

Phase I Environmental Site Assessment

Talinn West

North of North 56th Street and East Deer Valley Drive
Phoenix, Maricopa County, Arizona 85054

Prepared for
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List of Abbreviations

AAI Rule	40 CFR Part 312, Standards and Practices for All Appropriate Inquiries; Final Rule	pCi/L	picocuries per liter
		REC	recognized environmental condition
ACM	asbestos-containing material	SWPPP	stormwater pollution prevention plan
ADEQ	Arizona Department of Environmental Quality	U.S.	United States
amsl	above mean sea level	U.S.C.	United States Code
AOC	area of concern	USEPA	United States Environmental Protection Agency
APN	Assessor's Parcel Number	USFWS	United States Fish and Wildlife Service
ASLD	Arizona State Land Department	USGS	United States Geological Survey
AST	aboveground storage tank	UST	underground storage tank
ASTM	American Society for Testing and Materials	VEC	vapor encroachment condition
ASTM E 1527-13	ASTM Standard Practice E 1527-13	VES	vapor encroachment screening
AUL	Activity and Use Limitation		
BC	Brown and Caldwell		
bgs	below ground surface		
BMP	best management practice		
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act		
COC	chemical of concern		
CREC	controlled recognized environmental condition		
EDR	Environmental Data Resources, Inc.		
EP	Environmental Professional		
EPA	Environmental Protection Agency		
ESA	Environmental Site Assessment		
FEMA	Federal Emergency Management Agency		
GIS	geographic information system		
HREC	historical recognized environmental condition		
HVAC	heating, ventilation, and air conditioning		
LBP	lead-based paint		
LNAPL	light non-aqueous phase liquid		
msd	minimum search distance		
NWI	National Wetlands Inventory		
OSHA	Occupational Safety and Health Administration		
PCB	polychlorinated biphenyl		



Executive Summary

Brown and Caldwell (BC) performed a Phase I Environmental Site Assessment (ESA) for the property located north of North 56th Street and East Deer Valley Drive, Phoenix, Maricopa County, Arizona 85054 (target property). This Phase I ESA is intended to serve Arizona State Land Department (ASLD) as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for recognized environmental conditions (RECs) in connection with the target property. The site reconnaissance was conducted by Jessica Albach of BC on August 6, 2022.

Property Description

The target property consists of approximately 42 acres of undeveloped desert land. The target property is located in the vicinity of latitude 33.684294 degrees north and longitude 111.957200 degrees west in Phoenix, Maricopa County, Arizona 85054. Access to the target property is from the east via North 56th Street. See Figures 1 and 2 for a Vicinity Map and Target Property Map, respectively.

Site and Area Reconnaissance

BC understands that ASLD owns approximately 42 acres of undeveloped desert land. At the time of the site reconnaissance, the property consisted of undeveloped desert land. The surface slopes gently toward the southwest. Unimproved dirt roadways and a concrete roadway without curbs and gutters were present onsite. Debris was observed on the northeastern, east central, and western portions of the property and consisted of a sediment pile, minor concrete, and wooden shed debris. No utilities were observed on the target property.

Multiple natural drainageways were observed throughout the target property, generally oriented north to south and northeast to southwest.

A dirt stormwater drainageway was observed along the northern boundary of the target property, generally oriented northeast to southwest.

Portions of the irrigation system associated with the north adjacent resort golf course, including hosing and sprinkler heads, were observed on the north-central and northeastern portions of the target property.

The target property is bordered to the north by a resort golf course, beyond which is a residential development. The target property is bordered to the northeast by a dirt roadway and East Ranger Drive, beyond which is undeveloped desert land, North 56th Street, and a residential development. The target property is bordered to the east by North 56th Street, beyond which a residential development and North 59th Place. The target property is bordered to the southeast by North 56th Street, beyond which is residential construction. The target property is bordered to the south by North 56th Street, beyond which is a residential development. The target property is bordered to the southwest by a resort golf course, beyond which a residential development. The target property is bordered to the west by a commercial property/resort.

BC's site and area reconnaissance indicated no RECs to the target property.

Physical Setting

According to the United States Geological Survey (USGS) topographic map Currys Corner, Arizona dated 2018, the elevation of the target property is approximately 1,663 feet above mean sea level (amsl). The target property slopes gently toward the southwest with a general topographic gradient to the southwest.

The reported depth to groundwater for wells located within 1.0 mile of the target property varied from 461 to 530 feet below ground surface (bgs) based on information obtained from the Environmental Data Resources, Inc. (EDR) Report. The shallow hydrogeologic gradient flow is assumed to mimic the local topographic gradient in the vicinity of the target property, which is generally to the southwest. It should be noted that hydraulic gradient may vary with depth, regional groundwater flow direction, and be influenced by seasonal changes, geology, or local groundwater pumping patterns.

Records Review

BC identified no RECs resulting from the review of environmental regulatory or historical records reviews.

Interviews

BC conducted an interview with the owner site contact, Mr. Ray Moore of the ASLD, about the current and past uses of the target property during this Phase I ESA. Mr. Moore stated that he has been familiar with the property since 2007. To the best of his knowledge, there has never been any aboveground storage tanks (ASTs), underground storage tanks (USTs), septic systems, water wells, structures, cemeteries or gravesites, pipelines, or agricultural and/or chemical use at the target property. Mr. Moore was unaware of any previous environmental site investigations or assessments at the target property.

The results of these interviews identified no RECs or environmental risks regarding current or past operations at the target property.

Findings, Opinions, and Conclusions

BC performed this assessment in general conformance with the scope and limitations of the ASTM International (ASTM) Standard E 1527-13 for the target property identified above to identify any RECs in connection with the target property, including the presence, or likely presence, of any hazardous substances or petroleum products on the target property under conditions that indicate an existing release, or past release, or a material threat of release into the ground, groundwater, surface water, or structures on the target property. This assessment included an evaluation to the extent practicable of the past and present land uses at the target property and on adjacent properties.

