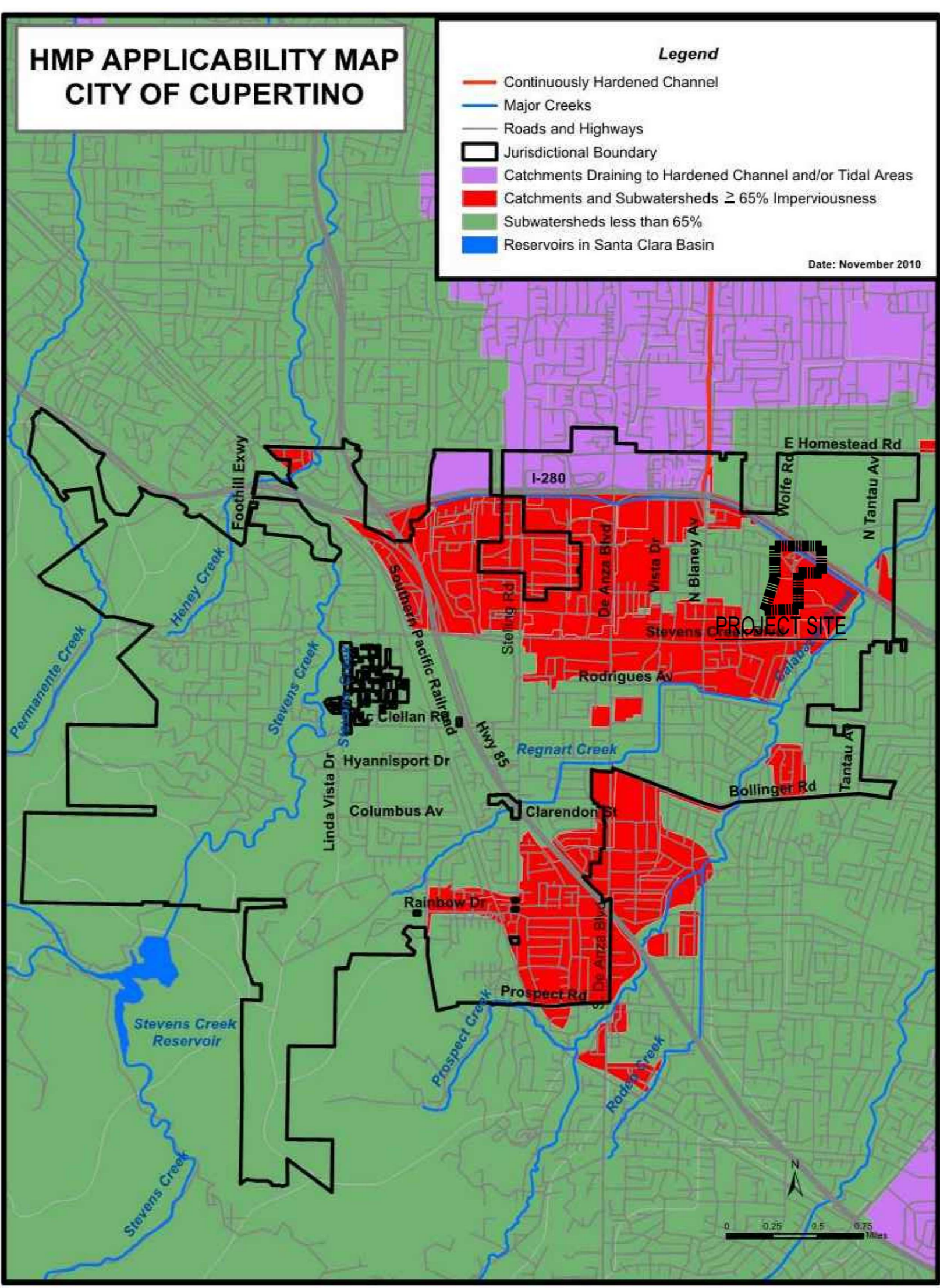


**CISTERN SIZING CALCULATIONS BY DRAINAGE AREAS:**

Drainage Area 1 (DA-1) Volume Based Treatment Measures using the UFGM Approach		Drainage Area 2 (DA-2) Volume Based Treatment Measures using the UFGM Approach	
Step 1. Drainage Area for BMP:	17.28 acres	Step 1. Drainage Area for BMP:	32.05 acres
Step 2. a. Impervious Area:	10.60 acres	Step 2. a. Impervious Area:	20.64 acres
b. Impervious ratio: (i)	61.4%	b. Impervious ratio: (i)	64.4%
Step 3. Watershed runoff Coefficient Cw =	0.419 (Cw = 0.8587 * 0.78 <sup>0.7741+0.04</sup> )	Step 3. Watershed runoff Coefficient Cw =	0.444 (Cw = 0.8587 * 0.78 <sup>0.7741+0.04</sup> )
Step 4. Mean Annual Precipitation	16 inches	Step 4. Mean Annual Precipitation	16 inches
Step 5. Closest Rain Gage	San Jose Airport	Step 5. Closest Rain Gage	San Jose Airport
Gage MAP <sub>gpcp</sub> (P <sub>i,avg</sub> ) (in)	13.9	Gage MAP <sub>gpcp</sub> (P <sub>i,avg</sub> ) (in)	13.9
San Jose Airport	13.9	San Jose Airport	13.9
Palo Alto	13.7	Palo Alto	13.7
Morgan Hill	19.5	Morgan Hill	19.5
MAP <sub>gpcp</sub>	13.9	MAP <sub>gpcp</sub>	13.9
(P <sub>i,avg</sub> )	0.512	(P <sub>i,avg</sub> )	0.512
Step 6. Mean Storm Event Precipitation Depth (P <sub>i,1hr</sub> )	0.589 inches (P <sub>i,1hr</sub> = (P <sub>i,avg</sub> ) * (MAP <sub>gpcp</sub> )/(MAP <sub>gpcp</sub> ))	Step 6. Mean Storm Event Precipitation Depth (P <sub>i,1hr</sub> )	0.589 inches (P <sub>i,1hr</sub> = (P <sub>i,avg</sub> ) * (MAP <sub>gpcp</sub> )/(MAP <sub>gpcp</sub> ))
Step 7. "a" regression constant	48 hour: 1.983 24 hour: 1.582 12 hour: 1.312	Step 7. "a" regression constant	48 hour: 1.983 24 hour: 1.582 12 hour: 1.312
Step 8. Maximized Storage Area	P <sub>s</sub> = (a * Cw) X P <sub>i</sub> = 0.485 inches	Step 8. Maximized Storage Area	P <sub>s</sub> = (a * Cw) X P <sub>i</sub> = 0.514 inches
Step 9. Volume of Runoff to be Treated	Design Volume = Po X A X 181/2in = 30,439 cuft	Step 9. Volume of Runoff to be Treated	Design Volume = Po X A X 181/2in = 59,779 cuft
