TS CIVIL ENGINEERING

November 14, 2024
Job No: 22-283

Robert Cain - Senior Planner
Department of Planning and Development
70 West Hedding Street
San Jose, CA 95110

FILE NUMBER: PLN21-148
SUBJECT: Building Site Approval , Grading Approval
SITE LOCATION: 22045 OLd Santa Cruz Highway, Los Gatos (APN: 558-08-147)

Dear Robert,

In reply to your letter dated November 15, 2023, we have the following response (bold-italics text):

PLANNING

1) As previously requested, please provide the following information: The average slope calculation for the development area, calculated and stamped by a licensed land surveyor or registered civil engineer. The sheet provided appears to include more than the development area. Pursuant to Section C 12-350.3, "the average slope of the proposed development area shall be calculated by a licensed land surveyor or registered civil engineer." Section C'12-3S0.2 defines the development area as “the area delineated for the location of a primary residence, including any and all residential accessory structures, secondary dwellings, tennis courts, swimming pools, decks, patios and similar accessory uses, onsite wastewater treatment and disposal systems, road and driveway access improvements, including turnouts, turnarounds, and parking areas. with an additional 25 feet of area immediately surrounding all such component features, as delineated on project site plan."
   A certified average slope calculation of 28% is attached to this letter.

2) Should the development area have an average slope of greater than 30%, additional requirements will be triggered pursuant to the County Ordinance~ luding a public hearing with Zoning Administration.
   Not greater than 30%.

LAND DEVELOPMENT ENGINEERING

1) Please provide earthwork calculations of the earthwork quantities shown on the plans. The grading quantities appear to be underestimated for the entirety of the project.
   Calculations completed by EarthCalc attached.

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2) Please provide an updated table of the estimated earthwork quantities per C12- 424(g). Quantities should be separated into the different bodies of work for the project. Identify the grading quantities for the main driveway and retaining walls, the common turnaround cul-de-sac, house, detention basin, and dirt/gravel road areas at a minimum. The contour grading for all the grading required for the development must be shown on the plans.
Please see table on C-1.0.

3) Please provide a table of the estimated impervious areas that are created as a part of the development. The different surface types and/or the different bodies of wok may be clarified and identified for clarity. The net change in impervious areas shall be clearly stated on the plans.
Impervious table provided in C.3 form attached.

4) Please show the revised limits of the disturbed area as a result of the proposed development. Include the disturbed areas of the septic field and any stockpile areas as well.
See C4.1 disturbed area.

5) Please clarify the 20' easement passing through the parcel being developed and serving the parcel to the north. There appear to be some easement lines frozen from the printout. The easement appears to be shown on the other plans, but not the easement plan. Note the recorded document number for the easement. Is it for item 1 but just frozen on the printout?
Part of shared water system which is no longer needed since we will connect to San Jose Water.

6) Clarify the profile view of the proposed driveway and gravel/dirt access. Please delete any reference to a future road. The profile should simply show the grade of the existing ground and the proposed driveway profile grade. Clearly identify the shaded area on the profile. What is happening with the vertical separation at station 12+60? What are the other lines between station 11+20 and 12+60? Walls? If so, clearly identify the wall profiles.
Yes, wall profiles. These are stacked walls.

7) Clarify the grading for the pro-rata share improvement proposal to construct the fire turnaround within the cul-de-sac bulb to be dedicated. The notes show that the there is to be a 5% maximum slope, but the grades indicate an average slope of 11%+ within the limits of the turnaround as calculated in the east-west direction. Please provide further grading details demonstrating that the fire turnaround is a 5% maximum slope in any direction.

We have inserted a special exhibit that depicts the future grading of a massive cul-de-sac with a 5% cross slope. This is viable but should never be built due to the resultant driveway slopes of 20%.

