04-SCL-101
PM 48.7/52.0
EA 4A3301

US 101 Auxiliary Lanes Project
Santa Clara County, California
EA 4A3301
May 2011

Storm Water Information Handout

Prepared for:

Prepared by:

May 2011

This page is intentionally left blank.

Table of Contents

Figures

Tables

Appendices

Disclaimer

A "Disclaimer" is required specifying that the information provided in the Storm Water Information Handout is just a guideline and is to be used for information purposes only and should not be considered a sole source document to adhere to the requirements of the new National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP), Number CAS000002, adopted on September 2, 2009. The contractor is required to provide water quality monitoring, sampling and implement best management practices (BMPs) based on standard industry operations, field conditions and conditions encountered based on the contractor's means and methods. The information in this handout is not to be construed in any way as a waiver of the provisions in the CGP. Bidders and contractors are cautioned to make independent investigations and examinations as they deem necessary to satisfy the conditions encountered in performance of work, with respect to the following: sampling and monitoring locations, distribution of watershed areas for sizing of BMPs, and selection of BMPs in order to conform to the requirement of the contract documents and the CGP.

1 OVERVIEW

1.1 Intent of this Document

The objectives of this Water Quality Information Handout are: to summarize general water quality information of the Project; to summarize updated requirements per the new Construction General Permit (CGP), which became effective as of July 1, 2010; to provide general guidelines for contractors to bid on the project; to aid in developing the Storm Water Pollution Prevention Plan (SWPPP) of the project; and to highlight information necessary to file Project Registration Documents (PRDs) to the State Water Resources Control Board via the Stormwater Multi Application Reporting and Tracking System (SMARTS) and file the Notice of Intent at the start of construction.

1.2 Summary of New Requirements

The "National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities" (NPDES Number CAS000002), or CGP, regulates discharges from construction activities within the Project area.

The CGP is based on a risk level (RL) permitting approach. The RL is calculated by 1) project sediment risk and 2) receiving water risk. See the risk assessment calculations in Section 0 of this document for details.

A risk assessment was done for the **US 101 Auxiliary Lanes Project (EA 04-4A3301)**, and the Project was determined to be **RL 2.**

RL 2 projects will be subject to monitoring and sampling requirements, plus Numeric Action Levels (NALs) for pH and turbidity. All projects will have to upload storm water data into SMARTS, such as Notices of Intent (NOIs), SWPPPs, annual reports, and monitoring data.

2 GENERAL PROJECT INFORMATION

2.1 Location

The Project is located on U.S. 101 in the cities of Mountain View and Palo Alto, Santa Clara County, California. The Project limits extend from State Route (SR) 85 in the south to Embarcadero Road in the north, a distance of approximately 3.2 miles (mi).

