CITY OF SANTEE

PRIORITY DEVELOPMENT PROJECT (PDP)

STORM WATER QUALITY MANAGEMENT PLAN (SWQMP)

FOR

LAUREL HIEGHTS

PERMIT APPLICATION NUMBERS: TM 2020-02, DR 2020-04

7737 MISSION GORGE ROAD
SANTEE, CALIFORNIA 92071

ASSESSOR'S PARCEL NUMBER(S):
386-30-13 and -29
ENGINEER OF WORK:



BRENDAN HASTIE, R.C.E. #65809 EXP. 09/21

PREPARED FOR:

CORNERSTONE COMMUNITIES
4365 EXECUTIVE DR, SUITE 600
SAN DIEGO, CALIFORNIA 92121

PDP SWQMP PREPARED BY:

RICK ENGINEERING COMPANY
WATER RESOURCES DIVISION
5620 FRIARS ROAD
SAN DIEGO, CALIFORNIA 92110-2596
(619) 291-0707

DATE OF SWQMP:
SEPTEMBER 18, 2020
REVISED: JANUARY 13, 2021
REVISED: MARCH 17, 2021
REVISED: APRIL 15, 2021

PLANS PREPARED BY:
RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CALIFORNIA 92110-2596
(619) 291-0707

PDP SWQMP Template Date: February 2016
PDP SWQMP Preparation Date: April, 15, 2021
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TABLE OF CONTENTS

Acronym Sheet

PDP SWQMP Preparer's Certification Page

PDP SWQMP Project Owner's Certification Page

Submittal Record

Project Vicinity Map

FORM I-1 Applicability of Permanent, Post-Construction Storm Water BMP Requirements

FORM I-2 Project Type Determination Checklist (Standard Project or PDP)

FORM I-3B Site Information Checklist for PDPs

FORM I-4 Source Control BMP Checklist for All Development Projects

FORM I-5 Site Design BMP Checklist for All Development Projects

FORM I-6 Summary of PDP Structural BMPs

Attachment 1: Backup for PDP Pollutant Control BMPs

- Attachment 1a: DMA Exhibit
- Attachment 1b: Tabular Summary of DMAs and Design Capture Volume Calculations
- Attachment 1c: Harvest and Use Feasibility Screening (when applicable)
- Attachment 1d: Categorization of Infiltration Feasibility Condition (when applicable)
- Attachment 1e: Pollutant Control BMP Design Worksheets / Calculations

Attachment 2: Backup for PDP Hydromodification Control Measures

- Attachment 2a: Hydromodification Management Exhibit
- Attachment 2b: Management of Critical Coarse Sediment Yield Areas
- Attachment 2c: Geomorphic Assessment of Receiving Channels
- Attachment 2d: Flow Control Facility Design

Attachment 3: Structural BMP Maintenance Plan

- Attachment 3a: B Structural BMP Maintenance Thresholds and Actions
- Attachment 3b: Draft Maintenance Agreement (when applicable)

Attachment 4: Copy of Plan Sheets Showing Permanent Storm Water BMPs

ACRONYMS

APN	Assessor's Parcel Number
BMP	Best Management Practice
HMP	Hydromodification Management Plan
HSG	Hydrologic Soil Group
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project
PE	Professional Engineer
SC	Source Control
SD	Site Design
SDRWQCB	San Diego Regional Water Quality Control Board
SIC	Standard Industrial Classification
SWQMP	Storm Water Quality Management Plan

SWQMP PREPARER'S
CERTIFICATION PAGE

Project Name: LAUREL HEIGHTS
Permit Application Number: TM 2020-02, DR 2020-04

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 City of Santee BMP Design Manual, which is a design manual for compliance with local City of Santee and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100) requirements for storm water management.

I have read and understand that the City Engineer 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 the [City Engineer] 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.

Brendan Hastie

_____ #65809 EXP. 09/21

Engineer of Work's Signature, PE Number & Expiration Date

Brendan Hastie

Print Name

Rick Engineering Company

Company

March 17, 2021

Date

Engineer's Seal:



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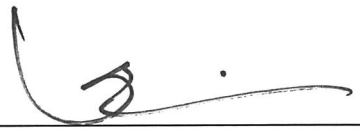
SWQMP PROJECT OWNER'S
CERTIFICATION PAGE

Project Name: LAUREL HIEGHTS
Permit Application Number: TM 2020-02, DR 2020-04

PROJECT OWNER'S CERTIFICATION

This PDP SWQMP has been prepared for Cornerstone Communities by Rick Engineering Company. The PDP SWQMP is intended to comply with the PDP requirements of the City of Santee BMP Design Manual, which is a design manual for compliance with local City of Santee and regional MS4 Permit (California Regional Water Quality Control Board San Diego Region Order No. R9-2015-0100) requirements for storm water management.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan. Once the undersigned transfers its interests in the property, its successor-in-interest shall bear the aforementioned responsibility to implement the best management practices (BMPs) described within this plan, including ensuring on-going operation and maintenance of structural BMPs. A signed copy of this document shall be available on the subject property into perpetuity.



Project Owner's Signature

Ure R. Kretowicz

Print Name

Cornerstone Communities

Company

3/16/2021

Date

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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.

Submittal Number	Date	Project Status	Summary of Changes
1	9/18/2020	☒ Preliminary Design / Planning/ CEQA ☐ Final Design	Initial Submittal
2	1/13/2021	☒ Preliminary Design / Planning/ CEQA ☐ Final Design	Response to comments
3	3/17/2021	☒ Preliminary Design / Planning/ CEQA ☐ Final Design	Response to comments
4	4/15/2021	☒ Preliminary Design / Planning/ CEQA ☐ Final Design	Response to comments

PRIORITY DEVELOPMENT PROJECT (PDP)
STORMWATER QUALITY MANAGEMENT PLAN (SWQMP)
FOR
LAUREL HEIGHTS

REVISION PAGE

April 15, 2021

Pursuant to review comments provided by the City of Santee on March 30th, 2021, this report presents a revision to the report titled, "Priority Development Project (PDP) Stormwater Quality Management Plan (SWQMP) for Laurel Heights" dated March 17th, 2021, prepared by Rick Engineering Company. The revisions below are also based on a meeting with the City of Santee held on April 8th, 2021. The outfall of DMA 2A has been revised and is now discharging to the abandoned lot to the north of the project site to best mimic existing drainage conditions. DMA 3A has been directed toward the underground vault and biofiltration basin at the northern end of the site and the MWS that had been treating this area has been removed. Associated attachments have been updated accordingly. Please refer to the DMA exhibit in Attachment 1A for revised DMA boundaries.

PRIORITY DEVELOPMENT PROJECT (PDP)
STORMWATER QUALITY MANAGEMENT PLAN (SWQMP)
FOR
LAUREL HEIGHTS

REVISION PAGE

March 17, 2021

Pursuant to review comments provided by the City of Santee on February 16th, 2021, this report presents a revision to the report titled, "Priority Development Project (PDP) Stormwater Quality Management Plan (SWQMP) for Laurel Heights" dated January 13th, 2021, prepared by Rick Engineering Company. The revisions below are also based on meetings with the City of Santee held on February 23rd, 2021 and a follow up meeting on March 11th, 2021. The following text identifies the review comments, followed by Rick Engineering Company's response in bold.

4. The "Storm Water Intake Form" needs to be signed.

   The Storm Water Intake Form has been signed.

5. The Storm Water Quality Management Plan (SWQMP) needs to be signed and certified as well as the signature of the project owner.

   The Storm Water Quality Management Plan (SWQMP) has been signed and certified and included the signature of the project owner.

PRIORITY DEVELOPMENT PROJECT (PDP)
STORMWATER QUALITY MANAGEMENT PLAN (SWQMP)
FOR
LAUREL HEIGHTS

REVISION PAGE

January 13, 2021

Pursuant to review comments provided by the City of Santee on December 3rd, 2020, this report presents a revision to the report titled, "Priority Development Project (PDP) Stormwater Quality Management Plan (SWQMP) for Laurel Heights" dated September 18th, 2020, prepared by Rick Engineering Company. The following text identifies the review comments, followed by Rick Engineering Company's response in bold.

5. The "Storm Water Intake Form" identifies under Step 5: Hydromodification Control as the requirements do not apply. The attachment 2 found in the SWQMP provided does not demonstrate meeting the requirements for an exemption. As indicated above, the City of Santee Public Works standards provides requirements as to when runoff needs to be undergrounded. The existing outfall located on the north side of Mission Gorge Road outfalls to the City of San Diego and as not been demonstrated that this is a hardened conveyance to the San Diego River allowing for an exemption to the hydromodification requirements.

   Attachment 2A of this report presents an exhibit that shows the flow path of the site to a hardened conveyance system to the San Diego River. This project does not discharge to the headwall on the north side of Mission Gorge Road.

6. The Storm water Quality Management Plan (SWQMP) needs to be signed and certified as well as the signature of the project owner.

   The Storm Water Quality Management Plan (SWQMP) will be signed and certified as well as with the signature of the project owner for the final submittal.

   A hydrology map in greater detail is required to depict the proposed site drainage pattern descripted on Form I-3B, Page 5 of 10.

   Please refer to the detailed DMA exhibit in Attachment 1A. Flow arrows show the drainage pattern described on Form I-3B, Page 5 of 10.

This project will contain “Fire Sprinkler Test Water” and should be identified on Form I-3B, Page 6 of 10 and within the report as necessary.

Comment noted. “Fire Sprinkler Test Water” has been included in this report and identified on Form I-3B, Page 6 of 10.

As mentioned above, the documentation provided does not justify Hydromodification Exemption.

Attachment 2A of this report presents an exhibit that shows the flow path of the site to a hardened conveyance system to the San Diego River. This project does not discharge to the headwall on the north side of Mission Gorge Road.

Complete the questions found on Form I-3B, after page 8 of 10 regarding the potential critical coarse sediment.

No potential critical coarse sediment exists within the project boundaries. The associated questions have been completed on the page after page 8 of 10 on form I-3B. Please refer to Attachment 2B for an exhibit that shows the limits of

The items identified in Form I-3B page 6 of 10 are inconsistent with those found on Form I-4, Page 2 of 2.

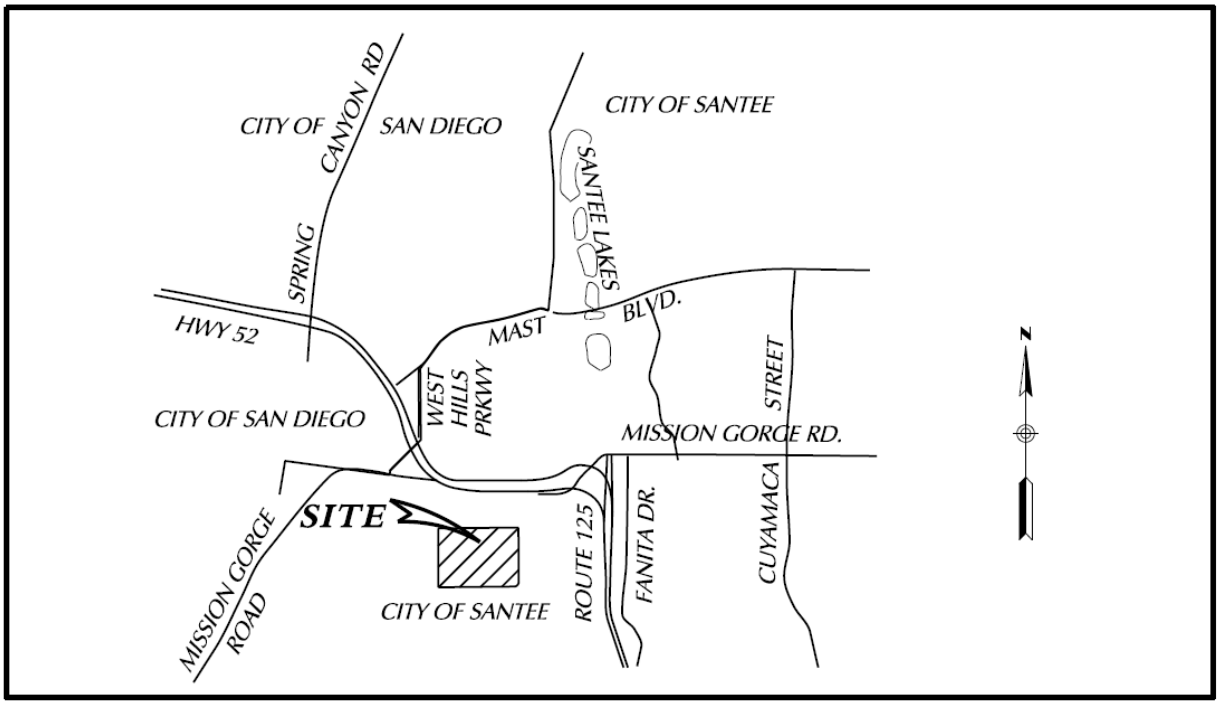
Comment noted. Form I-3B page 6 of 10 and Form I-4, Page 2 of 2 are now consistent and include “Fire Sprinkler Test Water”.

Attachment 1d, Categorization of Infiltration Feasibility Condition needs to be submitted at this time.

Please find the Categorization of Infiltration Feasibility Condition in Attachment 1D.

PROJECT VICINITY MAP

Project Name: LAUREL HEIGHTS
Permit Application Number: TM 2020-02, DR 2020-04



VICINITY MAP

NO SCALE

Applicability of Permanent, Post-Construction Storm Water BMP Requirements **(Storm Water Intake Form for all Development Permit Applications)**	**Form I-1** Model BMP Design Manual [August 31, 2015]

Project Identification

Project Name: Laurel Heights	
Permit Application Number: TM 2020-02, DR 2020-04	Date: April 15, 2021
Project Address: 7737 Mission Gorge Road Santee, CA 92071	

Determination of Requirements

The purpose of this form is to identify permanent, post-construction requirements that apply to the project. This form serves as a short summary of applicable requirements, in some cases referencing separate forms that will serve as the backup for the determination of requirements.

Answer each step below, starting with Step 1 and progressing through each step until reaching "Stop". **Upon reaching a Stop, do not complete further Steps beyond the Stop.**

Refer to BMP Design Manual sections and/or separate forms referenced in each step below.

Step	Answer	Progression
Step 1: Is the project a "development project"? See Section 1.3 of the BMP Design Manual for guidance.	☒ Yes	Go to Step 2.
	☐ No	Stop. Permanent BMP requirements do not apply. No SWQMP will be required. Provide discussion below.
Discussion / justification if the project is not a "development project" (e.g., the project includes *only* interior remodels within an existing building):		
Step 2: Is the project a Standard Project, Priority Development Project (PDP), or exception to PDP definitions? To answer this item, see Section 1.4 of the BMP Design Manual *in its entirety* for guidance, AND complete Form I-2, Project Type Determination.	☐ Standard Project	Stop. Only Standard Project requirements apply, including Standard Project SWQMP.
	☒ PDP	Standard and PDP requirements apply, including PDP SWQMP. Go to Step 3.
	☐ Exception to PDP definitions	Stop. Standard Project requirements apply, and any additional requirements specific to the type of project. Provide discussion and list any additional requirements below. Prepare Standard Project SWQMP.

Form I-1 Page 2, Form Template Date: August 31, 2015		
[Step 2 Continued from Page 1] Discussion / justification, and additional requirements for exceptions to PDP definitions, if applicable:		
Step 3 (PDPs only). Is the project subject to earlier PDP requirements due to a prior lawful approval? See Section 1.10 of the BMP Design Manual for guidance.	☐ Yes	Consult the [City Engineer] to determine requirements. Provide discussion and identify requirements below. Go to Step 4.
	☒ No	BMP Design Manual PDP requirements apply. Go to Step 4.
Discussion / justification of prior lawful approval, and identify requirements (*not required if prior lawful approval does not apply*):		
Step 4 (PDPs only). Do hydromodification control requirements apply? See Section 1.6 of the BMP Design Manual for guidance.	☐ Yes	PDP structural BMPs required for pollutant control (Chapter 5) and hydromodification control (Chapter 6). Go to Step 5.
	☒ No	Stop. PDP structural BMPs required for pollutant control (Chapter 5) only. Provide brief discussion of exemption to hydromodification control below.
Discussion / justification if hydromodification control requirements do <u>not</u> apply: In the existing and the proposed condition, the entirety of the site is conveyed over hardened surfaces before being collected by storm drain and discharged below the 10-year water surface elevation of the San Diego River, which is considered a hydromodification exempt body at this discharge location.		
Step 5 (PDPs subject to hydromodification control requirements only). Does protection of critical coarse sediment yield areas apply based on review of WMAA Potential Critical Coarse Sediment Yield Area Map? See Section 6.2 of the BMP Design Manual for guidance.	☐ Yes	Management measures required for protection of critical coarse sediment yield areas (Chapter 6.2). Stop.
	☒ No	Management measures not required for protection of critical coarse sediment yield areas. Provide brief discussion below. Stop.

Priority Determination Form	Form I-2 Model BMP Design Manual [August 31, 2015]
Project Information	
Project Name: Laurel Heights	
Permit Application Number: TM 2020-02, DR 2020-04	Date: April 15, 2021
Project Address: 7737 Mission Gorge Road Santee, CA 92071	

Project Type Determination: Standard Project or Priority Development Project (PDP)			
The project is (select one): ☐ New Development ☒ Redevelopment			
The total proposed newly created or replaced impervious area is: 173,794 ft^2 (4.0) acres			
Is the project in any of the following categories, (a) through (f)?			
Yes ☐	No ☒	(a)	New development projects that create 10,000 square feet or more of impervious surfaces (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.

Form I-2 Page 2, Form Template Date: August 31, 2015			
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).

The following is for redevelopment PDPs only:

The area of existing (pre-project) impervious area at the project site is: 82,820 ft^2 (A)
The total proposed newly created or replaced impervious area is 173,794 ft^2 (B)
Percent impervious surface created or replaced (B/A)*100: 210 %
The percent impervious surface created or replaced is (select one based on the above calculation):

☐ less than or equal to fifty percent (50%) – only new impervious areas are considered PDP

OR

☒ greater than fifty percent (50%) – the entire project site is a PDP

Site Design Checklist For PDPs	Form I-3B (PDPs) Model BMP Design Manual [August 31, 2015]
Project Summary Information	
Project Name	Laurel Heights
Project Address	7737 Mission Gorge Road Santee, CA 92071
Assessor's Parcel Number(s) (APN(s))	386-30-13 and -29
Permit Application Number	TM 2020-02, DR 2020-04
Project Hydrologic Unit	Select One: ☐ Santa Margarita 902 ☐ San Luis Rey 903 ☐ Carlsbad 904 ☐ San Dieguito 905 ☐ Penasquitos 906 ☒ San Diego 907 ☐ Pueblo San Diego 908 ☐ Sweetwater 909 ☐ Otay 910 ☐ Tijuana 911
Project Watershed (Complete Hydrologic Unit, Area, and Subarea Name with Numeric Identifier)	Santee HSA 907.12
Parcel Area (total area of Assessor's Parcel(s) associated with the project)	7.0 Acres (305,105 Square Feet)
Area to be Disturbed by the Project (Project Area)	7.0 Acres (305,105 Square Feet)
Project Proposed Impervious Area (subset of Project Area)	4.0 Acres (173,794 Square Feet)
Project Proposed Pervious Area (subset of Project Area)	3.0 Acres (131,311 Square Feet)
Note: Proposed Impervious Area + Proposed Pervious Area = Area to be Disturbed by the Project. This may be less than the Parcel Area.	

Form I-3B Page 2 of 10, Form Template Date: August 31, 2015
Description of Existing Site Condition
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: The existing site consists of residential structures, a paved driveway, and a surrounding pervious slope.
Existing Land Cover Includes (select all that apply): ☒ Vegetative Cover ☒ Non-Vegetated Pervious Areas ☒ Impervious Areas Description / Additional Information: The existing site consists of residential structures, a paved driveway, and a surrounding pervious slope.
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): ☐ 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

Description / Additional Information:

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:

(1) The existing drainage conveyance is urban. The site consists of residential structures, a paved driveway, and is surrounded by pervious slopes.
(2) There are no offsite flows that are conveyed through the site.
(3) In the existing condition, no drainage infrastructure exists on site. Drainage from the site sheetflows to three points of interest before becoming concentrated in offsite drainage systems.
(4) There are three discharge points in the existing condition. Two are located in the northwest corner of the site and the other is along the eastern edge. Basin 100 discharges at the edge of Aubrey Glen Dr. Flow from Basin 100 is conveyed in a v-gutter along the western edge of Aubrey Glen Rd before turning to the east on Mission Gorge Rd where it is collected by inlets. Storm drain then conveys flows to the San Diego River. Basin 200A drains to the north and flow is conveyed through the abandoned site to the north where it discharges onto Mission Gorge through and existing D-25. Basin 200 B drains to the northwest and flow is conveyed in a v-gutter along the eastern edge of Aubrey Glen Rd before turning to the east on Mission Gorge Rd where it is collected by inlets. Storm drain then conveys flows to the San Diego River. Basin 300 drains to the east. Flows are collected in an existing brow ditch that lines the eastern edge of the site. The brow ditch conveys flows into the storm drain within the adjacent apartment complex, where flow continue in the storm drain to the north and eventually discharge into the San Diego River.

Form I-3B Page 4 of 10, Form Template Date: August 31, 2015
Description of Proposed Site Development
Project Description / Proposed Land Use and/or Activities: The proposed project includes residential buildings, roadways, driveways, water quality features, and park space.
List/describe proposed impervious features of the project (e.g., buildings, roadways, parking lots, courtyards, athletic courts, other impervious features): Impervious areas include buildings, roadways, sidewalks and parking spaces.
List/describe proposed pervious features of the project (e.g., landscape areas): Pervious areas include landscaped areas between residential buildings, water quality basins, and a park area.
Does the project include grading and changes to site topography? ☒ Yes ☐ No Description / Additional Information: The project includes grading of residential pads that will flatten the existing slope.

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:

Please refer to the drainage study titled, “Drainage Study for Laurel Heights” dated September 18, 2020 (and any revisions thereafter) for detail descriptions of the pre and post project drainage conditions.

In the post project condition, Basin 100 drains to a cobble lined swale and flows then discharge onto Aubrey Glen Drive. An existing v-gutter conveys flows to the north before turning to the east on Mission Gorge Rd where it is collected by existing inlets. Storm drain then conveys flows to the San Diego River. Basin 200 drains to the north before being collected by proposed inlets and storm drain which direct flows into a detention vault and then a water quality basin. Flow are then discharged to an abandoned site the north where flows are conveyed by an existing brow ditch and ultimately discharged onto Mission Gorge road via an existing D-25 where flows confluence with Basin 100. Flows turn to the east on Mission Gorge Rd where it is collected by existing inlets. Storm drain then conveys flows to the San Diego River. Basin 300 sheet flows to the east where flows are collected by proposed perimeter brow ditches. Flows are then conveyed to an existing brow ditch that lines the eastern edge of the site. The brow ditch conveys flows into the storm drain within the adjacent apartment complex, where flow continue in the storm drain to the north and eventually discharge into the San Diego River.

Form I-3B Page 6 of 10, Form Template Date: August 31, 2015

Identify whether any of the following features, activities, and/or pollutant source areas will be present (select all that apply):

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

Description / Additional Information:

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): Flows from the site are conveyed via storm drain to the San Diego River where flows are conveyed to the west and ultimately into the Pacific Ocean.

List any 303(d) impaired water bodies 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	Enterococcus, Fecal Coliform, Low Dissolved Oxygen, Manganese, Nitrogen, Phosphorus, Total Dissolved Solids, Toxicity	Indicator Bacteria

Identification of Project Site Pollutants*

***Identification of project site pollutants 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	Expected from the Project Site	Also a Receiving Water Pollutant of Concern
Sediment		x	
Nutrients		x	
Heavy Metals	x		
Organic Compounds	x		
Trash & Debris		x	
Oxygen Demanding Substances		x	
Oil & Grease		x	
Bacteria & Viruses		x	x
Pesticides		x	

Form I-3B Page 8 of 10, Form Template Date: August 31, 2015
Hydromodification Management Requirements
Do hydromodification management requirements apply (see Section 1.6 of the BMP Design Manual)? ☐ Yes, hydromodification management flow control structural BMPs required. ☐ 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 for the watershed in which the project resides. Description / Additional Information (to be provided if a 'No' answer has been selected above): Please see hydromodification exemption exhibit in Attachment 2A. The site in both the existing and proposed condition is collected by existing storm drain that discharges directly into the San Diego river in a location that is identified as appropriate for exemption by the WMAA.
Critical Coarse Sediment Yield Areas* ***This Section only required if hydromodification management requirements apply**

Based on the maps provided within the WMAA, do potential critical coarse sediment yield areas exist within the project drainage boundaries?

☐ Yes

☒ No, No critical coarse sediment yield areas to be protected based on WMAA maps

If yes, have any of the optional analyses presented in Section 6.2 of the BMP Design Manual been performed?

☐ 6.2.1 Verification of Geomorphic Landscape Units (GLUs) Onsite

☐ 6.2.2 Downstream Systems Sensitivity to Coarse Sediment

☐ 6.2.3 Optional Additional Analysis of Potential Critical Coarse Sediment Yield Areas Onsite

☐ No optional analyses performed, the project will avoid critical coarse sediment yield areas identified based on WMAA maps

If optional analyses were performed, what is the final result?

☐ No critical coarse sediment yield areas to be protected based on verification of GLUs onsite

☐ Critical coarse sediment yield areas exist but additional analysis has determined that protection is not required. Documentation attached in Attachment 2.b of the SWQMP.

☐ Critical coarse sediment yield areas exist and require protection. The project will implement management measures described in Sections 6.2.4 and 6.2.5 as applicable, and the areas are identified on the SWQMP Exhibit.

Discussion / Additional Information:

Form I-3B Page 9 of 10, Form Template Date: August 31, 2015
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.
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)

Form I-3B Page 10 of 10, Form Template Date: August 31, 2015
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.
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.

Source Control BMP Checklist for All Development Projects (Standard Projects and Priority Development Projects)	Form I-4 Model BMP Design Manual [August 31, 2015]

Project Identification

Project Name: Laurel Heights

Permit Application Number: TM 2020-02, DR 2020-04

Source Control BMPs

All development projects must implement source control BMPs SC-1 through SC-6 where applicable and feasible. See Chapter 4 and Appendix E of the Model 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 and/or Appendix E of the Model 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 may be provided.

Source Control Requirement	Applied?		
SC-1 Prevention of Illicit Discharges into the MS4	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-1 not implemented:			
SC-2 Storm Drain Stenciling or Signage	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-2 not implemented:			
SC-3 Protect Outdoor Materials Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☐ Yes	☐ No	☒ N/A
Discussion / justification if SC-3 not implemented:			
SC-4 Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☐ Yes	☐ No	☒ N/A
Discussion / justification if SC-4 not implemented:			

Form I-4 Page 2 of 2, Form Template Date: August 31, 2015			
Source Control Requirement	**Applied?**		
SC-5 Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal	☒ Yes	☐ No	☐ N/A
Discussion / justification if SC-5 not implemented:			
SC-6 Additional BMPs Based on Potential Sources of Runoff Pollutants (must answer for each source listed below)			
☒ On-site storm drain inlets	☒ Yes	☐ No	☐ N/A
☐ Interior floor drains and elevator shaft sump pumps	☐ Yes	☐ No	☒ N/A
☐ Interior parking garages	☐ Yes	☐ No	☒ N/A
☐ Need for future indoor & structural pest control	☐ Yes	☐ No	☒ N/A
☒ Landscape/Outdoor Pesticide Use	☒ Yes	☐ No	☐ N/A
☐ Pools, spas, ponds, decorative fountains, and other water features	☐ Yes	☐ No	☒ N/A
☐ Food service	☐ Yes	☐ No	☒ N/A
☒ Refuse areas	☒ Yes	☐ No	☐ N/A
☐ Industrial processes	☐ Yes	☐ No	☒ N/A
☐ Outdoor storage of equipment or materials	☐ Yes	☐ No	☒ N/A
☐ Vehicle and Equipment Cleaning	☐ Yes	☐ No	☒ N/A
☐ Vehicle/Equipment Repair and Maintenance	☐ Yes	☐ No	☒ N/A
☐ Fuel Dispensing Areas	☐ Yes	☐ No	☒ N/A
☐ Loading Docks	☐ Yes	☐ No	☒ N/A
☒ Fire Sprinkler Test Water	☒ Yes	☐ No	☐ N/A
☐ Miscellaneous Drain or Wash Water	☐ Yes	☐ No	☒ N/A
☒ Plazas, sidewalks, and parking lots	☒ Yes	☐ No	☐ N/A

Discussion / justification if SC-6 not implemented. Clearly identify which sources of runoff pollutants are discussed. Justification must be provided for all "No" answers shown above.

Site Design BMP Checklist for All Development Projects (Standard Projects and Priority Development Projects)	Form I-5 Model BMP Design Manual [August 31, 2015]

Project Identification

Project Name: Laurel Heights

Permit Application Number: TM 2020-02, DR 2020-04

Site Design BMPs

All development projects must implement site design BMPs SD-1 through SD-8 where applicable and feasible. See Chapter 4 and Appendix E of the Model 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 and/or Appendix E of the Model 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 may be provided.

Site Design Requirement	Applied?		
SD-1 Maintain Natural Drainage Pathways and Hydrologic Features	☐ Yes	☐ No	☒ N/A
Discussion / justification if SD-1 not implemented: No natural drainage pathways or hydrologic features exist on site as it has previously been developed.			
SD-2 Conserve Natural Areas, Soils, and Vegetation	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-2 not implemented:			
SD-3 Minimize Impervious Area	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-3 not implemented:			
SD-4 Minimize Soil Compaction	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-4 not implemented:			
SD-5 Impervious Area Dispersion	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-5 not implemented:			

Form I-5 Page 2 of 2, Form Template Date: August 31, 2015			
Site Design Requirement	**Applied?**		
SD-6 Runoff Collection	☐ Yes	☐ No	☒ N/A
Discussion / justification if SD-6 not implemented:			
SD-7 Landscaping with Native or Drought Tolerant Species	☒ Yes	☐ No	☐ N/A
Discussion / justification if SD-7 not implemented:			
SD-8 Harvesting and Using Precipitation	☐ Yes	☐ No	☒ N/A
Discussion / justification if SD-8 not implemented:			

Summary of PDP Structural BMPs	Form I-6 (PDPs) Model BMP Design Manual [August 31, 2015]
Project Identification	
Project Name: Laurel Heights	
Permit Application Number: TM 2020-02, DR 2020-04	
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 local jurisdiction 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 local jurisdiction must confirm the maintenance (see Section 7 of the BMP Design Manual). Use this form 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 (page 3 of this form) for each structural BMP within the project (copy the BMP summary information page as many times as needed to provide summary information for each individual structural BMP).	
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. The site is divided into three (3) large drainage management areas (DMAs) that are divided into a total of five (5) subareas that drain from the site similarly to the existing condition. DMA 1A, DMA 1B and DMA 3 meet the criteria to be self-mitigating areas as described in Section 5.2.1 of the City of Santee BMP Design Manual dated February 2016 (i.e. hydraulically disconnected from other DMAs that contain pollutant control BMPs, total impervious area less than 5% of total area, soils are undisturbed native or disturbed soils that have been amended and aerated, etc.). DMA 2A includes the residential area, roadways, and park area. Pollutant control is required for this DMA as well as detention for the 100-year peak flow rate. A detention vault draining to an above ground biofiltration basin is provided for pollutant control. At this time, an infiltration feasibility condition has been provided by a geotechnical engineer that allows BMPs set back from geotechnical hazards to partially infiltrate. BMP 2A will be unlined. DMA 2B is made up of the driveway to the site. Pollutant control is provided by a compact biofiltration unit at the northern end of the driveway.	

Form I-6 Page 2 of 6, Form Template Date: August 31, 2015
(Page reserved for continuation of description of general strategy for structural BMP implementation at the site)
(Continued from page 1)

Form I-6 Page 3 of 6 (Copy as many as needed) , Form Template Date: August 31, 2015	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. BMP	
Construction Plan Sheet No. 2A	
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 if required by the [City Engineer] (See Section 1.12 of the BMP Design Manual)	Rick Engineering Company Brendan Hastie (619) 291-0707
Who will be the final owner of this BMP?	
Who will maintain this BMP into perpetuity?	
What is the funding mechanism for maintenance?	

Form I-6 Page 4 of 6 (Copy as many as needed) , Form Template Date: August 31, 2015
Structural BMP ID No. BMP 2A
Construction Plan Sheet No. 2
Discussion (as needed): This BMP is downstream of a vault that will provide detention for the 100-year 6-hour storm before discharging flows into the biofiltration basin. Because the flows can be metered out of the vault, the surface area of the biofiltration basin was optimized to provide treatment based on the flow rate from the low flow orifice of the vault.

Form I-6 Page 5 of 6 (Copy as many as needed) , Form Template Date: August 31, 2015	
Structural BMP Summary Information **(Copy this page as needed to provide information for each individual proposed structural BMP)**	
Structural BMP ID No. BMP 2B	
Construction Plan Sheet No. 2	
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 if required by the [City Engineer] (See Section 1.12 of the BMP Design Manual)	Rick Engineering Company Brendan Hastie (619) 291-0707
Who will be the final owner of this BMP?	
Who will maintain this BMP into perpetuity?	
What is the funding mechanism for maintenance?	

Form I-6 Page 6 of 6 (Copy as many as needed) , Form Template Date: August 31, 2015
Structural BMP ID No. BMP 2B
Construction Plan Sheet No. 2
Discussion (as needed):

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	DMA Exhibit (Required) See DMA Exhibit Checklist on the back of this Attachment cover sheet.	☒ Included
Attachment 1b	Tabular Summary of DMAs Showing DMA ID matching DMA Exhibit, DMA Area, and DMA Type (Required)* *Provide table in this Attachment OR on DMA Exhibit in Attachment 1a	☐ Included on DMA Exhibit in Attachment 1a ☒ Included as Attachment 1b, separate from DMA Exhibit
Attachment 1c	Form I-7, Harvest and Use Feasibility Screening Checklist (Required unless the entire project will use infiltration BMPs) Refer to Appendix B.3-1 of the BMP Design Manual to complete Form I-7.	☒ Included ☐ Not included because the entire project will use infiltration BMPs
Attachment 1d	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 1e	Pollutant Control BMP Design Worksheets / Calculations (Required) Refer to Appendices B and E of the BMP Design Manual for structural pollutant control BMP design guidelines	☒ Included

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

The DMA Exhibit must identify:

☒ Underlying hydrologic soil group

☒ Approximate depth to groundwater

☒ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)

☐ Critical coarse sediment yield areas to be protected – N/A

☒ Existing topography and impervious areas

☒ Existing and proposed site drainage network and connections to drainage offsite

☒ Proposed demolition

☒ Proposed grading

☒ Proposed impervious features

☒ Proposed design features and surface treatments used to minimize imperviousness

☒ Drainage management area (DMA) boundaries, DMA ID numbers, and DMA areas (square footage or acreage), and DMA type (i.e., drains to BMP, self-retaining, or self-mitigating)

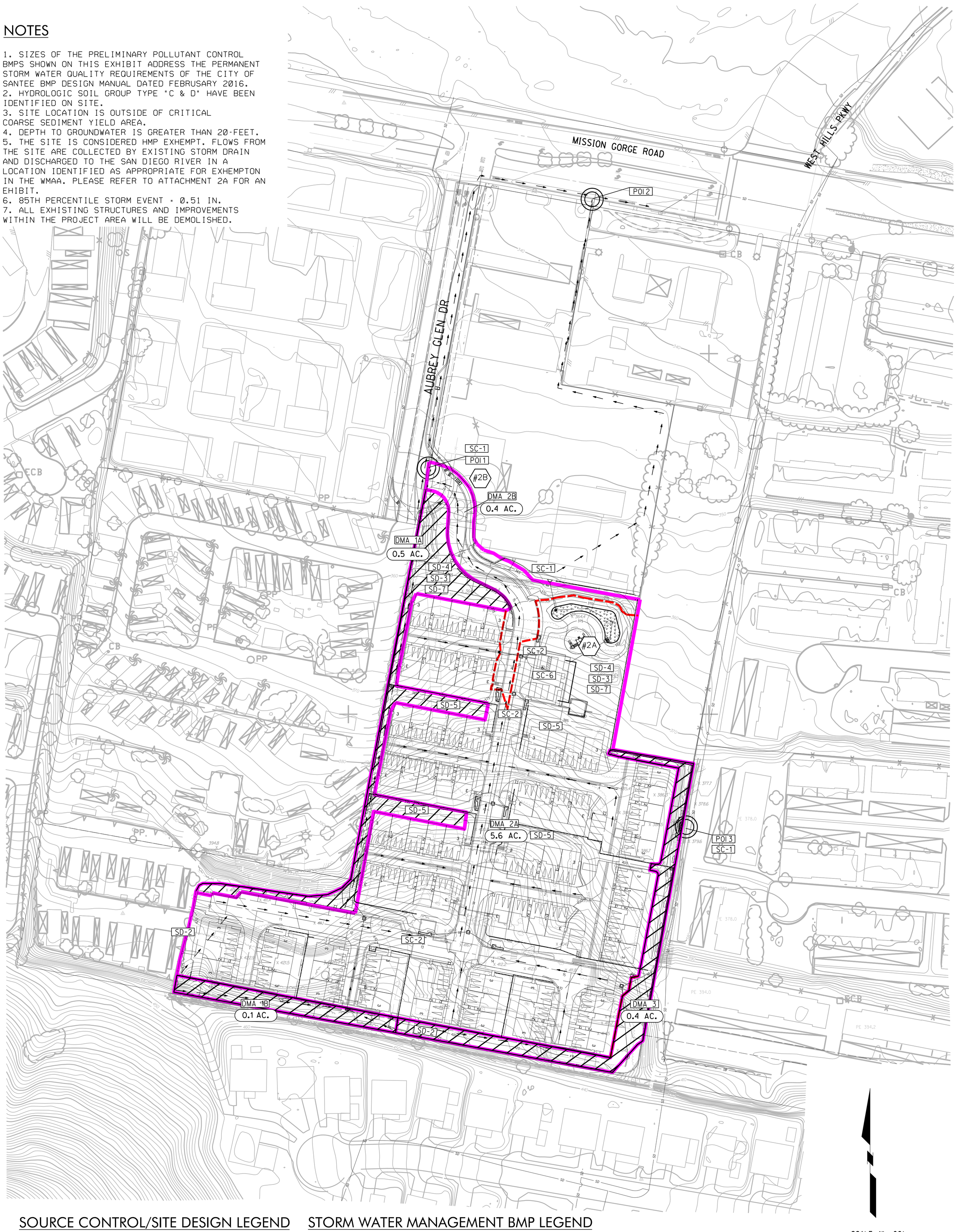
☒ Potential pollutant source areas and corresponding required source controls (see Chapter 4, Appendix E.1, and Form I-3B)

☒ Structural BMPs (identify location, type of BMP, and size/detail)

ATTACHMENT 1A

NOTES

1. SIZES OF THE PRELIMINARY POLLUTANT CONTROL BMPS SHOWN ON THIS EXHIBIT ADDRESS THE PERMANENT STORM WATER QUALITY REQUIREMENTS OF THE CITY OF SANTEE BMP DESIGN MANUAL DATED FEBRUSARY 2016.
2. HYDROLOGIC SOIL GROUP TYPE "C & D" HAVE BEEN IDENTIFIED ON SITE.
3. SITE LOCATION IS OUTSIDE OF CRITICAL COARSE SEDIMENT YIELD AREA.
4. DEPTH TO GROUNDWATER IS GREATER THAN 20-FEET.
5. THE SITE IS CONSIDERED HMP EXHEMPT. FLOWS FROM THE SITE ARE COLLECTED BY EXISTING STORM DRAIN AND DISCHARGED TO THE SAN DIEGO RIVER IN A LOCATION IDENTIFIED AS APPROPRIATE FOR EXHEMPTON IN THE WMAA. PLEASE REFER TO ATTACHMENT 2A FOR AN EHIBIT.
6. 85TH PERCENTILE STORM EVENT = 0.51 IN.
7. ALL EXHISTING STRUCTURES AND IMPROVEMENTS WITHIN THE PROJECT AREA WILL BE DEMOLISHED.



