TRACT 20581

City of Hesperia

Original Tract Project - April 10, 2007
Tract #20581 Updated: August 9, 2022

SUB-SURFACE RETENTION INFILTRATION TEST

PROPOSED TOWNHOME COMPLEX

APN 410-221-08
Sultana Street and "G" Avenue
Hesperia

PREPARED AT THE REQUEST OF:

PARK VIEW TRAIL, LLC
15550 MAIN STREE, SUITE C-11
HESPERIA, CA. 92345

Prepared under the supervision of:

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Carl P. Coleman, RCE #30322, Expires 3-31-2024

DESCRIPTION OF SITE AND PROPOSAL

This report has been prepared for the site of a proposed Townhome complex. The site is located on the southwest corner of Sultana Street and "G" Avenue. The legal description of the site is APN 410-221-08. (See attached Drawings No. 1 through 5.)

The on-site retention for the site is to be provided utilizing Stormtech subsurface retention chambers and surface retention basins. The chambers are to be placed under a parking area near the northeast corner of the site.

There has been no previous grading on the site. The site slopes generally northeasterly at approximately 2.5%. Only minor grading will be required to prepare the site for construction because the Site is being developed with the natural topography.

METHODOLOGY AND PROCEDURES

The percolation tests for retention system were performed at the proposed location of the system. The testing was performed based upon the procedures for leachline percolation testing as outlined by the San Bernardino County Environmental Health Services.

An exploratory trench was excavated to a depth of approximately 12 feet. The test hole was located approximately at the location of the proposed retention facility (Drawing No. 4). The soil profile consists of medium to fine silty sand becoming more-coarse below 6 feet (Drawing No. 6). The test was performed at a depth of 6-7 feet. This is the approximate total depth of the retention system.

The test hole was presoaked with 5 gallons of clear water prior to testing. The fall was timed to determine a rate in minutes per inch (Drawing No. 7).

RESULTS

The test results were consistent with other tests performed in similar soils.

DESIGN

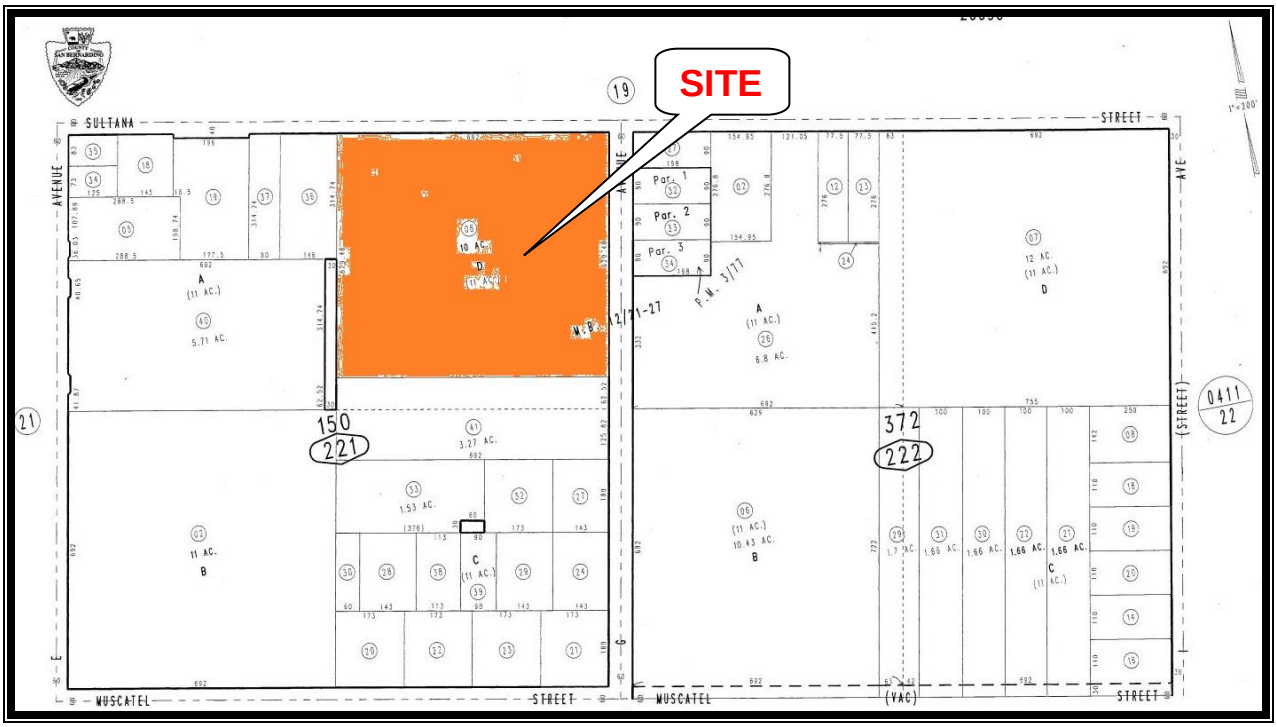
The percolation rate of 6.7 minutes per inch (mpi) will be used for this site. This rate equates to 1.05 square feet of leaching area per gallon per day. The total surface area for leaching (bottom plus one-half sidewall height) is 9,328 square feet. Assuming that the retention facility was full (16,000 cubic feet, 119,688 gallons), the facility will completely drain in 12.8 days.