8) Clarify the drainage design shown on the plans.
    a) The storm drain lines and catch basins in the westerly and northerly side of the structure appear to be placed in random locations. The TG of the CB adjacent to the house appears to be mid elevation between the basement and the garage elevation. The TG elevation in the turnaround likely needs to be adjusted to collect drainage properly and properly fit into the grading for the turnaround. It is also unclear how the grading will drain runoff to the catch basin near the 68" Douglas fir tree to be removed. Please verify their locations and grades of the TG elevations.
    Road was narrowed, we will adjust grates and locations.
    b) The drainage runoff from the house and the driveway discharges to the hillside and doesn't appear to be detained in any fashion. That drainage will likely sheet flow over the property and dissipate over the neighboring property. Provide a preliminary drainage calculation that demonstrates that the increased runoff flow from the house and the driveway doesn't increase the peak runoff and will not require detention. Otherwise, please show how that peak runoff increase will be otherwise be mitigated.
    No, it is collected and sent to basin.
    c) Clearly demonstrate how the runoff will be captured from the proposed driveway and access path and routed to the detention basin as necessary.
    Will further detail, see new drainage lines.
    d) The erosion control plan indicates that there will be grading for a possible detention basin, but the Grading and Drainage plan omits the improvement. There also appears to be a rock rip rap swale leading to the pond for some run-on drainage, but the grading improvements for the swale leading to the pond are also omitted. Add the additional grading and drainage sheet to show the improvements as necessary.
    Will revise grading to agree with erosion control.

9) Clearly identify the shaded areas on the plans. The shading suggests the shaded areas to possibly be paved, but there appear to be different surfaces all within the shaded areas.
    a) Provide a clarification as to where the driveway will be concrete, and where it will transition to gravel for the access. Some sections indicate concrete while others indicate asphalt.
    Driveway is all AC.

b) The plans indicate a 6’ gravel access for septic but then conflict indicating an end of a dirt road. The section details indicate that area to be PCC surface. These conflicts must be clarified to properly evaluate the proposal.
This will be gravel.

c) The shaded area extends between the proposed driveway and fire turnaround inthe col-de-sac bulb dedication, covering up the wharf hydrant. If the pavement is to cover this area, please provide additional grading details as there appears to be an approximate 5’ grade separation in this area.
Wharf hydrant is in alcove now.

10) Provide shoulders to support the driveway widening, and the fire turnaround locations where the pavement is in a fill condition.
The pavement is cut only with no fill.

11) Please provide a taper of the pavement to meet up with the required driveway turnaround at approximate station 11+90 to conform area required for the turnaround. Part of the turnaround appears to be in conflict with a proposed retaining wall.
Taper now shown.

12) Clarify the section details provided on Sheet C4.0. Three section details are shown, but there are no section lines shown on the plan sheets. The grades do not appear to correspond to the plans provided. Two sections at a minimum, through each direction of the structure, should be provided to provide a rough idea of the grading should be provided. The limits of the setback with respect the house and basement foundation should be shown on the section detail.
We have added 6 sheets of the architect’s plans with excellent detailing of grading sections.

13) There appears to be a 1.75’ grade separation at the garage as indicated on sheet C4.1 where the entrance to the parage is shown to be 335.5 and the FF is 337.25. Please verify the grading as necessary while maintaining the required maximum grade for fire turnarounds of 5% max.
6.5% is the best slope possible.

14) The section details for the access indicate a significant amount of grading especially from station 12+00 through 13+00. The proposed grading needs to be reflected on the Plan and Profile (C4.1) and Grading plans (C2.2) accordingly. Contour grading is required for the submittal.
Contour grading now shown.

15) The call outs for walls on the right side of the driveway around the turnaround area from station 10+60 to station 11+20 indicate that there is a wall, but the walls are not shown on the plans for the entirety of the length. This conflict must be clarified.
These are double walls. Information clarified.

16) There are call outs for top and bottom of wall elevations on the left side of the driveway beginning at 10+86 and continuing on, going through the fire turnaround and down through the open area but no walls are shown. This conflict must be clarified. Is a wall still required for the grading?
No wall is needed beyond the FDT.

17) Please clearly identify all retaining walls necessary to establish the grading shown with appropriate top and bottom of wall elevations. The lower wall only has top of wall elevations at the ends and a height specified at just one end. This is not sufficient to demonstrate the height of the retaining wall system. A top and bottom of wall elevation should be provided midway of both top and bottom of walls at a minimum. Please provide a cross section of the grading, including the proposed wall, per Section C12-424 (j) and (k) of the County Grading & Drainage Ordinance through the area of the revised turnaround.
TW/BWs are shown.

