# Appendix E

Preliminary Geotechnical and Geohazards Technical Report

# PRELIMINARY GEOTECHNICAL AND GEOHAZARDS TECHNICAL REPORT
# ARROW COMMERCE CENTER PROJECT
# BTC III ARROW ROUTE CC, LP
# RANCHO CUCAMONGA, CALIFORNIA

**PROJECT NO. 24001666.001A**

**FEBRUARY 2, 2024**

February 2, 2024
Kleinfelder Project No.: 24001666.001A

Mr. Chad Beckstrom
Senior Environmental Director
**Ascent Environmental, Inc**
15642 Sand Canyon, #54491
Irvine, California 92619

**Subject:** **Preliminary Geotechnical and Geohazards Technical Report**
**Arrow Route Commerce Center Project**
**BTC III Arrow Route CC, LP**
**Rancho Cucamonga, California**

Dear Mr. Beckstrom:

Kleinfelder is pleased to present this report summarizing the preliminary geotechnical and geohazard study performed for the project site, located south of Arrow Route in the city of Rancho Cucamonga, California. Our conclusions and recommendations are presented in the attached report. An Executive Summary has been included for your convenience.

We appreciate the opportunity to provide geotechnical engineering services to you on this project. If you have any questions regarding this report or if we can be of further service, please do not hesitate to contact the undersigned.

Sincerely,

Saige Carter, GIT
Staff Geologist I

Michael O. Cook, PG, CEG
Senior Geologist

Eric W. Noel, P.E., G.E.
Senior Principal Geotechnical Engineer





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## EXECUTIVE SUMMARY

This report presents the results of our preliminary geotechnical and geohazards study for the proposed Arrow Commerce Center Project in Rancho Cucamonga, California. The location of the proposed development is shown on Figure 1, Site Vicinity Map.

The purpose of this preliminary study was to evaluate the general site conditions, the nature and engineering properties of the subsurface soils, potential geohazards, and to provide recommendations for the proposed project. Our scope of work included review of existing geotechnical reports, review of published geologic reports and maps of region and report preparation. No subsurface investigation was conducted as part of this preliminary site review. The interpretation of the near surface soil conditions presented in this report is based on laboratory test results conducted by others as referenced. A regional geologic map of the site is presented as Figure 3, Regional Geologic Map.

Geohazards evaluated for potential impact to the site and the proposed developments included: seismic shaking, fault rupture, landslides, liquefaction, flooding, seiche, radon gas, naturally occurring asbestos, and regional subsidence. Based on this review, the risk of surface rupture at the site resulting from faulting is considered low, the risk at the site from landslides and other forms of mass wasting is considered very low. The properties of the soils underlying the site, and depth to groundwater, indicate that there is a low potential for impact due to liquefaction from a seismic event. The site is located outside any flood plain safety and the risk of seiche damage following a seismic event at the site is considered low. Radon test results within the project site are considered nonhazardous. The site is not located within an area of known naturally occurring asbestos and is not located within an area of known or reported land subsidence.

Based on research of the general area, groundwater is anticipated to be greater than 600 feet below ground surface (bgs) and is not expected to impact project development.

Fluctuations of localized zones of perched water and rise in soil moisture content should be anticipated during the rainy season. Irrigation of landscaped areas may also lead to an increase in soil moisture content and fluctuations of intermittent shallow perched groundwater levels.




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The executive summary briefly summarizes results of our geotechnical and geohazard study for the project site and should be used only in conjunction with recommendations presented in the attached report. This summary is also subject to the limitations included in Section 5 of this report.





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# 1 INTRODUCTION

This report presents the results of our preliminary geotechnical and geohazards study for the proposed Arrow Commerce Center Project situated in southeast Rancho Cucamonga, California. The project site is located east of Interstate I-15, south of Arrow Highway, west of Etiwanda Drive, and north of the BNSF/Metrolink railroad tracks. The location of the proposed development is shown on Figure 1, Site Vicinity Map.

The purpose of this preliminary geotechnical and geohazards study is to summarize our findings of the general site and subsurface conditions and to outline geotechnical-related and geohazard risks that may affect the cost and long-term performance of the proposed project. Additional geotechnical studies (including field exploration and laboratory testing) will be required to develop design-level recommendations for the project once conceptual plans are finalized. The scope of our services was presented in our proposal dated June 28, 2023.