SOURCE CONTROL/SITE DESIGN LEGEND

- SC-1 PREVENTION OF ILLICIT DISCHARGES TO MS4
- SC-2 STORM DRAIN STENCILING OR SIGNAGE
- SC-5 PROTECT TRASH STORAGE AREAS FROM RAINFALL, RUN-ON, RUNOFF, AND WIND DISPERSAL
- SC-6 ADDITIONAL BMPS BASED ON POTENTIAL SOURCES OF RUNOFF POLLUTANTS
- SD-2 CONSERVE NATURAL AREAS, SOILS, AND VEGETATION
- SD-3 MINIMIZE IMPERVIOUS AREAS
- SD-4 MINIMIZE SOIL COMPACTION
- SD-5 IMPERVIOUS AREA DISPERSION
- SD-7 LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT SPECIES

STORM WATER MANAGEMENT BMP LEGEND

- DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
- LOCATION OF PROPOSED BIOFILTRATION BMP
- DMA 2 — DMA ID
- 27.6 AC — DMA AREA
- #XX — BMP ID
- FLOWPATH
- BROW DITCH
- DMA SUB BOUNDARY
- SELF-MITIGATING AREA

SCALE: 1" = 60'
60 0 60 120

PRELIMINARY DRAINAGE MANAGEMENT AREA EXHIBIT FOR LAUREL HEIGHTS

Date: September 18, 2020
Revised: January 13, 2021
Revised: March 17, 2021
Revised: April 15, 2021

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J-19137-A

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NOT FOR CONSTRUCTION - EXHIBIT FOR PDP SWQMP ONLY

ATTACHMENT 1B

Tabular Summary of DMAs							Worksheet B-1		
DMA Unique Identifier	Area (acres)	Impervious Area (acres)	% Imp	HSG	Area Weighted Runoff Coefficient	DCV (Cubic Feet)	Treated By (BMP ID)	Pollutant Control Type	Drains to (POC ID)
1A	0.5	0.0	0%	D	0.10	93	Self-Mitigating	N/A	1
1B	0.1	0.0	0%	C/D	0.10	19	Self-Mitigating	N/A	1
2A	5.6	3.9	70%	C/D	0.66	6,842	2A	BF-1	1
2B	0.4	0.3	70%	D	0.66	489	2B	BF-3	1
3A	0.4	0.0	0%	D	0.10	74	Self-Mitigating	N/A	3
Summary of DMA Information (Must match project description and SWQMP Narrative)									
No. of DMAs	Total DMA Area (acres)	Total Impervious Area (acres)	% Imp		Area Weighted Runoff Coefficient	Total DCV (cubic feet)	Total Area Treated (acres)		No. of POCs
6	7.0	4.2	60%		0.58	7,516	6.0		2

Where: DMA = Drainage Management Area; Imp = Imperviousness; HSG = Hydrologic Soil Group; DCV = Design Capture Volume; BMP = Best Management Practice; POC = Point of Compliance; ID = identifier; No. = number

ATTACHMENT 1C

Worksheet 0-2. Harvest and Use Feasibility Screening

Harvest and Use Feasibility Screening	Worksksheet B.3-1

1. Is there a demand for harvested water (check all that apply) at the project site that is reliably present during the wet season?

☑ Toilet and urinal flushing
☑ Landscape irrigation
☐ Other:_____

2. If there is a demand; estimate the anticipated average wet season demand over a period of 36 hours. Guidance for planning level demand calculations for toilet/urinal flushing and landscape irrigation is provided in Section B.3.2.

9.3 gal/person/day x 320 people = 2,976gal x 1.5days = 4,464 gal/36 hours
Moderate plant water use = 1470 gal/acre x 3.0 acre = 4,410 gal/36 hours
Total Demand = 8,874 gallons = 1,186 cf

3. Calculate the DCV using worksheet B-2.1.

[Provide a results here] DCV = 7,516 cf

3a. Is the 36-hour demand greater than or equal to the DCV?	3b. Is the 36-hour demand greater than 0.25DCV but less than the full DCV?	3c. Is the 36-hour demand less than 0.25DCV?
Yes / ☑ No ⇨	Yes / ☑ No ⇨	Yes ⇩ ☑
Harvest and use appears to be feasible. Conduct more detailed evaluation and sizing calculations to confirm that DCV can be used at an adequate rate to meet drawdown criteria.	Harvest and use may be feasible. Conduct more detailed evaluation and sizing calculations to determine feasibility. Harvest and use may only be able to be used for a portion of the site, or (optionally) the storage may need to be upsized to meet long term capture targets while draining in longer than 36 hours.	Harvest and use is considered to be infeasible.

DMA 2A

Worksheet 0-1. DCV

Design Capture Volume		Worksheet B-2.1		
1	85th percentile 24-hr storm depth from Figure B.1-1	d=	0.51	inches
2	Area tributary to BMP (s)	A=	5.6	acres
3	Area weighted runoff factor (estimate using Appendix B.1.1 and B.2.1)	C=	0.66	unitless
4	Street trees volume reduction	TCV=		cubic-feet
5	Rain barrels volume reduction	RCV=		cubic-feet
6	Calculate DCV = (3630 x C x d x A) – TCV - RCV	DCV=	6,842	cubic-feet

NOTE:THIS VOLUME IS BEING STORED IN THE UNDERGROUND VAULT AND THE LOW-FLOW (WATER QUALITY FLOW/VOLUME) IS BEING RELASED AT A CONTROLED RATE TOWARDS THE PROPOSED BIOFILTRATION BMP, WHICH HELPS REDUCE THE FOOTPRINT OF THE BIOFILTRATION BASIN.

DMA 2B

Worksheet 0-1. DCV

Design Capture Volume		Worksheet B-2.1		
1	85th percentile 24-hr storm depth from Figure B.1-1	d=	0.51	inches
2	Area tributary to BMP (s)	A=	0.4	acres
3	Area weighted runoff factor (estimate using Appendix B.1.1 and B.2.1)	C=	0.66	unitless
4	Street trees volume reduction	TCV=		cubic-feet
5	Rain barrels volume reduction	RCV=		cubic-feet
6	Calculate DCV = (3630 x C x d x A) – TCV - RCV	DCV=	489	cubic-feet

ATTACHMENT 1D

Worksheet 0-1: Categorization of Infiltration Feasibility Condition

Categorization of Infiltration Feasibility Condition			Worksheet C.4-1
Part 1 - Full Infiltration Feasibility Screening Criteria **Would infiltration of the full design volume be feasible from a physical perspective without any undesirable consequences that cannot be reasonably mitigated?**			
Criteria	Screening Question	**Yes**	**No**
1	**Is the estimated reliable infiltration rate below proposed facility locations greater than 0.5 inches per hour?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.		**X**
Provide basis: The estimated infiltration rate of the existing soils below the north eastern proposed BMP facility (tests P-1 & P-2), based on the on-site infiltration study was calculated to be greater than 0.5 inches per hour (0.64 inches per hour) after applying a minimum factor of safety (F) of F=2. The calculated infiltration rates of P-1 (1.11 inches per hour) and P-2 (0.17 inches per hour) were averaged, resulting in the estimated infiltration rate of 0.64 inches per hour. With consideration of the variability of the infiltration rates, it is NOVA's opinion that the estimated reliable infiltration rate below the proposed facility is less than 0.5 inches per hour. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability. (See geotechnical investigation report (NOVA 2020))			
2	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.		**X**
Provide basis: No. See Criterion 1. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			

Worksheet C.4-1 Page 2 of 4			
Criteria	Screening Question	**Yes**	**No**
3	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination (shallow water table, storm water pollutants or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: Water contamination was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
4	**Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams or increased discharge of contaminated groundwater to surface waters?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: The potential for water balance was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
Part 1 Result*	If all answers to rows 1 - 4 are "**Yes**" a full infiltration design is potentially feasible. The feasibility screening category is **Full Infiltration** If any answer from row 1-4 is "**No**", infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a "full infiltration" design. Proceed to Part 2	Proceed to Part 2	

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.

Worksheet C.4-1 Page 3 of 4

Part 2 – Partial Infiltration vs. No Infiltration Feasibility Screening Criteria

Would infiltration of water in any appreciable amount be physically feasible without any negative consequences that cannot be reasonably mitigated?

Criteria	Screening Question	Yes	No
5	**Do soil and geologic conditions allow for infiltration in any appreciable rate or volume?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	X	

Provide basis:
Based on the on site infiltration testing, soil/geologic conditions below the north eastern proposed BMP facility allow for infiltration in an appreciable rate and volume.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.

6	**Can Infiltration in any appreciable quantity be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.	X	

Provide basis:
C2.1 A geologic investigation was performed at the subject site. Infiltration testing was conducted in under the guidance contained in Appendix D of the BMP Manual. (See NOVA 2020).
C2.2 Settlement and volume change due to water infiltration is not a concern with low expansive soils and no potential for liquefaction or hydro collapse.
C2.3 BMPs are to be sited a minimum of 50 feet away from any slope.
C2.4 BMPs are to be sited a minimum of 10 feet away from all underground utilities.
C2.5 Stormwater infiltration can result in damaging ground water mounding during wet periods. Based on the depth to groundwater and partial infiltration rate, groundwater mounding is not a high risk.
C2.6 Infiltration has the potential to increase lateral pressure and reduce soil strength which can impact foundations and retaining walls. BMPs are to be sited a minimum of 10 feet away from any foundations or retaining walls.
C2.7 Other Factors: The calculated infiltration rates of P-1 (1.11 inches per hour) and P-2 (0.17 inches per hour) were averaged, resulting in the estimated infiltration rate of 0.64 inches per hour. With consideration of the variability of the infiltration rates, it is NOVA's opinion that the estimated reliable infiltration rate below the proposed facility is less than 0.5 inches per hour. As such, partial infiltration is feasible at the north eastern proposed facility within the constraints cited above.

Worksheet C.4-1 Page 4 of 4			
Criteria	Screening Question	**Yes**	**No**
7	**Can Infiltration in any appreciable quantity be allowed without posing significant risk for groundwater related concerns (shallow water table, storm water pollutants or other factors)?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: Water contamination was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
8	**Can infiltration be allowed without violating downstream water rights**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: The potential for water balance was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
Part 2 Result*	If all answers from row 1-4 are yes then partial infiltration design is potentially feasible. The feasibility screening category is **Partial Infiltration.** If any answer from row 5-8 is no, then infiltration of any volume is considered to be **infeasible** within the drainage area. The feasibility screening category is **No Infiltration.**	Partial Infiltration	

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the Permit. Additional testing and/or studies may be required by Agency/Jurisdictions to substantiate findings

Worksheet 0-1: Categorization of Infiltration Feasibility Condition

Categorization of Infiltration Feasibility Condition			Worksheet C.4-1
Part 1 - Full Infiltration Feasibility Screening Criteria **Would infiltration of the full design volume be feasible from a physical perspective without any undesirable consequences that cannot be reasonably mitigated?**			
Criteria	Screening Question	**Yes**	**No**
1	**Is the estimated reliable infiltration rate below proposed facility locations greater than 0.5 inches per hour?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.		**X**
Provide basis: The estimated infiltration rate of the existing soils below the north western proposed BMP facility (tests P-3 & P-4), based on the on-site infiltration study was calculated to be less than 0.5 inches per hour (0.07 inches per hour) after applying a minimum factor of safety (F) of F=2. The calculated infiltration rates of P-3 (0.01 inches per hour) and P-4 (0.13 inches per hour) were averaged, resulting in the estimated infiltration rate of 0.07 inches per hour. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability. (See geotechnical investigation report (NOVA 2020))			
2	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.		**X**
Provide basis: No. See Criterion 1. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			

Worksheet C.4-1 Page 2 of 4			
Criteria	Screening Question	**Yes**	**No**
3	**Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of groundwater contamination (shallow water table, storm water pollutants or other factors) that cannot be mitigated to an acceptable level?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: Water contamination was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
4	**Can infiltration greater than 0.5 inches per hour be allowed without causing potential water balance issues such as change of seasonality of ephemeral streams or increased discharge of contaminated groundwater to surface waters?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: The potential for water balance was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
Part 1 Result*	If all answers to rows 1 - 4 are "**Yes**" a full infiltration design is potentially feasible. The feasibility screening category is **Full Infiltration** If any answer from row 1-4 is "**No**", infiltration may be possible to some extent but would not generally be feasible or desirable to achieve a "full infiltration" design. Proceed to Part 2	Proceed to Part 2	

*To be completed using gathered site information and best professional judgment considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.

Worksheet C.4-1 Page 3 of 4

Part 2 – Partial Infiltration vs. No Infiltration Feasibility Screening Criteria

Would infiltration of water in any appreciable amount be physically feasible without any negative consequences that cannot be reasonably mitigated?

Criteria	Screening Question	Yes	No
5	**Do soil and geologic conditions allow for infiltration in any appreciable rate or volume?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2 and Appendix D.	X	

Provide basis:

Based on the on site infiltration testing, soil/geologic conditions below the north western proposed BMP facility allow for infiltration in an appreciable rate and volume.

Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.

6	**Can Infiltration in any appreciable quantity be allowed without increasing risk of geotechnical hazards (slope stability, groundwater mounding, utilities, or other factors) that cannot be mitigated to an acceptable level**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.2.	X	

Provide basis:

C2.1 A geologic investigation was performed at the subject site. Infiltration testing was conducted in under the guidance contained in Appendix D of the BMP Manual. (See NOVA 2020).
C2.2 Settlement and volume change due to water infiltration is not a concern with low expansive soils and no potential for liquefaction or hydro collapse.
C2.3 BMPs are to be sited a minimum of 50 feet away from any slope.
C2.4 BMPs are to be sited a minimum of 10 feet away from all underground utilities.
C2.5 Stormwater infiltration can result in damaging ground water mounding during wet periods. Based on the depth to groundwater and partial infiltration rate, groundwater mounding is not a high risk.
C2.6 Infiltration has the potential to increase lateral pressure and reduce soil strength which can impact foundations and retaining walls. BMPs are to be sited a minimum of 10 feet away from any foundations or retaining walls.
C2.7 Other Factors: Partial infiltration is feasible at the north western proposed facility within the constraints cited above.

Worksheet C.4-1 Page 4 of 4			
Criteria	Screening Question	**Yes**	**No**
7	**Can Infiltration in any appreciable quantity be allowed without posing significant risk for groundwater related concerns (shallow water table, storm water pollutants or other factors)?** The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: Water contamination was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
8	**Can infiltration be allowed without violating downstream water rights**? The response to this Screening Question shall be based on a comprehensive evaluation of the factors presented in Appendix C.3.		
Provide basis: The potential for water balance was not evaluated by NOVA Services. Summarize findings of studies; provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability and why it was not feasible to mitigate low infiltration rates.			
Part 2 Result*	If all answers from row 1-4 are yes then partial infiltration design is potentially feasible. The feasibility screening category is **Partial Infiltration.** If any answer from row 5-8 is no, then infiltration of any volume is considered to be **infeasible** within the drainage area. The feasibility screening category is **No Infiltration.**	Partial Infiltration	

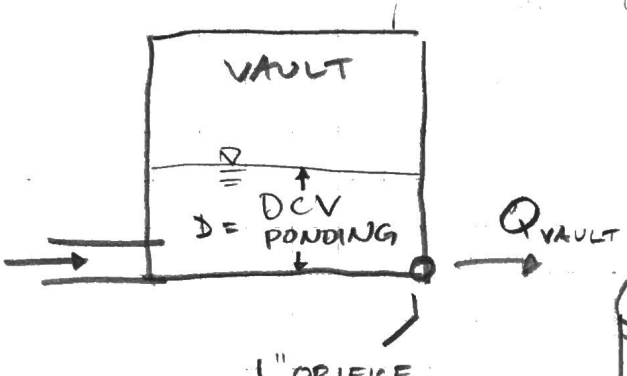
*To be completed using gathered site information and best professional judgment considering the definition of MEP in the Permit. Additional testing and/or studies may be required by Agency/Jurisdictions to substantiate findings

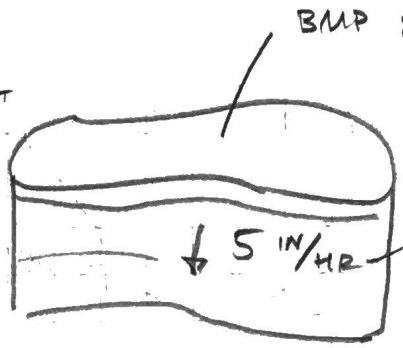
ATTACHMENT 1E

RICK ENGINEERING COMPANY™
5620 Friars Road
San Diego, CA 92110-2596
Tel: (619) 291-0707
Fax: (619) 291-4165

Date 2/8/2021
Job No. 191874
Page
Done By EGH
Checked By

BMP-2A VAULT TO BIOFILTRATION SIZING CALCULATIONS





VOLUME VAULT

5' (H) x 2,705 sf =
13,525 cf

DCV FOR DMA 2A =
5,743 cf

DCV PONDING =

DCV / VAULT SURFACE AREA

= 5,743 cf / 2,705 sf =

2.1' = DCV PONDING

$$Q_{VAULT} = C A \sqrt{2gh}$$

$C = 0.6$ $A = \pi \left(\frac{\frac{1}{12}\text{ft}}{2}\right)^2$ $g = 32.2\ ft/s^2$ $h = 2.5'$

$$Q_{VAULT} = 0.6\,(0.005\,ft^2)\sqrt{2\,(32.2\,ft/s^2)(2.1')}$$

Q_{VAULT} = 0.035 cfs

$$\text{BMP SURFACE AREA} = \frac{Q_{VAULT}}{\text{BSM INFILTRATION RATE}}$$

$$= \frac{0.035\ cfs}{5\ in/hr} = \frac{0.035\ cfs}{0.000116\ ft/sec} =$$

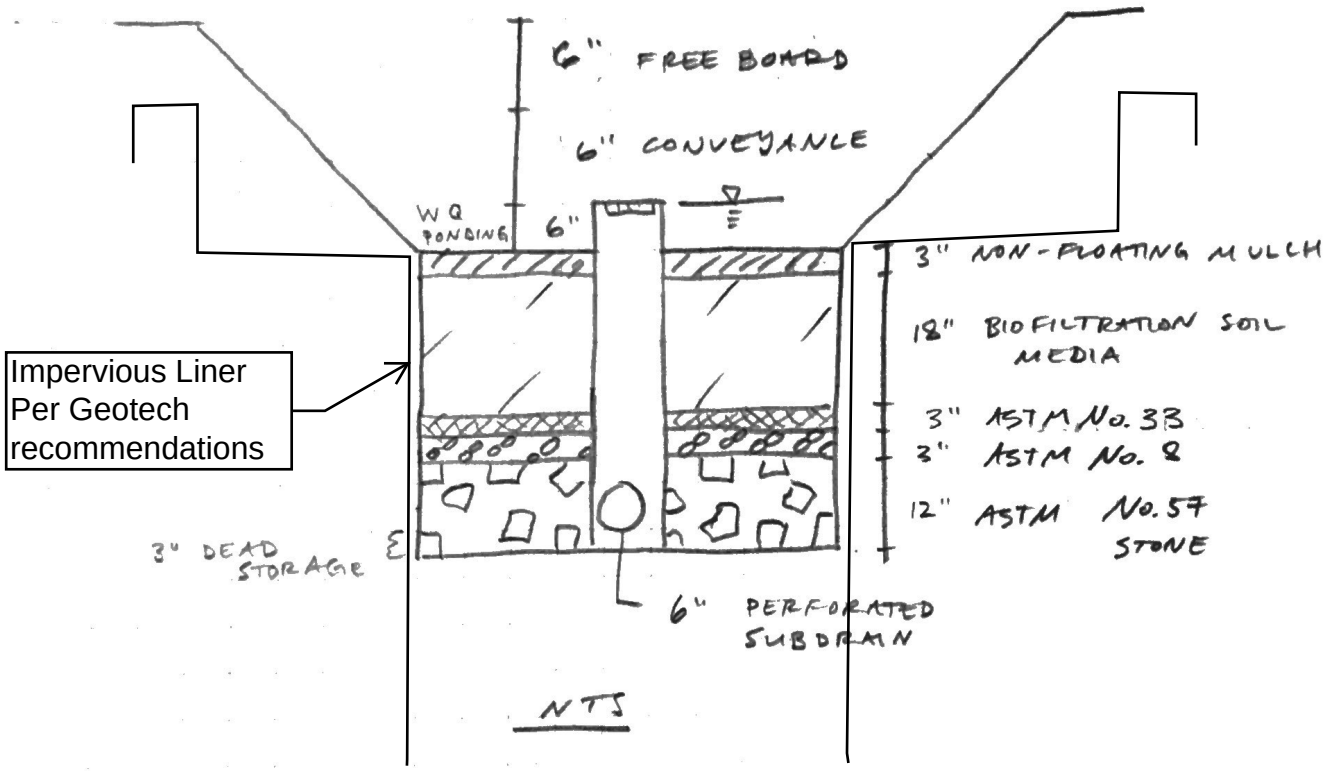
~ 302 sf = BMP SURFACE AREA

1,120 sf BMP SURFACE AREA PROVIDED, ∴ OKAY

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San Diego, CA 92110-2596
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Fax: (619) 291-4165

Date 5/28/20
Job No. 19137 A
Page
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19137 A: LAUREL HEIGHTS BMP 2A
BIOFILTRATION CROSS-SECTION



NOTE: 1. FLOW WILL BE METERED TO THIS BMP FROM A VAULT UPSTREAM OF THE BIOFILTRATION BASIN.
2. BASED ON GEOTECHNICAL ENGINEERS RECOMMENDATIONS, THIS BMP CAN BE A PARTIAL INFILTRATION BMP.

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MODULAR CONCRETE
STORMWATER MANAGEMENT

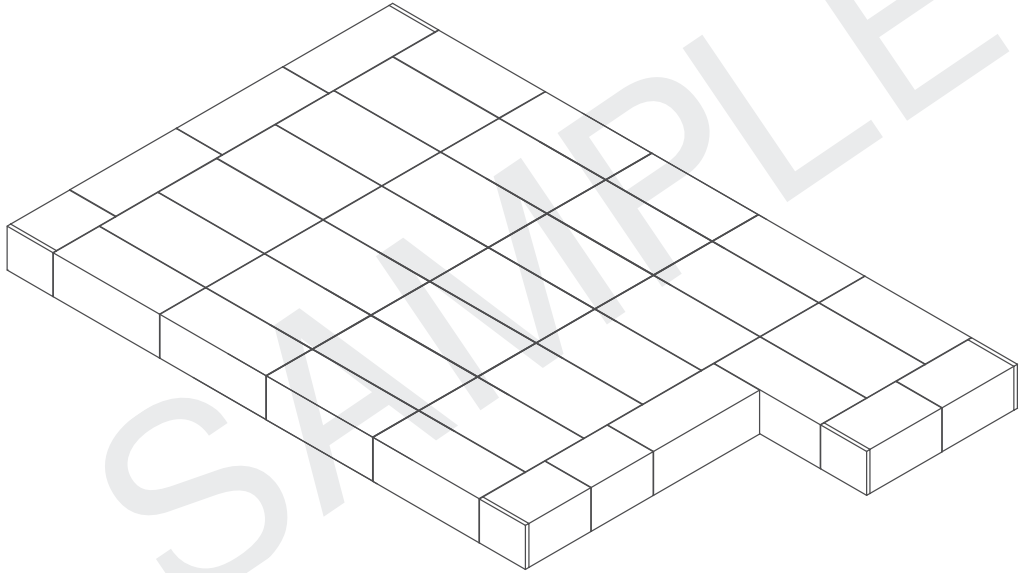
CONTACT STORMTRAP TO REQUEST A DESIGN AND BUDGET FOR YOUR SPECIFIC PROJECT NEEDS.

SHEET INDEX

PAGE	DESCRIPTION
0.0	COVER SHEET
1.0	SINGLETRAP DESIGN CRITERIA
2.0	SINGLETRAP SYSTEM LAYOUT
2.1	SINGLETRAP FOUNDATION LAYOUT
3.0	SINGLETRAP INSTALLATION SPECIFICATIONS
3.1	SINGLETRAP INSTALLATION SPECIFICATIONS
4.0	SINGLETRAP BACKFILL SPECIFICATIONS
5.0	RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS
6.0	SINGLETRAP MODULE TYPES

STORMTRAP CONTACT INFORMATION

STORM TRAP SUPPLIER: STORMTRAP
CONTACT NAME: STORMTRAP
CELL PHONE: STORMTRAP
SALES EMAIL: STORMTRAP



SAMPLE

SINGLETRAP® - DETENTION
SAMPLE DRAWING

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PROJECT INFORMATION:

SINGLETRAP

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SCALE:

NTS

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COVER SHEET

SHEET NUMBER:

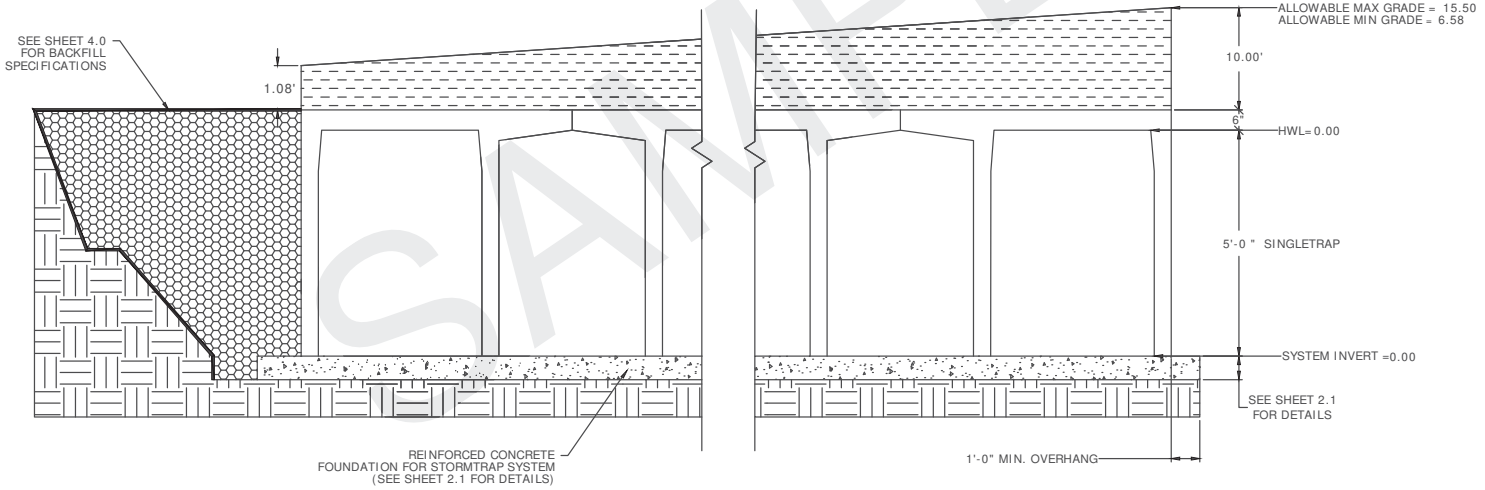
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STORMTRAP SYSTEM INFORMATION		
WATER STORAGE REQ'D:	20000	CUBIC FEET
WATER STORAGE PROV:	21379.17	CUBIC FEET
UNIT HEADROOM:	5' 0 "	SINGLETRAP
UNIT QUANTITY:	42	TOTAL PIECES

STORMTRAP STRUCTURAL DESIGN CRITERIA

1. STORMTRAP MODULES SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.08' MAX. 10.00'(CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS).
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.

SAMPLE



5'-0 " SINGLETRAP

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SINGLETRAP DESIGN CRITERIA

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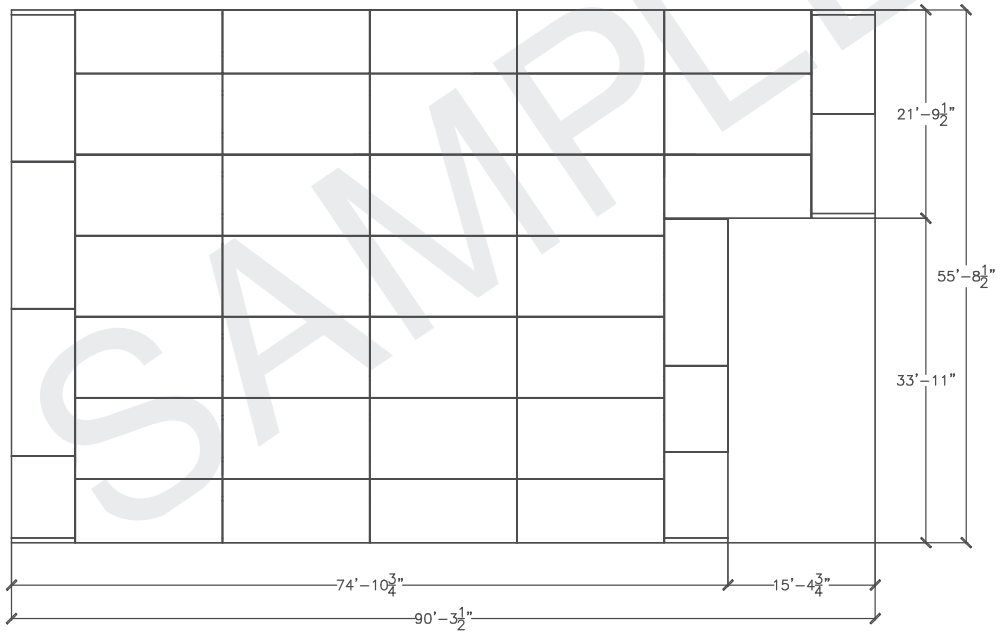
1.0

BILL OF MATERIALS

QTY.	UNIT TYPE	DESCRIPTION	WEIGHT
21	I	5' 0 " SINGLETRAP	
0	II	5' 0 " SINGLETRAP	
13	III	5' 0 " SINGLETRAP	
3	IV	5' 0 " SINGLETRAP	
0	VII	5' 0 " SINGLETRAP	
5	SPIV	5' 0 " SINGLETRAP	
5	PANEL	8" THICK PANELS	
8	JOINTWRAP	150' PER ROLL	
32	JOINTTAPE	14.5' PER ROLL	

DESIGN CRITERIA
ALLOWABLE MAX GRADE= 15.50
ALLOWABLE MIN GRADE =6.58
INSIDE HEIGHT ELEVATION = 0.00
SYSTEM INVERT = 0.00
STORMTRAP VOLUME = 21379.17 C.F.

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. SP - INDICATES A MODULE WITH MODIFICATIONS.
5. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.



SAMPLE

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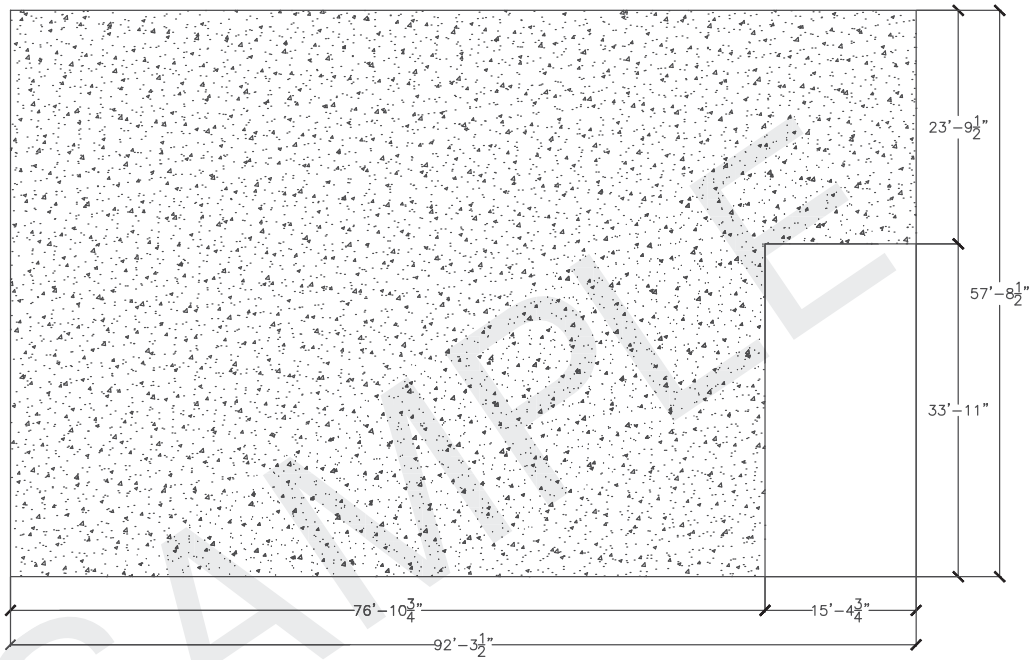
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SAMPLE PROJECT

REV.	DATE:	ISSUED FOR:	DWN BY:

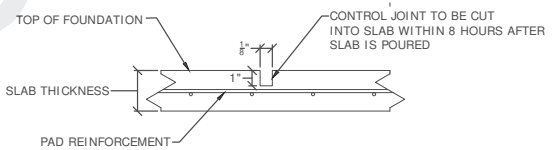
SCALE:
NTS

SHEET TITLE:
SINGLETRAP SYSTEM LAYOUT

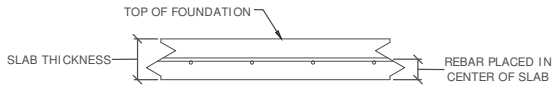
SHEET NUMBER:
2.0



SAMPLE



CONTROL JOINT DETAIL



STORMTRAP FOUNDATION DETAIL

NOTES:

1. CONCRETE STRENGTH @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
2. NET ALLOWABLE SOIL PRESSURE AS INDICATED ON SHEET 1.0.
3. SOIL CONDITIONS TO BE VERIFIED ON SITE BY OTHERS.
4. REBAR: ASTM A-615 GRADE 60. BLACK BAR.
5. DIMENSION OF FOUNDATION MUST HAVE 1'-0" OVERHANG BEYOND EXTERNAL FACE OF MODULE.
6. DIMENSION OF STORMTRAP SYSTEM ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
7. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
8. THE CONTROL JOINTS SHALL BE BETWEEN (IF REQUIRED BY ENGINEER OF RECORD) 16'-0" TO 24'-0" MAX APART.
9. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.

MAXIMUM SYSTEM COVER	SLAB THICKNESS	CONCRETE STRENGTH	REINFORCEMENT (BOTH DIRECTIONS)
6" - 12"	0'-8"	4000 PSI	#4 @ 18" O.C.
> 1'-0" - 2'-0"	0'-8"	4000 PSI	#4 @ 16" O.C.
> 2'-0" - 3'-0"	0'-8"	4000 PSI	#4 @ 12" O.C.
> 3'-0" - 4'-0"	0'-8"	4000 PSI	#4 @ 12" O.C.
> 4'-0" - 5'-0"	0'-8"	4000 PSI	#5 @ 18" O.C.
> 5'-0" - 6'-0"	0'-8"	4000 PSI	#5 @ 16" O.C.
> 6'-0" - 7'-0"	0'-8"	4000 PSI	#5 @ 16" O.C.
> 7'-0" - 8'-0"	0'-9"	4000 PSI	#5 @ 12" O.C.
> 8'-0" - 9'-0"	0'-10"	4000 PSI	#5 @ 12" O.C.
> 9'-0" - 10'-0"	0'-10"	4500 PSI	#5 @ 12" O.C.

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SAMPLE PROJECT

REV.	DATE:	ISSUED FOR:	DWN BY:

SCALE:

NTS

SHEET TITLE:

SINGLETRAP FOUNDATION LAYOUT

SHEET NUMBER:

2.1

STORMTRAP INSTALLATION SPECIFICATIONS

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891, STANDARD FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES, THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:

2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.

3. STORMTRAP MODULES SHALL BE PLACED ON A LEVEL CONCRETE FOUNDATION (SEE SHEET 2.1) WITH A 1'-0" OVERHANG ON ALL SIDES THAT SHALL BE POURED IN PLACE BY INSTALLING CONTRACTOR. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS. TO ENSURE THAT HE SOIL BEARING PRESSURE MEET OR EXCEED THE STRUCTURAL DESIGN LOADING CRITERIA AS SPECIFIED ON SHEET 1.0.

4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED $\frac{3}{4}$" (SEE DETAIL 2). IF THE SPACE EXCEEDS $\frac{3}{4}$", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.

5. THE PERIMETER HORIZONTAL JOINT BETWEEN THE STORMTRAP MODULES AND THE CONCRETE FOUNDATION SHALL BE SEALED TO THE FOUNDATION WITH PRE-FORMED MASTIC JOINT SEALER ACCORDING TO ASTM C891, 8.8 AND 8.12 (SEE DETAIL 1). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT TAPE IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM.

6. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER. CONTACT STORMTRAP IF A WATERTIGHT APPLICATION IS REQUIRED.

7. ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 3 & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:

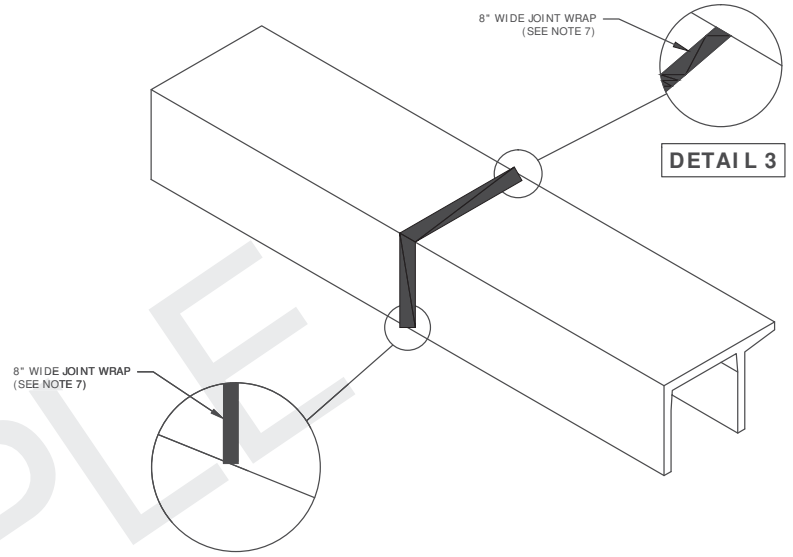
   7.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.