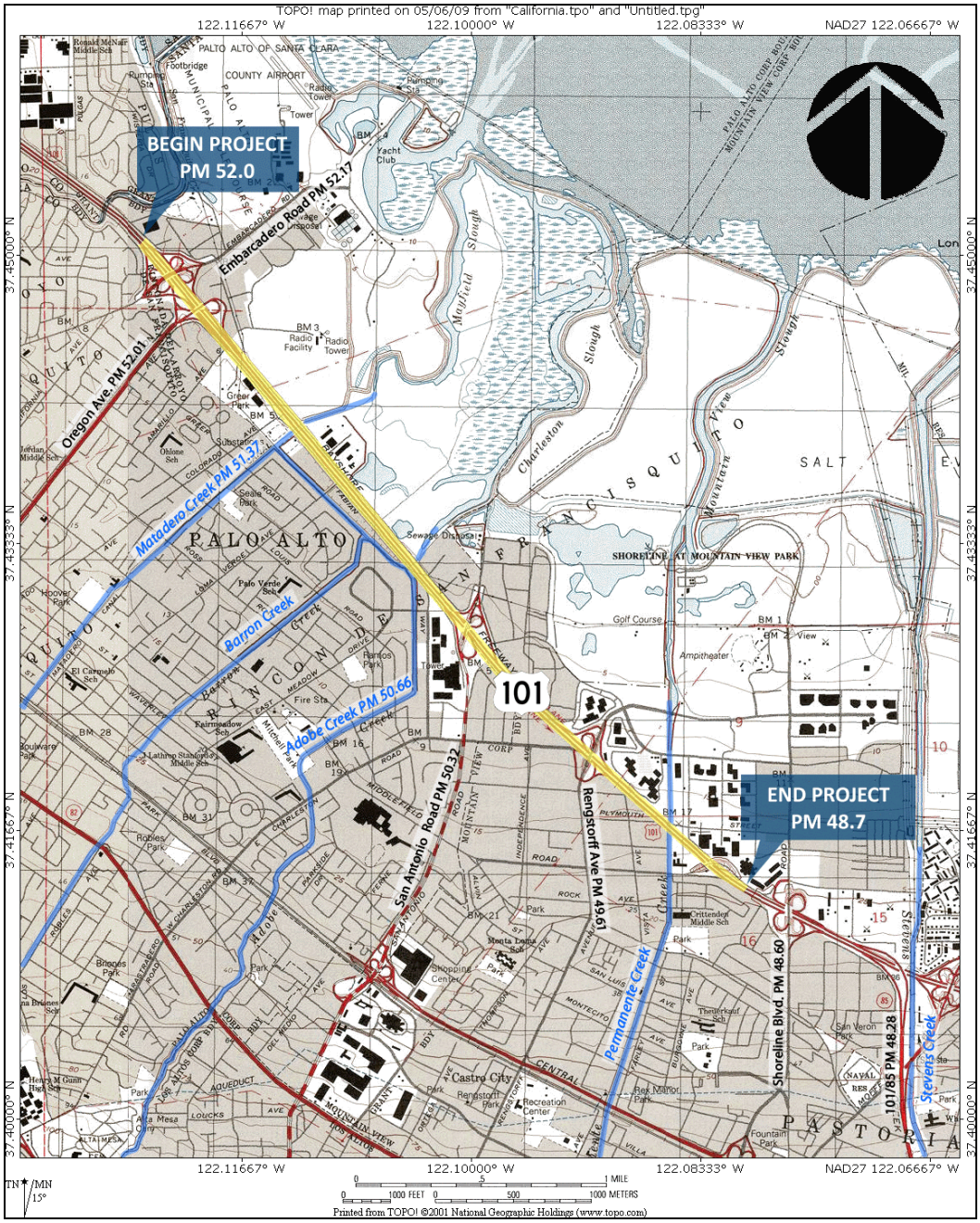


Figure 1. Project Vicinity Map

Source: USGS

2.2 Major Engineering Features

The Project will construct auxiliary lanes in the northbound direction of U.S. 101 between Shoreline Boulevard and Oregon Expressway. In the southbound direction, an auxiliary lane will be constructed between Oregon Expressway and San Antonio Road. The auxiliary lanes will require the widening of the existing U.S. 101 crossings over Permanente Creek, Adobe Creek, and Matadero Creek.

2.3 Receiving Water Bodies

The Project is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). The Project is located within the Palo Alto Hydrologic Area, Sub-Area 205.5. The Project area discharges directly to multiple wetlands and the following water bodies crossings:

Table 1. Receiving Water Bodies Locations

Receiving Water Body	Receiving Water Body or Wetland Location	
	Station	PM
Matadero Creek	72+00	51.37
Adobe Creek	109+80	50.66
Permanente Creek	187+50	49.19

The ultimate receiving water body for the Project is the San Francisco Bay; the SFBRWQCB refers to this area as San Francisco Bay South. The distance from the Project to San Francisco Bay South varies from approximately 2.5 mi north at the U.S. 101/SR 85 interchange to approximately 1 mi northeast at the U.S. 101/Embarcadero Road interchange.

Beneficial uses for the Project water bodies include:

- Matadero Creek
  - Existing Beneficial Uses: Cold Freshwater Habitat (COLD), Fish Migration (MIGR), Fish Spawning (SPWN), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), and Non Contact Recreation (REC-2)

- Permanente Creek
  - Existing Beneficial Uses: COLD, SPWN, WILD, REC-1, and REC-2

- San Francisco Bay South in Santa Clara County
  - Existing Beneficial Uses: Industrial Service Supply (IND), Sport Fishing (COMM), Shellfish Harvesting (SHELL) Estuarine Habitat (EST), MIGR, Ocean, Commercial, and, Preservation of Rare and Endangered Species (RARE), Wildlife Habitat (WILD), REC-1, REC-2 and Navigation (NAV) Potential Beneficial Uses: SPWN

The *2006 CWA Section 303(d) List of Water Quality Limited Segments,* (United States Environmental Protection Agency [EPA], Approval Date: June 28, 2007), lists Matadero Creek, Permanente Creek, and San Francisco Bay South as impaired water bodies.

Table 2. 303(d) List Summary

Receiving Water Body	303(d) Listed Pollutant	Potential Source	TMDL Completion Date
Matadero Creek	Diazinon	Urban Runoff/Storm Sewers	2007
Permanente Creek	Diazinon	Urban Runoff/Storm Sewers	2007
San Francisco Bay South	Chlordane	Nonpoint Source	2008
	DDT	Nonpoint Source	2008
	Dieldrin	Nonpoint Source	2008
	Dioxin Compounds	Atmospheric Deposition	2019
	Exotic Species	Ballast Water	2019
	Furan Compounds	Atmospheric Deposition	2019
	Mercury	Atmospheric Deposition, Industrial Point Sources, Municipal Point Sources, Natural Sources, Nonpoint Sources, Resource Extraction	2006
	PCBs	Unknown Nonpoint Source	2006
	PCBs (dioxin like)	Unknown Nonpoint Source	2019
	Selenium	Agriculture, Domestic use of ground water	2019

2.4 Climate and Rainfall

A National Oceanic and Atmospheric Administration (NOAA) weather station located in Palo Alto, approximately 2 miles northwest of the Project site, was used to obtain precipitation data (Figure 2).

Rainy days per year (assumed equal to precipitation 0.10 inches or greater): 36.1 days

Qualifying rain events per year (precipitation 0.5 inches or greater): 9.7 days

.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: PALO ALTO, CA **COOP ID: 046646**

Climate Division: CA 4 **NWS Call Sign:** **Elevation: 25 Feet** **Lat: 37°27N** **Lon: 122°08W**

Precipitation (inches)

