Appendix H
Hydrology Report

Hydrology & Water Resources Technical Report

956 Seward Street
Los Angeles, CA 90038

January 2, 2024

PREPARED FOR:

Baranof Holdings
2850 N. Harwood Street, Suite 1000
Dallas, TX 75201

PREPARED BY:

Kimley»Horn
660 South Figueroa Street, Suite 2050
Los Angeles, CA 90017
(213) 261-4040
KH Project No.: 099909001

Table of Contents

Exhibits

Appendices

1. INTRODUCTION

1.1. Project Location

The Project Site is located at 936-962 North Seward Street and 949-959 North Hudson Avenue within the Hollywood community of the City of Los Angeles (City).

The Project is bounded by West Romaine Street to the north, North Hudson Avenue to the east, and North Seward Street to the west. The Project site is an irregular-shaped lot that is approximately 1.27 acres or 55,509 square feet (sf) after dedication along Romaine. The Project Site consists of eight parcels that are currently improved with a two-story 40,000 sf film climate-controlled storage facility built in 1952 and an associated surface parking lot to the north currently used for a truck rental business surrounded by metal fencing.

Land uses directly to the north of the Project Site across Romaine Street include a variety of one to five story commercial, restaurant, studio, and parking buildings. To the west across Seward Street are various one to four story film, commercial, and office uses. Land use to the east across Hudson Avenue include one to five story single and multifamily residential uses. The Project Site is located within close proximity to several transit options. Numerous Metro transit and LADOT transit bus lines that run and stop in the greater vicinity of the Project, including Metro Line 4 and Metro Line 210.

1.2. Project Description

The Project includes the demolition of an existing 40,000 square foot (sf) film storage building and its associated parking lot and the construction of a seven-story, storage building, which would consist of up to 168,765 sf that would include approximately 118,681 sf of self-storage, approximately 48,984 sf of temperature-constrolled film and media storage, and up to 1,100 sf of leasing uses. It also includes a surface-level parking lot and bicycle parking spaces at ground-level, as well as landscaped areas throughout the Project area, including an outdoor landscaped walkway and entrance along Romaine Street and landscaping along Hudson Street and Seward Street.

1.3. Scope of Work

This report provides a description fo the existing surface water hydrology, surface water quality, groundwater level, and groundwater quality at the Project Site. It also analyzes the Project's potential impacts related to surface water hydrology, surface water quality, groundwater level, and groundwater quality.

2. REGULATORY FRAMEWORK

2.1. Surface Water Hydrology

County of Los Angeles Hydrology Manual

Per the City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 10-year storm event and that the combine capacity of a storm drain, and street flow system accommodate flow from a 25-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event[1]. The County also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer systems (MS4) Permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines require review and approval from the County Flood Control District department.

Los Angeles Municipal Code

Any proposed drainage improvements within the public right of way or any other property owned by or under the control of the City requires the approval of a B-permit (Section 62.105, Los Angeles Municipal Code (LAMC)). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works, Bureau of Engineering. Additionally, any connections to the City's storm drain system from a private property to a City catch basin or an underground storm drain pipe requires a storm drain connection permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

2.2. Surface Water Quality

Clean Water Act

The Clean Water Act was first introduced in 1948 as the Water Pollution Control Act. The Clean Water Act authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the Clean Water Act forms the basic national framework for the management of water quality and the control of pollutant discharges. The Clean Water Act also sets forth a number of objectives in order to achieve the above-mentioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.

[1] Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed November 22, 2023.

Since its introduction, major amendments to the Clean Water Act have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. Environmental Protection Agency (USEPA), while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a "Best Management Practices" Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act," which is universally used today. Amendments enacted in 1987 required the USEPA to create specific requirements for discharges.

In response to the 1987 amendments to the Clean Water Act and as part of Phase I of its NPDES permit program, the USEPA began requiring NPDES permits for: (1) municipal separate storm sewer systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. Phase II of the USEPA's NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to: (1) numerous small MS4s, (2) construction sites of one to five acres, and (3) industrial facilities owned or operated by small municipal separate storm sewer systems. The NPDES permit program is typically administered by individual authorized states.

In 2008, the USEPA published draft Effluent Limitation Guidelines (ELGs) for the construction and development industry. On December 1, 2009 the EPA finalized its 2008 Effluent Guidelines Program Plan.

In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB). The SWRCB was created by the Legislature in 1967. The joint authority of water distribution and water quality protection allows the Board to provide protection for the State's waters, through its nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop "basin plans" for their hydrologic areas, issue waste discharge requirements, enforce action against stormwater discharge violators, and monitor water quality[2].

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

[2] LARWQCB Basin Plan. March 2020.
<https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/>.

California Porter-Cologne Act

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control. The California Water Code (CWC) authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

As discussed above, under the California Water Code, the SWRCB is divided into nine RWQCBs, governing the implementation and enforcement of the CWC and CWA. The Project Site is located within Region 4, also known as the Los Angeles Region. Each RWQCB is required to formulate and adopt a Basin Plan for its region. This Basin Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxics Rule

In 2000, the USEPA promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The USEPA promulgated this rule based on the USEPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles RWQCB (LARWQCB) as having beneficial uses protective of aquatic life or human health.

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan[3].

[3] Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/ accessed November 22, 2023.

The Basin Plan is a resource for the LARWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

Construction General Permit

SWRCB Order No. 2012-0006-DWQ known as "Construction General Permit" was adopted on July 17, 2012. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels. The main objectives of the General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in stormwater discharges
3. Prevent materials used at a construction site from contacting stormwater
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-stormwater discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects
7. Establish maintenance commitments on post-construction pollution control measures

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices (BMPs) for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit[4] [5].

Los Angeles County Municipal Storm Water System (MS4) Permit

As described above, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On November 8, 2012, the LARWQCB adopted Order No. R4-2012-0175 under the CWA and the Porter-Cologne Act. This Order is the NPDES permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the Permit) cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the Los Angeles County Flood Control District (LACFCD) is designated as the Principal Permittee. The other permittees are the 84 Los Angeles County

[4] State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/. accessed November 22, 2023.
[5] USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Co-Permittees.

City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff

On March 2, 2007, a motion was introduced by the City of Los Angeles City Council to develop a water quality master plan with strategic directions for planning, budgeting and funding to reduce pollution from urban runoff in the City of Los Angeles (City Council Motion 07-0663). The Water Quality Compliance Master Plan for Urban Runoff (Master Plan) was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders to address the requirements of this Council Motion. The primary goal of the Master Plan is to help meet water quality regulations. Implementation of the Master Plan is intended over the next 20 to 30 years to result in cleaner neighborhoods, rivers, lakes and bays, augmented local water supply, reduced flood risk, more open space, and beaches that are safe for swimming. The Master Plan also supports the Mayor and Council's efforts to make Los Angeles the greenest major city in the nation.

- The Water Quality Compliance Master Plan for Urban Runoff identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans. Additionally, the Water Quality Compliance Master Plan for Urban Runoff provides an implementation strategy that includes the following three initiatives to achieve water quality goals:

- Water Quality Management Initiative, which describes how Water Quality Management Plans for each of the City's watershed and TMDL-specific Implementation Plans will be developed to ensure compliance with water quality regulations.

- The Citywide Collaboration Initiative, which recognizes that urban runoff management and urban (re)development are closely linked, requiring collaborations of many City agencies. This initiative requires the development of City policies, guidelines, and ordinances for green and sustainable approaches for urban runoff management.

- The Outreach Initiative, which promotes public education and community engagement with a focus on preventing urban runoff pollution.

- The Water Quality Compliance Master Plan for Urban Runoff includes a financial plan that provides a review of current sources of revenue, estimates costs for water quality compliance, and identifies new potential sources of revenue.

City of Los Angeles Stormwater Program

The City of Los Angeles supports the policies of the Construction General Permit and the Los Angeles County NPDES permit through the *Development Best Management Practices Handbook. Part A Construction Activities,* 3rd Edition, and associated ordinances were adopted in September 2004. *Part B Planning Activities*, 5th Edition was adopted in May 2016.

The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program.

Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494. The handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the General Permit.

The City of Los Angeles implements the requirement to incorporate stormwater BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following[6]:

- Peak Storm Water Runoff Discharge Rate: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;

- Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site);

- Properly design outdoor material storage areas to provide secondary containment to prevent spills;

- Properly design trash storage areas to prevent off-site transport of trash;

- Provide proof of ongoing BMP Maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment control BMPs:

- Conserve natural and landscaped areas;

- Provide planter boxes and/or landscaped areas in yard/courtyard spaces;

- Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash;

- Provide proof on ongoing BMP maintenance of any structural BMPs installed;

[6] City of Los Angeles Stormwater Program website, https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/susmp/susmp_details.shtml

Design Standards for Structural or Treatment Control BMPs:

- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow-based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

- In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff from one of the following:

- The 85th percentile, 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998)*;

- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook—Industrial/ Commercial, (1993)*;

- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system; or

- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

Los Angeles Municipal Code

Section 64.70 of the LAMC sets forth the City's Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of unauthorized pollutants in the City:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.

- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.

- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.

- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.

- Any medical, infectious, toxic or hazardous material or waste.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects/materials from being deposited such that they could be carried into the storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in LAMC, Chapter IX, Article 1. Specifically, Section 91.7013 includes regulations pertaining to erosion control and drainage devices, and Section 91.7014 includes general construction requirements, as well as requirements regarding flood and mudflow protection.

Low Impact Development (LID)

In October 2011, the City of Los Angeles passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70.01 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012.

LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of these LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff may be used[7].

The intent of the City of Los Angeles LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

[7] City of Los Angeles. "Development Best Management Practices Handbook." May, 2016.

The City of Los Angeles Bureau of Sanitation, Watershed Protection Division has adopted the LID standards as issued by the LARWQCB and the City of Los Angeles Department of Public Works. The LID Ordinance conforms to the regulations outlined in the NPDES Permit and SUSMP.

2.3. Groundwater

Safe Drinking Water Act (SDWA)

The Federal Safe Drinking Water Act, established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal SDWA.

California Water Plan

The California Water Plan (the Plan) provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators, and other decision-makers.

3. ENVIRONMENTAL SETTING

3.1. Surface Water Hydrology

3.1.1. Regional

The Project Site is part of the Hollywood neighborhood in Los Angeles. The Project Site is located within the Ballona Creek Watershed (Watershed) in the Los Angeles Basin. The Watershed encompasses an area of approximately 130 square miles extending from the Santa Monica Mountains and the Ventura-Los Angeles County line on the north, to the Harbor Freeway (110) on the east, Santa Monica to the west, and to the Baldwin Hills on the south. Ballona Creek is a 9-mile-long flood protection channel that drains the Watershed to the Pacific Ocean. The major tributary areas to Ballona Creek include Centinela Creek,

Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous storm drains. Refer to Figure 1 for the Ballona Creek Watershed Map.

3.1.2. Local

The existing conditions for all 1.27 acres of the Project site are 87% impervious. See Table 1 below for specific pre-development conditions.

The elevation of the Project Site ranges from approximately 292 feet above mean sea level (MSL) in the northwest corner of the Project site to 286 feet MSL in the southwest corner. Per the Topographic Survey provided by Omega Land Surveying, dated July 26, 2023, existing drainage is split into two drainage areas: the western building and western parking lot is represented by EX-1, and the eastern surface lot area is represented by EX-2. Stormwater runoff in EX-1 includes roof drainage and parking lot sheet flow towards the southwest corner of the site along Seward Street. Stormwater runoff in EX-2 includes parking lot sheet flow towards the southeast corner of the site along Hudson Avenue. Runoff from both drainage areas is conveyed to concrete curb and gutter and flow south into the public storm drain system. Refer to Appendix D for survey information and Figure 2 for details on existing drainage patterns.

City storm drain lines ultimately flow to the south and west, discharging into the first reach of Ballona Creek. Ballona Creek generally flows southwest, ultimately discharging into the Pacific Ocean at the Santa Monica Bay. Ballona Creek is designed to discharge to Santa Monica Bay at approximately 71,400 cubic feet per second from a 50-year frequency storm event[8].

3.1.3. On Site

The Project is bounded by West Romaine Street to the north, North Hudson Avenue to the east, and North Seward Street to the west. The Project Site is an irregular-shaped lot that is approximately 1.27 acres or 55,509 square feet (sf). The Project Site consists of eight parcels that are currently improved with a two-story 40,000 sf film climate-controlled storage facility built in 1952 and an associated surface parking lot to the north currently used for a truck rental business surrounded by metal fencing. The existing Project Site is approximately 87% impervious based on the survey.

The majority of runoff sheet flows south and west towards Seward Street, where it is conveyed via curb and gutter and flows southerly. Refer to Figure 2 for existing on-site drainage pattern and Appendix A for preliminary hydrology calculations. Table 1 below shows existing volumetric flow rate generated by the 50-year storm event.

[8] Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023.

Table 1: Existing Site Hydrologic Calculations

Drainage Area	Area (Acres)	Q50 (cfs) (volumetric flow rate measured in cubic feet per second)
EX-1	0.80	2.53
EX-2	0.47	1.49
SITE TOTAL	**1.27**	**4.02**

3.2. Surface Water Quality

3.2.1. Regional

As stated above, the Project Site lies within the Ballona Creek Watershed. Constituents of concern listed for Ballona Creek under California's Clean Water Act Section 303(d) List include: Arsenic, Cadmium, Chlordane, Copper, Cyanide, DDT, Indicator Bacteria, Lead, Mercury, PAHs, PCBs, Silver, Toxicity, Trash, Viruses (enteric), and Zinc[9]. No Total Maximum Daily Load (TMDL) data have been recorded by EPA for this waterbody[10].

3.2.2. Local

In general, urban stormwater runoff occurs following precipitation events, with the volume of runoff flowing into the drainage system depending on the intensity and duration of the rain event. Contaminants that may be found in stormwater from developed areas include sediments, trash, bacteria, metals, nutrients, organics and pesticides. The source of contaminants includes surface areas where precipitation falls, as well as the air through which it falls. Contaminants on surfaces such as roads, maintenance areas, parking lots, and buildings, which are usually contained in dry weather conditions, may be carried by rainfall runoff into drainage systems. The City typically installs catch basins with screens to capture debris before entering the storm drain system. In addition, the City conducts routine street cleaning operations, as well as periodic cleaning and maintenance of catch basins, to reduce stormwater pollution within the City.

3.2.3. On Site

The Project Site is on developed land, with 95% of the site approximately considered impervious. The project site is relatively level with slopes ranging from 1-3%. The highest elevation of the site is 292 feet above mean sea level (MSL) in the northwest corner of the Project Site and the lowest being 286 feet MSL in the southwest corner. As explained previously, Project Site drainage primarily runs off to Seward Street.

[9] Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023.

[10] Final Los Angeles Region 2016 Integrated Report; https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16r4_ir_reports/01656.shtml; accessed November 22, 2023

3.3. Groundwater Hydrology

3.3.1. Regional

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County. The City overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Groundwater Subbasins. Groundwater flow in the Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water. Refer to Figure 4 for the groundwater basin exhibit.

3.3.2. Local

The Project Site specifically lies within the Coastal Plain of Los Angeles Hollywood Subbasin. The Hollywood Subbasin is bounded by the Central subbasin to the south, and Santa Monica subbasin to the west. Refer to Figure 4 for the Coastal Plain of Los Angeles Map[11].

Groundwater in the Subbasin is replenished primarily by percolation of precipitation and stream flow from the Santa Monica Mountains to the north. Over time, urbanization has decreased the amount of pervious surfaces limiting natural recharge through direct percolation. The natural safe yield of the Subbasin is estimated to be approximately 3,000 acre-feet per year (AFY).

3.3.3. On Site

Based on the Geotechnical Site Evaluation performed by Gorian and Associates, Inc., dated July 26, 2023, ground water was encountered at 17 feet below the surface in exploratory borings and is estimated at 20 feet below the ground surface. Based on the existing site conditions and depth of groundwater, the Project will balance the site to minimize soil disturbance and will not introduce infiltration as a stormwater treatment measure[12].

3.4. Groundwater Quality

3.4.1. Regional

As stated above, the City overlies the Los Angeles Coastal Plain Groundwater Basin, which falls under the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). According to LARWQCB's Basin Plan, objectives applying to all ground waters

[11] https://www.usgs.gov/media/images/coastal-los-angeles-groundwater-basins-map
[12] Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate, nitrite), and taste and odor[13].

3.4.2. Local

As stated above, the Project Site specifically lies within the Hollywood Subbasin. Based upon LARWQCB's Basin Plan, constituents of concern listed for the Subbasin include Total Dissolved Solids (TDS), sulftate, chloride, and boron.

3.4.3. On Site

The existing Project Site is a developed lot. Given minimal soil disturbance from the Project, the Project will have little to no impact on groundwater recharge and groundwater quality.

4. SIGNIFICANCE THRESHOLDS

4.1. Surface Water Hydrology

Appendix G of the State of California's CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water hydrology. These questions are as follows:

Would the project:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - Result in substantial erosion or siltation on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

In the context of these questions from Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (*L.A. CEQA Thresholds Guide*) states that a project would normally have a significant impact on surface water hydrology if it would:

[13] Los Angeles Regional Water Quality Control Board, Basin Plan, April 2013, accessed November 22, 2023.

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body; or

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

4.2. Surface Water Quality

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water quality. These questions are as follows:

Would the project:

- Violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

    - Result in substantial erosion or siltation on- or off-site;

    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

    - Impede or redirect flood flows;

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;

In the context of the above questions from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on surface water quality if it would result in discharges that would create pollution, contamination or nuisance, as defined in Section 13050 of the CWC or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

The CWC includes the following definitions:

- "Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".

- "Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

- "Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes[14].

4.3. Groundwater Hydrology

Appendix G of the CEQA Guidelines provides a sample question that addresses impacts with regard to groundwater. This question is as follows:

Would the project:

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

In the context of the above question from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater if it would:

- Change potable water levels sufficiently to:

    - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;

    - Reduce yields of adjacent wells or well fields (public or private); or

    - Adversely change the rate or direction of flow of groundwater; or

- Result in demonstrable and sustained reduction of groundwater recharge capacity.

[14] City of Los Angeles. LA. CEQA Thresholds Guide. 2006
https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

4.4. Groundwater Quality

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to groundwater quality. These questions are as follows:

Would the project:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;

In the context of the above questions from Appendix G pertaining to groundwater quality, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater quality if it would:

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

5. METHODOLOGY

5.1. Surface Water Hydrology

The Project Site's drainage collection, treatment and conveyance are regulated by the City. Per the City's Special Order No. 007- 1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual as its basis of design for storm drainage facilities. The LACDPW Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. The *L.A. CEQA Thresholds Guide*, however, establishes the 50-year frequency design storm event as the threshold to analyze potential impacts on surface water hydrology as a result of development. To provide a more conservative analysis, this report analyzes the larger storm event threshold, i.e., the 50-year frequency design storm event.

LACDPW has developed a time of concentration calculator, Hydrocalc, to automate time of concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria as outlined in the Hydrology Manual. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet. The Hydrocalc Calculator was used to calculate the storm water peak runoff

flow rate for the Project conditions by evaluating an individual sub-area independent of all adjacent subareas. See Appendix A for preliminary hydrology calculation results and Figure 5 for the Isohyet Map.

5.2. Surface Water Quality

5.2.1. Construction

Construction BMPs will be designed and maintained as part of the implementation of the SWPPP in compliance with the Construction General Permit. The SWPPP shall begin when construction commences, before any site clearing and grubbing or demolition activity. During construction, the SWPPP will be referred to regularly and amended as changes occur throughout the construction process. The Notice of Intent (NOI), Amendments to the SWPPP, Annual Reports, Rain Event Action Plans (REAPs), and Non- Compliance Reporting will be posted to the State's SMARTS website in compliance with the requirements of the Construction General Permit.

5.2.2. Operation

The Project will meet the requirements of the City's LID standards[15]. Under Section 3.1.3. of the LID Manual, post-construction stormwater runoff from a new development must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for at least the volume of water produced by the greater of the 85th percentile storm or the 0.75-inch storm event. The LID Manual prioritized the selection of BMPs used to comply with stormwater mitigation requirement. The order of priority is:

1. Infiltration Systems
2. Stormwater Capture and Use
3. High Efficient Biofiltration/Bioretention Systems
4. Combination of Any of the Above

According to the City's LID Handbook, the mitigated volume generated from the greater of the 85th percentile storm and the 0.75-inch storm event at a minimum:

V_{design} (gallons) = (85th percentile or 0.75 inch * 7.48 gallons/cubic foot) * Catchment Area (sq. ft.)

Where:

Catchment Area = (Impervious Area x 0.9) + [(Pervious Area + Undeveloped Area) x 0.1]

For catchment areas given in acres, multiply the above equation by 43,560 sq. ft./acre.

Based on the size of the Project Site, the LID system would be required to mitigate up to 4,147 cubic feet (31,022 gallons) of runoff generated by the design storm event. See Appendix B for LID calculations. This calculation assumes 100% imperviousness; it is understood that the

[15] The Development Best Management Practices Handbook, Part B Planning Activities, 5th edition was adopted by the City of Los Angeles, Board of Public Works on May 9, 2016.

required mitigation volume will be reduced based on the implementation of landscaping and other features which will reduce the effective imperviousness of the Site.

Feasibility screening delineated in the LID manual is applied to determine which BMP will best suit the Project.. Specifically, LID guidelines require that infiltration systems maintain at least 10 feet of clearance to the groundwater, property line, and any building structure. Per the Project geotechnical investigation, groundwater was encountered during substructure investigation 17 feet below ground surface. Thus, infiltration is likely infeasible due to high groundwater prescence.

As infiltration is likely infeasible, stormwater capture and use must be considered. Given the limited site planting proposed and drought-tolerant planting (PF of 0.25), the estimated total water usage is likely less than the stormwater quality design volume. Please refer to Table 2 below for calculations. Therefore, the Project would most likely consider implementation of a High Efficiency Biofiltration/Bioretention system. Refer to Appendix B and Table 3 for preliminary low impact development calculations.

Table 2: Preliminary Capture and Reuse Feasibility Analysis

V_{design} (CF) =	4115	CF	*(Hydrocalc 24-Hr Clear Runoff Volume)*
$A_{pervious}$ (SF) =	7309	SF	
Planting Factor =	0.25		*(ETAF per Irrigation Plans see MAWA / ETWU table L3.00)*
i. Design Volume, V_{design}			
V_{design} (CF) =	4115	CF	
V_{design} (gal) =	30780	gal	
ii. Pervious Area, $A_{pervious}$			
$A_{pervious}$ (SF) =	7309	SF	
iii. Planter Factor, PF			
Planting Factor =	0.25		
PF (SF) =	1827	SF	
iv. $ETWU_{(7\text{-}month)}$			
$ETWU_{(7\text{-}month)}$ (gal)=	24584	gal	
v. Feasibility			

$ETWU_{(7\text{-}month)}$ =	24584	<	V_{design} =	30780	**, therefore**	**infeasible**

Table 3: Preliminary Low Impact Development Calculations

Tributary Area	BMP	Site Area (SF)	Impervious Area (SF)	Pervious Area Provided (SF)	Mitigation Volume Required (CF)	Peak Flow Rate Required (CFS)	Treatment Rate (CFS) = 1.5 x Peak Flow Rate Required
PROP-1	Biofiltration Treatment System (Filterra or Approved Equal)	17,236	14,624	2,612	1,296	0.16	0.24
PROP-2		17,538	15,744	1,794	1,296	0.15	0.23
PROP-3		20,735	17,832	2,903	1,523	0.16	0.24

5.3. Groundwater

The significance of this Project as it relates to the level of the underlying groundwater table of the Hollywood Groundwater Subbasin included a review of the following considerations:

Analysis and Description of the Project's Existing Condition

- Identification of the Hollywood Subbasin as the underlying groundwater basin, and description of the level, quality, direction of flow, and existing uses for the water;
- Description of the location, existing uses, production capacity, quality, and other pertinent data for spreading grounds and potable water wells in the vicinity (usually within a one-mile radius), and;
- Area and degree of permeability of soils on the Project Site, and;

Analysis of the Proposed Project Impact on Groundwater Level

- Description of the rate, duration, location and quantity of extraction, dewatering, spreading, injection, or other activities;
- The projected reduction in groundwater resources and any existing wells in the vicinity (usually within a one-mile radius); and
- The projected change in local or regional groundwater flow patterns.

In addition, this report discusses the impact of both existing and proposed activities at the Project Site on the groundwater quality of the underlying Hollywood Subbasin.

Short-term groundwater quality impacts could potentially occur during construction of the Project as a result of soil or shallow groundwater being exposed to construction materials, wastes, and spilled materials. These potential impacts are qualitatively assessed.

6. PROJECT IMPACT ANALYSIS

6.1. Construction

6.1.1. Surface Water Hydrology

Construction activities for the Project include site clearing and excavating below the existing grade to construct building foundations.

It is anticipated that soils would balance on site and the import or export of soil is not required. These activities will temporarily expose the underlying soils and may make the Project Site temporarily more permeable. Also, exposed and temporarily stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff.

However, as the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES General Construction stormwater permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction. The NPDES and SWPPP measures are designed to (and would in fact) contain and treat, as necessary, stormwater or construction watering on the Project site so runoff does not impact off-site drainage facilities or receiving waters. Construction activities are temporary and flow directions and runoff volumes during construction will be controlled.

In addition, the Project would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion. Thus, through compliance with all NPDES General Construction Permit requirements, implementation of BMPs, and compliance with applicable City grading regulations, the Project would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion, siltation, or flooding on- or off-site. Similarly, adherence to standard compliance measurements in construction activities would ensure that construction of the Project would not cause the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. As construction activities would be limited to the Project Site, such activities would not conflict with implementation of a water quality control plan. Therefore, construction-related impacts to surface water hydrology would be less than significant.

6.1.2. Surface Water Quality

Construction activities such as earth moving, maintenance of construction equipment, handling of construction materials, and dewatering, can contribute to pollutant loading in stormwater runoff.

As discussed further in Section 6.1.3 below, the Project is expected to require dewatering during construction. Dewatering operations are practices that discharge non-stormwater, such as groundwater, that must be removed from a work location to proceed with construction into the drainage system. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedance of the NPDES requirements. If groundwater is encountered during construction, temporary pumps and

filtration would be utilized in compliance with the NPDES permit. The temporary system would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations.

With implementation of the SWPPP, site-specific BMPs would reduce or eliminate the discharge of potential pollutants from stormwater runoff. In addition, the Project Applicant would be required to comply with City grading permit regulations and inspections to reduce sedimentation and erosion. Construction of the Project would not result in discharge that would cause: (1) pollution which would alter the quality of the water of the State (i.e., Ballona Creek to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes. Furthermore, construction of the Project would not result in discharges that would cause regulatory standards to be violated in the Ballona Creek Watershed. The Project would also not provide substantial additional sources of polluted runoff, nor would it conflict with the implementation of a water quality control plan. In addition, implementation of the SWPPP would ensure that construction activities would not result in substantial erosion or siltation on- or off-site, or risk release of other pollutants due to inundation. Therefore, temporary construction-related impacts on surface water quality would be less than significant.

6.1.3. Groundwater Hydrology

As stated above, construction activities for the Project would include excavating for building foundations, building up the structure, and hardscape and landscape around the structure. As described in the Geotechnical Site Evaluation and Stormwater Infiltration Test Report[16] prepared for the Project Site, groundwater was encountered approximately 17 feet below grade during substructure investigation. The Project's proposed excavation is not anticipated to go beyond the geotechnical exploration. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with all applicable regulations and requirements, including with all relevant NPDES requirements related to construction and discharges from dewatering operations. Therefore, the Project would not substantially deplete groundwater supplies in a manner that would result in a net deficit in aquifer volume or lowering of the local groundwater table and impacts related to groundwater hydrology would be less than significant.

6.1.4. Groundwater Quality

The Project is expected to balance soil on site. Although not anticipated at the Project Site, any contaminated soils found would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with regulatory requirements.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater.

[16] Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, would reduce the potential for the construction of the Project to release contaminants into groundwater that could affect existing contaminants, expand the area or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well. In addition, as there are no groundwater production wells or public water supply wells within one mile of the Project Site, construction activities would not be anticipated to affect existing wells. Therefore, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater quality. As construction activities are not expected to encounter existing groundwater supplies, it would not conflict with the implementation of a sustainable groundwater management plan. Therefore, impacts on groundwater quality would be less than significant.

6.2. Operation

6.2.1. Surface Water Hydrology

The project site is expected to decrease the overall percentage of impervious area from the current condition of the project site. For conservative, preliminary analysis, the proposed condition is assumed to have a total imperviousness of 100%. Accordingly, it is anticipated that an increase in the intensity of stormwater runoff will be projected. However, as discussed below, this increase is minimal, and the implementation of LID BMPs will further reduce this potential impact.

Table 4 below shows the proposed peak flow rates stormwater runoff calculations for the 50-year frequency design storm event and compares the results of existing drainage areas.

Table 4: Existing and Proposed Drainage Area Comparison

Drainage Area Number	Drainage Area (Acres)	50-year Flow (CFS)
EX-1	0.80	2.53
EX-2	0.47	1.49
Total Pre-Dev.	**1.27**	**4.02**
PROP-1	0.40	1.27
PROP-2	0.40	1.27
PROP-3	0.47	1.49
Total Post-Dev.	**1.27**	**4.02**

In the existing condition, stormwater runoff primarily sheet flows over the sidewalks and into the gutter. The post-Project condition will manage stormwater flow locally into area drains and roof drains, which will collect and likely discharge through the curb face at concentrated points or into a storm drain pipe connected to the street main. Therefore, it is highly unlikely the project would cause flooding during a 50-year storm event or result in a permanent adverse change to the movement of surface water on the Project Site.

A comparison of the pre- and post- peak flow rates indicates an overall decrease of 0.03 cfs. As the anticipated project represents primarily a minor redistribution of stormwater discharge – and one which will be further controlled with the installation of LID BMPs.

The LID requirements for the Project Site would outline the stormwater treatment post-construction BMPs required to control pollutants associated with storm events up to the 85th percentile storm event. The Project BMPs will mitigate the stormwater runoff quality and quantity. Therefore, impacts related to stormwater infrastructure improvements would be less than significant.

6.2.2. Surface Water Quality

The Project Site will not increase concentrations of the items listed as constituents of concern for the Ballona Creek Watershed.

Under section 3.1.3. of the LID Manual, post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for the volume of water produced by the 85th percentile storm event. Due to incorporation of the required LID BMPs, operation of the Project would not result in discharges that would cause: (1) pollution which would alter the quality of the waters of the State (i.e., Ballona Creek) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes.

As is typical of most urban developments, stormwater runoff from the Project Site has the potential to introduce pollutants into the stormwater system. Anticipated and potential pollutants generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. The pollutants listed above would be mitigated through the implementation of approved LID BMPs.

Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated. The existing Project Site is approximately 95 percent impervious. The Project will decrease the overall site imperviousness and a portion of the Project Site will be allocated for stormwater BMPs specifically intended to control and treat stormwater runoff in compliance with LID requirements. The Project would include the installation of LID BMPs, which would mitigate at minimum the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event. The installed BMP systems will be designed with an internal bypass or overflow system to prevent upstream flooding due to large storm events.

Due to the incorporation of the required LID BMPs, operation of the Project would not result in discharge that would cause: (1) pollution which would alter the quality of the water of the State (i.e., Ballona Creek) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes. Furthermore, operation of the Project would not result in discharges that would

cause regulatory standards to be violated in the Ballona Creek Watershed. As such, the Project would not interfere with the implementation of a water quality control plan. Therefore, potential operational impacts related to surface water quality will be less than significant.

6.2.3. Groundwater Hydrology

The Project will develop landscape, hardscape and one structure that conservatively cover approximately 100% of the Project Site with impervious surfaces. Although this would represent an increase in imperviousness for the Project Site, peak flows are ultimately diminished, because of shorter surface flow path. Implementation of the Project would require incorporation of LID BMPs to treat the "first flush" rain event and as such would be required to utilize infiltration methods if the site conditions dictate feasibility. As infiltration is the highest priority treatment method, it is generally understood that this method would be utilized unless restricted by code requirements (including, but not limited to those limiting the implementation of such on steep hillsides) or create risk to a project (including, but not limited to projects in areas with high groundwater tables or subject to liquefaction). Excess stormwater, which bypasses the BMP systems, would discharge to an approved discharge point in the public right-of-way and not result in infiltration of a large amount of rainfall that would affect groundwater hydrology, including the direction of groundwater flow. As such, the Project's potential impact on groundwater recharge is less than significant.

As discussed above, the Project would include excavations for foundations. The Project site will be balanced with existing soil and is not anticipated to import or export material. Although not anticipated at the Project Site, any contaminated soils found would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with regulatory requirements. Groundwater is not expected to be encountered during construction due to miniminal soil disturbance during construction. Additionally, there are no known groundwater wells within one mile of the Project Site.

Based on the above, operation of the Project would result in a less than significant impact to groundwater hydrology.

6.2.4. Groundwater Quality

The Project does not include the installation of water wells, or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility.

Operational activities which could affect groundwater quality include hazardous material spills and leaking underground storage tanks. No underground storage tanks are known to be currently operated or will be operated by the Project. In addition, while the development of new building facilities would slightly increase the use of on-site hazardous materials as described above, compliance with all applicable existing regulations at the Project Site regarding the handling and potentially required cleanup of hazardous materials would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, as described above, operation of the Project would not require extraction from the groundwater supply based on the depth of excavation for the proposed uses and the depth of groundwater below the Project Site.

The Project is not anticipated to result in violations of any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater quality. Additionally, the Project does not involve drilling to or through a clean or contaminated aquifer. Therefore, the Project's potential impact on groundwater recharge is less than significant.

6.3. Cumulative Impact Analysis

6.3.1. Surface Water Hydrology

The geographic context for the cumulative impact analysis on surface water hydrology is the Ballona Creek Watershed. The Project in conjunction with forecasted growth in the Ballona Creek Watershed could cumulatively increase stormwater runoff flows. However, as noted above, the Project itself is not anticipated to have a significant net impact on stormwater flows. Also, in accordance with City requirements, the Project and related projects would be required to implement BMPs to manage stormwater runoff in accordance with LID guidelines. The City of Los Angeles Department of Public Works reviews projects on a case-by-case basis to ensure sufficient local and regional infrastructure is available to accommodate stormwater runoff. Implementation of LID BMPs would, at a minimum, maintain existing runoff conditions. Therefore, potential cumulative impacts associated with the Project on surface water hydrology would be less than significant.

6.3.2. Surface Water Quality

Future growth in the Ballona Creek Watershed would be subject to NPDES requirements relating to water quality for both construction and operation. The Project Site is located in a highly urbanized area, and it is anticipated that future development projects in this highly urbanized area are not likely to cause substantial changes in regional water quality. As noted above, the Project does not have an adverse impact on water quality and would in fact improve the quality of on-site flows due to the introduction of LID BMPs which do not currently exist at the Project Site. It is likewise anticipated that related projects would also be subject to LID requirements and implementation of measures to comply with TMDLs. The Project, combined with related projects, would comply with all applicable laws, rules and regulations, so cumulative impacts to surface water quality would be less than significant.

6.3.3. Groundwater Hydrology

The geographic context for the cumulative impact analysis on groundwater level is the Central Subbasin. The Project, in conjunction with forecasted growth in the region, could cumulatively increase groundwater demand. However, as noted above, no water supply wells, spreading grounds, or injection wells are located within a one-mile radius of the Project Site and the Project would not have an adverse impact on groundwater levels.

Furthermore, as previously discussed, although implementation of the Project would result in an increase in the amount of impervious surface area, such implementation would include the evaluation of and, if feasible, implementation of infiltration LID BMPs. As such, the project is not anticipated to have a negative impact on groundwater recharge. While any calculation of the extent to which related projects would increase or decrease surface imperviousness that might affect groundwater hydrology would be speculative, the development of such projects would be subject to review and approval pursuant to all applicable regulatory requirements, including any required mitigation of potential groundwater hydrology impacts. In addition, the Project and related projects are located in a highly urbanized area so any potential reduction

or increase in groundwater would be minimal in the context of the regional groundwater basin. Therefore, cumulative impacts to groundwater hydrology would be less than significant.

6.3.4. Groundwater Quality

Future growth in the Hollywood Subbasin would be subject to LARWQCB requirements relating to groundwater quality. In addition, since the Project Site is located in a highly urbanized area, future land use changes or development are not likely to cause substantial changes in regional groundwater quality. As noted above, the Project does not have an adverse impact on groundwater quality. Also, it is anticipated that, like the Project, other future development projects would also be subject to LARWQCB requirements and implementation of measures to comply with TMDLs in addition to requirements of California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. The Project would comply with all applicable laws, rules, and regulations, therefore cumulative impacts to groundwater quality would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant impacts have been identified for surface water hydrology, surface water quality, groundwater hydrology or groundwater quality for this Project.

References

Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023

City of Los Angeles. "Development Best Management Practices Handbook." May, 2016

City of Los Angeles. LA. CEQA Thresholds Guide. 2006
https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

City of Los Angeles Stormwater Program website,
https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/susmp/susmp_details.shtml

The Development Best Management Practices Handbook, Part B Planning Activities, 5th edition was adopted by the City of Los Angeles, Board of Public Works on May 9, 2016.

Final Los Angeles Region 2016 Integrated Report;
https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16r4_ir_reports/01656.shtml; accessed November 22, 2023

Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

Hydraulic Design Manual. Los Angeles County Flood Control District, March 1982.

LARWQCB Basin Plan. March 2020.
<https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/>.

Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed November 22, 2023.

Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/ accessed November 22, 2023.

Los Angeles Regional Water Quality Control Board, Basin Plan, April 2013, accessed November 22, 2023.

Low Impact Development Standards Manual. County of Los Angeles Department of Public Works, February 2014.

State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/. accessed November 22, 2023.

USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

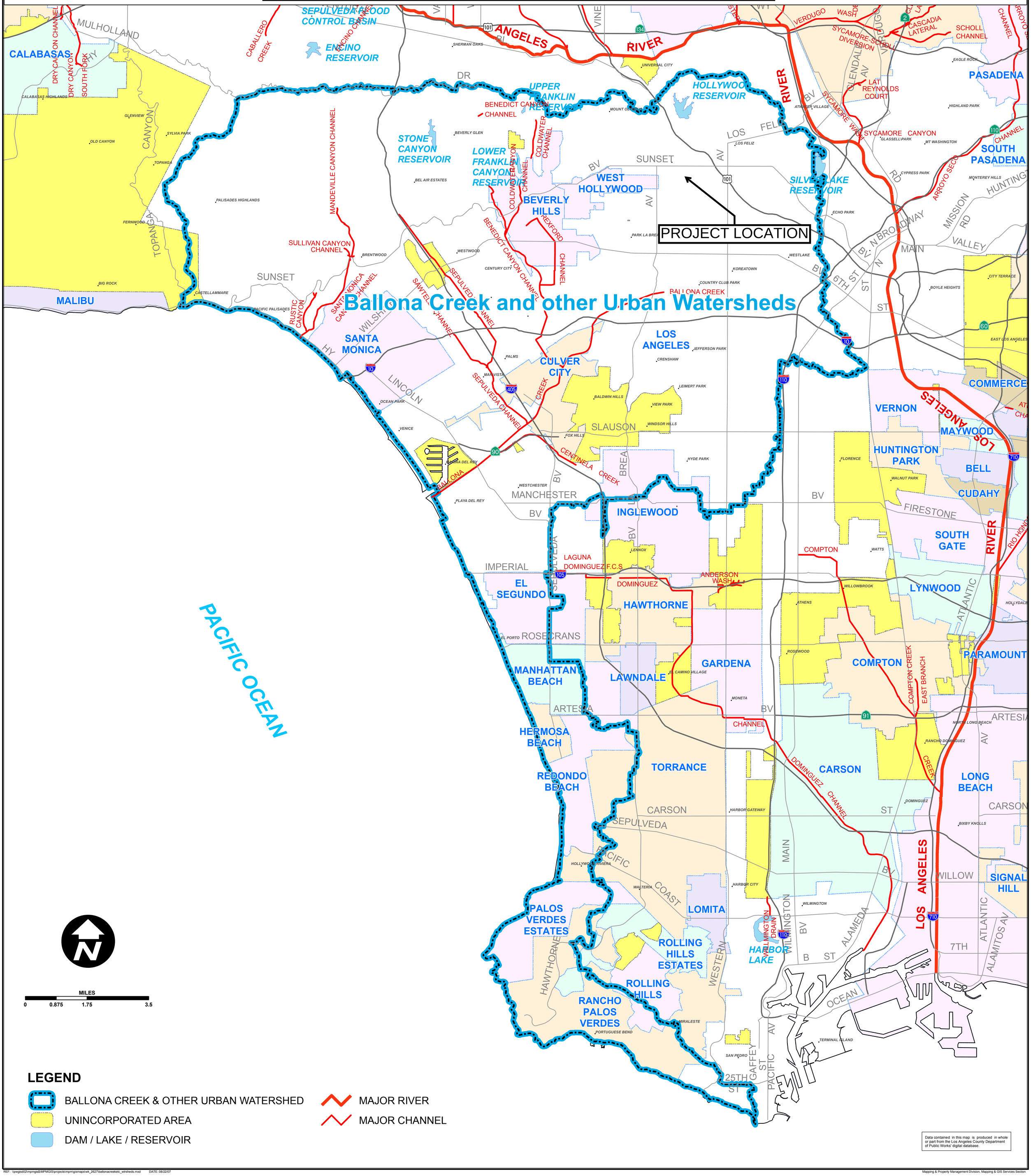
FIGURE 1

Ballona Creek Watershed Map

COUNTY OF LOS ANGELES

BALLONA CREEK & OTHER URBAN WATERSHEDS

FIGURE 1 - BALLONA CREEK WATERSHED MAP



LEGEND

- BALLONA CREEK & OTHER URBAN WATERSHED
- UNINCORPORATED AREA
- DAM / LAKE / RESERVOIR
- MAJOR RIVER
- MAJOR CHANNEL

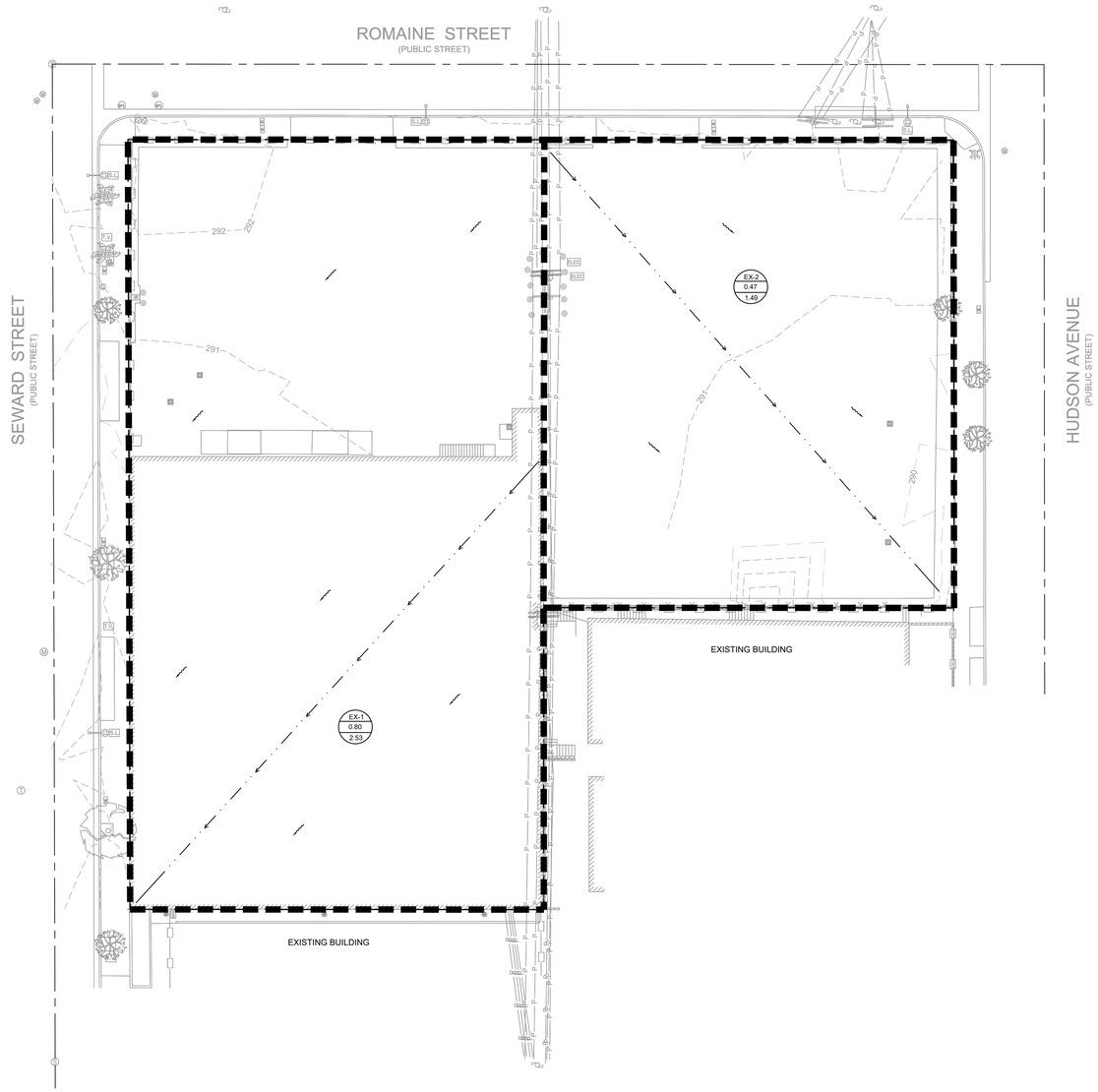
Data contained in this map is produced in whole or part from the Los Angeles County Department of Public Works' digital database.

REF: \\pwgisd02\mpmgis$\MPMGIS\projects\mpm\gismaps\wk_2627\ballonacreeketc_wtrsheds.mxd DATE: 08/22/07

Mapping & Property Management Division, Mapping & GIS Services Section

FIGURE 2

Existing Drainage Area Map



DRAINAGE AREA LEGEND

- FLOW ARROW
- XXX — EXISTING CONTOUR
- DRAINAGE AREA
- FLOW PATH
- DA-X / X.XX / XX — DRAINAGE AREA NUMBER, DRAINAGE AREA (ACRES), 50 YEAR FLOW (CFS)

DRAINAGE CRITERIA

1. EXISTING DRAINAGE RESULTS PER LOS ANGELES COUNTY HYDROCALC 1.0.2:

EX-1	
TC =	5.0 MIN.
C =	0.90
I$_{50-yr}$ =	3.52 IN/HR
Q =	2.53 CFS
EX-2	
TC =	5.0 MIN.
C =	0.90
I$_{50-yr}$ =	3.52 IN/HR
Q =	1.49 CFS
Q_{TOTAL} =	4.02 CFS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1444
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	
DATE	12/27/2023
SCALE	AS SHOWN
DESIGNED BY	KS
DRAWN BY	KS
CHECKED BY	DD

EXISTING DRAINAGE AREA MAP

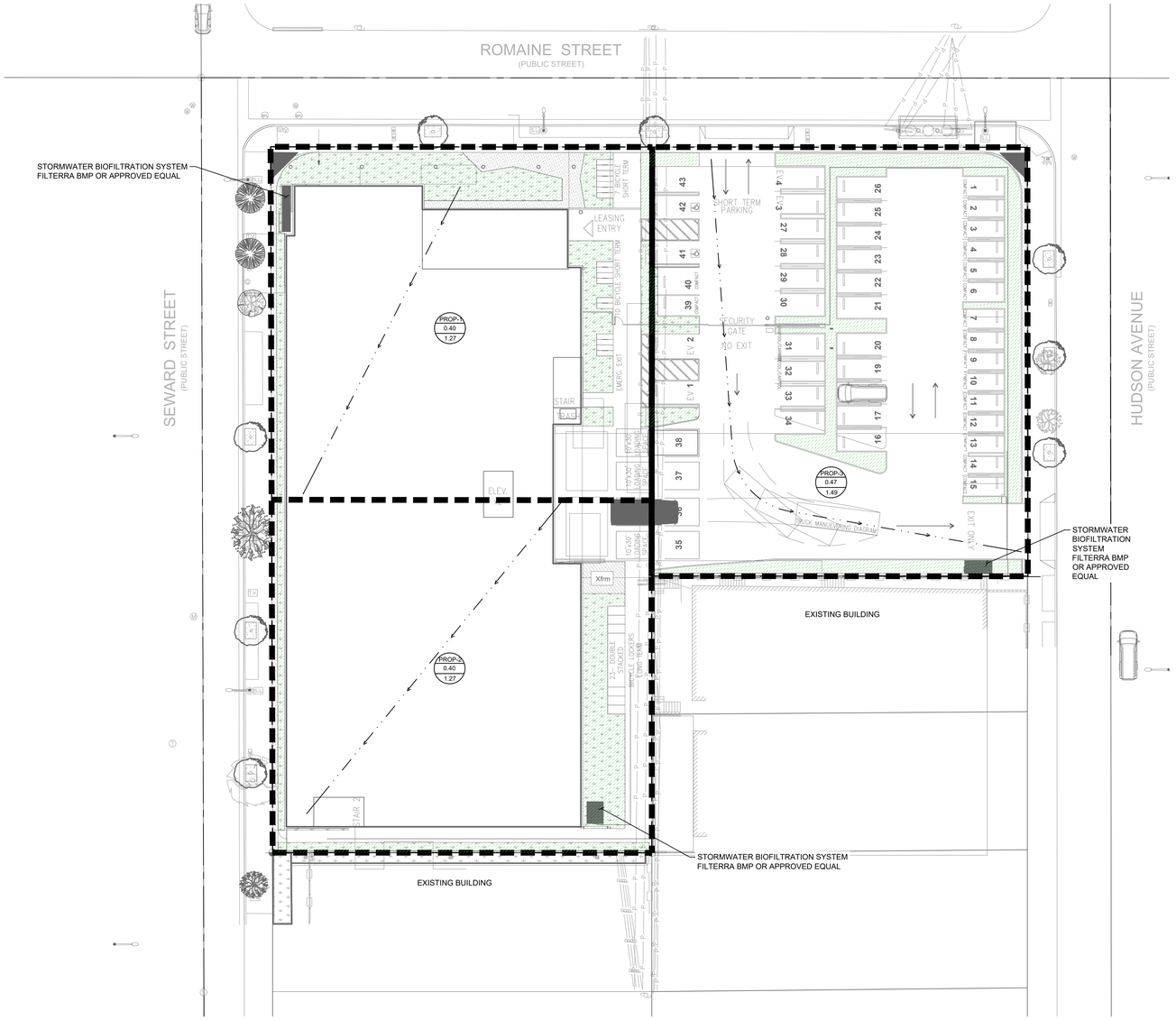
956 SEWARD

LOS ANGELES CA

SHEET NUMBER
1

FIGURE 3

Proposed Drainage Area Map



DRAINAGE AREA LEGEND

- FLOW ARROW
- XXX — EXISTING CONTOUR
- DRAINAGE AREA
- FLOW PATH
- DA-X / X.XX / XX — DRAINAGE AREA NUMBER, DRAINAGE AREA (ACRES), 50 YEAR FLOW (CFS)
- LANDSCAPE AREA PER LANDSCAPE PLANS

DRAINAGE CRITERIA

1. PROPOSED DRAINAGE RESULTS PER LOS ANGELES COUNTY HYDROCALC 1.0.2:

PROP-1		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.27	CFS
PROP-2		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.27	CFS
PROP-2		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.49	CFS
Q_{TOTAL} =	4.02	CFS

LID TABULATION

TRIBUTARY AREA	BMP	SITE AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA PROVIDED (SF)*	MITIGATION VOLUME REQUIRED (CF)**	PEAK FLOW RATE REQUIRED (CFS)	TREATMENT RATE (CFS) = 1.5 X PEAK FLOW RATE REQUIRED
PROP-1	BIOFILTRATION TREATMENT SYSTEM (FILTERRA OR APPROVED EQUAL)	17,236	14,624	2,612	1,296	0.16	0.24
PROP-2		17,538	15,744	1,794	1,296	0.15	0.23
PROP-3		20,735	17,832	2,903	1,523	0.16	0.24

* PERVIOUS AREAS WERE ASSESSED BASED ON THE ARCHITECTURAL AND LANDSCAPE PLANS PROVIDED ON 12/13/2023.

** MITIGATED VOLUME REQUIRED IS COMPUTED ASSUMING 100% IMPERVIOUS FOR CONSERVATIVE, PRELIMINARY ANALYSIS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1490
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT			
DATE	12/27/2023		
SCALE	AS SHOWN	DESIGNED BY	KS
		DRAWN BY	KS
		CHECKED BY	DD

PROPOSED DRAINAGE AREA MAP

956 SEWARD
LOS ANGELES CA

SHEET NUMBER
2

FIGURE 4

Coastal Plain of Los Angeles Groundwater Basin Exhibit

FIGURE 4 - COSTAL PLAIN OF LOS ANGELES GROUNDWATER BASIN EXHIBIT

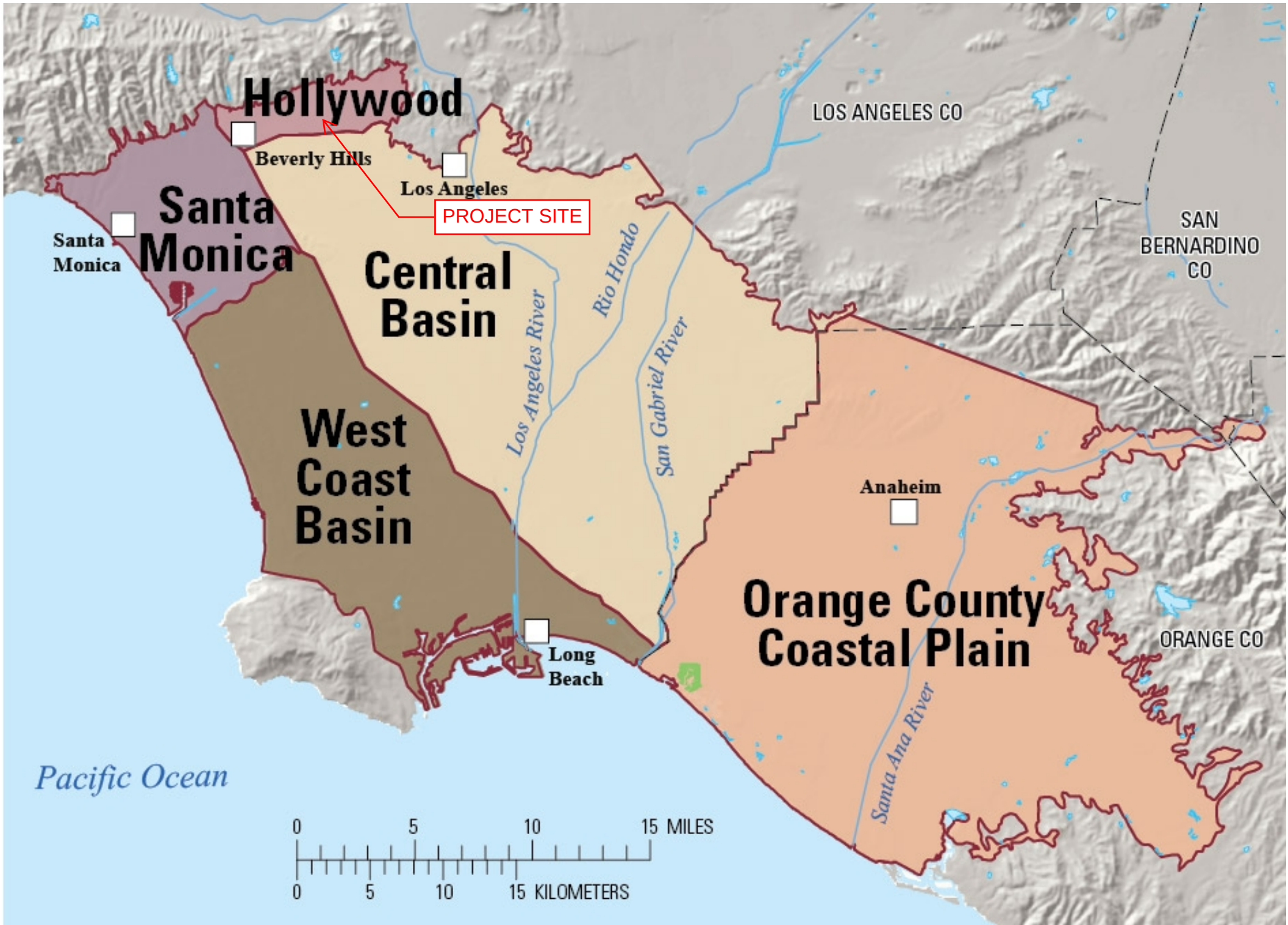
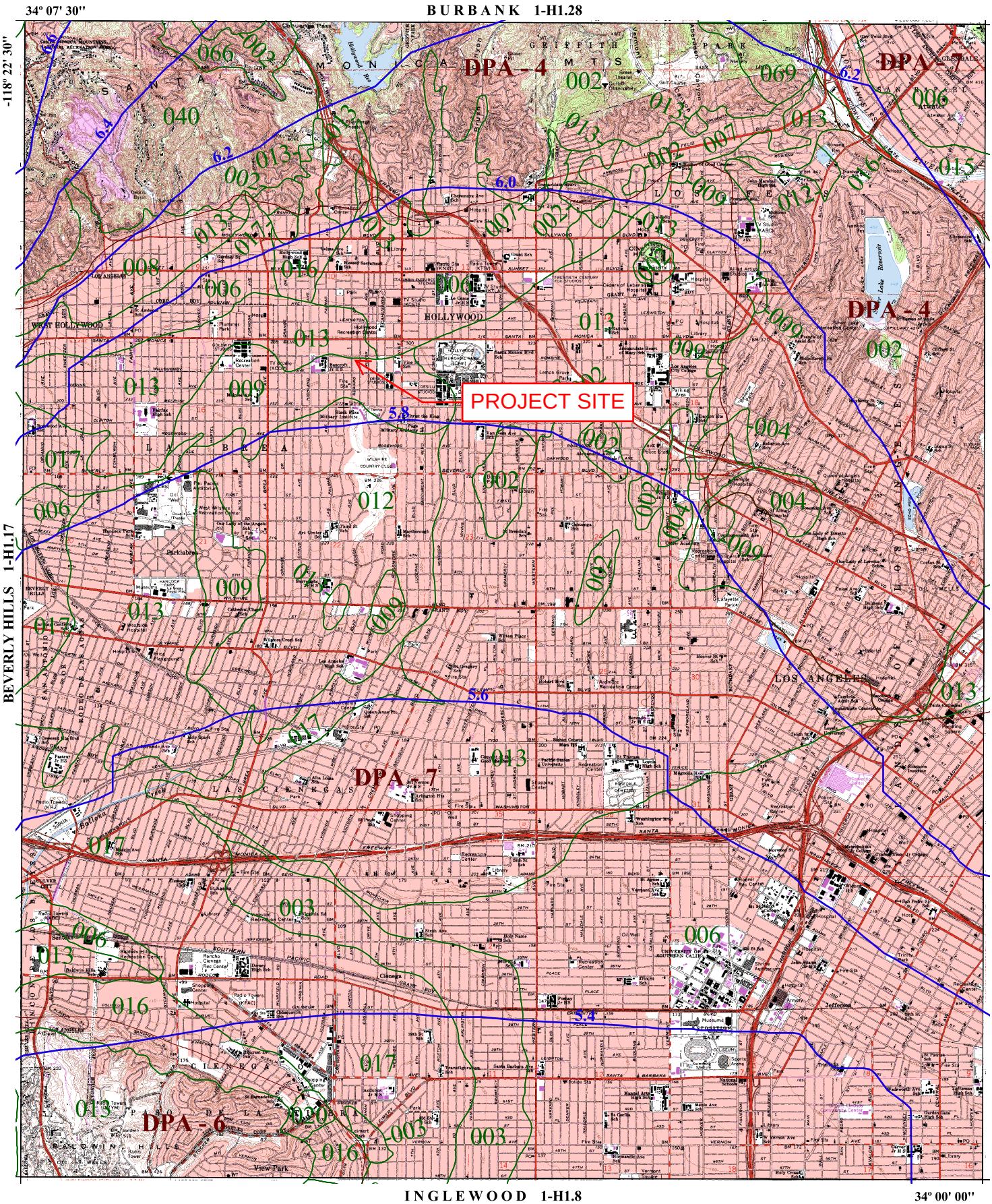


FIGURE 5

50-Year 24-Hour Isohyet Map



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

N W E S

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

HOLLYWOOD 1-H1.18
50-YEAR 24-HOUR ISOHYET

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

APPENDIX A

Preliminary Hydrology Calculations

Peak Flow Hydrologic Analysis

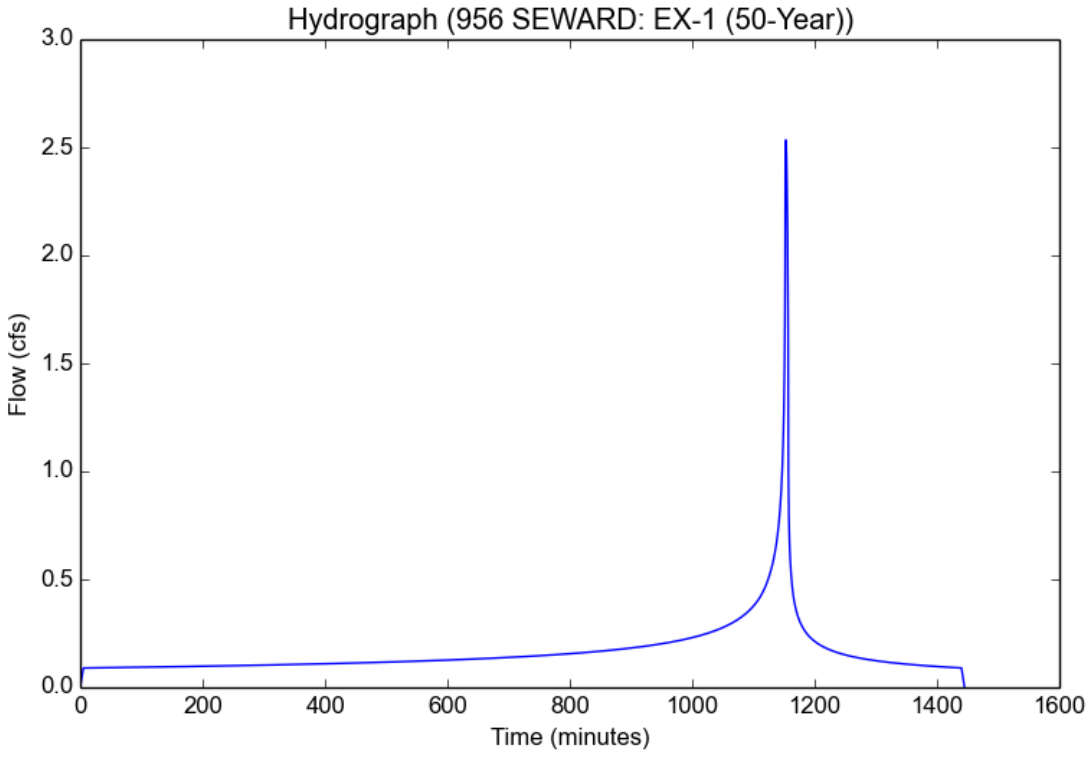
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - EX-1 (50-Year).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	EX-1 (50-Year)
Area (ac)	0.8
Flow Path Length (ft)	200.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.95
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.5345
Burned Peak Flow Rate (cfs)	2.5345
24-Hr Clear Runoff Volume (ac-ft)	0.3371
24-Hr Clear Runoff Volume (cu-ft)	14682.5759



Peak Flow Hydrologic Analysis

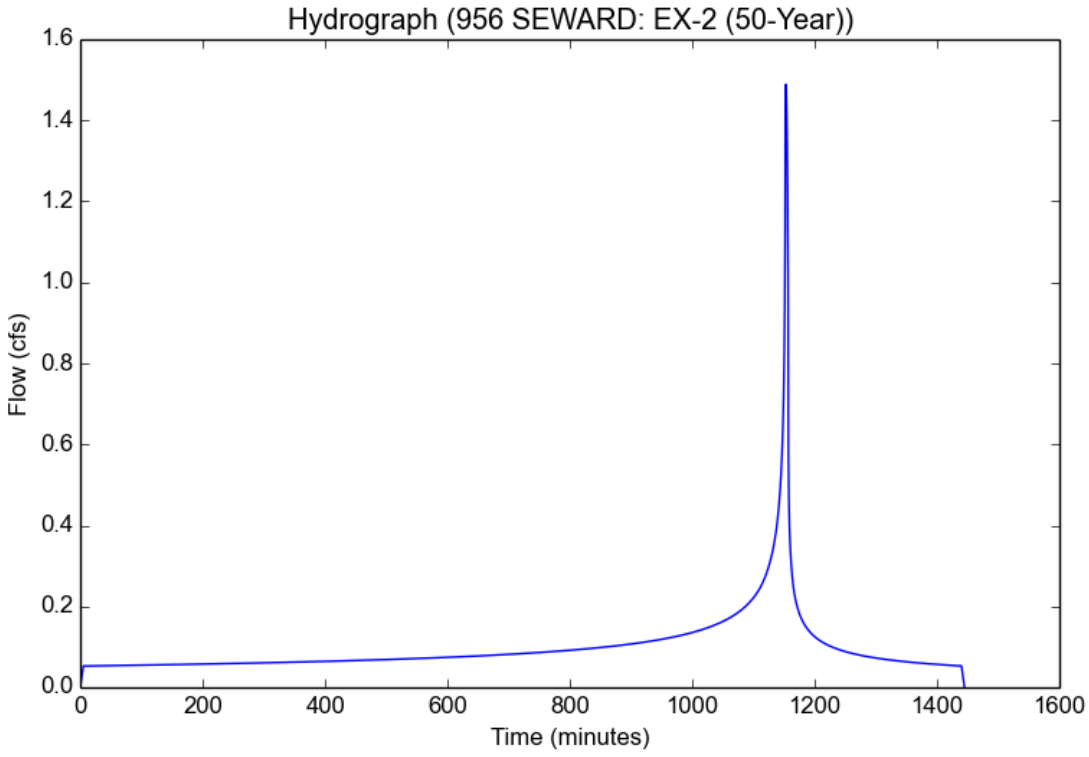
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - EX-2 (50-Year).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	EX-2 (50-Year)
Area (ac)	0.47
Flow Path Length (ft)	200.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.95
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.489
Burned Peak Flow Rate (cfs)	1.489
24-Hr Clear Runoff Volume (ac-ft)	0.198
24-Hr Clear Runoff Volume (cu-ft)	8626.0133



Peak Flow Hydrologic Analysis

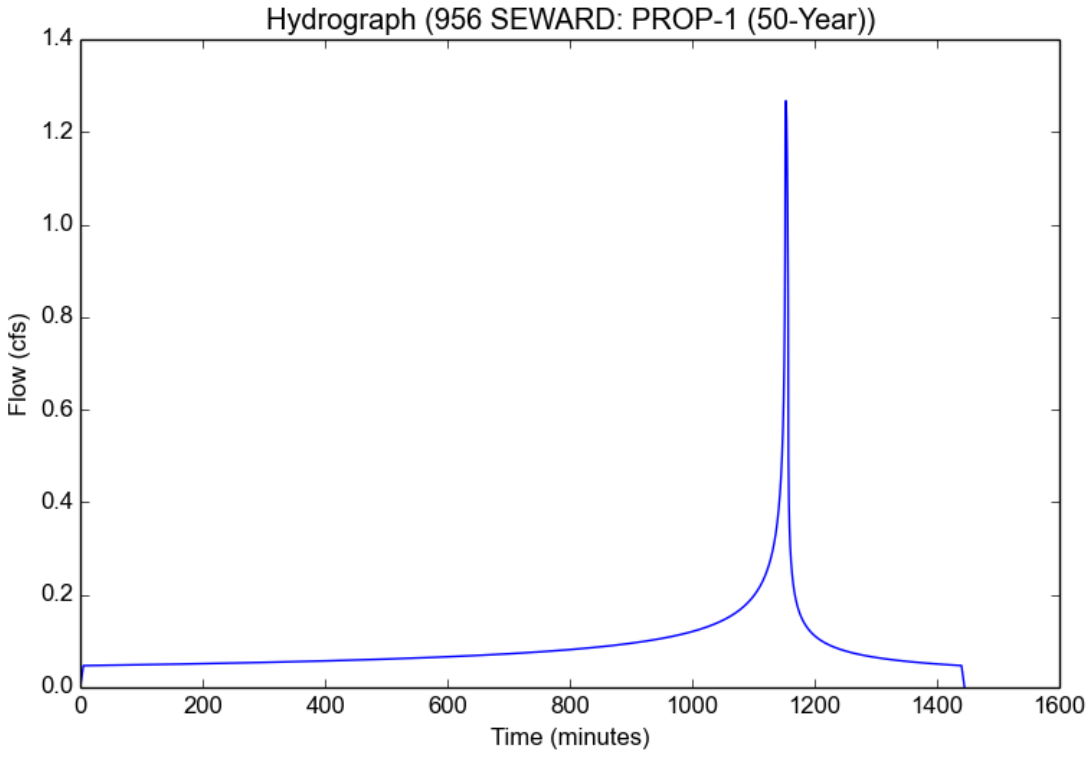
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-1 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-1 (50-Year)
Area (ac)	0.4
Flow Path Length (ft)	125.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.2672
Burned Peak Flow Rate (cfs)	1.2672
24-Hr Clear Runoff Volume (ac-ft)	0.1755
24-Hr Clear Runoff Volume (cu-ft)	7646.4024



Peak Flow Hydrologic Analysis

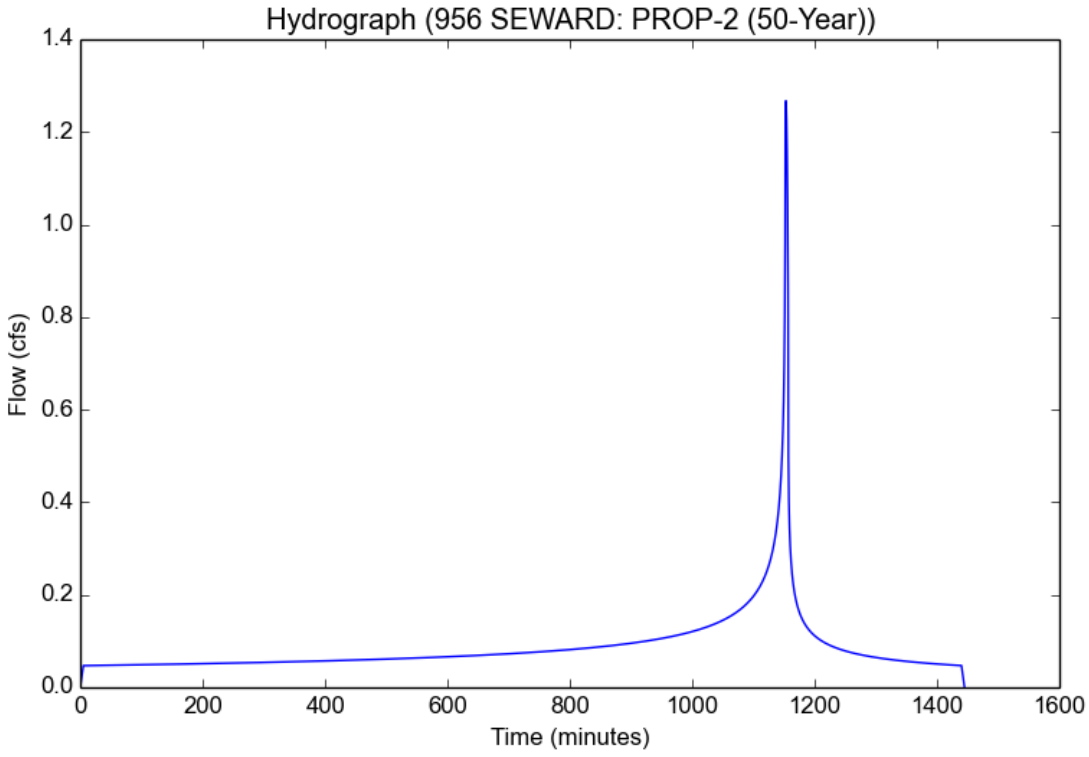
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-2 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-2 (50-Year)
Area (ac)	0.4
Flow Path Length (ft)	145.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.2672
Burned Peak Flow Rate (cfs)	1.2672
24-Hr Clear Runoff Volume (ac-ft)	0.1755
24-Hr Clear Runoff Volume (cu-ft)	7646.4024



Peak Flow Hydrologic Analysis

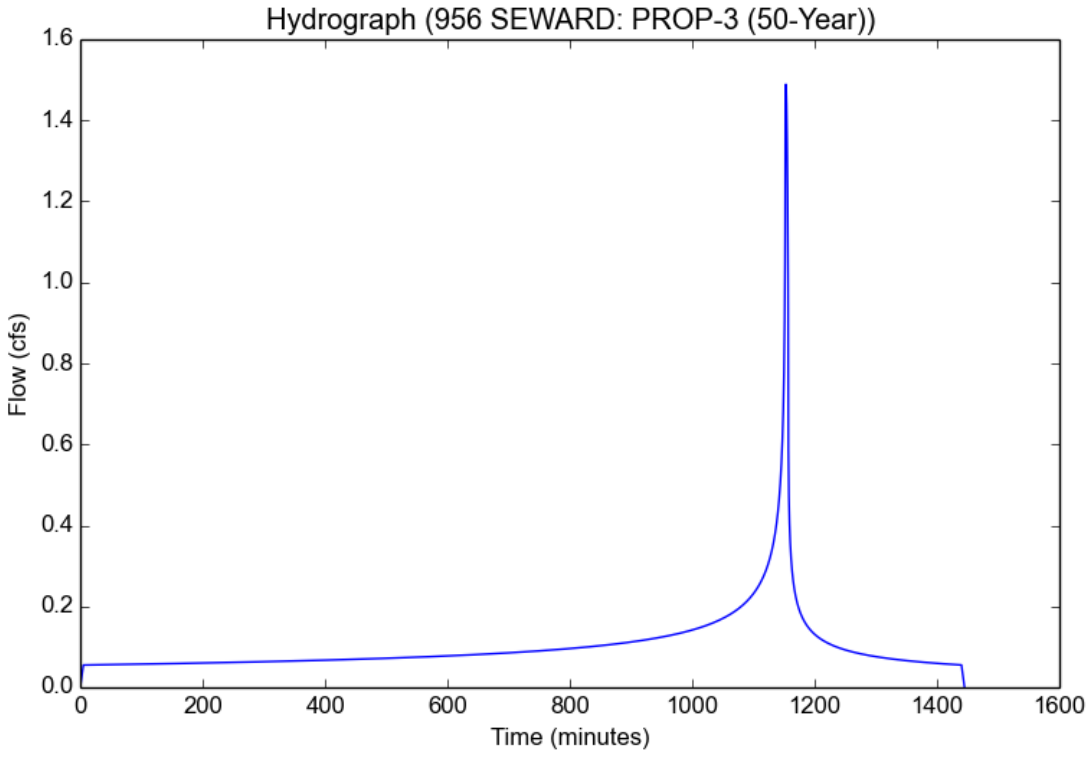
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-3 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-3 (50-Year)
Area (ac)	0.47
Flow Path Length (ft)	225.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.489
Burned Peak Flow Rate (cfs)	1.489
24-Hr Clear Runoff Volume (ac-ft)	0.2063
24-Hr Clear Runoff Volume (cu-ft)	8984.5228



APPENDIX B

Preliminary Low Impact Development (LID) Calculations

Peak Flow Hydrologic Analysis

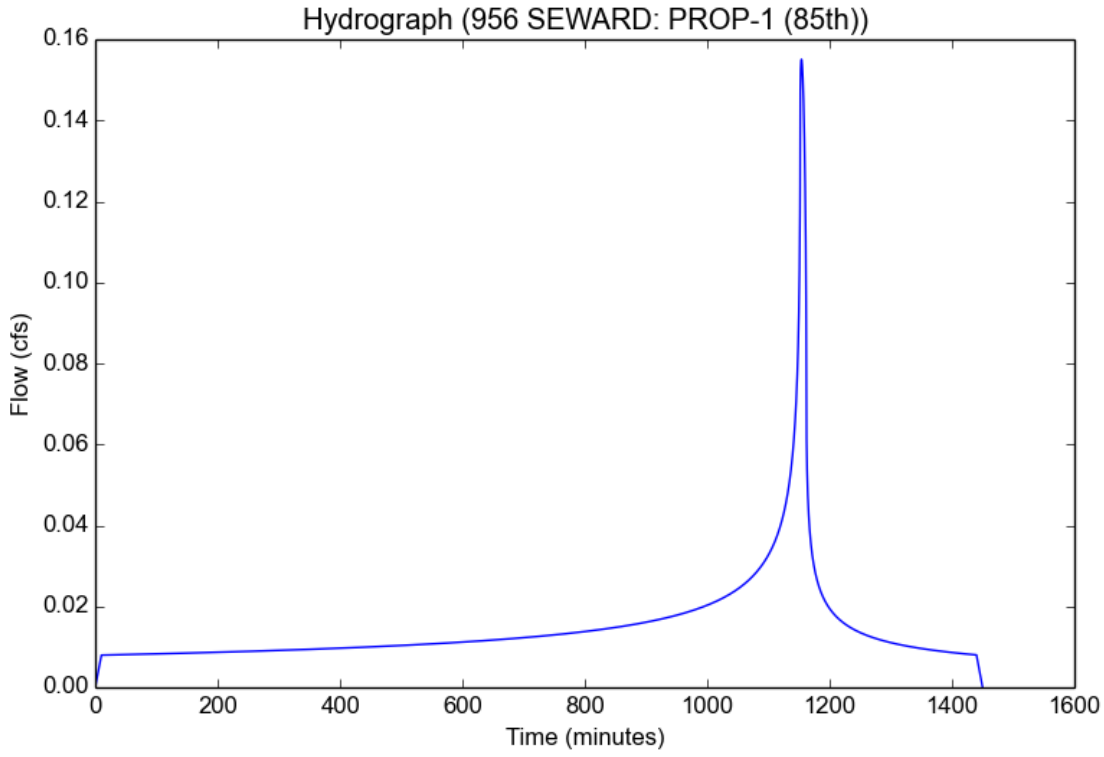
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-1 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-1 (85th)
Area (ac)	0.4
Flow Path Length (ft)	125.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.4307
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	0.1551
Burned Peak Flow Rate (cfs)	0.1551
24-Hr Clear Runoff Volume (ac-ft)	0.0298
24-Hr Clear Runoff Volume (cu-ft)	1296.0016



Peak Flow Hydrologic Analysis

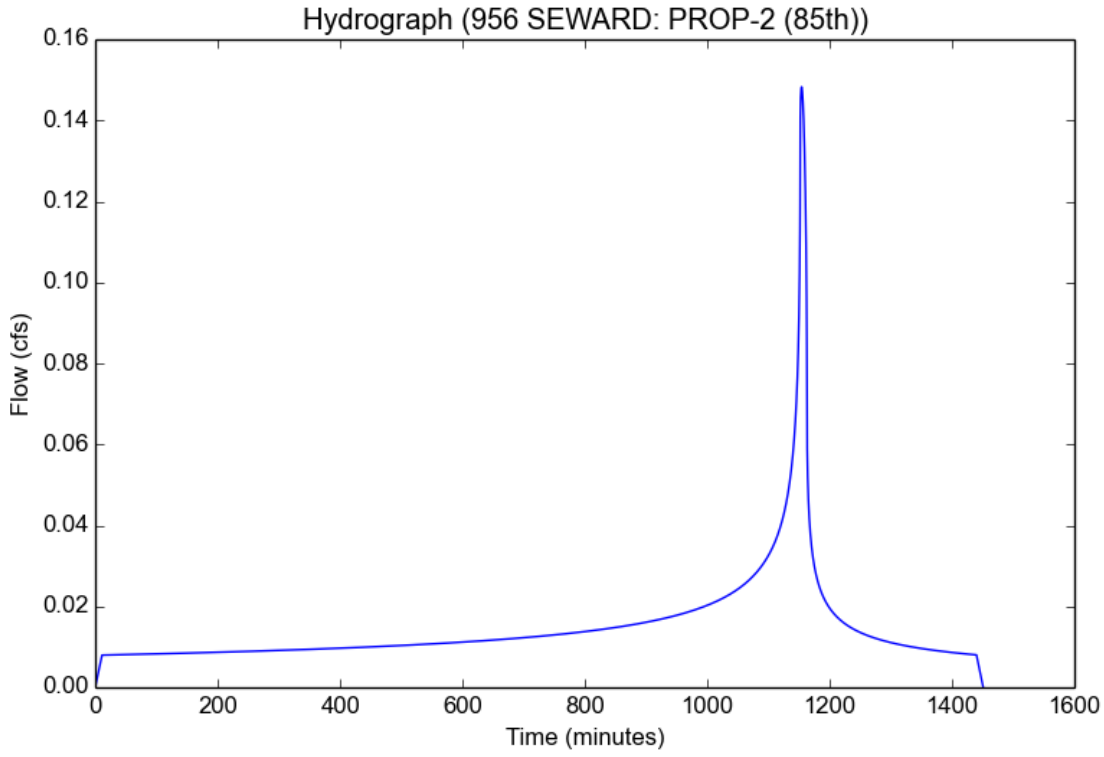
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-2 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-2 (85th)
Area (ac)	0.4
Flow Path Length (ft)	145.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.4119
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	11.0
Clear Peak Flow Rate (cfs)	0.1483
Burned Peak Flow Rate (cfs)	0.1483
24-Hr Clear Runoff Volume (ac-ft)	0.0298
24-Hr Clear Runoff Volume (cu-ft)	1296.002



Peak Flow Hydrologic Analysis

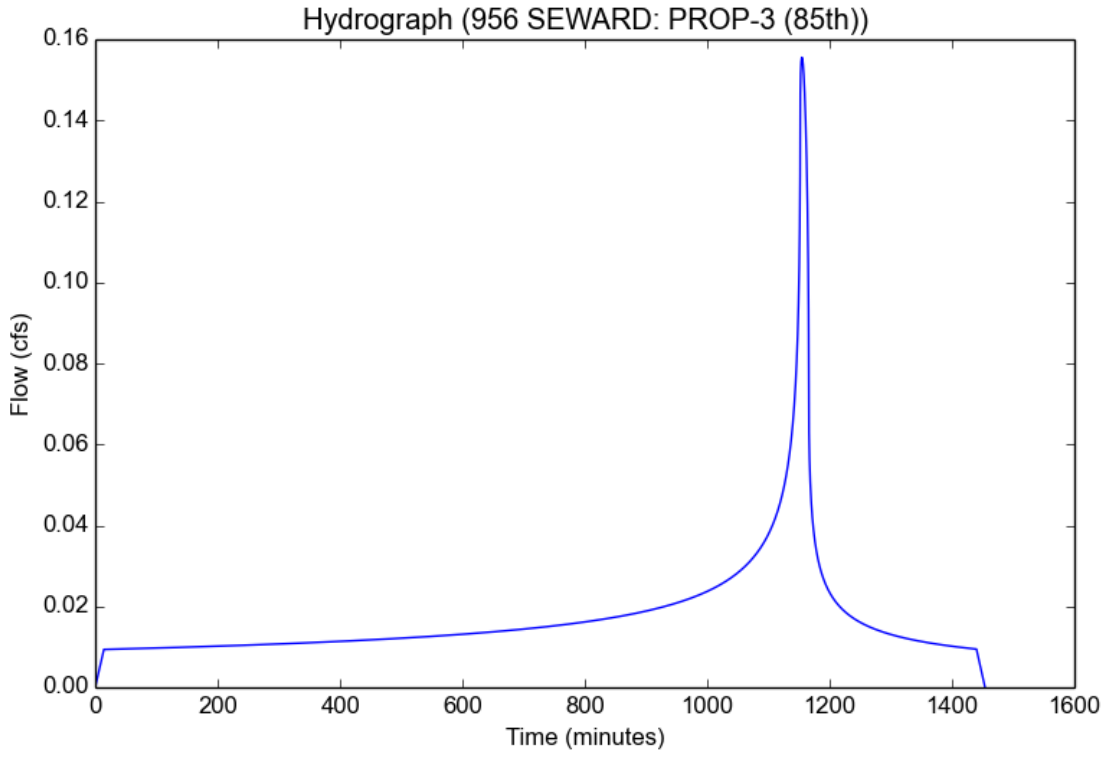
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-3 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-3 (85th)
Area (ac)	0.47
Flow Path Length (ft)	225.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.3677
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	14.0
Clear Peak Flow Rate (cfs)	0.1556
Burned Peak Flow Rate (cfs)	0.1556
24-Hr Clear Runoff Volume (ac-ft)	0.035
24-Hr Clear Runoff Volume (cu-ft)	1522.8038



CAPTURE AND USE FEASIBILITY CALCULATION

Note: Red values are inputs.
Black values are automatically calculated.
Green values are outputs.