   7.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.

8. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.

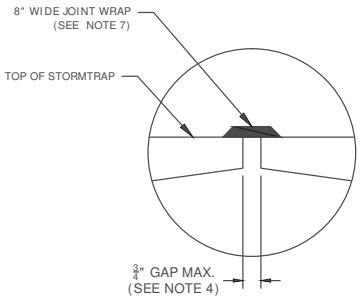
9. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.

10. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.

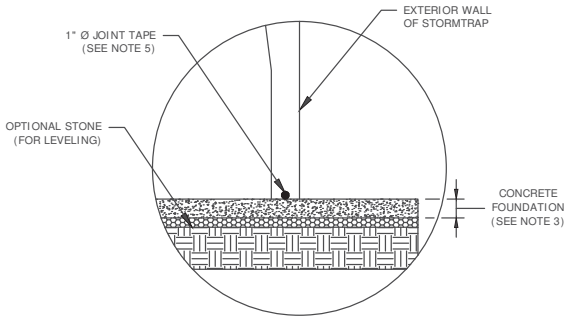


DETAIL 3

DETAIL 4



DETAIL 2



DETAIL 1

SAMPLE

StormTrap®

PATENTS LISTED AT: [HTTP://STORMTRAP.COM/PATENT]

1-877-867-6872

ENGINEER INFORMATION:

PROJECT INFORMATION:

SINGLETRAP

DETENTION

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SCALE:

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SHEET TITLE:

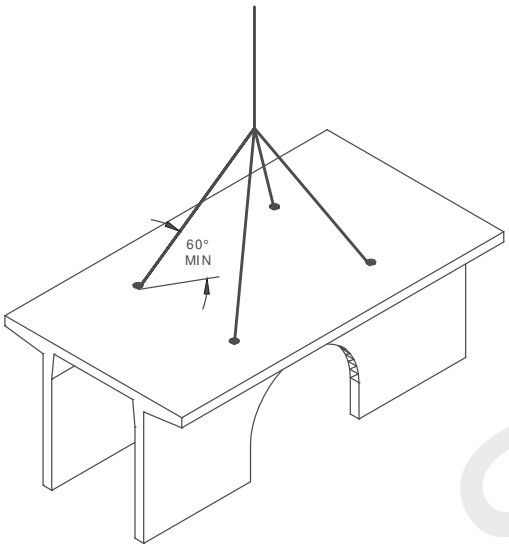
SINGLETRAP INSTALLATION SPECIFICATIONS

SHEET NUMBER:

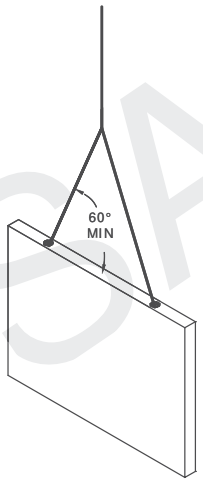
3.0

END PANEL ERECTION/INSTALLATION NOTES

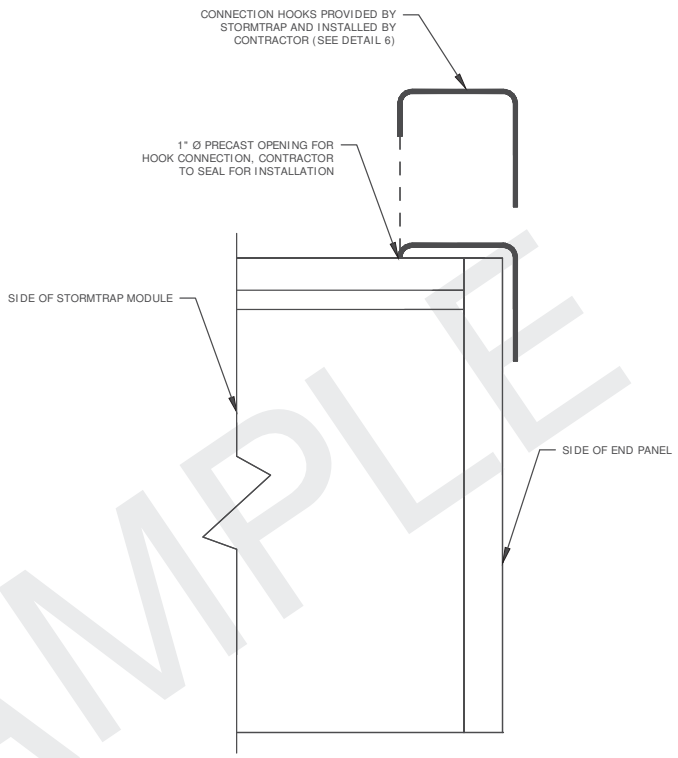
1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOKS ARE ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



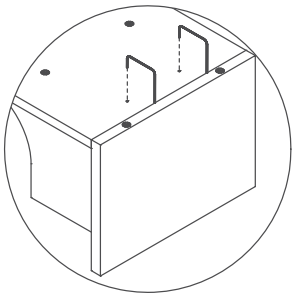
MODULE LIFTING DETAIL



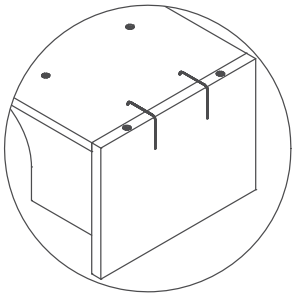
END PANEL LIFTING DETAIL



PANEL CONNECTION ELEVATION VIEW



STEP 1



STEP 2

DETAIL 6

SAMPLE

StormTrap®

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PROJECT INFORMATION:

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SCALE:

NTS

SHEET TITLE:

SINGLETRAP INSTALLATION SPECIFICATIONS

SHEET NUMBER:

3.1

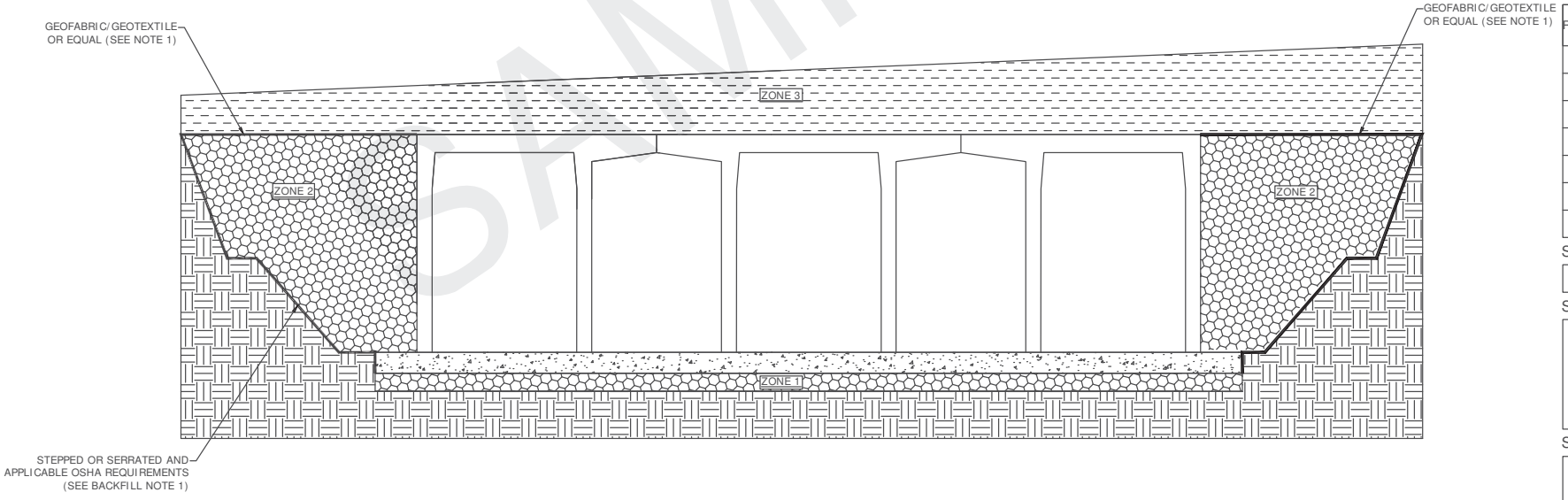
ZONE CHART		
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1 (OPTIONAL)	FOUNDATION AGGREGATE	
ZONE 2	BACKFILL	
ZONE 3	FINAL COVER OVERTOP	

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/ PROCEDURES

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MATERIAL SHALL BE CLEAN, CRUSHED, ANGULAR No. 5 (AASHTO M43) AGGREGATE. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED.

2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.

3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING.



BACKFILL DETAIL

SAMPLE

StormTrap®

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ENGINEER INFORMATION:

PROJECT INFORMATION:

SINGLETRAP

DETENTION

CURRENT ISSUE DATE:

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SAMPLE PROJECT

REV.	DATE:	ISSUED FOR:	DWN BY:

SCALE:

NTS

SHEET TITLE:

SINGLETRAP BACKFILL SPECIFICATIONS

SHEET NUMBER:

4.0

RECOMMENDED ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 3'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON INSIDE LEG UNLESS OTHERWISE SPECIFIED.

2. PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFC OR APPROVED EQUAL (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL ENSUING STEPS SHALL BE PLACED WITH A MAXIMUM DISTANCE OF 1'-4" BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.

3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.

4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.

5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.

6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE INSPECTIONS. (PROVIDED BY OTHERS)

RECOMMENDED PIPE OPENING SPECIFICATION

1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".

2. MAXIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREFERRED OPENING SIZE Ø 36" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.

3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-0" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH, NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.

4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

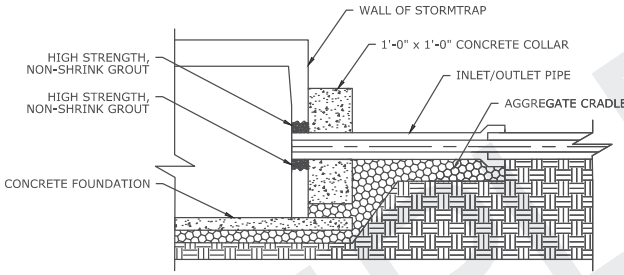
RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

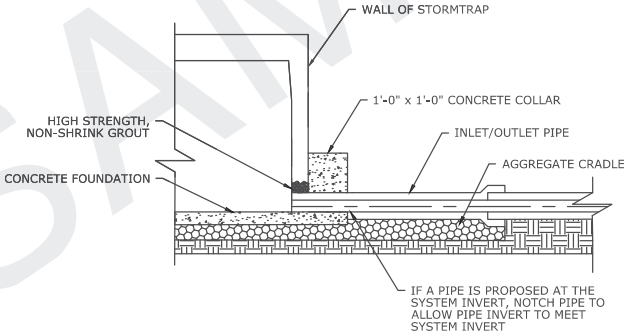
1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.

2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES. BEVEL AND LUBRICATE LEAD END OF PIPE.

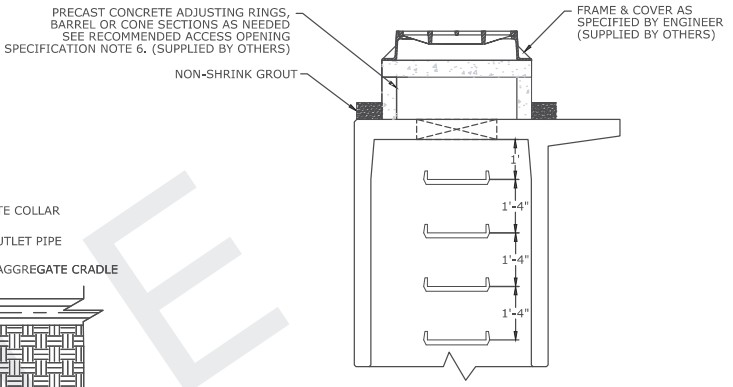
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR.

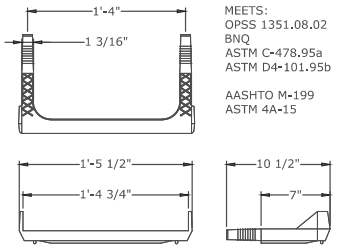




PIPE CONNECTION DETAIL



RISER / STAIR DETAIL



MEETS:
OPSS 1351.08.02
BNQ
ASTM C-478.95a
ASTM D4-101.95b

AASHTO M-199
ASTM 4A-15

STEP DETAIL

SAMPLE

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ENGINEER INFORMATION:

PROJECT INFORMATION:

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DETENTION

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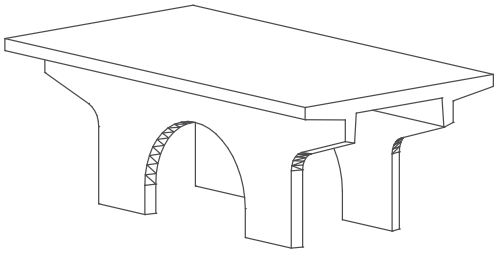
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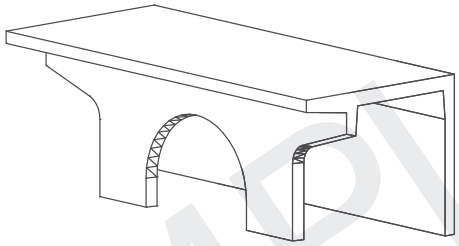
RECOMMENDED PIPE / ACCESS OPENING SPECIFICATIONS

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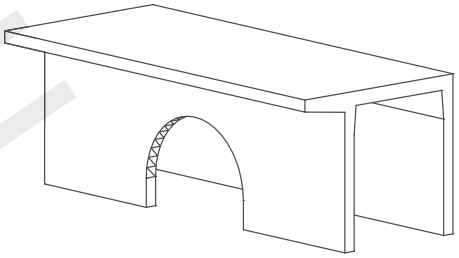
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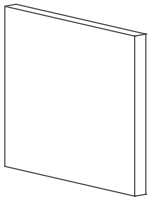
TYPE I



TYPE III



TYPE IV



TYPE IV
END PANEL

NOTES:
1. OPENING LOCATIONS AND SHAPES MAY VARY.
2. SP - INDICATES A MODULE WITH MODIFICATIONS.
3. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
4. POCKET WINDOW OPENINGS ARE OPTIONAL.

SAMPLE

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PROJECT INFORMATION:

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REV.	DATE:	ISSUED FOR:	DWN BY:

SCALE:

NTS

SHEET TITLE:

SINGLETRAP
MODULE TYPES

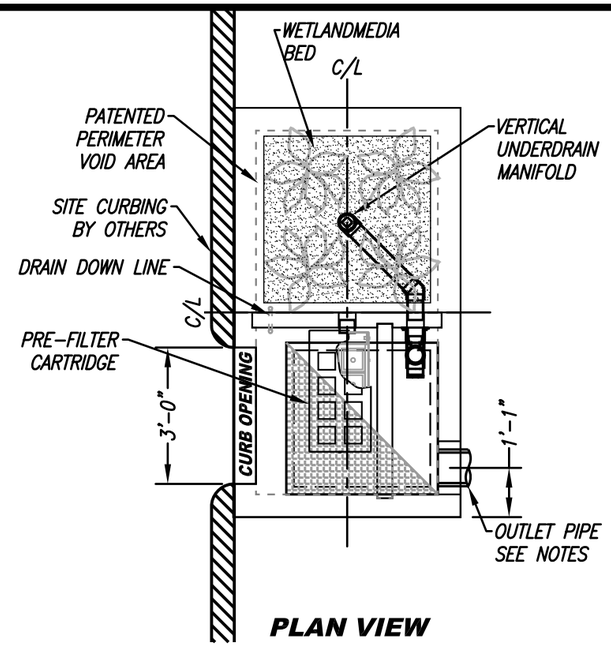
SHEET NUMBER:

6.0

Water Quality - Mod Wetland - BMP Sizing Calculations

DMA/BMP Name	BMP Type	Drainage Management Area (acres)	% Impervious	Impervious Area (ft^2)	Pervious Area (ft^2)	Runoff Factor for Impervious Area	Runoff Factor for Pervious Area	Effective Impervious Area (ft^2)	Water Quality Intensity (in/hr)	Water Quality Flow Rate, Q (cfs)	Required Water Quality Flow Rate (cfs) 1.5*Q	Provided BMP Flow Rate (cfs)	MWS Model Name	Adequacy of provided BMP (Mod Wetland) Flowrate	Provided BMP (Mod Wetland) Footprint (ft^2)
2B	Biofiltration - Mod Wetlands	0.4	85%	14345	2531	1	0.1	14,598	0.2	0.067	0.101	0.115	MWS-L-4-8	OK	32

SITE SPECIFIC DATA			
PROJECT NUMBER			
ORDER NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	PEDESTRIAN	OPEN PLANTER	PEDESTRIAN
FRAME & COVER	36" X 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			TBD
ORIFICE SIZE (DIA. INCHES)			TBD
NOTES: PRELIMINARY NOT FOR CONSTRUCTION.			



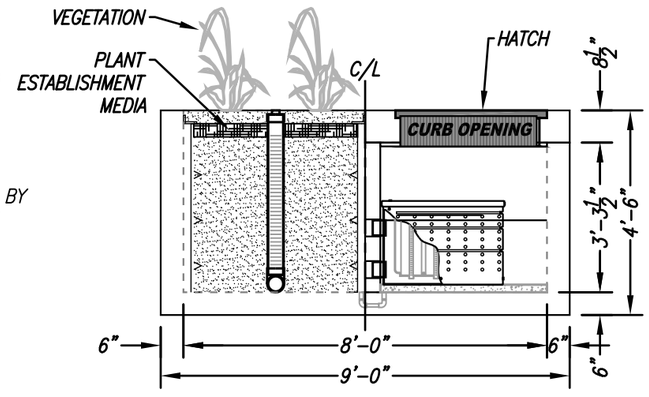
PLAN VIEW

INSTALLATION NOTES

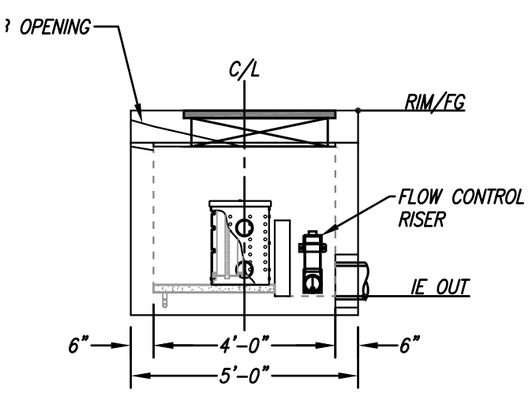
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER TIGHT PER MANUFACTURERS STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR ACTIVATION OF UNIT. MANUFACTURERS WARRANTY IS VOID WITH OUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

GENERAL NOTES

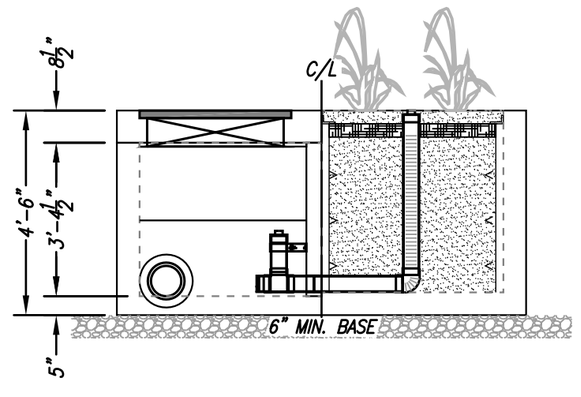
1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.



LEFT END VIEW



ELEVATION VIEW



RIGHT END VIEW

TREATMENT FLOW (CFS)	0.115
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MODULAR WETLANDS

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Bio Clean
A Forterra Company

MWS-L-4-8-C
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

ATTACHMENT 2
BACKUP FOR PDP HYDROMODIFICATION CONTROL MEASURES

This is the cover sheet for Attachment 2.

☒ Mark this box if this attachment is empty because the project is exempt from PDP hydromodification management requirements.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 2a	Hydromodification Management Exhibit (Required)	☐ Included See Hydromodification Management Exhibit Checklist on the back of this Attachment cover sheet.
Attachment 2b	Management of Critical Coarse Sediment Yield Areas (WMAA Exhibit is required, additional analyses are optional) See Section 6.2 of the BMP Design Manual.	☐ Exhibit showing project drainage boundaries marked on WMAA Critical Coarse Sediment Yield Area Map (Required) Optional analyses for Critical Coarse Sediment Yield Area Determination ☐ 6.2.1 Verification of Geomorphic Landscape Units Onsite ☐ 6.2.2 Downstream Systems Sensitivity to Coarse Sediment ☐ 6.2.3 Optional Additional Analysis of Potential Critical Coarse Sediment Yield Areas Onsite
Attachment 2c	Geomorphic Assessment of Receiving Channels (Optional) See Section 6.3.4 of the BMP Design Manual.	☐ Not performed ☐ Included ☐ Submitted as separate stand-alone document
Attachment 2d	Flow Control Facility Design, including Structural BMP Drawdown Calculations and Overflow Design Summary (Required) See Chapter 6 and Appendix G of the BMP Design Manual	☐ Included ☐ Submitted as separate stand-alone document
Attachment 2e	Vector Control Plan (Required when structural BMPs will not drain in 96 hours)	☐ Included ☐ Not required because BMPs will drain in less than 96 hours

Use this checklist to ensure the required information has been included on the Hydromodification Management Exhibit:

The Hydromodification Management Exhibit must identify:

- ☐ Underlying hydrologic soil group
- ☐ Approximate depth to groundwater
- ☐ Existing natural hydrologic features (watercourses, seeps, springs, wetlands)
- ☐ Critical coarse sediment yield areas to be protected
- ☐ Existing topography
- ☐ Existing and proposed site drainage network and connections to drainage offsite
- ☐ Proposed grading
- ☐ Proposed impervious features
- ☐ Proposed design features and surface treatments used to minimize imperviousness
- ☐ Point(s) of Compliance (POC) for Hydromodification Management
- ☐ Existing and proposed drainage boundary and drainage area to each POC (when necessary, create separate exhibits for pre-development and post-project conditions)
- ☐ Structural BMPs for hydromodification management (identify location, type of BMP, and size/detail)

ATTACHMENT 2A

San Diego River Watershed Management Area
HU 907.00, 436 mi2

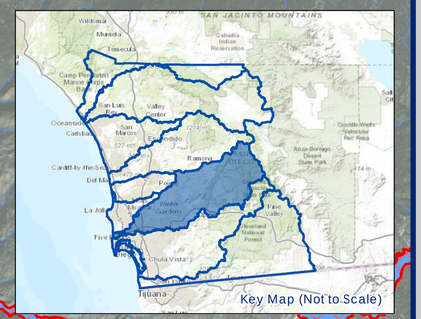
Legend

- Watershed Boundaries
- Municipal Boundaries
- Regional WMAA Streams
- **Exempt Bodies:** Water Storage Reservoirs, Lakes, Enclosed Embayments, Pacific Ocean, Buena Vista Lagoon
- **Exempt River Reaches:** Reaches of San Luis Rey River, San Dieguito River, San Diego River, Forester Creek, Sweetwater River, Otay River
- **Exempt Conveyance Systems:** Existing underground storm drains or conveyance channels whose bed and bank are concrete-lined, discharging directly to exempt water bodies, exempt rivers, or localized areas of Agua Hedionda Lagoon and Batiquitos Lagoon

CARLSBAD
SAN MARCOS
ENCINITAS
S.D. COUNTY
POWAY
SAN DIEGO
SANTEE
LAKESIDE
EL CAJON
LA MESA
LEMON GROVE
CORONADO

Marcos Creek
Escondido Creek
San Dieguito River
Santa Ysabel Creek
Lusardi Creek
Rattlesnake Creek
Los Penasquitos Creek
Carroll Canyon Creek
Rose Creek
San Diego River
Forester Creek
Chollas Creek
Sweetwater River

Project Site



Aerial Imagery Source: DigitalGlobe, 06/2012

0 3.75 7.5 15 Miles

NORTH

Receiving Waters and Conveyance Systems Exempt from Hydromodification Management Requirements

Exhibit Date: Sept. 8, 2014

Geosyntec consultants

RICK ENGINEERING COMPANY

NOTES:
IN BOTH THE EXISTING AND THE PROPOSED CONDITION, FLOWS FROM THE SITE AREA COLLECTED BY THE EXISTING STORMDRAIN SYSTEM THAT DISCHARGES DIRECTLY INTO THE SAN DIEGO RIVER AT A LOCATION THAT IS IDENTIFIED AS APPROPRIATE FOR EXEMPTION BY THE WMAA.

SURFACE FLOW

FLOW IN STORM DRAIN

DISCHARGE LOCATION

PROJECT SITE

SAN DIEGO RIVER

FATHER JUNIPERO SERR TL

FATHER JUNIPERO SERR TL

MISSION GORGE RD

WEST HILLS PY

VIA SOVANA

VIA MONTISI

BASSETT LN

AUBREY GLEN

CLARE LN

ROSEMOND LN

MIRABELLE LN

HISER LN

STARPINE DR

CORAL RIDGE RD

OLIVEHILL RD

ROLLING OAKS RD

PRIVATE RD

FERNRIDGE RD

CRESCENT RIDGE RD

RIDGECREST RD

WREN ST

DOVE ST

RANCHO FANITA DR

WISTFUL VISTA

BRITT PL

AQ

AR

AS

AT

303

304

305

Legend

Storm Drain System

Pipe

S_Fld_Haz_Ar

FEMA NFHL Floodplain

100-YR Floodway

100-YR Floodplain

500-YR Floodplain

Assessor Parcels

Roads

Rivers

TOPO_2ft_2018

SANDAG & SanGIS

\\cp.rickeng.com\projects\C_SD_H\18636_Hiser\GIS\HiserProperty_Santee_StormDrain_Exhibit.mxd

RICK ENGINEERING COMPANY

Scale in Feet

0 200 400

North

Date of Exhibit: 3/9/2020
DigitalGlobe Aerial Image: 2017

Hiser Property

Exsiting Storm Drain Systems & HMP Approach

J-19137-A


48" CMP
OUTFALL
PHOTO TAKEN
FACING SOUTH


48" CMP
OUTFALL
WEST HILLS
PKWY BRIDGE
PHOTO TAKEN FACING
SOUTH ON THE WEST SIDE
OF THE WEST HILL PKWY
BRIDGE WITHIN THE SAN
DIEGO RIVER CHANNEL

GENERAL NOTES:

1. A CONSTRUCTION PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE START OF ANY CONSTRUCTION WITHIN THE LIMITS OF THE PUBLIC RIGHT-OF-WAY INCLUDING BUT NOT LIMITED TO UTILITY CONNECTIONS OR GRADING.
2. ACCEPTANCE OF THESE IMPROVEMENTS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
3. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, TESTED AND CONNECTED PRIOR TO CONSTRUCTION OF BERMS, CURBS, CROSS GUTTERS, SIDEWALKS OR FINAL PAVING.
4. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORD DATA AND FIELD SURVEYS. TO THE BEST OF OUR KNOWLEDGE, EXISTING FACILITIES ARE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITIES SHOWN HEREON AND TO MAKE A REASONABLE AND DILIGENT SEARCH TO DETERMINE ANY OTHER WHICH IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS AND TO PROTECT THE SAME. ANY FACILITIES SO LOCATED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND INCLUDED ON THE AS-BUILT DRAWINGS FOR THIS PROJECT
5. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING EXPLORATORY EXCAVATIONS AND LOCATING EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO ALLOW FOR REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF CHANGES IN LINE OR GRADE DUE TO THE ACTUAL LOCATION OF EXISTING FACILITIES.
6. THE CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR S.D.G & E. FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.

   NOTICE: ALL ELECTRIC AND GAS SERVICES WITHIN THE PROJECT ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF ELECTRICAL CABLES AND GAS PIPING AND APPURTENANCES CONTRACT THE SAN DIEGO GAS & ELECTRIC COMPANY. TELEPHONE: 1-800-422-4133
7. THE CONTRACTOR SHALL NOTIFY THE PACIFIC BELL TELEPHONE COMPANY PRIOR TO STARTING WORK NEAR PACIFIC BELL FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.

   NOTICE: ALL TELEPHONE SERVICES WITHIN THIS PROJECT BOUNDARY ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLES AND APPURTENANCES CONTACT PACIFIC BELL. TELEPHONE 1-800-422-4133
8. THE CONTRACTOR SHALL NOTIFY PADRE DAM MUNICIPAL WATER DISTRICT PRIOR TO STARTING WORK NEAR PADRE DAM FACILITIES AND SHALL COORDINATE HIS WORK WITH DISTRICT REPRESENTATIVES.

   NOTICE: FOR LOCATION OF WATER AND SEWER FACILITIES AND APPURTENANCES CONTACT PADRE DAM. TELEPHONE: 448-3111
9. THE CONTRACTOR SHALL NOTIFY COX CABLE TV PRIOR TO STARTING WORK NEAR COX CABLE FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.

   NOTICE: ALL TELEVISION SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLES AND APPURTENANCES CONTACT COX CABLE. TELEPHONE: 263-5793
10. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS, AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
11. POWER SOURCES AND RUNS SERVING STREET LIGHTS SHALL BE SHOWN ON THE "AS-BUILT" IMPROVEMENT DRAWINGS. ALL SOURCES SHALL BE LOCATED WITHIN THE DEDICATED RIGHT-OF-WAY, OR WITHIN EASEMENTS DEDICATED TO THE CITY OF SANTEE.
12. FINAL PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
13. CITY OF SANTEE INSPECTION REQUIREMENTS:
    A. CONTRACTOR SHALL INFORM THE CITY PROJECT ENGINEER 48 HRS. IN ADVANCE OF COMMENCING WORK. PHONE: (619) 258-4130.
    B. THE CONTRACTOR SHALL GIVE A MINIMUM OF 24 HOURS NOTICE ON REQUESTS FOR INSPECTION. PHONE: (619) 258-4130.
    C. ANY WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
14. STORM DRAINS AS SHOWN ON THESE PLANS SHALL BE CONSTRUCTED AS PART OF THE GRADING OPERATION. PRIOR TO RELEASE OF ANY GRADING SECURITIES ALL PUBLIC STORM DRAIN SYSTEMS SHOWN ON THESE PLANS SHALL BE CONSTRUCTED AND ACCEPTED BY THE CITY OF SANTEE.
15. THE DEPARTMENT OF PUBLIC WORKS WILL REMOVE STREET NAME SIGNS WHEN CONDITIONS SO DICTATE. CONTRACTOR SHALL PROTECT AND ASSUME RESPONSIBILITY FOR ALL OTHER TRAFFIC CONTROL DEVICES. CONTRACTOR SHALL REPLACE TRAFFIC STRIPING, STREET MARKINGS, AND CURB MARKINGS REMOVED OR DAMAGED BY HIS WORK.
16. SIDEWALK JOINT LOCATIONS SHALL BE INSTALLED IN ACCORDANCE WITH REGIONAL STANDARD DRAWING NO. G-9. CURB OR CURB AND GUTTER JOINT LOCATIONS SHALL INCLUDE EXPANSION JOINTS AT CURB RETURNS, ADJACENT TO STRUCTURES AND AT 45 FOOT INTERVALS. WEAKENED PLANE JOINTS SHALL BE INSTALLED AT DRIVEWAY LOCATIONS AND AT 15 FOOT INTERVALS BETWEEN EXPANSION JOINTS. ALL CONCRETE JOINTS SHALL CONFORM TO REGIONAL STANDARD DRAWING NO. G-10.
17. SIDEWALKS AND BIKEPATHS ARE DESIGNED TO HAVE CLEAR UNOBSTRUCTED ACCESS. THESE FACILITIES SHALL BE KEPT CLEAR OF STREET LIGHTS, FIRE HYDRANTS, METER BOXES, ELECTRICAL PULL BOXES, BLOWOFFS, AIR VENTS, OR OTHER SIMILAR OBSTRUCTIONS AT ALL TIMES.
18. ACCEPTANCE OF THESE PLANS BY THE CITY OF SANTEE IS VALID FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. FAILURE TO COMMENCE CONSTRUCTION WITHIN ONE YEAR VOIDS ACCEPTANCE OF THESE PLANS.

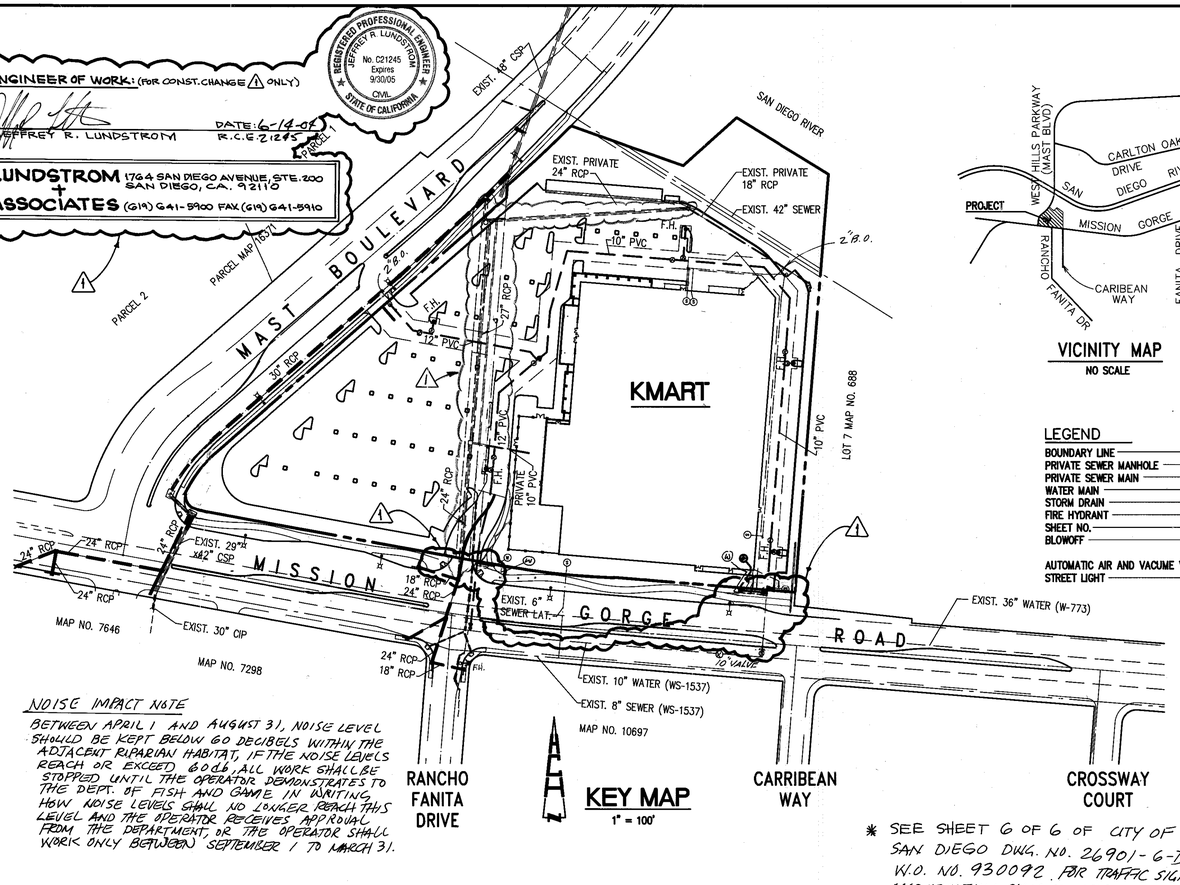
G-315 = 93-016-021
G-315A = 93-022-027

REFERENCES	
CITY OF S.D.: DWG # 25483-35, 36-D; W 772, 773	
COUNTY OF S.D.: TM 2946-1, WS 1536, 1537	
R.S. 627-5; RS 1275-3	
SDGE DWG # IL-1000	
CITY OF SANTEE: 87-100,101,102; 87-122, 88-084	

ENGINEER OF WORK: (FOR CONST. CHANGE ⚠ ONLY)
JEFFREY R. LUNDSTROM DATE: 6-14-93 R.C.E. 21245 EXPIRES 3/31/95

REGISTERED PROFESSIONAL ENGINEER JEFFREY R. LUNDSTROM No. 021245 Expires 9/30/95 CIVIL STATE OF CALIFORNIA

LUNDSTROM + ASSOCIATES 1764 SAN DIEGO AVENUE, STE. 200 SAN DIEGO, CA. 92110 (619) 641-5900 FAX (619) 641-5910



KEY MAP
1" = 100'

VICINITY MAP
NO SCALE

LEGEND

BOUNDARY LINE	
PRIVATE SEWER MANHOLE	
PRIVATE SEWER MAIN	S
WATER MAIN	W
STORM DRAIN	
FIRE HYDRANT	
SHEET NO.	2
BLOWOFF	W
AUTOMATIC AIR AND VACUME VALVE	W
STREET LIGHT	

NOISE IMPACT NOTE

BETWEEN APRIL 1 AND AUGUST 31, NOISE LEVEL SHOULD BE KEPT BELOW 60 DECIBELS WITHIN THE ADJACENT RIPARIAN HABITAT, IF THE NOISE LEVELS REACH OR EXCEED 60dB, ALL WORK SHALL BE STOPPED UNTIL THE OPERATOR DEMONSTRATES TO THE DEPT. OF FISH AND GAME IN WRITING HOW NOISE LEVELS SHALL NO LONGER REACH THIS LEVEL AND THE OPERATOR RECEIVES APPROVAL FROM THE DEPARTMENT, OR THE OPERATOR SHALL WORK ONLY BETWEEN SEPTEMBER 1 TO MARCH 31.

✱ SEE SHEET 6 OF 6 OF CITY OF SAN DIEGO DWG. NO. 26901-6-D W.O. NO. 930092 FOR TRAFFIC SIGNAL MODIFICATION PLAN AT MISSION GORGE ROAD AND MAST BLVD.

PAVING NOTES:

1. SEVEN DAYS PRIOR TO THE PLACEMENT OF ROADWAY BASE MATERIAL THE CONTRACTOR SHALL SUBMIT A CERTIFIED SOILS REPORT FROM A REGISTERED CIVIL ENGINEER CERTIFYING ALL ROADWAY AND UTILITY TRENCHING HAS BEEN COMPACTED TO THE MINIMUN REQUIREMENTS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE RECOMMENDATIONS OF THE SOILS ENGINEER CONTAINED IN THE PROJECT'S SOILS REPORT.
2. PAVEMENT STRUCTURAL SECTION DESIGNS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL. THE DESIGN SHALL BE BASED ON THE 'R' VALUE METHOD. THE 'R' VALUE TESTS SHALL BE PERFORMED BY A REGISTERED CIVIL ENGINEER WHOSE PRIMARY PROFESSIONAL ACTIVITY IS PERFORMING SUCH TESTS. THE NUMBER AND LOCATIONS OF THESE TESTS SHALL BE SUBJECT TO APPROVAL BY THE CITY ENGINEER. BASE MATERIAL SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 200-2.2 WITH THE FOLLOWING EXCEPTIONS.
   A. NATURAL MATERIAL CONFORMING TO SECTION 200-1.5 MAY BE SUBSTITUTED FOR ROCK DUST.
   B. THE MINIMUM SAND EQUIVALENT PER CALIFORNIA TEST NO. 217 SHALL BE 30.
3. THE FOLLOWING MINIMUM STRUCTURAL THICKNESS AND TRAFFIC INDEXES SHALL BE USED FOR PAVEMENT DESIGN PURPOSES:

STREET NAME	TRAFFIC INDEX	ACTUAL STRUCTURAL SECTION
A. MISSION GORGE ROAD	9	5" A.C. OVER 6" A.B.

