July 2, 2025

Ray Cassidy
Dominican Valley LLC
PO Box 150173
San Rafael, CA 94915

Re: Consistency Determination of the Dominican Valley Housing Project Development Application (PLAN23-081; ED23-062; TS23-001) at APN 015-163-03

Dear Mr. Cassidy,

The Community and Economic Development Department is in receipt of your application for a housing development project ("Project") at Magnolia Avenue and Deer Park Avenue (APN 015-163-03) in San Rafael for a major subdivision and residential development of a 20.79-acre site. The proposed project involves subdividing the property into 50 parcels and constructing 64 residential dwelling units, including 27 single-family homes, 17 townhomes, 14 Junior Accessory Dwelling Units (JADUs) attached to the townhomes, and 6 duplex units. The application invokes the "builder's remedy," pursuant to Government Code Section 65589.5(d)(5).

The project application was deemed complete for processing on October 8, 2024. This letter provides an analysis regarding inconsistencies between the proposed Project and City standards, regulations, policies, codes and plans. As explained below, the Project is inconsistent with various requirements contained in the City's General Plan and Zoning Code. Although no General Plan or zoning amendment requests have been required for the City to find your application complete, this does not preclude the City from determining that a General Plan or zoning amendment may be required for final approval of the project, nor does this reflect a determination on the question of what entitlements will be required for, and what standards will apply to, final approval of the Project. Furthermore, the City takes no final position on the applicability of the builder's remedy to the proposed project at this time.

Consistency Issues

The City has determined the proposed project is inconsistent, not in compliance, or not in conformity with the City's objective plans, programs, policies, ordinances, standards, and requirements identified herein.

1. General Plan

Density: The project site is designated Hillside Residential (HR) by the City of San Rafael 2040 General Plan (0.5 to 2.2 units per net acre). A net acre of land excludes public and private streets, easements, and areas that are considered "unbuildable" due to natural constraints such as wetlands and steep slopes. (General Plan, p. 3-6.) Areas that are used for facilities serving residents of the development (including recreational features such as swimming pools and private playgrounds) driveways and accessways, parking lots, and parcels developed with housing are considered "developable" and are included in net acreage and the net density calculation. (General Plan, p. 3-6.) The proposed project would develop 50 units on 20.79 gross acres, at a density of 2.4 units per gross acre, which is in excess of the maximum permissible 2.2 units per net acre. While it is unclear from the application materials what the net acreage of the site is (after excluding roadways, easements, and undevelopable steep slopes), the net density would be even greater than the gross density, which already exceeds the permissible net density.

The City is unable to analyze consistency with net density at this time and needs more information. Please provide calculations for areas of public and private streets, and estimated areas of unbuildable land, including land within the creek and drainage setbacks, and areas of geologic instability.

Height: The General Plan limits height on the site to 30 feet tall. (General Plan p. 3-25.) The Site Plan cover sheet (Site Plan, p. A001) lists the maximum building heights on each lot, though these heights appear to be inconsistent with the heights shown in elevations for individual lots. For example, Sheet A003 for Lot 1 shows 10'3" + 12'0" + 11'3" height, which totals 33'6" (in contrast to 30' as listed on Sheet A001). Likewise, elevations for some sites depict buildings that exceed the 30-foot plane (see, e.g., Sheet A019.) Finally, the summary sheet itself seems to indicate that some buildings exceed the 30-foot limit (see, e.g., Sheet A001 Lots 41-49.) Given this conflicting information, it appears that the height of buildings on many sites would exceed the 30-foot height limit.

Policy LU-1.2: Development Timing. *For health, safety, and general welfare reasons, new development should only occur when adequate infrastructure is available, consistent with the following findings: a) The project is consistent with adopted Vehicle Miles Traveled (VMT) standards, as well as the requirements for Level of Service (LOS) specified in the Mobility Element. b) Planned circulation improvements necessary to meet City standards for the project have funding commitments and completed environmental review. c) Water, sanitary sewer, storm sewer, and other infrastructure improvements needed to serve the proposed development have been evaluated and confirmed to be in place or to be available to serve the development by the time it is constructed. d) The project has incorporated design and construction measures to adequately mitigate exposure to hazards, including flooding, sea level rise, and wildfire.*

Regarding subsection a, The City doesn't have sufficient information at this time to evaluate consistency with this policy. The City will require further information to establish whether adequate facilities and infrastructure are available to serve the development.

Policy M-2.5: Traffic Level of Service. *Maintain traffic Level of Service (LOS) standards that ensure an efficient roadway network and provide a consistent basis for evaluating the transportation effects of proposed development projects on local roadways. These standards shall generally be based on the performance of signalized intersections during the AM and PM peak hours. Arterial LOS standards may be used in lieu of (or in addition to) intersection LOS standards in cases where intersection spacing and road design characteristics make arterial LOS a more reliable and effective tool for predicting future impacts*.

The City does not have sufficient information at this time to evaluate consistency with this policy. A Traffic Impact Study meeting the City of San Rafael standards is required. The applicant has submitted a draft Traffic Impact Study, which was peer reviewed by the City. Comments were provided in a memorandum dated August 12, 2024 requesting corrections to the Transportation Impact Study. An updated Traffic Impact Study has not been received. A revised traffic study that addresses all of the comments provided in the August 12, 2024 memo is required at this time. See Attachment 1.

Policy M-3.1: VMT Reduction. *Achieve State-mandated reductions in Vehicle Miles Traveled by requiring development and transportation projects to meet specific VMT metrics and implement VMT reduction measures*.

The City does not have sufficient information at this time to evaluate consistency with this policy. A completed Traffic Impact Study meeting the City of San Rafael Transportation Analysis Guidelines is required. A revised traffic study that addresses all of the comments provided in the August 12, 2024 memo is required at this time. See Attachment 1.

Program C-1.6A: Creek and Drainageway Setbacks. *Maintain the following setback requirements in the Municipal Code: (a) A minimum 25-foot development-free setback shall be maintained from the top of creek banks for all new development (including but not limited to paving and structures). Setbacks up to 100 feet may be required in development projects larger than two acres where development review determines that a wider setback is needed to maintain habitat values, and in areas where high-quality riparian habitat exists. The City may waive the setback requirement for minor encroachments if it can be demonstrated that the proposed setback adequately protects the functions of the creek to the maximum extent feasible and the results are acceptable to appropriate regulatory agencies. (b) Drainageway Setbacks: Drainageway setbacks shall be established through individual development review, taking into account existing habitat function and values.*

The City cannot determine consistency with this policy at this time. Project plans do not clearly identify the top of bank of the creek and required creek setbacks in relation to proposed development and improvements. Additional information is needed to determine the top of bank of the creek and the required setbacks.

2. City of San Rafael Municipal Code

PD District 1884: The project site is zoned PD (Planned Development) and subject to Ordinance No. 1884, which sets development standards for the site. Ordinance No. 1884 allows five uses on the site: (1) any use already established by Dominican University on the site at the time Ordinance No. 1884 was passed; (2) a new

recreation center; (3) a new Science and Tech Building; (4) a new chapel; and (5) a new residence hall associated with the university. The proposed residential uses are not associated with Dominican University and are not any of the five uses allowed by Ordinance No. 1884 and are therefore not permitted on the site.

Hillside Overlay: Provisions of Chapter 14.12 (Hillside Development Overlay District) apply to the project site pursuant to SRMC Section 14.12.020 (Criteria for establishment of hillside development overlay district), which states that the hillside regulations apply to all lots with an average slope of twenty-five percent (25%) or greater, or located in the hillside resource residential or hillside residential general plan land use designations. As noted above, the site is designated Hillside Residential (HR) by the City of San Rafael 2040 General Plan. (0.5 to 2.2 units per net acre) and the site also has an average slope of 39.87 percent.

a. **Building Stepback.** In all hillside (-H) zones, building stepbacks are established to limit the height of structures to avoid excessive building bulk. The required stepback shall be follows:

   1. *On any downhill slope a twenty-foot (20´) height limit measured from existing grade shall be observed. This height limit shall be construed to mean that wall planes shall be broken into single wall heights of no more than twenty feet (20') beyond which a stepback of at least five feet (5') is required, unless otherwise determined through the environmental and design review permit process. Regardless, the maximum overall building height shall not exceed the height allowed by the zoning district.*
   2. *On non-downhill slope, walls facing front and side property lines shall have a twenty-foot (20') height limit measured from existing grade shall be observed within all areas within fifteen feet (15') of the maximum building envelope limit. To allow for design flexibility on non-downhill slopes, an encroachment into the street front, street side and interior side stepback is permitted along twenty-five percent (25%) of the building length. (SRMC Section. 14.12.030(A).*

   It appears that some of the proposed units exceed the 20-foot maximum height limit (see, e.g. Lots 15 through 31 [building section facing front property line appears to be greater than 20' above existing grade]).

b. **Natural State.** *A minimum area of twenty-five percent (25%) of the lot area plus the percentage figure of average slope, not to exceed a maximum of eighty-five percent (85%), must remain in its natural state. (SRMC Ch. 14.12.030(C).) Based on a comparison of the proposed lot area with the proposed natural state square footage for each lot on Sheet A001, lots 4, 5, 8, 12-31, 39, and 40-50 do not provide the required lot area in its natural state.*

   The City is unable to determine at this time if the lots meet the required standards as the City does not have data for the average slope of each lot.

c. **Minimum Lot Area and Width.** In Hillside Residential (HR) zones, the City's subdivision standards require a minimum lot area of 20,000 square feet for lots with average slopes of 0-20%; 30,000 square feet for lots with

average slopes of 20-30%; 1 acre for lots with average slopes of 30-40%; and 2 acres for lots with average slopes of over 40%. (SRMC Table 15.07.020B.) Every lot except for Lot 9 is less than 20,000 square feet. (Site Plan, p. A001.) The average slope of Lot 9 is 21.2% and the proposed lot is 22,735 square feet in size (whereas the required lot size would be 30,000 square feet). Therefore, none of the lots comply with the minimum lot area requirements. Likewise, the required average lot width ranges from 100 to 150 square feet (SRMC Table 15.07.020B), but none of the lots have an average lot width of 100 feet. (Site Plan, p. A001.) Therefore, none of the lots comply with the minimum lot width requirement.

d. **Maximum Gross Building Square Footage.** The maximum permitted gross building square footage of all structures (including garages and accessory structures over one hundred twenty (120) square feet) is limited to two thousand five hundred (2,500) square feet plus ten percent (10%) of the lot area with the maximum gross square footage set at six thousand five hundred (6,500) square feet. (SRMC Ch. 14.20.030(D).) The Site Plan calculates the maximum permissible gross square footage for each lot (Site Plan, p. A001) but incorrectly compares the permissible gross square footage to the proposed *net square footage* of buildings on each lot. In fact, as demonstrated on the sheets for each individual lot, the proposed gross square footage exceeds the permissible gross square footage for Lots 1-8, 12-14, and 32-44.

e. **Ridgeline Development.** Development of new structures is prohibited within one hundred (100) vertical feet of a visually significant ridgeline. A visually significant ridgeline is located along the southeastern property line as indicated on the City of San Rafael Ridgeline Map on file with the City. The ridgeline is located at an elevation of 383.2 to 440 feet above mean sea level (amsl). The Site Plan indicates that Lots 41, 42, 43, 4, 45, 46, 47, 48, 49, and 50 are located within one hundred vertical feet of this ridgeline. (Site Plan, p. A001; C1.1.)

f. **Parking Requirements.** Single-family residential developments must provide two covered spaces per unit. (SRMC Table 14.18.040.) Lots 15-31 have single-car garages and therefore do not provide the required amount of parking. Additionally, on streets less than twenty-six feet (26') wide, a minimum of two (2) additional on-site parking spaces must be provided (not on the driveway apron). (SRMC Ch. 14.12.030(F).) DPW and the Fire Department have indicated that additional information is required to determine if the proposed roads comply with code. It appears that the new streets may be less than 26 feet wide. If that is the case, then none of the lots provide the required 4 parking spaces.

g. **Fencing and Retaining Walls.** Fences located within the front and streetside setbacks may be 4 feet tall while fences not exceeding seven feet (7') in height may be located within the required rear yard or interior side yard. Retaining walls not exceeding a height of four feet (4') in height may be located within the required rear yard and interior side yard. (SRMC Ch. 14.16.140.) Compliance with fence standards cannot be determined at this time. Please clearly label all fences on project plans and indicate proposed height. Project plans propose retaining walls that exceed allowable height, including retaining walls that are 4.5 feet (Lot B, 29 Sheet C4.2); 10 feet (Lot 24 Sheet C4.2); and 13.5 (Lot 28 Sheet C4.2). Please

clearly label all retaining walls and indicate top of wall and bottom of wall on all retaining walls.

h. **Creeks and other watercourses.** All structures must be set back from the top of bank of any creek by at least 25 feet. (SRMC Ch. 14.16.080(A).) There is an ephemeral stream on the property. (See Sheet C2.) An ephemeral stream is a type of creek. (SRMC Ch. 14.03.030, "Creek".) The proposed development would locate several buildings, including Lots 5, 9, 10, 11, and 12 in proximity of the ephemeral stream. (Sheet C2). In order to determine if structures located on Lots 5, 9, 10, 11, and 12 would be located within the required creek setback, additional information is required, including a delineation of the top of bank of the creek and analysis of required setbacks.

i. **Affordable Housing.** Pursuant to San Rafael Municipal Code Section 14.16.030, residential development projects must provide affordable housing units as described in the policies and procedures specified in the San Rafael City Council's Guidelines for the Administration of the Affordable Housing Trust Fund (Resolution 14890). Affordable housing units must be dispersed throughout the residential development project and must be of a similar mix and type to that of the residential development project as a whole, including, but not limited to (1) the same or substantially similar mix of unit size (e.g., number of bedrooms, square footage) and (2) compatible with the design, materials, amenities, and appearance of the other developed units. (Resolution 14890, Section C.) The Project proposes all affordable housing units as JADUs, which is inconsistent with the requirement that affordable housing units be the same or substantially similar mix of unit size as the project on the whole. (see Attachment 2).

3. Department of Public Works

The Department of Public Works has the following comments and will require additional information to determine code compliance (see Attachment 3).

1. Preliminary Drainage and Utility Plan - Sheet C6.1:
    a. The storm drain fronting lots 15 through 31 was moved to the opposite side of the street. There are 16 direct connections to the public storm drain. The City will not accept this many lateral connections to a public storm drain. The lateral connections from the bioretention inlets shall be combined using an on-site storm drain, which can then be connected to the public storm drain through a single storm drain lateral and structure such as a catch basin or storm drain manhole.
2. Preliminary Stormwater Control Plan - Sheet C7.0:
    a. Per BASMAA Stormwater Control Plan Checklist, Contents of Exhibit, Page 3-2, the entire site shall be divided into separate Drainage Management Areas (DMA). Each DMA shall have a unique identifier. Use DMA labels (not lot labels) and linework that clearly delineate the entire limits of the DMA. For example, at lot 1, rename it to DMA 1 instead of referring to the lot number. Lot 1 also includes landscape that drains to the

lot 1 bioretention area and should be included in a separate DMA. Per BASMAA Page 4-1, each DMA must contain only one type of surface.

b. All areas draining to a stormwater facility needs to be included as a DMA and used in the sizing calculations. Refer to BASMAA Table 4.1 for the runoff factors for various surfaces.

c. On Sheet C7.0, clearly show the limits of the DMAs. Each DMA shall be labeled as DMA 1, DMA 2, DMA C1, etc. Where more than one DMA drains to a bioretention facility, show the total tributary area to that bioretention facility. For example, clearly show the boundary tributary to Bioretention Area B since it is made up of 7 DMAs.

d. Rename Lot F4 to DMA F4. Based on the typical cross section at Deer Park Avenue, the entire street drains toward the curb and gutter on the project side and therefore must be treated. Revise DMA F4 to be included in the sizing of Bioretention Area B.

e. Bioretention B measures approximately 1,930 SF while the SWCP table states 2,500 SF is provided. Reconcile the discrepancy between the plans and the calculations and show the actual size of the required bioretention area as this may affect the site plan layout.

f. Include a hatch that shows existing and proposed impervious areas tributary to the bioretention areas to improve the clarity of the exhibit.

3. Stormwater Control Plan:

   a. The Stormwater Control Plan (SWCP) is a stand-alone document. Include the site plan (Sheet C7.0 to Sheet C7.4) as an attachment showing the bioretention areas and DMAs.

   b. DMA Tables - Per the BASMAA post construction manual, it is acceptable for 2 or more DMAs to drain to a bioretention facility (See BASMAA Page 4-5). Group the DMAs by surface type and include all DMAs that are tributary to the DMA. In other words, each treatment facility (bioretention area) must have a table for that facility and include all of the DMAs that drain to that facility. As an example, there shall be one table for Bioretention Area B and include all DMAs (DMA 12, 13, B, C1, F2, F3 and F4) that are tributary to Bioretention Area B. See SWCP page 35 of 104 for additional information.

4. Please provide a revised Transportation Impact Study that addresses the following comments:

   a. The applicant provided a response letter titled “Response to City Comments on the Draft Transportation Impact Study for the Dominican Valley Subdivision Project.” This response letter includes Table 1 – Trip Generation Summary and Table 2 – Parking Analysis Summary. Please provide a revised Transportation Assessment that incorporates the changes presented in the tables in the response letter. Table 1 in the response letter appears to be an update of Table 2 in the draft TIS submitted March 29, 2024. Table 2 in the response letter appears to be an update of Table 11 in the draft TIS submitted March 29, 2024.

   b. Address all of the comments included in the attached memorandum from Fehr & Peers, dated August 12, 2024.

5. Per S.R.M.C section 15.06.070.b, the Private Street serving lots 41 through 44 shall intersect Margarita Drive at an angle as near to a right angle. DPW understands that topographic constraints make meeting this requirement difficult; however, similar acute angles of streets at intersections in existing hillside developments in the City have led to maneuvering difficulties for residents. The applicant shall demonstrate that passenger vehicles and delivery vehicles (e.g. typical Amazon, UPS, etc. vehicles) can successfully maneuver through the proposed acute angle at this intersection by providing a vehicular maneuvering exhibit prepared in Autoturn or a similar program. The vehicular maneuvering exhibit shall include the four possible turning movements (left turn out, right turn out, left turn in, and right turn in).

Should you have any questions regarding this list of inconsistency items please do not hesitate to contact me at Kristina.Estudillo@cityofsanrafael.org.

Sincerely,

Kristina Estudillo

Kristina Estudillo, Project Planner

cc: Margaret Kavanaugh-Lynch, Planning Manager

Attachments:

1. Dominican Valley TIS Peer Review, Memorandum dated August 12, 2024
2. Resolution 14890 – City of San Rafael Guidelines for the Administration of the Affordable Housing Trust Fund
3. Department of Public Works Consistency Memorandum, dated June 9, 2025

FEHR PEERS

Memorandum

Date: August 12, 2024

To: Sarah Teplitsky, City of San Rafael

From: Neil Smolen & Bob Grandy, Fehr & Peers

Subject: Dominican Valley TIS Peer Review

SF23-1332.04

This memorandum documents our peer review comments of the *Dominican Valley Subdivision Transportation Impact Study (TIS)* (W-Trans, March 29, 2024). **Attachment A** contains our comments in tabular format, which are separated into completeness comments and consistency comments as requested.

Subsequent to the TIS, W-Trans provided *Response to City Comments on the Draft Transportation Impact Study* (W-Trans, July 18, 2024). This memorandum documents responses to initial set of comments on the TIS and identifies updates to the TIS which are not included in the version we reviewed. We have reviewed and provided comments on the memo in addition to the TIS.

Please review and let us know if you have any questions or comments. You can contact Neil Smolen via email or by dialing (415) 426-2517.