	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount									
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution									
Month	Mean	Median	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	3.24	3.09	2.60	1982	5	7.91	1995	.28+	1991	10.9	6.8	2.0	.6	.28	.51	.94	1.39	1.88	2.44	3.11	3.94	5.10	7.02	8.91
Feb	3.18	2.45	3.75	1998	3	12.43	1998	.26	1997	9.9	6.3	2.1	.7	.24	.45	.86	1.30	1.78	2.34	3.02	3.87	5.05	7.03	8.99
Mar	2.65	2.42	1.52	1958	16	8.54	1983	.05	1988	10.0	5.9	1.6	.3	.20	.37	.71	1.08	1.48	1.95	2.51	3.22	4.20	5.85	7.47
Apr	.89	.66	1.55	1958	3	2.84	1978	.01	1977	5.1	3.0	.4	.0	.04	.09	.19	.31	.45	.61	.81	1.07	1.44	2.06	2.69
May	.35	.10	1.02	1994	7	2.49	1998	.00+	1992	2.5	1.3	.1	@	.00	.00	.00	.00	.04	.11	.22	.37	.61	1.03	1.47
Jun	.11	.01	.82	1995	16	1.04	1995	.00+	1998	.7	.3	@	.0	.00	.00	.00	.00	.00	.00	.04	.10	.19	.34	.50
Jul	.03	.00	.33	1966	31	.34	1980	.00+	2000	.4	.1	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.03	.10	.17
Aug	.08	.00	.58	1997	20	.81	1976	.00+	1998	.6	.3	@	.0	.00	.00	.00	.00	.00	.00	.00	.02	.10	.26	.46
Sep	.19	.05	1.78	1959	19	1.09	1982	.00+	1996	1.6	.6	.1	.0	.00	.00	.00	.00	.00	.04	.10	.19	.33	.58	.85
Oct	.85	.61	1.86	1962	13	3.72	1972	.00+	1995	3.2	1.9	.6	.1	.00	.03	.13	.26	.40	.56	.77	1.03	1.41	2.05	2.69
Nov	1.83	1.22	2.48	1970	29	6.31	1972	.03	1995	7.2	4.1	1.3	.3	.07	.16	.36	.59	.87	1.21	1.63	2.18	2.97	4.32	5.68
Dec	2.31	2.12	2.77	1955	22	5.49	1996	.01	1989	8.8	5.5	1.5	.3	.18	.33	.63	.94	1.30	1.70	2.19	2.80	3.66	5.09	6.50
Ann	15.71	14.42	3.75	Feb 1998	3	12.43	Feb 1998	.00+	Jul 2000	60.9	36.1	9.7	2.3	7.03	8.42	10.36	11.93	13.40	14.88	16.46	18.28	20.56	24.02	27.15

\+ Also occurred on an earlier date(s)
\# Denotes amounts of a trace
@ Denotes mean number of days greater than 0 but less than .05
** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals
(2) Derived from station's available digital record: 1953-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

162-B

Figure 2. NOAA Precipitation Data

Source: NOAA

2.5 Soils and Geology

The *Geotechnical Design and Materials Report* summarizes the subsurface conditions based on borings taken throughout the Project. The geotechnical report states that, "Alluvium was encountered in all of the borings either beginning at the ground surface or underlying the road base fill material," (URS, 2010). The fill was determined to consist of locally derived clay and sand with gravel, and the alluvium consists of complexly interbedded lean and fat clay, clayey, silty sand and well graded sand with silt.

2.6 Hazardous Waste

Soil sampling for the presence of ADL was conducted throughout the Project. The findings of these sampling activities are presented in the *Site Investigation Report*. The report concludes that soils containing ADL would be encountered within the Project limits. Department of Toxic Substances Control (DTSC) Variance would be followed for reuse of soil containing ADL. Details of the locations of ADL reuse are shown on in the Contract Plans.

The *Initial Site Assessment* (ISA) (Baseline, 2008) noted areas with the potential to be contaminated by volatile organic compounds (VOCs) and recommended that detailed soil and groundwater studies be performed. Sampling was conducted throughout the Project area, and the results of the sampling are presented in the *Site Investigation Report* (URS, 2010). Based on the samples collected, the VOCs at the sampling locations were determined to be either below detectable levels or below levels of concern.

2.7 Existing (Pre-Construction) Control Practices

There are no existing treatment BMPs within the Project limits.

3 CONSTRUCTION GENERAL PERMIT

To minimize the potential effects of construction runoff on the quality of the receiving water bodies, any construction activity affecting one acre or more must obtain coverage under the CGP. Permit applicants are required to prepare a SWPPP and implement BMPs to reduce construction effects on receiving water quality.

3.1 Risk Assessment

The CGP requirements include a risk assessment to determine the Project's impact risk to receiving water bodies. The risk assessment uses measurements of the Project's potential sediment risk and the sensitivity of the receiving water bodies to sediment to determine the RL of the Project. This Project has a **Low Site Sediment Risk Factor** (Table 5) and a **High Receiving Water Risk Factor** (Figure 5); the combined risk is **Level 2** (Figure 6). The risk factors are detailed in the following sections.

3.1.1 Sediment Risk

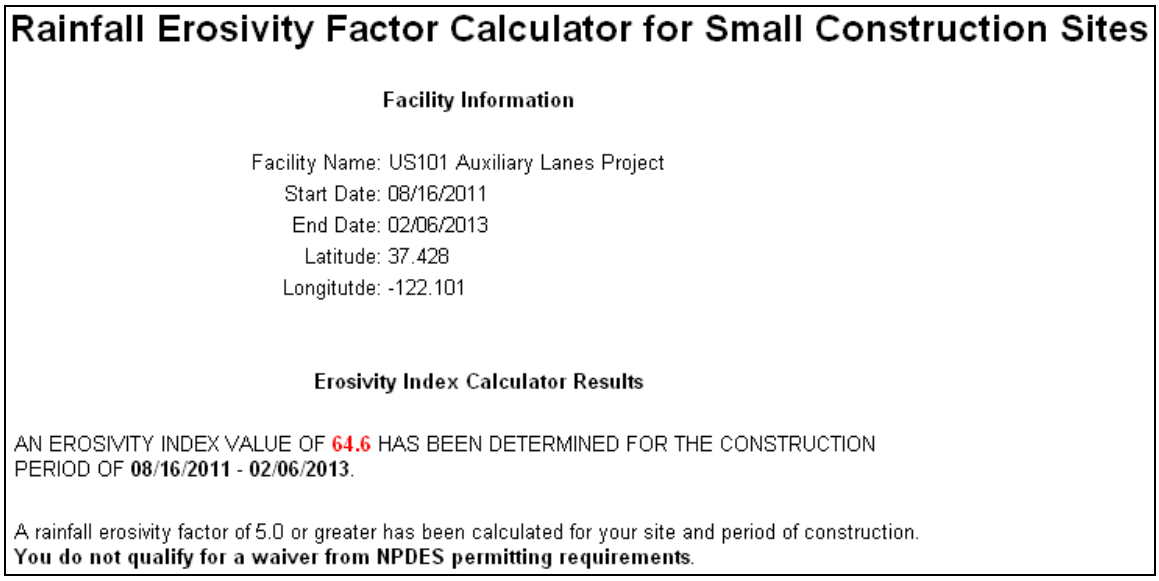
The sediment risk is based on the following equation from the adopted NPDES permit "Fact Sheet" (Section J.1.a pg. 28):

