County of San Diego
PRIORITY DEVELOPMENT PROJECT (PDP) SWQMP

LEMON CREST DRIVE SUBDIVISION
TM 5582

LAKESIDE, CA 92040

ASSESSOR'S PARCEL NUMBER(S):
394-290-28

ENGINEER OF WORK:

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PREPARED FOR:

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DATE OF SWQMP:
May 16, 2019

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SWQMP APPROVED BY:

APPROVAL DATE:

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Attachments

Attachment 1: Backup for PDP Pollutant Control BMPs
- Attachment 1a: Storm Water Pollutant Control Worksheet Calculations
- Attachment 1b: DMA Exhibit
- Attachment 1c: Individual Structural BMP DMA Mapbook

Attachment 2: Backup for PDP Hydromodification Control Measures
- Attachment 2a: Flow Control Facility Design
- Attachment 2b: Hydromodification Management Exhibit
- Attachment 2c: Management of Critical Coarse Sediment Yield Areas
- Attachment 2d: Geomorphic Assessment of Receiving Channels (optional)
- Attachment 2e: Vector Control Plan (if applicable)

Attachment 3: Structural BMP Maintenance Plan
- Attachment 3a: Structural BMP Maintenance Thresholds and Actions
- Attachment 3b: Draft Maintenance Agreements / Notifications(when applicable)

Attachment 4: County of San Diego PDP Structural BMP Verification for DPW Permitted Land Development Projects

Attachment 5: Copy of Plan Sheets Showing Permanent Storm Water BMPs

Attachment 6: Copy of Project's Drainage Report

Attachment 7: Copy of Project's Geotechnical and Groundwater Investigation Report

Acronyms

ACP	Alternative Compliance Project
APN	Assessor's Parcel Number
BMP	Best Management Practice
BMP DM	Best Management Practice Design Manual
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NRCS	Natural Resources Conservation Service
PDCI	Private Development Construction Inspection Section
PDP	Priority Development Project
PDS	Planning and Development Services
PE	Professional Engineer
RPO	Resource Protection Ordinance
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
SWQMP	Storm Water Quality Management Plan
WMAA	Watershed Management Area Analysis
WPO	Watershed Protection Ordinance
WQIP	Water Quality Improvement Plan

PDP SWQMP Preparer's Certification Page

Project Name: LEMON CREST DRIVE SUBDIVISION]
Permit Application Number:

PREPARER'S CERTIFICATION

I hereby declare that I am the Engineer in Responsible Charge of design of storm water best management practices (BMPs) for this project, and that I have exercised responsible charge over the design of the BMPs as defined in Section 6703 of the Business and Professions Code, and that the design is consistent with the PDP requirements of the County of San Diego BMP Design Manual, which is a design manual for compliance with local County of San Diego Watershed Protection Ordinance (Sections 67.801 et seq.) and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2013-0001 as amended by R9-2015-0001 and R9-2015-0100) requirements for storm water management.

I have read and understand that the County of San Diego has adopted minimum requirements for managing urban runoff, including storm water, from land development activities, as described in the BMP Design Manual. I certify that this PDP SWQMP has been completed to the best of my ability and accurately reflects the project being proposed and the applicable BMPs proposed to minimize the potentially negative impacts of this project's land development activities on water quality. I understand and acknowledge that the plan check review of this PDP SWQMP by County staff is confined to a review and does not relieve me, as the Engineer in Responsible Charge of design of storm water BMPs for this project, of my responsibilities for project design.

RCE 38709 Exp 3/31/19
Engineer of Work's Signature, PE Number & Expiration Date

S. Pat Rymer
Print Name

Rymer Engineering
Company

8/18/18
Date

Engineer's Seal:

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Submittal Record

Use this Table to keep a record of submittals of this PDP SWQMP. Each time the PDP SWQMP is re-submitted, provide the date and status of the project. In column 4 summarize the changes that have been made or indicate if response to plancheck comments is included. When applicable, insert response to plancheck comments behind this page.

Preliminary Design / Planning / CEQA

Submittal Number	Date	Summary of Changes
1	5/1/14	Initial Submittal
2		
3		
4		

Final Design

Submittal Number	Date	Summary of Changes
1	2/6/15	Initial Submittal
2	9/14/16	Corrections
3	5/5/17	Corrections
4	6/29/17	Corrections
5	8/18/18	Corrections

Plan Changes

Submittal Number	Date	Summary of Changes
1		Initial Submittal
2		
3		
4		

Project Vicinity Map

Project Name: Marilla Park Subdivision
Record ID:

[Insert Project Vicinity Map here]

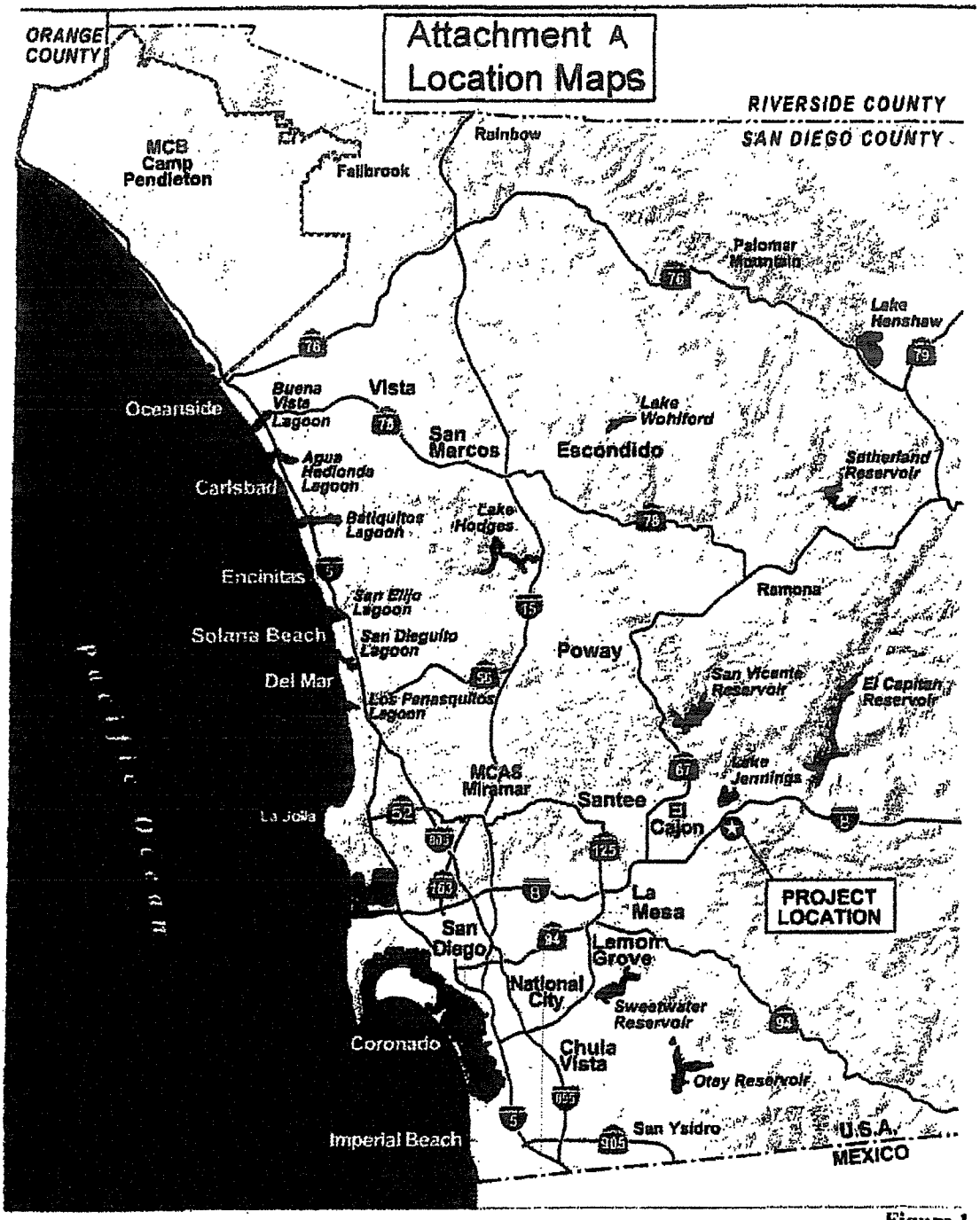
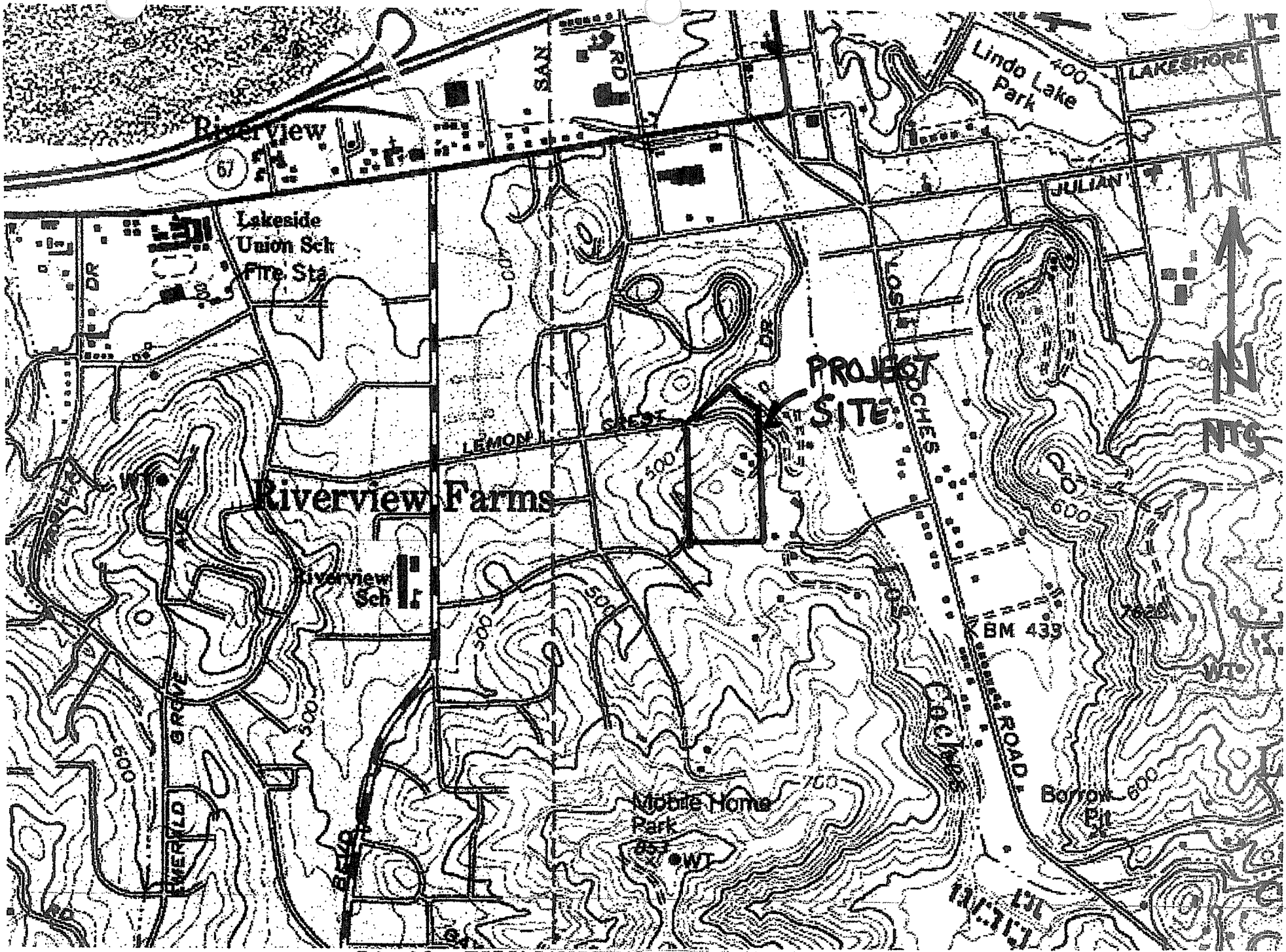


Figure 1
Regional Map



Step 1: Project type determination (Standard or Priority Development Project)

Is the project part of another Priority Development Project (PDP)? If so, a PDP SWQMP is required. Go to Step 2.			(☐ Yes ☒ No
The project is (select one): ☒ New Development ☐ Redevelopment[1]			
The total proposed newly created or replaced impervious area is:			130842 ft²
The total existing (pre-project) impervious area is:			3500 ft²
The total area disturbed by the project is:			696960 ft²
If the total area disturbed by the project is 1 acre (43,560 sq. ft.) or more OR the project is part of a larger common plan of development disturbing 1 acre or more, a Waste Discharger Identification (WDID) number must be obtained from the State Water Resources Control Board. WDID: ___			
Is the project in any of the following categories, (a) through (f)?[2]			
Yes ☒	No ☐	(a)	New development projects that create 10,000 square feet or more of impervious surfaces [3](collectively over the entire project site). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.
Yes ☐	No ☒	(b)	Redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site on an existing site of 10,000 square feet or more of impervious surfaces). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land.
Yes ☒	No ☐	(c)	New and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site), and support one or more of the following uses: (i) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (Standard Industrial Classification (SIC) code 5812). (ii) Hillside development projects. This category includes development on any natural slope that is twenty-five percent or greater. (iii) Parking lots. This category is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce. (iv) Streets, roads, highways, freeways, and driveways. This category is defined as any paved impervious surface used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

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1 Redevelopment is defined as: The creation and/or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Redevelopment does not include routine maintenance activities, such as trenching and resurfacing associated with utility work; pavement grinding; resurfacing existing roadways; new sidewalks construction; pedestrian ramps; or bike lanes on existing roads; and routine replacement of damaged pavement, such as pothole repair.

2 Applicants should note that any development project that will create and/or replace 10,000 square feet or more of impervious surface (collectively over the entire project site) is considered a new development.

3 For solar energy farm projects, the area of the solar panels does not count toward the total impervious area of the site.

Project type determination (continued)

Yes ☐	No ☒	(d)	New or redevelopment projects that create and/or replace 2,500 square feet or more of impervious surface (collectively over the entire project site), and discharging directly to an Environmentally Sensitive Area (ESA). "Discharging directly to" includes flow that is conveyed overland a distance of 200 feet or less from the project to the ESA, or conveyed in a pipe or open channel any distance as an isolated flow from the project to the ESA (i.e. not commingled with flows from adjacent lands). *Note: ESAs are areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Board and San Diego Water Board; State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Board and San Diego Water Board; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees. See BMP Design Manual Section 1.4.2 for additional guidance.*
Yes ☐	No ☒	(e)	New development projects, or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, that support one or more of the following uses: (i) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following SIC codes: 5013, 5014, 5541, 7532-7534, or 7536-7539. (ii) Retail gasoline outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.
Yes ☒	No ☐	(f)	New or redevelopment projects that result in the disturbance of one or more acres of land and are expected to generate pollutants post construction. *Note: See BMP Design Manual Section 1.4.2 for additional guidance.*

Does the project meet the definition of one or more of the Priority Development Project categories (a) through (f) listed above?

☐ No – the project is not a Priority Development Project (Standard Project).

☒ Yes – the project is a Priority Development Project (PDP).

Further guidance may be found in Chapter 1 and Table 1-2 of the BMP Design Manual.