Attachment A - Peer Review Comments on Dominican Valley TIS

ID	Citation	Comment Type	Topic	Comment
1	Global	Completeness	Global	We have reviewed a draft of the TIS dated March 29, 2024, which has not been updated per the changes noted in *Response to City Comments on the Draft Transportation Impact Study for the Dominican Valley Subdivision Project* (W-Trans, July 18, 2024).
2	Response to Comment Memo, pg. 1	Completeness	Global	We note that the trip generation for the project would increase relative to the March 2024 version of the TIS per the accounting of JADUs. We agree with W-Trans that the net effect of these trips on the analysis is minor. However, we appreciate the opportunity to review the updated TIS when available to confirm.
3	Response to Comment Memo, pg. 1	Completeness	Intersection LOS	The intersection LOS calculations should be updated to include the 14 JADUs. Although not explicitely stated, the response to comment seems to make the case for not updating the LOS calculations. The LOS analysis cwould be complete only if the LOS calculations are updated to include the JADUs.
4	Response to Comment Memo, pg. 1	Completeness	Study Intersections	The intersection of Grand/Linden was not included in the LOS calculations despite a comment requesting it be included. However, the intersection of Grand/Mission was included.
5	Response to Comment Memo, pg. 2, #1a	Completeness	Trailhead Parking	The response does not indicate whether there would be a secondary impact due to loss of existing on-street parking at the trailhead. The response indicates there would be a loss of parking supply, but not how much. Based on the information presented, the TIS should conclude that there is a secondary impact due to the loss of existing parking at the trailhead due to the project and provide a mitigation measure or conclude there is not a feasible mitigation.
6	Response to Comment Memo, pg. 2, #1c	Completeness	Parking Demand at Trailhead	Parking occupancy data at the trailhead for weekday and weekend conditions was not collected as requested.
7	Response to Comment Memo, pg. 2, #2	Completeness	Off-site Pedestrian Assessment of Street Widths	The response did address Gold Hill Grade, Deer Park Avenue, and Margarita Avenue (project frontage streets that would be widened to 26 feet wide), but not Magnolia Avenue, Palm Avenue, and Highland Avenue.
8	Response to Comment Memo, pg. 3, #3	Completeness	Trail Open Space Access	The response does not address whether there would be an impact to open space trail access as a result of changes that would occur due to the project.
9	Response to Comment Memo, pg. 3, #4	Completeness	Residential Streets - Mulit-modal Assessment	We defer to the City on a completeness determination given the statement about City policy. It is also unclear whether the statement that the project would have no affect adequacy of facilities beyond its frontages is considered responsive to the request to conduct an off-site multi-modal assessment for narrow streets. The response indicates that the "project would not affect adequacy of facilities beyond its frontages and there is no City policy requiring a developer to make improvements such are suggested in the comment".
10	Response to Comment Memo, pg. 3, #5	Completeness	Emergency Access	The response did address Gold Hill Grade, Deer Park Avenue, and Margarita Avenue (project frontage streets that woud be widened to 26 feet wide), but not Magnolia Avenue, Palm Avenue, and Highland Avenue.
11	TIS, pg. 10, Table 4 - Bicycle Facility Summary	Completeness	Bicycle facilities	The Class I Smart Trail should be included.
12	TIS, pg. 12	Completeness	VMT	We agree with the TIS conclusion that the project would be expected to have a significant impact on VMT based on the VMT numbers in the TIS and due to limited potential to reduce VMT through mitigation. This will trigger the need for an EIR and quantitative VMT analysis. This will need to be performed for both baseline conditions and cumulative conditions. We do not anticipate that this conclusion would change despite an increase in the VMT threshold consistent with the San Rafael TA Guidelines.
13	TIS, pg. 12	Consistency	VMT	The TIS identifies a VMT significance threshold of 10.7 which is based on 15 percent below the average VMT per capita of 12.6 for the nine-county Bay Area. This threshold is inconsistent with Table 7 of the San Rafael TA Guidelines which identifies project generated VMT impact thresholds. For residential uses, an impact threshold of 11.4 home-based VMT per capita is identified based on 15 percent below the regional average of 13.4. This change to the threshold would not change the impact conclusion based on the reported VMT. Note that we also were unable to confirm a VMT per capita of 12.6 for MAZ 811769 from the 2019 version of TAMDM as stated in the TIS.
14	TIS, pg. 15	Consistency	Sight Distance	Our review of the Highway Design Manual resulted in a minimum stopping sight distance of 150 ft (not 125 ft) for a design speed of 25 mph. We request that W-Trans either update the stopping sight distance or provide a citation/reference to confirm the required distance.
15	TIS, pg. 18	Consistency	Capacity Analysis	The referenced version of HCM is outdated. The current version is HCM 7th edition (2022).

RESOLUTION NO. 14890

RESOLUTION OF THE SAN RAFAEL CITY COUNCIL ADOPTING "GUIDELINES FOR THE ADMINISTRATION OF THE AFFORDABLE HOUSING REQUIREMENT PROGRAM"

WHEREAS, Section 14.16.030 of the San Rafael Municipal Code (SRMC) requires residential development projects to enhance the public welfare and ensure that further residential development projects within the city contribute to the attainment of affordable housing goals and requirements by promoting and increasing, through actual construction and/or alternative equivalent actions; and

WHEREAS, on August 20, 2018, the City Council held a duly noticed public meeting and was presented a comprehensive information report on housing topics and issues, accepting all public testimony and the written report of the Community Development Department; and

WHEREAS, on September 3, 2019, the City Council held a duly noticed public meeting and was presented a comprehensive information report challenges to housing development, accepting all public testimony and the written report of the Community Development Department. Staff was directed to conduct public housing workshops on proposed policies to address challenges to approving and developing housing to gain a better understanding of the public's view on the housing crisis, as well as to get feedback on the prioritization of the proposed policy actions; and

WHEREAS, on January 21, 2020, the City Council held a duly noticed public meeting and was presented a comprehensive information report outlining the findings of the public housing workshops and recommendations for prioritization, timing, and future City Council actions on proposed policy actions to address challenges to approving and developing housing, accepting all public testimony and the written report of the Community Development Department. Staff was directed to return with an updated informational report on potential amendments to the SRMC aimed at encouraging housing development and streamlining approvals; and

WHEREAS, on August 11, 2020, the Planning Commission held a duly noticed public meeting and was presented a comprehensive information report analyzing potential amendments to the SRMC resulting from the January 21, 2020 City Council direction, accepting all public testimony and the written report of the Community Development Department and providing feedback for City Council consideration of potential amendments to the SRMC aimed at encouraging housing development and streamlining approvals; and

WHEREAS, on September 8, 2020 and September 21, 2020, the City Council held duly noticed public hearings on the proposed amendments to the SRMC Title 14 ("Zoning"), accepting all public testimony and the written report of the Community Development Department, and directing staff to prepare amendments to SRMC Title 14 for the Planning Commission to provide a recommendation; and

WHEREAS, on November 17, 2020, the Planning Commission, reviewed and recommended for adoption the proposed amendments to SRMC Title 14, including revisions to the affordable housing requirement, density bonus and height bonus provisions, limitations for residential development of small lots, appeal scheduling process, and review requirements for hillside development exceptions; and

WHEREAS, the amendments to the San Rafael Municipal Code Title 14 do not propose any changes to City policies or regulations that would result in a direct or indirect physical, environmental impact; therefore it has been determined that this ordinance amendment qualifies for exemption pursuant to Sections 15183(a) because it entails a project that can be found consistent with the General Plan policies and pursuant to 15061(b)(3), which states that as a 'general rule' the California Environmental Quality Act (CEQA) applies only to projects which have the potential to cause a significant, physical environmental; and

WHEREAS, on February 16, 2021, the City Council held a public hearing to consider an ordinance making the proposed amendments to SRMC Title 14 and voted to introduce the ordinance and pass it to print and that ordinance will come up for adoption at the City Council meeting of March 1, 2021; and

WHEREAS, in connection with the amendment to SRMC Title 14, the San Rafael City Council finds it necessary to establish guidelines which establish priorities, criteria, and administrative processes for administration of the Affordable Housing Requirement program;

NOW, THEREFORE BE IT RESOLVED, that the City Council of the City of San Rafael hereby adopts the following "Guidelines for the Administration of the Affordable Housing Trust Fund":

The purpose of these Guidelines is to enhance the public welfare and ensure that further residential development projects within the city contribute to the attainment of affordable housing goals and requirements by promoting and increasing, through actual construction and/or alternative equivalent actions as provided for in this section, the development of rental and ownership housing units for very low, low and moderate income households.

A. Definitions. Please refer to SRMC Section 14.03.030.

B. Affordable Housing Requirements. Residential development projects between two (2) and fifteen (15) units shall meet only the Primary Requirement as set forth in this section. Residential development project greater than fifteen (15) units shall meet both the Primary Requirement and Secondary Requirement as set forth in this section. Primary and Secondary Requirements are described below:

    1. Primary Requirement. All Residential development projects shall provide affordable housing units as follows:

Project Size	Percentage of Affordable Housing Units
2—15 Housing Units*	10% of the proposed units (excluding density bonus units) must be affordable to and occupied by a low-income household

Project Size	Percentage of Affordable Housing Units
15 or more Housing Units*	5% of the proposed unit (excluding density bonus units) s must be affordable to and occupied by a low-income household

* See exemptions listed in SRMC 14.16.030 subsection (B)(1).

2. Secondary Requirement. Residential development projects greater than fifteen (15) units shall satisfy the Secondary Requirement through any of the following alternate means:
   a. Additional On-Site Affordable Units. A developer may comply with this section through one of the follow alternate means:
      i. 5% of the proposed units (not including density bonus units), in addition to units provided through Section B.1 of this document, must be affordable to and occupied by a low-income household;
      ii. 10% of the proposed units (not including density bonus units), in addition to units provided through Section B.1 of this document, must be affordable to and occupied by a moderate-income household.

   b. In-Lieu Fees for Residential Development. A developer may comply with this section by paying an in-lieu fee equivalent to five percent (5%) of the total proposed units (not including density bonus units).

      The amounts and calculation of the housing in-lieu fee shall be established by resolution of the city council as amended from time to time. Unless otherwise preempted by law or as otherwise approved by the planning commission or city council, the in-lieu fee shall be paid prior to the issuance of a building permit for the proposed project.

   c. Off-Site Affordable Units. Provision of affordable units off-site must be approved by the decision-making body reviewing and taking action on the project, and shall meet all of the following criteria:
      i. Off-site affordable units must be provided within ½ mile of the market-rate project.
      ii. Partnership with an experienced affordable housing developer.
      iii. The off-site affordable units must provide at least the level of public benefit (number of affordable units (rounded up to the next whole unit); comparable or larger unit bedroom sizes; income levels served; term of affordability) as would have been provided through on-site compliance described in Section B.2.a of this document;
      iv. The developer must make a meaningful contribution to the offsite affordable units.
      v. The developer provides the City with a cash deposit or equivalent guarantee of the amount the project would be required to contribute through a cash in-

lieu fees contribution as described in Section B.2.b of this document until there is a construction financing closing on the off-site units.

d. Donation of Land to the City. The City may choose to accept the donation of land to the City as a means of alternative compliance with this policy if, after appropriate due diligence, the City determines that the land is desirable for the production of affordable housing and all of the following criteria as determined by the Community Development Director are met:
   i. The land is appraised by the City at a value equal to or greater than the in-lieu fee parameters in effect at the date of land use application. If the appraised value is less than the in-lieu fee, developers may contribute the remaining requirement in a cash fee.
   ii. The land is located in an area where there is high need for sites for affordable housing. (i.e., areas where the City does not control sufficient development sites)
   iii. The land is reasonably developable for affordable housing (including zoned for residential development).

3. Fractional Units. Where the required percentage of affordable housing units results in a fractional unit, or a combination of affordable housing units and fractional units, the developer shall provide the following:
   a. Pay an in-lieu fee for the fractional unit below 0.5 unit;
   b. Construct the next higher whole number of affordable housing units for a fractional unit 0.5 and above;

C. Location and Type of Affordable Housing Units. Affordable housing units shall be dispersed throughout the residential development project. Units may be clustered within the residential project when the city determines that such clustering furthers affordable housing opportunities. The affordable housing units shall be of a similar mix and type to that of the residential development project as a whole, including, but not limited to:
   1. The same or substantially similar mix of unit size (e.g., number of bedrooms, square footage);
   2. Compatibility with the design, materials, amenities, and appearance of the other developed units.

D. Timing of Construction. All affordable housing units shall be constructed prior to or concurrent with the construction of market rate housing units unless the city council, in its sole discretion, determines an alternative construction schedule will further the goal of affordable housing in the city.

E. Initial Occupancy, Control of Resale and Continued Affordability of Affordable Housing Units in Residential Development Projects. Prior to the issuance of certificates of occupancy or the final inspection for any units in a qualifying project, all regulatory agreements and, if the affordable housing units are owner-occupied, resale restrictions, deeds of trust, and/or other documents as may be required and approved by the city council, shall be recorded by the city, or its agent, against all parcels having such affordable housing units and shall be effective in

perpetuity; except that, in its sole discretion and upon a finding of financial need or infeasibility, the city council may reduce the affordability time frame to not less than forty (40) years.

1. Ownership Units. Notwithstanding any other provision of this section, the following conditions and/or restrictions shall apply to housing units developed for ownership:
   a. The maximum sales price permitted for resale of an affordable housing unit intended for owner-occupancy shall be limited to the amount provided in the resale restrictions and option to purchase agreement between the owner of the affordable unit and the city or its designee, entered into prior to issuance of any building permits for the project.
   b. The city shall have first right to purchase, or assign its right to purchase, such affordable unit(s) at the maximum price that could be charged to an eligible household, as set forth in the resale restrictions and option to purchase agreement between the owner and the city or its designee.

      No purchase and/or sale transaction(s) for owner occupied affordable housing units shall be permitted without express approval by the city or its designee of the purchasing household's eligibility. Nothing in this section shall prohibit the sale and/or purchase of an owner-occupied affordable housing unit if the city fails to make a determination of household eligibility within the time or other limits provided by the regulatory agreements or resale restrictions.

2. Rental Units. The owner of a property developed for rental occupancy under the provisions of this section ("the property owner"), or the property owner's designee, shall be responsible for selecting qualified tenants pursuant to the regulatory agreement entered into by and between the property owner and the city. The property owner or the designee shall provide annual reports to the city or its designee containing information on the rent charged for the affordable unit and the tenant eligibility as set forth in the regulatory agreement.

F. Administration.
   1. Annual Reporting. The Community Development Department shall make available to the City Council an annual report on the Affordable Housing Requirements which measures the effectiveness of the program. These effectiveness metrics may include, but are not limited to:
      a. Units in the housing developing pipeline and project status;
      b. Number of units built for low-income and moderate-income households;
      c. In-lieu fees revenues collected into housing trust fund;
      d. Units funded through housing trust fund.

   2. Program Review: The Director will provide the City Council with a comprehensive review of the Affordable Housing Requirements and whether any changes should be considered within 18 months of its effective date and every 3-5 years thereafter.

BE IT FURTHER RESOLVED that any and all amendments to this the Guidelines herein as deemed necessary from time-to-time shall be adopted by resolution of the City Council.

I, LINDSAY LARA, Clerk of the City of San Rafael, California, hereby certify that the foregoing resolution was duly and regularly introduced and adopted at a regular meeting of the Council of the City of San Rafael held on the 16th day of February 2021, by the following vote, to wit:

AYES: **COUNCILMEMBERS: Bushey, Hill, Llorens Gulati & Mayor Kate**

NOES: **COUNCILMEMBERS: Kertz**

ABSENT: **COUNCILMEMBERS: None**

LINDSAY LARA, City Clerk

PUBLIC WORKS

INTERDEPARTMENTAL MEMORANDUM

DATE: **June 9, 2025**

TO: **Kristina Estudillo – Principal Planner**

FROM: **Sarah Teplitsky, P.E. – Associate Civil Engineer**
Joanna Kwok – Assistant Public Works Director
Fariborz Heydari – Pakpour Consulting Group
Gary Ushiro – Pakpour Consulting Group

SUBJECT: **PLAN23-081 – Dominican Valley – 4th Review**

We have reviewed the referenced application for consistency with City of San Rafael standards and have the following comments:

1. Please provide a written response to each comment below. Please identify the relevant sheet(s) that presents the information as appropriate.

2. Sheet C6.1 – Preliminary Drainage and Utility Plan:

    a. The storm drain fronting lots 15 through 31 was moved to the opposite side of the street. There are 16 direct connections to the public storm drain. The City will not accept this many lateral connections to a public storm drain. The lateral connections from the bioretention inlets shall be combined using an on-site storm drain, which can then be connected to the public storm drain through a single storm drain lateral and structure such as a catch basin or storm drain manhole.

3. Sheet C7.0 – Preliminary Stormwater Control Plan:

    a. Per BASMAA Stormwater Control Plan Checklist, Contents of Exhibit, Page 3-2, the entire site shall be divided into separate Drainage Management Areas (DMA). Each DMA shall have a unique identifier. Use DMA labels (not lot labels) and linework that clearly delineate the entire limits of the DMA. For example, at lot 1, rename it to DMA 1 instead of referring to the lot number. Lot 1 also includes landscape that drains to the lot 1 bioretention area and should be included in a separate DMA. Per BASMAA Page 4-1, each DMA must contain only one type of surface.

    b. All areas draining to a stormwater facility needs to be included as a DMA and used in the sizing calculations. Refer to BASMAA Table 4.1 for the runoff factors for various surfaces.

    c. On Sheet C7.0, clearly show the limits of the DMAs. Each DMA shall be labeled as DMA 1, DMA 2, DMA C1, etc. Where more than one DMA drains to a bioretention facility, show the total tributary area to that bioretention facility. For example, clearly show the boundary tributary to Bioretention Area B since it is made up of 7 DMAs.

    d. Rename Lot F4 to DMA F4. Based on the typical cross section at Deer Park Avenue, the entire street drains toward the curb and gutter on the project side

and therefore must be treated. Revise DMA F4 to be included in the sizing of Bioretention Area B.

e. Bioretention B measures approximately 1,930 SF while the SWCP table states 2,500 SF is provided. Reconcile the discrepancy between the plans and the calculations and show the actual size of the required bioretention area as this may affect the site plan layout.

f. Include a hatch that shows existing and proposed impervious areas tributary to the bioretention areas to improve the clarity of the exhibit.

4. Stormwater Control Plan:

   a. The Stormwater Control Plan (SWCP) is a stand-alone document. Include the site plan (Sheet C7.0 to Sheet C7.4) as an attachment showing the bioretention areas and DMAs.

   b. DMA Tables - Per the BASMAA post construction manual, it is acceptable for 2 or more DMAs to drain to a bioretention facility (See BASMAA Page 4-5). Group the DMAs by surface type and include all DMAs that are tributary to the DMA. In other words, each treatment facility (bioretention area) must have a table for that facility and include all of the DMAs that drain to that facility. As an example, there shall be one table for Bioretention Area B and include all DMAs (DMA 12, 13, B, C1, F2, F3 and F4) that are tributary to Bioretention Area B. See SWCP page 35 of 104 for additional information.

5. Please provide a revised Transportation Impact Study that addresses the following comments:

   a. The applicant provided a response letter titled “Response to City Comments on the Draft Transportation Impact Study for the Dominican Valley Subdivision Project.” This response letter includes Table 1 – Trip Generation Summary and Table 2 – Parking Analysis Summary. Please provide a revised Transportation Assessment that incorporates the changes presented in the tables in the response letter. Table 1 in the response letter appears to be an update of Table 2 in the draft TIS submitted March 29, 2024. Table 2 in the response letter appears to be an update of Table 11 in the draft TIS submitted March 29, 2024.

   b. Address all of the comments included in the attached memorandum from Fehr & Peers, dated August 12, 2024.

6. Per S.R.M.C section 15.06.070.b, the Private Street serving lots 41 through 44 shall intersect Margarita Drive at an angle as near to a right angle. DPW understands that topographic constraints make meeting this requirement difficult; however, similar acute angles of streets at intersections in existing hillside developments in the City have led to maneuvering difficulties for residents. The applicant shall demonstrate that passenger vehicles and delivery vehicles (e.g. typical Amazon, UPS, etc. vehicles) can successfully maneuver through the proposed acute angle at this intersection by providing a vehicular maneuvering exhibit prepared in Autoturn or a similar program. The vehicular maneuvering exhibit shall include the four possible turning movements (left turn out, right turn out, left turn in, and right turn in).

The following comments are provided for informational purposes only:

- Prior to the start of construction, a grading permit shall be required from the Department of Public Works. Applications can be found on the City’s website: https://www.cityofsanrafael.org/grading-permits/ Mass grading and earthwork operations shall occur between April 15 and October 15 unless approved otherwise by DPW. Prior

to any clearing or grading, the Developer shall provide the City with evidence that a Notice of Intent (NOI) has been filed with the California State Water Resources Control Board. A copy of the Storm Water Pollution Prevention Plan (SWPPP) shall be provided to the Public Works Department and be kept at the construction site.

- A construction management plan should be submitted for City review prior to issuance of building permits. Construction staging shall be onsite unless negotiated otherwise with DPW.

