
COMPLETION REPORT RECEIVED: **NOT REPORTED**
COMPLETION REPORT APPROVAL: **NOT REPORTED**
TERMINATION: **NOT REPORTED**
RECISSION: **NOT REPORTED**
COMMENTS: **NONE**

APPLICANT INFORMATION

ORGANIZATION: **SANBUSCO CORP.**
CONTACT: **NOT REPORTED**

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Leaking Aboveground and Underground Storage Tanks (LST)

MAP ID# 22

Distance from Property: 0.460 mi. (2,429 ft.) SSE
Elevation: 7,033 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **30766**
FACILITY ID: **30766**
NAME: **PERA BLDG**
ADDRESS: **PASEO DE PERALTA**
SANTA FE, NM
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
FACILITY LINK: Click Here
OTHER FACILITY NAME(S): **PERA BLDG**

FACILITY DETAILS

RELEASE ID: **2701**
STATUS: **NOT REPORTED**
NFA STATUS: **NO FURTHER ACTION, CONFIRMED RELEASE**
NFA DATE: **10/20/1987**

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Leaking Underground Storage Tanks (LUST)

MAP ID# 22

Distance from Property: 0.460 mi. (2,429 ft.) SSE
Elevation: 7,033 ft. (Higher than TP)

SITE INFORMATION

GS ID: **3499036257**
FACILITY ID: **30766**
NAME: **PERA BLDG**
ADDRESS: **PASEO DE PERALTA**
SANTA FE, NM

SITE DETAILS

FORM #: **2701**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **NOT REPORTED**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **NOT REPORTED**
WATER SUPPLY IMPACTS: **UNKNOWN**
VAPOR EXPLOSIVE IMPACTS: **UNKNOWN**
PROPERTY DAMAGE IMPACTS: **UNKNOWN**
DATE REPORTED: **01-OCT-87**
STATUS: **NO FURTHER ACTION**
STAFF: **UNK**

RESPONSIBLE PARTY

NAME: **STATE OF NEW ME**

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Leaking Aboveground and Underground Storage Tanks (LST)

MAP ID# 23

Distance from Property: 0.477 mi. (2,519 ft.) WNW
Elevation: 6,949 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **30150**
FACILITY ID: **30150**
NAME: **EXXON GUADALUPE**
ADDRESS: **500 N GUADALUPE**
SANTA FE, NM
ACTIVE UST COUNT: **NOT REPORTED**
ACTIVE AST COUNT: **NOT REPORTED**
PROJECT MANAGER: **NOT REPORTED**
FACILITY LINK: **NOT REPORTED**
OTHER FACILITY NAME(S): **EXXON GUADALUPE**

FACILITY DETAILS

RELEASE ID: **473**
STATUS: **NOT REPORTED**
NFA STATUS: **NO FURTHER ACTION, CONFIRMED RELEASE**
NFA DATE: **5/15/1995**

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Leaking Underground Storage Tanks (LUST)

MAP ID# 23

Distance from Property: 0.477 mi. (2,519 ft.) WNW
Elevation: 6,949 ft. (Lower than TP)

SITE INFORMATION

GS ID: **2486367162**
FACILITY ID: **30150**
NAME: **EXXON GUADALUPE**
ADDRESS: **500 N GUADALUPE**
SANTA FE, NM 87501-6511

SITE DETAILS

FORM #: **473**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **208**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **1**
WATER SUPPLY IMPACTS: **NO**
VAPOR EXPLOSIVE IMPACTS: **NO**
PROPERTY DAMAGE IMPACTS: **NO**
DATE REPORTED: **25-JAN-93**
STATUS: **NO FURTHER ACTION**
STAFF: **UNK**

RESPONSIBLE PARTY

NAME: **EXXON CO USA**

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Leaking Underground Storage Tanks (LUST)

MAP ID# 24

Distance from Property: 0.499 mi. (2,635 ft.) NW
Elevation: 7,031 ft. (Higher than TP)

SITE INFORMATION

GS ID: **2644034086**
FACILITY ID: **26526**
NAME: **ALLSUPS TEXACO NEW B**
ADDRESS: **NUMBER TWO CAMINO ALTO**
SANTA FE, NM

SITE DETAILS

FORM #: **3187**
SITE PRIORITY RANK: **NOT REPORTED**
TOTAL SCORE: **NOT REPORTED**
TIE SCORE: **NOT REPORTED**
AGGRAVATING FACTOR SCORE: **NOT REPORTED**
MITIGATING FACTOR SCORE: **NOT REPORTED**
WATER SUPPLY IMPACTS: **UNKNOWN**
VAPOR EXPLOSIVE IMPACTS: **UNKNOWN**
PROPERTY DAMAGE IMPACTS: **UNKNOWN**
DATE REPORTED: **29-MAY-97**
STATUS: **NO FURTHER ACTION-SUSPECTED RELEASE**
STAFF: **JLK**

RESPONSIBLE PARTY

NAME: **BERRIDGE DISTRI**

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MAP ID# 25

Distance from Property: 0.615 mi. (3,247 ft.) SW
Elevation: 6,977 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **871912479**
NAME: **GARCIA HONDA**
ADDRESS: **607 CERRILLOS**
SANTA FE, NM
COUNTY: **SANTA FE**

SITE DETAILS

EVENT: **USED OIL LUST SITE**
DISCHARGE DATE: **12/11/1989**
ACTION TAKEN: **SOIL EXCAVATION**
QWQB STATUS: **CLOSED**
CLOSED DATE: **7/26/1990**

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MAP ID# 26

Distance from Property: 0.827 mi. (4,367 ft.) SW
Elevation: 6,949 ft. (Lower than TP)

SITE INFORMATION

GEOSEARCH ID: **4056005496**

NAME: **SANTA FE RAILYARD/CONOCOPHILLIPS/LA UNICA DRY CLEANERS**

ADDRESS: **760 CERRILLOS ROAD**
SANTA FE, NM

COUNTY: **SANTA FE**

SITE DETAILS

STATUS: **OPEN**

SIZE ACRES: **<50**

CONTAMINANT OF CONCERN: **PCE**

DEPTH OF WATER (FT): **70-130**

MEDIA IMPACTED: **GW**

REGULATORY STATUS: **STAGE 1 AP**

ASSESSEMENT OR ABATEMENT OPTION:
FILE UNDER REVIEW.

COMMENTS:
NOT REPORTED

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MAP ID# 27

Distance from Property: 0.954 mi. (5,037 ft.) E
Elevation: 7,183 ft. (Higher than TP)

FACILITY INFORMATION

Geosearch Id: **K06NM0417**
FUDS NUMBER: **K06NM0417**
PROPERTY NAME: **FORT MARCY**
ADDRESS: **SANTA FE COUNTY**
SANTA FE, NM 87501
COUNTY: **SANTA FE**

FACILITY DETAIL(S)

FUDS PROPERTY POINT DATA
FFID: **NM69799F621400**
PROPERTY ID: **NOT REPORTED**
PROJECT ID: **NOT REPORTED**
ENV SITE ID: **NOT REPORTED**
SITE ID: **NOT REPORTED**
MRA ID: **NOT REPORTED**
PROJECT NUMBER: **NOT REPORTED**
PROJECT NAME: **NOT REPORTED**
PROGRAM: **NOT REPORTED**
CATEGORY: **NOT REPORTED**
STATUS: **PROPERTIES WITHOUT PROJECTS**
FED LAND TYPE: **NOT REPORTED**
FED LAND NAME: **NOT REPORTED**
FED LAND AGENCY: **NOT REPORTED**
SITE CLOSEOUT DATE: **NOT REPORTED**
REMEDY IN PLACE DATE: **NOT REPORTED**
RESPONSE COMPLETE DATE: **NOT REPORTED**
NPL STATUS CODE: **NOT LISTED**
CURRENT OWNER: **PRIVATE SECTOR; STATE GOVERNMENT**
ELIGIBILITY: **ELIGIBLE**
HAS PROJECTS: **NO**
FISCAL YEAR: **2018**
EPA REGION: **06**
CONGRESSIONAL DISTRICT: **03**
DISTRICT RESPONSIBLE FOR THE FUDS PROPERTY: **LOS ANGELES DISTRICT (SPL)**
IS THE PROPERTY HAS ANY CLEANUP UNDER THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP): **NOT REPORTED**
ACREAGE: **NOT REPORTED**
DESCRIPTION: **NOT REPORTED**
HISTORY: **NOT REPORTED**
EMS MAP LINK: CLICK HERE

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Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

No Records Found

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance. Enforcement and Compliance History Online (ECHO) Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014, the EPA retired this system for Clean Air Act stationary sources.

BRS Biennial Reporting System

VERSION DATE: 12/31/15

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 11/26/19

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 02/26/20

This database includes site locations where Engineering and/or Institutional Controls have been identified as part of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. The data displays remedy component information for Superfund decision documents issued in fiscal years 1982-2017, and it includes final and deleted NPL sites as well as sites with a Superfund Alternative Approach (SAA) agreement in place. The only sites included that are not on the NPL, proposed for NPL, or removed from proposed NPL, are those with an SAA Agreement in place. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR06 Enforcement and Compliance History Information

VERSION DATE: 10/27/19

The U.S. Environmental Protection Agency's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSNM Emergency Response Notification System

VERSION DATE: 04/05/20

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSNM Facility Registry System

VERSION DATE: 04/05/20

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR06 Hazardous Materials Incident Reporting System

VERSION DATE: 11/20/19

The HMIRS database contains unintentional hazardous materials release information reported to the U.S.

Department of Transportation located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

HWCD Hazardous Waste Compliance Docket Facilities

VERSION DATE: 04/29/19

This list of the Federal Agency Hazardous Waste Compliance Docket Facilities is maintained by the United States Environmental Protection Agency (EPA). According to the EPA, Section 120(c) of CERCLA requires EPA to establish a listing, known as the Federal Facility Hazardous Waste Compliance Docket (Docket), of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste. Thus, the Docket identifies all Federal facilities that must be evaluated to determine whether they pose a risk to human health and the environment and it makes this information available to the public. In order for the Docket to remain current and accurate it requires periodic updating.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 03/28/20

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 09/22/19

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. This database is provided by the U.S. Environmental Protection Agency.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States

Nuclear Regulatory Commission (NRC) licensing requirements. Disclaimer: Due to agency regulations and policies, this database contains applicant/licensee location information which may or may not be related to the physical location per MLTS site.

NPDESR06 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from the U.S. Environmental Protection Agency (EPA) from December 2002 through April 2007. Refer to the ICIS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

PADS PCB Activity Database System

VERSION DATE: 10/09/19

PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of Polychlorinated Biphenyls (PCB) who are required to notify the U.S. Environmental Protection Agency of such activities.

PCSR06 Permit Compliance System

VERSION DATE: 08/01/12

The historic Permit Compliance System tracked enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act. This database includes permitted facilities located in EPA Region 6 states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. This system has since been modernized by United States Environmental Protection Agency and is now integrated into the Integrated Compliance Information System (ICIS). Please refer to the ICIS database as the current source for this data.

RCRASC RCRA Sites with Controls

VERSION DATE: 02/21/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 03/23/20

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete. Please refer to the SEMSLIENS database as source of current data.

SSEHRIPFAS SSEHRI PFAS Contamination Sites

VERSION DATE: 12/12/19

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Disclaimer: The source conveys this database undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Limited location details are available with this data. Please access the following source link for the most current information: https://pfasproject.com/pfas-contamination-site-tracker/

SSTS Section Seven Tracking System

VERSION DATE: 02/01/17

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/18

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/16

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR06 Resource Conservation & Recovery Act - Generator

VERSION DATE: 03/23/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA region 6 includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

RCRANGR06 Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 03/23/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 6 includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

Environmental Records Definitions - FEDERAL

ALTFUELS Alternative Fueling Stations

VERSION DATE: 09/24/19

Nationwide list of alternative fueling stations made available by the U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Bio-diesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS Integrated Compliance Information System Drycleaners

VERSION DATE: 03/28/20

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The U.S. Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments. The following Primary SIC Codes are included in this data: 7211, 7212, 7213, 7215, 7216, 7217, 7218, and/or 7219; the following Primary NAICS Codes are included in this data: 812320, 812331, and/or 812332.

MRDS Mineral Resource Data System

VERSION DATE: 03/15/16

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 09/20/19

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 04/09/20

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 01/27/20

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 03/23/20

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An "open dump" is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 03/23/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

SEMS Superfund Enterprise Management System

VERSION DATE: 01/27/20

The U.S. Environmental Protection Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 01/27/20

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System Archived Site Inventory (List 8R Archived) replaced the CERCLIS NFRAP reporting system in 2015. This listing reflects sites at which the EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program.

SMCRA Surface Mining Control and Reclamation Act Sites

VERSION DATE: 11/26/19

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 12/01/14

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 12/31/18

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 03/23/20

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System,

12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL National Priorities List

VERSION DATE: 01/27/20

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 01/27/20

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 03/23/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 03/23/20

The Resource Conservation and Recovery Act (RCRA) gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers

to facilities subject to corrective actions.

RODS Record of Decision System

VERSION DATE: 01/27/20

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

Environmental Records Definitions - STATE (NM)

CDL Clandestine Drug Lab Locations

VERSION DATE: 01/01/18

The New Mexico Environment Department (NMED) provides this listing of clandestine drug laboratory locations where law enforcement agencies reported chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. The sources of the entries are law enforcement agencies, and the NMED has not verified the data and does not guarantee its accuracy.

DPERMITS Discharge Permits

VERSION DATE: 11/18/19

The Ground Water Pollution Prevention Section of the New Mexico Environment Department reviews and approves for discharges that have the potential to impact ground water quality pursuant to Subparts III and V of the Water Quality Control Commission (WQCC) regulations (20.6.2 NMAC). Ground water discharge permits address a wide variety of discharges including domestic wastewater treatment plants, commercial septic tank leachfields, power generating plants, commercial laundries not served by sanitary sewers, dairies, food processing plants, commercial landfarms for treatment of contaminated soil, industrial discharges, injection wells and ground water remediation systems. This list does not include permits for mines or agricultural facilities.

IC Sites with Institutional Controls

VERSION DATE: 04/01/20

This listing includes sites with institutional controls in place, such as a deed notice utilized to close a site. Institutional controls assist in the cleanup of contaminated properties by protecting the environment and public health. The sites included on this list are regulated by the New Mexico Environment Department.

AST Aboveground Storage Tanks

VERSION DATE: 08/04/06

This database contains aboveground storage tank facilities registered with the New Mexico Environment Department (NMED. This data was last updated in August of 2006. For current aboveground storage tank information, please refer to the PST database.

PST Petroleum Storage Tanks

VERSION DATE: 11/22/19

This New Mexico Environment Department (NMED) database contains both aboveground and underground petroleum storage tank facilities with a status of currently in use, temporarily out of use, sold, removed, no data, and/or exempt. Also included in this database are facilities that were registered with the NMED in 2006 which may or may not be currently in use, and/or may have been removed or closed in place.

UST Underground Storage Tanks

VERSION DATE: 08/01/06

This database contains underground storage tanks registered with the New Mexico Environment Department (NMED). This data was last updated in August of 2006. For current underground storage tank information, please refer to the PST database.

BF Brownfield Sites

VERSION DATE: 04/01/20

This list of Brownfield Program sites is provided by the Ground Water Quality Bureau of the New Mexico Environment Department (NMED). According to the NMED, Brownfields are properties whose redevelopment is complicated by the presence or potential presence of hazardous substances or petroleum products. NMED provides no-cost environmental assessments of brownfield sites to local or tribal governments. NMED also manages a Brownfields Revolving Loan Fund providing low-interest loans for brownfield cleanups where redevelopment is planned.