18) Submit a completed San Francisco Bay Watershed Questionnaire (MRP 3.0). Based on the results of the Questionnaire, incorporate the applicable stormwater treatment measures in the plans.
Completed and enclosed.

19) Provide the surveyor's reference for the survey performed to establish the property lines shown on the plans per State requirements. The boundary survey shall be referenced on the plans noting the licensed land surveyor who established the property lines and performed the survey.
The surveyor was Arnold Engineering in Oakland, CA.

FIRE MARSHAL

20) Ensure all sheets are to scale. Sheet C2.2 states 1"=30', however measurements taken on the plans appear to show a different scale.
1" = 10'

21) Plans are to label and show fire department turnaround dimensions/outline meeting CFMO-SD16. During in-person meetings, it was stated that a turnaround is proposed at the house (near the hydrant). The plans appear to show a widened section of driveway at this location, but the plans don't label this as a fire department turnaround.

a) Ensure the 30 ft. entry to the turnaround is shown with a minimum drivable width of 18 ft.
Confirmed & OK on plan.

22) Wharf hydrant to be located at a fire department turnout, turnaround or 20 ft. drivable width road. The width on sheet C2.2 appears to be less than 20 ft.
Now shown in alcove area.

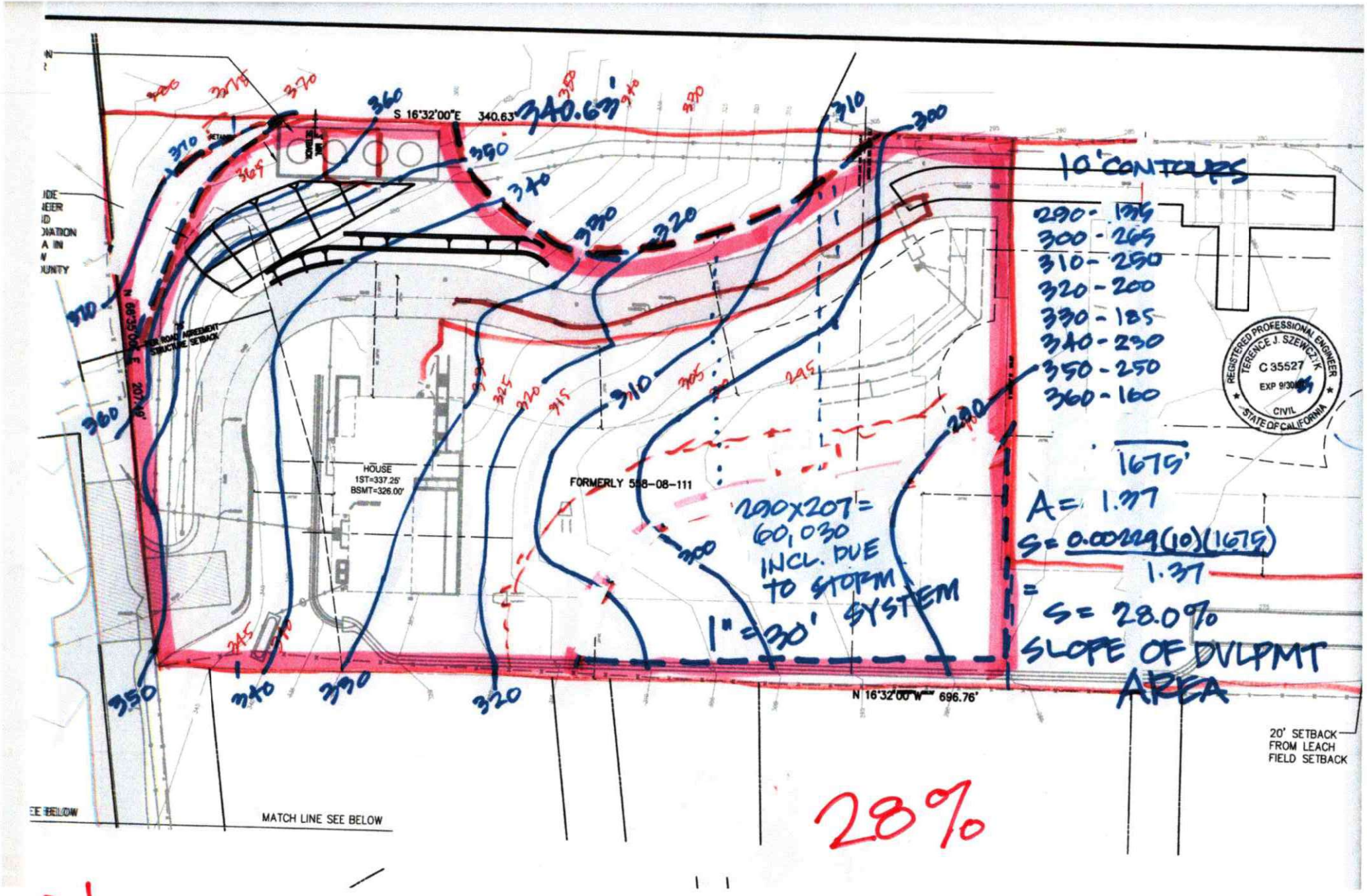
23) Plans are to state the size and use of water tanks per CFMO-W1, and CFMO-W5.
Two 5,000 gallon tanks area interconnected for fire.