The results of this assessment have identified no evidence of on-site or off-site RECs. The following housekeeping and/or developmental conditions were identified:

- Debris was observed on the northeastern, east central, and western portions of the property and consisted of a sediment pile, minor concrete, and wooden shed debris. All debris appeared to be surficial in nature.

The debris should be collected and disposed from the target property in accordance with state and local regulations. If indications of any potential regulated materials or releases are observed during removal, BC should be contacted to determine if additional assessment is warranted.

No further assessment of the target property is recommended at this time.

BC requests notification for further discussion or evaluation of any new conditions discovered during the development of the target property.

This executive summary is presented for convenience only. While the executive summary is an integral part of the report, it should not be used in lieu of reading the entire report, including the appendices.

Section 1

Introduction

1.1 Purpose

Brown and Caldwell (BC) performed a Phase I Environmental Site Assessment (ESA) for the property located on the north of North 56th Street and East Deer Valley Drive, Phoenix, Maricopa County, Arizona 85054 (target property). The target property consists of approximately 42 acres of irregularly shaped undeveloped desert land. The specific reason for this Phase I ESA was to evaluate environmental conditions at the target property. This Phase I ESA is intended to serve as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for recognized environmental conditions (RECs) in connection with the target property. This Phase I ESA report is intended to satisfy “all appropriate inquiry” into the previous ownership and uses of the target property as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at Title 42 of the United States Code (U.S.C.) §9601(35)(B) and in accordance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries; Final Rule (AAI Rule).

1.2 Scope of Services

Based on the requirements presented in the American Society for Testing and Materials (ASTM) Standard Practice E 1527-13 (ASTM E 1527-13), BC performed the following tasks as part of this Phase I ESA. The scope of services included the following considerations to provide them with a baseline evaluation of the environmental conditions at the target property.

- **Task 1 – Records Review.** Obtained and reviewed records that identified potential RECs, historical RECs (HRECs), controlled RECs (CRECs), or *de minimis* conditions in connection with the target property. The minimum search distance (msd) followed ASTM E 1527-13 recommendations for standard and additional environmental record sources with the exception that State and municipal solid waste facilities will be extended to 1 mile. This may include a review of the target property’s deed of record to identify environmental liens that may have been recorded for the target property. A 50-year Chain-of-Title report was reviewed as applicable, if provided.
- **Task 2 – Site Reconnaissance.** Conducted a site reconnaissance to determine the potential that a REC was present at the target property. Also, observed neighboring properties, to the degree possible, for land uses or other aspects that indicated potential RECs that could adversely affect the target property.
- **Task 3 – Interviews.** Interviewed individuals with knowledge of the target property to obtain information regarding the potential for RECs, HRECs, CRECs, or *de minimis* conditions.
- **Task 4 – Evaluation and Report Preparation.** BC prepared this report detailing the findings associated with each of the above-listed tasks.

1.3 Limiting Conditions

This Phase I ESA report has been prepared for the exclusive use of the Arizona State Land Department (ASLD) and their assigns, in accordance with the standards of the environmental consulting industry at the time the services were performed. This work has been performed for the sole purpose of

assisting in the evaluation of RECs associated with the target property. This Phase I ESA report is governed by the specific scope of work and is not intended to be relied upon by any other party. The findings presented herein are based upon observations of target property conditions as of the date the assessment was performed and a review of reasonably ascertainable standard records sources. The findings and conclusions presented herein should not be assumed to apply to conditions or operating practices on this property occurring subsequent to BC's actual site reconnaissance.

The findings of the Phase I ESA, as represented within this report, must be viewed in recognition of certain limiting conditions. The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry, consistent with good commercial practice, in general accordance with ASTM E 1527-13. In the course of this assessment, BC has relied on information provided by outside parties, such as regulatory agencies and interview sources. BC has made no independent investigation as to the validity, completeness, or accuracy of such information provided by third-party sources. For the purposes of this assessment, such third-party information is assumed to be accurate unless contradictory evidence is noted, and BC does not express or imply any warranty regarding information provided by third-party sources. This Phase I ESA report makes no representation that environmental contamination does not exist at this target property beyond that described in this report.

In the following paragraphs italicized terms refer to specific definitions set forth in Section 3.2 of the ASTM Standard. The purpose of this Phase I ESA is to identify, to the extent feasible, pursuant to the scope and limitation of the guidelines set forth in the ASTM E 1527-13, RECs, HRECs, CRECs, or *de minimis* conditions in connection with the target property.

The term REC is defined by ASTM E 1527-13 as:

The presence or likely presence of any *hazardous substances or petroleum products* in, on, or at the *property*: (1) due to release to the environment; (2) under conditions indicative of a *release to the environment*; or (3) under conditions that pose a *material threat* of a future *release to the environment*. *De minimis conditions* are not *recognized environmental conditions*.

The term HREC is defined by ASTM E 1527-13 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 use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restriction, *activity and use limitations, institutional control, 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 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*.

The term CREC is defined by ASTM E 1527-13 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 substance* 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.

The term *de minimis condition* is defined by ASTM E 1527-13 as:

A condition that generally does not present a threat to human health or the *environment* and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not *recognized environmental conditions* or *controlled recognized environmental conditions*.

The term *reasonably ascertainable* is defined by ASTM E 1527-13 as:

Information that is *publicly available* to anyone upon request, obtainable from its source within reasonable time and cost constraints, and *practically reviewable*.

The term *practically reviewable* is defined by ASTM E 1527-13 as:

Information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the *property* without the need for extraordinary analysis of irrelevant data. The form of the information shall be such that the user can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the property or a geographic area in which the property is located are not generally *practically reviewable*.