LST Leaking Aboveground and Underground Storage Tanks

VERSION DATE: 04/02/20

This listing of aboveground and underground storage tank facilities with releases is maintained by the Petroleum Storage Tank Bureau of the New Mexico Environment Department. This list also includes facilities with a No Further Action status.

LUST Leaking Underground Storage Tanks

VERSION DATE: 08/01/06

The New Mexico Environment Department (NMED) provided this listing of leaking underground storage tanks. This list was last updated in August of 2006. For current information, please refer to the LST database.

RCY Recycling Centers

VERSION DATE: 02/28/19

The New Mexico Environment Department's Solid Waste Bureau maintains this listing of registered recycling centers.

SWLF Solid Waste Facilities

VERSION DATE: 04/28/20

This database contains open registered recycling facilities, open registered collection centers, open permitted transfer stations, open registered compost facilities, tire recycling facilities, and open permitted landfills managed

by the New Mexico Environment Department.

US Southwest Research and Information Center Uranium Sites

VERSION DATE: 10/18/06

This database contains information on Northwestern New Mexico uranium projects located in Navajo Country and is maintained by the Southwest Research and Information Center. This organization was founded in 1971 for the purpose of providing information to the public on the effects of energy development and resource exploitation on the people and their cultures, lands, water, and air of New Mexico and the Southwest.

VRP Voluntary Remediation Program Sites

VERSION DATE: 04/01/20

The New Mexico Environment Department's Voluntary Remediation Program promotes the voluntary cleanup of contaminated properties, and encourages the redevelopment of these sites, including Brownfields, by providing a non-punitive remediation process.

CEPCS Compliance and Enforcement Program Cleanup Sites

VERSION DATE: 04/13/20

The Compliance and Enforcement Program (CEP) assures compliance with the state's Water Quality Control Commission regulations (20.6.2 NMAC) Subparts I (Corrective Action) and IV (Abatement Plan) that require cleanup of contaminated soils and ground water. If any unauthorized discharge (spill) of oil or other water contaminant occurs, those responsible will take actions to determine the impact and cleanup the site. Unauthorized discharged sites are regulated by the CEP which includes: above-ground storage tanks, pipelines, old landfills, spill sites, and a wide variety of industrial, manufacturing, processing and maintenance facilities.

Environmental Records Definitions - TRIBAL

USTR06 Underground Storage Tanks On Tribal Lands

VERSION DATE: 10/01/19

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

LUSTR06 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 10/01/19

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

APPENDIX E
CREDENTIALS

Dave Matson, CHMM

Principal / Office Manager

PROFESSIONAL EXPERIENCE

Mr. Matson is the Office Manager in Terracon's Albuquerque office and has over 26 years of progressive environmental and consulting engineering experience.

Dave is responsible for management of operations, business development, client experience, technical review, and leading and mentoring staff. He has performed a variety of functions including asbestos and lead surveys, project design and abatement oversight, National Environmental Policy Act (NEPA) review for federal undertakings, site investigations, leaking underground storage tank (UST) characterizations and remediation, environmental site assessments, natural resource and Brownfields assessments, and geotechnical investigations.

PROJECT EXPERIENCE

Albuquerque VA Building 41 – Albuquerque, New Mexico
Dave completed technical review of quantification sampling to identify asbestos in interstitial spaces and mechanical areas at this healthcare facility, and the abatement specifications for the proper removal of the asbestos.

CATM Facility Redevelopment – Clovis, New Mexico
Dave managed and provided technical review of hazardous materials surveys at structures related to the Combat Arms Training and Maintenance Facility redevelopment project on Cannon Air Force Base. Scope included asbestos, lead paint, and PCB sampling of suspect building materials. An investigation of the small arms firing range and skeet range on the base was also completed, involving soil sampling and analysis for lead and other potential contaminants.

Prescott VA Steam Tunnels – Prescott, Arizona
Dave managed and completed technical review of the survey to identify asbestos at this healthcare facility, and prepared abatement specifications for the proper removal of the asbestos.

Mead Administration Building Demolition Specifications – Boulder City, Nevada
Dave was Project Manager for a Western Area Power Administration project involving hazardous materials survey, geotechnical investigation, and utilizing the data for development of demolition specifications.

Substation Site Investigation – Tucson, Arizona
Dave provided a Testing Plan for Limited Site Investigation and Hazardous Material Sampling and a project-specific Safety and Health Plan (S&HP) that addressed worker safety issues per OSHA requirements. A multi-incremental sampling strategy was employed to investigate potential releases from a network of subgrade oil piping. Asbestos surveys and abatement oversight were also performed as part of our scope for the project.

ADEQ Tank Projects – Arizona
Dave provided management and technical review for numerous projects under Terracon's on-call contract with Arizona Department of Environmental Quality (ADEQ). Projects have included UST removal and closure assessments, LUST site characterizations, development of conceptual site models and soil gas surveys as part of risk-based closures, and remediation system installation and operations and maintenance to clean up impacted sites for regulatory closure.

EDUCATION
Bachelor of Science, Environmental Science, Northern Arizona University
Flagstaff, AZ

American Council of Engineering Companies (ACEC) Leadership in Engineering Administration Program

REGISTRATIONS
Certified Hazardous Materials Manager
No. 07987

CERTIFICATIONS
AHERA Building Inspector

AHERA Contractor Supervisor

AHERA Management Planner

AHERA Project Designer

EPA Lead Paint Risk Assessor

Lead Paint XRF Operator (Niton & RMD)

Medic First Aid / CPR

OSHA 40-hour HAZWOPER

AFFILIATIONS
Alliance of Hazardous Materials Professionals (AHMP)

Environmental Information Association (EIA)

Arizona Energy Consortium

Arizona Wireless Association (AZWA)

Flynn A. Holland

Project Manager

PROFESSIONAL EXPERIENCE

Mr. Holland is a Project Manager in Terracon's Albuquerque, NM office. He has been with Terracon as an Environmental Consultant since April, 2015. He provides the environmental group with the multi-discipline skillset and project oversight needed by the Terracon Albuquerque Office.

Mr. Holland's Phase I, Phase II, asbestos, and industrial hygiene project experience ranges from commercial and industrial projects, to transportation infrastructure projects, to work on military installations. Mr. Holland brings a blend of experience across multiple environmental disciplines to support the Albuquerque Office. Mr. Holland places a high priority on delivering quality reports and exceeding the client's expectations.

PROJECT EXPERIENCE

BNSF Three Bridges, Asbestos Abatement Oversight – Laguna Pueblo and Fort Sumner, NM, 2018

Performed 3rd party oversight and project management of the abatement of three railroad bridges located across western and eastern new mexico. Monitored and documented the removal of asbestos-containing materials, oversaw the logistics of the proper transportation and disposal of asbestos waste generated, and ensured proper work and procedures were performed during removal of asbestos.

NMDOT Preliminary Initial Site Assessment, Corridor ESA – District 4, Fort Sumner, NM, 2019

Managed and performed a large-scale corridor ESA conducted for an 11.74-mile stretch of two highways intersecting the town of Fort Sumner and surrounding areas. Identified and researched a total of 48 historical gas stations, releases, and facilities of concern while meeting and exceeding strict deliverable expectations and a tight-turnaround deadline from the client.

Albuquerque Drain & Trail, Site Investigation – Albuquerque, NM 2017

Performed soil boring assessments along a roadside levee suspected of possible petroleum hydrocarbon and heavy metals contamination. Activities included logging of soil borings, collection of samples for laboratory analysis, interpretation of analytical results, and delivery of exceptional reporting and consulting services.

NMDOT Bridges Asbestos Inspections – Districts 2, 3, 4, and 6, Various Counties, NM, 2018

Performed asbestos and lead paint inspections of over 15 bridges throughout the state on multiple roadways. Activities included safely collecting asbestos and lead paint samples in the field for laboratory analysis, project management, and delivering exceptional reporting to the client in a timely manner.

EDUCATION

Bachelor of Environmental Science, University of New Mexico, May 2015

PROFESSIONAL TRAINING & CERTIFICATIONS

Licensed AHERA-accredited Asbestos Inspector

40 Hour Asbestos Abatement Contractor / Supervisor

40 Hour OSHA Hazardous Waste Site & Waste Management Training

16-hr Qualified Compliance Inspector of Stormwater

8-hr Refinery General Safety Orientation

WORK HISTORY

Terracon Environmental Consultants, Inc.
Project Manager
November 2017 – Present

Assistant Project Manager
April 2017 – November 2017

Field Scientist
April 2015 – April 2017

University of New Mexico, Earth & Planetary Sciences Department
Research Assistant, August 2014 – May 2015

APPENDIX F
DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

Term/Acronym	*Description*
ACM	Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining). Regulatory agencies have generally defined ACM as a material containing greater that one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable. Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally exempt small quantity generators.
CFR	Code of Federal Regulations

Description of Selected General Terms and Acronyms (cont.)

Term/Acronym	*Description*
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report."
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."

IC/EC	A listing of sites with institutional and/or engineering controls in place. IC include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. EC include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.
ILP	Innocent Landowner/Operator Program
LQG	Large quantity generators.
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.

Description of Selected General Terms and Acronyms (cont.)

Term/Acronym	*Description*
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.
pCi/L	Pico Curies per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in Pico Curies per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ('cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/TSDs	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/TSDs	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1)due to any release to the environment; 2) under conditions indicative of a release to the environment. *De minimis* conditions are not recognized environmental conditions."
SCL	State "CERCLIS" List (see SPL /State Priority List, below).

Description of Selected General Terms and Acronyms (cont.)

Term/Acronym	*Description*
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small quantity generator.
SWF/LF	State and/or Tribal database of solid waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound
Wetlands	Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present. The federal Clean Water Act which regulates "waters of the US," also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.

KEERS ENVIRONMENTAL

PRE-DEMOLITION ASBESTOS SURVEY

PREPARED FOR:

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

PROJECT:

Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

KEI Job # 234255-1

DATE OF INSPECTION:

August 16, 2023

K TEAM
ANY JOB! ANYTIME! ANYWHERE!

5904 Florence Avenue , NE • Albuquerque, NM 87113 • Phone: 505.828.2650 • Fax: 505.823.2766

August 29, 2023

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project: **Pre-Demolition Asbestos Survey**
Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501
KEI Job # 234255-1

Ms. Foley:

We are pleased to submit this report of the asbestos survey conducted at the property described above. This survey consisted of the collection of eighty-five (85) bulk samples following the federal AHERA and NESHAP rules and applicable state regulations regarding asbestos-containing materials in public buildings scheduled for demolition.

This survey was performed by Mr. Fernando Ocana; certified Asbestos Inspector, on August 16, 2023. Mr. Ocana has been trained in accordance with all applicable regulations.

We appreciate the opportunity to be of service to you. Please call if you have any questions or if we may be of further assistance.

Sincerely,

Fernando Ocana
Asbestos Inspector

Reviewed by,

Amarante Jaramillo JR
General Manager
Principal - In - Charge

SUMMARY

The following are the findings of the pre-demolition asbestos survey performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. The purpose of our survey was to identify, locate, and quantify suspect asbestos-containing materials (ACM), if any, which may be disturbed during the demolition activities.

The laboratory results indicate asbestos greater than 1% in the following building materials:

Homogeneous Area	Location (see attached drawing)
Pipe Fitting Insulation	**South Suite – Shipping Room & Above Break Room Restrooms**
Roof Penetration Sealant	**Roof Top**

Table 1 (Asbestos-Containing Materials)

INTRODUCTION

The asbestos survey was conducted by Mr. Fernando Ocana on August 16, 2023, and was performed in accordance with the federal AHERA rules (40 CFR Part 763 Subpart E), the NESHAP regulations requiring an asbestos inspection for buildings scheduled for demolition or renovation (40 CFR Part 61.145), and applicable state regulations. During our site reconnaissance, forty (40) homogeneous areas were identified and consisted of the following:

Homogeneous Area	Location (see attached drawing)
Duct Mastic	Throughout South Suite
Carpet Mastic	Throughout Building
Wall Panel Materials	Exhibit Room
Wall Panel Mastic	Exhibit Room
Counter Caulking	North Suite – Break Room
Floor Coating Materials	Vault
Ceramic Tile Wall Adhesive	South Suite – Break Room and Restrooms
Textured Drywall Materials	Throughout South Suite
Ceiling Drywall Materials	South Suite – Restrooms
Textured Drywall Materials	Throughout North Suite
Smooth Texture Drywall	Shipping Room - Entrance Area
Interior Window Caulking	Interior Windows
2' x 4' Ceiling Panels	Throughout North Suite
12" Tan Floor Tile and Mastic	North Suite – Break Room and Restrooms
Ceramic Tile Flooring Materials	North Suite – Reception & Entrance Area, South Suite – Restrooms
12" White with Gray Streaks Floor Tile and Mastic	North Suite – Electrical Room
Cove Base Mastic	Throughout North Suite Restrooms
Ceiling Drywall Materials	North Suite - Restrooms, Janitor's Closet, and Break Room
Ceiling Batt Insulation Above 2' x 4' Ceiling Panels	Throughout North Suite
Patch Textured Drywall Materials	Hallway by Copy Area – North Wall
Un-textured Drywall Materials	Storage 2 Hallway – South Wall
Coarse Textured Drywall Materials	Center Area

Coarse Ceiling Drywall	Center Area
Wall/Ceiling Plaster	East Exit Areas
CMU Wall Coating	Throughout Interior Perimeter Walls
Pipe Fitting Insulation	**South Suite – Shipping Room & Above Break Room Restrooms**
Pipe Insulation	Throughout Building
Duct Insulation	Throughout North Suite
Un-textured Drywall with Compound	South Suite – Center Hall
Baseboard Caulking	Throughout North Suite
Interior Door Caulking	Interior Doors
Exterior Window Caulking	Exterior Windows
Exterior Door Caulking	Exterior Doors
Exterior Wall Plaster	Exterior Walls
Beige Roof Patch Caulking	Roof Top
Brown Roof Coating (Layer 1 – Top Layer)	Roof Top
Roof Penetration Sealant	**Roof Top**
Roofing Materials (Layer 2)	Roof Top
Brown Roof Insulation Materials (Layer 3)	Roof Top
Black Roofing Materials (Layer 4 – Bottom Layer)	Roof Top

Table 2 (Homogenous Areas Identified During the Inspection)

DESCRIPTION OF BUILDING

The building inspected consisted of a one-story structure which was occupied at the time of the inspection. Offices, rooms, storages, and restrooms were observed. Building materials tested include gypsum wallboard, plaster, 2' x 4 ceiling panels, CMU (Concrete Masonry Unit) wall coating, wall panel, insulations, adhesives, sealants, caulkings, mastics, roof coating, and roofing materials. Floor finishes consisted of carpeting, floor coating, ceramic tile, and resilient floor tile on concrete floors.

SAMPLING PLAN

Prior to sampling, a visual survey was performed to establish homogeneous areas. Suspect Asbestos-Containing Materials (ACM) were touched by the inspector to determine their friability. Forty (40) homogeneous areas were established and at least one to five representative samples were taken of each area. A homogeneous area is considered as an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture. Non suspect building materials that were not sampled during this inspection include: concrete materials, glass, metal, and wood materials. Destructive sampling was not performed to locate hidden and inaccessible materials.