The following is for **redevelopment PDPs only**:

The area of existing (pre-project) impervious area at the project site is: ft² (A)
The total proposed newly created or replaced impervious area is ft² (B)
Percent impervious surface created or replaced (B/A)*100: %
The percent impervious surface created or replaced is (select one based on the above calculation):

☐ less than or equal to fifty percent (50%) – **only newly created or replaced impervious areas are considered a PDP and subject to stormwater requirements**

OR

☐ greater than fifty percent (50%) – **the entire project site is considered a PDP and subject to stormwater requirements**

Step 1.1: Storm Water Quality Management Plan requirements

Step	Answer	Progression
Is the project a Standard Project, Priority Development Project (PDP), or exception to PDP definitions? To answer this item, complete Step 1 Project Type Determination Checklist on Pages 1 and 2, and see PDP exemption information below. For further guidance, see Section 1.4 of the BMP Design Manual *in its entirety.*	☐ Standard Project	Standard Project requirements apply, including Standard Project SWQMP. **Complete Standard Project SWQMP.**
	☒ PDP	Standard and PDP requirements apply, including PDP SWQMP. **Complete PDP SWQMP.**
	☐ PDP with ACP	If participating in offsite alternative compliance, **complete Step 6.3 and an ACP SWQMP.**
	☐ PDP Exemption	**Go to Step 1.2 below.**

Step 1.2: Exemption to PDP definitions

Is the project exempt from PDP definitions based on either of the following:	If so:
☐ Projects that are only new or retrofit paved sidewalks, bicycle lanes, or trails that meet the following criteria: (i) Designed and constructed to direct storm water runoff to adjacent vegetated areas, or other non-erodible permeable areas; OR (ii) Designed and constructed to be hydraulically disconnected from paved streets or roads [i.e., runoff from the new improvement does not drain directly onto paved streets or roads]; OR (iii) Designed and constructed with permeable pavements or surfaces in accordance with County of San Diego Guidance on Green Infrastructure;	Standard Project requirements apply, AND any additional requirements specific to the type of project. County concurrence with the exemption is required. *Provide discussion and list any additional requirements below in this form.* **Complete Standard Project SWQMP**
☐ Projects that are only retrofitting or redeveloping existing paved alleys, streets or roads that are designed and constructed in accordance with the County of San Diego Guidance on Green Infrastructure.	**Complete Green Streets PDP Exempt SWQMP.**

Discussion / justification, and additional requirements for exceptions to PDP definitions, if applicable:

Step 2: Construction Storm Water BMP Checklist

Minimum Required Standard Construction Storm Water BMPs		
If you answer "Yes" to any of the questions below, your project is subject to Table 1 on the following page (Minimum Required Standard Construction Stormwater BMPs). As noted in Table 1, please select at least the minimum number of required BMPs, or as many as are feasible for your project. If no BMP is selected, an explanation must be given in the box provided. The following questions are intended to aid in determining construction BMP requirements for your project. **Note: All selected BMPs below must be included on the BMP plan incorporated into the construction plan sets.**		
1. Will there be soil disturbing activities that will result in exposed soil areas? (This includes minor grading and trenching.) **Reference Table 1 Items A, B, D, and E** Note: Soil disturbances NOT considered significant include, but are not limited to, change in use, mechanical/electrical/plumbing activities, signs, temporary trailers, interior remodeling, and minor tenant improvement.	☒Yes	☐ No
2. Will there be asphalt paving, including patching? **Reference Table 1 Items D and F**	☒Yes	☐ No
3. Will there be slurries from mortar mixing, coring, or concrete saw cutting? **Reference Table 1 Items D and F**	☐ Yes	☒No
4. Will there be solid wastes from concrete demolition and removal, wall construction, or form work? **Reference Table 1 Items D and F**	☒Yes	☐ No
5. Will there be stockpiling (soil, compost, asphalt, concrete, solid waste) for over 24 hours? **Reference Table 1 Items D and F**	☒Yes	☐ No
6. Will there be dewatering operations? **Reference Table 1 Items C and D**	☐ Yes	☒No
7. Will there be temporary on-site storage of construction materials, including mortar mix, raw landscaping and soil stabilization materials, treated lumber, rebar, and plated metal fencing materials? **Reference Table 1 Items E and F**	☒Yes	☐ No
8. Will trash or solid waste product be generated from this project? **Reference Table 1 Item F**	☒Yes	☐ No
9. Will construction equipment be stored on site (e.g.: fuels, oils, trucks, etc.?) **Reference Table 1 Item F**	☒Yes	☐ No
10. Will Portable Sanitary Services ("Porta-potty") be used on the site? **Reference Table 1 Item F**	☒Yes	☐ No

Table 1. Construction Storm Water BMP Checklist

Minimum Required Best Management Practices (BMPs)	CALTRANS SW Handbook[4] Detail or County Std. Detail	✔ BMP Selected	Reference sheet No.'s where each selected BMP is shown on the plans. If no BMP is selected, an explanation must be provided.
A. Select Erosion Control Method for Disturbed Slopes (choose at least one for the appropriate season)			
Vegetation Stabilization Planting[5] (Summer)	SS-2, SS-4	☐	
Hydraulic Stabilization Hydroseeding[2] (Summer)	SS-4	☒	
Bonded Fiber Matrix or Stabilized Fiber Matrix[6] (Winter)	SS-3	☒	
Physical Stabilization Erosion Control Blanket[3] (Winter)	SS-7	☐	
B. Select erosion control method for disturbed flat areas (slope < 5%) (choose at least one)			
County Standard Lot Perimeter Protection Detail	PDS 659[7], SC-2	☒	
Will use erosion control measures from Item A on flat areas also	SS-3, 4, 7	☐	
County Standard Desilting Basin (must treat all site runoff)	PDS 660[8], SC-2	☐	
Mulch, straw, wood chips, soil application	SS-6, SS-8	☐	

4 State of California Department of Transportation (Caltrans). 2003. Storm Water Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual. March. Available online at: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm.

5 If Vegetation Stabilization (Planting or Hydroseeding) is proposed for erosion control it may be installed between May 1st and August 15th. Slope irrigation is in place and needs to be operable for slopes >3 feet. Vegetation must be watered and established prior to October 1st. The owner must implement a contingency physical BMP by August 15th if vegetation establishment does not occur by that date. If landscaping is proposed, erosion control measures must also be used while landscaping is being established. Established vegetation must have a subsurface mat of intertwined mature roots with a uniform vegetative coverage of 70 percent of the natural vegetative coverage or more on all disturbed areas.

6 All slopes over three feet must have established vegetative cover prior to final permit approval.

7 County of San Diego, Planning & Development Services. 2012. Standard Lot Perimeter Protection Design System. Building Division. PDS 659. Available online at http://www.sandiegocounty.gov/pds/docs/pds659.pdf.

8 County of San Diego, Planning & Development Services. 2012. County Standard Desilting Basin for Disturbed Areas of 1 Acre or Less Building Division. PDS 659. Available online at http://www.sandiegocounty.gov/pds/docs/pds660.pdf.

Table 1. Construction Storm Water BMP Checklist (continued)

Minimum Required Best Management Practices (BMPs)	CALTRANS SW Handbook Detail or County Std. Detail	✔ BMP Selected	Reference sheet No.'s where each selected BMP is shown on the plans. If no BMP is selected, an explanation must be provided.
C. If runoff or dewatering operation is concentrated, velocity must be controlled using an energy dissipater			
Energy Dissipater Outlet Protection[9]	SS-10	☒	
D. Select sediment control method for all disturbed areas (choose at least one)			
Silt Fence	SC-1	☒	
Fiber Rolls (Straw Wattles)	SC-5	☒	
Gravel & Sand Bags	SC-6 & 8	☒	
Dewatering Filtration	NS-2	☐	
Storm Drain Inlet Protection	SC-10	☒	
Engineered Desilting Basin (sized for 10-year flow)	SC-2	☐	
E. Select method for preventing offsite tracking of sediment (choose at least one)			
Stabilized Construction Entrance	TC-1	☒	
Construction Road Stabilization	TC-2	☐	
Entrance/Exit Tire Wash	TC-3	☐	
Entrance/Exit Inspection & Cleaning Facility	TC-1	☐	
Street Sweeping and Vacuuming	SC-7	☒	
F. Select the general site management BMPs			
F.1 Materials Management			
Material Delivery & Storage	WM-1	☒	
Spill Prevention and Control	WM-4	☒	
F.2 Waste Management[10]			
Waste Management Concrete Waste Management	WM-8	☒	
Solid Waste Management	WM-5	☒	
Sanitary Waste Management	WM-9	☒	
Hazardous Waste Management	WM-6	☒	

Note: The Construction General Permit (Order No. 2009-0009-DWQ) also requires all projects not subject to the BMP Design Manual to comply with runoff reduction requirements through the implementation of post-construction BMPs as described in Section XIII of the order.

9 Regional Standard Drawing D-40 – Rip Rap Energy Dissipater is also acceptable for velocity reduction.

10 Not all projects will have every waste identified. The applicant is responsible for identifying wastes that will be onsite and applying the appropriate BMP. For example, if concrete will be used, BMP WM-8 must be selected.

Step 3: County of San Diego PDP SWQMP Site Information Checklist

Step 3.1: Description of Existing Site Condition

Project Watershed (Complete Hydrologic Unit, Area, and Subarea Name with Numeric Identifier)	San Diego River, Santee 907.12

Current Status of the Site (select all that apply):
- ☒ Existing development
- ☒ Previously graded but not built out
- ☒ Demolition completed without new construction
- ☐ Agricultural or other non-impervious use
- ☐ Vacant, undeveloped/natural

Description / Additional Information:
Existing 17.5 AC lot with an abandoned structure.

Existing Land Cover Includes (select all that apply and provide each area on site):
- ☐ Vegetative Cover 2.00 Acres (87,120 Square Feet)
- ☐ Non-Vegetated Pervious Areas 15.5 Acres (675,180 Square Feet)
- ☐ Impervious Areas 0.08 Acres (3500 Square Feet)

Description / Additional Information:

Underlying Soil belongs to Hydrologic Soil Group (select all that apply):
- ☐ NRCS Type A
- ☒ NRCS Type B
- ☐ NRCS Type C
- ☐ NRCS Type D

Approximate Depth to Groundwater (GW) (or N/A if no infiltration is used):
- ☐ GW Depth < 5 feet
- ☐ 5 feet < GW Depth < 10 feet
- ☐ 10 feet < GW Depth < 20 feet
- ☒ GW Depth > 20 feet

Existing Natural Hydrologic Features (select all that apply):
- ☐ Watercourses
- ☐ Seeps
- ☐ Springs
- ☐ Wetlands
- ☒ None
- ☐ Other

Description / Additional Information:
While not on site, surface flows eventually end up in an un-named flow way.

Step 3.2: Description of Existing Site Drainage Patterns

How is storm water runoff conveyed from the site? At a minimum, this description should answer:

(1) Whether existing drainage conveyance is natural or urban;
(2) Is runoff from offsite conveyed through the site? if yes, quantify all offsite drainage areas, design flows, and locations where offsite flows enter the project site, and summarize how such flows are conveyed through the site;
(3) Provide details regarding existing project site drainage conveyance network, including any existing storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels; and
(4) Identify all discharge locations from the existing project site along with a summary of conveyance system size and capacity for each of the discharge locations. Provide summary of the pre-project drainage areas and design flows to each of the existing runoff discharge locations.

Describe existing site drainage patterns:

The site is located on a 17-acre parcel in the community of Lakeside, in the County of San Diego, in an area that is essentially "built out" with all adjacent properties being residential single family dwellings. The lot contains moderate sloping and is located on the top of a hill(no offsite flow contributions). Except for an existing structure on the property, that is to be removed as part of the proposed grading and construction, the lot is vacant only scattered seasonal weeds and a few eucalyptus trees.

Step 3.3: Description of Proposed Site Development

Project Description / Proposed Land Use and/or Activities:
24 unit residential subdivision.

List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features):
Project proposes the construction of 24 residential SFDs, garages, driveways and paved road ways with curbs and gutters.

List/describe proposed pervious features of the project (e.g., landscape areas):
In addition to landscaped cut and fill slopes each lot will have front and back yards that are to remain pervious areas.

Does the project include grading and changes to site topography?
☒Yes
☐No

Description / Additional Information:
The existing property is located on a hill top and will require extensive site grading that will include cut and fill areas for all of the proposed houses as well as an internal road.

Insert acreage or square feet for the different land cover types in the table below:

Change in Land Cover Type Summary			
Land Cover Type	Existing (acres or ft^2)	Proposed (acres or ft^2)	Percent Change
Vegetation	1.9 AC	13.8 AC	726%
Pervious (non-vegetated)	15.0 AC	0.00 AC	
Impervious	0.10 AC	3.2 AC	3200%

Step 3.4: Description of Proposed Site Drainage Patterns

Does the project include changes to site drainage (e.g., installation of new storm water conveyance systems)?

☒Yes

☐No

If yes, provide details regarding the proposed project site drainage conveyance network, including storm drains, concrete channels, swales, detention facilities, storm water treatment facilities, natural or constructed channels, and the method for conveying offsite flows through or around the proposed project site. Identify all discharge locations from the proposed project site along with a summary of the conveyance system size and capacity for each of the discharge locations. Provide a summary of pre- and post-project drainage areas and design flows to each of the runoff discharge locations. Reference the drainage study for detailed calculations.

Describe proposed site drainage patterns:

Except for areas A and H, all runoff within the project is to be channeled into "tree wells" located in several areas throughout the development. Conveyance to these basins shall be provided by a gutter system that is to be part the proposed roadway and site grading design. Size and location of said basins are detailed later in this report. Pre and post project drainage areas, along with their perspective flows are provided in a Hydraulic Study also provided later in this study.

Step 3.5: Potential Pollutant Source Areas

Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply). Select "Other" if the project is a phased development and provide a description:

- ☒ On-site storm drain inlets
- ☐ Interior floor drains and elevator shaft sump pumps
- ☐ Interior parking garages
- ☐ Need for future indoor & structural pest control
- ☒ Landscape/Outdoor Pesticide Use
- ☒ Pools, spas, ponds, decorative fountains, and other water features
- ☐ Food service
- ☐ Refuse areas
- ☐ Industrial processes
- ☐ Outdoor storage of equipment or materials
- ☐ Vehicle and Equipment Cleaning
- ☐ Vehicle/Equipment Repair and Maintenance
- ☐ Fuel Dispensing Areas
- ☐ Loading Docks
- ☐ Fire Sprinkler Test Water
- ☐ Miscellaneous Drain or Wash Water
- ☒ Plazas, sidewalks, and parking lots
- ☐ Other (provide description)

Description / Additional Information:
Project is a planned residential development. No commercial or industrial activities are anticipated.

Step 3.6: Identification and Narrative of Receiving Water and Pollutants of Concern

Describe flow path of storm water from the project site discharge location(s), through urban storm conveyance systems as applicable, to receiving creeks, rivers, and lagoons as applicable, and ultimate discharge to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable): All surface flows not contained on site are to be conveyed to a confined drainage system in Lemon Crest Road that flows into Los Coches Creek then to the San Diego River and eventually to the Pacific Ocean.

List any 303(d) impaired water bodies[11] within the path of storm water from the project site to the Pacific Ocean (or bay, lagoon, lake or reservoir, as applicable), identify the pollutant(s)/stressor(s) causing impairment, and identify any TMDLs and/or Highest Priority Pollutants from the WQIP for the impaired water bodies:

303(d) Impaired Water Body	Pollutant(s)/Stressor(s)	TMDLs / WQIP Highest Priority Pollutant
San Diego River	*Fecal coliforms, low DO, phosphorous and TDS*	*Bacteria*
Forrester Creek	*Fecal coliforms, low DO, phosphorous and TDS*	*Bacteria*

Identification of Project Site Pollutants*

*Identification of project site pollutants below is only required if flow-thru treatment BMPs are implemented onsite in lieu of retention or biofiltration BMPs. Note the project must also participate in an alternative compliance program (unless prior lawful approval to meet earlier PDP requirements is demonstrated).

Identify pollutants expected from the project site based on all proposed use(s) of the site (see BMP Design Manual Appendix B.6):

Pollutant	Not Applicable to the Project Site	Anticipated from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment	☐	☒	☒
Nutrients	☐	☒	☒
Heavy Metals	☐	☐	☐
Organic Compounds	☐	☐	☐
Trash & Debris	☐	☒	☐
Oxygen Demanding Substances	☐	☒	☒
Oil & Grease	☐	☒	☒
Bacteria & Viruses	☐	☒	☒

[11] The current list of Section 303(d) impaired water bodies can be found at http://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired

Pesticides	☐	☒	☐

Step 3.7: Hydromodification Management Requirements

Do hydromodification management requirements apply (see Section 1.6 of the BMP Design Manual)?

☒Yes, hydromodification management requirements for flow control and preservation of critical coarse sediment yield areas are applicable.

☐No, the project will discharge runoff directly to existing underground storm drains discharging directly to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.

☐No, the project will discharge runoff directly to conveyance channels whose bed and bank are concrete-lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.

☐No, the project will discharge runoff directly to an area identified as appropriate for an exemption by the WMAA[12] for the watershed in which the project resides.

Description / Additional Information (to be provided if a 'No' answer has been selected above):

[12] The Watershed Management Area Analysis (WMAA) is an optional element for inclusion in the Water Quality Improvement Plans (WQIPs) described in the 2013 MS4 Permit [Provision B.3.b.(4)]. It is available online at the Project Clean Water website: http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=248

Step 3.7.1: Critical Coarse Sediment Yield Areas*

***This Section only required if hydromodification management requirements apply**

Projects must satisfy critical coarse sediment yield area (CCSYA) requirements by characterizing the project as one of the scenario-types presented below and satisfying associated criteria. Projects must appropriately satisfy all requirements for identification, avoidance, and bypass, OR may alternatively elect to demonstrate no net impact.

☒ **Scenario 1**: Project is subject to and in compliance with RPO requirements *(without utilization of RPO exemptions 86.604(e)(2)(cc) or 86.604(e)(3) that result in impacts to more than 15% of the project-scale CCSYAs)*.

- ☐ Identify: Project has identified both onsite and upstream CCSYAs as areas that are coarse, ≥25% slope, and ≥50' tall. *(Optional refinement methods may be performed per guidance in Section H.1.2). AND,*
- ☐ Avoid: Project has avoided onsite CCSYAs per existing RPO steep slope encroachment criteria. AND,
- ☐ Bypass: Project has demonstrated that both onsite and upstream CCSYAs are bypassed through or around the project site with a 2 year peak storm velocity of 3 feet per second or greater. OR,
- ☐ No Net Impact: Project does not satisfy all Scenario 1 criteria above and must alternatively demonstrate no net impact to the receiving water.

☐ **Scenario 2**: Project is entirely exempt/not subject to RPO requirements without utilization of RPO exemptions 86.604(e)(2)(cc) or 86.604(e)(3).

- ☐ Identify: Project has identified upstream CCSYAs that are coarse, ≥25% slope, and ≥50' tall. *(Optional refinement methods may be performed per guidance in Section H.1.2). AND,*
- ☐ Avoid: Project is not required to avoid onsite CCSYAs as none were identified in the previous step. AND,
- ☐ Bypass: Project has demonstrated that upstream CCSYAs are bypassed through or around the project site with a 2 year peak storm velocity of 3 feet per second or greater. OR,
- ☐ No Net Impact: Project does not satisfy all Scenario 2 criteria above and must alternatively demonstrate no net impact to the receiving water. *(Skip to next row).*

☐ **Scenario 3**: Project utilizes exemption(s) via RPO Section 86.604(e)(2)(cc) or 86.604(e)(3) and impacts more than 15% of the project-scale CCSYAs.

- ☒ No Net Impact: Project is not eligible for traditional methods of identification, avoidance, and bypass. Project must demonstrate no net impact to the receiving water.