Reasonable time and cost means that the information will be provided by the source within 20 calendar days of receiving a written, telephone, or in-person request at no more than a nominal cost intended to cover the source's cost of retrieving and duplicating the information.

1.4 Exceptions or Deviations from Standard

Exceptions or deviations for this assessment include the following:

- An Environmental LienSearch was not conducted as part of this assessment. BC concludes that information obtained through an Environmental LienSearch would not materially alter the conclusions or recommendations of this report.
- The msd for State and municipal solid waste facilities in Section 4.4 was extended to 1 mile.

Section 2

User Provided Information

The 'User' is the party seeking to use ASTM E 1527-13 to complete an ESA of the target property. The User has specific obligations for completing a successful application of the Practice.

BC obtained a completed ASTM User Questionnaire from ASLD. A copy of the completed form is included in Appendix F. The following summarizes the information provided to BC regarding the target property.

2.1 Reason for Performing Phase I ESA

ASLD informed BC that the specific reason for this Phase I ESA was to evaluate the potential for RECs at the target property. This Phase I ESA is, therefore, intended to serve as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for RECs in connection with the target property. This report will provide ASLD an "all appropriate inquiry" into the previous ownership and uses of the target property defined under the CERCLA Title 42 of the U.S.C. §9601(35)(B), as clarified by the AAI Rule.

2.2 Commonly Known or Reasonably Ascertainable Information

Mr. Ray Moore of ASLD completed the User Questionnaire and indicated that the target property has been vacant and undeveloped. He is unaware of any other commonly known or reasonably ascertainable information regarding the target property.

2.3 Property Value Comparison to Purchase Price

Mr. Moore reported to BC in the User Questionnaire that the anticipated purchase or lease price of the target property has not yet been determined. The market price of the target property will be established once it has been auctioned to the public by the ASLD. Therefore, this information appears to indicate that the price will not be lowered as a result of potential environmental concerns and/or contamination at the target property.

2.4 Specialized Knowledge

In the User Questionnaire, Mr. Moore indicated that he is unaware of any specialized knowledge regarding environmental conditions at the target property.

2.5 Title Records

BC was not requested to obtain title records. The records will be provided to BC, if needed.

2.6 Environmental Liens or Activity and Use Limitations

A search was not conducted for environmental liens as required under ASTM E 1527-13. In the User Questionnaire, Mr. Moore indicated that he was unaware of any environmental liens or activity and use limitations (AULs) at the target property.

2.7 Owner, Property Manager, or Occupant Information

ASLD is currently selling the target property. The contact information for the target property is as follows:

- Mr. Ray Moore
ASLD
Phone: (602) 364-1126
Email: rmoore@azland.gov

Section 3

Site Physical Setting Overview

3.1 Location

The target property is located north of North 56th Street and East Deer Valley Drive, Phoenix, Maricopa County, Arizona 85054. See Figure 1 for a Vicinity Map.

Target Property Address: The property is not addressed. Access to the target property is from the east via North 56th Street.

Property Uses in Surrounding Area: The area surrounding the target property contains residential and commercial property in the immediate vicinity.

3.2 Current Ownership

The current owner of the target property is the ASLD. According to the Maricopa County Tax Assessor's office, the property is listed as Assessor's Parcel Numbers (APNs) 212-32-076, 212-32-089, 212-32-091, and 212-32-096A.

3.3 Physical Characteristics

3.3.1 Physical Features and Topography

Approximate Size of Target Property: 42 acres

Approximate Shape of Target Property: Irregular

Target Property Topography: According to the United States Geological Survey (USGS) topographic map Currys Corner, Arizona dated 2018, the target property slopes gently toward the southwest with a general topographic gradient to the southwest. Please refer to Figure 4, Topographic Map.

Regional Surface Topography: According to the Currys Corner, Arizona map, regional surface topography appears to be toward the southwest.

Approximate Elevation of Target Property: According to the Environmental Data Resources, Inc. (EDR) Report, surface elevation for the target property is approximately 1,663 feet above mean sea level (amsl).

Surface Drainage on the Target Property: The general flow direction of surface stormwater across the target property appears to be toward the southwest.

3.3.2 Geology and Hydrology

General Regional Geology: According to the EDR Report, the target property appeared to be in the Stratified Sequence Category of the Cenozoic Era, Quaternary System, and Quaternary Series.

Soil Conditions: According to the Soil Conservation Service information provided in the EDR Report, the soil component at the target property is Gilman. The soil surface texture is loam and noted to be a well-drained class of soils. Gilman soils have a reported high corrosion potential to uncoated steel and the hydric status is unknown. From 0 to 5 inches, Gilman soils are loam. From 5 to 42 inches, the soils are very fine sandy loam. And from 42 to 59 inches, the soils are fine sandy loam.

Approximate Depth and Flow Direction of Groundwater: The reported depth to groundwater for wells located within 1.0 mile of the target property varied from 461 to 530 feet below ground surface (bgs) based on information obtained from the EDR Report. The shallow hydrogeologic gradient flow is assumed to mimic the local topographic gradient in the vicinity of the target property, which is generally to the southwest. It should be noted that hydraulic gradient may vary with depth, regional groundwater flow direction, and be influenced by seasonal changes, geology, or local groundwater pumping patterns.

Regional Groundwater Conditions: Based on review of hydrogeologic data provided in the EDR Report, there are no federal water wells, no federal public water supply systems, and 10 state water wells located within 1.0 mile of the target property. No water wells appear to be located on the target property

Section 4

Records Review

4.1 Historical Use Information

BC reviewed reasonably ascertainable standard historical sources in an attempt to develop a history of the previous uses or occupancies of the target property and surrounding area. The objective was to identify those uses or occupancies that were likely to have led to RECs, CRECs, or HRECs in connection with the target property. BC attempted to identify uses or occupancies of the target property dating from the present back to when the property was first developed, or dating to at least 1940. These sources and findings are summarized below.