- An encroachment permit shall be required from the DPW prior to construction.

- A construction vehicle impact fee shall be required at the time of building permit issuance, which is calculated at 1% of the valuation, with the first $10,000 of valuation exempt.

- The project appears to create or replace more than 5,000 square feet of impervious area and therefore will be considered a regulated project. The following documents are required to be provided in accordance with Marin County Stormwater Pollution Prevention Program (MCSTOPPP) requirements:

    - Stormwater Facilities Operations and Maintenance (O&M) Plan- A short document and exhibit outlining facilities on-site and maintenance activities and responsibilities for property owners. The maintenance plan shall include the manufactures recommended maintenance practices, designated parties of responsible for upkeep, specify funding source for ongoing maintenance with provisions for full replacement when necessary and provide a site-specific inspection checklist. (Needed to obtain building/grading permit)

    - Operations and Maintenance Agreement- A formal agreement between the property owner and the city that shall be recorded with the property deed prior to occupancy. (Provide prior to occupancy)

- Prior to the start of work, it is the applicant's responsibility to obtain approval(s) from each applicable regulatory agency, such as CDFWS and RWQCB for any work that may encroach into their jurisdiction.

- Slope Easements/Utility Easements. The Developer shall be responsible for securing all necessary slope, grading, drainage, and utility easements on adjacent parcels as determined by the City Engineer to allow the construction of the roadway, storm drain and utility improvements.

- Ensure internal roadways are accessible to vehicles providing services to the development such as garbage, delivery, and mail trucks. Coordination with applicable agencies may be required.

- The proposed "internal roadways" off Deer Park Ave. and Highland Ave. will be considered private streets and therefore will be privately maintained. DPW will evaluate the proposed street width for adequate circulation, vehicular access, and access for Marin Sanitary Service equipment. The street width should also meet Fire Prevention Bureau Standards.

- The extension of Gold Hill Grade at access lots 1-4 is within dedicated public right-of-way and therefore will be a public street. As such, the design of the roadway is subject to S.R.M.C. sections 15.06.050 and 15.07.030.

- Per Section S-2 (Geotechnical Review) and Appendix F of the San Rafael General Plan, a third-party geotechnical peer review of the project geotechnical report will be required prior to building permit issuance.

- Prior to issuance of a building permit, the applicant shall pay traffic mitigation fee for net new AM and PM peak-hour trips. The rate per peak-hour trip and the corresponding amount of the traffic mitigation fee will be determined based on the rate in effect on the date of building permit issuance. For reference, the current rate is $6,397 per peak-hour trip. The current rate is valid until January 1, 2025. The rate is adjusted annually in accordance with Resolution No. 14983 which includes built-in increases for base fee and construction index adjustments.

- Stormwater Management. Suitable stormwater treatment and hydromodification measures shall be installed with each phase such that the stormwater runoff from the impervious areas created or replaced within the boundaries of each phase shall be properly treated and metered with stormwater treatment and hydromodification measures constructed with that phase or in previous phases.

- The project Stormwater Management Plan shall incorporate trash capture measures such as screens, filters, or CDS/Vortex units to address the requirements of Provision C.10 of the Regional Water Quality Control Board (RWQCB) Municipal Regional Permit (MRP).

- Runoff from Margarita Dr. enters a private storm drainage structure. This requires a storm drain agreement for the HOA to accept and maintain the public stormwater runoff.

- We anticipate the following frontage/off-site improvements will be required as part of the development:

    - Upgrade Deer Park Ave. roadway between Highland Ave. and the southern border of the subject property may be required for adequate fire access and maneuverability.

    - Provide a parking area at Gold Hill Grade to accommodate public access to the City Open Space.

    - Dedicate a public access easement (PAE) for the walking trail through the property that historically has been used by the public to access City Open Space.

- The Developer shall obtain abandonment from all applicable public agencies of existing easements and right of ways within the development that will no longer be used if applicable.

The applicant will be required to provide reimbursement for third-party consultant review fees. This may include, but not limited to, fees associated with the review of traffic, civil engineering, geotechnical engineering, and surveying aspects of future project submissions.

Additional comments may be provided based on further review of detailed plans and reports.

Please contact Associate Civil Engineer, Sarah Teplitsky, Assistant Public Works Director, Joanna Kwok, or Assistant Civil Engineer, Megan Kelly, with the City of San Rafael Public Works Department with questions regarding these comments.

Sarah Teplitsky – By phone at 415-485-3158 or email at sarah.teplitsky@cityofsanrafael.org
Joanna Kwok - By phone at 415-720-4957 or email at joanna.kwok@cityofsanrafael.org
Megan Kelly – By phone at 415-485-3454 or email at megan.kelly@cityofsanrafael.org

FEHR PEERS

Memorandum

Date: August 12, 2024

To: Sarah Teplitsky, City of San Rafael

From: Neil Smolen & Bob Grandy, Fehr & Peers

Subject: Dominican Valley TIS Peer Review

SF23-1332.04

This memorandum documents our peer review comments of the *Dominican Valley Subdivision Transportation Impact Study (TIS)* (W-Trans, March 29, 2024). **Attachment A** contains our comments in tabular format, which are separated into completeness comments and consistency comments as requested.

Subsequent to the TIS, W-Trans provided *Response to City Comments on the Draft Transportation Impact Study* (W-Trans, July 18, 2024). This memorandum documents responses to initial set of comments on the TIS and identifies updates to the TIS which are not included in the version we reviewed. We have reviewed and provided comments on the memo in addition to the TIS.

Please review and let us know if you have any questions or comments. You can contact Neil Smolen via email or by dialing (415) 426-2517.

Attachment A - Peer Review Comments on Dominican Valley TIS

ID	Citation	Comment Type	Topic	Comment
1	Global	Completeness	Global	We have reviewed a draft of the TIS dated March 29, 2024, which has not been updated per the changes noted in *Response to City Comments on the Draft Transportation Impact Study for the Dominican Valley Subdivision Project* (W-Trans, July 18, 2024).
2	Response to Comment Memo, pg. 1	Completeness	Global	We note that the trip generation for the project would increase relative to the March 2024 version of the TIS per the accounting of JADUs. We agree with W-Trans that the net effect of these trips on the analysis is minor. However, we appreciate the opportunity to review the updated TIS when available to confirm.
3	Response to Comment Memo, pg. 1	Completeness	Intersection LOS	The intersection LOS calculations should be updated to include the 14 JADUs. Although not explicitely stated, the response to comment seems to make the case for not updating the LOS calculations. The LOS analysis cwould be complete only if the LOS calculations are updated to include the JADUs.
4	Response to Comment Memo, pg. 1	Completeness	Study Intersections	The intersection of Grand/Linden was not included in the LOS calculations despite a comment requesting it be included. However, the intersection of Grand/Mission was included.
5	Response to Comment Memo, pg. 2, #1a	Completeness	Trailhead Parking	The response does not indicate whether there would be a secondary impact due to loss of existing on-street parking at the trailhead. The response indicates there would be a loss of parking supply, but not how much. Based on the information presented, the TIS should conclude that there is a secondary impact due to the loss of existing parking at the trailhead due to the project and provide a mitigation measure or conclude there is not a feasible mitigation.
6	Response to Comment Memo, pg. 2, #1c	Completeness	Parking Demand at Trailhead	Parking occupancy data at the trailhead for weekday and weekend conditions was not collected as requested.
7	Response to Comment Memo, pg. 2, #2	Completeness	Off-site Pedestrian Assessment of Street Widths	The response did address Gold Hill Grade, Deer Park Avenue, and Margarita Avenue (project frontage streets that would be widened to 26 feet wide), but not Magnolia Avenue, Palm Avenue, and Highland Avenue.
8	Response to Comment Memo, pg. 3, #3	Completeness	Trail Open Space Access	The response does not address whether there would be an impact to open space trail access as a result of changes that would occur due to the project.
9	Response to Comment Memo, pg. 3, #4	Completeness	Residential Streets - Mulit-modal Assessment	We defer to the City on a completeness determination given the statement about City policy. It is also unclear whether the statement that the project would have no affect adequacy of facilities beyond its frontages is considered responsive to the request to conduct an off-site multi-modal assessment for narrow streets. The response indicates that the "project would not affect adequacy of facilities beyond its frontages and there is no City policy requiring a developer to make improvements such are suggested in the comment".
10	Response to Comment Memo, pg. 3, #5	Completeness	Emergency Access	The response did address Gold Hill Grade, Deer Park Avenue, and Margarita Avenue (project frontage streets that woud be widened to 26 feet wide), but not Magnolia Avenue, Palm Avenue, and Highland Avenue.
11	TIS, pg. 10, Table 4 - Bicycle Facility Summary	Completeness	Bicycle facilities	The Class I Smart Trail should be included.
12	TIS, pg. 12	Completeness	VMT	We agree with the TIS conclusion that the project would be expected to have a significant impact on VMT based on the VMT numbers in the TIS and due to limited potential to reduce VMT through mitigation. This will trigger the need for an EIR and quantitative VMT analysis. This will need to be performed for both baseline conditions and cumulative conditions. We do not anticipate that this conclusion would change despite an increase in the VMT threshold consistent with the San Rafael TA Guidelines.
13	TIS, pg. 12	Consistency	VMT	The TIS identifies a VMT significance threshold of 10.7 which is based on 15 percent below the average VMT per capita of 12.6 for the nine-county Bay Area. This threshold is inconsistent with Table 7 of the San Rafael TA Guidelines which identifies project generated VMT impact thresholds. For residential uses, an impact threshold of 11.4 home-based VMT per capita is identified based on 15 percent below the regional average of 13.4. This change to the threshold would not change the impact conclusion based on the reported VMT. Note that we also were unable to confirm a VMT per capita of 12.6 for MAZ 811769 from the 2019 version of TAMDM as stated in the TIS.
14	TIS, pg. 15	Consistency	Sight Distance	Our review of the Highway Design Manual resulted in a minimum stopping sight distance of 150 ft (not 125 ft) for a design speed of 25 mph. We request that W-Trans either update the stopping sight distance or provide a citation/reference to confirm the required distance.
15	TIS, pg. 18	Consistency	Capacity Analysis	The referenced version of HCM is outdated. The current version is HCM 7th edition (2022).

Reviewed by Fariborz Heydari (PCG) 8/1/24
See Comments.

TENTATIVE MAP
DOMINICAN VALLEY SUBDIVISION
APN: 015-163-03
CITY OF SAN RAFAEL, MARIN COUNTY, CALIFORNIA
APRIL 2024

DATA:

1. NAME OF SUBDIVISION: DOMINICAN VALLEY

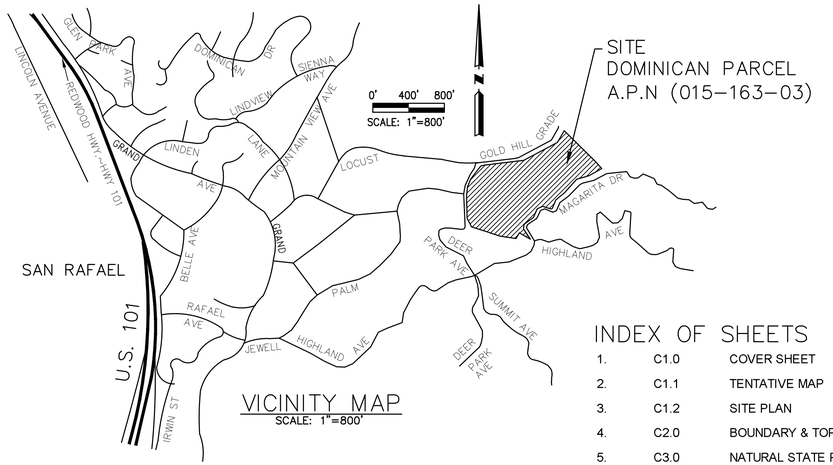
2. NAME & ADDRESS OF PROPERTY OWNER AND SUBDIVIDER:
   DOMINICAN VALLEY, LLC
   PO BOX 1501735,
   SAN RAFAEL, CA 949157

3. MAP PREPARED BY:
   OBERKAMPER & ASSOCIATES CIVIL ENGINEERS, INC.
   7200 REDWOOD BOULEVARD, SUITE 308
   NOVATO, CA. 94945
   PHONE: (415) 599-2519

3. GEOTECHNICAL CONSULTANT:
   SALEMHOWES ASSOCIATES INC.
   1202 GRANT AVENUE, SUITE F
   NOVATO, CA. 94945
   PHONE: (415) 892-8528
   GEOTECHNICAL INVESTIGATION REPORT, DATED JANUARY 26, 2023 AND
   GEOTECHNICAL INVESTIGATION REPORT, DATED NOVEMBER 3, 2023.

GENERAL NOTES:

1. PROPERTY NOT PRESENTLY IN USE.
2. PROPOSED USE IS SINGLE FAMILY RESIDENTIAL.
3. ASSESSOR'S PARCEL NO. 015-163-03.
4. TOTAL SUBDIVISION AREA 905,768 SQ. FT. = 20.79 ACRES
5. WATER PROVIDED BY MARIN MUNICIPAL WATER DISTRICT.
6. SEWER PROVIDED BY SAN RAFAEL SANITATION DISTRICT,
7. TV PROVIDED BY COMCAST.
8. TELEPHONE PROVIDED BY AT&T.
9. GAS & ELECTRIC PROVIDED BY PACIFIC GAS & ELECTRIC.
10. FIRE HYDRANTS SHALL BE CLOW 960 AND SHALL BE SPOTTED BY THE SAN RAFAEL FIRE MARSHALL.
11. UTILITIES AND IMPROVEMENTS SHALL BE EITHER BONDED WITH A SUBDIVISION IMPROVEMENT AGREEMENT OR CONSTRUCTED PRIOR TO RECORDATION OF THE SUBDIVISION MAP.
12. THERE ARE NO PROPOSED PUBLIC AREAS OR DEDICATIONS.
13. THE PROPOSED EASEMENTS SUCH AS PUBLIC UTILITY EASEMENTS (PUE), EMERGENCY VEHICLE ACCESS EASEMENTS (EVAE), PUBLIC ACCESS EASEMENTS (PAE), DRAINAGE EASEMENTS & DRIVEWAY AND UTILITY PARCELS INFORMATION WILL BE PROVIDED WITH SUBDIVISION FINAL MAP.



VICINITY MAP
SCALE: 1"=800'

LEGEND

———	PROPERTY LINE	X 180.0	EXISTING SPOT ELEVATION
— — —	EASEMENT LINE	+180.0	PROPOSED FINISH ELEVATION
150	EXISTING MAJOR CONTOURS	X 270.0	PROPOSED FINISH ELEVATION
(5)	PROPOSED LOT NUMBER		
(B)	PROPOSED PARCEL NUMBER		
	EXISTING TREES		
←···←	EXISTING DRAINAGE FLOW LINE		
320	PROPOSED MAJOR CONTOURS		
SS	EXISTING SANITARY SEWER		
W	EXISTING WATERLINE		
	PROPOSED DRAINAGE STRUCTURE		
SD	PROPOSED STORM DRAIN LINE		
BR BR	PROPOSED STORM DRAIN LINE TO BIORETENTION		
SS	PROPOSED 8" SANITARY SEWER		
FM	PROPOSED 2" SANITARY SEWER FORCE MAIN		
W	PROPOSED 4" WATER LINE		
JT	PROPOSED JOINT TRENCH FOR ELECTRICAL, GAS & DATA CABLE		
(D)	PROPOSED STORM DRAIN MANHOLE		
(S)	PROPOSED SANITARY SEWER MANHOLE		

INDEX OF SHEETS

ABBREVIATIONS:

ø	DIAMETER
@	AT
℄	CENTERLINE
Δ	ANGULAR DELTA
ABAND	ABANDONED
APN	TAX ASSESSOR'S PARCEL NUMBER
BLDG.	BUILDING
BW	BOTTOM OF WALL
BU	BUBBLE-UP
DC	DEPRESSED CURB
DI	DRAIN INLET
DK	DECK
EC	EDGE OF CONCRETE
ELEC/E	ELECTRICAL
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FL	FLOW LINE
FNC	FENCE
FH	FIRE HYDRANT
FP	FENCE POST
FG	FINISHED GRADE
FS	FINISHED SURFACE
FTG	FOOTING
GF	BUILDING GROUND FINISH FLOOR ELEVATION
GRND	GROUND
GS	GROUND SHOT ELEVATION
GUY	GUY ANCHOR (POWER POLE)
INV.	INVERT ELEVATION
H	HEIGHT
HB	HOSE BIB
L	LENGTH
LG	LIP OF GUTTER
MB	MAILBOX
OF	OVER FLOW
OHE	OVERHEAD ELECTRICAL LINE(S)
O.R.	OFFICIAL RECORDS
PAD	BUILDING PAD ELEVATION
PERF.	PERFORATED STORM DRAIN PIPE
PL.	PROPERTY LINE
PP	POWER POLE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RF	ROOF
RK	ROCK
R.M.	RECORD MAP
SCO	SANITARY SEWER CLEANOUT
SD	STORM DRAIN SOLID PIPE
SDBU	STORM DRAIN BUBBLE UP
SDCI	STORM DRAIN CURB INLET
SDMH	STORM DRAIN MANHOLE
SDOV	STORM DRAIN OVERFLOW
SSMH	SANITARY SEWER MANHOLE
SN	SIGN
TC	TOP OF CURB
TF	TOP OF FOOTING
TG	TOP OF GRATE
TW	TOP OF WALL
THRSHLD	DOOR THRESHOLD
TRNK	TRUNK (TREE)
TW	TOP OF WALL
W/	WITH
WD	WOOD
WV	WATER VALVE

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

COVER SHEET, DOMINICAN VALLEY SUBDIVISION
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 60'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 3/25/2024

SHEET
C1.0
1 OF 32
22-192

S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 TENTATIVE MAP.dwg, C1.0 COVER LETTER, 7/22/2024 8:10:26 AM

aThe storm drain fronting lots 15 through 31 was moved to the opposite side of the street. There are 16 direct connections to the public storm drain. The City will not accept this many lateral connections to a public storm drain. The lateral connections from the bioretention inlets shall be combined using an on-site storm drain, which can then be connected to the public storm drain through a single storm drain lateral and structure such as catch basin or storm drain manhole.

MAGNOLIA AVE

(E) SSMH 140.60
8" INV. 130.10 N
8" INV. 130.10 S
8" INV. 130.0 W

SDMH 140.35
15" INV. 137.45 S
12" INV. 137.55 E
15" INV. 137.35 N

SSMH 140.0
(E) 8" INV. 131.87 S
8" INV. 132.25 E
(E) 8" INV. 131.76 N

(E) SSMH 141.76
4" INV. 137.46 E
(E) 6" INV. 136.58 S
(N) 8" INV. 136.58 S
8" INV. 136.46 N

SDCI TG 141.30
12" INV. 139.30

SDMH 153.26
12" INV. 149.96 S
12" INV. 149.86 E
12" INV. 149.76 W

SSMH 152.20
8" INV. 142.40 S
8" INV. 142.40 E
8" INV. 142.20 W

SDMH 153.65
12" INV. 148.65 S
12" INV. 148.65 E
15" INV. 147.65 N

SDMH 160.0
8" INV. 156.70 E
12" INV. 156.60 NE
12" INV. 156.50 W

SDCI TG 158.85
12" INV. 156.85

BIORETENTION FG 165.0

DI TG 179.50
SIDE OPENING 178.50
12" INV. 174.50

DRAINAGE WAY FLOWLINE

LUCCA WAY (PRIVATE ST.)