Critical Coarse Sediment Yield Areas Continued
Demonstrate No Net Impact
If the project elects to satisfy CCSYA criteria through demonstration of no net impact to the receiving water. Applicants must identify the methods utilized from the list below and provide supporting documentation in Attachment 2c of the SWQMP. Check all that are applicable. ☒ N/A, the project appropriately identifies, avoids, and bypasses CCSYAs. ☐ Project has performed additional analysis to demonstrate that impacts to CCSYAs satisfy the no net impact standard of Ep/Sp≤1.1. ☐ Project has provided alternate mapping of CCSYAs. ☐ Project has implemented additional onsite hydromodification flow control measures. ☐ Project has implemented an offsite stream rehabilitation project to offset impacts. ☐ Project has implemented other applicant-proposed mitigation measures.

Step 3.7.2: Flow Control for Post-Project Runoff*

*This Section only required if hydromodification management requirements apply
List and describe point(s) of compliance (POCs) for flow control for hydromodification management (see Section 6.3.1). For each POC, provide a POC identification name or number correlating to the project's HMP Exhibit and a receiving channel identification name or number correlating to the project's HMP Exhibit. On site there are 6 separate drainage areas that flow into separate detention basins or confined flow areas that are addressed in detail in the hydro modification plan that is made part of this report. Flow generated are essentially the same as calculated pre-construction flows. Current conveyance elements are to be replaced with upgraded curbs and gutters to convey flows to an existing flow way.
Has a geomorphic assessment been performed for the receiving channel(s)? ☒ No, the low flow threshold is 0.1Q2 (default low flow threshold) ☐ Yes, the result is the low flow threshold is 0.1Q2 ☐ Yes, the result is the low flow threshold is 0.3Q2 ☐ Yes, the result is the low flow threshold is 0.5Q2 *If a geomorphic assessment has been performed, provide title, date, and preparer:* *Discussion / Additional Information: (optional)*

Step 3.8: Other Site Requirements and Constraints

When applicable, list other site requirements or constraints that will influence storm water management design, such as zoning requirements including setbacks and open space, or local codes governing minimum street width, sidewalk construction, allowable pavement types, and drainage requirements.

All proposed driveways, streets, sidewalks and gutters are to be constructed to required local regulatory standards.

Optional Additional Information or Continuation of Previous Sections As Needed

This space provided for additional information or continuation of information from previous sections as needed.

Step 4: Source Control BMP Checklist

Source Control BMPs			
All development projects must implement source control BMPs 4.2.1 through 4.2.6 where applicable and feasible. See Chapter 4.2 and Appendix E of the County BMP Design Manual for information to implement source control BMPs shown in this checklist. Answer each category below pursuant to the following: • "Yes" means the project will implement the source control BMP as described in Chapter 4.2 and/or Appendix E of the County BMP Design Manual. Discussion / justification is not required. • "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided. • "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project has no outdoor materials storage areas). Discussion / justification must be provided.			
Source Control Requirement	**Applied?**		
4.2.1 Prevention of Illicit Discharges into the MS4	☒Yes	☐No	☐N/A
Discussion / justification if 4.2.1 not implemented:			
4.2.2 Storm Drain Stenciling or Signage	☐Yes	☐No	☒N/A
Discussion / justification if 4.2.2 not implemented: No storm drains at project site			
4.2.3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒Yes	☐No	☐N/A
Discussion / justification if 4.2.3 not implemented:			
4.2.4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒Yes	☐No	☐N/A
Discussion / justification if 4.2.4 not implemented:			

Source Control Requirement	Applied?		
4.2.5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.2.5 not implemented:			
4.2.6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below):			
☒ A. On-site storm drain inlets	☒Yes	☐ No	☐ N/A
☐ B. Interior floor drains and elevator shaft sump pumps	☐Yes	☐No	☒N/A
☐ C. Interior parking garages	☐Yes	☐No	☒N/A
☐ D. Need for future indoor & structural pest control	☐Yes	☐No	☒N/A
☒ E. Landscape/outdoor pesticide use	☒Yes	☐No	☐ N/A
☐ F. Pools, spas, ponds, fountains, and other water features	☐Yes	☐No	☒N/A
☐ G. Food service	☐Yes	☐No	☒N/A
☐ H. Refuse areas	☐Yes	☐No	☒N/A
☐ I. Industrial processes	☐Yes	☐No	☒N/A
☐ J. Outdoor storage of equipment or materials	☐Yes	☐No	☒N/A
☐ K. Vehicle and equipment cleaning	☐Yes	☐No	☒N/A
☐ L. Vehicle/equipment repair and maintenance	☐Yes	☐No	☒N/A
☐ M. Fuel dispensing areas	☐Yes	☐No	☒N/A
☐ N. Loading docks	☐Yes	☐No	☒N/A
☐ O. Fire sprinkler test water	☐Yes	☐No	☒N/A
☐ P. Miscellaneous drain or wash water	☐Yes	☐No	☒N/A
☐ Q. Plazas, sidewalks, and parking lots	☒Yes	☐No	☐N/A
Discussion / justification if 4.2.6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for <u>all</u> "No" answers shown above. Project is a residential development. No commercial or industrial activities are anticipated.			

Note: Show all source control measures described above that are included in design capture volume calculations in the plan sheets of Attachment 5.

Step 5: Site Design BMP Checklist

Site Design BMPs
All development projects must implement site design BMPs SD-A through SD-H where applicable and feasible. See Chapter 4.3 and Appendix E of the County BMP Design Manual for information to implement site design BMPs shown in this checklist. Answer each category below pursuant to the following: • "Yes" means the project will implement the site design BMP as described in Chapter 4.3 and/or Appendix E of the County BMP Design Manual. Discussion / justification is not required. • "No" means the BMP is applicable to the project but it is not feasible to implement. Discussion / justification must be provided. • "N/A" means the BMP is not applicable at the project site because the project does not include the feature that is addressed by the BMP (e.g., the project site has no existing natural areas to conserve). Discussion / justification must be provided.

Site Design Requirement	Applied?		
4.3.1 Maintain Natural Drainage Pathways and Hydrologic Features	☐Yes	☐ No	☒N/A
Discussion / justification if 4.3.1 not implemented: Project is located on the top of a hill. No on-site drainage currently exists.			
4.3.2 Conserve Natural Areas, Soils, and Vegetation	☐Yes	☐ No	☒N/A
Discussion / justification if 4.3.2 not implemented: Grading for the proposed project will occupy a majority of the parcel. However, native soils will be stock piled and utilized whenever possible.			
4.3.3 Minimize Impervious Area	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.3.3 not implemented:			
4.3.4 Minimize Soil Compaction	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.3.4 not implemented:			
4.3.5 Impervious Area Dispersion	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.3.5 not implemented:			

Site Design Requirement	Applied?		
4.3.6 Runoff Collection	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.3.6 not implemented: See Attachments			
4.3.7 Landscaping with Native or Drought Tolerant Species	☒Yes	☐ No	☐ N/A
Discussion / justification if 4.3.7 not implemented:			
4.3.8 Harvesting and Using Precipitation	☒Yes	☐ No	☐N/A
Discussion / justification if 4.3.8 not implemented: Tree Wells			

Note: Show all site design measures described above that are included in design capture volume calculations in the plan sheets of Attachment 5.

Step 6: PDP Structural BMPs

All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the BMP Design Manual). Selection of PDP structural BMPs for storm water pollutant control must be based on the selection process described in Chapter 5. PDPs subject to hydromodification management requirements must also implement structural BMPs for flow control for hydromodification management (see Chapter 6 of the BMP Design Manual). Both storm water pollutant control and flow control for hydromodification management can be achieved within the same structural BMP(s).

PDP structural BMPs must be verified by the County at the completion of construction. This may include requiring the project owner or project owner's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the BMP Design Manual). PDP structural BMPs must be maintained into perpetuity, and the County must confirm the maintenance (see Section 7 of the BMP Design Manual).

Use this section to provide narrative description of the general strategy for structural BMP implementation at the project site in the box below. Then complete the PDP structural BMP summary information sheet (Step 6.2) for each structural BMP within the project (copy the BMP summary information sheet [Step 6.2] as many times as needed to provide summary information for each individual structural BMP).

Step 6.1: Description of structural BMP strategy

Describe the general strategy for structural BMP implementation at the site. This information must describe how the steps for selecting and designing storm water pollutant control BMPs presented in Section 5.1 of the BMP Design Manual were followed, and the results (type of BMPs selected). For projects requiring hydromodification flow control BMPs, indicate whether pollutant control and flow control BMPs are integrated or separate. At the end of this discussion provide a summary of all the structural BMPs within the project including the type and number.

The project is divided into 9 DMAs. All of which include some new, impervious surfaces (i.e. rooves, driveways, sidewalks, and paved streets). In accordance with the BMP design manual, each DMA drains into its own separate hydromodification/flow control storage basin designed for its individual runoff characteristics. Two of the DMAs discharge directly into confined drainage systems and the other 7 discharge to onsite basins that are vaults or ponds open to the atmosphere. Overflows from the basins will be discharged to the existing natural flow ways.

Summary:

Basin A (Confined Drainage System): Except for a couple of roof-tops Basin A is mostly self-mitigating. Any un-mitigated surface flows are to be discharged to an existing confined conveyance system in Lemoncrest Road.

Basins B thru F (Tree Wells): Basins B thru F are a mixture of pervious and impervious surfaces and are being discharged into "tree wells" as shown in the DMA drawings.

Basin G, H and I (Confined Drainage System): Basins g thru I are situated such that they are adjacent to and existing confined conveyance system (Lemoncrest Road).

(Continue on following page as necessary.)

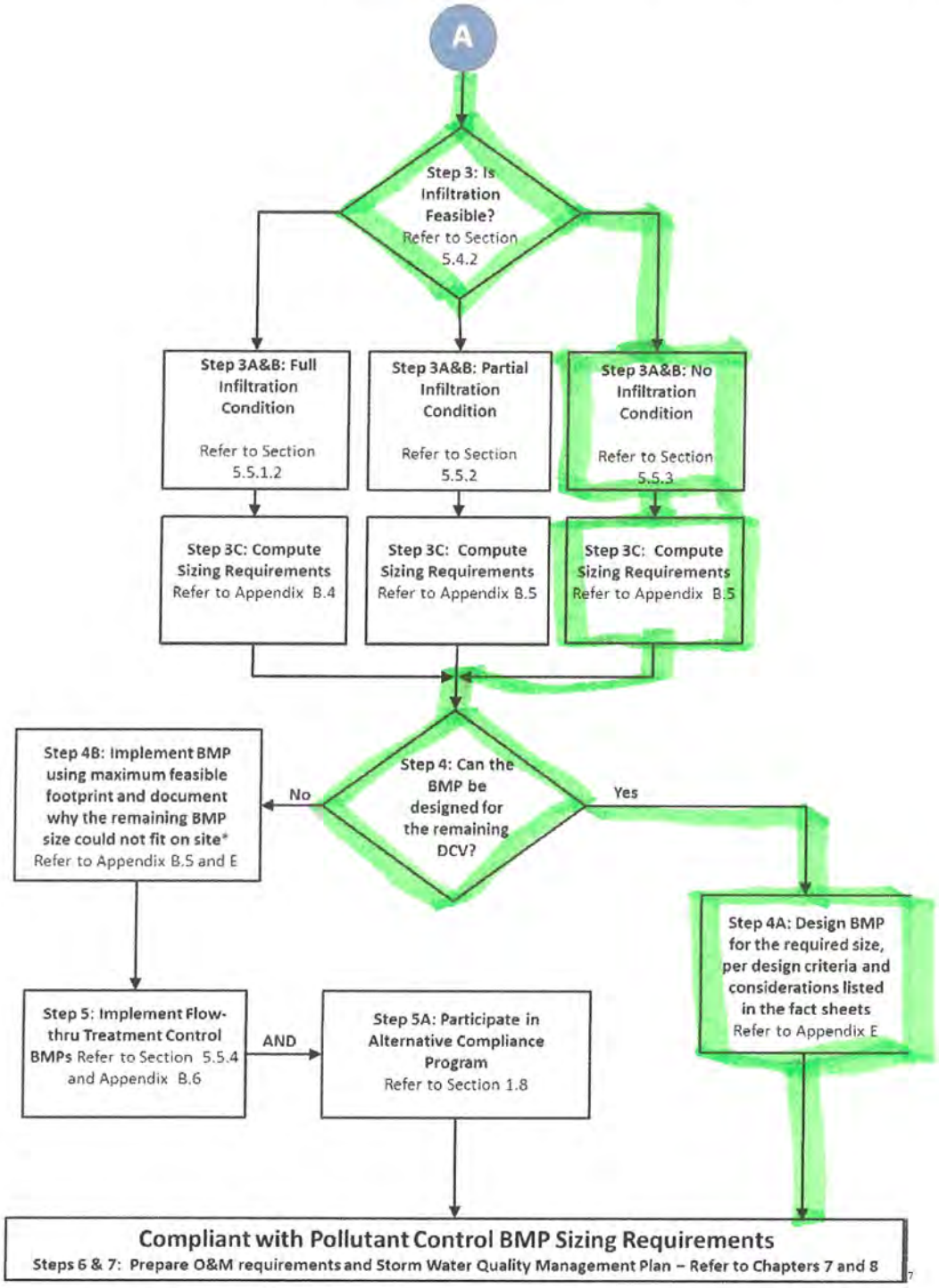
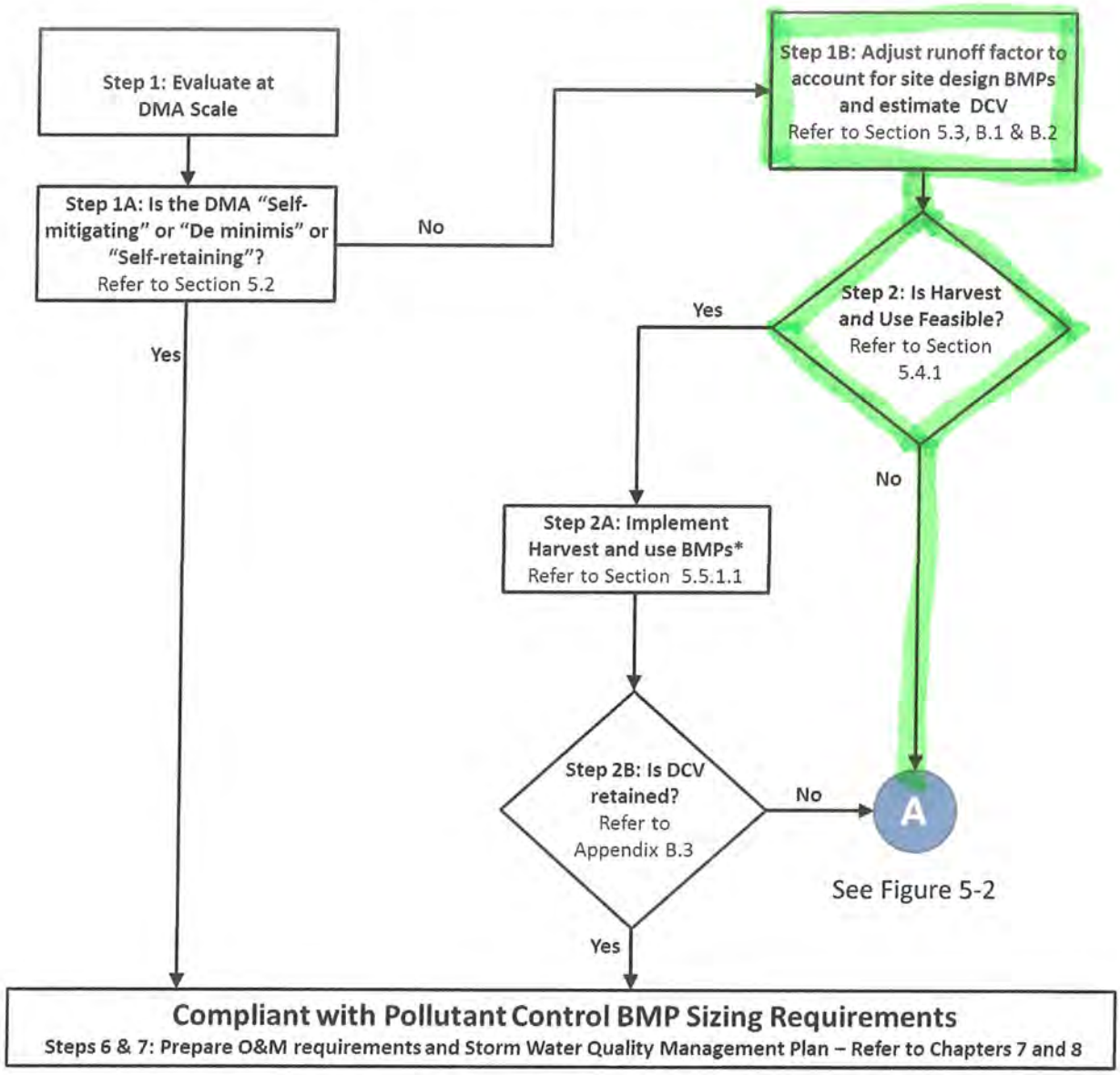


FIGURE 5-2. Storm Water Pollutant Control BMP Selection Flow Chart

* Project approval at the discretion of the County.