City directories have been published for cities and towns across the United States since the 1700s, and provide a tool for the location of individuals and businesses in three sections: a business index, a list of owners and/or resident names and addresses, and a street index.

BC's review of historical city directories (1920, 1925, 1930, 1935, 1940, 1945, 1947, 1950, 1952, 1955, 1960, 1964, 1965, 1968, 1970, 1977, 1979, 1982, 1985, 1987, 1993, 1994, 1999, 2001, 2004, 2006, 2009, 2014, and 2017) provided by EDR identified no RECs to the target property. The target property was not listed in any of the historical city directories searched by EDR. Roadways searched in the directories near the target property had residential, commercial, and institutional listings. Copies of the city directories are included in Appendix D.

BC's review of historical aerial photographs (1949, 1954, 1957, 1962, 1964, 1976, 1979, 1980, 1986, 1997, 2007, 2010, 2013, and 2017) provided by EDR identified no RECs to the target property. The target property boundary appears to have been plotted incorrectly on the 1949 aerial photograph; however, the target property likely contains undeveloped desert land. In the 1954 aerial photograph, the target property has been improved with a dirt roadway, oriented east to west, through the central portion of the property. In the 1962 aerial photograph, the target property is shown with a dirt roadway removed. In the 1986 aerial photograph, the target property is improved with a roadway, oriented north to south, on the western portion of the property. In the 1997 aerial photograph, the target property appears to be improved with a small structure that is situated on the western portion of the target property, northeast adjacent to the onsite roadway; the target property is also improved with dirt roadways throughout the property. In the 2007 aerial photograph, the target property is improved with a dirt stormwater drainageway along the northern boundary of the property. In the 2010 aerial photograph, the target property is improved with an additional dirt roadway, oriented southeast to northwest, on the southern portion of the property.

The target property boundary appears to have been plotted incorrectly on the 1949 aerial photograph; however, the areas to the north, east, south, and west of the target property likely contain undeveloped desert land. In the 1954 aerial photograph, the area north of the target property is no longer shown with a dirt roadway; the area east of the target property is shown with dirt roadways; and the area west of the target property is shown with a dirt roadway. In the 1962 aerial photograph, the areas to the east and west of the target property, are shown with a dirt roadway removed. In the 1986 aerial photograph, the areas north and south of the target property are improved with a roadway. In the 1997 aerial photograph, the area north of the target property has been developed for residential use and is improved with a resort golf course; the area east of the target property is improved with an additional dirt roadway, and the area south of the target property is improved with a dirt roadway.

In the 2007 aerial photograph, the area north of the target property has been further developed and the resort golf course has been further expanded towards the target property; the dirt roadway east of the target property has been further developed, and the area is shown with the initial development of a residential subdivision; the area southwest of the target property has been developed for residential use; and the area west of the target property has been developed with the resort associated with the golf course. In the 2010 aerial photograph, the area southwest of the target property has been further developed for residential use. In the 2013 aerial photograph, the area south of the target property has been developed for residential use. In the 2017 aerial photograph, the area south of the target property has been further developed for residential use. BC identified no previous use of the adjoining properties that would represent a REC to the target property during the historical aerial photograph review.

BC's review of historical topographic maps (1904, 1906, 1930, 1939, 1964, 1971, 1973, 1982, 2014, and 2018) indicated that the target property historically contained undeveloped land and streams, generally oriented north to south, on the eastern and western portions of the property. Properties in the general vicinity of the target property included residential and commercial development. BC identified no previous use of the target property and/or adjoining properties that would represent an on-site or off-site REC during the historical topographic map review.

According to EDR, Sanborn maps are not available for the target property.

BC's review of readily available regulatory information provided by EDR indicated no on-site or off-site RECs to the target property. Results of the search of the various applicable government agencies by EDR resulted in no facilities within the minimum search distance (msd) of the target property. No indications of vapor intrusion from nearby facilities were identified.

BC found no indications of RECs resulting from the review of environmental regulatory or historical records reviews.

Historical research documentation is provided in Appendix D.

4.2 Vapor Encroachment Screening

BC performed a Tier 1 Vapor Encroachment Screening (VES) for the target property in accordance with ASTM Standard Guide E 2600-15. This VES was completed in conjunction with ASTM E 1527-13 for Phase I ESAs. The purpose of the VES was to identify vapor encroachment conditions (VECs) for the target property.

The term VEC is defined by ASTM (2015) as:

The presence or likely presence of contaminant vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property as identified by the Tier 1 or Tier 2 procedures in ASTM Standard Guide E 2600-15.

A Tier 1 VES identifies any known or suspect contaminated facilities with volatile or semi-volatile hazardous substances or petroleum products, referred to as chemicals of concern (COCs), within an area of concern (AOC). The AOC for non-petroleum hydrocarbon COCs is a 1,760-foot (1/3-mile) radius from the contaminated facility to the boundary of the target property. For facilities with petroleum hydrocarbon COCs, the AOC is a 528-foot (1/10-mile) radius. The AOC can be reduced if groundwater flow direction is known or inferred using approximate msd of a COC. A critical distance, the estimated linear distance in any direction in which COC vapors from contaminated groundwater or soil might migrate in the vadose zone to the target property, is 100 feet for non-petroleum hydrocarbon COCs

and light non-aqueous phase liquid (LNAPL) petroleum hydrocarbon COCs. The critical distance for dissolved-phase petroleum hydrocarbons is 30 feet.

According to the EDR VES Report, no facilities were identified by EDR within the AOC for the target property. Therefore, no facilities were identified as potential concerns to the target property. The EDR VES Report is provided in Appendix E.

4.3 Previous Investigations and Assessments

No previous environmental investigations or assessments were made available to BC for review.

4.4 Standard Environmental Regulatory Record Sources

The purpose of the records review is to obtain and review reasonably ascertainable records that will help identify RECs, CRECs, or HRECs in connection with the target property. The EDR Report with a complete listing is included in Appendix C. Results of the search of the various applicable government agencies by EDR resulted in no facilities within the msd of the target property.