Step 10. Size Cistern	Total Cistern Storage Volume = 540,000 gill 72,187 cuft	Step 10. Size Cistern	Total Cistern Storage Volume = 787,000 gill 102,533 cuft

**NOTE:**  
 FOR THE PURPOSE OF THIS STORMWATER MANAGEMENT PLAN, THE SITE HAS BEEN LOOKED AT AS TWO DRAINAGE AREAS. RAINWATER CISTERNS WILL BE DESIGNED IN MORE DETAIL AND COORDINATED WITH THE PLUMBING ENGINEERS TO WORK WITH CONSTRUCTION PHASING. THE SITE SPANNING PUBLIC RIGHT OF WAY AND JURISDICTION AND TOILET DEMANDS, THESE CISTERNS WILL BE SIZED INDIVIDUALLY BASED THEIR RESPECTIVE DRAINAGE AREAS.



**HYDROMODIFICATION MAP**

**NOTE:**  
 PROJECT IS EXEMPT FROM HYDROMODIFICATION BECAUSE IT IS LOCATED IN A WATERSHED THAT IS GREATER THAN 65% IMPERVIOUS.

**FLOOD ZONE NOTE:**

THE SITE IS CURRENTLY LOCATED IN FLOOD ZONE X ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM), PANEL 209H, MAP 800603C0200H, DATED MAY 18, 2009. FLOOD ZONE X ARE AREAS OF 0.2% ANNUAL CHANCE FLOOD AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

**City of Cupertino**  
 PERMIT PROVISION C.3. IMPERVIOUS SURFACE DATA FORM

**STAFF ONLY**  
 Building Permit  
 Date: \_\_\_\_\_  
 Permit #: \_\_\_\_\_

**All Project Applicants with 5,000 sq. ft. or more of impervious surface on the project site must fill out this worksheet and submit it with the development project application to the Engineering Division of the Public Works Department.** Contact Public Works at (408) 777-3354 for guidance.

**C.3 Regulated Projects** are projects that create and/or replace 10,000 sq. ft. or more of impervious surface on the project site AND all restaurants, auto service facilities, retail gasoline outlets, and uncovered parking lot projects that create and/or replace 5,000 sq. ft. or more of impervious surface on the project site.

All applicants with C.3 Regulated projects must reserve a minimum of 4% of developable surface area for the placement of storm water treatment facilities unless an alternative storm water treatment plan is approved by the Public Works Engineer.