BIORETENTION FG 143.50
BIORETENTION FG 144.0
BIORETENTION FG 145.0
BIORETENTION FG 146.0
BIORETENTION FG 147.0
BIORETENTION FG 148.0
BIORETENTION FG 149.0
BIORETENTION FG 150.0
BIORETENTION FG 153.0
BIORETENTION FG 154.0
BIORETENTION FG 155.0
BIORETENTION FG 156.0
BIORETENTION FG 158.0
BIORETENTION FG 159.0
BIORETENTION FG 160.50
BIORETENTION FG 161.0
BIORETENTION FG 163.30
BIORETENTION FG 165.0
BIORETENTION FG 169.80
BIORETENTION FG 173.80
BIORETENTION FG 179.66
BIORETENTION FG 181.40
BIORETENTION FG 171.0
BIORETENTION FG 162.3
BIORETENTION FG 154.60

13.25'
10.00'
4.00'
14.00'
9.00'
12.00'
5.00'
7.00'

R.O.W. LINE

(E) SSMH 155.12
(E) 6" INV. 150.52 SE
(E) 6" INV. 150.42 N
(N) 8" INV. 150.52 SE
(N) 8" INV. 150.42 N

8"SS INV. 151.37
15"SD INV. 153.57

6"SS INV. 151.53
8"W INV. 149.35

15"SD INV. 154.0
8"W INV. 149.50

SDMH 157.80
12" INV. 154.90 S
8" INV. 155.0 E
15" INV. 154.80 N

SSCO 183.45
4" INV. 173.45

SSCO 185.50
4" INV. 175.50

TYPE "A" V-DITCH PER MARIN UCS H.P. FL. 230.50

SDMH 163.85
12" INV. 160.12 S
12" INV. 160.0 E

8"SS INV. 159.37
12"SD INV. 161.25

6"SS INV. 159.75
8"W INV. 163.15

12"SD INV. 161.45
8"W INV. 163.40

SDCI TG 167.10
12" INV. 164.10

SSMH 166.64
6" INV. 162.60 E
(E) 6" INV. 162.10 SE
8" INV. 162.0 NW

(E) SSMH 169.45
4" INV. 164.65 E
4" INV. 164.75 SE
4" INV. 164.45 SW
6" INV. 163.95 NW

DI TG 170.0
SIDE OPENING 169.0
12" INV. 166.0

DI TG 197.0
SIDE OPENING 196.0
12" INV. 192.0

PARK AVE

EP

N

20' 10' 0' 20' 40'
GRAPHIC SCALE: 1"=20'

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY DRAINAGE AND UTILITY PLAN-1
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

SHEET
C6.1
17 OF 32

22-192

LICENSED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

S:\Jobs\2022\22-192 Cassidy, Dominican\DWG\DESIGN\22-192 CIVIL PLANS.dwg, C6.1 DRAINAGE, 7/22/2024 8:46:51 AM

Informational: Provide 5' clear space between SDMH and sewer lateral

Informational: If the storm drain from the SDCI to the bioretention bubble up gets plugged, this will result in ponding in the street before spilling down Magnolia Ave. During the improvement plan phase, the design needs to address roadway drainage in the event the storm drain gets plugged. Consider tying the storm drain at an elevation higher than the bubble up (139.5)

Informational: Add SSMH at angle changes, typ. Applicant shall coordinate with San Rafael Sanitary District (SRSD) on sewer and private force main requirements

Informational: SS lateral is approximately at same level as bioretention soil which has very loose compaction. Consider sleeve or a different lateral alignment.

Informational: Utility crossing shall be as close to perpendicular as possible and typically no greater than a 45 degree angle with other utilities

EX. 15" INV. 169.55
38X24"SD INV. 168.55

EX. 15" INV. 168.22

(E) SSMH 153.26
4" INV. 148.16 NW
8" INV. 148.16 NE
8" INV. 147.06 S

SDCI TG 155.0
15" INV. 152.5

SDBU TG 154.50
15" INV. 152.0

SDOV TG 154.50
4" PERF. SD
INV. 152.40
12" INV. 152.30 S

BIORETENTION
FG 154.0

38X24"SD
INV. 166.50

MARIN TYPE B HEAD WALL
45X29"SD INV. 179.0

CREEK
FLOWLINE

25' CREEK
SETBACK

BIORETENTION
FG 166.0

38'L DISPERSAL PIPE
(SEE TYP. DETAIL
SHT. C6.1)
8" PERF. SD
INV. 174.0

DI TG 186.50
SIDE OPENING 185.50
12" INV. 182.50

SDMH 144.80
12" INV. 136.50 S
12" INV. 135.10 SW
48" INV. 135.0

EX. 36"SD INV. 135.29
48"SD INV. 133.77

48"SD INV. 138.0

36"SD INV. 137.08

BIORETENTION
FG 153.0

BIORETENTION
FG 162.0

DI TG 167.50
8" INV. 156.0

DI TG 167.50
8" INV. 156.0

DI TG 169.50
8" INV. 163.0

DI TG 165.50
8" INV. 157.0

DI TG 165.50
8" INV. 157.0

SDOV TG 139.50
4" PERF. SD
INV. 137.40 SW
12" INV. 137.20 N

SDCI TG 144.15
12" INV. 139.0

SDBU TG 139.50
12" INV. 137.0

(E) SSMH 144.32
8" INV. 138.07 N
8" INV. 138.42 S

SDMH 144.15
15" INV. 135.82 S
15" INV. 135.77 N

BIORETENTION
FG 139.0

1' EARTHEN
SWALE

1' EARTHEN
SWALE

BIORETENTION
FG 177.0

SSCO 173.35
4" INV. 165.35

SSCO 176.25
4" INV. 168.25

R.O.W. LINE

DI TG 163.50
8" INV. 156.0

DI TG 163.0
8" INV. 156.0

1' EARTHEN
SWALE

1' EARTHEN
SWALE

SDMH 167.25
8" INV. 163.70 SE
12" INV. 163.60 E
12" INV. 163.50 SW

SDMH 173.0
8" INV. 167.70 NE
12" INV. 167.60 SE
12" INV. 167.50 NW

SSMH 175.90
6" INV. 166.0 E
8" INV. 165.90 SW

BIORETENTION
FG 174.50

TYPE "A" V-DITCH
PER MARIN UCS
H.P. FL. 210.50

SDBU TG 139.50
12" INV. 137.0

DI TG 160.50
8" INV. 153.50

DI TG 160.0
8" INV. 153.0

SDCI TG 141.50
12" INV. 137.80

1' EARTHEN
SWALE

1' EARTHEN
SWALE

SSMH 166.25
8" INV. 156.45 N
8" INV. 156.45 E
4" INV. 156.55 SE
8" INV. 156.25 SW

BIORETENTION
FG 169.0

DI TG 173.0
SIDE OPENING 172.0
12" INV. 168.0

JAKE COURT
(PRIVATE ST.)

SDCI TG 142.50
12" INV. 138.80

DI TG 194.0
SIDE OPENING 193.0
12" INV. 190.0

35'L DISPERSAL PIPE
(SEE TYP. DETAIL
SHT. C6.1)
8" PERF. SD
INV. 189.0

MAGNOLIA
AVE

(E) SSMH 140.60
8" INV. 130.10 N
8" INV. 130.10 S
8" INV. 130.0 W

SDMH 140.35
15" INV. 137.45 S
12" INV. 137.55 E
15" INV. 137.35 N

SDCI TG 141.30
12" INV. 139.30

SDMH 153.26
12" INV. 149.96 S
12" INV. 149.86 E
12" INV. 149.76 W

SSMH 152.20
8" INV. 142.40 S
8" INV. 142.40 E
8" INV. 142.20 W

SDCI TG 158.85
12" INV. 156.85

SDMH 160.0
8" INV. 156.70 E
12" INV. 156.60 NE
12" INV. 156.50 W

BIORETENTION
FG 165.0

DI TG 179.50
SIDE OPENING 178.50
12" INV. 174.50

SSMH 140.0
(E) 8" INV. 131.87 S
8" INV. 132.25 E
(E) 8" INV. 131.76 N

(E) SSMH 141.76
4" INV. 137.46 E
(E) 4" INV. 136.58 S
(N) 8" INV. 136.58 S
8" INV. 136.46 N

BIORETENTION
FG 143.50

SDMH 153.65
12" INV. 148.65 S
12" INV. 148.65 E
15" INV. 147.65 N

LUCCA WAY
(PRIVATE ST.)

BIORETENTION
FG 154.60

DRAINAGE WAY
FLOWLINE

DRAINAGE WAY 10'
SETBACK

DEER PARK AVE

LOCUST AVE

GOLD HILL GRDE

HEADWALL

36" CMP

TOP INV 133.77
36 CMP
INV 133.27

GUARD RAIL

ONE WAY
ONE WAY

STOP

NO PARKING SIGN

PARKING SIGN

N

20' 10' 0' 20' 40'
GRAPHIC SCALE: 1"=20'

REGISTERED PROFESSIONAL ENGINEER
LEON E OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA

PLAN CHECK ONLY

S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 CIVIL PLANS.dwg, C6.2 DRAINAGE 7/22/2024 8:47:01 AM

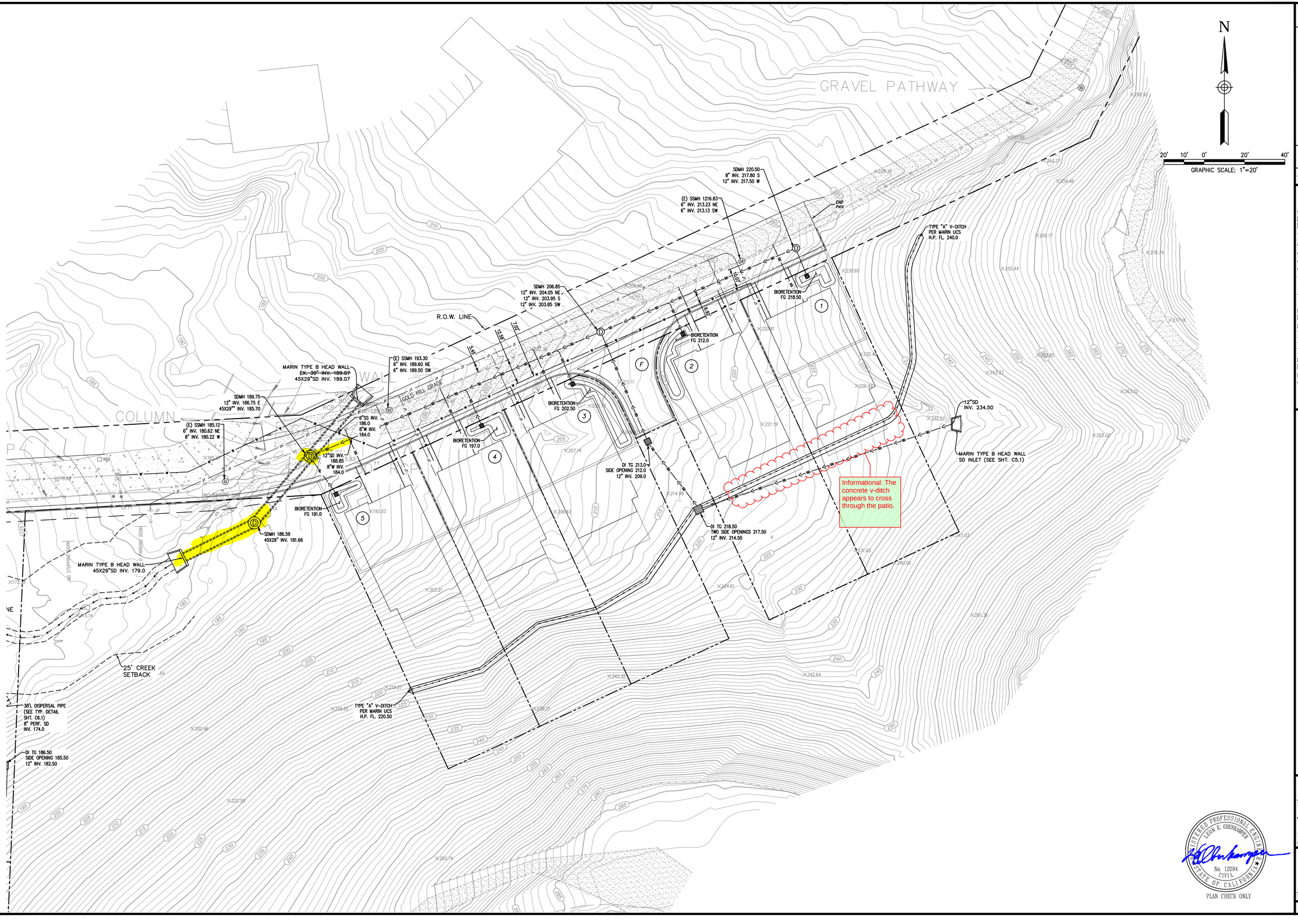
1					
2					
3					
4					
5					

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY DRAINAGE AND UTILITY PLAN-2
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

SHEET
C6.2
18 OF 32
22-192



S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 CIVIL PLANS.dwg C8.3 DRAINAGE 7/22/2024 8:47:11 AM

1	
2	
3	
4	
5	

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY DRAINAGE AND UTILITY PLAN – 3
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

LICENSED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

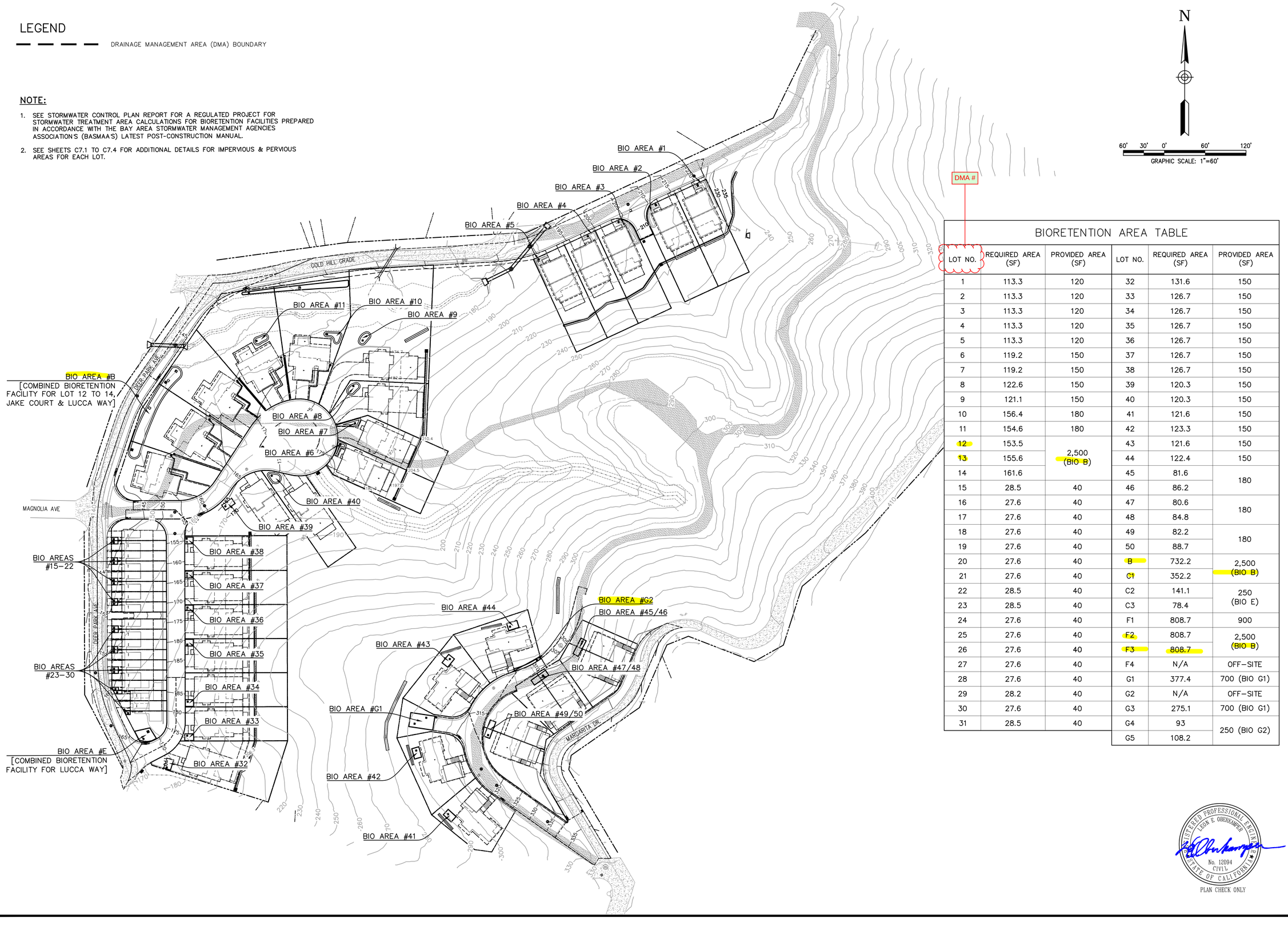
SHEET
C6.3
19 OF 32
22-192

LEGEND

DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY

NOTE:

1. SEE STORMWATER CONTROL PLAN REPORT FOR A REGULATED PROJECT FOR STORMWATER TREATMENT AREA CALCULATIONS FOR BIORETENTION FACILITIES PREPARED IN ACCORDANCE WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) LATEST POST-CONSTRUCTION MANUAL.
2. SEE SHEETS C7.1 TO C7.4 FOR ADDITIONAL DETAILS FOR IMPERVIOUS & PERVIOUS AREAS FOR EACH LOT.



DMA #

BIORETENTION AREA TABLE

LOT NO.	REQUIRED AREA (SF)	PROVIDED AREA (SF)	LOT NO.	REQUIRED AREA (SF)	PROVIDED AREA (SF)
1	113.3	120	32	131.6	150
2	113.3	120	33	126.7	150
3	113.3	120	34	126.7	150
4	113.3	120	35	126.7	150
5	113.3	120	36	126.7	150
6	119.2	150	37	126.7	150
7	119.2	150	38	126.7	150
8	122.6	150	39	120.3	150
9	121.1	150	40	120.3	150
10	156.4	180	41	121.6	150
11	154.6	180	42	123.3	150
12	153.5	2,500 (BIO B)	43	121.6	150
13	155.6		44	122.4	150
14	161.6		45	81.6	180
15	28.5	40	46	86.2	
16	27.6	40	47	80.6	180
17	27.6	40	48	84.8	
18	27.6	40	49	82.2	180
19	27.6	40	50	88.7	
20	27.6	40	B	732.2	2,500 (BIO B)
21	27.6	40	C1	352.2	
22	28.5	40	C2	141.1	250 (BIO E)
23	28.5	40	C3	78.4	
24	27.6	40	F1	808.7	900
25	27.6	40	F2	808.7	2,500 (BIO B)
26	27.6	40	F3	808.7	
27	27.6	40	F4	N/A	OFF-SITE
28	27.6	40	G1	377.4	700 (BIO G1)
29	28.2	40	G2	N/A	OFF-SITE
30	27.6	40	G3	275.1	700 (BIO G1)
31	28.5	40	G4	93	250 (BIO G2)
			G5	108.2	

LICENSED PROFESSIONAL ENGINEER
LEON E OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA

PLAN CHECK ONLY

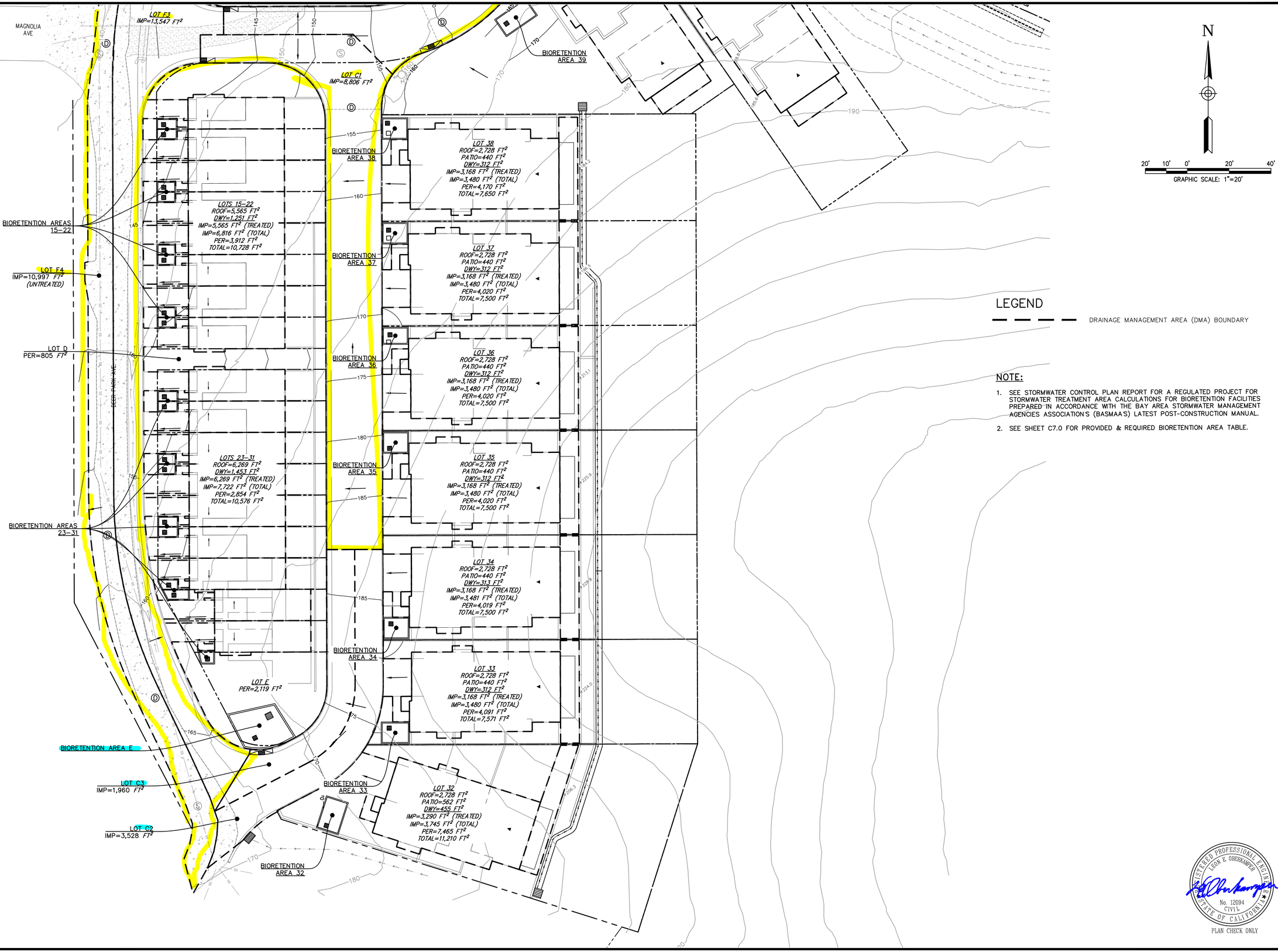
OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY STORMWATER CONTROL PLAN
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale:	1" = 60'
Drawn by:	BM
Field Crew:	AS
Checked by:	LEO
Date:	7/23/2024

SHEET
C7.0
22 OF 32
22-192

S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 STORMWATER CONTROL PLAN.dwg, C7.0, 7/22/2024 8:14:35 AM



NOTE:

1. SEE STORMWATER CONTROL PLAN REPORT FOR A REGULATED PROJECT FOR STORMWATER TREATMENT AREA CALCULATIONS FOR BIORETENTION FACILITIES PREPARED IN ACCORDANCE WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) LATEST POST-CONSTRUCTION MANUAL.
2. SEE SHEET C7.0 FOR PROVIDED & REQUIRED BIORETENTION AREA TABLE.