4.5 Orphan Summary

The orphan or unmapped site list consists of sites currently listed in Federal or State databases that have inadequate address information. However, if street addresses are available, the site locations are checked against the known location of the target property to determine their relative location to the minimum ASTM search distance from the target property. The EDR Orphan Summary identified a total of one (1) orphan site with a poor or unconfirmed address, or business listing that may be in proximity to the target property. The target property was not identified on the orphan sites summary list provided by EDR. The orphan site was not observed near the target property during the site reconnaissance.

4.6 Additional Environmental Record Sources

Additional sources of records that were reviewed for this assessment are briefly discussed below.

4.6.1 Local Fire Department

BC contacted the Phoenix Fire Department regarding hazardous materials incidents, fires, or hazardous materials storage permits at the target property. According to the Phoenix Fire Department, inquiries of this type require a fee. BC determined that this information is not reasonably ascertainable and does not preclude BC's ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

4.6.2 Department of Health/Environmental Division

BC researched all available Arizona Department of Environmental Quality (ADEQ) databases and interactive geographic information system (GIS) maps regarding incidents of environmental concern at the target property, to include drywells, USTs/LUSTs, waste programs, hazardous waste accounts and manifests, remediation projects, etc. BC found no records of environmental concern for the target property or nearby properties.

4.6.3 Building Permit/Inspection Department

No structures were present on the target property; therefore, no building permit records were requested.

Section 5

Interviews

The purpose of interviews is to obtain information indicating RECs, CRECs, or HRECs in connection with the target property, as described in ASTM E 1527-13. Selected individuals who were knowledgeable about current and past site operations were interviewed. The following is a brief summary of the information obtained about the target property.

5.1 Interviews with Owners, Occupants, and Others Knowledgeable of the Target Property

BC conducted an interview with the owner site contact, Mr. Ray Moore of the ASLD, about the current and past uses of the target property during this Phase I ESA. Mr. Moore stated that he has been familiar with the property since 2007. To the best of his knowledge, there has never been any aboveground storage tanks (ASTs), underground storage tanks (USTs), septic systems, water wells, structures, cemeteries or gravesites, pipelines, or agricultural and/or chemical use at the target property. Mr. Moore was unaware of any previous environmental site investigations or assessments at the target property.

The results of these interviews identified no RECs or environmental risks regarding current or past operations at the target property.

Section 6

Site and Area Reconnaissance

6.1 Methodology and Limiting Conditions

The site and area reconnaissance were performed to identify obvious visual indications of present or past activities that have or could have contaminated the target property. The site reconnaissance was conducted on foot, unless otherwise noted, by Jessica Albach of BC on August 6, 2022. Maps, which illustrate the general location and configuration of the target property, are presented as Figures 1 and 2, respectively. Site and area reconnaissance photographs are provided in Appendix B.

6.2 Site Reconnaissance

BC understands that ASLD owns approximately 42 acres of undeveloped desert land. At the time of the site reconnaissance, the property consisted of undeveloped desert land. The surface slopes gently toward the southwest. Unimproved dirt roadways and a concrete roadway without curbs and gutters were present onsite. No utilities were observed on the target property.

The following table summarizes conditions observed on the target property. A discussion describing the significance of each observed condition listed and results of its evaluation with respect to the target property is presented below.

Underground Storage Tanks	No
Aboveground Storage Tanks	No
Hazardous Materials and Wastes	No
Solid Waste	Yes
Potential Polychlorinated Biphenyls Containing Equipment	No
Water Wells	No
Wastewater Sewage Disposal/Septic	No
Odors	No
Pits, Ponds, Lagoons, and Other Surface Waters	Yes
HVAC	No
Staining and Corrosion	No
Drains, Sumps, and Dry Wells	No
Stained Soils or Pavements	No
Stressed Vegetation	No
Oil and Gas Wells / Mine Shafts	No
Structures	No

BC's site reconnaissance revealed evidence of solid waste on the northeastern, east central, and western portions of the target property in the form of debris/trash. Items observed included a sediment pile, minor concrete, and wooden shed debris.

Multiple natural drainageways were observed throughout the target property, generally oriented north to south and northeast to southwest.

A dirt stormwater drainageway was observed along the northern boundary of the target property, generally oriented northeast to southwest.

No other evidence of pits, ponds, lagoons, or other surface waters were observed on the target property during BC's site reconnaissance.

Portions of the irrigation system associated with the north adjacent resort golf course, including hosing and sprinkler heads, were observed on the north-central and northeastern portions of the target property.

6.3 Area Reconnaissance

An area reconnaissance was performed to identify obvious visual indications of present or past activities that have or could have contaminated the target property. The area reconnaissance was conducted by automobile, and/or on foot, unless otherwise noted. The findings of the area reconnaissance are presented according to the geographic relationship to the target property.

6.3.1 North

The target property is bordered to the north by a resort golf course, beyond which is a residential development.

6.3.2 Northeast

The target property is bordered to the northeast by a dirt roadway and East Ranger Drive, beyond which is undeveloped desert land, North 56th Street, and a residential development.

6.3.3 East

The target property is bordered to the east by North 56th Street, beyond which a residential development and North 59th Place.

6.3.4 Southeast

The target property is bordered to the southeast by North 56th Street, beyond which is residential construction.

6.3.5 South

The target property is bordered to the south by North 56th Street, beyond which is a residential development.

6.3.6 Southwest

The target property is bordered to the southwest by a resort golf course, beyond which a residential development.

6.3.7 West

The target property is bordered to the west by a commercial property/resort.

The following commercial property was located within 500 feet to the west of the target property.