LOCATION MAP – SOUTHWEST CORNER OF SULTANA STREET AND "G" AVENUE HESPERIA

DRAWING 1

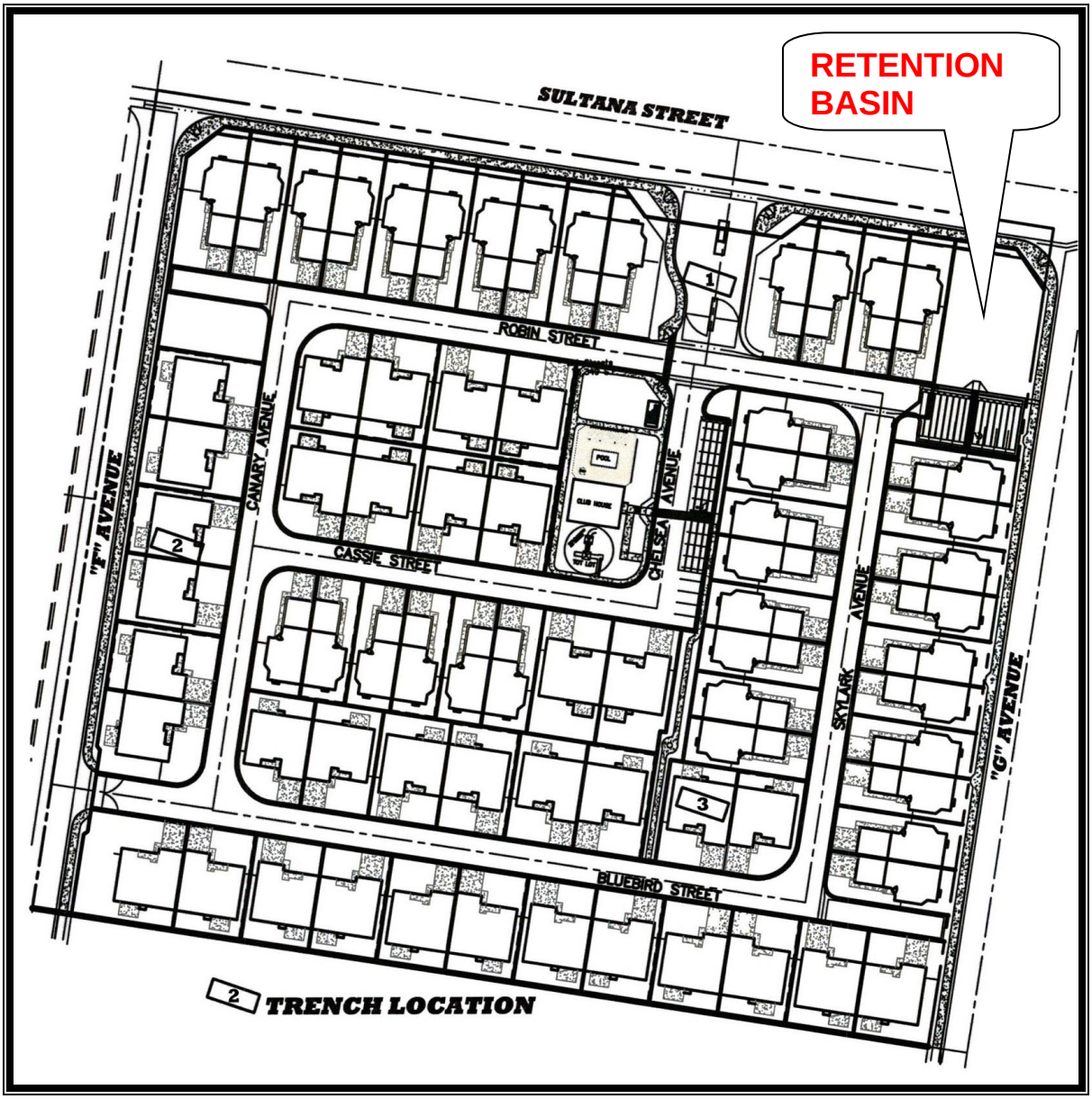
USGS QUAD SHEET – HESPERIA

DRAWING 2



ASSESSOR'S MAP – APN 0410-221-08-0000

DRAWING 3



EXPLORATORY TRENCH LOCATIONS/SITE PLAN

DRAWING 4

AERIAL OF SITE - AUGUST 2018

DRAWING 5

IN PLACE DENSITY (PCF)	MOISTURE (%)	COMPACTION PERCENT	CLASSIF.	TRENCH LOG TRENCH NO. 1
113.99	5.2	93.8		MEDIUM TO FINE SILTY SAND WITH SOME CLAY BINDER, REDDISH-BROWN, DAMP, MEDIUM DENSE (SM) (SP)
126.72 121.21	4.2 4.4	99.0 94.9		MEDIUM TO FINE SILTY SAND BROWN, SL DAMP, MED DENSE (SM)(SP)
				COARSE TO MEDIUM SAND W/GRAVEL GRAY, SL DAMP
				BOTTOM OF TRENCH NO GROUNDWATER NO VOIDS

SOUTHWEST CORNER OF SULTANA STREET AND "G" AVENUE HESPERIA

DRAWING 6

Project:	**TRACT 17690**	Excavate Date:	4/19/2007
Owner:	**Park View Trail**	Test Date:	4/19/2007
By:	**RH**		
Test No.	**1**		
Lot No.			

Test Number	Elapsed Time (Min)	Drop Measured From 8" Above The Bottom Of The Hole (IN)	Rate (Min/In)
1	10	1.75	5.71
2	10	1.75	5.71
3	10	1.50	6.67
4	10	1.50	6.67
5	10	1.50	6.67
6	10	1.50	6.67
7	10	1.50	6.67
8	10	1.50	6.67
		FINAL RATE (MPI)	**6.67**

Dimension of Hole: 8"
Hole #: 1
Presoak: 5 Gallons
Soil Type Encountered: Medium to fine silty sand with some gravel

*NOTE: Last 2 Readings Should Not Vary More Than 1/16 Inch

INFILTRATION TEST RATE

SOUTHWEST CORNER OF SULTANA STREET AND "G" AVENUE HESPERIA

DRAWING 7