4. ASPHALT CONCRETE SHALL CONFORM TO ALL PROVISIONS OF SECTION 203-6 OF THE CURRENT STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION. MINIMUM STRUCTURAL SECTIONS SHALL CONFORM TO THE CITY OF SANTEE PUBLIC WORKS STANDARDS. ASPHALT SURFACE COURSE SHALL BE C2-AR-4000, MINIMUM THICKNESS 2 INCHES, MAXIMUM THICKNESS 3 INCHES. ASPHALT CONCRETE SECTIONS GREATER THAN 3 INCHES SHALL CONTAIN A BASE COURSE OF B-AR-4000, MINIMUM THICKNESS OF 2 INCHES.
5. A MINIMUM 2-FOOT CLEAR ZONE SHALL BE MAINTAINED FROM THE EDGE OF THE BIKE/PEDESTRIAN PATH AND ANY OBSTACLES OR HARDWARE, INCLUDING BUT NOT LIMITED TO FIRE HYDRANTS, LIGHTS, TREES, ETC.

FINAL ACCEPTANCE:

FINAL ACCEPTANCE OF PUBLIC IMPROVEMENTS WILL NOT BE DONE UNTIL SUCH TIME AS ALL ITEMS OF WORK AS SHOWN ON THE APPROVED IMPROVEMENT PLAN, AND ANY CORRECTIONS, ARE COMPLETED. WHEN ALL ITEMS ARE COMPLETED, THE DEVELOPER SHALL REQUEST FINAL ACCEPTANCE AND, AFTER ACCEPTANCE, THE IMPROVEMENT SECURITY SHALL BE RELEASED AND ANY CASH SECURITY DEPOSITS SHALL BE RETURNED.

PAVING NOTES CONTINUED:

6. ALL TRENCHING IN AREAS OF EXISTING PAVEMENT SHALL BE CONTRUCTED AND RESURFACED PER REGIONAL STANDARD DRAWINGS G-24 TYPE A OR AS DIRECTED BY CITY ENGINEER.

UTILITIES COORDINATION NOTES:

1. THESE PLANS CONTAIN MEANDERING BIKE AND PEDESTRIAN PATHS. THE LOCATION OF ALL ABOVE GROUND AND AT GRADE UTILITIES SHALL BE COORDINATED WITH THE MEANDERING PATH. NO ABOVE GROUND FACILITY SHALL BE LOCATED WITHIN TWO FEET OF THE PATH (PREFERRED MINIMUM IS THREE FEET). ACTUAL LOCATION OF FACILITIES IS SUBJECT TO APPROVAL BY THE CITY ENGINEER PRIOR TO ISSUANCE OF A CONSTRUCTION/ENCROACHMENT PERMIT. CONTRACTOR TO OBTAIN APPROVAL FROM CITY OF SANTEE DEPT. OF PUBLIC WORKS, LOCATIONS AND TYPES OF ANY UTILITY STRUCTURES BEFORE INSTALLATION WITHIN THE PUBLIC RIGHT-OF-WAYS.

INDEX

CONTENTS	SHEET NUMBER
TITLE SHEET & NOTES, KEY MAP, ETC.	1
WATER NOTES, DETAILS AND STRUCTURAL SECTIONS	2
MISSION GORGE ROAD IMPROVEMENT PLANS	3, 4
PUBLIC STORM DRAIN	5
PUBLIC WATER IMPROVEMENT PLANS	6,7
STRIPING AND SIGNAGE PLANS	8
✱ (TRAFFIC SIGNAL MODIFICATION PLAN AT MISSION GORGE ROAD AND MAST BOULEVARD)	
TRAFFIC SIGNAL PLAN AT MISSION GORGE ROAD AND RANCHO FANITA DRIVE	9
PEDESTRIAN AND BIKE PATH IMPROVEMENT PLAN	10

ENGINEER OF WORK'S CERTIFICATION

I, TAT L. WAI, HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTANT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS IN THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

SIGNED: _____ DATE: 3/15/93
REGISTRATION NO, 26433, MY REGISTRATION EXPIRES ON 3-31-96

REGISTERED PROFESSIONAL ENGINEER TAT L. WAI NO. 26433 EXP. 3-31-96 CIVIL STATE OF CALIFORNIA

HCH PARTNERS
LAND PLANNING
ARCHITECTURE
ENGINEERING
SURVEYING
4877 Viewridge Avenue
San Diego, California
92123-1667
(619) 278-5750
FAX (619) 278-9258

LEGAL DESCRIPTION:

PARCEL 1 OF PARCEL MAP NO. 17020, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FIELD IN THE OFFICE OF THE COUNTY RECORDER ON DECEMBER 17, 1992.

ASSESSORS PARCEL NO.

383-050-13, 383-060-09,10,11.

OWNER/DEVELOPER:

I HEREBY AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING CITY RIGHT-OF-WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE CONSTRUCTION PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED. IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

SIGNATURE, _____
OWNER AND DEVELOPER: KMART CORPORATION-WRO
ADDRESS: 700 S. ORANGE, COVINA, CA. 91790, TEL. 818-856-8363

ENGINEER'S AS-BUILT CERTIFICATION

I, TAT L. WAI, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE PREPARATION OF THESE AS-BUILT DRAWINGS. THE INFORMATION SHOWN IS BASED ON ACTUAL FIELD SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF SEPTEMBER 1993 AND AUGUST 1995, TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE SURVEY AND THESE PLANS PROVIDE AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS.

SIGNED: _____ DATE: 9/14/95
REGISTRATION NO. 26433, MY REGISTRATION EXPIRES ON 3-31-96

BURKETT & WONG ENGINEERS
3434 FOURTH AVENUE
SAN DIEGO, CALIFORNIA, 92103
TEL. (619) 299-5550

GENERAL STANDARDS OF CONSTRUCTION:

UNLESS OTHERWISE NOTED ON THESE PLANS, ALL WORK SHALL CONFORM W/ THE FOLLOWING STD. SPECIFICATIONS AND DRAWINGS.

STANDARD SPECIFICATIONS:
1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1991 EDITION.
2. STANDARD SPECIAL PROVISIONS.
3. CITY OF SANTEE PUBLIC WORKS STANDARDS, SEPTEMBER 1982.
4. CALIFORNIA DEPARTMENT OF TRANSPORTATION, "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTAINANCE WORK ZONES." (1990 EDITION).
5. STANDARD SPECIFICATIONS OF THE PADRE DAM MUNICIPAL WATER DISTRICT, ADOPTED NOVEMVER, 21 1966 BY RESOLUTION NO. 1047.

STANDARD DRAWINGS:
1. CITY OF SANTEE STANDARD DRAWINGS.
2. SAN DIEGO REGIONAL STANDARD DRAWINGS (S.D.R.S.) AS RECOMMENDED BY THE REGIONAL STANDARDS COMMITTEE, MAINTAINED AND PUBLISHED BY THE BY THE SAN DIEGO COUNTY DEPARTMENT OF PUBLIC WORKS, 1992 EDITION.
3. STANDARD DRAWINGS OF THE PADRE DAM MUNICIPAL WATER DISTRICT, ADOPTED NOVEMBER ,21, 1966 BY RESOLUTION NO. 1047.

LEGEND

IMPROVEMENTS	STD.DWG. (RSD)	SYMBOL
THE CONSTRUCTION OF A.C. OVERLAY (TO SATISFACTION OF CITY ENGINEER)		
THE CONSTRUCTION OF WALKWAY LIGHTING (DELTA LIGHTING)		
THE CONSTRUCTION OF A.C. SURFACING OVER AGGREGATE BASE (SEE PAVING NOTES, SHEET 1)	-	
THE CONSTRUCTION OF 6" CONCRETE CURB	G-1	
THE CONSTRUCTION OF 6" MEDIAN CONCRETE CURB (B-1)	G-6	
THE CONSTRUCTION OF 6" TYPE 'G' CURB AND GUTTER	G-1	
THE CONSTRUCTION OF STREET LIGHT (250 WATT H.P.S.) SUPPLEMENT TO E-1		1
THE CONSTRUCTION OF PEDESTRIAN RAMP	G-2, G-32	
THE CONSTRUCTION OF BIKE PATH AND PEDESTRIAN WALK (SEE STREET SECTION, SHEET 2)	G-7	2/2
THE CONSTRUCTION OF ALLEY APRON		
THE CONSTRUCTION OF TYPE 'B', 'B-1', 'B-2' CURB INLETS	D-2	
THE CONSTRUCTION OF TYPE 'A' CLEANOUT	D-9	
THE CONSTRUCTION OF STORM DRAIN (RCP)	D-60	
THE CONSTRUCTION OF CONCRETE PIPE COLLAR	D-62	
THE CONSTRUCTION OF CONCRETE LUG	D-63	
THE CONSTRUCTION OF TYPE 'B-1' CURB INLET WITH GREASE TRAP		2
THE CONSTRUCTION OF CONCRETE PAVERS		2
THE CONSTRUCTION OF TYPE 'A-2' CURB INLET	D-1	

WATER IMPROVEMENTS	SYMBOL
THE CONSTRUCTION OF WATER MAIN SHOWN THUS:	
THE CONSTRUCTION OF 1-1/2" OR GREATER WATER LATERAL WITH VALVE AND STANDARD GATE WELL SHOWN THUS:	W
THE CONSTRUCTION OF WATER LATERAL WITH REDUCED PRESSURE BACKFLOW PREVENTION DEVICE SHOWN THUS: (INDICATE SIZE ON DRAWINGS)	W RP
THE CONSTRUCTION OF 6" FIRE HYDRANT WITH 2 - 4" AND 1 - 2-1/2" OUTLETS AND APPURTENANCES WITH 4'X4'X4" CONCRETE SPLASH PAD COMPLETE SHOWN THUS:	
THE CONSTRUCTION OF VALVE AND STANDARD GATE WELL WITH CAST IRON COVER SHOWN THUS:	
THE CONSTRUCTION OF BLOWOFF SHOWN THUS:	
THE CONSTRUCTION OF AUTOMATIC AIR AND VACUUM VALVE SHOWN THUS:	
THE CONSTRUCTION OF REDUCER SHOWN THUS:	
THE CONSTRUCTION OF FIRE SERVICE SHOWN THUS:	FS

SEWER (PRIVATE) IMPROVEMENTS	SYMBOL
THE CONSTRUCTION OF PRIVATE PVC (SDR-35) PIPE SEWER MAIN SHOWN THUS:	
THE CONSTRUCTION OF 6" PVC PIPE SEWER LATERALS SHOWN THUS:	S
THE CONSTRUCTION OF PRIVATE CONCRETE MANHOLES WITH 36" FRAME AND DOUBLE LID SHOWN THUS:	
THE CONSTRUCTION OF PRIVATE SEWER PUMP STATION (NOT A PART)	PS
THE CONSTRUCTION OF PRIVATE FORCE MAIN (NOT A PART)	F F
THE CONSTRUCTION OF PRIVATE SEWER CLEANOUTS	

SEWER & WATER AGENCY
PADRE DAM MUNICIPAL WATER DISTRICT
Approved By: _____ Director of Engineering and Planning — Date 4/16/93
R.C.E. No. 23190 — Exp. 12-31-93
Improvement District A — Job No. 89022
VALID FOR ONE YEAR FROM DATE OF SIGNATURE.
SIGNATURE OF THESE PLANS IS NOT A COMMITMENT TO SERVE

"AS-BUILT" - WATER & SEWER
4/19/94
TAT L. WAI RCE 26433 DATE

CONSTRUCTION RECORD	
Contractor:	HBD CONST.
Inspector:	HECTOR EZQUERRO
Date Completed:	3-12-95

Date	By	REVISIONS	App'd
7-14-93	HCH	MOVE 27" S.D. W'LY 15'	
9-1-95	B.C.W.	AS BUILT	
9-3-96	L.T.A.	⚠ ADD G.O.W. LOGO & SIGNATURE BLOCK	
		REV. KEY MAP & LEGEND	

BENCH MARK: CITY OF SANTEE G.P.S. STA. 1002 PER R.O.S. 11252 STANDARD STREET SURVEY MONUMENT CENTER-PUNCHED. NO STAMPING PER MAP 7198. CENTER-LINE INTERSECTION OF MISSION GORGE ROAD AND RANCHO FANITA DRIVE. ELEV. 331.37

SCALE: Horizontal AS SHOWN; Vertical AS SHOWN

Office CDC; Field See; Traffic C.D.C.

Designed By	Drawn By	Checked By
TLW	MPH	TLW

Plans Prepared Under Supervision Of
R.C.E. No. 26433 Date 3/15/93 Expires 3/31/92

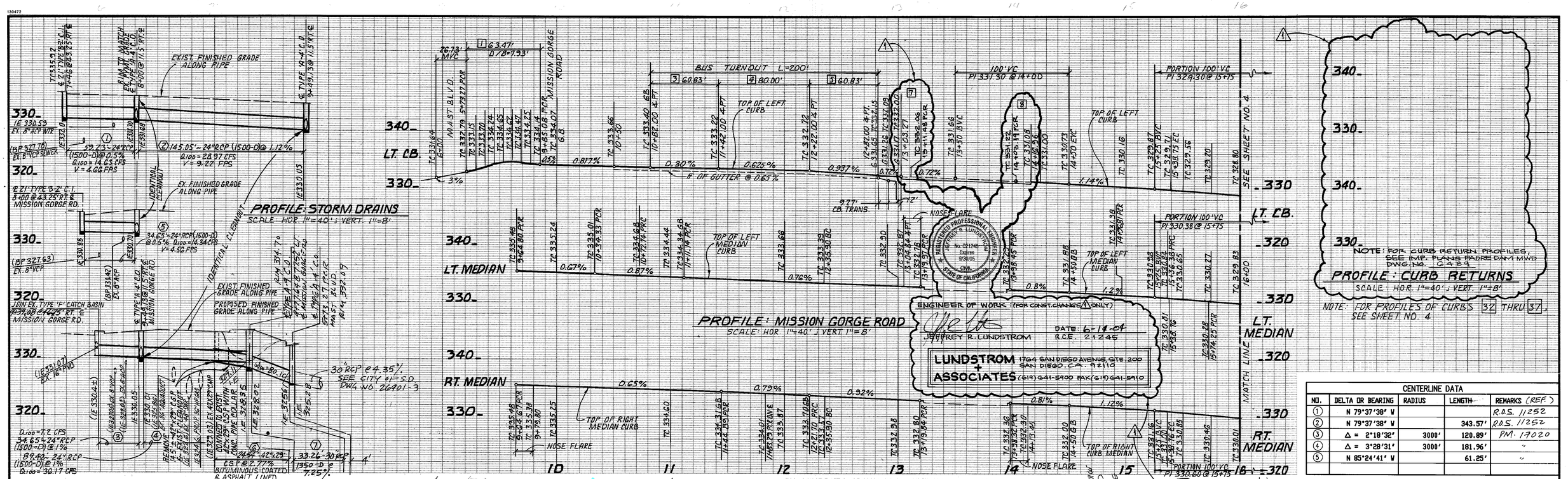
REVIEWED 5/24/93 By _____ LAND DEVELOPMENT ENGINEER
ACCEPTED 5/25/93 By _____ DIR. OF PUBLIC WORKS R.C.E. No. 18765 Expires 3/31/97

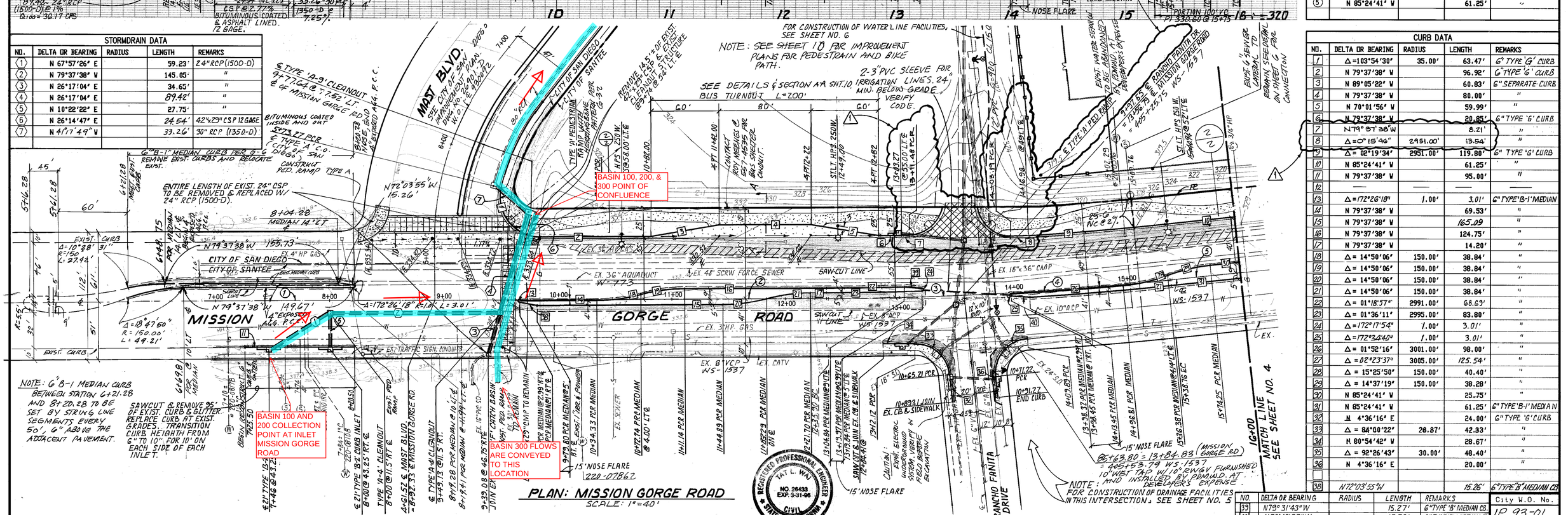
FIRE DEPARTMENT	DEPARTMENT OF PLANNING	CITY W.O. NO.
REVIEWED 5-24-93 By Phil Navis for R. Nutto	REVIEWED 5/21/93 By _____	IP93-01

CITY OF SANTEE — DEPARTMENT OF PUBLIC WORKS — Drawing No. 93-129
IMPROVEMENT PLANS FOR: KMART STORE NO. 7638 — CUP P92-08 — G-315, G-315A — Sheet 1 of 10

\12442\IP-1

130472





CENTERLINE DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS (REF.)
1	N 79°37'38" W			R.O.S. 11252
2	N 79°37'38" W		343.57'	R.O.S. 11252
3	Δ = 2°18'32"	3000'	120.89'	PM. 17020
4	Δ = 3°28'31"	3000'	181.96'	"
5	N 85°24'41" W		61.25'	"

CURB DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
1	Δ=103°54'30"	35.00'	63.47'	G" TYPE 'G' CURB
2	N 79°37'38" W		96.92'	G" TYPE 'G' CURB
3	N 89°05'22" W		60.83'	G" SEPARATE CURB
4	N 79°37'38" W		80.00'	"
5	N 70°01'56" W		59.99'	"
6	N 79°37'38" W		20.85'	G" TYPE 'G' CURB
7	N79° 37' 38"W		8.21'	"
8	Δ=0° 15'46"	2951.00'	13.54'	"
9	Δ= 02°19'34"	2951.00'	119.80'	G" TYPE 'G' CURB
10	N 85°24'41" W		61.25'	"
11	N 79°37'38" W		95.00'	"
12	—	—	—	—
13	Δ=172°26'18"	1.00'	3.01'	G" TYPE'B-1' MEDIAN
14	N 79°37'38" W		69.53'	"
15	N 79°37'38" W		165.09	"
16	N 79°37'38" W		124.75'	"
17	N 79°37'38" W		14.20'	"
18	Δ = 14°50'06"	150.00'	38.84'	"
19	Δ = 14°50'06"	150.00'	38.84'	"
20	Δ = 14°50'06"	150.00'	38.84'	"
21	Δ = 14°50'06"	150.00'	38.84'	"
22	Δ = 01°18'57"	2991.00'	68.69'	"
23	Δ = 01°36'11"	2995.00'	83.80'	"
24	Δ=172°17'54"	1.00'	3.01'	"
25	Δ=172°32'40"	1.00'	3.01'	"
26	Δ = 01°52'16"	3001.00'	98.00'	"
27	Δ = 02°23'37"	3005.00'	125.54'	"
28	Δ = 15°25'50"	150.00'	40.40'	"
29	Δ = 14°37'19"	150.00'	38.28'	"
30	N 85°24'41" W		25.75'	"
31	N 85°24'41" W		61.25'	G" TYPE'B-1' MEDIAN
32	N 4°36'16" E		24.00'	G" TYPE 'G' CURB
33	Δ = 84°00'22"	20.87'	42.33'	"
34	N 80°54'42" W		28.67'	"
35	Δ = 92°26'43"	30.00'	48.40'	"
36	N 4°36'16" E		20.00'	"
38	N72°03'55"W		15.26'	G"TYPE'B' MEDIAN CB

NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
39	N79° 51'43"W		15.27'	G"TYPE'B' MEDIAN CB
40	N 75°18'33"W		15.26'	G"TYPE'B' MEDIAN CB

STORMDRAIN DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
1	N 67°57'26" E		59.23'	24" RCP (1500-D)
2	N 79°37'38" W		145.05'	"
3	N 26°17'04" E		34.65'	"
4	N 26°17'04" E		89.42'	"
5	N 10°22'22" E		27.75'	"
6	N 26°14'47" E		24.54'	42"x29" CSP 12 GAGE
7	N 41°17'49" W		33.26'	30" RCP (1350-D)

CONSTRUCTION RECORD	
Contractor	HBD CONST
Inspector	HECTOR EZQUERRO
Date Completed	5-12-95

REFERENCES
SEE SHEET NO. 1

Date	By	REVISIONS	Appv
9-1-95	S&W	AS BUILT	
8-3-99	L+A	1\ ADD S.G.W.L. LOGO & SIGNATURE BLOCK & REV. CURB RETURNS	

BENCH MARK: CITY OF SANTEE G.P.S. STA. 1002 PER R.O.S. 11252 STANDARD ST. SURVEY MON. "CENTER-PUNCHED". NO STAMPING PER MAP 7198. ℄ INT. OF MISSION GORGE ROAD AND RANCHO FANITA DRIVE. ELEV: 331.37

SCALE: Horizontal 1"=40' ; Vertical 1"=8'

Office RO
Field RO
Traffic RO

Designed By	Drawn By	Checked By
DJG, MPH	MPH	TLW

Plans Prepared Under Supervision of: [signature] Date 3/24/93
R.C.E. No. 26433 Expires 3-31-96

Submitted By [signature] Date 5/24/93 LAND DEVELOPMENT ENGINEER
ACCEPTED By [signature] Date 5-26-93 DIR. OF PUBLIC WORKS
R.C.E. No. 18786 Expires 3/31/97

CITY OF SANTEE DEPARTMENT OF PUBLIC WORKS
PLANS FOR THE IMPROVEMENT OF: CUP P92-08
MISSION GORGE ROAD

City W.O. No. IP 93-01
Drawing No. 93-131
Sheet 3 of 10

GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
2. CONTRACTOR SHALL KEEP THE EQUIPMENT AND CONSTRUCTION ACTIVITIES OUTSIDE OF THE OPEN SPACE AREA AND SHALL NOT DISTURB THE NATIVE VEGITATION UNLESS WRITTEN PERMISSION IS GRANTED BY THE CITY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENCED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
4. IMPORTANT NOTICE
   SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIGALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIGALERT I.D. NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG.
5. CALL 627-3200 FOR INSPECTION. TWENTY-FOUR (24) HOUR PRIOR NOTICE IS REQUIRED WHEN REQUESTING INSPECTION OF WORK.
6. AS BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO THE ACCEPTANCE OF THIS PROJECT.

SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF WORK. THE CITY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.

1. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS, THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE SOURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES, STREETS, UTILITIES, AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 278-5750. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
4. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILTIES.
5. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
6. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES, THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS.
7. CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.
   NOTICE: ALL ELECTRICAL AND GAS SERVICES WITHIN THIS SUBDIVISION ARE "UNDERGROUND INSTALLATIONS." FOR LOCATION OF ELECTRICAL CABLES AND GAS PIPING AND APPURTENANCES, CONTACT THE SAN DIEGO GAS & ELECTRIC COMPANY. TELEPHONE: 800-422-4133.
8. CONTRACTOR SHALL NOTIFY THE PACIFIC BELL TELEPHONE COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMAPNY REPRESENTATIVES.
   NOTICE: ALL TELEPHONE SERVICES WITHIN THIS SUBDIVISION ARE "UNDERGROUND INSTALLATIONS." FOR LOCATION OF CABLES AND APPURTENANCES, CONTACT PACIFIC BELL. TELEPHONE: 800-422-4133.
9. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

STREET LIGHT NOTES

1. 3 - 250 WATT HIGH PRESSURE SODIUM VAPOR WITH TYPE 15 STEEL STANDARD (30' NOMIMAL MOUNTING HEIGHT, 12' ARM) AND CUTOFF FIXTURES.
2. CONTRACTOR INSTALLING THE STREET LIGHTING DISTRIBUTION SYSTEM SHALL NOTIFY FIELD ENGINEER, TELEPHONE 627-3200, A MINIMUM OF THREE (3) DAYS BEFORE BEGINNING OF WORK FOR APPROVAL OF CONDUIT LOCATION AND REQUIREMENTS.
3. THE NEW, UPGRADED, AND RELOCATED STREET LIGHTS WILL BE IN A STREET LIGHTING ASSESSMENT DISTRICT.
4. WHEN STREET LIGHTS ARE INSTALLED, CONTRACTOR SHALL BE ASSESSED THE ENERGY COSTS OF THE STREET LIGHTS FOR THE PERIOD FROM THE DATE THE LIGHTS ARE ENERGIZED UNTIL THE ASSESSMENT DISTRICT IS FORMED. CONTRACTOR SHALL CONTACT TRAFFIC ENGINEERING DIVISION AT 236-7185 TO DETERMINE THE COST. THIS FEE MUST BE PAID PRIOR TO STREET LIGHTS BEING ENERGIZED. (SEE TRAFFIC ENGINEERING FOR PAYMENT PROCEDURE.)
5. CONTRACTOR SHALL VERIFY THAT ALL STREET LIGHTS ARE ACTIVATED AND NOTIFY FIELD ENGINEER, TELEPHONE 627-3200, A MAXIMUM OF FOUR (4) WEEKS AFTER FINAL ELECTRICAL INSPECTION.
6. STREET LIGHT SCHEDULE:

ST. LT. NO.	STREET NAME	LOCATION REF.	STREET SIDE	WATTAGE
1	MAST BOULEVARD	7+72 56' RT.	S-EAST	250
2	MAST BOULEVARD	10+12 56' RT.	S-EAST	250
3	MAST BOULEVARD	12+62 38.41' RT.	S-EAST	250

7. THE STREET LIGHTS SHALL BE MAINTAINED IN A SAFE CONDITION AT THE SOLE COST, RISK AND RESPONSIBILITY OF THE CITY OF SANTEE.

MONUMENTATION NOTE

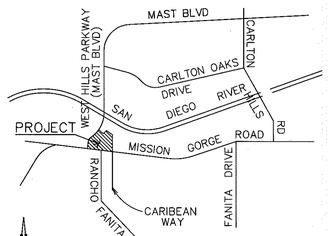
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARK WHICH IS DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, IF APPROPRIATE, SHALL THEN BE FILED BY THE LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.

CONCRETE PAVER ENCROACHMENT RESPONSIBILITY:

1. THE ENCROACHMENT SHALL BE INSTALLED AND MAINTAINED IN A SAFE AND SANITARY CONDITION AT THE SOLE COST, RISK AND RESPONSIBILITY OF THE CITY OF SANTEE.

2. THE CITY OF SANTEE SHALL AGREE TO AT ALL TIMES INDEMNIFY AND SAVE THE CITY OF SAN DIEGO FREE AND HARMLESS FROM AND PAY IN FULL, ANY AND ALL CLAIMS, DEMANDS, LOSSES, DAMAGES OR EXPENSES THAT THE CITY OF SAN DIEGO MAY SUSTAIN OR INCUR IN ANY MANNER RESULTING FROM THE CONSTRUCTION, MAINTENANCE, STATE OF USE, REPAIR OR PRESENCE OF THE STRUCTURE INSTALLED HEREINUNDER, INCLUDING ANY LOSS, DAMAGE OR EXPENSE ARISING OUT OF (1) LOSS OF OR DAMAGE TO PROPERTY, AND (2) INJURY TO OR DEATH OF PERSONS; EXCEPTING ANY LOSS, DAMAGE, OR EXPENSE AND CLAIMS FOR LOSS, DAMAGE OR EXPENSE RESULTING IN ANY MANNER FROM THE NEGLIGENT ACT OR ACTS OF THE CITY OF SANTEE, ITS CONTRACTORS, OFFICERS, AGENTS OR EMPLOYEES.

3. WHATEVER RIGHTS AND OBLIGATIONS WERE ACQUIRED BY THE CITY WITH RESPECT TO THE RIGHTS-OF-WAY SHALL REMAIN AND CONTINUE IN FULL FORCE AND EFFECT AND SHALL IN NO WAY BE AFFECTED BY THE CITY OF SAN DIEGO'S GRANT OF PERMISSION TO CONSTRUCT AND MAINTAIN THE ENCROACHMENT STRUCTURE.



VICINITY MAP
N.T.S.

KMART
STORE NO. 7638

SCALE: 1"=100'

KEY MAP

KEY MAP LEGEND

SHEET NO.	(4)
STREET LIGHTS - EXISTING	☼ 250 W
SURVEY MONUMENT	■
PROPERTY LINE	
STORM DRAINS (EXIST.)	
STORM DRAINS (PROPOSED)	

ADT TABLE

STREET	CLASS	FUTURE ADT	DESIGN SPEED	R/W
MAST BOULEVARD	4L COL.	20,000	45 MPH	84' / 64'

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

STANDARD SPECIFICATIONS

(1) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1991 ED.) INCLUDING THE 1991 REGIONAL AND 1991 CITY OF SAN DIEGO SUPPLEMENTAL AMENDMENT, DOC. NO. 769796, FILED APRIL 23, 1992.
(2) 1990 STANDARD SPECIAL PROVISIONS STREET LIGHTING & TRAFFIC SIGNAL SYSTEMS OF THE CITY OF SAN DIEGO, DOCUMENT NO. 769759, FILED FEBRUARY 5, 1991.
(3) CALIFORNIA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," (1991 ED.), DOCUMENT NO. 769744, FILED NOVEMBER 7, 1990.
(4) CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (JANUARY 1988), DOCUMENT NO. 769692, FILED APRIL 12, 1988."

STANDARD DRAWINGS

(1) CITY OF SAN DIEGO STANDARD DRAWINGS, DOCUMENT NO. 769798, FILED APRIL 23, 1992.

(2) CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS (JANUARY 1988), DOCUMENT NO. 769691, FILED APRIL 11, 1988.

LEGEND

IMPROVEMENTS	STD. DWGS.	SYMBOL
PROPERTY LINE		
EXISTING CONTOUR		315
FINISH CONTOUR		315
SCHEDULE 'J' PAVEMENT	SDG-113	
TRENCH RESTORATION	SDG-107, SDG-108	
MEDIAN STAMPED COLORED CONCRETE — PAVEMENT GRINDING & OVERLAY — SEE PMT. NOTE 6, SHT. 2	SDG-112	
6" TYPE "G" CURB AND GUTTER	G-2, G-10, SDG-100	
6" STD CURB	G-1	
6" TYPE 'B-1' MEDIAN CURB	G-6	
4" PCC SIDEWALK	SDG-100, G-7, G-9, G-10	
PCC DRIVEWAY COMMERCIAL ALTERNATE	G-26	
PEDESTRIAN RAMP	G-27, G-32	
STEET LIGHT, 250W HPS	SDE-101, E-1-	
STORM DRAIN	D-60	
TYPE "A" CLEANOUT	D-9, D-11	
TYPE 'B-1' CURB INLET	SDD-100, SDG-110, D-2, D-11, D-12	
CONCRETE PAVER	DETAIL SHEET 2	
TYPE "J" MEDIAN CURB INLET	D-45	

REFERENCE DRAWINGS

CITY OF SAN DIEGO: DWG. # 25483-35, 36-D; W772,773
COUNTY OF SAN DIEGO: TM2946-1; WS-1536, 1537
RS 627-5; RS 1275-3
SDGE: DWG. # IL-1000
CITY OF SANTEE: DWG. # 87-100, 101, 102; 87-122, 88-084

LEGAL DESCRIPTION:

PARCEL 1 OF PARCEL MAP NO. 17020, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER ON DEC. 17, 1992.

ASSESSORS PARCEL NO.

383-050-13, 383-050-09,10,11.

REGISTERED PROFESSIONAL ENGINEER — M. GAMMAK No. 37140 6-30-95 CIVIL — STATE OF CALIFORNIA

CONSTRUCTION CHANGE TABLE

CHANGE	SHEET NUMBERS REVISED THIS CHANGE

CITY OF SANTEE — IP 93-01

REVIEWED 5/10/93 — LAND DEVELOPMENT ENGINEER
ACCEPTED 5/11/93 — DIR. OF PUBLIC WORKS
R.C.E. NO. 12726 EXPIRES 6/30/97

BENCH MARK

DESCRIPTION: GPS STA 1002 PER ROS 11252 STD. STREET SURVEY MONUMENT, CENTER PUNCHED.
LOCATION: CENTERLINE INTERSECTION OF MISSION GORGE ROAD AND RANCH FANITA ROAD
RECORD FROM: CITY OF SANTEE VERTICAL CONTROL
ELEVATION: 331.37 DATUM: MSL

ENGINEER OF WORK

I, TAT L. WAI, HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OF THE DESIGN AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND, THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS IN THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

SIGNED: _____ DATE: 3/23/93
REGISTRATION NO, 26433, MY REGISTRATION EXPIRES ON 3-31-96

ENGINEER OF WORK:
HCH PARTNERS — LAND PLANNING, ARCHITECTURE, ENGINEERING, SURVEYING
4877 Viewridge Avenue
San Diego, California 92123
(619) 278-5750
FAX (619) 278-9258

REGISTERED PROFESSIONAL ENGINEER — TAT L. WAI NO. 26433 EXP. 3-31-96 CIVIL — STATE OF CALIFORNIA

TAT L. WAI R.C.E. 26433 — 3/23/93 DATE — 12444 JOB NO.

ENGINEERING PERMIT NO.
PRIVATE CONTRACT

PLANS FOR THE IMPROVEMENT OF:

MAST BOULEVARD
(FUTURE WEST HILLS PARKWAY)

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 1 OF 6 SHEETS

W.O. NO. 930092

M. Gammak — FOR CITY ENGINEER — 5/17/93 DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	HCHP			

1884-6324 NAD 83 COORDINATES
242-1761 LAMBERT COORDINATES

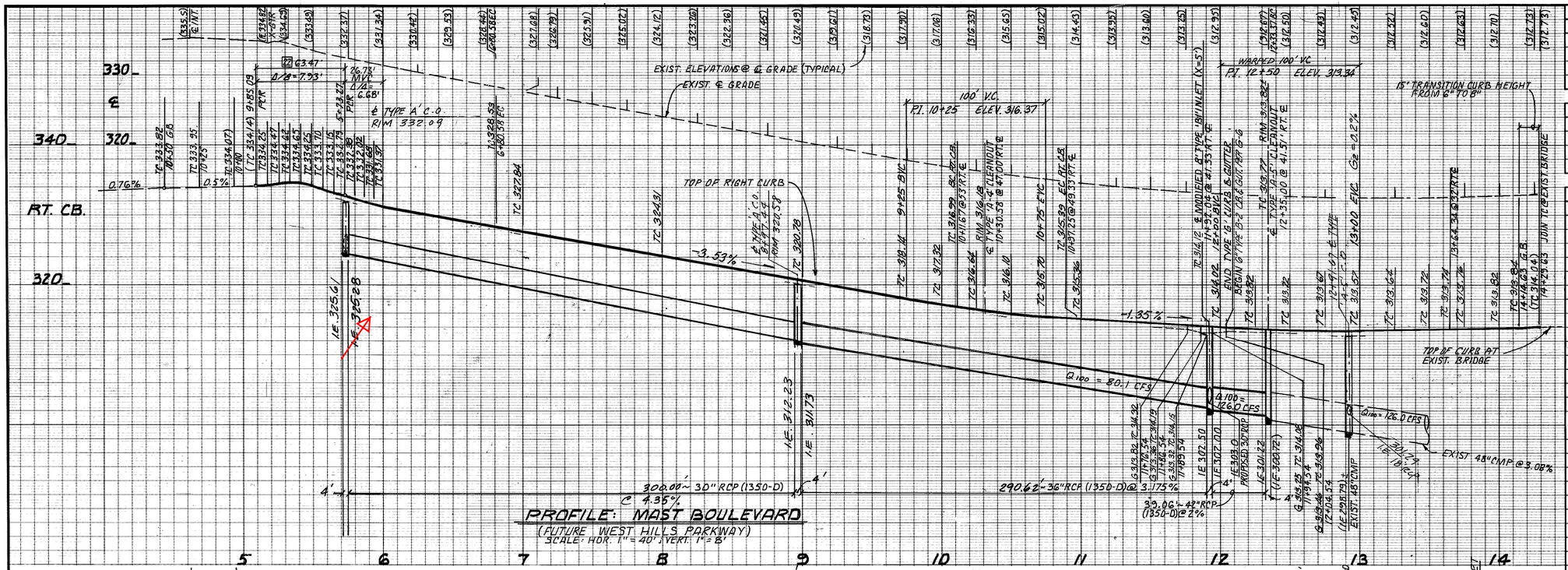
CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

26901-1-D

H:\12442\SD-1

93-139

150972



CENTERLINE DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
1	N 10°22'22" E		51.06'	
2	Δ = 38°30'11"	250.00'	168.00'	
3	N 48°52'33" E		552.79'	
4	Δ = 48°30'33"	1500.00'	1269.97'	

STORM DRAIN DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
1	N 48°52'33" E		214.86'	30" RCP 1350-D
2	N 48°18'30" E		290.62'	36" RCP 1350-D
3	N 45°04'01" E		39.06'	42" RCP 1350-D

CURB DATA				
NO.	DELTA OR BEARING	RADIUS	LENGTH	REMARKS
1	Δ =180°00'00"	2.00'	6.28'	TYPE 'B-3' MEDIAN CB
2	Δ = 32°15'02"	231.00'	130.02'	TYPE 'B-3' MEDIAN CB
3	Δ = 32°15'02"	227.00'	127.77'	TYPE 'B-3' MEDIAN CB
4	N 48°52'33" E		109.15'	TYPE 'B-3' MEDIAN CB
5	N 48°52'33" E		292.17'	TYPE 'B-3' MEDIAN CB
6	Δ = 21°33'55"	150.00'	56.46'	TYPE 'B-3' MEDIAN CB
7	Δ = 21°33'55"	150.00'	56.46'	TYPE 'B-3' MEDIAN CB
8	N 48°52'33" E		50.38'	TYPE 'B-3' MEDIAN CB
9	N 50°20'41" E		57.73'	TYPE 'B-3' MEDIAN CB
10	Δ = 47°31'14"	10.00'	8.29'	TYPE 'B-3' MEDIAN CB
11	Δ = 29°06'46"	67.00'	34.04'	TYPE 'B-3' MEDIAN CB
12	Δ =160°07'24"	1.00'	2.79'	TYPE 'B-3' MEDIAN CB
13	Δ = 52°36'17"	24.00'	21.99'	TYPE 'B-3' MEDIAN CB
14	N 48°52'33" E		102.20'	TYPE 'B-3' MEDIAN CB
15	Δ=04°54'33"	970'	83.11'	TYPE 'B-3' MEDIAN CB
16	Δ = 17°22'08"	150.00'	45.47'	TYPE 'B-3' MEDIAN CB
17	Δ = 16°16'33"	150.00'	42.61'	TYPE 'B-3' MEDIAN CB
18	N 43°58'00" E		246.01'	TYPE 'B-3' MEDIAN CB
19	N 47°46'58" E		18.25'	TYPE 'B-3' MEDIAN CB
20	Δ = 04°03'31"	1498.00'	106.11'	TYPE 'B-3' MEDIAN CB
21	Δ =180°27'29"	2.08'	6.56'	TYPE 'B-3' MEDIAN CB
22	Δ =103°54'30"	35.00'	63.47'	PART OF X-GUTTER
23	Δ = 24°35'40"	197.00'	84.56'	TYPE 'G' CB & GUT
24	N 48°52'33" E		331.09'	TYPE 'G' CB & GUT
25	Δ = 04°54'33"	1000.00'	85.68'	TYPE 'G' CB & GUT
26	N 43°58'00" E		107.41'	TYPE 'G' CB & GUT
27	N 43°58'00" E		160.80'	6" TYPE 'G' CB&GUT
28	Δ = 02°32'36"	1532.00'	68.00'	6" TYPE 'G' CB&GUT
29	Δ =127°29'43"	1.00'	2.23'	TYPE B-3 MED. CB.
30	N 48°52'33"E		3.58'	TYPE B-3 MED. CB.