V_{design} (CF) =	4115	CF	*(Hydrocalc 24-Hr Clear Runoff Volume)*
$A_{pervious}$ (SF) =	7309	SF	
Planting Factor =	0.25		*(ETAF per Irrigation Plans see MAWA / ETWU table L3.00)*

i. Design Volume, V_{design}

V_{design} (CF) =	4115	CF
V_{design} (gal) =	30780	gal

ii. Pervious Area, $A_{pervious}$

$A_{pervious}$ (SF) =	7309	SF

iii. Planter Factor, PF

Planting Factor =	0.25	
PF (SF) =	1827	SF

iv. $ETWU_{(7\text{-month})}$

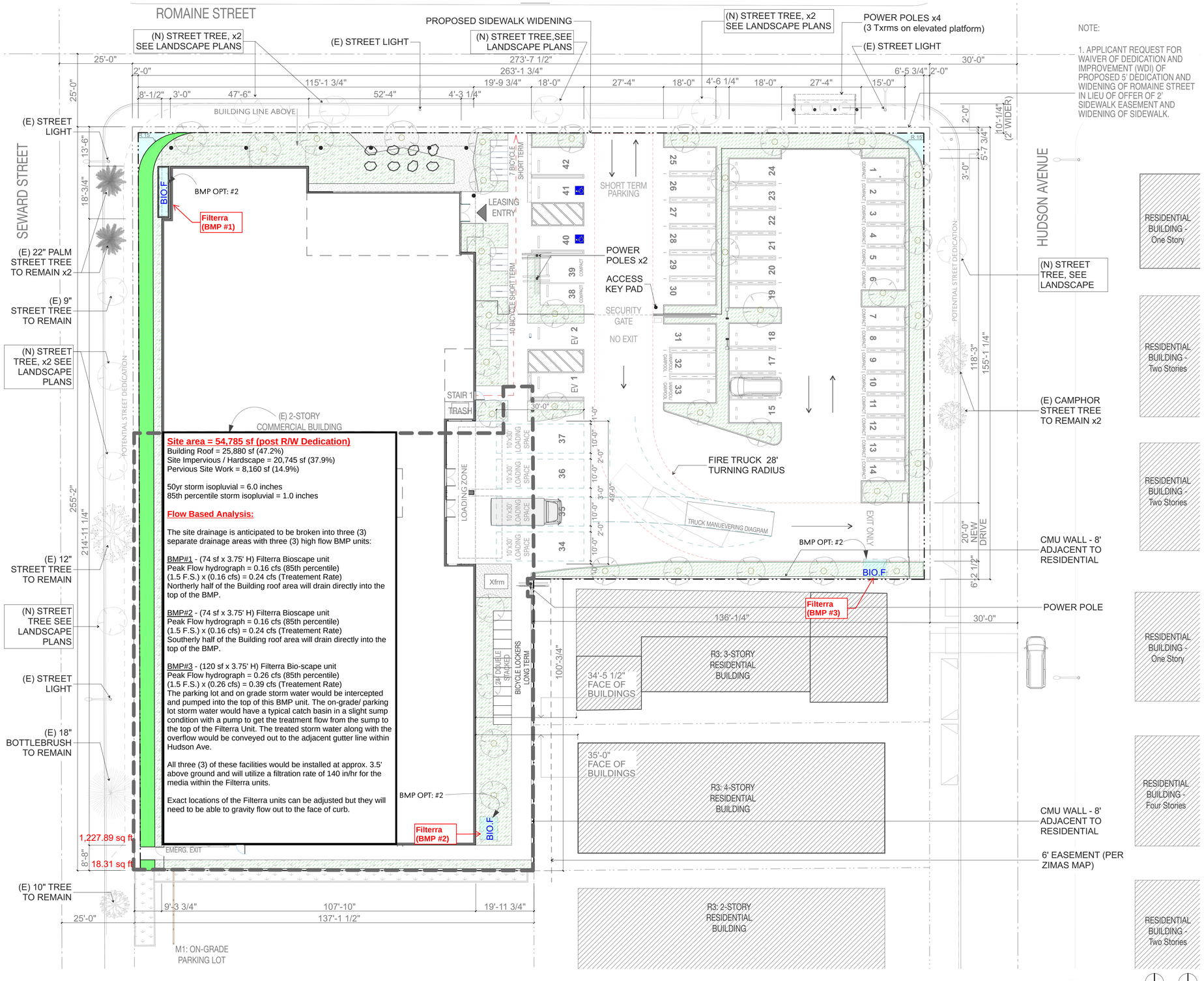
$ETWU_{(7\text{-month})}$ (gal)=	24584	gal

v. Feasibility

$ETWU_{(7\text{-month})}$ =	24584	<	V_{design} =	30780	**, therefore** **infeasible**

APPENDIX C

Architectural Plans



Site area = 54,785 sf (post R/W Dedication)
Building Roof = 25,880 sf (47.2%)
Site Impervious / Hardscape = 20,745 sf (37.9%)
Pervious Site Work = 8,160 sf (14.9%)

50yr storm isopluvial = 6.0 inches
85th percentile storm isopluvial = 1.0 inches

Flow Based Analysis:

The site drainage is anticipated to be broken into three (3) separate drainage areas with three (3) high flow BMP units:

BMP#1 - (74 sf x 3.75' H) Filterra Bioscape unit
Peak Flow hydrograph = 0.16 cfs (85th percentile)
(1.5 F.S.) x (0.16 cfs) = 0.24 cfs (Treatement Rate)
Northerly half of the Building roof area will drain directly into the top of the BMP.

BMP#2 - (74 sf x 3.75' H) Filterra Bioscape unit
Peak Flow hydrograph = 0.16 cfs (85th percentile)
(1.5 F.S.) x (0.16 cfs) = 0.24 cfs (Treatement Rate)
Southerly half of the Building roof area will drain directly into the top of the BMP.

BMP#3 - (120 sf x 3.75' H) Filterra Bio-scape unit
Peak Flow hydrograph = 0.26 cfs (85th percentile)
(1.5 F.S.) x (0.26 cfs) = 0.39 cfs (Treatement Rate)
The parking lot and on grade storm water would be intercepted and pumped into the top of this BMP unit. The on-grade/ parking lot storm water would have a typical catch basin in a slight sump condition with a pump to get the treatment flow from the sump to the top of the Filterra Unit. The treated storm water along with the overflow would be conveyed out to the adjacent gutter line within Hudson Ave.

All three (3) of these facilities would be installed at approx. 3.5' above ground and will utilize a filtration rate of 140 in/hr for the media within the Filterra units.

Exact locations of the Filterra units can be adjusted but they will need to be able to gravity flow out to the face of curb.

NOTE:

1. APPLICANT REQUEST FOR WAIVER OF DEDICATION AND IMPROVEMENT (WDI) OF PROPOSED 5' DEDICATION AND WIDENING OF ROMAINE STREET IN LIEU OF OFFER OF 2' SIDEWALK EASEMENT AND WIDENING OF SIDEWALK.

SITE PLAN
1/16" = 1'-0"

TRUE NORTH PROJECT NORTH

SITE ADDRESS:

936-962 North Seward Street; 949-959 North Hudson Avenue

LEGAL DESCRIPTION:

Lots 1 to 3 and 14 to 18 , Block D of Strong and Dickenson's South Hollywood No.1. Tract

LOT APN:

5533-023-001, -002, -003, -017, -018, and -026

ZONING INFORMATION

ADDRESS	936-962 North Seward Street; 949-959 North Hudson Avenue, LOS ANGELES CA 90038
APN	5533-023-001, -002, -003, -017, -018, and -026
PROJECT DESCRIPTION	7 STORY SELF-STORAGE AND FILM/
ZONE - EXISTING	MR-1-1, R3-1
ZONE - PROPOSED	(Q)M1-2D
OCCUPANCY TYPE	B, S-1
BUILDING TYPE	TYPE I
BUILDING HEIGHT	ALLOWED: 75' PROPOSED: 75'
EXISTING USE	COMMERCIAL BUILDING: STORAGE
PROPOSED USE	COMMERCIAL BUILDING: SELF-STORAGE FACILITY (INCLUDES .7 FAR MIN. FOR MEDIA/FILM)

SITE PARAMETERS

	ALLOWABLE	PROPOSED	
LOT SIZE (SQ.FT)	-	56,254	
F.A.R.	3.00	3.00	
NUMBER OF STORIES	7	7	
HEIGHT (FT)	76	73.5	
ALLOWABLE AREA SQ.FT	168,762	**168,659**	103 BELOW FAR

PROGRAM INFORMATION

BUILDING USE	AREA AVG. SF	FAR		
1ST FLR: LEASING	1,066	0.019		
1ST FLR: COMMERCIAL STORAGE - MEDIA/FILM	21,925	0.390	0.80	MIN. = 0.7
2ND FLR: COMMERCIAL STORAGE - MEDIA/FILM	23,025	0.409		
3RD FLR: SELF-STORAGE	24,525	0.436		
4TH FLR: SELF-STORAGE	24,492	0.435		
5TH FLR SELF-STORAGE	24,492	0.435		
6TH FLR: SELF-STORAGE	24,492	0.435		
7TH FLR: SELF-STORAGE	24,642	0.438		
		0.000		
COMMERCIAL TOTAL	168,659	2.998		

PARKING INFORMATION

AUTOMOBILE PARKING - REQUIRED					BICYCLE PARKING - REQUIRED		
REQUIRED					REQUIRED		
BUILDING USE	UNIT TOTAL/SF	PER SF	REQUIRED	PROPOSED	SHORT TERM	LONG TERM	TOTAL
STORAGE- First 10,000 S.F.	10,000	1/500 0.002	20	20	17	17	34
STORAGE- Remainder	158,659	1/5,000 0.0002	32	22			
			52	42	17	17	34

PARKING	REQ.	TOTAL
VEHICLE	1/500 for first 10K	20
	1/5000 for balance	31.7
		52 spaces
PROVIDED		42 spaces
BICYCLE REPLACEMENT		10 spaces

BICYCLE PARKING REDUCTION (LAMC 12.21-A.4)
4 Bicycles per space:10 spaces x 4 — 40 Bicycle Spaces

BICYCLE	REQ.	TOTAL
Short Term	1/10,000 (16.85)	17
Long Term	1/10,000 (16.85)	17
Total		34
Bicycle Parking Reduction - additional bicycle spaces		6
Bicycle Spaces Provided		40 Spaces
Final Vehicle Parking Requirement:		42 Spaces
Parking Provided:		42 Spaces

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

1 **PRELIMINARY LANDSCAPE PLAN**
SCALE: 1/16"= 1'-0"

PLANTING LEGENDS

TREES	SIZE & QUAN.	WUCOLS
BUILDING FACADE TREE		
CERCIDIUM HYBRID 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX / 6 EA	LOW
ENTRANCE ACCENT TREE		
ARBUTUS UNEDO STRAWBERRY TREE	24" BOX / 8 EA	LOW
PARKING LOT SHADE TREE		
TIPUANA TIPU TIPU TREE	24" BOX / 7 EA	LOW
RHUS LANCEA AFRICAN SUMAC	24" BOX / 8 EA	LOW
LOOP ROAD / SCREENING TREE		
TRISTANIA CONFERTA BRISBANE BOX	24" BOX / 8 EA	MODERATE
HEDGE SCREENING PLANT		
BAMBUSA MULTIPLEX 'ALPHONSE KARR' ALPHONSE KARR BAMBOO	15 GAL. / 30 EA	MODERATE
NEW STREET TREE AUSTRALIAN WILLOW OR EASTERN REDBUD EXACT SPECIES WILL BE PER URBAN FORESTRY STREET TREE DIV.	14 EA.	
EXISTING STREET TREE TO REMAIN	2 EA.	
EXISTING STREET TREE (PALM) TO REMAIN	2 EA.	
EXISTING STREET TREE TO BE REMOVED	3 EA.	

SHRUB & GROUNDCOVER

- DODONAEA VISCOSA HOPBUSH
- WESTRINGIA FRUTICOSA COAST ROSEMARY
- TRACHELOSPERMUM JASMINOIDES STAR JASMINE
- HESPERALOE PARVIFLORA RED YUCCA
- YUCCA FILAMENTOSA 'BRIGHT EDGE' BRIGHT EDGE YUCCA
- MUHLENBERGIA CAPILLARIS 'REGAL MIST' PINK MUHLY
- DIANELLA TASMANICA 'VARIEGATED' VARIEGATED FLAX LILY
- FESTUCA MAIREI MAIRE'S FESCUE CALIFORNIA GRAY RUSH
- AGAVE 'BLUE GLOW' BLUE GLOW AGAVE
- ALOE STRIATA CORAL ALOE
- SENECIO MANDRALISCAE KLEINIA

VINE

- CLYTOSTOMA CALLISTEGIODES VIOLET TRUMPET VINE

LANDSCAPE AREA

- LAVANDULA ANGUSTIFOLIA ENGLISH LAVENDER
- DIETES BICOLOR FORTNIGHT LILY
- CHONDROPETALUM TECTORUM SMALL CAPE RUSH
- JUNCUS PATENS 'ELK BLUE' CALIFORNIA GRAY RUSH
- CARISSA MACROCARPA 'GREEN CARPET' NATAL PLUM

LANDSCAPE AREA

- BACCHARIS PILULARIS 'PIGEON POINT' DWARF COYOTE BUSH
- MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM
- AGROSTIS PALLENS 'WEST COAST NATIVE BENTGRASS CALIFORNIA NATIVE GRASS
- LONICERA JAPONICA 'PURPUREA' PURPLE LEAF HONEY SUCKLE

KEYNOTES

1. DECOMPOSED GRANITE OR GRAVEL

2. BOULDERS SEATING SPACE

3. BICYCLE PARKING
4. LID PLANTERS PER CIVIL'S
5. NEW STD. 4x6 TREE WELL FOR NEW STREET TREES

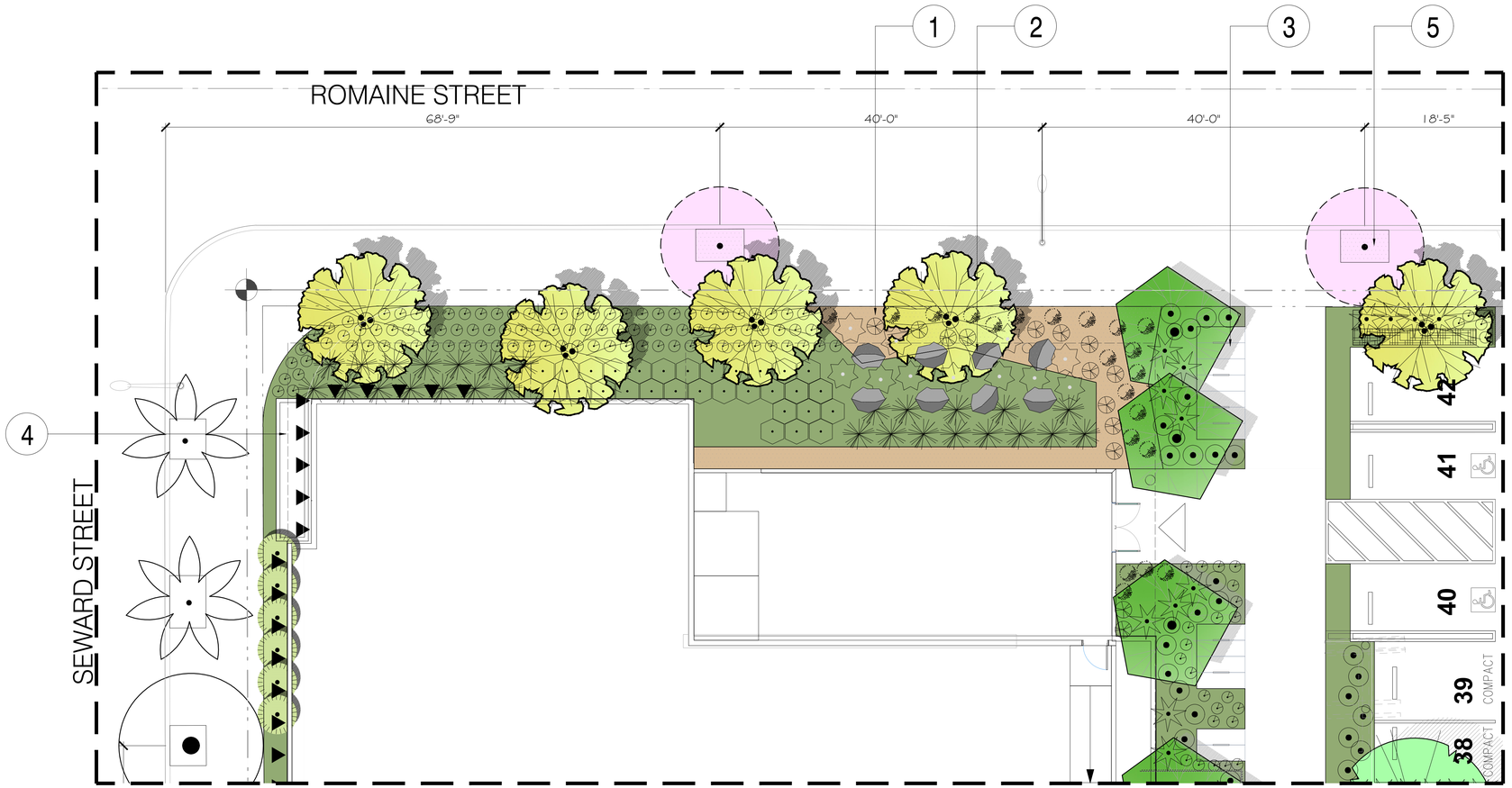
Revisions

SQLA INC
Landscape Architects
2669 SATURN ST. BREA, CA. 92821
T. 562-905-0800 (Main)
F. 562-905-0880
T. 213-383-1788 (Studio)
la@sqlainc.com
www.sqlainc.com

956 SEWARD STREET,
LOS ANGELES, CA 90038

drawing title
PRELIMINARY LANDSCAPE PLAN

designed	project number 22338
drawn	scale AS SHOWN
checked	drawing number
reviewed	LC-1
date 11-13-2023	



SITE PLAN - NTS.

N

PLANTING LEGENDS

TREES	SIZE & QUAN.	WUCOLS
BUILDING FACADE TREE		
CERCIDIUM HYBRID 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX / 6 EA	LOW
ENTRANCE ACCENT TREE		
ARBUTUS UNEDO STRAWBERRY TREE	24" BOX / 8 EA	LOW
PARKING LOT SHADE TREE		
TIPUANA TIPU TIPU TREE	24" BOX / 7 EA	LOW
RHUS LANCEA AFRICAN SUMAC	24" BOX / 8 EA	LOW
LOOP ROAD / SCREENING TREE		
TRISTANIA CONFERTA BRISBANE BOX	24" BOX / 8 EA	MODERATE
HEDGE SCREENING PLANT		
BAMBUSA MULTIPLEX 'ALPHONSE KARR' ALPHONSE KARR BAMBOO	15 GAL. / 30 EA	MODERATE
NEW STREET TREE AUSTRALIAN WILLOW OR EASTERN REDBUD EXACT SPECIES WILL BE PER URBAN FORESTRY STREET TREE DIV.	14 EA.	
EXISTING STREET TREE TO REMAIN	2 EA.	
EXISTING STREET TREE (PALM) TO REMAIN	2 EA.	
EXISTING STREET TREE TO BE REMOVED	3 EA.	

SHRUB & GROUNDCOVER

- DODONAEA VISCOSA HOPBUSH
- WESTRINGIA FRUTICOSA COAST ROSEMARY
- TRACHELOSPERMUM JASMINOIDES STAR JASMINE
- HESPERALOE PARVIFLORA RED YUCCA
- YUCCA FILAMENTOSA 'BRIGHT EDGE' BRIGHT EDGE YUCCA
- MUHLENBERGIA CAPILLARIS 'REGAL MIST' PINK MUHLY
- DIANELLA TASMANICA 'VARIEGATED' VARIEGATED FLAX LILY
- FESTUCA MAIREI MAIRE'S FESCUE CALIFORNIA GRAY RUSH
- AGAVE 'BLUE GLOW' BLUE GLOW AGAVE
- ALOE STRIATA CORAL ALOE
- SENECIO MANDRALISCAE KLEINIA

VINE

- CLYTOSTOMA CALLISTEGIODES VIOLET TRUMPET VINE

LANDSCAPE AREA

- LAVANDULA ANGUSTIFOLIA ENGLISH LAVENDER
- DIETES BICOLOR FORTNIGHT LILY
- CHONDROPETALUM TECTORUM SMALL CAPE RUSH
- JUNCUS PATENS 'ELK BLUE' CALIFORNIA GRAY RUSH
- CARISSA MACROCARPA 'GREEN CARPET' NATAL PLUM
- BACCHARIS PILULARIS 'PIGEON POINT' DWARF COYOTE BUSH
- MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM
- AGROSTIS PALLENS 'WEST COAST NATIVE BENTGRASS CALIFORNIA NATIVE GRASS
- LONICERA JAPONICA 'PURPUREA' PURPLE LEAF HONEY SUCKLE

1 ENLARGEMENT PLAN

SCALE: 1/8"= 1'-0"

0 4' 8' 16'
Scale: 1/8" = 1'-0"

KEYNOTES

1. DECOMPOSED GRANITE OR GRAVEL

2. BOULDERS SEATING SPACE

3. BICYCLE PARKING
4. LID PLANTERS PER CIVIL'S
5. NEW STD. 4x6 TREE WELL FOR NEW STREET TREES

Revisions	
△	△
△	△
△	△
△	△

SQLA INC
Landscape Architects
2669 SATURN ST. T. 562-905-0800 (Main)
BREA, CA. 92821 F. 562-905-0880
la@sqlainc.com T. 213-383-1788 (Studio)
www.sqlainc.com

956 SEWARD STREET,
LOS ANGELES, CA 90038

drawing title

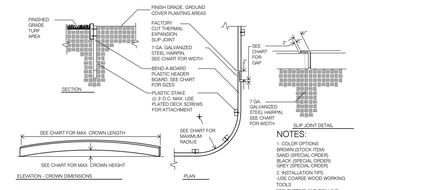
ENLARGEMENT PLAN

REGISTERED LANDSCAPE ARCHITECT SAMUEL KYUNG KIM No. 5679 5-28-2025 Renewal Date 11-13-2023 Date STATE OF CALIFORNIA

designed	project number 22338
drawn	scale AS SHOWN
checked	drawing number LC-2
reviewed	
date 11-13-2023	

LANDSCAPE PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES FOR THE COMPLETE INSTALLATION AS DESCRIBED BY THE LANDSCAPE DRAWINGS
2. ANY DEVIATION FROM THE PLAN IS TO HAVE PRIOR WRITTEN APPROVAL BY THE OWNER OR HIS REPRESENTATIVE.
3. THE LANDSCAPE CONTRACTOR IS TO REMOVE ALL WEEDS OR GRASSES (INCLUDING THE ROOTS) EXISTING IN THE PROPOSED GROUND COVER AREA.
4. THE PROPOSED GROUND COVER AREA SHALL RECEIVE THE PRE-EMERGENT HERBICIDE SURFLAN 75W PER MANUFACTURER'S INSTRUCTIONS. APPLICATION OF THIS HERBICIDE SHALL BE DONE BY PERSONNEL LICENSED TO HANDLE AGRICULTURAL CHEMICALS.
5. ROUGH GRADING OTHER THAN THAT NOTED ON THE LANDSCAPE FINISH GRADING IS THE RESPONSIBILITY OF THE GENERAL CONTRACOR. FINISH GRADING WILL CONSIST OF RAKING ALL AREAS TO A SMOOTH GRADE, LOOSENING THE SOIL TO A DEPTH OF 6" AND REMOVING ALL ROCKS OR CLODS OF 2" DIAMETER OR LARGER. FINISH GRADE IS TO BE 2" BELOW TOP OF ADJACENT CURBS AND SIDEWALKS.
6. SOIL PREPARATION FOR ALL LANDSCAPE AREAS PLEASE SEE WALLACE LAB RECOMMENDATION.
7. ALL ROCK OR UNBROKEN SOIL CLODS OVER 1" IN DIAMETER BROUGHT TO THE SURFACE ARE TO BE REMOVED FROM THE SITE.
8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORTICULTURAL SOILS FERTILITY REPORT PRIOR TO SOIL PREPARATION AND PLANT INSTALLATION. SOIL CONDITIONING AMENDMENTS AND PLANTING BACKFILL MIXES SHALL BE IN ACCORDANCE TO WALLACE LABORATORIES, LLC RECOMMENDATIONS. WALLACE LAB: (310)-615-0116, 365 CORAL CIRCIL, EL SEGUNDO, CA 90245
9. GROUNDCOVERS ARE TO BE PLANTED SO THAT AFTER SETTLING, THE CROWN OF THE THE PLANT IS EVEN WITH FINISH GRADE, ROOTS FULLY COVERED WITH SOIL AND FIRMED.
10. WATERING OF PLANTS IS TO TAKE PLACE IMMEDIATELY AFTER PLANTING.
11. MULCH ALL SHRUB AND GROUNDCOVER AREAS WITH A 3" MIN. LAYER OF 1/2" TO 3/4" REDWOOD BARK.
12. AT THE COMPLETION OF ALL PLANTING OPERATIONS, THE PREMISES ARE TO BE LEFT NEAT AND CLEAN. ALL SURPLUS MATERIALS, NURSERY TAGS AND WASTE ARE ARE TO BE REMOVED FROM THE SITE.
13. THE LANDSCAPE CONTRACTOR IS TO MAINTAIN ALL LANDSCAPE AREAS FOR A PERIOD OF THIRTY CALENDAR DAYS FROM THE DATE OF COMPLETION, ESTABLISHED BY THE OWNER OR HIS REPRESENTATIVE. ALL AREAS ARE TO BE KEPT WELL WATERED, FREE OF GRASSES AND TRASH DURING THIS MAINTENANCE PERIOD.
14. SITE MAINTENANCE (PLEASE SEE WALLACE LAB RECOMMENDATION) IS TO BE MADE JUST PRIOR TO THE COMPLETION OF THE MAINTENANCE PERIOD, OR AT 30 DAYS INTERVALS IF MAINTENANCE PERIOD IS GREATER THAN 30 DAYS.
15. ALL TREES, SHRUBS AND PLANT MATERIAL (OTHER THAN FLATTED MATERIAL) LESS THAN 15 GALLON SIZE SHALL BE GUARANTEED FOR A PERIOD OF 1 MONTH; 15 GALLON SIZE SHALL BE GUARANTEED FOR A PERIOD OF 90 DAYS. ALL MATERIAL LARGER THAN 15 GALLON SIZE SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR.



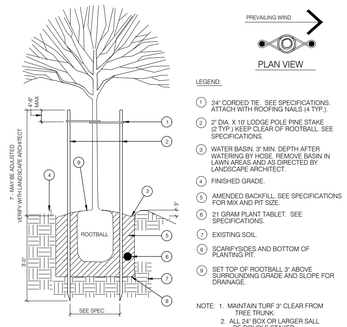
BEND-A-BOARD CHART

NOM.	ACTUAL DIMENSIONS	MAXIMUM RADIUS / CROWN LENGTH	MAXIMUM CROWN HEIGHT	RECOMMENDED GAP AT SLIP JOINT	SLIP JOINT HARPINS
2x4	5-1/2" x 3/4" x 20'	10'	9" / 20'	1/4" - 1/2"	3/4 EA x 9"
2x4	5-1/2" x 1-1/2" x 20'	30'	9" / 20'	1/2" - 3/4"	1-1/2" EA x 13"
2x6	5-1/2" x 3/4" x 20'	24'	9" / 20'	3/4" EA x 13"	13" - 3/4"
2x6	5-1/2" x 1-1/2" x 19'	30'	N/A	3/4" - 1"	N/A

NOTES:
1. COLOR OPTIONS BROWN (STOCK ITEM) GREEN (STOCK ITEM) BLACK (SPECIAL ORDER) GREY (SPECIAL ORDER)
2. INSTALLATION TIPS -USE COARSE WOOD WORKING TOOLS FOR CUTTING AND DRILLING -USE PLATED SCREWS OR RING NAILS FOR ATTACHMENT TO WOOD -ALLOW FOR 1/16" MIN. EXPANSION THE SLIP BY LEAVING GAPS IN JOINTS OR AT THE END OF THE RUN -DO NOT SCREW THROUGH SLIP JOINT

MANUFACTURED BY:
EPIC PLASTICS, 1660 GARDEN TRACT RD., RICHMOND, CA 94801
PH # (510) 235-9009 E www.epicplastics.com

PLASTIC EDGING
SCALE: N.T.S. — 4



LEGEND:
1. 24" CORDED TIE. SEE SPECIFICATIONS. ATTACH WITH ROOFING NAILS (4 TYP.).
2. 2" DIA. X 10' LODGE POLE PINE STAKE (2 TYP.) KEEP CLEAR OF ROOTBALL. SEE SPECIFICATIONS.
3. WATER BASIN: 3" MIN. DEPTH AFTER WATERING BY HOSE. REMOVE BASIN IN LAWN AREAS AND AS DIRECTED BY LANDSCAPE ARCHITECT.
4. FINISHED GRADE.
5. AMENDED BACKFILL. SEE SPECIFICATIONS FOR MIX AND PIT SIZE.
6. 21 GRAM PLANT TABLET. SEE SPECIFICATIONS.
7. EXISTING SOIL.
8. SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
9. SET TOP OF ROOTBALL 3" ABOVE SURROUNDING GRADE AND SLOPE FOR DRAINAGE.

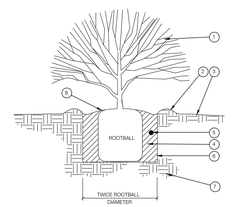
NOTE: 1. MAINTAIN TURF 3" CLEAR FROM TREE TRUNK.
2. ALL 24" BOX OR LARGER SALL BE DOUBLE STAKED

TREE PLANTING-DOUBLE STAKING
SCALE: N.T.S. — 1

LEGEND:
1. LOCATE PLANTS WITH EQUAL SPACING AS INDICATED IN THE PLANTING LEGEND.
2. 1/2 ON-CENTER SPACING.
3. PAVING, CURB, BUILDING, OR HEADER - SHOWING PLANTING AREA LIMIT.
4. PROVIDE A MINIMUM OF 3" DEPTH MULCH LAYER IN ALL LANDSCAPE AREAS

GRADE AND SLOPE FOR DRAINAGE.

SHRUBS/ GROUNDCOVER PLANTING
SCALE: N.T.S. — 2



LEGEND:
1. SHRUB - CENTER IN PIT.
2. 2" DEEP WATERING BASIN. SEE SPECIFICATIONS.
3. FINISH GRADE.
4. AMENDED BACKFILL. SEE SPECIFICATIONS
5. PLANTING TABLETS. PLACE IN PIT 2/3 UP FROM PIT BOTTOM. SEE SPECIFICATIONS.
6. SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
7. UNDISTURBED NATIVE SOIL.
8. SET TOP OF ROOTBALL 1" ABOVE SURROUNDING GRADE AND SLOPE FOR DRAINAGE.

SHRUBS PLANTING
SCALE: N.T.S. — 3

Revisions	

SQLA INC
Landscape Architects
2669 SATURN ST. T. 562-905-0800 (Main)
BREA, CA. 92821 F. 562-905-0880
la@sqlainc.com T. 213-383-1788 (Studio)
www.sqlainc.com

956 SEWARD STREET,
LOS ANGELES, CA 90038

drawing title

PLANTING DETAILS

REGISTERED LANDSCAPE ARCHITECT DANIEL KYUNG KIM NO. 6478 STATE OF CALIFORNIA
Registered
3-26-2025
Renewal Date
11-13-2023
Date

designed	project number 22338
drawn	scale AS SHOWN
checked	drawing number LC-3
reviewed	
date 11-13-2023	


CERCIS CANADENSIS
'FOREST PANSY'
EASTERN REDBUD


GEIJERA PARVIFLORA
AUSTRALIAN WILLOW

STREET TREES

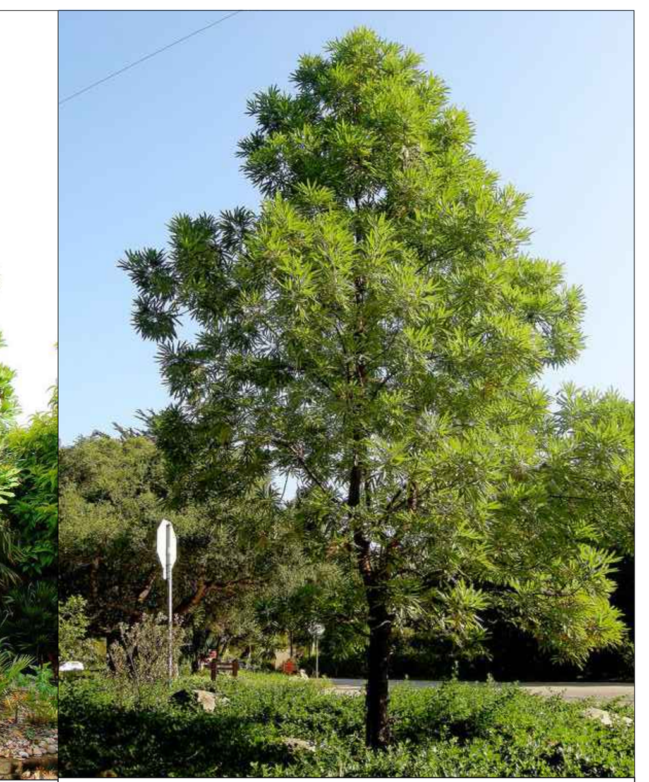

CERCIDIUM HYBRID
'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE


RHUS LANCEA
AFRICAN SUMAC


TIPUANA TIPU
TIPU TREE


BAMBUSA MULTIPLEX
'ALPHONSE KARR'
ALPHONSE KARR BAMBOO


ARBUTUS UNEDO
STRAWBERRY MADRONE


LYONOTHAMNUS FLORIBUNDUS
SSP. ASPLENIIFOLIUS
CATALINA IRONWOOD


DIANELLA TASMANICA 'VARIEGATED'
VARIEGATED FLAX LILY


MUHLENBERGIA CAPILLARIS
'REGAL MIST'
PINK MUHLY


YUCCA FILAMENTOSA
'BRIGHT EDGE'
BRIGHT EDGE YUCCA


HESPERALOE PARVIFLORA
RED YUCCA


FESTUCA MAIREI
MAIRE'S FESCUE


WESTRINGIA FRUTICOSA
COAST ROSEMARY


DODONAEA VISCOSA
HOPBUSH


TRACHELOSPERMUM JASMINOIDES
STAR JASMINE


CLYTOSTOMA CALLISTEGIODES
VIOLET TRUMPET VINE


SENECIO MANDRALISCAE
KLEINIA

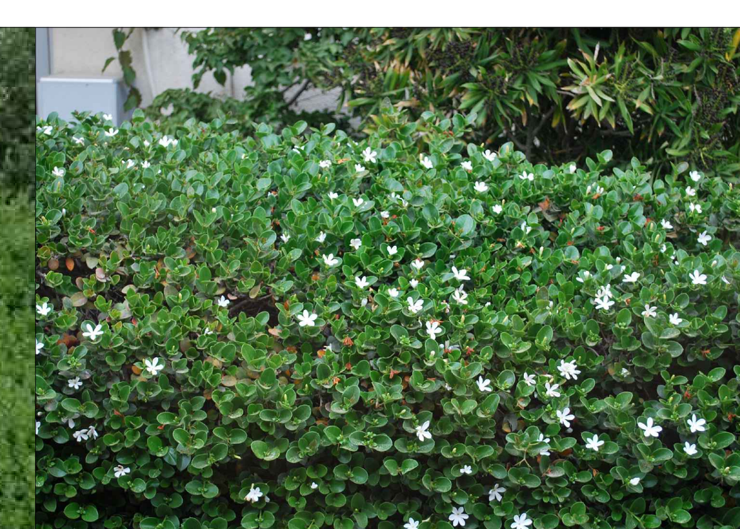

ALOE STRIATA
CORAL ALOE


AGAVE 'BLUE GLOW'
BLUE GLOW AGAVE


AGROSTIS PALLENS
WEST COAST NATIVE BENTGRASS
CALIFORNIA NATIVE GRASS


MYOPORUM PARVIFOLIUM 'PUTAH CREEK'
CREEPING MYOPORUM


BACCHARIS PILULARIS
'PIGEON POINT'
DWARF COYOTE BUSH


CARISSA MACROCARPA
NATAL PLUM


CHONDROPETALUM TECTORUM
'EL CAMPO'
EL CAMPO SMALL CAPE RUSH


LAVANDULA ANGUSTIFOLIA
ENGLISH LAVENDER


JUNCUS PATENS
'ELK BLUE'
CALIFORNIA GRAY RUSH


DIETES BICOLOR
FORTNIGHT LILY

Revisions

SQLA INC
Landscape Architects
2669 SATURN ST.
BREA, CA. 92821
la@sqlainc.com
www.sqlainc.com
T. 562-905-0800 (Main)
F. 562-905-0880
T. 213-383-1788 (Studio)

956 SEWARD STREET,
LOS ANGELES, CA 90038

drawing title

PLANT IMAGES

designed
drawn
checked
reviewed
date 11-13-2023

project number 22338
scale AS SHOWN
drawing number LC-4

APPENDIX D

Survey

ALTA / NSPS LAND TITLE SURVEY

TABLE "A" - OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS:

ITEM 1 THE LOCATION AND TYPE OF MONUMENTS WHICH ARE TO BE SET ARE SHOWN ON THIS PLAT. ALL MONUMENTS SHOWN AS BEING SET HEREON WILL ADDITIONALLY BE SHOWN ON A FORTHCOMING RECORD OF SURVEY TO BE FILED WITH THE COUNTY OF LOS ANGELES.

ITEM 2 THE ADDRESS(ES) OF THE SURVEYED PROPERTY ARE SHOWN ON THIS PLAT.

ITEM 3 THE PROPERTY SHOWN HEREON IS CONTAINED WITHIN F.E.M.A. FLOOD ZONE "X" BEING AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 06037C1605F, EFFECTIVE DATE SEPTEMBER 26, 2008. ANY LIMITS OF SAID FLOODPLAIN WITHIN THE EXTENT OF THIS PLAT ARE SHOWN HEREON.

ITEM 4 THE GROSS LAND AREA IS: 56,153 SQUARE FEET (1.289 ACRES)

ITEM 5 VERTICAL RELIEF CONTOURS SHOWN HEREON ARE BASED ON A FIELD SURVEY COMPLETED BY OMEGA LAND SURVEYING ON AN AERIAL TOPOGRAPHIC SURVEY AS REFERENCED IN ITEM 15. THE BENCHMARK USED AS THE SOURCE OF THE VERTICAL DATUM IS AS FOLLOWS:

DESCRIPTION: CITY OF LOS ANGELES BENCHMARK 12-19090 BEIND A WIRE SPIKE IN THE WEST CURB OF SEWARD STREET, 18.5' NORTH OF THE NORTH CURB LINE OF SANTA MONICA BLVD AT THE SOUTH END OF CURB.

ELEVATION: 301.749' (NGVD29)

ITEM 6(a) A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR PRIOR TO THE PREPARATION OF THIS PLAT.

ITEM 6(b) A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR PRIOR TO THE PREPARATION OF THIS PLAT.

ITEM 7(a) THE EXTERIOR DIMENSIONS OF ALL BUILDINGS AT GROUND LEVEL ARE SHOWN ON THIS PLAT.

ITEM 7(b)(1) THE SQUARE FOOTAGE OF THE EXTERIOR FOOTPRINT OF ALL BUILDINGS AT GROUND LEVEL ARE SHOWN ON THIS PLAT.

ITEM 8 ANY SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK ARE SHOWN ON THIS PLAT.

ITEM 9 THERE ARE NO CLEARLY IDENTIFIABLE PARKING SPACES OR STRIPING ON THE SURVEYED PROPERTY THOUGH NUMEROUS VEHICLES ARE PARKED ON SITE.

ITEM 11(b) THE LOCATION OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY A PRIVATE UTILITY LOCATING SERVICE ARE SHOWN HEREON.

ITEM 13 THE NAME OF ADJOINING OWNERS ACCORDING TO CURRENT TAX RECORDS ARE SHOWN ON THIS PLAT.

ITEM 14 THE SUBJECT PROPERTY IS LOCATED SOUTH OF ROMAINE STREET BETWEEN SEWARD STREET AND HUDSON AVENUE.

ITEM 15 THE TOPOGRAPHIC FEATURES SHOWN ON THIS PLAT ARE BASED ON AN AERIAL TOPOGRAPHIC SURVEY. THE SPECIFICS OF THAT SURVEY ARE AS FOLLOWS:

SOURCE OF AERIAL PHOTOGRAPHY: AEROTECH MAPPING, INC.
DATE FLOWN: JULY 12, 2023

ITEM 16 THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

ITEM 17 THERE ARE NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES AVAILABLE FROM THE CONTROLLING JURISDICTION OR OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

ITEM 18 THERE ARE NO PLOTTABLE OFFSITE EASEMENTS OR SERVITUDES DISCLOSED IN THE RECORD DOCUMENTS OBTAINED IN THE PROCESS OF PREPARING THIS SURVEY.

ITEM 19 PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $1,000,000 TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST.

EASEMENT & EXCEPTIONS NOTES:

THE FOLLOWING IS A LIST OF ALL EASEMENTS, SERVITUDES, RIGHTS OF WAY, ACCESS, AND OTHER SURVEY RELATED DOCUMENTS THAT BURDEN THE SUBJECT PROPERTY WHICH ARE LISTED UNDER THE EXCEPTIONS FOR THE ABOVE REFERENCED PRELIMINARY REPORT. ITEMS THAT CAN BE PLOTTED ARE SHOWN HEREON. THE EFFECT OF SAID EXCEPTIONS ARE MORE FULLY DESCRIBED IN THE ABOVE REFERENCED TITLE REPORT. ANY AGREEMENTS, ASSESSMENTS, COVENANTS & CONDITIONS & RESTRICTIONS (CCRs), FINANCING STATEMENTS, LEASES, LIENS, PERMITS, RESOLUTIONS, TAXES, OR WAIVERS THAT APPEAR IN SAID REPORT WHICH ARE NOT SURVEY RELATED ARE NOT LISTED HEREON.

⟨#⟩ INDICATES EXCEPTION ITEM IS PLOTTABLE AND SHOWN HEREON.

A. PROPERTY TAXES, WHICH ARE A LIEN NOT YET DUE AND PAYABLE, INCLUDING ANY ASSESSMENTS COLLECTED WITH TAXES TO BE LEVIED FOR THE FISCAL YEAR 2023-2024.

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-001
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $6,707.26 PAID
2ND INSTALLMENT: $6,707.24 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $680.72

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-002
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,644.99 PAID
2ND INSTALLMENT: $5,644.99 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $574.49

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-003
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,643.61 UNPAID (DELINQUENT AFTER DECEMBER 10, 2022)
PENALTY: $564.36
2ND INSTALLMENT: $5,643.60 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $574.36

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-017
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,695.10 PAID
2ND INSTALLMENT: $5,695.10 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $579.51

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-018
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $7,340.46 PAID
2ND INSTALLMENT: $7,340.46 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $744.04

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-026
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $28,451.32 PAID
2ND INSTALLMENT: $28,451.31 PAID

B. INTENTIONALLY DELETED.

C. AN ASSESSMENT BY THE IMPROVEMENT DISTRICT SHOWN BELOW:

DISTRICT: HOLLYWOOD MEDIA DISTRICT BUSINESS IMPROVEMENT DISTRICT
DISCLOSED BY: NOTICE OF ASSESSMENT
RECORDING DATE: JULY 15, 2003
RECORDING NO: AS INSTRUMENT NO. 03-2020085, OFFICIAL RECORDS

D. THE LIEN OF SUPPLEMENTAL OR ESCAPED ASSESSMENTS OF PROPERTY TAXES, IF ANY, MADE PURSUANT TO THE PROVISIONS OF CHAPTER 3.5 (COMMENCING WITH SECTION 75) OR PART 2, CHAPTER 3, ARTICLES 3 AND 4, RESPECTIVELY, OF THE REVENUE AND TAXATION CODE OF THE STATE OF CALIFORNIA AS A RESULT OF THE TRANSFER OF TITLE TO THE VESTEE NAMED IN SCHEDULE A OR AS A RESULT OF CHANGES IN OWNERSHIP OR NEW CONSTRUCTION OCCURRING PRIOR TO DATE OF POLICY.

2. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

3. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS RESERVED IN A DOCUMENT;

PURPOSE: POLES
RECORDING DATE: JULY 25, 1925
RECORDING NO: IN BOOK 4898, PAGE 203, OFFICIAL RECORDS
AFFECTS: AS DESCRIBED THEREIN

SURVEYOR'S NOTE: THIS ITEM IS NOT PLOTTED HEREON AND DOES NOT AFFECT THE SUBJECT PROPERTY.

2a. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

PURPOSE: STORM DRAIN
RECORDING NO: BOOK 1243, PAGE 366, OFFICIAL RECORDS
AFFECTS: AS DESCRIBED THEREIN

4. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF BUILDING AND USES

EXECUTED BY: BEN TEITLEBAUM
IN FAVOR OF: CITY OF LOS ANGELES, A MUNICIPAL CORPORATION
RECORDING DATE: FEBRUARY 17, 1953
RECORDING NO: AS INSTRUMENT NO. 2925, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: LOTS 15 AND 16 OF PARCEL 6

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

5. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF BUILDING AND USES

EXECUTED BY: BEN AND HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES, A MUNICIPAL CORPORATION
RECORDING DATE: SEPTEMBER 20, 1956
RECORDING NO: AS INSTRUMENT NO. 4031, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

6. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: DECEMBER 6, 1956
RECORDING NO.: AS INSTRUMENT NO. 3677, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

7. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: MAY 29, 1964
RECORDING NO.: AS INSTRUMENT NO. 5135, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 1, 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

8. AN OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS, TOGETHER WITH EASEMENTS, IF ANY, AS SET FORTH THEREIN, DISCLOSED BY DOCUMENT:

DATED: FEBRUARY 28, 1964

LESSOR: BEN TEITELBAUM AND HARRY TEITELBAUM
LESSEE: STANDARD OIL COMPANY OF CALIFORNIA, A CORPORATION
AFFECTS: PARCELS 1, 4 AND 5

LESSOR: EDITING FILM CENTER
LESSEE: STANDARD OIL COMPANY OF CALIFORNIA, A CORPORATION
AFFECTS: LOTS 15 AND 16 OF PARCEL 6

RECORDING DATE: JUNE 10, 1964
RECORDING NO: AS INSTRUMENT NO. 3376, OFFICIAL RECORDS

SAID LEASE AFFECTS THAT PORTION OF SAID LAND LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF.

NO ASSURANCE IS MADE AS TO THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE, NOR AS TO OTHER MATTERS AFFECTING THE RIGHTS OR INTERESTS OF THE LESSOR OR LESSEE IN SAID LEASE.

9. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: SEWARD REALTY CORP. BY HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 16, 1972
RECORDING NO: AS INSTRUMENT NO. 2675, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 4

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

10. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: SEWARD REALTY CORP. BY HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 16, 1972
RECORDING NO: AS INSTRUMENT NO. 2676, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 1, 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

11. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: HARRY TEITELBAUM AND BEN TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: DECEMBER 10, 1980
RECORDING NO: AS INSTRUMENT NO. 80-1241279, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 6

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

12. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: HARRY TEITELBAUM AND BEN TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: DECEMBER 10, 1980
RECORDING NO: AS INSTRUMENT NO. 80-1241280, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 1 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

13. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: FEBRUARY 4, 1991
RECORDING NO.: AS INSTRUMENT NO. 91-167265, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 1 AND 2

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

14. A DEED OF TRUST TO SECURE AN INDEBTEDNESS IN THE AMOUNT SHOWN BELOW,

AMOUNT: $3,750,000.00
DATED: JULY 17, 2013
TRUSTOR/GRANTOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
TRUSTEE: UNIONBANCAL MORTGAGE CORPORATION, A CALIFORNIA CORPORATION
BENEFICIARY: UNION BANK, N.A.
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120853, OFFICIAL RECORDS

15. AN UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT

ENTITLED: SUBORDINATION OF LEASE (TO DEED OF TRUST)
LESSOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
LESSEE: SILVERCO ENTERPRISES, A CALIFORNIA CORPORATION
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120854, OFFICIAL RECORDS

THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE AND OTHER MATTERS AFFECTING THE INTEREST OF THE LESSEE ARE NOT SHOWN HEREIN.

AN AGREEMENT RECORDED JULY 31, 2013, AS INSTRUMENT NO. 20131120854, OFFICIAL RECORDS, WHICH STATES THAT SAID LEASE HAS BEEN MADE SUBORDINATE TO THE DOCUMENT

ENTITLED: DEED OF TRUST, ASSIGNMENT OF RENTS, SECURITY AGREEMENT AND FIXTURE FILING
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120853, OFFICIAL RECORDS

16. AN INSTRUMENT ENTITLED MASTER COVENANT AND AGREEMENT REGARDING ON-SITE STORMWATER TREATMENT DEVICES MAINTENANCE

EXECUTED BY: PURE SILVER ENTERPRISES, INC.
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 9, 2013
RECORDING NO: AS INSTRUMENT NO. 20131459457, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

17. A DEED OF TRUST TO SECURE AN INDEBTEDNESS IN THE AMOUNT SHOWN BELOW,

AMOUNT: $3,083,000.00
DATED: MAY 19, 2014
TRUSTOR/GRANTOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
TRUSTEE: WFG TITLE INSURANCE COMPANY
BENEFICIARY: CDC SMALL BUSINESS FINANCE
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587445, OFFICIAL RECORDS

AN ASSIGNMENT OF THE BENEFICIAL INTEREST UNDER SAID DEED OF TRUST WHICH NAMES:

ASSIGNEE: UNITED STATES SMALL BUSINESS ADMINISTRATION
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587446, OFFICIAL RECORDS

18. AN UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT

ENTITLED: SUBORDINATION AGREEMENT
LESSOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
LESSEE: SILVERCO ENTERPRISES
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587448, OFFICIAL RECORDS

THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE AND OTHER MATTERS AFFECTING THE INTEREST OF THE LESSEE ARE NOT SHOWN HEREIN.

AN AGREEMENT RECORDED JUNE 6, 2014, AS INSTRUMENT NO. 20140587448, OFFICIAL RECORDS, WHICH STATES THAT SAID LEASE HAS BEEN MADE SUBORDINATE TO THE DOCUMENT

ENTITLED: DEED OF TRUST, ASSIGNMENT OF RENTS, SECURITY AGREEMENT AND FIXTURE FILING
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587445, OFFICIAL RECORDS

19. MATTERS CONTAINED IN THAT CERTAIN DOCUMENT

ENTITLED: THIRD PARTY LENDER AGREEMENT
DATED: MAY 19, 2014
EXECUTED BY: UNION BANK, N.A. AND CDC SMALL BUSINESS FINANCE
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587449, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

20. ANY EASEMENTS NOT DISCLOSED BY THE PUBLIC RECORDS AS TO MATTERS AFFECTING TITLE TO REAL PROPERTY, WHETHER OR NOT SAID EASEMENTS ARE VISIBLE AND APPARENT.

21. MATTERS WHICH MAY BE DISCLOSED BY AN INSPECTION AND/OR BY A CORRECT ALTA/NSPS LAND TITLE SURVEY OF SAID LAND THAT IS SATISFACTORY TO THE COMPANY, AND/OR BY INQUIRY OF THE PARTIES IN POSSESSION THEREOF.

22. ANY RIGHTS OF THE PARTIES IN POSSESSION OF A PORTION OF, OR ALL OF, SAID LAND, WHICH RIGHTS ARE NOT DISCLOSED BY THE PUBLIC RECORDS.

THE COMPANY WILL REQUIRE, FOR REVIEW, A FULL AND COMPLETE COPY OF ANY UNRECORDED AGREEMENT, CONTRACT, LICENSE AND/OR LEASE, TOGETHER WITH ALL SUPPLEMENTS, ASSIGNMENTS AND AMENDMENTS THERETO, BEFORE ISSUING ANY POLICY OF TITLE INSURANCE WITHOUT EXCEPTING THIS ITEM FROM COVERAGE.

THE COMPANY RESERVES THE RIGHT TO EXCEPT ADDITIONAL ITEMS AND/OR MAKE ADDITIONAL REQUIREMENTS AFTER REVIEWING SAID DOCUMENTS.

LINES OF POSSESSION AND IMPROVEMENTS ALONG THE BOUNDARY:

THE FOLLOWING LIST REFERENCES THE LOCATION OF WALLS, BUILDINGS, FENCES, AND OTHER IMPROVEMENTS WITHIN 5 FEET OF EACH SIDE OF THE PERIMETER BOUNDARY. THIS SURVEY IS NOT INTENDED TO STATE LEGAL OPINION AS TO THE NATURE OF POTENTIAL ENCROACHMENTS.

(A) THE CENTER OF THE WATER METER IS LOCATED 4.24' OUTSIDE OF THE SURVEYED PROPERTY.

(B) THE FENCE IS LOCATED 0.77' INSIDE TO 0.05' OUTSIDE OF THE SURVEYED PROPERTY.

(C) THE CENTER OF THE WATER METER IS LOCATED 3.86' OUTSIDE OF THE SURVEYED PROPERTY.

(D) THE NORTHERLY FACE OF THE WALL IS LOCATED 0.09'-0.23' INSIDE OF THE SURVEYED PROPERTY.

(E) THE CENTER OF THE ELECTRICAL BOX 3.21' OUTSIDE OF THE SURVEYED PROPERTY.

(F) THE EASTERLY FACE OF THE WALL IS LOCATED 0.34'-0.41' INSIDE OF THE SURVEYED PROPERTY.

(G) THE FENCE IS LOCATED 0.08'-1.45' INSIDE OF THE SURVEYED PROPERTY.

(H) THE CENTER OF THE STORM DRAIN IS LOCATED 2.12' OUTSIDE OF THE SURVEYED PROPERTY.

(I) THE CENTER OF THE STORM DRAIN IS LOCATED 2.28' OUTSIDE OF THE SURVEYED PROPERTY.

(J) THE CENTER OF THE GAS METERS ARE LOCATED 4.30" OUTSIDE OF THE SURVEYED PROPERTY.

(K) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 0.68' INSIDE OF THE SURVEYED PROPERTY.

(L) THE CENTER OF THE STORM DRAIN IS LOCATED 2.38' OUTSIDE OF THE SURVEYED PROPERTY.

(M) THE FENCE IS LOCATED 0.55'-0.91' INSIDE OF THE SURVEYED PROPERTY.

(N) THE SOUTHERLY FACE OF THE WALL IS LOCATED 0.00'-0.26' INSIDE OF THE SURVEYED PROPERTY.

(O) THE CENTER OF THE STORM DRAIN IS LOCATED 2.65' OUTSIDE OF THE SURVEYED PROPERTY.

(P) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 0.63' INSIDE OF THE SURVEYED PROPERTY.

(Q) THE NORTHERLY FACE OF THE WALL IS LOCATED 0.04' INSIDE TO 0.15' OUTSIDE OF THE SURVEYED PROPERTY.

(R) THE CENTER OF THE UTILITY POLE IS LOCATED 0.95' INSIDE OF THE SURVEYED PROPERTY.

(S) THE FACE OF THE BUILDING IS LOCATED 0.06' INSIDE TO 0.06' OUTSIDE OF THE SURVEYED PROPERTY. THE BUILDING OVERHANG EXTENDS 0.56' OUTSIDE OF THE SURVEYED PROPERTY.

(T) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.61' OUTSIDE OF THE SURVEYED PROPERTY.

(U) THE CENTER OF THE SIGN POSTS ARE LOCATED 2.09'-2.14' OUTSIDE OF THE SURVEYED PROPERTY.

(V) THE FACE OF THE BUILDING IS LOCATED 0.16'-0.22' INSIDE OF THE SURVEYED PROPERTY.

(W) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.59' OUTSIDE OF THE SURVEYED PROPERTY.

(X) THE CENTER OF THE GATE MOTOR IS LOCATED 1.96' OUTSIDE OF THE SURVEYED PROPERTY.

(Y) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.86' OUTSIDE OF THE SURVEYED PROPERTY.

(Z) THE BUILDING IS LOCATED 0.11' INSIDE TO 0.34' OUTSIDE OF THE SURVEYED PROPERTY.

(a) THE FENCE IS LOCATED 0.59'-1.07' INSIDE OF THE SURVEYED PROPERTY.

(b) THE CENTER OF THE BACKFLOW PREVENTER CAGE IS LOCATED 2.65' INSIDE OF THE SURVEYED PROPERTY.

(c) THE CENTER OF THE BOLLARDS ARE LOCATED 4.61'-4.73' INSIDE OF THE SURVEYED PROPERTY.

ABBREVIATIONS:

AC ASPHALT CONCRETE
CMH COMMUNICATIONS MANHOLE
COM COMMUNICATIONS UTILITIES
CONC CONCRETE
DG DIRT
ELEC ELECTRICAL UTILITIES
FH FIRE HYDRANT
LP LIGHT POLE
PP POWER POLE
WM WATER METER BOX
WTR WATER UTILITIES
WV WATER VALVE

SITE ADDRESS:

936-956 SEWARD STREET AND 947-957 NORTH HUDSON AVENUE
LOS ANGELES, CA 90038

ASSESSOR'S PARCEL NUMBER:

5533-023-001, 002, 003, 017, 018, AND 026

TITLE INFORMATION:

TITLE INFORMATION FOR THIS SURVEY BASED ON A PRELIMINARY REPORT PREPARED BY CHICAGO TITLE INSURANCE COMPANY AS ORDER NO. 00177246-001-TG3-JC, EFFECTIVE DATE: MAY 30, 2023.

LEGAL DESCRIPTION:

PARCEL 1:

LOT 1, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-001)

PARCEL 2:

LOT 2, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-002)

PARCEL 3:

LOT 3, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-003)

PARCEL 4:

LOT 17, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-017)

PARCEL 5:

LOT 18, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-018)

PARCEL 6:

LOTS 14, 15 AND 16, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-026)

BASIS OF BEARINGS:

THE CENTERLINE OF SEWARD STREET AS SHOWN ON TRACT NO. 72859, AS FILED IN BOOK 1400, PAGES 97-98 OF MAPS, SAID BEARING BEING "N 0°10'21" W".

BOUNDARY NOTES:

THE BOUNDARY AND ALL DIMENSIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY COMPLETED BY OMEGA LAND SURVEYING ON JUNE 23, 2023 TO BE SHOWN ON A FORTHCOMING RECORD OF SURVEY TO BE FILED WITH THE COUNTY SURVEYOR OF LOS ANGELES COUNTY.

THE BOUNDARY SHOWN HEREON IS TENTATIVE UNTIL THE COMPLETION AND RECORDATION OF SAID RECORD OF SURVEY.

□ INDICATES LEAD AND DISC STAMPED "LS 9117" TO BE SET

● INDICATES MONUMENT AS NOTED

✕ INDICATES CENTERLINE ESTABLISHED PER TIES ON MANHOLE LID

[1] FOUND LEAD & DISC STAMPED "LA CITY SURVEYOR"

[2] FOUND MAG AND WASHER STAMPED "PAVECO DPW-WS-2020"

[3] FOUND LEAD & DISC STAMPED "RE 509"

[4] FOUND MAG AND WASHER STAMPED "LS 5748"

[5] FOUND LEAD & DISC STAMPED "LS 5748"

[6] FOUND LEAD & DISC STAMPED "RCE 16710"

[7] FOUND LEAD & DISC STAMPED "RCE 29708"

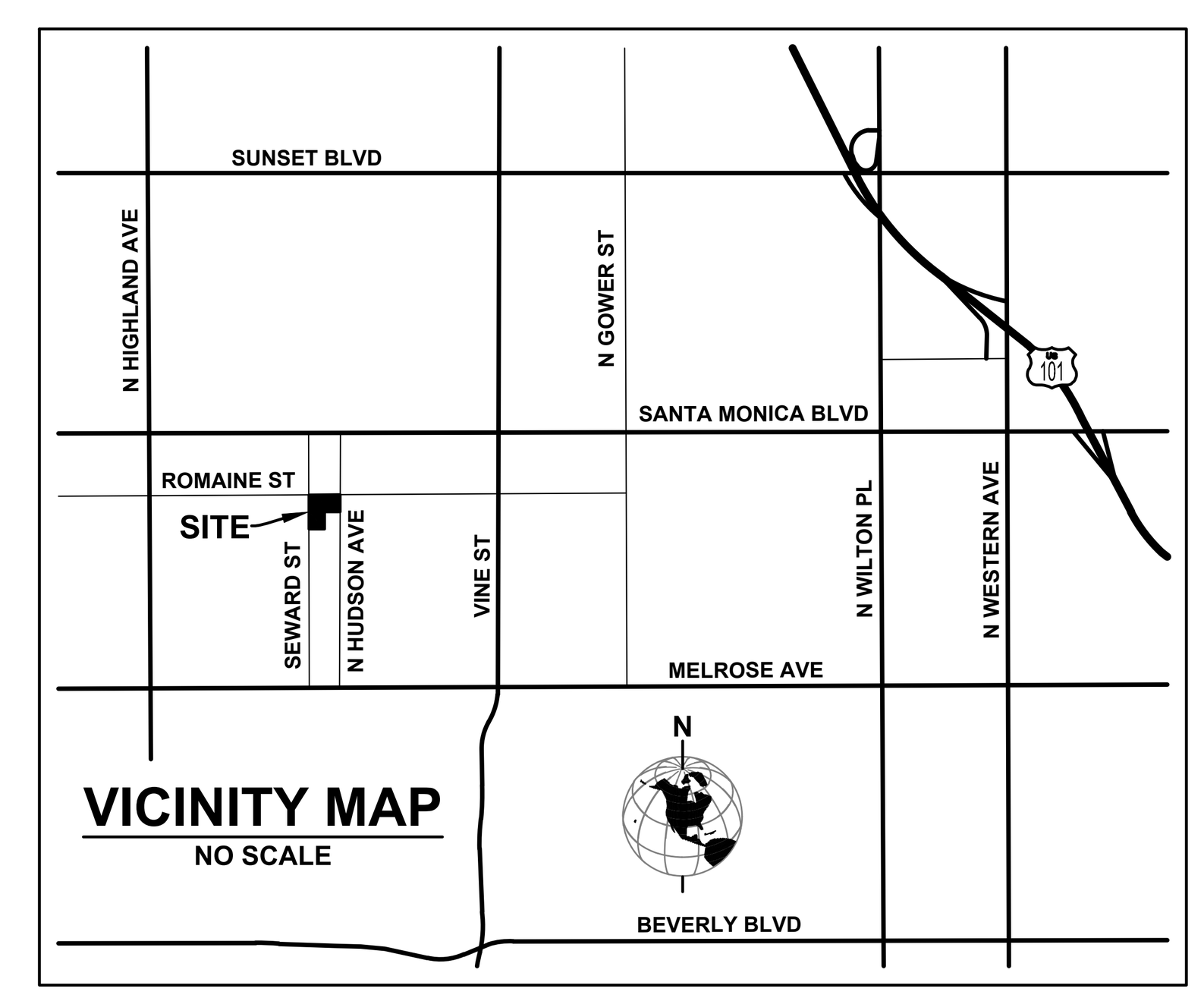
[8] FOUND LEAD & DISC STAMPED "LS 5738" ON BUILDING

[9] FOUND 2" EMPTY PIPE

[10] FOUND LEAD & DISC STAMPED "" ON BUILDING

[11] FOUND LEAD & TACK

[12] FOUND STANDARD STREET WELL MONUMENT



VICINITY MAP
NO SCALE

SURVEYOR'S CERTIFICATE:

TO: BARANOF HOLDINGS AND CHICAGO TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS OF ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 7(b)(1), 8, 9, 11(b), 13, 14, 15, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JUNE 23, 2023.

OMEGA LAND SURVEYING PROJECT NUMBER: 23785

DATE OF ORIGINAL PLAT: JULY 26, 2023

PREPARED BY:

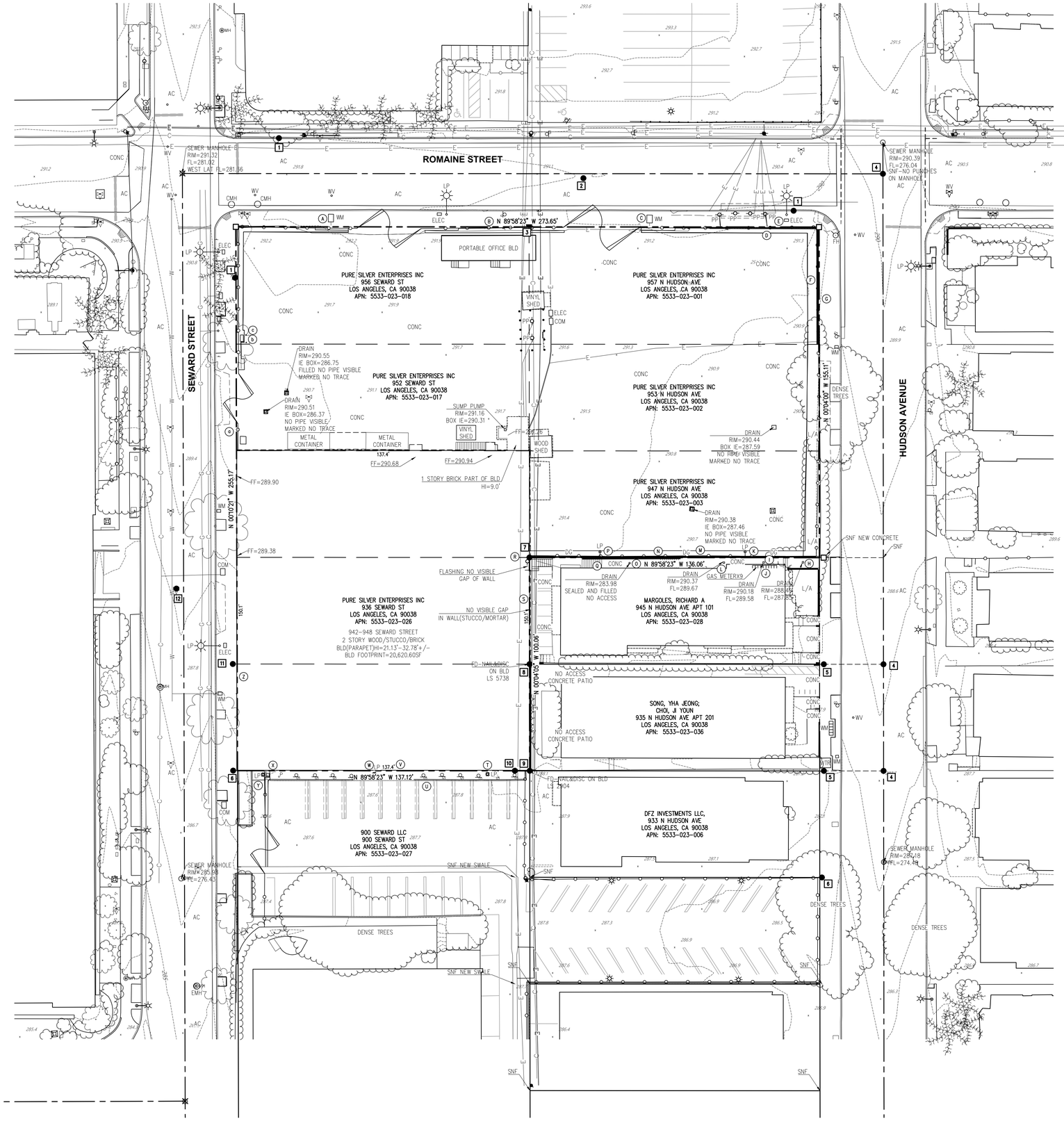
7/26/2023

RYAN J. WAKEFIELD
LS 9117
DATE

PROFESSIONAL LAND SURVEYOR RYAN J. WAKEFIELD L.S. 9117 STATE OF CALIFORNIA

OMEGA LAND SURVEYING, INC.
4320 VIEWRIDGE AVENUE, SUITE C
SAN DIEGO, CALIFORNIA 92123
INFO@OMEGA-SURVEYING.COM
PH: (619) 488-6942

ALTA / NSPS LAND TITLE SURVEY



0' 10' 20' 40' 60' 80'

SCALE: 1" = 20'

OMEGA LAND SURVEYING, INC.
4320 VIEWRIDGE AVENUE, SUITE C
SAN DIEGO, CALIFORNIA 92123
INFO@OMEGA-SURVEYING.COM
PH: (619) 488-6942

APPENDIX E

Geotechnical Report

Geotechnical Site Evaluation
and
Stormwater Infiltration Test Report
Proposed 7-Story Self-Storage Building
956 Seward Street
Hollywood, California

prepared for

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

GORIAN & ASSOCIATES, INC.

TABLE OF CONTENTS

ATTACHMENTS
References
Figure 1: Vicinity Map
Figure 2: Regional Geologic Map
Figure 3: Seismic Hazard Zone Map
Appendix A: Logs of Subsurface Data
Appendix B: Laboratory Testing
Appendix C: ASCE 7 Hazard Report
Plate 1: Boring Location Map

GORIAN & ASSOCIATES, INC.

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
Thousand Oaks
California 91320-2122
805 375-9262

July 26, 2023

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

Work Order: 3247-0-0-100

Subject: **Geotechnical Site Evaluation and Stormwater Infiltration Test Report, Proposed 7-Story Self-Storage Building, 956 Seward Street, Hollywood, California**

1. INTRODUCTION

The following report contains the results of our geotechnical site evaluation for design and construction of an above grade 7-story self-storage building at 956 Seward Street in Hollywood, California. Layout of the project is shown on the attached Geotechnical Map, Plate 1 based on the Site Plan -V1 by Michael W. Folonis Architects. In addition, storm water infiltration testing was performed as part of this site evaluation.

The L shaped site is between Seward and Hudson Streets on the south side of Romaine Street as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard in the Hollywood area of central Los Angeles, California. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. The existing facility will be demolished for construction of the proposed building with seven floors for a total of 168,565 square feet of floor space based on the architectural plans. Foundations and on-grade slabs are anticipated to be of conventional design. Subterranean construction is not anticipated at this time.

Geotechnical borings were used to obtain data on the subsurface alluvial soils consisting predominately of clayey soils with minor layer of silty fine to coarse sands to the explored depth of 51 feet as described herein. The field exploration was supplemented with laboratory testing to determine mechanical properties of the encountered soils. In addition, research was performed that indicated the site is not within Earthquake Fault, Liquefaction, or Landslide Zones (CGS, *Earthquake Zones of Required Investigation* website). Based on our site evaluation, the site is suitable for the proposed construction from a geotechnical standpoint provided recommendations presented herein are implemented in the project design and construction. Descriptions of the site and geologic units along with our conclusions and recommendations are presented within the text of this report.

2. PROPOSED DEVELOPMENT

The project based on the Site Plan -V1 by Michael W. Folonis Architects will consist of a seven story rectangular building proposed in the western portion of the site as shown on Plate 1. The completed

building will have total of 168,565 square feet of floor space. A loading area will be roughly centered on the east side of the building. Access to the site will be via a driveway off Romaine Street. The eastern portion of the L shaped site will be used for surface parking and drive aisles and is anticipated to be paved with asphaltic concrete (AC).

The building may be supported on continuous footings, with individual storage units possibly supported on the interior slab on grade within the interior of the structure. Continuous footings at the perimeter and at the interior are anticipated to be loaded to 8 to 10 kips per linear foot. Steel stud walls spaced on 10-foot centers typically are loaded to approximately 5± kips per linear foot and may be supported directly on a thickened interior slab typical of this type of self-storage structure. The storage live loads are anticipated to be 125 pounds per square foot.

3. SCOPE OF GEOTECHNICAL SERVICES (SITE EVALUATION)

Our site evaluation was performed to provide geotechnical recommendations for design and construction of the self-storage project in general accordance with the Scope of Services presented in our proposal of May 18, 2023 (Proposal Number: 7323-10). Our geotechnical evaluation was performed under the direction of a State registered Geotechnical Engineer and included:

3.1. ARCHIVAL REVIEW

Pertinent geologic/geotechnical references in our office including regional geologic references applicable to the site were reviewed with respect to the proposed development.

3.2. SUBSURFACE EXPLORATION

Two geotechnical borings (8-inch diameter) were excavated for this study in the northern portion of the site with one boring near Seward Street and the other near N. Hudson Ave (an existing building occupies the southern portion of the site). The borings were drilled to a depth of 51 feet below the existing ground surface (bgs) utilizing a subcontractor supplied and operated truck-mounted hollow-stem auger drill rig equipped with an automatic hammer weighing 140 pounds with a 30-inch drop. The approximate boring locations shown on the Boring Location Map (Plate 1).

The field exploration activities described above were observed by an engineer from this office, who logged the underlying materials and from the borings, obtained bulk and relatively undisturbed soil samples for laboratory analyses.

At the conclusion of logging, the borings will be backfilled with a bentonite/cement grout and the surface capped. However, the backfill may settle over time and the site representative should fill any depression that may occur, as necessary.

3.3. STORMWATER INFILTRATION TESTING

Two locations were tested for stormwater infiltration. For infiltration testing, two hollow-stem auger borings were excavated to a total depth of 7 feet below the existing ground surface utilizing a subcontractor supplied and operated truck mounted hollow-stem auger drill rig.

At the conclusion of logging and soil sampling, the borings were converted to infiltration rate test wells by placing 1 foot of medium bentonite chips in the boring prior to placing a 10 foot long 2-inch diameter pipe in each boring with the lower 5 feet of pipe slotted (0.02). The annular space between the slotted pipe and the wall of the excavation was backfilled using #3 sand. The upper portion of the annular space was sealed off with medium bentonite chips followed by soil.

The test zone was pre-soaked by filling to the top of each casing with water. The water was allowed to pre-soak for a maximum period of 24 hours or until the water has completely drained out on the first day of testing. At the conclusion of the pre-soak on the test day, the pipes were refilled with water to

approximately a foot above the slotted pipe. After the pre-soak period, a falling head test was performed for both infiltration wells. However, water did not recede in the test well and the site was found to not be suitable for onsite stormwater infiltration. At the conclusion of testing, the excavations were backfilled with soil.

3.4. LABORATORY TESTING

A program of laboratory testing as outlined in Appendix B was performed to evaluate geotechnical properties of selected soil samples obtained during the subsurface exploration.

3.5. GEOTECHNICAL ENGINEERING ANALYSES AND REPORT PREPARATION

The results of our archival research, field exploration, storm water infiltration, laboratory testing, and engineering analyses were used to provide geotechnical recommendations for design and construction of a storage building, as well to provide an infiltration rate for design and construction of the stormwater BMP for the facility. The findings are provided in this report that include:

a) A description of the site and subsurface conditions as encountered in the exploratory excavations including Logs of Subsurface Data (Appendix A) and a Boring Location Map (Plate 1) showing the approximate excavation locations.

b) A description of the laboratory testing programs, including tests results (Appendix B).

c) Discussion and recommendations regarding:
   i) Geologic hazards including seismic setting of the site and faulting,
   ii) Seismic design criteria;
   iii) Soil collapse and expansion potential;
   iv) Site preparation and remedial grading;
   v) Concrete slabs on grade including aggregate base and vapor retarder;
   vi) Modulus of subgrade reaction;
   vii) Conventional foundation design recommendations;
   viii) Estimated settlements;
   ix) Pavement and hardscape design recommendations;
   x) Soil chemistry analysis, by subcontract;
   xi) Lateral earth pressures;
   xii) Stormwater infiltration potential.