## 1.1 PROJECT DESCRIPTION

The following project description is developed from the Notice of Preparation (NOP). The project site is located at 12451 Arrow Route in Ranch Cucamonga, CA and includes approximately 4,105,388 square feet (92.247 acres) of gross lot area and 3,513,101 square feet (80.65 acres) of net lot area. BTC III Arrow Route CC, LP (applicant) is proposing to develop the project site, which would include the demolition and site clearing of surface paved area and the construction, use, and maintenance of five two-story buildings for general warehouse space, associated office space, and loading docks for truck trailers, and include 922 automobile parking spaces and 424 truck trailer parking spaces. In total, the proposed project would introduce approximately 1,830,729 gross feet of new building floor area. Vehicle access to the project site would be provided by public roadways connecting the project site to Arrow Route and Etiwanda Avenue. Five buildings are proposed, each including loading docks and administrative office space. Buildings 1, 2, and 3 will be constructed side by side in the northernmost section of the project site, south of Arrow Route, building 4 will be constructed just east of buildings 1,2, and 3, and building 5 is planned to be located at the southeastern corner of the property. Dock-high doors are planned to be constructed along portions of these buildings. The buildings are proposed to be

surrounded by asphaltic concrete pavements in the parking and drive lanes. Table 1.1 summarizes the proposed building square footage and parking stalls for the proposed project.

**Table 1.1**

| Building Number | Warehouse (sf) | Office 1st Floor (sf) | Office 2nd Floor (sf) | Total Building (sf) | Automobile Parking Stalls | | Trailer Parking Stalls | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Required | Provided | Required | Provided |
| 1 | 80,223 | 7,000 | 3,000 | 90,223 | 80 | 81 | 11 | 11 |
| 2 | 73,929 | 5,000 | 3,000 | 81,929 | 70 | 70 | 8 | 8 |
| 3 | 62,637 | 5,000 | 3,000 | 70,637 | 68 | 69 | 8 | 8 |
| 4 | 1,020,861 | 30,000 | 20,000 | 1,070,861 | 457 | 478 | 158 | 300 |
| 5 | 497,079 | 10,000 | 10,000 | 517,079 | 224 | 224 | 97 | 97 |
| **Total** | **1,734,729** | **57,000** | **39,000** | **1,830,729** | **918** | **922** | **223** | **424** |

Notes:
Sf = square feet
Source: HPA Architecture, February 6, 2023.

The remainder of the site development is planned to be paved for parking, driveways and a new street network for circulation within the project site. A new street, Yellow Wood Road, which is a replacement of Juneberry Drive, is planned to be constructed along the east side of building 3 and a portion of building 4 and between buildings 4 and 5. A new public street is planned to border the remainder of the property, continuing along the east, south, and west borders of the property, eventually intersecting with Arrow Route at the northwest corner. The proposed project would also include the creation of a new vehicle circulation system, water quality basins, utility infrastructure, exterior lighting and signage, and provide roughly 10 percent landscape coverage.

On August 31, 2023, a site walk was conducted by Kleinfelder staff. The property mainly consists of bare ground, some ornamental and ruderal vegetation, and trees mostly in the northern most area of the project site. Access to the site is via Juneberry Drive, along an asphalt concrete paved entrance and parking spaces. A guard gate and small building are located at the site entrance. Stockpiles of crushed concrete and asphalt were present mostly in the western part of the project site. Concrete foundations from the preexisting buildings, storm drain, and sewer manholes were observed at various locations across the site. Railroad tracks are present in the southeastern corner of the project site near the Basin 2 identified on Figure 2, and within an asphalt paved area in the northeastern portion of the project site.

Three stormwater retention basins, shown on Figure 2, are located in the project site. The largest basin is situated in the adjacent Goodman property along the eastern border of the project site





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boundary. A second basin is located along the southern boundary parallel to the BNSF/Metrolink railroad tracks and a third triangular shaped basin is located near the southeastern corner of the project site.

Conceptual grading plans were not available at this time. Based on the existing topography, we anticipate the site will be balanced with cuts and fills to achieve desired grades in building areas. Deeper excavations to remove existing undocumented artificial fills, building foundations, subterranean structures, buried utilities, tree stumps, and roots are also recommended.

We anticipate parking lot and drive aisles will consist of asphaltic concrete (AC) pavement and Portland cement concrete pavement (PCCP). Ancillary construction is anticipated to include concrete flat work, landscaping, and installation of buried utilities.