ANALYSIS OF BULK SAMPLES

A total of eighty-five (85) bulk samples were collected and submitted for analysis. Bulk samples collected were sampled following the AHERA protocol and were analyzed for asbestos content at Crisp Analytical Laboratories, LLC. in Carrollton, Texas utilizing Polarized Light Microscopy (PLM) with optical dispersion staining in accordance with the Environmental Protection Agency (EPA) interim Method 600/R-93/116. An asbestos-containing building material includes any asbestiform

varieties of chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite containing greater than 1% of any of those substances as determined by appendix A, Subpart F, 40 CFR part 763 section 1. EPA NESHAP Part 61 defines friable ACM as when dry can be pulverized, crushed or reduced to a powder by hand pressure.

RESULTS

The laboratory results indicate asbestos greater than 1% in the following building materials:

SAMPLE ID NO.	MATERIAL DESCRIPTION/ LOCATION	AHERA TYPE	NESHAP CATEGORY	ESTIMATED QUANTITY	CONDITION ASSESSMENT	ASBESTOS CONTENT
S-49, S-50	PIPE FITTING INSULATION * / SOUTH SUITE – SHIPPING ROOM & ABOVE BREAK ROOM RESTROOMS	TSI	FRIABLE	APPROXIMATELY 6 PIPE FITTINGS WERE OBSERVED	POTENTIAL FOR DAMAGE	22% CHRYSOTILE WHITE SURFACED INSULATION 20% CHRYSOTILE GRAY INSULATION
S-75, S-76	ROOF PENETRATION SEALANT ** / ROOF TOP	MISCELLANEOUS	CATEGORY I NON-FRIABLE	600 SQUARE FEET	POTENTIAL FOR DAMAGE	3% CHRYSOTILE GRAY SURFACED BLACK TAR

Table 3 (Assessment and Estimated Quantities of Identified Asbestos-Containing Materials)

***See attached drawing showing where pipe fittings were observed. Please note that additional pipe fitting insulation may be encountered above hard ceilings or in other inaccessible locations throughout the building.**

****The roof penetration sealant throughout the roof top is covered by a layer of non-asbestos brown roof coating, and may be found along the roof edges and throughout roof penetrations hidden under this brown roof coating.**

CONCLUSION

A pre-demolition asbestos survey was performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. Based on the laboratory analysis, the building materials mentioned in Tables 1 and 3 contain asbestos. See the attached sheets for estimated location of these materials. The quantities mentioned above are estimates and should be verified for abatement purposes. Federal and state regulatory requirements must be followed when disturbing asbestos-containing materials.

END OF REPORT

Results

CA Labs
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Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Attn: Miguel Dominguez
Customer Project: 23352 123 Grants Ave
Reference #: CAL23087013RL Date: 08/24/23

Analysis and Method

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 23352 123 Grants Ave **CA Labs Project #:** CAL23087013RL

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
79712	S-49	*49-1*	*white surfaced gray insulation*	***22% Chrysotile***	***white surfaced gray insulation***
79713	S-50	*50-1*	*gray insulation*	***20% Chrysotile***	***brown surfaced tan plaster***
79733	S-70	*70-1*	*brown surfaced tan plaster*	***<1% Chrysotile***	***gray surfaced black tar***
79738	S-75	*75-1*	*gray surfaced black tar*	***3% Chrysotile***	***gray insulation***
79739	S-76	*76-1*	*gray surfaced black tar*	***3% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79664	S-1		1-1	*off-white sealant*	y	***None Detected***		100% qu,bi
79665	S-2		2-1	*off-white sealant*	y	***None Detected***		100% qu,bi
79666	S-3		3-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79667	S-4		4-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79668	S-5		5-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79669	S-6		6-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79670	S-7		7-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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CAL23087013RL

Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79671	S-8		*8-1*	*yellow insulation*	*y*	***None Detected***	100% fg	
79672	S-9		*9-1*	*yellow insulation*	*y*	***None Detected***	100% fg	
79673	S-10		*10-1*	*white surfaced white sealant*	*n*	***None Detected***		100% qu,bi
79674	S-11		*11-1*	*white surfaced white sealant*	*n*	***None Detected***		100% qu,bi
79675	S-12		*12-1*	*white surfaced white caulking*	*n*	***None Detected***		100% qu,bi,ca
79676	S-13		*13-1*	*gray concrete*	*y*	***None Detected***		100% qu,ca
79677	S-14		*14-1*	*white ceramic tile*	*y*	***None Detected***		100% qu,ot

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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Date: 8/24/2023
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79677			*14-2*	*white grouting*	*y*	***None Detected***		100% qu,ca
79677			*14-3*	*tan mastic with debris*	*n*	***None Detected***		100% gy,bi
79678	S-15		*15-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79678			*15-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79679	S-16		*16-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79679			*16-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79680	S-17		*17-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
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Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79680			*17-2*	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,ca
79680			*17-3*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79681	S-18		*18-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79681			*18-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79682	S-19		*19-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79682			*19-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79683	S-20		*20-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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2. Fire Damage no significant fiber damages effecting fibrous percentages
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9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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79683			*20-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79684	S-21		*21-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79684			*21-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79685	S-22		*22-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79686	S-23		*23-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79686			*23-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79687	S-24		*24-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ma - matrix	qu - quartz	sy - synthetic	

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Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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79688	S-25		*25-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79689	S-26		*26-1*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79690	S-27		*27-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
79690			*27-2*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79691	S-28		*28-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
79691			*28-2*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79692	S-29		*29-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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ma - matrix	qu - quartz	sy - synthetic	

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Technical Manager
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Julio Robles

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CA Labs Project #:
CAL23087013RL

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Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79692			*29-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi
79693	S-30		*30-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca
79693			*30-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi
79694	S-31		*31-1*	*black ceramic tile*	*y*	***None Detected***		100% qu,ot
79694			*31-2*	*gray mortar*	*y*	***None Detected***		100% qu,ca
79695	S-32		*32-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca
79695			*32-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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Approved Signatories:

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Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
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Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79696	S-33		*33-1*	*tan baseboard*	*y*	***None Detected***		100% gy,ma
79696			*33-2*	*tan mastic with white compound*	*n*	***None Detected***		100% qu,gy,bi,ca
79697	S-34		*34-1*	*tan baseboard*	*y*	***None Detected***		100% gy,ma
79697			*34-2*	*tan mastic with debris*	*n*	***None Detected***		100% gy,bi
79698	S-35		*35-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79698			*35-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79699	S-36		*36-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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Approved Signatories:

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Analyst

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Tanner Rasmussen

Senior Analyst
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79699			*36-2*	*white drywall*	*y*	***None Detected***		100% qu,gy
79700	S-37		*37-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79701	S-38		*38-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79702	S-39		*39-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79702			*39-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79703	S-40		*40-1*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79704	S-41		*41-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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79704			*41-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79705	S-42		*42-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79705			*42-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79706	S-43		*43-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79706			*43-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79707	S-44		*44-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79707			*44-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy

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79708	S-45		*45-1*	*gray plaster*	*y*	***None Detected***		100% qu,ca
79709	S-46		*46-1*	*gray concrete*	*y*	***None Detected***		100% qu,ca
79710	S-47		*47-1*	*white surfaced gray concrete*	*n*	***None Detected***		100% qu,bi,ca
79711	S-48		*48-1*	*white surfaced gray concrete*	*n*	***None Detected***		100% qu,bi,ca
79712	S-49		*49-1*	*white surfaced gray insulation*	*n*	***22% Chrysotile***	5% fg	73% qu,bi,ca
79713	S-50		*50-1*	*gray insulation*	*y*	***20% Chrysotile***		80% qu,ca,ma
79714	S-51		*51-1*	*white sealant with foil and brown paper*	*n*	***None Detected***	10% ce	90% qu,bi,ot

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79714			*51-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79715	S-52		*52-1*	*white sealant with foil*	*n*	***None Detected***		100% qu,bi,ot
79715			*52-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79716	S-53		*53-1*	*black sealant with foil and brown paper*	*n*	***None Detected***	10% ce	90% qu,bi,ot
79716			*53-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79717	S-54		*54-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79718	S-55		*55-1*	*pink insulation*	*y*	***None Detected***	100% fg	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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2. Fire Damage no significant fiber damages effecting fibrous percentages
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6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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Polarized Light Asbestiform Materials Characterization

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23352 123 Grants Ave
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CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79719	S-56		*56-1*	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,ca
79719			*56-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79720	S-57		*57-1*	*white compound*	*y*	***None Detected***		100% qu,ca
79720			*57-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79721	S-58		*58-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79722	S-59		*59-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79723	S-60		*60-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79724	S-61		*61-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79725	S-62		*62-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79726	S-63		*63-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79727	S-64		*64-1*	*brown surfaced brown caulking*	*n*	***None Detected***		100% qu,bi,ca
79728	S-65		*65-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca
79729	S-66		*66-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca
79730	S-67		*67-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
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Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79731	S-68		*68-1*	*brown surfaced gray plaster*	*n*	***None Detected***		100% qu,bi,ca
79732	S-69		*69-1*	*brown surfaced gray plaster*	*n*	***None Detected***		100% qu,bi,ca
79733	S-70		*70-1*	*brown surfaced tan plaster*	*n*	***<1% Chrysotile***		100% qu,bi,ca
79734	S-71		*71-1*	*off-white sealant*	*y*	***None Detected***		100% qu,bi
79735	S-72		*72-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi
79736	S-73		*73-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi
79737	S-74		*74-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julie Robles

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Polarized Light Asbestiform Materials Characterization

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Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79738	S-75		*75-1*	*gray surfaced black tar*	*n*	***3% Chrysotile***		97% qu,bi
79739	S-76		*76-1*	*gray surfaced black tar*	*n*	***3% Chrysotile***		97% qu,bi
79740	S-77		*77-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79741	S-78		*78-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79742	S-79		*79-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79743	S-80		*80-1*	*brown insulation*	*y*	***None Detected***	100% ce	
79744	S-81		*81-1*	*brown insulation*	*y*	***None Detected***	100% ce	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Analyst

Technical Manager
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Senior Analyst
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Polarized Light Asbestiform Materials Characterization

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Date Of Sampling: 8/16/2023
Purchase Order #:

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79745	S-82		*82-1*	*brown insulation*	*y*	***None Detected***	100% ce	
79746	S-83		*83-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79747	S-84		*84-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79748	S-85		*85-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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Polarized Light Asbestiform Materials Point Count

Laboratory Analysis Report - Point Count

Analysis and Method

Point counting was performed on a polarized light microscope with a calibrated reticle according to the revised NESHAP method of November 20, 1990 (Federal Register, V.55, N.224, 11/20/90). Origional asbestos content of bulk materials was determined using procedures outlined in the interim method (40 CFR part 763, Appendix E to subpart E) and AHERA method (EPA-600/R-93/116). Samples were prepared using HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion staining / becke line method.

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one of these disciplines is preferred, but not required. Extensive in-house training programs are used to augment education background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of NVLAP accreditation. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Customer Info: **Attn:** Miguel Dominguez
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El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL

Date: 08/24/23
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 08/16/23
Purchase Order #:

Laboratory Sample ID	Sample #	*Layer #*	Analysts Physical Description of Subsample	Homo-geneous (Y/N)	Point Counted % / Asbestos Type
79733	S-70	*70-1*	*brown surfaced tan plaster*	*n*	***0.50% Chrysotile***

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

CA Labs

Chain of Custody

Client Name	A&P Scientific	CA Labs Job #	CAL 23087013
Client Address	13291 Montana Ave. El Paso, TX 79938	Billing Address (if different)	Same
Phone Number	(915) 833-1188	P.O. #	
Fax Number	(915) 838-1166	Project Name	123 Grants Ave, Santa Fe, NM
Send Reports to	M.domingue@aponscientific.com	Project Number	23352
Contact: Miguel Dominguez		Report Results: Via: Email X FAX Verbal	

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	

Please indicate appropriate turn around time. Collected 8/16/23

Asbestos *please call ahead for availability of all rush and/or after hours samples*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and select TA time		*Circle analysis and select TA time*	2 hour	PCM: NIOSH 7400	Note TAT
AHERA	4 hour	EPA 600- PLM Bulk	4 hour	Allergen Particle	24 hour
EPA Level II	8 hour		8 hour	tape/bulk/swab	2 days
Drinking Water	24 hour		24 hour	Cyclex-d cassettes	3 days
Wipe	2 days	AHERA	2 days	Air-o-cell cassettes	5 days
Micro-vac	3 days		3 days	Anderson cultures	Specify
NIOSH 7402	5 days	Point Count - (NESHAPS)	5 days	Bulk/swab cultures	Mold or
Chatfield Bulk				Bacteria cultures	bacteria

Lead: *Circle analysis and select TA time*

Matrix:	Paint Chips	Soil	Air	Wipes	Wastewater
TA Time:	8 hour	1 day	2 days	3 days	5 days

Sample Information:

Sample Number:	Sample Description:	Sample Location:	Volume: (if applicable)	Sample Date/Time:
S-1	Duct Mastic	Above Break Room Restrooms		S. Suite
S-2	↳	↳		↳
S-3	Carpet Mastic	Exhibit Room		
S-4	↓	Break Room		S. Suite
S-5		Hallway by office 4		
S-6		S. Center Area		N. Suite
S-7	↓	N. Center Area		↳
S-8	Wall Panel Mat.	Exhibit Room - N. wall		
S-9	↳	- W. wall		
S-10	Wall Panel Mastic	- N. wall		
S-11	↳	- W. wall		

10:30AM

Date/Time Information

Relinquished by: F-10 8/21/23 Received by: AUG 22 2023 Andrew Sisses

Relinquished by: Received by:

CA Labs
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name:	C&P Scientific Consulting	CA Labs Job #:	CAL 23087013
Client Address:	13291 Montana Ave. El Paso, TX 79938	Billing Address: (if different)	Same
Phone Number:	(915) 838-1188	P.O. #:	
Fax Number:	(915) 838-1166	Project Name:	123 Grants Ave.
Send Reports to:	m.dominguez@pscientific.com	Project Number:	23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix:
85	85	Air / ~~Bulk~~ / Water

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-12	Counter Caulking	Break Room N. wall	N. Suite
S-13	Floor Coating Mat	Vault	
S-14	Ceramic Tile Wall Adhesive	Restroom 1	S. wall
S-15	Textured Drywall Mat	office 3 E. wall	S. Suite
S-16	↓	Shipping - N. wall	↓
S-17	↓	Restroom 2 - N. wall	
S-18	Ceiling Drywall Mat	Restroom 1	S. Suite
S-19	↓	Restroom 2	↓
S-20	Textured Drywall Mat	office 15 - N. wall	
S-21	↓	Break Room - E. wall	N. Suite
S-22	↓	SW Restroom Hall	S. wall - N. Suite
S-23	Smooth Text Drywall	Shipping Room Ent. Area	S. wall
S-24	Interior Window Caulking	office 2 - S. window	
S-25	↓	Exhibit Room	W. window
S-26	2'x4' Ceiling Panels	Back Area	N. Suite
S-27	↓	N. Center Area	
S-28	↓	office 12	↓
S-29	12" Tan Floor Tile & Mastic	Break Room	N. Suite
S-30	↓	NE Men's Restroom	↓
S-31	Ceramic Tile Flooring Mat	Reception 2	N. Suite
S-32	12" white w/ Gray streaks FT & Mastic	Elec. Room	N. Suite

Custody Information:

Samples relinquished: FED 8/21/23 — Signature / Date / Time

Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time

Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1929 Old Denton Rd
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave.
El Paso, Tx 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. #:
Project Name: 123 Grants Ave.
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / (Bulk) / Water
85	85	