* Step 2C: Project applicant has an option to also conduct feasibility analysis for infiltration and if infiltration is fully or partially feasible has an option to choose between infiltration and harvest and use BMPs. But if infiltration is not feasible and harvest and use is feasible, project applicant must implement harvest and use BMPs

FIGURE 5-1. Storm Water Pollutant Control BMP Selection Flow Chart

Step 6.2: Structural BMP Checklist

(Copy this page as needed to provide information for each individual proposed structural BMP)	
Structural BMP ID No. 1	
Construction Plan Sheet No.	
Type of structural BMP: ☐ Retention by harvest and use (HU-1) ☒ Retention by infiltration basin (INF-1) ☐ Retention by bioretention (INF-2) ☐ Retention by permeable pavement (INF-3) ☐ Partial retention by biofiltration with partial retention (PR-1) ☐ Biofiltration (BF-1) ☐ Biofiltration with Nutrient Sensitive Media Design (BF-2) ☐ Proprietary Biofiltration (BF-3) meeting all requirements of Appendix F ☐ Flow-thru treatment control with prior lawful approval to meet earlier PDP requirements (provide BMP type/description in discussion section below) ☐ Flow-thru treatment control included as pre-treatment/forebay for an onsite retention or biofiltration BMP (provide BMP type/description and indicate which onsite retention or biofiltration BMP it serves in discussion section below) ☐ Flow-thru treatment control with alternative compliance (provide BMP type/description in discussion section below) ☐ Detention pond or vault for hydromodification management ☐ *Other (describe in discussion section below)*	
Purpose: ☐ Pollutant control only ☐ Hydromodification control only ☐ Combined pollutant control and hydromodification control ☐ Pre-treatment/forebay for another structural BMP ☒ Other (describe in discussion section below)	
Who will certify construction of this BMP? Provide name and contact information for the party responsible to sign BMP verification forms (See Section 1.12 of the BMP Design Manual)	Bob Stewart- Owner
Who will be the final owner of this BMP?	☒ HOA ☐ Property Owner ☐ County ☐ Other (describe)
Who will maintain this BMP into perpetuity?	☒ HOA ☐ Property Owner ☐ County ☐ Other (describe)
What Category (1-4) is the Structural BMP? Refer to the Category definitions in Section 7.3 of the BMP DM. Attach the appropriate maintenance agreement in Attachment 3.	Vegetated and non-vegetated- Category 2
Discussion (as needed): Tree Wells and basins to retain increased post-construction surface flows *(Continue on subsequent pages as necessary)*	

Step 6.3: Offsite Alternative Compliance Participation Form

PDP INFORMATION	
Record ID:	
Assessor's Parcel Number(s) [APN(s)]	
What are your PDP Pollutant Control Debits? *See Attachment 1 of the PDP SWQMP	
What are your PDP HMP Debits? (if applicable) *See Attachment 2 of the PDP SWQMP	
ACP Information	
Record ID:	
Assessor's Parcel Number(s) [APN(s)]	
Project Owner/Address	
What are your ACP Pollutant Control Credits? *See Attachment 1 of the ACP SWQMP	
What are your ACP HMP Debits? (if applicable) *See Attachment 2 of the ACP SWQMP	
Is your ACP in the same watershed as your PDP? ☐ Yes ☐ No	Will your ACP project be completed prior to the completion of the PDP? ☐ Yes ☐ No
Does your ACP account for all Deficits generated by the PDP? ☐ Yes ☐ No (PDP and/or ACP must be redesigned to account for all deficits generated by the PDP.	What is the difference between your PDP debits and ACP Credits? *(ACP Credits -Total PDP Debits = Total Earned Credits)

ATTACHMENT 1

BACKUP FOR PDP POLLUTANT CONTROL BMPS

This is the cover sheet for Attachment 1.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 1a	Storm Water Pollutant Control Worksheet Calculations -Worksheet B.3-1 (Required) -Worksheet B.1-1 (Required) -Worksheet B.4-1 (if applicable) -Worksheet B.4-2 (if applicable) -Worksheet B.5-1 (if applicable) -Worksheet B.5-2 (if applicable) -Worksheet B.5-3 (if applicable) -Worksheet B.6-1 (if applicable) -Summary Worksheet (optional)	☒ Included
Attachment 1b	Form I-8, Categorization of Infiltration Feasibility Condition (Required unless the project will use harvest and use BMPs) Refer to Appendices C and D of the BMP Design Manual to complete Form I-8.	☒ Included ☐ Not included because the entire project will use harvest and use BMPs
Attachment 1c	DMA Exhibit (Required) See DMA Exhibit Checklist on the back of this Attachment cover sheet.	☒ Included
Attachment 1d	Individual Structural BMP DMA Mapbook (Required) -Place each map on 8.5"x11" paper. -Show at a minimum the DMA, Structural BMP, and any existing hydrologic features within the DMA.	☒ Included

Automated Worksheet B.3-1: Project-Scale BMP Feasibility Analysis (V1.3)

Category	#	Description	Value	Units
Capture & Use Inputs	0	Design Capture Volume for Entire Project Site	21,420	cubic-feet
	1	Proposed Development Type	Residential	unitless
	2	Number of Residents or Employees at Proposed Development	24	#
	3	Total Planted Area within Development	584,375	sq-ft
	4	Water Use Category for Proposed Planted Areas	Low	unitless
Infiltration Inputs	5	Is Average Site Design Infiltration Rate ≤0.500 Inches per Hour?	No	yes/no
	6	Is Average Site Design Infiltration Rate ≤0.010 Inches per Hour?	No	yes/no
	7	Is Infiltration of the Full DCV Anticipated to Produce Negative Impacts?	No	yes/no
	8	Is Infiltration of Any Volume Anticipated to Produce Negative Impacts?	No	yes/no
Calculations	9	36-Hour Toilet Use Per Resident or Employee	1.86	cubic-feet
	10	Subtotal: Anticipated 36 Hour Toilet Use	45	cubic-feet
	11	Anticipated 1 Acre Landscape Use Over 36 Hours	52.14	cubic-feet
	12	Subtotal: Anticipated Landscape Use Over 36 Hours	699	cubic-feet
	13	Total Anticipated Use Over 36 Hours	744	cubic-feet
	14	Total Anticipated Use / Design Capture Volume	0.03	cubic-feet
	15	Are Full Capture and Use Techniques Feasible for this Project?	No	unitless
	16	Is Full Retention Feasible for this Project?	Yes	yes/no
	17	Is Partial Retention Feasible for this Project?	Yes	yes/no
Result	18	Feasibility Category	3	1, 2, 3, 4, 5

Worksheet B.3-1 General Notes:

A. Applicants may use this worksheet to determine the types of structural BMPs that are acceptable for implementation at their project site (as required in Section 5 of the BMPDM). User input should be provided for yellow shaded cells, values for all other cells will be automatically generated. Projects demonstrating feasibility or potential feasibility via this worksheet are encouraged to incorporate capture and use features in their project.

B. Negative impacts associated with retention may include geotechnical, groundwater, water balance, or other issues identified by a geotechnical engineer and substantiated through completion of Form I-8.

C. Feasibility Category 1: Applicant must implement capture & use, retention, and/or infiltration elements for the entire DCV.

D. Feasibility Category 2: Applicant must implement capture & use elements for the entire DCV.

E. Feasibility Category 3: Applicant must implement retention and/or infiltration elements for all DMAs with Design Infiltration Rates greater than 0.50 in/hr.

F. Feasibility Category 4: Applicant must implement standard unlined biofiltration BMPs sized at ≥3% of the effective impervious tributary area for all DMAs with Design Infiltration Rates of 0.011 to 0.50 in/hr. Applicants may be permitted to implement lined BMPs, reduced size BMPs, and/or specialized biofiltration BMPs provided additional criteria identified in "Supplemental Retention Criteria for Non-Standard Biofiltration BMPs" are satisfied.

G. Feasibility Category 5: Applicant must implement standard lined biofiltration BMPs sized at ≥3% of the effective impervious tributary area for all DMAs with Design Infiltration Rates of 0.010 in/hr or less. Applicants may also be permitted to implement reduced size and/or specialized biofiltration BMPs provided additional criteria identified in "Supplemental Retention Criteria for Non-Standard Biofiltration BMPs" are satisfied.

H. PDPs participating in an offsite alternative compliance program are not held to the feasibility categories presented herein.

Automated Worksheet B.1-1: Calculation of Design Capture Volume (V1.3)

Category	#	Description	A	B	C	D	E	F	G	H	I	J	Units
Standard Drainage Basin Inputs	0	Drainage Basin ID or Name	A	B	C	D	E	F	G	H	I		unitless
	1	Basin Drains to the Following BMP Type	Other	Other	Other	Other	Other	Other	Other	Downstream BMP	Downstream BMP		unitless
	2	85th Percentile 24-hr Storm Depth	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50		inches
	3	Design Infiltration Rate Recommended by Geotechnical Engineer	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100		in/hr
	4	Impervious Surfaces Not Directed to Dispersion Area (C=0.90)	14,166	4,195	5,333	3,200	3,200	76,006	4,198	12,000	8,544		sq-ft
	5	Semi-Pervious Surfaces Not Serving as Dispersion Area (C=0.30)											sq-ft
	6	Engineered Pervious Surfaces Not Serving as Dispersion Area (C=0.10)	25,390	23,445	14,627	28,082	29,082	130,100	8,379	18,819			sq-ft
	7	Natural Type A Soil Not Serving as Dispersion Area (C=0.10)											sq-ft
	8	Natural Type B Soil Not Serving as Dispersion Area (C=0.14)											sq-ft
	9	Natural Type C Soil Not Serving as Dispersion Area (C=0.23)											sq-ft
	10	Natural Type D Soil Not Serving as Dispersion Area (C=0.30)											sq-ft
Dispersion Area, Tree Well & Rain Barrel Inputs (Optional)	11	Does Tributary Incorporate Dispersion, Tree Wells, and/or Rain Barrels?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	yes/no
	12	Impervious Surfaces **Directed to Dispersion Area** per SD-B (Ci=0.90)											sq-ft
	13	Semi-Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	14	Engineered Pervious Surfaces **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	15	Natural Type A Soil **Serving as Dispersion Area** per SD-B (Ci=0.10)											sq-ft
	16	Natural Type B Soil **Serving as Dispersion Area** per SD-B (Ci=0.14)											sq-ft
	17	Natural Type C Soil **Serving as Dispersion Area** per SD-B (Ci=0.23)											sq-ft
	18	Natural Type D Soil **Serving as Dispersion Area** per SD-B (Ci=0.30)											sq-ft
	19	Number of Tree Wells Proposed per SD-A	6	2	2	2	2	28	2	4	3		#
	20	Average Mature Tree Canopy Diameter	30	30	30	30	30	30	30	30	30		ft
	21	Number of Rain Barrels Proposed per SD-E											#
	22	Average Rain Barrel Size											gal
Treatment Train Inputs & Calculations	23	Does BMP Overflow to Stormwater Features in Downstream Drainage?	No	No	No	No	No	No	No	No	No	No	unitless
	24	Identify Downstream Drainage Basin Providing Treatment in Series											unitless
	25	Percent of Upstream Flows Directed to Downstream Dispersion Areas											percent
	26	Upstream Impervious Surfaces Directed to Dispersion Area (Ci=0.90)	0	0	0	0	0	0	0	0	0	0	cubic-feet
	27	Upstream Impervious Surfaces Not Directed to Dispersion Area (C=0.90)	0	0	0	0	0	0	0	0	0	0	cubic-feet
Initial Runoff Factor Calculation	28	Total Tributary Area	39,556	27,640	19,960	31,282	32,282	206,106	12,577	30,819	8,544	0	sq-ft
	29	Initial Runoff Factor for Standard Drainage Areas	0.39	0.22	0.31	0.18	0.18	0.40	0.37	0.41	0.90	0.00	unitless
	30	Initial Runoff Factor for Dispersed & Dispersion Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	unitless
	31	Initial Weighted Runoff Factor	0.39	0.22	0.31	0.18	0.18	0.40	0.37	0.41	0.90	0.00	unitless
	32	Initial Design Capture Volume	1,928	760	773	704	726	10,305	582	1,579	961	0	cubic-feet
Dispersion Area Adjustments	33	Total Impervious Area Dispersed to Pervious Surface	0	0	0	0	0	0	0	0	0	0	sq-ft
	34	Total Pervious Dispersion Area	0	0	0	0	0	0	0	0	0	0	sq-ft
	35	Ratio of Dispersed Impervious Area to Pervious Dispersion Area	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ratio
	36	Adjustment Factor for Dispersed & Dispersion Areas	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	ratio
	37	Runoff Factor After Dispersion Techniques	0.39	0.22	0.31	0.18	0.18	0.40	0.37	0.41	0.90	n/a	unitless
	38	Design Capture Volume After Dispersion Techniques	1,928	760	773	704	726	10,305	582	1,579	961	0	cubic-feet
Tree & Barrel Adjustments	39	Total Tree Well Volume Reduction	2,520	840	840	840	840	11,760	840	1,680	1,260	0	cubic-feet
	40	Total Rain Barrel Volume Reduction	0	0	0	0	0	0	0	0	0	0	cubic-feet
Results	41	Final Adjusted Runoff Factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	unitless
	42	Final Effective Tributary Area	0	0	0	0	0	0	0	0	0	0	sq-ft
	43	Initial Design Capture Volume Retained by Site Design Elements	2,520	840	840	840	840	11,760	840	1,680	1,260	0	cubic-feet
	44	Final Design Capture Volume Tributary to BMP	0	0	0	0	0	0	0	0	0	0	cubic-feet

Worksheet B.1-1 General Notes:

A. Applicants may use this worksheet to calculate design capture volumes for up to 10 drainage areas User input must be provided for yellow shaded cells, values for all other cells will be automatically generated, errors/notifications will be highlighted in red and summarized below. Upon completion of this worksheet, proceed to the appropriate BMP Sizing worksheet(s).

INFILTRATION CALCULATIONS

LEMON CREST DRIVE
SUBDIVISION
LAKESIDE , CA 92040
APN 394-290-28

NARRATIVE

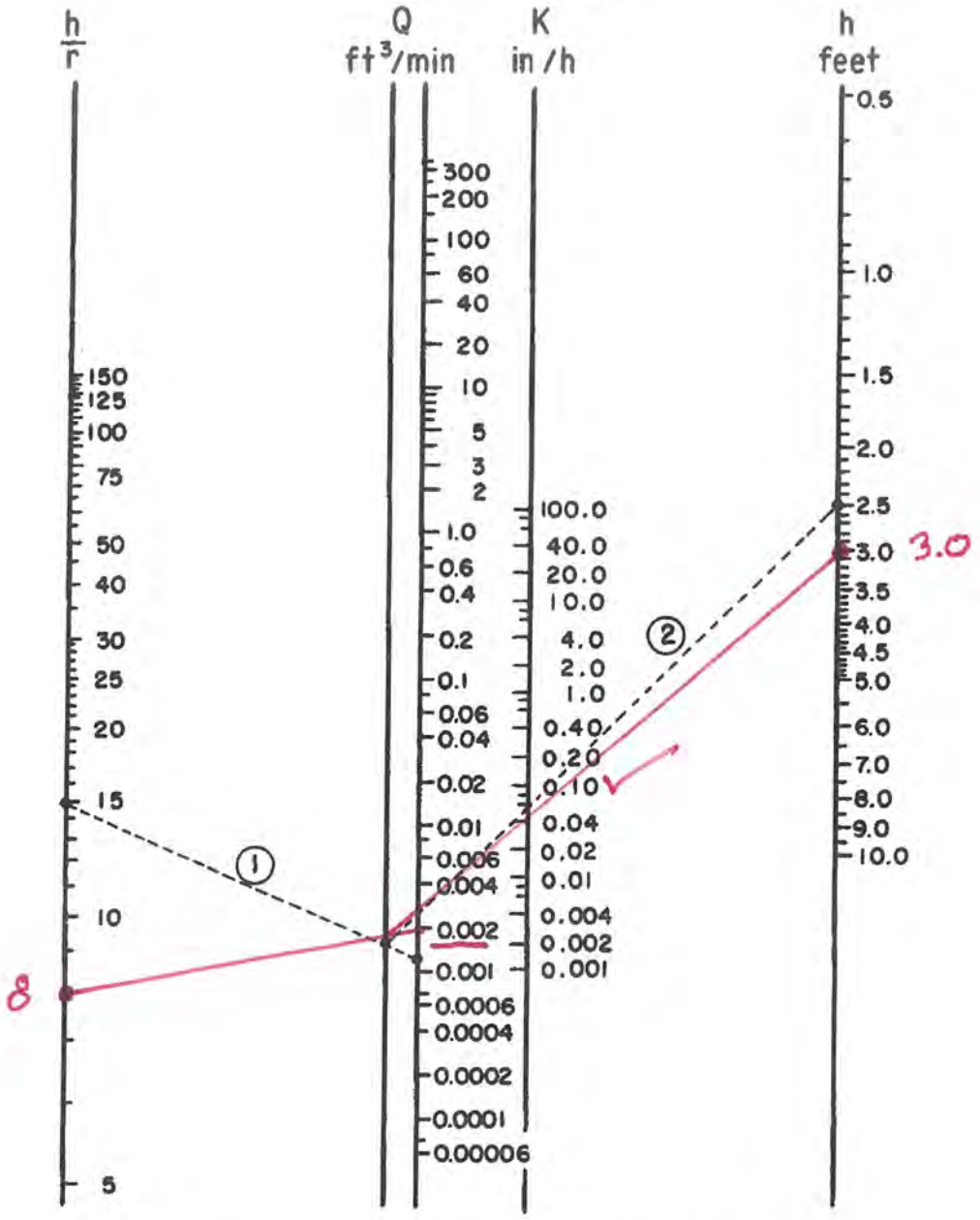
Based on perk test and septic design data from adjacent properties (see attached), it was determined that the average perk rate in the area was consistently around 7.0 min/in. Using the United States Bureau of Reclamation Drainage Manuel, Figure 3-17b, the average perk rates in the area were converted into the infiltration rate below.