## 1.2 SCOPE OF SERVICES

The scope of our preliminary geotechnical and geohazards study consisted of reviewing readily available geotechnical and geologic information for the project site, conduct a site reconnaissance to observe and document the existing conditions, and preparation of this report. Our report includes a description of the work performed, a discussion of the geotechnical and geohazard conditions observed at the site, and preliminary recommendations. A description of our scope of services performed for this project is presented below.

**Task 1 – Background Data Review.** We reviewed published and unpublished geologic literature in our files and the files of public agencies, including selected publications prepared by the California Geological Survey and the U.S. Geological Survey. We also reviewed readily available seismic and faulting information, including data for designated earthquake fault zones and our in-house database of faulting in the general site vicinity. Available historic air photographs from the University of Santa Barbara were reviewed for the project site conditions over time.

A geotechnical investigation of the site was conducted by Southern California Geotechnical, Inc. in 2021. The results of that investigation presented in the report prepared by Southern California Geotechnical, Inc., dated October 15, 2021, and was provided to Kleinfelder by Ascent.

**Task 2 – Site Reconnaissance.** A site reconnaissance was performed on August 31, 2023 to observe and document the existing conditions at the project site.

**Task 3 – Report Preparation.** This report summarizes the work performed, data acquired, and our findings, and conclusions. This report also contains reference maps and graphics.





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# 2 SITE CONDITIONS

## 2.1 SITE DESCRIPTION

The project site is comprised of 4 contiguous parcels totaling approximately 95 acres. The site is located south of Arrow Route, west of Juneberry drive, north of the BNSF/Metrolink railroad tracks and east of the Copart auto salvage yard. While the site is relatively flat, the overall site generally drains to the south with approximate surface elevations of 1,163 feet at the northwest corner of the site to 1,126 feet at the southwest corner of the site. There is approximately 35 feet of relief across the site. The site is currently vacant with remnants of building foundations and piles of crushed concrete and asphalt aggregate. It is uncertain if the aggregate is from either site building and pavement demolition, or a former aggregate crushing facility located in the western portion of the project site area.

## 2.2 EXISTING SITE FEATURES AND CONSTRAINTS

The project site is located at the northern end of the Perris block along the northern boundary of the Peninsular Ranges geomorphic province of California (CGS, 2002; Norris and Webb, 1990). The area is underlain by late Holocene age very young alluvial-fan deposits overlying Quaternary age alluvial-fan deposits and Cretaceous age plutonic rock bedrock at depth (Fife, 1976; Morton and Miller, 2006).

Soils encountered during a field investigation by Southern California Geotechnical (SCG, 2021) consisted of:

- Artificial fill extending up to approximately 8.5 feet below the ground surface (bgs),
- Alluvium was encountered from the contact with the artificial fill to at least approximately 25 feet bgs;

- The soils encountered during the Southern California Geotechnical investigation field work consisted primarily of interbedded sands with varying silt content, and gravel to the total depths explored.

### 2.2.1 Artificial Fill

Artificial fill soils were encountered to depths of 2.5 to 8.5 feet below the ground surface (SCG, 2021). The fill soils encountered had variable strengths, variable composition and variable densities. These fills soils are considered undocumented and are recommended to be entirely removed to provide uniform support for proposed structures and pavement improvements.

### 2.2.2 Alluvium/Native Soils

Alluvial fan deposits, estimated to be approximately 1,000 feet thick, underly the site (Fife, 1976). The alluvium/native soils generally consisted of medium dense fine to medium sands, medium dense to dense fine to coarse sands and gravelly fine to coarse sand, dense silty fine to coarse sands, and loose to very dense silty fine sands (SCG, 2021).

### 2.2.3 Stockpiled crushed aggregate

At the time of the Kleinfelder site reconnaissance large piles of crushed aggregate material consisting of rock, concrete or asphalt approximately 20 to 30 feet high were present on the western side of the project site. It is uncertain if the origins of these various piles are the result of site demolitions or left from an aggregate processing facility that occupied this portion of the site.

### 2.2.4 Underground Utilities

Metal manhole covers were observed at various locations around the project site indicating that buried utilities are still present on the site. Utilities observed included sewer, storm drain and electrical utilities.





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### 2.2.5 Abandoned Railroad Tracks

Railroad tracks from the former site use were observed in the southeast corner of the project site and crossing within an asphalt paved area in the northeastern portion of the site extending to the eastern project boundary.