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-33	Cove Base Mastic	NE Men's Restroom - E. wall	
S-34	↓	N. Suite - Restroom 2 - S. wall	
S-35	Ceiling Drywall Mat	Restroom 1	N. suite
S-36	↓	Janitors Closet	↓
S-37	Ceiling Batt insulation above 2'x4' Ceiling Panels		Entrance Lobby N. Suite
S-38	↓		Back Area
S-39	Patch Textured Drywall Mat	Hall by Copy	Area - N. wall
S-40	Un-textured Drywall Mat	Storage 2 Hall - S. wall	
S-41	Coarse Textured Drywall	Prep Room Closet - N wall	
S-42	↓	Bone Room - S. wall	
S-43	Coarse Ceiling Drywall	Prep Room	
S-44	↓	Reception Hallway	
S-45	wall/ceiling Plaster	E. exit Area - S. wall	N. suite
S-46	CMU wall Coating	Shipping - E. wall	
S-47	↓	office 3 - S wall	
S-48	↓	Exhibit Room - W. wall	
S-49	Pipe Fitting Insulation	Above Break Room	Restrooms & suite
S-50	↓	↓	
S-51	Pipe Insulation	Break Room	S Suite
S-52	↓	Above Break Room	Restrooms ↓
S-53	↓	office 14 Closet	

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1939 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave. El Paso, TX 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. #:
Project Name: 123 Grants Ave.
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-54	Duct insulation	Entrance Lobby	N. Suite
S-55	↓	Back Area	↓
S-56	Un-textured Drywall w/ compound	Center Hall -	N. wall
S-57	↓	↓	- S. wall
S-58	Baseboard Caulking	Entrance Lobby - S	wall
S-59	↓	Exhibit Room - S.	wall
S-60		S. Exit Area - E.	wall
S-61	Interior Door Caulking	Center Hall - W. ent	Door
S-62	↓	Exhibit Room - W.	Door
S-63		Hallway Door to	office 5
S-64	Exterior Window Caulking	W. side	
S-65	↓	↓	
S-66	Exterior Door Caulking	S. side	
S67	↓	W. side to Exhibit Room	
S-68	Exterior Wall Plaster	W. side	
S-69	↓	E. side	
S-70		S. side	
S-71	Beige Roof Patch Coating	Roof Top	
S-72	Brown Roof Coating	↓	
S-73	↓		
S-74			

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1929 Old Denton Rd
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave, El Paso, Tx 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. # :
Project Name: 123 Grants Ave
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	Bulk

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-75	Roof Penetration Sealant		Roof Top
S-76	↳		
S-77	Roofing Mat (Layer 2)		
S-78	↳		
S-79			
S-80	Brown Roof Insulation Mat (Layer 3)		
S-81	↳		
S-82			
S-83	Black Roofing Mat (Layer 4 - Bottom Layer)		
S-84	↳		
S-85			

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

Drawing

PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

Roof Top

71
72
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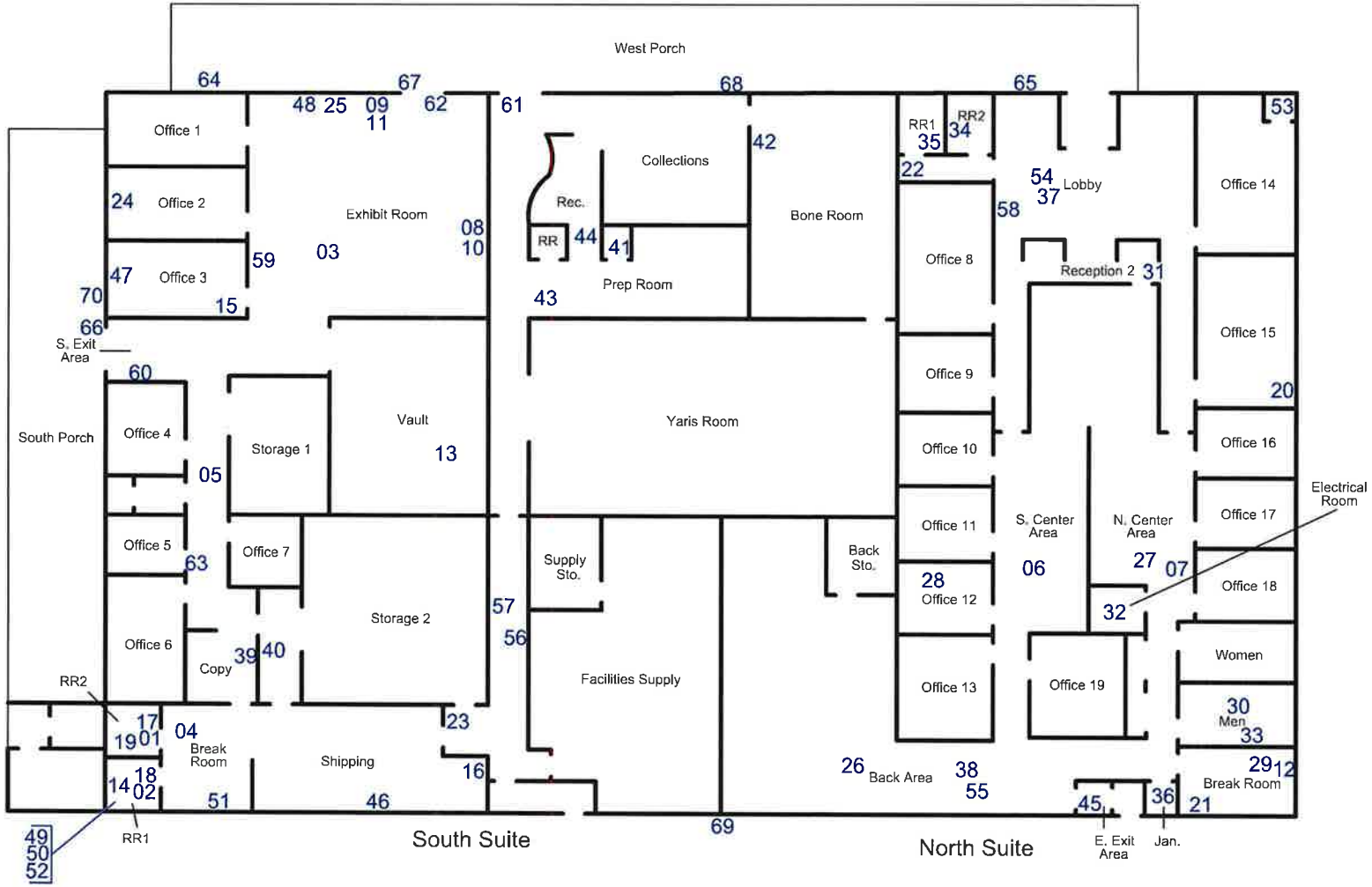
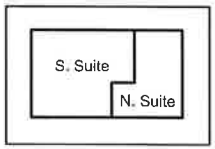
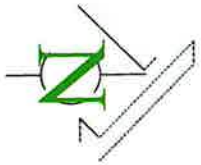


Asbestos Survey

Not To Scale

Asbestos Sample Locations	
S-XX	Sample Locations





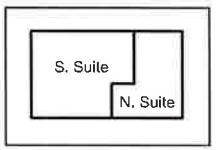
DESCRIPTION	
Asbestos	
SCALE: AS NOTED	SHEET: 1 OF 1

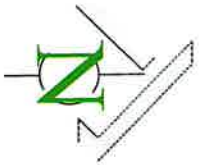
PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

Asbestos Survey

Not To Scale

Asbestos Containing Materials	
●	Pipe Fitting Insulation
○	Roof Penetration Sealant throughout Roof Top (Approximate Locations)





DESCRIPTION	
Asbestos	
SCALE: AS NOTED	SHEET: 1 OF 1

Certifications

SCAI TRAINING CENTER

headquarters: 1409 montana ave el paso, texas 79902-5617
(915) 533-8840 fax (915) 533-8843 e-mail: training@scaitc.com www.scaitc.com

BY THE ISSUANCE OF THIS CERTIFICATE TO

FERNANDO OCANA

Certificate Number	IR9649071423

Let it be known that said person has completed the requirements for asbestos accreditation as per Section 206 of TSCA TITLE II, 15 U.S.C. 20646 (as per approval by the State of Texas/United States Environmental Protection Agency: 40 CFR, Part 763, Subpart E, Appendix C)

EPA AHERA ASBESTOS INSPECTOR
REFRESHER COURSE

Furthermore, let it be known that said person passed the required course examination with a score of 70% or higher

Instructor: _____ Manuel S. Acuna

Principal Officer: _____ Luis M. Acuna

Date Course Completed: 7/12/2023
Location: El Paso, Texas
Course Dates: 7/12/2023
Course Exam Date: N/A
Class ID No. IR9649071423
Registered Sanitation No.: XXXXXXXXXXXXX
Accreditation Expiration Date: 7/11/2024

4 CEU As Approved by TDSHS for Sanitarian Continuing Education [illegible]

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200349-0

Crisp Analytical Laboratory

Carrollton, TX

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2022-10-01 through 2023-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

KEERS
REMEDIATION

November 07, 2023

To Whom It May Concern

Regarding: GOK Museum-Education Annex – 123 Grant Avenue Santa Fe, NM 87501

Keers Remediation, Inc. was hired by GOK Museum- Education Annex to perform asbestos abatement services at the above referenced property. Keers removed and disposed of ACBM including: Pipe Fittings and roofing Penetrations. All Building materials were identified to be asbestos containing, as per Keers Environmental asbestos inspection report, dated August 16, 2023. All ACBM's was removed by Keers between 11/03/23 to 11/05/23 throughout the buildings which is scheduled for demolition after abatement.
EHD Asbestos Alert Tracking number is. N/A
All of the asbestos removal and disposal was done in compliance with all applicable EPA NESHAP, NMED and OSHA regulations.

However, should the demolition contractor come across materials that look suspicious, they will be required to stop the work and contact the owner for guidance on how to proceed, which may include additional testing and/or abatement.

Should you need further information regarding this project please call me at 1-800-327-8642.

Sincerely,

Joseph Casados,
Service Coordinator
Keers Remediation, Inc., 5904 Florence NE, Albuquerque, NM 87113
Phone# 505-823-9006

KEERS ENVIRONMENTAL

LEAD-BASED PAINT INSPECTION

Prepared for:

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project:

Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

KEI Job # 234255-1

Date of Lead Based Paint Inspection:
August 16, 2023

K TEAM
ANY JOB! ANYTIME! ANYWHERE!

5904 Florence Avenue , NE • Albuquerque, NM 87113 • Phone: 505.828.2650 • Fax: 505.823.2766

August 29, 2023

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project: **Lead-Based Paint Inspection**
Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501
KEI Job # 234255-1

Ms. Foley,

We are pleased to submit this report of our lead-based paint (LBP) inspection conducted at the property described above. This inspection was performed on selected interior and exterior painted surfaces following the EPA Lead Reduction Rules (40 CFR Part 745).

This LBP inspection was performed by Mr. Fernando Ocana; certified Lead Inspector, on August 16, 2023, utilizing a Niton XLP 300A Series X-Ray Fluorescence (XRF) with serial No. 10293.

We appreciate the opportunity to be of service to you. Please call if you have any questions or if we may be of further assistance.

Sincerely,

Fernando Ocana
Lead Inspector

Reviewed by,

Amarante Jaramillo JR
General Manager
Principal - In - Charge

SUMMARY

The following are the findings of the lead-based paint inspection performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. The purpose of our lead-based paint (LBP) inspection was to determine the presence or absence of LBP in the areas investigated.

Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA. **None (0) of the forty (40) XRF results tested equal to or greater than the regulatory limit of 1.0 mg/cm^2 of lead.**

INTRODUCTION

Keers Environmental, LLC. was engaged by 123-135 Grant LLC to conduct an LBP inspection at the property referenced above. This inspection was performed by Mr. Fernando Ocana; certified Lead Inspector, on August 16, 2023, and was done in accordance with the EPA Lead Reduction Rules (40 CFR Part 745).

DESCRIPTION OF BUILDING

The building inspected consisted of a one-story structure which was occupied at the time of the inspection. Offices, rooms, storages, and restrooms were observed. Testing was conducted on the wall, ceiling, floor, deck, beam, baseboard, cabinet, electrical box, pipe, latch, door, door frame, window, and window frame components. Building components tested were of drywall, CMU, plaster, ceramic, concrete, metal, and wood substrates.

SAMPLING PLAN

The physical condition of building materials and paints was poor to fair at the time of the inspection. An inventory of painted surfaces in each room equivalent within each unit as XRF testings proceeded. See the "LBP Testing Data Sheet."

CALIBRATION OF THE XRF INSTRUMENT

Before proceeding with the investigation of painted surfaces, the XRF instrument performed a self-calibration check in accordance with the manufacturer's quality control procedures. After the warm up period, the inspector took a calibration check reading on a 1.0 mg/cm^2 lead film provided by the manufacturer. The difference among the first calibration check average and the 1.0 mg/cm^2 lead film was not greater than the 0.2 mg/cm^2 calibration check tolerance limit obtained from the XRF Performance Characteristic Sheet (PCS). In accordance with the XRF Performance Characteristic Sheet, the XRF instrument in use did not require correction for substrate bias for any substrate encountered. No XRF readings above the upper limits of the inconclusive range were encountered. Because there were no inconclusive results, no paint chip samples were collected. At the end of the work shift, the inspector took a final calibration check reading using the same procedure as for the initial calibration check.

RESULTS

Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA regulations. **None (0) of forty (40) XRF results tested equal to or greater than the regulatory limit of 1.0 mg/cm^2 of lead.**

CONCLUSION

A lead-based paint inspection was performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501, utilizing the EPA Lead Reduction Rules (40 CFR Part 745). Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA regulations were encountered during our investigation. Lead-based paint was not identified at the areas tested.

END OF REPORT

XRF Lead Results

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave.
El Paso, TX, 79938
Phone (915) 838-1188
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave. INSPECTOR: Fernando Ocaña

ROOM EQUIVILANT: Interior Paints SIGNATURE: F. O

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 01	DW / P / (W) / M / V / CT / B / C / CMU	W. Door	Burnished Brown	Exhibit Room	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 02	DW / P / (W) / M / V / CT / B / C / CMU	W. Door Frame	↓	↓	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 03	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling Deck	White	Office 3	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 04	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling Beam	↓	↓	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 05	DW / P / (W) / M / V / CT / B / C / CMU	N. Baseboard	↓	S. suite-Corridor by Restrooms	0.02	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 06	DW / P / W / M / V / CT / B / C / (CMU)	S. wall	↓	Office 4	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 07	DW / P / W / (M) / V / CT / B / C / CMU	S. Pipe	↓	↓	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 08	DW / P / W / M / V / CT / B / (C) / CMU	Floor	Dark Gray	Vault	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 09	(DW) / P / W / M / V / CT / B / C / CMU	Ceiling	White	S. suite-Restroom 1	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 10	DW / P / W / M / V / (CT) / B / C / CMU	W. wall	↓	S. Suite Break Room	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 11	DW / P / W / M / V / CT / B / (C) / CMU	Floor	Gray	S. Suite-Restroom 2	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 12	DW / P / (W) / M / V / CT / B / C / CMU	W. cabinet	White	S. suite-Break Room	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 13	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling		Center Hallway by Facilities Supply	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 14	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling beam	Red	↓	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 15	DW / P / W / (M) / V / CT / B / C / CMU	W. Electrical Box	Gray	Prep Room	0	POS / (NEG)	INTACT / (FAIR) / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE: (POS)=POSITIVE / (NEG)=NEGATIVE

XRF SERIAL NO. 10293

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave.
El Paso, TX. 79938
Phone (915) 838-1183
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave.
INSPECTOR: Fernando Ocam-
ROOM EQUIVILANT: Interior Paints
SIGNATURE:

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 16	DW / P / W / M / V (CT) / B / C / CMU	Floor	Dark Gray	Reception 2	0.04	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 17	(DW) P / W / M / V CT / B / C / CMU	Ceiling	White	Unisex Restroom	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 18	DW / P / (W) / M / V CT / B / C / CMU	W. Door	Barnished Brown	Vestibule	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 19	DW / P / (W) / M / V CT / B / C / CMU	W. Door Frame	↓	↓	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 20	DW / P / (W) / M / V CT / B / C / CMU	N. Baseboard	↓	Office 15	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 21	DW / P / (W) / M / V CT / B / C / CMU	N. window	↓	Office 12	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 22	DW / P / (W) / M / V CT / B / C / CMU	N. window Frame	↓	↓	0.04	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 23	DW / P / (W) / M / V CT / B / C / CMU	W. Cabinet	White	Reception 2	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 24	(DW) / P / W / M / V CT / B / C / CMU	E. wall	↓	Women's Restroom	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 25	DW / P / W / (M) / V CT / B / C / CMU	Stair Rail	↓	N. Suite-Back Area	0	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 26	DW / P / W / (M) / V CT / B / C / CMU	Door Latch	Brown	↓	0.01	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 27	DW / P / W / M / V (CT) / B / C / CMU	Floor	Dark Brown	Vestibule	0.09	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 28	DW / (P) / W / M / V CT / B / C / CMU	N. wall	Beige	S. Suite-E. Exit	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 29	DW / (P) / W / M / V CT / B / C / CMU	Ceiling	↓	↓	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 30	DW / P / W / (M) / V CT / B / C / CMU	W. electrical Box	Gray	N. Suite-Elec. Room	0	POS / (NEG)	INTACT / (FAIR) / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
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XRF SERIAL NO. 10293

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Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave.