BENCH MARK

DESCRIPTION: GPS STA 1002 PER ROS 11252 STD. STREET SURVEY MONUMENT, CENTER PUNCHED.

LOCATION: CENTERLINE INTERSECTION OF MISSION GORGE ROAD AND RANCHO FANITA ROAD

RECORD FROM: CITY OF SANTEE VERTICAL CONTROL

ELEVATION: 331.37 DATUM: MSL

ENGINEER OF WORK:

HCH PARTNERS
LAND PLANNING
ARCHITECTURE
ENGINEERING
SURVEYING

4877 Viewridge Avenue
San Diego, California 92123-1
(619) 278-5750
FAX (619) 278-9258

REGISTERED PROFESSIONAL ENGINEER TAT L. WAI NO. 26433 EXP. 5-31-96 CIVIL STATE OF CALIFORNIA

TAT L. WAI R.C.E. 26433 — 3/11/93 DATE — 12444 JOB NO.

PRIVATE CONTRACT

PLANS FOR THE IMPROVEMENT OF:

MAST BOULEVARD
(FUTURE WEST HILLS PARKWAY)

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 3 OF 6 SHEETS

W.O. NO. 930092

FOR CITY ENGINEER — 5/17/93 DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	HCHP			

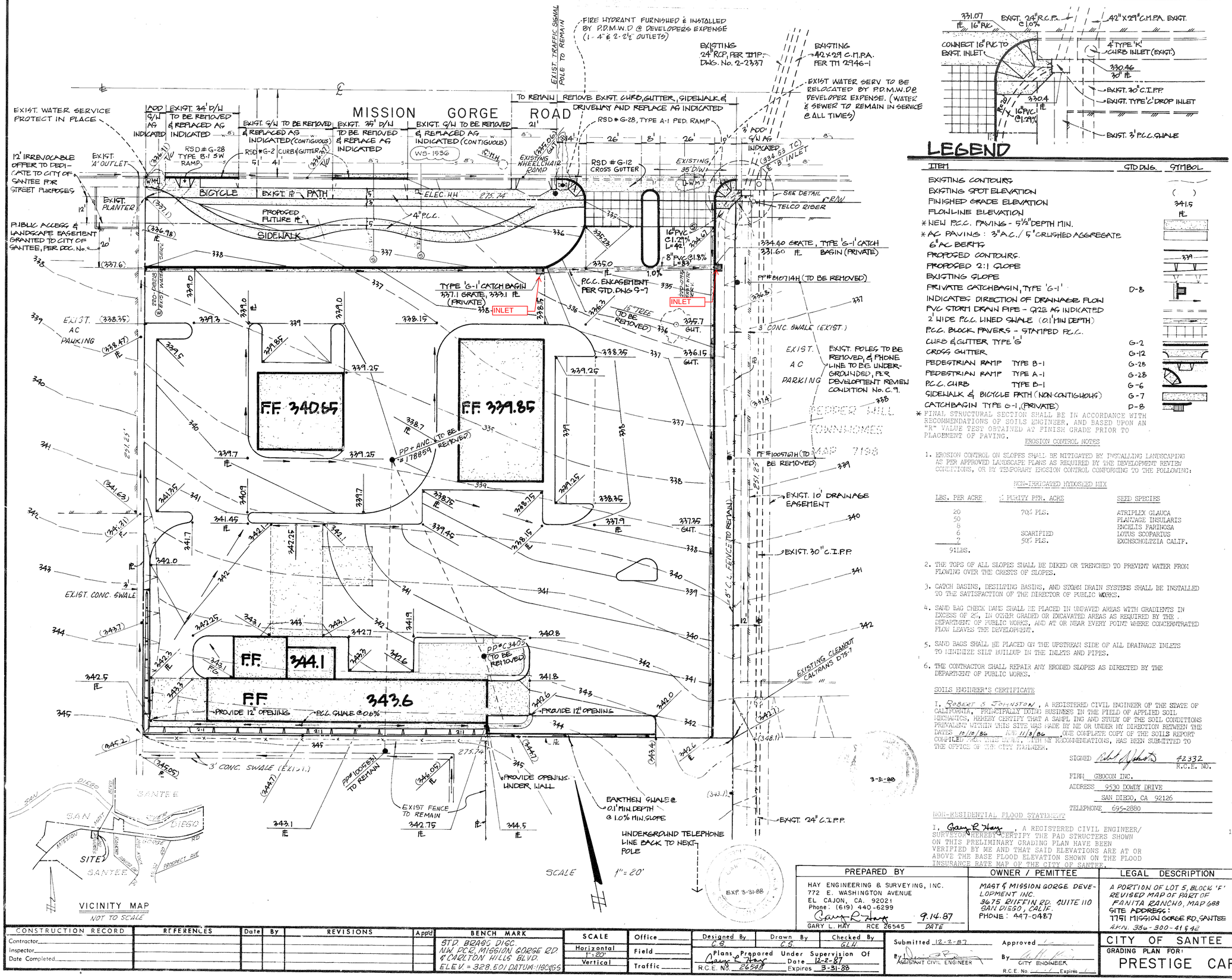
·1884-6324
NAD 83 COORDINATES
242-1761
LAMBERT COORDINATES

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

26901-3-D

93-141

RS 242



LEGEND

ITEM	STD DWG.	SYMBOL
EXISTING CONTOURS		( )
EXISTING SPOT ELEVATION		341.5 FL
FINISHED GRADE ELEVATION		
FLOWLINE ELEVATION		
* NEW P.C.C. PAVING - 5½" DEPTH MIN.		
* AC PAVING: 3" A.C./ 5" CRUSHED AGGREGATE		
6" AC BERMS		
PROPOSED CONTOURS		
PROPOSED 2:1 SLOPE		
EXISTING SLOPE		
PRIVATE CATCHBASIN, TYPE 'G-1'	D-8	
INDICATES DIRECTION OF DRAINAGE FLOW		
PVC STORM DRAIN PIPE - SIZE AS INDICATED		
2' WIDE P.C.C. LINED SWALE (0.1' MIN DEPTH)		
P.C.C. BLOCK PAVERS - STAMPED P.C.C.		
CURB & GUTTER TYPE 'G'	G-2	
CROSS GUTTER	G-12	
PEDESTRIAN RAMP TYPE B-1	G-28	
PEDESTRIAN RAMP TYPE A-1	G-28	
P.C.C. CURB TYPE B-1	G-6	
SIDEWALK & BICYCLE PATH (NON CONTIGUOUS)	G-7	
CATCHBASIN TYPE G-1, (PRIVATE)	D-8	

* FINAL STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF SOILS ENGINEER, AND BASED UPON AN "R" VALUE TEST OBTAINED AT FINISH GRADE PRIOR TO PLACEMENT OF PAVING.

EROSION CONTROL NOTES

1. EROSION CONTROL ON SLOPES SHALL BE MITIGATED BY INSTALLING LANDSCAPING AS PER APPROVED LANDSCAPE PLANS AS REQUIRED BY THE DEVELOPMENT REVIEW CONDITIONS, OR BY TEMPORARY EROSION CONTROL CONFORMING TO THE FOLLOWING:

NON-IRRIGATED HYDOSEED MIX

LBS. PER ACRE	% PURITY PER. ACRE	SEED SPECIES
20	70% PLS.	ATRIPLEX GLAUCA
50		PLANTAGE INSULARIS
8		ENCELIS FARINOSA
6	SCARIFIED	LOTUS SCOPARIUS
7	50% PLS.	EXCHSCHOLYZIA CALIF.
91 LBS.		

2. THE TOPS OF ALL SLOPES SHALL BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CRESTS OF SLOPES.
3. CATCH BASINS, DESILTING BASINS, AND STORM DRAIN SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
4. SAND BAG CHECK DAMS SHALL BE PLACED IN UNPAVED AREAS WITH GRADIENTS IN EXCESS OF 2%, IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE DEPARTMENT OF PUBLIC WORKS, AND AT OR NEAR EVERY POINT WHERE CONCENTRATED FLOW LEAVES THE DEVELOPMENT.
5. SAND BAGS SHALL BE PLACED ON THE UPSTREAM SIDE OF ALL DRAINAGE INLETS TO MINIMIZE SILT BUILDUP IN THE INLETS AND PIPES.
6. THE CONTRACTOR SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS.

SOILS ENGINEER'S CERTIFICATE

I, ROBERT S JOHNSTON, A REGISTERED CIVIL ENGINEER OF THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOIL MECHANICS, HEREBY CERTIFY THAT A SAMPLING AND STUDY OF THE SOIL CONDITIONS PREVALENT WITHIN THIS SITE WAS MADE BY ME OR UNDER MY DIRECTION BETWEEN THE DATES 10/10/86 AND 11/3/86, ONE COMPLETE COPY OF THE SOILS REPORT COMPILED FROM THIS DATA, WITH MY RECOMMENDATIONS, HAS BEEN SUBMITTED TO THE OFFICE OF THE CITY ENGINEER.

SIGNED Robert S Johnston 42332 R.C.E. NO.

FIRM GEOCON INC.

ADDRESS 9530 DOWDY DRIVE, SAN DIEGO, CA 92126

TELEPHONE 695-2880

NON-RESIDENTIAL FLOOD STATEMENT

I, Gary R Hay, A REGISTERED CIVIL ENGINEER/ SURVEYOR HEREBY CERTIFY THE PAD STRUCTERS SHOWN ON THIS PRELIMINARY GRADING PLAN HAVE BEEN VERIFIED BY ME AND THAT SAID ELEVATIONS ARE AT OR ABOVE THE BASE FLOOD ELEVATION SHOWN ON THE FLOOD INSURANCE RATE MAP OF THE CITY OF SANTEE.

GRADING NOTES:

1. APPROVAL OF THIS GRADING PLAN DOES NOT CONSTITUTE APPROVAL OF VERTICAL OR HORIZONTAL ALIGNMENT OF ANY PRIVATE ROAD SHOWN HEREON FOR PUBLIC ROAD PURPOSES.
2. FINAL APPROVAL OF THESE GRADING PLANS IS SUBJECT TO FINAL APPROVAL OF THE ASSOCIATED IMPROVEMENT PLANS WHERE APPLICABLE. FINAL CURB GRADE ELEVATIONS MAY REQUIRE CHANGES IN THESE PLANS.
3. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE.
4. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DIRECTOR OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY.
5. ALL SLOPES OVER 3 FEET IN HEIGHT WILL BE PLANTED IN ACCORDANCE WITH CITY OF SANTEE SPECIFICATIONS.
6. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF THE PROPOSED WORK SHALL BE GIVEN TO THE FOLLOWING AGENCIES:
   SAN DIEGO GAS & ELECTRIC
   PACIFIC TELEPHONE
   CATV:
   SEWER:
   WATER:
   1-800-422-4133
7. The soils report titled MISSION GORGE CARLWOOD prepared by GEOCON INC. dated 11-3-86 shall be considered as a part of this grading plan. All grading shall be done in accordance with the recommendations and specifications contained in said report.
8. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND A VALID GRADING PERMIT HAS BEEN ISSUED.
9. THE DIRECTOR OF PUBLIC WORKS' APPROVAL OF THESE PLANS DOES NOT CONSTITUTE THE BUILDING OFFICIAL'S APPROVAL OF ANY FOUNDATIONS FOR STRUCTURES TO BE PLACED ON THE AREA COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER OVER EXPANSIVE SOILS IS MADE OR IMPLIED (SECTIONS 87.403 & 87.410).
10. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, RUNNING OR DEPARTURE OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED GRADING EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 a.m. AND 6:00 p.m. EACH DAY, MONDAY THROUGH FRIDAY AND NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SUNDAYS, SATURDAYS OR HOLIDAYS WITHOUT THE WRITTEN PERMISSION OF THE DIRECTOR OF PUBLIC WORKS.
11. ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
12. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO THE ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM OR ANY OTHER PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE CITY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
13. SLOPE RATIOS
    CUT - 2:1
    FILL - 2:1 Slopes Deviating From The Above Will Require Approval Of The Director Of Public Works After Review Of A Report From A Soils Engineer.
    EXCAVATION 1100 C.Y. FILL 1100 C.Y.
    WASTE 0 C.Y. A Separate Permit Must Be Obtained For Waste Or Import Area
14. SPECIAL CONDITION IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO
15. ALL GRADING ON THIS PLAN SHALL BE COMPLETED AS A SINGULAR UNIT WITH NO PROVISION FOR PARTIAL RELEASES. SHOULD IT BE ANTICIPATED THAT A PORTION OF THIS PROJECT BE COMPLETED SEPARATELY, A SEPARATE PLAN AND PERMIT APPLICATION SHALL BE SUBMITTED FOR APPROVAL.
16. THE CONTRACTOR SHALL NOTIFY THE CITY OF SANTEE (258-0206) 24 HOURS BEFORE GRADING OPERATIONS BEGIN. THE OWNER/DEVELOPER, THE CONTRACTOR, AND THE SOILS ENGINEER SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY PRIOR TO ISSUANCE OF A GRADING PERMIT.
17. FINISH GRADING AND PLANTING SHALL BE ACCOMPLISHED ON ALL SLOPES PRIOR TO OCTOBER 1 OR IMMEDIATELY UPON COMPLETION OF ANY SLOPES GRADED BETWEEN OCTOBER 1 AND APRIL 1. PRIOR TO ANY PLANTING, ALL LANDSCAPING SHALL BE APPROVED BY THE CITY'S LANDSCAPE ARCHITECT AT THE DEVELOPMENT REVIEW STAGE OR BY SEPARATE LANDSCAPE PLAN.
18. ALL OFFSITE HAUL ROUTES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DIRECTOR OF PUBLIC WORKS FOR APPROVAL 72 HOURS PRIOR TO BEGINNING WORK. A HAUL PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO ISSUANCE OF A GRADING PERMIT.
19. PADRE DAM M.W.D MUST REVIEW & SIGN STREET IMPROVEMENT PLANS.

VICINITY MAP
NOT TO SCALE

PREPARED BY	OWNER / PERMITTEE	LEGAL DESCRIPTION	PADRE DAM M.W.D
HAY ENGINEERING & SURVEYING, INC. 772 E. WASHINGTON AVENUE EL CAJON, CA. 92021 Phone: (619) 440-6299 Gary R Hay 9.14.87 GARY L. HAY RCE 26545 DATE	MAGT & MISSION GORGE DEVELOPMENT INC. 3675 RIFFIN RD. SUITE 110 SAN DIEGO, CALIF. PHONE: 447-0487	A PORTION OF LOT 5, BLOCK 'F' REVISED MAP OF PART OF FANITA RANCHO, MAP 688 SITE ADDRESS: 7751 MISSION GORGE RD, SANTEE A.P.N. 386-300-41 & 42	APPROVED BY DATE

W.O. NO. G-134

CONSTRUCTION RECORD	REFERENCES	Date	By	REVISIONS	Appd
Contractor					
Inspector					
Date Completed					

BENCH MARK: STD. BRASS DISC. NW. COR. MISSION GORGE RD & CARLTON HILLS BLVD. ELEV. = 328.501 DATUM: NGVD 29

SCALE: Horizontal 1"=20', Vertical

Office ____ Field ____ Traffic ____

Designed By C.S. Drawn By C.S. Checked By G.L.H.

Plans Prepared Under Supervision Of Gary R Hay Date 12-2-87
R.C.E. NO. 26545 Expires 3-31-88

Submitted 12-2-87 By ____ ASSISTANT CIVIL ENGINEER

Approved ____ By ____ CITY ENGINEER
R.C.E. No. ____ Expires ____

CITY OF SANTEE ENGINEERING DEPARTMENT

GRADING PLAN FOR:
PRESTIGE CAR WASH

Drawing No. 87-122
Sheet 1 of 1

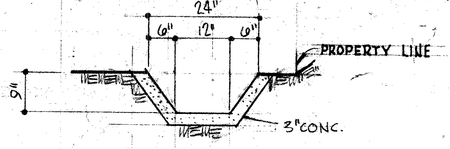
8757

CUT	= 8200	C.Y.
FILL	= 100	C.Y.
WASTE	= 8100	C.Y.

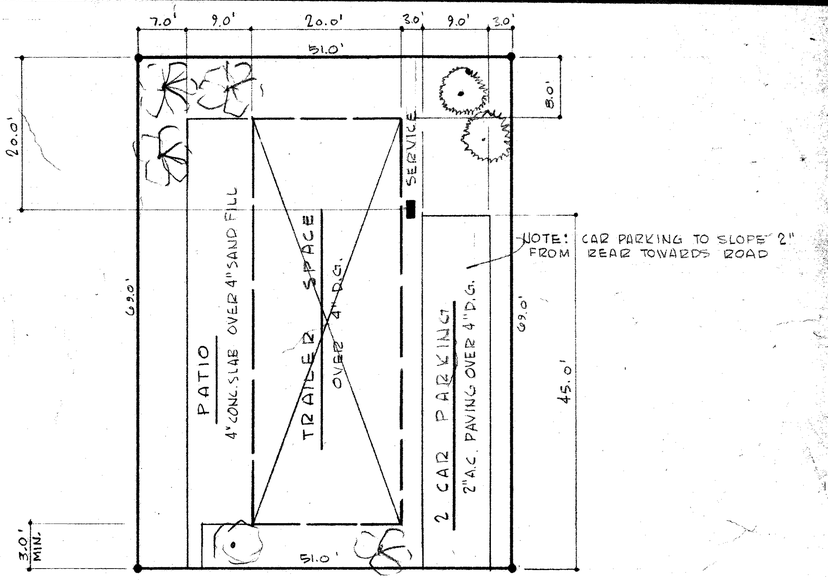
WASTE SOIL SHALL BE DEPOSITED TO SAFEWAY SITE AT WOODSIDE & CHANNEL ROAD LAKESIDE CALIF. L-5103

GENERAL NOTES:

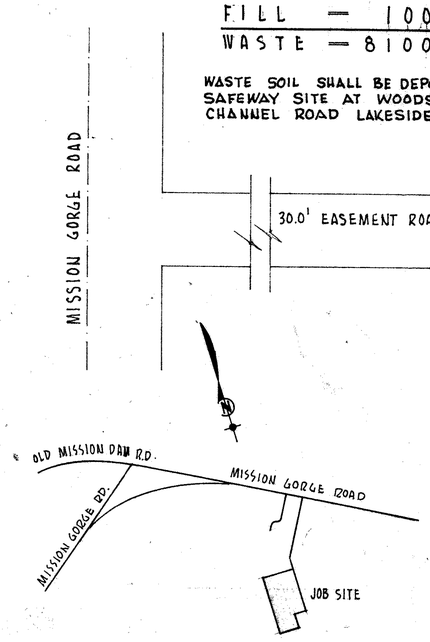
1. BANKS SHALL BE PLANTED W/APPROVED PLANTS.
2. LOTS SHALL HAVE A MIN. SLOPE OF 1% REAR TO FRONT.
3. ALL WORK IS ON OWNERS PROPERTY (EXCEPT FOR WASTE DISPOSAL).
4. DITCHS TO BE SETBACK 3'.0" FROM PROPERTY LINES.



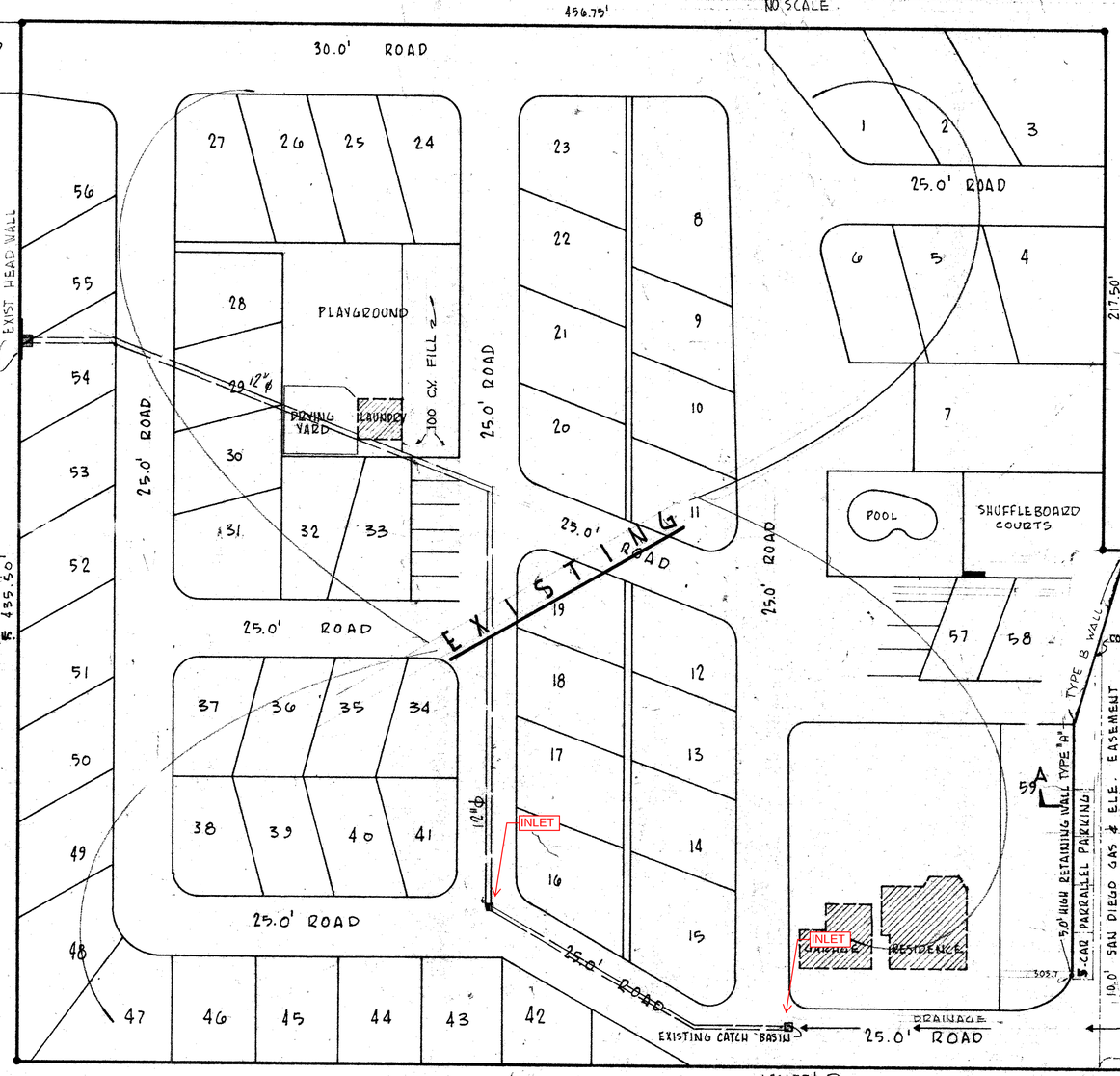
BROW DITCH DETAIL
NO SCALE

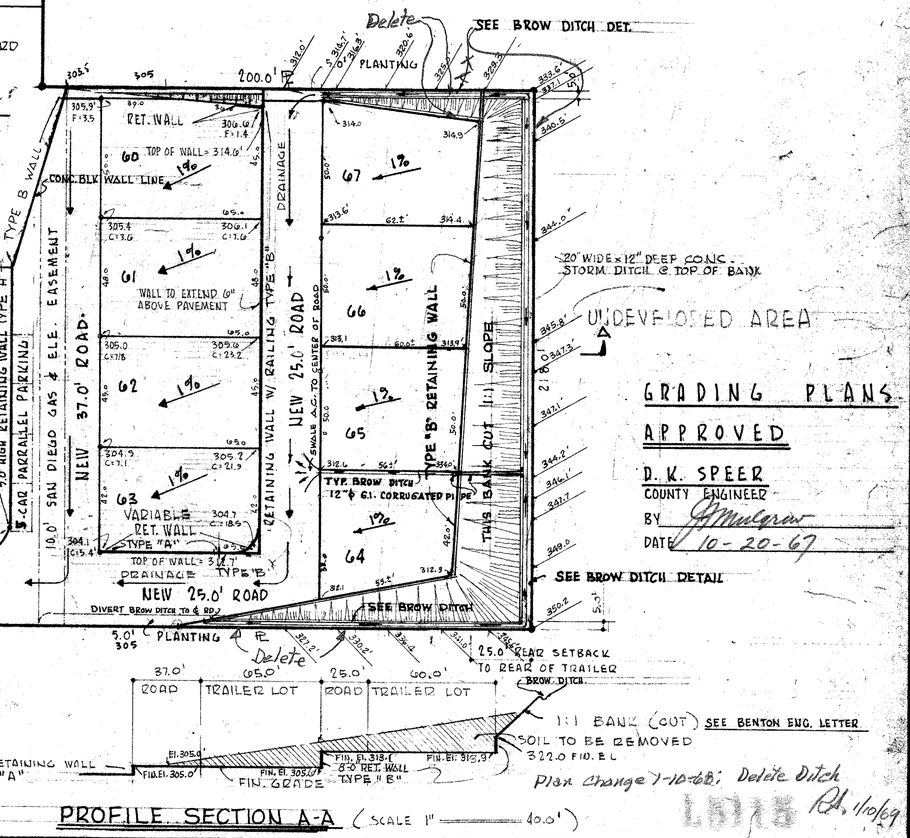


TYP. TRAILER LOT No. 65



VICINITY MAP
NO SCALE





PROFILE SECTION A-A (SCALE 1" = 40.0')

LEGEND

CUT SLOPES — 1:1 PER BENTON ENGINEERING INC. SOILS REPORT.

FILL SLOPES — 1½:1

EXISTING GRADES — 320

FINISH GRADES — 304.5 C=7.1'

THE UNDERSIGNED CIVIL ENGINEER CERTIFIES THIS GRADING WORK WILL BE SUPERVISED IN ACCORDANCE W/SAN DIEGO COUNTY GRADING ORDINANCE No. 2925 (NEW SERIES)

NAME Arthur Delafield Johnson
R.C.E No. 5713
DATE Oct. 13, 1967

SCALE 1" = 30.0'

LEGAL

LOT No. 4 & N. 200' OF W 218' OF LOT No. 8
RANCHO FONITA REVISED SUB.
SAN DIEGO, COUNTY CALIFORNIA
SITE ADDRESS = 7735 MISSION GORGE ROAD, SANTEE
OWNER: MR. B. JOHNSON, 7735 MISSION GORGE RD., PH = 448-1325

GRADING PLAN

58	EXIST. SPACES
9	NEW SPACES
67	TOTAL SPACES

ARTHUR DELAFIELD JOHNSON
REGISTERED CIVIL ENGINEER
18854 Adrian Way Poway, Calif.
RI 8-3237 HI 4-7871

GRADING PLANS APPROVED
D. K. SPEER
COUNTY ENGINEER
BY J. Mulgrew
DATE 10-20-67

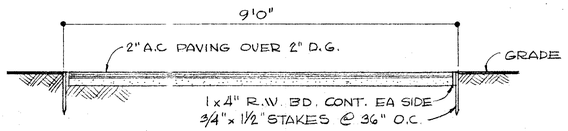
REMARKS	ENGINEER	REVISIONS	SHEET TITLE	SCALE	DATE	SHEET NO.
Contractor to verify all dimensions and grades.	Arthur Delafield Johnson 10-19-67	No. 1. Description: REVISE GRADING; Date: 10/3/67	GRADING	1" = 30.0'	7/67	1 OF 13

JOHN F. DIETERT
Building Designer No. 365
439 EL CAJON BLVD. — EL CAJON, CALIFORNIA — PH. 444 5255

FOR PLEASANT VALLEY TRAILER PARK
SAN DIEGO COUNTY, CALIFORNIA

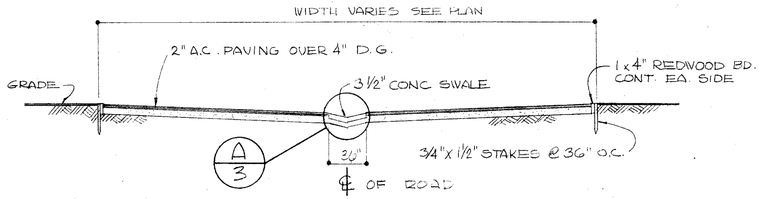
JOB NO. L5115

2/67 DIETERICH-POST CLEARPRINT 3000H



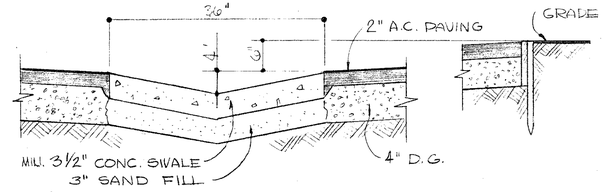
TYPICAL PARKING SPACE SECTION

NO SCALE



TYPICAL ROAD SECTION

NO SCALE



SWALE DETAIL A/3

NO SCALE

See Letter of Permission ON FILE Co. Engineers office

DISPOSAL AREA (See left side this sheet)

LEGAL

LOT No. 4 & N. 200' OF W 218' OF LOT No. 8
RANCHO FONITA REVISED SUB.
SAN DIEGO, COUNTY CALIFORNIA

ROAD PLAN

58 EXIST. SPACES
9 NEW SPACES
67 TOTAL SPACES

Plan Change Add Disposal Area 5/6/68 Rqmnt

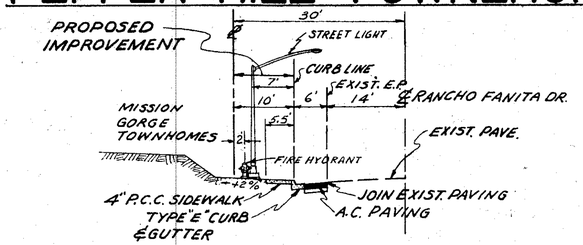
L5115

REMARKS	ENGINEER	REVISIONS	SHEET TITLE	SCALE	DATE	SHEET NO.
Contractor to verify all dimensions and grades.	JOHN F. DIETERT Building Designer No. 365	No. Description Date / No. Description Date	ROAD PLAN FOR PLEASANT VALLEY TRAILER PARK	1" = 30.0'	7/67	3 OF 3
	439 EL CAJON BLVD. — EL CAJON, CALIFORNIA — PH. 444 5255		SAN DIEGO COUNTY CALIFORNIA		JOB NO.	

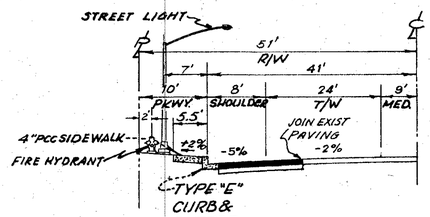
PRECISION MAY 23 1968 MICROFILMED

2/67 DIETERICH-POST CLEARPRINT 1000H

PEPPER HILL TOWNEHOMES



TYPICAL SECT. RANCHO FANITA DRIVE



TYPICAL SECTION

MISSION GORGE ROAD

WORK TO BE DONE (CONT'D)

V.C.P. SEWER ——— 6" V.C.

6" V.C.P. CLEAN-OUT ——— 6" V.C. ——● C.O.

NOTES: (CONT'D)

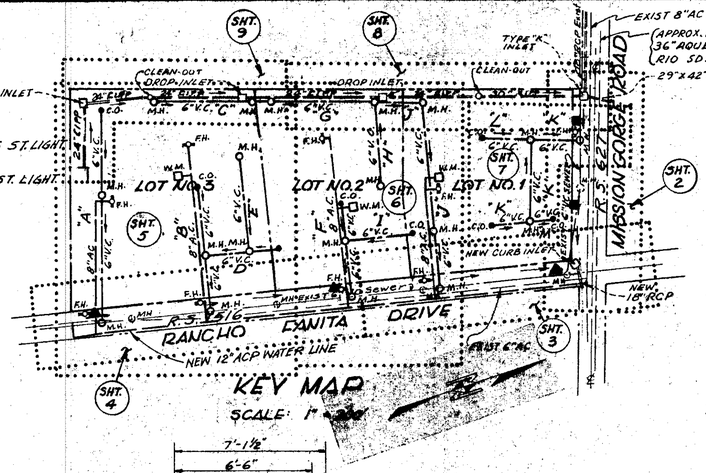
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF ANY EXISTING WATER SERVICE APPURTENANCES OR ADJUSTING OF ANY EXISTING METER BOXES TO NEW FINISH GRADE.
13. EACH LOT SHALL BE SERVED BY A 4" DIAMETER SEWER LATERAL. LOCATION OF SEWER LATERAL WILL BE DETERMINED IN THE FIELD BY ENGINEER OF WORK. "AS CONSTRUCTED" SEWER LATERAL LOCATION SHALL BE SHOWN ON THESE PLANS. ORIGINAL PLANS OF SEWER LATERALS DATA TABLE TO BE COMPLETED PRIOR TO ACCEPTANCE BY THE SANTEE COUNTY WATER DISTRICT.
14. ALL TELEPHONE, GAS & ELECTRIC SERVICES ARE UNDERGROUND INSTALLATIONS. FOR LOCATION OF CABLES, PIPING & APPURTENANCES CONTACT PACIFIC TELEPHONE CO. AND SAN DIEGO GAS & ELECTRIC CO.

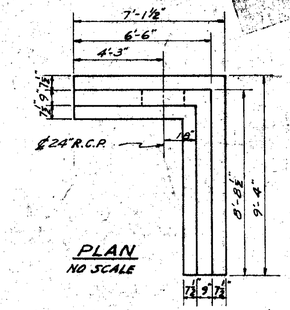
SEWER LATERALS TABLE

(SEE SHEET 7)

■ 20,000 LUMENS ST. LIGHT

▲ 7000 LUMENS ST. LIGHT

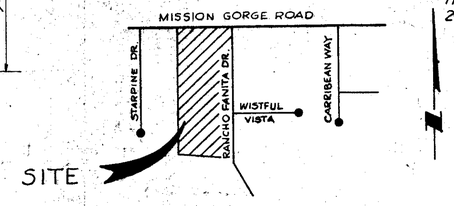




PLAN
NO SCALE

DETAIL "C"

TYPE "L" HEADWALL PER CO. STD. DWG. 127-1



VICINITY MAP

NO SCALE

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, THE CURRENT COUNTY OF SAN DIEGO ENGINEER DEPARTMENT STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR IMPROVEMENT OF SUBDIVISION STREETS AND STANDARD REFERENCE DRAWINGS AND TO THE STANDARD SPECIFICATIONS AND DRAWINGS FOR SEWER AND WATER CONSTRUCTION OF THE SANTEE COUNTY WATER DISTRICT ADOPTED NOV. 21, 1966 BY RESOLUTION Nº 1047.

COUNTY STD. DWG. (UNLESS OTHERWISE NOTED)	
	STORM DRAIN
CAL. STATE HWY. D75-3	CLEAN-OUT (STACK-TYPE)
CAL. STATE HWY. D75-3	GCP INLET
108-1	CURB INLET, TYPE "H"
106-1	TYPE J INLET
127-1	HEADWALL "L" TYPE
	GRADING
200-3	6" TYPE "E" CURB & GUTTER
205-1	X-GUTTER & RETURN SEGMENT
211-1 & 305-2	CONCRETE DRIVEWAYS
201-1	6" A.C. DIKE - TYPE "A"
212-2	CONCRETE SIDEWALK
301-2	STREET NAME SIGN
	PAVING
	CL 150 A.C. WATER MAIN — 12" A.C.P.
	6" FIRE HYDRANT & APPURTENANCES — F.H.
	C-I. GATE VALVES & STD. VALVE BOXES
	2" BLOW-OFF
	4" V.C. PIPE LATERAL
	CONCRETE SEWER MANHOLES — S
112-1	CONCRETE CURTAIN WALL
203-1	CUT OFF WALL

NOTES:

1. A PERMIT SHALL BE ACQUIRED FROM THE COUNTY ROAD DEPARTMENT FOR ANY EXCAVATION WITHIN THE EXISTING RIGHT-OF-WAY.
2. ALL UNDERGROUND UTILITIES & LATERALS TO BE INSTALLED BEFORE CONSTRUCTION OF CURBS, CONCRETE CROSS-GUTTERS OR SURFACING OF STREETS.
3. THE STRUCTURAL SECTION WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARDS AND AS DETERMINED BY THE MATERIALS LABORATORY.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING & MAINTAINING ALL EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION.
5. ALL WATER MAINS SHALL BE CLASS 150 & HAVE A MIN. COVER OF 36".
6. ALL CONNECTIONS TO EXIST. WATERMAINS SHALL BE DONE BY THE DISTRICT AND AS SHOWN ON THESE PLANS.
7. THE LETTER "S" SHALL BE STAMPED IN THE CURB AT ALL SEWER LOCATIONS.
8. ALL M.H. COVERS & GATE WELL COVERS SHALL BE ADJUSTED TO FINISH GRADE.
9. WATERMAIN TRENCH GRADES ARE TO BE 4" BELOW BOTTOM OF PIPE GRADE.
10. CONTRACTOR SHALL UNCOVER LOCATION OF CONNECTIONS PRIOR TO BEGINNING INSTALLATION TO INSURE CONFORMANCE W/LINES & GRADES SHOWN ON THE PLANS. ANY DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DISTRICT ENGINEER PRIOR TO PROCEEDING.
11. THE CONSTRUCTION OF COMMERCIAL DRIVEWAYS AS SHOWN ON PLANS. P.C.C. SURFACING TO EXTEND FROM CURB TO PROPERTY LINE. USE STD. DWG. 211-1 & 305-2.