## 2.3 GROUNDWATER

Groundwater was not encountered in any borings drilled by SCG in 2021. Depth to groundwater beneath the site is estimated to be greater than 500 feet bgs (WMWD, 2022). The nearest groundwater wells to the project site are two Cucamonga Water District wells #39 and #40 located approximately 1.8 miles northeast of the site (WMWD, 2022). Approximate ground surface elevations for well #39 is 1,377 feet above mean sea level (MSL) and #40 is 1,278 feet MSL. Depths below ground surface (bgs) to groundwater in wells #39 and #40 were measured on March 18, 2022 at 604 and 602 feet bgs, respectively.

# 3 GEOLOGY

## 3.1 GEOLOGIC SETTING

The project site is situated within the Chino Valley at the northern end of the Perris block along the northern boundary of the Peninsular Ranges geomorphic province of California (Norris and Webb, 1990). The geology of the region is presented on a referenced geologic map by Morton and Miller (2006) Figure 3 – Regional Geologic Map.

### 3.1.1 Regional Geology

The Peninsular Ranges are the southernmost segment of a chain of North American Mesozoic batholiths that extend from Alaska to the southern tip of Baja California and are a series of northwest-southeast trending mountain ranges separated by similarly trending valleys (CGS, 2002). These geomorphic structures in the area are sub-parallel to the major fault systems, such as the Elsinore Fault zone, which includes the Whittier, Chino-Central Avenue, and the San Jacinto Fault zones. The Perris Block is composed chiefly of crystalline rocks of Cretaceous and earlier ages with thin mantles of sedimentary and volcanic rocks (Woodford et al, 1971). The Perris Block is bounded on the northeast by the San Jacinto fault zone, on the north by the Sierra Madre-Cucamonga fault zone, and on the west by the Elsinore Fault zone. The southern boundary is undefined (Norris and Webb, 1990).

### 3.1.2 Site Geology

The site is underlain by late-Holocene age alluvial-fan deposits ($Qf_2$) (Morton and Miller, 2006). Native alluvial soils are estimated to be 1,000 to 1,100 feet thick beneath the site (Fife, 1976). Surficial deposits observed by SCG consist of fill soils ranging in thickness from approximately 2.5 to 8.5 feet bgs (SCG, 2021) over alluvial fan deposits to the maximum depth explored of 25 feet bgs. These fill soil generally consists of loose to very dense gravelly fine to coarse sands, silty fine to coarse sands, and well-graded sands with varying gravel content. Some of the fill soils contained trace amounts of slag debris.

Alluvial deposits generally consist of medium dense fine to medium sands, medium dense to dense fine to coarse sands and gravelly find to coarse sands, dense silt fine to coarse sands and loose to very dense silty fine sands.

## 3.2 GEOLOGIC HAZARDS

We have addressed following the potential geologic hazards for the site:

- Seismic Shaking
- Fault rupture
- Landslides
- Liquefaction
- Flooding
- Seiche
- Radon gas
- Naturally occurring asbestos and
- Regional Subsidence

### 3.2.1 Seismic Shaking

The project is within the zone of influence for several faults which are considered active and which are capable of producing seismic shaking at the site that could be potentially damaging to buildings and appurtenant structures. It is anticipated that the project site will periodically experience ground acceleration as the result of moderate to large magnitude earthquakes on faults outside the project area.

### 3.2.2 Fault Rupture

Earthquakes and faulting occur as the tectonic plates, which comprise the Earth's crust, or lithosphere, move relative to one-another. Faults identified by the State of California and the County of San Bernardino as being active are not known to be present at the surface within the project limits. No portion of the site is located within a State of California-Special Studies Zone, formerly Alquist-Priolo Earthquake Fault Zone (CGS, 2021) or the County of San Bernardino General Plan-Geologic Hazard Overlays map EHFN C. The site is underlain by Holocene age

alluvial sands and gravels up to 1,000 of feet thick, which overlies Cretaceous age plutonic rock of the Perris Block. A review of stereo and oblique air photos, which encompass the project site, did not reveal lineaments or geomorphic features indicative of surface faulting. The project site is situated on the northern end of the Perris Block, which is bounded by the active Sierra Madre fault zone approximately 5.0 miles north and San Jacinto fault zone approximately 8.0 miles northeast (USGS, 2020) of the site. The nearest active or potentially active faults near the site are the Red Hill-Etiwanda Avenue fault approximately 3 miles northwest and the Fontana seismic trend approximately 3.2 miles southeast of the site.

Based on the lack of geomorphic evidence such as lineaments, off-set drainages or concentration of vegetation, and the distance to known active faults in the region, the risk of surface rupture at the site resulting from faulting is considered low.