4. SITE DESCRIPTION

The flat L shaped site is at 956 Seward Street in the Hollywood area of central Los Angeles, California. It is on the south side of Romaine Street between Seward and Hudson Streets as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard. Access to the site is off either Romaine or Seward Streets. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. (An inventory of the existing building is beyond the scope of this geotechnical evaluation.) Surface parking and drive areas are outside of the building and the area is used for rental truck storage. The majority of the surrounding area is occupied by multi-stored commercial and apartment buildings.

5. SITE GEOLOGY

The site is underlain by Quaternary-age alluvium (Dibblee, 1991, see the Regional Geologic Map, Figure 2) mantled with a thin veneer of artificial fill (pavement). Descriptions of the encountered units are presented below and in the attached Logs of Subsurface Data (Appendix A).

5.1. ALLUVIUM

Quaternary-age alluvium underlies the entire site to the maximum depth explored, 51 feet (B-1 and B-2) below the existing ground surface. As encountered in the borings drilled for this evaluation, the alluvium generally consists of predominately of yellowish brown clay in a very dense condition interstratified with a minor layer of silty coarse sand.

5.2. ARTIFICIAL FILL

Artificial fill was only encountered on site as pavement covering the surface parking and drive area. The asphaltic concrete was observed 6 inches underlain by 6 to 7 inches of aggregate base materials. Below the aggregate base to a depth of 5 feet is a compacted fill consisting of dark brown slightly silty clay with medium gravel, which is damp and very dense. Additional areas of artificial fill deposits could exist on the site but were not investigated or mapped as they are concealed.

5.3. GROUNDWATER

Groundwater was encountered at 17 feet below the existing ground surface in the exploratory borings. Groundwater is estimated at 20 feet below the ground surface based on the Seismic Hazard Zone Report of the Hollywood 7.5 Minute Quadrangle, Los Angeles County, California. As in any groundwater situation, groundwater levels can fluctuate and groundwater (or perched zones) may be encountered at higher elevations than previously observed in the general area.

5.4. FAULTING AND SEISMICITY

The site, like any other development in Southern California, is in a seismically active region prone to occasional damaging earthquakes. The destructive power of earthquakes can be grouped into fault-rupture, ground shaking (strong motion), and secondary effects of ground shaking such as tsunami, liquefaction, settlement, landslides, etc.

The hazard of fault-rupture is generally thought to be associated with a relatively narrow zone along well-defined pre-existing active faults. No doubt there is and will be exceptions to this, because it is not possible to predict the precise location of a new fault where none existed before (CDMG, 1975). Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). The closest active mapped faults are the Hollywood Fault, approximately 1.1 miles to the north, Newport Inglewood Fault, approximately 4.5 miles to the southwest, and the Raymond Fault, approximately 8.8 miles to the northeast. The San Fernando Fault is roughly 13 miles to the north. Potential for surface ground rupture due to faulting onsite during the project lifetime is considered remote.

Although no active or potentially active faults are known to exist within or adjacent the site, the area will be subject to strong ground motion from occasional earthquakes in the region. Significant earthquakes have occurred in Southern California within the last 50 years. Additional earthquakes will likely occur in this area within the life of the project and it will experience strong ground shaking from these events.

Probabilistic seismic hazard analyses (PSHA) predict the Design Basis Earthquake having a 2% probability of exceedance in 50 years (2,475-year return period will have a peak ground acceleration estimated to be 0.90g based on a seismic event with a mean magnitude of 6.80 (Mw) at a mean distance of 7.86 km from the site. This is based on the U.S. Geological Survey (USGS) interactive web application, Unified Hazard Tool https://earthquake.usgs.gov/hazards/interactive/ for the D class site.

Secondary effects of strong ground motion include tsunami, seiche, liquefaction, settlement, earthquake triggered landslides, and flooding from dam failures. Tsunamis are impulsively generated water waves that can cause damage to shoreline areas. A seiche is an oscillation wave within an enclosed body of water. The site is not near the ocean or adjacent a body of water and, therefore, is not subject to tsunami and seiche hazards. Furthermore, the site is not prone to earthquake triggered landslides due to

the relatively low relief in the area and preponderance of development covered land, nor is the site in the vicinity of any dam failure inundation zone. The site is not within a State designated seismic hazard zone for liquefaction potential (CGS, Earthquake Zones of Required Investigation website). See Figure 3, the Seismic Hazards Zone Map.

5.5. FLOOD POTENTIAL

Per the City of Los Angeles website: https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is not in a flood hazard zone.

5.6. METHANE HAZARD ZONE

Per the City of Los Angeles website: https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is within a Methane Buffer Zone. Testing for the presence of methane is outside of the services provided for this project.

5.7. HYDROCONSOLIDATION

Hydroconsolidation occurs when the soil structure collapses due to soil wetting resulting in consolidation of the soil column. However, at this site, the in-place moisture contents are above the optimum moisture. Therefore, addition of water to the soils should not result in hydroconsolidation. In addition, groundwater was encountered at 17 feet in the borings. Therefore, the potential for hydroconsolidation below the completed project should negligible due to the high groundwater and soil moisture contents.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. GENERAL

The site was evaluated from a geotechnical standpoint for construction of a self-storage facility described herein. The alluvial deposits are suitable for the support of the structure. Therefore, conventional shallow foundations and a mat foundation may be used for structural support. However, remedial grading is needed to prepare the site as discussed hater herein. Differential settlement should be negligible based on the bearing capacities provided herein. The project may be developed as described earlier in this report provided recommendations presented herein are followed and incorporated into the project design and construction.

6.2. SEISMIC DESIGN PARAMETERS

As previously discussed, Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). Nevertheless, the site is within a seismically active region prone to occasional damaging earthquakes.

Structures within the site may be designed using procedures for seismic design presented in ASCE/SEI 7-16. Mapped acceleration parameters are initially determined for sites having a shear wave velocity of 2,500 feet per second (Section C11.4.4). The S_s and S_1 values are adjusted to obtain the maximum considered earthquake (MCE) spectral acceleration values for the site based on its site class of D. The seismic design parameters for the site's coordinates (latitude 34.0889 N and longitude 118.3328 W) were obtained from the web based ASCE 7 Hazard Tool https://asce7hazardtool.online/ The parameters are presented on the following page (the full report is presented in Appendix C).

SEISMIC PARAMETER	VALUE PER CBC
Short Period Mapped Acceleration (S_s)	2.087g
Long Period Mapped Acceleration (S_1)	0.748g
Site Class Definition	D
Site Coefficient (F_a)	1.0
Site Coefficient (F_v)	1.7*
$S_{MS} = F_a S_s$	2.087g
$S_{M1} = F_v S_1$	1.272g*
$S_{DS} = 2/3 S_{MS}$	1.391g
$S_{D1} = 2/3 S_{M1}$	0.848g*
PGA_M	0.983g

**Based on proposed development meeting requirements of the exemption for Site Class D sites in Section 11.4.8 of ASCE 7-16. Further analysis may be required once the Response Modification Factor and Period of the proposed development are known.*

The purpose of the building code earthquake provisions is primarily to safeguard against major structural failures and loss of life, not to limit damage nor maintain function. Therefore, values provided in the building code should be considered minimum design values and should be used with the understanding site acceleration could be higher than addressed by code-based parameters. Cracking of walls and possible structural damage should be anticipated in a significant seismic event.

6.3. STORMWATER INFILTRATION

Based on our test results and field exploration observations, soils within the site were not found to be suitable for construction of a stormwater infiltration system. Water remained in the test wells the day after the wells were filled with water to presoak the test wells. On the test day, the test wells were refilled with water, which did not recede during the test period.

6.4. SITE PREPARATION AND GRADING

6.4.1. General

Geotechnical recommendations are presented in the following sections for preparation of the building pad. Site preparation and fill placement should be performed per the City of Los Angeles standards. The undisturbed in-placed alluvial soils are suitable for foundation support.

6.4.2. Site Clearing

Prior to starting earthwork, trash, debris, and remnants of demolition within all areas of construction should be stripped and removed from the site. Utilities within the area of proposed construction should be identified and removed or protected prior to grading.

6.4.3. Demolition

Presently, the area is covered by paving and facilities related to the prior use of the property that are planned for demolition. Utilities to remain should be protected in place. An inventory of the building is beyond the scope of this geotechnical evaluation. Therefore, equipment foundations and/or various utilities may be encountered during the site demolition.

6.4.4. Existing Fill Soils

Fill soils were encountered in the exploratory borings. The fill is well consolidated and suitable for foundation support. However, since the borings were outside of the existing building, additional evaluation of the fill will be needed once the building has been removed.

6.4.5. Soil Removals

Remedial grading should be performed within the proposed building areas to remove soils disturbed during demolition of the existing site improvements. Soil removals, as a minimum, should extend to undisturbed in-place native alluvial or compacted fill soils below soils disturbed during site clearing. The removal should include disturbed fill soils encountered in the site grading. For areas supporting foundations or concrete slabs on grade including mat slabs, soil removals should extend roughly 2 feet below existing ground surface after demolition. However, deeper excavation may be necessary based on the depth of demolition within the existing facility building. Therefore, the actual depth of needed removal should be evaluated by this office based on the actual depth of removal of existing structure foundations, utilities, or equipment foundations.

The bottom of the soil removal should extend past the outside of the perimeter footings a minimum distance equal to the depth of removal below the footing. However, soil removals should not extend below a 2(horizontal)1(vertical) line extending down from the property lines or as evaluated per this office. After removals are completed, a representative of this office should observe the bottom of the removal area prior to placing fill. Fill soil should not be placed until geotechnical observation of the removal areas is completed.

Outside the building areas, soil removals as a minimum, should extend to undisturbed in-place native alluvial soils of compacted fill below soils disturbed during the site clearing. Removal in the existing parking and drive areas may be limited to the asphaltic concrete and base, however, the removal area should be observed by this office to evaluation if additional soil removal is necessary.

The removed soils may be reused as fill material provided, the soils are clean and placed as described herein. The removal area should be observed by this office prior to fill placement to evaluate if deeper removals are necessary.

6.4.6. Soil Compaction

Fill soil or in-place compaction should be completed to a minimum 90 percent relative compaction. Relative compaction is the ratio of the in-place dry soil density to the maximum dry soil density as determined in general accordance with ASTM laboratory standard D-1557.

6.4.7. In-Place Soil Processing

Once the soil removals are complete and prior to placing fill, the bottom of the removal area should be processed. Processing consists of scarifying the exposed surface to a depth of roughly 6 to 8 inches, conditioning the scarified soil to above the optimum moisture content, and compacting the scarified soil. Processed soil should be compacted to 90 percent relative compaction.

6.4.8. Fill Placement

Soils generated from the removal areas should be suitable for reuse as fill. Import fill if required should be similar to on-site materials. This office should observe the source of import fill prior to placement.

Fill soils should be free of significant vegetation, rocks greater than 6 inches in maximum linear dimension, and other deleterious materials. In addition, fill soils should be mixed and blended. Fill soils should be placed in lifts not exceeding 8 inches in maximum loose thickness, moisture conditioned to slightly over optimum moisture content, and compacted to at least 90 percent relative compaction.

6.5. SOIL EXPANSIVENESS

An expansion test conducted on the upper soils within the site resulted in an expansion index of 73 indicating the underlying fine-grained materials have a moderately expansion potential, in the 51-90 Expansion Index Range. However, based on the consolidation tests, deeper soils have a significant expansion potential. Therefore, soils having a higher expansion potential may be encountered within the

site. Additional expansion tests may be performed at the conclusion of the recommended remedial grading.

Expansive soils contain clay particles that change in volume (shrink or swell) due to a change in the soil moisture content. The amount of volume change depends upon the soil swell potential (amount of expansive clay in the soil), availability of water to the soil, and the soil confining pressure. Swelling occurs when soils containing clay become wet due to excessive water from poor surface drainage, over-irrigation of lawns and planters, and sprinkler or plumbing leaks.

Swelling clay soils can cause distress to construction including walks, drains, and patio slabs (generally as uplift). Construction on expansive soil has an inherent risk that should be acknowledged and understood by the developer/property owner. The geotechnical recommendations presented herein are intended to reduce the potential for expansive soil action. However, these recommendations are not intended, nor designed to provide complete and full mitigation of expansive soil conditions. If requested, additional recommendations can be provided to further reduce the risk of expansive soil movement. Soil movement can be roughly 1± inches. Therefore, the following should be maintained within the lot.

- Positive drainage should be consistently provided and maintained away from structures. Drainage should not be changed creating an adverse drainage condition.
- Landscape watering should be held to a minimum and irrigation systems should be maintained. Sprinkler or plumbing leaks should be immediately repaired so the subgrade soils underlying or adjacent the structures do not become saturated. Trees should be spaced so that roots will not extend under foundations or slabs.

6.6. FOUNDATION DESIGN

6.6.1. Design Data

Structures may be supported on continuous or isolated footings underlain by engineered compacted soil or firm native soils as addressed above and may be designed for an allowable bearing pressure of 3,000 pounds per square foot (psf). The allowable net bearing pressure may be increased by one-third when considering wind or seismic loads. The weight of concrete below grade may be excluded from the footing load. Shallow footings adjacent walls (such as loading docks), should be included in the design of walls or stepped down below a 2(horizontal):1(vertical) plane projecting upward from the bottom of adjacent footings.

Continuous and isolated footings should have minimum widths of 18 inches and 24 inches, respectively. The footings should be embedded a minimum of 36 inches for interior and exterior footings. The embedment should be measured from the lowest adjacent grade (lowest grade at the time of excavation or after). Interior footings may be embedded a minimum of 24 inches below the interior slab. Steel reinforcement should be per the structural engineers' recommendations. However, minimum continuous footing reinforcement should consist of three number five bars in the top and bottom (total of 4 bars). In addition, interior slabs should be tied to the footings with number 4 bars at 24-inch centers bent 3-feet into the slab and extended to within 3 inches of the bottom of the footing. Perimeter isolated footings should be tied together with a grade beam extending 36 inches deep below the lowest adjacent grade.

6.6.2. Mat Slab Design Data

Mat slabs may be designed using an allowable soil bearing pressure of 1,500 pounds per square foot (at the ground surface) or a modulus of subgrade reaction "K" of 125 pounds per cubic inch (pci) at the surface of a properly prepared building pad. The project structural engineer should determine the steel reinforcement and concrete compressive strength. The slabs supporting interior steel stud walls should be a minimum of 8 inches thick. A mat slab should be underlain by a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. In

addition, interior mat slab design should include a moisture retarder as indicated under *Slabs on Grade* below.

6.6.3. Lateral Earth Pressures

Lateral forces on foundations may be resisted by passive earth pressure and base friction. Lateral passive earth pressure may be considered equal to a fluid weighing 250 pounds per cubic foot (pcf). The lateral passive pressure may be increased to a maximum of 2500 psf. Base friction may be computed at 0.3 times the normal load. Passive earth pressure and base friction may be combined without reduction.

A passive pressure of 30 pcf may be used for shallow retaining walls allowed to yield at the top as in loading dock walls. If the walls are restrained, the active pressure should be increased to 60 pcf.

6.6.4. Estimated Settlements

Static settlement of footings should be evaluated once building footing locations and structural loads are known. However, footing settlement for static loading is anticipated on the order of 1/2 inch or less, with a maximum differential settlement of 1/2± inch over a span of approximately 30 feet or between adjacent individual footings. This is provided building construction is started directly after footing excavation, footings are cast soon after the footing excavation, and construction is completed in a timely manner. Settlements due to static loading are expected to occur rapidly as the loads are applied.

All structures settle during construction and some minor settlement of structures can occur after construction during the life of the project. Minor wall cracking could occur within the structure associated with expansion and contraction of the structural members. In addition, wall or slab cracking may be associated with settlement or expansive soil movement. Additional settlement/soil movement could occur if the soils dry or become saturated due to excessive water infiltration generally caused by excessive irrigation, poor drainage, etc.

6.6.5. Footing Excavations

This office should observe the footing excavations prior to placing reinforcing steel. Footings should be cut square and level and cleaned of loose soils. Soil excavated from the footing and utility trenches should not be spread over any areas of construction unless properly compacted. Soils silted into the footing excavations should be removed to the required depth prior to casting the concrete. The footings should be cast as soon as possible to avoid deep desiccation of the footing subsoils.

6.6.6. Premoistening

Footing subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches below the bottom of the footing. Saturated soils or soils silted into the footing excavations should be removed prior to concrete placement.

6.7. SLABS-ON-GRADE

6.7.1. Site Preparation

The subgrade for slabs-on-grade, if disturbed during foundation and utility construction, should be conditioned prior to placement of an aggregate materials. Loose soils should be removed to firm in-place material, the exposed subgrade processed, and the material replaced as engineered compacted fill or aggregate material.

6.7.2. Slab-on-Grade Design Data

Interior concrete slabs on-grade not used for structural support should be 5 inches thick and underlain by 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The slab should be reinforced with a minimum of number 4 bars at 16-inch centers in each direction. The reinforcement should be placed and kept at slab mid-depth. In addition to the above

slab recommendations, slabs supporting heavy loads including mat slabs should be designed by the structural engineer for the intended loading, thickness, and reinforcement.

Exterior concrete slabs-on-grade (non-auto traffic) and walkways should be a minimum of 4 inches thick and underlain by a minimum of 4 inches of sand. In areas of heavy loading for truck traffic (including trash pickup areas and loading docks) the slab thickness should be increased to a minimum of 7 inches thick. Exterior slabs should be reinforced with a minimum of No. 4 bars on 16-inch centers in each direction. The reinforcement should be placed at mid-depth of the slab. Sidewalks may be constructed of non-reinforced concrete provided the sidewalks are cut into square panels (i.e., 4-foot wide walks should be cut into 4 foot by 4 foot squares).

6.7.3. Premoistening

Slab on-grade subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches.

6.7.4. Concrete Placement and Cracking

Minor cracking of concrete slabs is common and is generally the result of concrete shrinkage continuing after construction. Concrete shrinks as it cures resulting in shrinkage tension within the concrete mass. Since concrete is weak in tension, development of tension results in cracks within the concrete. Therefore, the concrete should be placed using procedures to minimize the cracking within the slab. Shrinkage cracks can become excessive if water is added to the concrete above the allowable limit and proper finishing and curing practices are not followed. Concrete mixing, placement, finishing, and curing should be performed per the American Concrete Institute Guide for Concrete Floor and Slab Construction (ACI 302.1R). Concrete slump during concrete placement should not exceed the design slump specified by the structural engineer or 5 inches, whichever is the lessor. Concrete slabs on grade should be provided with tooled crack control joints at 10-15 foot centers or as specified by the structural engineer.

6.7.5. Moisture Vapor Barrier

Moisture migration occurs when there is a differential potential in the relative moisture below and above the concrete slab on grade. Therefore, concrete slabs on grade within the building interior should be considered sensitive to moisture and an appropriate moisture vapor retarder layer should be installed and maintained below concrete slabs-on-grade. The water vapor retarder should be one that is specifically designed as a vapor retarder and consist of a minimum 15 mil extruded polyolefin plastic and complying with Class A requirements under ASTM E1745 (*Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*). The vapor retarder should be installed in accordance with ASTM E1643. The water vapor retarder should be installed in direct contact with the concrete slab along with a concrete mix design to control bleeding, shrinkage, and curling (ACI 302.2R). The vapor retarder shall be installed over a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The vapor retarder should be placed per ASTM E1643-98(2005) *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*. In addition, various trades and the concrete contractor should be required to protect the moisture retarder during construction.

Joints in the vapor retarder layer should be lapped and sealed. Perforations through the moisture vapor retarder such as at pipes, conduits, columns, grade beams, and wall footing penetrations should be sealed per the manufacture's specifications or ASTM E1643. Proper construction practices should be followed during construction of slabs on-grade. Repair and seal tears or punctures in the moisture barrier that may result from the construction process prior to concrete placement.

Minimizing shrinkage cracks in the slab on-grade can further minimize moisture vapor emissions. A properly cured slab utilizing low-slump concrete will reduce the risk of shrinkage cracks in the slab as described herein.

The concrete contractor should make the necessary changes in the concrete placement and curing for concrete placed directly over the retarder. Placing the concrete directly on top of the moisture vapor retarder layer allows the layer to be observed for damage directly prior to concrete placement.

The slabs should be tested for moisture content prior to the selection of the flooring and adhesives. Moisture in the slabs should not exceed the flooring manufacture's specifications. The concrete surface should be sealed per the manufacture's specifications if the moisture readings are excessive. It may be necessary to select floor coverings that are applicable to high moisture conditions.

6.8. SOIL CORROSIVITY

The results of the analytical laboratory testing to evaluate the potential for corrosion of materials in contact with the onsite soils will be provided in a subsequent report.

6.9. SITE DRAINAGE

Positive drainage should be continuously provided and maintained away from the structure during and after construction in accordance with applicable building codes and/or the approved grading plan. Regarding landscaping, planters adjacent a structure should be constructed so that irrigation water will not saturate the soils underlying the building footings and slabs. Trees should not be planted adjacent a structure where roots could grow under the foundations or slabs.

6.10. GUTTERS AND DOWNSPOUTS

Gutters and downspouts should be installed on the buildings to collect roof water and direct the water away from the structure. Downspouts should drain into PVC collector pipes that will carry the water away from the building.

6.11. PAVEMENT DESIGN

The anticipated structural section is 3 inches of asphaltic concrete over 8 inches of aggregate base for parking areas. The structural section should be increased to be 3 inches of asphaltic concrete over 12 inches of aggregate base for drive areas. The final structural sections should be confirmed at the conclusion of grading. The upper 6 inches of subgrade and the base materials should be compacted to at least 90% and 95% of the maximum dry density, respectively.

Planter areas should be graded so excess water drains onto and not beneath the adjacent AC pavement and curbs. Also, adjacent the planters, consideration should be given to deepening the curbs so that water is not allowed to saturate the pavement subgrade.

6.12. PLAN REVIEW(S)

As the development process continues and final detailed grading and site/foundation plans and specifications are developed, they should be reviewed by Gorian and Associates, Inc. Additional geotechnical recommendations may be warranted at that time.

7. CLOSURE

This report was prepared under the direction of State registered geotechnical engineer for the addressee and design consultants solely for design and construction of the project as described herein. No warranty, express or implied, is made as to conclusions and professional advice included in this report. Gorian and Associates, Inc. disclaim any and all responsibility and liability for problems that may occur if the recommendations presented in this report are not followed.

This report may not contain sufficient information for other uses or the purposes of other parties. Recommendations should not be extrapolated to other areas or used for other facilities without consulting Gorian and Associates, Inc. Services of this office should not be construed to relieve the owner or contractors of their responsibilities or liabilities.

The scope of the services provided by Gorian and Associates, Inc. and its staff, excludes responsibility and/or liability for work conducted by others. Such work includes, but is not limited to, means and methods of work performance, quality control of the work, superintendence, sequencing of construction and safety in, on, or about the jobsite.

The recommendations are based on interpretations of the subsurface conditions concluded from information gained from subsurface explorations and a surficial site reconnaissance. The interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the site. Due to possible subsurface variations, this office should observe all aspects of field construction addressed in this report. Individuals using this report for bidding or construction purposes should perform such independent investigations as they deem necessary.

oOo

Please contact our office if you have questions regarding the information and recommendations contained in this report, or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

REFERENCES

American Concrete Institute, ACI 318: Building Code Requirements for Structural Concrete.

ASCE/SEI 7-16 *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, Published by the American Society of Civil Engineers. 2017.

California Geological Survey (CGS), 2018, *Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California.* California Geological Survey Special Publication 42, Revised 2018.
https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Publications/SP_042.pdf

California Geological Survey (CGS), 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California. California Geologic Survey Special Publication 117A. (revised March 2009).

California Division of Mines and Geology (CDMG) [now California Geological Survey (CGS)], 1975, *Guidelines for Evaluating the Hazard of Surface Rupture.* California Division of Mines and Geology Note Number 49.

California Division of Mines and Geology (CDMG) [now California Geological Survey (CGS)], 1995, *Supplement No. 1 to Special Publication 42* (1994 edition).

California Geological Survey (CGS), 1998, *Seismic Hazard Zone Report For the Hollywood 7.5-Minute Quadrangles, Los Angeles County, California. Revised 2001, 2005 & 2006.* CGS Seismic Hazard Zone Report 026.

California Geological Survey (CGS), 1999, Seismic *Hazard Zones Official Map for the Hollywood Quadrangle*, released March 25, 1999.

California Geological Survey (CGS), *Earthquake Zones of Required Investigation.* Viewed online:
https://maps.conservation.ca.gov/cgs/EQZApp/app/

Dibblee, Thomas W., Jr. 1989, *Geologic Map of the Los Angeles 7.5-Minute Quadrangles, Los Angeles County, California.* Dibblee Geological Foundation Map #DF-22.

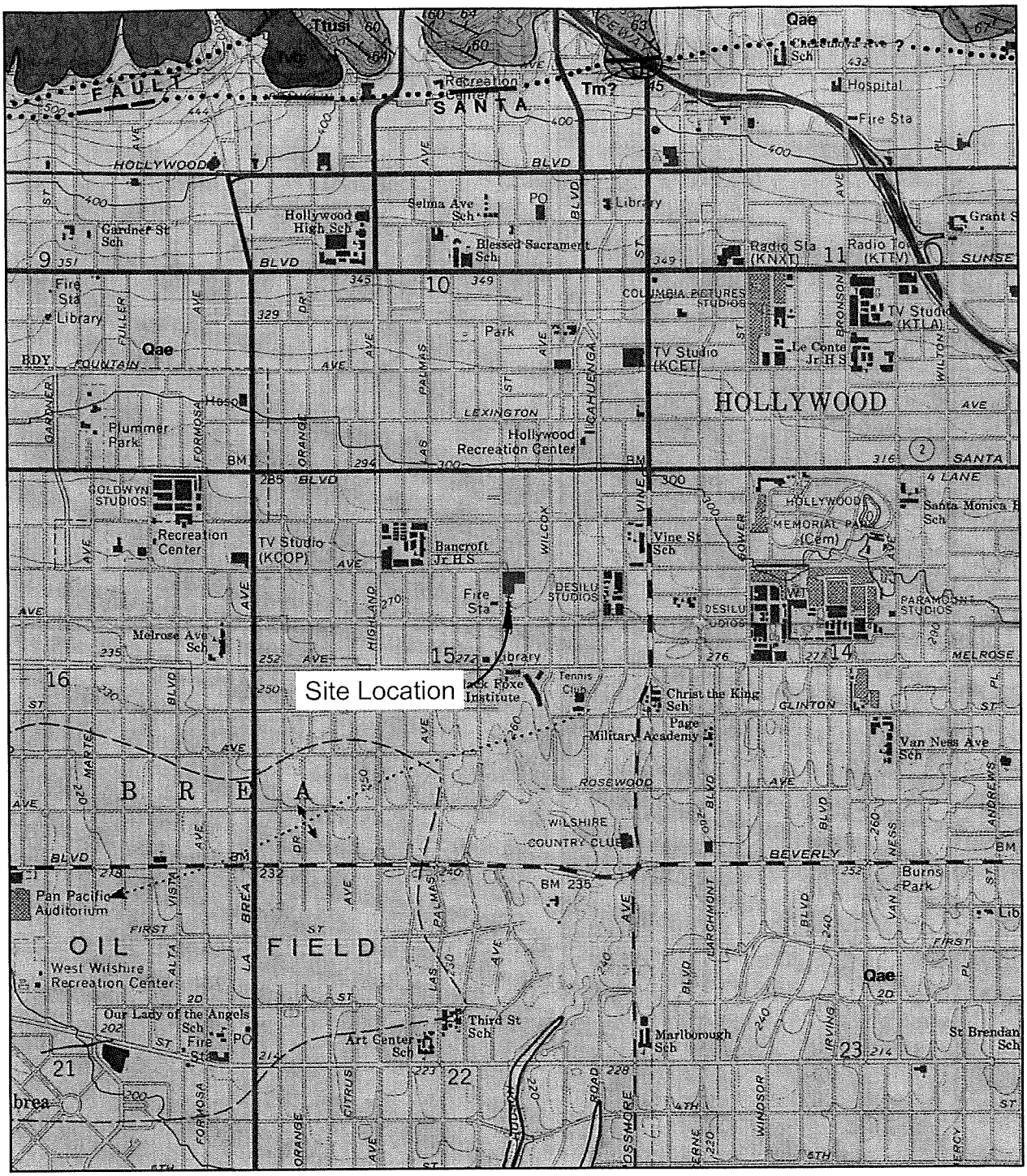
United States Geological Survey (USGS) interactive web application, Unified Hazard Tool.
https://earthquake.usgs.gov/hazards/interactive/.

SITE VICINITY MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: NTS	Drawn by:	Figure 1
	Approved by:	

Source
Gaia, online



Source: Dibblee, Thomas W. Jr., ed. Ehrenspeck, Helmut E., 1991, GEOLOGIC MAP OF THE HOLLYWOOD QUADRANGLE, *LOS ANGELES COUNTY, CALIFORNIA*. Dibblee Geological Foundation Map #DF-30.

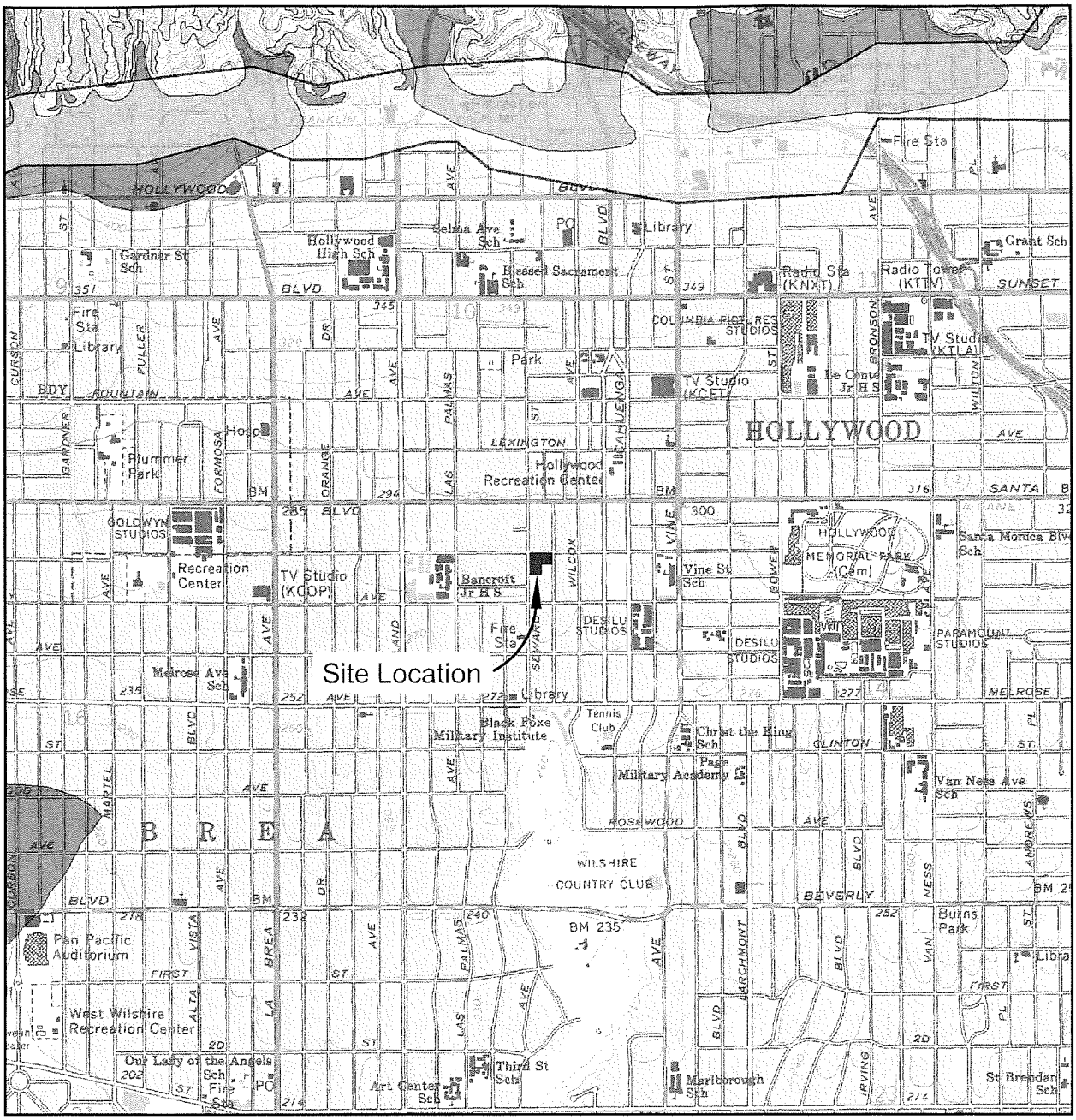
Explanation

Qa - Alluvium; unconsolidated floodplain deposits of silt, sand and gravel

REGIONAL GEOLOGIC MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 2000'	Drawn by:	Figure 2
	Approved by:	



Explanation

Seismic Hazard Zone - Liquefaction

Earthquake Fault Zone

Source

California Geological Survey, Earthquake Zones of Required Investigation Hollywood Quadrangle, Official Map Released March 25, 1999

SEISMIC HAZARD ZONE MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 2000'	Drawn by:	Figure 3
	Approved by:	

APPENDIX A

LOGS OF SUBSURFACE DATA

GORIAN & ASSOCIATES, INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0						CL		Asphalt (6"), Base (7") Fill: Dark Brown slightly silty CLAY with medium gravel and cement (damp, very dense).	
			21	18.4	103.2				
5			25	17.0	111.2				
						CL		ALLUVIUM: Yellowish brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
			20	16.9	110.5				
10			15	19.4	107.7	CL		Dark brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
15			15	15.8	107.0	CL		Yellowish brown CLAY with trace sand and fine gravel (damp, medium dense). Groundwater at 17'	
						SM		Light yellowish brown slightly silty coarse SAND with fine gravel (moist, medium dense).	
20			21	18.8	101.7				
25			5	25.5	101.9	CL		Light yellowish brown sandy CLAY; trace silt with fine to medium gravel (moist, medium dense).	
30			14	17.1	117.8	CL		Light yellowish brown very sandy CLAY with fine gravel (moist, medium dense).	
35			13	22.2	107.2	SM		Light yellowish brown very sandy CLAY with fine gravel to light yellowish brown clayey SAND with fine gravel, trace silt (moist, medium dense).	

GORIAN & ASSOCIATES, INC.

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40						CL		Becoming siltier; light yellowish brown sandy CLAY with fine gravel, trace silt (moist, medium dense).	
45			22	24.4	102.8	ML		Light yellowish brown sandy SILT with fine gravel (moist, medium dense).	
50			15	18.8	108.9	CL		Reddish brown silty CLAY with fine gravel (moist, medium dense).	
								TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

GORIAN & ASSOCIATES, INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0								Asphalt (6"), Base (6")	
						CL		Fill: Dark brown slightly silty CLAY with fine to medium gravel and cement (damp, medium dense).	
			15	23.3	88.1				
5			20	20.5	98.0	CL		ALLUVIUM: Dark brown CLAY with coarse gravel (damp, medium dense).	
			21	23.9	96.6	CL		Dark yellowish brown CLAY with fine gravel, micaceous , trace silt (damp, medium dense).	
10			23	26.8	97.0	CL		Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	
15			31	19.4	111.6	CL		Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense). Groundwater at 17'	
20			23	15.7	115.3	CL		Dark yellowish brown to reddish brown very sandy CLAY, fine to medium gravel (very moist, medium dense).	
25			12	20.0	108.4	CL		Reddish brown sandy CLAY, micaceous, with fine gravel, trace silt (moist, medium dense).	
30			23	24.8	102.9				
35			28	20.6	105.6				
						CL		Reddish brown to grayish brown CLAY, micaceous with fine gravel (damp, very dense).	

GORIAN & ASSOCIATES INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40			20	26.1	98.3	CL		Yellowish brown very sandy CLAY with fine to medium gravel, trace silt (moist, very dense).	
45			20	20.6	109.9	SM		Light yellowish brown to reddish brown with clayey coarse SAND with fine to medium gravel, trace silt (moist, medium dense).	
50			37	12.5	120.7			TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

APPENDIX B
LABORATORY TESTING

General

Laboratory test results on selected samples are presented below. Test were performed to evaluate the physical and engineering properties of the encountered earth materials, including in-situ moisture content and dry density, optimum moisture-maximum dry density relationships, expansion potential, consolidation characteristics, grain size distribution, and shear strength parameters. Soil corrosivity testing was performed under subcontract by a corrosion engineer.

Density and Moisture Tests

In situ dry density and moisture content were determined for each undisturbed soil sample. The results are presented on the Logs of Subsurface Data (Appendix A).

Maximum Density-Optimum Moisture

A maximum density/optimum moisture test (compaction characteristics) was performed on a selected bulk sample of the soils encountered. The test was performed in general accordance with ASTM D 1557. The results are as follows:

Boring Number	Depth (feet)	Visual Classification	Maximum Dry Density – pcf	Optimum Moisture Content - %
B-1	3	dark brown slightly silty clay	113.3	14.1

Soil Expansiveness

An expansion index test was performed on a soil sample obtained from the borings to evaluate expansion potential of the subgrade soils in general accordance with the Expansion Index Test method (ASTM test method D4829-08a). The results are as follows:

Boring Number	Depth (feet)	Expansion Index	Expansion Range
B-1	3	73	51-90

Direct Shear Test

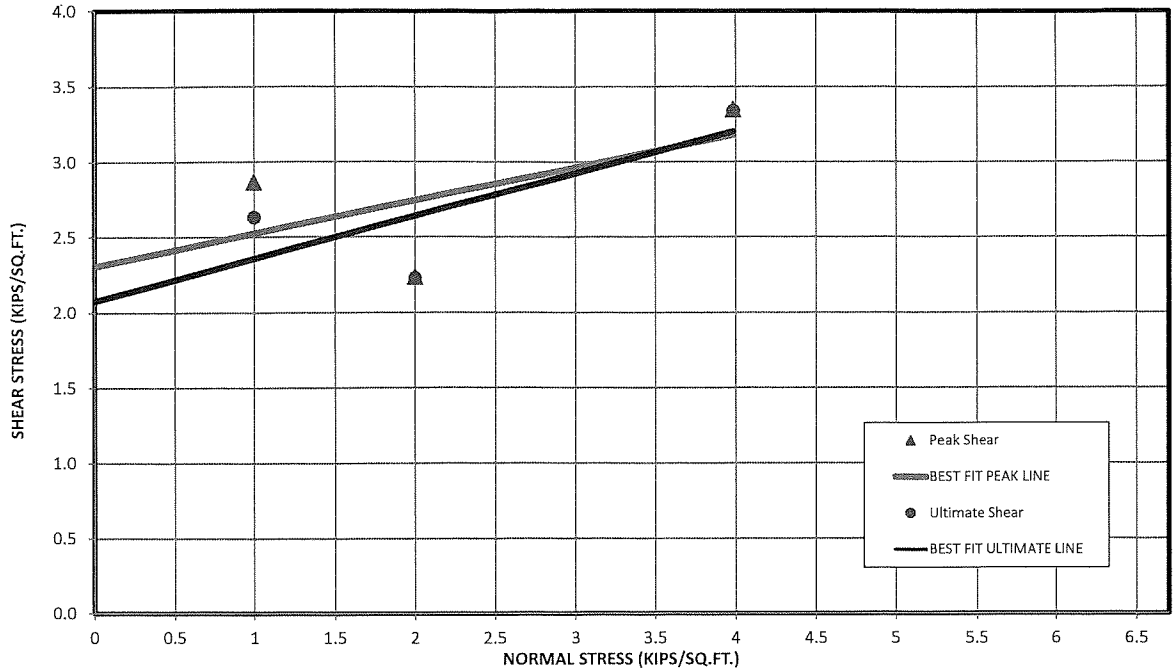
Direct shear tests were performed on two relatively undisturbed samples to evaluate soil shear strength parameters. The sample sets were sheared under normal pressures as indicated on the attached summary graphic plots.

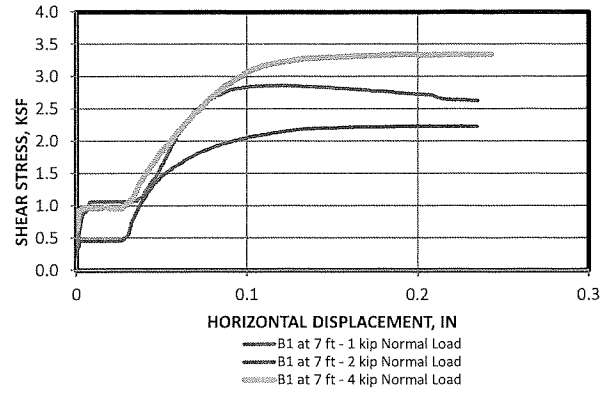
Consolidation Tests

Consolidation (confined compression) tests were performed on three selected samples of the soils below anticipated foundation depths to evaluate compressibility characteristics. The samples were loaded in increments to a maximum of 8,000 pounds per square foot and then rebounded. The samples were inundated at the indicated overburden pressure to evaluate the effect of moisture infiltration on compression behavior. The load-consolidation curves are presented herein as graphic summaries.

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B1
DEPTH:	10 ft

TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.0
ULTIMATE			
SHEAR STRESS (KSF):	2.63	2.23	3.34
H.DISPL. (IN)	0.24	0.24	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	2.86	2.24	3.35
H.DISPL. (IN)	0.12	0.20	0.19

	PEAK	ULT.	RES.
COHESION (KSF):	2.300	2.075	
PHI (DEG):	12	16	

PRESHEAR DRY DENSITY (PCF):	110.7	111.2	111.9
PRESHEAR MOISTURE (% OF DD):		21.0	
EST.VOID RATIO, e (preshear):	0.47	0.46	0.45

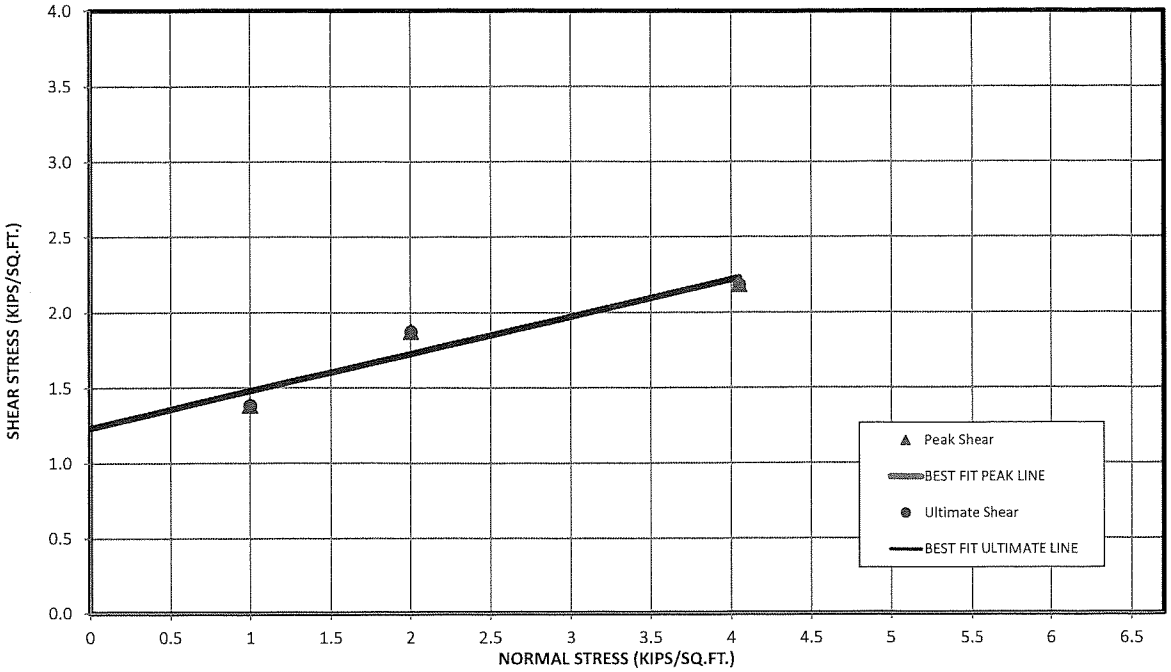
TEST FILES:

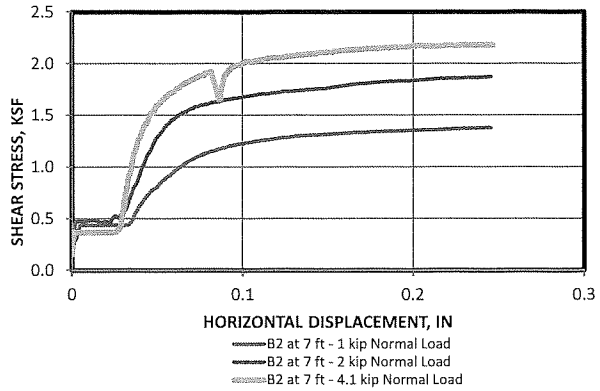
S:\GEOTEST\shears\GORIAN\TEST978.DAT
S:\GEOTEST\shears\GORIAN\TEST979.DAT
S:\GEOTEST\shears\GORIAN\TEST980.DAT

GORIAN & ASSOCIATES, INC.

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B2
DEPTH:	7 ft

TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.1
ULTIMATE			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25

	PEAK	ULT.	RES.
COHESION (KSF):	1.225	1.225	
PHI (DEG):	14	14	

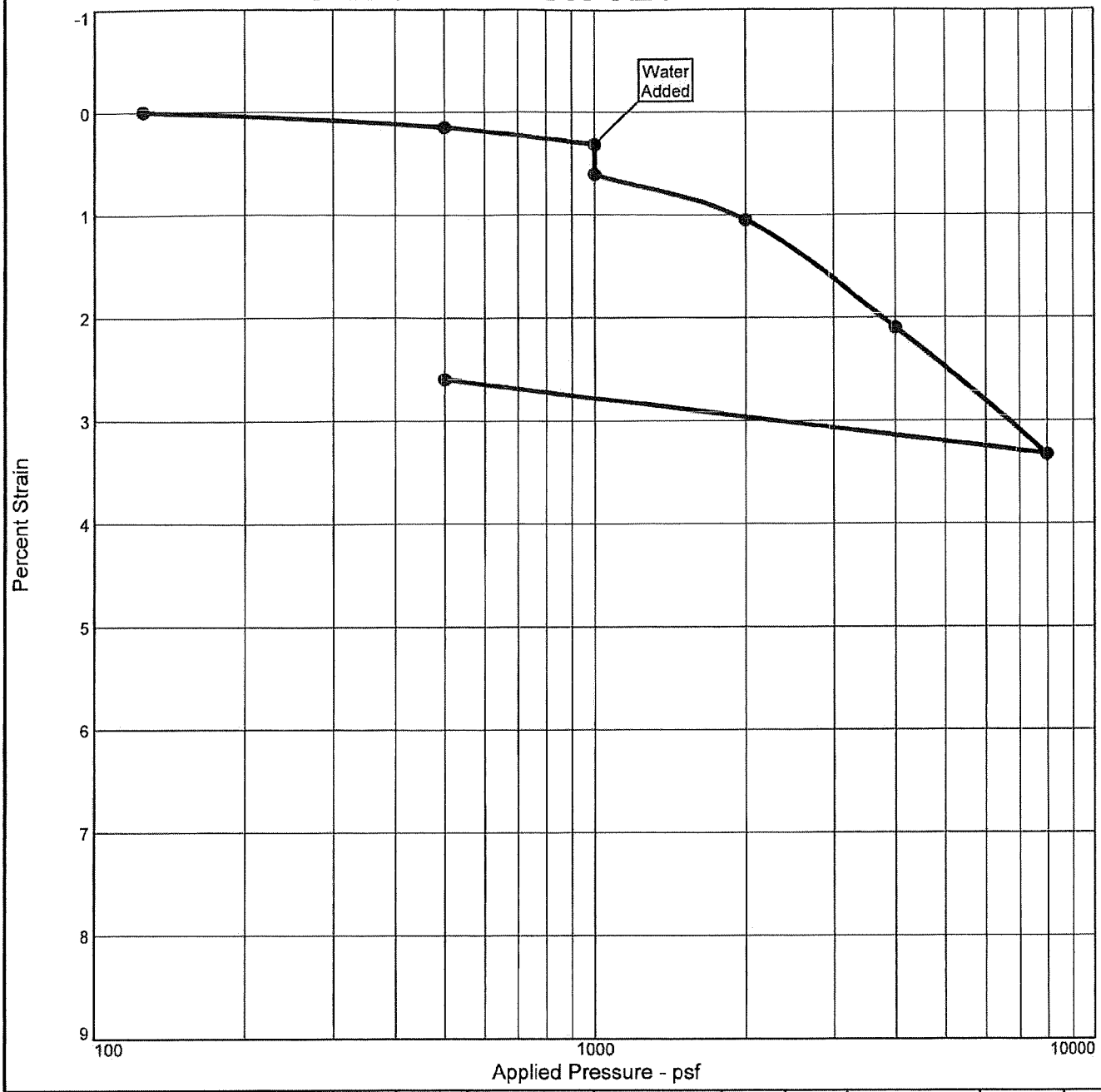
PRESHEAR DRY DENSITY (PCF):	96.8	97.0	97.4
PRESHEAR MOISTURE (% OF DD):		26.4	
EST.VOID RATIO, e (preshear):	0.68	0.67	0.67

TEST FILES:

S:\GEOTEST\shears\GORIAN\TEST981.DAT
S:\GEOTEST\shears\GORIAN\TEST982.DAT
S:\GEOTEST\shears\GORIAN\TEST983.DAT

GORIAN & ASSOCIATES, INC.

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Clpse. %	e_o
							2217				0.3	

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-1 **Depth:** 7

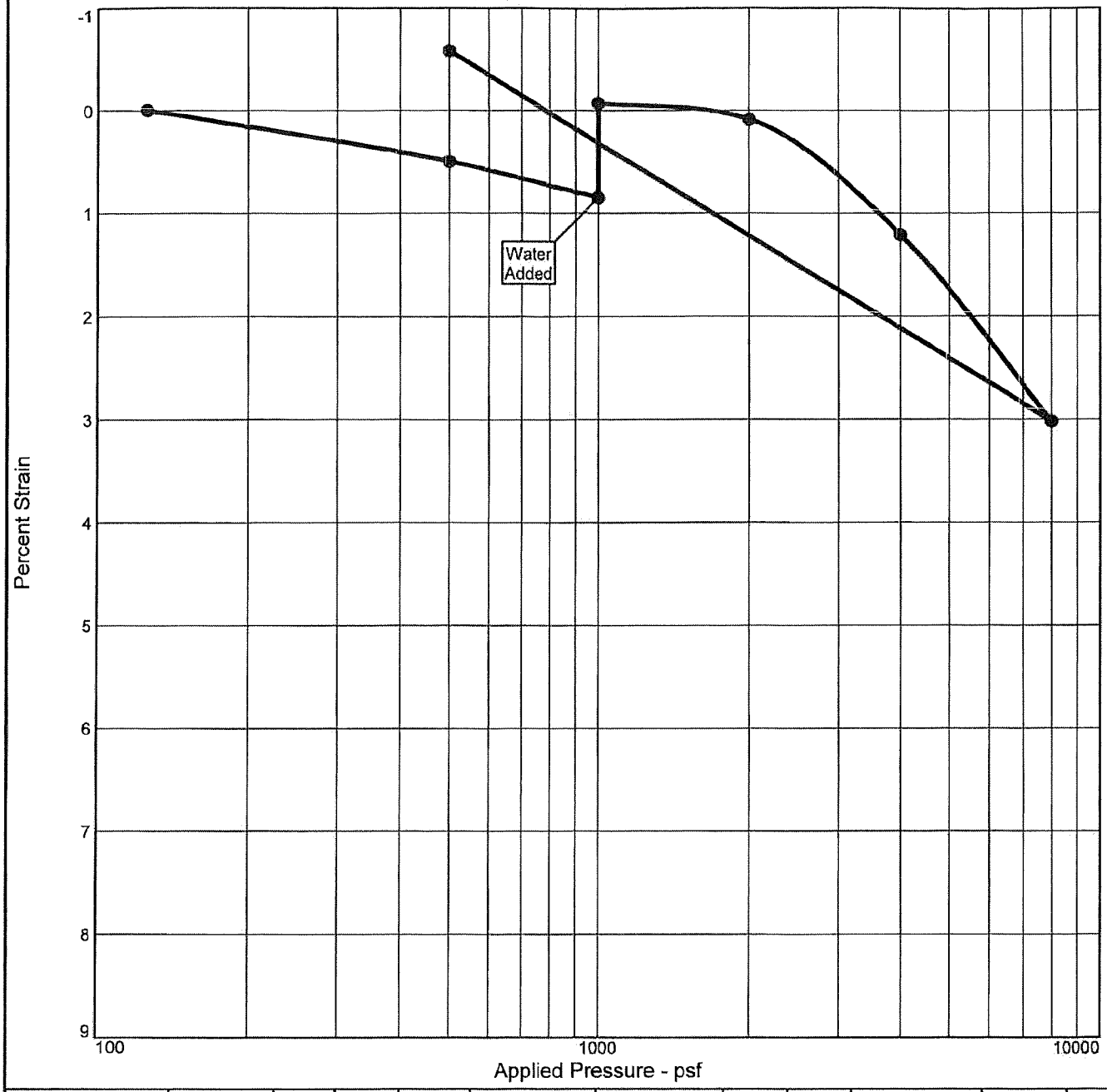
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
							2736			3362	0.9	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 10

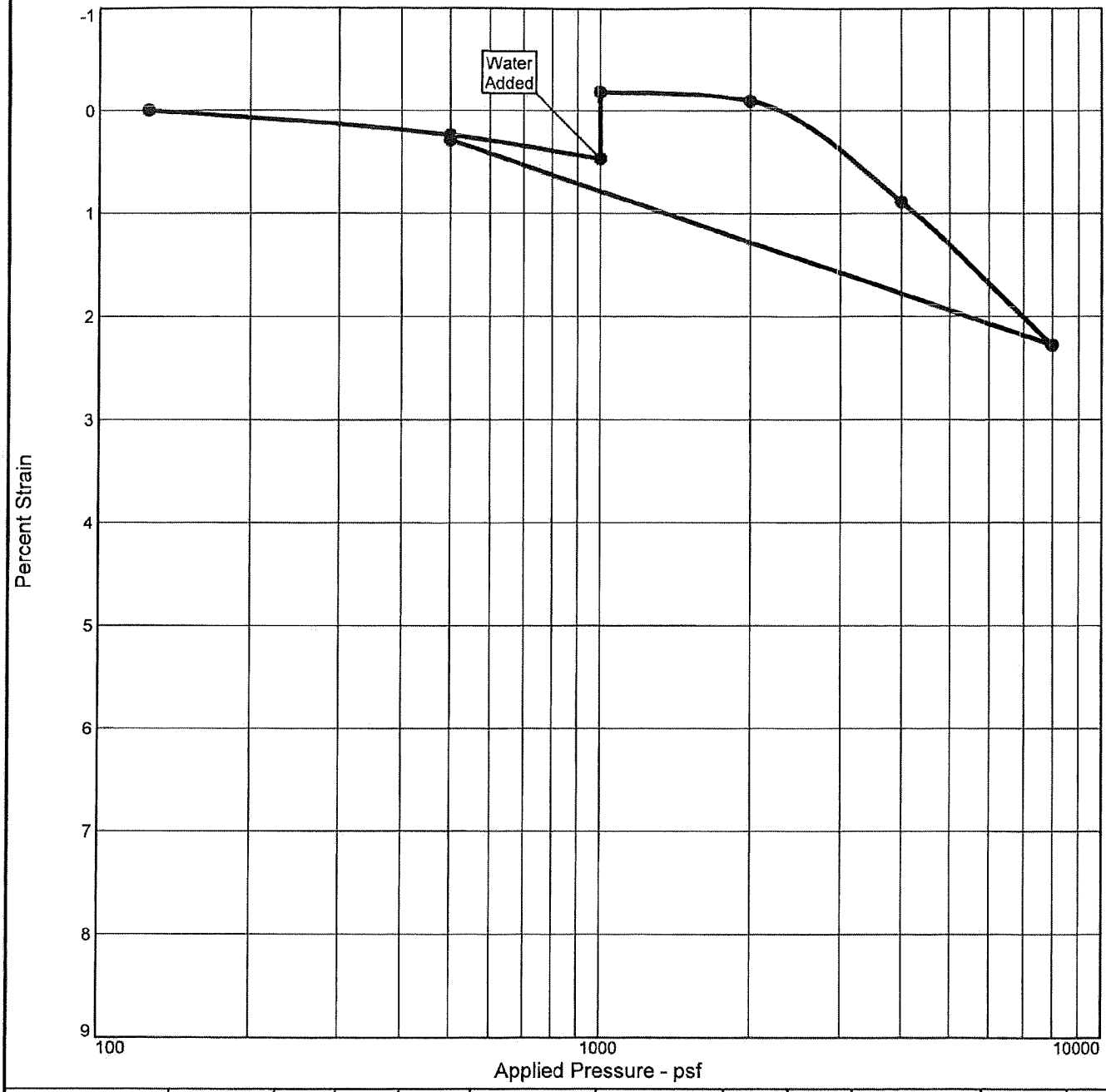
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
							2503			3157	0.7	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense).	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 15

Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

APPENDIX C

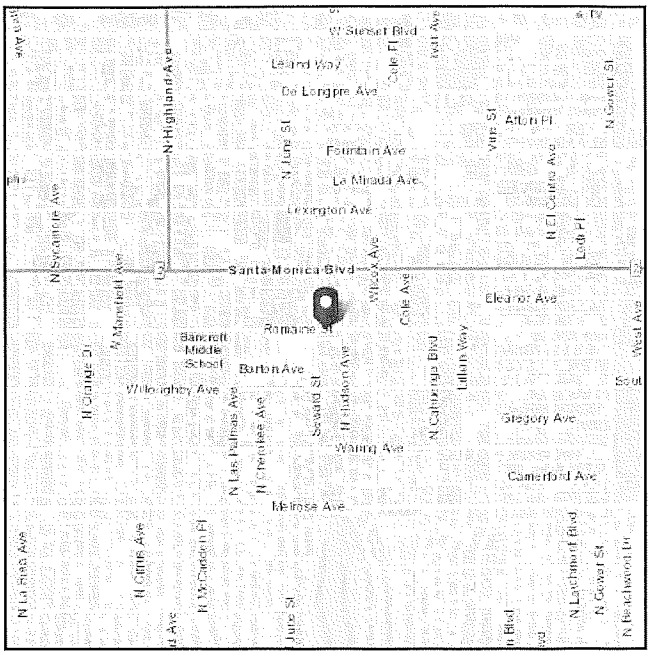
ASCE 7 Hazard Report

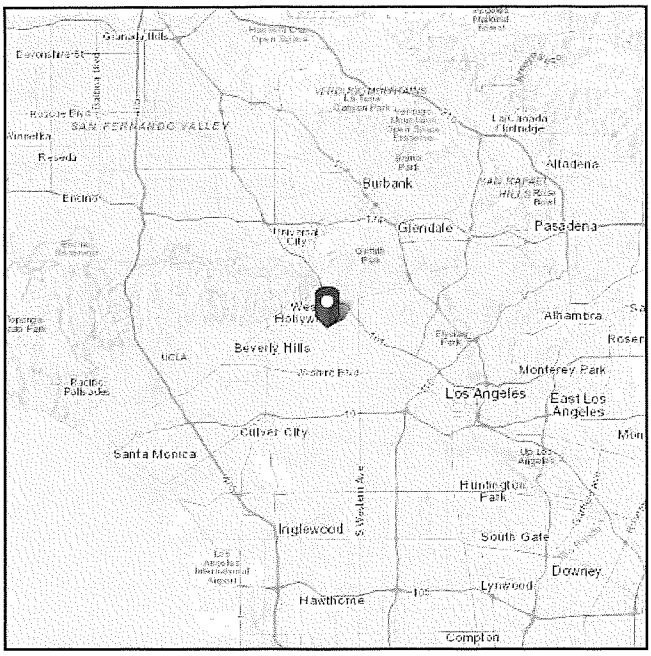
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 34.0889
Longitude: -118.3328
Elevation: 291.36458400542494 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.087	S_{D1} :	N/A
S_1 :	0.748	T_L :	8
F_a :	1	PGA :	0.894
F_v :	N/A	PGA_M :	0.983
S_{MS} :	2.087	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.391	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Jul 20 2023

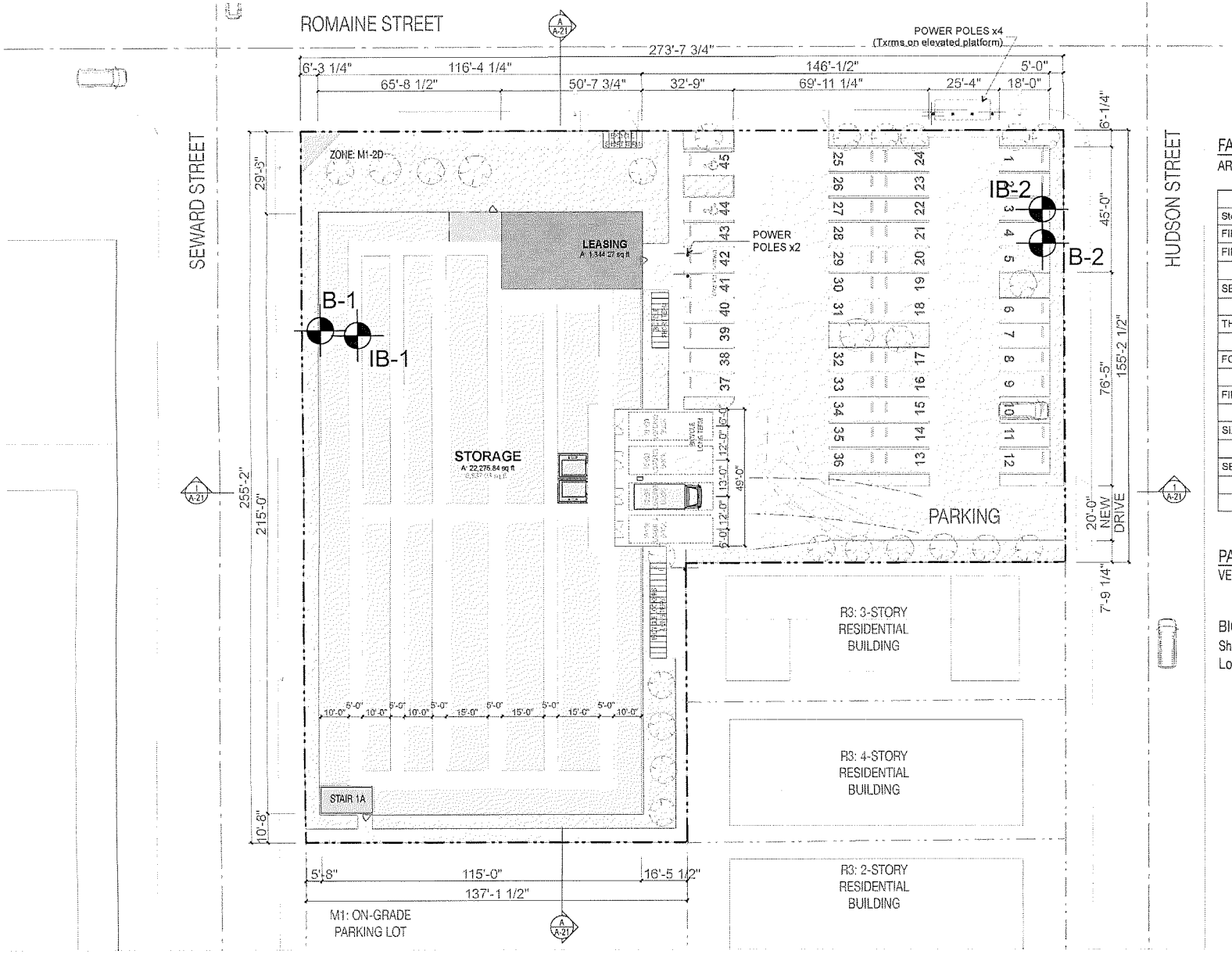
Date Source: USGS Seismic Design Maps

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



GEOTECHNICAL EXPLANATION

B-2 — APPROXIMATE LOCATION OF HOLLOW STEM AUGER BORING

IB-2 — APPROXIMATE LOCATION OF INFILTRATION TEST BORING

FAR - 3:1 SITE: ~56,185

AREA ALLOWED: ~168,555 SQ FT

V1 GROSS AREA - Storage - By Floor			
Story Level	Unit Type	Qty.	Calculated Area
FIRST FLOOR	LEASING	1	1,344.27
FIRST FLOOR	STORAGE	1	22,275.84
		2	**23,620.11 sq ft**
SECOND FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
THIRD FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FOURTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FIFTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SIXTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SEVENTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
		8	**168,565.35 sq ft**

PARKING	REQ.	TOTAL
VEHICLE	1/500 for first 10K	20 spaces
	1/5000 for balance	31.7
		52 spaces
BICYCLE		
Short Term	1/10,000	16.85 - 17
Long Term	1/10,000	16.85 - 17

BORING LOCATION MAP

Gorian & Associates, Inc.
Applied Earth Sciences

Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 20'	Drawn by:	PLATE 1
	Approved by:	

V1 SITE PLAN

1/32" = 1'-0"

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden
Barnet Holdings
T: (949) 279-8296

SELF-STORAGE FACILITY

SITE PLAN - V1

A-18

Thursday, May 4, 2023

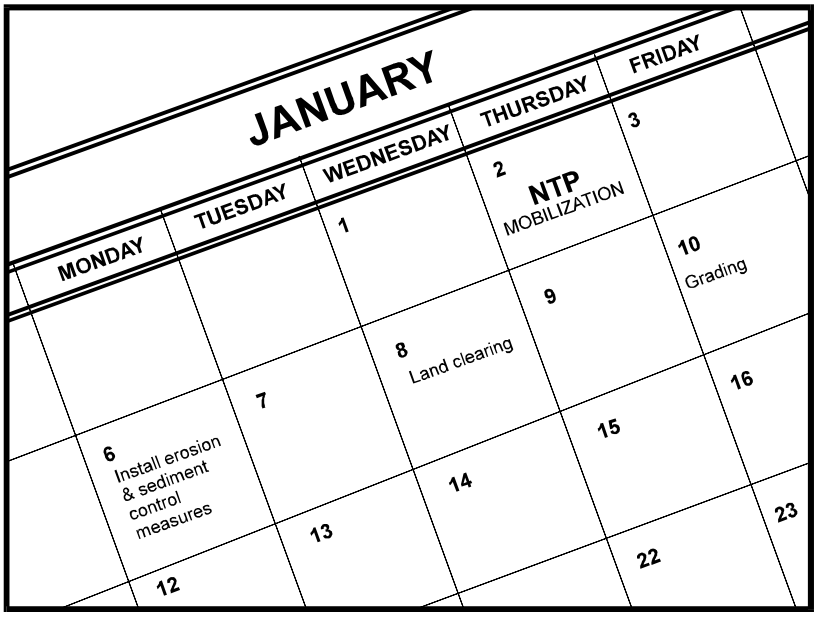
APPENDIX F

Typical SWPPP and LID BMPs

EXHIBIT 1: TYPICAL SWPPP BMPS

Scheduling

EC-1



Description and Purpose

Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

- Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase of construction. Clearly show how the rainy season relates

Categories

EC	Erosion Control	☑
SE	Sediment Control	☒
TC	Tracking Control	☒
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

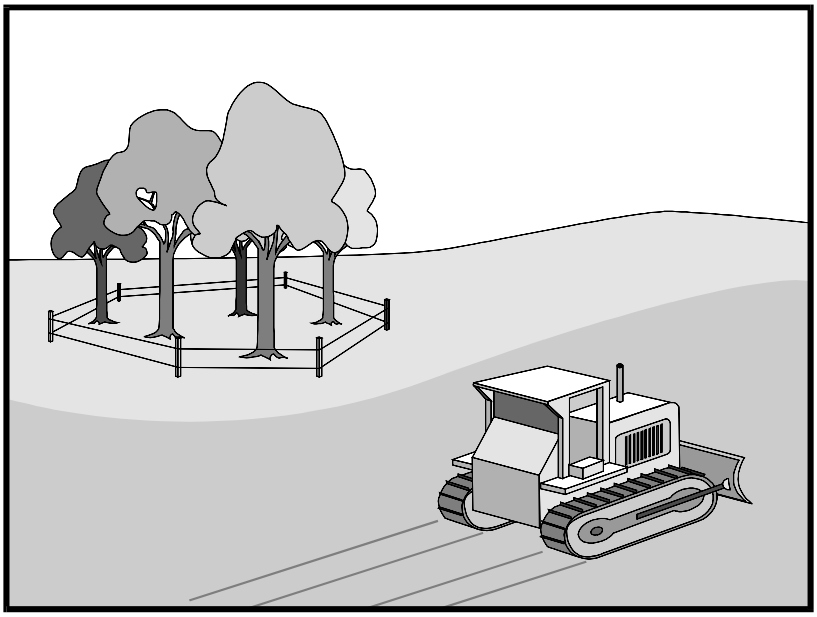
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Preservation Of Existing Vegetation EC-2



Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

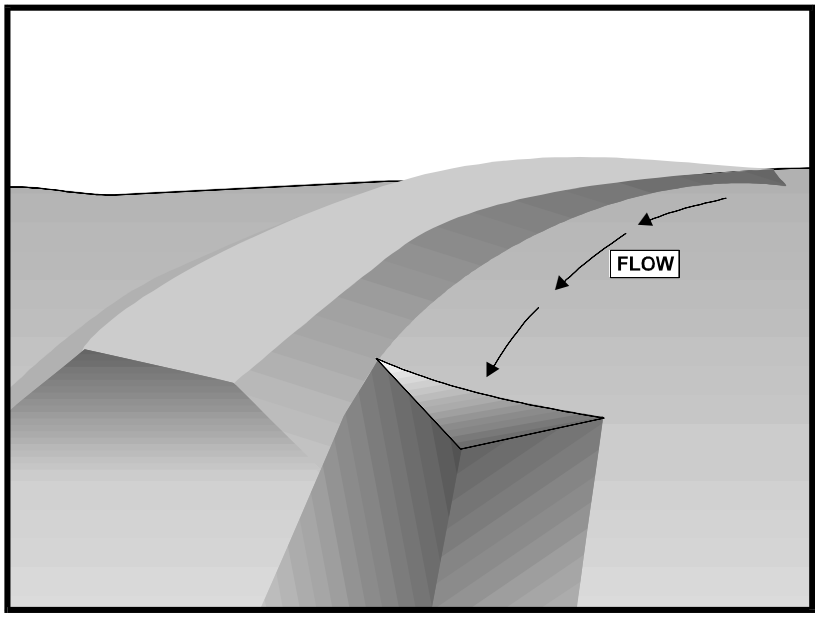
Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs, and grasses that protect soil from erosion.

Suitable Applications

Preservation of existing vegetation is suitable for use on most projects. Large project sites often provide the greatest opportunity for use of this BMP. Suitable applications include the following:

- Areas within the site where no construction activity occurs, or occurs at a later date. This BMP is especially suitable to multi year projects where grading can be phased.
- Areas where natural vegetation exists and is designated for preservation. Such areas often include steep slopes, watercourse, and building sites in wooded areas.
- Areas where local, state, and federal government require preservation, such as vernal pools, wetlands, marshes, certain oak trees, etc. These areas are usually designated on the plans, or in the specifications, permits, or environmental documents.
- Where vegetation designated for ultimate removal can be temporarily preserved and be utilized for erosion control and sediment control.

Earth Dikes and Drainage Swales EC-9



Description and Purpose

An earth dike is a temporary berm or ridge of compacted soil used to divert runoff or channel water to a desired location. A drainage swale is a shaped and sloped depression in the soil surface used to convey runoff to a desired location. Earth dikes and drainage swales are used to divert off site runoff around the construction site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment basins or traps.

Suitable Applications

Earth dikes and drainage swales are suitable for use, individually or together, where runoff needs to be diverted from one area and conveyed to another.

- Earth dikes and drainage swales may be used:
  - To convey surface runoff down sloping land
  - To intercept and divert runoff to avoid sheet flow over sloped surfaces
  - To divert and direct runoff towards a stabilized watercourse, drainage pipe or channel
  - To intercept runoff from paved surfaces
  - Below steep grades where runoff begins to concentrate
  - Along roadways and facility improvements subject to flood drainage

Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

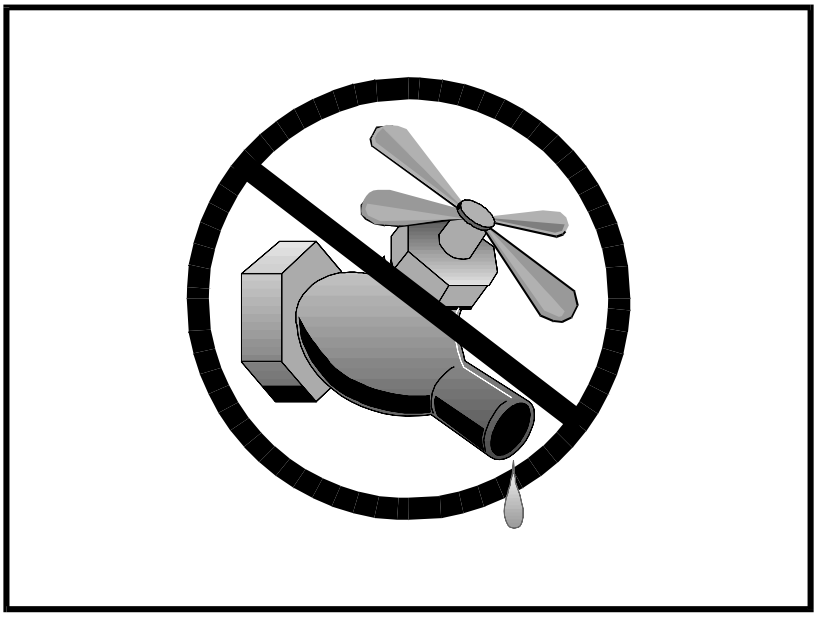
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Water Conservation Practices NS-1



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

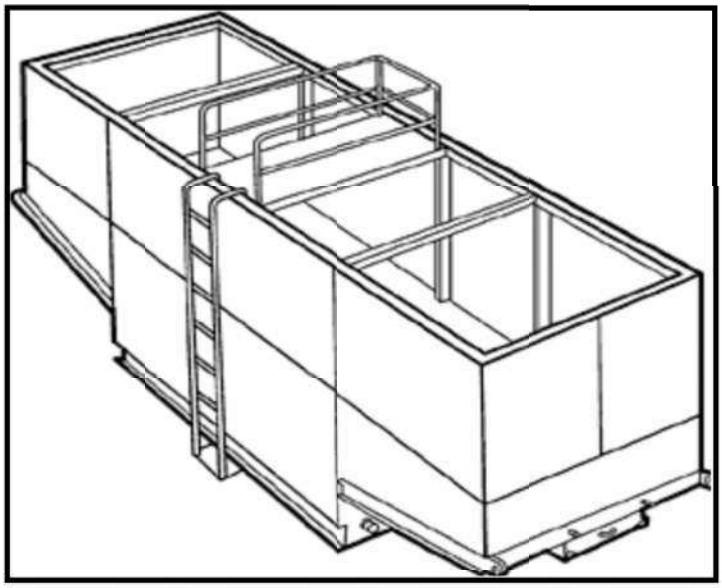
- None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Dewatering Operations NS-2



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

SE-5: Fiber Roll

SE-6: Gravel Bag Berm

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location to proceed with construction work or to provide vector control.

The General Permit incorporates Numeric Action Levels (NAL) for turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Discharges from dewatering operations can contain high levels of fine sediment that, if not properly treated, could lead to exceedances of the General Permit requirements or Basin Plan standards.

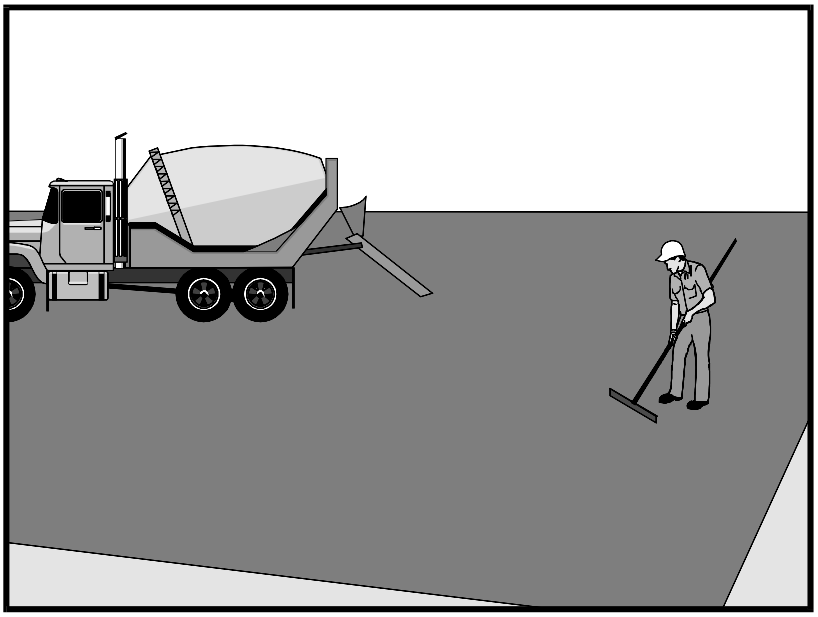
The dewatering operations described in this fact sheet are not Active Treatment Systems (ATS) and do not include the use of chemical coagulations, chemical flocculation or electrocoagulation.

Suitable Applications

These practices are implemented for discharges of non-stormwater from construction sites. Non-stormwaters include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area to facilitate construction.

Practices identified in this section are also appropriate for implementation when managing the removal of accumulated

Paving and Grinding Operations NS-3



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☒

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runon and runoff pollution, properly disposing of wastes, and training employees and subcontractors.

The General Permit incorporates Numeric Action Levels (NAL) for pH and turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials associated with paving and grinding operations, including mortar, concrete, and cement and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

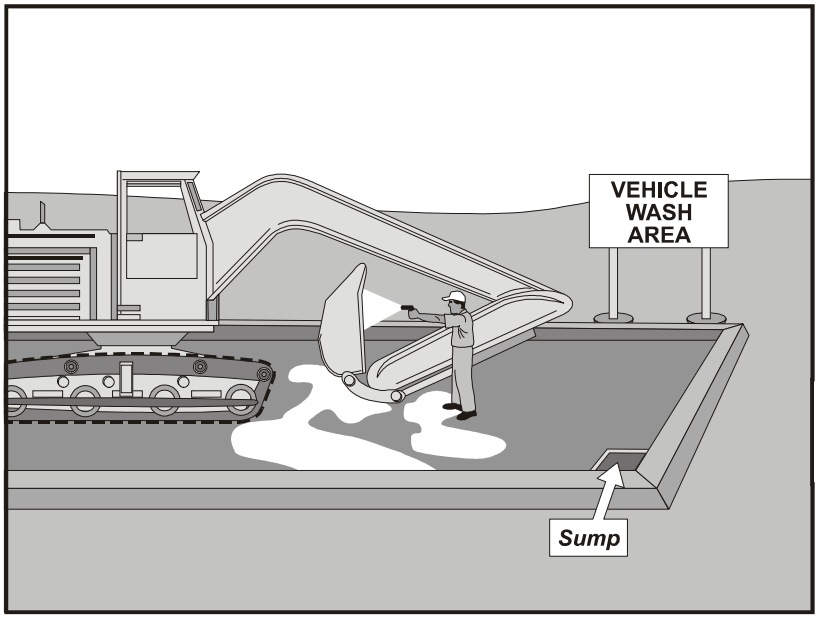
These procedures are implemented where paving, surfacing, resurfacing, or sawcutting, may pollute stormwater runoff or discharge to the storm drain system or watercourses.

Limitations

- Paving opportunities may be limited during wet weather.

  Discharges of freshly paved surfaces may raise pH to environmentally harmful levels and trigger permit violations.