INSPECTOR: Fernando Ocaña

ROOM EQUIVILANT: Interior Paints

SIGNATURE: [signature]

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 31	DW / P / W / (M) / V CT / B / C / CMU	N. Door	white	Back Area Door to Back Exit	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 32	DW / P / W / (M) / V CT / B / C / CMU	N. Door Frame	〃	〃	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE (POS)=POSITIVE / (NEG)=NEGATIVE

XRF SERIAL NO. 10293

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave.
El Paso, TX, 79938
Phone (915) 838-1188
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grand Ave.

INSPECTOR: Fernando Ocaña

ROOM EQUIVILANT: Exterior Paints

SIGNATURE: [signature]

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 33	DW / P / **W** / M / V CT / B / C / CMU	Door	Barnished Brown	W. side	0.02	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 34	DW / P / **W** / M / V CT / B / C / CMU	Door Frame	↓	↓	0.04	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 35	DW / P / W / **M** / V CT / B / C / CMU	Window	Black	E. side	0	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 36	DW / P / W / **M** / V CT / B / C / CMU	Window Frame	↓	↓	0	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 37	DW / P / **W** / M / V CT / B / C / CMU	Porch Ceiling	Barnished Brown	W. side	0.02	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 38	DW / P / **W** / M / V CT / B / C / CMU	Porch Beam	↓	↓	0.02	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 39	DW / **P** / W / M / V CT / B / C / CMU	Wall	Brown	W. side	0.05	POS / **NEG**	INTACT / **FAIR** / POOR
LBP - 40	DW / P / W / **M** / V CT / B / C / CMU	Wrought iron Door	Black	E. side to N. suite Back Exit	0	POS / **NEG**	INTACT / FAIR / **POOR**
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR

SUBSTRATE CODE. (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
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XRF SERIAL NO. 10293

Calibration Check Test Results

Address / Unit No.: Annex Building – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

Device: Niton XLP 300 A

Date: 8/16/23 XRF Serial No. 10293

Contractor: L&P Scientific Consulting, LLC

Inspector Name: Fernando Ocana Signature:

SRM Used 1.0 mg/cm^2 Calibration Check Tolerance Used 0.2 mg/cm^2

First Calibration Check

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		
1.0	1.0	1.0	1.0	0

Second Calibration Check

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		
1.0	1.0	1.0	1.0	0

Third Calibration Check *(if required)*

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		

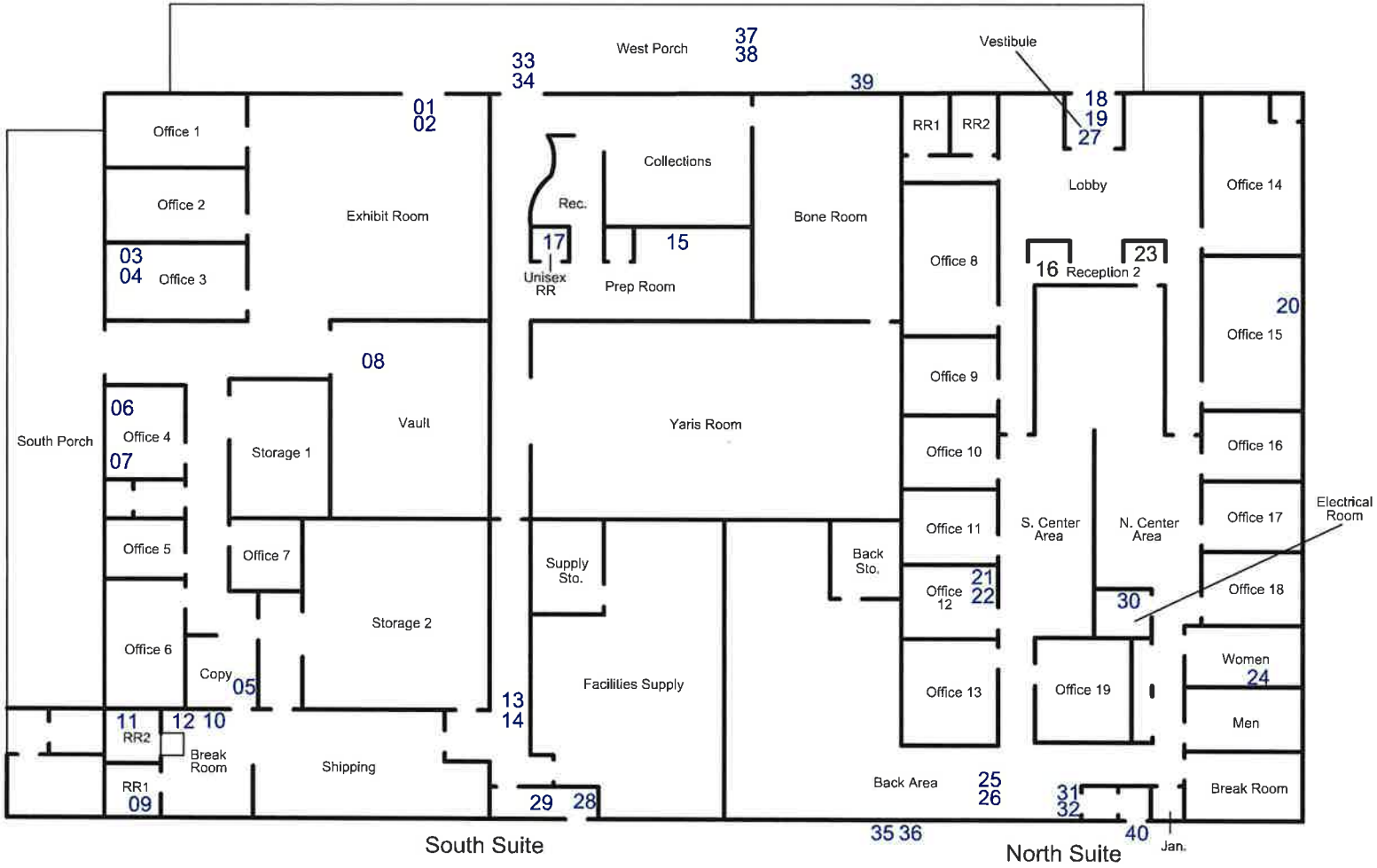
Fourth Calibration Check *(if required)*

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		

***If the difference of the Calibration Check Average from the NIST SRM Film value is greater than the specified Calibration Check Tolerance for this device, consult the manufacturer's recommendations to bring the instrument back into control. Retest all testing combinations tested since the last successful Calibration Check test.**

Drawing

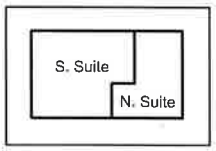
PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

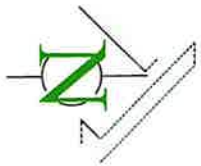


Lead Survey

Not To Scale

Lead Sample Locations	
LBP-XX	Sample Locations
LBP-XX	Positive Sample Locations





DESCRIPTION	
Lead	
SCALE: AS NOTED	SHEET: 1 OF 1

Certifications

SCAI TRAINING CENTER

headquarters: 1409 montana ave el paso, texas 79902-5617
(915) 533-8840 fax (915) 533-8843 e-mail: training@scaitc.com www.scaitc.com

BY THE ISSUANCE OF THIS CERTIFICATE TO

FERNANDO OCANA

Certificate Number	LIR9649041221

Let it be Known that said person has completed the requirements for lead certification within the purview of Vernon's Texas Civil Statutes, Article 9029, as amended, meets ANSI / ASSE Z490.1-2001, and which also meets the requirements of §295.204 (relating to Accreditation of Training Providers).

EPA/HUD LEAD INSPECTOR
REFRESHER COURSE

Furthermore, let it be known that said person passed the required course examination with a score of 70% or higher

Training ProgramProvider Accreditation Number 20448

Instructor: Monico A. Acuna

Principal Officer: Luis M. Acuna

Date Course Completed: 4/12/2021
Location: El Paso, Texas

Course Exam Date: 4/12/2021
Class ID No. LIR9649041221
Registered Sanitation No.: XXXXXXXXXXXXX

8 CEU As Approved by TDSHS for Sanitarian Continuing Education, §265.147; Professional Sanitarian Commercial CEU Provider Lic # 1064-090001

KEERS ENVIRONMENTAL

PRE-DEMOLITION ASBESTOS SURVEY

PREPARED FOR:

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

PROJECT:

Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

KEI Job # 234255-1

DATE OF INSPECTION:

August 16, 2023

K TEAM
ANY JOB! ANYTIME! ANYWHERE!

5904 Florence Avenue , NE • Albuquerque, NM 87113 • Phone: 505.828.2650 • Fax: 505.823.2766

August 29, 2023

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project: **Pre-Demolition Asbestos Survey**
Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501
KEI Job # 234255-1

Ms. Foley:

We are pleased to submit this report of the asbestos survey conducted at the property described above. This survey consisted of the collection of eighty-five (85) bulk samples following the federal AHERA and NESHAP rules and applicable state regulations regarding asbestos-containing materials in public buildings scheduled for demolition.

This survey was performed by Mr. Fernando Ocana; certified Asbestos Inspector, on August 16, 2023. Mr. Ocana has been trained in accordance with all applicable regulations.

We appreciate the opportunity to be of service to you. Please call if you have any questions or if we may be of further assistance.

Sincerely,

Fernando Ocana
Asbestos Inspector

Reviewed by,

Amarante Jaramillo JR
General Manager
Principal - In - Charge

SUMMARY

The following are the findings of the pre-demolition asbestos survey performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. The purpose of our survey was to identify, locate, and quantify suspect asbestos-containing materials (ACM), if any, which may be disturbed during the demolition activities.

The laboratory results indicate asbestos greater than 1% in the following building materials:

Homogeneous Area	Location (see attached drawing)
Pipe Fitting Insulation	**South Suite – Shipping Room & Above Break Room Restrooms**
Roof Penetration Sealant	**Roof Top**

Table 1 (Asbestos-Containing Materials)

INTRODUCTION

The asbestos survey was conducted by Mr. Fernando Ocana on August 16, 2023, and was performed in accordance with the federal AHERA rules (40 CFR Part 763 Subpart E), the NESHAP regulations requiring an asbestos inspection for buildings scheduled for demolition or renovation (40 CFR Part 61.145), and applicable state regulations. During our site reconnaissance, forty (40) homogeneous areas were identified and consisted of the following:

Homogeneous Area	Location (see attached drawing)
Duct Mastic	Throughout South Suite
Carpet Mastic	Throughout Building
Wall Panel Materials	Exhibit Room
Wall Panel Mastic	Exhibit Room
Counter Caulking	North Suite – Break Room
Floor Coating Materials	Vault
Ceramic Tile Wall Adhesive	South Suite – Break Room and Restrooms
Textured Drywall Materials	Throughout South Suite
Ceiling Drywall Materials	South Suite – Restrooms
Textured Drywall Materials	Throughout North Suite
Smooth Texture Drywall	Shipping Room - Entrance Area
Interior Window Caulking	Interior Windows
2' x 4' Ceiling Panels	Throughout North Suite
12" Tan Floor Tile and Mastic	North Suite – Break Room and Restrooms
Ceramic Tile Flooring Materials	North Suite – Reception & Entrance Area, South Suite – Restrooms
12" White with Gray Streaks Floor Tile and Mastic	North Suite – Electrical Room
Cove Base Mastic	Throughout North Suite Restrooms
Ceiling Drywall Materials	North Suite - Restrooms, Janitor's Closet, and Break Room
Ceiling Batt Insulation Above 2' x 4' Ceiling Panels	Throughout North Suite
Patch Textured Drywall Materials	Hallway by Copy Area – North Wall
Un-textured Drywall Materials	Storage 2 Hallway – South Wall
Coarse Textured Drywall Materials	Center Area

Coarse Ceiling Drywall	Center Area
Wall/Ceiling Plaster	East Exit Areas
CMU Wall Coating	Throughout Interior Perimeter Walls
Pipe Fitting Insulation	**South Suite – Shipping Room & Above Break Room Restrooms**
Pipe Insulation	Throughout Building
Duct Insulation	Throughout North Suite
Un-textured Drywall with Compound	South Suite – Center Hall
Baseboard Caulking	Throughout North Suite
Interior Door Caulking	Interior Doors
Exterior Window Caulking	Exterior Windows
Exterior Door Caulking	Exterior Doors
Exterior Wall Plaster	Exterior Walls
Beige Roof Patch Caulking	Roof Top
Brown Roof Coating (Layer 1 – Top Layer)	Roof Top
Roof Penetration Sealant	**Roof Top**
Roofing Materials (Layer 2)	Roof Top
Brown Roof Insulation Materials (Layer 3)	Roof Top
Black Roofing Materials (Layer 4 – Bottom Layer)	Roof Top

Table 2 (Homogenous Areas Identified During the Inspection)

DESCRIPTION OF BUILDING

The building inspected consisted of a one-story structure which was occupied at the time of the inspection. Offices, rooms, storages, and restrooms were observed. Building materials tested include gypsum wallboard, plaster, 2' x 4 ceiling panels, CMU (Concrete Masonry Unit) wall coating, wall panel, insulations, adhesives, sealants, caulkings, mastics, roof coating, and roofing materials. Floor finishes consisted of carpeting, floor coating, ceramic tile, and resilient floor tile on concrete floors.

SAMPLING PLAN

Prior to sampling, a visual survey was performed to establish homogeneous areas. Suspect Asbestos-Containing Materials (ACM) were touched by the inspector to determine their friability. Forty (40) homogeneous areas were established and at least one to five representative samples were taken of each area. A homogeneous area is considered as an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture. Non suspect building materials that were not sampled during this inspection include: concrete materials, glass, metal, and wood materials. Destructive sampling was not performed to locate hidden and inaccessible materials.