Equation 1. Sediment Risk Equation
A = (R)(K)(LS)(C)(P)

Where:

R = Runoff erosivity factor
K = Soil erodibility factor
LS = Length-slope
C = Cover
P = Management operations and support practices
A = Rate of sheet and rill erosion (tons/acre)

The rainfall runoff erosivity factor (R) was determined from the United States Environmental Protection Agency (EPA) "Rainfall Erosivity Factor Calculator for Small Construction Sites." The erosivity index value for the Project was determined to be **64.6** using the following inputs shown in Figure 3.



Rainfall Erosivity Factor Calculator for Small Construction Sites

Facility Information

Facility Name: US101 Auxiliary Lanes Project
Start Date: 08/16/2011
End Date: 02/06/2013
Latitude: 37.428
Longitutde: -122.101

Erosivity Index Calculator Results

AN EROSIVITY INDEX VALUE OF **64.6** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **08/16/2011 - 02/06/2013**.

A rainfall erosivity factor of 5.0 or greater has been calculated for your site and period of construction.
You do not qualify for a waiver from NPDES permitting requirements.

Figure 3. Rainfall Erosivity Factor (R)

The soil erodibility factor (K) was determined from the United States Department of Agriculture Natural Resources Conservation Services "Web Soil Survey." A weighted average of the soil erodibility factor by area was used; this value is **0.17**. See Figure 4 for the map of soils within the Project site and Table 3 for the K factors for the soils.

Table 3. Soil Erodibility Factor (K) of the Project Site

K Factor, Rock Free— Summary by Map Unit — Santa Clara Area, California, Western Part				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
101	Urban land, 0 to 2 percent slopes, basins		2.4	0.8%
120	Aquic Xerorthents, bay mud subtratum, 0 to 2 percent slopes	.17	0.2	0.1%
145	Urbanland-Hangerone complex, 0 to 2 percent slopes, drained		130.1	43.4%
150	Urbanland-Embarcadero complex, 0 to 2 percent slopes, drained		84.3	28.1%
157	Novato clay, 0 to 1 percent slopes, protected	.17	13.0	4.3%
165	Urbanland-Campbell complex, 0 to 2 percent slopes, protected		64.3	21.4%
169	Urbanland-Elder complex, 0 to 2 percent slopes, protected		0.0	0.0%
W	Water		5.8	1.9%
Totals for Area of Interest			**300.1**	**100.0%**