### 3.2.3 Landslides

Landslides and other forms of mass wasting, including mud flows, debris flows, soil slips, and rock falls occur as soil or rock moves down slope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. The site is not located within a State or County of San Bernardino (SBC, 2010a,b) designated landslide hazard zone. The site is relatively flat and the risk at the site from landslides and other forms of mass wasting is considered very low.

### 3.2.4 Liquefaction

Liquefaction occurs when saturated, loose, coarse-grained or silty soils are subjected to strong shaking resulting from earthquake motions. The coarse-grained or silty soils typically lose a portion or all of their shear strength and regain strength sometime after the shaking stops. Soil movements (both vertical and lateral) have been observed under these conditions due to consolidation of the liquefied soils. The project site is not located within a State of California or County of San Bernardino zone of suspected liquefaction susceptibility (SBC, 2010a).

Based on our review of published reports, the properties of the soils underlying the site, and depth to groundwater, there is a low potential for impact due to liquefaction from a seismic event.

### 3.2.5 Flooding/Seiches

Surface water flow at the site is generally via sheet flow in a south to southwesterly direction. The site is within a flood hazard area “X” which is an area designated as areas to be outside the 0.2% annual chance floodplain (FEMA, 2014a, 2014b and 2016). The site is located outside any flood plain safety districts by the County of San Bernardino (SBC, 2010d).

The project site is not located down stream of, or within a Dam inundation zone as identified by the County of San Bernardino (SBC, 2010d).

A seiche is a wave or sloshing of a body of water that is at least partially impounded caused by strong wind or seismic shaking. The site is not downstream of large standing bodies of water or tanks which potentially could cause flooding and inundate the project site. The risk of seiche damage following a seismic event at the site is considered low.

### 3.2.6 Radon Gas

Radon is a naturally occurring radioactive gas that is invisible and odorless. The gas forms from the radioactive decay of small amounts of uranium and thorium naturally present in rocks and soils. Some amount of radon exists in all rocks and soils, but some rock types, such as black shales and certain igneous rocks, can have uranium and thorium in amounts higher than is typical for the earth’s crust. At these locations, increased amounts of radon will be generated in the subsurface. Because radon is a gas, it can easily move through soil and cracks in building slabs or basement walls and concentrate inside a building. Areas with higher amounts of radon in the underlying rocks and soil are likely to have higher percentages of buildings with indoor radon levels in excess of U.S. Environmental Protection Agency guidelines. The U.S. EPA recommends that individuals avoid long-term exposures to radon concentrations above 4 picocuries per liter, California Geological Survey (https://maps.conservation.ca.gov/cgs/radon/). The last reported

data of Radon test results by area code compiled by CalEPA in 2016 had results all below 4 picocuries. Radon test results within the project site are considered nonhazardous.

### 3.2.7 Asbestos

The project site is not located within an area of known naturally occurring asbestos (NOA) materials or nearby mining operations that have produced asbestos materials. (CDPH, 2023).

### 3.2.8 Subsidence

The project site is not located within an area of known or reported land subsidence by the County of San Bernardino or the State of California.





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# 4 CONCLUSIONS AND RECOMMENDATIONS

## 4.1 GENERAL

Based on the results of our geotechnical and geohazard analyses conducted during this study, it is our professional opinion that the proposed project is geotechnically feasible, provided the recommendations presented in this report are incorporated into the project design and construction. The primary geotechnical considerations for site development are as follows:

1. Undocumented artificial fill soils (as deep as 8.5 feet bgs) located on the project site.

2. Based on the review of geotechnical reports provided and soils observed during our reconnaissance, we do not anticipate expansive soils to adversely impact the design and construction of the proposed project. A site-specific geotechnical investigation and lab testing must be conducted once design plans have been prepared to document surface and near surface soil conditions.

3. The anticipated groundwater level indicates that the site soil has a remote potential for liquefaction during a design-level earthquake.

4. The following preliminary opinions, conclusions, and recommendations are based on the properties of the materials observed in the prior explorations, the results of our literature review, and our engineering analyses performed. Our recommendations regarding the geotechnical aspects of the design and construction of the project are presented in the following sections. We recommend that the final grading plans be reviewed prior to the start of construction.