Vehicle and Equipment Cleaning NS-8



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

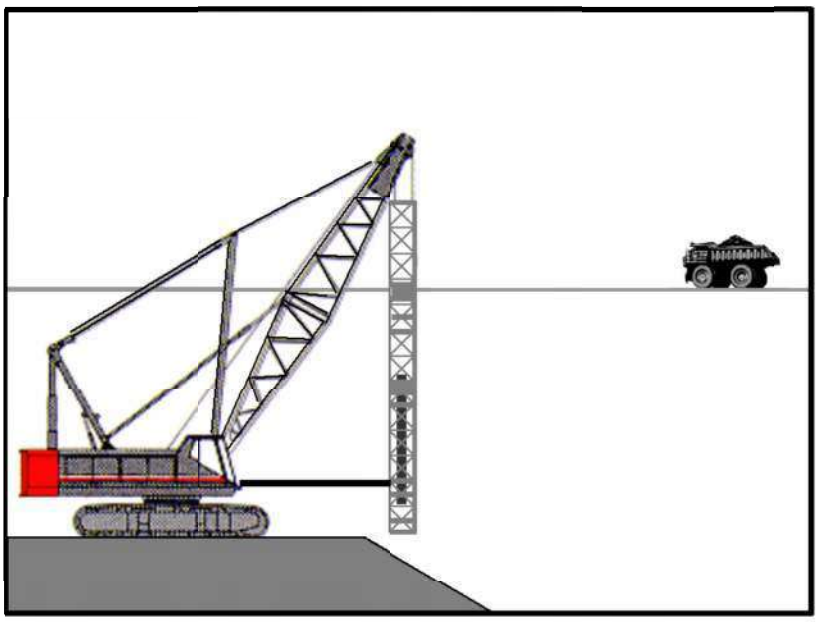
Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Pile Driving Operations NS-11



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

The construction and retrofit of bridges and retaining walls often include driving piles for foundation support and shoring operations. Driven piles are typically constructed of precast concrete, steel, or timber. Driven sheet piles are also used for shoring and cofferdam construction. Proper control and use of equipment, materials, and waste products from pile driving operations will reduce or eliminate the discharge of potential pollutants to the storm drain system, watercourses, and waters of the United States.

Suitable Applications

These procedures apply to all construction sites near or adjacent to a watercourse or groundwater where permanent and temporary pile driving (impact and vibratory) takes place, including operations using pile shells as well as construction of cast-in-steel-shell and cast-in-drilled-hole piles.

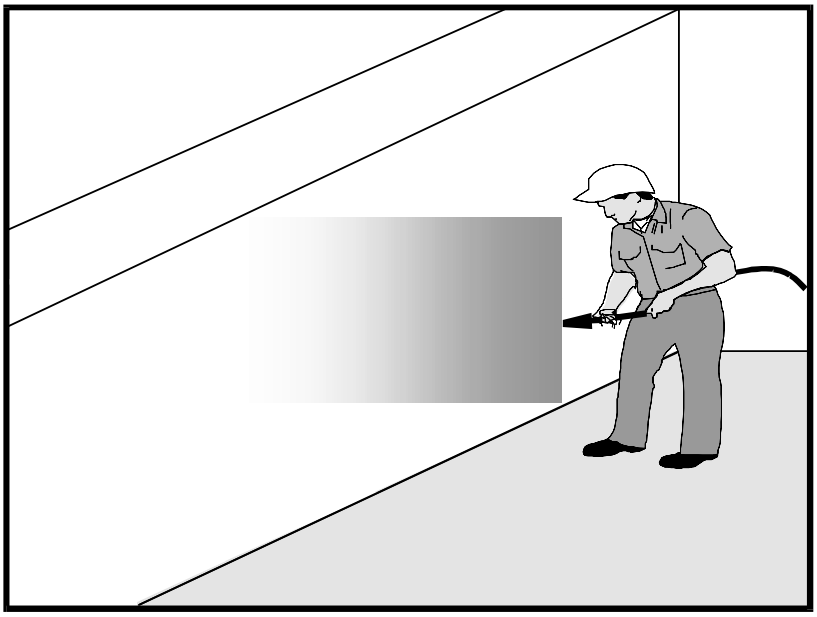
Limitations

None identified.

Implementation

- Use drip pans or absorbent pads during vehicle and equipment operation, maintenance, cleaning, fueling, and storage. Refer to NS-8, Vehicle and Equipment Cleaning, NS-9, Vehicle and Equipment Fueling, and NS-10, Vehicle and Equipment Maintenance.

Concrete Curing NS-12



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Concrete curing is used in the construction of structures such as bridges, retaining walls, pump houses, large slabs, and structured foundations. Concrete curing includes the use of both chemical and water methods.

Concrete and its associated curing materials have basic chemical properties that can raise the pH of water to levels outside of the permitted range. Discharges of stormwater and non-stormwater exposed to concrete during curing may have a high pH and may contain chemicals, metals, and fines. The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Proper procedures and care should be taken when managing concrete curing materials to prevent them from coming into contact with stormwater flows, which could result in a high pH discharge.

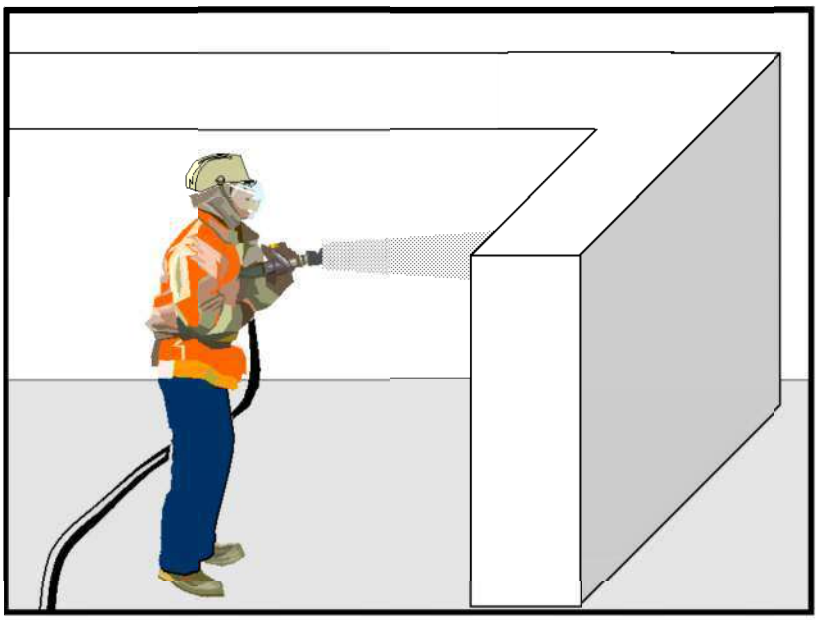
Suitable Applications

Suitable applications include all projects where Portland Cement Concrete (PCC) and concrete curing chemicals are placed where they can be exposed to rainfall, runoff from other areas, or where runoff from the PCC will leave the site.

Limitations

- Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Concrete Finishing NS-13



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	
Organics	☑

Potential Alternatives

None

Description and Purpose

Concrete finishing methods are used for bridge deck rehabilitation, paint removal, curing compound removal, and final surface finish appearances. Methods include sand blasting, shot blasting, grinding, or high pressure water blasting. Stormwater and non-stormwater exposed to concrete finishing by-products may have a high pH and may contain chemicals, metals, and fines. Proper procedures and implementation of appropriate BMPs can minimize the impact that concrete-finishing methods may have on stormwater and non-stormwater discharges.

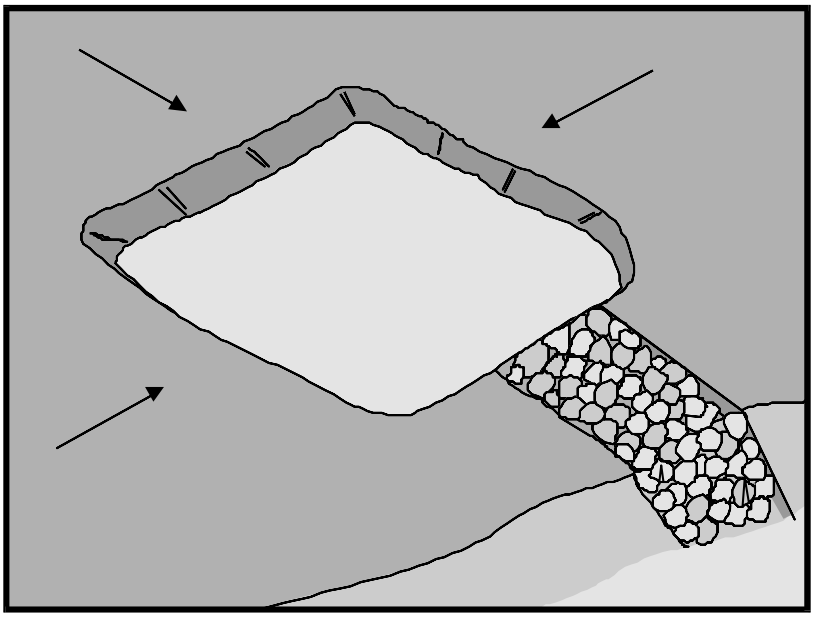
The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Concrete and its associated curing materials have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures apply to all construction locations where concrete finishing operations are performed.

Sediment Trap SE-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-2 Sediment Basin (for larger areas)

Description and Purpose

A sediment trap is a containment area where sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out or before the runoff is discharged by gravity flow. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area.

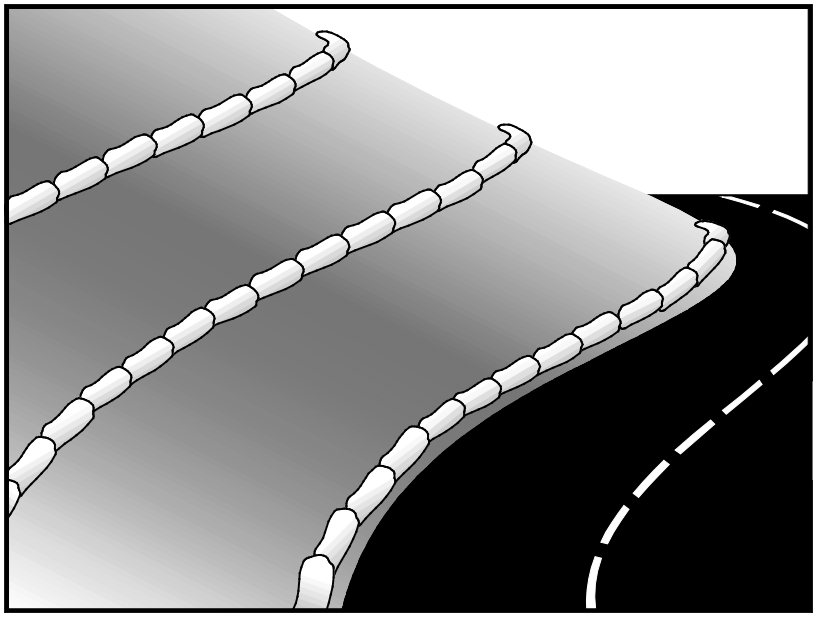
Trap design guidance provided in this fact sheet is not intended to guarantee compliance with numeric discharge limits (numeric action levels or numeric effluent limits for turbidity). Compliance with discharge limits requires a thoughtful approach to comprehensive BMP planning, implementation, and maintenance. Therefore, optimally designed and maintained sediment traps should be used in conjunction with a comprehensive system of BMPs.

Suitable Applications

Sediment traps should be considered for use:

- At the perimeter of the site at locations where sediment-laden runoff is discharged offsite.
- At multiple locations within the project site where sediment control is needed.
- Around or upslope from storm drain inlet protection measures.
- Sediment traps may be used on construction projects where the drainage area is less than 5 acres. Traps would be

Gravel Bag Berm SE-6



Description and Purpose

A gravel bag berm is a series of gravel-filled bags placed on a level contour to intercept sheet flows. Gravel bags pond sheet flow runoff, allowing sediment to settle out, and release runoff slowly as sheet flow, preventing erosion.

Suitable Applications

Gravel bag berms may be suitable:

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes
  - As sediment traps at culvert/pipe outlets
  - Below other small cleared areas
  - Along the perimeter of a site
  - Down slope of exposed soil areas
  - Around temporary stockpiles and spoil areas
  - Parallel to a roadway to keep sediment off paved areas
  - Along streams and channels
- As a linear erosion control measure:
  - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.

Categories

EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Roll

SE-8 Sandbag Barrier

SE-12 Temporary Silt Dike

SE-14 Biofilter Bags

Street Sweeping and Vacuuming SE-7

Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

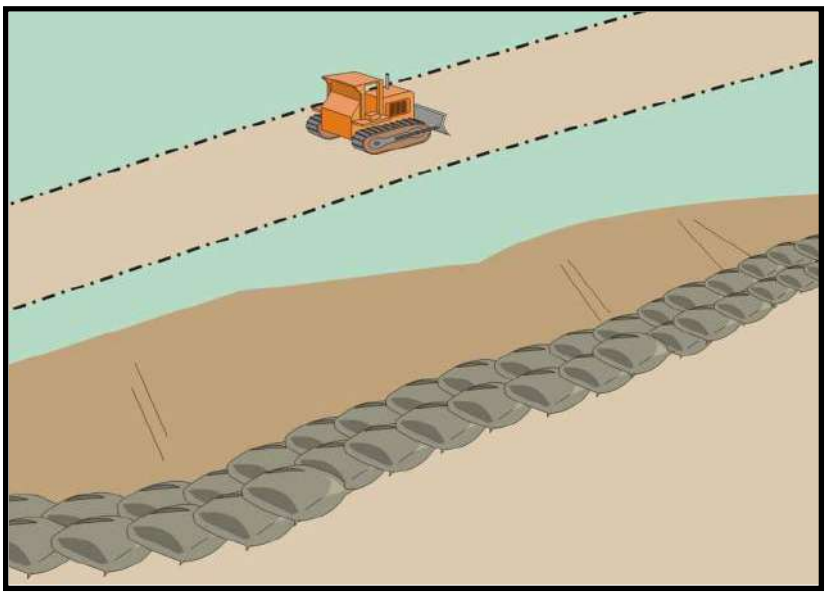
Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

Sandbag Barrier SE-8



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.

Suitable Applications

Sandbag barriers may be a suitable control measure for the applications described below. It is important to consider that sand bags are less porous than gravel bags and ponding or flooding can occur behind the barrier. Also, sand is easily transported by runoff if bags are damaged or ruptured. The SWPPP Preparer should select the location of a sandbag barrier with respect to the potential for flooding, damage, and the ability to maintain the BMP.

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes.
  - As sediment traps at culvert/pipe outlets.
  - Below other small cleared areas.
  - Along the perimeter of a site.
  - Down slope of exposed soil areas.
  - Around temporary stockpiles and spoil areas.
  - Parallel to a roadway to keep sediment off paved areas.
  - Along streams and channels.

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

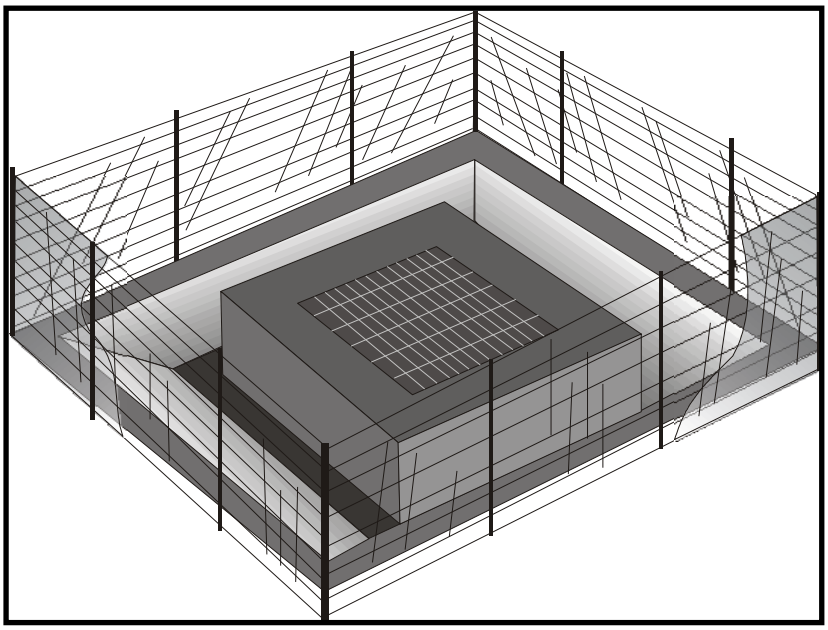
SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-12 Manufactured Linear Sediment Controls

SE-14 Biofilter Bags

Storm Drain Inlet Protection SE-10



Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

- Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.
- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use

Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☒
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

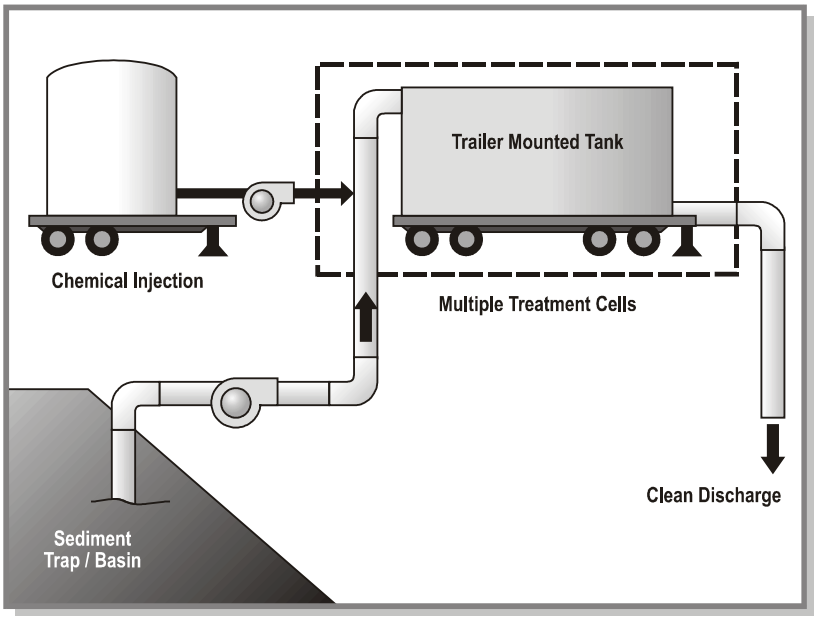
SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

SE-13 Compost Socks and Berms

Active Treatment Systems SE-11



Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Active Treatment Systems (ATS) reduce turbidity of construction site runoff by introducing chemicals to stormwater through direct dosing or an electrical current to enhance flocculation, coagulation, and settling of the suspended sediment. Coagulants and flocculants are used to enhance settling and removal of suspended sediments and generally include inorganic salts and polymers (USACE, 2001). The increased flocculation aids in sedimentation and ability to remove fine suspended sediments, thus reducing stormwater runoff turbidity and improving water quality.

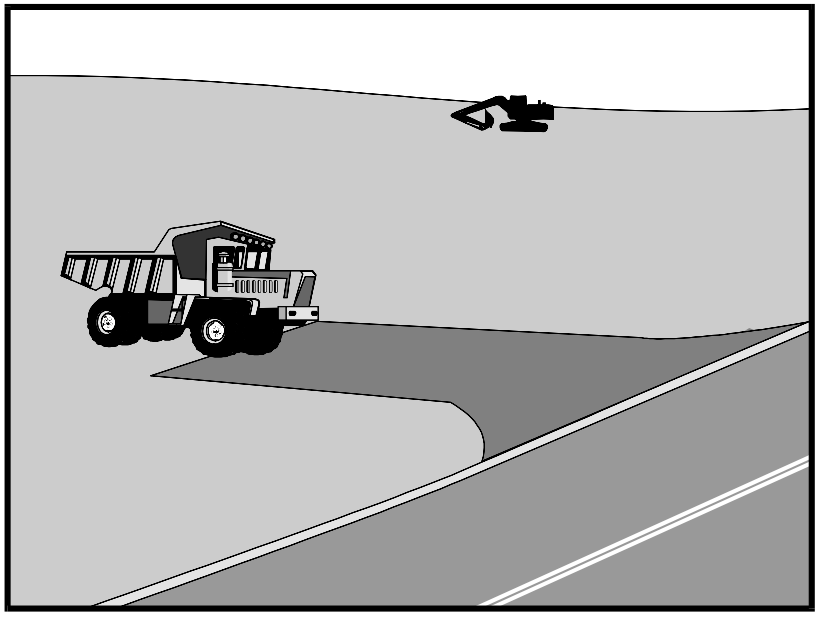
Suitable Applications

ATS can reliably provide exceptional reductions of turbidity and associated pollutants and should be considered where turbid discharges to sediment and turbidity sensitive waters cannot be avoided using traditional BMPs. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths.

Limitations

Dischargers choosing to utilize chemical treatment in an ATS must follow all guidelines of the Construction General Permit Attachment F – Active Treatment System Requirements. General limitations are as follows:

Stabilized Construction Entrance/Exit TC-1



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

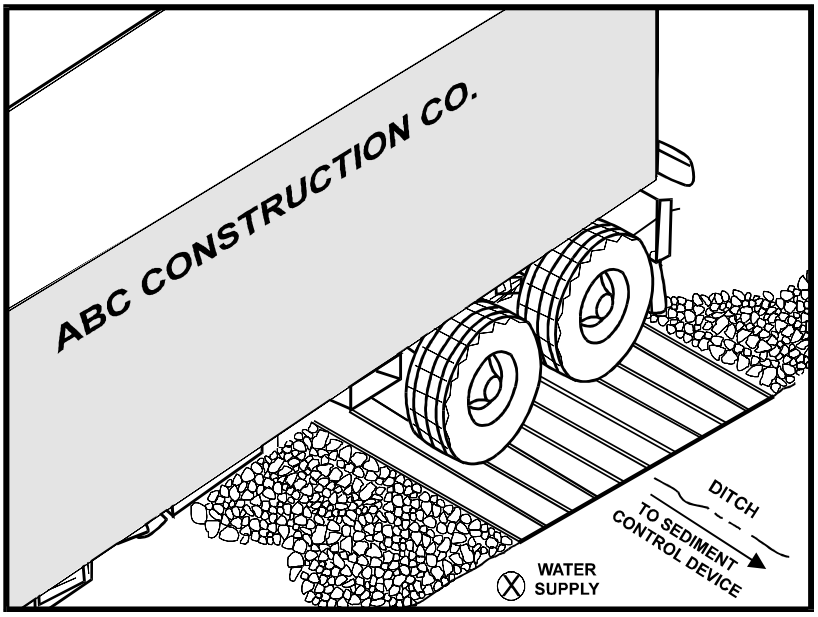
Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

Entrance/Outlet Tire Wash TC-3



Description and Purpose

A tire wash is an area located at stabilized construction access points to remove sediment from tires and under carriages and to prevent sediment from being transported onto public roadways.

Suitable Applications

Tire washes may be used on construction sites where dirt and mud tracking onto public roads by construction vehicles may occur.

Limitations

- The tire wash requires a supply of wash water.
- A turnout or doublewide exit is required to avoid having entering vehicles drive through the wash area.
- Do not use where wet tire trucks leaving the site leave the road dangerously slick.

Implementation

- Incorporate with a stabilized construction entrance/exit. See TC-1, Stabilized Construction Entrance/Exit.
- Construct on level ground when possible, on a pad of coarse aggregate greater than 3 in. but smaller than 6 in. A geotextile fabric should be placed below the aggregate.
- Wash rack should be designed and constructed/manufactured for anticipated traffic loads.

Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

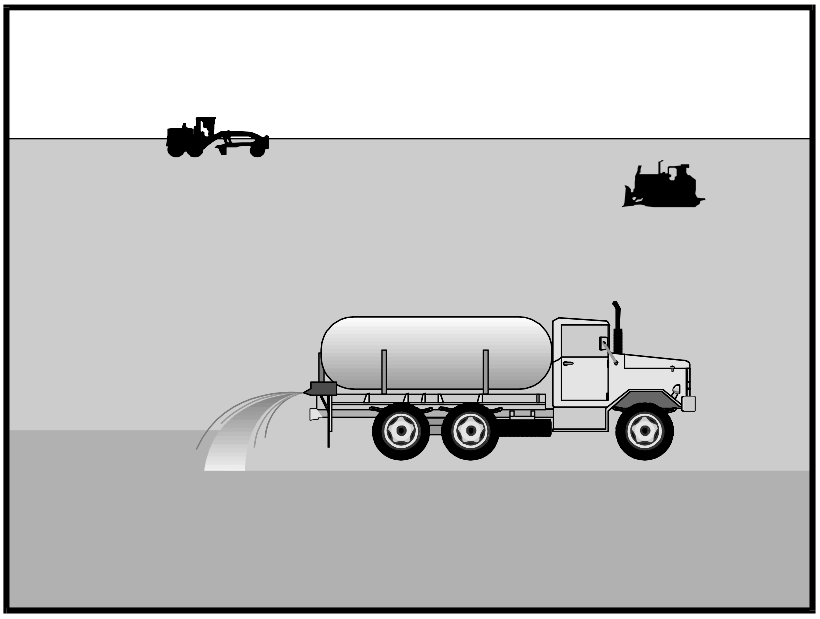
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

TC-1 Stabilized Construction Entrance/Exit

Wind Erosion Control WE-1



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	☑
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-5 Soil Binders

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

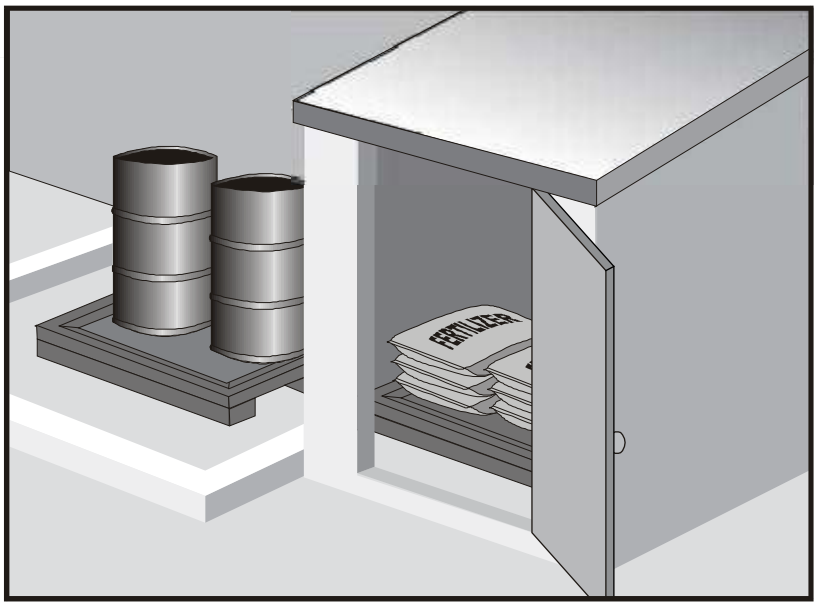
Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:

Material Delivery and Storage WM-1



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

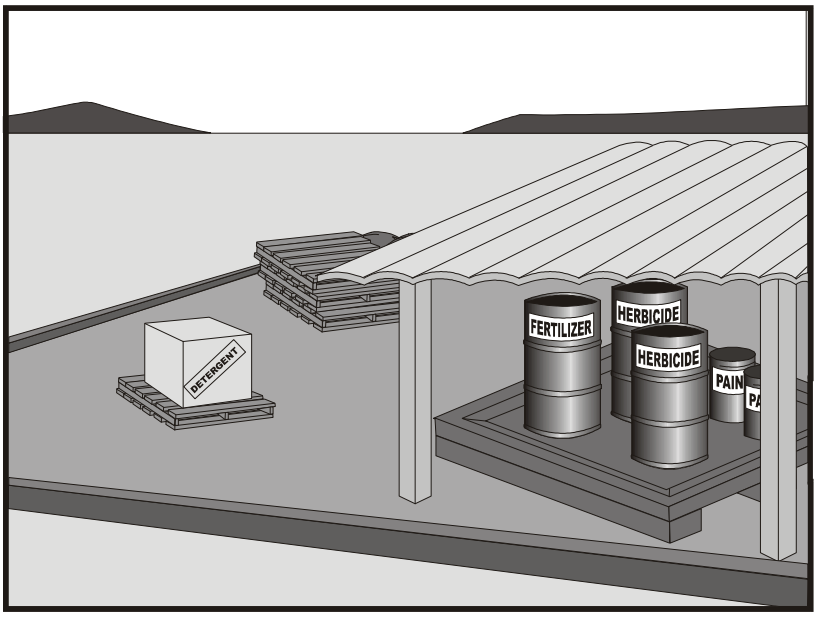
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Material Use WM-2



Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

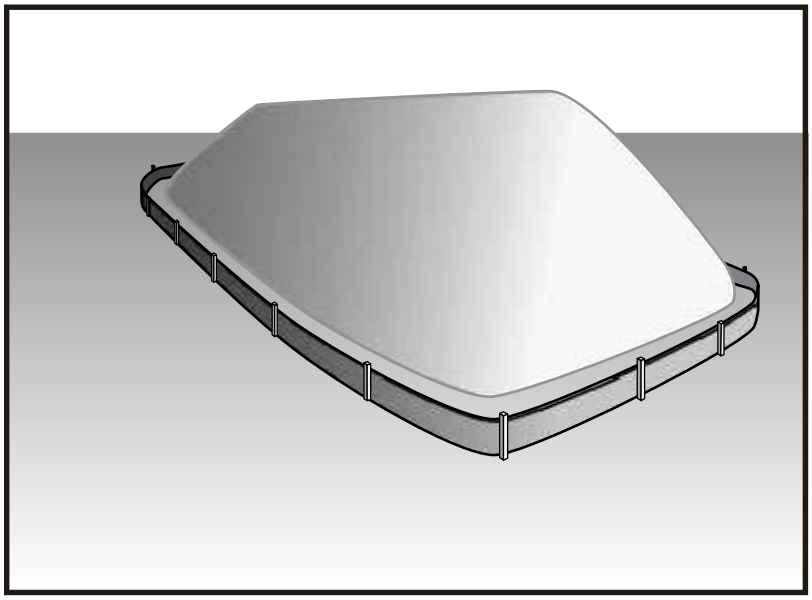
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Stockpile Management WM-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation

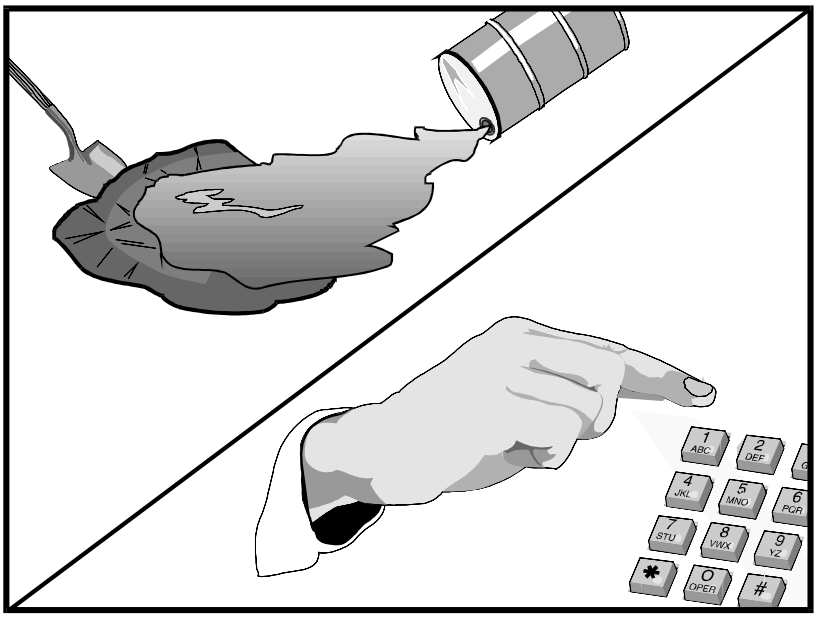
Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Spill Prevention and Control WM-4



Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

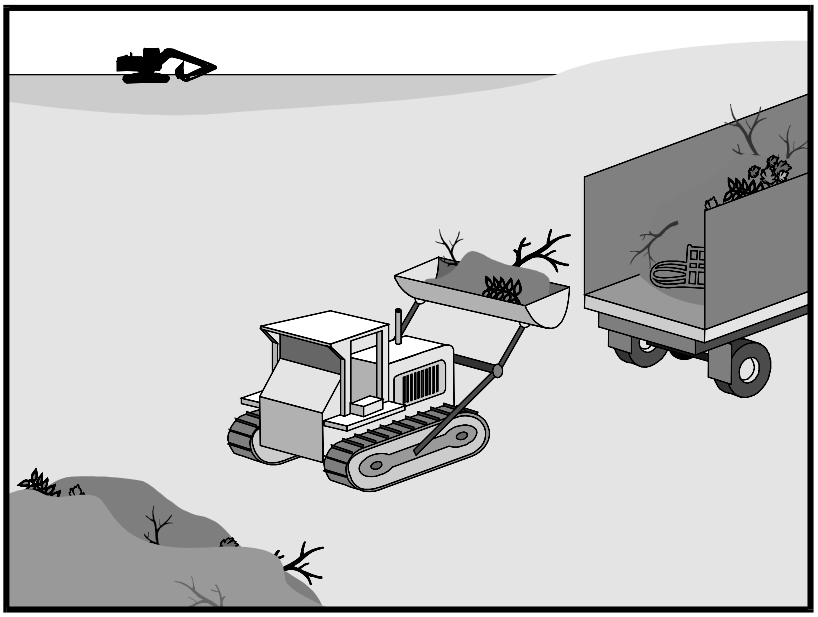
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Solid Waste Management WM-5



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

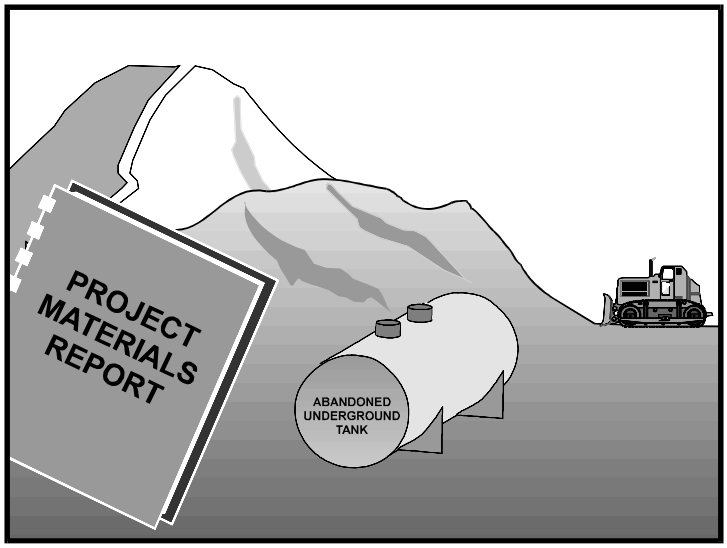
Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Contaminated Soil Management WM-7



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.

Suitable Applications

Contaminated soil management is implemented on construction projects in highly urbanized or industrial areas where soil contamination may have occurred due to spills, illicit discharges, aerial deposition, past use and leaks from underground storage tanks.

Limitations

Contaminated soils that cannot be treated onsite must be disposed of offsite by a licensed hazardous waste hauler. The presence of contaminated soil may indicate contaminated water as well. See NS-2, Dewatering Operations, for more information.

The procedures and practices presented in this BMP are general. The contractor should identify appropriate practices and procedures for the specific contaminants known to exist or discovered onsite.

Implementation

Most owners and developers conduct pre-construction environmental assessments as a matter of routine. Contaminated soils are often identified during project planning and development with known locations identified in the plans, specifications and in the SWPPP. The contractor should review applicable reports and investigate appropriate call-outs in the

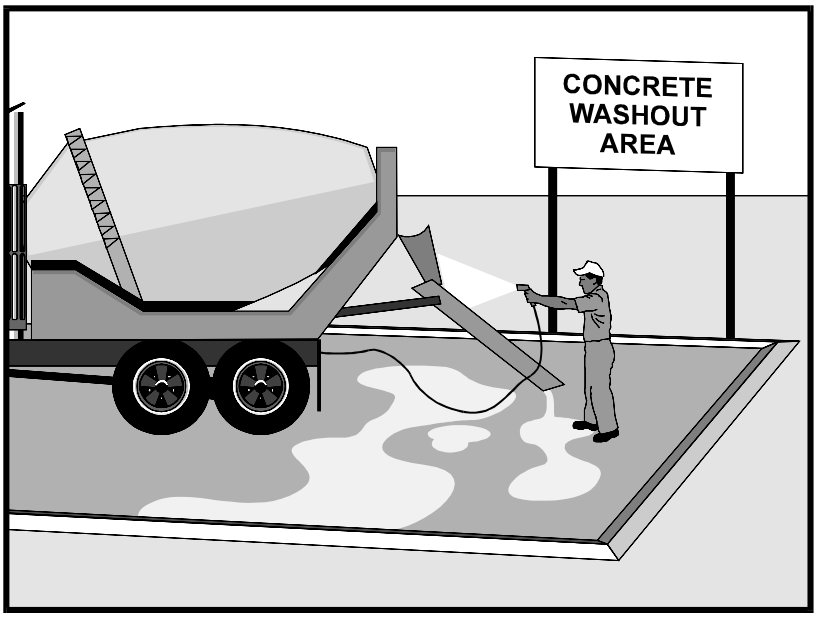
Targeted Constituents	
Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Concrete Waste Management WM-8



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Prevent the discharge of pollutants to stormwater from concrete waste by conducting washout onsite or offsite in a designated area, and by employee and subcontractor training.

The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

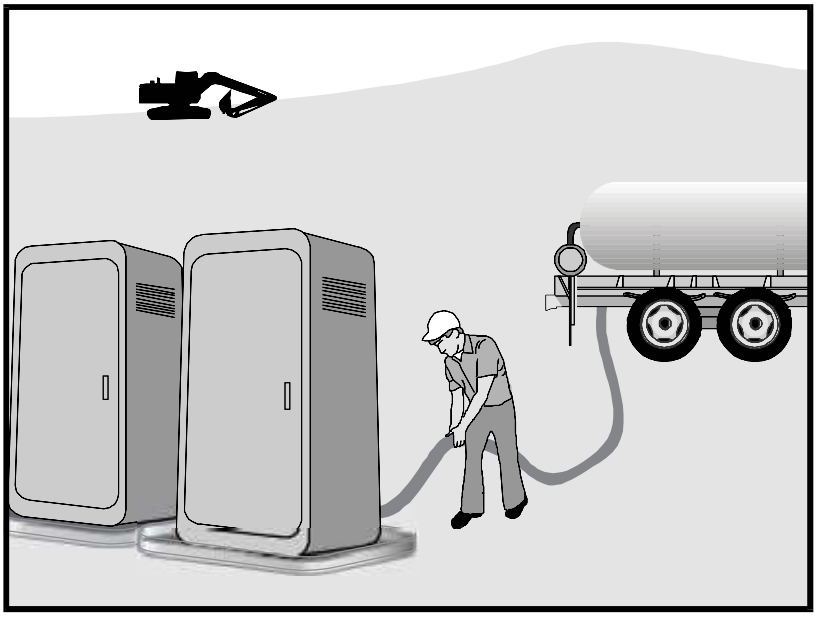
Many types of construction materials, including mortar, concrete, stucco, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows and raising pH to levels outside the accepted range.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing portland cement concrete (PCC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.
- Concrete trucks and other concrete-coated equipment are washed onsite.

Sanitary/Septic Waste Management WM-9



Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

- Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

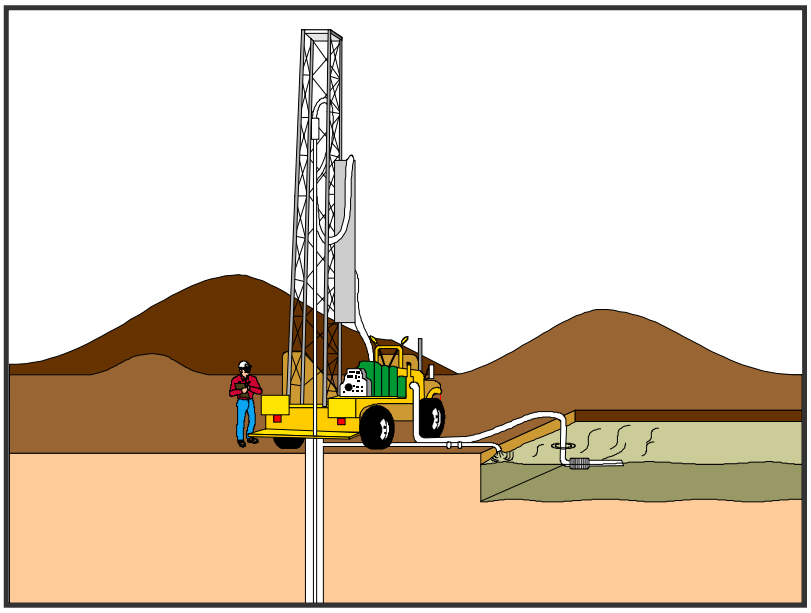
Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	
Bacteria	☑
Oil and Grease	
Organics	☑

Potential Alternatives

None

Liquid Waste Management WM-10



Description and Purpose

Liquid waste management includes procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes.

Suitable Applications

Liquid waste management is applicable to construction projects that generate any of the following non-hazardous by-products, residuals, or wastes:

- Drilling slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water
- Dredgings
- Other non-stormwater liquid discharges not permitted by separate permits

Limitations

- Disposal of some liquid wastes may be subject to specific laws and regulations or to requirements of other permits secured for the construction project (e.g., NPDES permits, Army Corps permits, Coastal Commission permits, etc.).
- Liquid waste management does not apply to dewatering operations (NS-2 Dewatering Operations), solid waste management (WM-5, Solid Waste Management), hazardous wastes (WM-6, Hazardous Waste Management), or

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

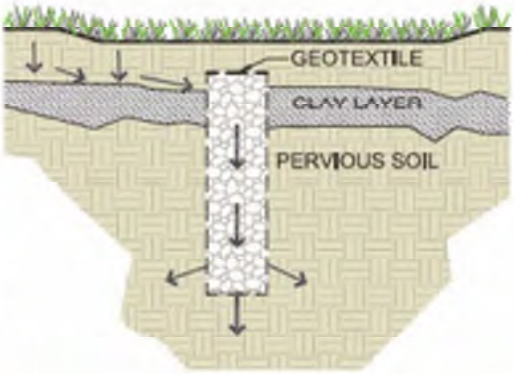
None

EXHIBIT 2

TYPICAL LID BMPs

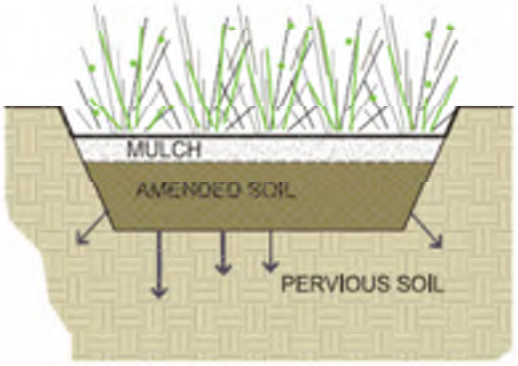
Dry Wells

A dry well is defined as an excavated, bored, drilled, or driven shaft or hole whose depth is greater than its width. Drywells are similar to infiltration trenches in their design and function, as they are designed to temporarily store and infiltrate runoff, primarily from rooftops or other impervious areas with low pollutant loading. A dry well may be either a drilled borehole filled with aggregate or a prefabricated storage chamber or pipe segment.



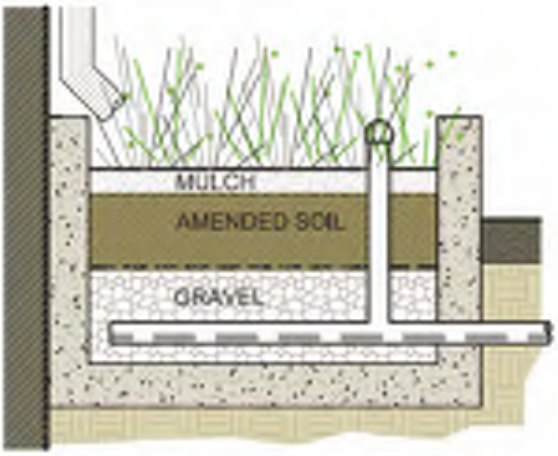
Bioretention

Bioretention stormwater treatment facilities are landscaped shallow depressions that capture and filter stormwater runoff. These facilities function as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. The facilities normally consist of a ponding area, mulch layer, planting soils, plantings, and, optionally, a subsurface gravel reservoir layer.



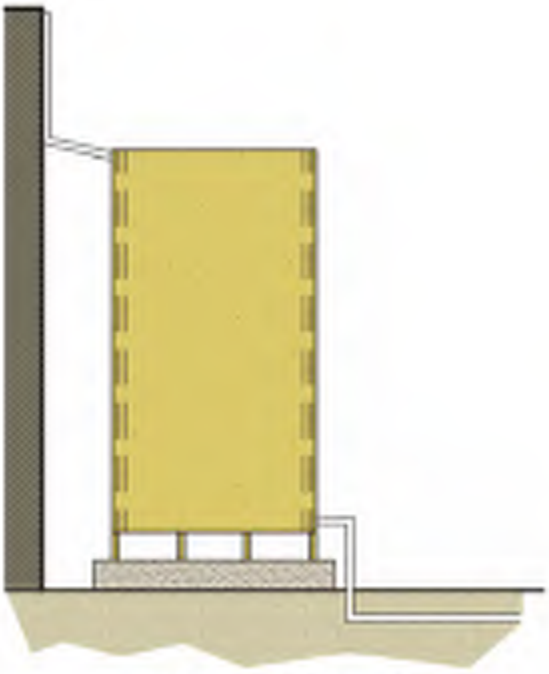
Planter Boxes

Planter boxes are bioretention treatment control measures that are completely contained within an impermeable structure with an underdrain (they do not infiltrate). They are similar to bioretention facilities with underdrains except they are situated at or above ground and are bound by impermeable walls. Planter boxes may be placed adjacent to or near buildings, other structures, or sidewalks.



4.5 CAPTURE AND USE BMPS

Capture and Use refers to a specific type of BMP that operates by capturing stormwater runoff and holding it for efficient use at a later time. On a commercial or industrial scale, capture and use BMPs are typically synonomous with cisterns, which can be implemented both above and below ground. Cisterns are sized to store a specified volume of water with no surface discharge until this volume is exceeded. The primary use of captured runoff is for subsurface drip irrigation purposes. The temporary storage of roof runoff reduces the runoff volume from a property and may reduce the peak runoff velocity for small, frequently occurring storms. In addition, by reducing the amount of stormwater runoff that flows overland into a stormwater conveyance system, less pollutants are transported through the conveyance system into local streams and the ocean. The onsite use of the harvested water for non-potable domestic purposes conserves City-supplied potable water and, where directed to unpaved surfaces, can recharge groundwater in local aquifers.



Cistern Example

Hydrology & Water Resources Technical Report

956 Seward Street
Los Angeles, CA 90038

January 25, 2024

PREPARED FOR:

Baranof Holdings
2850 N. Harwood Street, Suite 1000
Dallas, TX 75201

PREPARED BY:

Kimley»Horn
660 South Figueroa Street, Suite 2050
Los Angeles, CA 90017
(213) 261-4040
KH Project No.: 099909001

Table of Contents

Exhibits

Appendices

1. INTRODUCTION

1.1. Project Location

The Project Site is located at 936-962 North Seward Street and 949-959 North Hudson Avenue within the Hollywood community of the City of Los Angeles (City).

The Project is bounded by West Romaine Street to the north, North Hudson Avenue to the east, and North Seward Street to the west. The Project site is an irregular-shaped lot that is approximately 1.27 acres or 55,509 square feet (sf) after dedication along Romaine. The Project Site consists of eight parcels that are currently improved with a two-story 40,000 sf film climate-controlled storage facility built in 1952 and an associated surface parking lot to the north currently used for a truck rental business surrounded by metal fencing.

Land uses directly to the north of the Project Site across Romaine Street include a variety of one to five story commercial, restaurant, studio, and parking buildings. To the west across Seward Street are various one to four story film, commercial, and office uses. Land use to the east across Hudson Avenue include one to five story single and multifamily residential uses. The Project Site is located within close proximity to several transit options. Numerous Metro transit and LADOT transit bus lines that run and stop in the greater vicinity of the Project, including Metro Line 4 and Metro Line 210.

1.2. Project Description

The Project includes the demolition of an existing 40,000 square foot (sf) film storage building and its associated parking lot and the construction of a seven-story, storage building, which would consist of up to 168,765 sf that would include approximately 118,681 sf of self-storage, approximately 48,984 sf of temperature-constrolled film and media storage, and up to 1,100 sf of leasing uses. It also includes a surface-level parking lot and bicycle parking spaces at ground-level, as well as landscaped areas throughout the Project area, including an outdoor landscaped walkway and entrance along Romaine Street and landscaping along Hudson Street and Seward Street.

1.3. Scope of Work

This report provides a description of the existing surface water hydrology, surface water quality, groundwater level, and groundwater quality at the Project Site. It also analyzes the Project's potential impacts related to surface water hydrology, surface water quality, groundwater level, and groundwater quality.

2. REGULATORY FRAMEWORK

2.1. Surface Water Hydrology

County of Los Angeles Hydrology Manual

Per the City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 10-year storm event and that the combine capacity of a storm drain, and street flow system accommodate flow from a 25-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event[1]. The County also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer systems (MS4) Permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines require review and approval from the County Flood Control District department.

Los Angeles Municipal Code

Any proposed drainage improvements within the public right of way or any other property owned by or under the control of the City requires the approval of a B-permit (Section 62.105, Los Angeles Municipal Code (LAMC)). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works, Bureau of Engineering. Additionally, any connections to the City's storm drain system from a private property to a City catch basin or an underground storm drain pipe requires a storm drain connection permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

2.2. Surface Water Quality

Clean Water Act

The Clean Water Act was first introduced in 1948 as the Water Pollution Control Act. The Clean Water Act authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the Clean Water Act forms the basic national framework for the management of water quality and the control of pollutant discharges. The Clean Water Act also sets forth a number of objectives in order to achieve the above-mentioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.

[1] Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed November 22, 2023.

Since its introduction, major amendments to the Clean Water Act have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. Environmental Protection Agency (USEPA), while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a "Best Management Practices" Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act," which is universally used today. Amendments enacted in 1987 required the USEPA to create specific requirements for discharges.

In response to the 1987 amendments to the Clean Water Act and as part of Phase I of its NPDES permit program, the USEPA began requiring NPDES permits for: (1) municipal separate storm sewer systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. Phase II of the USEPA's NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to: (1) numerous small MS4s, (2) construction sites of one to five acres, and (3) industrial facilities owned or operated by small municipal separate storm sewer systems. The NPDES permit program is typically administered by individual authorized states.

In 2008, the USEPA published draft Effluent Limitation Guidelines (ELGs) for the construction and development industry. On December 1, 2009 the EPA finalized its 2008 Effluent Guidelines Program Plan.

In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB). The SWRCB was created by the Legislature in 1967. The joint authority of water distribution and water quality protection allows the Board to provide protection for the State's waters, through its nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop "basin plans" for their hydrologic areas, issue waste discharge requirements, enforce action against stormwater discharge violators, and monitor water quality[2].

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

[2] LARWQCB Basin Plan. March 2020.
<https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/>.

California Porter-Cologne Act

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control. The California Water Code (CWC) authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

As discussed above, under the California Water Code, the SWRCB is divided into nine RWQCBs, governing the implementation and enforcement of the CWC and CWA. The Project Site is located within Region 4, also known as the Los Angeles Region. Each RWQCB is required to formulate and adopt a Basin Plan for its region. This Basin Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxics Rule

In 2000, the USEPA promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The USEPA promulgated this rule based on the USEPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles RWQCB (LARWQCB) as having beneficial uses protective of aquatic life or human health.

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan[3].

[3] Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/ accessed November 22, 2023.

The Basin Plan is a resource for the LARWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

Construction General Permit

SWRCB Order No. 2012-0006-DWQ known as "Construction General Permit" was adopted on July 17, 2012. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels. The main objectives of the General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in stormwater discharges
3. Prevent materials used at a construction site from contacting stormwater
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-stormwater discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects
7. Establish maintenance commitments on post-construction pollution control measures

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices (BMPs) for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit[4] [5].

Los Angeles County Municipal Storm Water System (MS4) Permit

As described above, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On November 8, 2012, the LARWQCB adopted Order No. R4-2012-0175 under the CWA and the Porter-Cologne Act. This Order is the NPDES permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the Permit) cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the Los Angeles County Flood Control District (LACFCD) is designated as the Principal Permittee. The other permittees are the 84 Los Angeles County

[4] State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/. accessed November 22, 2023.
[5] USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Co-Permittees.

City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff

On March 2, 2007, a motion was introduced by the City of Los Angeles City Council to develop a water quality master plan with strategic directions for planning, budgeting and funding to reduce pollution from urban runoff in the City of Los Angeles (City Council Motion 07-0663). The Water Quality Compliance Master Plan for Urban Runoff (Master Plan) was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders to address the requirements of this Council Motion. The primary goal of the Master Plan is to help meet water quality regulations. Implementation of the Master Plan is intended over the next 20 to 30 years to result in cleaner neighborhoods, rivers, lakes and bays, augmented local water supply, reduced flood risk, more open space, and beaches that are safe for swimming. The Master Plan also supports the Mayor and Council's efforts to make Los Angeles the greenest major city in the nation.

- The Water Quality Compliance Master Plan for Urban Runoff identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans. Additionally, the Water Quality Compliance Master Plan for Urban Runoff provides an implementation strategy that includes the following three initiatives to achieve water quality goals:

- Water Quality Management Initiative, which describes how Water Quality Management Plans for each of the City's watershed and TMDL-specific Implementation Plans will be developed to ensure compliance with water quality regulations.

- The Citywide Collaboration Initiative, which recognizes that urban runoff management and urban (re)development are closely linked, requiring collaborations of many City agencies. This initiative requires the development of City policies, guidelines, and ordinances for green and sustainable approaches for urban runoff management.

- The Outreach Initiative, which promotes public education and community engagement with a focus on preventing urban runoff pollution.

- The Water Quality Compliance Master Plan for Urban Runoff includes a financial plan that provides a review of current sources of revenue, estimates costs for water quality compliance, and identifies new potential sources of revenue.

City of Los Angeles Stormwater Program

The City of Los Angeles supports the policies of the Construction General Permit and the Los Angeles County NPDES permit through the *Development Best Management Practices Handbook. Part A Construction Activities,* 3rd Edition, and associated ordinances were adopted in September 2004. *Part B Planning Activities*, 5th Edition was adopted in May 2016.

The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program.

Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494. The handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the General Permit.

The City of Los Angeles implements the requirement to incorporate stormwater BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following[6]:

- Peak Storm Water Runoff Discharge Rate: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;

- Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site);

- Properly design outdoor material storage areas to provide secondary containment to prevent spills;

- Properly design trash storage areas to prevent off-site transport of trash;

- Provide proof of ongoing BMP Maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment control BMPs:

- Conserve natural and landscaped areas;

- Provide planter boxes and/or landscaped areas in yard/courtyard spaces;

- Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash;

- Provide proof on ongoing BMP maintenance of any structural BMPs installed;

[6] City of Los Angeles Stormwater Program website, https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/susmp/susmp_details.shtml

Design Standards for Structural or Treatment Control BMPs:

- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow-based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

- In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff from one of the following:

- The 85th percentile, 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998)*;

- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook—Industrial/ Commercial, (1993)*;

- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system; or

- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

Los Angeles Municipal Code

Section 64.70 of the LAMC sets forth the City's Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of unauthorized pollutants in the City:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.

- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.

- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.

- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.

- Any medical, infectious, toxic or hazardous material or waste.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects/materials from being deposited such that they could be carried into the storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in LAMC, Chapter IX, Article 1. Specifically, Section 91.7013 includes regulations pertaining to erosion control and drainage devices, and Section 91.7014 includes general construction requirements, as well as requirements regarding flood and mudflow protection.

Low Impact Development (LID)

In October 2011, the City of Los Angeles passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70.01 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012.

LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of these LID practices is to remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff may be used[7].

The intent of the City of Los Angeles LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

[7] City of Los Angeles. "Development Best Management Practices Handbook." May, 2016.

The City of Los Angeles Bureau of Sanitation, Watershed Protection Division has adopted the LID standards as issued by the LARWQCB and the City of Los Angeles Department of Public Works. The LID Ordinance conforms to the regulations outlined in the NPDES Permit and SUSMP.

2.3. Groundwater

Safe Drinking Water Act (SDWA)

The Federal Safe Drinking Water Act, established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal SDWA.

California Water Plan

The California Water Plan (the Plan) provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators, and other decision-makers.

3. ENVIRONMENTAL SETTING

3.1. Surface Water Hydrology

3.1.1. Regional

The Project Site is part of the Hollywood neighborhood in Los Angeles. The Project Site is located within the Ballona Creek Watershed (Watershed) in the Los Angeles Basin. The Watershed encompasses an area of approximately 130 square miles extending from the Santa Monica Mountains and the Ventura-Los Angeles County line on the north, to the Harbor Freeway (110) on the east, Santa Monica to the west, and to the Baldwin Hills on the south. Ballona Creek is a 9-mile-long flood protection channel that drains the Watershed to the Pacific Ocean. The major tributary areas to Ballona Creek include Centinela Creek,

Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous storm drains. Refer to Figure 1 for the Ballona Creek Watershed Map.

3.1.2. Local

The existing conditions for all 1.27 acres of the Project site are 95% impervious. See Table 1 below for specific pre-development conditions.

The elevation of the Project Site ranges from approximately 292 feet above mean sea level (MSL) in the northwest corner of the Project site to 286 feet MSL in the southwest corner. Per the Topographic Survey provided by Omega Land Surveying, dated July 26, 2023, existing drainage is split into two drainage areas: the western building and western parking lot is represented by EX-1, and the eastern surface lot area is represented by EX-2. Stormwater runoff in EX-1 includes roof drainage and parking lot sheet flow towards the southwest corner of the site along Seward Street. Stormwater runoff in EX-2 includes parking lot sheet flow towards the southeast corner of the site along Hudson Avenue. Runoff from both drainage areas is conveyed to concrete curb and gutter and flow south into the public storm drain system. Refer to Appendix D for survey information and Figure 2 for details on existing drainage patterns.

City storm drain lines ultimately flow to the south and west, discharging into the first reach of Ballona Creek. Ballona Creek generally flows southwest, ultimately discharging into the Pacific Ocean at the Santa Monica Bay. Ballona Creek is designed to discharge to Santa Monica Bay at approximately 71,400 cubic feet per second from a 50-year frequency storm event[8].

3.1.3. On Site

The Project is bounded by West Romaine Street to the north, North Hudson Avenue to the east, and North Seward Street to the west. The Project Site is an irregular-shaped lot that is approximately 1.27 acres or 55,509 square feet (sf). The Project Site consists of eight parcels that are currently improved with a two-story 40,000 sf film climate-controlled storage facility built in 1952 and an associated surface parking lot to the north currently used for a truck rental business surrounded by metal fencing. The existing Project Site is approximately 95% impervious based on the survey.

The majority of runoff sheet flows south and west towards Seward Street, where it is conveyed via curb and gutter and flows southerly. Refer to Figure 2 for existing on-site drainage pattern and Appendix A for preliminary hydrology calculations. Table 1 below shows existing volumetric flow rate generated by the 50-year storm event.

[8] Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023.

Table 1: Existing Site Hydrologic Calculations

Drainage Area	Area (Acres)	Q50 (cfs) (volumetric flow rate measured in cubic feet per second)
EX-1	0.80	2.53
EX-2	0.47	1.49
SITE TOTAL	**1.27**	**4.02**

3.2. Surface Water Quality

3.2.1. Regional

As stated above, the Project Site lies within the Ballona Creek Watershed. Constituents of concern listed for Ballona Creek under California's Clean Water Act Section 303(d) List include: Arsenic, Cadmium, Chlordane, Copper, Cyanide, DDT, Indicator Bacteria, Lead, Mercury, PAHs, PCBs, Silver, Toxicity, Trash, Viruses (enteric), and Zinc[9]. No Total Maximum Daily Load (TMDL) data have been recorded by EPA for this waterbody[10].

3.2.2. Local

In general, urban stormwater runoff occurs following precipitation events, with the volume of runoff flowing into the drainage system depending on the intensity and duration of the rain event. Contaminants that may be found in stormwater from developed areas include sediments, trash, bacteria, metals, nutrients, organics and pesticides. The source of contaminants includes surface areas where precipitation falls, as well as the air through which it falls. Contaminants on surfaces such as roads, maintenance areas, parking lots, and buildings, which are usually contained in dry weather conditions, may be carried by rainfall runoff into drainage systems. The City typically installs catch basins with screens to capture debris before entering the storm drain system. In addition, the City conducts routine street cleaning operations, as well as periodic cleaning and maintenance of catch basins, to reduce stormwater pollution within the City.

3.2.3. On Site

The Project Site is on developed land, with 95% of the site approximately considered impervious. The project site is relatively level with slopes ranging from 1-3%. The highest elevation of the site is 292 feet above mean sea level (MSL) in the northwest corner of the Project Site and the lowest being 286 feet MSL in the southwest corner. As explained previously, Project Site drainage primarily runs off to Seward Street.

[9] Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023.

[10] Final Los Angeles Region 2016 Integrated Report; https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16r4_ir_reports/01656.shtml; accessed November 22, 2023

3.3. Groundwater Hydrology

3.3.1. Regional

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County. The City overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Groundwater Subbasins. Groundwater flow in the Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water. Refer to Figure 4 for the groundwater basin exhibit.

3.3.2. Local

The Project Site specifically lies within the Coastal Plain of Los Angeles Hollywood Subbasin. The Hollywood Subbasin is bounded by the Central subbasin to the south, and Santa Monica subbasin to the west. Refer to Figure 4 for the Coastal Plain of Los Angeles Map[11].

Groundwater in the Subbasin is replenished primarily by percolation of precipitation and stream flow from the Santa Monica Mountains to the north. Over time, urbanization has decreased the amount of pervious surfaces limiting natural recharge through direct percolation. The natural safe yield of the Subbasin is estimated to be approximately 3,000 acre-feet per year (AFY).

3.3.3. On Site

Based on the Geotechnical Site Evaluation performed by Gorian and Associates, Inc., dated July 26, 2023, ground water was encountered at 17 feet below the surface in exploratory borings and is estimated at 20 feet below the ground surface. Based on the existing site conditions and depth of groundwater, the Project will will require an export of approximately 5,200 cubic yards of soil and will not introduce infiltration as a stormwater treatment measure[12].

3.4. Groundwater Quality

3.4.1. Regional

As stated above, the City overlies the Los Angeles Coastal Plain Groundwater Basin, which falls under the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). According to LARWQCB's Basin Plan, objectives applying to all ground waters

[11] https://www.usgs.gov/media/images/coastal-los-angeles-groundwater-basins-map
[12] Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate, nitrite), and taste and odor[13].

3.4.2. Local

As stated above, the Project Site specifically lies within the Hollywood Subbasin. Based upon LARWQCB's Basin Plan, constituents of concern listed for the Subbasin include Total Dissolved Solids (TDS), sulftate, chloride, and boron.

3.4.3. On Site

The existing Project Site is a developed lot. Given minimal soil disturbance from the Project, the Project will have little to no impact on groundwater recharge and groundwater quality.

4. SIGNIFICANCE THRESHOLDS

4.1. Surface Water Hydrology

Appendix G of the State of California's CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water hydrology. These questions are as follows:

Would the project:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - Result in substantial erosion or siltation on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

In the context of these questions from Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (*L.A. CEQA Thresholds Guide*) states that a project would normally have a significant impact on surface water hydrology if it would:

[13] Los Angeles Regional Water Quality Control Board, Basin Plan, April 2013, accessed November 22, 2023.

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body; or

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

4.2. Surface Water Quality

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water quality. These questions are as follows:

Would the project:

- Violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

    - Result in substantial erosion or siltation on- or off-site;

    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

    - Impede or redirect flood flows;

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;

In the context of the above questions from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on surface water quality if it would result in discharges that would create pollution, contamination or nuisance, as defined in Section 13050 of the CWC or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

The CWC includes the following definitions:

- "Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".

- "Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

- "Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes[14].

4.3. Groundwater Hydrology

Appendix G of the CEQA Guidelines provides a sample question that addresses impacts with regard to groundwater. This question is as follows:

Would the project:

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

In the context of the above question from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater if it would:

- Change potable water levels sufficiently to:

    - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;

    - Reduce yields of adjacent wells or well fields (public or private); or

    - Adversely change the rate or direction of flow of groundwater; or

- Result in demonstrable and sustained reduction of groundwater recharge capacity.

[14] City of Los Angeles. LA. CEQA Thresholds Guide. 2006
https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

4.4. Groundwater Quality

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to groundwater quality. These questions are as follows:

Would the project:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan;

In the context of the above questions from Appendix G pertaining to groundwater quality, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater quality if it would:

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

5. METHODOLOGY

5.1. Surface Water Hydrology

The Project Site's drainage collection, treatment and conveyance are regulated by the City. Per the City's Special Order No. 007- 1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual as its basis of design for storm drainage facilities. The LACDPW Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. The *L.A. CEQA Thresholds Guide*, however, establishes the 50-year frequency design storm event as the threshold to analyze potential impacts on surface water hydrology as a result of development. To provide a more conservative analysis, this report analyzes the larger storm event threshold, i.e., the 50-year frequency design storm event.

LACDPW has developed a time of concentration calculator, Hydrocalc, to automate time of concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria as outlined in the Hydrology Manual. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet. The Hydrocalc Calculator was used to calculate the storm water peak runoff

flow rate for the Project conditions by evaluating an individual sub-area independent of all adjacent subareas. See Appendix A for preliminary hydrology calculation results and Figure 5 for the Isohyet Map.

5.2. Surface Water Quality

5.2.1. Construction

Construction BMPs will be designed and maintained as part of the implementation of the SWPPP in compliance with the Construction General Permit. The SWPPP shall begin when construction commences, before any site clearing and grubbing or demolition activity. During construction, the SWPPP will be referred to regularly and amended as changes occur throughout the construction process. The Notice of Intent (NOI), Amendments to the SWPPP, Annual Reports, Rain Event Action Plans (REAPs), and Non- Compliance Reporting will be posted to the State's SMARTS website in compliance with the requirements of the Construction General Permit.

5.2.2. Operation

The Project will meet the requirements of the City's LID standards[15]. Under Section 3.1.3. of the LID Manual, post-construction stormwater runoff from a new development must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for at least the volume of water produced by the greater of the 85th percentile storm or the 0.75-inch storm event. The LID Manual prioritized the selection of BMPs used to comply with stormwater mitigation requirement. The order of priority is:

1. Infiltration Systems
2. Stormwater Capture and Use
3. High Efficient Biofiltration/Bioretention Systems
4. Combination of Any of the Above

According to the City's LID Handbook, the mitigated volume generated from the greater of the 85th percentile storm and the 0.75-inch storm event at a minimum:

V_{design} (gallons) = (85th percentile or 0.75 inch * 7.48 gallons/cubic foot) * Catchment Area (sq. ft.)

Where:

Catchment Area = (Impervious Area x 0.9) + [(Pervious Area + Undeveloped Area) x 0.1]

For catchment areas given in acres, multiply the above equation by 43,560 sq. ft./acre.

Based on the size of the Project Site, the LID system would be required to mitigate up to 4,147 cubic feet (31,022 gallons) of runoff generated by the design storm event. See Appendix B for LID calculations. This calculation assumes 100% imperviousness for conservative estimation; it is understood that the required mitigation volume will be reduced based on the

[15] The Development Best Management Practices Handbook, Part B Planning Activities, 5th edition was adopted by the City of Los Angeles, Board of Public Works on May 9, 2016.

implementation of landscaping and other features which will reduce the effective imperviousness of the Site.

Feasibility screening delineated in the LID manual is applied to determine which BMP will best suit the Project.. Specifically, LID guidelines require that infiltration systems maintain at least 10 feet of clearance to the groundwater, property line, and any building structure. Per the Project geotechnical investigation, groundwater was encountered during substructure investigation 17 feet below ground surface. Thus, infiltration is likely infeasible due to high groundwater prescence.

As infiltration is likely infeasible, stormwater capture and use must be considered. Given the limited site planting proposed and drought-tolerant planting (PF of 0.25), the estimated total water usage is likely less than the stormwater quality design volume. Please refer to Table 2 below for calculations. Therefore, the Project would most likely consider implementation of a High Efficiency Biofiltration/Bioretention system. Refer to Appendix B and Table 3 for preliminary low impact development calculations.

Table 2: Preliminary Capture and Reuse Feasibility Analysis

V_{design} (CF) =	4115	CF	*(Hydrocalc 24-Hr Clear Runoff Volume)*				
$A_{pervious}$ (SF) =	7309	SF					
Planting Factor =	0.25		*(ETAF per Irrigation Plans see MAWA / ETWU table L3.00)*				
i. Design Volume, V_{design}							
V_{design} (CF) =	4115	CF					
V_{design} (gal) =	30780	gal					
ii. Pervious Area, $A_{pervious}$							
$A_{pervious}$ (SF) =	7309	SF					
iii. Planter Factor, PF							
Planting Factor =	0.25						
PF (SF) =	1827	SF					
iv. $ETWU_{(7\text{-month})}$							
$ETWU_{(7\text{-month})}$ (gal)=	24584	gal					
v. Feasibility							
$ETWU_{(7\text{-month})}$ =	24584	<	V_{design} =	30780	**, therefore**	**infeasible**	

Table 3: Preliminary Low Impact Development Calculations

Tributary Area	BMP	Site Area (SF)	Impervious Area (SF)	Pervious Area Provided (SF)	Mitigation Volume Required (CF)	Peak Flow Rate Required (CFS)	Treatment Rate (CFS) = 1.5 x Peak Flow Rate Required
PROP-1	Biofiltration Treatment System (Filterra or Approved Equal)	17,236	14,624	2,612	1,296	0.16	0.24
PROP-2		17,538	15,744	1,794	1,296	0.15	0.23
PROP-3		20,735	17,832	2,903	1,523	0.16	0.24

5.3. Groundwater

The significance of this Project as it relates to the level of the underlying groundwater table of the Hollywood Groundwater Subbasin included a review of the following considerations:

Analysis and Description of the Project's Existing Condition

- Identification of the Hollywood Subbasin as the underlying groundwater basin, and description of the level, quality, direction of flow, and existing uses for the water;
- Description of the location, existing uses, production capacity, quality, and other pertinent data for spreading grounds and potable water wells in the vicinity (usually within a one-mile radius), and;
- Area and degree of permeability of soils on the Project Site, and;

Analysis of the Proposed Project Impact on Groundwater Level

- Description of the rate, duration, location and quantity of extraction, dewatering, spreading, injection, or other activities;
- The projected reduction in groundwater resources and any existing wells in the vicinity (usually within a one-mile radius); and
- The projected change in local or regional groundwater flow patterns.

In addition, this report discusses the impact of both existing and proposed activities at the Project Site on the groundwater quality of the underlying Hollywood Subbasin.

Short-term groundwater quality impacts could potentially occur during construction of the Project as a result of soil or shallow groundwater being exposed to construction materials, wastes, and spilled materials. These potential impacts are qualitatively assessed.

6. PROJECT IMPACT ANALYSIS

6.1. Construction

6.1.1. Surface Water Hydrology

Construction activities for the Project include site clearing and excavating below the existing grade to construct building foundations.

It is anticipated that the Project would require the export of approximately 5,200 cubic yards of soil. These activities will temporarily expose the underlying soils and may make the Project Site temporarily more permeable. Also, exposed and temporarily stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff.

However, as the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES General Construction stormwater permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows and prevent pollution. BMPs would be designed to reduce runoff and pollutant levels in runoff during construction. The NPDES and SWPPP measures are designed to (and would in fact) contain and treat, as necessary, stormwater or construction watering on the Project site so runoff does not impact off-site drainage facilities or receiving waters. Construction activities are temporary and flow directions and runoff volumes during construction will be controlled.

In addition, the Project would be required to comply with all applicable City grading permit regulations that require necessary measures, plans, and inspections to reduce sedimentation and erosion. Thus, through compliance with all NPDES General Construction Permit requirements, implementation of BMPs, and compliance with applicable City grading regulations, the Project would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion, siltation, or flooding on- or off-site. Similarly, adherence to standard compliance measurements in construction activities would ensure that construction of the Project would not cause the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. As construction activities would be limited to the Project Site, such activities would not conflict with implementation of a water quality control plan. Therefore, construction-related impacts to surface water hydrology would be less than significant.

6.1.2. Surface Water Quality

Construction activities such as earth moving, maintenance of construction equipment, handling of construction materials, and dewatering, can contribute to pollutant loading in stormwater runoff.

As discussed further in Section 6.1.3 below, the Project is expected to require dewatering during construction. Dewatering operations are practices that discharge non-stormwater, such as groundwater, that must be removed from a work location to proceed with construction into the drainage system. Discharges from dewatering operations can contain high levels of fine sediments, which if not properly treated, could lead to exceedance of the NPDES requirements. If groundwater is encountered during construction, temporary pumps and

filtration would be utilized in compliance with the NPDES permit. The temporary system would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations.

With implementation of the SWPPP, site-specific BMPs would reduce or eliminate the discharge of potential pollutants from stormwater runoff. In addition, the Project Applicant would be required to comply with City grading permit regulations and inspections to reduce sedimentation and erosion. Construction of the Project would not result in discharge that would cause: (1) pollution which would alter the quality of the water of the State (i.e., Ballona Creek to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes. Furthermore, construction of the Project would not result in discharges that would cause regulatory standards to be violated in the Ballona Creek Watershed. The Project would also not provide substantial additional sources of polluted runoff, nor would it conflict with the implementation of a water quality control plan. In addition, implementation of the SWPPP would ensure that construction activities would not result in substantial erosion or siltation on- or off-site, or risk release of other pollutants due to inundation. Therefore, temporary construction-related impacts on surface water quality would be less than significant.

6.1.3. Groundwater Hydrology

As stated above, construction activities for the Project would include excavating for building foundations, building up the structure, and hardscape and landscape around the structure. As described in the Geotechnical Site Evaluation and Stormwater Infiltration Test Report[16] prepared for the Project Site, groundwater was encountered approximately 17 feet below grade during substructure investigation. The Project's proposed excavation is not anticipated to go beyond the geotechnical exploration. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with all applicable regulations and requirements, including with all relevant NPDES requirements related to construction and discharges from dewatering operations. Therefore, the Project would not substantially deplete groundwater supplies in a manner that would result in a net deficit in aquifer volume or lowering of the local groundwater table and impacts related to groundwater hydrology would be less than significant.

6.1.4. Groundwater Quality

The Project is expected to export 5,200 cubic yards of soil. Although not anticipated at the Project Site, any contaminated soils found would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with regulatory requirements.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater.

[16] Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

Compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste, would reduce the potential for the construction of the Project to release contaminants into groundwater that could affect existing contaminants, expand the area or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well. In addition, as there are no groundwater production wells or public water supply wells within one mile of the Project Site, construction activities would not be anticipated to affect existing wells. Therefore, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater quality. As construction activities are not expected to encounter existing groundwater supplies, it would not conflict with the implementation of a sustainable groundwater management plan. Therefore, impacts on groundwater quality would be less than significant.

6.2. Operation

6.2.1. Surface Water Hydrology

The project site is expected to decrease the overall percentage of impervious area from the current condition of the project site. For conservative, preliminary analysis, the proposed condition is assumed to have a total imperviousness of 100%. Accordingly, it is anticipated that an increase in the intensity of stormwater runoff will be projected. However, as discussed below, this increase is minimal, and the implementation of LID BMPs will further reduce this potential impact.

Table 4 below shows the proposed peak flow rates stormwater runoff calculations for the 50-year frequency design storm event and compares the results of existing drainage areas.

Table 4: Existing and Proposed Drainage Area Comparison

Drainage Area Number	Drainage Area (Acres)	50-year Flow (CFS)
EX-1	0.80	2.53
EX-2	0.47	1.49
Total Pre-Dev.	**1.27**	**4.02**
PROP-1	0.40	1.27
PROP-2	0.40	1.27
PROP-3	0.47	1.49
Total Post-Dev.	**1.27**	**4.02**

In the existing condition, stormwater runoff primarily sheet flows over the sidewalks and into the gutter. The post-Project condition will manage stormwater flow locally into area drains and roof drains, which will collect and likely discharge through the curb face at concentrated points or into a storm drain pipe connected to the street main. Therefore, it is highly unlikely the project would cause flooding during a 50-year storm event or result in a permanent adverse change to the movement of surface water on the Project Site.

A comparison of the pre- and post- peak flow rates indicates a net zero change in peak flow rates. As the anticipated project represents primarily a minor redistribution of stormwater discharge – and one which will be further controlled with the installation of LID BMPs.

The LID requirements for the Project Site would outline the stormwater treatment post-construction BMPs required to control pollutants associated with storm events up to the 85th percentile storm event. The Project BMPs will mitigate the stormwater runoff quality and quantity. Therefore, impacts related to stormwater infrastructure improvements would be less than significant.

6.2.2. Surface Water Quality

The Project Site will not increase concentrations of the items listed as constituents of concern for the Ballona Creek Watershed.

Under section 3.1.3. of the LID Manual, post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for the volume of water produced by the 85th percentile storm event. Due to incorporation of the required LID BMPs, operation of the Project would not result in discharges that would cause: (1) pollution which would alter the quality of the waters of the State (i.e., Ballona Creek) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes.

As is typical of most urban developments, stormwater runoff from the Project Site has the potential to introduce pollutants into the stormwater system. Anticipated and potential pollutants generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. The pollutants listed above would be mitigated through the implementation of approved LID BMPs.

Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated. The existing Project Site is approximately 95 percent impervious. Despite conservative analysis, the Project will likely decrease the overall site imperviousness and a portion of the Project Site will be allocated for stormwater BMPs specifically intended to control and treat stormwater runoff in compliance with LID requirements. The Project would include the installation of LID BMPs, which would mitigate at minimum the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event. The installed BMP systems will be designed with an internal bypass or overflow system to prevent upstream flooding due to large storm events.

Due to the incorporation of the required LID BMPs, operation of the Project would not result in discharge that would cause: (1) pollution which would alter the quality of the water of the State (i.e., Ballona Creek) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal

of wastes. Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated in the Ballona Creek Watershed. As such, the Project would not interfere with the implementation of a water quality control plan. Therefore, potential operational impacts related to surface water quality will be less than significant.

6.2.3. Groundwater Hydrology

The Project will develop landscape, hardscape and one structrure that will decrease the overall imperviousness of the Project Site. For conservative analysis, calculations assume 100 percent of the Project Site will be impervious surfaces to demonstrate there is no net increase in runoff. Implementation of the Project would require incorporation of LID BMPs to treat the “first flush” rain event and as such would be required to utilize infiltration methods if the site conditions dictate feasibility. As infiltration is the highest priority treatment method, it is generally understood that this method would be utilized unless restricted by code requirements (including, but not limited to those limiting the implementation of such on steep hillsides) or create risk to a project (including, but not limited to projects in areas with high groundwater tables or subject to liquefaction). Excess stormwater, which bypasses the BMP systems, would discharge to an approved discharge point in the public right-of-way and not result in infiltration of a large amount of rainfall that would affect groundwater hydrology, including the direction of groundwater flow. As such, the Project’s potential impact on groundwater recharge is less than significant.

As discussed above, the Project would include excavations for foundations. The Project site will have a net export of approximately 5,200 cubic yards of soil. Although not anticipated at the Project Site, any contaminated soils found would be captured within that volume of excavated material, removed from the Project Site, and remediated at an approved disposal facility in accordance with regulatory requirements. Groundwater is not expected to be encountered during construction due to miniminal soil disturbance during construction. Additionally, there are no known groundwater wells within one mile of the Project Site.

Based on the above, operation of the Project would result in a less than significant impact to groundwater hydrology.

6.2.4. Groundwater Quality

The Project does not include the installation of water wells, or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility.

Operational activities which could affect groundwater quality include hazardous material spills and leaking underground storage tanks. No underground storage tanks are known to be currently operated or will be operated by the Project. In addition, while the development of new building facilities would slightly increase the use of on-site hazardous materials as described above, compliance with all applicable existing regulations at the Project Site regarding the handling and potentially required cleanup of hazardous materials would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, as described above, operation of the Project would not require extraction from the groundwater supply based on the depth of excavation for the proposed uses and the depth of groundwater below the Project Site.

The Project is not anticipated to result in violations of any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater quality. Additionally, the Project does not involve drilling to or through a clean or contaminated aquifer. Therefore, the Project's potential impact on groundwater recharge is less than significant.