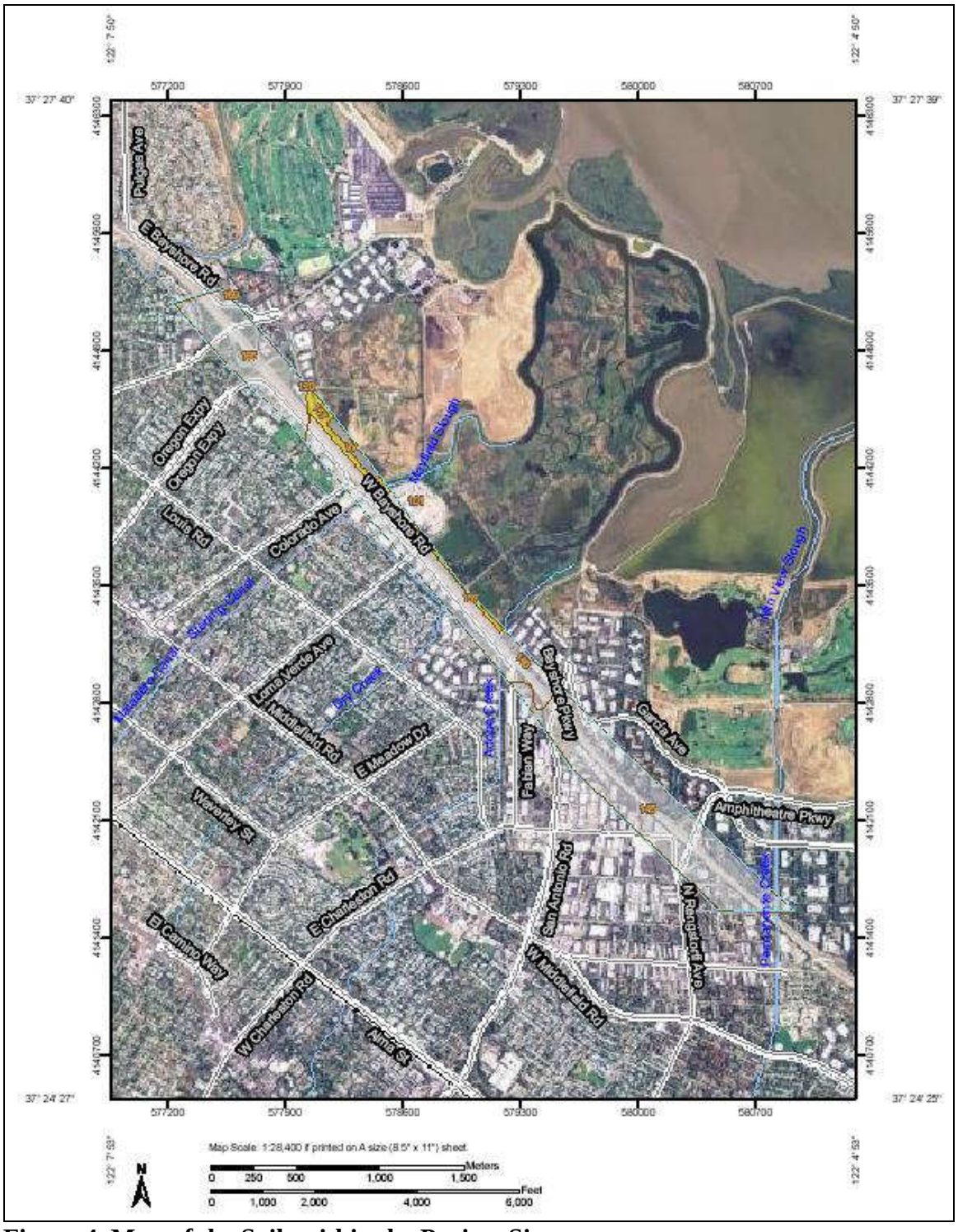


Figure 4. Map of the Soils within the Project Site

The length-slope factor (LS) was determined by examining the original grade delineated on the Typical Cross Sections included in the Contract Project Plans. Based on these cross sections, the average existing slope was estimated to be 3.67% for an average length of 80.06ft. Based on these values, an LS value of **0.46** was interpolated. See Table 4.

Table 4. Length Slope Factor (LS)

	Average Watershed Slope (%)										
Sheet Flow Length (ft)	**0.2**	**0.5**	**1.0**	**2.0**	**3.0**	**4.0**	**5.0**	**6.0**	**8.0**	**10.0**	**12.0**
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.35	0.36
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.37	0.41
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.38	0.45
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.39	0.47
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.40	0.49
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45	0.57	0.71
50	0.05	0.08	0.13	0.21	[illegible]	[illegible]	0.46	0.54	0.70	0.91	1.15
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91	1.20	1.54
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10	1.46	1.88
150	0.05	0.09	0.17	0.33	0.50	0.66	0.86	1.05	1.43	1.92	2.51
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72	2.34	3.07
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99	2.72	3.60
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24	3.09	4.09
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70	3.75	5.01
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52	4.95	6.67
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24	6.03	8.17
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91	7.02	9.57

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

The cover factor (C) and management operations and support practices (P) are given values of 1.0 by the adopted NPDES permit to simulate bare ground conditions.

Based on these factors, the rate of sheet and rill erosion (A) is **5.05** tons per acre. Because this value is less than 15 tons per acre, the Project is classified as having a low sediment risk. Table 5 shows the Sediment Risk Assessment.

Table 5. Sediment Risk Assessment

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		64.6
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.17
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		0.46
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		5.05
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

3.1.2 Receiving Water Body Risk

The receiving water risk is classified as high because Matadero Creek has the beneficial uses of SPWN, COLD and MIGR (Figure 5). The high receiving water risk for the entire Project area is confirmed through the use of a GIS map prepared by Caltrans.

Receiving Water (RW) Risk Factor Worksheet	**Entry**	**Score**
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment**? For help with impaired waterbodies please check the attached worksheet or visit the link below:	**Yes**	**High**
2006 Approved Sediment-impared WBs Worksheet		
http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml		
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY?		
http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp		

Figure 5. Receiving Water Risk Assessment

With a low sediment risk and a high receiving water body risk, the combined RL is Level 2, as shown in Figure 6.

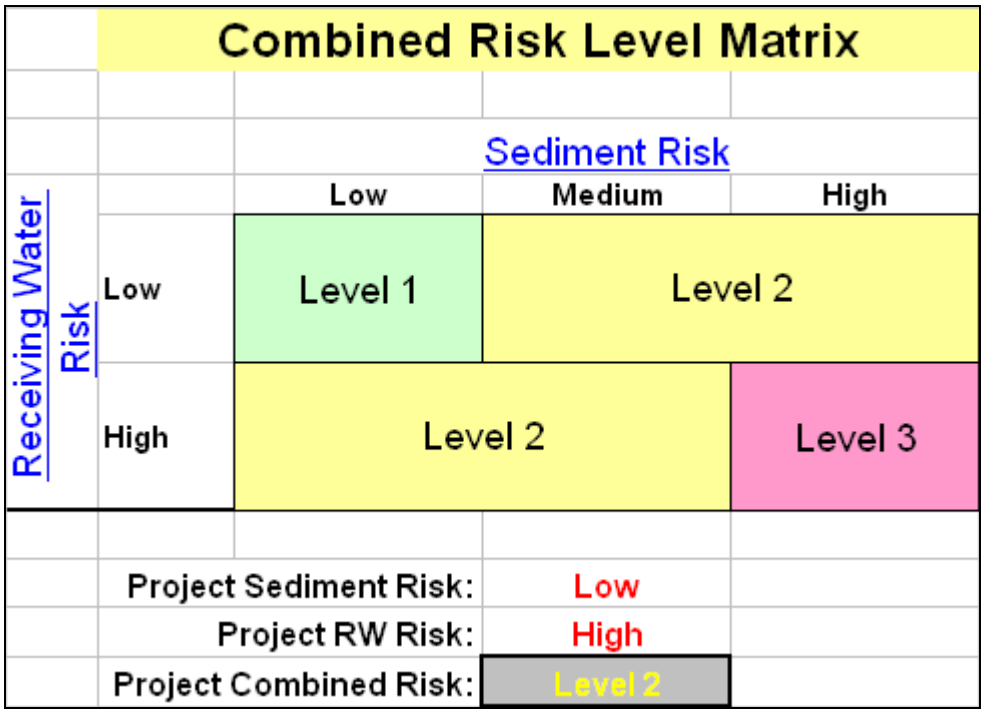


Figure 6. Combined Risk Level Assessment

3.2 Notice of Termination (NOT)

The CGP provides both revised and new requirements for completion and approval of the NOT. The NOT requirements are presented in Section II.D of the new CGP permit "Order." These requirements include demonstrating through photos, computational proof or other "custom methods," such as results of testing and analysis, that the terms of the NOT have been satisfied.