ANALYSIS OF BULK SAMPLES

A total of eighty-five (85) bulk samples were collected and submitted for analysis. Bulk samples collected were sampled following the AHERA protocol and were analyzed for asbestos content at Crisp Analytical Laboratories, LLC. in Carrollton, Texas utilizing Polarized Light Microscopy (PLM) with optical dispersion staining in accordance with the Environmental Protection Agency (EPA) interim Method 600/R-93/116. An asbestos-containing building material includes any asbestiform

varieties of chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite containing greater than 1% of any of those substances as determined by appendix A, Subpart F, 40 CFR part 763 section 1. EPA NESHAP Part 61 defines friable ACM as when dry can be pulverized, crushed or reduced to a powder by hand pressure.

RESULTS

The laboratory results indicate asbestos greater than 1% in the following building materials:

SAMPLE ID NO.	MATERIAL DESCRIPTION/ LOCATION	AHERA TYPE	NESHAP CATEGORY	ESTIMATED QUANTITY	CONDITION ASSESSMENT	ASBESTOS CONTENT
S-49, S-50	PIPE FITTING INSULATION * / SOUTH SUITE – SHIPPING ROOM & ABOVE BREAK ROOM RESTROOMS	TSI	FRIABLE	APPROXIMATELY 6 PIPE FITTINGS WERE OBSERVED	POTENTIAL FOR DAMAGE	22% CHRYSOTILE WHITE SURFACED INSULATION 20% CHRYSOTILE GRAY INSULATION
S-75, S-76	ROOF PENETRATION SEALANT ** / ROOF TOP	MISCELLANEOUS	CATEGORY I NON-FRIABLE	600 SQUARE FEET	POTENTIAL FOR DAMAGE	3% CHRYSOTILE GRAY SURFACED BLACK TAR

Table 3 (Assessment and Estimated Quantities of Identified Asbestos-Containing Materials)

***See attached drawing showing where pipe fittings were observed. Please note that additional pipe fitting insulation may be encountered above hard ceilings or in other inaccessible locations throughout the building.**

****The roof penetration sealant throughout the roof top is covered by a layer of non-asbestos brown roof coating, and may be found along the roof edges and throughout roof penetrations hidden under this brown roof coating.**

CONCLUSION

A pre-demolition asbestos survey was performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. Based on the laboratory analysis, the building materials mentioned in Tables 1 and 3 contain asbestos. See the attached sheets for estimated location of these materials. The quantities mentioned above are estimates and should be verified for abatement purposes. Federal and state regulatory requirements must be followed when disturbing asbestos-containing materials.

END OF REPORT

Results

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Attn: Miguel Dominguez
Customer Project: 23352 123 Grants Ave
Reference #: CAL23087013RL Date: 08/24/23

Analysis and Method

Summary of polarized light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of a stereomicroscope. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may contain trace amounts of actinolite/tremolite. When not detected by PLM, these samples should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may contain a regulated asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Since allowable variation in quantification of samples close to 1% is high, <1% may be reported. Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos or "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses or hold a degree in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one these disciplines is preferred, but not required. Extensive in-house training programs are used to augment the educational background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
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Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 23352 123 Grants Ave **CA Labs Project #:** CAL23087013RL

Laboratory Sample ID	Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
79712	S-49	*49-1*	*white surfaced gray insulation*	***22% Chrysotile***	***white surfaced gray insulation***
79713	S-50	*50-1*	*gray insulation*	***20% Chrysotile***	***brown surfaced tan plaster***
79733	S-70	*70-1*	*brown surfaced tan plaster*	***<1% Chrysotile***	***gray surfaced black tar***
79738	S-75	*75-1*	*gray surfaced black tar*	***3% Chrysotile***	***gray insulation***
79739	S-76	*76-1*	*gray surfaced black tar*	***3% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79664	S-1		1-1	*off-white sealant*	y	***None Detected***		100% qu,bi
79665	S-2		2-1	*off-white sealant*	y	***None Detected***		100% qu,bi
79666	S-3		3-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79667	S-4		4-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79668	S-5		5-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79669	S-6		6-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi
79670	S-7		7-1	*tan mastic with debris*	n	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
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Phone # 915-838-1188
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Customer Project:
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Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL

Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79671	S-8		*8-1*	*yellow insulation*	*y*	***None Detected***	100% fg	
79672	S-9		*9-1*	*yellow insulation*	*y*	***None Detected***	100% fg	
79673	S-10		*10-1*	*white surfaced white sealant*	*n*	***None Detected***		100% qu,bi
79674	S-11		*11-1*	*white surfaced white sealant*	*n*	***None Detected***		100% qu,bi
79675	S-12		*12-1*	*white surfaced white caulking*	*n*	***None Detected***		100% qu,bi,ca
79676	S-13		*13-1*	*gray concrete*	*y*	***None Detected***		100% qu,ca
79677	S-14		*14-1*	*white ceramic tile*	*y*	***None Detected***		100% qu,ot

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
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CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL

Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79677			*14-2*	*white grouting*	*y*	***None Detected***		100% qu,ca
79677			*14-3*	*tan mastic with debris*	*n*	***None Detected***		100% gy,bi
79678	S-15		*15-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79678			*15-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79679	S-16		*16-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79679			*16-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79680	S-17		*17-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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79680			*17-2*	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,ca
79680			*17-3*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79681	S-18		*18-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79681			*18-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79682	S-19		*19-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79682			*19-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79683	S-20		*20-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Technical Manager
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79683			*20-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79684	S-21		*21-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79684			*21-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79685	S-22		*22-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79686	S-23		*23-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79686			*23-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79687	S-24		*24-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79688	S-25		*25-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79689	S-26		*26-1*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79690	S-27		*27-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
79690			*27-2*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79691	S-28		*28-1*	*white surfacing*	*y*	***None Detected***		100% qu,bi
79691			*28-2*	*tan ceiling tile*	*y*	***None Detected***	35% fg 35% ce	30% qu,pe,ca
79692	S-29		*29-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Technical Manager
Tanner Rasmussen

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3 Days

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CAL23087013RL

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Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79692			*29-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi
79693	S-30		*30-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca
79693			*30-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi
79694	S-31		*31-1*	*black ceramic tile*	*y*	***None Detected***		100% qu,ot
79694			*31-2*	*gray mortar*	*y*	***None Detected***		100% qu,ca
79695	S-32		*32-1*	*off-white floor tile*	*y*	***None Detected***		100% qu,ca
79695			*32-2*	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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79696	S-33		*33-1*	*tan baseboard*	*y*	***None Detected***		100% gy,ma
79696			*33-2*	*tan mastic with white compound*	*n*	***None Detected***		100% qu,gy,bi,ca
79697	S-34		*34-1*	*tan baseboard*	*y*	***None Detected***		100% gy,ma
79697			*34-2*	*tan mastic with debris*	*n*	***None Detected***		100% gy,bi
79698	S-35		*35-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79698			*35-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79699	S-36		*36-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

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79699			*36-2*	*white drywall*	*y*	***None Detected***		100% qu,gy
79700	S-37		*37-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79701	S-38		*38-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79702	S-39		*39-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79702			*39-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79703	S-40		*40-1*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79704	S-41		*41-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

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79704			*41-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79705	S-42		*42-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79705			*42-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79706	S-43		*43-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79706			*43-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79707	S-44		*44-1*	*white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
79707			*44-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Miguel Dominguez
L & P Scientific Consulting, LLC
13291 Montana Ave
El Paso, TX 79938

Phone # 915-838-1188
Fax #

Customer Project:
23352 123 Grants Ave
Turnaround Time:
3 Days

CA Labs Project #:
CAL23087013RL
Date: 8/24/2023
Samples Rec'd: 8/22/23 10:30am
Date Of Sampling: 8/16/2023
Purchase Order #:

Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79708	S-45		*45-1*	*gray plaster*	*y*	***None Detected***		100% qu,ca
79709	S-46		*46-1*	*gray concrete*	*y*	***None Detected***		100% qu,ca
79710	S-47		*47-1*	*white surfaced gray concrete*	*n*	***None Detected***		100% qu,bi,ca
79711	S-48		*48-1*	*white surfaced gray concrete*	*n*	***None Detected***		100% qu,bi,ca
79712	S-49		*49-1*	*white surfaced gray insulation*	*n*	***22% Chrysotile***	5% fg	73% qu,bi,ca
79713	S-50		*50-1*	*gray insulation*	*y*	***20% Chrysotile***		80% qu,ca,ma
79714	S-51		*51-1*	*white sealant with foil and brown paper*	*n*	***None Detected***	10% ce	90% qu,bi,ot

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gy - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastonite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jose Matute
Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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9. < 1% Result point counted positive
10. TEM analysis suggested

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Dedicated to Quality

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79714			*51-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79715	S-52		*52-1*	*white sealant with foil*	*n*	***None Detected***		100% qu,bi,ot
79715			*52-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79716	S-53		*53-1*	*black sealant with foil and brown paper*	*n*	***None Detected***	10% ce	90% qu,bi,ot
79716			*53-2*	*yellow insulation*	*y*	***None Detected***	100% fg	
79717	S-54		*54-1*	*pink insulation*	*y*	***None Detected***	100% fg	
79718	S-55		*55-1*	*pink insulation*	*y*	***None Detected***	100% fg	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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Senior Analyst
Julio Robles

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Date Of Sampling: 8/16/2023
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Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79719	S-56		*56-1*	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,ca
79719			*56-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79720	S-57		*57-1*	*white compound*	*y*	***None Detected***		100% qu,ca
79720			*57-2*	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
79721	S-58		*58-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79722	S-59		*59-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79723	S-60		*60-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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Date Of Sampling: 8/16/2023
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Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79724	S-61		*61-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79725	S-62		*62-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79726	S-63		*63-1*	*white caulking*	*y*	***None Detected***		100% qu,bi,ca
79727	S-64		*64-1*	*brown surfaced brown caulking*	*n*	***None Detected***		100% qu,bi,ca
79728	S-65		*65-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca
79729	S-66		*66-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca
79730	S-67		*67-1*	*brown surfaced gray caulking*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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Analyst

Technical Manager
Tanner Rasmussen

Senior Analyst
Julio Robles

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Laboratory Sample ID	Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
79731	S-68		*68-1*	*brown surfaced gray plaster*	*n*	***None Detected***		100% qu,bi,ca
79732	S-69		*69-1*	*brown surfaced gray plaster*	*n*	***None Detected***		100% qu,bi,ca
79733	S-70		*70-1*	*brown surfaced tan plaster*	*n*	***<1% Chrysotile***		100% qu,bi,ca
79734	S-71		*71-1*	*off-white sealant*	*y*	***None Detected***		100% qu,bi
79735	S-72		*72-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi
79736	S-73		*73-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi
79737	S-74		*74-1*	*brown sealant with debris*	*n*	***None Detected***		100% qu,bi

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Technical Manager
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Senior Analyst
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79738	S-75		*75-1*	*gray surfaced black tar*	*n*	***3% Chrysotile***		97% qu,bi
79739	S-76		*76-1*	*gray surfaced black tar*	*n*	***3% Chrysotile***		97% qu,bi
79740	S-77		*77-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79741	S-78		*78-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79742	S-79		*79-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79743	S-80		*80-1*	*brown insulation*	*y*	***None Detected***	100% ce	
79744	S-81		*81-1*	*brown insulation*	*y*	***None Detected***	100% ce	

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79745	S-82		*82-1*	*brown insulation*	*y*	***None Detected***	100% ce	
79746	S-83		*83-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79747	S-84		*84-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi
79748	S-85		*85-1*	*black tar and black felt*	*n*	***None Detected***	15% ce 10% fg	75% qu,bi

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Polarized Light Asbestiform Materials Point Count

Laboratory Analysis Report - Point Count

Analysis and Method

Point counting was performed on a polarized light microscope with a calibrated reticle according to the revised NESHAP method of November 20, 1990 (Federal Register, V.55, N.224, 11/20/90). Origional asbestos content of bulk materials was determined using procedures outlined in the interim method (40 CFR part 763, Appendix E to subpart E) and AHERA method (EPA-600/R-93/116). Samples were prepared using HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion staining / becke line method.

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have completed college courses in a natural science (geology, biology, or environmental science). Recognition by a state professional board in one of these disciplines is preferred, but not required. Extensive in-house training programs are used to augment education background of the analyst. The Laboratory Director and Quality Manager have received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of NVLAP accreditation. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

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Date: 08/24/23
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Purchase Order #:

Laboratory Sample ID	Sample #	*Layer #*	Analysts Physical Description of Subsample	Homo-geneous (Y/N)	Point Counted % / Asbestos Type
79733	S-70	*70-1*	*brown surfaced tan plaster*	*n*	***0.50% Chrysotile***

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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CA Labs

Chain of Custody

Client Name	A&P Scientific	CA Labs Job #	CAL 23087013
Client Address	13291 Montana Ave. El Paso, TX 79938	Billing Address (if different)	Same
Phone Number	(915) 833-1188	P.O. #	
Fax Number	(915) 838-1166	Project Name	123 Grants Ave, Santa Fe, NM
Send Reports to	M.domingue@aponscientific.com	Project Number	23352
Contact: Miguel Dominguez		Report Results: Via: Email X FAX Verbal	

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	

Please indicate appropriate turn around time. Collected 8/16/23

Asbestos *please call ahead for availability of all rush and/or after hours samples*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and select TA time		*Circle analysis and select TA time*	2 hour	PCM: NIOSH 7400	Note TAT
AHERA	4 hour	EPA 600- PLM Bulk	4 hour	Allergen Particle	24 hour
EPA Level II	8 hour		8 hour	tape/bulk/swab	2 days
Drinking Water	24 hour		24 hour	Cyclex-d cassettes	3 days
Wipe	2 days	AHERA	2 days	Air-o-cell cassettes	5 days
Micro-vac	3 days		3 days	Anderson cultures	Specify
NIOSH 7402	5 days	Point Count - (NESHAPS)	5 days	Bulk/swab cultures	Mold or
Chatfield Bulk				Bacteria cultures	bacteria

Lead: *Circle analysis and select TA time*

Matrix:	Paint Chips	Soil	Air	Wipes	Wastewater
TA Time:	8 hour	1 day	2 days	3 days	5 days

Sample Information:

Sample Number:	Sample Description:	Sample Location:	Volume: (if applicable)	Sample Date/Time:
S-1	Duct Mastic	Above Break Room Restrooms		S. Suite
S-2	↳	↳		↳
S-3	Carpet Mastic	Exhibit Room		
S-4	↓	Break Room		S. Suite
S-5		Hallway by office 4		
S-6		S. Center Area		N. Suite
S-7	↓	N. Center Area		↳
S-8	Wall Panel Mat.	Exhibit Room - N. wall		
S-9	↳	- W. wall		
S-10	Wall Panel Mastic	- N. wall		
S-11	↳	- W. wall		

10:30AM

Date/Time Information

Relinquished by: F-10 8/21/23 Received by: AUG 22 2023 Andrew Sisses

Relinquished by: Received by:

CA Labs
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name:	C&P Scientific Consulting	CA Labs Job #:	CAL 23087013
Client Address:	13291 Montana Ave. El Paso, TX 79938	Billing Address: (if different)	Same
Phone Number:	(915) 838-1188	P.O. #:	
Fax Number:	(915) 838-1166	Project Name:	123 Grants Ave.
Send Reports to:	m.dominguez@pscientific.com	Project Number:	23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix:
85	85	Air / ~~Bulk~~ / Water