ENVIRONMENTAL HEALTH

21) To the Department of Environmental Health, submit site plan showing locations for all percolation test holes and soil profiles. Graphically show an onsite wastewater treatment system (OWTS)/ dispersal field sized sufficiently to accommodate proposed development. Note: OWTS dispersal field shall incorporate at least 4 passing percolation test holes. Current site plan does not show all percolation test holes. Current plan shows septic leach field within area of failed percolation test holes.
Layer was turned off. Now corrected.

If you have any further questions, please contact me at terry@tscivil.com or (408)316-2696.

TS/CIVIL ENGINEERING, INC.
Terence J. Szewczyk, P.E. C35527
Principal Engineer


10' CONTOURS
290 - 135
300 - 265
310 - 250
320 - 200
330 - 185
340 - 230
350 - 250
360 - 160
1675'
A = 1.37
S = 0.00229(10)(1675) / 1.37
S = 28.0%
SLOPE OF DVLPMT AREA
290x207 = 60,030 INCL. DUE TO STORM SYSTEM
1" = 30'
28%
S 16°32'00"E 340.63'
N 16°32'00"W 696.76'
N 69°35'00"E 207.49'
HOUSE
1ST=337.25'
BSMT=326.00'
FORMERLY 568-08-111
REGISTERED PROFESSIONAL ENGINEER
TERENCE J. SZEWCZYK
C 35527
EXP 9/30/05
CIVIL
STATE OF CALIFORNIA
20' SETBACK FROM LEACH FIELD SETBACK
MATCH LINE SEE BELOW

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Date Form Completed: 11-14-24

Completed by: T Szewczyk

Provision C.3 Data Form

Which Projects Must Comply with Stormwater Requirements?

Effective July 1, 2023, the following projects must comply with Stormwater Requirements:

- **All development/redevelopment projects** (except single-family home projects) that create and/or replace **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.
- **All large single-family home projects** that create and/or replace **10,000 sq. ft.** or more of impervious surface on the project site must also fill out this worksheet.

These projects are called **Regulated Projects.** The Regulated Project area includes portions of the public right-of-way that are developed or redeveloped as part of the Regulated Project.

Excluded Projects - Interior remodeling projects, routine maintenance or repair projects such as re-roofing and re-surfacing, and smaller single-family homes that are not part of a larger plan of development are **NOT** required to complete this worksheet.

What is an Impervious Surface?

An impervious surface is a surface 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, impervious concrete and asphalt, gravel surfaces, and any other continuous watertight pavement or covering.

Pervious pavement, underlain with pervious soil and pervious storage material (e.g., drain rock), that infiltrates rainfall at a rate equal to or greater than surrounding unpaved 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.

For More Information

The SCVURPPP C.3 Stormwater Handbook provides more information on selection of site design, source control, and treatment measures for a development project as well as guidance on preparing a stormwater control plan.