While these methods of demonstrating compliance are at the option of the contractor, should the RWQCB determine that the visual photos do not adequately show compliance, further computational efforts may be required. This computational proof is obtained through the use of the Revised Universal Soil Loss Equation 2 (RUSLE2) program.

3.3 Caltrans Forms

The following forms have been developed by the Division of Construction as of 09/2010:

- CEM-2030 "Stormwater Site Inspection Report"
  - Visual inspection monitoring form
- CEM-2034 "Stormwater Best Management Status Report"
  - Identifies BMP types and quantities to be installed on a weekly basis
- CEM-2035 "Stormwater Site Inspection Report Corrective Actions Summary"
  - Describes actions taken for existing BMP failures
- CEM-2045 "Rain Event Action Plan-Highway Construction Phase"
  - REAP to be used during active work phase
- CEM-2046 "Rain Event Action Plan-Plant Establishment Phase"
  - REAP to be used during plant establishment phase
- CEM-2047 "Rain Event Action Plan-Innactive Project"
  - REAP to be used for inactive work phase
- CEM-2090 "Notice of Completion of Construction"
  - Describes efforts to show compliance with NOT requirements

4 RUN-ON DISCHARGES

Run-on discharges are off-site storm water flows that can potentially run onto the site. The calculations are based on a rainfall intensity for a 2-year, 24-hour event per the PPDG. The calculations use the watershed delineations provided in the off-site watershed plans, which are shown on the attached Appendix C. These discharge calculations are used to design storm water BMPs during construction.

The rainfall model most often used in highway drainage is a constant-intensity storm of a given duration and probability of occurrence. The intensity of this storm was assumed because of the short construction schedule (6/2011 to 8/2013). The rainfall intensity for a 2-year, 24-hour event is 0.08 in/hour.

The runoff coefficient is 0.60 because the offsite watershed is unpaved.

5 PROJECT REGISTRATION DOCUMENTS

To obtain permit coverage under the CGP, all dischargers must electronically file PRDs, NOTs, changes of information, sampling and monitoring information, annual reporting, and other compliance documents required by this CGP through the SWRCB's SMARTS. The contractor will have to coordinate these submittals with Caltrans within the timeframe allotted in the contract special provisions and as specified in the permit. SMARTS is found under the following website:

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

PRDs include the following information:

1. Notice of Intent (NOI)
2. Site Map(s) Includes:
    a. The project's surrounding area (vicinity)
    b. Site layout
    c. Construction site boundaries
    d. Drainage areas
    e. Discharge locations
    f. Sampling locations
    g. Areas of soil disturbance (temporary or permanent)
    h. Active areas of soil disturbance (cut or fill)
    i. Locations of all runoff BMPs
    j. Locations of all erosion control BMPs
    k. Locations of all sediment control BMPs
    l. ATS location (if applicable)
    m. Locations of sensitive habitats, watercourses, or other features which are not to be disturbed
    n. Locations of all post-construction BMPs
    o. Locations of storage areas for waste, vehicles, service, loading/unloading of materials, access (entrance/exits) points to construction site, fueling and water storage, water transfer for dust control and compaction practices

3. SWPPPs

4. Risk Assessment

a. The Standard Risk Assessment includes utilization of the following:
    i. Receiving water Risk Assessment interactive map
    ii. EPA Rainfall Erosivity Factor Calculator Website
    iii. Sediment Risk interactive map
    iv. Sediment sensitive water bodies list

b. The Site-Specific Risk Assessment includes the completion of the hand calculated R value Risk Calculator

5.1 General Information Included

The following is a list of information included in this Storm Water Information Handout that can be used for the PRDs:

- Vicinity Map
- Risk Assessment

5.2 Storm Water Pollution Prevention Plan

The contractor for the Project is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) because the Project involves disturbing more than 1 ac of soil. The SWPPP must include the following information:

- Active areas of cut and fill
- Areas of soil disturbance (temporary and permanent)
- Locations of storage areas for waste, vehicles, access, etc.
- Locations of all runoff BMPs
- Locations of all erosion control BMPs
- Locations of all sediment control BMPs

The SWPPP should be submitted with the PRDs and will be forthcoming from the Contractor.

5.3 Notice of Intent (NOI)

The NOI must be submitted once the contractor submits the SWPPP. This document is included in Appendix A.

5.4 Site Maps

Registration requirements can be met by the inclusion of the following plans, which can be found in the appendices.

- Sampling Plan (Appendix B)
  - Discharge Locations (Subject to changes by the Contractor and approved by the Engineer)
  - Sampling locations (Subject to changes by the Contractor and approved by the Engineer)
- Watershed Maps (Appendix C)

Appendix A Notice of Intent (NOI)

State Water Resources Control Board

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE
GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH CONSTRUCTION ACTIVITY (WQ ORDER No. 99-08-DWQ)

I. NOI STATUS (SEE INSTRUCTIONS)

MARK ONLY ONE ITEM 1. [X] New Construction 2. [ ] Change of Information for WDID# _____

II. PROPERTY OWNER

Name	Contact Person		
California Department of Transportation	Bijan Sartipi		
Mailing Address	Title		
111 Grand Avenue	District Director		
City	State	Zip	Phone
Oakland	CA	94612	(510) 286-5900

Owner Type (*check one*) 1.[ ] Private Individual 2.[ ] Business 3.[ ] Municipal 4.[X] State 5.[ ] Federal 6.[ ] Other