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-12	Counter Caulking	Break Room N. wall	N. Suite
S-13	Floor Coating Mat	Vault	
S-14	Ceramic Tile Wall Adhesive	Restroom 1	S. wall
S-15	Textured Drywall Mat	office 3 E. wall	S. Suite
S-16	↓	Shipping - N. wall	↓
S-17	↓	Restroom 2 - N. wall	
S-18	Ceiling Drywall Mat	Restroom 1	S. Suite
S-19	↓	Restroom 2	↓
S-20	Textured Drywall Mat	office 15 - N. wall	
S-21	↓	Break Room - E. wall	N. Suite
S-22	↓	SW Restroom Hall	S. wall - N. Suite
S-23	Smooth Text Drywall	Shipping Room Ent. Area	S. wall
S-24	Interior Window Caulking	office 2 - S. window	
S-25	↓	Exhibit Room	W. window
S-26	2'x4' Ceiling Panels	Back Area	N. Suite
S-27	↓	N. Center Area	
S-28	↓	office 12	↓
S-29	12" Tan Floor Tile & Mastic	Break Room	N. Suite
S-30	↓	NE Men's Restroom	↓
S-31	Ceramic Tile Flooring Mat	Reception 2	N. Suite
S-32	12" white w/ Gray streaks FT & Mastic	Elec. Room	N. Suite

Custody Information:

Samples relinquished: FED 8/21/23 — Signature / Date / Time

Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time

Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1929 Old Denton Rd
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave.
El Paso, Tx 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. #:
Project Name: 123 Grants Ave.
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / (Bulk) / Water
85	85	

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-33	Cove Base Mastic	NE Men's Restroom - E. wall	
S-34	↓	N. Suite - Restroom 2 - S. wall	
S-35	Ceiling Drywall Mat	Restroom 1	N. suite
S-36	↓	Janitors Closet	↓
S-37	Ceiling Batt insulation above 2'x4' Ceiling Panels		Entrance Lobby N. Suite
S-38	↓		Back Area
S-39	Patch Textured Drywall Mat	Hall by Copy	Area - N. wall
S-40	Un-textured Drywall Mat	Storage 2 Hall - S. wall	
S-41	Coarse Textured Drywall	Prep Room Closet - N wall	
S-42	↓	Bone Room - S. wall	
S-43	Coarse Ceiling Drywall	Prep Room	
S-44	↓	Reception Hallway	
S-45	wall/ceiling Plaster	E. exit Area - S. wall	N. suite
S-46	CMU wall Coating	Shipping - E. wall	
S-47	↓	office 3 - S wall	
S-48	↓	Exhibit Room - W. wall	
S-49	Pipe Fitting Insulation	Above Break Room	Restrooms & suite
S-50	↓	↓	
S-51	Pipe Insulation	Break Room	S Suite
S-52	↓	Above Break Room	Restrooms ↓
S-53	↓	office 14 Closet	

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1939 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave. El Paso, TX 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. #:
Project Name: 123 Grants Ave.
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-54	Duct insulation	Entrance Lobby	N. Suite
S-55	↓	Back Area	↓
S-56	Un-textured Drywall w/ compound	Center Hall -	N. wall
S-57	↓	↓	- S. wall
S-58	Baseboard Caulking	Entrance Lobby - S	wall
S-59	↓	Exhibit Room - S.	wall
S-60		S. Exit Area - E.	wall
S-61	Interior Door Caulking	Center Hall - W. ent	Door
S-62	↓	Exhibit Room - W.	Door
S-63		Hallway Door to	office 5
S-64	Exterior Window Caulking	W. side	
S-65	↓	↓	
S-66	Exterior Door Caulking	S. side	
S67	↓	W. side to Exhibit Room	
S-68	Exterior Wall Plaster	W. side	
S-69	↓	E. side	
S-70		S. side	
S-71	Beige Roof Patch Coating	Roof Top	
S-72	Brown Roof Coating	↓	
S-73	↓		
S-74			

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

CA Labs
1929 Old Denton Rd
Carrollton, TX 75006

Phone: 972-242-2754
Fax: 972-242-2798
Mobile: 469-222-6967

Chain of Custody

Client Name: C&P Scientific Consulting
Client Address: 13291 Montana Ave, El Paso, Tx 79938
Phone Number: (915) 838-1188
Fax Number: (915) 838-1166
Send Reports to: m.dominguez@pscientific.com

CA Labs Job #: CAL 23087013
Billing Address (if different): Same
P.O. # :
Project Name: 123 Grants Ave
Project Number: 23352

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water
85	85	Bulk

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L):
S-75	Roof Penetration Sealant		Roof Top
S-76	↳		
S-77	Roofing Mat (Layer 2)		
S-78	↳		
S-79			
S-80	Brown Roof Insulation Mat (Layer 3)		
S-81	↳		
S-82			
S-83	Black Roofing Mat (Layer 4 - Bottom Layer)		
S-84	↳		
S-85			

Custody Information:

Samples relinquished: [signature] 8/21/23 — Signature / Date / Time
Samples received: 10:30AM AUG 22 2023 — Signature / Date / Time

Samples relinquished: — Signature / Date / Time
Samples received: Andrew Sikes — Signature / Date / Time

Drawing

PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

Roof Top

71
72
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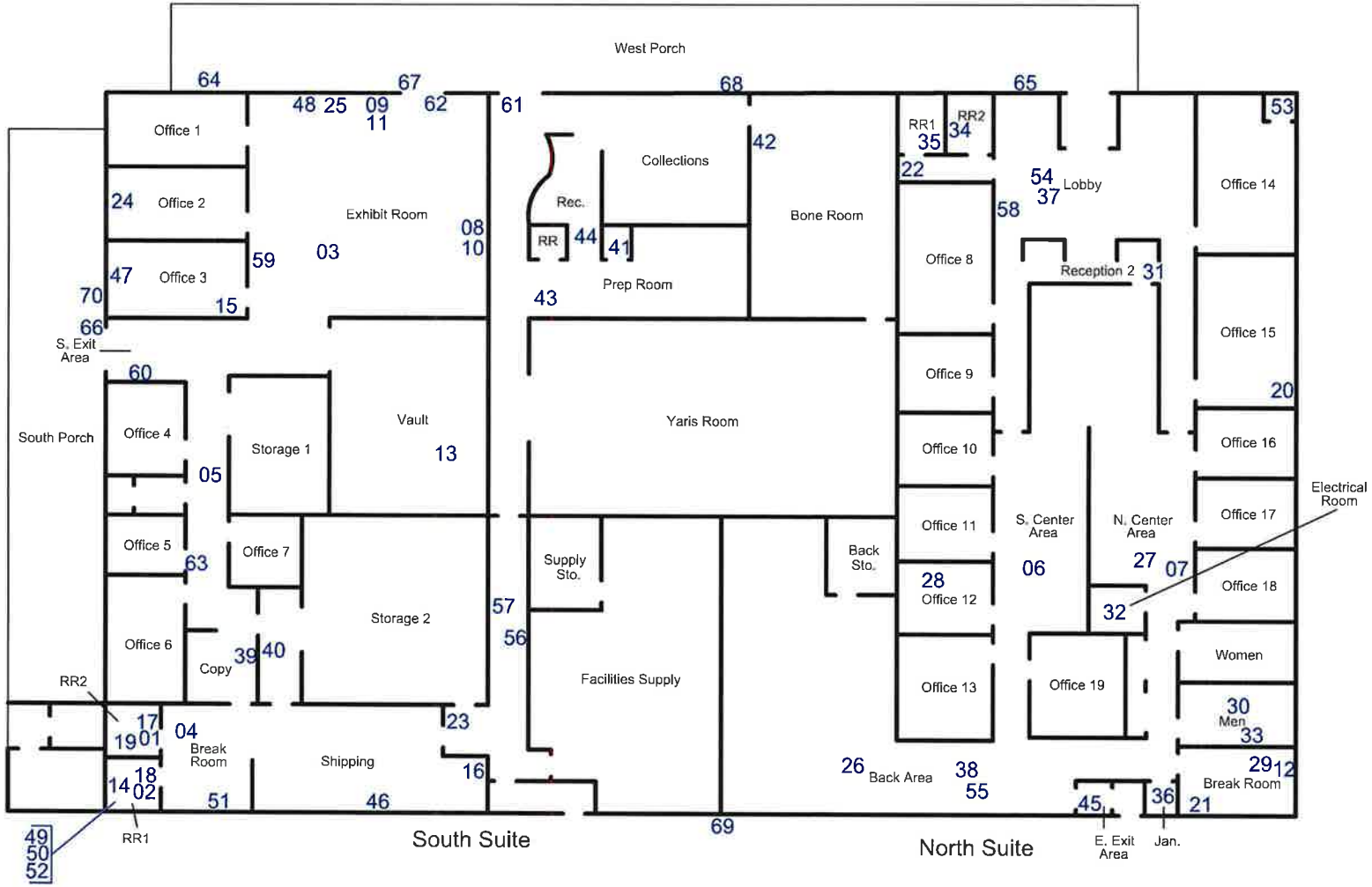
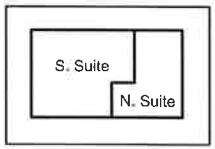
85

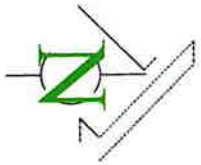


Asbestos Survey

Not To Scale

Asbestos Sample Locations	
S-XX	Sample Locations





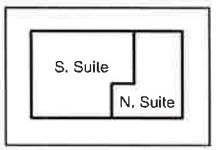
DESCRIPTION	
Asbestos	
SCALE: AS NOTED	SHEET: 1 OF 1

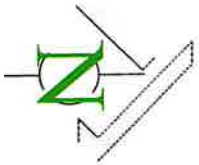
PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

Asbestos Survey

Not To Scale

Asbestos Containing Materials	
●	Pipe Fitting Insulation
○	Roof Penetration Sealant throughout Roof Top (Approximate Locations)





DESCRIPTION	
Asbestos	
SCALE: AS NOTED	SHEET: 1 OF 1

Certifications

SCAI TRAINING CENTER

headquarters: 1409 montana ave el paso, texas 79902-5617
(915) 533-8840 fax (915) 533-8843 e-mail: training@scaitc.com www.scaitc.com

BY THE ISSUANCE OF THIS CERTIFICATE TO

FERNANDO OCANA

Certificate Number	IR9649071423

Let it be known that said person has completed the requirements for asbestos accreditation as per Section 206 of TSCA TITLE II, 15 U.S.C. 20646 (as per approval by the State of Texas/United States Environmental Protection Agency: 40 CFR, Part 763, Subpart E, Appendix C)

EPA AHERA ASBESTOS INSPECTOR
REFRESHER COURSE

Furthermore, let it be known that said person passed the required course examination with a score of 70% or higher

Instructor: _____ Manuel S. Acuna

Principal Officer: _____ Luis M. Acuna

Date Course Completed: 7/12/2023
Location: El Paso, Texas
Course Dates: 7/12/2023
Course Exam Date: N/A
Class ID No. IR9649071423
Registered Sanitation No.: XXXXXXXXXXXXX
Accreditation Expiration Date: 7/11/2024

4 CEU As Approved by TDSHS for Sanitarian Continuing Education [illegible]

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200349-0

Crisp Analytical Laboratory

Carrollton, TX

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2022-10-01 through 2023-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

KEERS
REMEDIATION

November 07, 2023

To Whom It May Concern

Regarding: GOK Museum-Education Annex – 123 Grant Avenue Santa Fe, NM 87501

Keers Remediation, Inc. was hired by GOK Museum- Education Annex to perform asbestos abatement services at the above referenced property. Keers removed and disposed of ACBM including: Pipe Fittings and roofing Penetrations. All Building materials were identified to be asbestos containing, as per Keers Environmental asbestos inspection report, dated August 16, 2023. All ACBM's was removed by Keers between 11/03/23 to 11/05/23 throughout the buildings which is scheduled for demolition after abatement.
EHD Asbestos Alert Tracking number is. N/A
All of the asbestos removal and disposal was done in compliance with all applicable EPA NESHAP, NMED and OSHA regulations.

However, should the demolition contractor come across materials that look suspicious, they will be required to stop the work and contact the owner for guidance on how to proceed, which may include additional testing and/or abatement.

Should you need further information regarding this project please call me at 1-800-327-8642.

Sincerely,

Joseph Casados,
Service Coordinator
Keers Remediation, Inc., 5904 Florence NE, Albuquerque, NM 87113
Phone# 505-823-9006

KEERS ENVIRONMENTAL

LEAD-BASED PAINT INSPECTION

Prepared for:

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project:

Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

KEI Job # 234255-1

Date of Lead Based Paint Inspection:
August 16, 2023

K TEAM
ANY JOB! ANYTIME! ANYWHERE!

5904 Florence Avenue , NE • Albuquerque, NM 87113 • Phone: 505.828.2650 • Fax: 505.823.2766

August 29, 2023

123-135 Grant LLC
Attn: Ms. Jennifer Foley
Deputy Director for Collections & Engagement
155 Grant Ave.
Santa Fe, NM 87501

Project: **Lead-Based Paint Inspection**
Education Annex – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501
KEI Job # 234255-1

Ms. Foley,

We are pleased to submit this report of our lead-based paint (LBP) inspection conducted at the property described above. This inspection was performed on selected interior and exterior painted surfaces following the EPA Lead Reduction Rules (40 CFR Part 745).

This LBP inspection was performed by Mr. Fernando Ocana; certified Lead Inspector, on August 16, 2023, utilizing a Niton XLP 300A Series X-Ray Fluorescence (XRF) with serial No. 10293.

We appreciate the opportunity to be of service to you. Please call if you have any questions or if we may be of further assistance.

Sincerely,

Fernando Ocana
Lead Inspector

Reviewed by,

Amarante Jaramillo JR
General Manager
Principal - In - Charge

SUMMARY

The following are the findings of the lead-based paint inspection performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501. The purpose of our lead-based paint (LBP) inspection was to determine the presence or absence of LBP in the areas investigated.

Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA. **None (0) of the forty (40) XRF results tested equal to or greater than the regulatory limit of 1.0 mg/cm^2 of lead.**

INTRODUCTION

Keers Environmental, LLC. was engaged by 123-135 Grant LLC to conduct an LBP inspection at the property referenced above. This inspection was performed by Mr. Fernando Ocana; certified Lead Inspector, on August 16, 2023, and was done in accordance with the EPA Lead Reduction Rules (40 CFR Part 745).

DESCRIPTION OF BUILDING

The building inspected consisted of a one-story structure which was occupied at the time of the inspection. Offices, rooms, storages, and restrooms were observed. Testing was conducted on the wall, ceiling, floor, deck, beam, baseboard, cabinet, electrical box, pipe, latch, door, door frame, window, and window frame components. Building components tested were of drywall, CMU, plaster, ceramic, concrete, metal, and wood substrates.

SAMPLING PLAN

The physical condition of building materials and paints was poor to fair at the time of the inspection. An inventory of painted surfaces in each room equivalent within each unit as XRF testings proceeded. See the "LBP Testing Data Sheet."

CALIBRATION OF THE XRF INSTRUMENT

Before proceeding with the investigation of painted surfaces, the XRF instrument performed a self-calibration check in accordance with the manufacturer's quality control procedures. After the warm up period, the inspector took a calibration check reading on a 1.0 mg/cm^2 lead film provided by the manufacturer. The difference among the first calibration check average and the 1.0 mg/cm^2 lead film was not greater than the 0.2 mg/cm^2 calibration check tolerance limit obtained from the XRF Performance Characteristic Sheet (PCS). In accordance with the XRF Performance Characteristic Sheet, the XRF instrument in use did not require correction for substrate bias for any substrate encountered. No XRF readings above the upper limits of the inconclusive range were encountered. Because there were no inconclusive results, no paint chip samples were collected. At the end of the work shift, the inspector took a final calibration check reading using the same procedure as for the initial calibration check.