APN	LL(ft)	Bed Rooms	Perk Rate(mpi)
394-421-04	350	4	7
394-421-03	317	3	7
394-421-02	300	3	6

Average Perk Rate 6.67 mpi (use 7 mpi)

Test Hole Depth (h)= 4'
Test Hole Radius (r)= 0.25'
Area (a)= 0.1963 sq ft
Volume (V)= 0.0164 cuft/in
Perk Rate= 7.0 min/in
Flow (Q)= V/ Perk Rate= 0.0164/7.0= 0.0023 cuft/m

Per attached USBM chart (Figure 3-17b), Infiltration Rate (K)= 0.01 in/hr



Example:

h = 2.5 ft
r = 0.167 ft
h/r = 15
Q = 0.0012 ft³/min
K = 0.06 in/h

CONDITION I

$T_u \geq 3h$

$$K = \frac{720\left[\log_e\left(\frac{h}{r} + \sqrt{\left(\frac{h}{r}\right)^2 + 1}\right) - 1\right]Q}{2\pi h^2}$$

Figure 3–17b.—Nomograph for determining hydraulic conductivity from shallow well pump-in test data for condition I (U.S. customary units). 103–D–657.

ATTACHMENT C

Drainage Management Area (DMA) Exhibit

PRE-CONSTRUCTION

Attachment 1c

APN 394-290-33

HARDENED CONVENCE

ROS 9287

EXISTING 10' DRAINAGE EASEMENT TO SAN DIEGO COUNTY FLOOD CONTROL DISTRICT REC. 6/17/94 AS DOC. NO. 1194-0389583 OF O.R.

EXISTING DRAINAGE (TYP)

EX. 24" RCP STORM DRAIN

APN 394-290-27

EX. CURB INLET

HARDENED CONVENCE

EX. CURB, GUTTER AND SIDEWALK (TYP.)

EX. ST. LIGHT (TYP.)

EX. BROW DITCH (TYP.)

PROPERTY BOUNDARY (TYP.)

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

EX. BLDG (TYP.)

ROS 10717

APN 394-421-04

CR 1211

HARDENED CONVENCE

APN 394-421-02

EX. STORM DRAIN

HARDENED CONVENCE

EXISTING SDG&E EASEMENT R... 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

PM 3551 PCL 2

PCL 3

PCL 4

ROS 1951

MAP 289 LOT 129

PM 8358 PCL 3

PM 8254 PCL 2

REMAINDER PARCEL GROSS ±52 AC. NET ±47 AC.

A

B

C

D

E

F

G

PROPOSED CONTOUR (TYP.)

EXISTING FENCE (TYP.)

PROP. BROW DITCH

PROP. 7' BENCH

EX. WELL

PROP. PRVT. RD AND UTIL. ESMT

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD AND UTIL. ESMT

LOT 1 GROSS 3.17 AC. NET 1.00 AC. PAD 505.0

LOT 2 GROSS 0.60 AC. PAD 520.0

LOT 3 GROSS 0.56 AC. NET 0.51 AC. PAD 530.0

LOT 4 GROSS 0.56 AC. NET 0.55 AC. PAD 525.0

LOT 6 GROSS 0.55 AC. NET 0.50 AC. PAD 545.0

LOT 7 GROSS 0.64 AC. NET 0.60 AC. PAD 545.0

LOT 8 GROSS 0.65 AC. NET 0.62 AC. PAD 550.0

LOT 9 GROSS 0.62 AC. NET 0.58 AC. PAD 550.0

LOT 10 GROSS 0.62 AC. NET 0.58 AC. PAD 555.0

LOT 11 GROSS 0.69 AC. NET 0.54 AC. PAD 555.0

LOT 12 GROSS 0.98 AC. NET 0.96 AC. PAD 555.0

LOT 14 GROSS 0.52 AC. NET 0.50 AC. PAD 555.0

LOT 15 GROSS 0.53 AC. NET 0.50 AC. PAD 555.0

LOT 16 GROSS 0.59 AC. NET 0.57 AC. PAD 555.0

LOT 17 GROSS 0.73 AC. NET 0.50 AC. PAD 555.0

LOT 18 GROSS 0.55 AC. NET 0.51 AC. PAD 555.0

LOT 19 GROSS 0.56 AC. NET 0.52 AC. PAD 555.0

LOT 20 GROSS 0.55 AC. NET 0.51 AC. PAD 555.0

LOT 21 GROSS 0.54 AC. NET 0.50 AC. PAD 545.0

LOT 22 GROSS 0.54 AC. NET 0.50 AC. PAD 540.0

LOT 23 GROSS 0.55 AC. NET 0.50 AC. PAD 530.0

LOT 24 GROSS 0.82 AC. NET 0.68 AC. PAD 520.0

LOT 26

LOT 25

LOT 24

LOT 23

LEMON CREST DRIVE

PROP. CURB RAMPS AND CROSS GUTTER

PROPOSED IMPROVEMENT CL

EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.

EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081

EX. FH

EX. 6" AC WATER MAIN

EX. EP (TYP.)

EX. 18" RCP STORM DRAIN

EX. DRAIN

EX. WATER METERS

EX. SEWER (TYP.)

EX. BLDG (TYP.)

EX. CURB INLET

APN 390-350-43

APN 390-350-42

EX. POWER POLE (TYP.)

EX. OVERHEAD LINE (TYP.)

EX. DRAINGE DITCH (TYP.)

EX. WATER METERS

PM 20180 PCL 2

PCL 1

MAP 2548 LOT 21

LOT 2

LOT 4

MAP 535 LOT 5

LOT 6

LOT 7

LOT 8

LOT

PM 3121 PCL 2

PCL 1

PCL 2

PCL 1

JANET LANE

HARDENED CONVENCE

ROCK CREST ROAD

ROCK CREST LANE

APN 394-402-10

ROS 6880

PM 8252 PCL 2

PCL 1

BIO. RET.

ESIDE

MAPLEVIEW ST.

JULIAN AVE.

SITE

TY MAP

SCALE

GE 1232, B5

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 inch = 50 ft.

TOPOGRAPHY

COUNTY 200 SCALE T

PHOTOGRAPHY DATED:

SOLAR ACCESS

ALL LOTS WITHIN THIS OF SOLAR ACCESS FO UNIT ALLOWED BY TH

STREET LIGHTS

AS REQUIRED BY COU

PARK LAND

PARK FEES WILL BE P

GRADING

EXCAVATION

FILL

IMPORT/EXPORT

SPECIAL ASSES

NO SPECIAL ASSESSME

SERVICE DISTRI

SEWER:

WATER:

FIRE:

ELEM. SCHOOL:

HIGH SCHOOL:

UTILITIES:

TELEPHONE:

POLICE:

STREET LIGHTING:

CABLE TELEVISION:

OWNER/SUBDIVI

CALIFORNIA INVESTMEN AND INLAND VALLEY IN 1150 ANCHORAGE LANE SAN DIEGO, CA 92106

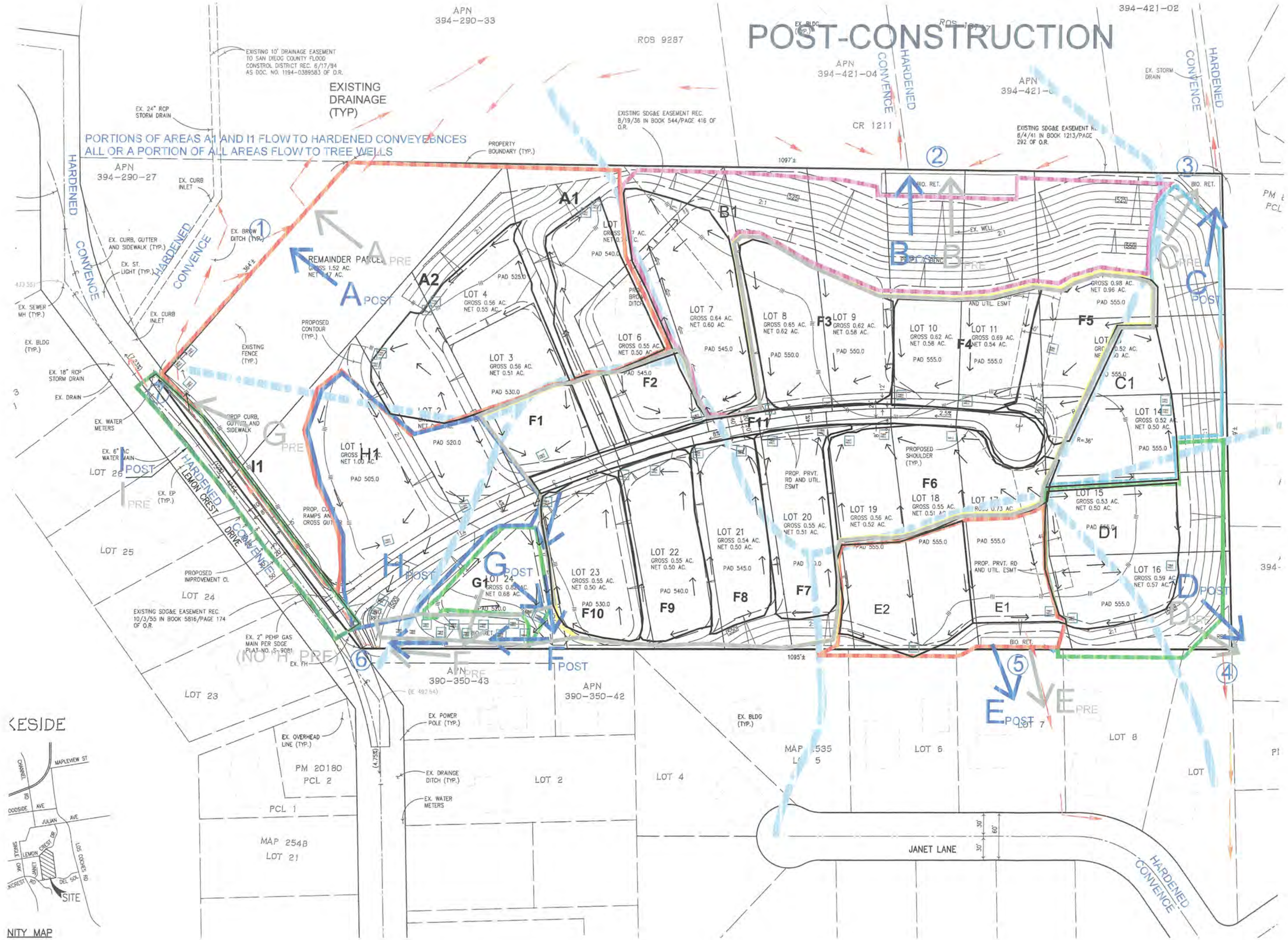
BOB STEWART PH: 619-563-1111

BOB STEWART, PRESIDE

DEVELOPMENT REGULATIONS

USE ANI

SPEC



POST-CONSTRUCTION
PORTIONS OF AREAS A1 AND I1 FLOW TO HARDENED CONVEYEBNCES
ALL OR A PORTION OF ALL AREAS FLOW TO TREE WELLS
EXISTING DRAINAGE (TYP)
APN 394-290-33
APN 394-290-27
APN 394-421-04
394-421-02
ROS 9287
CR 1211
HARDENED CONVENCE
REMAINDER PARCEL GROSS 1.52 AC. NET 1.47 AC.
A PRE
A POST
B POST
B PRE
C PRE
C POST
D POST
D PRE
E POST
E PRE
F POST
F PRE
G PRE
G POST
H POST
I POST
I PRE
(NO H PRE)
A1
A2
B1
C1
D1
E1
E2
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
G1
H1
I1
LEMON CREST DRIVE
JANET LANE
APN 390-350-43
APN 390-350-42
KESIDE
VICINITY MAP
SITE

AREA A

EX. 24" RCP STORM DRAIN

PCL 3

APN 394-290-27

IMPROVEMENT CL (CG 3548)

HARDENED CONVEYANCE

EX. CURB INLET

EX. CURB, GUTTER AND SIDEWALK (TYP.)

EX. ST. LIGHT (TYP.)

EX. BROW DITCH (TYP.)

PCL 2

EX. SEWER MH (TYP.)

POC

EX. CURB INLET

EX. S.F. RES. (TYP.)

EX. 18" RCP STORM DRAIN

EX. DRAIN (TYP)

EX. WATER METERS (TYP)

EX. P.P. TO BE RELOCATED BY OTHERS

ROS 4083 PCL 1

LOT 26

EX. 6" AC WATER MAIN (TYP)

EX. EP (TYP.)

LEMON CREST DRIVE

EX. P.P. TO BE RELOCATED BY OTHERS

LOT 24

EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.

EX. P.P. TO BE RELOCATED BY OTHERS

EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081

PROPERTY BOUNDARY (TYP.)

PROPOSED KEYSTONE BLOCK RETAINING WALL

EXISTING FENCE (TYP.)

PROPOSED CONTOUR (TYP.)

PROP CURB, GUTTER AND SIDEWALK

LOT 1 PAD 508.5

LOT 3 PAD 533.0

LOT 4 PAD 523.0

LOT 5 PAD 546.0

LOT 2 PAD 548.0

LOT 8 PAD 553.0

LOT 23 PAD 533.0

LOT 21 PAD 550.0

LOT 20 PAD 553.0

LOT 22

LOT 24 PAD 523.0

PRIVATE ROAD A

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP)

EXISTING STRUCTURES TO BE REMOVED

AREA B

PROP. PRVT. RD AND UTIL. ESMT

PCC SPILLWAY (TYP)

REMOVE AND RELOCATE EX. F.H.

APN

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF MITIGATING AREA)	SEE ATTACHED

NOT TO SCALE

AREA A

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

AREA B

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH TYP.

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

APN 394-421-03

MAP 289 LOT 129

PM 8358 PCL 3

PROPERTY BOUNDARY (TYP.)

TW 505.0
BW 495.0

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

EXTEND FOOTING DOWN

PROP. PRVT. AND UTIL. ESMT

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

PCL 2

PCL 1

PROP. PRVT. RD AND UTIL. ESMT

PCC SPILLWAY (TYP)

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD. AND UTIL. ESMT

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

ROCK CREST LANE

PRIVATE ROAD A

LOT 1 PAD 525.0
LOT 2 PAD 540.0
LOT 3 PAD 533.0
LOT 4 PAD 548.0
LOT 5 PAD 546.0
LOT 6 PAD 553.0
LOT 7 PAD 554.0
LOT 8 PAD 557.0
LOT 9 PAD 557.0
LOT 10 PAD 562.0
LOT 11 PAD 560.0
LOT 12 PAD 559.0
LOT 13 PAD 559.0
LOT 14 PAD 558.0
LOT 15 PAD 558.0
LOT 16 PAD 557.0
LOT 17 PAD 556.0
LOT 18 PAD 553.0
LOT 19 PAD 550.0
LOT 20 PAD 543.0
LOT 21 PAD 533.0
LOT 22 PAD 523.0

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

AREA B

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

APN 390-350-43

APN 390-350-42

AREAS C, D & E

AREA B

AREA C

AREA D

AREA E

AREA G

EXISTING ROAD
TREE WELL ACCESS

TREE WELL ACCESS

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

EXISTING STRUC TO BE REMOVED

EXTEND FOOTI DOWN

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0
BW 495.0

REMAINDER PARCEL

PROP. PRVT. AND UTIL. ESMT

PROP. PRVT. RD AND UTIL ESMT

PROPOSED SHOULDER (TYP.)

PROP. F CATCH 4" PVC

PCC SPILLWAY (TYP)

EXTEND DOWN

REMOVE AND RELOCATE EX. F.H.

EX. POWER POLE (TYP.)

EX. DRAINGE DITCH (TYP.)

EX. WATER

APN 390-350-43

APN 390-350-42

M 20180
PCL 2

LOT 2

LOT 4

PAD 508.5
PAD 523.0
PAD 533.0
PAD 548.0
PAD 546.0
PAD 525.0
PAD 540.0
PAD 553.0
PAD 554.0
PAD 557.0
PAD 562.0
PAD 560.0
PAD 559.0
PAD 556.0
PAD 558.0
PAD 550.0

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

LEGEND- AREA C

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA D

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA E

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED (0.78 AC)
	SLOPES SELF-MITIGATING	SEE ATTACHED

NOT TO SCALE

AREA F

APN 394-421-04

APN 394-421-03

EX. STORM DRAIN

MAP LOT 1

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP)

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

PROPERTY BOUNDARY (TYP.)

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0
BW 495.0

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

EXTEND FOOTING DOWN

PM 8358
PCL 3

PCL 2

PCL 1

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD. AND UTIL. ESMT

PCC SPILLWAY (TYP)

REMOVE AND RELOCATE EX. F.H.