LICENSED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094 CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY STORMWATER CONTROL PLAN-1
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

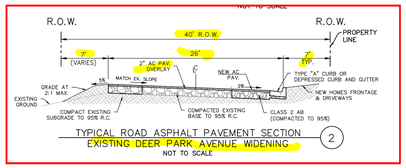
SHEET
C7.1
23 OF 32
22-192

LEGEND

DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY

NOTE:

1. SEE STORMWATER CONTROL PLAN REPORT FOR A REGULATED PROJECT FOR STORMWATER TREATMENT AREA CALCULATIONS FOR BIORETENTION FACILITIES PREPARED IN ACCORDANCE WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) LATEST POST-CONSTRUCTION MANUAL.
2. SEE SHEET C7.0 FOR PROVIDED & REQUIRED BIORETENTION AREA TABLE.



TYPICAL ROAD ASPHALT PAVEMENT SECTION
EXISTING DEER PARK AVENUE WIDENING (2)
NOT TO SCALE

Rename to DMA F4. Based on cross section and grading plan, the entire street drains toward the curb and gutter on the project side and therefore must be treated. Revise DMA F4 to be included in the sizing of Bioretention Area B

DMA F4, not LOT F4, typ.

DMA F4
LOT F4
IMP=10,997 FT²
(UNTREATED)

LOT F4
IMP=10,997 FT²
(UNTREATED)

DMA F2

LOT F2
IMP=3,468 FT²

BIORETENTION AREA F

BIORETENTION AREA 11

BIORETENTION AREA 10

BIORETENTION AREA 9

BIORETENTION AREA 8

BIORETENTION AREA B

DEER PARK AVE

LOT 11
ROOF=2,988 FT²
PATIO=253 FT²
DWY=623 FT²
IMP=3,864 FT²
PER=11,021 FT²
TOTAL=14,885 FT²

LOT 10
ROOF=2,988 FT²
PATIO=316 FT²
DWY=605 FT²
IMP=3,909 FT²
PER=10,946 FT²
TOTAL=14,855 FT²

LOT 9
ROOF=2,728 FT²
PATIO=300 FT²
DWY=2,002 FT²
IMP=3,028 FT² (TREATED)
IMP=5,030 FT² (TOTAL)
PER=17,705 FT²
TOTAL=22,735 FT²

LOT 12
ROOF=2,988 FT²
PATIO=253 FT²
DWY=596 FT²
IMP=3,837 FT²
PER=7,248 FT²
TOTAL=11,085 FT²

LOT 8
ROOF=2,728 FT²
PATIO=336 FT²
DWY=1,184 FT²
IMP=3,064 FT² (TREATED)
IMP=4,248 FT² (TOTAL)
PER=4,163 FT²
TOTAL=8,411 FT²

2,938 sf

LOT 13
ROOF=2,988 FT²
PATIO=253 FT²
DWY=640 FT²
IMP=3,889 FT²
PER=7,078 FT²
TOTAL=10,967 FT²

BIORETENTION AREA 7

BIORETENTION AREA 6

LOT 7
ROOF=2,728 FT²
PATIO=252 FT²
DWY=690 FT²
IMP=2,980 FT² (TREATED)
IMP=3,670 FT² (TOTAL)
PER=3,988 FT²
TOTAL=7,658 FT²

LOT B
IMP=18,306 FT²
PER=3,714 FT²
TOTAL=22,020 FT²

BIORETENTION AREA 40

LOT 14
ROOF=2,988 FT²
PATIO=253 FT²
DWY=799 FT²
IMP=4,040 FT²
PER=4,897 FT²
TOTAL=8,937 FT²

LOT 6
ROOF=2,728 FT²
PATIO=252 FT²
DWY=336 FT²
IMP=2,980 FT² (TREATED)
IMP=3,316 FT² (TOTAL)
PER=4,626 FT²
TOTAL=7,606 FT²

MAGNOLIA AVE

LOT E3
IMP=13,547 FT²

LOT 39
ROOF=2,728 FT²
PATIO=280 FT²
DWY=332 FT²
IMP=3,008 FT² (TREATED)
IMP=3,340 FT² (TOTAL)
PER=5,960 FT²
TOTAL=9,300 FT²

LOT 40
ROOF=2,728 FT²
PATIO=280 FT²
DWY=444 FT²
IMP=3,008 FT² (TREATED)
IMP=3,452 FT² (TOTAL)
PER=4,050 FT²
TOTAL=7,502 FT²

BIORETENTION AREA 39

LOT C1
IMP=8,806 FT²

BIORETENTION

N

20' 10' 0' 20' 40'
GRAPHIC SCALE: 1"=20'

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

1	
2	
3	
4	
5	

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY STORMWATER CONTROL PLAN-2
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
MARIN COUNTY
CALIFORNIA
CITY OF SAN RAFAEL

Scale:	1" = 20'
Drawn by:	BM
Field Crew:	AS
Checked by:	LEO
Date:	7/23/2024

SHEET
C7.2
24 OF 32
22-192

S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 STORMWATER CONTROL PLAN.dwg, C7.2, 7/22/2024 8:14:53 AM

LEGEND

DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY

NOTE:

1. SEE STORMWATER CONTROL PLAN REPORT FOR A REGULATED PROJECT FOR STORMWATER TREATMENT AREA CALCULATIONS FOR BIORETENTION FACILITIES PREPARED IN ACCORDANCE WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) LATEST POST-CONSTRUCTION MANUAL.
2. SEE SHEET C7.0 FOR PROVIDED & REQUIRED BIORETENTION AREA TABLE.

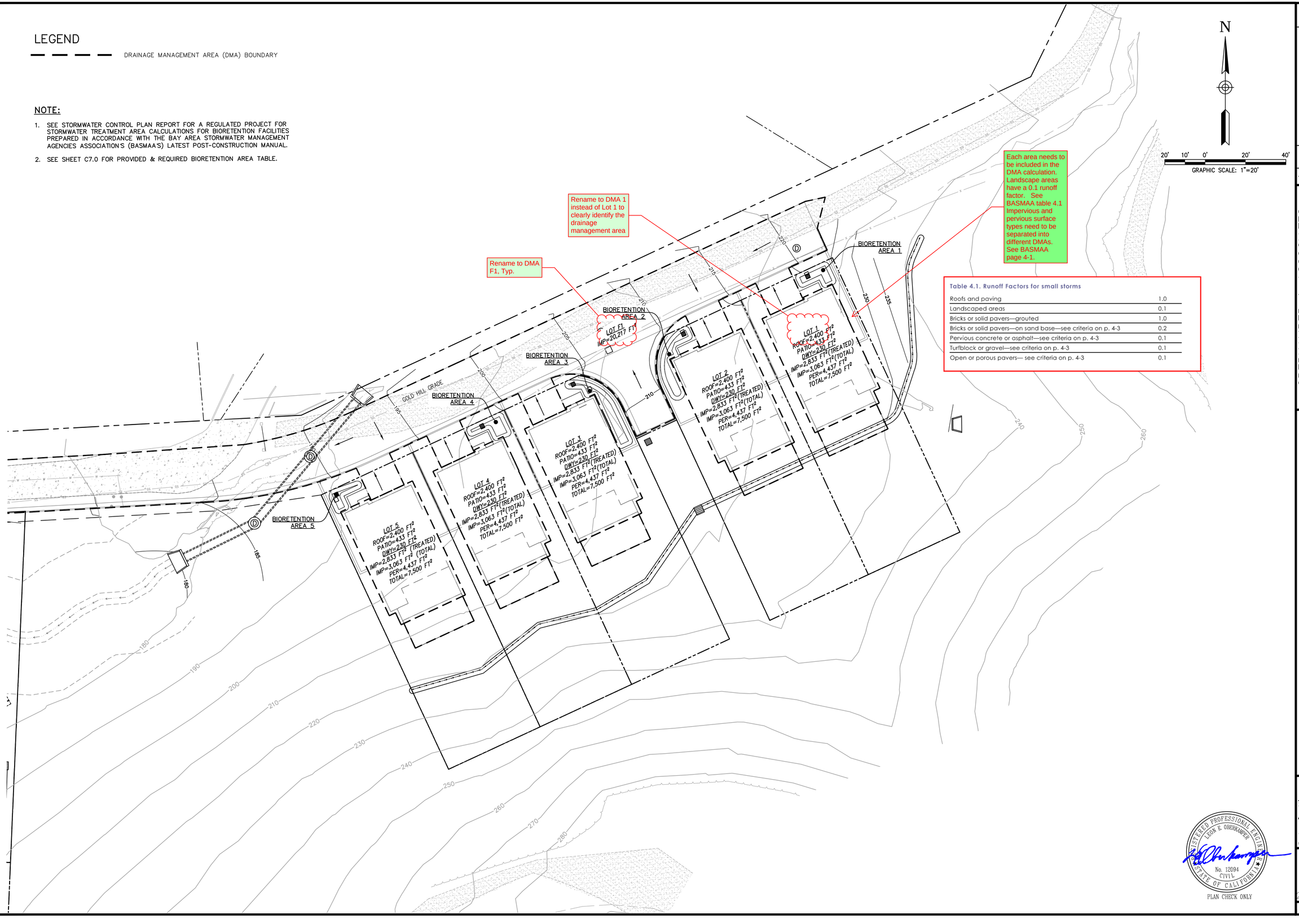


Table 4.1. Runoff Factors for small storms

Roofs and paving	1.0
Landscaped areas	0.1
Bricks or solid pavers—grouted	1.0
Bricks or solid pavers—on sand base—see criteria on p. 4-3	0.2
Pervious concrete or asphalt—see criteria on p. 4-3	0.1
Turfblock or gravel—see criteria on p. 4-3	0.1
Open or porous pavers— see criteria on p. 4-3	0.1

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

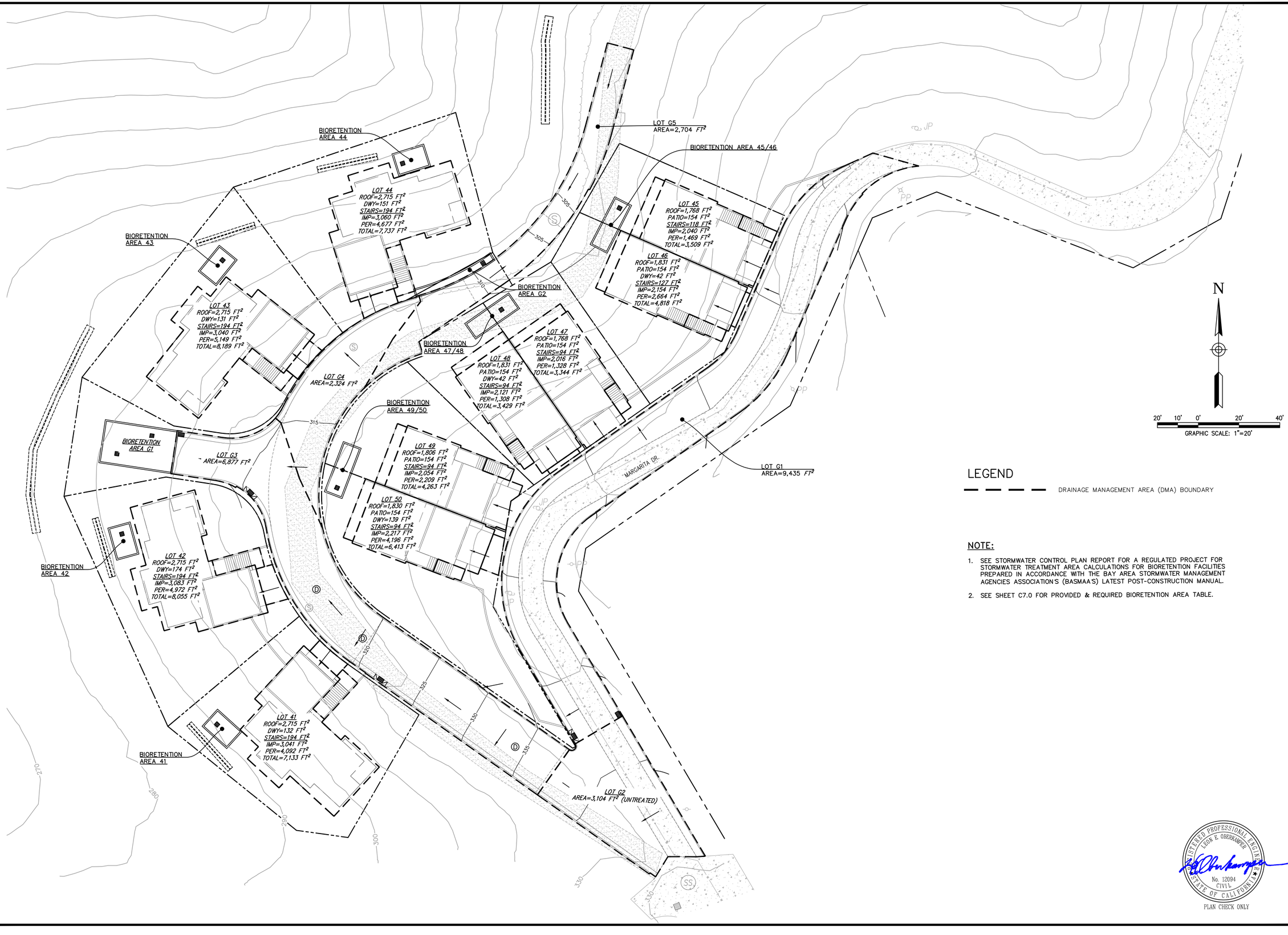
OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY STORMWATER CONTROL PLAN-3
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

SHEET
C7.3
25 OF 32
22-192

S:\Jobs\2022\22-192 Cassidy Dominican\DWG\DESIGN\22-192 STORMWATER CONTROL PLAN.dwg, C7.3, 7/22/2024 8:15:03 AM



LEGEND

DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY

NOTE:

1. SEE STORMWATER CONTROL PLAN REPORT FOR A REGULATED PROJECT FOR STORMWATER TREATMENT AREA CALCULATIONS FOR BIORETENTION FACILITIES PREPARED IN ACCORDANCE WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION'S (BASMAA'S) LATEST POST-CONSTRUCTION MANUAL.
2. SEE SHEET C7.0 FOR PROVIDED & REQUIRED BIORETENTION AREA TABLE.

REGISTERED PROFESSIONAL ENGINEER
LEON E OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA
PLAN CHECK ONLY

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
7200 REDWOOD BLVD SUITE 308 NOVATO, CA 94945
PHONE: (415) 897-2800
WWW.OBERKAMPER.COM

PRELIMINARY STORMWATER CONTROL PLAN-4
DOMINICAN VALLEY TENTATIVE MAP (A.P.N. 015-163-03)
CITY OF SAN RAFAEL MARIN COUNTY CALIFORNIA

Scale: 1" = 20'
Drawn by: BM
Field Crew: AS
Checked by: LEO
Date: 7/23/2024

SHEET
C7.4
26 OF 32
22-192

See comments on Page 35 of 104

Reviewed by Fariborz Heydari (PCG) 8/2/24

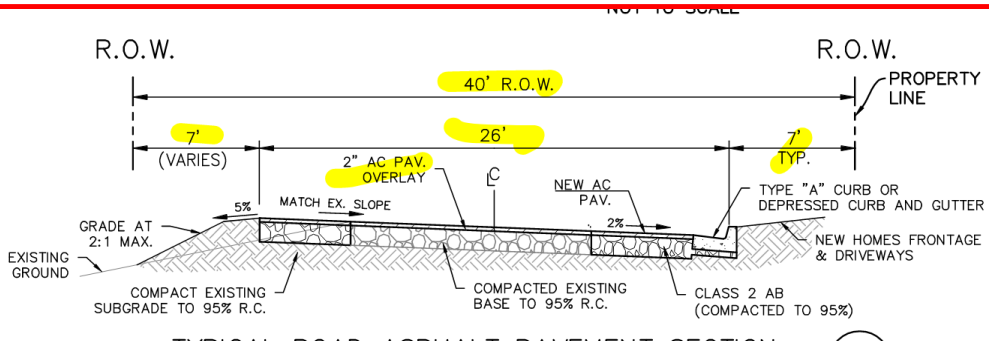
Include the site plan showing bioretention areas and DMAs as an attachment to the report. Clearly show the limits of the DMAs from Deer Park Ave and Gold Hill Grade and the treatment areas for the public streets.

New road exceeds 5,000 sf of newly installed impervious area. In the report include a section describing how the runoff is treated from the existing public streets.

Stormwater Control Plan
For a Regulated Project
DOMINICAN VALLEY SUBDIVISION
(PLAN23-081)

Include DMA calculation on Deer Park Avenue (F4) and demonstrate these areas are treated. Per Deep Park cross section, F4 is tributary to Bioretention B.

July 23, 2024



prepared by:

Oberkamper & Associates Civil Engineers, Inc.
7200 Redwood Blvd. Suite 308 Novato, CA 94945

Phone: (415) 897 - 2800

Table of Contents

I. Project Data

Table 1. Project Data Form

Project Name/Number	Dominican Valley Subdivision
Application Submittal Date	July 23, 2024
Project Location	APN 015-163-03; Intersections of Gold-Hill Grade & Deer Park Ave, and Highland Ave & Margarita Dr.
Project Phase No.	Planning Phase
Project Type and Description	The proposed project consists of the construction of a 50 residential units with retaining walls, driveways, and private roads for fire & vehicular access.
Total Project Site Area (acres)	20.79 Acres
Total New and Replaced Impervious Surface Area	5.04 Acres
Total Pre-Project Impervious Surface Area	0 Acres
Total Post-Project Impervious Surface Area	5.04 Acres

II. Setting

II.A. Project Location and Description

The project is in a Planned Development District in the Dominican/Black Canyon neighborhood of San Rafael. The site is bordered at the northwest between Gold-Hill Grade & Deer Park Avenue, and at the south by Highland Avenue & Margarita Drive. Private streets provide vehicular and pedestrian access to the public right-of-way and have been designed with appropriate width, slope, and emergency vehicle turn outs, to meet Fire Code standards.