1. Project Information

Project Name: Miller- Cauich Residence **APN #** 558-08-147

Project Address: 22045 Old Santa Cruz Highway

Cross Streets: Melody Lane and Mountain Charlie Road

Applicant/Developer Name: Catalina Miller & Enrique Cauich

Project Phase(s): 1 **of** 1 **Engineer:** TS/Civil Engineering, Inc

Project Type (Check all that apply): ☑ New Development ☐ Redevelopment

☑ Private ☐ Public ☐ Large Detached Single-Family Home

☑ Residential ☐ Commercial ☐ Industrial ☐ Mixed Use ☐ Institutional

☑ Other Moderately sized detached Single Family Home

Project Description: 3500 SF building footprint with Partial basement andon-site driveway with fire department turnaround

Project Watershed/Receiving Water (creek, river or bay): Los Gatos Creek

2. Project Size

a. Total Site Area: 84,070 (ft²)		b. Total Land Area Disturbed During Construction: 36,900 (ft²) (including clearing, grading, stockpiling, or excavating)			
Project Totals	**Total Existing (Pre-project) Area (ft²)**	**Existing Area Retained[1] (ft²)**	**Existing Area Replaced[2] (ft²)**	**New Area Created[2] (ft²)**	**Total Post-Project Area (ft²)**
Impervious Area (IA)					
c. Total on-site IA	0	0	0	7,250	7,250
d. Total off-site IA[3]	0		0	0	0
e. Total project IA	0	0	0	7,250	7,250
f. Total new and replaced IA			7,250		
Pervious Area (PA)[4]					
g. Total on-site PA	76,820				
h. Total off-site PA[3]	0				
i. Total project PA	76,820				0
j. **Total Project Area (2.e.+2.i.)**	76,820				7,250
k. Percent Replacement of IA in Redevelopment Projects: (Existing on-site IA Replaced ÷ Existing Total on-site IA) x 100% _____%					

[1] "Retained" means to leave existing IA in place. An IA that receives surface treatment (e.g., pavement resurfacing/slurry seal/grind) only is considered "retained". This category does not apply to off-site areas.

[2] The "new" and "replaced" IA are based on the total project area and not specific locations within the project. Constructed IA on a project that does not exceed the total pre-project IA will be considered "replaced" IA. A project will have "new" IA only if the total post-project IA exceeds the total pre-project IA (total post-project IA – total pre-project IA = New IA).

[3] Off-site areas include sidewalks and other parts of the public right-of-way (e.g., roads, bike lanes, curbs, ramps, park strip) that are being reconstructed as part of the project footprint. Note that gravel is considered an impervious surface.

[4] Include bioretention areas, infiltration areas, green roofs, and pervious pavement in PA calculations.

3. State Construction General Permit Applicability:

a. Is #2.b. equal to 43,560 ft² (1 acre) or more?

☐ Yes, applicant must obtain coverage under the State Construction General Permit (see https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

☑ No, applicant does not need coverage under the State Construction General Permit.

4. MRP Provision C.3 Applicability:

a. Is #2.f. equal to **5,000** ft² or more, or **10,000** ft² for single family homes?

☐ Yes, C.3. source control, site design and treatment requirements apply

☑ No, C.3. source control and site design requirements may apply – check with local agency

b. For redevelopment projects, is #2.k. equal to 50% or more?

☐ Yes, C.3. requirements (site design and source control, as appropriate, and stormwater treatment) apply to the entire on-site area

☐ No, C.3. requirements only apply to the impervious area created and/or replaced

5. Hydromodification Management (HM) Applicability:

a. Does the project create and/or replace one acre or more of impervious surface AND is the total post-project impervious area greater than the pre-project (existing) impervious area?

☐ Yes (continue) ☑ No – exempt from HM, go to page 3

b. Is the project located in an area of HM applicability (green area) on the HM Applicability Map? www.scvurppp.org/hmp-map

☐ Yes, the project must implement HM requirements

☑ No, the project is exempt from HM requirements

6. Selection of Specific Stormwater Control Measures:

Site Design Measures

- ☑ Minimize land disturbed (e.g., protect trees and soil)
- ☑ Minimize impervious surfaces (e.g., reduction in post-project impervious surface)
- ☐ Minimum-impact street or parking lot design (e.g., parking on top of or under buildings)
- ☐ Cluster structures/ pavement
- ☐ Disconnected downspouts (direct runoff from roofs, sidewalks, patios to landscaped areas)
- ☑ Pervious pavement
- ☐ Green roof
- ☑ Other self-treating[5] area (e.g., landscaped areas)
- ☐ Self-retaining[5] area
- ☐ Rainwater harvesting and use (e.g., rain barrel, cistern for designated use) [6]
- ☐ Preserved open space
- ☐ Protected riparian and wetland areas/buffers
- ☐ Other _____