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## 4.2 GEOHAZARDS

1. The project site is located in a seismically active region of southern California. The proposed site can be expected to be subject to strong seismic shaking during its design life.
2. The risk of surface rupture at the site resulting from faulting is considered low.
3. The anticipated groundwater level indicates that the site soil has a remote potential for liquefaction during a design-level earthquake.
4. The risk at the site from landslides and other forms of mass wasting is considered very low.
5. There is a low potential for impact due to liquefaction from a seismic event.
6. The site is in an area designated as: areas to be outside the 0.2% annual chance floodplain.
7. The risk of seiche damage following a seismic event at the site is considered low.
8. Radon test results within the project site are considered nonhazardous.
9. The site is not located within an area of known naturally occurring asbestos material.
10. The project site is not located within an area of known or reported land subsidence.

## 4.3 SEISMIC DESIGN CONSIDERATIONS

### 4.3.1 General

The project site is located in a seismically active region of southern California. The proposed site can be expected to be subject to strong seismic shaking during its design life. Potential seismic hazards include ground shaking and seismic settlement. According to the 2022 California Building Code, every structure, and portion thereof, including non-structural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE/SEI 7-16. The Seismic Design Category for a structure should be determined in accordance with Section 1613 of the 2019 CBC.

## 4.4 EARTHWORK

### 4.4.1 General

Recommendations for site preparation are presented below. All site preparation and earthwork operations should be performed in accordance with applicable codes, safety regulations and other local, state or federal specifications. All references to maximum unit weights are established in accordance with the latest version of ASTM Standard Test Method D1557.

Grading operations during the wet season or in areas where the soils are saturated may require provisions for drying of soils prior to compaction. If the project necessitates fill placement and compaction in wet conditions, we can provide suggested alternative recommendations for drying the soil. Conversely, additional moisture may be required during the dry months. A sufficient water source should be available to provide adequate water during compaction. During dry months, moisture conditioning of the subgrade soils may be required if left exposed for greater than a few days.

### 4.4.2 Site Preparation

Prior to general site grading, existing vegetation, debris, and oversized materials (greater than 6 inches in maximum dimension) should be stripped and disposed outside the construction limits. We estimate the depth of stripping to be approximately 6 inches over most portions of the site. Deeper stripping or grubbing may be required where higher concentrations of vegetation are encountered during site grading. Stripped topsoil (less any debris) may be stockpiled and reused for landscaping purposes; however, this material should be evaluated for suitability if it is desired to use this material for engineered fill below structures.

All oversize and organic debris, including any produced by demolition operations, (wood, steel, piping, plastics, etc.), should be separated and disposed offsite. The material generated during demolition of the existing roadways and concrete structures may be reused onsite. If reused, the particles should be crushed to a maximum particle size of 6 inches and spread across the site to prevent nesting.





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Existing utility pipelines (if encountered) which extend beyond the limits of the proposed construction and are to be abandoned in place should be plugged with cement grout to prevent migration of soil and/or water. Demolition, disposal, and grading operations should be observed and tested.

### 4.4.3 Overexcavation

Recommendations for overexcavation of the proposed building pads (building foundations and floor slabs), embankments, and parking lots (pavements) should be reviewed based on finalized grading and foundation. All site preparation and earthwork operations should be performed in accordance with applicable codes, safety regulations and other local, state, or federal specifications. All references to maximum unit weights are established in accordance with the latest version of ASTM Standard Test Method D1557.





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# 5 LIMITATIONS

This report has been prepared to inform the Environmental Impact Report for the proposed Arrow Commerce Center Project in Rancho Cucamonga, California. This report was prepared for Ascent (client) on behalf of the City of Rancho Cucamonga (owner). The findings, conclusions and recommendations presented in this report were prepared in a manner consistent with the standards of care and skill ordinarily exercised by members of our profession practicing under similar conditions in the geographic vicinity and at the time the services will be performed. No warranty or guarantee, express or implied, is made. Our geotechnical and geohazard study of this project was based on the approximate building locations provided to us by the client.

The owner has the responsibility to see that all parties to the project, including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. This report contains information that may be useful in the preparation of the Environmental Impact Report.

This report may be used by the owner for the purposes stated within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party, other than the owner/client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of this report and the nature of the new project, additional work may be needed and an updated report may need to be issued. Non-compliance with any of these requirements by the owner or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and the owner/client agrees to defend, indemnify, and hold harmless Kleinfelder from any claims or liability associated with such unauthorized use or non-compliance.