PRIVATE ROAD

ROCK CREST LANE

APN 390-350-43

APN 390-350-42

LOT 2 PAD 523.0

LOT 3 PAD 533.0

LOT 4 PAD 540.0

LOT 5 PAD 525.0

LOT 6 PAD 546.0

LOT 7 PAD 548.0

LOT 8 PAD 553.0

LOT 9 PAD 554.0

LOT 10 PAD 557.0

LOT 11 PAD 556.0

LOT 12 PAD 553.0

LOT 13 PAD 550.0

LOT 14 PAD 559.0

LOT 15 PAD 559.0

LOT 16 PAD 560.0

LOT 17 PAD 558.0

LOT 18 PAD 558.0

LOT 24 PAD 523.0

PAD 543.0

LEGEND

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOT TO SCALE

AREAS G & H

AREA H
PAD 508.5

AREA G
PAD 523.0

AREA B

REMAINDER PARCEL

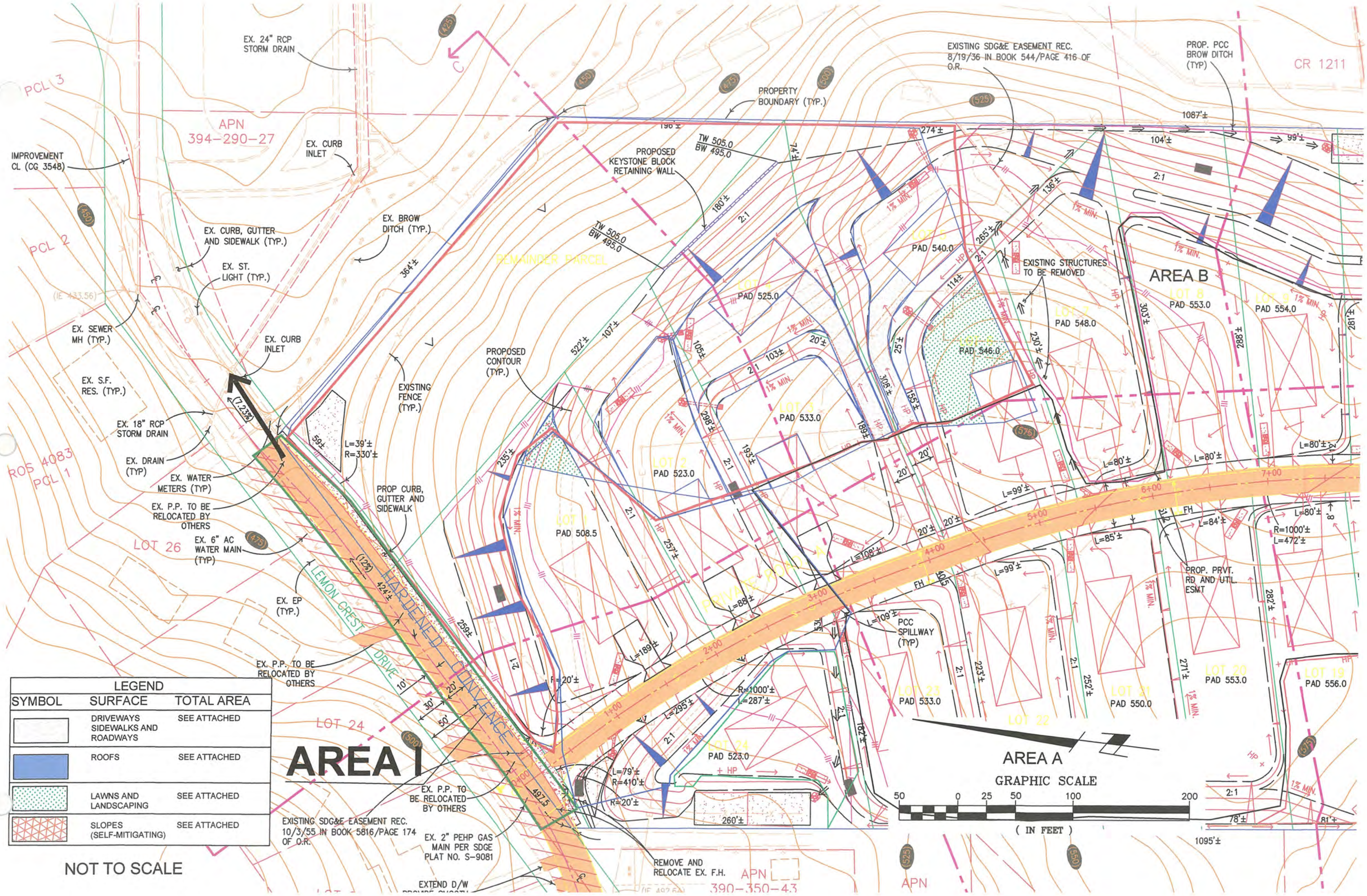
LOT 1 PAD 525.0
LOT 2 PAD 523.0
LOT 3 PAD 533.0
LOT 4 PAD 546.0
LOT 5 PAD 548.0
LOT 6 PAD 540.0
LOT 8 PAD 553.0
LOT 9 PAD 554.0
LOT 10 PAD 557.0
LOT 11 PAD 557.0
LOT 20 PAD 553.0
LOT 21 PAD 550.0
LOT 22 PAD 543.0
LOT 23 PAD 533.0
LOT 18 PAD 556.0
LOT 19 PAD 557.0
LOT 17 PAD 558.0
LOT 24
LOT 23
LOT 7
LOT 6

EX. CURB INLET
EXISTING FENCE (TYP.)
PROPOSED CONTOUR (TYP.)
PROP CURB, GUTTER AND SIDEWALK
EX. EP (TYP.)
EX. P.P. TO BE RELOCATED BY OTHERS
EXISTING STRUCTURES TO BE REMOVED
PROP. 7' BENCH
PROP. PRVT. AND UTIL. ESMT
PROP. PRVT. RD. AND UTIL. ESMT
PROPOSED SHOULDER (TYP.)
PCC SPILLWAY (TYP)
TREE WELL
REMOVE AND RELOCATE EX. F.H.
EXTEND D/W PROVIDE SMOOTH TRANSITION (TYP)
EX. OVERHEAD LINE (TYP.)
EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.
EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081
APN 390-350-43
PM 20180 PCL 2
PCL 1
LEMON CREST DRIVE
HARDENER RIDGE CONVENIENCE

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
NOT TO SCALE

LEGEND- AREA G		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA H		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED


AREA I
AREA A
AREA B
LEGEND
SYMBOL
SURFACE
TOTAL AREA
DRIVEWAYS SIDEWALKS AND ROADWAYS
SEE ATTACHED
ROOFS
SEE ATTACHED
LAWNS AND LANDSCAPING
SEE ATTACHED
SLOPES (SELF-MITIGATING)
SEE ATTACHED
NOT TO SCALE
GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
HARDENED CONVEYANCE
LEMON CREST DRIVE
PRIVATE ROAD "A"
REMAINDER PARCEL
EX. 24" RCP STORM DRAIN
IMPROVEMENT CL (CG 3548)
PCL 3
PCL 2
PCL 1
ROS 4083
APN 394-290-27
EX. CURB INLET
EX. CURB, GUTTER AND SIDEWALK (TYP.)
EX. ST. LIGHT (TYP.)
EX. BROW DITCH (TYP.)
EX. SEWER MH (TYP.)
EX. S.F. RES. (TYP.)
EX. 18" RCP STORM DRAIN
EX. DRAIN (TYP)
EX. WATER METERS (TYP)
EX. P.P. TO BE RELOCATED BY OTHERS
EX. 6" AC WATER MAIN (TYP)
LOT 26
EX. EP (TYP.)
LOT 24
EXISTING FENCE (TYP.)
PROP CURB, GUTTER AND SIDEWALK
PROPOSED CONTOUR (TYP.)
PROPOSED KEYSTONE BLOCK RETAINING WALL
TW 505.0 BW 495.0
PROPERTY BOUNDARY (TYP.)
EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.
PROP. PCC BROW DITCH (TYP)
CR 1211
EXISTING STRUCTURES TO BE REMOVED
PAD 508.5
PAD 523.0
PAD 525.0
PAD 533.0
PAD 540.0
PAD 546.0
PAD 548.0
PAD 553.0
PAD 554.0
PAD 556.0
PAD 550.0
PROP. PRVT. RD AND UTL. ESMT
PCC SPILLWAY (TYP)
EX. P.P. TO BE RELOCATED BY OTHERS
EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.
EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081
REMOVE AND RELOCATE EX. F.H.
EXTEND D/W
APN 390-350-43
1% MIN.
2:1

S. Pat Rymer Civil Engineer
9204 Jovic Rd.
Lakeside, CA 92040
Phone (619) 871-5389

Email banzai780@aol.com

DMA DATA

Area A- Total Area= 164,197.89 Exempt Area= 124,640.54

	Area A1	Area A2-	Combined
Roofs-	4,738.38	3,683.78	8,422.16
Landscape-	15,933.81	9,456.66	25,390.47
Pavement-	3,055.59	2,689.13	5,744.72
	23,727.78	15,829.57	39,557.35
Tree Wells	1	1	2

Area B- Total Area= 94,033.77 Exempt Area= 66,393.70

	Area b1
Roofs-	3,200.00
Landscape-	23,445.12
Pavement-	994.95
	27,640.07
Tree Wells	1

Area C- Total Area= 44,868.76 Exempt Area= 24,907.57

	Area C1
Roofs-	5,333.32
Landscape-	14,627.87
Pavement-	0.00
	19,961.19
Tree Wells	1

Area D- Total Area= 42,041.09 Exempt Area= 10,758.43

	Area D1
Roofs-	3,200.00
Landscape-	28,082.66
Pavement-	0.00
	31,282.66
Tree Wells	1

Area E- Total Area= 49,165.36 Exempt Area= 16,882.85

	Area E1	Area E2	Combined
Roofs-	3,200.00	0.00	3,200.00
Landscape-	9,280.00	19,802.51	29,082.51
Pavement-	0.00	0.00	0.00
	12,480.00	19,802.51	32,282.51
Tree Wells	1	1	2

Area F- Total Area= 247,150.52 Exempt Area= 41,043.49

	Area F1	Area F2	Area F3	Area F4	Area F5	Area F6	Area F7	Area F8	Area F9	Area F10	Area F11	Combined
Roofs-	1,820.00	1,832.00	6,400.00	6,400.00	3,486.03	6,400.00	3,200.00	3,200.00	3,200.00	3,200.00	0.00	39,138.03
Landscape-	8,659.00	3,394.08	21,913.63	15,005.23	13,160.06	22,156.32	8,299.64	13,012.91	12,851.95	11,647.37	0.00	130,100.19
Pavement-	994.95	1,003.32	2,006.64	2,006.64	4,921.13	3,009.96	1,003.32	1,003.32	1,003.32	994.95	18,921.26	36,868.81
	11,473.95	6,229.40	30,320.27	23,411.87	21,567.22	31,566.28	12,502.96	17,216.23	17,055.27	15,842.32	18,921.26	206,107.03
Tree Wells	1	1	2	2	2	3	2	2	2	1	10	28

Area G- Total Area= 12,582.60 Exempt Area= 4.75

	Area G1
Roofs-	3,200.00
Landscape-	8,379.60
Pavement-	998.25
	12,577.85
Tree Wells	2

Area H- Total Area= 52,643.97 Exempt Area= 21,824.97

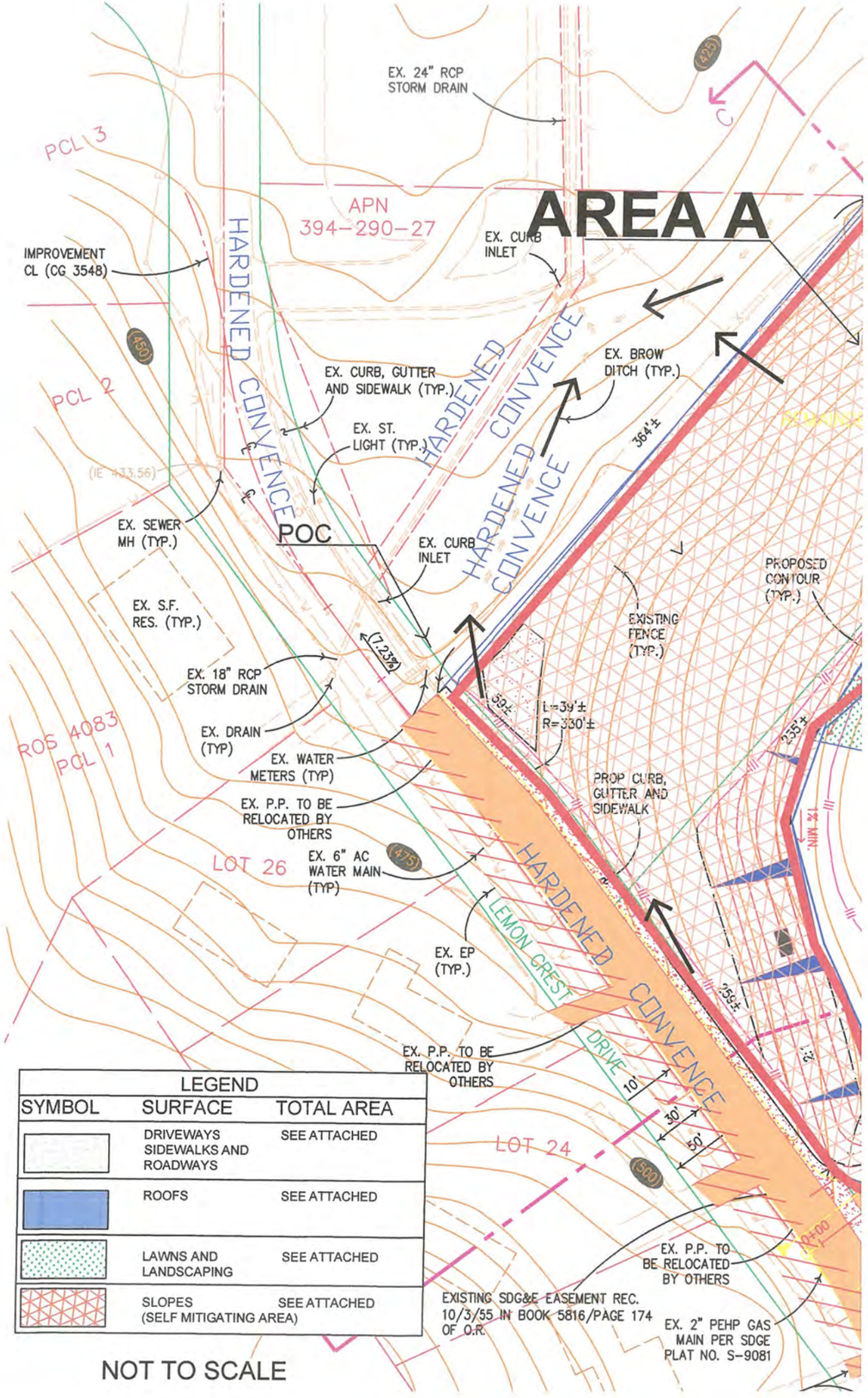
	Area H1
Roofs-	6,175.99
Landscape-	18,819.00
Pavement-	5,824.01
	30,819.00
Tree Wells	2

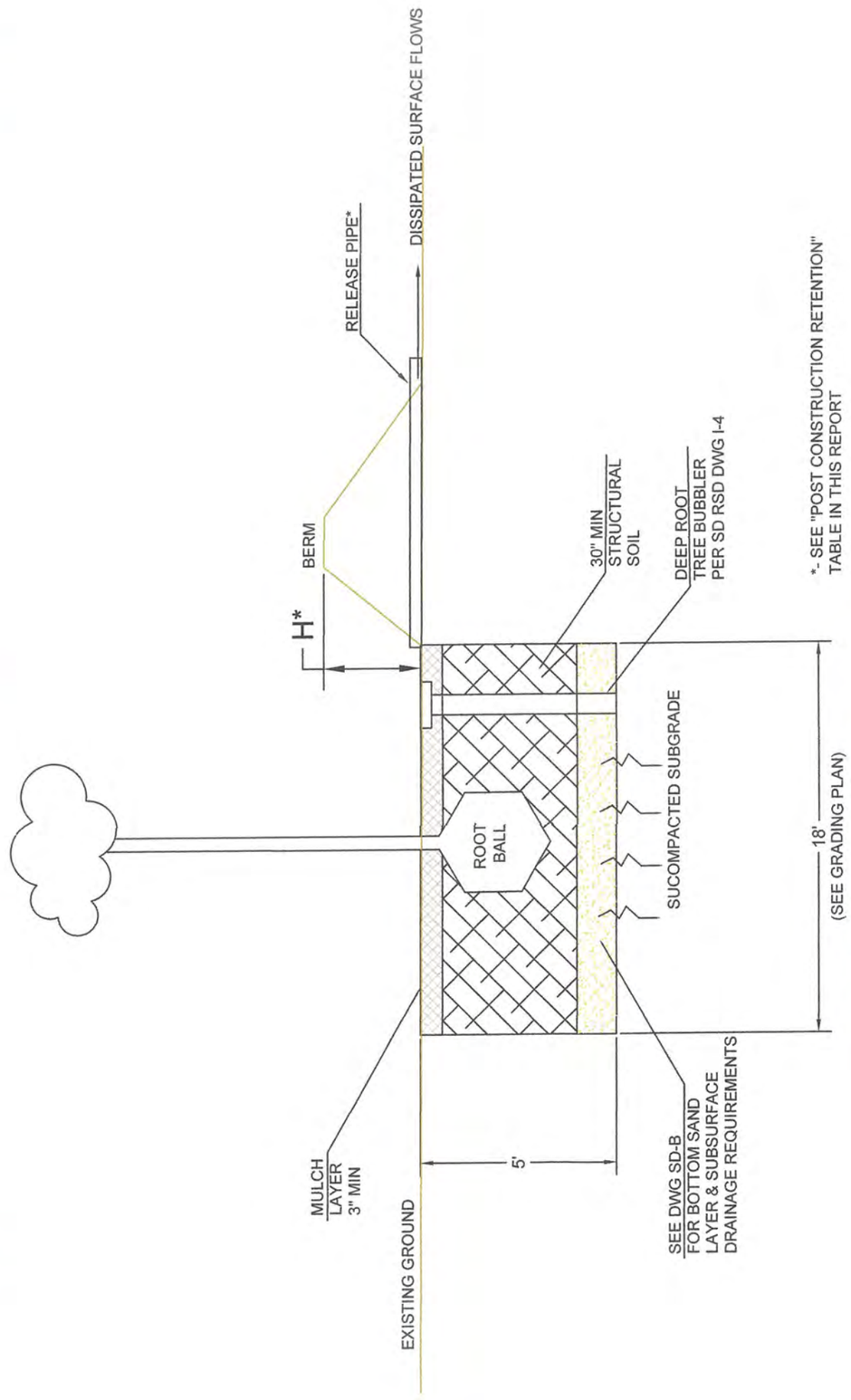
Area I- Total Area= 14,263.25 Exempt Area= 8,419.25

	Area I1
Roofs-	0.00
Landscape-	0.00
Pavement-	5,844.00
	5,844.00
Tree Wells	3

ATTACHMENT 1d

DMA MAP BOOK





TREE WELL DETAIL

NTS

AREA B

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP.)