**What is an Impervious Surface?**  
 An impervious surface is a covering or pavement that prevents the land's natural ability to absorb and infiltrate rainfall/stormwater. Impervious surfaces include, but are not limited to rooftops, walkways, paved patios, driveways, parking lots, storage areas, concrete and asphalt, and any other continuous watertight pavement or covering. Pervious pavement, underlain with pervious soil or pervious storage material (e.g., drain rock), that infiltrates rainfall at a rate equal to or greater than surrounding unsealed areas OR that stores and infiltrates the water quality design volume specified in Provision C.3.d of the Municipal Regional Stormwater Permit (MRP), is not considered an impervious surface.

Date: 2/15/2022 APN # See APN #'s listed on right

Project Location: 10123 N. Wolfe Rd, Cupertino, CA 95014 (408)955

Project Name: Valley Town Center Cross Streets: Wolfe Road, I-280 South

Applicant Name: Valley Property Owners, LLC Applicant's Ph #: 408-693-6005

Engineer: Chad Browning, PE, LEED AP Engineer's Ph #: 408-636-0900

Project Phase(s): 1 of 1

Project Description: Development of a mixed use project approx. of 1,810,000 s.f. office space, 400,000 s.f. of retail, 4,400,000 s.f. of residential (2,402 units) & supporting infrastructure including a green roof, utilities, site work & stormwater treatment.

Project Type (check all that apply):  New Development  Redevelopment  Commercial  Industrial  Auto Service (SIC code)  Uncovered Parking

Residential  Restaurant  Mixed Use  Retail Gas Outlet  Other

If residential, does the project consist of a single-family home that is not part of a larger common plan of development?  Yes  No

If yes, stop here and return sheet 1 only to the Engineering Division of the Public Works Department.

SCV\BPPF C.3. Data Form Page 1 of 4 November 2011

**Project Watershed/Receiving Water (creek):** Calabazas Creek

**2. Project Site:**

a. Total Site Area:	b. Total Site Area Disturbed:	Proposed Area (ft <sup>2</sup> )		Total Post-Project Area (ft <sup>2</sup> )
49,333 acre	49,333 acre	Existing Area (ft <sup>2</sup> )	Replaced	New
Impervious Area		986,644	719,507	0
Roof		516,263	10,560	0
Parking		672,999	672,999	83,984
Sidewalks and Streets		2,175,906	1,403,066	83,984
c. Total Impervious Area				1,487,050
d. Total new and replaced impervious area				1,403,066
Pervious Area				
Landscaping		37,915	37,915	89,747
Pervious Paving		0	0	0
Other (e.g. Green Roof)		0	0	534,253
a. Total Pervious Area		37,915	37,915	624,000
b. Percent Replacement of Impervious Area in Redevelopment Projects (Replaced Total Impervious Area + Existing Total Impervious Area) x 100% =				54.9 %

**3. State Construction General Permit Applicability:**  
 a. Is #2.b. equal to 1 acre or more?  
 Yes, applicant must obtain coverage under the State Construction General Permit (i.e., file a Notice of Intent and prepare a Stormwater Pollution Prevention Plan) (see [http://www.scrp.ca.gov/water\\_issues/programs/stormwater/construction.shtml](http://www.scrp.ca.gov/water_issues/programs/stormwater/construction.shtml)) for details.  
 No, applicant does not need coverage under the State Construction General Permit.

**4. MRP Provision C.3 Applicability:**  
 a. Is #2.b. equal to 10,000 sq. ft. or more, or 5,000 sq. ft. or more for restaurants, auto service facilities, retail gas outlets, and uncovered parking?  
 Yes, C.3. source control and site design and treatment requirements apply  
 No, C.3. source control and site design requirements may apply - check with local agency  
 Yes, C.3. requirements (site design and source control, as appropriate, and stormwater treatment) apply to entire site  
 No, C.3. requirements only apply to impervious area created and/or replaced

**5. Hydromodification Management (HMP) Applicability:**  
 a. Does project create and/or replace one acre or more of impervious surface AND create an increase in total impervious surface from the pre-project condition?  
 Yes (continue)  No - exempt from HM, go to page 3  
 b. Is the project located in an area of HM applicability (green) on the HM Applicability Map ([www.scrp.ca.gov/w2k/hmp\\_maps.htm](http://www.scrp.ca.gov/w2k/hmp_maps.htm))?  
 Yes, project must implement HM requirements  No - exempt from HM, go to page 3