III. DEVELOPER/CONTRACTOR INFORMATION

Developer/Contractor	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone

IV. CONSTRUCTION PROJECT INFORMATION

Site/Project Name	Site Contact Person		
US 101 Auxiliary Lanes			
Physical Address/Location	Latitude	Longitude	County
	37.428 °	-122.101 °	Santa Clara
City (or nearest City)	Zip	Site Phone Number	Emergency Phone Number
Palo Alto and Mountain View			

A. Total size of construction site area: _____ Acres

B. Total area to be disturbed: 58.40 Acres (% of total _____)

C. Percent of site imperviousness (including rooftops):
Before Construction: _____%
After Construction: _____%

D. Tract Number(s): _____, _____

E. Mile Post Marker: 48.7/52.0

F. Is the construction site part of a larger common plan of development or sale? [ ] YES [X] NO

G. Name of plan or development:

H. Construction commencement date: 08/16/11

I. % of site to be mass graded: _____

J. Projected construction dates:
Complete grading: 02/06/13 Complete project: 02/06/13

K. Type of Construction (Check all that apply):
1. [ ] Residential 2. [ ] Commercial 3. [ ] Industrial 4. [ ] Reconstruction 5. [X] Transportation
6. [ ] Utility Description: _____ 7. [ ] Other (Please List): _____

V. BILLING INFORMATION

SEND BILL TO:	Name	Contact Person	
[ ] OWNER (as in II. above)			
[ ] DEVELOPER (as in III. above)	Mailing Address	Phone/Fax	
[ ] OTHER (enter information at right)	City	State	Zip

VI. REGULATORY STATUS

A. Has a local agency approved a required erosion/sediment control plan? ☐ YES ☐ NO

Does the erosion/sediment control plan address construction activities such as infrastructure and structures? ☐ YES ☐ NO

Name of local agency: California Department of Transportation Phone: _____

B. Is this project or any part thereof, subject to conditions imposed under a CWA Section 404 permit of 401 Water Quality Certification? ☒ YES ☐ No

If yes, provide details: 401 Certification issued by SFBRWQCB; 404 Permit issued by USACOE

VII. RECEIVING WATER INFORMATION

A. Does the storm water runoff from the construction site discharge to (Check all that apply):

1. ☐ **Indirectly to waters of the U.S.**
2. ☐ **Storm drain system - Enter owner's name:** _____
3. ☒ **Directly to waters of U.S. (e.g. , river, lake, creek, stream, bay, ocean, etc.)**

B. Name of receiving water: (river, lake, creek, stream, bay, ocean): Matadero, Adobe and Permanente Creeks; SF Bay South

VIII. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (check one)

☐ A SWPPP has been prepared for this facility and is available for review: Date Prepared: ____/____/____ Date Amended: ____/____/____

☒ A SWPPP will be prepared and ready for review by (enter date): ____/____/____

☐ A tentative schedule has been included in the SWPPP for activities such as grading, street construction, home construction, etc.

B. MONITORING PROGRAM

☒ A monitoring and maintenance schedule has been developed that includes inspection of the construction BMPs before anticipated storm events and after actual storm events and is available for review.

If checked above: A qualified person has been assigned responsibility for pre-storm and post-storm BMP inspections to identify effectiveness and necessary repairs or design changes. ☐ YES ☐ NO

Name: _____ Phone: _____

C. PERMIT COMPLIANCE RESPONSIBILITY

A qualified person has been assigned responsibility to ensure full compliance with the Permit, and to implement all elements of the Storm Water Pollution Prevention Plan including:

1. Preparing an annual compliance evaluation. ☐ YES ☐ NO

Name: _____ Phone: _____

2. Eliminating all unauthorized discharges. ☐ YES ☐ NO

IX. VICINITY MAP AND FEE (must show site location in relation to nearest named streets, intersections, etc.)

Have you included a vicinity map with this submittal? ☒ YES ☐ NO

Have you included payment of the annual fee with this submittal? ☐ YES ☐ NO

X. CERTIFICATIONS

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that I have read the entire General Permit, including all attachments, and agree to comply with and be bound by all of the provisions, requirements, and prohibitions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with."

Printed Name: _____

Signature: _____ **Date:** _____

Title: _____

Appendix B Sampling Plan

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS:

w/	WITH
ASP	ALTERNATIVE SLOTTED PIPE
TG	TOP OF GRATE
TW	TOP OF WALL
SGD	STANDARD GUTTER DEPRESSION
FSC	FAST SETTING CONCRETE

C1 CONTROL POINT

DISCHARGE LOCATION

S1 SAMPLING LOCATION

LEGEND:

No. DRAINAGE SYSTEM No.

DRAINAGE SYSTEM UNIT

Exist SD

Exist INLET

Exist MH

MH

Adj INLET

GRADE TO DRAIN

DITCH FLOW LINE

BIOFILTRATION SWALE

NOTES:

1. FOR UTILITIES, SEE UTILITY PLAN SHEETS.
2. FOR ABBREVIATIONS NOT SHOWN IN LEGEND, SEE STANDARD PLANS A10A & A10B.
3. FOR SYMBOLS NOT SHOWN IN LEGEND, SEE STANDARD PLANS A10C & A10D.
4. FOR FINISHED GRADE ELEVATIONS, SEE PROFILES AND CONSTRUCTION DETAILS.
5. TOP OF GRATE ELEVATION INCLUDES STANDARD GUTTER DEPRESSION, WHERE SGD IS SPECIFIED, SEE PROFILE SHEETS.
6. STATION AND OFFSET TIES TO DRAINAGE STRUCTURES ARE MEASURED AS SHOWN IN THE DETAILS SHEETS.
7. LOCATIONS OF EXISTING DRAINAGE FACILITIES ARE APPROXIMATE. VERIFY LOCATION AND ELEVATION OF EXISTING DRAINAGE FACILITIES PRIOR TO MODIFYING.
8. IF PRE-CAST STRUCTURES ARE USED, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPES PRIOR TO CASTING STRUCTURES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