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

APN 394-421-03

MAP 289 LOT 129

PROPERTY BOUNDARY (TYP.)

TW 505.0
BW 495.0

1087'±

104'±

100'±

87'±

226'±

2:1

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

PM 8358 PCL 3

EXTEND FOOTING DOWN

PCL 2

PCL 1

LOT 1 PAD 525.0

LOT 2 PAD 540.0

LOT 3 PAD 533.0

LOT 4 PAD 548.0

LOT 5 PAD 546.0

LOT 6 PAD 553.0

LOT 7 PAD 554.0

LOT 8 PAD 557.0

LOT 9 PAD 557.0

LOT 10 PAD 562.0

LOT 11 PAD 560.0

LOT 12 PAD 559.0

LOT 13 PAD 559.0

LOT 14 PAD 558.0

LOT 15 PAD 558.0

LOT 16 PAD 557.0

LOT 17 PAD 556.0

LOT 18 PAD 553.0

LOT 19 PAD 550.0

LOT 20 PAD 543.0

LOT 21 PAD 533.0

LOT 22 PAD 523.0

PROP. PRVT. AND UTIL. ESMT

PROP. PRVT. RD. AND UTIL. ESMT

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD AND UTIL. ESMT

PCC SPILLWAY (TYP)

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

PRIVATE ROAD A

1% MIN.

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

AREA B

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

APN 390-350-43

APN 390-350-42

ROCK CREST LANE

AREAS C, D & E

AREA B

AREA C

AREA D

AREA E

AREA G

REMAINDER PARCEL

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0
BW 495.0

EXISTING STRUCTURES TO BE REMOVED

EXISTING ROAD
TREE WELL ACCESS

EX. WELL TO BE REMOVED

PROP. 7' BENCH

PROP. PRVT. AND UTIL. ESMT

PROP. PRVT. RD AND UTIL. ESMT

PROPOSED SHOULDER (TYP.)

PCC SPILLWAY (TYP)

PRIVATE ROAD

EXISTING STRUC TO BE REMOVED

EXTEND FOOTI DOWN

PROP. F CATCH 4" PVC

CON RESI (TYP

EXTEND DOWN

LOT 1 PAD 508.5
LOT 2 PAD 523.0
LOT 3 PAD 533.0
LOT 4 PAD 540.0
LOT 5 PAD 546.0
LOT 6 PAD 548.0
LOT 7 PAD 525.0
LOT 8 PAD 553.0
LOT 9 PAD 554.0
LOT 10 PAD 557.0
LOT 11 PAD 557.0
LOT 12 PAD 562.0
LOT 13 PAD 560.0
LOT 14 PAD 559.0
LOT 15 PAD 556.0
LOT 16 PAD 557.0
LOT 17 PAD 558.0
LOT 18 PAD 556.0
LOT 20 PAD 553.0
LOT 21 PAD 550.0
LOT 22
LOT 23 PAD 533.0
LOT 24 PAD 523.0

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)

REMOVE AND RELOCATE EX. F.H.

APN 390-350-43

APN 390-350-42

EX. POWER POLE (TYP.)

EX. DRAINGE DITCH (TYP.)

EX. WATER

M 20180
PCL 2

LOT 2

LOT 4

1095'±

118'±

NOT TO SCALE

LEGEND- AREA C

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA D

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA E

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED (0.78 AC)
	SLOPES SELF-MITIGATING	SEE ATTACHED

AREA F

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP)

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

PROPERTY BOUNDARY (TYP.)

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0
BW 495.0

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

EXTEND FOOTING DOWN

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

PROP. PRVT. RD. AND UTIL. ESMT

PROPOSED SHOULDER (TYP.)

PCC SPILLWAY (TYP)

REMOVE AND RELOCATE EX. F.H.

APN 394-421-04

APN 394-421-03

APN 390-350-43

APN 390-350-42

MAP LOT 1

PM 8358 PCL 3

PCL 2

PCL 1

ROCK CREST LANE

EX. STORM DRAIN

LOT 2 PAD 523.0
LOT 3 PAD 533.0
LOT 4 PAD 540.0
LOT 5 PAD 546.0
LOT 6 PAD 548.0
LOT 7 PAD 553.0
LOT 8 PAD 554.0
LOT 9 PAD 556.0
LOT 10 PAD 557.0
LOT 11 PAD 558.0
LOT 12 PAD 560.0
LOT 13 PAD 559.0
LOT 14 PAD 559.0
LOT 15 PAD 559.0
LOT 16 PAD 553.0
LOT 17 PAD 550.0
LOT 18 PAD 543.0
LOT 19 PAD 533.0
LOT 24 PAD 523.0

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOT TO SCALE

AREAS G & H

AREA H
PAD 508.5

AREA G
PAD 523.0

AREA B

REMAINDER PARCEL

EX. CURB INLET

EXISTING FENCE (TYP.)

PROPOSED CONTOUR (TYP.)

PROP CURB, GUTTER AND SIDEWALK

EX. EP (TYP.)

EX. P.P. TO BE RELOCATED BY OTHERS

EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.

EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081

EXTEND D/W PROVIDE SMOOTH TRANSITION (TYP)

EX. OVERHEAD LINE (TYP.)

REMOVE AND RELOCATE EX. F.H.

EXISTING STRUCTURES TO BE REMOVED

PCC SPILLWAY (TYP)

TREE WELL

PROP. PRVT. RD AND UTIL. ESMT

PROP. PRVT. AND UTIL. ESMT

PROP. PRVT. RD. AND UTIL. ESMT

PROPOSED SHOULDER (TYP.)

PROP. 7' BENCH

LEMON CREST DRIVE

HARDENED CONVEYANCE

APN 390-350-43

PM 20180
PCL 2

PCL 1

LOT 24

LOT 23

LOT 7

LOT 6

LEGEND- AREA G

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

LEGEND- AREA H

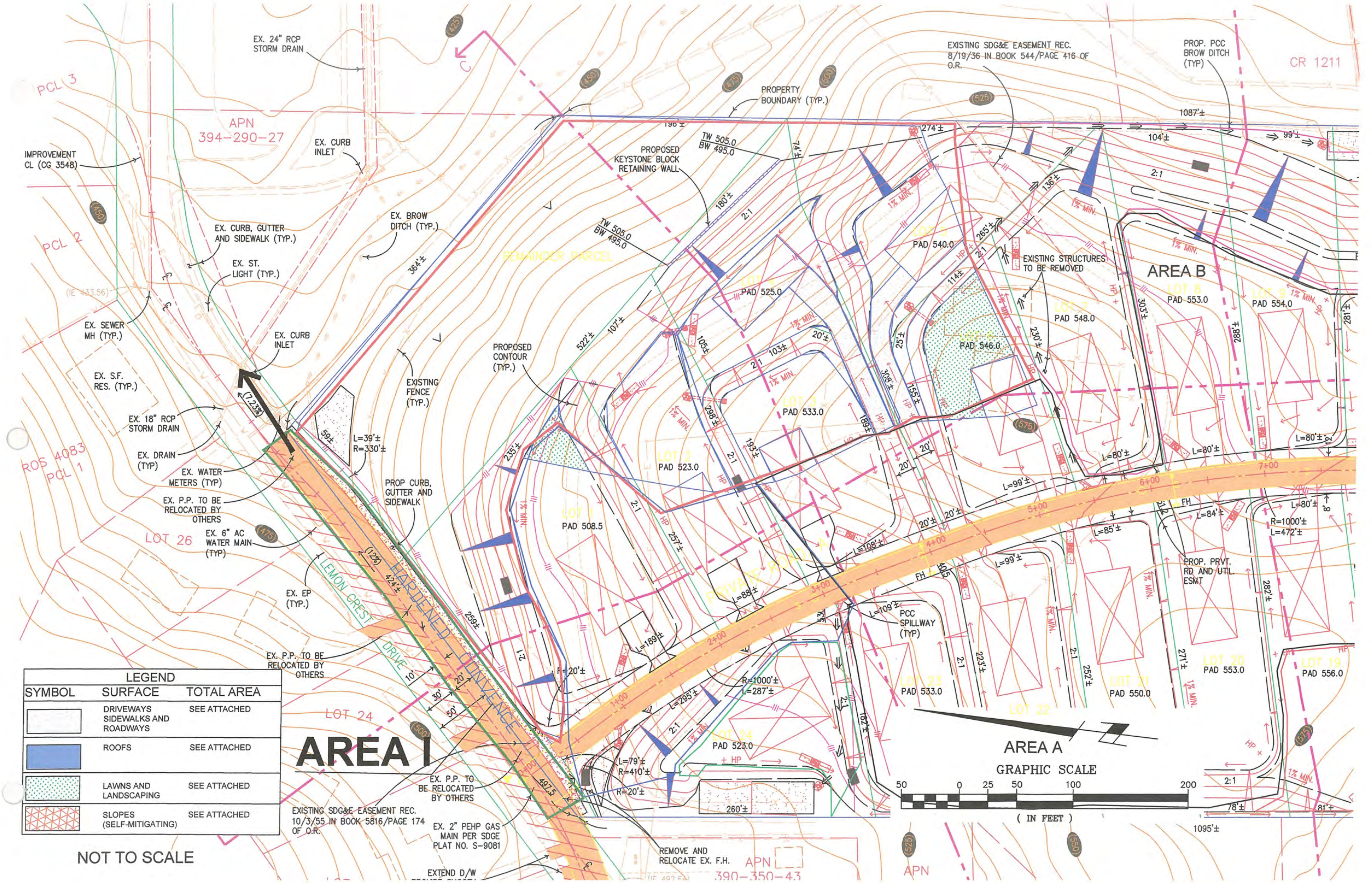
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

GRAPHIC SCALE

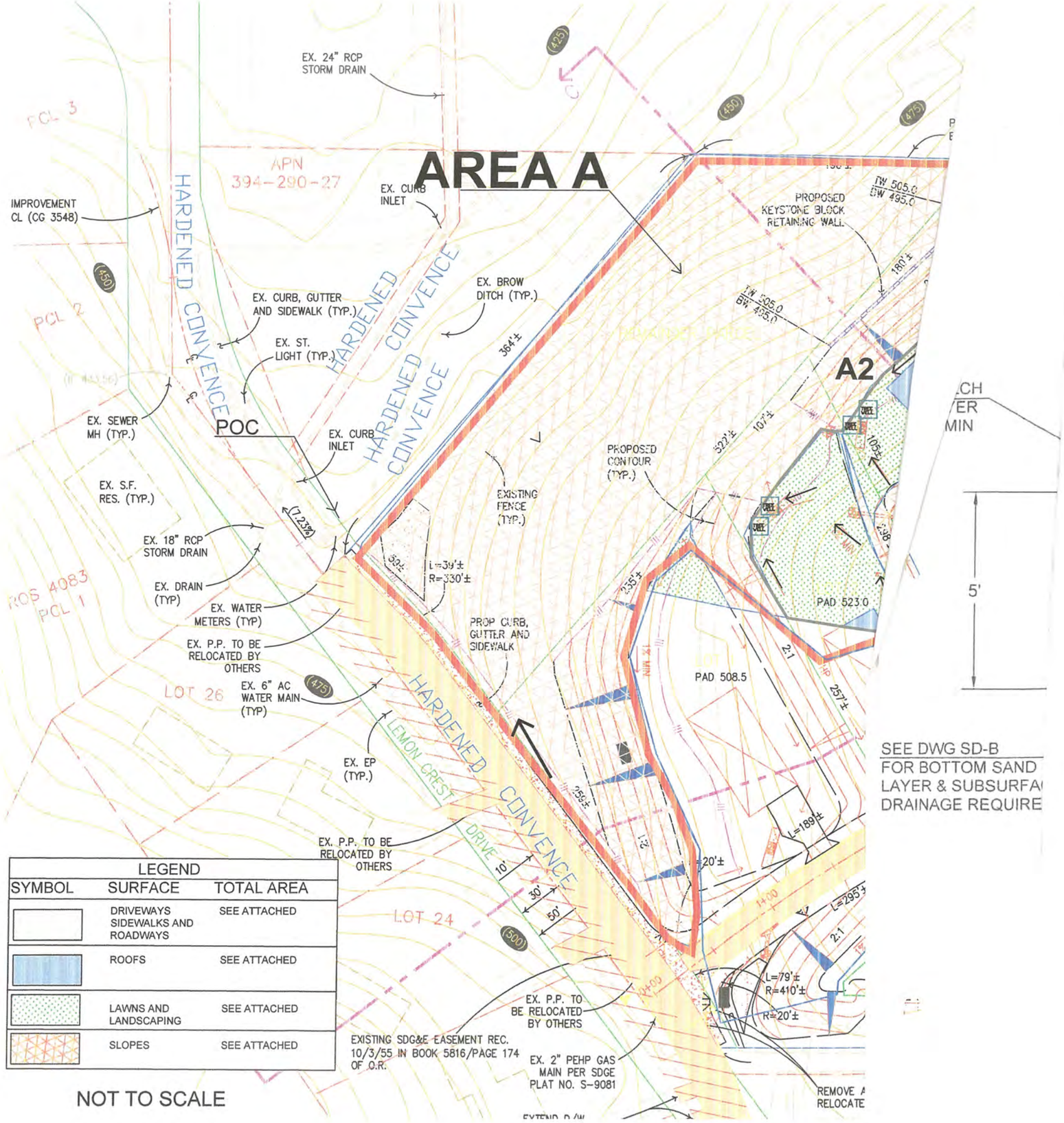
50 0 25 50 100 200

(IN FEET)

NOT TO SCALE



AREA I
AREA A
AREA B
LEGEND
SYMBOL
SURFACE
TOTAL AREA
DRIVEWAYS SIDEWALKS AND ROADWAYS
SEE ATTACHED
ROOFS
SEE ATTACHED
LAWNS AND LANDSCAPING
SEE ATTACHED
SLOPES (SELF-MITIGATING)
SEE ATTACHED
NOT TO SCALE
GRAPHIC SCALE
(IN FEET)
50
0
25
50
100
200
EX. 24" RCP STORM DRAIN
PROPERTY BOUNDARY (TYP.)
EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.
PROP. PCC BROW DITCH (TYP)
CR 1211
PCL 3
PCL 2
ROS 4083 PCL 1
APN 394-290-27
IMPROVEMENT CL (CG 3548)
EX. CURB INLET
PROPOSED KEYSTONE BLOCK RETAINING WALL
TW 505.0
BW 495.0
EX. BROW DITCH (TYP.)
EX. CURB, GUTTER AND SIDEWALK (TYP.)
EX. ST. LIGHT (TYP.)
REMAINDER PARCEL
EXISTING STRUCTURES TO BE REMOVED
EX. SEWER MH (TYP.)
EX. CURB INLET
EX. S.F. RES. (TYP.)
EXISTING FENCE (TYP.)
PROPOSED CONTOUR (TYP.)
EX. 18" RCP STORM DRAIN
EX. DRAIN (TYP)
EX. WATER METERS (TYP)
EX. P.P. TO BE RELOCATED BY OTHERS
EX. 6" AC WATER MAIN (TYP)
PROP CURB, GUTTER AND SIDEWALK
LOT 26
LOT 24
EX. EP (TYP.)
LEMON CREST DRIVE
HARDENED CONVEYANCE
PRIVATE ROAD
EX. P.P. TO BE RELOCATED BY OTHERS
EX. P.P. TO BE RELOCATED BY OTHERS
EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.
EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081
EXTEND D/W
REMOVE AND RELOCATE EX. F.H.
APN 390-350-43
PCC SPILLWAY (TYP)
PROP. PRVT. RD AND UTIL. ESMT
LOT 1 PAD 508.5
LOT 2 PAD 523.0
LOT 3 PAD 533.0
LOT 4 PAD 525.0
LOT 5 PAD 540.0
LOT 6 PAD 546.0
LOT 7 PAD 548.0
LOT 8 PAD 553.0
LOT 9 PAD 554.0
LOT 19 PAD 556.0
LOT 20 PAD 553.0
LOT 21 PAD 550.0
LOT 22
LOT 23 PAD 533.0
LOT 24 PAD 523.0
1% MIN.
2:1
L=39'± R=330'±
R=1000'± L=472'±
R=1000'± L=287'±
L=79'± R=410'±
R=20'±



LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES	SEE ATTACHED

PMENT PROJECT (PDP) SWQMP

ATTACHMENT 2

HYDROMODIFICATION CONTROL MEASUR

his is the cover sheet for Attachment 2.

chment is empty because the project is exempt from PDP agement requirements.

hich Items are Included behind this cover sheet:

s	Checklist
ntrol Facility Design, g Structural BMP Drawdown ions and Overflow Design ry (Required) apter 6 and Appendix G of P Design Manual	☒ Included ☐ Submitted as separate sta alone document
odification Management (Required)	☒ Included See Hydromodification Mana Exhibit Checklist on the back Attachment cover sheet.
M. gement of Critical Coarse Sc ent Yield Areas ection 6.2 and Appendix H of MP Design Manual.	☐ Exhibit depicting onsite a upstream sources of critic coarse sediment as mapp Regional or Jurisdictional approaches outlined in Ap H.1 AND, ☒ Demonstration that the pro effectively avoids and bypa sources of mapped critical sediment per approaches in Appendix H.2 and H.3. C ☐ Demonstration that project not generate a net impact receiving water per approa outlined in Appendix H.4.
morphic Assessment of eiving Channels (Optional) Section 6.3.4 of the BMP Design ual.	☒ Not performed ☐ Included ☐ Submitted as separate star alone document
tor Control Plan (Required when ctural BMPs will not drain in 96 rs)	☐ Included ☒ Not required because BMP drain in less than 96 hours

AREA B

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP.)