The parcel is proposed to be subdivided into 50 lots with 50 units of residential housing (27 Singe-Family Homes, 17 Townhomes, 6 Duplexes and 14 Attached Junior ADUs) and 119 parking spaces (86 regular spaces, 33 driveway guest spaces). The proposed housing been designed to blend into the surrounding areas and allow 70% of the site to remain undisturbed. The project effectively avoids highly visible hillsides or ridgelines, preserves natural terrain & vegetation, and utilizes native low water planting.

II.B Existing Site Features and Conditions

The existing parcel is 20.8-acres in total area, oblong in shape and angled northeast along a fairly steep, wooded hillside. According to the geotechnical investigation report, the 7.8-acre area of proposed development rests on soils comprised of mostly Cretaceous Sandstone & Shale with colluvium deposits washed out from the uphill slope, especially in areas where an existing, well-developed swale/drainage way is located. The existing swale/drainage way is located outside the proposed development footprint and runs from Margarita Drive, northwest, to an existing

creek along Deer Park Avenue. The existing creek currently collects up-hill runoff from the existing hillside as well as storm drainage from existing inlets along Deer Park Avenue.

II.C Opportunities and Constraints for Stormwater Control

Multiple opportunities exist for site stormwater control due to the project location along an existing swale/drainage way and creek. These two features provide a natural outlet for treated stormwater and allow the development to preserve natural terrain and avoid unnecessary utility construction. Additionally, because the project is located on a hillside, there are several locations for dissipation of up-hill runoff on-site.

There are no anticipated stormwater control constraints at the site.

III. Low Impact Development Design Strategies

III.A Optimization of Site Layout

III.A.1 Limitation of development envelope

The site design utilizes portions of the site with easy access to public right-of-way and utilities to reduce the area of development. Although the site has a total area of 20.8 acres, only 7.8 acres of total disturbance are proposed, allowing for seventy percent of the site to remain undisturbed.

III.A.2 Preservation of natural drainage features

The existing swale/drainage way is proposed to remain and will be routed via a closed lid storm drainage system to discharge as it does today at the existing creek.

III.A.3 Setbacks from creeks, wetlands, and riparian habitats

There is a twenty-five-foot setback from the existing creek, to be maintained.

III.A.4 Minimization of imperviousness

The project architect has minimized impervious surfaces to the extent possible by providing only vehicular and pedestrian access paths where necessary for emergency ingress/egress.

III.A.5 Use of drainage as a design element

The drainage design reduces the rate of surface runoff by constructing bioretention facilities capable of temporarily storing stormwater before being discharged either back into the natural conditions of the site or to the closed lid storm drainage system. The bioretention facility shall provide treatment of the runoff in addition to temporary detainment.

III.B Use of Permeable Pavements

No permeable pavements are proposed in the development.

III.C Dispersal of Runoff to Pervious Areas

Dispersal of runoff to pervious areas is used carefully on-site to divert runoff from the existing hillside or existing gravel paths away from proposed residences.

III.D Stormwater Control Measures

Runoff from most of impervious areas on the site, including roofs and paved areas, will be routed to the bioretention facilities (see Exhibit). The facilities will be designed and constructed to the criteria in the BASMAA Post-Construction Manual (July 2019), including the following features:

- Surrounded by curbs or walls. Where adjacent to pavement, curbs will be thickened, and an impermeable vertical cutoff wall will be included
- Each layer built flat, level, and to the elevations specified in the plans:
  - Bottom of Gravel Layer (BGL)
  - Top of Gravel Layer (TGL)
  - Top of Soil Layer (TSL)
  - Overflow Grate
  - Facility Rim
- 12 inches of Class 2 permeable, Caltrans specification 68-2.02F(3)
- 18 inches sand/compost mix meeting BASMAA specifications
- 4 in. dia. PVC SDR 35 perforated pipe underdrain, installed with the invert at the top of the Class 2 permeable layer with holes facing down, and connected to the overflow structure at that same elevation
- 6-inch-deep reservoir between top of soil elevation and overflow grate elevation
- Concrete drop inlet with frame overflow structure, with grate set to specified elevation, connected to existing storm drain system at site
- Vertical cutoff walls to protect adjacent pavement
- Plantings selected for water conservation
- Sign identifying the facility as a stormwater treatment facility.

The only areas on the site which do not drain to a bioretention facility are the uphill v-ditches and the existing swale/drainage way. Runoff from these areas are directed to either a hillside dissipater or to a closed lid storm drainage system to discharge to the existing creek.

IV. Documentation of Drainage Design

IV.A.1 Drainage Management Area (Lot 1)

IV.A.1.1 Table of Drainage Management Areas (Lot 1)

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,400
Patio	Impervious Patio	433

Driveway	Impervious Driveway	230
Landscaping	Vegetation & Lawn	4,437

IV.A.1.2 Drainage Management Area Descriptions (Lot 1)

DMA Roof totaling 2,400 square feet, drains new building roof to Bioretention Area 1. Runoff will enter the facility through new roof drains.

DMA Patio totaling 433 square feet, drains new building patio to Bioretention Area 1. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 230 square feet, drains driveway surface to Gold Hill Grade and ultimately Bioretention Area F. Runoff will enter the facility through new storm drain inlets at Gold Hill Grade.

DMA Landscaping totaling 4,437 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Gold Hill Grade and will be captured, treated, and channeled through the existing creek.

IV.A.1.3 Information Summary for Bioretention Facility Design (Lot 1)

See table above.

IV.A.1.4 Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,437

IV.A.1.5 Self-Retaining Areas

Not Applicable

IV.A.1.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.1.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 1

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 1		
Roof	2,400	Roofs	1.0	2,400			
Patio	433	Impervious	1.0	433	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,833	0.04	113.3	120

IV.A.2 Drainage Management Area (Lot 2)

IV.A.2.1 Table of Drainage Management Areas (Lot 2)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,400
Patio	Impervious Patio	433
Driveway	Impervious Driveway	230
Landscaping	Vegetation & Lawn	4,437

IV.A.2.2 Drainage Management Area Descriptions (Lot 2)

DMA Roof totaling 2,400 square feet, drains new building roof to Bioretention Area 2. Runoff will enter the facility through new roof drains.

DMA Patio totaling 433 square feet, drains new building patio to Bioretention Area 2. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 230 square feet, drains driveway surface to Gold Hill Grade and ultimately Bioretention Area F. Runoff will enter the facility through new storm drain inlets at Gold Hill Grade.

DMA Landscaping totaling 4,437 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Gold Hill Grade and will be captured, treated, and channeled through the existing creek.

IV.A.2.3 Information Summary for Bioretention Facility Design (Lot 2)

See table above.

IV.A.2.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,437

IV.A.2.5 Self-Retaining Areas

Not Applicable

IV.A.2.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.2.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 2

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 2		
Roof	2,400	Roofs	1.0	2,400			
Patio	433	Impervious	1.0	433	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,833	0.04	113.3	120

IV.A.3 Drainage Management Area (Lot 3)

IV.A.3.1 Table of Drainage Management Areas (Lot 3)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,400

Patio	Impervious Patio	433
Driveway	Impervious Driveway	230
Landscaping	Vegetation & Lawn	4,437

IV.A.3.2 Drainage Management Area Descriptions (Lot 3)

DMA Roof totaling 2,400 square feet, drains new building roof to Bioretention Area 3. Runoff will enter the facility through new roof drains.

DMA Patio totaling 433 square feet, drains new building patio to Bioretention Area 3. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 230 square feet, drains driveway surface to Gold Hill Grade and ultimately Bioretention Area F. Runoff will enter the facility through new storm drain inlets at Gold Hill Grade.

DMA Landscaping totaling 4,437 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Gold Hill Grade and will be captured, treated, and channeled through the existing creek.

IV.A.3.3 Information Summary for Bioretention Facility Design (Lot 3)

See table above.

IV.A.3.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,437

IV.A.3.5 Self-Retaining Areas

Not Applicable

IV.A.3.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.3.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 3

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 3		
Roof	2,400	Roofs	1.0	2,400			
Patio	433	Impervious	1.0	433	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,833	0.04	113.3	120

IV.A.4 Drainage Management Area (Lot 4)

IV.A.4.1 Table of Drainage Management Areas (Lot 4)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,400
Patio	Impervious Patio	433
Driveway	Impervious Driveway	230
Landscaping	Vegetation & Lawn	4,437

IV.A.4.2 Drainage Management Area Descriptions (Lot 4)

DMA Roof totaling 2,400 square feet, drains new building roof to Bioretention Area 4. Runoff will enter the facility through new roof drains.

DMA Patio totaling 433 square feet, drains new building patio to Bioretention Area 4. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 230 square feet, drains driveway surface to Gold Hill Grade and ultimately Bioretention Area F. Runoff will enter the facility through new storm drain inlets at Gold Hill Grade.

DMA Landscaping totaling 4,437 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Gold Hill Grade and will be captured, treated, and channeled through the existing creek.

IV.A.4.3 Information Summary for Bioretention Facility Design (Lot 4)

See table above.

IV.A.4.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,437

IV.A.4.5 Self-Retaining Areas

Not Applicable

IV.A.4.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.4.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 4

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 4		
Roof	2,400	Roofs	1.0	2,400			
Patio	433	Impervious	1.0	433	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,833	0.04	113.3	120

IV.A.5 Drainage Management Area (Lot 5)

IV.A.5.1 Table of Drainage Management Areas (Lot 5)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,400

Patio	Impervious Patio	433
Driveway	Impervious Driveway	230
Landscaping	Vegetation & Lawn	4,437

IV.A.5.2 Drainage Management Area Descriptions (Lot 5)

DMA Roof totaling 2,400 square feet, drains new building roof to Bioretention Area 5. Runoff will enter the facility through new roof drains.

DMA Patio totaling 433 square feet, drains new building patio to Bioretention Area 5. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 230 square feet, drains driveway surface to Gold Hill Grade and ultimately Bioretention Area F. Runoff will enter the facility through new storm drain inlets at Gold Hill Grade.

DMA Landscaping totaling 4,437 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Gold Hill Grade and will be captured, treated, and channeled through the existing creek.

IV.A.5.3 Information Summary for Bioretention Facility Design (Lot 5)

See table above.

IV.A.5.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,437

IV.A.5.5 Self-Retaining Areas

Not Applicable

IV.A.5.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.5.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 5

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 5		
Roof	2,400	Roofs	1.0	2,400			
Patio	433	Impervious	1.0	433	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,833	0.04	113.3	120

IV.A.6 Drainage Management Area (Lot 6)

IV.A.6.1 Table of Drainage Management Areas (Lot 6)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	252
Driveway	Impervious Driveway	336
Landscaping	Vegetation & Lawn	4,626

IV.A.6.2 Drainage Management Area Descriptions (Lot 6)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 6. Runoff will enter the facility through new roof drains.

DMA Patio totaling 252 square feet, drains new building patio to Bioretention Area 6. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 336 square feet, drains driveway surface to Jake Court and ultimately Bioretention Area B. Runoff will enter the facility through new storm drain inlets at Jake Court.

DMA Landscaping totaling 4,626 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Jake Court and will be captured, treated, and channeled through the existing creek.

IV.A.6.3 Information Summary for Bioretention Facility Design (Lot 6)

See table above.

IV.A.6.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,626

IV.A.6.5 Self-Retaining Areas

Not Applicable

IV.A.6.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.6.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 6

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 6		
Roof	2,728	Roofs	1.0	2,728			
Patio	252	Impervious	1.0	252	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,980	0.04	119.2	150

IV.A.7 Drainage Management Area (Lot 7)

IV.A.7.1 Table of Drainage Management Areas (Lot 7)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728

Patio	Impervious Patio	252
Driveway	Impervious Driveway	690
Landscaping	Vegetation & Lawn	3,988

IV.A.7.2 Drainage Management Area Descriptions (Lot 7)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 7. Runoff will enter the facility through new roof drains.

DMA Patio totaling 252 square feet, drains new building patio to Bioretention Area 7. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 690 square feet, drains driveway surface to Jake Court and ultimately Bioretention Area B. Runoff will enter the facility through new storm drain inlets at Jake Court.

DMA Landscaping totaling 3,988 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Jake Court and will be captured, treated, and channeled through the existing creek.

IV.A.7.3 Information Summary for Bioretention Facility Design (Lot 7)

See table above.

IV.A.7.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	3,988

IV.A.7.5 Self-Retaining Areas

Not Applicable

IV.A.7.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.7.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 7

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 7		
Roof	2,728	Roofs	1.0	2,728			
Patio	252	Impervious	1.0	252	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,980	0.04	119.2	150

IV.A.8 Drainage Management Area (Lot 8)

IV.A.8.1 Table of Drainage Management Areas (Lot 8)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	336
Driveway	Impervious Driveway	1,184
Landscaping	Vegetation & Lawn	4,163

IV.A.8.2 Drainage Management Area Descriptions (Lot 8)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 8. Runoff will enter the facility through new roof drains.

DMA Patio totaling 336 square feet, drains new building patio to Bioretention Area 8. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 1,184 square feet, drains driveway surface to Jake Court and ultimately Bioretention Area B. Runoff will enter the facility through new storm drain inlets at Jake Court.

DMA Landscaping totaling 4,163 square feet, drains to existing natural hillside. The hillside area does not require treatment but is tributary to Jake Court and will be captured, treated, and channeled through the existing creek.

IV.A.8.3 Information Summary for Bioretention Facility Design (Lot 8)

See table above.

IV.A.8.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	3,064

IV.A.8.5 Self-Retaining Areas

Not Applicable

IV.A.8.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.8.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 8

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 8		
Roof	2,728	Roofs	1.0	2,728			
Patio	336	Impervious	1.0	336	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,064	0.04	122.6	150.0

IV.A.9 Drainage Management Area (Lot 9)

IV.A.9.1 Table of Drainage Management Areas (Lot 9)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728

Patio	Impervious Patio	300
Driveway	Impervious Driveway	2,002
Landscaping	Vegetation & Lawn	17,705

IV.A.9.2 Drainage Management Area Descriptions (Lot 9)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 9. Runoff will enter the facility through new roof drains.

DMA Patio totaling 300 square feet, drains new building patio to Bioretention Area 9. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 2,002 square feet, drains driveway surface to Jake Court and ultimately Bioretention Area B. Runoff will enter the facility through new storm drain inlets at Jake Court.

DMA Landscaping totaling 17,705 square feet, drains to existing natural hillside. The hillside area does not require treatment and is tributary to the existing creek at the north side of the lot.

IV.A.9.3 Information Summary for Bioretention Facility Design (Lot 9)

See table above.

IV.A.9.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	17,705

IV.A.9.5 Self-Retaining Areas

Not Applicable

IV.A.9.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.9.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 9

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 9		
Roof	2,728	Roofs	1.0	2,728			
Patio	300	Impervious	1.0	300	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,028	0.04	121.1	150.0

IV.A.10 Drainage Management Area (Lot 10)

IV.A.10.1 Table of Drainage Management Areas (Lot 10)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,988
Patio	Impervious Patio	316
Driveway	Impervious Driveway	605
Landscaping	Vegetation & Lawn	10,946

IV.A.10.2 Drainage Management Area Descriptions (Lot 10)

DMA Roof totaling 2,988 square feet, drains new building roof to Bioretention Area 10. Runoff will enter the facility through new roof drains.

DMA Patio totaling 316 square feet, drains new building patio to Bioretention Area 10. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 605 square feet, drains driveway surface to Bioretention Area 10. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 10,946 square feet, drains to existing natural hillside. The hillside area does not require treatment and is tributary to the existing creek at the north side of the lot.

IV.A.10.3 Information Summary for Bioretention Facility Design (Lot 10)

See table above.

IV.A.10.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	10,946

IV.A.10.5 Self-Retaining Areas

Not Applicable

IV.A.10.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.10.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 10

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 10		
Roof	2,988	Roofs	1.0	2,988			
Patio	316	Impervious	1.0	316	Sizing factor	Minimum Facility Size	Proposed Facility Size
Driveway	605	Asphalt	1.0	605			
Total>				3,909	0.04	156.4	180.0

IV.A.11 Drainage Management Area (Lot 11)

IV.A.11.1 Table of Drainage Management Areas (Lot 11)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,988

Patio	Impervious Patio	253
Driveway	Impervious Driveway	623
Landscaping	Vegetation & Lawn	11,021

IV.A.11.2 Drainage Management Area Descriptions (Lot 11)

DMA Roof totaling 2,988 square feet, drains new building roof to Bioretention Area 11. Runoff will enter the facility through new roof drains.

DMA Patio totaling 253 square feet, drains new building patio to Bioretention Area 11. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 623 square feet, drains driveway surface to Bioretention Area 11. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 11,021 square feet, drains to existing natural hillside. The hillside area does not require treatment and is tributary to the existing creek at the north side of the lot.

IV.A.11.3 Information Summary for Bioretention Facility Design (Lot 11)

See table above.

IVA.11.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	11,021

IV.A.11.5 Self-Retaining Areas

Not Applicable

IV.A.11.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.11.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 11

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 11		
Roof	2,988	Roofs	1.0	2,988	Sizing factor	Minimum Facility Size	Proposed Facility Size
Patio	253	Impervious	1.0	253			
Driveway	623	Asphalt	1.0	623			
Total>				3,864	0.04	154.6	180.0

IV.A.12 Drainage Management Area (Lot 12)

IV.A.12.1 Table of Drainage Management Areas (Lot 12)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,988
Patio	Impervious Patio	253
Driveway	Impervious Driveway	596
Landscaping	Vegetation & Lawn	7,248

IV.A.12.2 Drainage Management Area Descriptions (Lot 12)

DMA Roof totaling 2,988 square feet, drains new building roof to Bioretention Area B. Runoff will enter the facility through new roof drains.

DMA Patio totaling 253 square feet, drains new building patio to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 593 square feet, drains driveway surface to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 7,248 square feet, drains to existing natural hillside. The hillside area does not require treatment and is tributary to the existing creek at the north side of the lot.

IV.A.12.3 Information Summary for Bioretention Facility Design (Lot 12)

See table above.

IVA.12.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	7,248

IV.A.12.5 Self-Retaining Areas

Not Applicable

IV.A.12.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.12.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name: Bioretention Area B		
					Sizing factor	Minimum Facility Size	Proposed Facility Size
Roof	2,988	Roofs	1.0	2,988			
Patio	253	Impervious	1.0	253			
Driveway	593	Asphalt	1.0	596			
Total>				3,837	0.04	153.5	2,500.0

Table 4.5. Format for Tabulating Areas Draining to Bioretention Facilities and Calculating Minimum Bioretention Facility Size

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Sizing factor	Minimum Facility Area (SF)	Proposed Facility Area (SF)
Total>					0.04		

Per BASMAA post construction manual, it is acceptable for 2 or more DMAs to drain to a bioretention facility. However, all of the areas need to be listed and included in the table. There is only table for Bioretention Area B.

DMAs:
12
13
B - 18,306 SF IMP, 3,714 SF PERV (separate into 2 DMAs)
C1 - 8,806 SF
F2
F3 - 13,547 SF

IV.A.13 Drainage Manage

IV.A.13.1 Table of Draina

Table 1. Drainage Manage

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,988
Patio	Impervious Patio	253
Driveway	Impervious Driveway	648
Landscaping	Vegetation & Lawn	7,078

IV.A.13.2 Drainage Management Area Descriptions (Lot 13)

DMA Roof totaling 2,988 square feet, drains new building roof to Bioretention Area B. Runoff will enter the facility through new roof drains.

DMA Patio totaling 253 square feet, drains new building patio to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 648 square feet, drains driveway surface to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 7,078 square feet, drains to existing natural hillside. The hillside area does not require treatment and is tributary to the existing creek.

IV.A.13.3 Information Summary for Bioretention Facility Design (Lot 13)

See table above.

IVA.13.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	7,078

IV.A.13.5 Self-Retaining Areas

Not Applicable

IV.A.13.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.13.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
Roof	2,988	Roofs	1.0	2,988	Sizing factor	Minimum Facility Size	Proposed Facility Size
Patio	253	Impervious	1.0	253			
Driveway	648	Asphalt	1.0	648			
Total>				3,889	0.04	155.6	2,500.0

IV.A.14 Drainage Management Area (Lot 14)

IV.A.14.1 Table of Drainage Management Areas (Lot 14)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,988
Patio	Impervious Patio	253
Driveway	Impervious Driveway	799
Landscaping	Vegetation & Lawn	4,897

IV.A.14.2 Drainage Management Area Descriptions (Lot 14)

DMA Roof totaling 2,988 square feet, drains new building roof to Bioretention Area B. Runoff will enter the facility through new roof drains.