RESULTS

Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA regulations. **None (0) of forty (40) XRF results tested equal to or greater than the regulatory limit of 1.0 mg/cm^2 of lead.**

CONCLUSION

A lead-based paint inspection was performed at the Education Annex – Georgia O'Keeffe Museum located at 123 Grant Ave., Santa Fe, NM 87501, utilizing the EPA Lead Reduction Rules (40 CFR Part 745). Lead-Based Paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter (mg/cm^2) or more than 0.5% by weight or 5000 parts per million by weight as established by EPA regulations were encountered during our investigation. Lead-based paint was not identified at the areas tested.

END OF REPORT

XRF Lead Results

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave.
El Paso, TX, 79938
Phone (915) 838-1188
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave. INSPECTOR: Fernando Ocaña

ROOM EQUIVILANT: Interior Paints SIGNATURE: F. O

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 01	DW / P / (W) / M / V / CT / B / C / CMU	W. Door	Burnished Brown	Exhibit Room	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 02	DW / P / (W) / M / V / CT / B / C / CMU	W. Door Frame	↓	↓	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 03	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling Deck	White	Office 3	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 04	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling Beam	↓	↓	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 05	DW / P / (W) / M / V / CT / B / C / CMU	N. Baseboard	↓	S. suite-Corridor by Restrooms	0.02	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 06	DW / P / W / M / V / CT / B / C / (CMU)	S. wall	↓	Office 4	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 07	DW / P / W / (M) / V / CT / B / C / CMU	S. Pipe	↓	↓	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 08	DW / P / W / M / V / CT / B / (C) / CMU	Floor	Dark Gray	Vault	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 09	(DW) / P / W / M / V / CT / B / C / CMU	Ceiling	White	S. suite-Restroom 1	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 10	DW / P / W / M / V / (CT) / B / C / CMU	W. wall	↓	S. Suite Break Room	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 11	DW / P / W / M / V / CT / B / (C) / CMU	Floor	Gray	S. Suite-Restroom 2	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 12	DW / P / (W) / M / V / CT / B / C / CMU	W. cabinet	White	S. suite-Break Room	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 13	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling		Center Hallway by Facilities Supply	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 14	DW / P / W / (M) / V / CT / B / C / CMU	Ceiling beam	Red	↓	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 15	DW / P / W / (M) / V / CT / B / C / CMU	W. Electrical Box	Gray	Prep Room	0	POS / (NEG)	INTACT / (FAIR) / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE: (POS)=POSITIVE / (NEG)=NEGATIVE

XRF SERIAL NO. 10293

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave.
El Paso, TX. 79938
Phone (915) 838-1183
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave.
INSPECTOR: Fernando Ocam-
ROOM EQUIVILANT: Interior Paints
SIGNATURE:

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 16	DW / P / W / M / V (CT) / B / C / CMU	Floor	Dark Gray	Reception 2	0.04	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 17	(DW) P / W / M / V CT / B / C / CMU	Ceiling	White	Unisex Restroom	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 18	DW / P / (W) / M / V CT / B / C / CMU	W. Door	Barnished Brown	Vestibule	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 19	DW / P / (W) / M / V CT / B / C / CMU	W. Door Frame	↓	↓	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 20	DW / P / (W) / M / V CT / B / C / CMU	N. Baseboard	↓	Office 15	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 21	DW / P / (W) / M / V CT / B / C / CMU	N. window	↓	Office 12	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 22	DW / P / (W) / M / V CT / B / C / CMU	N. window Frame	↓	↓	0.04	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 23	DW / P / (W) / M / V CT / B / C / CMU	W. Cabinet	White	Reception 2	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 24	(DW) / P / W / M / V CT / B / C / CMU	E. wall	↓	Women's Restroom	0.02	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 25	DW / P / W / (M) / V CT / B / C / CMU	Stair Rail	↓	N. Suite-Back Area	0	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 26	DW / P / W / (M) / V CT / B / C / CMU	Door Latch	Brown	↓	0.01	POS / (NEG)	INTACT / FAIR / (POOR)
LBP - 27	DW / P / W / M / V (CT) / B / C / CMU	Floor	Dark Brown	Vestibule	0.09	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 28	DW / (P) / W / M / V CT / B / C / CMU	N. wall	Beige	S. Suite-E. Exit	0.01	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 29	DW / (P) / W / M / V CT / B / C / CMU	Ceiling	↓	↓	0.03	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 30	DW / P / W / (M) / V CT / B / C / CMU	W. electrical Box	Gray	N. Suite-Elec. Room	0	POS / (NEG)	INTACT / (FAIR) / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE: (POS)=POSITIVE / (NEG)=NEGATIVE

XRF SERIAL NO. 10293

L&P Scientific Consulting, LLC
"Quality professionals dedicated to a cleaner, safer environment"

13291 Montana Ave
El Paso, TX, 79938
Phone (915) 838-1188
Fax (915) 838-1166
lpscientific@yahoo.com

Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grant Ave.   INSPECTOR: Fernando Ocampo

ROOM EQUIVILANT: Interior Paints   SIGNATURE: [signature]

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 31	DW / P / W / (M) / V CT / B / C / CMU	N. Door	white	Back Area Door to Back Exit	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP - 32	DW / P / W / (M) / V CT / B / C / CMU	N. Door Frame	〃	〃	0	POS / (NEG)	INTACT / (FAIR) / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR

SUBSTRATE CODE: (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE (POS)=POSITIVE / (NEG)=NEGATIVE

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Lead-Based Paint Data Sheet

DATE OF INSPECTION: 8/16/23

PROPERTY/UNIT INFORMATION

ADDRESS/UNIT NO: 123 Grand Ave.

INSPECTOR: Fernando Ocaña

ROOM EQUIVILANT: Exterior Paints

SIGNATURE: [signature]

SAMPLE NO.	SUBSTRATE	COMPONENT	COLOR	TEST LOCATION	XRF RESULT	CLASSIFICATION	CONDITION
LBP - 33	DW / P / W / M / V CT / B / C / CMU [W]	Door	Barnished Brown	W. side	0.02	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 34	DW / P / W / M / V CT / B / C / CMU [W]	Door Frame	↓	↓	0.04	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 35	DW / P / W / M / V CT / B / C / CMU [M]	Window	Black	E. side	0	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 36	DW / P / W / M / V CT / B / C / CMU [M]	Window Frame	↓	↓	0	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 37	DW / P / W / M / V CT / B / C / CMU [W]	Porch Ceiling	Barnished Brown	W. side	0.02	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 38	DW / P / W / M / V CT / B / C / CMU [W]	Porch Beam	↓	↓	0.02	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 39	DW / P / W / M / V CT / B / C / CMU [P]	Wall	Brown	W. side	0.05	POS / NEG [NEG]	INTACT / FAIR / POOR [FAIR]
LBP - 40	DW / P / W / M / V CT / B / C / CMU [M]	Wrought iron Door	Black	E. side to N. suite Back Exit	0	POS / NEG [NEG]	INTACT / FAIR / POOR [POOR]
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR
LBP -	DW / P / W / M / V CT / B / C / CMU					POS / NEG	INTACT / FAIR / POOR

SUBSTRATE CODE. (DW)=DRYWALL / (P)=PLASTER / (W)=WOOD / (M)=METAL / (V)=VINYL / (CT)=CERAMIC TILE / (B)=BRICK / (C)=CONCRETE (CMU)=CONCRETE MASONRY UNIT /
CLASSIFICATION CODE (POS)=POSITIVE / (NEG)=NEGATIVE

XRF SERIAL NO. 10293

Calibration Check Test Results

Address / Unit No.: Annex Building – Georgia O'Keeffe Museum
123 Grant Ave.
Santa Fe, NM 87501

Device: Niton XLP 300 A

Date: 8/16/23 XRF Serial No. 10293

Contractor: L&P Scientific Consulting, LLC

Inspector Name: Fernando Ocana Signature:

SRM Used 1.0 mg/cm^2 Calibration Check Tolerance Used 0.2 mg/cm^2

First Calibration Check

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		
1.0	1.0	1.0	1.0	0

Second Calibration Check

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		
1.0	1.0	1.0	1.0	0

Third Calibration Check *(if required)*

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		

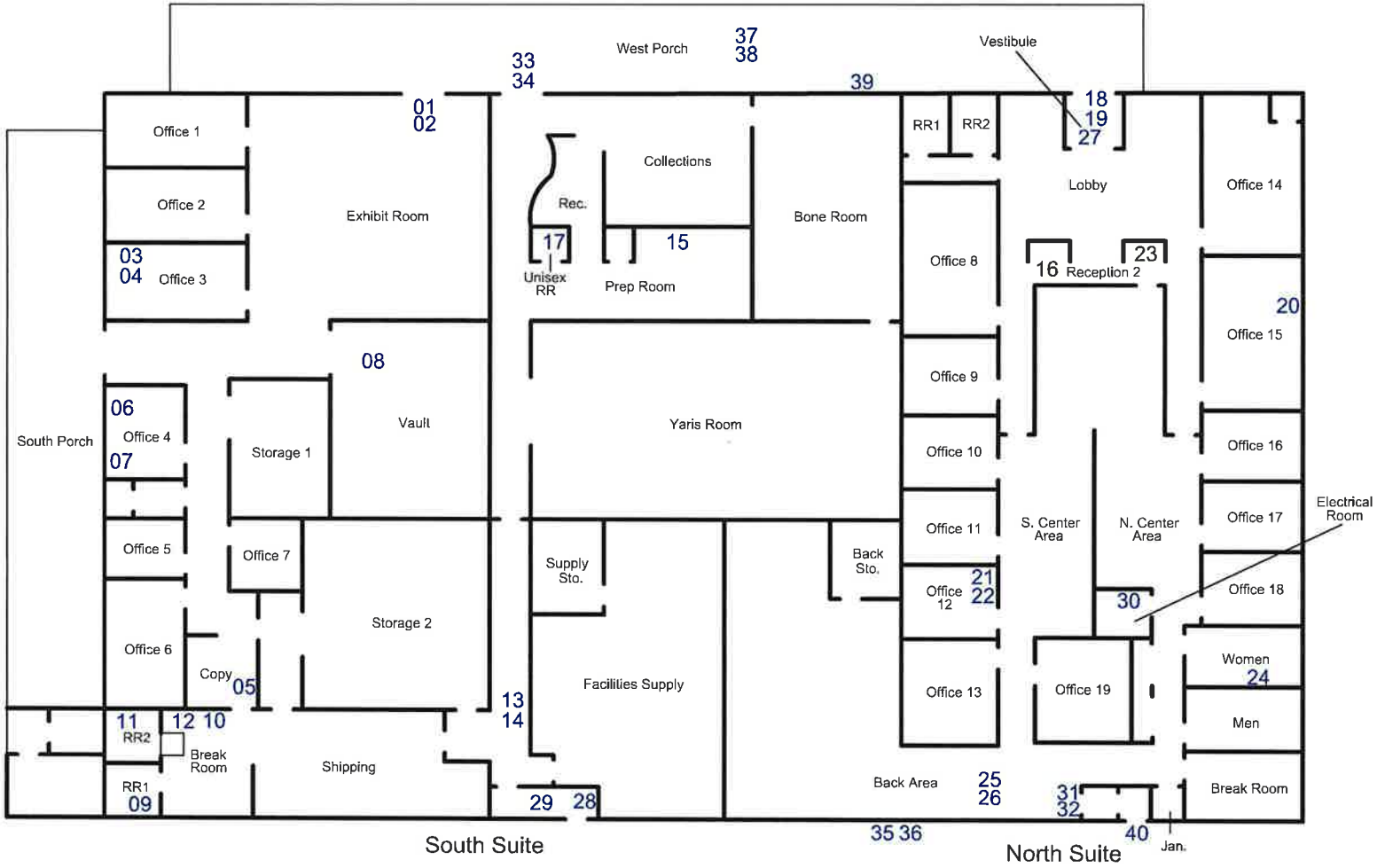
Fourth Calibration Check *(if required)*

NIST SRM			First Average	Difference Between First Average and NIST SRM*
First Reading	Second Reading	Third Reading		

***If the difference of the Calibration Check Average from the NIST SRM Film value is greater than the specified Calibration Check Tolerance for this device, consult the manufacturer's recommendations to bring the instrument back into control. Retest all testing combinations tested since the last successful Calibration Check test.**

Drawing

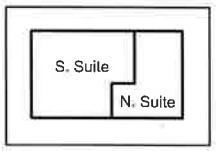
PROJECT LOCATION	DATE	DRAWN BY: RD
Education Annex - Georgia O'Keeffe Museum 123 Grant Ave., Santa Fe, NM 87501	August 29, 2023	

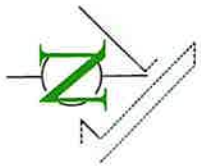


Lead Survey

Not To Scale

Lead Sample Locations	
LBP-XX	Sample Locations
LBP-XX	Positive Sample Locations





DESCRIPTION	
Lead	
SCALE: AS NOTED	SHEET: 1 OF 1

Certifications

SCAI TRAINING CENTER

headquarters: 1409 montana ave el paso, texas 79902-5617
(915) 533-8840 fax (915) 533-8843 e-mail: training@scaitc.com www.scaitc.com

BY THE ISSUANCE OF THIS CERTIFICATE TO

FERNANDO OCANA

Certificate Number	LIR9649041221

Let it be Known that said person has completed the requirements for lead certification within the purview of Vernon's Texas Civil Statutes, Article 9029, as amended, meets ANSI / ASSE Z490.1-2001, and which also meets the requirements of §295.204 (relating to Accreditation of Training Providers).

EPA/HUD LEAD INSPECTOR
REFRESHER COURSE

Furthermore, let it be known that said person passed the required course examination with a score of 70% or higher

Training ProgramProvider Accreditation Number 20448

Instructor: Monico A. Acuna

Principal Officer: Luis M. Acuna

Date Course Completed: 4/12/2021
Location: El Paso, Texas

Course Exam Date: 4/12/2021
Class ID No. LIR9649041221
Registered Sanitation No.: XXXXXXXXXXXXX

8 CEU As Approved by TDSHS for Sanitarian Continuing Education, §265.147; Professional Sanitarian Commercial CEU Provider Lic # 1064-090001

Attachment H

Public Involvement

ATTACHMENT H-1: GOKM Meeting List

- July 15, 2021: O'Keeffe Member Town Hall, Virtual via Zoom
- August 19, 2021: Business Neighbor Public Listening Session, Santa Fe
- August 31, 2021: Public Listening Session, First Presbyterian Church, Santa Fe
- September 7, 2021: Public Listening Session, Capital High School Theater, Santa Fe
- September 21, 2021: Public Listening Session, Santa Fe High School Theater, Santa Fe
- September 28, 2021: Public Listening Session, Santa Fe Community College (Jemez Room), Santa Fe
- October 5, 2021: Public Listening Session, Virtual via Zoom
- October 7, 2021: Educator Listening Session at Santa Fe High School Theater, Santa Fe
- October 28, 2023: Party in the Parking Lot, Santa Fe
- November 15, 2023: O'Keeffe Member Town Hall, Virtual via Zoom

Other public meetings:

- January 9, 2024: Historic District Design Review (Jump to 1:21:30 minute mark)
- November 4, 2021: City of Sante Fe Planning Commission Meeting (Jump to 27:50 minute mark)
- October 5, 2021: Virtual Public Listening Session
- September 14, 2021: Historic District Review Board Meeting (Jump to 2:50:04 minute mark)
- August 10, 2021: Historic District Review Board Meeting (Jump to 8:30 minute mark)
- July 15, 2021: Virtual Member Town Hall
- July 15, 2021: Historic District Review Board (Jump to 5:26:40 minute mark)
- June 10, 2021: City of Santa Fe Early Neighborhood Notification Meeting