BENCH MARK LJ 104 SAN DIEGO

Description: CONC. MON. SO. SIDE OF MISSION GORGE ROAD, WEST OF RANCHO FANITA DR.

Location:

Record From:

Elev.: 332.717 Datum: U.S.C. & G.S.

PRIVATE CONTRACT

NASLAND ENGINEERING
CIVIL ENGINEERING · SURVEYING · LAND PLANNING
2100 UNIVERSITY AVENUE SAN DIEGO, CALIFORNIA 92104
291-7760

SCALE: AS SHOWN | DATE: 4-9-71
DESIGNED BY: CRUZEN | DRAWN BY: COTE
CLIENT: MC KEON CONSTR. | JOB NO.: 1059-71

APPROVED
SANTEE COUNTY SEWER AND WATER DISTRICT
M. Hale Keeffe 9-22-71
ASSISTANT MANAGER-ENGINEER DATE

COUNTY APPROVED CHANGES

No.	Description	Approved By	Date

SHEET 1 | COUNTY OF SAN DIEGO ENGINEERING DEPARTMENT | 9 SHEETS

PLANS FOR THE IMPROVEMENT OF
MISSION GORGE ROAD & RANCHO FANITA DRIVE
PEPPER HILL TOWNEHOMES

Recommended for Approval: J.C. Goldhammer, Subdivision Engineer

Approved: R. J. Masoman, Asst. County Engineer

Engineer of Work: D.L. Chamberlain, R.C.E. 18892

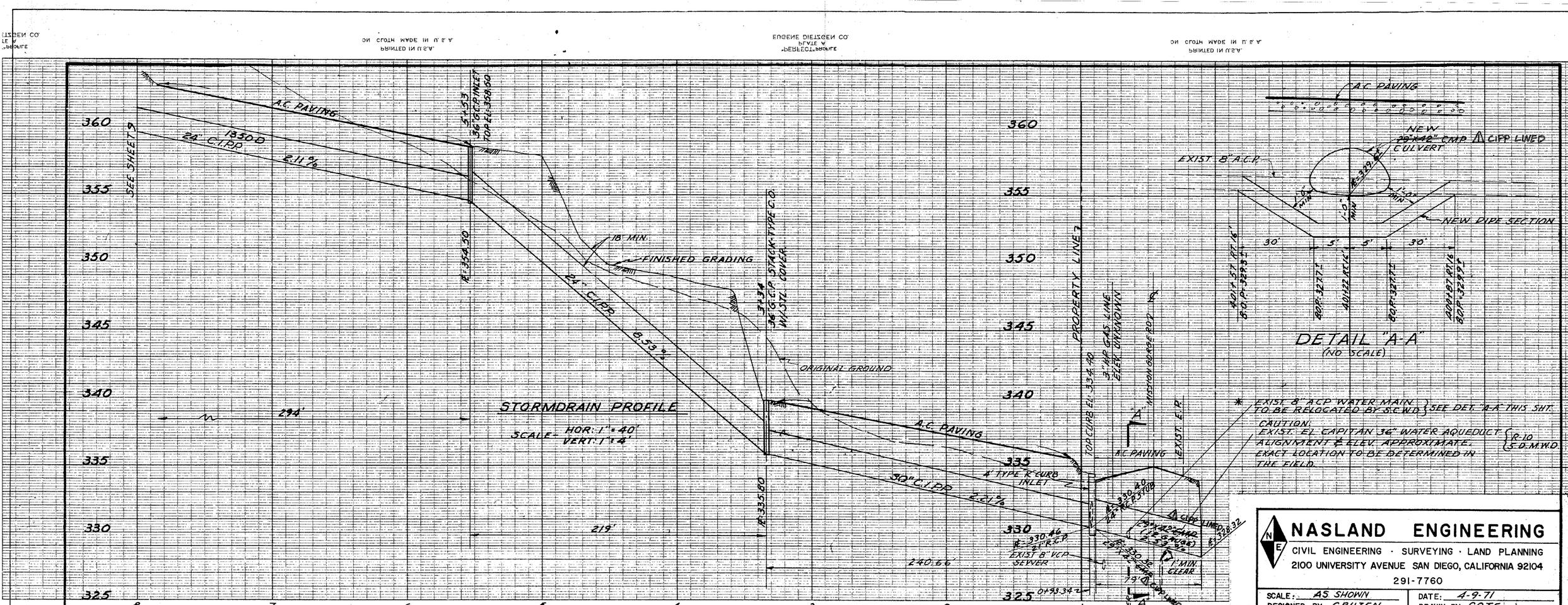
Checked by: RDB

Approval Date: 9-30-71

2946-1 T.M.

FILE NO. WS-1214

PRINTED IN U.S.A. ENGENE DIETZGEN CO. "PERFECT" BRAND



NASLAND ENGINEERING

CIVIL ENGINEERING · SURVEYING · LAND PLANNING
2100 UNIVERSITY AVENUE SAN DIEGO, CALIFORNIA 92104
291-7760

SCALE: AS SHOWN	DATE: 4-9-71
DESIGNED BY: CRUZEN	DRAWN BY: COTE
CLIENT: MC KEON CONSTR.	JOB NO.: 1059-71

BENCH MARK LJ 104 SAN DIEGO
Description: CONC. MON. So. SIDE OF MISSION GORGE RD. WEST OF RANCHO FANITA DR
Elev.: 332.717 Datum: U.S.C.&G.S.

BASIN 100, 200, & 300 POINT OF CONFLUENCE

PRIVATE CONTRACT

SHEET 8	COUNTY OF SAN DIEGO ENGINEERING DEPARTMENT	9 SHEETS

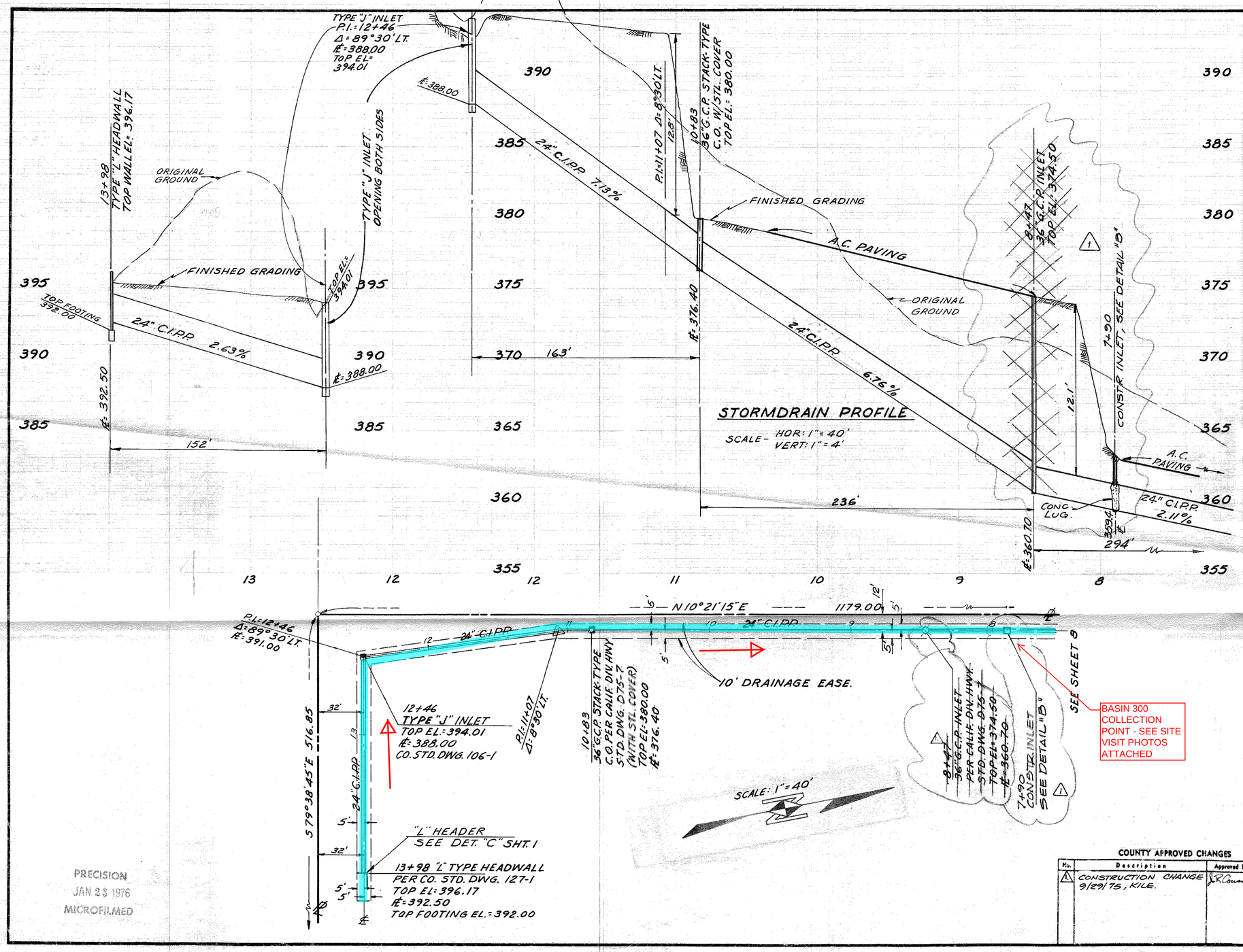
PLANS FOR THE IMPROVEMENT OF STORM DRAIN SYSTEM IN PEPPER HILL TOWNEHOMES

COUNTY APPROVED CHANGES

No.	Description	Approved By	Date
⚠	Per CIP 2013-24	[illegible]	12/22/15

Recommended for Approval: J.C. Hold — Subdivision Engineer
R.J. Masonman — Asst. County Eng.
Engineer of Work: O.J. CHAMBERLAIN, C.E. 18,892
Checked: [illegible]
Approval Date: 9-30-71
2946-1
T.M.

FILE NO WS 1221



PRECISION
JAN 23 1976
MICROFILMED

DIETZGEN
OCT. 7 1971
MICROFILMED

NASLAND ENGINEERING
CIVIL ENGINEERING · SURVEYING · LAND PLANNING
~~2302 UNIVERSITY AVENUE~~ SAN DIEGO, CALIFORNIA 92104
4855 RUFFNER ST. 291-1760

SCALE: AS SHOWN	DATE: 4-9-71
DESIGNED BY: CRUZEN	DRAWN BY: COTE
McKEON CONSTR.	JOB NO.: 1059-71

BENCH MARK LJ 104 SAN DIEGO
Description: CONC. MON. SO. SIDE OF MISSION GORGE RD. WEST OF RANCHO FANITA DR.
Location :
Record From : Elev. : 332.717 Datum: U.S.C.&G.S.
PRIVATE CONTRACT

COUNTY APPROVED CHANGES

No.	Description	Approved By	Date
1	CONSTRUCTION CHANGE 9/29/75, KILE.	J.R. Cousins	12/17/75

SHEET 9	COUNTY OF SAN DIEGO ENGINEERING DEPARTMENT	9 SHEETS

PLANS FOR THE IMPROVEMENT OF STORM DRAIN SYSTEM IN PEPPER HILL TOWNEHOMES

Recommended for Approval: J.C. Goldhammer, Subdivision Engineer	R.J. Massman, Asst. County Eng.
Engineer of Work: D.L. Chamberlain, D.L. CHAMBERLAIN R. C. E. 18,892	Checked by: 2946-1
	Approval Date: 9-30-71 T. M.

FILE NO. WS 1222


PHOTO TAKEN FACING NORTH AT APPROX LOCATION OF BASIN 300 OUTFALL


PHOTO TAKEN FACING SOUTH FROM EXISTING INLET LOCATION


PHOTO TAKEN FACING NORTH: INLET LOCATION. REFER TO ASBUILT DRWING NO. 2946-1 SHT 9 DETAIL "B"

MISSION VIEW ESTATES

GRADING PLAN

ENGINEER OF WORK'S DESIGN CERTIFICATION

I, RAYMOND L. MARTIN, HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE ENGINEERING DESIGN OF THIS PROJECT AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I, UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS THE ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

SIGNED: Raymond L Martin DATE: 12/5/07
REGISTRATION NO. 48670, MY REGISTRATION EXPIRES ON 06/30/08
FIRM: HUNSAKER & ASSOCIATES
ADDRESS: 9707 WAPLES STREET
SAN DIEGO, CA 92121
TELEPHONE: (858) 558-4500

REGISTERED PROFESSIONAL ENGINEER RAYMOND L. MARTIN NO. 48670 EXP. 6/30/08 CIVIL STATE OF CALIFORNIA

ENGINEER OF WORK'S RECORD DRAWING CERTIFICATION

I, RAYMOND L. MARTIN, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE PREPARATION OF THE ENGINEERING PORTION OF THE AS-BUILT DRAWINGS AND THAT THE INFORMATION SHOWN IS BASED ON AN INVESTIGATION AND SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF AND. TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE INFORMATION SHOWN ON THESE PLANS PROVIDE AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS.

SIGNED: Raymond L Martin DATE: 2/28/11
REGISTRATION NO. 48670, MY REGISTRATION EXPIRES ON 06/30/08
FIRM: HUNSAKER & ASSOCIATES
ADDRESS: 9707 WAPLES STREET
SAN DIEGO, CA 92121
TELEPHONE: (858) 558-4500

SOIL ENGINEER'S DESIGN CERTIFICATION

I, CHARLES H. CHRISTIAN, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOIL MECHANICS, HEREBY CERTIFY THAT A SAMPLING AND STUDY OF THE SOIL CONDITIONS PREVALENT WITHIN THIS SITE WAS MADE BY ME OR UNDER MY DIRECTION BETWEEN THE DATES MARCH 2005 AND OCTOBER 2007. THREE COMPLETE COPIES OF THE SOILS REPORT COMPLIED FROM WITH MY RECOMMENDATIONS, HAS BEEN SUBMITTED TO THE OFFICE OF THE DIRECTOR OF DEVELOPMENT SERVICES.

I HAVE REVIEWED THE PROJECT DESIGN AND THE GRADING SHOWN HEREON IS CONSISTENT WITH THE RECOMMENDATIONS CONTAINED IN THE APPROVED SOILS AND GEOTECHNICAL REPORTS FOR THE PROJECT.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

SIGNED: Charles H Chte DATE: 12/10/07
REGISTRATION NO. , MY REGISTRATION EXPIRES ON 9/30/09
FIRM: CHRISTIAN WHEELER ENGINEERING
ADDRESS: 4925 MERCURY STREET
SAN DIEGO, CA 92111
TELEPHONE: (858) 496-9760

REGISTERED PROFESSIONAL ENGINEER CHARLES H. CHRISTIAN No. GE215 Exp. 9-30-11 GEOTECHNICAL STATE OF CALIFORNIA

SOIL ENGINEER'S AS-BUILT CERTIFICATION

I, CHARLES H CHRISTIAN, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE GEOTECHNICAL ASPECTS OF THE GRADING OF THIS PROJECT. TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE GRADING CONFORMS WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORTS AND PLANS WITH THE EXCEPTION THAT ANY CHANGES OR DEVIATIONS FROM THE PLANS DUE TO UNFORESEEN FIELD CONDITIONS HAVE BEEN IDENTIFIED IN THE FINAL SOILS REPORT FOR THE PROJECT.

SIGNED: Charles H Chte DATE: 03/09/2011
REGISTRATION NO. , MY REGISTRATION EXPIRES ON 9/31/2011
FIRM: CHRISTIAN WHEELER ENGINEERING
ADDRESS: 4925 MERCURY STREET
SAN DIEGO, CA 92111
TELEPHONE: (858) 496-9760

REGISTERED PROFESSIONAL ENGINEER CHARLES H. CHRISTIAN No. GE215 Exp. 9-30-11 GEOTECHNICAL STATE OF CALIFORNIA

H&A HUNSAKER & ASSOCIATES SAN DIEGO, INC

PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 FX(858)558-1414

CIVIL ENGINEER'S CERTIFICATION (FOR RETAINING WALLS AS SHOWN ON SHEETS 53 TO 62)

I, CHARLES CHEN HEREBY DECLARE THAT I AM THE CIVIL ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE DESIGN OF THIS PROJECT AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS IN THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

SIGNED: DATE: 4/1/08
REGISTRATION NO. 64291 MY REGISTRATION EXPIRES ON 6/30/2009
FIRM: CHARLES CHEN, P.E.
ADDRESS: 8 PATINA LANE
LADERA RANCH, CA 92694
TELEPHONE: (949) 916-6269

REGISTERED PROFESSIONAL ENGINEER CHARLES W. CHEN C 64291 EXP 6-30-2009 CIVIL STATE OF CALIFORNIA

CIVIL ENGINEER'S AS-BUILT CERTIFICATION

I, CHARLES CHEN, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE PREPARATION OF THE STRUCTURAL PORTION OF THE AS-BUILT DRAWINGS AS THEY PERTAIN TO THE STRUCTURAL IMPROVEMENTS AND RETAINING WALLS. THE INFORMATION SHOWN IS BASED ON ACTUAL SITE INVESTIGATION AND SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF AND . TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE INFORMATION SHOWN ON THESE PLANS PROVIDES AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS.

SIGNED: DATE: 4/7/11
REGISTRATION NO. 64291 , MY REGISTRATION EXPIRES ON
FIRM: CHARLES CHEN, P.E.
ADDRESS: 8 PATINA LANE
LADERA RANCH, CA 92694
TELEPHONE: (949) 916-6269

REGISTERED PROFESSIONAL ENGINEER CHARLES W. CHEN C 64291 EXP 6-30-2011 CIVIL STATE OF CALIFORNIA

STRUCTURAL ENGINEER'S CERTIFICATION

I, TROY L. LYVER, HEREBY DECLARE THAT I AM THE STRUCTURAL ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE DESIGN OF THIS PROJECT AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS IN THE CITY OF SANTEE IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

I FURTHER UNDERSTAND THAT UPON APPROVAL OF THESE PLANS BY THE CITY ENGINEER, THE PLANS BECOME THE PROPERTY OF THE CITY OF SANTEE IN ACCORDANCE WITH THE CITY PUBLIC WORKS STANDARDS. AS SUCH, I HEREBY RELINQUISH RIGHT OF OWNERSHIP TO THE CITY TO USE THESE PLANS AS THEY MAY DEEM NECESSARY.

SIGNED: DATE: 3/27/08
REGISTRATION NO. 34656 , MY REGISTRATION EXPIRES ON DEC. 31 2008
FIRM: ZCS ENGINEERING, INC.
ADDRESS: 10121 SE SUNNYSIDE RD. NO.205
CLACKMAS, OR. 97015
TELEPHONE: 503-659-2205

REGISTERED PROFESSIONAL ENGINEER TROY L. LYVER No. 34656 STRUCTURAL STATE OF CALIFORNIA Expires: Dec. 31, 2008

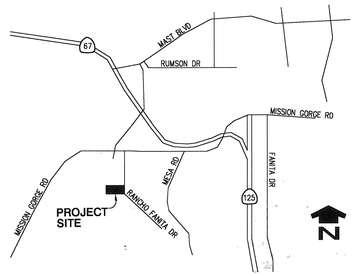
STRUCTURAL ENGINEER'S AS-BUILT CERTIFICATION

I, TROY L. LYER, A REGISTERED CIVIL ENGINEER IN THE STATE OF CALIFORNIA, HEREBY DECLARE THAT I HAVE EXERCISED RESPONSIBLE CHARGE, AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, OVER THE PREPARATION OF THE STRUCTURAL PORTION OF THE AS-BUILT DRAWINGS AS THEY PERTAIN TO THE STRUCTURAL IMPROVEMENTS AND RETAINING WALLS. THE INFORMATION SHOWN IS BASED ON ACTUAL SITE INVESTIGATION AND SURVEY OF THE IMPROVEMENTS BETWEEN THE DATES OF AND 3/09/11 . TO THE BEST OF MY KNOWLEDGE AND EXPERIENCE THE INFORMATION SHOWN ON THESE PLANS PROVIDES AN ACCURATE AND CORRECT REPRESENTATION OF THE AS-BUILT CONDITIONS.

SIGNED: DATE: 3/10/2011
REGISTRATION NO. 34656, MY REGISTRATION EXPIRES ON DEC 31, 2012
FIRM: ZCS ENGINEERING, INC
ADDRESS: 10121 S.E. SUNNYSIDE RD. STE. 205
CLACKMAS, OR. 97015
TELEPHONE: (503) 659-2205

SHEET INDEX

NOTES & DETAILS	SHEET 1-2
GRADING INDEX MAP	SHEET 3
SECTIONS & DETAILS	SHEET 4
ROUGH GRADE PLANS	SHEET 5-9
STORM DRAIN PROFILES	SHEET 10-15
EROSION CONTROL DETAILS	SHEET 16
EROSION CONTROL	SHEET 17
L&I NOTES & DETAILS	SHEET 17A
IRRIGATION PLANS	SHEET 18-27
LANDSCAPE PLANS	SHEET 28-46
WALL AND FENCE PLANS	SHEET 47-52
RETAINING WALL PLANS	SHEET 53-63 1



VICINITY MAP
NTS

OWNER'S ACCEPTANCE

I, SI SANTEE, L.P. , AS OWNER OF THE PROPERTY DESCRIBED HEREON ACKNOWLEDGE THESE PLANS HAVE BEEN PREPARED AT MY DIRECTION AND WITH MY FULL CONSENT. I UNDERSTAND ALL CONSTRUCTION MUST CONFORM TO CURRENT CITY STANDARDS AND BE COMPLETED IN ACCORDANCE WITH THESE PLANS. ANY CHANGES TO THE WORK MUST BE APPROVED IN WRITING, IN ADVANCE, IN ACCORDANCE WITH THE CITY'S CONSTRUCTION CHANGE POLICY. I AGREE TO REMOVE AND RECONSTRUCT AT MY COST ANY WORK NOT COMPLETED IN STRICT ACCORDANCE WITH THESE PLANS OR ANY CONSTRUCTION CHANGES APPROVED INCIDENTAL THERETO.

SIGNED: ~~JACK ROBSON~~ URE KRETOWICZ DATE: 12/5/07
ADDRESS: CORNERSTONE COMMUNITIES
4365 EXECUTIVE DRIVE, SUITE 600
SAN DIEGO, CA 92121
TELEPHONE: (858) 458-9700

ASSESSOR PARCEL NUMBER

386-300-34-00

LEGAL DESCRIPTION

A PORTION OF LOTS 6 & 8 IN BLOCK F OF FANITA RANCHO, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 688, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY ON OCTOBER 22, 1891.

RESIDENTIAL FLOOD STATEMENT

I, RAYMOND L. MARTIN , A REGISTERED CIVIL ENGINEER/~~LAND SURVEYOR~~ HEREBY CERTIFY THAT THE PAD ELEVATIONS SHOWN ON THIS AS-BUILT GRADING PLAN HAVE BEEN VERIFIED BY ME AND THAT SAID ELEVATIONS ARE AT OR ABOVE THE BASE FLOOD ELEVATION AS ESTABLISHED BY THE BASE FLOOD DISCHARGE RATES SET FORTH IN THE FLOOD DAMAGE PREVENTION ORDINANCE – CHAPTER 15.52 OF THE SANTEE MUNICIPAL CODE.

SIGNED: Raymond L Martin DATE: 2/28/11
REGISTRATION NO. 48670 , MY REGISTRATION EXPIRES ON 6/30/12

LEGEND OF ABBREVIATIONS

TC	TOP OF CURB	N.T.S.	NOT TO SCALE
GB	GRADE BREAK	TW	TOP OF WALL
BC	BEGIN CURVE	TF	TOP OF FOOTING
EC	END CURVE	C.I.	CURB INLET
HP	HIGH POINT	C.O.	CLEANOUT
LP	LOW POINT	RCP	REINFORCED CONCRETE PIPE
FL	FLOW LINE	C.B.	CATCH BASIN
ST	STREET	EVC	END VERTICAL CURVE
RT	RIGHT	BVC	BEGIN VERTICAL CURVE
LT	LEFT	FG	FINISHED GRADE
FS	FINISHED SURFACE	PP	POWER POLE

GENERAL STANDARDS OF CONSTRUCTION

UNLESS OTHERWISE NOTED ON THE PLANS, ALL WORK SHALL CONFORM WITH THE FOLLOWING STANDARD SPECIFICATIONS AND DRAWINGS:

STANDARD SPECIFICATIONS:

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
2. STANDARD SPECIAL PROVISIONS.
3. CITY OF SANTEE PUBLIC WORKS STANDARDS, SEPTEMBER 1982.
4. CALIFORNIA DEPARTMENT OF TRANSPORTATION, "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," LATEST EDITION.
5. STANDARD SPECIFICATIONS OF THE WATER AGENCIES STANDARDS COMMITTEE (WAS).
6. CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA), STORMWATER BEST MANAGEMENT HAND BOOK CONTRUCTION, LATEST EDITION.

STANDARD DRAWINGS:

1. CITY OF SANTEE STANDARD DRAWINGS.
2. SAN DIEGO REGIONAL STANDARD DRAWINGS (S.D.R.S.D.) AS RECOMMENDED BY THE REGIONAL STANDARDS COMMITTEE, MAINTAINED AND PUBLISHED BY THE SAN DIEGO COUNTY DEPARTMENT OF PUBLIC WORKS, LATEST EDITION.
3. STANDARD DRAWINGS OF THE WATER AGENCIES STANDARDS COMMITTEE (WAS).

LEGEND

DESCRIPTION	STD. DWG.	SYMBOL	QUANTITY
SUBDIVISION BOUNDARY			
RIGHT OF WAY			
LOT LINE			
BRUSH MANAGEMENT ZONE LIMIT			
LOT NO		34	
EASEMENT			
TYPE "B-1", "B", "B-2" CURB INLET	R.S.D. D-2		4 E.A.
TYPE "A-1", "A", "A-2" CURB INLET	R.S.D. D-1		
TYPE "F" CATCH BASIN	R.S.D. D-7		4 E.A.
TYPE "A" CLEANOUT	R.S.D. D-9		9 E.A.
WING HEADWALLS	R.S.D. D-34		4 E.A.
6" PVC	R.S.D. D-60		75 L.F.
12" PVC	R.S.D. D-60		8 L.F.
18" RCP	R.S.D. D-60		900 L.F.
24" RCP	R.S.D. D-60		310 L.F.
30" RCP	R.S.D. D-60		163 L.F.
CURB OUTLET	R.S.D. D-25		3 E.A.
CURB INLET	PER DETAIL SHEET 2		1 E.A.
CUTOFF WALL	R.S.D. S-10		2 E.A.
PROPOSED SPOT ELEVATIONS		125.3 FS	
EARTHEN SWALE			
CUT/FILL LINE		CUT FILL	
DAYLIGHT LINE			
SLOPE EMBANKMENT (1.5:1/2:1 FILL MAX)	CUT/FILL	CUT FILL	
EXISTING CONTOUR		180	
FINISH CONTOUR		180	
BROW DITCH	MODIFIED R.S.D. D-75		4,374 L.F.
FUEL MODIFICATION LINE			
PAD ELEVATION		250	
RETAINING WALL	SEE SHEETS 42-46		24,826 S.F.
RIP RAP ENEGERY DISSIPATOR	R.S.D. D-40		
EXISTING STORM DRAIN			
PROPOSED SEWER		S 6" PVC	
PROPOSED WATER LINE		W 10" PVC	
EXISTING SEWER		S 6" VCP	
EXISTING WATER LINE		W	
EXISTING BROW DITCH			

OWNER

CORNERSTONE COMMUNITIES
4365 EXECUTIVE DRIVE
SUITE 600
SAN DIEGO, CA 92121
(858) 458-9700

CITY OF SANTEE

FIRE DEPARTMENT ~~DEPUTY~~ FIRE CHIEF — DATE 2/6/08
COMMUNITY SERVICES DEPARTMENT PUBLIC WORKS SUPERINTENDENT — DATE 2/6/08
ENGINEERING DIVISION CITY ENGINEER RCE NO: 47180, EXPIRES: 12/31/07 — DATE 2/6/08
PLANNING DIVISION PROJECT PLANNER — DATE 2/5/08
TRAFFIC SECTION PRINCIPAL TRAFFIC ENGINEER — DATE 1/30/08

SEWER & WATER AGENCY

PADRE DAM MUNICIPAL WATER DISTRICT
APPROVED BY: Director of Engineering and Planning — Date 1-28-08
47094 R.C.E. No. — 12/31/09 Date
MISSION VIEW ESTATES Project / File Name — 207016 Job No. — WSA SA
VALID FOR ONE YEAR FROM DATE OF SIGNATURE.
SIGNATURE OF THESE PLANS IS NOT A COMMITMENT TO SERVE.

COUNTY OF SAN DIEGO

DEPARTMENT OF ENVIRONMENTAL HEALTH SERVICES
REVIEWED 1-28-08 — PROJECT NO. RW2697
BY Glenn Leeks — REHS TITLE

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		2/10/08	H&A	1 "AS-BUILT"	dl
INSPECTOR					
DATE COMPLETED					

BENCH MARK
STATION ROS 11252 POINT 1002
STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE: HORIZ: 1"=20' VERT: NONE

DESIGNED BY | DRAWN BY | CHECKED BY

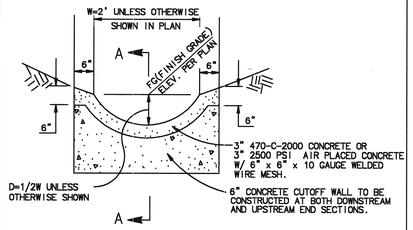
PLANS PREPARED UNDER THE SUPERVISION OF Raymond L Martin DATE 12/5/07
RAYMOND L. MARTIN RCE NO. 48670 EXPIRES 06/30/08

REVIEWED 1-30-08
BY PROJECT ENGINEER

CITY OF SANTEE — DEPARTMENT OF DEVELOPMENT SERVICES
ROUGH GRADING PLAN FOR:
MISSION VIEW ESTATES — TM 2006-04
CITY W.O. NO. G-1043
DRAWING NO. 2008-025 4
SHEET 1 OF 63

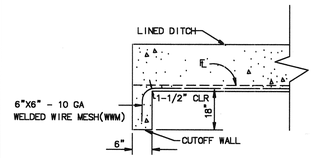
AS-BUILT
MISSION VIEW ESTATES - GRADING PLAN
No. 2020-13

R:\0722\Eng\ROUGH GRADING\0722RG01.dwg[ ]Nov-15-2007: 10: 27



MODIFIED TYPE D TERRACE DITCH PER D-75 (PVT)

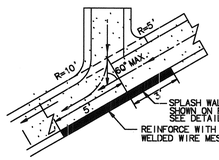
NOT TO SCALE



SECTION A-A (PVT)

NOT TO SCALE

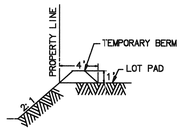
A



LINED DITCH CONFLUENCE (PVT)

NOT TO SCALE

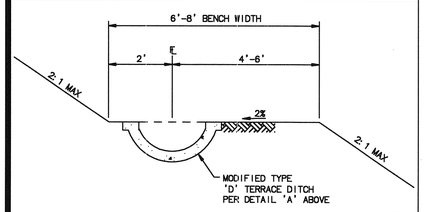
B



TEMPORARY BERM AT SIDE YARD

NOT TO SCALE

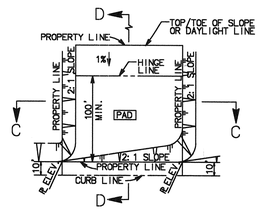
C



TYPICAL BENCH DETAIL (PVT)

NOT TO SCALE

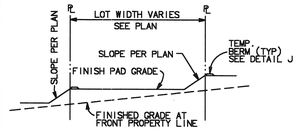
D



TYPICAL LOT ROUGH GRADING

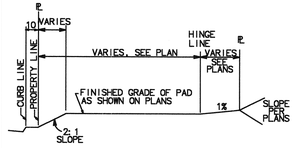
NOT TO SCALE

NOTE:
WHERE BOTH CUT AND FILL OR BEDROCK MATERIALS OF DISSIMILAR EXPANSION CHARACTERISTICS ARE EXPOSED IN THE BUILDING AREA, THE CUT PORTION OF THE BUILDING AREA SHOULD BE UNDERCUT 3.0 FEET BELOW PAD GRADE OR AS APPROVED BY THE SOILS ENGINEER, AND REPLACED WITH COMPACTED SOILS SIMILAR TO THE FILL MATERIAL.



SECTION C-C

NOT TO SCALE

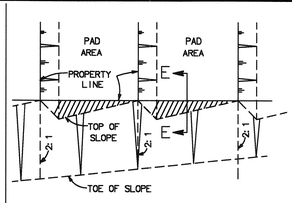


SECTION D-D

NOT TO SCALE

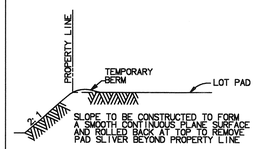
NOTE: FINISH LOT GRADING SHALL BE PER GS-15

E



TYPICAL LOT GRADING REAR OF LOTS

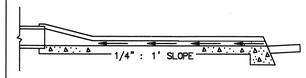
NOT TO SCALE



SECTION E-E

NOT TO SCALE

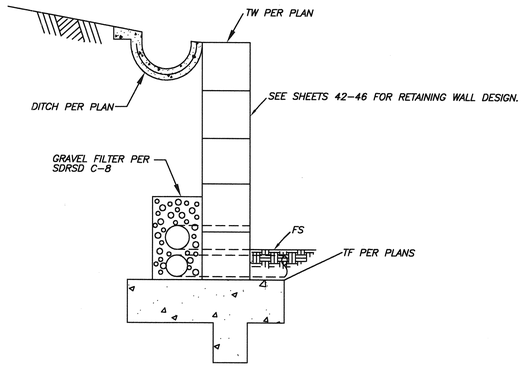
F



MODIFIED D-25 CURB INLET DETAIL

NOT TO SCALE

G



RETAINING WALL WITH DITCH (PVT)

NOT TO SCALE

OUTLET ALTERNATIVES

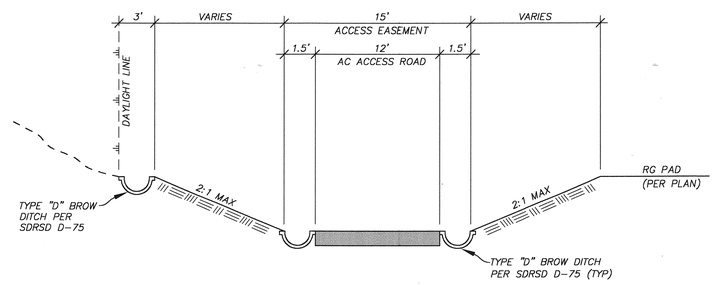
CASE 1) SIDE YARD- EXTEND PERF PIPE AROUND WALL IN FRONT YARD AND DISCHARGE ONTO F.S.

CASE 2) REAR YARD- INDIVIDUAL WALL- EXTEND PERF PIPE AROUND WALL @ SIDE PROPERTY LINE AND DISCHARGE ONTO F.S.

CASE 3) REAR YARD- CONTINUOUS WALL- CONSTRUCT 3" TEE AND DISCHARGE PIPE THROUGH WALL @ F.S. NEAR SIDE PROPERTY LINE.

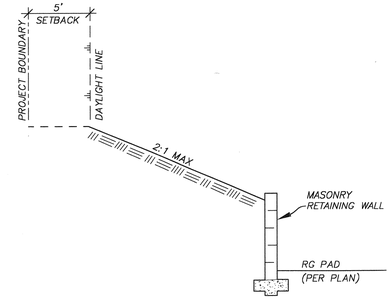
CASE 4) PUBLIC R/W- CONSTRUCT 3" TEE AND CONNECT 3" PVC @ 2% TO D-27 PER IMP. PLANS.

H



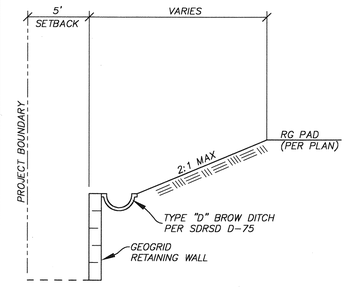
SECTION A-A

NOT TO SCALE



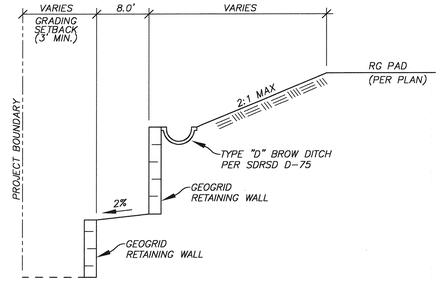
SECTION D-D

NOT TO SCALE



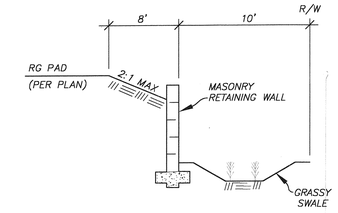
SECTION B-B

NOT TO SCALE



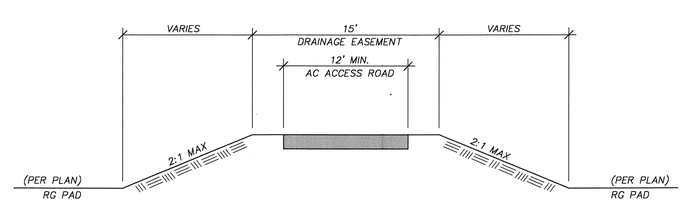
SECTION C-C

NOT TO SCALE



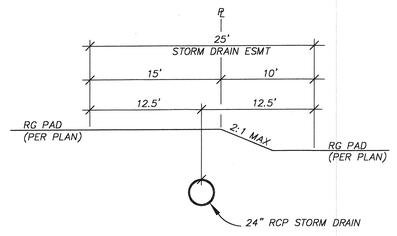
SECTION E-E

NOT TO SCALE



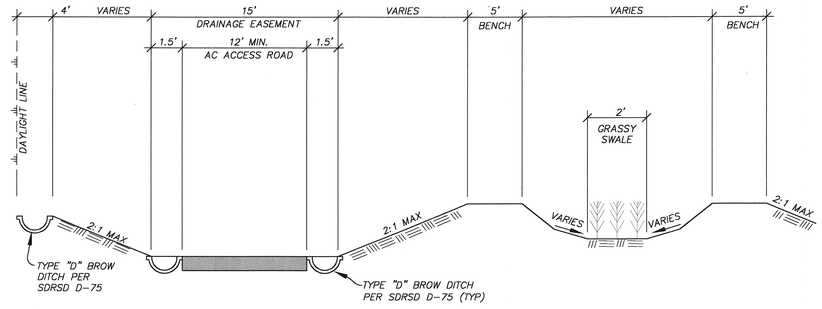
SECTION F-F

NOT TO SCALE



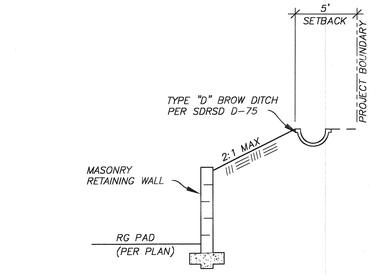
SECTION H-H

NOT TO SCALE



SECTION G-G

NOT TO SCALE



SECTION I-I

NOT TO SCALE

HUNSAKER & ASSOCIATES
SAN DIEGO, INC.

PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 · FX(858)558-1414

REGISTERED PROFESSIONAL ENGINEER · RAYMOND L. MARTIN · NO. 48670 EXP. 6/30/08 · CIVIL · STATE OF CALIFORNIA

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		2/28/2008	H&A	"AS-BUILT"	
INSPECTOR					
DATE COMPLETED					

BENCH MARK:
STATION ROS 11252 POINT 1002
STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
HORIZ: 1"=20'			
VERT: NONE	PLANS PREPARED UNDER THE SUPERVISION OF RAYMOND L. MARTIN	DATE 12/5/07	
	RCE NO. 48670	EXPIRES 06/30/08	

REVIEWED 1-30-08
BY CITY PROJECT ENGINEER

CITY OF SANTEE — DEPARTMENT OF DEVELOPMENT SERVICES

ROUGH GRADING PLAN FOR:

MISSION VIEW ESTATES

TM 2006-04

CITY W.O. NO. G-1043

DRAWING NO. 2008-028 (1)

SHEET 4 OF 63

MISSION VIEW ESTATES - GRADING PLAN
W.O. No. 2020-1.3

AS-BUILT

R: \0722\dEng\ROUGH GRADING\0722RG04.dwg[ ]Jan-23-2008: 13: 51

20' WIDE EXISTING WATER AND SEWER EASEMENT GRANTED TO SANTEE COUNTY WATER DISTRICT PER DOC. REC. JAN. 04, 1973 AS DOC. NO. 73-003470 O.R.

EXISTING 10" A.C. WATERLINE PER DWG W-1244 BEGIN REMOVAL AND VACATION OF EXISTING EASEMENT

EXISTING 10" A.C. WATER LINE DWG 1325 TO BE REMOVED

APN 386-300-44
MAP 688

50' D-75 TYPE B W=3', D=12" Q_{MAX}=2.70 CFS DETAIL 'A'

25' TRANSITION

SUBDIVISION BOUNDARY

25' D-75 TYPE B W=2', D=3" Q_{MAX}=2.25 CFS DETAIL 'B'

25' D-75 TYPE B W=2', D=2" Q_{MAX}=1.16 CFS DETAIL 'C'

25' D-75 TYPE B W=2', D=1" Q =0.37 CFS DETAIL 'D'

10'

D-40 RIP RAP ENERGY DISSIPATOR 10'x4'x0.6' NO. 3 BACKING Q =0.37 CFS, V=3.32 FPS

EXISTING 10" WATER EASEMENT DOC.# 1973-003470 TO BE PARTIALLY QUIT CLAIMED

KEYSTONE RETAINING WALL PER SHEETS 42-47

EXISTI WATER PER D TO BE

BROW DITCH CONFLUENCE PER DETAIL ON SHEET 4

EXISTING BROW DITCH

CONCRETE CROSS CHANNEL PER SDRSD G-13

EXISTING 10" A.C. WATER LINE PER DWG 1325-W TO REMAIN

LOT B

LOT C

BRUSH MANAGEMENT ZONE 1

BRUSH MANAGEMENT ZONE 2

BROW DITCH CONFLUENCE SEE DETAIL SHEET 4

20' PADRE DAM MUNICIPAL WATER DISTRICT EASEMENT PER FINAL MAP 15702

PROPOSED PRIVATE 10' STORM DRAIN EASEMENT

BRUSH MANAGEMENT ZONE 1

VISTA RETAINING WALL PER SHEET 59

VISTA RETAINING WALL PER SHEET 59

VISTA RETAINING WALL PER SHEET 59

VISTA RETAINING WALL PER SHEET 59

SD LINE "A-1" PER SHEET 11

SD LINE "A" PER SHEET 12

BRITT PLACE

10" PVC WATER

6" PVC SEWER TYPE A-4 C.O.

TYPE F INLET

FILL

CUT

SUBDIVISION BOUNDARY

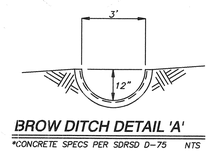
SEE SHEET NO. 6

SEE SHEET NO. 8

AS-BUILT

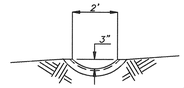
MISSION VIEW ESTATES - GRADING PLAN

W.O. No. 2020-13



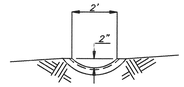
BROW DITCH DETAIL 'A'

*CONCRETE SPECS PER SDRSD D-75 NTS



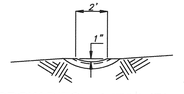
BROW DITCH DETAIL 'B'

*CONCRETE SPECS PER SDRSD D-75 NTS



BROW DITCH DETAIL 'C'

*CONCRETE SPECS PER SDRSD D-75 NTS



BROW DITCH DETAIL 'D'

*CONCRETE SPECS PER SDRSD D-75 NTS

0 20 40 60
SCALE 1"=20'

HUNSAKER & ASSOCIATES
SAN DIEGO, INC
PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 FX(858)558-1414

REGISTERED PROFESSIONAL ENGINEER RAYMOND L. MARTIN NO. 48670 EXP. 6/30/12 CIVIL STATE OF CALIFORNIA

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		7/28/11	H&A	⚠ AS-BUILT REPLACEMENT SHEET	
INSPECTOR					
DATE COMPLETED					

BENCH MARK
STATION ROS 11252 POINT 1002
STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE
HORIZ: 1"=20'
VERT: NONE

DESIGNED BY | DRAWN BY | CHECKED BY

PLANS PREPARED UNDER THE SUPERVISION OF
RAYMOND L. MARTIN DATE 2/28/11
RCE NO. 48670 EXPIRES 06/30/12

REVIEWED BY 7/28/2011 PROJECT ENGINEER

CITY OF SANTEE DEPARTMENT OF DEVELOPMENT SERVICES

ROUGH GRADING PLAN FOR:
MISSION VIEW ESTATES
TM 2006-04

CITY W.O. NO. G-1043

DRAWING NO. 2008-029

SHEET 5 OF 65

R: \0722\kEng\ROUGH GRADING\0722RG05.dwg[ ]Feb-21-2011: 09:23

SCALE 1"=20'

EXISTING PROPERTY LINE

EXISTING 10' STORM DRAIN EASEMENT PER FINAL MAP NO. 7198

EXISTING 10" A.C. WATERLINE PER DWG 1325-W BEGIN REMOVAL AND VACATION OF EXISTING EASEMENT

EXISTING 24" CIPP STORM DRAIN PER DWG. NO. 2946-1 AND MAP NO. 7198

APN 386-300-44 MAP 688

APN 386-300-38 MAP 7198

EXISTING POWER POLE TO REMAIN

20' WIDE EXISTING WATER AND SEWER EASEMENT GRANTED TO SANTEE COUNTY WATER DISTRICT PER DOC. REC. JAN. 04, 1973 AS DOC. NO. 73-003470 O.R. TO BE PARTIALLY QUIT CLAIMED

EXISTING 10" A.C. WATER LINE PER DWG 1325-W TO BE REMOVED

FOR OFFSITE LETTER OF PERMISSION TO GRADE SEE LETTER DATED DECEMBER 20, 2007 FROM MARIAN L. GRANT

20' DRAINAGE EASEMENT PER DOC. FINAL MAP 15702 REC. 7-23-08

FOR OFFSITE PERMISSION TO GRADE SEE AGREEMENT BETWEEN REPAIR TOWNHOMES ASSOC. AND CITY OF SANTEE DATED FEB. 5, 2008.

BROW... PER DI... FOR OF... PERMIS... SEE LETTER ... FROM ...

SUBDIVISION BOUNDARY

KEYSTONE RETAINING WALL PER SHEETS 42-47

TYPE F INLET

TYPE A-4 C.O.

SD LINE "A-3" PER SHEET 14

VISTA RETAINING WALL PER SHEET 59

25' STORM DRAIN EASEMENT PER FINAL MAP 15702

7X14 PRECAST STORMFILTER

TYPE B INLET

SD LINE "B-1" PER SHEET 13

SD LINE "B-2" PER SHEET 13

SD LINE "A" PER SHEET 12

SD LINE "A-2" PER SHEET 10

SD LINE "A-4" PER SHEET 10

SD LINE "B" PER SHEET 13

MOD. TYPE A-4 C.O.

10" PVC WATER

6" PVC SEWER

15" PUBLIC DRAINAGE EASEMENT

BRUSH MANAGEMENT ZONE 1

PRIVATE BROW DITCH

BRITT PLACE

175' VC

56' ROW

LOT A

SEE SHEET NO. 5

SEE SHEET NO. 7

SEE SHEET NO. 8

SEE SHEET NO. 9

AS-BUILT

MISSION VIEW ESTATES - GRADING PLAN

W.O. No. 2020-13

HUNSAKER & ASSOCIATES SAN DIEGO, INC

PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 FX(858)558-1414

REGISTERED PROFESSIONAL ENGINEER RAYMOND L. MARTIN NO. 48670 EXP. 6/30/08 CIVIL STATE OF CALIFORNIA

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		7/08/08	H&A	1 "AS-BUILT"	
INSPECTOR					
DATE COMPLETED					

BENCH MARK

STATION ROS 11252 POINT 1002 STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE		DESIGNED BY	DRAWN BY	CHECKED BY
HORIZ:	1"=20'			
VERT:	NONE			

PLANS PREPARED UNDER THE SUPERVISION OF RAYMOND L. MARTIN DATE 12/5/07
RCE NO. 48670 EXPIRES 06/30/08

REVIEWED 1-30-08
BY PROJECT ENGINEER

CITY OF SANTEE — DEPARTMENT OF DEVELOPMENT SERVICES

ROUGH GRADING PLAN FOR:

MISSION VIEW ESTATES TM 2006-04

CITY W.O. NO. G-1043

DRAWING NO. 2008-030 1

SHEET 6 OF 63

R: \0722\&Eng\ROUGH GRADING\0722RG06.dwg[ ]Jan-23-2008: 13: 51

SEE SHEET NO. 6

SEE SHEET NO. 9

SEE SHEET NO. 10

APN 386-300-38
MAP 7198

BROW DITCH CONFLUENCE PER DETAIL ON SHEET 4 FOR OFFSITE PERMISSION TO GRADE SEE AGREEMENT BETWEEN PEPPER TOWNHOMES ASSOC. AND CITY OF SANTEE DATED FEB. 5, 2006.

KEYSTONE RETAINING WALL PER SHEETS 42-47

EXISTING POWER POLE TO REMAIN

EXISTING OFFSITE BROW DITCH TO REMAIN

SUBDIVISION BOUNDARY

EXISTING OFFSITE BROW DITCH TO REMAIN

CORNER SIGHT DISTANCE PER CITY OF SANTEE PUBLIC WORKS STDS

PROPOSED 20' PRIVATE MAINTENANCE AND ACCESS EASEMENT

EXISTING 12" ACP WTR PER DWG. 1891-W

EXISTING 20" PVC RW WTR PER DWG 3109 R

EXISTING 6" ACP WATER PER DWG 844

EXISTING 6" VCP PER DWG 345

VISIBILITY EASEMENT PER FINAL MAP

BRITT PLACE

10" PVC WATER
6" PVC SEWER

SD LINE "C" PER SHEET 15

PROPOSED PRIVATE MAINTENANCE AND ACCESS EASEMENT

D-40 ENERGY DISSIPATOR
Q100=1.8 CFS
V100=13.8 FPS

CORNER SIGHT DISTANCE PER CITY OF SANTEE PUBLIC WORKS STDS

RANCHO FANITA DRIVE

EXISTING POWER POLE TO REMAIN

BRUSH MANAGEMENT ZONE 1

BRUSH MANAGEMENT ZONE 2

EXISTING RESIDENTIAL

APN 386-133-01

HOUSE

LOT A

VISTA RETAINING WALL PER SHEET 59

FILL
CUT

CUT
FILL

P=404.0 (1)
P=411.2 (2)
P=418.3 (3)
P=425.4 (4)
P=432.3 (5)
P=437.7 (6)
P=404.7 (31)
P=416.9 (29)
P=423.7 (28)
P=430.5 (27)
P=436.6 (26)
P=410.4 (30)

0 20 40 60
SCALE 1"=20'

HUNSAKER & ASSOCIATES
SAN DIEGO, INC

PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 FX(858)558-1414

REGISTERED PROFESSIONAL ENGINEER
RAYMOND L. MARTIN
NO. 48670
EXP. 6/30/08
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		2/15/08	H&A	1 "AS-BUILT"	
INSPECTOR					
DATE COMPLETED					

BENCH MARK
STATION ROS 11252 POINT 1002
STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
HORIZ: 1"=20'			
VERT: NONE	PLANS PREPARED UNDER THE SUPERVISION OF RAYMOND L. MARTIN DATE 12/5/07		
	RCE NO. 48670 EXPIRES 06/30/08		

REVIEWED 1-30-08
BY PROJECT ENGINEER

CITY OF SANTEE — DEPARTMENT OF DEVELOPMENT SERVICES

ROUGH GRADING PLAN FOR:

MISSION VIEW ESTATES

TM 2006-04

CITY W.O. NO. G-1043

DRAWING NO. 2008-031 (1)

SHEET 7 OF 25

MISSION VIEW ESTATES - GRADING PLAN

W.O. No. 2020-13

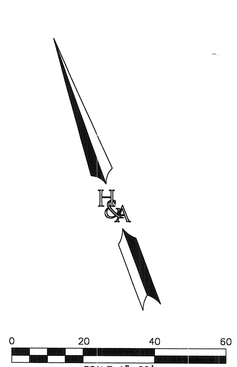
AS-BUILT

R: \0722\Eng\ROUGH GRADING\0722RG07.dwg[ ]Jan-23-2008: 13: 50

SEE SHEET NO. 5

SEE SHEET NO. 6

SEE SHEET NO. 9



BROW DITCH CONFLUENCE SEE DETAIL SHEET 4

BRUSH MANAGEMENT ZONE 2

LOT B

20' PADRE DAM MUNICIPAL WATER DISTRICT EASEMENT PER FINAL MAP 15207

BRITT PLACE

10" PVC WATER

6" PVC SEWER

TYPE A-4 C.O.

SD LINE "A" PER SHEET 12

PROPOSED PRIVATE 10' STORM DRAIN EASEMENT

BRUSH MANAGEMENT ZONE 1

SD LINE "A-1" PER SHEET 11

VISTA RETAINING WALL PER SHEET 59

TYPE F INLET

BRUSH MANAGEMENT ZONE 2

LOT A

LOT C

185.75'

HUNSAKER & ASSOCIATES
SAN DIEGO, INC.
PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 FX(858)558-1414

REGISTERED PROFESSIONAL ENGINEER RAYMOND L. MARTIN NO. 48670 EXP. 6/30/08 CIVIL STATE OF CALIFORNIA

CONSTRUCTION RECORD	REFERENCES	DATE	BY	REVISIONS	ACPTD
CONTRACTOR		3/13/08	H&A	1\ "AS-BUILT"	JT
INSPECTOR					
DATE COMPLETED					

BENCH MARK

STATION ROS 11252 POINT 1002 STANDARD STREET WELL MONUMENT WITH CENTER PUNCH AT THE CENTERLINE OF MISSION GORGE ROAD & RANCHO FANITA DRIVE. ELEV=331.37 M.S.L.D.

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
HORIZ: 1"=20'	PLANS PREPARED UNDER THE SUPERVISION OF		
VERT: NONE	RAYMOND L. MARTIN	DATE 12/5/07	
	RCE NO. 48670	EXPIRES 08/30/08	

REVIEWED 1-30-08
BY CITY PROJECT ENGINEER

CITY OF SANTEE — DEPARTMENT OF DEVELOPMENT SERVICES

ROUGH GRADING PLAN FOR:

MISSION VIEW ESTATES

TM 2006-04

CITY W.O. NO. G-1043

DRAWING NO. 2008-032 1

SHEET 8 OF 63

MISSION VIEW ESTATES - GRADING PLAN

W.O. No. 2020-13

AS-BUILT

R:\0722\bEng\ROUGH GRADING\0722RGD8.dwg[ ]Jan-23-2008: 13: 50

ATTACHMENT 2B

Legend

- Watershed Boundaries
- Municipal Boundaries
- Rivers & Streams
- Regional WMAA Streams
- Potential Critical Coarse Sediment Yield Areas

Project Site

Aerial Imagery Source: DigitalGlobe, 06/2012

Miles 0 25 50 100 150

NORTH

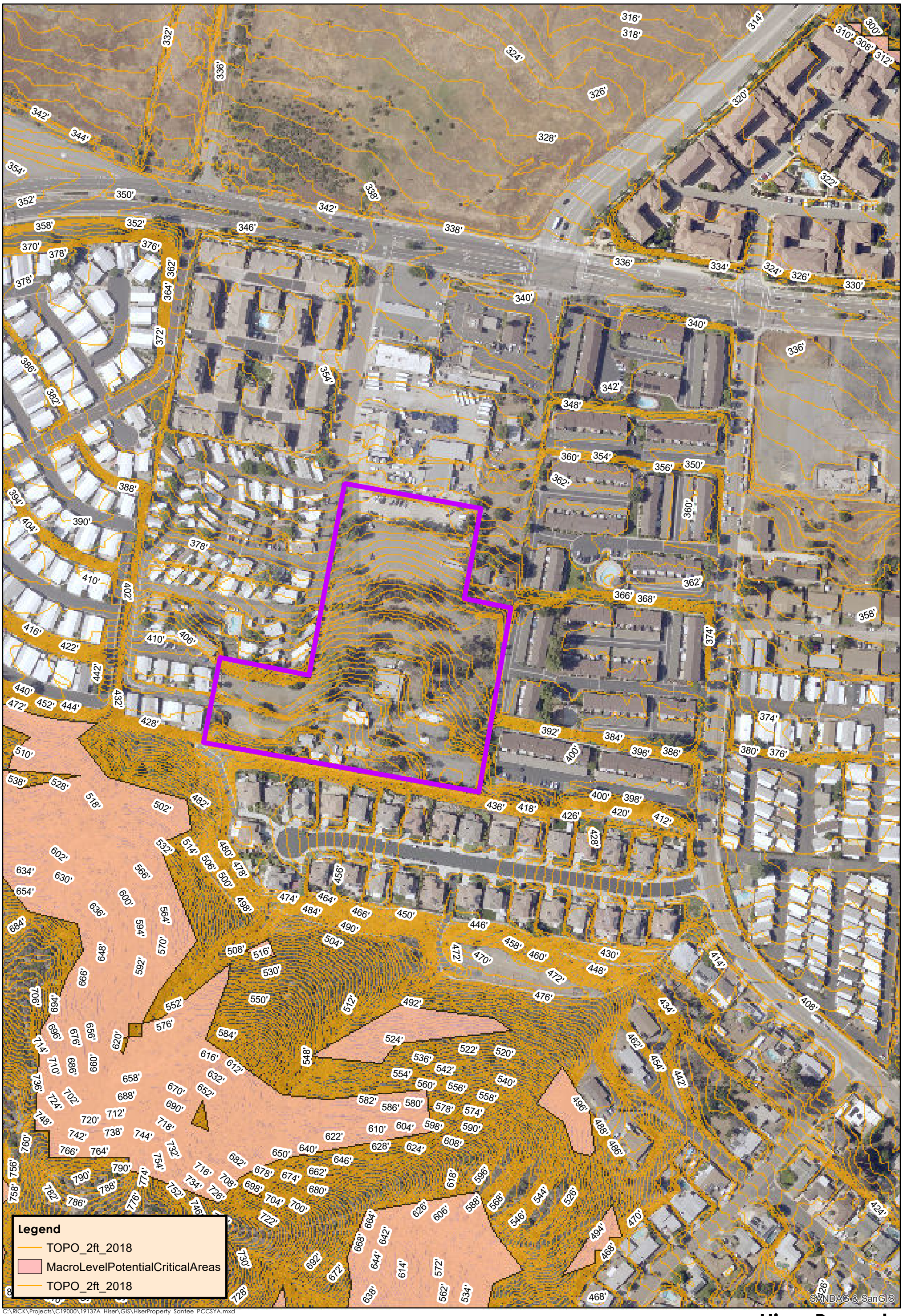
Potential Critical Coarse Sediment Yield Areas

San Diego River Watershed - HU 907.00, 436 mi2

Exhibit Date: Sept. 8, 2014

Geosyntec consultants

RICK ENGINEERING COMPANY



C:\RICK\Projects\C19000\19137A_Hiser\GIS\HiserProperty_Santee_PCCSYA.mxd

RICK ENGINEERING COMPANY

Scale in Feet
0 200 400
North

Date of Exhibit: 9/17/2020
DigitalGlobe Aerial Image: 2017

Hiser Property

Exsiting Storm Drain Systems & HMP Approach

J-19137-A

ATTACHMENT 3
Structural BMP Maintenance Information

This is the cover sheet for Attachment 3.

Indicate which Items are Included behind this cover sheet:

Attachment Sequence	Contents	Checklist
Attachment 3a	Structural BMP Maintenance Thresholds and Actions (Required)	☐ Included See Structural BMP Maintenance Information Checklist on the back of this Attachment cover sheet. *This will be done during Final Engineering.*
Attachment 3b	Draft Maintenance Agreement (when applicable)	☐ Included ☐ Not Applicable

Use this checklist to ensure the required information has been included in the Structural BMP Maintenance Information Attachment:

☐ **Preliminary Design / Planning / CEQA level submittal:**

Attachment 3a must identify:

- ☐ Typical maintenance indicators and actions for proposed structural BMP(s) based on Section 7.7 of the BMP Design Manual

Attachment 3b is not required for preliminary design / planning / CEQA level submittal.

☐ **Final Design level submittal:**

Attachment 3a must identify:

- ☐ Specific maintenance indicators and actions for proposed structural BMP(s). This shall be based on Section 7.7 of the BMP Design Manual and enhanced to reflect actual proposed components of the structural BMP(s)
- ☐ 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

Attachment 3b: For private entity operation and maintenance, Attachment 3b shall include a draft maintenance agreement in the local jurisdiction's standard format (PDP applicant to contact the [City Engineer] to obtain the current maintenance agreement forms).

ATTACHMENT 4
Copy of Plan Sheets Showing Permanent Storm Water BMPs

This is the cover sheet for Attachment 4.

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 Form I-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 the [City Engineer]

☒ 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

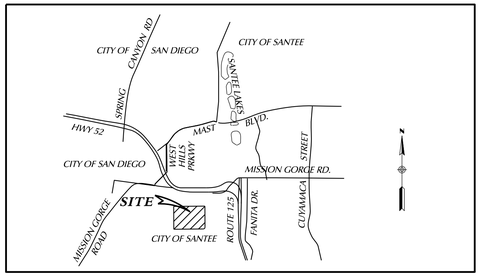
☐ When applicable, necessary special training or certification requirements for inspection and maintenance personnel such as confined space entry or hazardous waste management

☐ 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 shall be provided. Photocopies of general brochures are not acceptable.

TM NO. 2020-02/DR 2020-04
LAUREL HEIGHTS SITE MULTIFAMILY



VICINITY MAP

NO SCALE

LEGEND

PROJECT BOUNDARY	
EXIST TOPO CONTOUR	
LOT LINE	
PAD ELEVATION	PE 384.0
RESIDENTIAL BLDG NUMBER	(5)
RESIDENTIAL UNIT NUMBER	1
SD CLEANOUT	
SD INLET	
PVT STORM DRAIN	SD
PVT SEWER MAIN (8")	S
PVT SEWER MANHOLE	
SEWER MANHOLE	..... 1 EA.
WATER MAIN (8")	W ..... 2,200 LF
FIRE HYDRANT	..... 9 EA.
WATER SERVICE AND METER	..... 21 EA.
SLOPE (2:1 MAX.)	
STREET GRADIENT	2%
STREET ELEVATION	350.4
BROW DITCH	
RETAINING WALL	
TOP OF WALL ELEVATION	TW
FINISHED SURFACE ELEVATION	FS
PARKING SPACES	(5)
EXISTING CONCRETE	
EXISTING PAVEMENT	

QUANTITIES

DEVELOPMENT SUMMARY

1. GROSS PROJECT AREA: 9.9 AC

2. NET PROJECT AREA: 7.3 AC

3. NUMBER OF EXISTING LOTS: 3

4. NUMBER OF RESIDENTIAL DU'S - 80
   PLAN 1: 12
   PLAN 2: 28
   PLAN 3: 40

5. DENSITY = 11 DU/AC (80 DU/7.3 AC)

6. EXISTING GENERAL PLAN DESIGNATION: R7

7. EXISTING/PROPOSED ZONING: R7 (7-14 DU/AC)

8. PRESENT LAND USE: VACANT

9. PROPOSED LAND USE: RESIDENTIAL

10. SETBACKS:
    FRONT: 20 FT
    INTERIOR SIDE: 10 FT
    EXTERIOR SIDE: 10 FT
    REAR: 10 FT

11. PRIVATE OPEN SPACE
    REQUIRED: 100 SF/DU X 80 DU = 8,000 SF
    PROVIDED: 30,600 SF

12. COMMON OPEN SPACE
    REQUIRED: 150 SF/DU X 80 DU = 12,000 SF
    PROVIDED: 17,000 SF (PARK = 10,600 SF)

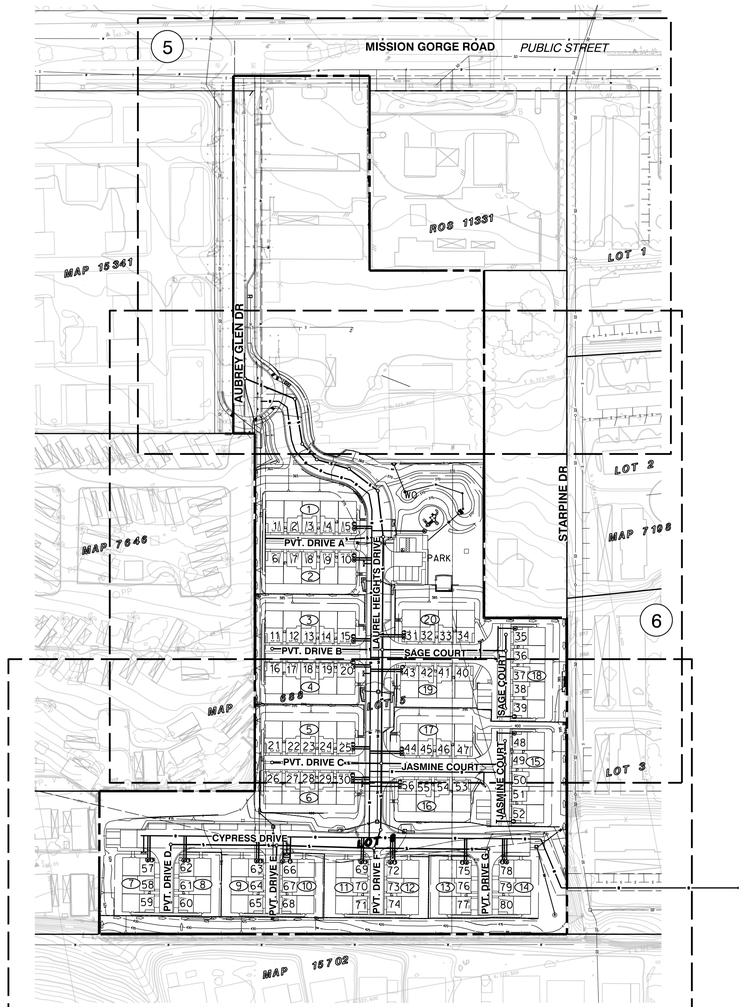
13. PARKING
    RESIDENTAIL PARKING (GARAGE)
    REQUIRED: 2 SPACES / DU X 80 DU'S = 160 SPACES
    PROVIDED: 160 SPACES
    GUEST PARKING:
    REQUIRED: 1 SPACE / 4 DU'S = 20 SPACES
    PROVIDED: 27 SPACES
    PARK PARKING
    REQUIRED:
    PROVIDED: 4 SPACES + 1 ADA SPACE

14. LOT COVERAGE

    NET AREA: 7.3 AC (318,498 SF)
    (DEVELOPED LOT)

    BUILDING FOOTPRINT:
    3-PLEX (3,412.5 SF) X 8: 27,300 SF
    4-PLEX (4,552.5 SF) X 4: 18,210 SF
    5-PLEX (5,692.5 SF) X 8: 45,540 SF
    TOTAL BUILDING FOOTPRINT: 91,050 SF

    LOT COVERAGE: (91,050/318,498) = 28.6% < 55% MAX.



SITE MAP

100 50 0 100 200 300

GRAPHIC SCALE 1" = 100'

CONDOMINIUM STATEMENT

THIS IS A MAP OF A RESIDENTIAL CONDOMINIUM PROJECT AS DEFINED IN SECTION 4125 OF THE STATE OF CALIFORNIA CIVIL CODE.

PARK IN-LIEU FEE STATEMENT:

THE APPLICANT SHALL PAY FEES IN LIEU OF DEDICATING LAND FOR PARK AND/OR RECREATION PURPOSES.

EARTHWORK/GRADING QUANTITIES

CUT: 49,000 FILL: 23,000 EXPORT: 26,000

QUANTITIES SHOWN ARE QUANTITIES AND DO NOT INCLUDE THE EFFECT OF REMEDIAL GRADING. THE RAW NUMBERS HAVE NOT BEEN ADJUSTED FOR SHRINKAGE OR BULKAGE.

EXISTING LAND USE DESIGNATION

R2: LOW/MEDIUM DENSITY RESIDENTIAL (2-5 DU/AC.)

R7: MEDIUM DENSITY RESIDENTIAL (7-14 DU/AC.)

R14: MEDIUM/HIGH DENSITY RESIDENTIAL (14-22 DU/AC.)

GC GENERAL COMMERCIAL

NOTE

THERE IS A POTENTIAL FOR ASBESTOS-CONTAINING BUILDING MATERIALS AND OR LEAD-BASED PAINT. FURTHER TESTING IS REQUIRED PRIOR TO RENOVATION OR DEMOLITION.

GENERAL NOTES

1. ASSESSORS PARCEL NUMBERS: 386-300-29, 386-300-13, AND 386-300-31
2. PUBLIC WATER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE WATER AGENCY STANDARDS (WAS). PRIVATE SEWER SYSTEM TO BE MAINTAINED BY THE HOA.
3. SPECIFIC METHODS OF HANDLING STORM DRAINAGE ARE SUBJECT TO DETAILED APPROVAL BY THE CITY ENGINEER AT THE TIME OF SUBMISSION OF IMPROVEMENT AND GRADING PLANS. DESIGN SHALL BE ACCOMPLISHED ON THE BASIS OF THE REQUIREMENTS OF THE SUBDIVISION MANUAL. DRAINAGE EASEMENTS SHALL BE PROVIDED AS REQUIRED BY THE CITY ENGINEER.
4. PRIVATE SEWER MAINS ARE 8" MINIMUM P.V.C. UNLESS OTHERWISE SHOWN.
5. EVIDENCE SHALL BE PROVIDED OF HAVING OBTAINED GRADING RIGHTS ON ADJACENT PROPERTY WHERE REQUIRED.
6. UTILITIES SHALL BE UNDERGROUND. EASEMENTS TO BE PROVIDED AS NECESSARY.
7. FIRE HYDRANTS TO BE INSTALLED IN ACCORDANCE WITH THE CITY OF SANTEE FIRE DEPARTMENT DESIGN STANDARDS.
8. GRADING MAY BE BUILT PRIOR TO FINAL MAP RECORDATION.
9. GRADING SHOWN HEREON IS PRELIMINARY AND SUBJECT TO MODIFICATION IN FINAL DESIGN SUBJECT TO SUBSTANTIAL CONFORMANCE APPROVAL BY THE CITY OF SANTEE.
10. STORM DRAIN AND SEWER SHOWN IS PRELIMINARY AND IS SUBJECT TO MODIFICATION WITH FINAL DESIGN.
11. TEMPORARY AND PERMANENT STRUCTURAL BEST MANAGEMENT PRACTICES WILL BE INCORPORATED IN THE DESIGN AND IMPLEMENTATION OF THE DEVELOPMENT.
12. GRADING REQUESTED TO BEGIN PRIOR TO FINAL MAP RECORDATION.
13-. TRASH COLLECTION TO BE CURB SIDE.

LEGAL DESCRIPTION

PARCEL 1: APN: 386-300-29

ALL THOSE PORTIONS OF LOTS 5 AND 8 IN BLOCK "F", REVISED MAP OF PART OF FANITA RANCHO, ACCORDING TO MAP THEREOF NO. 688, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, OCTOBER 22, 1891, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT 5; THENCE SOUTH 79° 30' EAST ALONG THE NORTHERLY LINE OF SAID LOT A DISTANCE OF 160.50 FEET; THENCE SOUTH 10° 30' WEST PARALLEL WITH THE EASTERLY LINE OF SAID LOT A DISTANCE OF 272.25 FEET; THENCE SOUTH 79° 30' EAST PARALLEL WITH THE NORTHERLY LINE OF SAID LOT A DISTANCE OF 160 FEET; THENCE SOUTH 10° 30' WEST PARALLEL WITH SAID EASTERLY LINE, 271 FEET TO THE TRUE POINT OF BEGINNING; THENCE CONTINUING PARALLEL WITH SAID EASTERLY LINE, SOUTH 10° 30' WEST 214.31 FEET; THENCE SOUTH 79° 30' EAST 115 FEET TO SAID EASTERLY LINE; THENCE SOUTH 10° 30' WEST ALONG SAID EASTERLY LINE OF LOT 5 AND ALONG THE SOUTHERLY PROLONGATION THEREOF A DISTANCE OF 442.44 FEET TO A POINT SOUTH 10° 30' WEST 200 FEET FROM THE SOUTHEASTERLY CORNER OF SAID LOT 5; THENCE NORTH 79° 30' WEST PARALLEL WITH THE COMMON LINE BETWEEN SAID LOTS 5 AND 8 A DISTANCE OF 350.50 FEET TO THE MOST SOUTHEASTERLY CORNER OF LAND DESCRIBED IN DEED TO DONNA HOPKINS SEEWALD, RECORDED APRIL 22, 1960AS DOCUMENT NO. 83969 OF OFFICIAL RECORDS; THENCE AT RIGHT ANGLES AND ALONG THE BOUNDARY OF SAID SEEWALD LAND, NORTH 10° 30' EAST 100 FEET; THENCE AT RIGHT ANGLES NORTH 79° 30' WEST 85 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE WESTERLY LINE OF SAID LOT 5; THENCE NORTH 10° 30' EAST ALONG SAID SOUTHERLY PROLONGATION, 100 FEET TO THE SOUTHWESTERLY CORNER OF SAID LOT 5; THENCE LEAVING THE BOUNDARY OF SAID SEEWALD LAND AND CONTINUING NORTH 10° 30' EAST ALONG THE WESTERLY LINE OF SAID LOT A DISTANCE OF 456.75 FEET TO A LINE BEARING NORTH 79° 30' WEST FROM THE TRUE POINT OF BEGINNING; THENCE SOUTH 79° 30' EAST PARALLEL WITH SAID NORTHERLY LINE OF LOT 5 A DISTANCE OF 320.50 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 2: APN: 386-300-13

ALL THAT PORTION OF LOT 8 IN BLOCK "F" OF THE REVISED MAP OF THAT PART OF FANITA RANCHO, ACCORDING TO MAP THEREOF NO. 688, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, OCTOBER 22, 1891, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF LOT 5, IN SAID BLOCK "F", BEING ON THE NORTHERLY LINE OF SAID LOT 8; THENCE NORTH 79° 30' WEST, ALONG SAID NORTHERLY LINE OF LOT 8, A DISTANCE OF 217.5 FEET; THENCE SOUTH 10° 30' WEST, AT RIGHT ANGLES, 200 FEET; THENCE SOUTH 79° 30' EAST PARALLEL WITH SAID NORTHERLY LINE OF LOT 8, A DISTANCE OF 302.5 FEET; THENCE NORTH 10° 30' EAST, 100 FEET; THENCE NORTH 79° 30' WEST, 85 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE WESTERLY LINE OF SAID LOT 5; THENCE NORTH 10° 30' EAST, ALONG SAID SOUTHERLY PROLONGATION, 100 FEET TO THE POINT OF BEGINNING.

ALL THAT PORTION OF LOT 5 IN BLOCK 'F', OF THE REVISED MAP OF PART OF FANITA RANCHO, ACCORDING TO THE MAP THEREOF NO. 688, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, OCTOBER 22, 1891, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWESTERLY CORNER OF SAID LOT 5; THENCE SOUTH 79° 30' EAST ALONG THE NORTHERLY LINE OF SAID LOT A DISTANCE OF 160.50 FEET; THENCE SOUTH 10° 30' WEST PARALLEL WITH THE EASTERLY LINE OF SAID LOT A DISTANCE OF 272.25 FEET; THENCE SOUTH 79° 30' EAST PARALLEL WITH THE NORTHERLY LINE OF SAID LOT A DISTANCE OF 160 FEET; THENCE SOUTH 10° 30' WEST PARALLEL WITH SAID EASTERLY LINE, 271 FEET; THENCE NORTH 79° 30' WEST PARRALLEL WITH SAID NORTHERLY LOT LINE, 320.50 FEET TO A POINT IN THE WESTERLY LINE OF SAID LOT 5; THENCE NORTH 10° 30' EAST ALONG SAID WESTERLY LINE 543.25 FEET TO SAID NORTHWESTERLY CORNER OF SAID LOT AND THE POINT OF BEGINNING.

TOGETHER WITH:

THE EASTERLY 30 FEET OF THE NORTHERLY ONE-HALF OF LOT 4 IN BLOCK 'F' OF THE REVISED MAP OF PART OF FANITA RANCHO, ACCORDING TO MAP THEREOF NO. 688 FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON OCTOBER 22, 1891.

PUBLIC UTILITIES

WATER (PUBLIC)	PADRE DAM MUNICIPAL DISTRICT
STORM DRAIN (PRIVATE)	CITY OF SANTEE
GAS & ELECTRIC	SDG&E
CABLE T.V.	COX CABLE
POLICE & FIRE	CITY OF SANTEE
SCHOOL DISTRICT	GROSSMONT UNION HIGH SCHOOL DISRICT SANTEE ELEMENTARY SCHOOL DISTRICT
SEWER (PRIVATE)	PADRE DAM MUNICIPAL WATER DISTRICT

THE CHARLES R. GRANT FAMILY TRUST CONSENTS TO THE SUBMISSION OF THIS TENTATIVE MAP BY CORNERSTONE COMMUNITIES.