The scope of our geotechnical and geological services did not include any environmental site assessment for the presence or absence of hazardous/toxic materials, including methane or other landfill related gases. Kleinfelder will assume no responsibility or liability whatsoever for any claim, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

# 6 REFERENCES


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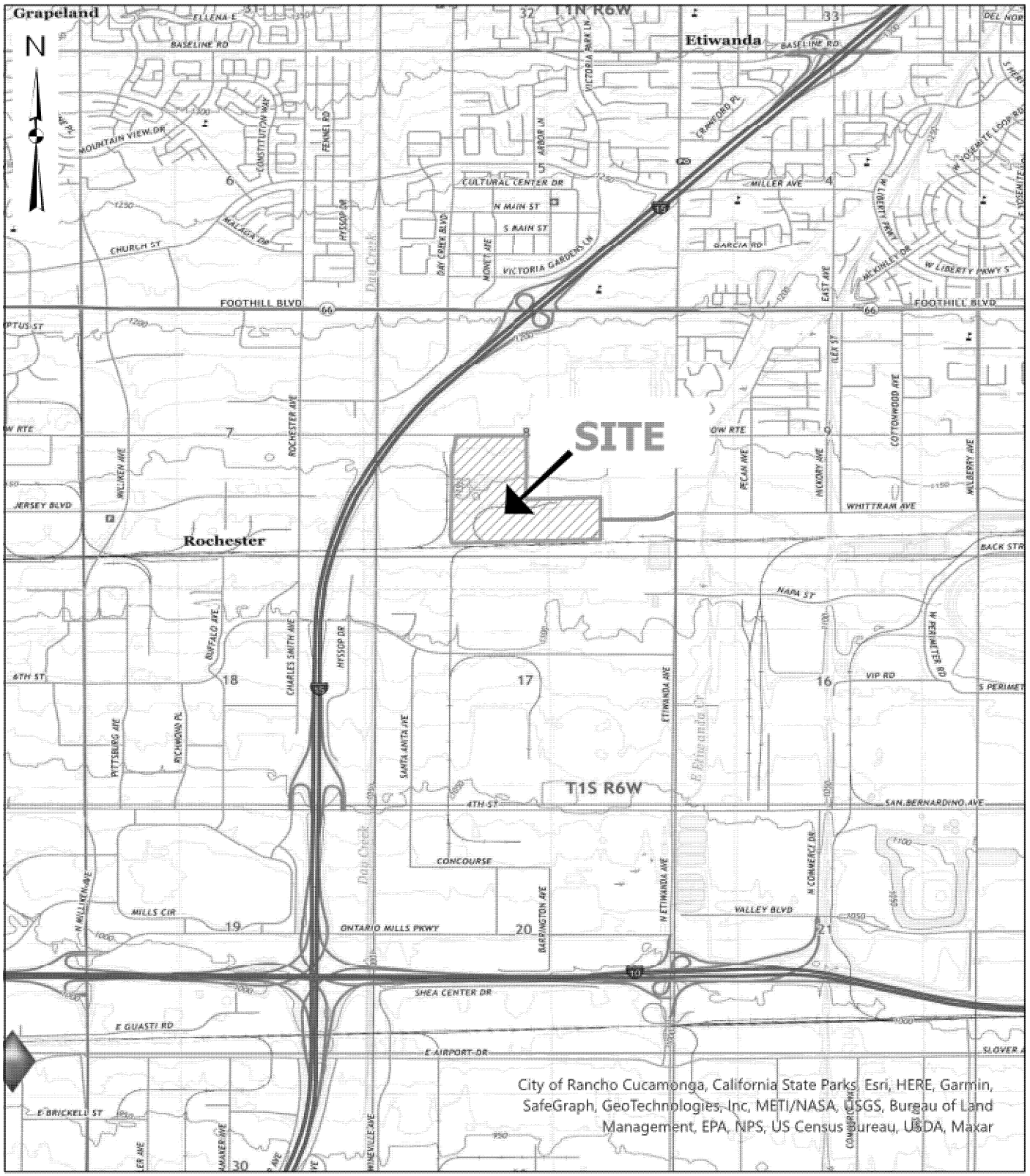
| UCSB Aerial Photographs | | | |
|---|---|---|---|
| Flight ID | Frame | Scale | Flight date |
| C-3668 | 62, 63, 64 | 1:21,000 | 9/6/1935 |
| AXL-1953B | 35K-110, 35K-111 | 1:20,000 | 10/22/1952 |
| C-24153 | 246, 247 | 1:12,000 | 8/10/1961 |

# FIGURES






REFERENCE:

VICINITY MAP CREATED FROM DATA COMPILED BY USGS US TOPO GUASTI, CA QUADRANGLE 7.5-MINUTE SERIES, 2021.