- JW Marriott Phoenix Desert Ridge Resort Hotel & Spa, 5350 East Marriott Drive, Phoenix, Arizona 85054, hotel resort

Section 7

Findings, Opinions, and Conclusions

7.1 Summary of Findings

BC performed this assessment in general conformance with the scope and limitations of the ASTM Standard E 1527-13 to identify any RECs in connection with the target property, including the presence, or likely presence, of any hazardous substances or petroleum products on the target property under conditions that indicate an existing release, or past release, or a material threat of release into the ground, groundwater, surface water, or structures on the target property. This assessment included an evaluation to the extent practicable of the past and present land uses at the target property and on adjacent properties.

7.2 Data Failures and Gaps

Through the course of this assessment, BC may have encountered data failures or data gaps. These failures or gaps, if any, are discussed below. The following provides the opinion of the Environmental Professional (EP) as to the significance of the data gaps in terms of defining RECs at the target property. Data failures may or may not be significant data gaps, and the discussion also provides information pertaining to whether the data failures resulted in significant data gaps.

7.2.1 Data Failures

Data failure is a failure to achieve the historical (property use) research objectives specified in the ASTM Standard Practice even after reviewing the eight standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap. No data failure was encountered.

7.2.2 Data Gaps

A data gap is a lack of, or inability to obtain, information required by the ASTM Standard Practice, despite good faith efforts by the EP to gather such information. This could include any component of the Practice, e.g., standard environmental records, interviews, or a complete reconnaissance. A data gap by itself is not inherently significant, but if other information and/or the EP's experience raises reasonable concerns about the gap, it may be judged to be significant. Data gaps for this assessment include the following:

- Time gaps of more than five years were noted in available historical information. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.
- A search was not conducted for environmental liens as required under ASTM E 1527-13. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

- BC contacted the Phoenix Fire Department regarding hazardous materials incidents, fires, or hazardous materials storage permits at the target property. According to the Phoenix Fire Department, inquiries of this type require a fee. BC determined that this information is not reasonably ascertainable and does not preclude BC's ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

In summary, BC concludes that none of the above-identified data gaps are likely to alter the conclusions or concentrations of this report.

7.3 Conclusions and Recommendations

The results of this assessment have identified no evidence of on-site or off-site RECs. The following housekeeping and/or developmental conditions were identified:

- Debris was observed on the northeastern, east central, and western portions of the property and consisted of a sediment pile, minor concrete, and wooden shed debris. All debris appeared to be surficial in nature.

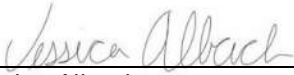
The debris should be collected and disposed from the target property in accordance with state and local regulations. If indications of any potential regulated materials or releases are observed during removal, BC should be contacted to determine if additional assessment is warranted.

No further assessment of the target property is recommended at this time.


BC requests notification for further discussion or evaluation of any new conditions discovered during the development of the target property.

7.4 Environmental Professional's Statement and Signature

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.



Jessica Albach
Staff, Environmental Scientist



Kris Stanley
Senior Professional, Environmental Scientist



Section 8

Environmental Professionals' Qualifications

BC personnel involved with this project are listed below along with pertinent information regarding their qualifications and specialized knowledge. Additional details regarding each listed professional have been included in Appendix G.

BC EPs conducting the assessment include: Jessica Albach and Kris Stanley.

Section 9

References

40 CFR 312, Standards and Practices for All Appropriate Inquiries; Final Rule, November 2005 (AAI Rule).

American Society for Testing and Materials (ASTM), November 2013. *Standard Practice E1527 13 for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

Environmental Data Resources, Inc., *The EDR Radius Map Report with Geocheck.* Inquiry number 7073060.2s. August 1, 2022.

Environmental Data Resources, Inc., *The EDR Aerial Photo Decade Package.* Inquiry number 7073060.8. August 1, 2022.

Environmental Data Resources, Inc., *EDR Historical Topo Map Report.* Inquiry number 7073060.4. August 1, 2022.

Environmental Data Resources, Inc., *The EDR-City Directory Image Report.* Inquiry number 7073060.5. August 9, 2022.

Environmental Data Resources, Inc., *Certified Sanborn Map Report.* Inquiry number 7073060.3. August 1, 2022.

Environmental Data Resources, Inc., *EDR Vapor Encroachment Screen.* Inquiry number 7073060.2s. August 8, 2022.

Federal Emergency Management Agency, <http://msc.fema.gov/>

Maricopa County Property Appraiser, <https://www.mcassessor.maricopa.gov/>

National Wetlands Inventory Maps, <http://www.fws.gov/wetlands/Data/Mapper.html>

U.S. Fish and Wildlife, Threatened and Endangered Species, http://ecos.fws.gov/tess_public/



Appendix A: Figures



Boundaries are approximate. Data provided by Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS

Vicinity Map

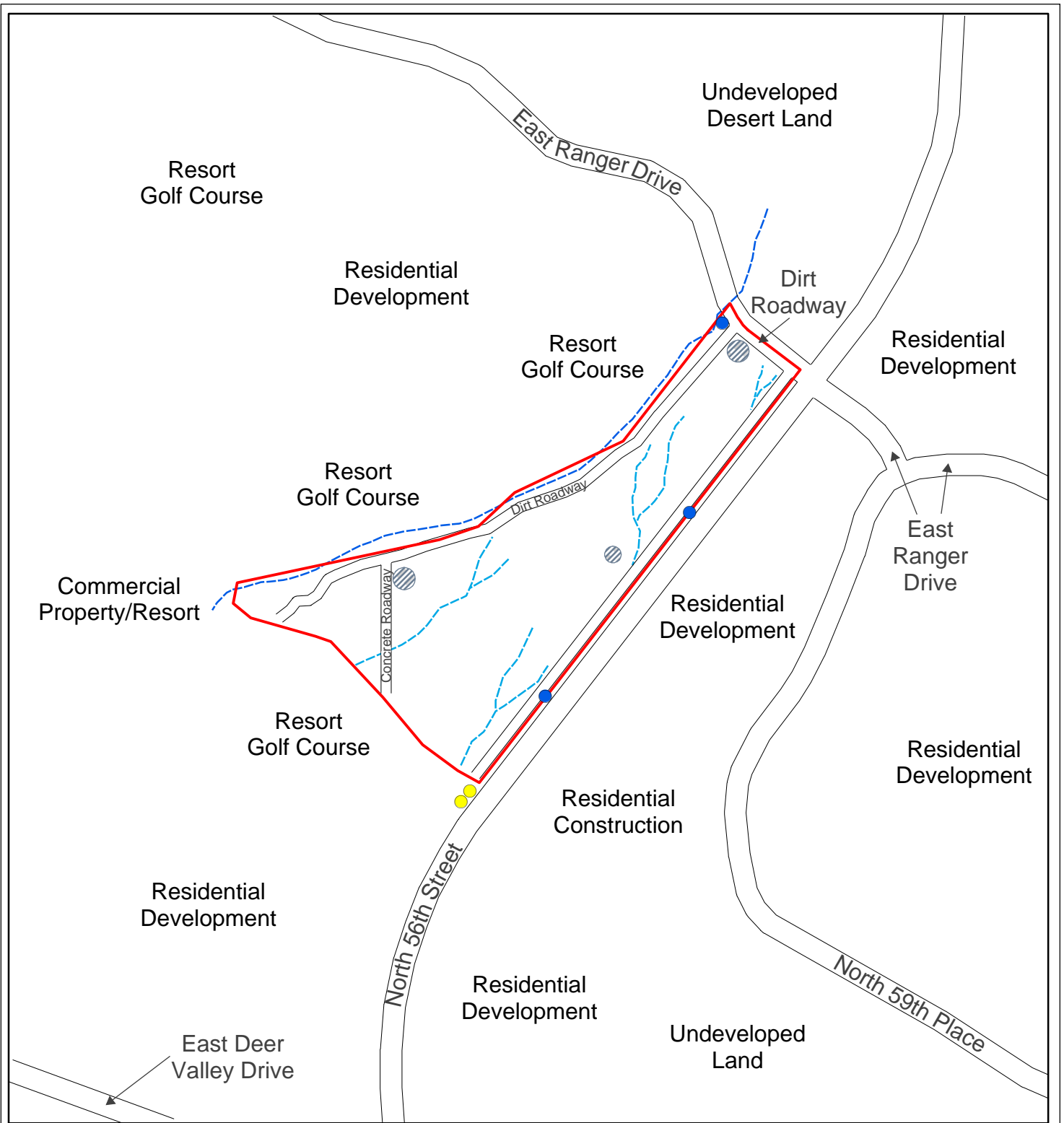


FIGURE 1

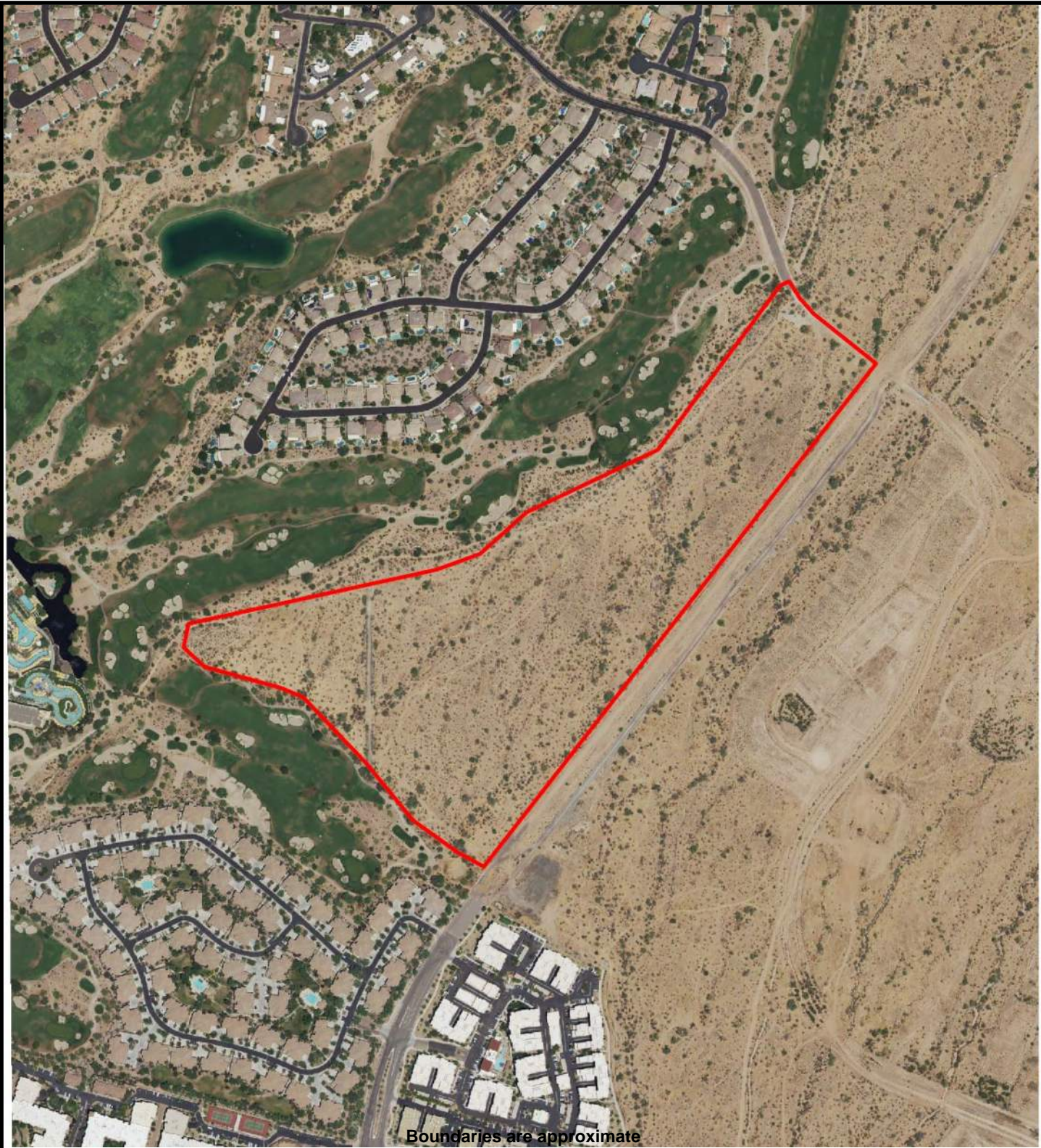
Talinn West
Phoenix, Arizona

Brown AND Caldwell

D·R·HORTON DHI
NYSE
America's Builder



	<p>Legend</p> <ul style="list-style-type: none"> Target Property Boundary Debris --- Major Natural Drainageway --- Stormwater Drainageway ● Stormwater Drain ● Buried Gasline Marker 	<p>FIGURE 2 Target Property Map</p> <p>Talinn West</p> <p>North of North 56th Street and East Deer Valley Drive Phoenix, Arizona Maricopa