6.3. Cumulative Impact Analysis

6.3.1. Surface Water Hydrology

The geographic context for the cumulative impact analysis on surface water hydrology is the Ballona Creek Watershed. The Project in conjunction with forecasted growth in the Ballona Creek Watershed could cumulatively increase stormwater runoff flows. However, as noted above, the Project itself is not anticipated to have a significant net impact on stormwater flows. Also, in accordance with City requirements, the Project and related projects would be required to implement BMPs to manage stormwater runoff in accordance with LID guidelines. The City of Los Angeles Department of Public Works reviews projects on a case-by-case basis to ensure sufficient local and regional infrastructure is available to accommodate stormwater runoff. Implementation of LID BMPs would, at a minimum, maintain existing runoff conditions. Therefore, potential cumulative impacts associated with the Project on surface water hydrology would be less than significant.

6.3.2. Surface Water Quality

Future growth in the Ballona Creek Watershed would be subject to NPDES requirements relating to water quality for both construction and operation. The Project Site is located in a highly urbanized area, and it is anticipated that future development projects in this highly urbanized area are not likely to cause substantial changes in regional water quality. As noted above, the Project does not have an adverse impact on water quality and would in fact improve the quality of on-site flows due to the introduction of LID BMPs which do not currently exist at the Project Site. It is likewise anticipated that related projects would also be subject to LID requirements and implementation of measures to comply with TMDLs. The Project, combined with related projects, would comply with all applicable laws, rules and regulations, so cumulative impacts to surface water quality would be less than significant.

6.3.3. Groundwater Hydrology

The geographic context for the cumulative impact analysis on groundwater level is the Central Subbasin. The Project, in conjunction with forecasted growth in the region, could cumulatively increase groundwater demand. However, as noted above, no water supply wells, spreading grounds, or injection wells are located within a one-mile radius of the Project Site and the Project would not have an adverse impact on groundwater levels.

Furthermore, as previously discussed, the implementation of the Project would decrease the amount of impervious surface area, such implementation would include the evaluation of and, if feasible, implementation of infiltration LID BMPs. As such, the project is not anticipated to have a negative impact on groundwater recharge. While any calculation of the extent to which related projects would increase or decrease surface imperviousness that might affect groundwater hydrology would be speculative, the development of such projects would be subject to review and approval pursuant to all applicable regulatory requirements, including any required mitigation of potential groundwater hydrology impacts. In addition, the Project and related projects are located in a highly urbanized area so any potential reduction or

increase in groundwater would be minimal in the context of the regional groundwater basin. Therefore, cumulative impacts to groundwater hydrology would be less than significant.

6.3.4. Groundwater Quality

Future growth in the Hollywood Subbasin would be subject to LARWQCB requirements relating to groundwater quality. In addition, since the Project Site is located in a highly urbanized area, future land use changes or development are not likely to cause substantial changes in regional groundwater quality. As noted above, the Project does not have an adverse impact on groundwater quality. Also, it is anticipated that, like the Project, other future development projects would also be subject to LARWQCB requirements and implementation of measures to comply with TMDLs in addition to requirements of California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. The Project would comply with all applicable laws, rules, and regulations, therefore cumulative impacts to groundwater quality would be less than significant.

7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant impacts have been identified for surface water hydrology, surface water quality, groundwater hydrology or groundwater quality for this Project.

References

Ballona Creek Watershed, http://www.ladpw.org/wmd/watershed/bc/; accessed November 22, 2023

City of Los Angeles. "Development Best Management Practices Handbook." May, 2016

City of Los Angeles. LA. CEQA Thresholds Guide. 2006
https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

City of Los Angeles Stormwater Program website,
https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/susmp/susmp_details.shtml

The Development Best Management Practices Handbook, Part B Planning Activities, 5th edition was adopted by the City of Los Angeles, Board of Public Works on May 9, 2016.

Final Los Angeles Region 2016 Integrated Report;
https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16r4_ir_reports/01656.shtml; accessed November 22, 2023

Geotechnical Site Evaluation and Stormwater Infiltration Test Report: Proposed 7-Story Self-Storage Building 956 Seward Street, Gorian & Associates, Inc., July 26, 2023.

Hydraulic Design Manual. Los Angeles County Flood Control District, March 1982.

LARWQCB Basin Plan. March 2020.
<https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/>.

Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed November 22, 2023.

Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/ accessed November 22, 2023.

Los Angeles Regional Water Quality Control Board, Basin Plan, April 2013, accessed November 22, 2023.

Low Impact Development Standards Manual. County of Los Angeles Department of Public Works, February 2014.

State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/. accessed November 22, 2023.

USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

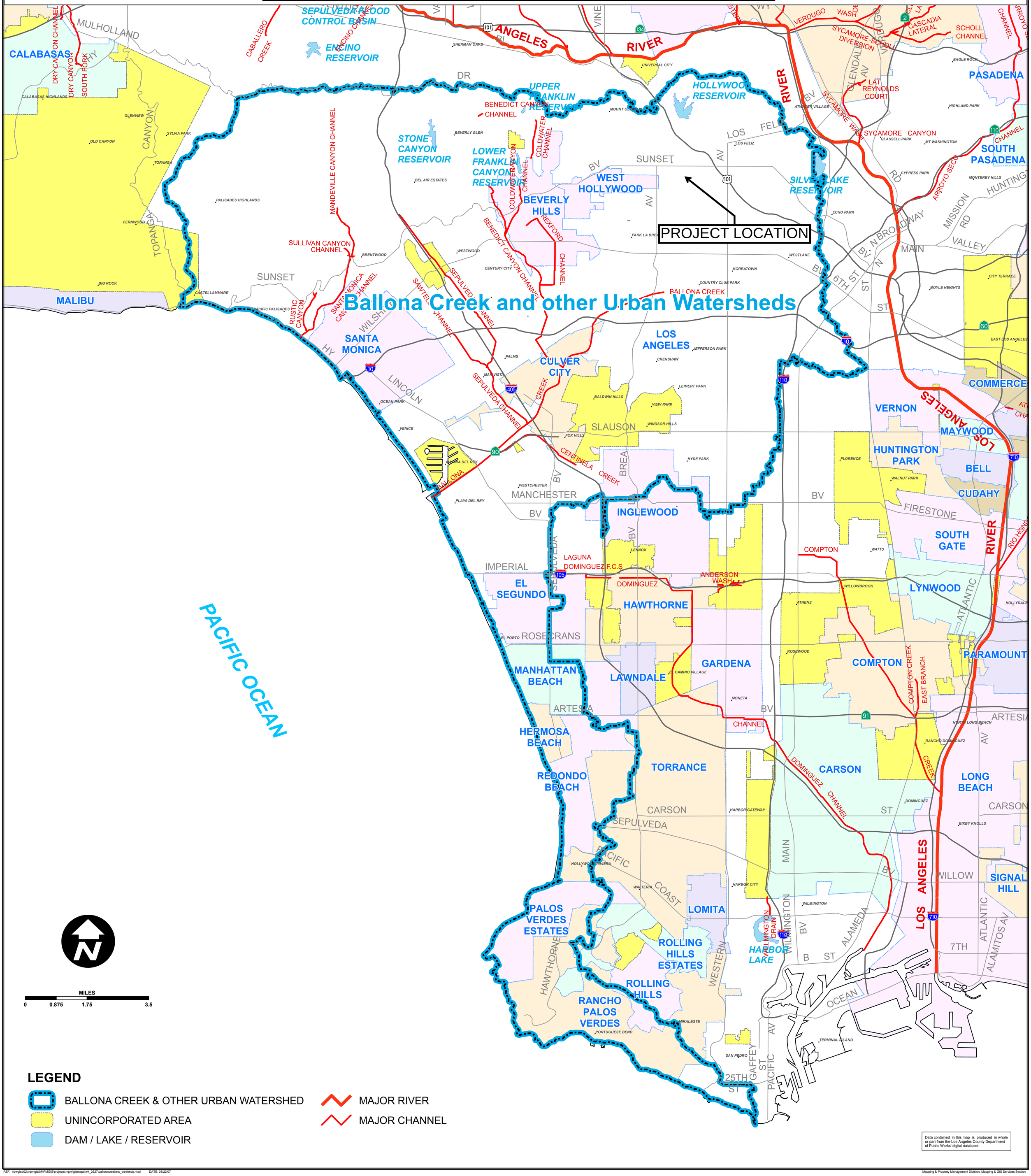
FIGURE 1

Ballona Creek Watershed Map

COUNTY OF LOS ANGELES

BALLONA CREEK & OTHER URBAN WATERSHEDS

FIGURE 1 - BALLONA CREEK WATERSHED MAP



LEGEND

- BALLONA CREEK & OTHER URBAN WATERSHED
- UNINCORPORATED AREA
- DAM / LAKE / RESERVOIR
- MAJOR RIVER
- MAJOR CHANNEL

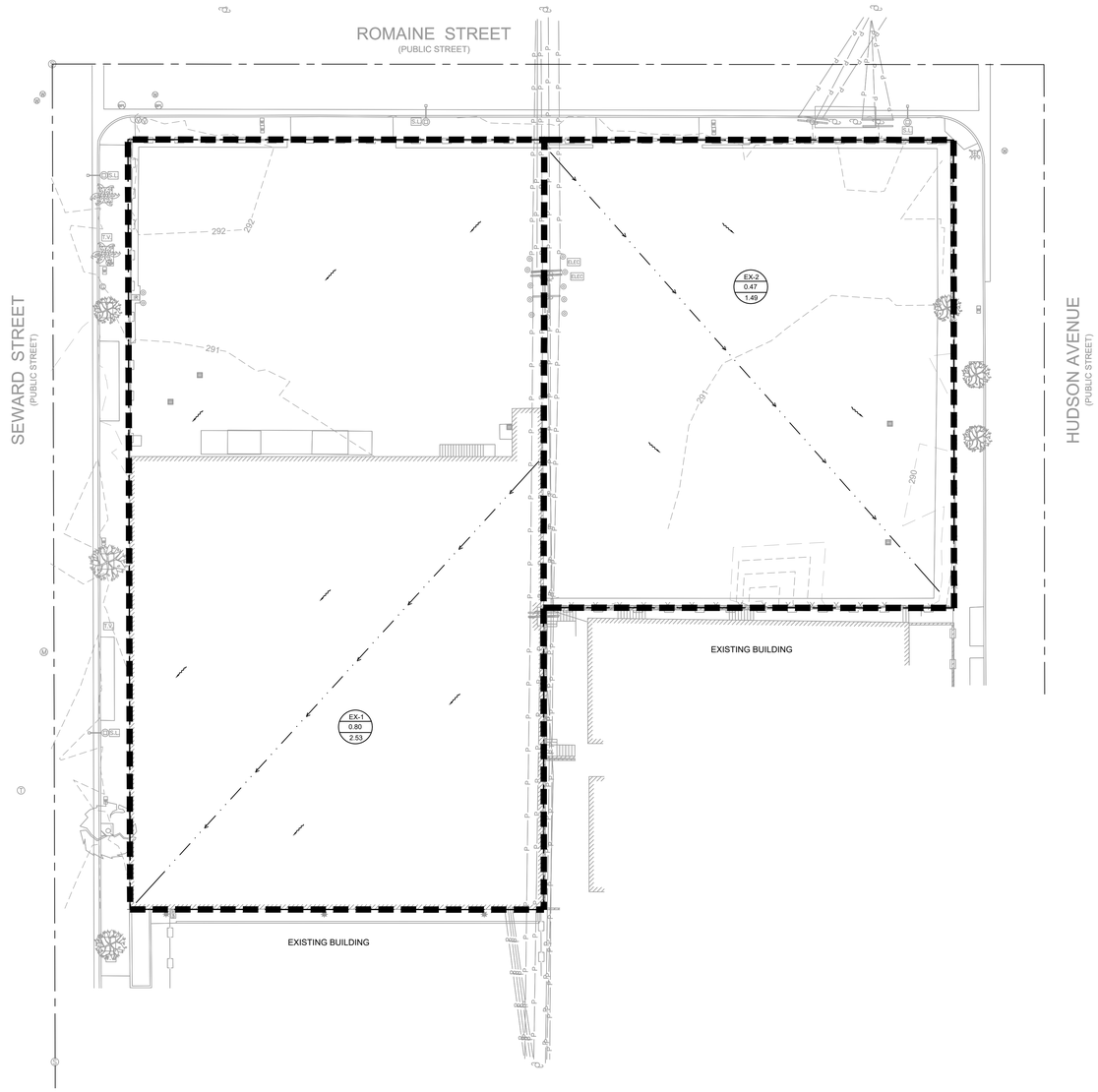
Data contained in this map is produced in whole or part from the Los Angeles County Department of Public Works' digital database.

REF: \\pwgisd02\mpmgis$\MPMGIS\projects\mpm\gismaps\wk_2627\ballonacreeketc_wtrsheds.mxd DATE: 08/22/07

Mapping & Property Management Division, Mapping & GIS Services Section

FIGURE 2

Existing Drainage Area Map



DRAINAGE AREA LEGEND

- FLOW ARROW
- XXX — EXISTING CONTOUR
- DRAINAGE AREA
- FLOW PATH
- DA-X / X.XX / XX — DRAINAGE AREA NUMBER, DRAINAGE AREA (ACRES), 50 YEAR FLOW (CFS)

DRAINAGE CRITERIA

1. EXISTING DRAINAGE RESULTS PER LOS ANGELES COUNTY HYDROCALC 1.0.2:

EX-1	
TC =	5.0 MIN.
C =	0.90
I$_{50-yr}$ =	3.52 IN/HR
Q =	2.53 CFS
EX-2	
TC =	5.0 MIN.
C =	0.90
I$_{50-yr}$ =	3.52 IN/HR
Q =	1.49 CFS
Q_{TOTAL} =	4.02 CFS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1444
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT	
DATE	12/27/2023
SCALE	AS SHOWN
DESIGNED BY	KS
DRAWN BY	KS
CHECKED BY	DD

EXISTING DRAINAGE AREA MAP

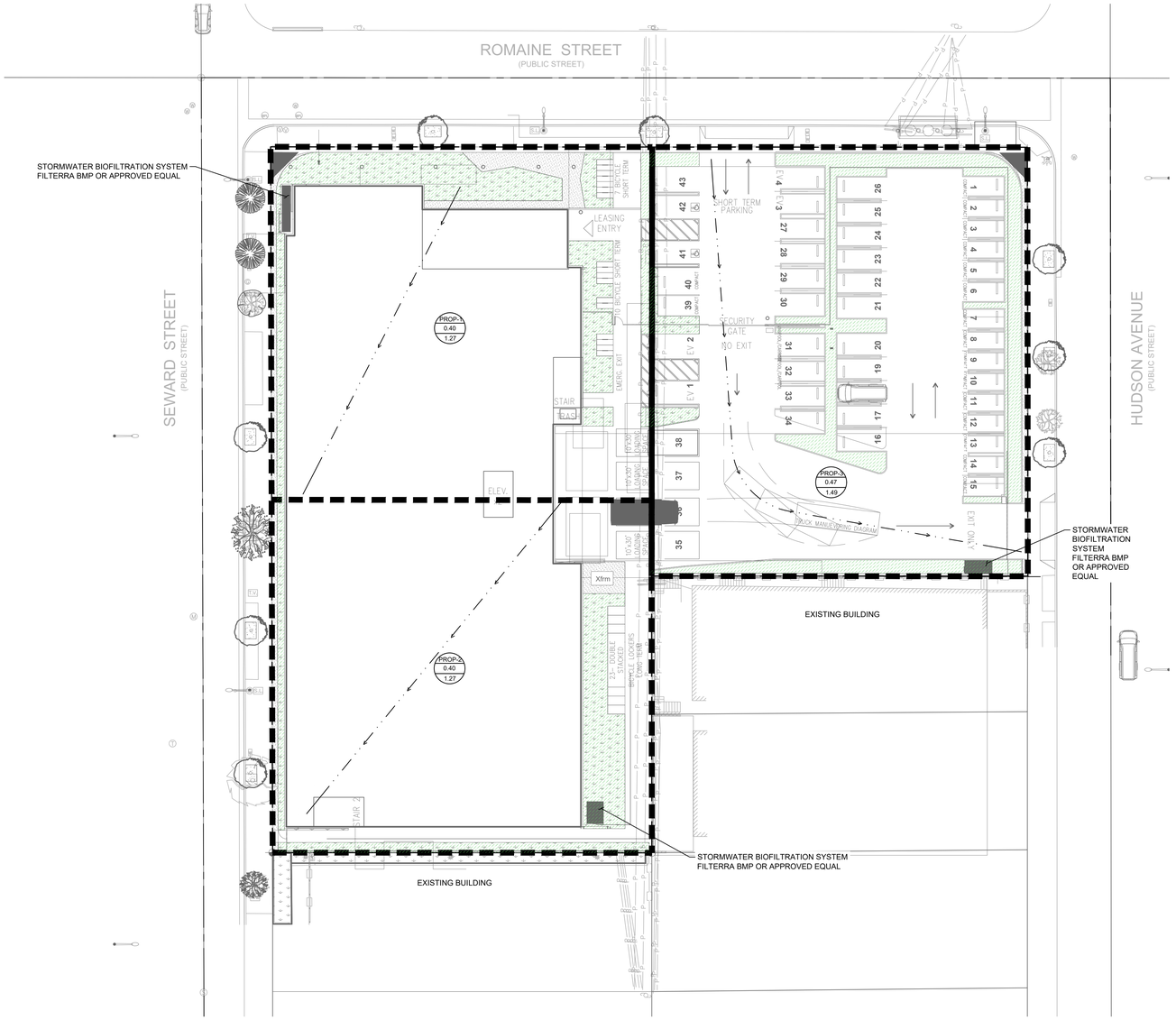
956 SEWARD

LOS ANGELES CA

SHEET NUMBER
1

FIGURE 3

Proposed Drainage Area Map



DRAINAGE AREA LEGEND

- FLOW ARROW
- XXX — EXISTING CONTOUR
- DRAINAGE AREA
- FLOW PATH
- DA-X / X.XX / XX — DRAINAGE AREA NUMBER, DRAINAGE AREA (ACRES), 50 YEAR FLOW (CFS)
- LANDSCAPE AREA PER LANDSCAPE PLANS

DRAINAGE CRITERIA

1. PROPOSED DRAINAGE RESULTS PER LOS ANGELES COUNTY HYDROCALC 1.0.2:

PROP-1		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.27	CFS
PROP-2		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.27	CFS
PROP-2		
TC =	5	MIN.
C =	0.9	
I(in/hr) =	3.52	IN/HR
Q =	1.49	CFS
Q_{TOTAL} =	4.02	CFS

LID TABULATION

TRIBUTARY AREA	BMP	SITE AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA PROVIDED (SF)*	MITIGATION VOLUME REQUIRED (CF)**	PEAK FLOW RATE REQUIRED (CFS)	TREATMENT RATE (CFS) = 1.5 X PEAK FLOW RATE REQUIRED
PROP-1	BIOFILTRATION TREATMENT SYSTEM (FILTERRA OR APPROVED EQUAL)	17,236	14,624	2,612	1,296	0.16	0.24
PROP-2		17,538	15,744	1,794	1,296	0.15	0.23
PROP-3		20,735	17,832	2,903	1,523	0.16	0.24

* PERVIOUS AREAS WERE ASSESSED BASED ON THE ARCHITECTURAL AND LANDSCAPE PLANS PROVIDED ON 12/13/2023.

** MITIGATED VOLUME REQUIRED IS COMPUTED ASSUMING 100% IMPERVIOUS FOR CONSERVATIVE, PRELIMINARY ANALYSIS

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY

Kimley»Horn
660 S. FIGUEROA STREET, SUITE 2050, LOS ANGELES, CA 90017
PHONE: 213-261-1490
WWW.KIMLEY-HORN.COM

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

KHA PROJECT			
DATE	12/27/2023		
SCALE	AS SHOWN	DESIGNED BY	KS
		DRAWN BY	KS
		CHECKED BY	DD

PROPOSED DRAINAGE AREA MAP

956 SEWARD
LOS ANGELES CA

SHEET NUMBER
2

FIGURE 4

Coastal Plain of Los Angeles Groundwater Basin Exhibit

FIGURE 4 - COSTAL PLAIN OF LOS ANGELES GROUNDWATER BASIN EXHIBIT

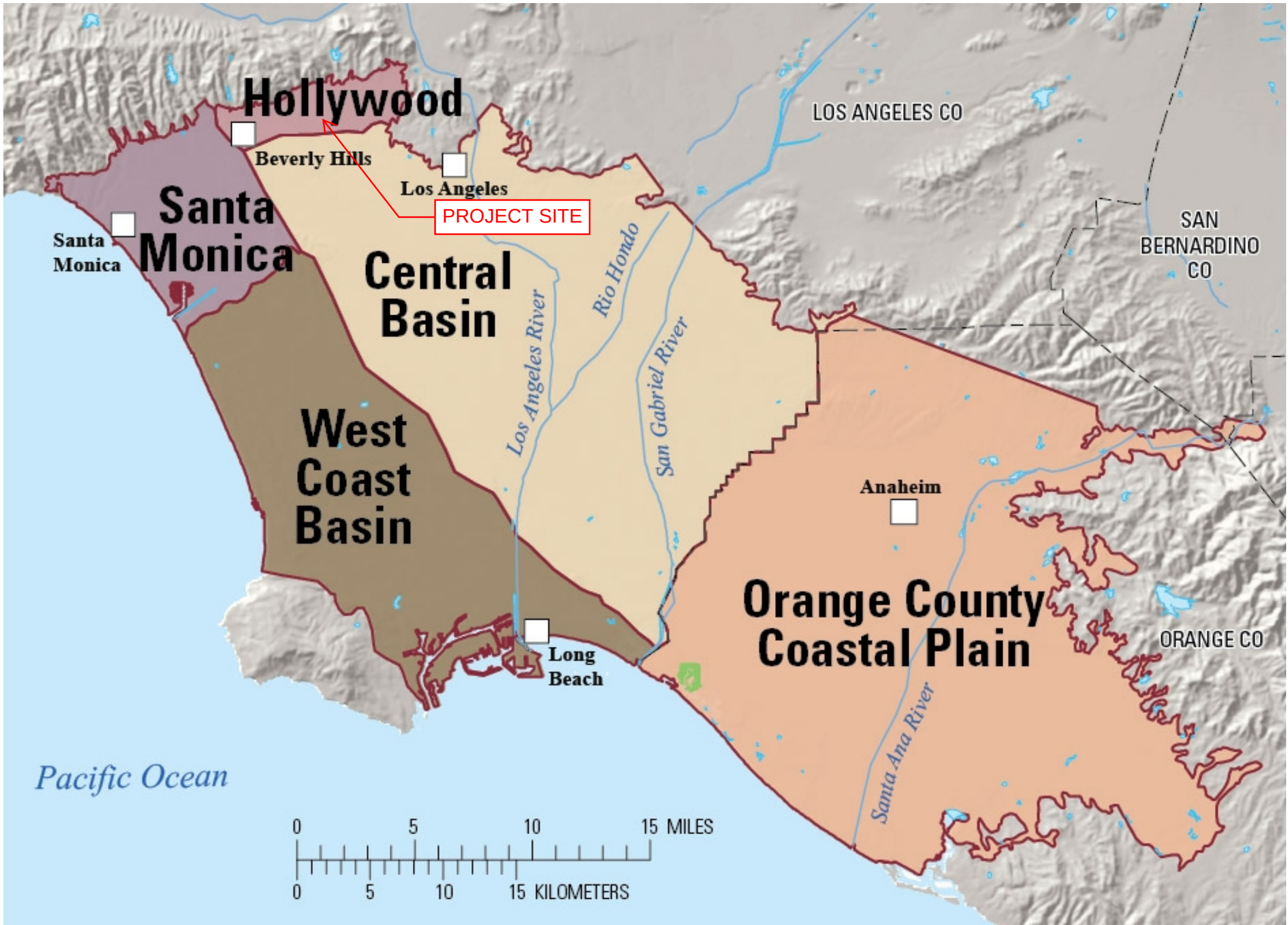
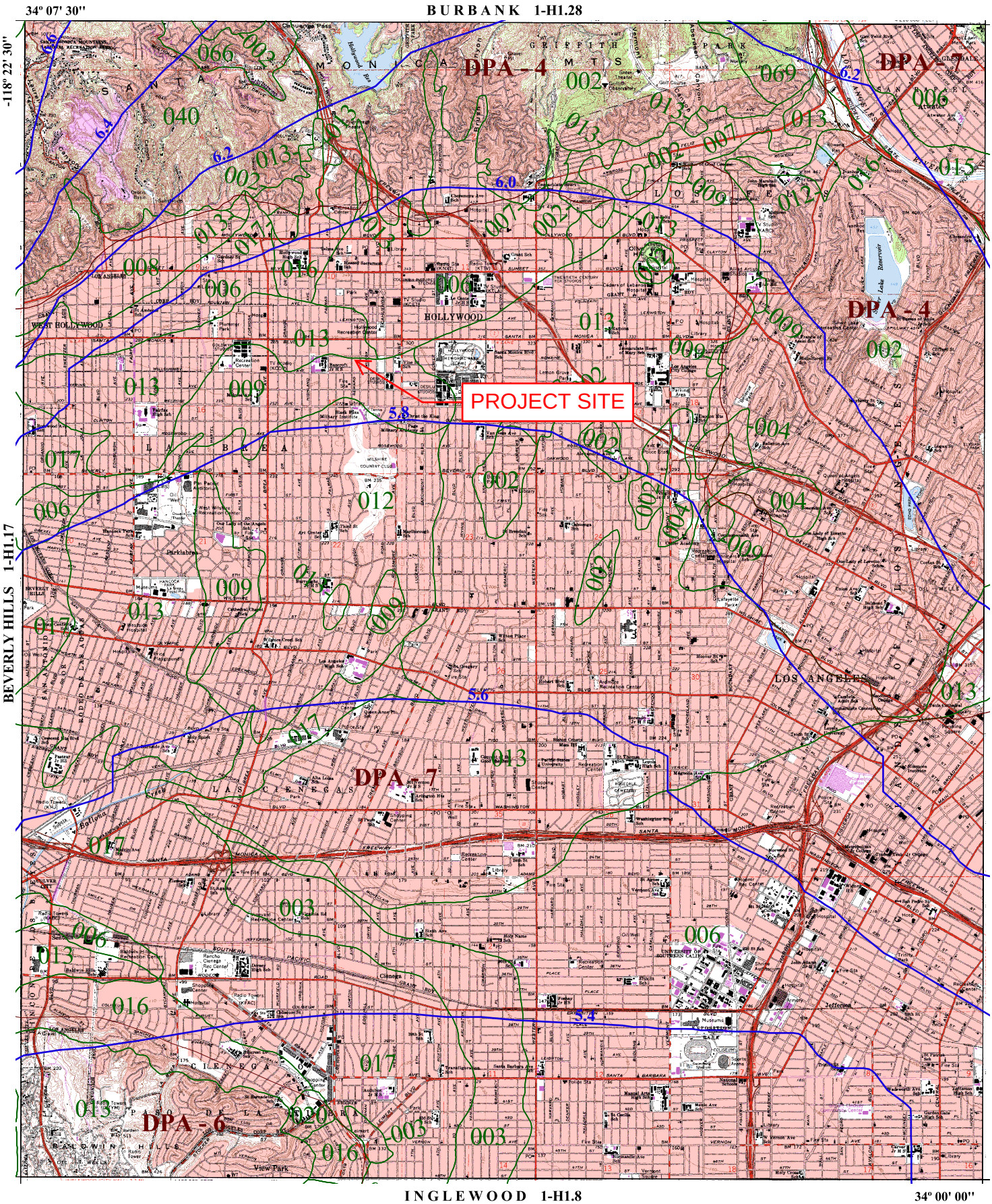


FIGURE 5

50-Year 24-Hour Isohyet Map



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

N W E S

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

HOLLYWOOD 1-H1.18
50-YEAR 24-HOUR ISOHYET

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

APPENDIX A

Preliminary Hydrology Calculations

Peak Flow Hydrologic Analysis

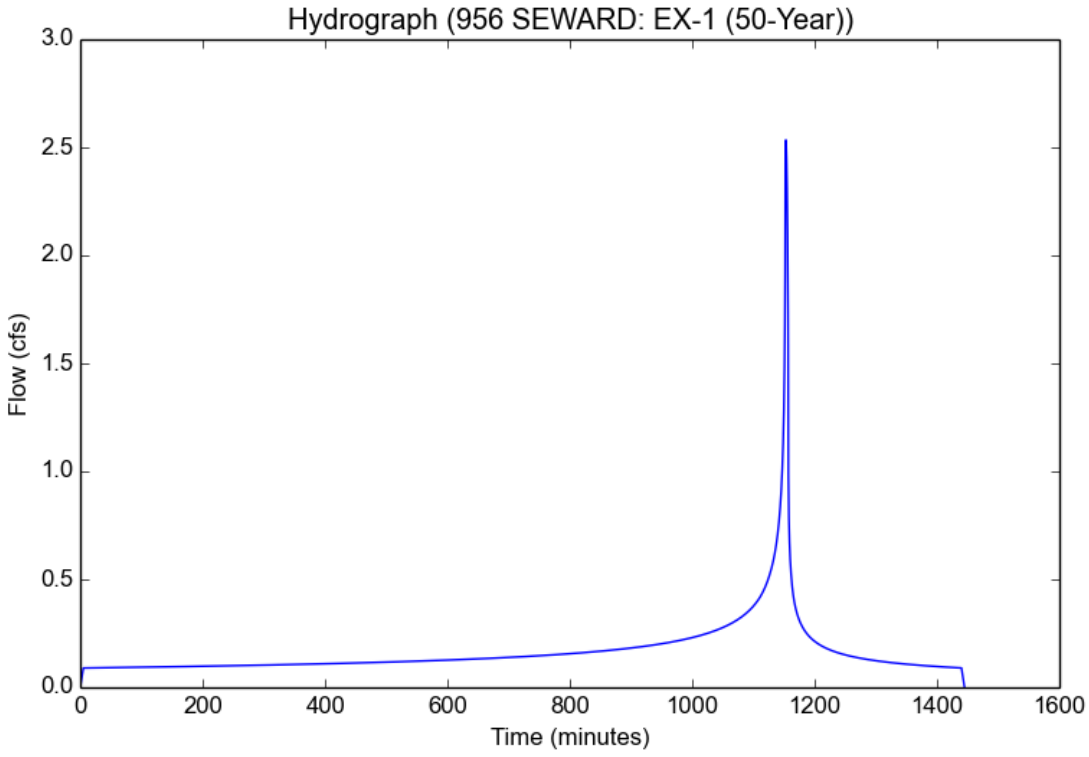
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - EX-1 (50-Year).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	EX-1 (50-Year)
Area (ac)	0.8
Flow Path Length (ft)	200.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.95
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.5345
Burned Peak Flow Rate (cfs)	2.5345
24-Hr Clear Runoff Volume (ac-ft)	0.3371
24-Hr Clear Runoff Volume (cu-ft)	14682.5759



Peak Flow Hydrologic Analysis

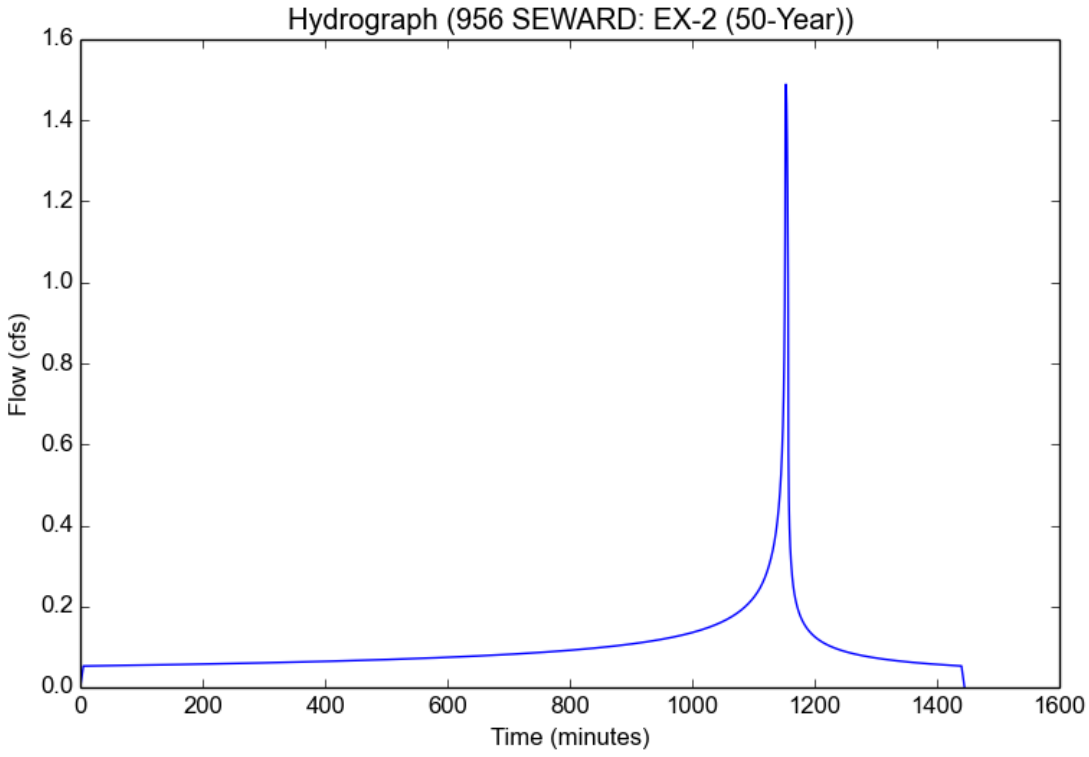
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - EX-2 (50-Year).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	EX-2 (50-Year)
Area (ac)	0.47
Flow Path Length (ft)	200.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	0.95
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.489
Burned Peak Flow Rate (cfs)	1.489
24-Hr Clear Runoff Volume (ac-ft)	0.198
24-Hr Clear Runoff Volume (cu-ft)	8626.0133



Peak Flow Hydrologic Analysis

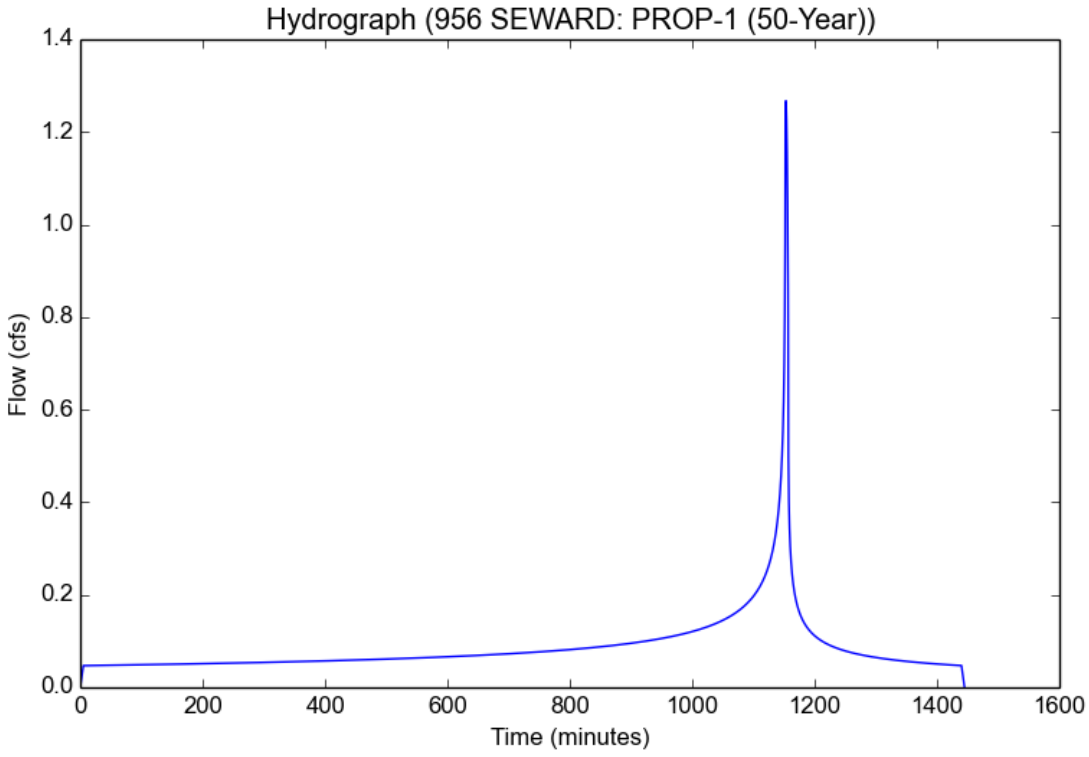
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-1 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-1 (50-Year)
Area (ac)	0.4
Flow Path Length (ft)	125.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.2672
Burned Peak Flow Rate (cfs)	1.2672
24-Hr Clear Runoff Volume (ac-ft)	0.1755
24-Hr Clear Runoff Volume (cu-ft)	7646.4024



Peak Flow Hydrologic Analysis

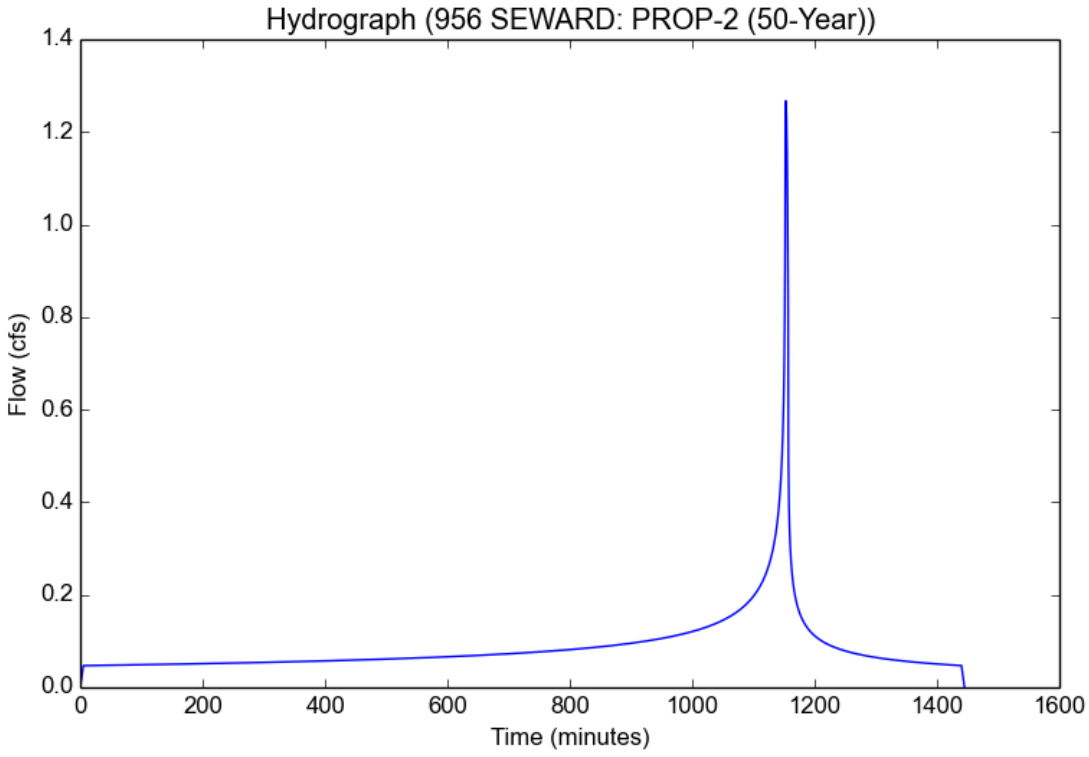
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-2 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-2 (50-Year)
Area (ac)	0.4
Flow Path Length (ft)	145.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.2672
Burned Peak Flow Rate (cfs)	1.2672
24-Hr Clear Runoff Volume (ac-ft)	0.1755
24-Hr Clear Runoff Volume (cu-ft)	7646.4024



Peak Flow Hydrologic Analysis

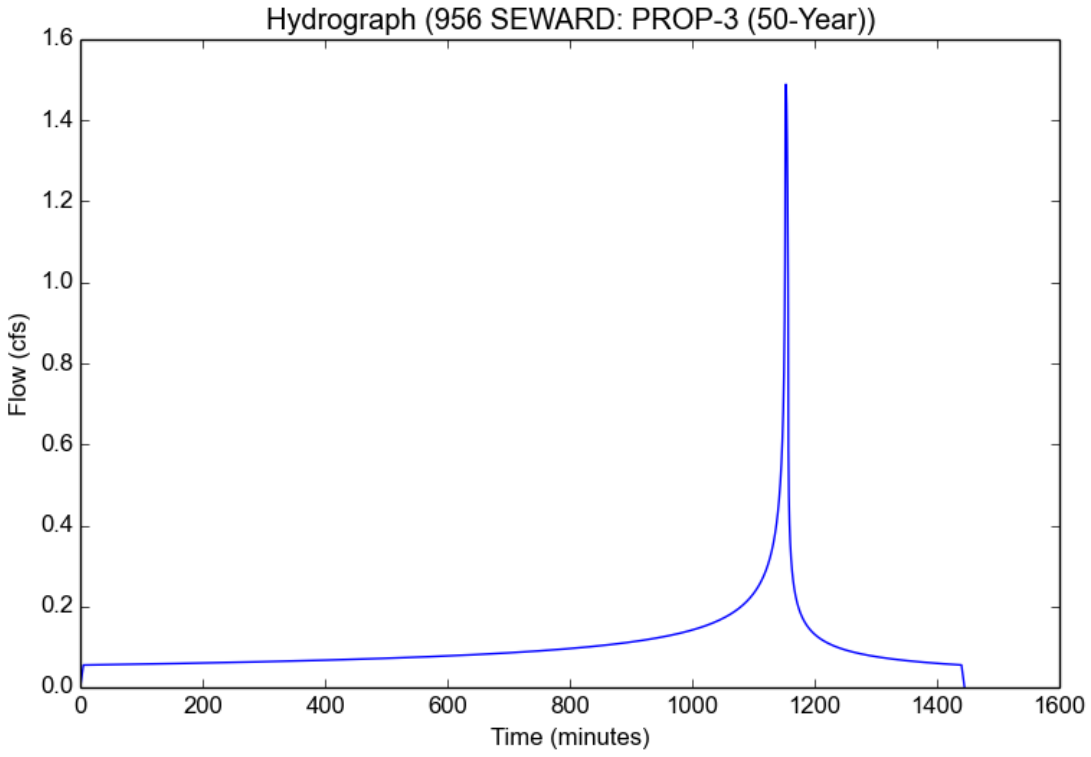
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-3 (50-Year)
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-3 (50-Year)
Area (ac)	0.47
Flow Path Length (ft)	225.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.9
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.9
Peak Intensity (in/hr)	3.5201
Undeveloped Runoff Coefficient (Cu)	0.9
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.489
Burned Peak Flow Rate (cfs)	1.489
24-Hr Clear Runoff Volume (ac-ft)	0.2063
24-Hr Clear Runoff Volume (cu-ft)	8984.5228



APPENDIX B

Preliminary Low Impact Development (LID) Calculations

Peak Flow Hydrologic Analysis

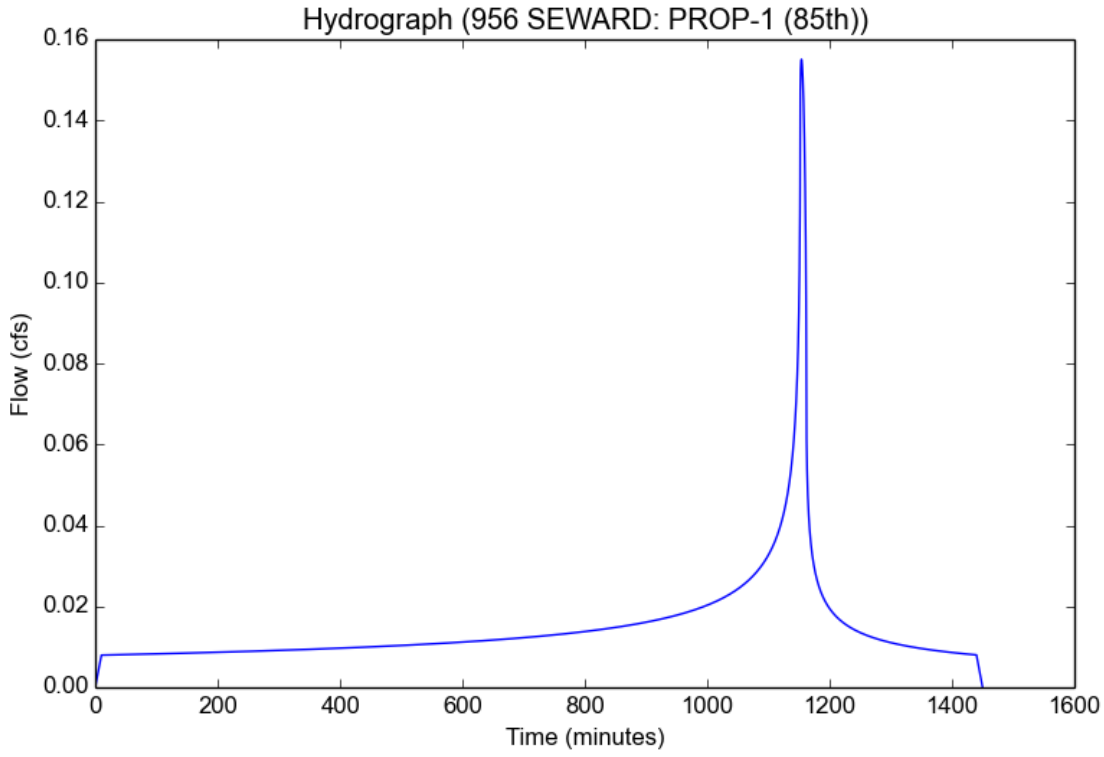
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-1 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-1 (85th)
Area (ac)	0.4
Flow Path Length (ft)	125.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.4307
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	10.0
Clear Peak Flow Rate (cfs)	0.1551
Burned Peak Flow Rate (cfs)	0.1551
24-Hr Clear Runoff Volume (ac-ft)	0.0298
24-Hr Clear Runoff Volume (cu-ft)	1296.0016



Peak Flow Hydrologic Analysis

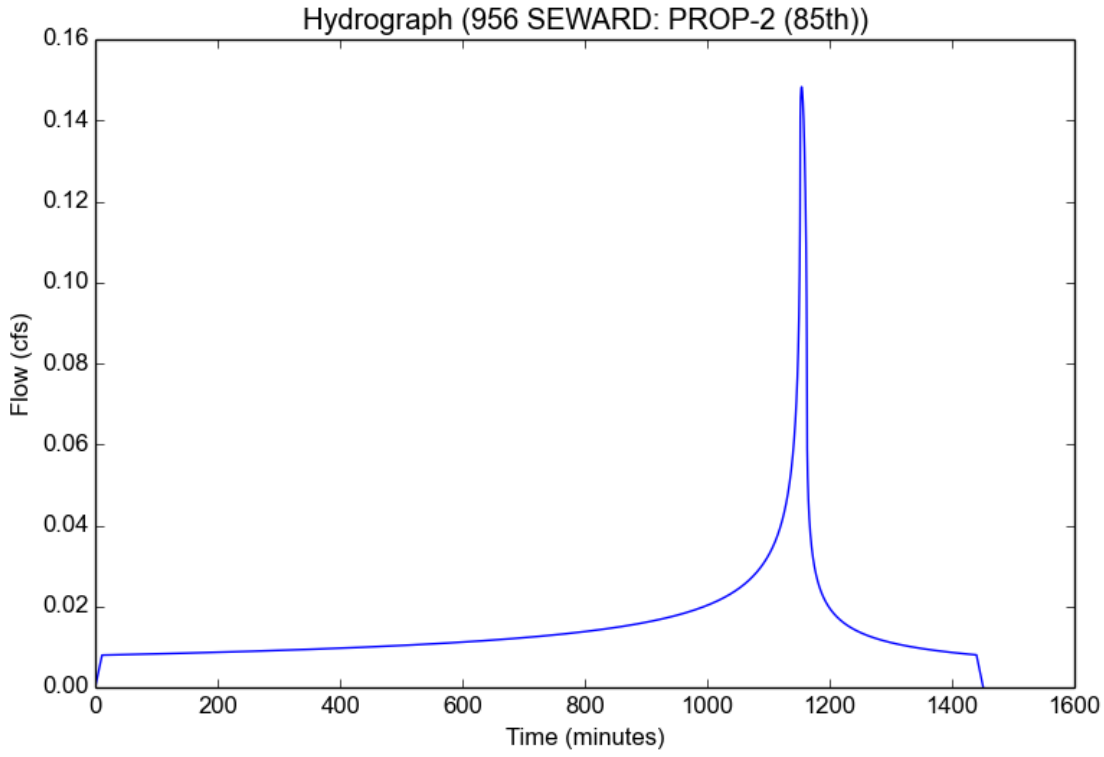
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-2 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-2 (85th)
Area (ac)	0.4
Flow Path Length (ft)	145.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.4119
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	11.0
Clear Peak Flow Rate (cfs)	0.1483
Burned Peak Flow Rate (cfs)	0.1483
24-Hr Clear Runoff Volume (ac-ft)	0.0298
24-Hr Clear Runoff Volume (cu-ft)	1296.002



Peak Flow Hydrologic Analysis

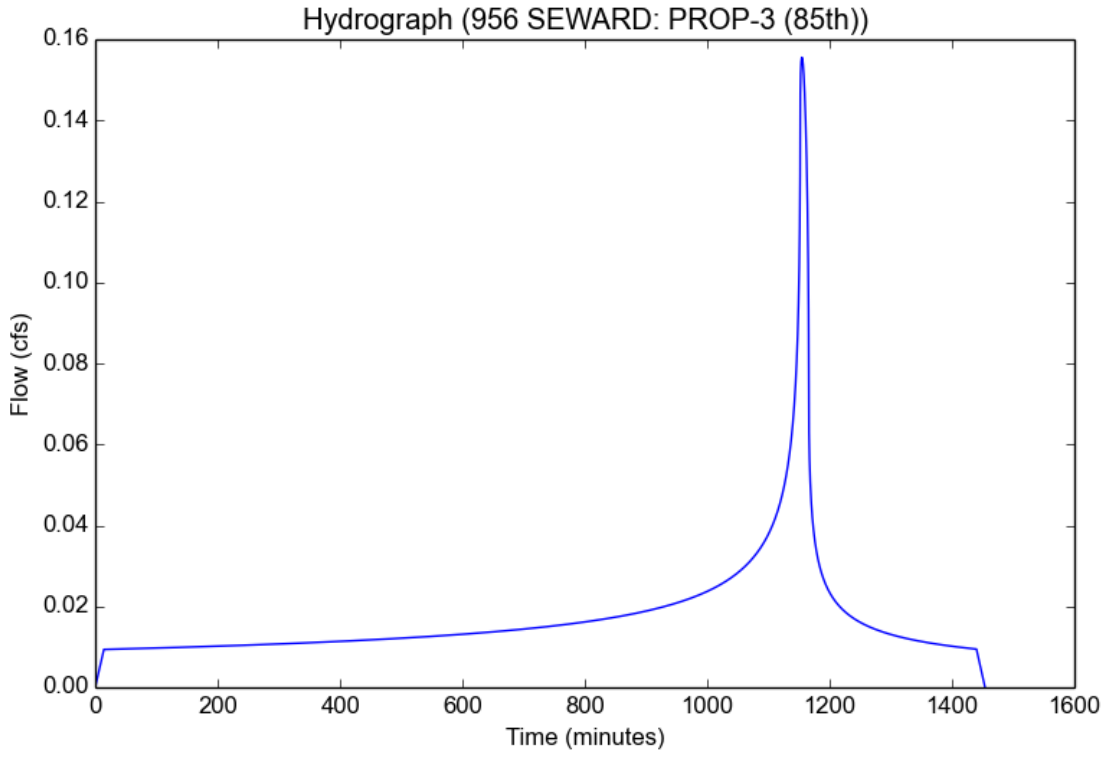
File location: K:/LDT_PLAN/099975001 Seward Storage Facilty/Working Files/Civil/Hydrology/Calculations/HydroCalc/956 SEWARD - PROP-3 (85th).pd
Version: HydroCalc 1.0.3

Input Parameters

Project Name	956 SEWARD
Subarea ID	PROP-3 (85th)
Area (ac)	0.47
Flow Path Length (ft)	225.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	1.0
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.3677
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.9
Time of Concentration (min)	14.0
Clear Peak Flow Rate (cfs)	0.1556
Burned Peak Flow Rate (cfs)	0.1556
24-Hr Clear Runoff Volume (ac-ft)	0.035
24-Hr Clear Runoff Volume (cu-ft)	1522.8038



CAPTURE AND USE FEASIBILITY CALCULATION

Note: Red values are inputs.
Black values are automatically calculated.
Green values are outputs.

V_{design} (CF) =	4115	CF	*(Hydrocalc 24-Hr Clear Runoff Volume)*
$A_{pervious}$ (SF) =	7309	SF	
Planting Factor =	0.25		*(ETAF per Irrigation Plans see MAWA / ETWU table L3.00)*

i. Design Volume, V_{design}

V_{design} (CF) =	4115	CF
V_{design} (gal) =	30780	gal

ii. Pervious Area, $A_{pervious}$

$A_{pervious}$ (SF) =	7309	SF

iii. Planter Factor, PF

Planting Factor =	0.25	
PF (SF) =	1827	SF

iv. $ETWU_{(7\text{-month})}$

$ETWU_{(7\text{-month})}$ (gal)=	24584	gal

v. Feasibility

$ETWU_{(7\text{-month})}$ =	24584	<	V_{design} =	30780	**, therefore** **infeasible**

APPENDIX C

Architectural Plans

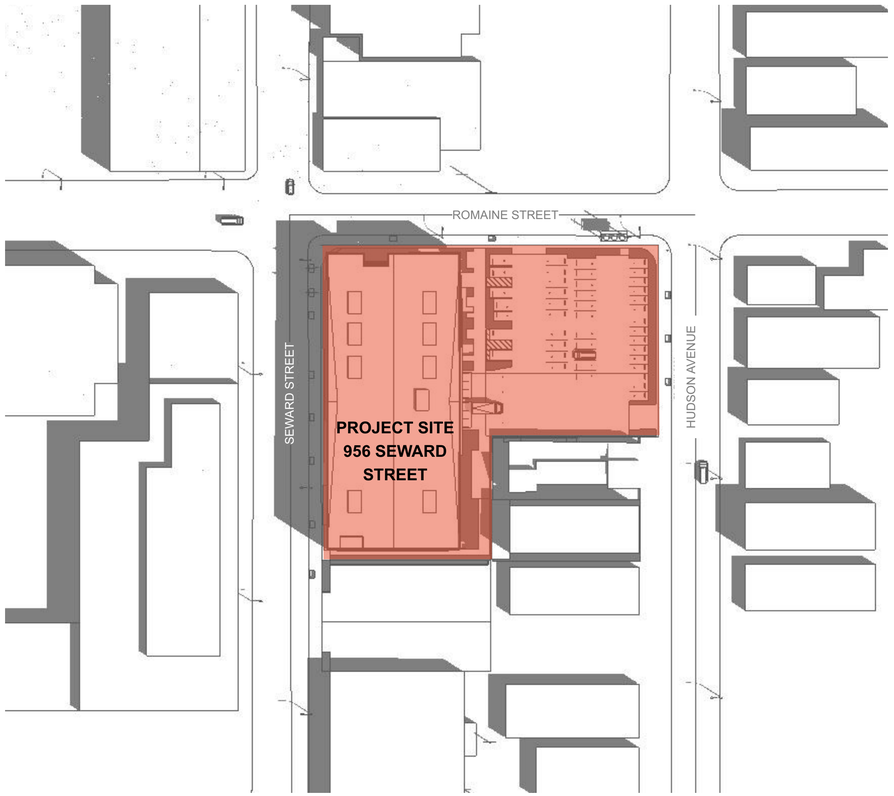
Michael W. Folonis Architects

Nolan Borden
Baranof Holdings
2850 N Harwood Street, Suite 1000
Dallas TX 75201
T (949) 279-8296

956 SEWARD - SELF-STORAGE

DEPARTMENT OF CITY PLANNING APPLICATION (DCPA)

Wednesday, December 13, 2023

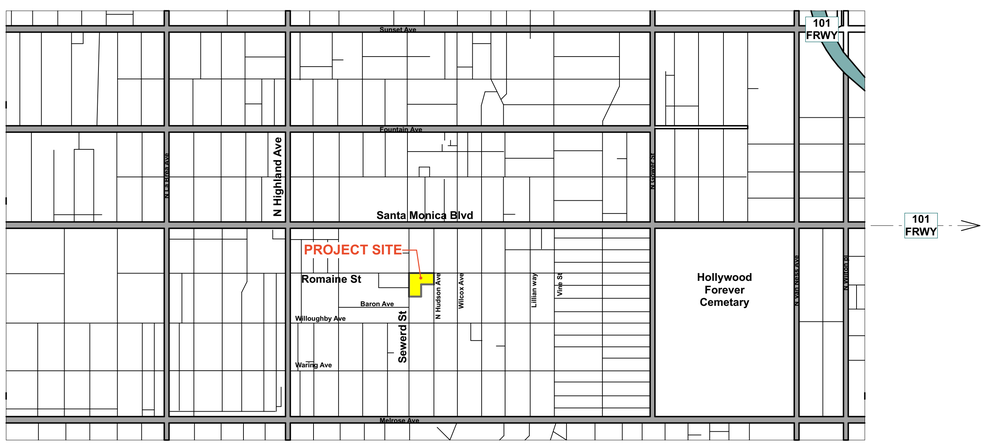


SITE MAP

NOT TO SCALE

TRUE NORTH

PROJECT NORTH



VICINITY MAP

NOT TO SCALE

ZONING INFORMATION

ADDRESS	936-962 North Seward Street; 949-959 North Hudson Avenue, LOS ANGELES CA 90038
APN	5533-023-001, -002, -003, -017, -018, and -026
PROJECT DESCRIPTION	7 STORY SELF-STORAGE AND FILM/
ZONE - EXISTING	MR-1-1, R3-1
ZONE - PROPOSED	(Q)M1-2D
OCCUPANCY TYPE	B, S-1
BUILDING TYPE	TYPE I
BUILDING HEIGHT	ALLOWED: 75' PROPOSED: 75'
EXISTING USE	COMMERCIAL BUILDING: STORAGE
PROPOSED USE	COMMERCIAL BUILDING: SELF-STORAGE FACILITY (INCLUDES .7 FAR MIN. FOR MEDIA/FILM)

SITE PARAMETERS

	ALLOWABLE	PROPOSED	
LOT SIZE (SQ FT)	-	56,254	
F.A.R.	3.00	2.99	
NUMBER OF STORIES	7	7	
HEIGHT (FT)	75	75.0	
ALLOWABLE AREA SQ FT	168,762	**168,478**	284 BELOW FAR

PROGRAM INFORMATION

BUILDING USE		AREA AVG.	FAR		
		SF			
1ST FLR: LEASING		1,100	0.020		
1ST FLR: SELF-STORAGE		21,393	0.380		
2ND FLR: SELF-STORAGE		22,959	0.408		
3RD FLR: SELF-STORAGE		24,662	0.438		
4TH FLR: SELF-STORAGE		24,567	0.437		
5TH FLR: SELF-STORAGE		24,567	0.437		
6TH FLR: SELF-STORAGE		9,720	0.173		
6TH FLR: COMMERCIAL STORAGE - MEDIA/FILM		14,848	0.264	0.70	MIN. = 0.7
7TH FLR: COMMERCIAL STORAGE - MEDIA/FILM		24,662	0.438		
		-	0.000		
COMMERCIAL TOTAL		**168,478**	**2.995**		

PARKING INFORMATION

AUTOMOBILE PARKING - REQUIRED					BICYCLE PARKING - REQUIRED		
REQUIRED					REQUIRED		
BUILDING USE	UNIT TOTAL/SF	PER SF	REQUIRED	PROPOSED	SHORT TERM	LONG TERM	TOTAL
STORAGE- First 10,000 S.F.	10,000	1/500 0.002	20	20	17	17	34
STORAGE- Remainder	158,478	1/5,000 0.0002	32	22			
Five Spaces per Covenant			5	5			
			57	**47**	**17**	**17**	**34**

AUTOMOBILE PARKING:

- Required = 57 spaces (52 required by code and 5 required per off-site parking covenant)
- Bicycle parking reduction = 10 spaces (1 auto space/4 bike spaces = 40 bike spaces)
- Provided = 47 spaces

BICYCLE PARKING:

Required = 34 spaces

Provided = 40 spaces

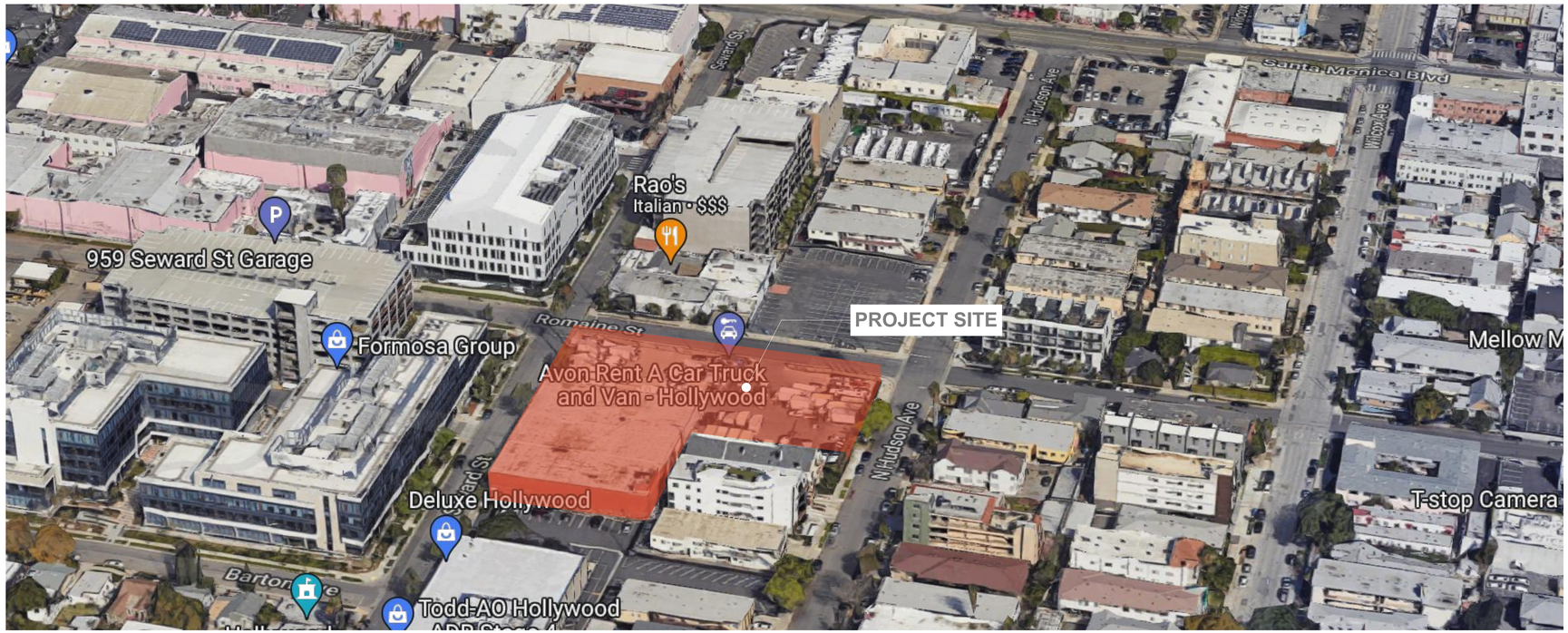
VEHICLE SPACES	TOTAL
ACCESSIBLE	2
REGULAR	18
COMPACT	17 (37%)
VANPOOL/CARPOOL	2
TRUCK SPACES	4
SUB TOTAL	43 spaces
EVSE SPACES	4
TOTAL SPACES	47 SPACES

SHEET INDEX

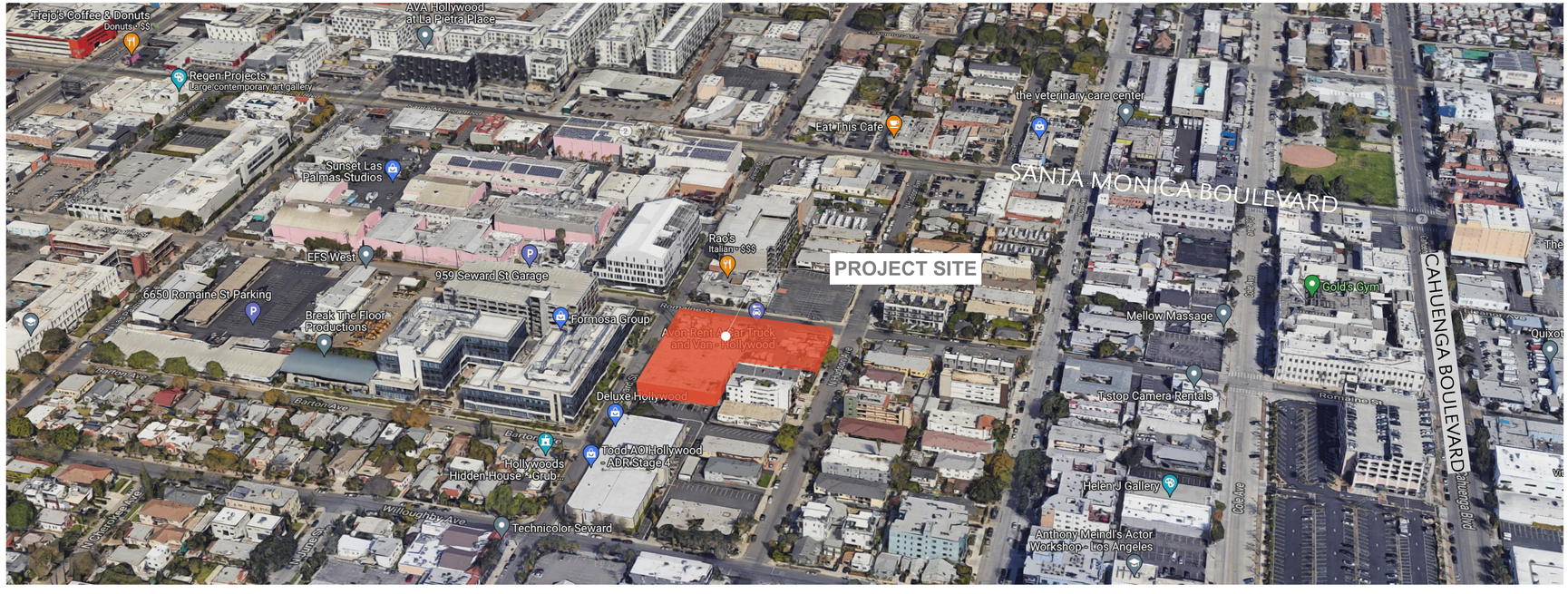
LANDSCAPE INDEX

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296



SITE AERIAL MAP



HOLLYWOOD AERIAL MAP

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

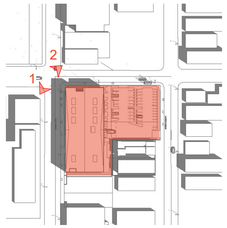
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

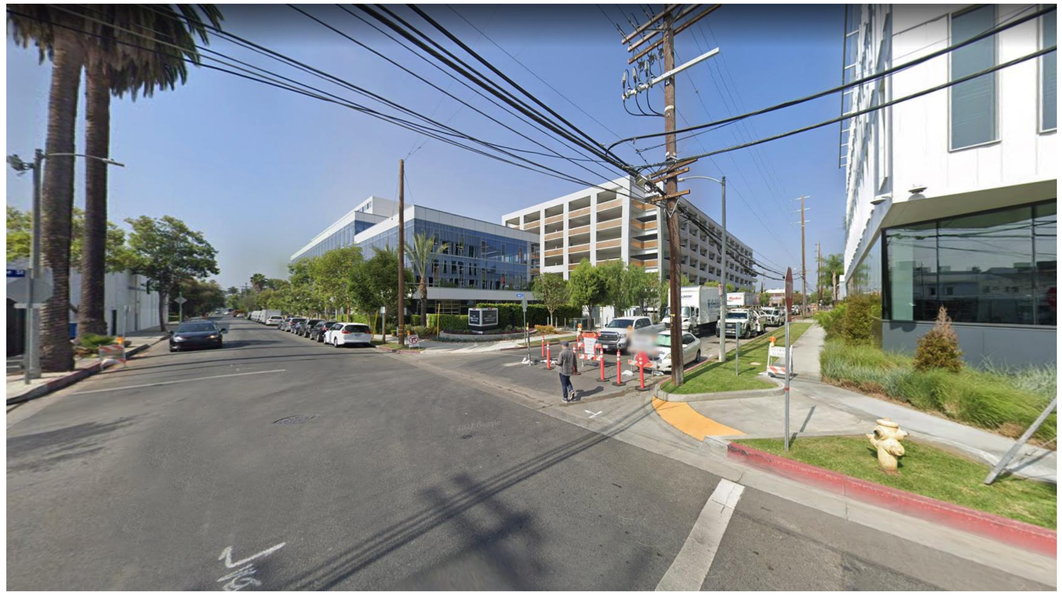
EXISTING SITE AERIALS

A-02

Wednesday, December 13, 2023

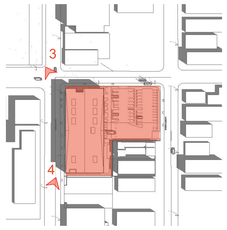


KEY MAP



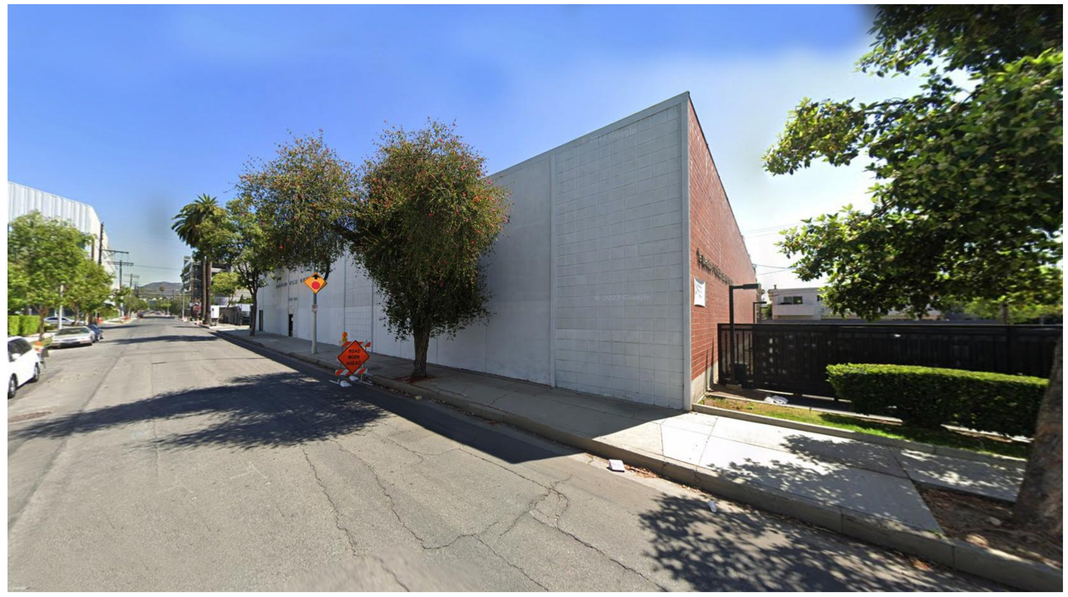
VIEW 1 - ADJACENT PROPERTIES - ROMAINE ST. & SEWARD ST.

VIEW 2 - ADJACENT PROPERTIES - ROMAINE ST. & SEWARD ST.



KEY MAP

VIEW 3 - ADJACENT PROPERTIES - ROMAINE ST. & SEWARD ST.



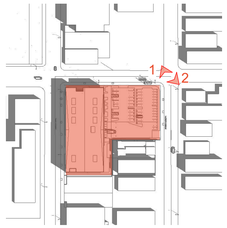
VIEW 4 - PROJECT SITE - SEWARD ST.

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

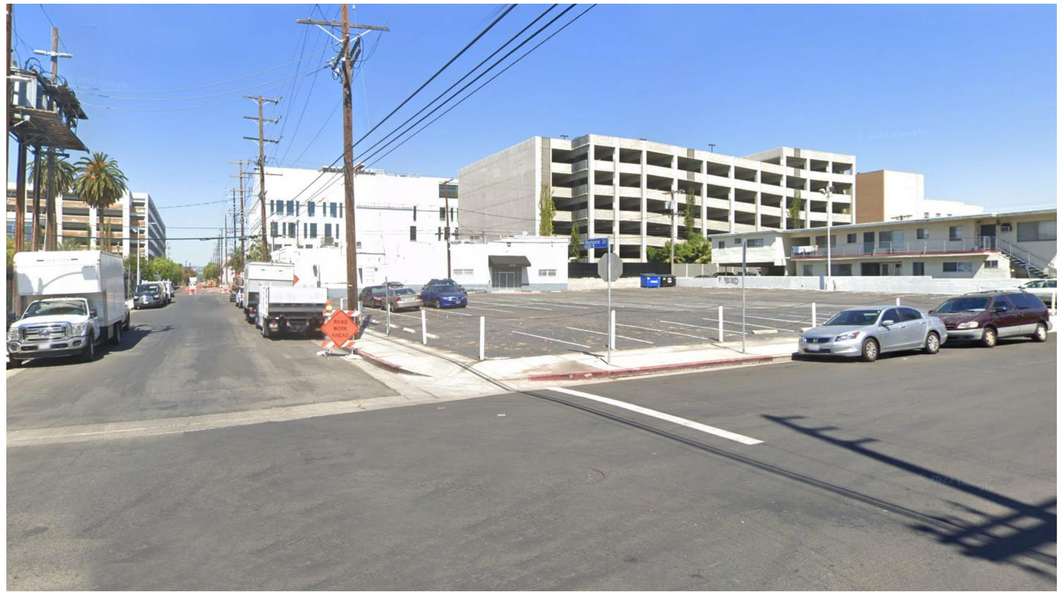
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

EXISTING SITE IMAGES

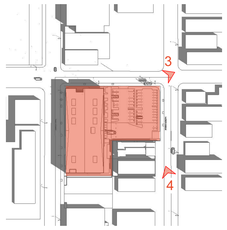


KEY MAP

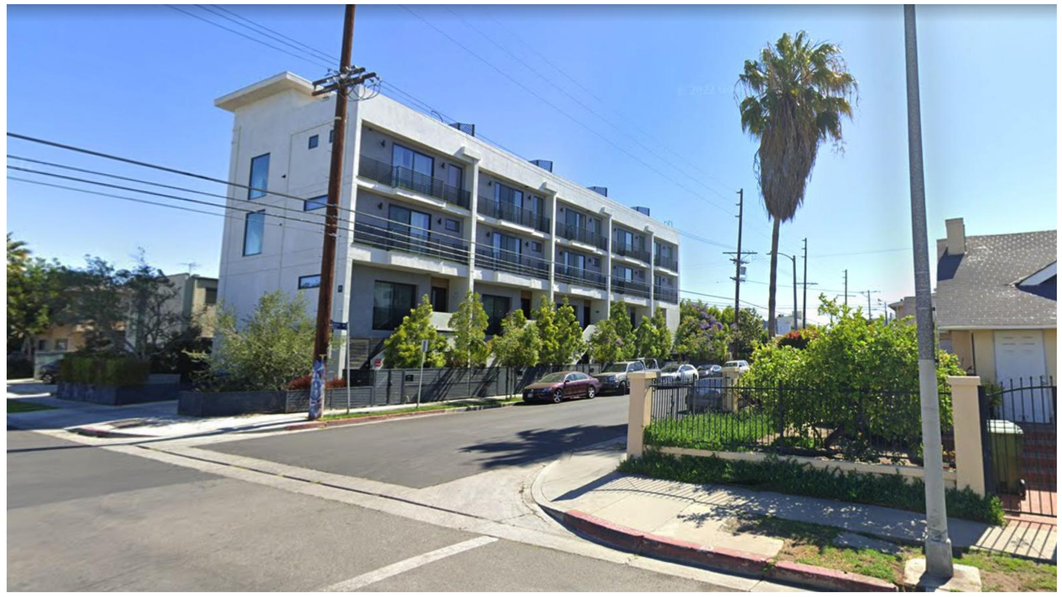


VIEW 1 - ADJACENT PROPERTIES - ROMAINE ST. & N HUDSON AVE.

VIEW 2 - ADJACENT PROPERTIES - ROMAINE ST. & N HUDSON AVE.



KEY MAP

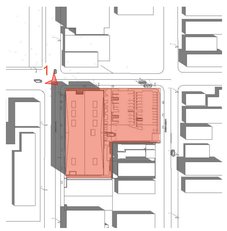


VIEW 3 - ADJACENT PROPERTIES - ROMAINE ST. & N HUDSON AVE.

VIEW 4 - PROJECT SITE - N HUDSON AVE.

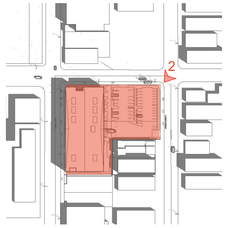
MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296



KEY MAP

VIEW 1 - PROJECT SITE - ROMAINE ST. & SEWARD ST.

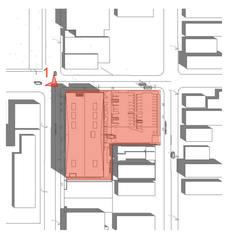


KEY MAP

VIEW 2 - PROJECT SITE - ROMAINE ST. & N HUDSON AVE.

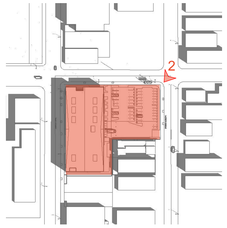
MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296



KEY MAP

VIEW 1 - PROPOSED PROJECT SITE - ROMAINE ST. & SEWARD ST.



KEY MAP

VIEW 2 - PROPOSED PROJECT SITE - ROMAINE ST. & N HUDSON AVE.

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

RENDER 01 - ROMAINE ST

A-07

Wednesday, December 13, 2023

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

RENDER 02 - MAIN ENTRY

A-08

Wednesday, December 13, 2023

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

RENDER 03 - AERIAL @ CORNER

A-09

Wednesday, December 13, 2023

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

RENDER 04- SEWARD ST.