0 3,000 6,000

SCALE: 1" = 3000' SCALE IN FEET

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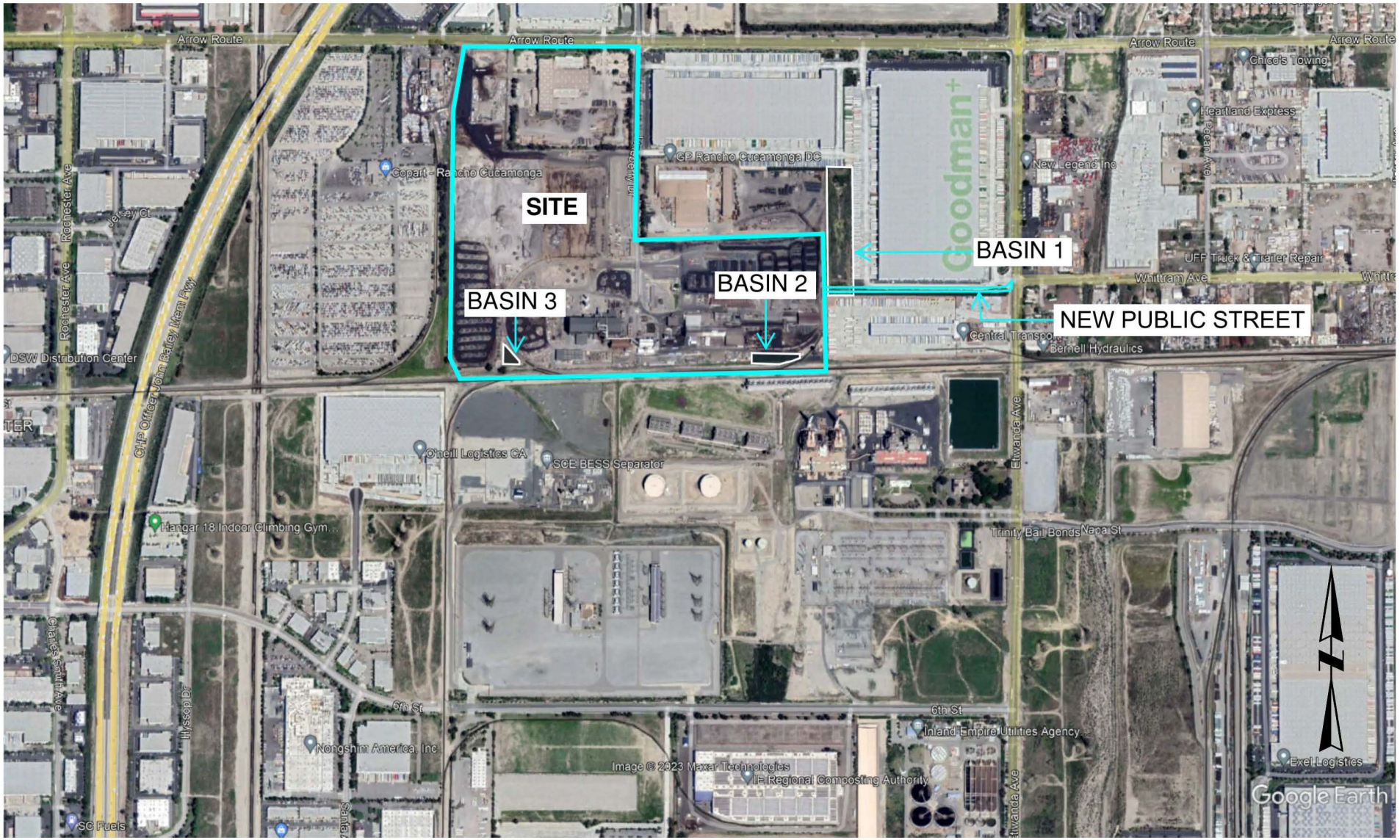
| CREATED BY: | SCarter |
| CHECKED BY: | MCook |
| FILE NAME: | Ascent_RanchoCucamonga.mxd |

**SITE VICINITY MAP**

ARROW COMMERCE CENTER PROJECT
BTS III ARROW ROUTE CC, LP
RANCHO CUCAMONGA, CALIFORNIA

FIGURE

**1**



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| FILE NAME: | STORM RETENTION BASINS |

# STORM RETENTION BASINS

ARROW COMMERCE CENTER PROJECT
BTS III ARROW ROUTE CC, LP
RANCHO CUCAMONGA, CALIFORNIA

FIGURE:
**2**