Source Control Measures

- ☐ Wash area/racks, drain to sanitary sewer[7]
- ☐ Covered dumpster area, drain to sanitary sewer[7]
- ☐ Sanitary sewer connection or accessible cleanout for swimming pool/spa/fountain[7]
- ☑ 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 Measures

- ☑ None (all impervious surface drains to self-retaining areas)

LID Treatment

- ☑ Bioretention area
- ☐ Flow-through planter
- ☐ Tree Well Filter or Trench with bioretention soils
- ☐ Rainwater harvest/use (e.g., cistern for designated use, sized for C.3.d treatment)
- ☑ Pervious pavement, sized for C.3.d treatment
- ☐ Infiltration trench
- ☐ Infiltration well/dry well
- ☐ Subsurface Infiltration System (e.g., vault or large diameter conduit over drain rock)
- ☐ Other _____

Non-LID Treatment Methods

- ☐ Proprietary high flow rate tree box filter[8]
- ☐ Proprietary high flow media filter (sand, compost, or proprietary media)[8]
- ☐ Vegetated filter strip[9]
- ☐ Extended detention basin[9]
- ☐ Vegetated swale[9]
- ☐ Other _____

Flow Duration Controls for Hydromodification Management (HM)

☐ Extended Detention basin ☐ Underground tank or vault ☐ Bioretention with outlet control ☐ Other _____

[5] See SCVURPPP C.3 Stormwater Handbook for definitions.

[6] Optional site design measure; does not have to be sized to comply with Provision C.3.d treatment requirements.

[7] Subject to sanitary sewer authority requirements.

[8] These treatment measures are only allowed if the project qualifies as a "Special Project".

[9] These treatment measures are only allowed as part of a multi-step treatment process (i.e., for pretreatment).

7. Stormwater Treatment Measure (STM) Sizing for Projects with Treatment Requirements

Stormwater Treatment Measure (STM)	Hydraulic Sizing Criteria Used*
Choose from list	Choose from list
Choose from list	Choose from list
Choose from list	Choose from list
Choose from list	Choose from list

*Key: 1a: Volume – WEF Method
1b: Volume – CASQA BMP Handbook Method
2a: Flow – Factored Flood Flow Method
2b: Flow – CASQA BMP Handbook Method
2c: Flow – Uniform Intensity Method
3: Combination Flow and Volume Design Basis

8. Additional Stormwater Treatment of Non-Regulated Areas - Is the project providing stormwater treatment for non-regulated impervious area that is not included in **Item 2 Project Size**? For example, stormwater treatment of right-of-way areas that are outside the project footprint, or treatment measures that are treating more right-of-way impervious area quantities than required.

☐ Yes, complete the table below
☑ No

Additional Stormwater Treatment of Non-Regulated Areas

Non-Regulated Area Draining to Treatment Measure			Treatment Measures	Hydraulic Sizing Criteria
Impervious Area Treated (ft^2)	Pervious Area Treated (ft^2)	Total Area Treated (ft^2)		
			Flow-through planter concrete lined w/ u	Choose from list
			Choose from list	Choose from list
			Choose from list	Choose from list
			Choose from list	Choose from list
			Choose from list	Choose from list
			Choose from list	Choose from list

9. Alternative Certification: Was the treatment system sizing and design reviewed by a qualified third-party professional that is not a member of the project team or agency staff?

☐ Yes ☑ No Name of Third-party Reviewer_____

10. Operation & Maintenance Information

A. Property Owner's Name: Catalina Mille and Enrique Cauich

B. Responsible Party for Stormwater Treatment/Hydromodification Control O&M:

a. Name: owner above

b. Address: same as site address

c. Phone/E-mail: catalina.miller@gmail.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):

_____

This section to be completed by Municipal staff (Note: This is an optional section that agencies should modify per their internal review and tracking process.)

Reviewed:

Community Development Department

☐ **Planning Division**

☐ **Building Division**

Public Works Department

☐ **Engineering**

☐ **Other (Specify)**

Return form to: _____

Data entry performed by: _____