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

APN 394-421-03

MAP 289 LOT 129

PROPERTY BOUNDARY (TYP.)

TW 505.0
BW 495.0

1087'±

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

PM 8358 PCL 3

EXTEND FOOTING DOWN

PAD 540.0

PAD 525.0

PAD 548.0

PAD 546.0

PAD 533.0

PAD 553.0

PAD 554.0

PAD 557.0

PROP. PRVT. AND UTIL. ESMT

PAD 562.0

PAD 560.0

PAD 559.0

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

PCL 2

PCL 1

PROP. PRVT. RD AND UTIL. ESMT

PCC SPILLWAY (TYP)

PAD 543.0

PAD 550.0

PAD 556.0

PAD 523.0

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD. AND UTIL. ESMT

PAD 558.0

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

ROCK CREST LANE

1095'±

APN 390-350-43

APN 390-350-42

AND E EX. F.H.

LEGEND

SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES	SEE ATTACHED

AREA B

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

AREAS C, D & E

AREA B

AREA C

AREA D

AREA E

E1

E2

AREA G

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0
BW 495.0

EXISTING ROAD
TREE WELL ACCESS

TREE WELL ACCESS

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXISTING STRUCTURES TO BE REMOVED

EXISTING STRUC
TO BE REMOVED

EXTEND FOOTI
DOWN

PROP. PRVT.
AND UTIL. ESMT

PROP. PRVT.
RD AND UTIL.
ESMT

PROPOSED
SHOULDER
(TYP.)

PROP. F
CATCH
4" PVC

PCC
SPILLWAY
(TYP)

REMOVE AND
RELOCATE EX. F.H.

EX. POWER
POLE (TYP.)

EX. DRAINGE
DITCH (TYP.)

EX. WATER

EXTEND
DOWN

PAD 540.0
PAD 525.0
PAD 548.0
PAD 546.0
PAD 533.0
PAD 523.0
PAD 508.5
PAD 553.0
PAD 554.0
PAD 557.0
PAD 562.0
PAD 560.0
PAD 559.0
PAD 556.0
PAD 558.0
PAD 550.0

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

APN
390-350-43

APN
390-350-42

LOT 2

LOT 4

M 20180
POL 2

1095'±

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES	SEE ATTACHED

NOT TO SCALE

AREA F

APN 394-421-03

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP)

EXISTING SDG&E EASEMENT REC. 8/4/41 IN BOOK 1213/PAGE 292 OF O.R.

PROPERTY BOUNDARY (TYP.)

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0 BW 495.0

EXISTING STRUCTURES TO BE REMOVED

EX. WELL TO BE REMOVED

PROP. 7' BENCH

EXTEND FOOTING DOWN

PM 8358 PCL 3

PCL 2

PCL 1

PROP. PRIVATE CATCH BASIN W/ 4" PVC PIPE(TYP)

CONCEPT SINGLE FAMILY RESIDENCE FOOTPRINT (TYP)

PCC SPILLWAY (TYP)

PROPOSED SHOULDER (TYP.)

PROP. PRVT. RD. AND UTIL. ESMT

REMOVE AND RELOCATE EX. F.H.

APN 390-350-43

APN 390-350-42

ROCK CREST LANE

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES (SELF-MITIGATING)	SEE ATTACHED

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOT TO SCALE

AREAS G & H

AREA H
PAD 508.5

AREA G
PAD 523.0

AREA B

PAD 525.0
PAD 533.0
PAD 523.0
PAD 540.0
PAD 548.0
PAD 546.0
PAD 553.0
PAD 554.0
PAD 557.0
PAD 557.0
PAD 533.0
PAD 543.0
PAD 550.0
PAD 553.0
PAD 556.0
PAD 557.0
PAD 558.0

EXISTING STRUCTURES TO BE REMOVED
PROP. 7' BENCH
PROP. PRVT. AND UTIL. ESMT
PROP. PRVT. RD AND UTIL. ESMT
PROP. PRVT. RD. AND UTIL. ESMT
PROPOSED SHOULDER (TYP.)
PROPOSED CONTOUR (TYP.)
EXISTING FENCE (TYP.)
EX. CURB INLET
EX. EP (TYP.)
EX. P.P. TO BE RELOCATED BY OTHERS
PROP CURB, GUTTER AND SIDEWALK
PCC SPILLWAY (TYP)
TREE WELL
REMOVE AND RELOCATE EX. F.H.
EXTEND D/W PROVIDE SMOOTH TRANSITION (TYP)
EX. OVERHEAD LINE (TYP.)
EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.
EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081

HARDENER CANYON DRIVE
LEMON CREST DRIVE

APN 390-350-43

LOT 24
LOT 23
LOT 7
LOT 6

PM 20180
PCL 2
PCL 1

1095'±

LEGEND		
SYMBOL	SURFACE	TOTAL AREA
	DRIVEWAYS SIDEWALKS AND ROADWAYS	SEE ATTACHED
	ROOFS	SEE ATTACHED
	LAWNS AND LANDSCAPING	SEE ATTACHED
	SLOPES	SEE ATTACHED

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
NOT TO SCALE

EX. 24" RCP STORM DRAIN

PCL 3

APN 394-290-27

IMPROVEMENT CL (CG 3548)

EX. CURB INLET

PROPERTY BOUNDARY (TYP.)

EXISTING SDG&E EASEMENT REC. 8/19/36 IN BOOK 544/PAGE 416 OF O.R.

PROP. PCC BROW DITCH (TYP)

CR 1211

PROPOSED KEYSTONE BLOCK RETAINING WALL

TW 505.0 BW 495.0

EX. CURB, GUTTER AND SIDEWALK (TYP.)

EX. BROW DITCH (TYP.)

EX. ST. LIGHT (TYP.)

PCL 2

REMAINDER PARCEL

PAD 540.0

EXISTING STRUCTURES TO BE REMOVED

AREA B

PAD 525.0

PAD 548.0

PAD 553.0

PAD 554.0

EX. SEWER MH (TYP.)

EX. CURB INLET

PAD 546.0

EX. S.F. RES. (TYP.)

PROPOSED CONTOUR (TYP.)

EXISTING FENCE (TYP.)

PAD 533.0

EX. 18" RCP STORM DRAIN

EX. DRAIN (TYP)

EX. WATER METERS (TYP)

EX. P.P. TO BE RELOCATED BY OTHERS

PROP CURB, GUTTER AND SIDEWALK

PAD 523.0

ROS 4083 PCL 1

LOT 26

EX. 6" AC WATER MAIN (TYP)

PAD 508.5

I1

EX. EP (TYP.)

LEMON CREST DRIVE

HARDENED CONVEYANCE

PROP. PRVT. RD AND UTIL. ESMT

PCC SPILLWAY (TYP)

PAD 533.0

PAD 550.0

PAD 553.0

PAD 556.0

EX. P.P. TO BE RELOCATED BY OTHERS

LOT 24

AREA I

AREA A

EX. P.P. TO BE RELOCATED BY OTHERS

EXISTING SDG&E EASEMENT REC. 10/3/55 IN BOOK 5816/PAGE 174 OF O.R.

EX. 2" PEHP GAS MAIN PER SDGE PLAT NO. S-9081

REMOVE AND RELOCATE EX. F.H.

APN 390-350-43

APN

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

LEGEND	
SYMBOL	SURFACE
	DRIVEWAYS SIDEWALKS AND ROADWAYS
	ROOFS
	LAWNS AND LANDSCAPING
	SLOPES

NOT TO SCALE

S. Pat Rymer Civil Engineer
9204 Jovic Rd.
Lakeside, CA 92040
Phone (619) 871-5389

Email banzai760@aol.com

DMA DATA

Area A- Total Area= 164,197.89 Exempt Area= 124,640.54

	Area A1	Area A2-	Combined
Roofs-	4,738.38	3,683.78	8,422.16
Landscape-	15,933.81	9,456.66	25,390.47
Pavement-	3,055.59	2,689.13	5,744.72
	23,727.78	15,829.57	39,557.35
Tree Wells	1	1	2

Area B- Total Area= 94,033.77 Exempt Area= 66,393.70

	Area b1
Roofs-	3,200.00
Landscape-	23,445.12
Pavement-	994.95
	27,640.07
Tree Wells	1

Area C- Total Area= 44,868.76 Exempt Area= 24,907.57

	Area C1
Roofs-	5,333.32
Landscape-	14,627.87
Pavement-	0.00
	19,961.19
Tree Wells	1

Area D- Total Area= 42,041.09 Exempt Area= 10,758.43

	Area D1
Roofs-	3,200.00
Landscape-	28,082.66
Pavement-	0.00
	31,282.66
Tree Wells	1

Area E- Total Area= 49,165.36 Exempt Area= 16,882.85

	Area E1	Area E2	Combined
Roofs-	3,200.00	0.00	3,200.00
Landscape-	9,280.00	19,802.51	29,082.51
Pavement-	0.00	0.00	0.00
	12,480.00	19,802.51	32,282.51
Tree Wells	1	1	2

Area F- Total Area= 247,150.52 Exempt Area= 41,043.49

	Area F1	Area F2	Area F3	Area F4	Area F5	Area F6	Area F7	Area F8	Area F9	Area F10	Area F11	Combined
Roofs-	1,820.00	1,832.00	6,400.00	6,400.00	3,486.03	6,400.00	3,200.00	3,200.00	3,200.00	3,200.00	0.00	39,138.03
Landscape-	8,659.00	3,394.08	21,913.63	15,005.23	13,160.06	22,156.32	8,299.64	13,012.91	12,851.95	11,647.37	0.00	130,100.19
Pavement-	994.95	1,003.32	2,006.64	2,006.64	4,921.13	3,009.96	1,003.32	1,003.32	1,003.32	994.95	18,921.26	36,868.81
	11,473.95	6,229.40	30,320.27	23,411.87	21,567.22	31,566.28	12,502.96	17,216.23	17,055.27	15,842.32	18,921.26	206,107.03
Tree Wells	1	1	2	2	2	3	2	2	2	1	10	28

Area G- Total Area= 12,582.60 Exempt Area= 4.75

	Area G1
Roofs-	3,200.00
Landscape-	8,379.60
Pavement-	998.25
	12,577.85
Tree Wells	2

Area H- Total Area= 52,643.97 Exempt Area= 21,824.97

	Area H1
Roofs-	6,175.99
Landscape-	18,819.00
Pavement-	5,824.01
	30,819.00
Tree Wells	2

Area I- Total Area= 14,263.25 Exempt Area= 8,419.25

	Area I1
Roofs-	0.00
Landscape-	0.00
Pavement-	5,844.00
	5,844.00
Tree Wells	3

ATTACHMENT 4

County of San Diego PDP Structural BMP Verification for Permitted Land Development Projects

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County of San Diego BMP Design Manual Verification Form	
Project Summary Information	
Project Name	Lemon Crest Subdivision
Record ID (e.g., grading/improvement plan number)	
Project Address	Lemon Crest Road Lakeside, CA 92040
Assessor's Parcel Number(s) (APN(s))	394-290-28
Project Watershed (Complete Hydrologic Unit, Area, and Subarea Name with Numeric Identifier)	907.14 Los Coches Creek
Responsible Party for Construction Phase	
Developer's Name	Bob Stewart
Address	1150 Anchorage Ln. #101 San Diego, CA 92106
Email Address	bobstewart@cox.net
Phone Number	(619) 563-1111
Engineer of Work	S. Pat Rymer P.E.
Engineer's Phone Number	(619) 871-5389
Responsible Party for Ongoing Maintenance	
Owner's Name(s)*	Bob Stewart
Address	1150 Anchorage Ln. San Diego, CA 92106
Email Address	bobstewart@cox.net
Phone Number	(619) 563-1111
*Note: If a corporation or LLC, provide information for principal partner or Agent for Service of Process. If an HOA, provide information for the Board or property manager at time of project closeout.	

County of San Diego BMP Design Manual Verification Form Page 2 of 4					
Stormwater Structural Pollutant Control & Hydromodification Control BMPs* (List all from SWQMP)					
Description/Type of Structural BMP	**Plan Sheet #**	**STRUCT-URAL BMP ID#**	**Maint-enance Category**	**Maintenance Agreement Recorded Doc #**	**Revisions**
Basin A					
Basin B					
Basin C					
Basin D					
Basin E					
Basin F					
Basin G					
Basin H					
Basin I					
*All Priority Development Projects (PDPs) require a Structural BMP					

Note: If this is a partial verification of Structural BMPs, provide a list and map denoting Structural BMPs that have already been submitted, those for this submission, and those anticipated in future submissions.

County of San Diego BMP Design Manual Verification Form Page 3 of 4

Checklist for Applicant to submit to PDCI:

- ☐ Copy of the final accepted SWQMP and any accepted addendum.
- ☐ Copy of the most current plan showing the Stormwater Structural BMP Table, plans/cross-section sheets of the Structural BMPs and the location of each verified as-built Structural BMP.
- ☐ Photograph of each Structural BMP.
- ☐ Photograph(s) of each Structural BMP during the construction process to illustrate proper construction.
- ☐ Copy of the approved Structural BMP maintenance agreement and associated security

By signing below, I certify that the Structural BMP(s) for this project have been constructed and all BMPs are in substantial conformance with the approved plans and applicable regulations. I understand the County reserves the right to inspect the above BMPs to verify compliance with the approved plans and Watershed Protection Ordinance (WPO). Should it be determined that the BMPs were not constructed to plan or code, corrective actions may be necessary before permits can be closed.

Please sign your name and seal.

Professional Engineer's Printed Name:

_____

Professional Engineer's Signed Name:

_____

Date:_____

[SEAL]

County of San Diego BMP Design Manual Verification Form Page 4 of 4

COUNTY - OFFICIAL USE ONLY:

For PDCI: Verification Package #: _____

PDCI Inspector: _____

Date Project has/expects to close: _____

Date verification received from EOW: _____

By signing below, PDCI Inspector concurs that every noted Structural BMP has been installed per plan.

PDCI Inspector's Signature: _____ Date: _____

FOR WPP:

Date Received from PDCI: _____

WPP Submittal Reviewer: _____

WPP Reviewer concurs that the information provided for the following Structural BMPs is acceptable to enter into the Structural BMP Maintenance verification inventory:

List **acceptable** Structural BMPs:

WPP Reviewer's Signature: _____ Date: _____

ATTACHMENT 5

Copy of Plan Sheets Showing Permanent Storm Water BMPs, Source Control, and Site Design

This is the cover sheet for Attachment 5.

Use this checklist to ensure the required information has been included on the plans:

The plans must identify:

- ☐ Structural BMP(s) with ID numbers matching Step 6 Summary of PDP Structural BMPs
- ☐ The grading and drainage design shown on the plans must be consistent with the delineation of DMAs shown on the DMA exhibit
- ☐ Details and specifications for construction of structural BMP(s)
- ☐ Signage indicating the location and boundary of structural BMP(s) as required by County staff
- ☐ How to access the structural BMP(s) to inspect and perform maintenance
- ☐ Features that are provided to facilitate inspection (e.g., observation ports, cleanouts, silt posts, or other features that allow the inspector to view necessary components of the structural BMP and compare to maintenance thresholds)
- ☐ Manufacturer and part number for proprietary parts of structural BMP(s) when applicable
- ☐ Maintenance thresholds specific to the structural BMP(s), with a location-specific frame of reference (e.g., level of accumulated materials that triggers removal of the materials, to be identified based on viewing marks on silt posts or measured with a survey rod with respect to a fixed benchmark within the BMP)
- ☐ Recommended equipment to perform maintenance
- ☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management
- ☐ Include landscaping plan sheets showing vegetation requirements for vegetated structural BMP(s)
- ☐ All BMPs must be fully dimensioned on the plans
- ☐ When proprietary BMPs are used, site-specific cross section with outflow, inflow, and model number must be provided. Photocopies of general brochures are not acceptable.
- ☐ Include all source control and site design measures described in Steps 4 and 5 of the SWQMP. Can be included as a separate exhibit as necessary.

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ATTACHMENT 6

Copy of Project's Drainage Report

This is the cover sheet for Attachment 6.

If hardcopy or CD is not attached, the following information should be provided:

Title: Hydraulic Study (Under Separate Cover)
Prepared By: S. Pat Rymer
Date: February 12, 3019

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ATTACHMENT 7

Copy of Project's Geotechnical and Groundwater Investigation Report

This is the cover sheet for Attachment 7.

If hardcopy or CD is not attached, the following information should be provided:

Title:
Prepared By:
Date:

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