DMA Patio totaling 253 square feet, drains new building patio to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 799 square feet, drains driveway surface to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 4,897 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Jake Court & Deer Park Avenue and will be captured, treated, and channeled through the existing creek.

IV.A.14.3 Information Summary for Bioretention Facility Design (Lot 14)

See table above.

IVA.14.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,897

IV.A.14.5 Self-Retaining Areas

Not Applicable

IV.A.14.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.14.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
Roof	2,988	Roofs	1.0	2,988			
Patio	253	Impervious	1.0	253			
Driveway	799	Asphalt	1.0	799	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				4,040	0.04	161.6	2,500.0

IV.A.15 Drainage Management Area (Lot 15)

IV.A.15.1 Table of Drainage Management Areas (Lot 15)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	712

Driveway	Impervious Driveway	154
Landscaping	Vegetation & Lawn	1,409

IV.A.15.2 Drainage Management Area Descriptions (Lot 15)

DMA Roof totaling 712 square feet, drains new building roof to Bioretention Area 15. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 1,409 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.15.3 Information Summary for Bioretention Facility Design (Lot 15)

See table above.

IVA.15.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	1,410

IV.A.15.5 Self-Retaining Areas

Not Applicable

IV.A.15.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.15.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 15

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 15		
Roof	712	Roofs	1.0	712	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				712	0.04	28.5	40.0

IV.A.16 Drainage Management Area (Lot 16)

IV.A.16.1 Table of Drainage Management Areas (Lot 16)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	155
Landscaping	Vegetation & Lawn	363

IV.A.16.2 Drainage Management Area Descriptions (Lot 16)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 16. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 155 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 363 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.16.3 Information Summary for Bioretention Facility Design (Lot 16)

See table above.

IVA.16.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	363

IV.A.16.5 Self-Retaining Areas

Not Applicable

IV.A.16.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.16.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 16

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 16		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.17 Drainage Management Area (Lot 17)

IV.A.17.1 Table of Drainage Management Areas (Lot 17)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.17.2 Drainage Management Area Descriptions (Lot 17)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 17. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.17.3 Information Summary for Bioretention Facility Design (Lot 17)

See table above.

IVA.17.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	361

IV.A.17.5 Self-Retaining Areas

Not Applicable

IV.A.17.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.17.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 17

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 17		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.18 Drainage Management Area (Lot 18)

IV.A.18.1 Table of Drainage Management Areas (Lot 18)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690

Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.18.2 Drainage Management Area Descriptions (Lot 18)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 18. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.18.3 Information Summary for Bioretention Facility Design (Lot 18)

See table above.

IVA.18.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	361

IV.A.18.5 Self-Retaining Areas

Not Applicable

IV.A.18.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.18.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 18

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 18		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.19 Drainage Management Area (Lot 19)

IV.A.19.1 Table of Drainage Management Areas (Lot 19)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.19.2 Drainage Management Area Descriptions (Lot 19)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 19. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.19.3 Information Summary for Bioretention Facility Design (Lot 19)

See table above.

IVA.19.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	360

IV.A.19.5 Self-Retaining Areas

Not Applicable

IV.A.19.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.19.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 19

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 19		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.20 Drainage Management Area (Lot 20)

IV.A.20.1 Table of Drainage Management Areas (Lot 20)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.20.2 Drainage Management Area Descriptions (Lot 20)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 17. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.20.3 Information Summary for Bioretention Facility Design (Lot 20)

See table above.

IVA.20.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	361

IV.A.20.5 Self-Retaining Areas

Not Applicable

IV.A.20.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.20.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 20

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 20		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.21 Drainage Management Area (Lot 21)

IV.A.21.1 Table of Drainage Management Areas (Lot 21)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690

Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.21.2 Drainage Management Area Descriptions (Lot 21)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 21. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.21.3 Information Summary for Bioretention Facility Design (Lot 21)

See table above.

IVA.21.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	361

IV.A.21.5 Self-Retaining Areas

Not Applicable

IV.A.21.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.21.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 21

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 21		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.22 Drainage Management Area (Lot 22)

IV.A.22.1 Table of Drainage Management Areas (Lot 22)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	712
Driveway	Impervious Driveway	156
Landscaping	Vegetation & Lawn	340

IV.A.22.2 Drainage Management Area Descriptions (Lot 22)

DMA Roof totaling 712 square feet, drains new building roof to Bioretention Area 22. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 156 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 340 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.22.3 Information Summary for Bioretention Facility Design (Lot 22)

See table above.

IVA.22.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	340

IV.A.22.5 Self-Retaining Areas

Not Applicable

IV.A.22.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.22.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 22

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 22		
Roof	712	Roofs	1.0	712	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				712	0.04	28.5	40.0

IV.A.23 Drainage Management Area (Lot 23)

IV.A.23.1 Table of Drainage Management Areas (Lot 23)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	712
Driveway	Impervious Driveway	154
Landscaping	Vegetation & Lawn	341

IV.A.23.2 Drainage Management Area Descriptions (Lot 23)

DMA Roof totaling 712 square feet, drains new building roof to Bioretention Area 23. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 341 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.23.3 Information Summary for Bioretention Facility Design (Lot 23)

See table above.

IVA.23.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	341

IV.A.23.5 Self-Retaining Areas

Not Applicable

IV.A.23.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.23.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 23

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 23		
Roof	712	Roofs	1.0	712	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				712	0.04	28.5	40.0

IV.A.24 Drainage Management Area (Lot 24)

IV.A.24.1 Table of Drainage Management Areas (Lot 24)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690

Driveway	Impervious Driveway	155
Landscaping	Vegetation & Lawn	363

IV.A.24.2 Drainage Management Area Descriptions (Lot 24)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 24. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 155 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 363 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.24.3 Information Summary for Bioretention Facility Design (Lot 24)

See table above.

IVA.24.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	363

IV.A.24.5 Self-Retaining Areas

Not Applicable

IV.A.24.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.24.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 24

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 24		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.25 Drainage Management Area (Lot 25)

IV.A.25.1 Table of Drainage Management Areas (Lot 25)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	157
Landscaping	Vegetation & Lawn	361

IV.A.25.2 Drainage Management Area Descriptions (Lot 25)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 25. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 157 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 361 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.25.3 Information Summary for Bioretention Facility Design (Lot 25)

See table above.

IVA.25.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	361

IV.A.25.5 Self-Retaining Areas

Not Applicable

IV.A.25.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.25.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 25

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 25		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.26 Drainage Management Area (Lot 26)

IV.A.26.1 Table of Drainage Management Areas (Lot 26)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	158
Landscaping	Vegetation & Lawn	360

IV.A.26.2 Drainage Management Area Descriptions (Lot 26)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 26. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 158 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 360 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.26.3 Information Summary for Bioretention Facility Design (Lot 26)

See table above.

IVA.26.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	360

IV.A.26.5 Self-Retaining Areas

Not Applicable

IV.A.26.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.26.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 26

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 26		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.27 Drainage Management Area (Lot 27)

IV.A.27.1 Table of Drainage Management Areas (Lot 27)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690

Driveway	Impervious Driveway	154
Landscaping	Vegetation & Lawn	364

IV.A.27.2 Drainage Management Area Descriptions (Lot 27)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 27. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 364 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.27.3 Information Summary for Bioretention Facility Design (Lot 17)

See table above.

IVA.27.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	364

IV.A.27.5 Self-Retaining Areas

Not Applicable

IV.A.27.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.27.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 27

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 27		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.28 Drainage Management Area (Lot 28)

IV.A.28.1 Table of Drainage Management Areas (Lot 28)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690
Driveway	Impervious Driveway	154
Landscaping	Vegetation & Lawn	364

IV.A.28.2 Drainage Management Area Descriptions (Lot 28)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 28. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 364 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.28.3 Information Summary for Bioretention Facility Design (Lot 28)

See table above.

IVA.28.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	364

IV.A.28.5 Self-Retaining Areas

Not Applicable

IV.A.28.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.28.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 28

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 28		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.29 Drainage Management Area (Lot 29)

IV.A.29.1 Table of Drainage Management Areas (Lot 29)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	704
Driveway	Impervious Driveway	155
Landscaping	Vegetation & Lawn	345

IV.A.29.2 Drainage Management Area Descriptions (Lot 29)

DMA Roof totaling 704 square feet, drains new building roof to Bioretention Area 29. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 155 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 345 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.29.3 Information Summary for Bioretention Facility Design (Lot 29)

See table above.

IVA.29.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	345

IV.A.29.5 Self-Retaining Areas

Not Applicable

IV.A.29.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.29.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 29

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 29		
Roof	704	Roofs	1.0	704	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				704	0.04	28.2	40.0

IV.A.30 Drainage Management Area (Lot 30)

IV.A.30.1 Table of Drainage Management Areas (Lot 30)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	690

Driveway	Impervious Driveway	205
Landscaping	Vegetation & Lawn	229

IV.A.30.2 Drainage Management Area Descriptions (Lot 30)

DMA Roof totaling 690 square feet, drains new building roof to Bioretention Area 30. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 205 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 229 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.30.3 Information Summary for Bioretention Facility Design (Lot 30)

See table above.

IVA.30.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	229

IV.A.30.5 Self-Retaining Areas

Not Applicable

IV.A.30.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.30.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 30

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 30		
Roof	690	Roofs	1.0	690	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				690	0.04	27.6	40.0

IV.A.31 Drainage Management Area (Lot 31)

IV.A.31.1 Table of Drainage Management Areas (Lot 31)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	712
Driveway	Impervious Driveway	160
Landscaping	Vegetation & Lawn	133

IV.A.31.2 Drainage Management Area Descriptions (Lot 31)

DMA Roof totaling 712 square feet, drains new building roof to Bioretention Area 31. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 160 square feet, drains driveway surface to Deer Park Avenue and ultimately to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 133 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Deer Park Avenue where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.31.3 Information Summary for Bioretention Facility Design (Lot 31)

See table above.

IVA.31.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)

Landscaping	133

IV.A.31.5 Self-Retaining Areas

Not Applicable

IV.A.31.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.31.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 31

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 31		
Roof	712	Roofs	1.0	712	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				712	0.04	28.5	40.0

IV.A.32 Drainage Management Area (Lot 32)

IV.A.32.1 Table of Drainage Management Areas (Lot 32)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	562
Driveway	Impervious Driveway	455
Landscaping	Vegetation & Lawn	7,465

IV.A.32.2 Drainage Management Area Descriptions (Lot 32)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 32. Runoff will enter the facility through new roof drains.

DMA Patio totaling 562 square feet, drains new building patio to Bioretention Area 32. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 455 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 7,465 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

IV.A.32.3 Information Summary for Bioretention Facility Design (Lot 32)

See table above.

IVA.32.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	47,465

IV.A.32.5 Self-Retaining Areas

Not Applicable

IV.A.32.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.32.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 32

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 32		
Roof	2,728	Roofs	1.0	2,728			
Patio	562	Impervious	1.0	562	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,290	0.04	131.6	150

IV.A.33 Drainage Management Area (Lot 33)

IV.A.33.1 Table of Drainage Management Areas (Lot 33)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	312
Landscaping	Vegetation & Lawn	4,091

IV.A.33.2 Drainage Management Area Descriptions (Lot 33)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 33. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 33. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 312 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,091 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

IV.A.33.3 Information Summary for Bioretention Facility Design (Lot 33)

See table above.

IVA.33.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,091

IV.A.33.5 Self-Retaining Areas

Not Applicable

IV.A.33.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.33.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 33

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 33		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.34 Drainage Management Area (Lot 34)

IV.A.34.1 Table of Drainage Management Areas (Lot 34)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	313
Landscaping	Vegetation & Lawn	4,019

IV.A.34.2 Drainage Management Area Descriptions (Lot 34)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 34. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 34. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 313 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,170 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way through new storm drain inlets where it is treated at Bioretention Area E and will be captured, treated, and channeled through the existing creek.

IV.A.34.3 Information Summary for Bioretention Facility Design (Lot 34)

See table above.

IVA.34.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,019

IV.A.34.5 Self-Retaining Areas

Not Applicable

IV.A.34.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.34.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 34

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 34		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.35 Drainage Management Area (Lot 35)

IV.A.35.1 Table of Drainage Management Areas (Lot 35)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	312
Landscaping	Vegetation & Lawn	4,020

IV.A.35.2 Drainage Management Area Descriptions (Lot 35)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 35. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 35. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 312 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,020 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.35.3 Information Summary for Bioretention Facility Design (Lot 35)

See table above.

IVA.35.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,020

IV.A.35.5 Self-Retaining Areas

Not Applicable

IV.A.35.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.35.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 35

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 35		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.36 Drainage Management Area (Lot 36)

IV.A.36.1 Table of Drainage Management Areas (Lot 36)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	312
Landscaping	Vegetation & Lawn	4,020

IV.A.36.2 Drainage Management Area Descriptions (Lot 36)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 36. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 36. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 312 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,020 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.36.3 Information Summary for Bioretention Facility Design (Lot 36)

See table above.

IVA.36.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,020

IV.A.36.5 Self-Retaining Areas

Not Applicable

IV.A.36.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.36.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 36

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 36		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.37 Drainage Management Area (Lot 37)

IV.A.37.1 Table of Drainage Management Areas (Lot 37)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)

Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	312
Landscaping	Vegetation & Lawn	4,020

IV.A.37.2 Drainage Management Area Descriptions (Lot 37)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 37. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 37. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 312 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,170 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.37.3 Information Summary for Bioretention Facility Design (Lot 37)

See table above.

IVA.37.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,1020

IV.A.37.5 Self-Retaining Areas

Not Applicable

IV.A.37.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.37.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 37

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 37		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.38 Drainage Management Area (Lot 38)

IV.A.38.1 Table of Drainage Management Areas (Lot 38)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	440
Driveway	Impervious Driveway	312
Landscaping	Vegetation & Lawn	4,170

IV.A.38.2 Drainage Management Area Descriptions (Lot 38)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 38. Runoff will enter the facility through new roof drains.

DMA Patio totaling 440 square feet, drains new building patio to Bioretention Area 38. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 312 square feet, drains driveway surface to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,170 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Lucca Way through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.38.3 Information Summary for Bioretention Facility Design (Lot 38)

See table above.

IVA.38.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,170

IV.A.38.5 Self-Retaining Areas

Not Applicable

IV.A.38.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.38.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 38

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 38		
Roof	2,728	Roofs	1.0	2,728			
Patio	440	Impervious	1.0	440	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,168	0.04	126.7	150.0

IV.A.39 Drainage Management Area (Lot 39)

IV.A.39.1 Table of Drainage Management Areas (Lot 39)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728

Patio	Impervious Patio	280
Driveway	Impervious Driveway	332
Landscaping	Vegetation & Lawn	5,960

IV.A.39.2 Drainage Management Area Descriptions (Lot 39)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 39. Runoff will enter the facility through new roof drains.

DMA Patio totaling 280 square feet, drains new building patio to Bioretention Area 39. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 332 square feet, drains new driveway surface Jake Court. Runoff will enter the facility through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 5,960 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Jake Court through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.39.3 Information Summary for Bioretention Facility Design (Lot 39)

See table above.

IVA.39.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	5,960

IV.A.39.5 Self-Retaining Areas

Not Applicable

IV.A.39.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.39.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 39

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 39		
Roof	2,728	Roofs	1.0	2,728			
Patio	280	Impervious	1.0	280	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,008	0.04	120.3	150.0

IV.A.40 Drainage Management Area (Lot 40)

IV.A.40.1 Table of Drainage Management Areas (Lot 40)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,728
Patio	Impervious Patio	280
Driveway	Impervious Driveway	444
Landscaping	Vegetation & Lawn	4,050

IV.A.40.2 Drainage Management Area Descriptions (Lot 40)

DMA Roof totaling 2,728 square feet, drains new building roof to Bioretention Area 40. Runoff will enter the facility through new roof drains.

DMA Patio totaling 280 square feet, drains new building patio to Bioretention Area 40. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 444 square feet, drains new driveway surface Jake Court. Runoff will enter the facility through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

DMA Landscaping totaling 4,050 square feet, drains to existing natural hillside. The hillside area does not require treatment and drains to Jake Court through new storm drain inlets where it is treated at Bioretention Area B and will be captured, treated, and channeled through the existing creek.

IV.A.40.3 Information Summary for Bioretention Facility Design (Lot 40)

See table above.

IVA.40.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,050

IV.A.40.5 Self-Retaining Areas

Not Applicable

IV.A.40.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.40.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 40

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 40		
Roof	2,728	Roofs	1.0	2,728			
Patio	280	Impervious	1.0	280	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,008	0.04	120.3	150.0

IV.A.41 Drainage Management Area (Lot 41)

IV.A.41.1 Table of Drainage Management Areas (Lot 41)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,715

Driveway	Impervious Driveway	132
Stairs	Impervious Stairs	194
Landscaping	Vegetation & Lawn	4,092

IV.A.41.2 Drainage Management Area Descriptions (Lot 41)

DMA Roof totaling 2,715 square feet, drains new building roof to Bioretention Area 41. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 132 square feet, drains driveway surface to Bioretention Area 41. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 194 square feet, drains stairs to Bioretention Area 41. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 4,092 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.41.3 Information Summary for Bioretention Facility Design (Lot 41)

See table above.

IVA.41.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,092

IV.A.41.5 Self-Retaining Areas

Not Applicable

IV.A.41.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.41.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 41

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 41		
Roof	2,715	Roofs	1.0	2,715			
Driveway	132	Asphalt	1.0	132			
Stairs	194	Impervious	1.0	194	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,041	0.04	121.6	150.0

IV.A.42 Drainage Management Area (Lot 42)

IV.A.42.1 Table of Drainage Management Areas (Lot 42)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,715
Driveway	Impervious Driveway	174
Stairs	Impervious Stairs	194
Landscaping	Vegetation & Lawn	4,972

IV.A.42.2 Drainage Management Area Descriptions (Lot 42)

DMA Roof totaling 2,715 square feet, drains new building roof to Bioretention Area 42. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 174 square feet, drains driveway to Bioretention Area 42. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 194 square feet, drains stairs surface to Bioretention Area 42. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 4,972 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.42.3 Information Summary for Bioretention Facility Design (Lot 42)

See table above.

IVA.42.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,972

IV.A.42.5 Self-Retaining Areas

Not Applicable

IV.A.42.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.42.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 42

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name: Bioretention Area 42		
					Sizing factor	Minimum Facility Size	Proposed Facility Size
Roof	2,715	Roofs	1.0	2,715			
Driveway	174	Asphalt	1.0	174			
Stairs	194	Impervious	1.0	194			
Total>				3,083	0.04	123.3	150.0

IV.A.43 Drainage Management Area (Lot 43)

IV.A.43.1 Table of Drainage Management Areas (Lot 43)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,715

Driveway	Impervious Driveway	131
Stairs	Impervious Stairs	194
Landscaping	Vegetation & Lawn	5,149

IV.A.43.2 Drainage Management Area Descriptions (Lot 43)

DMA Roof totaling 2,715 square feet, drains new building roof to Bioretention Area 43. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 132 square feet, drains driveway surface to Bioretention Area 43. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 194 square feet, drains stairs to Bioretention Area 43. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 5,149 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.43.3 Information Summary for Bioretention Facility Design (Lot 43)

See table above.

IVA.43.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	5,149

IV.A.43.5 Self-Retaining Areas

Not Applicable

IV.A.43.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.43.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 43

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 43		
Roof	2,715	Roofs	1.0	2,715			
Driveway	131	Asphalt	1.0	131			
Stairs	194	Impervious	1.0	194	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,040	0.04	121.6	150.0

IV.A.44 Drainage Management Area (Lot 44)

IV.A.44.1 Table of Drainage Management Areas (Lot 44)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	2,715
Driveway	Impervious Driveway	151
Stairs	Impervious Stairs	194
Landscaping	Vegetation & Lawn	4,677

IV.A.44.2 Drainage Management Area Descriptions (Lot 44)

DMA Roof totaling 2,715 square feet, drains new building roof to Bioretention Area 44. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 151 square feet, drains driveway surface to Bioretention Area 44. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 194 square feet, drains stairs to Bioretention Area 44. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 4,677 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.44.3 Information Summary for Bioretention Facility Design (Lot 44)

See table above.