Cupertino C.3. Data Form Page 2 of 4 November 2011

**6. Selection of Specific Stormwater Control Measures:**

**Site Design Measures**

- Minimize land disturbed
- Minimize impervious surfaces
- Minimum-impact street or parking lot design
- Cluster structures/pavement
- Disconnected downspouts
- Pervious pavement
- Green roof
- Microdetention in landscape
- Other self-treating area
- Self-retaining area
- Rainwater harvesting and use (e.g., rain barrel, cistern connected to roof drains)
- Preserved open space: \_\_\_\_\_ sq. ft. (circle one)
- Protected riparian and wetland areas/buffers (Setback from top of bank: \_\_\_\_\_ ft.)
- Other \_\_\_\_\_

**Source Control Measures**

- Alternative building materials
- Wash areas/tracks, drain to sanitary sewer
- Covered dumpster area, drain to sanitary sewer
- Sanitary sewer connection or accessible cleanout for swimming pool/spa/fountain
- Beneficial landscaping (minimize irrigation, runoff, pesticides and fertilizers; promotes treatment)
- Outdoor material storage protection
- Covers, drains for loading docks, maintenance bays, fueling areas
- Maintenance (pavement sweeping, catch basin cleaning, good housekeeping)
- Storm drain labeling
- Other \_\_\_\_\_

**Treatment Systems**

- None (all impervious surface drains to self-retaining areas)
- LID Treatment
  - Rainwater harvest and use (e.g., cistern or rain barrel sized for C.3.d treatment)
  - Infiltration basin
  - Infiltration trench
  - Exfiltration trench
  - Underground detention and infiltration system (e.g. pervious pavement drain rock, large diameter conduit)
- Bioretention area
- Flow-through planter
- Tree box with bioretention soils
- Other Treatment Methods
  - Proprietary tree box filter
  - Media filter (sand, compost, or proprietary media)
  - Vegetated filter strip
  - Dry detention basin

**Flow Duration Controls for Hydromodification Management (HMP)**

- Detention basin
- Underground tank or vault
- Bioretention with outlet
- Other \_\_\_\_\_

Cupertino C.3. Data Form Page 3 of 4 November 2011

**7. Treatment System Sizing for Projects with Treatment Requirements**  
 Indicate the hydraulic sizing criteria used and provide the calculated design flow or volume:

Treatment System Component	Hydraulic Sizing Criteria Used <sup>1</sup>	Design Flow or Volume (cfs or cu.ft.)
Rainwater Harvesting	URZCM	90,218 cu. ft.

<sup>1</sup>Key: 1a: Volume - WEF Method 2b: Flow - CASQA BMP Handbook Method  
 1b: Volume - CASQA BMP Handbook Method 2c: Flow - Uniform Intensity Method  
 2a: Flow - Factored Flood Flow Method 3: Combination Flow and Volume Design Basis

**8. Condition of Approval for Landscape Plans (use of native plants, tree preservation).**

**9. Third Party Certification**  
 A qualified consultant (that is not a member of the project team or City staff) will be required to review the treatment system sizing and design and certify the Stormwater Management Plan and/or Hydromodification Flow Control Facilities. A list of qualified consultants can be found at <http://www.scrp.ca.gov/w2k.com/consultants.htm>

**10. Operation & Maintenance Information**  
 A. Property Owner's Name: Valley Property Owners, LLC  
 B. Responsible Party for Stormwater Treatment/Hydromodification Control O&M:  
 a. Name: \_\_\_\_\_  
 b. Address: 505 Page Mill Road, Palo Alto CA, 94301  
 c. Phone/E-mail: 408-953-6005/NUMAN@SIGNAL.CC.COM

**This section to be completed by Municipal staff.**

**O&M Responsibility Mechanism**  
 Indicate how responsibility for O&M is assured. Check all that apply:  
 O&M Agreement  
 Other mechanism that assigns responsibility (describe below): \_\_\_\_\_

**STAFF ONLY - Reviewed by:**  
 Community Development Department Public Works Department  
 Planning Division: \_\_\_\_\_ Engineering Division: \_\_\_\_\_

Return form to: Public Works Department Date: \_\_\_\_\_

Cupertino C.3. Data Form Page 4 of 4 November 2011



OWNER - VALICO PROPERTY OWNER LLC  
 2600 EL CAMINO REAL, SUITE 410, PALO ALTO, CA 94306  
 T. 650-344-1500

ARCHITECTURE - RAFAEL VINOLY ARCHITECTS  
 375 PEARL STREET, 31ST FLOOR, NEW YORK, NY 10038  
 T. 212-924-5050

ARCHITECTURE - RAFAEL VINOLY ARCHITECTS  
 19123 N. WOLFE ROAD, CUPERTINO, CA 95014  
 T. 408-627-7090

LANDSCAPE ARCHITECTURE - OLIN PARTNERSHIP LTD.  
 1917 JOHN F. KENNEDY BLVD, SUITE 1000, PHILADELPHIA, PA 19103  
 T. 214-442-0030