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

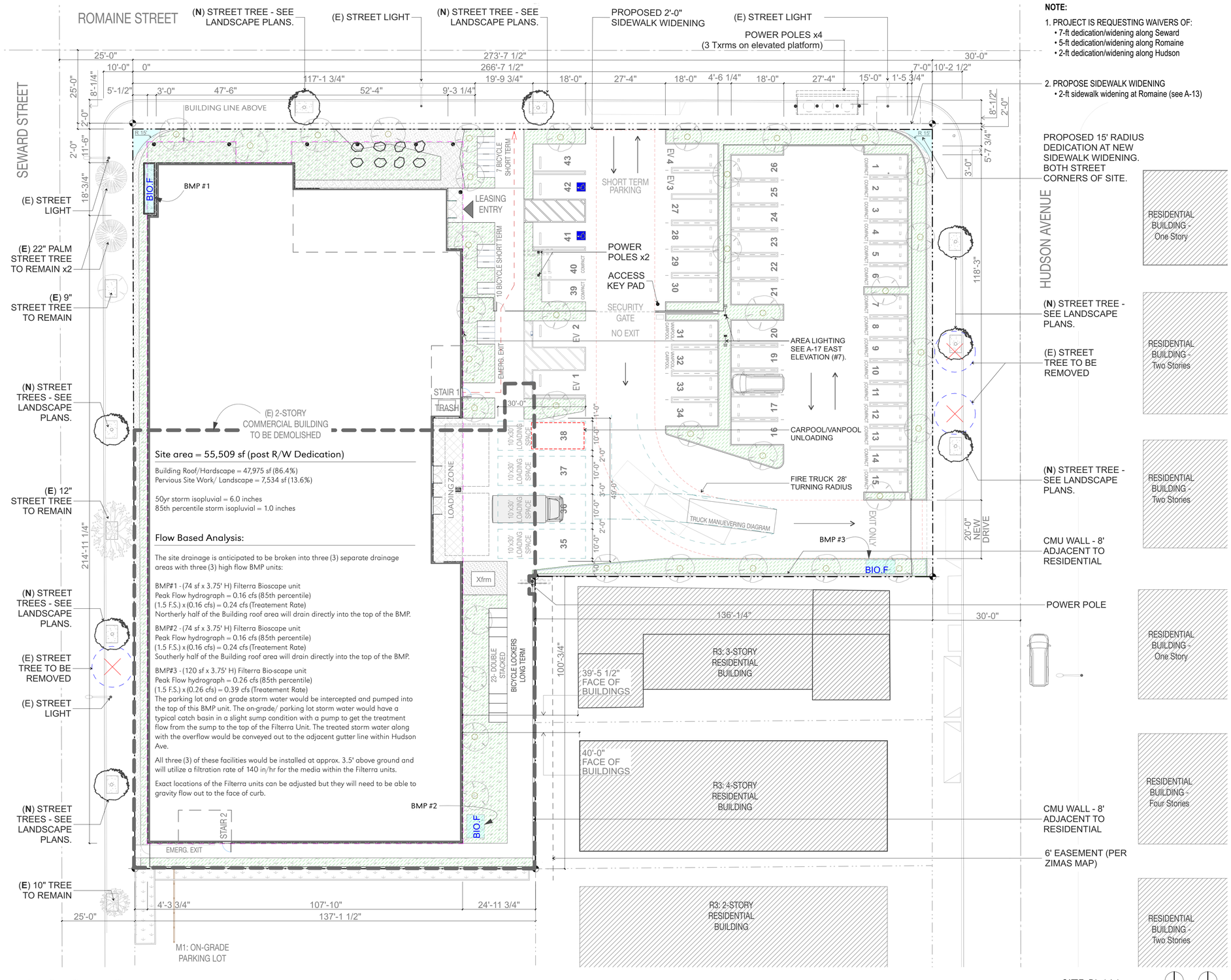
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

RENDER 05 - NORTH ELEVATION

A-11

Wednesday, December 13, 2023



NOTE:

1. PROJECT IS REQUESTING WAIVERS OF:
   - 7-ft dedication/widening along Seward
   - 5-ft dedication/widening along Romaine
   - 2-ft dedication/widening along Hudson
2. PROPOSE SIDEWALK WIDENING
   - 2-ft sidewalk widening at Romaine (see A-13)

SITE PLAN
1/16" = 1'-0"

TRUE NORTH | PROJECT NORTH

SITE ADDRESS:

936-962 North Seward Street; 949-959 North Hudson Avenue

LEGAL DESCRIPTION:

Lots 1 to 3 and 14 to 18 , Block D of Strong and Dickenson's South Hollywood No.1. Tract

LOT APN:

5533-023-001, -002, -003, -017, -018, and -026

ZONING INFORMATION

ADDRESS	936-962 North Seward Street; 949-959 North Hudson Avenue, LOS ANGELES CA 90038
APN	5533-023-001, -002, -003, -017, -018, and -026
PROJECT DESCRIPTION	7 STORY SELF-STORAGE AND FILM/
ZONE - EXISTING	MR-1-1, R3-1
ZONE - PROPOSED	(Q)M1-2D
OCCUPANCY TYPE	B, S-1
BUILDING TYPE	TYPE I
BUILDING HEIGHT	ALLOWED: 75' PROPOSED: 75'
EXISTING USE	COMMERCIAL BUILDING: STORAGE
PROPOSED USE	COMMERCIAL BUILDING: SELF-STORAGE FACILITY (INCLUDES .7 FAR MIN. FOR MEDIA/FILM)

SITE PARAMETERS

	ALLOWABLE	PROPOSED	
LOT SIZE (SQ FT)	-	56,254	
F.A.R.	3.00	2.99	
NUMBER OF STORIES	7	7	
HEIGHT (FT)	75	75.0	
ALLOWABLE AREA SQ FT	168,762	**168,478**	284 BELOW FAR

PROGRAM INFORMATION

BUILDING USE	AREA AVG. SF	FAR		
1ST FLR: LEASING	1,100	0.020		
1ST FLR: SELF-STORAGE	21,393	0.380		
2ND FLR: SELF-STORAGE	22,959	0.408		
3RD FLR: SELF-STORAGE	24,662	0.438		
4TH FLR: SELF-STORAGE	24,567	0.437		
5TH FLR: SELF-STORAGE	24,567	0.437		
6TH FLR: SELF-STORAGE	9,720	0.173		
6TH FLR: COMMERCIAL STORAGE - MEDIA/FILM	14,848	0.264	0.70	MIN. = 0.7
7TH FLR: COMMERCIAL STORAGE - MEDIA/FILM	24,662	0.438		
	-	0.000		
COMMERCIAL TOTAL	**168,478**	**2.995**		

PARKING INFORMATION

AUTOMOBILE PARKING - REQUIRED				
	REQUIRED			
BUILDING USE	UNIT TOTAL/SF	PER SF	REQUIRED	PROPOSED
STORAGE- First 10,000 S.F.	10,000	1/500 0.002	20	20
STORAGE- Remainder	158,478	1/5,000 0.0002	32	22
Five Spaces per Convenant			5	5
			57	**47**

BICYCLE PARKING - REQUIRED		
REQUIRED		
SHORT TERM	LONG TERM	TOTAL
17	17	34
17	**17**	**34**

AUTOMOBILE PARKING:

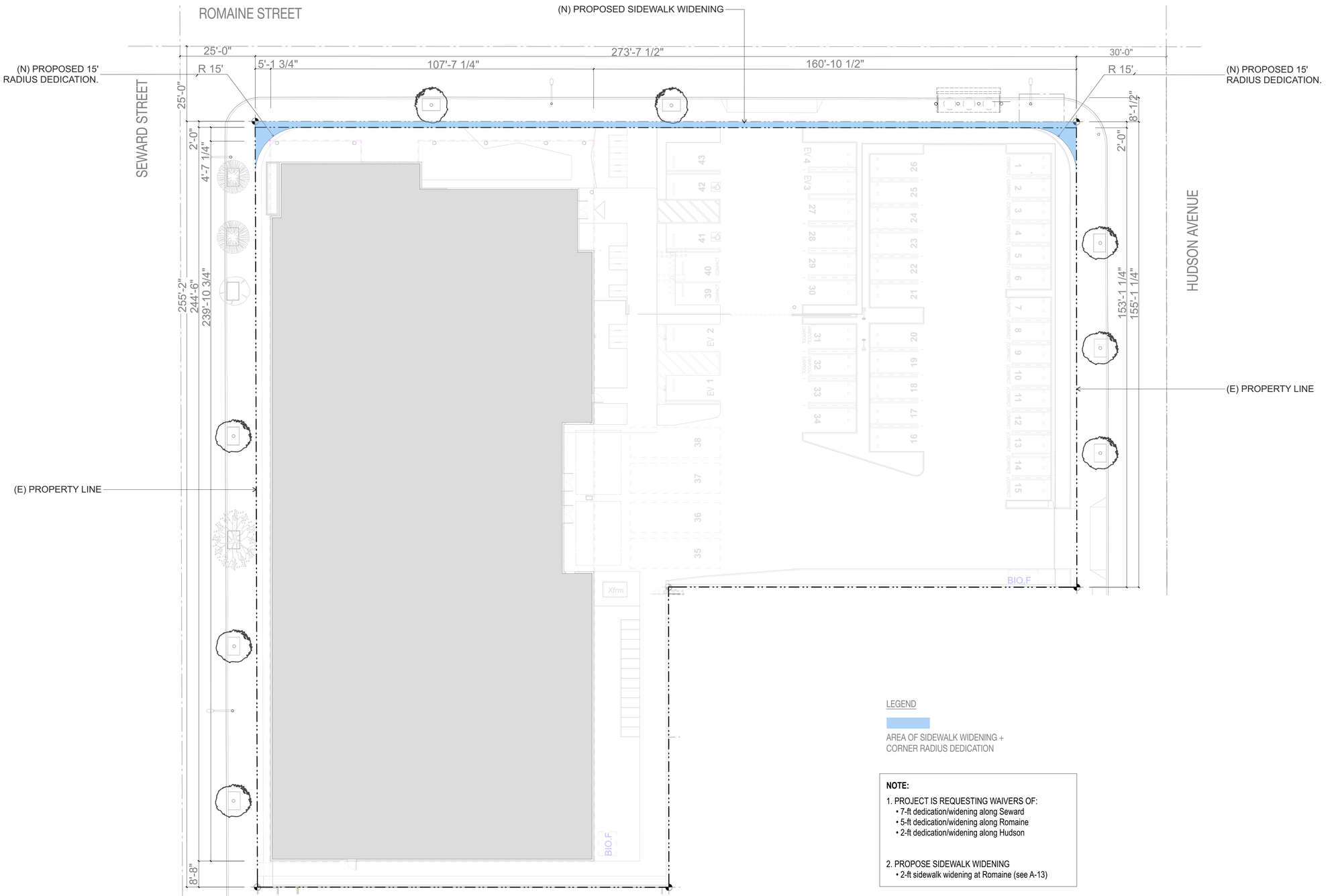
- Required = 57 spaces (52 required by code and 5 required per off-site parking covenant)
- Bicycle parking reduction = 10 spaces (1 auto space/4 bike spaces = 40 bike spaces)
- Provided = 47 spaces

BICYCLE PARKING:

Required = 34 spaces
Provided = 40 spaces

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296



LEGEND

AREA OF SIDEWALK WIDENING + CORNER RADIUS DEDICATION

NOTE:

1. PROJECT IS REQUESTING WAIVERS OF:
   - 7-ft dedication/widening along Seward
   - 5-ft dedication/widening along Romaine
   - 2-ft dedication/widening along Hudson

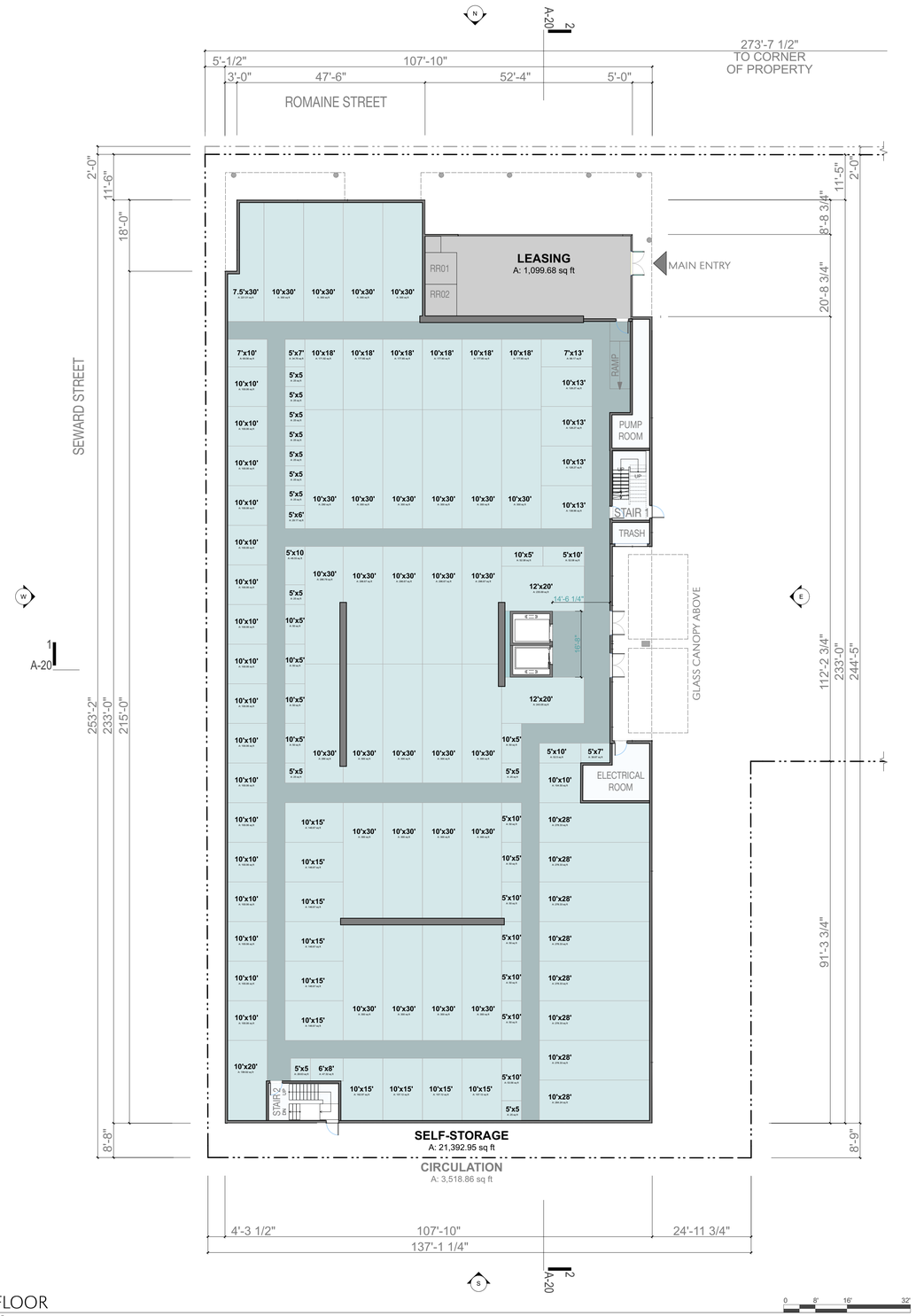
2. PROPOSE SIDEWALK WIDENING
   - 2-ft sidewalk widening at Romaine (see A-13)

SITE PLAN - SIDEWALK DEDICATION
1/16" = 1'-0"

TRUE NORTH | PROJECT NORTH

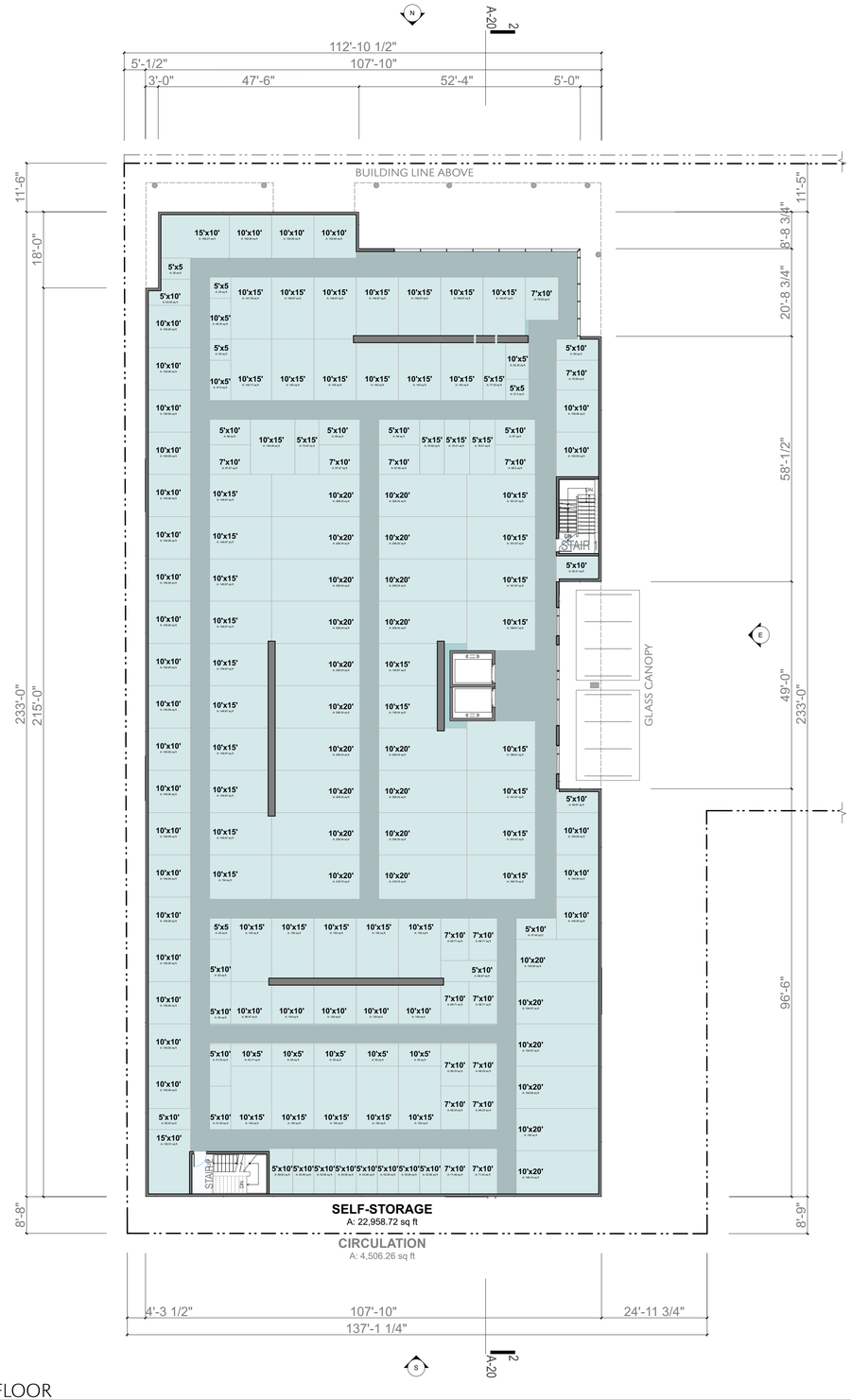
MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296



FIRST FLOOR

1/16" = 1'-0"



SECOND FLOOR

1/16" = 1'-0"

0 8' 16' 32'

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

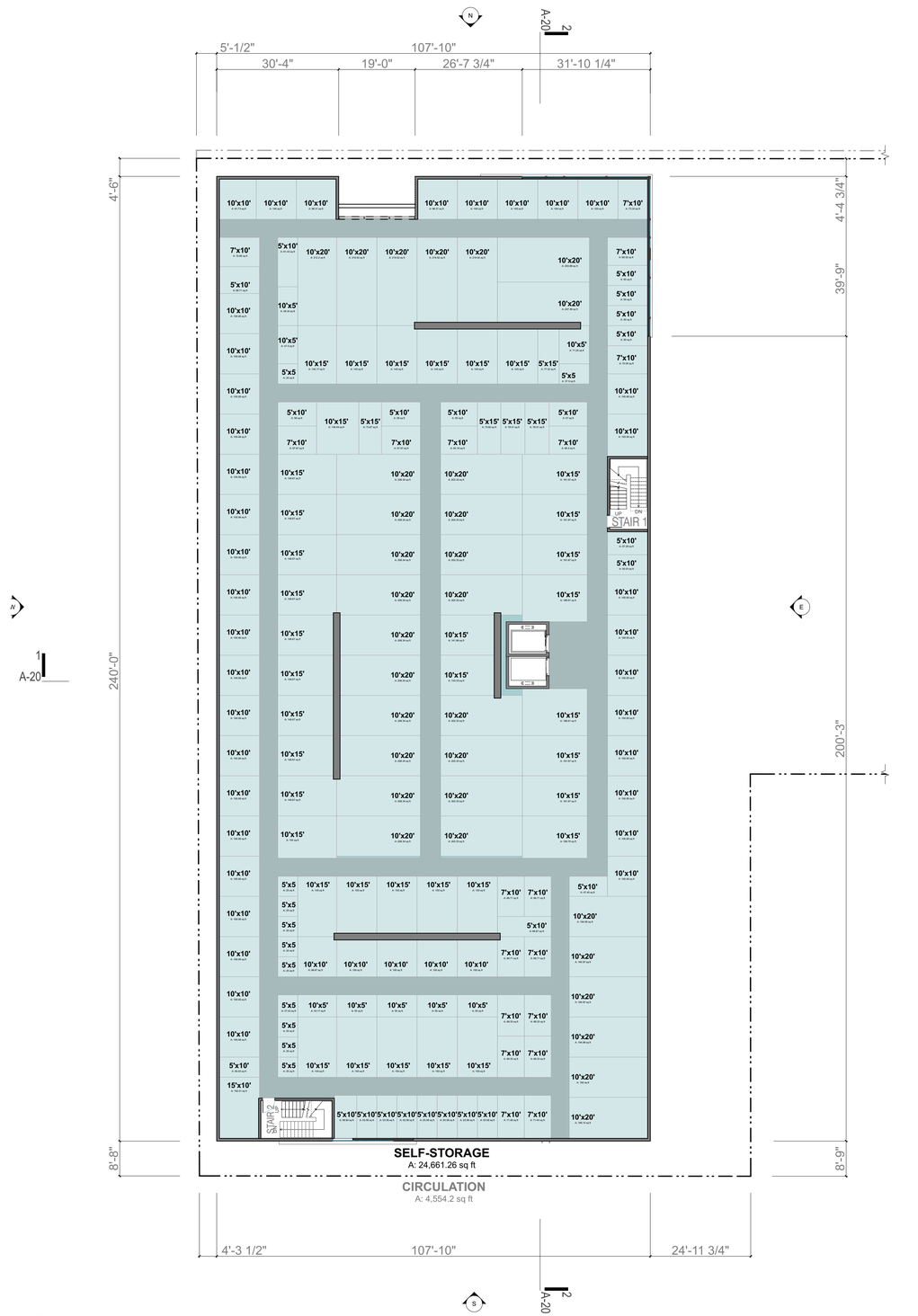
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

FIRST+SECOND FLOOR PLANS

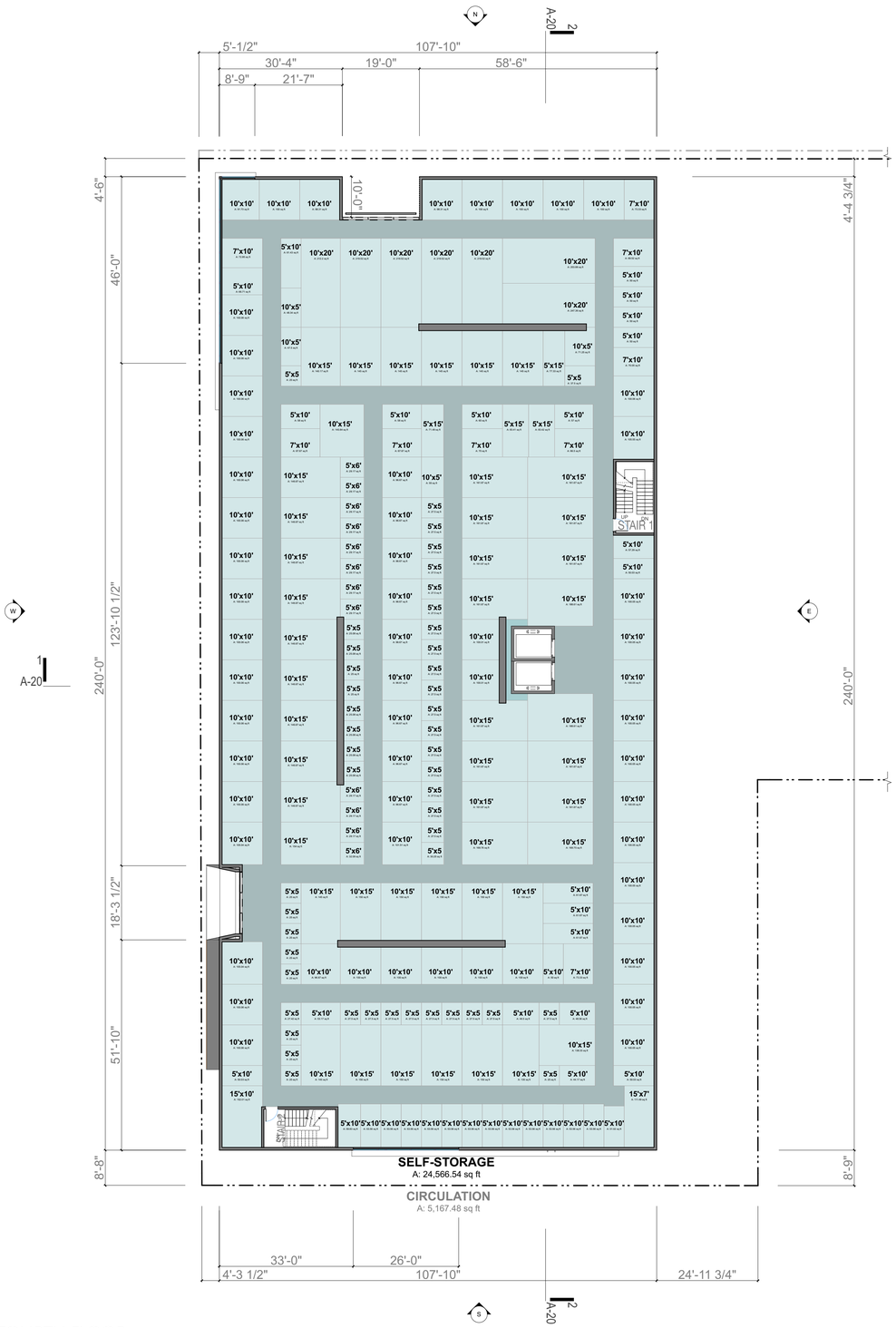
A-14

Wednesday, December 13, 2023



THIRD FLOOR

1/16" = 1'-0"



FOURTH FLOOR

1/16" = 1'-0"

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

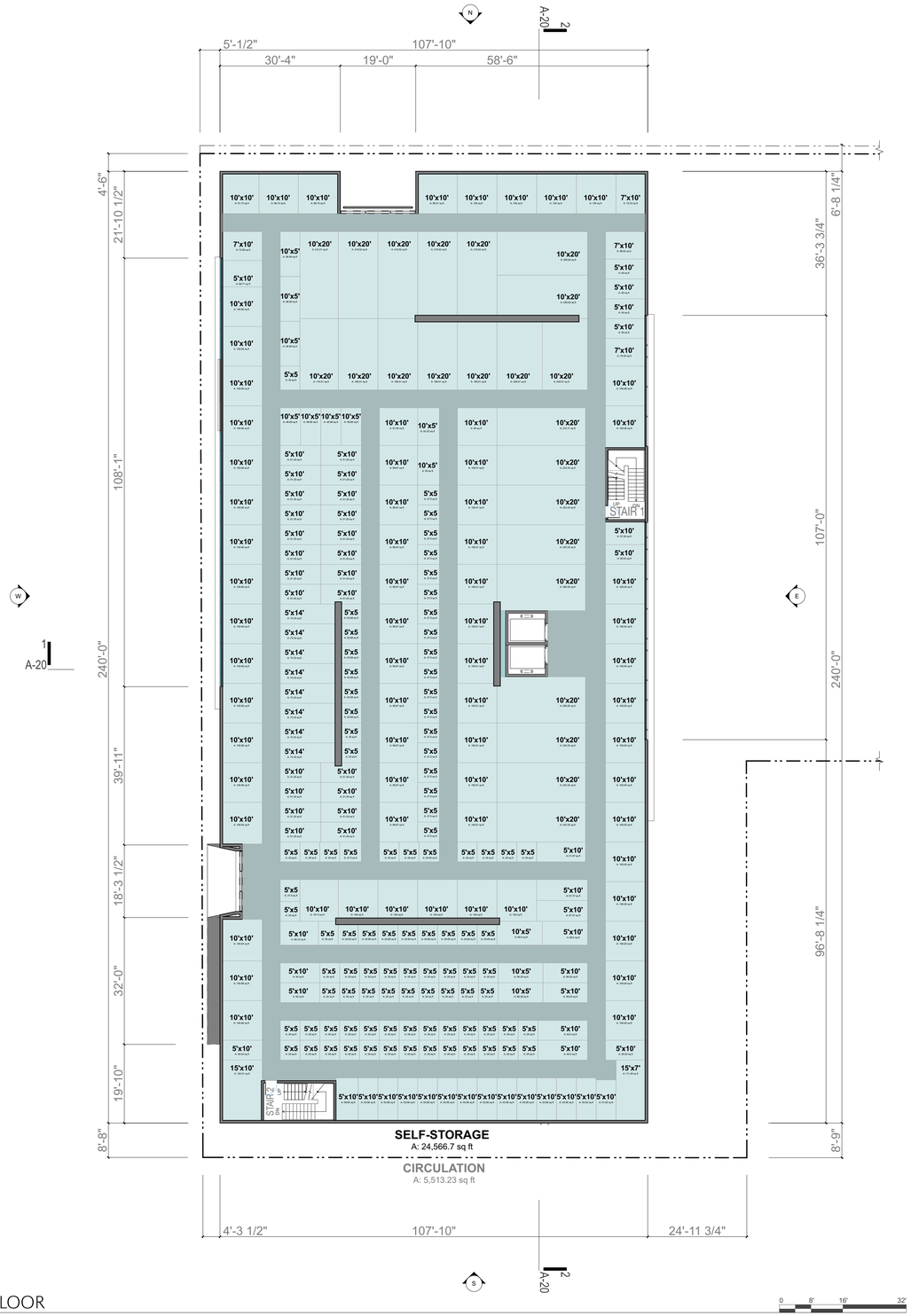
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

THIRD+FOURTH FLOOR PLANS

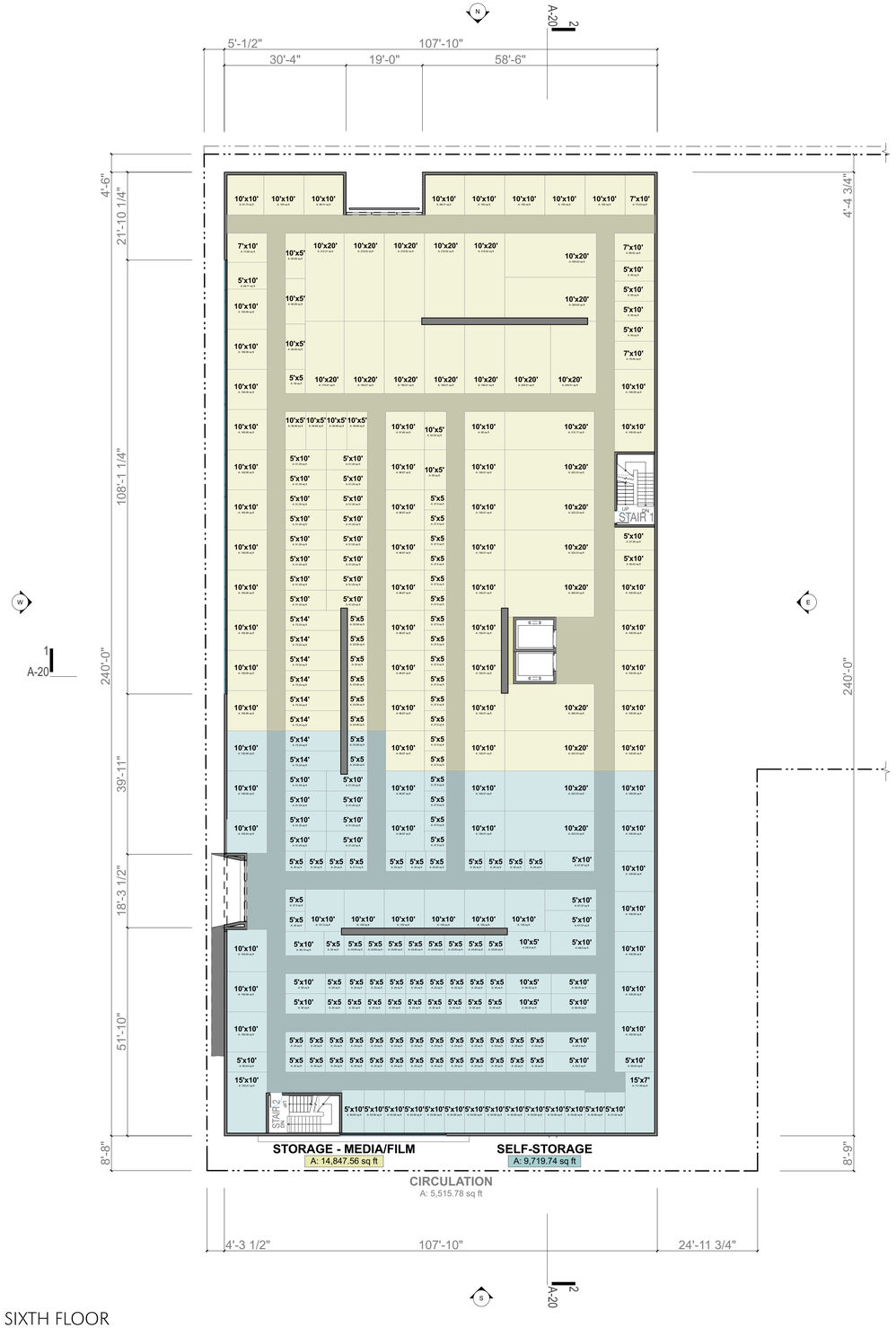
A-15

Wednesday, December 13, 2023



FIFTH FLOOR

1/16" = 1'-0"



SIXTH FLOOR

1/16" = 1'-0"

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

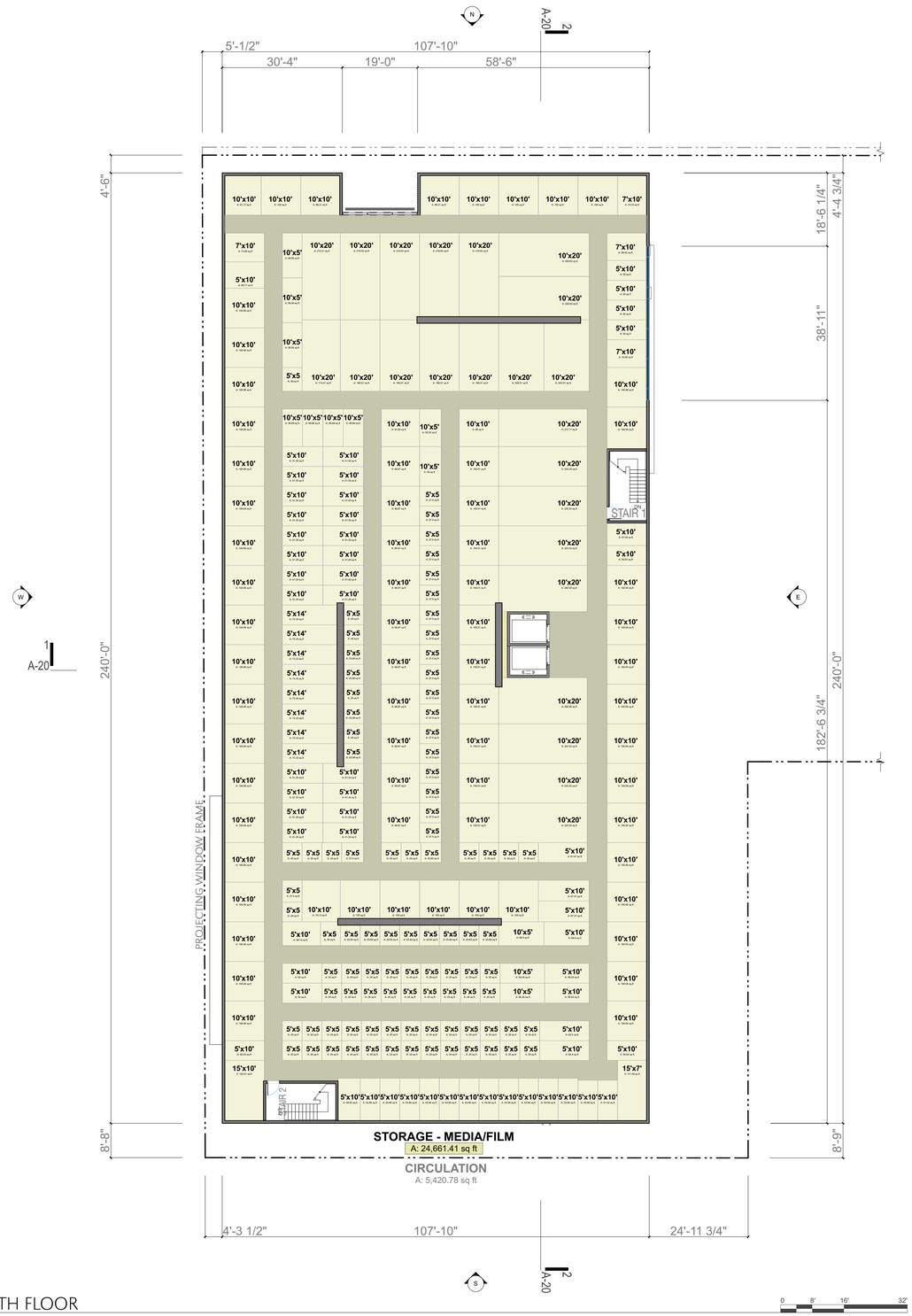
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

FIFTH+SIXTH FLOOR PLANS

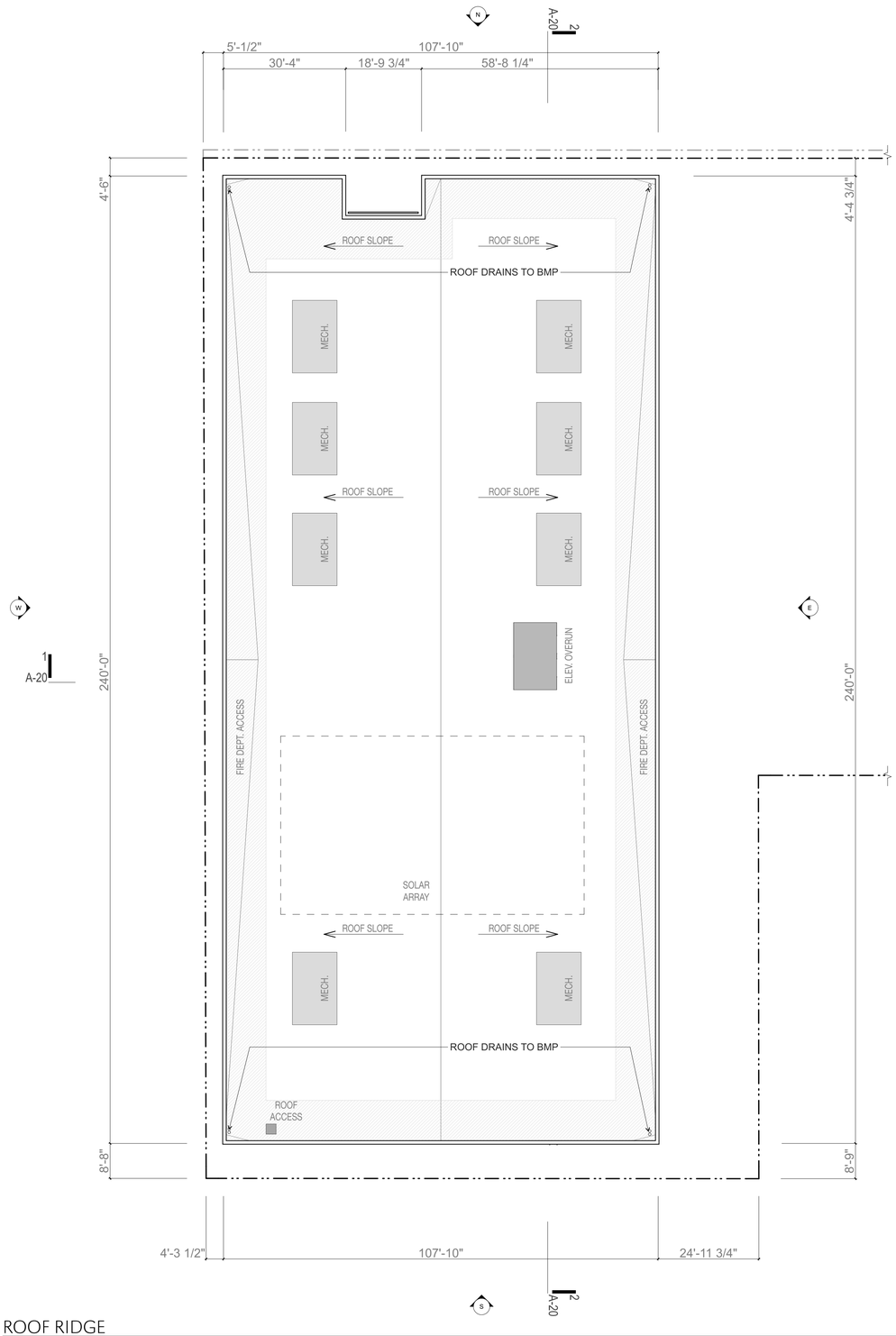
A-16

Wednesday, December 13, 2023



SEVENTH FLOOR

1/16" = 1'-0"



ROOF RIDGE

1/16" = 1'-0"

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

SEVENTH FLOOR+ROOF PLANS

A-17

Wednesday, December 13, 2023

1 STUCCO: LINEN WHITE
STEEL TROWEL

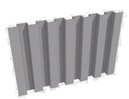
ALBEDO APPRX: 70 %

2 HORIZONTAL
METAL SIDING: WHITE
MATTE FINISH

ALBEDO APPRX: 73 %

3 VERTICAL
METAL SIDING: LIGHT GREY
MATTE FINISH

ALBEDO APPRX: 40 %



4 WINDOW METAL FRAME
PROJECTIONS: SILVER SETTTING (DE6359)
MATTE FINISH

ALBEDO APPRX: 60%

5 DUAL-GLAZED
LOW-E WINDOWS: CLEAR

FINISH: CLEAR ALUMINUM

MANUFACTURER: TBD

5.1 SINGLE-GLAZED
SPANDREL GLASS: OPAQUE WHITE

FINISH: CLEAR ALUMINUM

MANUFACTURER: TBD

6 STEEL COLUMNS: SILVER SETTTING (DE6359)
MATTE FINISH

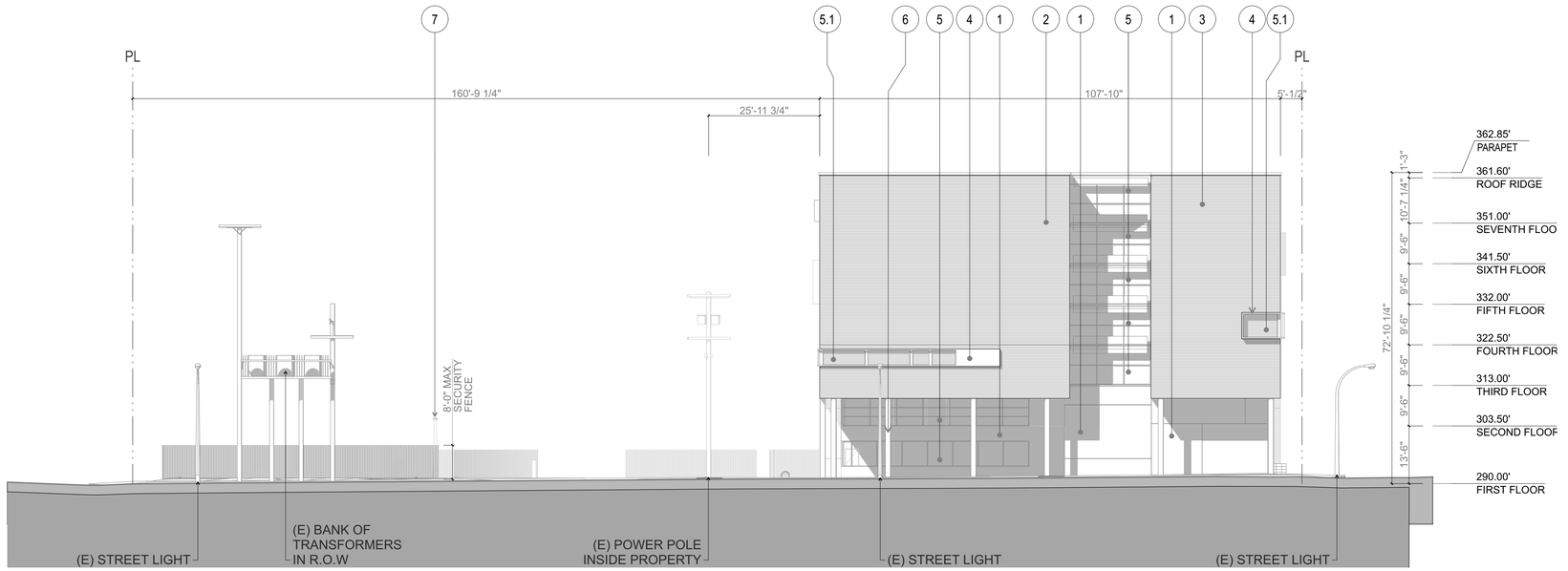
ALBEDO APPRX: 60 %

7 LIGHTING FIXTURES: BRONZE FINISH

WALL PACK: QubePAK® Regal 3 - 16 feet A.F.F.

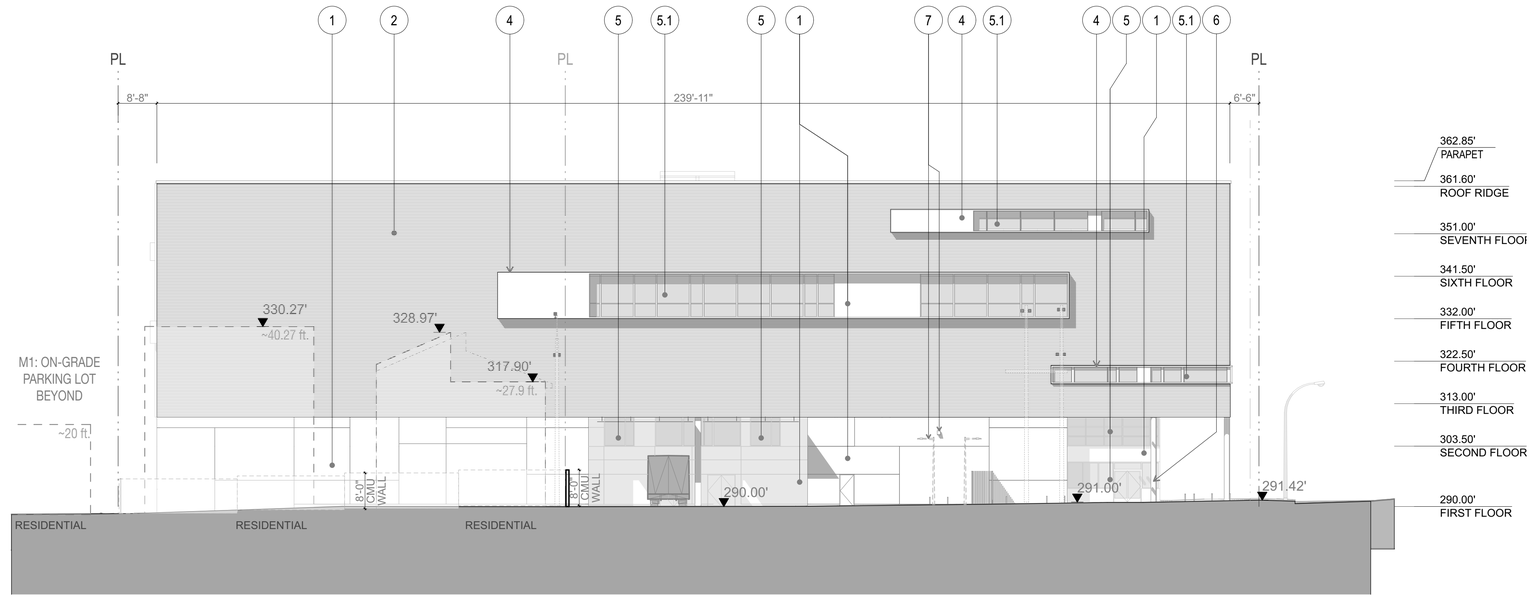
AREA/SITE: DoradoXLE Plus - 15 feet A.F.F

8 M



NORTH ELEVATION

SCALE: 1/16" = 1'-0"



0 8' 16' 32"

EAST ELEVATION

SCALE: 1/16" = 1'-0"

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

ELEVATION - NORTH + EAST

A-18

Wednesday, December 13, 2023

1 STUCCO: LINEN WHITE
STEEL TROWEL

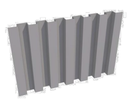
ALBEDO APPRX: 70 %

2 HORIZONTAL
METAL SIDING: WHITE
MATTE FINISH

ALBEDO APPRX: 73 %

3 VERTICAL
METAL SIDING: LIGHT GREY
MATTE FINISH

ALBEDO APPRX: 40 %



4 WINDOW METAL FRAME
PROJECTIONS: SILVER SETTTING (DE6359)
MATTE FINISH

ALBEDO APPRX: 60%

5 DUAL-GLAZED
LOW-E WINDOWS: CLEAR

FINISH: CLEAR ALUMINUM

MANUFACTURER: TBD

5.1 SINGLE-GLAZED
SPANDREL GLASS: OPAQUE WHITE

FINISH: CLEAR ALUMINUM

MANUFACTURER: TBD

6 STEEL COLUMNS: SILVER SETTTING (DE6359)
MATTE FINISH

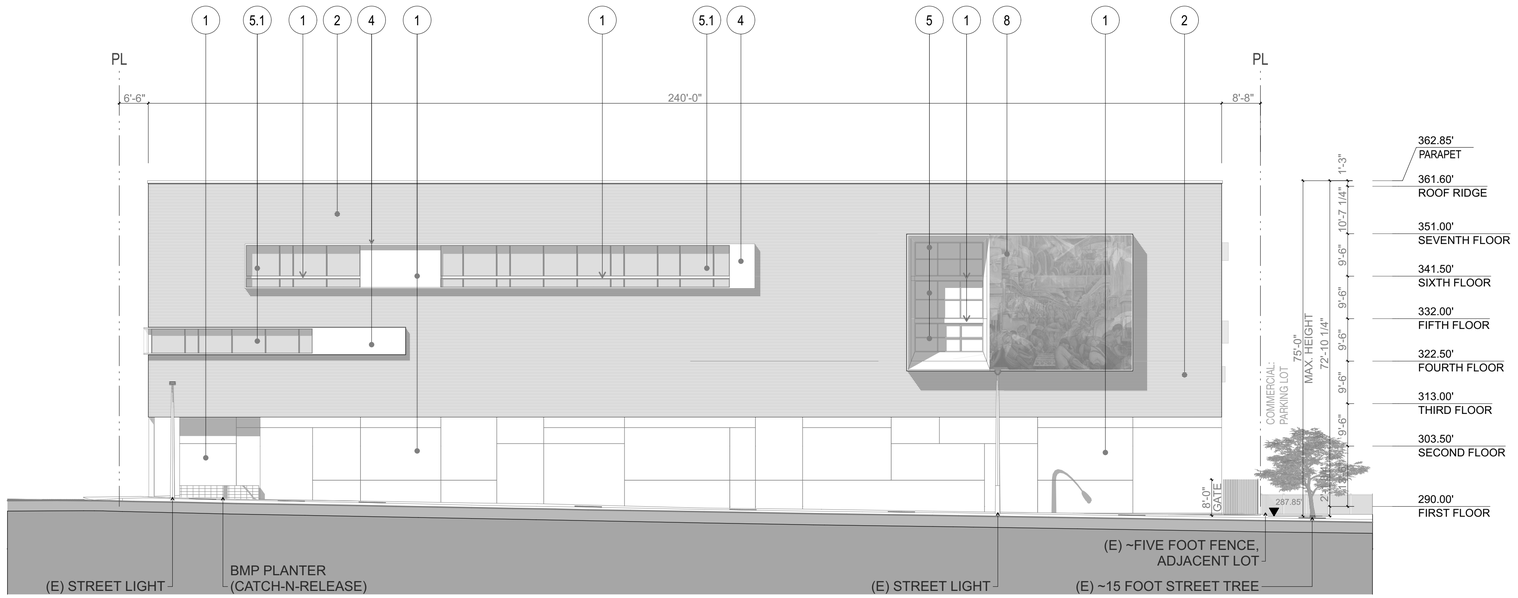
ALBEDO APPRX: 60 %

7 LIGHTING FIXTURES: BRONZE FINISH

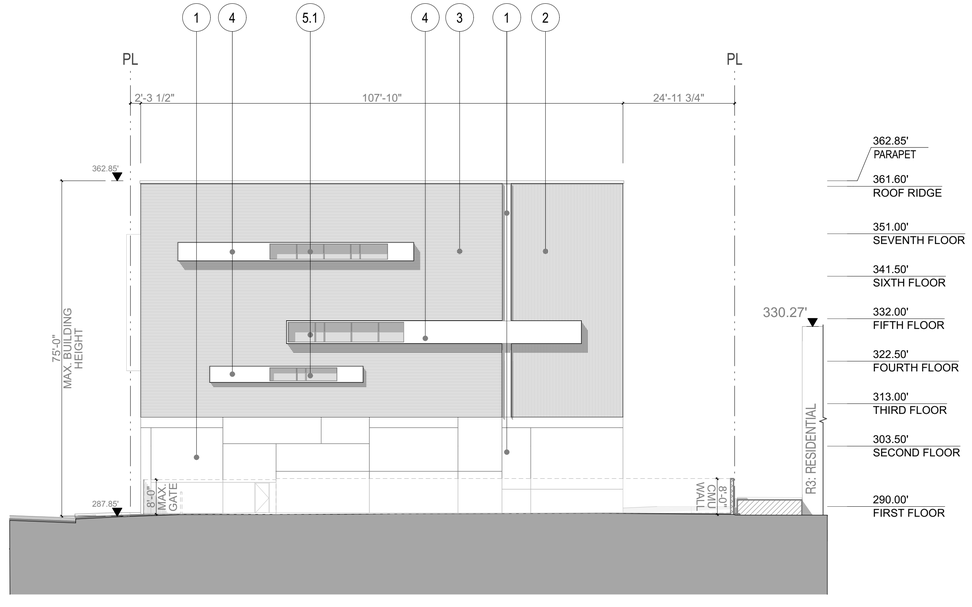
WALL PACK: QubePAK® Regal 3 - 16 feet A.F.F.

AREA/SITE: DoradoXLE Plus - 15 feet A.F.F

8 MURAL: TBD AND COORDINATED WITH NEIGHBORHOOD COUNCIL



WEST ELEVATION
SCALE: 1/16" = 1'-0"



SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

0 8" 16" 32"

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

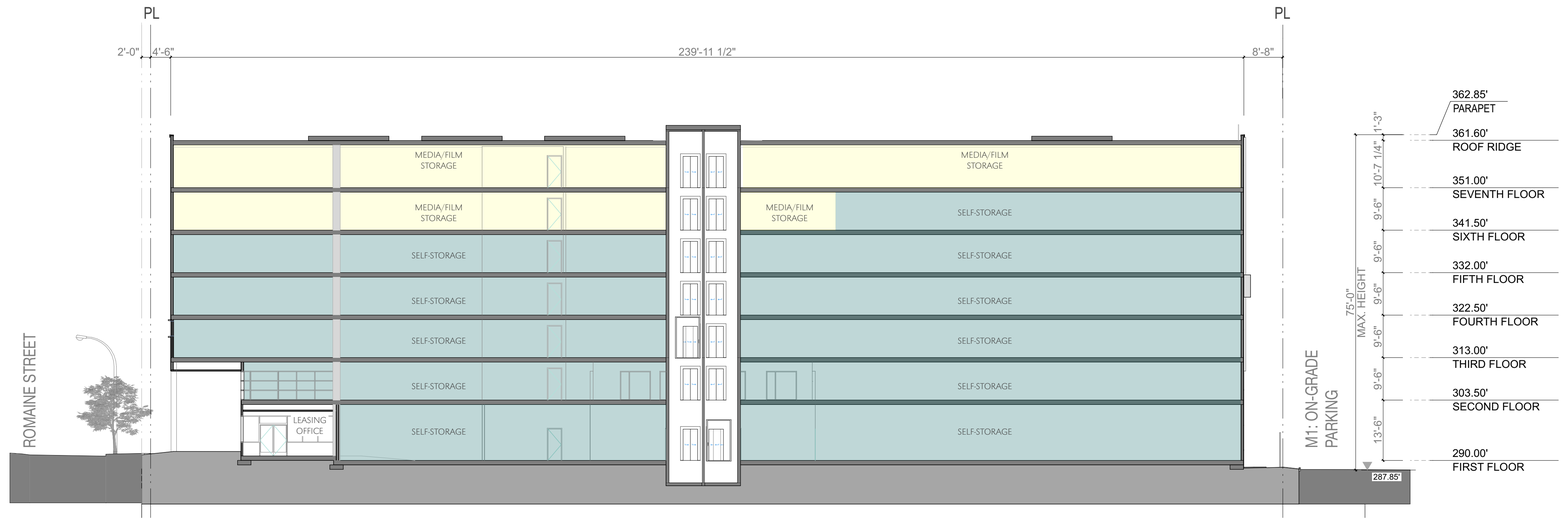
Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

ELEVATION - WEST + SOUTH

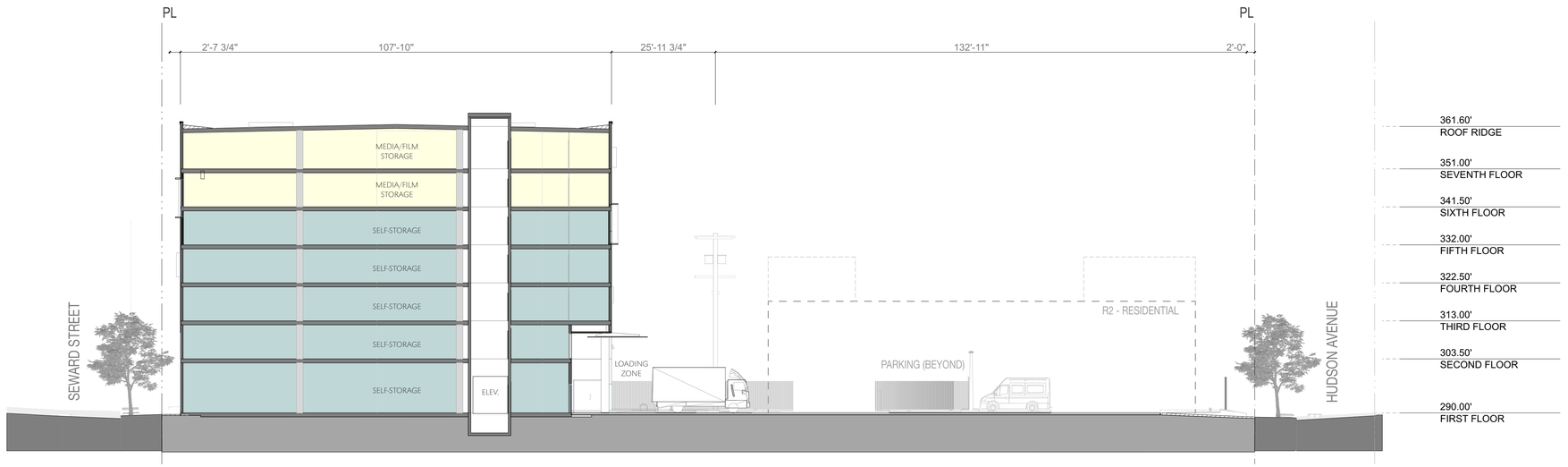
A-19

Wednesday, December 13, 2023



0 8' 16' 32'

SECTION 2
1/16" = 1'-0"



0 8' 16' 32'

SECTION 1
1/16" = 1'-0"

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden - Baranof Holdings
2850 N Harwood Street, Suite 1000 Dallas TX 75201
T: (949) 279-8296

956 SEWARD - SELF-STORAGE

SECTIONS

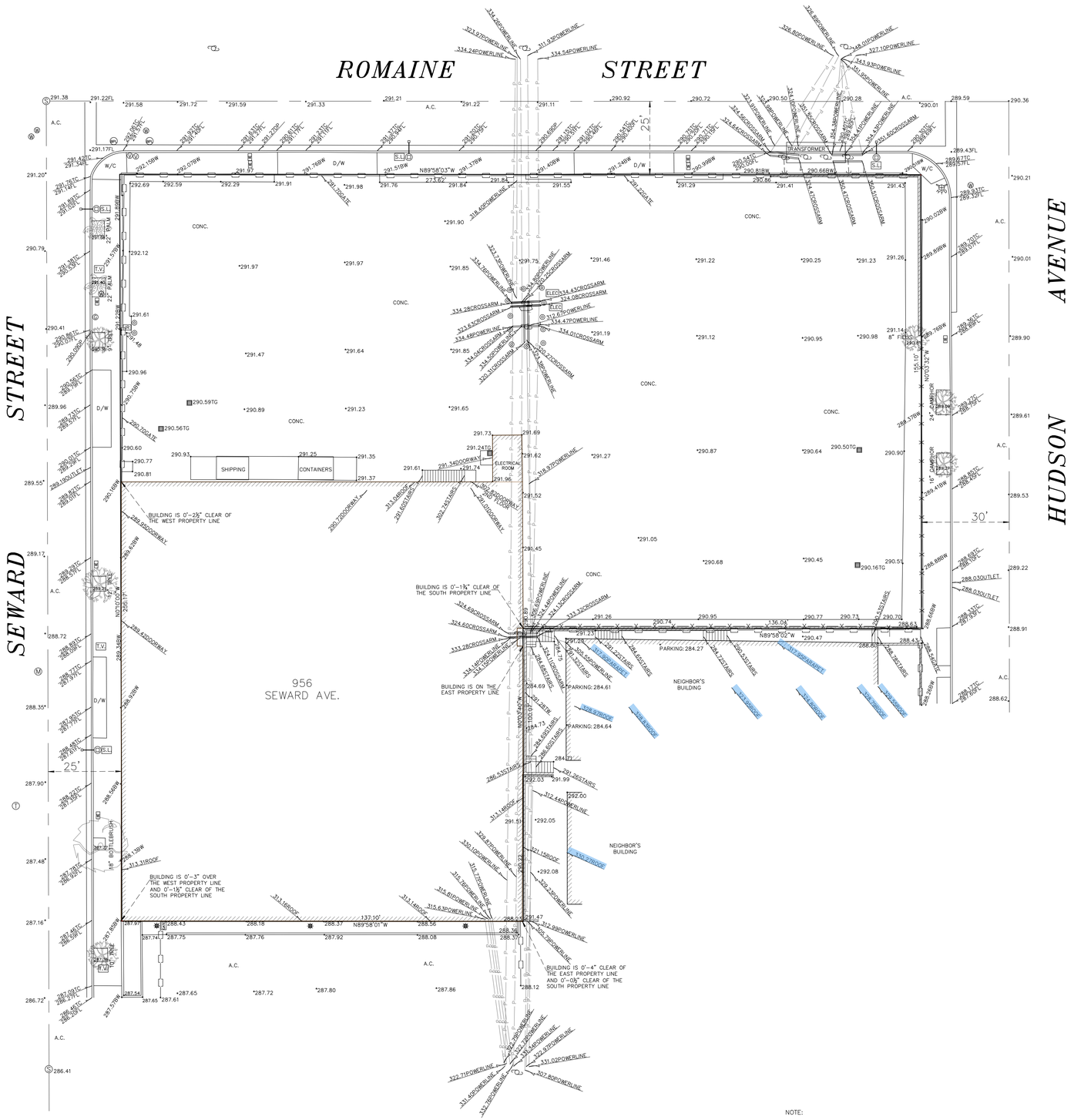
A-20

Wednesday, December 13, 2023

LAWRENCE J. SCHMAHL LICENSED SURVEYOR PLS 5748
11209 HOWARD ST. WHITTIER, CALIFORNIA 90606 (562) 908-0570 / (323) 773-1675

TOPOGRAPHIC SURVEY

SCALE: 1" = 16' JULY, 2023



LEGAL DESCRIPTION:

LOTS 1, 2, 3, 14, 15, 16, 17, AND 18, IN BLOCK D OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO.1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

BENCHMARK:

WIRE SPIKE IN WEST CURB OF SEWARD ST; 18.5FT NORTH OF NORTH CURB LINE OF SANTA MONICA BLVD; SOUTH END OF CATCH BASIN.

LABM: 12-19090 EL=301.749FT(2000) NAVD 1988

FOR:

BARANOF HOLDINGS
ATTN: NOLAN BORDEN
2850 N. HARWOOD ST. SUITE 1000
DALLAS, TX 75201

LAWRENCE J. SCHMAHL No. 5748 LICENSED LAND SURVEYOR STATE OF CALIFORNIA

BY:
LAWRENCE J. SCHMAHL L.S. 5748

LEGEND:

A.C.	ASPHALT CONCRETE
BW	BACK OF WALK
CONC.	CONCRETE
D/W	DRIVEWAY
E	EAST
FF	FINISHED FLOOR
FL	FLOWLINE
N	NORTH
S	SOUTH
TC	TOP OF CURB
TG	TOP OF GRATE
TW	TOP OF WALL
W	WEST
W/C	WHEELCHAIR RAMP
ⓑ	BOLLARD
(B) (S)	B.P.&L. MANHOLE
	BUILDING LINE
T.V.	CABLE TV BOX
	CENTERLINE
	DRAIN GRATE
E.M.	ELECTRIC METER
ELEC.	ELECTRICAL PULL BOX
—X—X—X—	FENCE, CHAIN-LINK
	FENCE, IRON
	FIRE HYDRANT
G.M.	GAS METER
Ⓖ	GAS VALVE
GATE	GATE MOTOR
GW	GUY WIRE
	IRRIGATION CONTROL VALVE
	LAMP WITH CONC. BASE
	LIGHT POLE
Ⓜ	MONITORING WELL
—P—P—	POWERLINE
	POWER POLE
	POWER POLE W/CONDUIT
	PROPERTY LINE
Ⓢ	SEWER MANHOLE
52.52 52.52	SPOT ELEVATIONS
S.L.	STREET LIGHT BOX
Ⓣ	TELEPHONE MANHOLE
Ⓥ	VENT
	WALL
	WATER METER
Ⓦ	WATER VALVE

NOTE:

THIS SURVEY DOES NOT INCLUDE EASEMENTS OF RECORD OR OTHERWISE, UNDERGROUND PUBLIC UTILITIES OR OTHER SUBSTRUCTURES, OR ZONE EASEMENTS, SETBACK OR STREET WIDENING DATA IF APPLICABLE.
ALTHOUGH REQUESTED, NO TITLE POLICY OR PRELIMINARY TITLE REPORT WAS MADE AVAILABLE TO THIS SURVEYOR.
IF THE EXISTING GRADES SHOWN ON THIS MAP ARE TO BE USED FOR CONSTRUCTION PURPOSES, IT IS THE RESPONSIBILITY OF THE PARTY USING THIS MAP TO VERIFY THE VERTICAL DATUM BY CHECKING BETWEEN AT LEAST FIVE EXISTING GRADES SHOWN HEREON.
IF THE INFORMATION ON THIS MAP IS TO BE INCLUDED IN CONSTRUCTION PLANS, THIS MAP IN ITS ENTIRETY MUST BE MADE A PART OF THOSE CONSTRUCTION PLANS.

JOB# 13728

APPENDIX D

Survey

ALTA / NSPS LAND TITLE SURVEY

TABLE "A" - OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS:

ITEM 1 THE LOCATION AND TYPE OF MONUMENTS WHICH ARE TO BE SET ARE SHOWN ON THIS PLAT. ALL MONUMENTS SHOWN AS BEING SET HEREON WILL ADDITIONALLY BE SHOWN ON A FORTHCOMING RECORD OF SURVEY TO BE FILED WITH THE COUNTY OF LOS ANGELES.

ITEM 2 THE ADDRESS(ES) OF THE SURVEYED PROPERTY ARE SHOWN ON THIS PLAT.

ITEM 3 THE PROPERTY SHOWN HEREON IS CONTAINED WITHIN F.E.M.A. FLOOD ZONE "X" BEING AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 06037C1605F, EFFECTIVE DATE SEPTEMBER 26, 2008. ANY LIMITS OF SAID FLOODPLAIN WITHIN THE EXTENT OF THIS PLAT ARE SHOWN HEREON.

ITEM 4 THE GROSS LAND AREA IS: 56,153 SQUARE FEET (1.289 ACRES)

ITEM 5 VERTICAL RELIEF CONTOURS SHOWN HEREON ARE BASED ON A FIELD SURVEY COMPLETED BY OMEGA LAND SURVEYING ON AN AERIAL TOPOGRAPHIC SURVEY AS REFERENCED IN ITEM 15. THE BENCHMARK USED AS THE SOURCE OF THE VERTICAL DATUM IS AS FOLLOWS:

DESCRIPTION: CITY OF LOS ANGELES BENCHMARK 12-19090 BEIND A WIRE SPIKE IN THE WEST CURB OF SEWARD STREET, 18.5' NORTH OF THE NORTH CURB LINE OF SANTA MONICA BLVD AT THE SOUTH END OF CURB.

ELEVATION: 301.749' (NGVD29)

ITEM 6(a) A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR PRIOR TO THE PREPARATION OF THIS PLAT.

ITEM 6(b) A ZONING REPORT WAS NOT PROVIDED TO THE SURVEYOR PRIOR TO THE PREPARATION OF THIS PLAT.

ITEM 7(a) THE EXTERIOR DIMENSIONS OF ALL BUILDINGS AT GROUND LEVEL ARE SHOWN ON THIS PLAT.

ITEM 7(b)(1) THE SQUARE FOOTAGE OF THE EXTERIOR FOOTPRINT OF ALL BUILDINGS AT GROUND LEVEL ARE SHOWN ON THIS PLAT.

ITEM 8 ANY SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK ARE SHOWN ON THIS PLAT.

ITEM 9 THERE ARE NO CLEARLY IDENTIFIABLE PARKING SPACES OR STRIPING ON THE SURVEYED PROPERTY THOUGH NUMEROUS VEHICLES ARE PARKED ON SITE.

ITEM 11(b) THE LOCATION OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY A PRIVATE UTILITY LOCATING SERVICE ARE SHOWN HEREON.

ITEM 13 THE NAME OF ADJOINING OWNERS ACCORDING TO CURRENT TAX RECORDS ARE SHOWN ON THIS PLAT.

ITEM 14 THE SUBJECT PROPERTY IS LOCATED SOUTH OF ROMAINE STREET BETWEEN SEWARD STREET AND HUDSON AVENUE.

ITEM 15 THE TOPOGRAPHIC FEATURES SHOWN ON THIS PLAT ARE BASED ON AN AERIAL TOPOGRAPHIC SURVEY. THE SPECIFICS OF THAT SURVEY ARE AS FOLLOWS:

SOURCE OF AERIAL PHOTOGRAPHY: AEROTECH MAPPING, INC.
DATE FLOWN: JULY 12, 2023

ITEM 16 THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

ITEM 17 THERE ARE NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES AVAILABLE FROM THE CONTROLLING JURISDICTION OR OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

ITEM 18 THERE ARE NO PLOTTABLE OFFSITE EASEMENTS OR SERVITUDES DISCLOSED IN THE RECORD DOCUMENTS OBTAINED IN THE PROCESS OF PREPARING THIS SURVEY.

ITEM 19 PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $1,000,000 TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST.

EASEMENT & EXCEPTIONS NOTES:

THE FOLLOWING IS A LIST OF ALL EASEMENTS, SERVITUDES, RIGHTS OF WAY, ACCESS, AND OTHER SURVEY RELATED DOCUMENTS THAT BURDEN THE SUBJECT PROPERTY WHICH ARE LISTED UNDER THE EXCEPTIONS FOR THE ABOVE REFERENCED PRELIMINARY REPORT. ITEMS THAT CAN BE PLOTTED ARE SHOWN HEREON. THE EFFECT OF SAID EXCEPTIONS ARE MORE FULLY DESCRIBED IN THE ABOVE REFERENCED TITLE REPORT. ANY AGREEMENTS, ASSESSMENTS, COVENANTS & CONDITIONS & RESTRICTIONS (CCRs), FINANCING STATEMENTS, LEASES, LIENS, PERMITS, RESOLUTIONS, TAXES, OR WAIVERS THAT APPEAR IN SAID REPORT WHICH ARE NOT SURVEY RELATED ARE NOT LISTED HEREON.

⟨#⟩ INDICATES EXCEPTION ITEM IS PLOTTABLE AND SHOWN HEREON.

A. PROPERTY TAXES, WHICH ARE A LIEN NOT YET DUE AND PAYABLE, INCLUDING ANY ASSESSMENTS COLLECTED WITH TAXES TO BE LEVIED FOR THE FISCAL YEAR 2023-2024.

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-001
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $6,707.26 PAID
2ND INSTALLMENT: $6,707.24 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $680.72

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-002
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,644.99 PAID
2ND INSTALLMENT: $5,644.99 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $574.49

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-003
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,643.61 UNPAID (DELINQUENT AFTER DECEMBER 10, 2022)
PENALTY: $564.36
2ND INSTALLMENT: $5,643.60 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $574.36

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-017
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $5,695.10 PAID
2ND INSTALLMENT: $5,695.10 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $579.51

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-018
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $7,340.46 PAID
2ND INSTALLMENT: $7,340.46 UNPAID (DELINQUENT AFTER APRIL 10, 2023)
PENALTY: $744.04

PROPERTY TAXES, INCLUDING ANY PERSONAL PROPERTY TAXES AND ANY ASSESSMENTS COLLECTED WITH TAXES ARE AS FOLLOWS:

TAX IDENTIFICATION NO.: 5533-023-026
FISCAL YEAR: 2022-2023
1ST INSTALLMENT: $28,451.32 PAID
2ND INSTALLMENT: $28,451.31 PAID

B. INTENTIONALLY DELETED.

C. AN ASSESSMENT BY THE IMPROVEMENT DISTRICT SHOWN BELOW:

DISTRICT: HOLLYWOOD MEDIA DISTRICT BUSINESS IMPROVEMENT DISTRICT
DISCLOSED BY: NOTICE OF ASSESSMENT
RECORDING DATE: JULY 15, 2003
RECORDING NO: AS INSTRUMENT NO. 03-2020085, OFFICIAL RECORDS

D. THE LIEN OF SUPPLEMENTAL OR ESCAPED ASSESSMENTS OF PROPERTY TAXES, IF ANY, MADE PURSUANT TO THE PROVISIONS OF CHAPTER 3.5 (COMMENCING WITH SECTION 75) OR PART 2, CHAPTER 3, ARTICLES 3 AND 4, RESPECTIVELY, OF THE REVENUE AND TAXATION CODE OF THE STATE OF CALIFORNIA AS A RESULT OF THE TRANSFER OF TITLE TO THE VESTEE NAMED IN SCHEDULE A OR AS A RESULT OF CHANGES IN OWNERSHIP OR NEW CONSTRUCTION OCCURRING PRIOR TO DATE OF POLICY.

2. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.

3. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS RESERVED IN A DOCUMENT;

PURPOSE: POLES
RECORDING DATE: JULY 25, 1925
RECORDING NO: IN BOOK 4898, PAGE 203, OFFICIAL RECORDS
AFFECTS: AS DESCRIBED THEREIN

SURVEYOR'S NOTE: THIS ITEM IS NOT PLOTTED HEREON AND DOES NOT AFFECT THE SUBJECT PROPERTY.

2a. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

PURPOSE: STORM DRAIN
RECORDING NO: BOOK 1243, PAGE 366, OFFICIAL RECORDS
AFFECTS: AS DESCRIBED THEREIN

4. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF BUILDING AND USES

EXECUTED BY: BEN TEITLEBAUM
IN FAVOR OF: CITY OF LOS ANGELES, A MUNICIPAL CORPORATION
RECORDING DATE: FEBRUARY 17, 1953
RECORDING NO: AS INSTRUMENT NO. 2925, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: LOTS 15 AND 16 OF PARCEL 6

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

5. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF BUILDING AND USES

EXECUTED BY: BEN AND HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES, A MUNICIPAL CORPORATION
RECORDING DATE: SEPTEMBER 20, 1956
RECORDING NO: AS INSTRUMENT NO. 4031, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

6. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: DECEMBER 6, 1956
RECORDING NO.: AS INSTRUMENT NO. 3677, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

7. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: MAY 29, 1964
RECORDING NO.: AS INSTRUMENT NO. 5135, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 1, 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

8. AN OIL AND GAS LEASE FOR THE TERM THEREIN PROVIDED, WITH CERTAIN COVENANTS, CONDITIONS AND PROVISIONS, TOGETHER WITH EASEMENTS, IF ANY, AS SET FORTH THEREIN, DISCLOSED BY DOCUMENT:

DATED: FEBRUARY 28, 1964

LESSOR: BEN TEITELBAUM AND HARRY TEITELBAUM
LESSEE: STANDARD OIL COMPANY OF CALIFORNIA, A CORPORATION
AFFECTS: PARCELS 1, 4 AND 5

LESSOR: EDITING FILM CENTER
LESSEE: STANDARD OIL COMPANY OF CALIFORNIA, A CORPORATION
AFFECTS: LOTS 15 AND 16 OF PARCEL 6

RECORDING DATE: JUNE 10, 1964
RECORDING NO: AS INSTRUMENT NO. 3376, OFFICIAL RECORDS

SAID LEASE AFFECTS THAT PORTION OF SAID LAND LYING BELOW A DEPTH OF 500 FEET FROM THE SURFACE THEREOF.

NO ASSURANCE IS MADE AS TO THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE, NOR AS TO OTHER MATTERS AFFECTING THE RIGHTS OR INTERESTS OF THE LESSOR OR LESSEE IN SAID LEASE.

9. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: SEWARD REALTY CORP. BY HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 16, 1972
RECORDING NO: AS INSTRUMENT NO. 2675, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 4

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

10. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: SEWARD REALTY CORP. BY HARRY TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 16, 1972
RECORDING NO: AS INSTRUMENT NO. 2676, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 1, 4 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

11. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: HARRY TEITELBAUM AND BEN TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: DECEMBER 10, 1980
RECORDING NO: AS INSTRUMENT NO. 80-1241279, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 6

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

12. AN INSTRUMENT ENTITLED COVENANT AND AGREEMENT REGARDING MAINTENANCE OF OFF-STREET PARKING SPACE

EXECUTED BY: HARRY TEITELBAUM AND BEN TEITELBAUM
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: DECEMBER 10, 1980
RECORDING NO: AS INSTRUMENT NO. 80-1241280, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCELS 1 AND 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

13. COVENANT AND AGREEMENT WHEREIN THE OWNERS AGREE TO HOLD SAID LAND AS ONE PARCEL AND NOT TO SELL ANY PORTION THEREOF SEPARATELY. SAID COVENANT IS EXPRESSED TO RUN WITH THE LAND AND BE BINDING UPON FUTURE OWNERS.

RECORDING DATE: FEBRUARY 4, 1991
RECORDING NO.: AS INSTRUMENT NO. 91-167265, OFFICIAL RECORDS

REFERENCE IS MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

AFFECTS: PARCELS 1 AND 2

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

14. A DEED OF TRUST TO SECURE AN INDEBTEDNESS IN THE AMOUNT SHOWN BELOW,

AMOUNT: $3,750,000.00
DATED: JULY 17, 2013
TRUSTOR/GRANTOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
TRUSTEE: UNIONBANCAL MORTGAGE CORPORATION, A CALIFORNIA CORPORATION
BENEFICIARY: UNION BANK, N.A.
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120853, OFFICIAL RECORDS

15. AN UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT

ENTITLED: SUBORDINATION OF LEASE (TO DEED OF TRUST)
LESSOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
LESSEE: SILVERCO ENTERPRISES, A CALIFORNIA CORPORATION
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120854, OFFICIAL RECORDS

THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE AND OTHER MATTERS AFFECTING THE INTEREST OF THE LESSEE ARE NOT SHOWN HEREIN.

AN AGREEMENT RECORDED JULY 31, 2013, AS INSTRUMENT NO. 20131120854, OFFICIAL RECORDS, WHICH STATES THAT SAID LEASE HAS BEEN MADE SUBORDINATE TO THE DOCUMENT

ENTITLED: DEED OF TRUST, ASSIGNMENT OF RENTS, SECURITY AGREEMENT AND FIXTURE FILING
RECORDING DATE: JULY 31, 2013
RECORDING NO: AS INSTRUMENT NO. 20131120853, OFFICIAL RECORDS

16. AN INSTRUMENT ENTITLED MASTER COVENANT AND AGREEMENT REGARDING ON-SITE STORMWATER TREATMENT DEVICES MAINTENANCE

EXECUTED BY: PURE SILVER ENTERPRISES, INC.
IN FAVOR OF: CITY OF LOS ANGELES
RECORDING DATE: OCTOBER 9, 2013
RECORDING NO: AS INSTRUMENT NO. 20131459457, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

THIS COVENANT AND AGREEMENT PROVIDES THAT IT SHALL BE BINDING UPON ANY FUTURE OWNERS, ENCUMBRANCERS, THEIR SUCCESSORS OR ASSIGNS, AND SHALL CONTINUE IN EFFECT UNTIL THE ADVISORY AGENCY APPROVES TERMINATION.

AFFECTS: PARCEL 5

SURVEYOR'S NOTE: THIS ITEM IS BLANKET IN NATURE AND DOES AFFECT THE SUBJECT PROPERTY.