JEAN DALY DATE

ENGINEER OF WORK

RICK ENGINEERING CO.
5620 FRIARS RD
SAN DIEGO, CA 92110
PH. (619) 291-0707

KAREN S. VAN ERT DATE
R.C.E. NO. 56991
EXP. 6-30-2021

OWNER/SUBDIVIDER

CORNERSTONE COMMUNITIES
4365 EXECUTIVE DR, SUITE 600
SAN DIEGO, CA 92121
(858) 458-9700

URE KRETOWICZ DATE

TOPOGRAPHY

TOPO SOURCE: TOPO SOURCE RICK ENGINEERING COMPANY
FLOWN: JULY 26, 2019
DATUM: NGVD 29

BENCHMARK: THE BENCHMARK FOR THIS SURVEY IS THE BRASS DISK IN WELL MONUMENT, NO STAMPING, AT THE CENTERLINE INTERSECTION OF MISSION GORGE ROAD AND FANITA DRIVE, PER ROS 11252. ELEVATION = 331.37, NGVD 29 DATUM

BASIS OR BEARINGS: THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM ZONE 6, EPOCH 1991.35 AND IS DETERMINED BY RTK G.P.S. MEASUREMENTS TAKEN ON JULY 25, 2019 AT POINT #1002 AND POINT #2003 AS SHOWN HEREON, PER RECORD OF SURVEY MAP No 11252.

BEARING AND DISTANCE #1002 TO #2003: N 79°37'38"W 1356.91' GRID

QUOTED BEARINGS FROM REFERENCE MAPS/DEEDS MAY OR MAY NOT BE IN TERMS OF SAID SYSTEM.

SHEET INDEX

SHEET 1	TITLE
SHEET 2	KEY MAP, DETAILS & STREET SECTIONS
SHEET 3	EXISTING TOPO
SHEET 4	BOUNDRY & ENCUMBRANCES
SHEET 5	SITE NORTH TO MISSION GORGE ROAD (NOT A PART)
SHEET 6	SITE NORTH
SHEET 7	SITE SOUTH
SHEET 8	FIRE ACCESS EXHIBIT

REGISTERED PROFESSIONAL ENGINEER
KAREN S. VAN ERT
No. 56991
CIVIL
STATE OF CALIFORNIA

NO.	REVISIONS	DATE	BY
1	1ST TM SUBMITTAL	09/18/20	REC
2	2ND TM SUBMITTAL	01/14/21	REC
3	3RD TM SUBMITTAL	03/11/21	REC

TM NO. 2020-02/DR 2020-04
LAUREL HEIGHTS SITE
City of Santee, California

1 OF 8

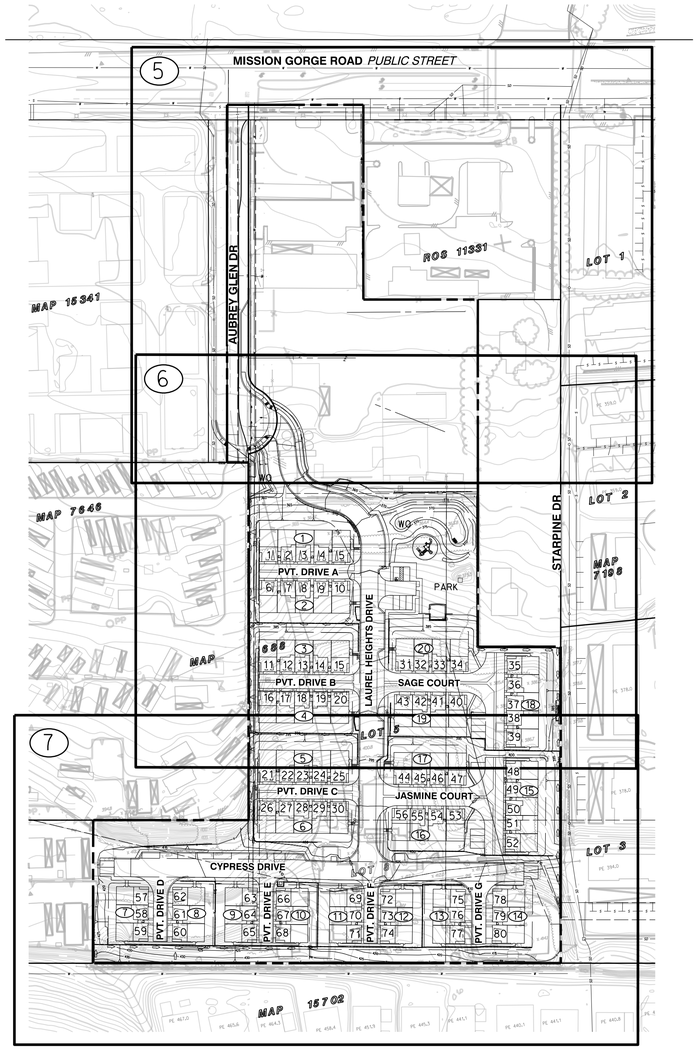
RICK ENGINEERING COMPANY
San Diego
5620 FRIARS ROAD
SAN DIEGO, CA 92110
619.291-0707
(FAX) 619-291-4165
rickengineering.com
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J-19137A

NOT TO SCALE

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14-JAN-2021 15:26



KEY MAP

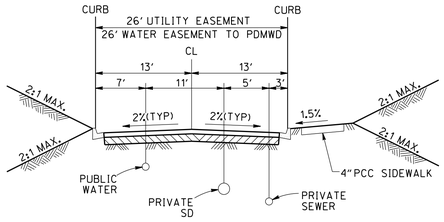
100 50 0 100 200 300

GRAPHIC SCALE 1" = 100'

KEY MAP LEGEND

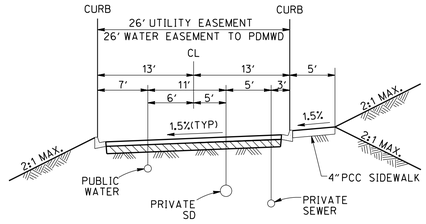
KEY MAP: SHEET

KEY MAP: SHEET NUMBER (3)



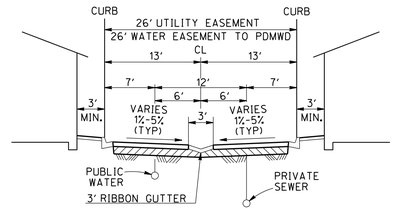
LAUREL HEIGHTS DRIVE (PRIVATE ROAD)

(NO PARKING)
NOT TO SCALE



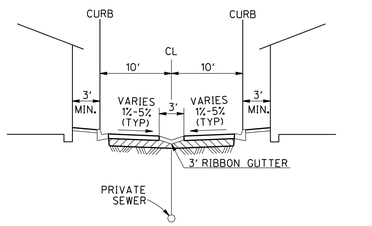
CYPRESS DRIVE (PRIVATE ROAD)

NOT TO SCALE



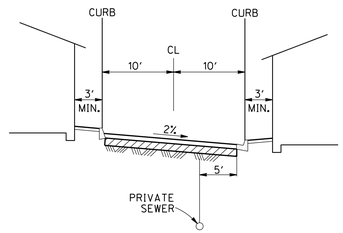
SAGE COURT AND JASMINE COURT (PRIVATE DRIVEWAYS)

NOT TO SCALE



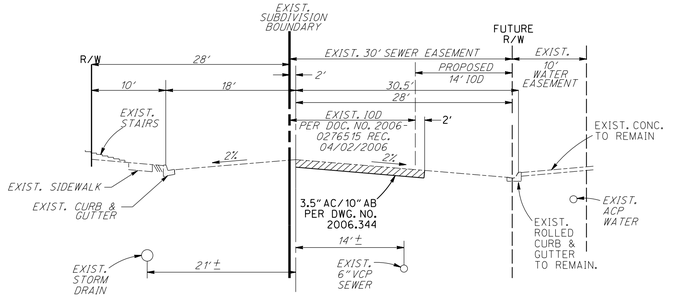
PRIVATE DRIVEWAYS (A THRU C)

NOT TO SCALE



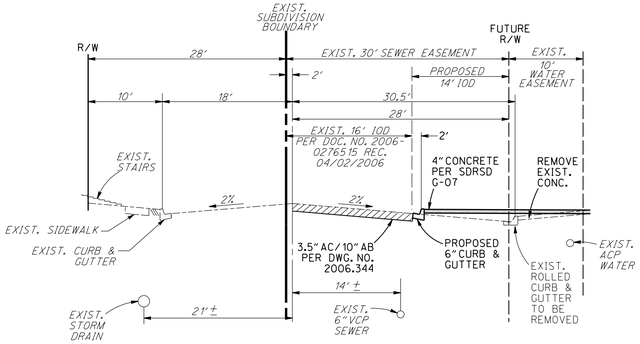
PRIVATE DRIVEWAYS (D THRU G)

NOT TO SCALE



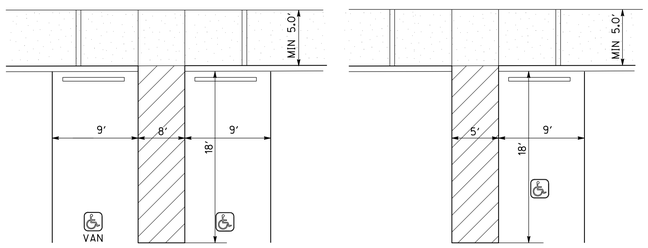
EXIST. AUBREY GLEN DRIVE

NOT TO SCALE



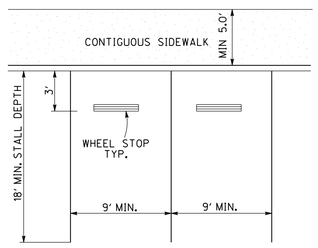
AUBREY GLEN DRIVE AT PROPOSED 6" CURB & GUTTER

NOT TO SCALE



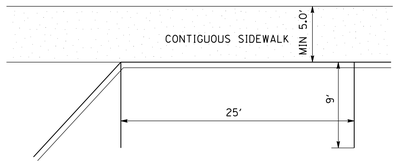
DISABLED PARKING STALL(S)

NO SCALE



TYPICAL PARKING STALL FOR PARK SITE

NO SCALE



PARALLEL PARKING STALL(S)

NO SCALE

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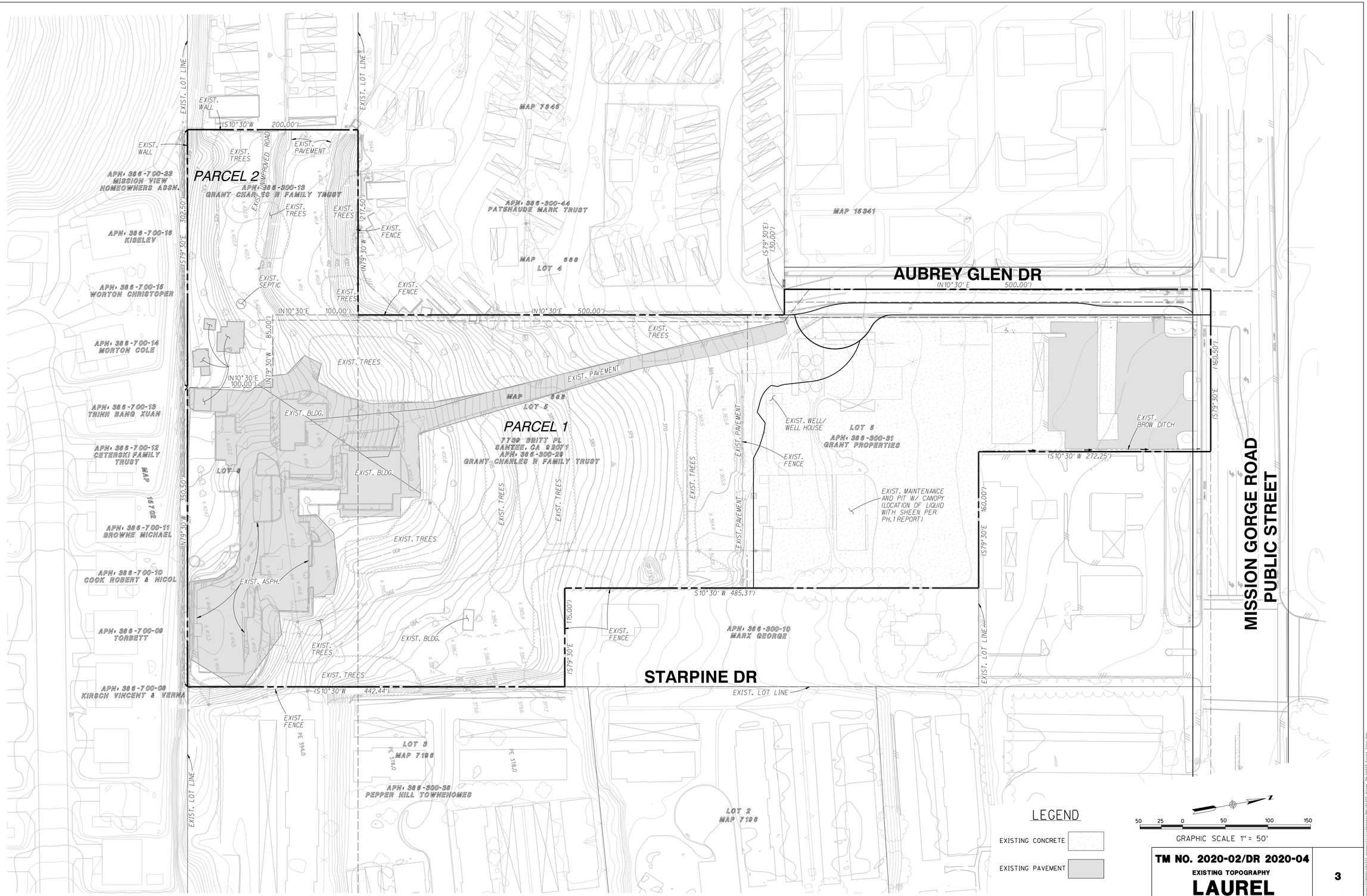
KEY MAP/DETAILS/STREET SECTIONS

LAUREL HEIGHTS

City of Santee, California

2 OF 8

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14-APR-2021 10:26



LEGEND

EXISTING CONCRETE

EXISTING PAVEMENT

50 25 0 50 100 150

GRAPHIC SCALE 1" = 50'

TM NO. 2020-02/DR 2020-04

EXISTING TOPOGRAPHY

LAUREL HEIGHTS

City of Santee, California

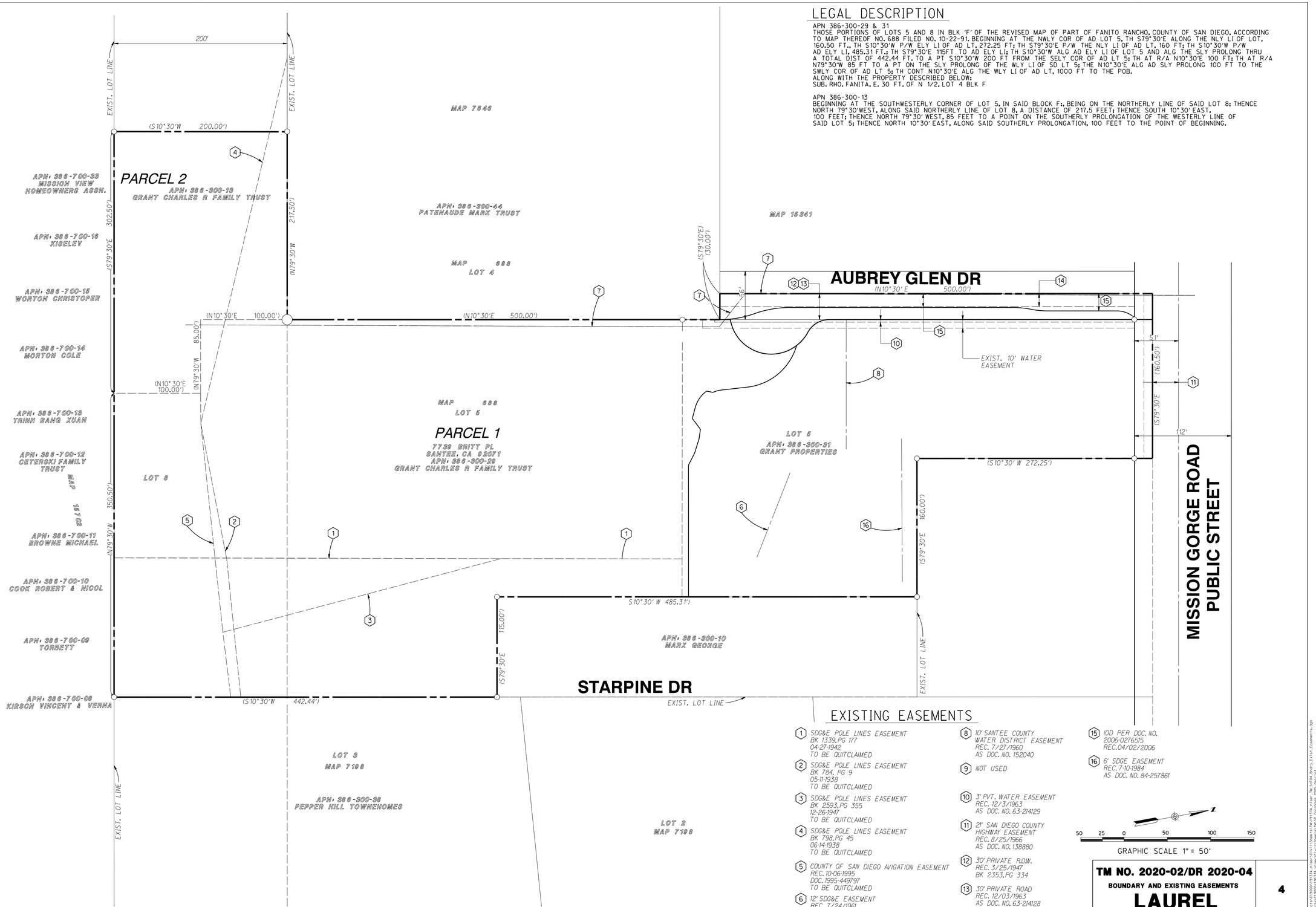
3 OF 8

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J-19137A

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Tue, 14 Dec 2021 - 15:26



LEGAL DESCRIPTION

APN 386-300-29 & 31
THOSE PORTIONS OF LOTS 5 AND 8 IN BLK 'F' OF THE REVISED MAP OF PART OF FANITO RANCHO, COUNTY OF SAN DIEGO, ACCORDING TO MAP THEREOF NO. 688 FILED NO. 10-22-91. BEGINNING AT THE NWLY COR OF AD LOT 5, TH S79°30'E ALONG THE NLY LI OF LOT, 160.50 FT., TH S10°30'W P/W ELY LI OF AD LT, 272.25 FT; TH S79°30'E P/W THE NLY LI OF AD LT, 160 FT; TH S10°30'W P/W AD ELY LI, 485.31 FT.; TH S79°30'E 115FT TO AD ELY LI; TH S10°30'W ALG AD ELY LI OF LOT 5 AND ALG THE SLY PROLONG THRU A TOTAL DIST OF 442.44 FT. TO A PT S10°30'W 200 FT FROM THE SELY COR OF AD LT 5; TH AT R/A N10°30'E 100 FT; TH AT R/A N79°30'W 85 FT TO A PT ON THE SLY PROLONG OF THE WLY LI OF SD LT 5; THE N10°30'E ALG AD SLY PROLONG 100 FT TO THE SWLY COR OF AD LT 5; TH CONT N10°30'E ALG THE WLY LI OF AD LT, 1000 FT TO THE POB.
ALONG WITH THE PROPERTY DESCRIBED BELOW:
SUB. RHO. FANITA, E. 30 FT. OF N 1/2, LOT 4 BLK F

APN 386-300-13
BEGINNING AT THE SOUTHWESTERLY CORNER OF LOT 5, IN SAID BLOCK F:, BEING ON THE NORTHERLY LINE OF SAID LOT 8; THENCE NORTH 79°30'WEST, ALONG SAID NORTHERLY LINE OF LOT 8, A DISTANCE OF 217.5 FEET; THENCE SOUTH 10°30'EAST, 100 FEET; THENCE NORTH 79°30' WEST, 85 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE WESTERLY LINE OF SAID LOT 5; THENCE NORTH 10°30' EAST, ALONG SAID SOUTHERLY PROLONGATION, 100 FEET TO THE POINT OF BEGINNING.

EXISTING EASEMENTS

1. SDG&E POLE LINES EASEMENT BK 1339,PG 177 04-27-1942 TO BE QUITCLAIMED
2. SDG&E POLE LINES EASEMENT BK 784, PG 9 05-11-1938 TO BE QUITCLAIMED
3. SDG&E POLE LINES EASEMENT BK 2593,PG 355 12-26-1947 TO BE QUITCLAIMED
4. SDG&E POLE LINES EASEMENT BK 798,PG 45 06-14-1938 TO BE QUITCLAIMED
5. COUNTY OF SAN DIEGO AVIGATION EASEMENT REC. 10-06-1995 DOC. 1995-449797 TO BE QUITCLAIMED
6. 12' SDG&E EASEMENT REC. 7/24/1961 AS DOC. NO. 126209
7. 6' SDG&E EASEMENT REC.6/29/1976 AS DOC. NO. 76-202765 TO BE QUITCLAIMED
8. 10' SANTEE COUNTY WATER DISTRICT EASEMENT REC. 7/27/1960 AS DOC. NO. 152040
9. NOT USED
10. 3' PVT. WATER EASEMENT REC. 12/3/1963 AS DOC. NO. 63-214129
11. 21' SAN DIEGO COUNTY HIGHWAY EASEMENT REC. 8/25/1966 AS DOC. NO. 138880
12. 30' PRIVATE R.O.W. REC. 3/25/1947 BK 2353, PG 334
13. 30' PRIVATE ROAD REC. 12/03/1963 AS DOC. NO. 63-214128
14. 15' PRIVATE R.O.W. PER DOC. REC. 10/21/1943 BK. 1580, PG 24
15. IOD PER DOC. NO. 2006-0276515 REC.04/02/2006
16. 6' SDGE EASEMENT REC. 7-10-1984 AS DOC. NO. 84-257861

50 25 0 50 100 150
GRAPHIC SCALE 1" = 50'

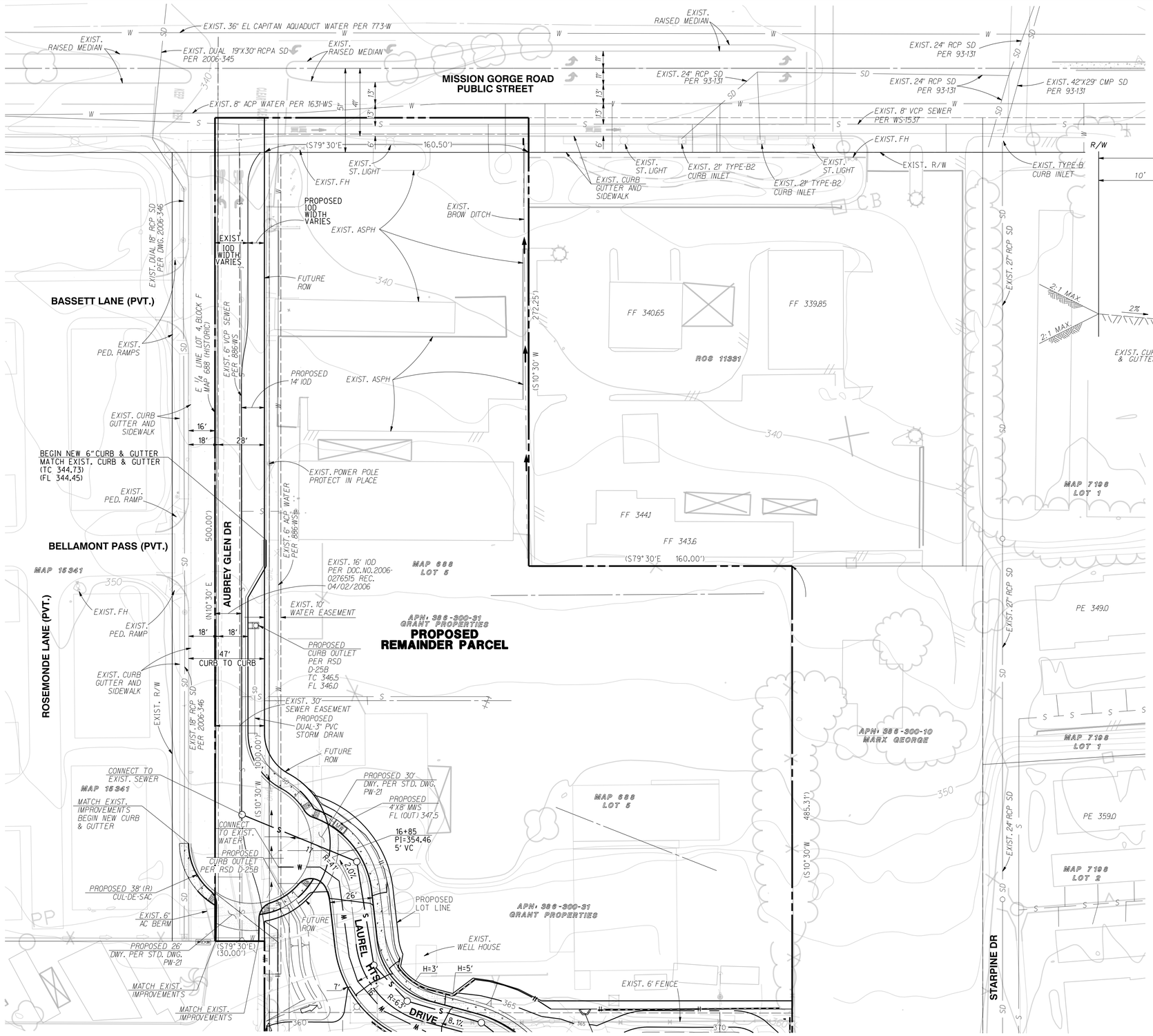
TM NO. 2020-02/DR 2020-04
BOUNDARY AND EXISTING EASEMENTS
LAUREL HEIGHTS
City of Santee, California

4 OF 8

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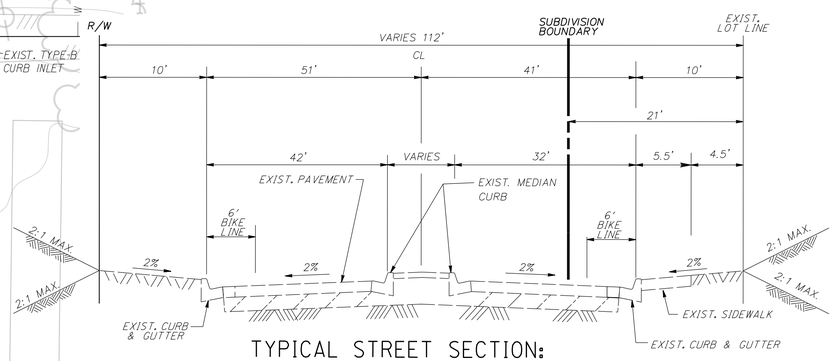
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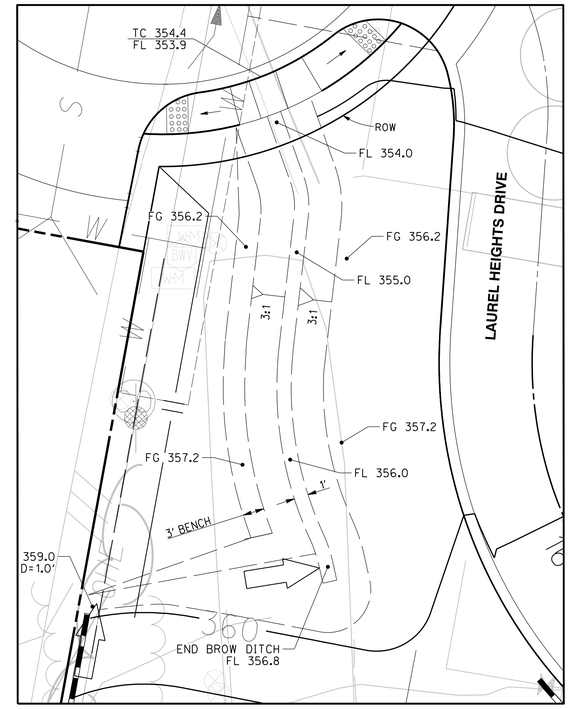
PROPOSED EASEMENTS

[1] WATER EASEMENT TO PDMWD



TYPICAL STREET SECTION: EXIST. MISSION GORGE ROAD

NOT TO SCALE



SWALE DETAIL 'A'

SCALE = 1" = 10'

GRAPHIC SCALE 1" = 30'

30 15 0 30 60 90

TM NO. 2020-02/DR 2020-04

TM N.A.P.

LAUREL HEIGHTS

City of Santee, California

5 OF 8

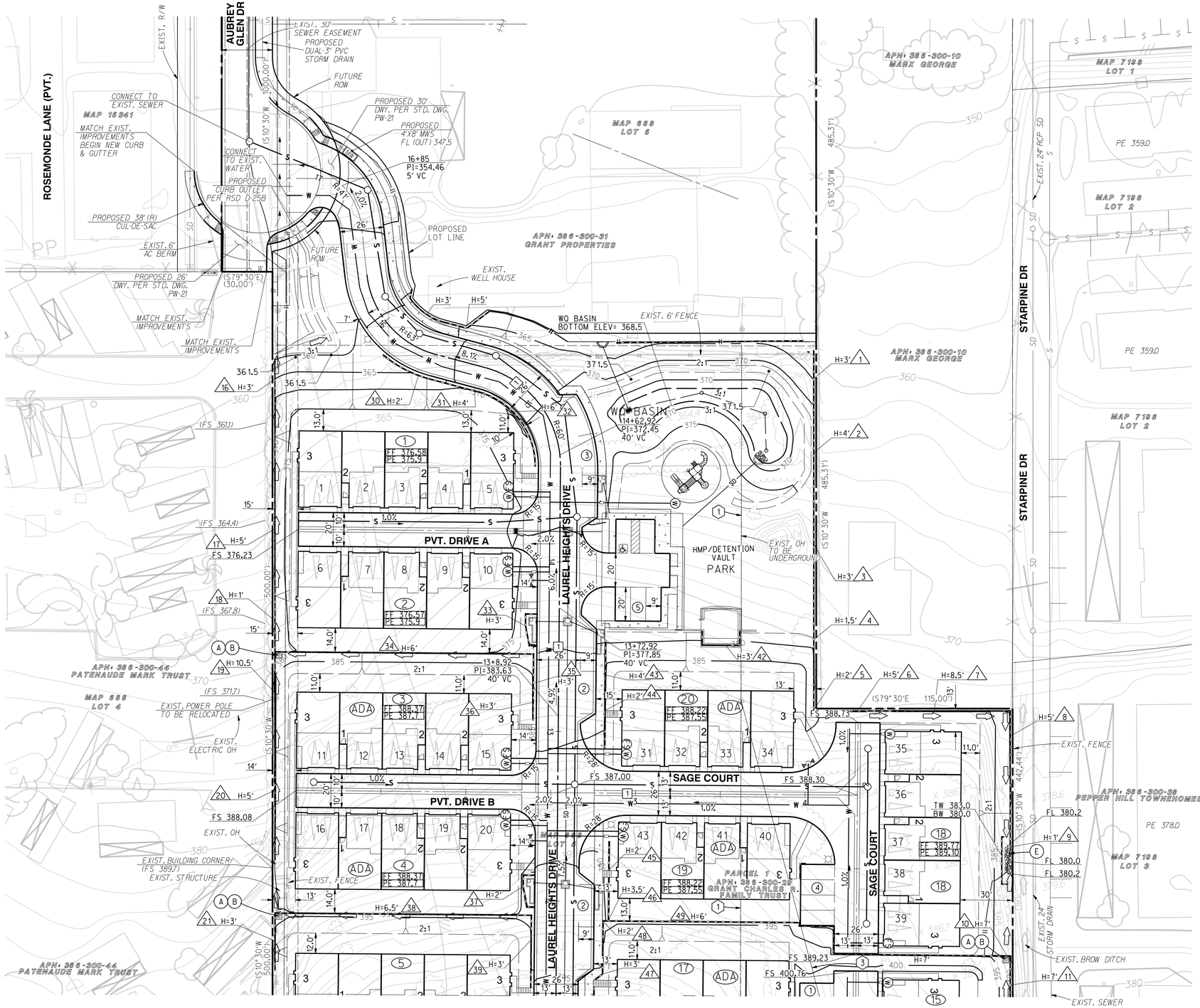
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SEE SHEET 5



SEE SHEET 7

WALL ELEVATION TABLE

XX	TW	BW
1	365.1	362.2
2	371.1	366.9
3	375.7	372.4
4	378.2	376.9
5	383.5	381.6
6	385.6	380.2
7	386.2	377.8
8	380.9	376.7
9	380.7	380.4
10	391.2	384.6
11	392.0	385.3
12	392.0	384.0
13	392.0	387.0
14	398.0	395.0
15	401.0	398.6
16	365.9	363.6
17	372.4	368.2
18	372.6	371.7
19	385.5	375.0
20	385.7	380.8
21	395.0	392.0
22	432.7	417.1
23	425.9	417.1
24	424.5	411.4
25	427.9	412.1
26	423.5	405.4
27	418.7	406.0
28	416.0	405.2
29	414.1	410.5
30	366.5	364.1
31	370.8	366.5
32	376.1	370.6
33	379.0	377.6
34	381.0	375.0
35	385.0	381.6
36	386.0	383.0
37	391.5	390.3
38	393.7	387.1
39	396.0	393.1
40	406.0	398.0
41	404.0	398.0
42	381.5	378.0
43	385.0	381.1
44	386.0	383.5
45	389.5	387.5
46	389.0	387.5
47	398.2	395.2
48	393.0	391.0
49	393.5	387.5
50	402.5	398.6
51	406.7	401.0
52	406.0	400.0
53	415.4	411.4
54	416.5	411.4
55	411.5	409.5
56	411.2	408.0
57	411.2	405.3
58	407.0	405.0
59	410.1	405.1
60	408.6	405.1
61	403.0	398.0

EXISTING EASEMENTS

(1) SDG&E POLE LINES EASEMENT
BK 1339, PG 177
04-27-1942
TO BE QUITCLAIMED

(3) SDG&E POLE LINES EASEMENT
BK 2593, PG 355
12-26-1947
TO BE QUITCLAIMED

PROPOSED EASEMENTS

[1] WATER EASEMENT TO PDMWD

CONSTRUCTION NOTES

(A) PIPE TO DITCH CONNECTION

(B) INSTALL TYPE-F CATCH BASIN PER RSD D-07

(C) INSTALL CURB OUTLET PER RSD D-25B

(E) 15' X 5' RIP-RAP PAD PER RSD D-40

GRAPHIC SCALE 1" = 30'

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TM NO. 2020-02/DR 2020-04
TM NORTH SITE
LAUREL HEIGHTS
City of Santee, California

6 OF 8

\\rick-fs1\Shared\Projects\19000\19137A_Jan\Land Dev\Civil\Sheets\19137A_Jan Sheet 06_Site Plan_North.dgn
Plotted: 14-APR-2021 15:26 By: Jan Lee
Xrefs: 19137A_Jan Sheet 01_Cover.dgn 19137A_Jan Sheet 02_Notes.dgn 19137A_Jan Sheet 03_Site Plan_South.dgn 19137A_Jan Sheet 04_Grading Plan_North.dgn 19137A_Jan Sheet 05_Grading Plan_South.dgn 19137A_Jan Sheet 07_Utility Plan_South.dgn

SEE SHEET 6

EXISTING EASEMENTS

1. SDG&E POLE LINES EASEMENT BK 1339, PG 177 04-27-1942 TO BE QUITCLAIMED
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5. COUNTY OF SAN DIEGO AVIGATION EASEMENT REC. 10-06-1995 DOC. 1995-449797 TO BE QUITCLAIMED

PROPOSED EASEMENTS

1. WATER EASEMENT TO PDMWD

WALL ELEVATION TABLE

FOR WALL ELEVATION TABLE SEE SHEET 6

CONSTRUCTION NOTES

- (A) PIPE TO DITCH CONNECTION
- (B) INSTALL TYPE-F CATCH BASIN PER RSD D-07
- (C) INSTALL CURB OUTLET PER RSD D-25B
- (D) 8' X 8' MODULAR WETLAND SYSTEM

GRAPHIC SCALE 1" = 30'

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TM NO. 2020-02/DR 2020-04

TM SOUTH SITE

LAUREL HEIGHTS

City of Santee, California

7 OF 8

FIRE LANE NOTE

1) FIRE LANE(S) SHALL BE IDENTIFIED BY PAINTING CURBS RED WITH WHITE-STENCILED LETTERS INDICATING "NO PARKING - FIRE LANE" EVERY 30 FEET ALONG PORTIONS OF THE FIRE LANE. RED STRIPES WITH WHITE STENCILED LETTERS SHALL BE PAINTED ON THE CURB OR ASPHALT IN FRONT OF GARAGES ALONG FIRE LANES AS WELL. SIGNS INDICATING THE SAME CAN BE INSTALLED IN-LIEU OF PAINTING CURBS RED. SIGNS SHALL BE PLACED EVERY 75 FEET (OR OTHER APPROVED SPACING), PLACED IN BETWEEN THE CURB STENCILING. EXACT PLACEMENT SHALL BE APPROVED BY THE FIRE CODE OFFICIAL PRIOR TO INSTALLATION.

LEGEND

FIRE ACCESS

MAP 15341

MAP 7646

LOT 4

APN: 386-300-44
PATENAUDE MARK TRUST

MAP 666

APN: 386-700-33
MISSION VIEW
HOMEOWNERS ASSN.

APN: 386-700-16
KISELEV

APN: 386-700-15
WORTON CHRISTOPER

APN: 386-700-14
WORTON COLE

MAP 15702

APN: 386-700-13
TRINH BANG XUAN

APN: 386-700-12
CETERSKI FAMILY
TRUST

APN: 386-700-11
BROWNE MICHAEL

APN: 386-700-10
COOK ROBERT & NICOL

APN: 386-700-09
TORBETT

APN: 386-700-08
KIRSCH VINCENT & VERNA

EXIST. LOT LINE

AUBREY GLEN DR

LOT 5
APN: 386-300-31
GRANT PROPERTIES

BASKETBALL

PARK

APN: 386-300-10
MARX GEORGE

STARPINE DR

EXIST. LOT LINE

EXIST. LOT LINE

MISSION GORGE ROAD
PUBLIC STREET

ROS 11331

LOT 3
MAP 7198

APN: 386-300-38
PEPPER HILL TOWNHOMES

LOT 3

MAP 7198

LOT 2
LOT 2
MAP 7198

LOT 1

50 25 0 50 100 150

GRAPHIC SCALE 1" = 50'

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FIRE ACCESS EXHIBIT

LAUREL HEIGHTS

City of Santee, California

8 OF 8

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