IVA.44.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,677

IV.A.44.5 Self-Retaining Areas

Not Applicable

IV.A.44.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.44.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 44

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 44		
Roof	2,715	Roofs	1.0	2,715			
Driveway	151	Asphalt	1.0	151			
Stairs	194	Impervious	1.0	194	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,060	0.04	122.4	150.0

IV.A.45 Drainage Management Area (Lot 45)

IV.A.45.1 Table of Drainage Management Areas (Lot 45)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,768

Patio	Impervious Patio	154
Stairs	Impervious Stairs	118
Landscaping	Vegetation & Lawn	1,469

IV.A.45.2 Drainage Management Area Descriptions (Lot 45)

DMA Roof totaling 1,768 square feet, drains new building roof to Bioretention Area 45/46. Runoff will enter the facility through new roof drains.

DMA Patio totaling 154 square feet, drains new building patio to Bioretention Area 45/46. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 118 square feet, drains stairs to Bioretention Area 45/46. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 1,469 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.45.3 Information Summary for Bioretention Facility Design (Lot 45)

See table above.

IVA.45.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	1,469

IV.A.45.5 Self-Retaining Areas

Not Applicable

IV.A.45.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.45.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 45/46

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 45/46		
Roof	1,768	Roofs	1.0	1,768			
Patio	154	Impervious	1.0	154			
Stairs	118	Impervious	1.0	118	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,040	0.04	81.6	180.0

IV.A.46 Drainage Management Area (Lot 46)

IV.A.46.1 Table of Drainage Management Areas (Lot 46)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,831
Patio	Impervious Driveway	154
Driveway	Impervious Driveway	42
Stairs	Impervious Stairs	127
Landscaping	Vegetation & Lawn	2,664

IV.A.46.2 Drainage Management Area Descriptions (Lot 46)

DMA Roof totaling 1,831 square feet, drains new building roof to Bioretention Area 45/46. Runoff will enter the facility through new roof drains.

DMA Patio totaling 154 square feet, drains new building patio to Bioretention Area 45/46. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 42 square feet, drains driveway surface to Bioretention Area 45/46. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 127 square feet, drains stairs to Bioretention Area 45/46. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 2,664 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.46.3 Information Summary for Bioretention Facility Design (Lot 46)

See table above.

IVA.46.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	2,664

IV.A.46.5 Self-Retaining Areas

Not Applicable

IV.A.46.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.46.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 45/46

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 45/46		
Roof	1,831	Roofs	1.0	1,831			
Patio	154	Impervious	1.0	154			
Driveway	42	Asphalt	1.0	42			
Stairs	127	Impervious	1.0	127	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,154	0.04	86.2	180.0

IV.A.47 Drainage Management Area (Lot 47)

IV.A.47.1 Table of Drainage Management Areas (Lot 47)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,768
Driveway	Impervious Driveway	154
Stairs	Impervious Stairs	94
Landscaping	Vegetation & Lawn	1,328

IV.A.47.2 Drainage Management Area Descriptions (Lot 47)

DMA Roof totaling 1,768 square feet, drains new building roof to Bioretention Area 47/48. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Bioretention Area 47/48. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 94 square feet, drains stairs to Bioretention Area 47/48. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 1,328 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.47.3 Information Summary for Bioretention Facility Design (Lot 47)

See table above.

IVA.47.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	1,328

IV.A.47.5 Self-Retaining Areas

Not Applicable

IV.A.47.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.47.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 47/48

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 47/48		
Roof	1,768	Roofs	1.0	1,768			
Driveway	154	Asphalt	1.0	154			
Stairs	94	Impervious	1.0	94	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,016	0.04	80.6	180.0

IV.A.48 Drainage Management Area (Lot 48)

IV.A.48.1 Table of Drainage Management Areas (Lot 48)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,831
Patio	Impervious Patio	154
Driveway	Impervious Driveway	42
Stairs	Impervious Stairs	94
Landscaping	Vegetation & Lawn	1,308

IV.A.48.2 Drainage Management Area Descriptions (Lot 48)

DMA Roof totaling 1,831 square feet, drains new building roof to Bioretention Area 47/48. Runoff will enter the facility through new roof drains.

DMA Patio totaling 154 square feet, drains new building patio to Bioretention Area 47/48. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 42 square feet, drains driveway surface to Bioretention Area 47/48. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 94 square feet, drains stairs to Bioretention Area 47/48. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 1,308 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.48.3 Information Summary for Bioretention Facility Design (Lot 48)

See table above.

IVA.48.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	1,308

IV.A.48.5 Self-Retaining Areas

Not Applicable

IV.A.48.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.48.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 47/48

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 47/48		
Roof	1,831	Roofs	1.0	1,831			
Patio	154	Impervious	1.0	154			
Driveway	94	Asphalt	1.0	94			
Stairs	42	Impervious	1.0	42	Sizing factor	Minimum Facility Size	Proposed Facility Size

Total>	2,121	0.04	84.8	180.0

IV.A.49 Drainage Management Area (Lot 49)

IV.A.49.1 Table of Drainage Management Areas (Lot 49)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,806
Driveway	Impervious Driveway	154
Stairs	Impervious Stairs	94
Landscaping	Vegetation & Lawn	2,209

IV.A.49.2 Drainage Management Area Descriptions (Lot 49)

DMA Roof totaling 1,806 square feet, drains new building roof to Bioretention Area 49/50. Runoff will enter the facility through new roof drains.

DMA Driveway totaling 154 square feet, drains driveway surface to Bioretention Area 49/50. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 94 square feet, drains stairs to Bioretention Area 49/50. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 2,209 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.49.3 Information Summary for Bioretention Facility Design (Lot 49)

See table above.

IVA.49.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	2,209

IV.A.49.5 Self-Retaining Areas

Not Applicable

IV.A.49.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.49.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 49/50

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 49/50		
Roof	1,806	Roofs	1.0	1,806			
Driveway	154	Asphalt	1.0	154			
Stairs	94	Impervious	1.0	94	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,054	0.04	82.2	180.0

IV.A.50 Drainage Management Area (Lot 50)

IV.A.50.1 Table of Drainage Management Areas (Lot 50)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Roof	Building Roof	1,830
Patio	Impervious Patio	154
Driveway	Impervious Driveway	139
Stairs	Impervious Stairs	94
Landscaping	Vegetation & Lawn	4,196

IV.A.50.2 Drainage Management Area Descriptions (Lot 50)

DMA Roof totaling 1,830 square feet, drains new building roof to Bioretention Area 49/50. Runoff will enter the facility through new roof drains.

DMA Patio totaling 154 square feet, drains new building patio to Bioretention Area 49/50. Runoff will enter the facility through new storm drain inlets.

DMA Driveway totaling 139 square feet, drains driveway surface to Bioretention Area 49/50. Runoff will enter the facility through new storm drain inlets.

DMA Stairs totaling 94 square feet, drains stairs to Bioretention Area 49/50. Runoff will enter the facility through new storm drain inlets.

DMA Landscaping totaling 4,196 square feet, drains to existing natural hillside. The hillside area does not require treatment and ultimately discharges to the existing creek.

IV.A.50.3 Information Summary for Bioretention Facility Design (Lot 50)

See table above.

IVA.50.4 Self-Treating Areas

Table 2. Self-Treating Areas

DMA Name	Area (square feet)
Landscaping	4,196

IV.A.50.5 Self-Retaining Areas

Not Applicable

IV.A.50.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.50.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area 49/50

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area 49/50		
Roof	1,830	Roofs	1.0	1,830	Sizing factor	Minimum Facility Size	Proposed Facility Size
Patio	154	Impervious	1.0	154			
Driveway	139	Asphalt	1.0	139			

Stairs	94	Impervious	1.0	94			
Total>				2,217	0.04	88.7	180.0

IV.A.B Drainage Management Area (Lot B)

IV.A.B.1 Table of Drainage Management Areas (Lot B)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	18,306

IV.A.F.2 Drainage Management Area Descriptions (Lot B)

DMA Road totaling 18,306 square feet, drains new driveways from Lots 6 through 9 & Jake Court to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

IV.A.B.3 Information Summary for Bioretention Facility Design (Lot B)

See table above.

IVA.B.4 Self-Treating Areas

Not Applicable

IV.A.B.5 Self-Retaining Areas

Not Applicable

IV.A.B.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.B.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
Road	18,306	Asphalt	1.0	18,306	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				18,306	0.04	732.2	2,500

IV.A.C1 Drainage Management Area (Lot C1)

IV.A.C1.1 Table of Drainage Management Areas (Lot C1)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	8,806

IV.A.C1.2 Drainage Management Area Descriptions (Lot C1)

DMA Road totaling 8,806 square feet, drains new driveways from Lots 35 through 38 & Lucca Way to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

IV.A.C1.3 Information Summary for Bioretention Facility Design (Lot C1)

See table above.

IVA.C1.4 Self-Treating Areas

Not Applicable

IV.A.C1.5 Self-Retaining Areas

Not Applicable

IV.A.C1.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.C1.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
					Sizing factor	Minimum Facility Size	Proposed Facility Size
Road	8,806	Asphalt	1.0	8,806			
Total>				8,806	0.04	352.2	2,500

IV.A.C2 Drainage Management Area (Lot C2)

IV.A.C2.1 Table of Drainage Management Areas (Lot C2)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	3,528

IV.A.C2.2 Drainage Management Area Descriptions (Lot C2)

DMA Road totaling 3,528 square feet, drains new driveways from Lots 32 through 34 & Lucca Way to Bioretention Area E. Runoff will enter the facility through new storm drain inlets.

IV.A.C2.3 Information Summary for Bioretention Facility Design (Lot C2)

See table above.

IVA.C2.4 Self-Treating Areas

Not Applicable

IV.A.C2.5 Self-Retaining Areas

Not Applicable

IV.A.C2.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.C2.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area E

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area E		
Road	3,528	Asphalt	1.0	3,528	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,528	0.04	141.1	250

IV.A.C3 Drainage Management Area (Lot C3)

IV.A.C3.1 Table of Drainage Management Areas (Lot C3)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	1,960

IV.A.C3.2 Drainage Management Area Descriptions (Lot C3)

DMA Road totaling 1,960 square feet, drains Lucca Way to Bioretention Area E. Runoff will enter the facility through new storm drain inlets.

IV.A.C3.3 Information Summary for Bioretention Facility Design (Lot C3)

See table above.

IVA.C3.4 Self-Treating Areas

Not Applicable

IV.A.C3.5 Self-Retaining Areas

Not Applicable

IV.A.C3.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.C3.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area E

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area E		
Road	1,960	Asphalt	1.0	1,960	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				1,960	0.04	78.4	250

IV.A.E Drainage Management Area (Lot E)

IV.A.E.1 Table of Drainage Management Areas (Lot E)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Landscaping	Pervious	2,119

IV.A.E.2 Drainage Management Area Descriptions (Lot E)

DMA Landscaping totaling 2,119 square feet, drains to Deer Park Avenue. Runoff will enter the facility through new storm drain inlets.

IV.A.E.3 Information Summary for Bioretention Facility Design (Lot E)

See table above.

IVA.E.4 Self-Treating Areas

Not Applicable

IV.A.E.5 Self-Retaining Areas

Not Applicable

IV.A.E.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.E.7 Areas Draining to Bioretention Facilities

Not Applicable

IV.A.F1 Drainage Management Area (Lot F1)

IV.A.F1.1 Table of Drainage Management Areas (Lot F1)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	20,217

IV.A.F1.2 Drainage Management Area Descriptions (Lot F1)

DMA Road totaling 20,217 square feet, drains new driveways from Lots 1 through 5 & Gold Hill Grade to Bioretention Area F. Runoff will enter the facility through new storm drain inlets.

IV.A.F1.3 Information Summary for Bioretention Facility Design (Lot F1)

See table above.

IVA.F1.4 Self-Treating Areas

Not Applicable

IV.A.F1.5 Self-Retaining Areas

Not Applicable

IV.A.F1.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.F1.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area F

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area F		
Road	20,217	Asphalt	1.0	20,217	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				20,217	0.04	808.7	900.0

IV.A.F2 Drainage Management Area (Lot F2)

IV.A.F2.1 Table of Drainage Management Areas (Lot F2)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	3,465

IV.A.F2.2 Drainage Management Area Descriptions (Lot F2)

DMA Road totaling 3,465 square feet, drains Gold Hill Grade & Deer Park Avenue to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

IV.A.F2.3 Information Summary for Bioretention Facility Design (Lot F2)

See table above.

IVA.F2.4 Self-Treating Areas

Not Applicable

IV.A.F2.5 Self-Retaining Areas

Not Applicable

IV.A.F2.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.F2.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
Road	3,465	Asphalt	1.0	3,465	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				3,465	0.04	138.6	2,500.0

IV.A.F3 Drainage Management Area (Lot F3)

IV.A.F3.1 Table of Drainage Management Areas (Lot F3)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	13,547

IV.A.F3.2 Drainage Management Area Descriptions (Lot F3)

DMA Road totaling 13,547 square feet, drains Deer Park Avenue to Bioretention Area B. Runoff will enter the facility through new storm drain inlets.

IV.A.F3.3 Information Summary for Bioretention Facility Design (Lot F3)

See table above.

IVA.F3.4 Self-Treating Areas

Not Applicable

IV.A.F3.5 Self-Retaining Areas

Not Applicable

IV.A.F3.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.F3.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area B

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area B		
Road	13,547	Asphalt	1.0	13,547	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				13,547	0.04	541.9	2,500.0

IV.A.G1 Drainage Management Area (Lot G1)

IV.A.G1.1 Table of Drainage Management Areas (Lot G1)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	9,435

IV.A.G1.2 Drainage Management Area Descriptions (Lot G1)

DMA Road totaling 9,435 square feet, drains Margarita Drive to Bioretention Area G. Runoff will enter the facility through new storm drain inlets.

IV.A.G1.3 Information Summary for Bioretention Facility Design (Lot G1)

See table above.

IVA.G1.4 Self-Treating Areas

Not Applicable

IV.A.G1.5 Self-Retaining Areas

Not Applicable

IV.A.G1.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.G1.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area G1

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area G1		
Road	9,435	Asphalt	1.0	9,435	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				9,435	0.04	377.4	700.0

IV.A.G3 Drainage Management Area (Lot G3)

IV.A.G3.1 Table of Drainage Management Areas (Lot G3)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	6,877

IV.A.G3.2 Drainage Management Area Descriptions (Lot G3)

DMA Road totaling 6,877 square feet, drains Marcia Lane to Bioretention Area G1. Runoff will enter the facility through new storm drain inlets.

IV.A.G3.3 Information Summary for Bioretention Facility Design (Lot G3)

See table above.

IVA.G3.4 Self-Treating Areas

Not Applicable

IV.A.G3.5 Self-Retaining Areas

Not Applicable

IV.A.G3.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.G3.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area G1

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area G1		
Road	6,877	Asphalt	1.0	6,877	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				6,877	0.04	377.4	700.0

IV.A.G4 Drainage Management Area (Lot G4)

IV.A.G4.1 Table of Drainage Management Areas (Lot G4)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	2,324

IV.A.G4.2 Drainage Management Area Descriptions (Lot G4)

DMA Road totaling 2,324 square feet, drains Marcia Lane to Bioretention Area G2. Runoff will enter the facility through new storm drain inlets.

IV.A.G4.3 Information Summary for Bioretention Facility Design (Lot G4)

See table above.

IVA.G4.4 Self-Treating Areas

Not Applicable

IV.A.G4.5 Self-Retaining Areas

Not Applicable

IV.A.G4.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.G4.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area G2

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area G2		
Road	2,324	Asphalt	1.0	2,324	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,324	0.04	93.0	250.0

IV.A.G5 Drainage Management Area (Lot G5)

IV.A.G5.1 Table of Drainage Management Areas (Lot G5)

Table 1. Drainage Management Area

DMA Name	Surface Type	Area (square feet)
Road	Asphalt	2,704

IV.A.G5.2 Drainage Management Area Descriptions (Lot G5)

DMA Road totaling 2,704 square feet, drains Marcia Lane to Bioretention Area G2. Runoff will enter the facility through new storm drain inlets.

IV.A.G5.3 Information Summary for Bioretention Facility Design (Lot G5)

See table above.

IVA.G5.4 Self-Treating Areas

Not Applicable

IV.A.G5.5 Self-Retaining Areas

Not Applicable

IV.A.G5.6 Areas Draining to Self-Retaining Areas

Not Applicable

IV.A.G5.7 Areas Draining to Bioretention Facilities

Table 3. Area Draining to Bioretention Area G2

DMA Name	DMA Area (square feet)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	Facility Name		
					Bioretention Area G2		
Road	2,704	Asphalt	1.0	2,704	Sizing factor	Minimum Facility Size	Proposed Facility Size
Total>				2,704	0.04	108.2	250.0

V. Source Control Measures

V.A. Site activities and potential sources of pollutants

Onsite activities that could potentially produce stormwater pollutants are as follows:

- Driveways and Access Paths
- On-site Storm Drain Inlets,
- Interior floor drains
- Landscape/Outdoor Pesticide Use/Building Grounds Maintenance

As this is a proposed regulated project concerning the development of a subdivision property, the source control table will reflect potential sources of pollutants common to any single-family residential unit. There are 50 residential lots in the project and their potential sources of pollutants are as follows: On-site Storm Drain Inlets, Interior floor drains, Landscape/Outdoor Pesticide Use/Building and Grounds Maintenance and Miscellaneous Drains.

V.B. Source Control Table

Table: Sources and Source Control Measures

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
Driveways and Access Paths	Mark all inlets with the words, "No Dumping! Flows to Bay" or similar.	• Trash receptacles to be provided and emptied weekly.

		• Sidewalk will be swept regularly. • Debris and wash water from periodic pressure washing will be collected and disposed of to the sanitary sewer.
On-site storm drain inlets (unauthorized non-stormwater discharges and accidental spills or leaks)	Mark all inlets with the words, "No Dumping! Flows to Bay" or similar	Inspect and maintain drains to prevent blockages and overflow.
Interior floor drains	State that interior floor drains will be plumbed to sanitary sewer.	Inspect and maintain drains to prevent blockages and overflow.
Landscape/Outdoor Pesticide Use/Building and Grounds Maintenance	• Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers, and pesticides that can contribute to stormwater pollution. • Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. • To ensure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	• Maintain landscaping using minimum or no pesticides. • Provide Integrated Pest Management (IPM) information to operators.

V.C. Features, Materials, and Methods of Construction of Source Control BMPs

"Drains to the Bay" detail added.

VI. Stormwater Facility Maintenance

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

For ownership and maintenance responsibilities and obligations of the facilities will be decided in the final plan preparation.

VI.B. Summary of Maintenance Requirements for Each Stormwater Facility

The bioretention facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in a Stormwater Facility Operation and Maintenance Plan to be submitted for approval prior to the completion of construction.

At no time will synthetic pesticides or fertilizers be applied, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed.

After Significant Rain Events: A significant rain event is one that produces approximately a half-inch or more rainfall in a 24-hour period. Within 24 hour after each such event, the following will be conducted:

The surface of the facility will be observed to confirm there is no ponding.

- Inlets will be inspected, and any accumulations of trash or debris will be removed.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth if needed.

Prior to the Start of the Rainy Season: In September or each year, the facility will be inspected to confirm there is no accumulation of debris that would block flow, and that growth and spread of plantings does not block inlets or the movement of runoff across the surface of the facility.

Annual Landscape Maintenance: In December – February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the 6-inch reservoir depth.

VII. Construction Checklist

Stormwater Control Plan Page #	Source Control or Treatment Control Measure	See Plan Sheet #s
1 & 2	DMA's 15-22, 23-31, 32-38, and C2 & C3 drain to Bioretention Facilities #15-38 & #E; facility is designed as specified.	C7.0 & C7.1

1 & 3	DMA's 6-11, 12-14, 39-40, and B & C1 drain to Bioretention Facilities #6-11, 39-40, & #B; facility is designed as specified.	C7.0 & C7.2
1 & 4	DMA's 1-5 & #F1 drain to Bioretention Facilities #1-5 & #F; facility is designed as specified.	C7.0 & C7.3
1 & 5	DMA's 41-50 & G1-G5 drain to Bioretention Facilities #41-50, #G1, & #G2; facility is designed as specified.	C7.0 & C7.4
7	Trash receptacles to be located at time of construction.	

VIII. Certifications

The preliminary design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the BASMAA *Post-Construction Manual*.