17. A DEED OF TRUST TO SECURE AN INDEBTEDNESS IN THE AMOUNT SHOWN BELOW,

AMOUNT: $3,083,000.00
DATED: MAY 19, 2014
TRUSTOR/GRANTOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
TRUSTEE: WFG TITLE INSURANCE COMPANY
BENEFICIARY: CDC SMALL BUSINESS FINANCE
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587445, OFFICIAL RECORDS

AN ASSIGNMENT OF THE BENEFICIAL INTEREST UNDER SAID DEED OF TRUST WHICH NAMES:

ASSIGNEE: UNITED STATES SMALL BUSINESS ADMINISTRATION
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587446, OFFICIAL RECORDS

18. AN UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT

ENTITLED: SUBORDINATION AGREEMENT
LESSOR: PURE SILVER ENTERPRISES, INC., A CALIFORNIA CORPORATION
LESSEE: SILVERCO ENTERPRISES
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587448, OFFICIAL RECORDS

THE PRESENT OWNERSHIP OF THE LEASEHOLD CREATED BY SAID LEASE AND OTHER MATTERS AFFECTING THE INTEREST OF THE LESSEE ARE NOT SHOWN HEREIN.

AN AGREEMENT RECORDED JUNE 6, 2014, AS INSTRUMENT NO. 20140587448, OFFICIAL RECORDS, WHICH STATES THAT SAID LEASE HAS BEEN MADE SUBORDINATE TO THE DOCUMENT

ENTITLED: DEED OF TRUST, ASSIGNMENT OF RENTS, SECURITY AGREEMENT AND FIXTURE FILING
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587445, OFFICIAL RECORDS

19. MATTERS CONTAINED IN THAT CERTAIN DOCUMENT

ENTITLED: THIRD PARTY LENDER AGREEMENT
DATED: MAY 19, 2014
EXECUTED BY: UNION BANK, N.A. AND CDC SMALL BUSINESS FINANCE
RECORDING DATE: JUNE 6, 2014
RECORDING NO: AS INSTRUMENT NO. 20140587449, OFFICIAL RECORDS

REFERENCE IS HEREBY MADE TO SAID DOCUMENT FOR FULL PARTICULARS.

20. ANY EASEMENTS NOT DISCLOSED BY THE PUBLIC RECORDS AS TO MATTERS AFFECTING TITLE TO REAL PROPERTY, WHETHER OR NOT SAID EASEMENTS ARE VISIBLE AND APPARENT.

21. MATTERS WHICH MAY BE DISCLOSED BY AN INSPECTION AND/OR BY A CORRECT ALTA/NSPS LAND TITLE SURVEY OF SAID LAND THAT IS SATISFACTORY TO THE COMPANY, AND/OR BY INQUIRY OF THE PARTIES IN POSSESSION THEREOF.

22. ANY RIGHTS OF THE PARTIES IN POSSESSION OF A PORTION OF, OR ALL OF, SAID LAND, WHICH RIGHTS ARE NOT DISCLOSED BY THE PUBLIC RECORDS.

THE COMPANY WILL REQUIRE, FOR REVIEW, A FULL AND COMPLETE COPY OF ANY UNRECORDED AGREEMENT, CONTRACT, LICENSE AND/OR LEASE, TOGETHER WITH ALL SUPPLEMENTS, ASSIGNMENTS AND AMENDMENTS THERETO, BEFORE ISSUING ANY POLICY OF TITLE INSURANCE WITHOUT EXCEPTING THIS ITEM FROM COVERAGE.

THE COMPANY RESERVES THE RIGHT TO EXCEPT ADDITIONAL ITEMS AND/OR MAKE ADDITIONAL REQUIREMENTS AFTER REVIEWING SAID DOCUMENTS.

LINES OF POSSESSION AND IMPROVEMENTS ALONG THE BOUNDARY:

THE FOLLOWING LIST REFERENCES THE LOCATION OF WALLS, BUILDINGS, FENCES, AND OTHER IMPROVEMENTS WITHIN 5 FEET OF EACH SIDE OF THE PERIMETER BOUNDARY. THIS SURVEY IS NOT INTENDED TO STATE LEGAL OPINION AS TO THE NATURE OF POTENTIAL ENCROACHMENTS.

(A) THE CENTER OF THE WATER METER IS LOCATED 4.24' OUTSIDE OF THE SURVEYED PROPERTY.

(B) THE FENCE IS LOCATED 0.77' INSIDE TO 0.05' OUTSIDE OF THE SURVEYED PROPERTY.

(C) THE CENTER OF THE WATER METER IS LOCATED 3.86' OUTSIDE OF THE SURVEYED PROPERTY.

(D) THE NORTHERLY FACE OF THE WALL IS LOCATED 0.09'-0.23' INSIDE OF THE SURVEYED PROPERTY.

(E) THE CENTER OF THE ELECTRICAL BOX 3.21' OUTSIDE OF THE SURVEYED PROPERTY.

(F) THE EASTERLY FACE OF THE WALL IS LOCATED 0.34'-0.41' INSIDE OF THE SURVEYED PROPERTY.

(G) THE FENCE IS LOCATED 0.08'-1.45' INSIDE OF THE SURVEYED PROPERTY.

(H) THE CENTER OF THE STORM DRAIN IS LOCATED 2.12' OUTSIDE OF THE SURVEYED PROPERTY.

(I) THE CENTER OF THE STORM DRAIN IS LOCATED 2.28' OUTSIDE OF THE SURVEYED PROPERTY.

(J) THE CENTER OF THE GAS METERS ARE LOCATED 4.30" OUTSIDE OF THE SURVEYED PROPERTY.

(K) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 0.68' INSIDE OF THE SURVEYED PROPERTY.

(L) THE CENTER OF THE STORM DRAIN IS LOCATED 2.38' OUTSIDE OF THE SURVEYED PROPERTY.

(M) THE FENCE IS LOCATED 0.55'-0.91' INSIDE OF THE SURVEYED PROPERTY.

(N) THE SOUTHERLY FACE OF THE WALL IS LOCATED 0.00'-0.26' INSIDE OF THE SURVEYED PROPERTY.

(O) THE CENTER OF THE STORM DRAIN IS LOCATED 2.65' OUTSIDE OF THE SURVEYED PROPERTY.

(P) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 0.63' INSIDE OF THE SURVEYED PROPERTY.

(Q) THE NORTHERLY FACE OF THE WALL IS LOCATED 0.04' INSIDE TO 0.15' OUTSIDE OF THE SURVEYED PROPERTY.

(R) THE CENTER OF THE UTILITY POLE IS LOCATED 0.95' INSIDE OF THE SURVEYED PROPERTY.

(S) THE FACE OF THE BUILDING IS LOCATED 0.06' INSIDE TO 0.06' OUTSIDE OF THE SURVEYED PROPERTY. THE BUILDING OVERHANG EXTENDS 0.56' OUTSIDE OF THE SURVEYED PROPERTY.

(T) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.61' OUTSIDE OF THE SURVEYED PROPERTY.

(U) THE CENTER OF THE SIGN POSTS ARE LOCATED 2.09'-2.14' OUTSIDE OF THE SURVEYED PROPERTY.

(V) THE FACE OF THE BUILDING IS LOCATED 0.16'-0.22' INSIDE OF THE SURVEYED PROPERTY.

(W) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.59' OUTSIDE OF THE SURVEYED PROPERTY.

(X) THE CENTER OF THE GATE MOTOR IS LOCATED 1.96' OUTSIDE OF THE SURVEYED PROPERTY.

(Y) THE CENTER OF THE LIGHT POLE BASE IS LOCATED 1.86' OUTSIDE OF THE SURVEYED PROPERTY.

(Z) THE BUILDING IS LOCATED 0.11' INSIDE TO 0.34' OUTSIDE OF THE SURVEYED PROPERTY.

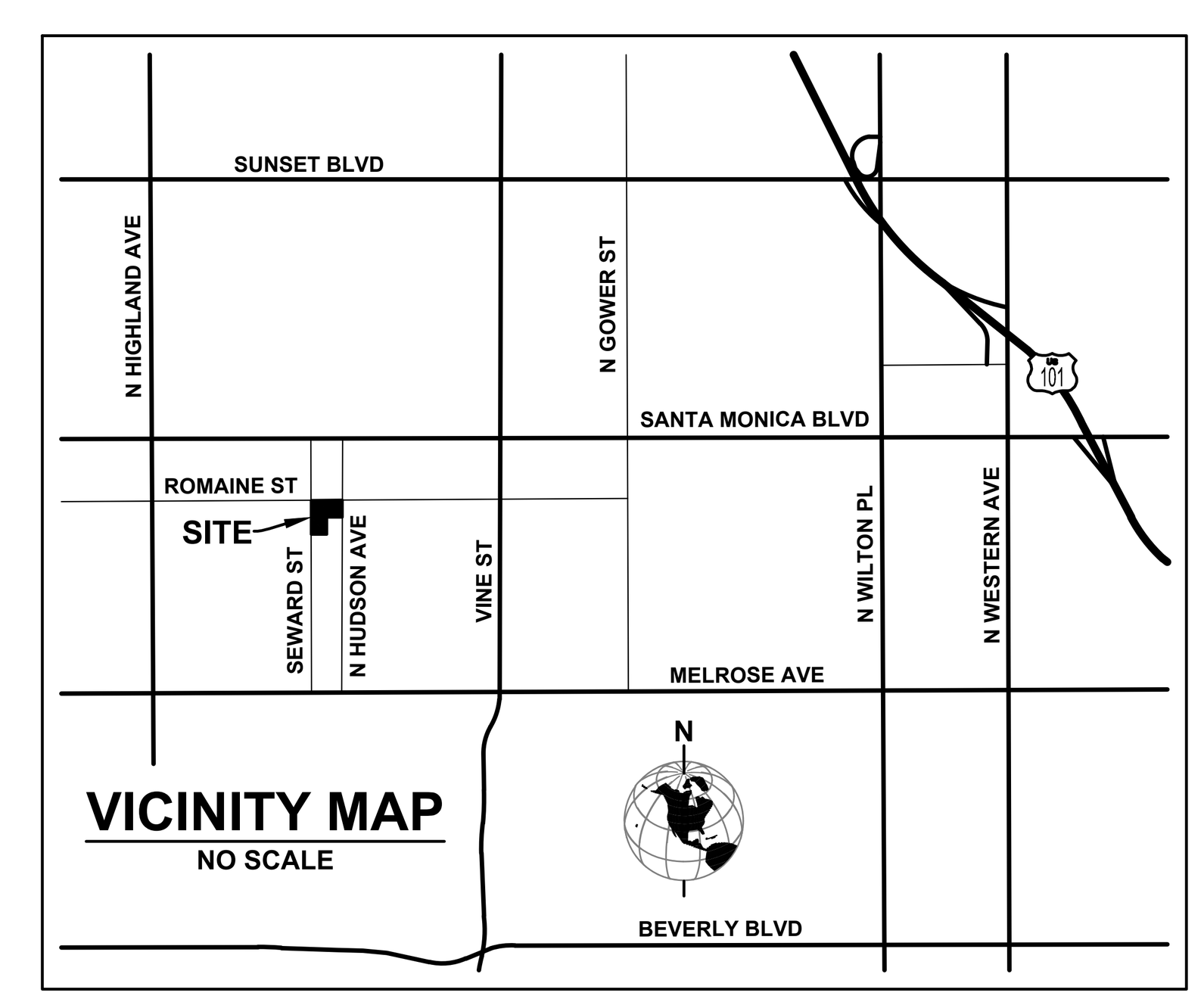
(a) THE FENCE IS LOCATED 0.59'-1.07' INSIDE OF THE SURVEYED PROPERTY.

(b) THE CENTER OF THE BACKFLOW PREVENTER CAGE IS LOCATED 2.65' INSIDE OF THE SURVEYED PROPERTY.

(c) THE CENTER OF THE BOLLARDS ARE LOCATED 4.61'-4.73' INSIDE OF THE SURVEYED PROPERTY.

ABBREVIATIONS:

AC	ASPHALT CONCRETE
CMH	COMMUNICATIONS MANHOLE
COM	COMMUNICATIONS UTILITIES
CONC	CONCRETE
DG	DIRT
ELEC	ELECTRICAL UTILITIES
FH	FIRE HYDRANT
LP	LIGHT POLE
PP	POWER POLE
WM	WATER METER BOX
WTR	WATER UTILITIES
WV	WATER VALVE



VICINITY MAP
NO SCALE

SITE ADDRESS:

936-956 SEWARD STREET AND 947-957 NORTH HUDSON AVENUE
LOS ANGELES, CA 90038

ASSESSOR'S PARCEL NUMBER:

5533-023-001, 002, 003, 017, 018, AND 026

TITLE INFORMATION:

TITLE INFORMATION FOR THIS SURVEY BASED ON A PRELIMINARY REPORT PREPARED BY CHICAGO TITLE INSURANCE COMPANY AS ORDER NO. 00177246-001-TG3-JC, EFFECTIVE DATE: MAY 30, 2023.

LEGAL DESCRIPTION:

PARCEL 1:

LOT 1, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-001)

PARCEL 2:

LOT 2, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-002)

PARCEL 3:

LOT 3, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-003)

PARCEL 4:

LOT 17, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-017)

PARCEL 5:

LOT 18, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-018)

PARCEL 6:

LOTS 14, 15 AND 16, IN BLOCK D, OF STRONG AND DICKINSON'S SOUTH HOLLYWOOD NO. 1, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 84, OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. (APN: 5533-023-026)

BASIS OF BEARINGS:

THE CENTERLINE OF SEWARD STREET AS SHOWN ON TRACT NO. 72859, AS FILED IN BOOK 1400, PAGES 97-98 OF MAPS, SAID BEARING BEING "N 0°10'21" W".

BOUNDARY NOTES:

THE BOUNDARY AND ALL DIMENSIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY COMPLETED BY OMEGA LAND SURVEYING ON JUNE 23, 2023 TO BE SHOWN ON A FORTHCOMING RECORD OF SURVEY TO BE FILED WITH THE COUNTY SURVEYOR OF LOS ANGELES COUNTY.

THE BOUNDARY SHOWN HEREON IS TENTATIVE UNTIL THE COMPLETION AND RECORDATION OF SAID RECORD OF SURVEY.

☐ INDICATES LEAD AND DISC STAMPED "LS 9117" TO BE SET

● INDICATES MONUMENT AS NOTED

✕ INDICATES CENTERLINE ESTABLISHED PER TIES ON MANHOLE LID

[1] FOUND LEAD & DISC STAMPED "LA CITY SURVEYOR"

[2] FOUND MAG AND WASHER STAMPED "PAVECO DPW-WS-2020"

[3] FOUND LEAD & DISC STAMPED "RE 509"

[4] FOUND MAG AND WASHER STAMPED "LS 5748"

[5] FOUND LEAD & DISC STAMPED "LS 5748"

[6] FOUND LEAD & DISC STAMPED "RCE 16710"

[7] FOUND LEAD & DISC STAMPED "RCE 29708"

[8] FOUND LEAD & DISC STAMPED "LS 5738" ON BUILDING

[9] FOUND 2" EMPTY PIPE

[10] FOUND LEAD & DISC STAMPED "" ON BUILDING

[11] FOUND LEAD & TACK

[12] FOUND STANDARD STREET WELL MONUMENT

SURVEYOR'S CERTIFICATE:

TO: BARANOF HOLDINGS AND CHICAGO TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS OF ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 7(b)(1), 8, 9, 11(b), 13, 14, 15, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JUNE 23, 2023.

OMEGA LAND SURVEYING PROJECT NUMBER: 23785

DATE OF ORIGINAL PLAT: JULY 26, 2023

PREPARED BY:

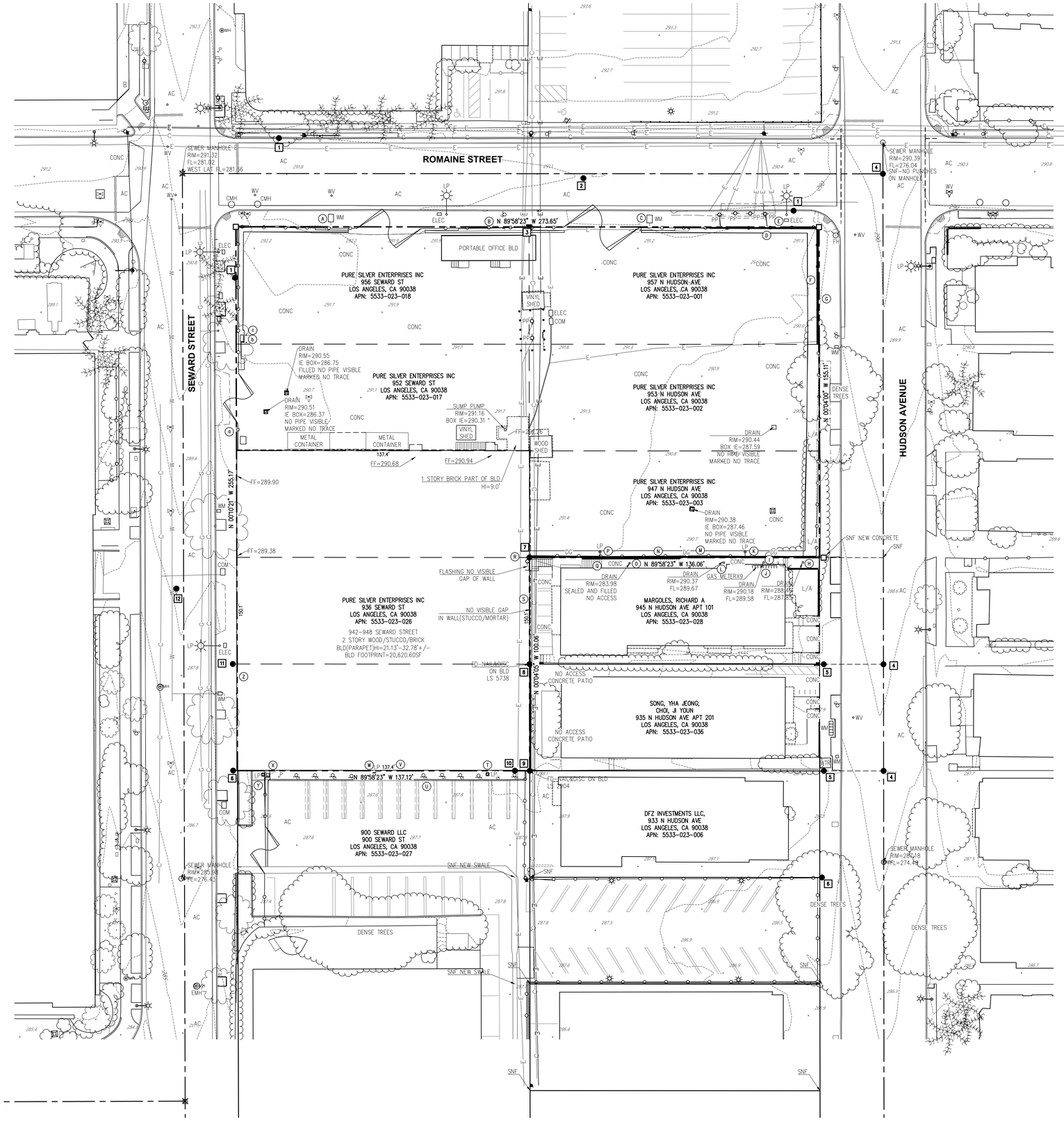
7/26/2023

RYAN J. WAKEFIELD — DATE
LS 9117

PROFESSIONAL LAND SURVEYOR — RYAN J. WAKEFIELD — L.S. 9117 — STATE OF CALIFORNIA

OMEGA LAND SURVEYING, INC.
4320 VIEWRIDGE AVENUE, SUITE C
SAN DIEGO, CALIFORNIA 92123
INFO@OMEGA-SURVEYING.COM
PH: (619) 488-6942

ALTA / NSPS LAND TITLE SURVEY



0' 10' 20' 40' 60' 80'

SCALE: 1" = 20'

OMEGA LAND SURVEYING, INC.
4320 VIEWRIDGE AVENUE, SUITE C
SAN DIEGO, CALIFORNIA 92123
INFO@OMEGA-SURVEYING.COM
PH: (619) 488-6942

APPENDIX E

Geotechnical Report

Geotechnical Site Evaluation
and
Stormwater Infiltration Test Report
Proposed 7-Story Self-Storage Building
956 Seward Street
Hollywood, California

prepared for

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

GORIAN & ASSOCIATES, INC.

TABLE OF CONTENTS

ATTACHMENTS
References
Figure 1: Vicinity Map
Figure 2: Regional Geologic Map
Figure 3: Seismic Hazard Zone Map
Appendix A: Logs of Subsurface Data
Appendix B: Laboratory Testing
Appendix C: ASCE 7 Hazard Report
Plate 1: Boring Location Map

GORIAN & ASSOCIATES, INC.

Applied Earth Sciences
Geotechnical Engineers
Engineering Geologists
DSA Accepted Testing Laboratory
Special Inspection and Materials Testing

3595 Old Conejo Road
Thousand Oaks
California 91320-2122
805 375-9262

July 26, 2023

Baranof Holdings
2850 N Harwood Street
Suite 1000
Dallas TX 75201

Work Order: 3247-0-0-100

Subject: **Geotechnical Site Evaluation and Stormwater Infiltration Test Report, Proposed 7-Story Self-Storage Building, 956 Seward Street, Hollywood, California**

1. INTRODUCTION

The following report contains the results of our geotechnical site evaluation for design and construction of an above grade 7-story self-storage building at 956 Seward Street in Hollywood, California. Layout of the project is shown on the attached Geotechnical Map, Plate 1 based on the Site Plan -V1 by Michael W. Folonis Architects. In addition, storm water infiltration testing was performed as part of this site evaluation.

The L shaped site is between Seward and Hudson Streets on the south side of Romaine Street as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard in the Hollywood area of central Los Angeles, California. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. The existing facility will be demolished for construction of the proposed building with seven floors for a total of 168,565 square feet of floor space based on the architectural plans. Foundations and on-grade slabs are anticipated to be of conventional design. Subterranean construction is not anticipated at this time.

Geotechnical borings were used to obtain data on the subsurface alluvial soils consisting predominately of clayey soils with minor layer of silty fine to coarse sands to the explored depth of 51 feet as described herein. The field exploration was supplemented with laboratory testing to determine mechanical properties of the encountered soils. In addition, research was performed that indicated the site is not within Earthquake Fault, Liquefaction, or Landslide Zones (CGS, *Earthquake Zones of Required Investigation* website). Based on our site evaluation, the site is suitable for the proposed construction from a geotechnical standpoint provided recommendations presented herein are implemented in the project design and construction. Descriptions of the site and geologic units along with our conclusions and recommendations are presented within the text of this report.

2. PROPOSED DEVELOPMENT

The project based on the Site Plan -V1 by Michael W. Folonis Architects will consist of a seven story rectangular building proposed in the western portion of the site as shown on Plate 1. The completed

building will have total of 168,565 square feet of floor space. A loading area will be roughly centered on the east side of the building. Access to the site will be via a driveway off Romaine Street. The eastern portion of the L shaped site will be used for surface parking and drive aisles and is anticipated to be paved with asphaltic concrete (AC).

The building may be supported on continuous footings, with individual storage units possibly supported on the interior slab on grade within the interior of the structure. Continuous footings at the perimeter and at the interior are anticipated to be loaded to 8 to 10 kips per linear foot. Steel stud walls spaced on 10-foot centers typically are loaded to approximately 5± kips per linear foot and may be supported directly on a thickened interior slab typical of this type of self-storage structure. The storage live loads are anticipated to be 125 pounds per square foot.

3. SCOPE OF GEOTECHNICAL SERVICES (SITE EVALUATION)

Our site evaluation was performed to provide geotechnical recommendations for design and construction of the self-storage project in general accordance with the Scope of Services presented in our proposal of May 18, 2023 (Proposal Number: 7323-10). Our geotechnical evaluation was performed under the direction of a State registered Geotechnical Engineer and included:

3.1. ARCHIVAL REVIEW

Pertinent geologic/geotechnical references in our office including regional geologic references applicable to the site were reviewed with respect to the proposed development.

3.2. SUBSURFACE EXPLORATION

Two geotechnical borings (8-inch diameter) were excavated for this study in the northern portion of the site with one boring near Seward Street and the other near N. Hudson Ave (an existing building occupies the southern portion of the site). The borings were drilled to a depth of 51 feet below the existing ground surface (bgs) utilizing a subcontractor supplied and operated truck-mounted hollow-stem auger drill rig equipped with an automatic hammer weighing 140 pounds with a 30-inch drop. The approximate boring locations shown on the Boring Location Map (Plate 1).

The field exploration activities described above were observed by an engineer from this office, who logged the underlying materials and from the borings, obtained bulk and relatively undisturbed soil samples for laboratory analyses.

At the conclusion of logging, the borings will be backfilled with a bentonite/cement grout and the surface capped. However, the backfill may settle over time and the site representative should fill any depression that may occur, as necessary.

3.3. STORMWATER INFILTRATION TESTING

Two locations were tested for stormwater infiltration. For infiltration testing, two hollow-stem auger borings were excavated to a total depth of 7 feet below the existing ground surface utilizing a subcontractor supplied and operated truck mounted hollow-stem auger drill rig.

At the conclusion of logging and soil sampling, the borings were converted to infiltration rate test wells by placing 1 foot of medium bentonite chips in the boring prior to placing a 10 foot long 2-inch diameter pipe in each boring with the lower 5 feet of pipe slotted (0.02). The annular space between the slotted pipe and the wall of the excavation was backfilled using #3 sand. The upper portion of the annular space was sealed off with medium bentonite chips followed by soil.

The test zone was pre-soaked by filling to the top of each casing with water. The water was allowed to pre-soak for a maximum period of 24 hours or until the water has completely drained out on the first day of testing. At the conclusion of the pre-soak on the test day, the pipes were refilled with water to

approximately a foot above the slotted pipe. After the pre-soak period, a falling head test was performed for both infiltration wells. However, water did not recede in the test well and the site was found to not be suitable for onsite stormwater infiltration. At the conclusion of testing, the excavations were backfilled with soil.

3.4. LABORATORY TESTING

A program of laboratory testing as outlined in Appendix B was performed to evaluate geotechnical properties of selected soil samples obtained during the subsurface exploration.

3.5. GEOTECHNICAL ENGINEERING ANALYSES AND REPORT PREPARATION

The results of our archival research, field exploration, storm water infiltration, laboratory testing, and engineering analyses were used to provide geotechnical recommendations for design and construction of a storage building, as well to provide an infiltration rate for design and construction of the stormwater BMP for the facility. The findings are provided in this report that include:

a) A description of the site and subsurface conditions as encountered in the exploratory excavations including Logs of Subsurface Data (Appendix A) and a Boring Location Map (Plate 1) showing the approximate excavation locations.

b) A description of the laboratory testing programs, including tests results (Appendix B).

c) Discussion and recommendations regarding:
   i) Geologic hazards including seismic setting of the site and faulting,
   ii) Seismic design criteria;
   iii) Soil collapse and expansion potential;
   iv) Site preparation and remedial grading;
   v) Concrete slabs on grade including aggregate base and vapor retarder;
   vi) Modulus of subgrade reaction;
   vii) Conventional foundation design recommendations;
   viii) Estimated settlements;
   ix) Pavement and hardscape design recommendations;
   x) Soil chemistry analysis, by subcontract;
   xi) Lateral earth pressures;
   xii) Stormwater infiltration potential.

4. SITE DESCRIPTION

The flat L shaped site is at 956 Seward Street in the Hollywood area of central Los Angeles, California. It is on the south side of Romaine Street between Seward and Hudson Streets as shown on the attached Site Vicinity Map, Figure 1. Also, it is roughly one block south of Santa Monica Boulevard and four blocks west of Cahuenga Boulevard. Access to the site is off either Romaine or Seward Streets. Presently, the site is occupied by an existing single story building and open-air paved truck storage area. (An inventory of the existing building is beyond the scope of this geotechnical evaluation.) Surface parking and drive areas are outside of the building and the area is used for rental truck storage. The majority of the surrounding area is occupied by multi-stored commercial and apartment buildings.

5. SITE GEOLOGY

The site is underlain by Quaternary-age alluvium (Dibblee, 1991, see the Regional Geologic Map, Figure 2) mantled with a thin veneer of artificial fill (pavement). Descriptions of the encountered units are presented below and in the attached Logs of Subsurface Data (Appendix A).

5.1. ALLUVIUM

Quaternary-age alluvium underlies the entire site to the maximum depth explored, 51 feet (B-1 and B-2) below the existing ground surface. As encountered in the borings drilled for this evaluation, the alluvium generally consists of predominately of yellowish brown clay in a very dense condition interstratified with a minor layer of silty coarse sand.

5.2. ARTIFICIAL FILL

Artificial fill was only encountered on site as pavement covering the surface parking and drive area. The asphaltic concrete was observed 6 inches underlain by 6 to 7 inches of aggregate base materials. Below the aggregate base to a depth of 5 feet is a compacted fill consisting of dark brown slightly silty clay with medium gravel, which is damp and very dense. Additional areas of artificial fill deposits could exist on the site but were not investigated or mapped as they are concealed.

5.3. GROUNDWATER

Groundwater was encountered at 17 feet below the existing ground surface in the exploratory borings. Groundwater is estimated at 20 feet below the ground surface based on the Seismic Hazard Zone Report of the Hollywood 7.5 Minute Quadrangle, Los Angeles County, California. As in any groundwater situation, groundwater levels can fluctuate and groundwater (or perched zones) may be encountered at higher elevations than previously observed in the general area.

5.4. FAULTING AND SEISMICITY

The site, like any other development in Southern California, is in a seismically active region prone to occasional damaging earthquakes. The destructive power of earthquakes can be grouped into fault-rupture, ground shaking (strong motion), and secondary effects of ground shaking such as tsunami, liquefaction, settlement, landslides, etc.

The hazard of fault-rupture is generally thought to be associated with a relatively narrow zone along well-defined pre-existing active faults. No doubt there is and will be exceptions to this, because it is not possible to predict the precise location of a new fault where none existed before (CDMG, 1975). Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). The closest active mapped faults are the Hollywood Fault, approximately 1.1 miles to the north, Newport Inglewood Fault, approximately 4.5 miles to the southwest, and the Raymond Fault, approximately 8.8 miles to the northeast. The San Fernando Fault is roughly 13 miles to the north. Potential for surface ground rupture due to faulting onsite during the project lifetime is considered remote.

Although no active or potentially active faults are known to exist within or adjacent the site, the area will be subject to strong ground motion from occasional earthquakes in the region. Significant earthquakes have occurred in Southern California within the last 50 years. Additional earthquakes will likely occur in this area within the life of the project and it will experience strong ground shaking from these events.

Probabilistic seismic hazard analyses (PSHA) predict the Design Basis Earthquake having a 2% probability of exceedance in 50 years (2,475-year return period will have a peak ground acceleration estimated to be 0.90g based on a seismic event with a mean magnitude of 6.80 (Mw) at a mean distance of 7.86 km from the site. This is based on the U.S. Geological Survey (USGS) interactive web application, Unified Hazard Tool https://earthquake.usgs.gov/hazards/interactive/ for the D class site.

Secondary effects of strong ground motion include tsunami, seiche, liquefaction, settlement, earthquake triggered landslides, and flooding from dam failures. Tsunamis are impulsively generated water waves that can cause damage to shoreline areas. A seiche is an oscillation wave within an enclosed body of water. The site is not near the ocean or adjacent a body of water and, therefore, is not subject to tsunami and seiche hazards. Furthermore, the site is not prone to earthquake triggered landslides due to

the relatively low relief in the area and preponderance of development covered land, nor is the site in the vicinity of any dam failure inundation zone. The site is not within a State designated seismic hazard zone for liquefaction potential (CGS, Earthquake Zones of Required Investigation website). See Figure 3, the Seismic Hazards Zone Map.

5.5. FLOOD POTENTIAL

Per the City of Los Angeles website: https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is not in a flood hazard zone.

5.6. METHANE HAZARD ZONE

Per the City of Los Angeles website: https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=144B185-966 the site at 956 Seward Street is within a Methane Buffer Zone. Testing for the presence of methane is outside of the services provided for this project.

5.7. HYDROCONSOLIDATION

Hydroconsolidation occurs when the soil structure collapses due to soil wetting resulting in consolidation of the soil column. However, at this site, the in-place moisture contents are above the optimum moisture. Therefore, addition of water to the soils should not result in hydroconsolidation. In addition, groundwater was encountered at 17 feet in the borings. Therefore, the potential for hydroconsolidation below the completed project should negligible due to the high groundwater and soil moisture contents.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. GENERAL

The site was evaluated from a geotechnical standpoint for construction of a self-storage facility described herein. The alluvial deposits are suitable for the support of the structure. Therefore, conventional shallow foundations and a mat foundation may be used for structural support. However, remedial grading is needed to prepare the site as discussed hater herein. Differential settlement should be negligible based on the bearing capacities provided herein. The project may be developed as described earlier in this report provided recommendations presented herein are followed and incorporated into the project design and construction.

6.2. SEISMIC DESIGN PARAMETERS

As previously discussed, Holocene-active faults are not known to cross the site nor is the site currently within an Alquist-Priolo (A-P) Earthquake Fault Zone as defined by the State Geologist (CGS 2018). Nevertheless, the site is within a seismically active region prone to occasional damaging earthquakes.

Structures within the site may be designed using procedures for seismic design presented in ASCE/SEI 7-16. Mapped acceleration parameters are initially determined for sites having a shear wave velocity of 2,500 feet per second (Section C11.4.4). The S_s and S_1 values are adjusted to obtain the maximum considered earthquake (MCE) spectral acceleration values for the site based on its site class of D. The seismic design parameters for the site's coordinates (latitude 34.0889 N and longitude 118.3328 W) were obtained from the web based ASCE 7 Hazard Tool https://asce7hazardtool.online/ The parameters are presented on the following page (the full report is presented in Appendix C).

SEISMIC PARAMETER	VALUE PER CBC
Short Period Mapped Acceleration (S_s)	2.087g
Long Period Mapped Acceleration (S_1)	0.748g
Site Class Definition	D
Site Coefficient (F_a)	1.0
Site Coefficient (F_v)	1.7*
$S_{MS} = F_a S_s$	2.087g
$S_{M1} = F_v S_1$	1.272g*
$S_{DS} = 2/3 S_{MS}$	1.391g
$S_{D1} = 2/3 S_{M1}$	0.848g*
PGA_M	0.983g

**Based on proposed development meeting requirements of the exemption for Site Class D sites in Section 11.4.8 of ASCE 7-16. Further analysis may be required once the Response Modification Factor and Period of the proposed development are known.*

The purpose of the building code earthquake provisions is primarily to safeguard against major structural failures and loss of life, not to limit damage nor maintain function. Therefore, values provided in the building code should be considered minimum design values and should be used with the understanding site acceleration could be higher than addressed by code-based parameters. Cracking of walls and possible structural damage should be anticipated in a significant seismic event.

6.3. STORMWATER INFILTRATION

Based on our test results and field exploration observations, soils within the site were not found to be suitable for construction of a stormwater infiltration system. Water remained in the test wells the day after the wells were filled with water to presoak the test wells. On the test day, the test wells were refilled with water, which did not recede during the test period.

6.4. SITE PREPARATION AND GRADING

6.4.1. General

Geotechnical recommendations are presented in the following sections for preparation of the building pad. Site preparation and fill placement should be performed per the City of Los Angeles standards. The undisturbed in-placed alluvial soils are suitable for foundation support.

6.4.2. Site Clearing

Prior to starting earthwork, trash, debris, and remnants of demolition within all areas of construction should be stripped and removed from the site. Utilities within the area of proposed construction should be identified and removed or protected prior to grading.

6.4.3. Demolition

Presently, the area is covered by paving and facilities related to the prior use of the property that are planned for demolition. Utilities to remain should be protected in place. An inventory of the building is beyond the scope of this geotechnical evaluation. Therefore, equipment foundations and/or various utilities may be encountered during the site demolition.

6.4.4. Existing Fill Soils

Fill soils were encountered in the exploratory borings. The fill is well consolidated and suitable for foundation support. However, since the borings were outside of the existing building, additional evaluation of the fill will be needed once the building has been removed.

6.4.5. Soil Removals

Remedial grading should be performed within the proposed building areas to remove soils disturbed during demolition of the existing site improvements. Soil removals, as a minimum, should extend to undisturbed in-place native alluvial or compacted fill soils below soils disturbed during site clearing. The removal should include disturbed fill soils encountered in the site grading. For areas supporting foundations or concrete slabs on grade including mat slabs, soil removals should extend roughly 2 feet below existing ground surface after demolition. However, deeper excavation may be necessary based on the depth of demolition within the existing facility building. Therefore, the actual depth of needed removal should be evaluated by this office based on the actual depth of removal of existing structure foundations, utilities, or equipment foundations.

The bottom of the soil removal should extend past the outside of the perimeter footings a minimum distance equal to the depth of removal below the footing. However, soil removals should not extend below a 2(horizontal)1(vertical) line extending down from the property lines or as evaluated per this office. After removals are completed, a representative of this office should observe the bottom of the removal area prior to placing fill. Fill soil should not be placed until geotechnical observation of the removal areas is completed.

Outside the building areas, soil removals as a minimum, should extend to undisturbed in-place native alluvial soils of compacted fill below soils disturbed during the site clearing. Removal in the existing parking and drive areas may be limited to the asphaltic concrete and base, however, the removal area should be observed by this office to evaluation if additional soil removal is necessary.

The removed soils may be reused as fill material provided, the soils are clean and placed as described herein. The removal area should be observed by this office prior to fill placement to evaluate if deeper removals are necessary.

6.4.6. Soil Compaction

Fill soil or in-place compaction should be completed to a minimum 90 percent relative compaction. Relative compaction is the ratio of the in-place dry soil density to the maximum dry soil density as determined in general accordance with ASTM laboratory standard D-1557.

6.4.7. In-Place Soil Processing

Once the soil removals are complete and prior to placing fill, the bottom of the removal area should be processed. Processing consists of scarifying the exposed surface to a depth of roughly 6 to 8 inches, conditioning the scarified soil to above the optimum moisture content, and compacting the scarified soil. Processed soil should be compacted to 90 percent relative compaction.

6.4.8. Fill Placement

Soils generated from the removal areas should be suitable for reuse as fill. Import fill if required should be similar to on-site materials. This office should observe the source of import fill prior to placement.

Fill soils should be free of significant vegetation, rocks greater than 6 inches in maximum linear dimension, and other deleterious materials. In addition, fill soils should be mixed and blended. Fill soils should be placed in lifts not exceeding 8 inches in maximum loose thickness, moisture conditioned to slightly over optimum moisture content, and compacted to at least 90 percent relative compaction.

6.5. SOIL EXPANSIVENESS

An expansion test conducted on the upper soils within the site resulted in an expansion index of 73 indicating the underlying fine-grained materials have a moderately expansion potential, in the 51-90 Expansion Index Range. However, based on the consolidation tests, deeper soils have a significant expansion potential. Therefore, soils having a higher expansion potential may be encountered within the

site. Additional expansion tests may be performed at the conclusion of the recommended remedial grading.

Expansive soils contain clay particles that change in volume (shrink or swell) due to a change in the soil moisture content. The amount of volume change depends upon the soil swell potential (amount of expansive clay in the soil), availability of water to the soil, and the soil confining pressure. Swelling occurs when soils containing clay become wet due to excessive water from poor surface drainage, over-irrigation of lawns and planters, and sprinkler or plumbing leaks.

Swelling clay soils can cause distress to construction including walks, drains, and patio slabs (generally as uplift). Construction on expansive soil has an inherent risk that should be acknowledged and understood by the developer/property owner. The geotechnical recommendations presented herein are intended to reduce the potential for expansive soil action. However, these recommendations are not intended, nor designed to provide complete and full mitigation of expansive soil conditions. If requested, additional recommendations can be provided to further reduce the risk of expansive soil movement. Soil movement can be roughly 1± inches. Therefore, the following should be maintained within the lot.

- Positive drainage should be consistently provided and maintained away from structures. Drainage should not be changed creating an adverse drainage condition.
- Landscape watering should be held to a minimum and irrigation systems should be maintained. Sprinkler or plumbing leaks should be immediately repaired so the subgrade soils underlying or adjacent the structures do not become saturated. Trees should be spaced so that roots will not extend under foundations or slabs.

6.6. FOUNDATION DESIGN

6.6.1. Design Data

Structures may be supported on continuous or isolated footings underlain by engineered compacted soil or firm native soils as addressed above and may be designed for an allowable bearing pressure of 3,000 pounds per square foot (psf). The allowable net bearing pressure may be increased by one-third when considering wind or seismic loads. The weight of concrete below grade may be excluded from the footing load. Shallow footings adjacent walls (such as loading docks), should be included in the design of walls or stepped down below a 2(horizontal):1(vertical) plane projecting upward from the bottom of adjacent footings.

Continuous and isolated footings should have minimum widths of 18 inches and 24 inches, respectively. The footings should be embedded a minimum of 36 inches for interior and exterior footings. The embedment should be measured from the lowest adjacent grade (lowest grade at the time of excavation or after). Interior footings may be embedded a minimum of 24 inches below the interior slab. Steel reinforcement should be per the structural engineers' recommendations. However, minimum continuous footing reinforcement should consist of three number five bars in the top and bottom (total of 4 bars). In addition, interior slabs should be tied to the footings with number 4 bars at 24-inch centers bent 3-feet into the slab and extended to within 3 inches of the bottom of the footing. Perimeter isolated footings should be tied together with a grade beam extending 36 inches deep below the lowest adjacent grade.

6.6.2. Mat Slab Design Data

Mat slabs may be designed using an allowable soil bearing pressure of 1,500 pounds per square foot (at the ground surface) or a modulus of subgrade reaction "K" of 125 pounds per cubic inch (pci) at the surface of a properly prepared building pad. The project structural engineer should determine the steel reinforcement and concrete compressive strength. The slabs supporting interior steel stud walls should be a minimum of 8 inches thick. A mat slab should be underlain by a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. In

addition, interior mat slab design should include a moisture retarder as indicated under *Slabs on Grade* below.

6.6.3. Lateral Earth Pressures

Lateral forces on foundations may be resisted by passive earth pressure and base friction. Lateral passive earth pressure may be considered equal to a fluid weighing 250 pounds per cubic foot (pcf). The lateral passive pressure may be increased to a maximum of 2500 psf. Base friction may be computed at 0.3 times the normal load. Passive earth pressure and base friction may be combined without reduction.

A passive pressure of 30 pcf may be used for shallow retaining walls allowed to yield at the top as in loading dock walls. If the walls are restrained, the active pressure should be increased to 60 pcf.

6.6.4. Estimated Settlements

Static settlement of footings should be evaluated once building footing locations and structural loads are known. However, footing settlement for static loading is anticipated on the order of 1/2 inch or less, with a maximum differential settlement of 1/2± inch over a span of approximately 30 feet or between adjacent individual footings. This is provided building construction is started directly after footing excavation, footings are cast soon after the footing excavation, and construction is completed in a timely manner. Settlements due to static loading are expected to occur rapidly as the loads are applied.

All structures settle during construction and some minor settlement of structures can occur after construction during the life of the project. Minor wall cracking could occur within the structure associated with expansion and contraction of the structural members. In addition, wall or slab cracking may be associated with settlement or expansive soil movement. Additional settlement/soil movement could occur if the soils dry or become saturated due to excessive water infiltration generally caused by excessive irrigation, poor drainage, etc.

6.6.5. Footing Excavations

This office should observe the footing excavations prior to placing reinforcing steel. Footings should be cut square and level and cleaned of loose soils. Soil excavated from the footing and utility trenches should not be spread over any areas of construction unless properly compacted. Soils silted into the footing excavations should be removed to the required depth prior to casting the concrete. The footings should be cast as soon as possible to avoid deep desiccation of the footing subsoils.

6.6.6. Premoistening

Footing subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches below the bottom of the footing. Saturated soils or soils silted into the footing excavations should be removed prior to concrete placement.

6.7. SLABS-ON-GRADE

6.7.1. Site Preparation

The subgrade for slabs-on-grade, if disturbed during foundation and utility construction, should be conditioned prior to placement of an aggregate materials. Loose soils should be removed to firm in-place material, the exposed subgrade processed, and the material replaced as engineered compacted fill or aggregate material.

6.7.2. Slab-on-Grade Design Data

Interior concrete slabs on-grade not used for structural support should be 5 inches thick and underlain by 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The slab should be reinforced with a minimum of number 4 bars at 16-inch centers in each direction. The reinforcement should be placed and kept at slab mid-depth. In addition to the above

slab recommendations, slabs supporting heavy loads including mat slabs should be designed by the structural engineer for the intended loading, thickness, and reinforcement.

Exterior concrete slabs-on-grade (non-auto traffic) and walkways should be a minimum of 4 inches thick and underlain by a minimum of 4 inches of sand. In areas of heavy loading for truck traffic (including trash pickup areas and loading docks) the slab thickness should be increased to a minimum of 7 inches thick. Exterior slabs should be reinforced with a minimum of No. 4 bars on 16-inch centers in each direction. The reinforcement should be placed at mid-depth of the slab. Sidewalks may be constructed of non-reinforced concrete provided the sidewalks are cut into square panels (i.e., 4-foot wide walks should be cut into 4 foot by 4 foot squares).

6.7.3. Premoistening

Slab on-grade subsoils should be premoistened to 3% over the optimum moisture content for a depth of 18 inches.

6.7.4. Concrete Placement and Cracking

Minor cracking of concrete slabs is common and is generally the result of concrete shrinkage continuing after construction. Concrete shrinks as it cures resulting in shrinkage tension within the concrete mass. Since concrete is weak in tension, development of tension results in cracks within the concrete. Therefore, the concrete should be placed using procedures to minimize the cracking within the slab. Shrinkage cracks can become excessive if water is added to the concrete above the allowable limit and proper finishing and curing practices are not followed. Concrete mixing, placement, finishing, and curing should be performed per the American Concrete Institute Guide for Concrete Floor and Slab Construction (ACI 302.1R). Concrete slump during concrete placement should not exceed the design slump specified by the structural engineer or 5 inches, whichever is the lessor. Concrete slabs on grade should be provided with tooled crack control joints at 10-15 foot centers or as specified by the structural engineer.

6.7.5. Moisture Vapor Barrier

Moisture migration occurs when there is a differential potential in the relative moisture below and above the concrete slab on grade. Therefore, concrete slabs on grade within the building interior should be considered sensitive to moisture and an appropriate moisture vapor retarder layer should be installed and maintained below concrete slabs-on-grade. The water vapor retarder should be one that is specifically designed as a vapor retarder and consist of a minimum 15 mil extruded polyolefin plastic and complying with Class A requirements under ASTM E1745 (*Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*). The vapor retarder should be installed in accordance with ASTM E1643. The water vapor retarder should be installed in direct contact with the concrete slab along with a concrete mix design to control bleeding, shrinkage, and curling (ACI 302.2R). The vapor retarder shall be installed over a minimum 6-inch-thick layer of ½ inch or larger clean aggregate or per applicable building codes, whichever is the more restrictive. The vapor retarder should be placed per ASTM E1643-98(2005) *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*. In addition, various trades and the concrete contractor should be required to protect the moisture retarder during construction.

Joints in the vapor retarder layer should be lapped and sealed. Perforations through the moisture vapor retarder such as at pipes, conduits, columns, grade beams, and wall footing penetrations should be sealed per the manufacture's specifications or ASTM E1643. Proper construction practices should be followed during construction of slabs on-grade. Repair and seal tears or punctures in the moisture barrier that may result from the construction process prior to concrete placement.

Minimizing shrinkage cracks in the slab on-grade can further minimize moisture vapor emissions. A properly cured slab utilizing low-slump concrete will reduce the risk of shrinkage cracks in the slab as described herein.

The concrete contractor should make the necessary changes in the concrete placement and curing for concrete placed directly over the retarder. Placing the concrete directly on top of the moisture vapor retarder layer allows the layer to be observed for damage directly prior to concrete placement.

The slabs should be tested for moisture content prior to the selection of the flooring and adhesives. Moisture in the slabs should not exceed the flooring manufacture's specifications. The concrete surface should be sealed per the manufacture's specifications if the moisture readings are excessive. It may be necessary to select floor coverings that are applicable to high moisture conditions.

6.8. SOIL CORROSIVITY

The results of the analytical laboratory testing to evaluate the potential for corrosion of materials in contact with the onsite soils will be provided in a subsequent report.

6.9. SITE DRAINAGE

Positive drainage should be continuously provided and maintained away from the structure during and after construction in accordance with applicable building codes and/or the approved grading plan. Regarding landscaping, planters adjacent a structure should be constructed so that irrigation water will not saturate the soils underlying the building footings and slabs. Trees should not be planted adjacent a structure where roots could grow under the foundations or slabs.

6.10. GUTTERS AND DOWNSPOUTS

Gutters and downspouts should be installed on the buildings to collect roof water and direct the water away from the structure. Downspouts should drain into PVC collector pipes that will carry the water away from the building.

6.11. PAVEMENT DESIGN

The anticipated structural section is 3 inches of asphaltic concrete over 8 inches of aggregate base for parking areas. The structural section should be increased to be 3 inches of asphaltic concrete over 12 inches of aggregate base for drive areas. The final structural sections should be confirmed at the conclusion of grading. The upper 6 inches of subgrade and the base materials should be compacted to at least 90% and 95% of the maximum dry density, respectively.

Planter areas should be graded so excess water drains onto and not beneath the adjacent AC pavement and curbs. Also, adjacent the planters, consideration should be given to deepening the curbs so that water is not allowed to saturate the pavement subgrade.

6.12. PLAN REVIEW(S)

As the development process continues and final detailed grading and site/foundation plans and specifications are developed, they should be reviewed by Gorian and Associates, Inc. Additional geotechnical recommendations may be warranted at that time.

7. CLOSURE

This report was prepared under the direction of State registered geotechnical engineer for the addressee and design consultants solely for design and construction of the project as described herein. No warranty, express or implied, is made as to conclusions and professional advice included in this report. Gorian and Associates, Inc. disclaim any and all responsibility and liability for problems that may occur if the recommendations presented in this report are not followed.

This report may not contain sufficient information for other uses or the purposes of other parties. Recommendations should not be extrapolated to other areas or used for other facilities without consulting Gorian and Associates, Inc. Services of this office should not be construed to relieve the owner or contractors of their responsibilities or liabilities.

The scope of the services provided by Gorian and Associates, Inc. and its staff, excludes responsibility and/or liability for work conducted by others. Such work includes, but is not limited to, means and methods of work performance, quality control of the work, superintendence, sequencing of construction and safety in, on, or about the jobsite.

The recommendations are based on interpretations of the subsurface conditions concluded from information gained from subsurface explorations and a surficial site reconnaissance. The interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the site. Due to possible subsurface variations, this office should observe all aspects of field construction addressed in this report. Individuals using this report for bidding or construction purposes should perform such independent investigations as they deem necessary.

oOo

Please contact our office if you have questions regarding the information and recommendations contained in this report, or require additional consultation.

Respectfully submitted,

Gorian and Associates, Inc.

By: Jerome J. Blunck, GE 151
Principal Geotechnical Engineer

REFERENCES

American Concrete Institute, ACI 318: Building Code Requirements for Structural Concrete.

ASCE/SEI 7-16 *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, Published by the American Society of Civil Engineers. 2017.

California Geological Survey (CGS), 2018, *Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California.* California Geological Survey Special Publication 42, Revised 2018.
https://www.conservation.ca.gov/cgs/Documents/Publications/Special-Publications/SP_042.pdf

California Geological Survey (CGS), 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California. California Geologic Survey Special Publication 117A. (revised March 2009).

California Division of Mines and Geology (CDMG) [now California Geological Survey (CGS)], 1975, *Guidelines for Evaluating the Hazard of Surface Rupture.* California Division of Mines and Geology Note Number 49.

California Division of Mines and Geology (CDMG) [now California Geological Survey (CGS)], 1995, *Supplement No. 1 to Special Publication 42* (1994 edition).

California Geological Survey (CGS), 1998, *Seismic Hazard Zone Report For the Hollywood 7.5-Minute Quadrangles, Los Angeles County, California. Revised 2001, 2005 & 2006.* CGS Seismic Hazard Zone Report 026.

California Geological Survey (CGS), 1999, Seismic *Hazard Zones Official Map for the Hollywood Quadrangle*, released March 25, 1999.

California Geological Survey (CGS), *Earthquake Zones of Required Investigation.* Viewed online:
https://maps.conservation.ca.gov/cgs/EQZApp/app/

Dibblee, Thomas W., Jr. 1989, *Geologic Map of the Los Angeles 7.5-Minute Quadrangles, Los Angeles County, California.* Dibblee Geological Foundation Map #DF-22.

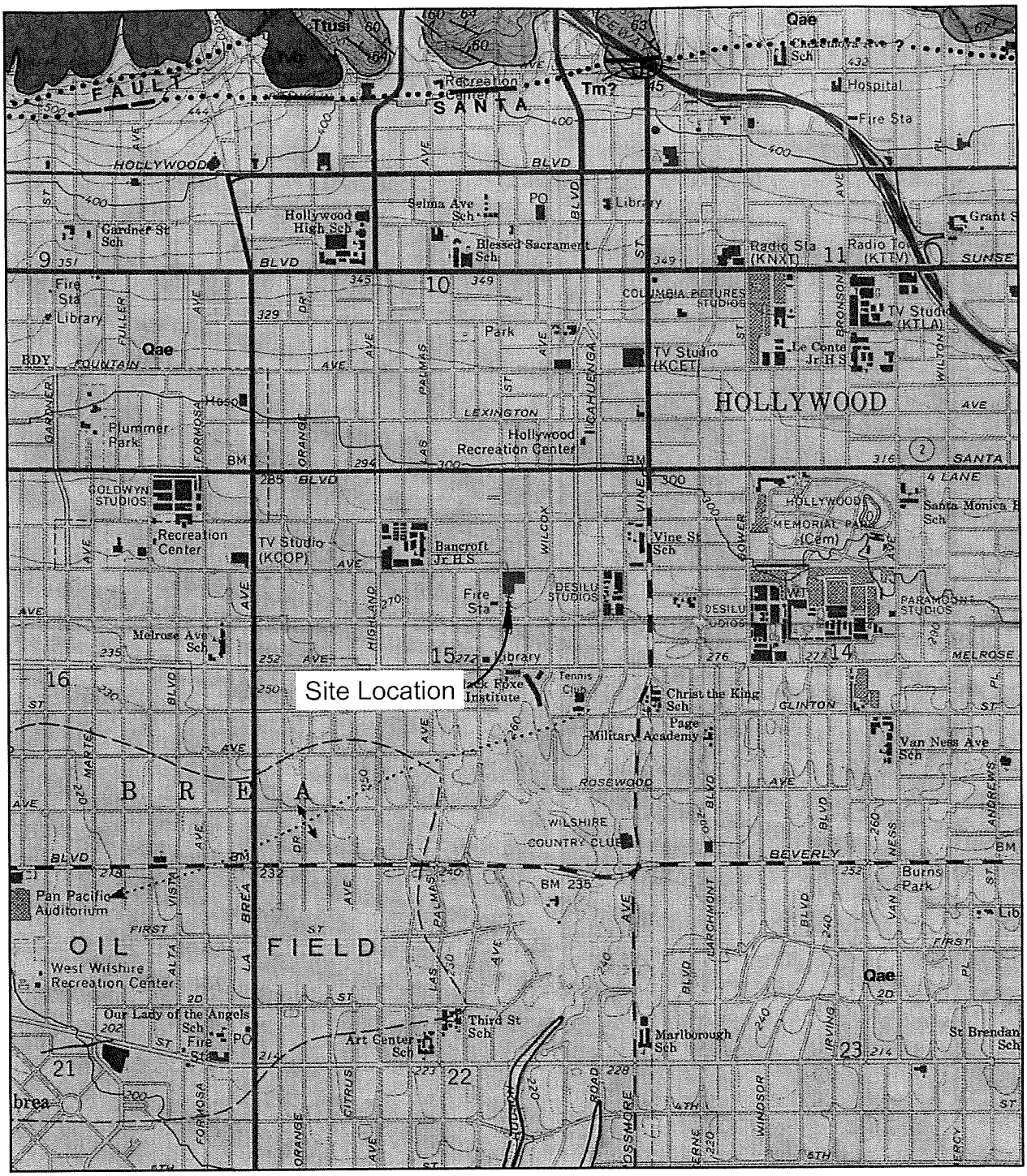
United States Geological Survey (USGS) interactive web application, Unified Hazard Tool.
https://earthquake.usgs.gov/hazards/interactive/.

SITE VICINITY MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: NTS	Drawn by:	Figure 1
	Approved by:	

Source
Gaia, online



Source: Dibblee, Thomas W. Jr., ed. Ehrenspeck, Helmut E., 1991, GEOLOGIC MAP OF THE HOLLYWOOD QUADRANGLE, *LOS ANGELES COUNTY, CALIFORNIA*. Dibblee Geological Foundation Map #DF-30.

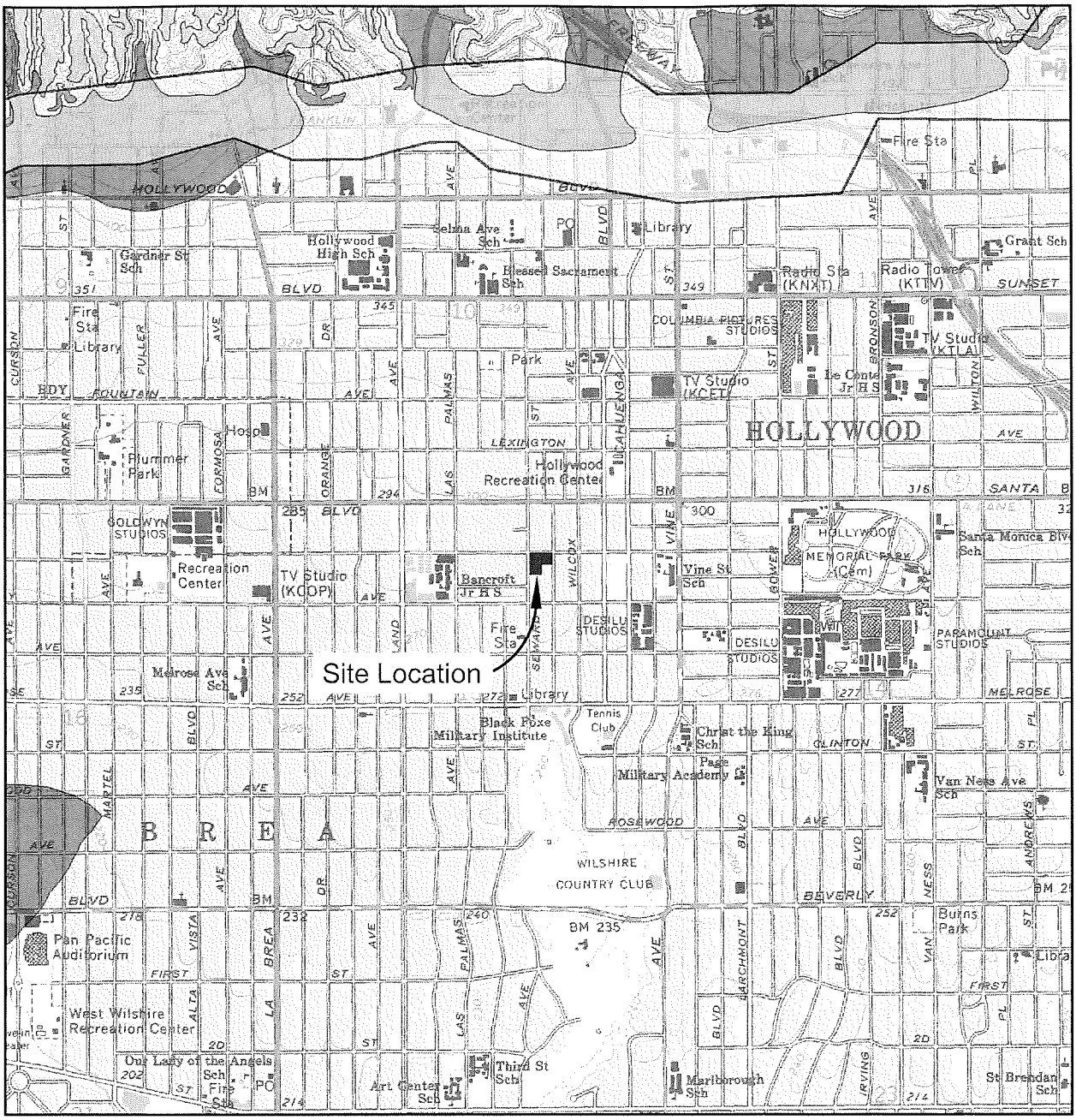
Explanation

Qa - Alluvium; unconsolidated floodplain deposits of silt, sand and gravel

REGIONAL GEOLOGIC MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 2000'	Drawn by:	Figure 2
	Approved by:	



Explanation

Seismic Hazard Zone - Liquefaction

Earthquake Fault Zone

Source

California Geological Survey, Earthquake Zones of Required Investigation Hollywood Quadrangle, Official Map Released March 25, 1999

SEISMIC HAZARD ZONE MAP

956 Seward Street
Hollywood, California

Gorian & Associates, Inc. *Applied Earth Sciences*		
Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 2000'	Drawn by:	Figure 3
	Approved by:	

APPENDIX A

LOGS OF SUBSURFACE DATA

GORIAN & ASSOCIATES, INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0						CL		Asphalt (6"), Base (7") Fill: Dark Brown slightly silty CLAY with medium gravel and cement (damp, very dense).	
			21	18.4	103.2				
5			25	17.0	111.2				
						CL		ALLUVIUM: Yellowish brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
			20	16.9	110.5				
10			15	19.4	107.7	CL		Dark brown slightly silty CLAY with fine to medium cobbles and coarse sand (damp, very dense).	
15			15	15.8	107.0	CL		Yellowish brown CLAY with trace sand and fine gravel (damp, medium dense). Groundwater at 17'	
						SM		Light yellowish brown slightly silty coarse SAND with fine gravel (moist, medium dense).	
20			21	18.8	101.7				
25			5	25.5	101.9	CL		Light yellowish brown sandy CLAY; trace silt with fine to medium gravel (moist, medium dense).	
30			14	17.1	117.8	CL		Light yellowish brown very sandy CLAY with fine gravel (moist, medium dense).	
35			13	22.2	107.2	SM		Light yellowish brown very sandy CLAY with fine gravel to light yellowish brown clayey SAND with fine gravel, trace silt (moist, medium dense).	

GORIAN & ASSOCIATES, INC.

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-1

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40						CL		Becoming siltier; light yellowish brown sandy CLAY with fine gravel, trace silt (moist, medium dense).	
45			22	24.4	102.8	ML		Light yellowish brown sandy SILT with fine gravel (moist, medium dense).	
50			15	18.8	108.9	CL		Reddish brown silty CLAY with fine gravel (moist, medium dense).	
								TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

GORIAN & ASSOCIATES, INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Page Number: 1

Date(s) Excavated 06/30/2023	Logged By EG	Excavation Location See Map	Approximate Surface Elevation
Excavation Dimension 8"	Equipment Contractor 2R Drilling	Equipment Type CME 75	Hammer Data

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
0								Asphalt (6"), Base (6")	
						CL		Fill: Dark brown slightly silty CLAY with fine to medium gravel and cement (damp, medium dense).	
			15	23.3	88.1				
5			20	20.5	98.0	CL		ALLUVIUM: Dark brown CLAY with coarse gravel (damp, medium dense).	
			21	23.9	96.6	CL		Dark yellowish brown CLAY with fine gravel, micaceous , trace silt (damp, medium dense).	
10			23	26.8	97.0	CL		Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	
15			31	19.4	111.6	CL		Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense). Groundwater at 17'	
20			23	15.7	115.3	CL		Dark yellowish brown to reddish brown very sandy CLAY, fine to medium gravel (very moist, medium dense).	
25			12	20.0	108.4	CL		Reddish brown sandy CLAY, micaceous, with fine gravel, trace silt (moist, medium dense).	
30			23	24.8	102.9				
35			28	20.6	105.6				
						CL		Reddish brown to grayish brown CLAY, micaceous with fine gravel (damp, very dense).	

GORIAN & ASSOCIATES INC

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Work Order: 3247-0-0-100

SUBSURFACE LOG

Excavation Number: B-2

Elevation / Depth (ft.)	Bulk	Sample Type	Blow Counts	Moisture Content (% dry weight)	Dry Density (pcf)	USCS	Soil / Lithology	Description	Remarks
40			20	26.1	98.3	CL		Yellowish brown very sandy CLAY with fine to medium gravel, trace silt (moist, very dense).	
45			20	20.6	109.9	SM		Light yellowish brown to reddish brown with clayey coarse SAND with fine to medium gravel, trace silt (moist, medium dense).	
50			37	12.5	120.7			TOTAL DEPTH 51' No Caving Observed Groundwater at 17'	
55									
60									
65									
70									
75									
80									

APPENDIX B
LABORATORY TESTING

General

Laboratory test results on selected samples are presented below. Test were performed to evaluate the physical and engineering properties of the encountered earth materials, including in-situ moisture content and dry density, optimum moisture-maximum dry density relationships, expansion potential, consolidation characteristics, grain size distribution, and shear strength parameters. Soil corrosivity testing was performed under subcontract by a corrosion engineer.

Density and Moisture Tests

In situ dry density and moisture content were determined for each undisturbed soil sample. The results are presented on the Logs of Subsurface Data (Appendix A).

Maximum Density-Optimum Moisture

A maximum density/optimum moisture test (compaction characteristics) was performed on a selected bulk sample of the soils encountered. The test was performed in general accordance with ASTM D 1557. The results are as follows:

Boring Number	Depth (feet)	Visual Classification	Maximum Dry Density – pcf	Optimum Moisture Content - %
B-1	3	dark brown slightly silty clay	113.3	14.1

Soil Expansiveness

An expansion index test was performed on a soil sample obtained from the borings to evaluate expansion potential of the subgrade soils in general accordance with the Expansion Index Test method (ASTM test method D4829-08a). The results are as follows:

Boring Number	Depth (feet)	Expansion Index	Expansion Range
B-1	3	73	51-90

Direct Shear Test

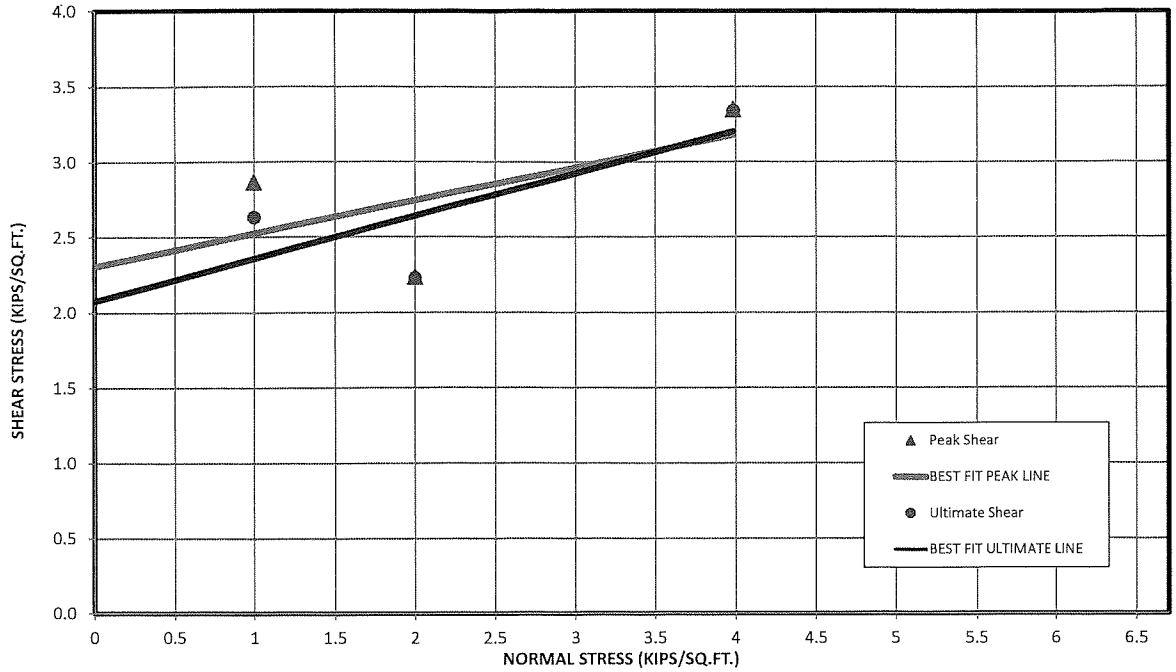
Direct shear tests were performed on two relatively undisturbed samples to evaluate soil shear strength parameters. The sample sets were sheared under normal pressures as indicated on the attached summary graphic plots.

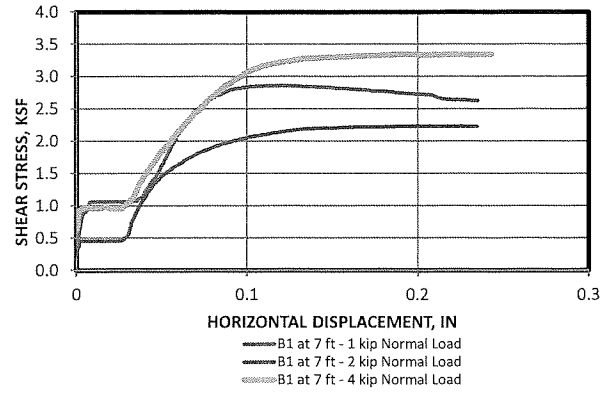
Consolidation Tests

Consolidation (confined compression) tests were performed on three selected samples of the soils below anticipated foundation depths to evaluate compressibility characteristics. The samples were loaded in increments to a maximum of 8,000 pounds per square foot and then rebounded. The samples were inundated at the indicated overburden pressure to evaluate the effect of moisture infiltration on compression behavior. The load-consolidation curves are presented herein as graphic summaries.

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B1
DEPTH:	10 ft

TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.0
ULTIMATE			
SHEAR STRESS (KSF):	2.63	2.23	3.34
H.DISPL. (IN)	0.24	0.24	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	2.86	2.24	3.35
H.DISPL. (IN)	0.12	0.20	0.19

	PEAK	ULT.	RES.
COHESION (KSF):	2.300	2.075	
PHI (DEG):	12	16	

PRESHEAR DRY DENSITY (PCF):	110.7	111.2	111.9
PRESHEAR MOISTURE (% OF DD):		21.0	
EST.VOID RATIO, e (preshear):	0.47	0.46	0.45

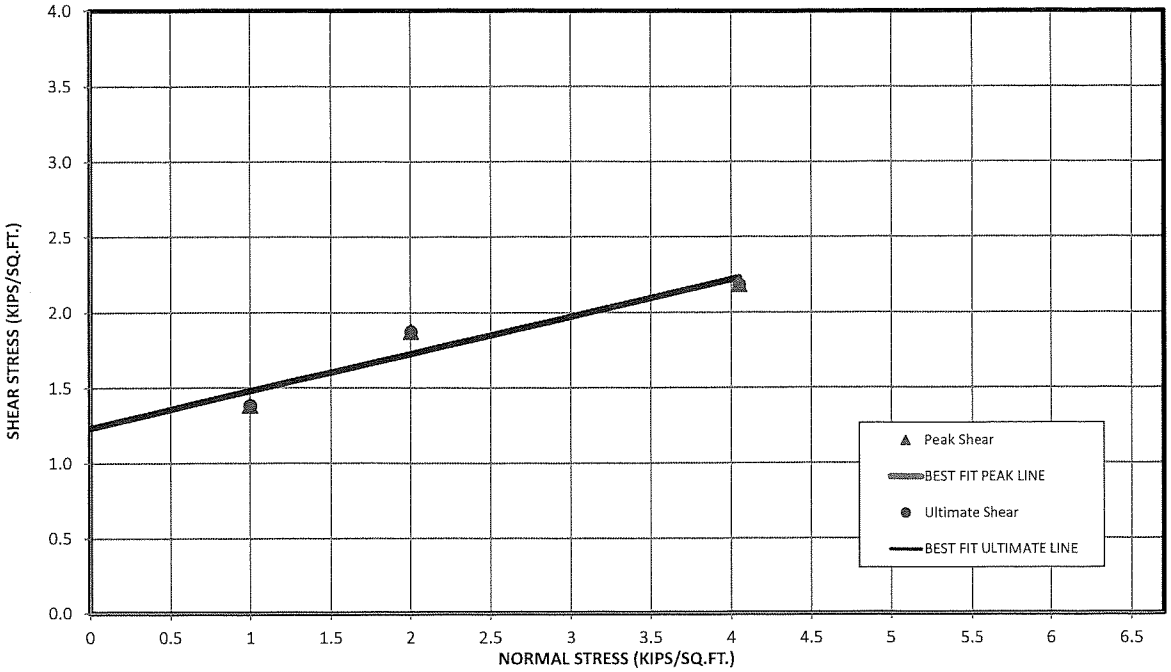
TEST FILES:

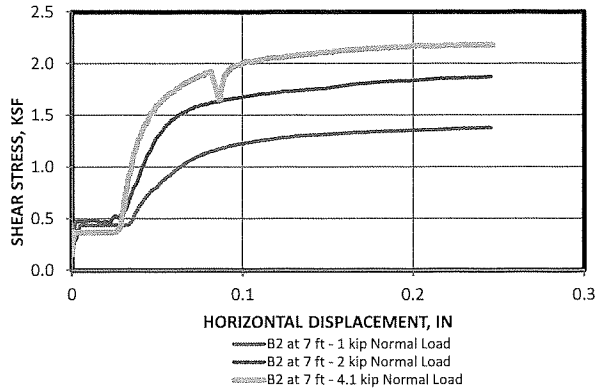
S:\GEOTEST\shears\GORIAN\TEST978.DAT
S:\GEOTEST\shears\GORIAN\TEST979.DAT
S:\GEOTEST\shears\GORIAN\TEST980.DAT

GORIAN & ASSOCIATES, INC.

DIRECT SHEAR TEST RESULTS

Undisturbed Sample





PROJECT:	Baranoff 956 Seward St.
W.O:	3247-0-0-2023
EXCAVATION:	B2
DEPTH:	7 ft

TEST DATA:	#1	#2	#3
NORM. PRES. (KSF)	1.0	2.0	4.1
ULTIMATE			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25
DISP. RATE (IN/MIN)	0.01	0.01	0.01
PEAK			
SHEAR STRESS (KSF):	1.38	1.87	2.18
H.DISPL. (IN)	0.25	0.25	0.25

	PEAK	ULT.	RES.
COHESION (KSF):	1.225	1.225	
PHI (DEG):	14	14	

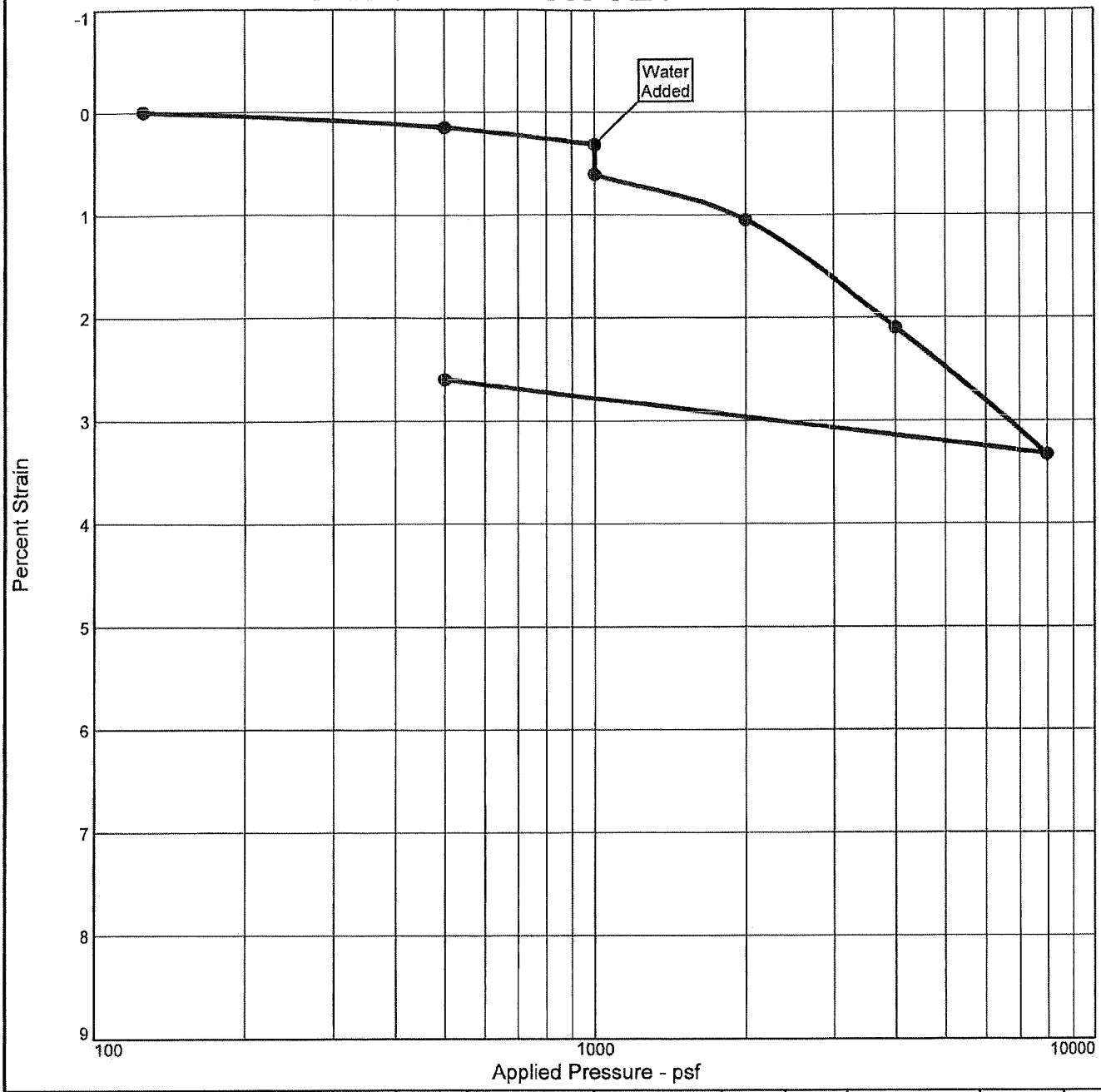
PRESHEAR DRY DENSITY (PCF):	96.8	97.0	97.4
PRESHEAR MOISTURE (% OF DD):		26.4	
EST.VOID RATIO, e (preshear):	0.68	0.67	0.67

TEST FILES:

S:\GEOTEST\shears\GORIAN\TEST981.DAT
S:\GEOTEST\shears\GORIAN\TEST982.DAT
S:\GEOTEST\shears\GORIAN\TEST983.DAT

GORIAN & ASSOCIATES, INC.