County</p>	<p>Brown AND Caldwell</p> <p>D·R·HORTON <small>DHI</small> <small>NYSE</small></p> <p><i>America's Builder</i></p>
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Boundaries are approximate

Aerial Photo

2017

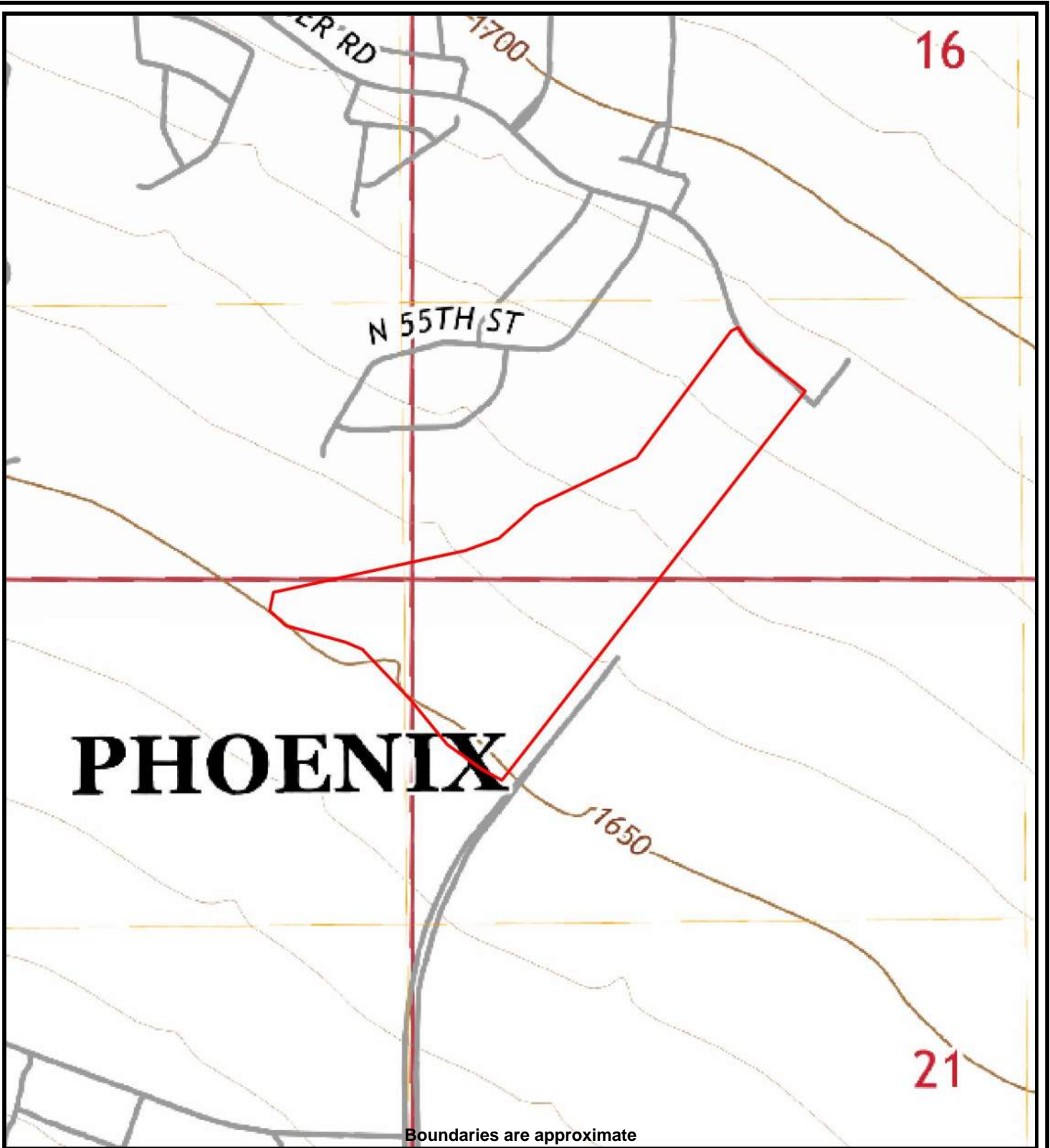


FIGURE 3

Talinn West
Phoenix, Arizona

Brown AND Caldwell

D·R·HORTON DHI
Listed
NYSE
America's Builder



Currys Corner,
Arizona
2018



FIGURE 4

Talinn West
Phoenix, Arizona

Brown AND Caldwell

D·R·HORTON DHI
Listed
NYSE
America's Builder