CIVIL - SANDIS CIVIL ENGINEERS SURVEYORS PLANNERS, INC.  
 1700 S. WINCHESTER BLVD, SUITE 200, CAMPBELL, CA 95008  
 T. 408-636-0500

TRAFFIC - KIMLEY-HORN AND ASSOCIATES, INC.  
 1001 W. SAN FERNANDO STREET, SUITE 250, SAN JOSE, CA 95113  
 T. 669-800-4130

LIGHTING DESIGN - ONE LUX STUDIO  
 156 WEST 29TH STREET, 10TH FLOOR, NEW YORK, NY 10001  
 T. 212-201-5750

SIGNAGE & WAYFINDING - EXIT DESIGN  
 725 N. 4TH STREET, PHILADELPHIA, PA 19123  
 T. 215-581-1950

PARKING ENGINEERING - WATRY DESIGN, INC.  
 2099 GATEWAY PLACE, SUITE 550, SAN JOSE, CA 95110  
 T. 408-392-7050

FOOD SERVICE, WASTE MANAGEMENT & LOGISTICS - CNLITTLE  
 156 2ND STREET, SAN FRANCISCO, CA 94105  
 T. 415-922-9900

DATE: MARCH 23, 2022

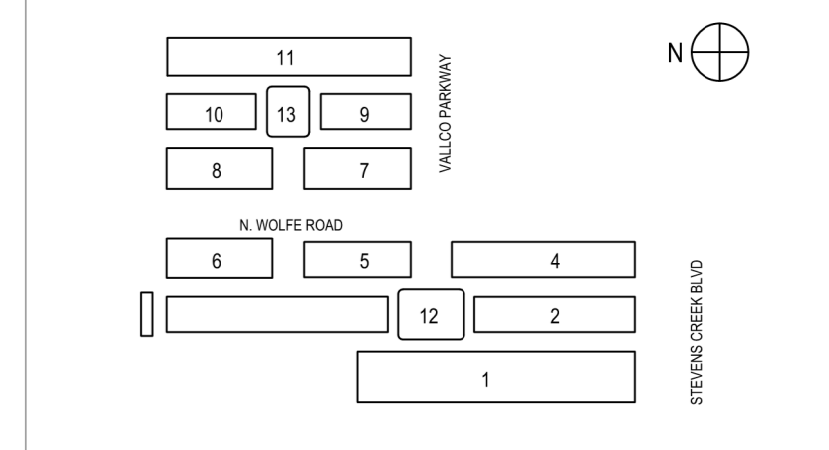
REGISTERED PROFESSIONAL ENGINEER  
 CHAD J. BROWNING  
 R.C.E. NO. 68315, EXPIRES 9-30-23

**NOT FOR CONSTRUCTION**  
 STAMP / SIGNATURE

**DISCLAIMER**  
 THE ARCHITECT/ENGINEER SHALL HAVE NO RESPONSIBILITY FOR ANY LIABILITY, LOSS, COST, DAMAGE OR EXPENSE ARISING FROM OR RELATING TO ANY USE OF THIS DOCUMENT FOR ANY PURPOSE OTHER THAN ITS INTENDED PURPOSE ON THIS PROJECT. THIS DOCUMENT IS TO BE CONSIDERED IN CONJUNCTION WITH ALL RELATED DOCUMENTATION. ANY DISCREPANCIES IDENTIFIED IN THIS DOCUMENT MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT BEFORE PROCEEDING. CONTRACTORS MUST VERIFY ALL DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK. ONLY FIGURED DIMENSIONS ARE TO BE USED FOR VERIFICATION.

**SB-35 MODIFICATION APPLICATION**

REV	DESCRIPTION	DATE
REV-0	SB-35 DEVELOPMENT APPLICATION	03/27/2018
REV-1	SB-35 APPLICATION - REVISIONS	08/09/2018
REV-2	SB-35 APPLICATION CONFORM SET	09/15/2018
REV-3	SB-35 MODIFICATION APPLICATION	03/23/2022



KEY PLAN AND NORTH ARROW  
 ARCHITECTS PROJECT NUMBER: 708.012

IF THIS DRAWING IS NOT 36"x48" IT IS A REDUCED PRINT: REFER TO GRAPHIC SCALE

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

**STORM WATER MANAGEMENT PLAN - DETAILS**

SHEET TITLE:  
**P-0404**