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Clpse. %	e_o
							2217				0.3	

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-1 **Depth:** 7

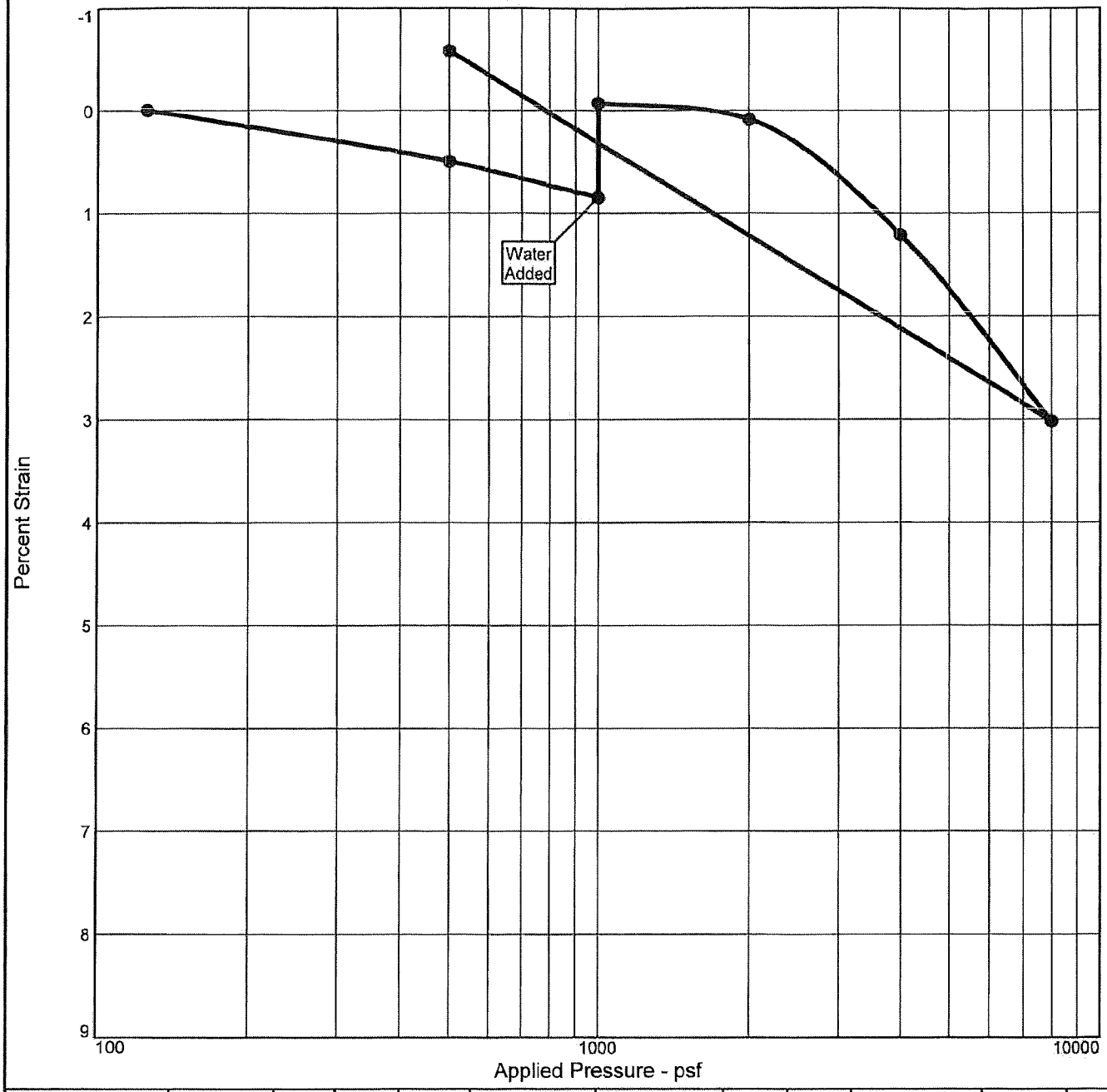
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
							2736			3362	0.9	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse sand (damp, very dense) .	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 10

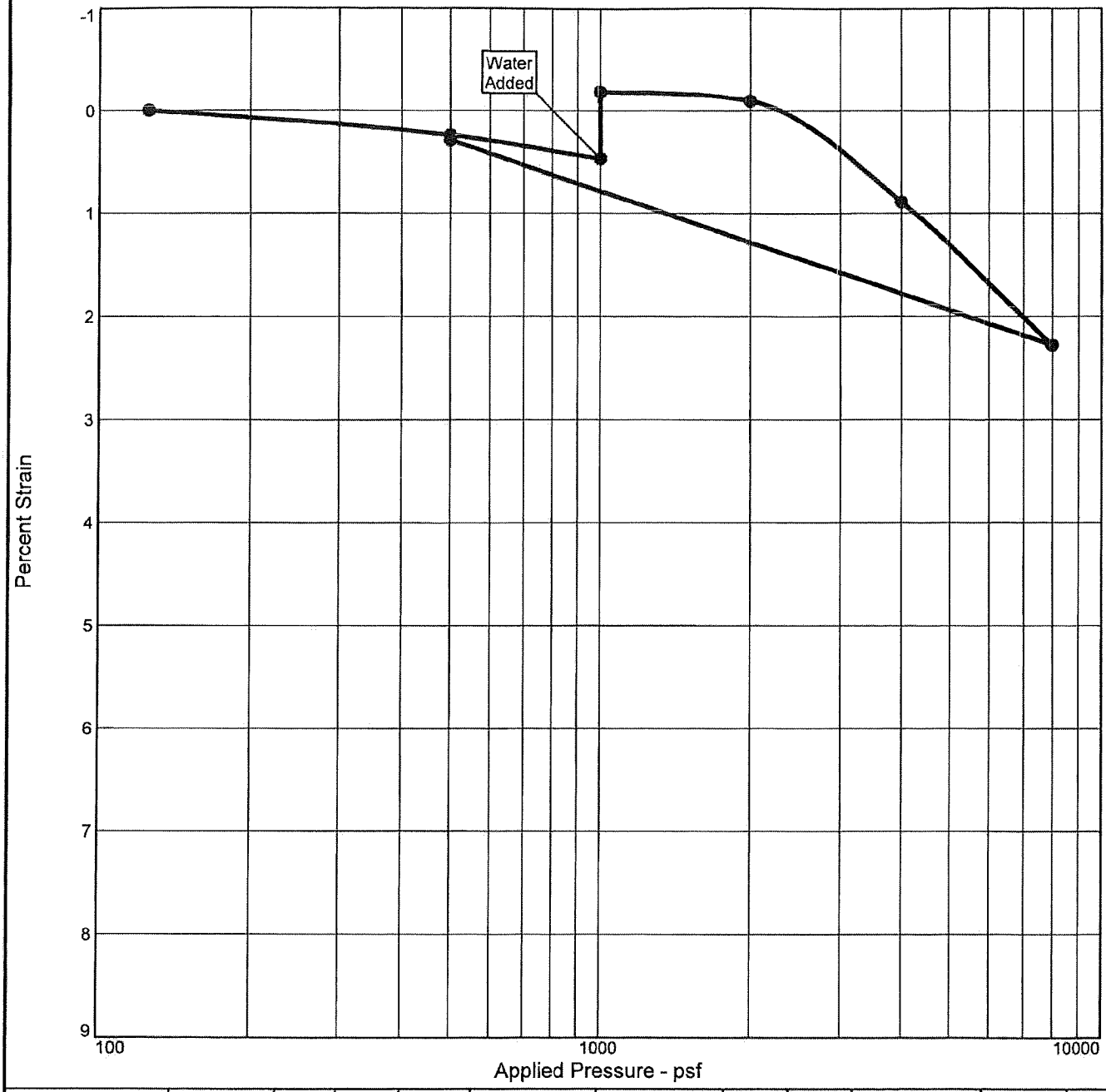
Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

CONSOLIDATION TEST REPORT



Natural Sat.	Natural Moist.	Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (psf)	P_c (psf)	C_c	C_r	Swell Press. (psf)	Swell %	e_o
							2503			3157	0.7	

MATERIAL DESCRIPTION	USCS	AASHTO
Dark yellowish brown slightly silty CLAY with coarse SAND and fine to medium gravel (damp, very dense).	CL	

Project No. 3247-0-0- **Client:**

Project: Baranoff Holdings
956 Seward Street, Hollywood, CA

Source of Sample: B-2 **Depth:** 15

Gorian & Associates

Thousand Oaks, CA

Remarks:

Figure

APPENDIX C

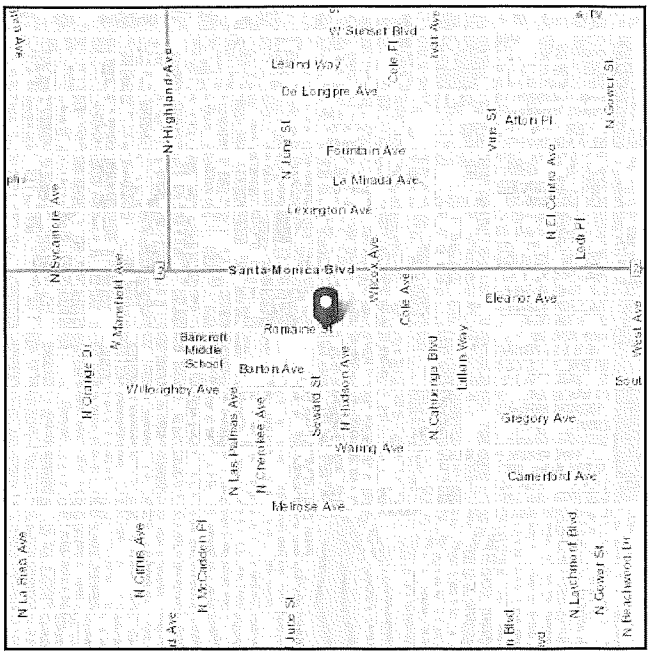
ASCE 7 Hazard Report

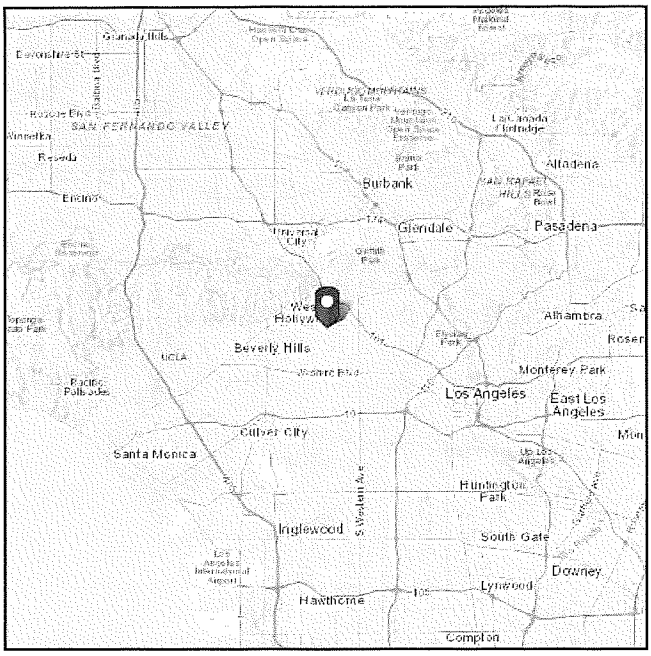
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 34.0889
Longitude: -118.3328
Elevation: 291.36458400542494 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	2.087	S_{D1} :	N/A
S_1 :	0.748	T_L :	8
F_a :	1	PGA :	0.894
F_v :	N/A	PGA_M :	0.983
S_{MS} :	2.087	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.391	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Jul 20 2023

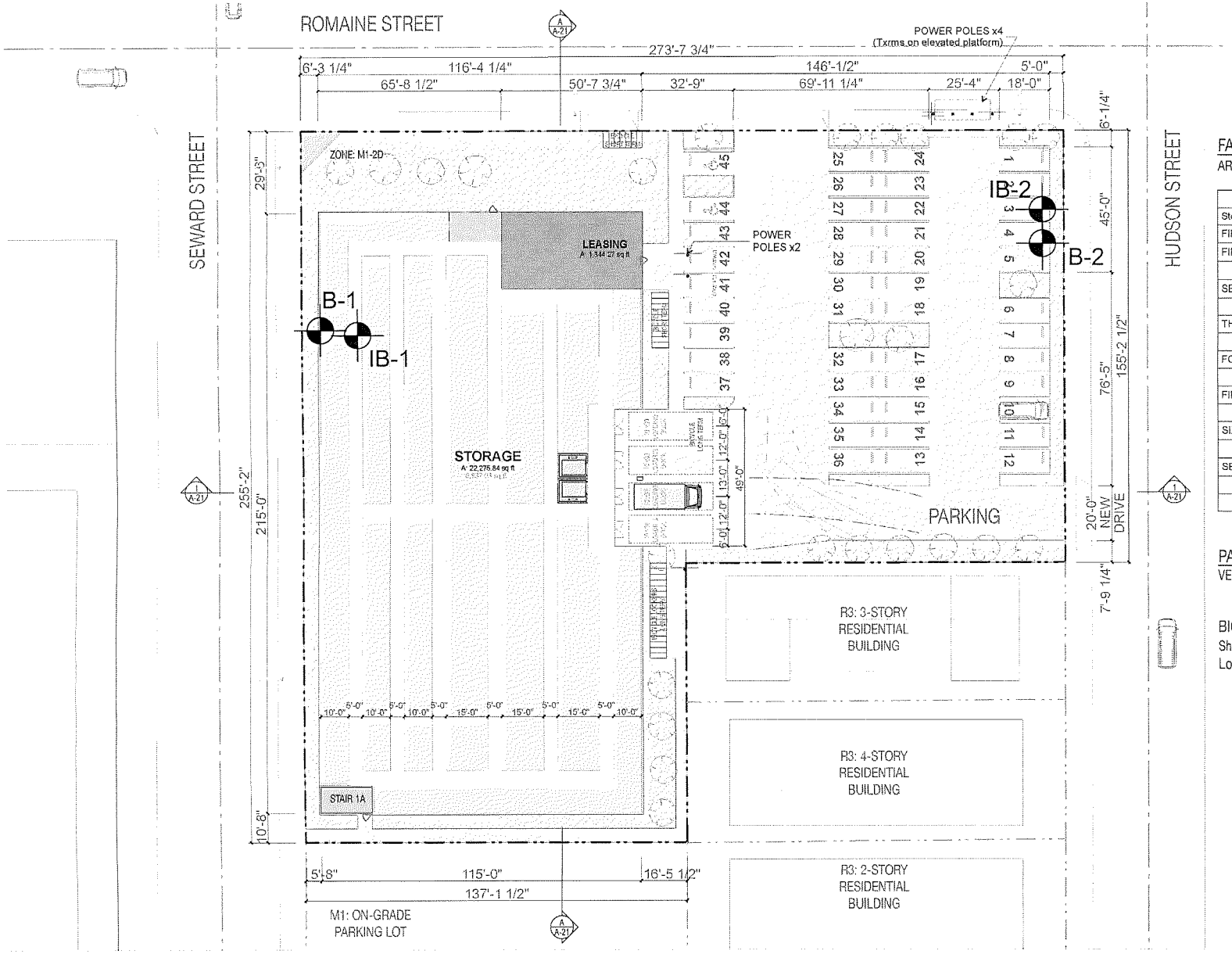
Date Source: USGS Seismic Design Maps

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



GEOTECHNICAL EXPLANATION

B-2 — APPROXIMATE LOCATION OF HOLLOW STEM AUGER BORING

IB-2 — APPROXIMATE LOCATION OF INFILTRATION TEST BORING

FAR - 3:1 SITE: ~56,185

AREA ALLOWED: ~168,555 SQ FT

V1 GROSS AREA - Storage - By Floor			
Story Level	Unit Type	Qty.	Calculated Area
FIRST FLOOR	LEASING	1	1,344.27
FIRST FLOOR	STORAGE	1	22,275.84
		2	**23,620.11 sq ft**
SECOND FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
THIRD FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FOURTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
FIFTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SIXTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
SEVENTH FLOOR	STORAGE	1	24,157.54
		1	**24,157.54 sq ft**
		8	**168,565.35 sq ft**

PARKING	REQ.	TOTAL
VEHICLE	1/500 for first 10K	20 spaces
	1/5000 for balance	31.7
		52 spaces
BICYCLE		
Short Term	1/10,000	16.85 - 17
Long Term	1/10,000	16.85 - 17

BORING LOCATION MAP

Gorian & Associates, Inc.
Applied Earth Sciences

Job No: 3247-0-0-100		Date: July 2023
Scale: 1" = 20'	Drawn by:	PLATE 1
	Approved by:	

V1 SITE PLAN

1/32" = 1'-0"

TRUE NORTH PROJECT NORTH

MICHAEL W. FOLONIS ARCHITECTS
1524 Cloverfield Boulevard, Suite D Santa Monica, CA 90404
T: 310.899.3920 | www.folonisarchitects.com

Nolan Borden
Barnet Holdings
T: (949) 279-8296

SELF-STORAGE FACILITY

SITE PLAN - V1

A-18

Thursday, May 4, 2023

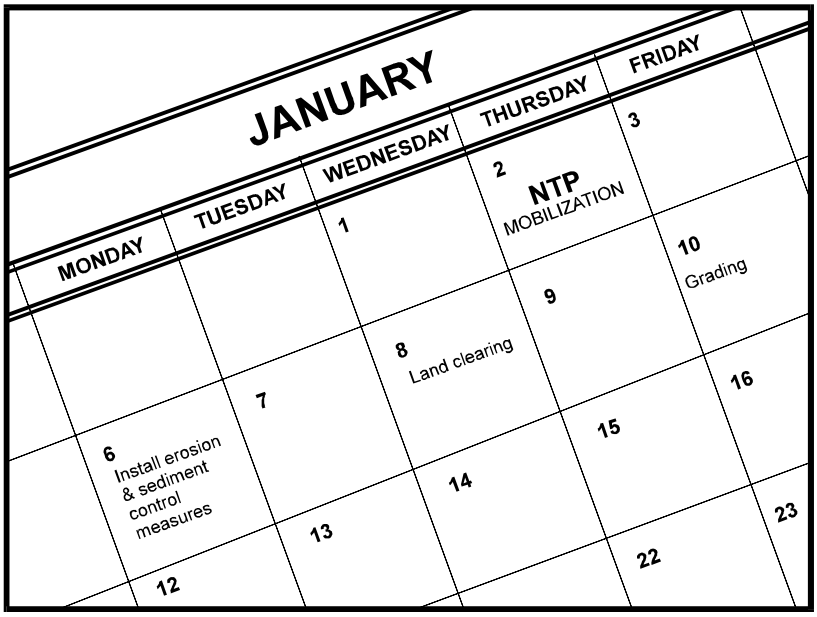
APPENDIX F

Typical SWPPP and LID BMPs

EXHIBIT 1: TYPICAL SWPPP BMPS

Scheduling

EC-1



Description and Purpose

Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

- Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase of construction. Clearly show how the rainy season relates

Categories

EC	Erosion Control	☑
SE	Sediment Control	☒
TC	Tracking Control	☒
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

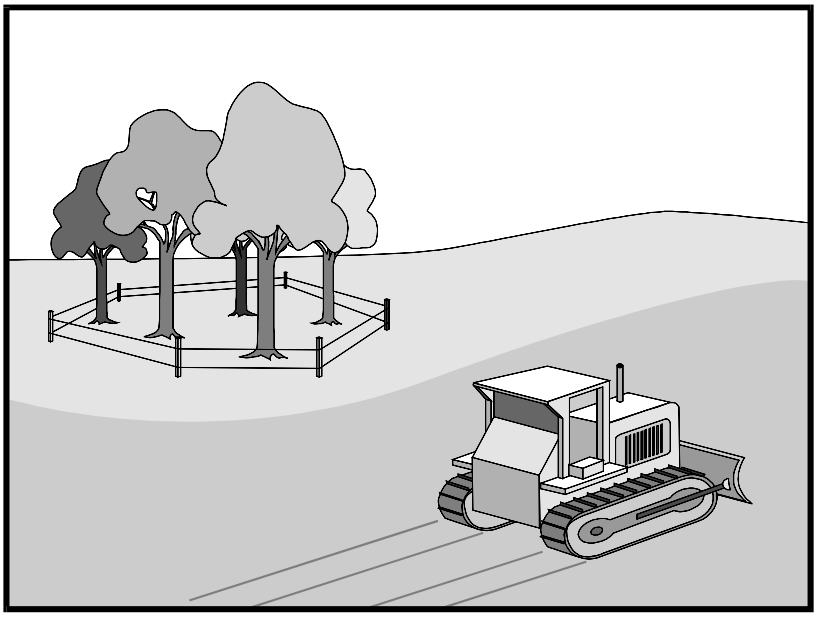
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Preservation Of Existing Vegetation EC-2



Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

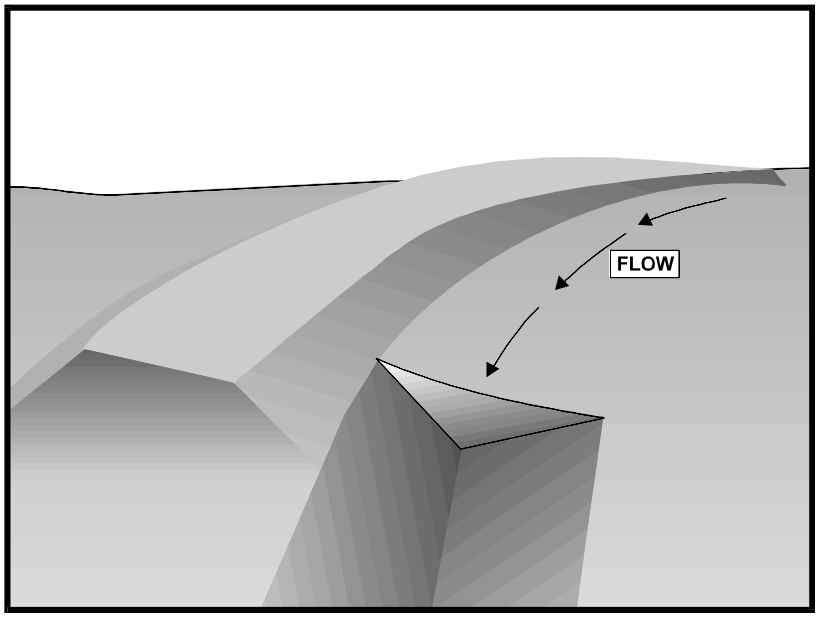
Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs, and grasses that protect soil from erosion.

Suitable Applications

Preservation of existing vegetation is suitable for use on most projects. Large project sites often provide the greatest opportunity for use of this BMP. Suitable applications include the following:

- Areas within the site where no construction activity occurs, or occurs at a later date. This BMP is especially suitable to multi year projects where grading can be phased.
- Areas where natural vegetation exists and is designated for preservation. Such areas often include steep slopes, watercourse, and building sites in wooded areas.
- Areas where local, state, and federal government require preservation, such as vernal pools, wetlands, marshes, certain oak trees, etc. These areas are usually designated on the plans, or in the specifications, permits, or environmental documents.
- Where vegetation designated for ultimate removal can be temporarily preserved and be utilized for erosion control and sediment control.

Earth Dikes and Drainage Swales EC-9



Description and Purpose

An earth dike is a temporary berm or ridge of compacted soil used to divert runoff or channel water to a desired location. A drainage swale is a shaped and sloped depression in the soil surface used to convey runoff to a desired location. Earth dikes and drainage swales are used to divert off site runoff around the construction site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment basins or traps.

Suitable Applications

Earth dikes and drainage swales are suitable for use, individually or together, where runoff needs to be diverted from one area and conveyed to another.

- Earth dikes and drainage swales may be used:
  - To convey surface runoff down sloping land
  - To intercept and divert runoff to avoid sheet flow over sloped surfaces
  - To divert and direct runoff towards a stabilized watercourse, drainage pipe or channel
  - To intercept runoff from paved surfaces
  - Below steep grades where runoff begins to concentrate
  - Along roadways and facility improvements subject to flood drainage

Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

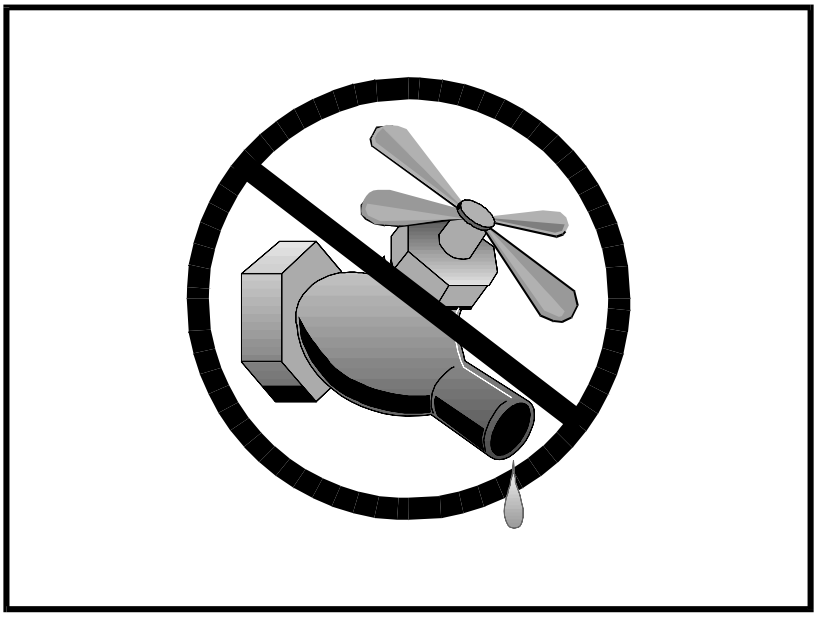
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Water Conservation Practices NS-1



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

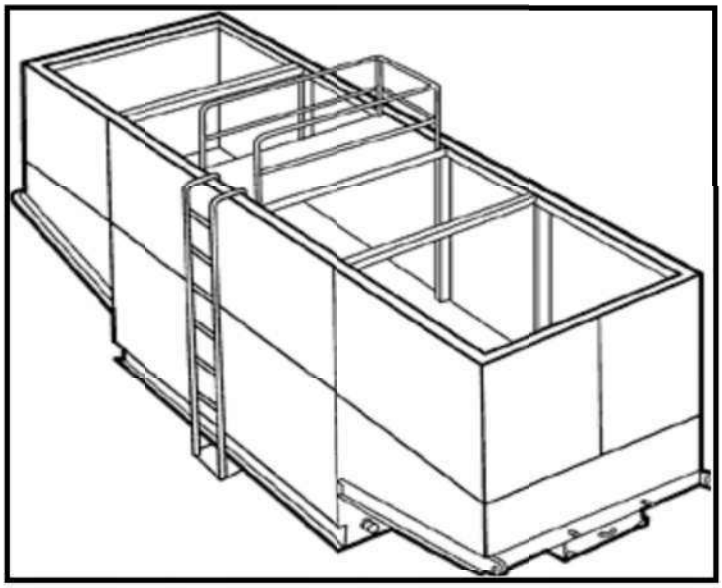
- None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Dewatering Operations NS-2



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

SE-5: Fiber Roll

SE-6: Gravel Bag Berm

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Dewatering operations are practices that manage the discharge of pollutants when non-stormwater and accumulated precipitation (stormwater) must be removed from a work location to proceed with construction work or to provide vector control.

The General Permit incorporates Numeric Action Levels (NAL) for turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Discharges from dewatering operations can contain high levels of fine sediment that, if not properly treated, could lead to exceedances of the General Permit requirements or Basin Plan standards.

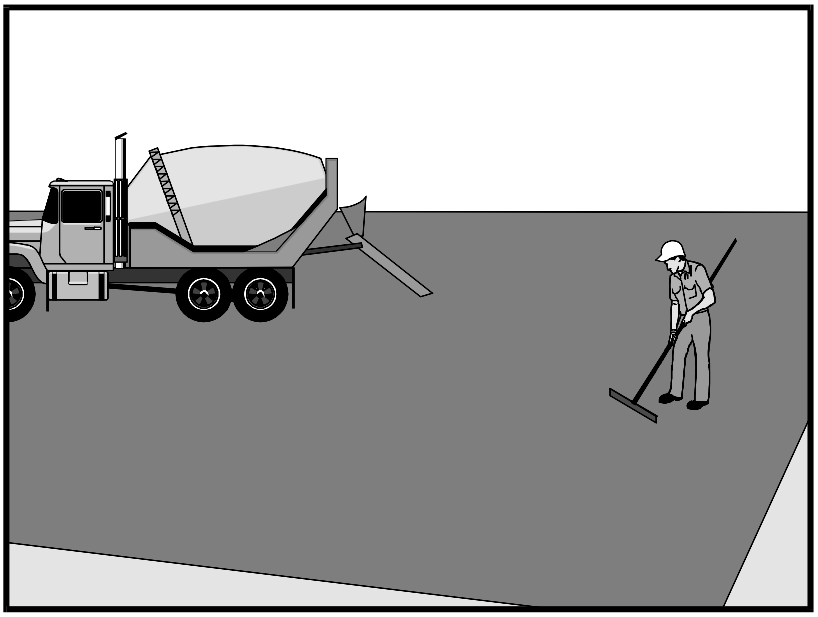
The dewatering operations described in this fact sheet are not Active Treatment Systems (ATS) and do not include the use of chemical coagulations, chemical flocculation or electrocoagulation.

Suitable Applications

These practices are implemented for discharges of non-stormwater from construction sites. Non-stormwaters include, but are not limited to, groundwater, water from cofferdams, water diversions, and waters used during construction activities that must be removed from a work area to facilitate construction.

Practices identified in this section are also appropriate for implementation when managing the removal of accumulated

Paving and Grinding Operations NS-3



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☒

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runon and runoff pollution, properly disposing of wastes, and training employees and subcontractors.

The General Permit incorporates Numeric Action Levels (NAL) for pH and turbidity (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials associated with paving and grinding operations, including mortar, concrete, and cement and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

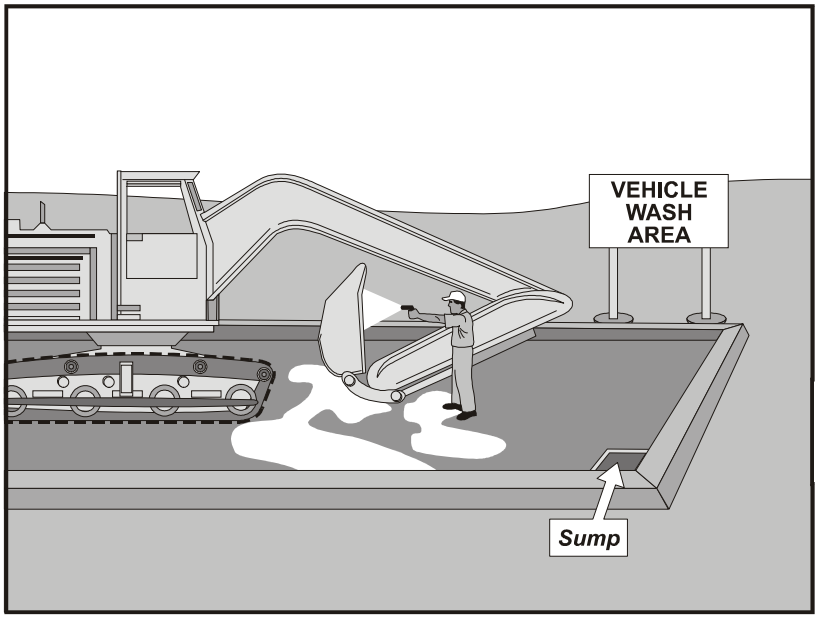
These procedures are implemented where paving, surfacing, resurfacing, or sawcutting, may pollute stormwater runoff or discharge to the storm drain system or watercourses.

Limitations

- Paving opportunities may be limited during wet weather.

  Discharges of freshly paved surfaces may raise pH to environmentally harmful levels and trigger permit violations.

Vehicle and Equipment Cleaning NS-8



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Vehicle and equipment cleaning procedures and practices eliminate or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning operations. Procedures and practices include but are not limited to: using offsite facilities; washing in designated, contained areas only; eliminating discharges to the storm drain by infiltrating the wash water; and training employees and subcontractors in proper cleaning procedures.

Suitable Applications

These procedures are suitable on all construction sites where vehicle and equipment cleaning is performed.

Limitations

Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades. Sending vehicles/equipment offsite should be done in conjunction with TC-1, Stabilized Construction Entrance/Exit.

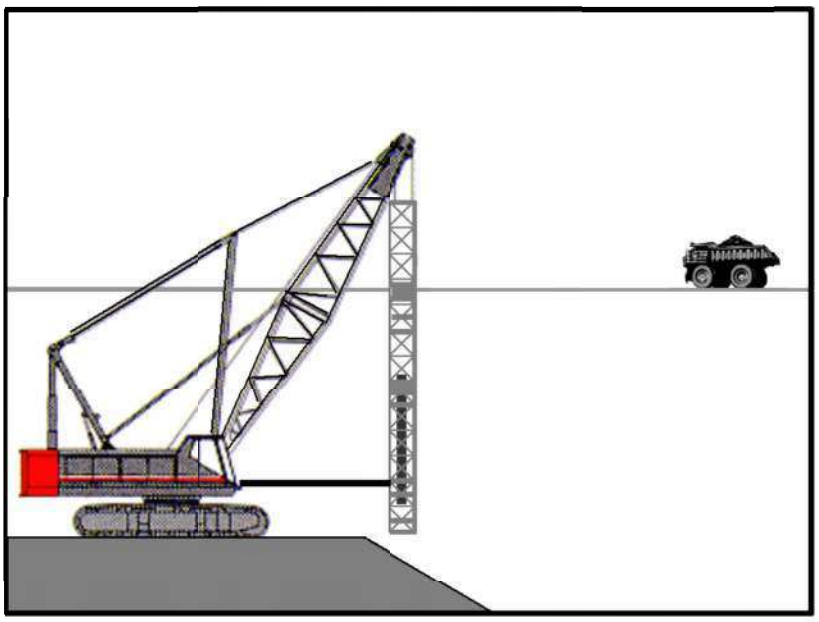
Implementation

Other options to washing equipment onsite include contracting with either an offsite or mobile commercial washing business. These businesses may be better equipped to handle and dispose of the wash waters properly. Performing this work offsite can also be economical by eliminating the need for a separate washing operation onsite.

If washing operations are to take place onsite, then:

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Pile Driving Operations NS-11



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

The construction and retrofit of bridges and retaining walls often include driving piles for foundation support and shoring operations. Driven piles are typically constructed of precast concrete, steel, or timber. Driven sheet piles are also used for shoring and cofferdam construction. Proper control and use of equipment, materials, and waste products from pile driving operations will reduce or eliminate the discharge of potential pollutants to the storm drain system, watercourses, and waters of the United States.

Suitable Applications

These procedures apply to all construction sites near or adjacent to a watercourse or groundwater where permanent and temporary pile driving (impact and vibratory) takes place, including operations using pile shells as well as construction of cast-in-steel-shell and cast-in-drilled-hole piles.

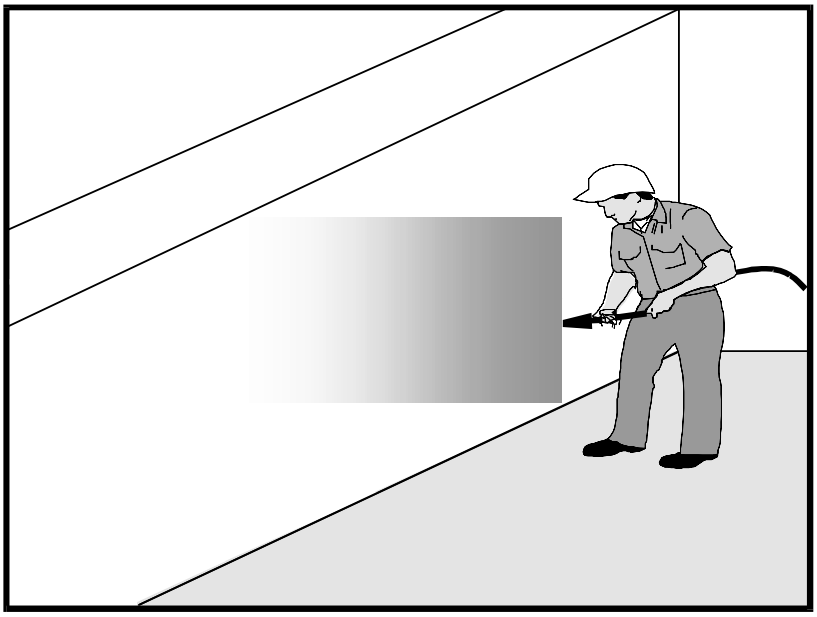
Limitations

None identified.

Implementation

- Use drip pans or absorbent pads during vehicle and equipment operation, maintenance, cleaning, fueling, and storage. Refer to NS-8, Vehicle and Equipment Cleaning, NS-9, Vehicle and Equipment Fueling, and NS-10, Vehicle and Equipment Maintenance.

Concrete Curing NS-12



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Concrete curing is used in the construction of structures such as bridges, retaining walls, pump houses, large slabs, and structured foundations. Concrete curing includes the use of both chemical and water methods.

Concrete and its associated curing materials have basic chemical properties that can raise the pH of water to levels outside of the permitted range. Discharges of stormwater and non-stormwater exposed to concrete during curing may have a high pH and may contain chemicals, metals, and fines. The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Proper procedures and care should be taken when managing concrete curing materials to prevent them from coming into contact with stormwater flows, which could result in a high pH discharge.

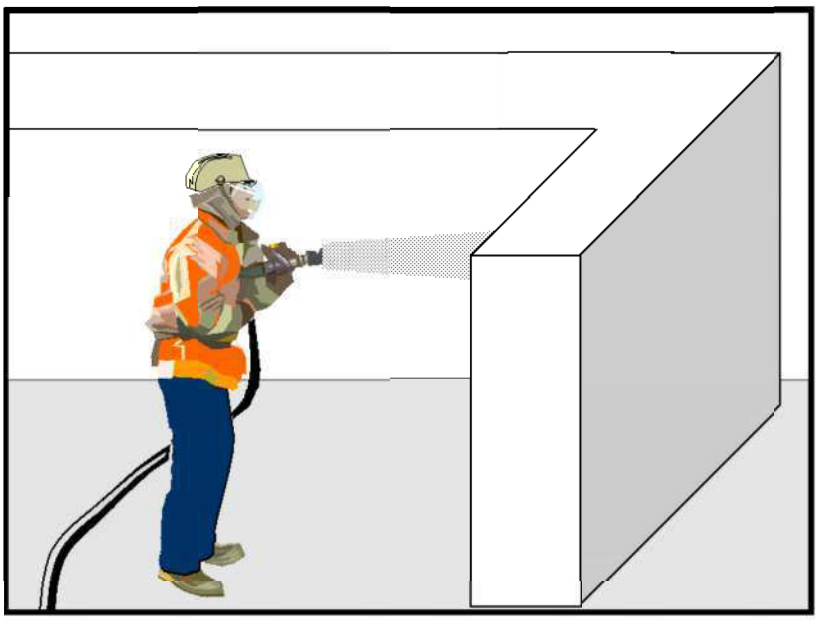
Suitable Applications

Suitable applications include all projects where Portland Cement Concrete (PCC) and concrete curing chemicals are placed where they can be exposed to rainfall, runoff from other areas, or where runoff from the PCC will leave the site.

Limitations

- Runoff contact with concrete waste can raise pH levels in the water to environmentally harmful levels and trigger permit violations.

Concrete Finishing NS-13



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	
Organics	☑

Potential Alternatives

None

Description and Purpose

Concrete finishing methods are used for bridge deck rehabilitation, paint removal, curing compound removal, and final surface finish appearances. Methods include sand blasting, shot blasting, grinding, or high pressure water blasting. Stormwater and non-stormwater exposed to concrete finishing by-products may have a high pH and may contain chemicals, metals, and fines. Proper procedures and implementation of appropriate BMPs can minimize the impact that concrete-finishing methods may have on stormwater and non-stormwater discharges.

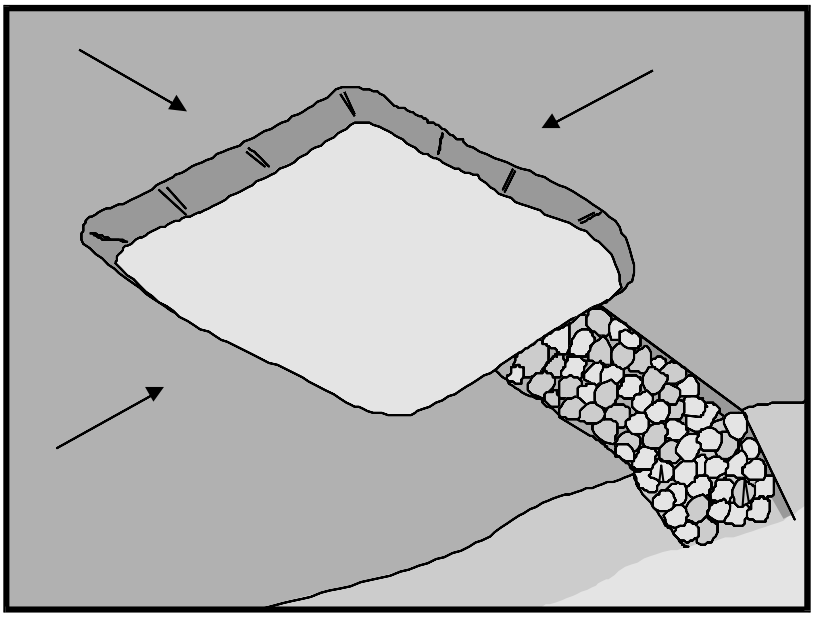
The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Concrete and its associated curing materials have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows, which could lead to exceedances of the General Permit requirements.

Suitable Applications

These procedures apply to all construction locations where concrete finishing operations are performed.

Sediment Trap SE-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-2 Sediment Basin (for larger areas)

Description and Purpose

A sediment trap is a containment area where sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out or before the runoff is discharged by gravity flow. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area.

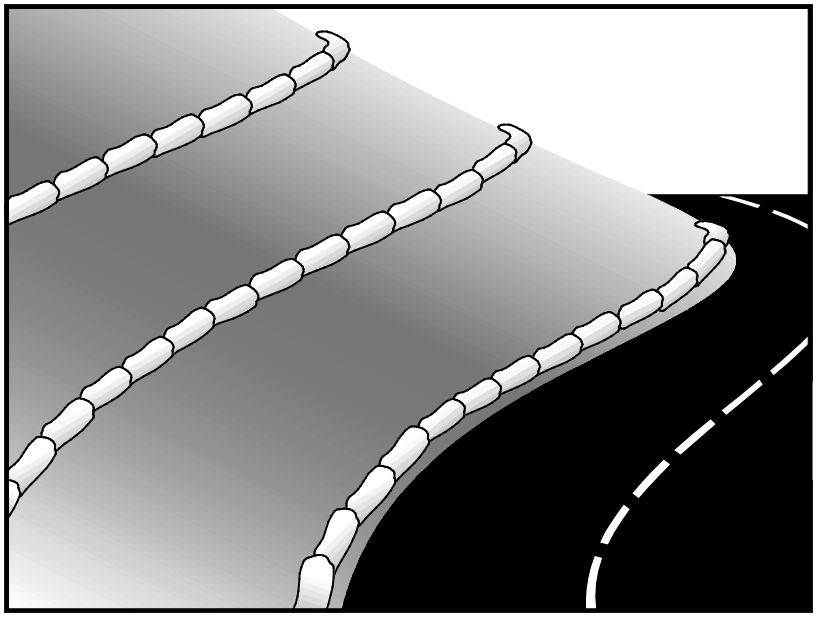
Trap design guidance provided in this fact sheet is not intended to guarantee compliance with numeric discharge limits (numeric action levels or numeric effluent limits for turbidity). Compliance with discharge limits requires a thoughtful approach to comprehensive BMP planning, implementation, and maintenance. Therefore, optimally designed and maintained sediment traps should be used in conjunction with a comprehensive system of BMPs.

Suitable Applications

Sediment traps should be considered for use:

- At the perimeter of the site at locations where sediment-laden runoff is discharged offsite.
- At multiple locations within the project site where sediment control is needed.
- Around or upslope from storm drain inlet protection measures.
- Sediment traps may be used on construction projects where the drainage area is less than 5 acres. Traps would be

Gravel Bag Berm SE-6



Description and Purpose

A gravel bag berm is a series of gravel-filled bags placed on a level contour to intercept sheet flows. Gravel bags pond sheet flow runoff, allowing sediment to settle out, and release runoff slowly as sheet flow, preventing erosion.

Suitable Applications

Gravel bag berms may be suitable:

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes
  - As sediment traps at culvert/pipe outlets
  - Below other small cleared areas
  - Along the perimeter of a site
  - Down slope of exposed soil areas
  - Around temporary stockpiles and spoil areas
  - Parallel to a roadway to keep sediment off paved areas
  - Along streams and channels
- As a linear erosion control measure:
  - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.

Categories

EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Roll

SE-8 Sandbag Barrier

SE-12 Temporary Silt Dike

SE-14 Biofilter Bags

Street Sweeping and Vacuuming SE-7

Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

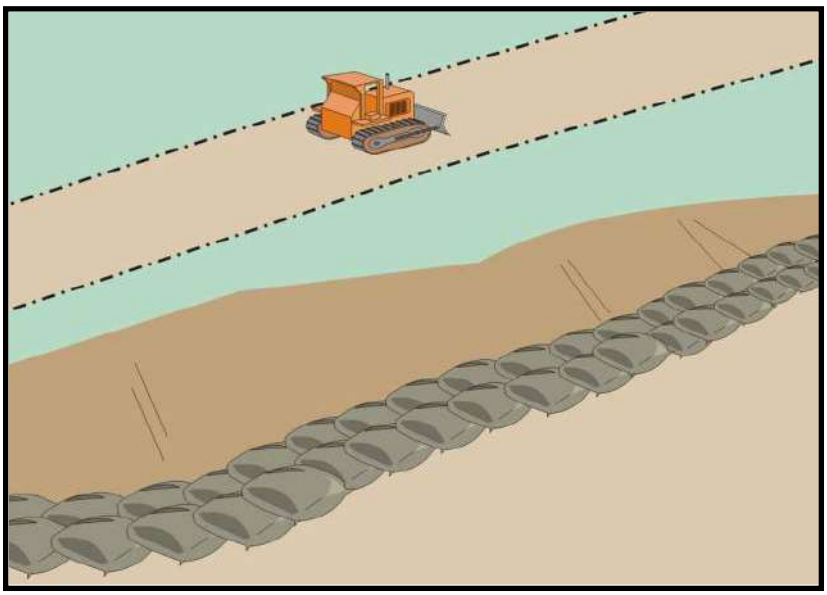
Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

Sandbag Barrier SE-8



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.

Suitable Applications

Sandbag barriers may be a suitable control measure for the applications described below. It is important to consider that sand bags are less porous than gravel bags and ponding or flooding can occur behind the barrier. Also, sand is easily transported by runoff if bags are damaged or ruptured. The SWPPP Preparer should select the location of a sandbag barrier with respect to the potential for flooding, damage, and the ability to maintain the BMP.

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes.
  - As sediment traps at culvert/pipe outlets.
  - Below other small cleared areas.
  - Along the perimeter of a site.
  - Down slope of exposed soil areas.
  - Around temporary stockpiles and spoil areas.
  - Parallel to a roadway to keep sediment off paved areas.
  - Along streams and channels.

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

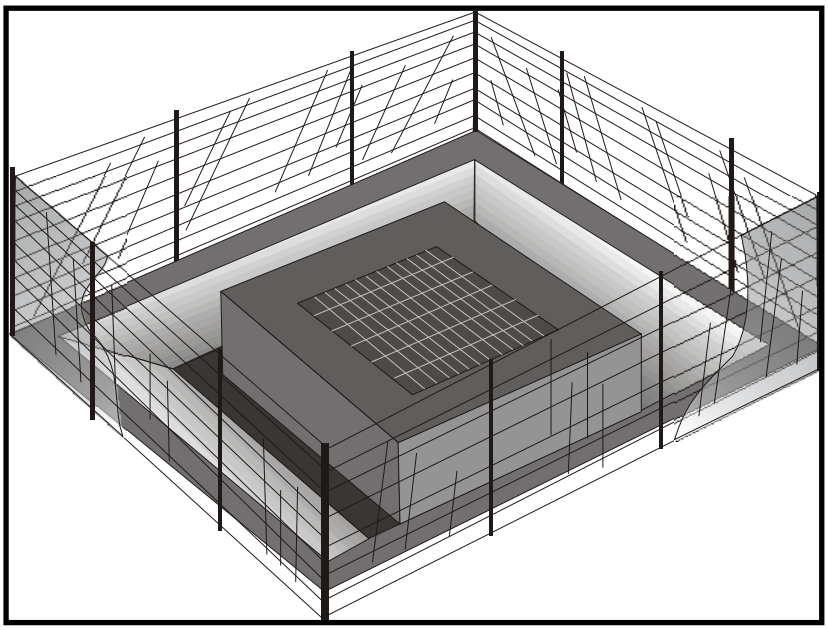
SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-12 Manufactured Linear Sediment Controls

SE-14 Biofilter Bags

Storm Drain Inlet Protection SE-10



Description and Purpose

Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle. Some filter configurations also remove sediment by filtering, but usually the ponding action results in the greatest sediment reduction. Temporary geotextile storm drain inserts attach underneath storm drain grates to capture and filter storm water.

Suitable Applications

- Every storm drain inlet receiving runoff from unstabilized or otherwise active work areas should be protected. Inlet protection should be used in conjunction with other erosion and sediment controls to prevent sediment-laden stormwater and non-stormwater discharges from entering the storm drain system.

Limitations

- Drainage area should not exceed 1 acre.
- In general straw bales should not be used as inlet protection.
- Requires an adequate area for water to pond without encroaching into portions of the roadway subject to traffic.
- Sediment removal may be inadequate to prevent sediment discharges in high flow conditions or if runoff is heavily sediment laden. If high flow conditions are expected, use

Categories

EC	Erosion Control	
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☒
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

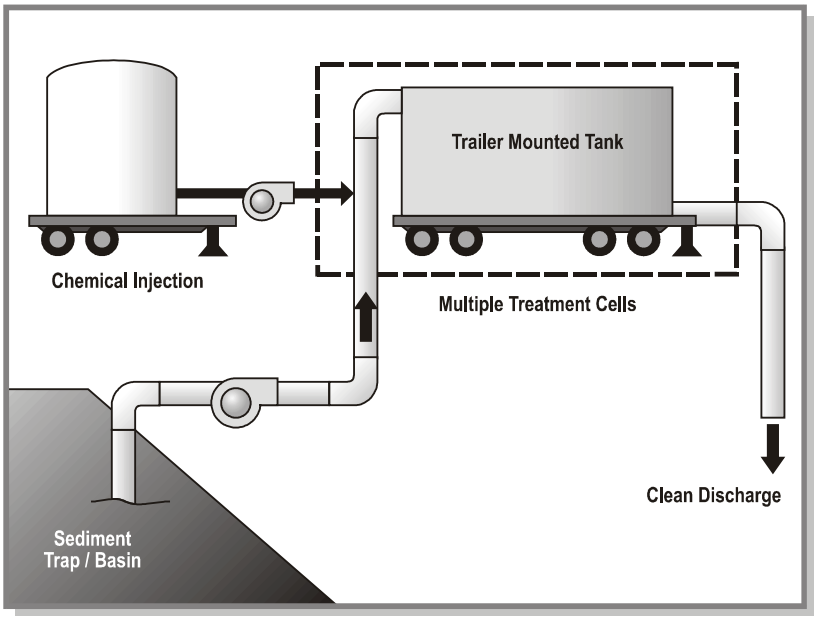
SE-6 Gravel Bag Berm

SE-8 Sandbag Barrier

SE-14 Biofilter Bags

SE-13 Compost Socks and Berms

Active Treatment Systems SE-11



Categories

EC	Erosion Control	☑
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Active Treatment Systems (ATS) reduce turbidity of construction site runoff by introducing chemicals to stormwater through direct dosing or an electrical current to enhance flocculation, coagulation, and settling of the suspended sediment. Coagulants and flocculants are used to enhance settling and removal of suspended sediments and generally include inorganic salts and polymers (USACE, 2001). The increased flocculation aids in sedimentation and ability to remove fine suspended sediments, thus reducing stormwater runoff turbidity and improving water quality.

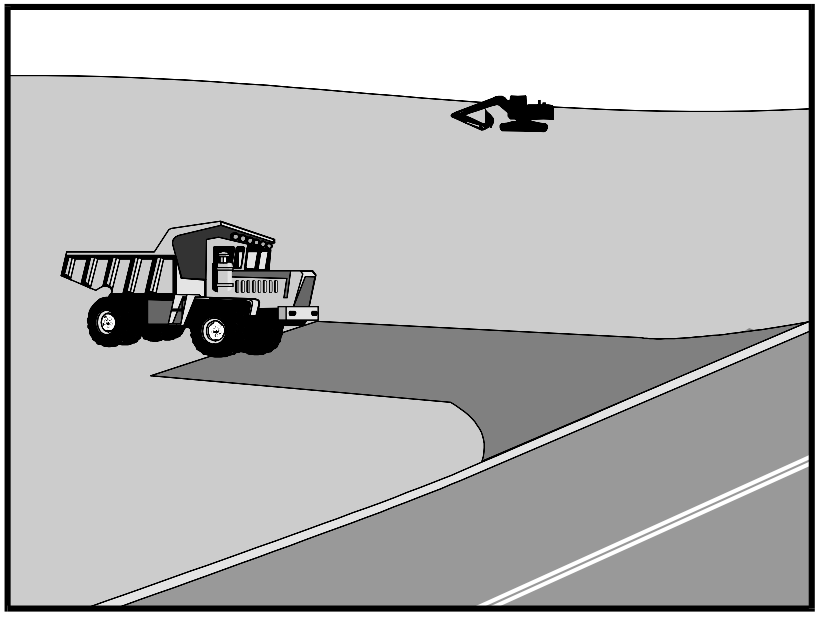
Suitable Applications

ATS can reliably provide exceptional reductions of turbidity and associated pollutants and should be considered where turbid discharges to sediment and turbidity sensitive waters cannot be avoided using traditional BMPs. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths.

Limitations

Dischargers choosing to utilize chemical treatment in an ATS must follow all guidelines of the Construction General Permit Attachment F – Active Treatment System Requirements. General limitations are as follows:

Stabilized Construction Entrance/Exit TC-1



Categories		
EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Suitable Applications

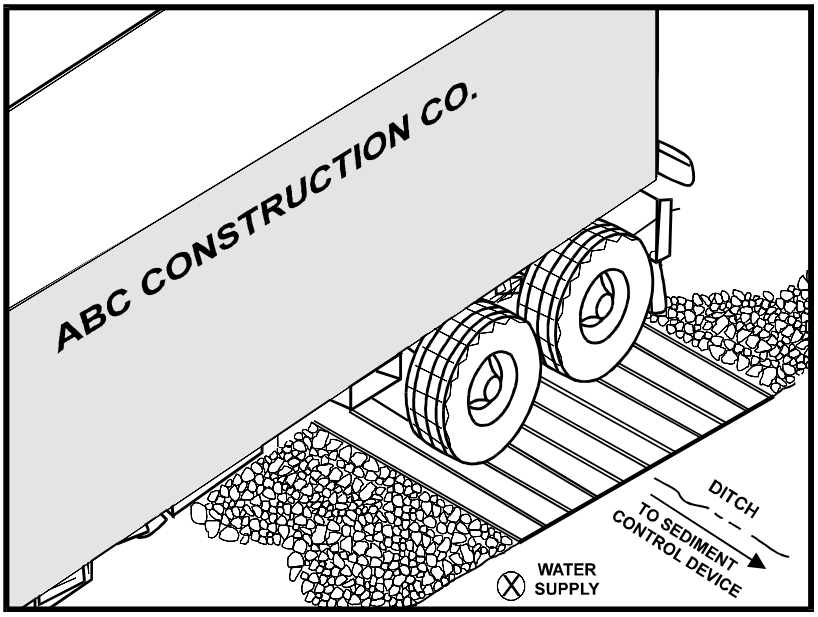
Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Adjacent to water bodies.
- Where poor soils are encountered.
- Where dust is a problem during dry weather conditions.

Limitations

- Entrances and exits require periodic top dressing with additional stones.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way.
- Entrances and exits should be constructed on level ground only.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.

Entrance/Outlet Tire Wash TC-3



Description and Purpose

A tire wash is an area located at stabilized construction access points to remove sediment from tires and under carriages and to prevent sediment from being transported onto public roadways.

Suitable Applications

Tire washes may be used on construction sites where dirt and mud tracking onto public roads by construction vehicles may occur.

Limitations

- The tire wash requires a supply of wash water.
- A turnout or doublewide exit is required to avoid having entering vehicles drive through the wash area.
- Do not use where wet tire trucks leaving the site leave the road dangerously slick.

Implementation

- Incorporate with a stabilized construction entrance/exit. See TC-1, Stabilized Construction Entrance/Exit.
- Construct on level ground when possible, on a pad of coarse aggregate greater than 3 in. but smaller than 6 in. A geotextile fabric should be placed below the aggregate.
- Wash rack should be designed and constructed/manufactured for anticipated traffic loads.

Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

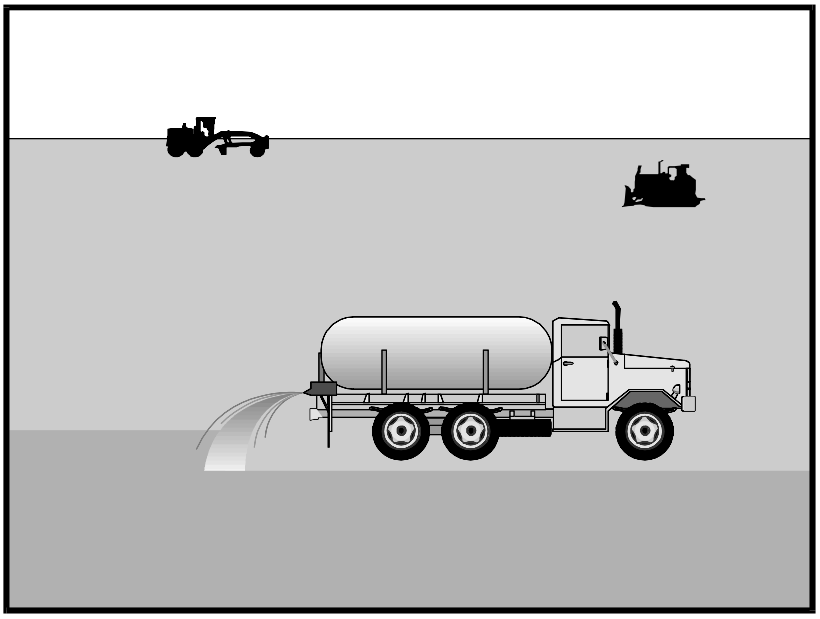
Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

TC-1 Stabilized Construction Entrance/Exit

Wind Erosion Control WE-1



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	☑
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

EC-5 Soil Binders

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

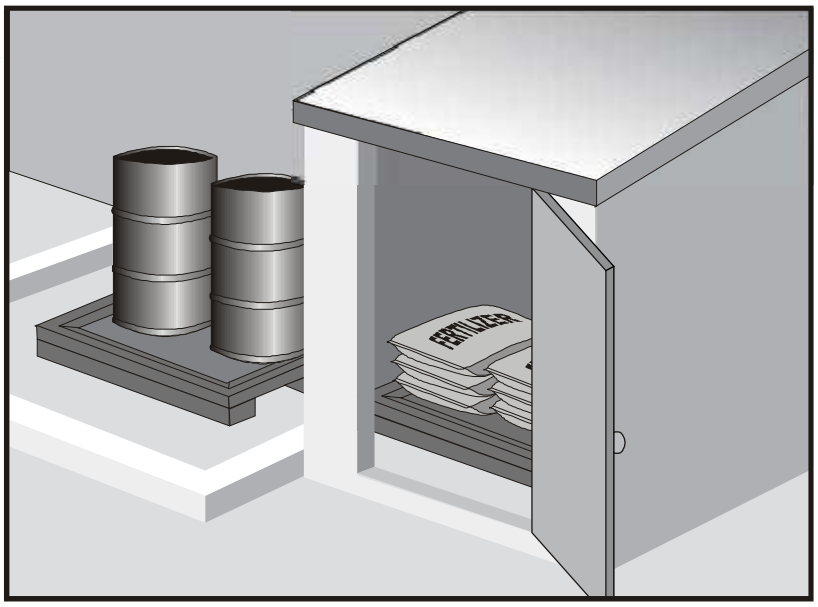
Wind erosion or dust control consists of applying water or other chemical dust suppressants as necessary to prevent or alleviate dust nuisance generated by construction activities. Covering small stockpiles or areas is an alternative to applying water or other dust palliatives.

California's Mediterranean climate, with a short "wet" season and a typically long, hot "dry" season, allows the soils to thoroughly dry out. During the dry season, construction activities are at their peak, and disturbed and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment. Site conditions and climate can make dust control more of an erosion problem than water based erosion. Additionally, many local agencies, including Air Quality Management Districts, require dust control and/or dust control permits in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. Wind erosion control is required to be implemented at all construction sites greater than 1 acre by the General Permit.

Suitable Applications

Most BMPs that provide protection against water-based erosion will also protect against wind-based erosion and dust control requirements required by other agencies will generally meet wind erosion control requirements for water quality protection. Wind erosion control BMPs are suitable during the following construction activities:

Material Delivery and Storage WM-1



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

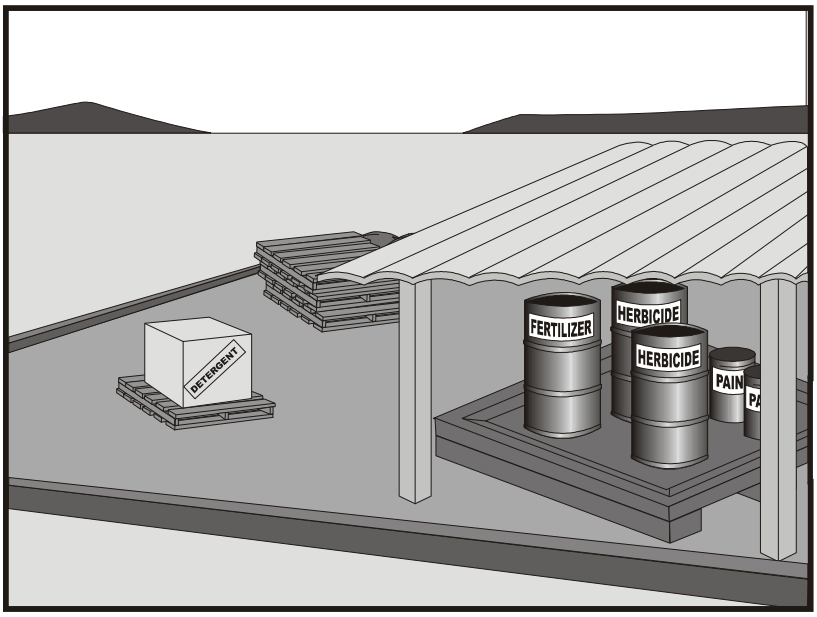
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Material Use WM-2



Description and Purpose

Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

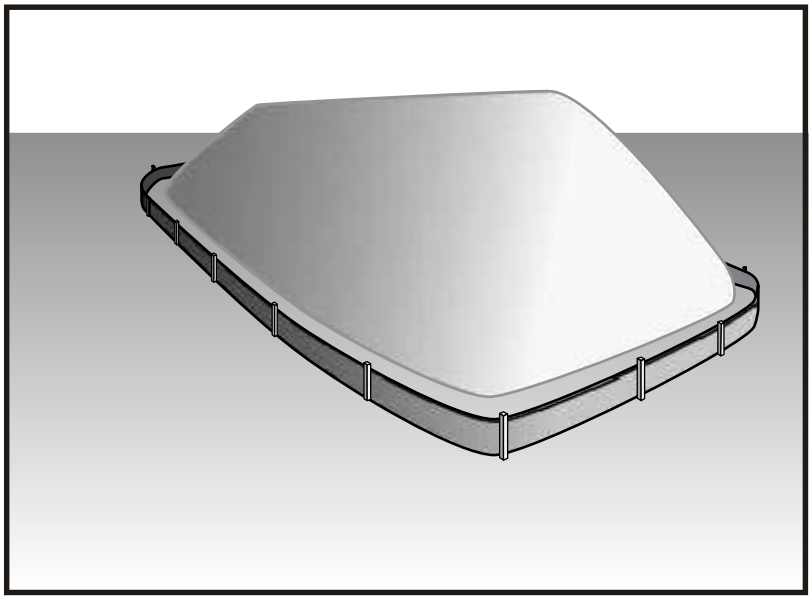
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Stockpile Management WM-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation

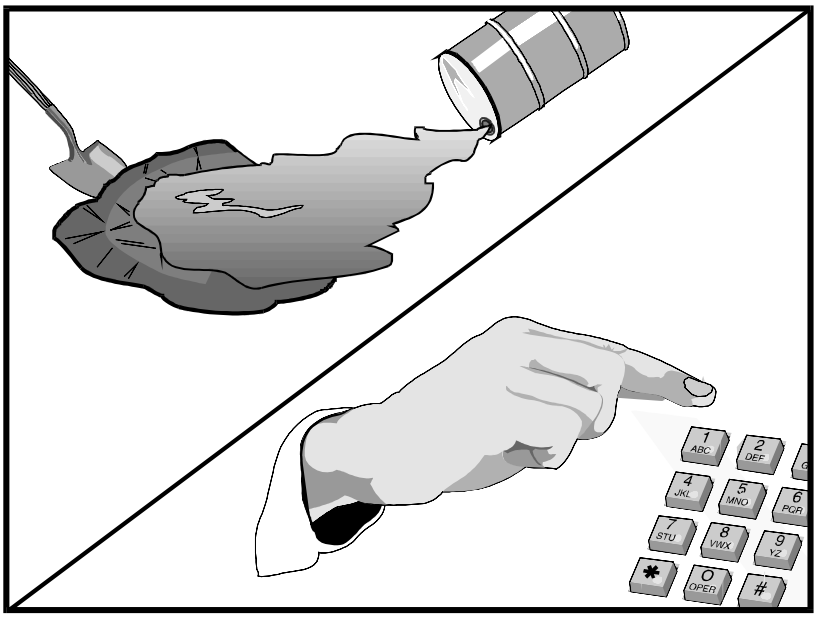
Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Spill Prevention and Control WM-4



Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

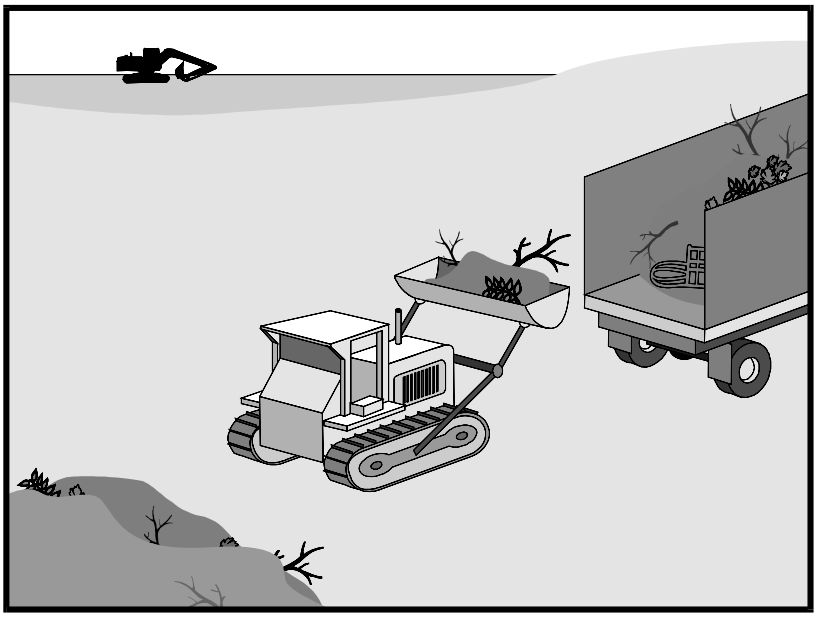
Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

Solid Waste Management WM-5



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

If User/Subscriber modifies this fact sheet in any way, the CASQA name/logo and footer below must be removed from each page and not appear on the modified version.

Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

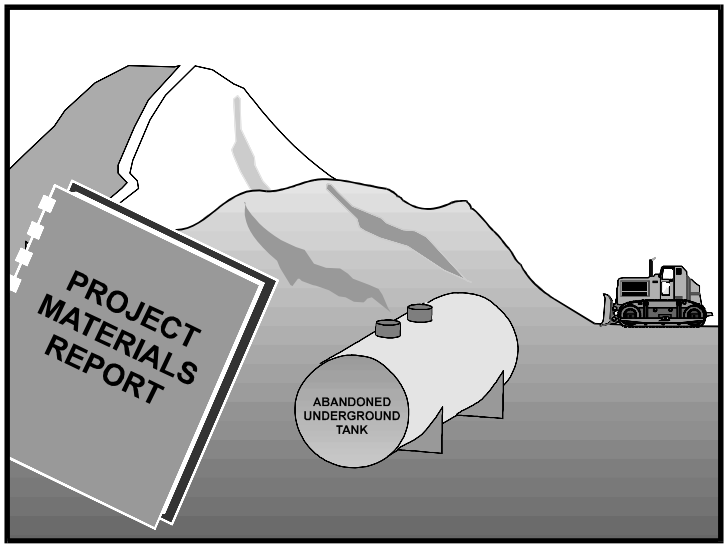
Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Contaminated Soil Management WM-7



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Description and Purpose

Prevent or reduce the discharge of pollutants to stormwater from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.

Suitable Applications

Contaminated soil management is implemented on construction projects in highly urbanized or industrial areas where soil contamination may have occurred due to spills, illicit discharges, aerial deposition, past use and leaks from underground storage tanks.

Limitations

Contaminated soils that cannot be treated onsite must be disposed of offsite by a licensed hazardous waste hauler. The presence of contaminated soil may indicate contaminated water as well. See NS-2, Dewatering Operations, for more information.

The procedures and practices presented in this BMP are general. The contractor should identify appropriate practices and procedures for the specific contaminants known to exist or discovered onsite.

Implementation

Most owners and developers conduct pre-construction environmental assessments as a matter of routine. Contaminated soils are often identified during project planning and development with known locations identified in the plans, specifications and in the SWPPP. The contractor should review applicable reports and investigate appropriate call-outs in the

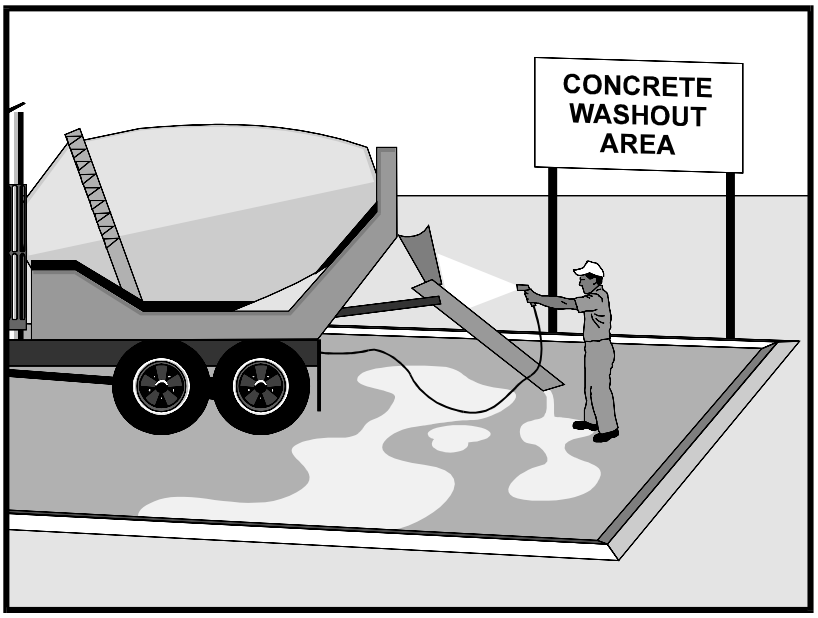
Targeted Constituents	
Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Concrete Waste Management WM-8



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Prevent the discharge of pollutants to stormwater from concrete waste by conducting washout onsite or offsite in a designated area, and by employee and subcontractor training.

The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

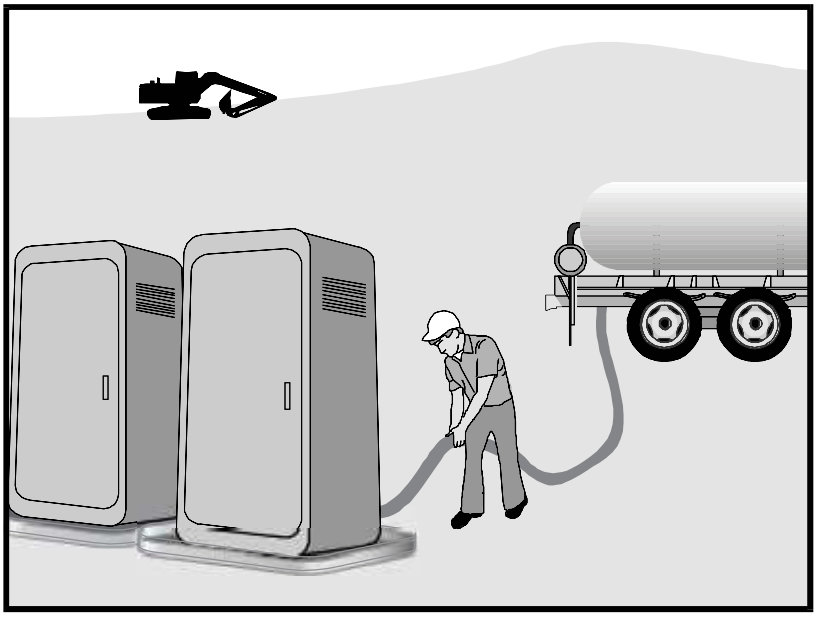
Many types of construction materials, including mortar, concrete, stucco, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows and raising pH to levels outside the accepted range.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing portland cement concrete (PCC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.
- Concrete trucks and other concrete-coated equipment are washed onsite.

Sanitary/Septic Waste Management WM-9



Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

- Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

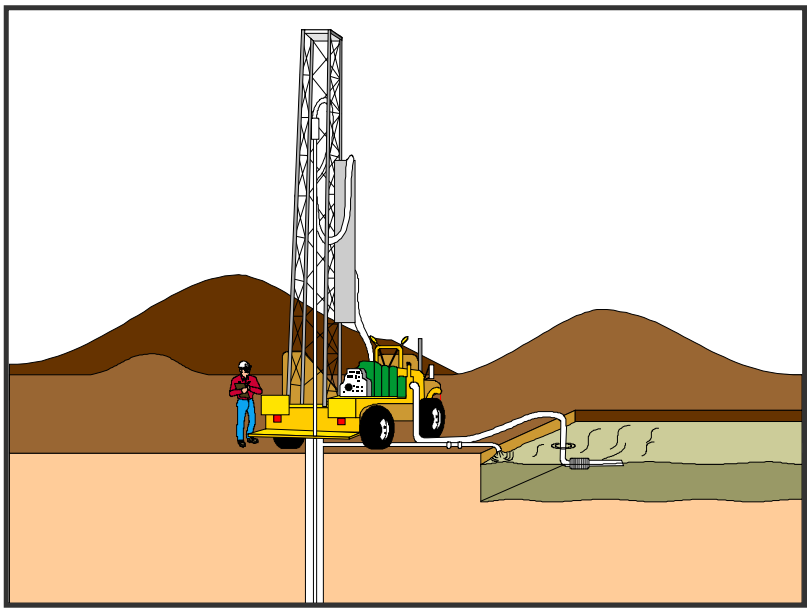
Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	
Bacteria	☑
Oil and Grease	
Organics	☑

Potential Alternatives

None

Liquid Waste Management WM-10



Description and Purpose

Liquid waste management includes procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid wastes.

Suitable Applications

Liquid waste management is applicable to construction projects that generate any of the following non-hazardous by-products, residuals, or wastes:

- Drilling slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water
- Dredgings
- Other non-stormwater liquid discharges not permitted by separate permits

Limitations

- Disposal of some liquid wastes may be subject to specific laws and regulations or to requirements of other permits secured for the construction project (e.g., NPDES permits, Army Corps permits, Coastal Commission permits, etc.).
- Liquid waste management does not apply to dewatering operations (NS-2 Dewatering Operations), solid waste management (WM-5, Solid Waste Management), hazardous wastes (WM-6, Hazardous Waste Management), or

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

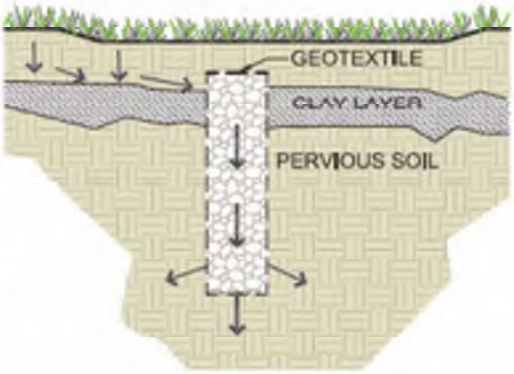
None

EXHIBIT 2

TYPICAL LID BMPs

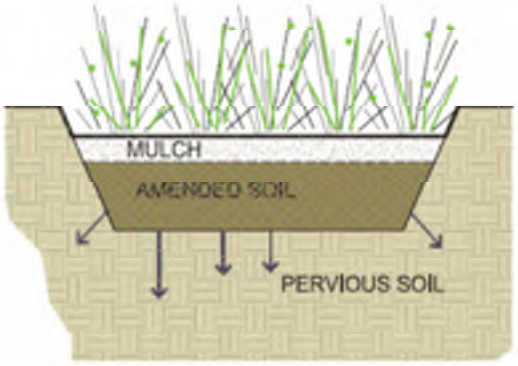
Dry Wells

A dry well is defined as an excavated, bored, drilled, or driven shaft or hole whose depth is greater than its width. Drywells are similar to infiltration trenches in their design and function, as they are designed to temporarily store and infiltrate runoff, primarily from rooftops or other impervious areas with low pollutant loading. A dry well may be either a drilled borehole filled with aggregate or a prefabricated storage chamber or pipe segment.



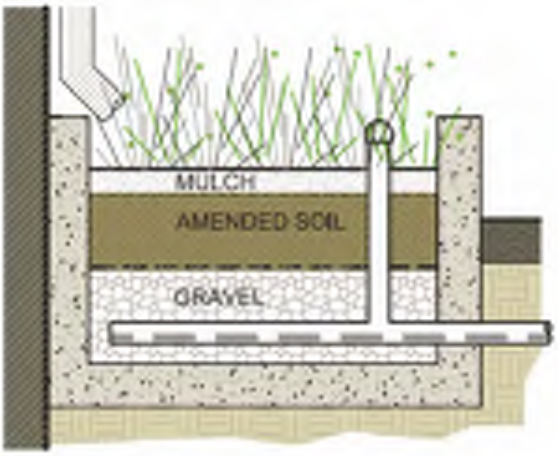
Bioretention

Bioretention stormwater treatment facilities are landscaped shallow depressions that capture and filter stormwater runoff. These facilities function as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. The facilities normally consist of a ponding area, mulch layer, planting soils, plantings, and, optionally, a subsurface gravel reservoir layer.



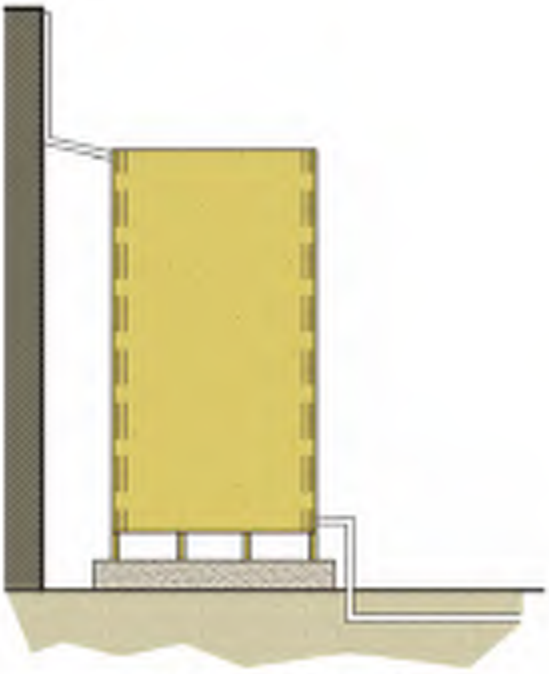
Planter Boxes

Planter boxes are bioretention treatment control measures that are completely contained within an impermeable structure with an underdrain (they do not infiltrate). They are similar to bioretention facilities with underdrains except they are situated at or above ground and are bound by impermeable walls. Planter boxes may be placed adjacent to or near buildings, other structures, or sidewalks.



4.5 CAPTURE AND USE BMPS

Capture and Use refers to a specific type of BMP that operates by capturing stormwater runoff and holding it for efficient use at a later time. On a commercial or industrial scale, capture and use BMPs are typically synonomous with cisterns, which can be implemented both above and below ground. Cisterns are sized to store a specified volume of water with no surface discharge until this volume is exceeded. The primary use of captured runoff is for subsurface drip irrigation purposes. The temporary storage of roof runoff reduces the runoff volume from a property and may reduce the peak runoff velocity for small, frequently occurring storms. In addition, by reducing the amount of stormwater runoff that flows overland into a stormwater conveyance system, less pollutants are transported through the conveyance system into local streams and the ocean. The onsite use of the harvested water for non-potable domestic purposes conserves City-supplied potable water and, where directed to unpaved surfaces, can recharge groundwater in local aquifers.



Cistern Example