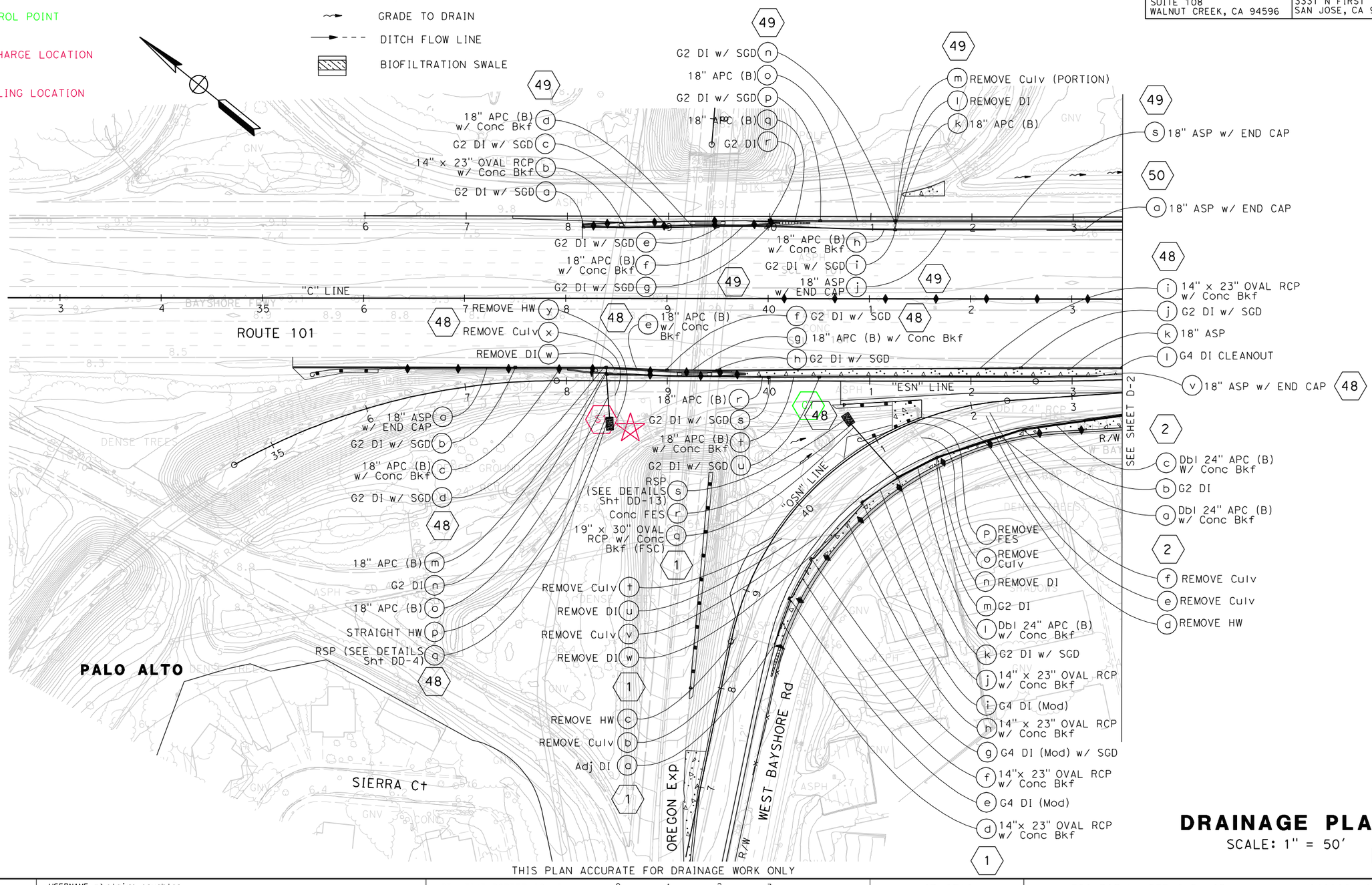
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



DRAINAGE PLAN

SCALE: 1" = 50'

D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CC	05/12/11	CALCULATED-DESIGNED BY	CLAIRE COUGHLAN	
CC	12/16/10	CHECKED BY	ANALETTE OCHOA	
CC	06/02/10	CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG	
REVISED BY	DATE REVISED	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans	

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:09 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — REGISTERED CIVIL ENGINEER — 05-13-11 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

PALO ALTO

EAST BAYSHORE Rd

WEST BAYSHORE Rd

BAYSHORE FRWY

ROUTE 101

"ENF" LINE

"ESN" LINE

"C" LINE

R/W

AMARILLO Ave

SEE SHEET D-1

SEE SHEET D-3

C2 S1 S2 S3

3
- an LINED V-DITCH (SEE DETAILS Sht DD-6)

3
- h 14" x 23" OVAL RCP w/ Conc Bkf
- g G2 DI
- f REMOVE Culv
- e REMOVE HW
- d 24" APC (B) w/ Conc Bkf (FSC)
- c AFES
- b RSP (SEE DETAILS Sht DD-13)
- a BIOFILTRATION SWALE(SEE DETAILS Sht DD-8)

50
- a 18" ASP w/ END CAP
- b G2 DI w/ SGD
- c 18" APC (B)
- d G2 DI w/ SGD
- e 18" APC (B)
- f G2 DI w/ SGD

4
- p REMOVE Culv
- o REMOVE DI

2
- h REMOVE Culv
- g REMOVE MH
- i 18" ASP w/ END CAP

4
- a G2 DI
- b Dbl 24" APC (B) w/ Conc Bkf
- c G2 DI

3
- i REMOVE HW
- j G2 DI w/ SGD
- k 14" x 23" OVAL RCP w/ Conc Bkf
- l G2 DI
- m 30" APC (B) w/ Conc Bkf
- n G2 DI
- o 36" APC (B)
- p G2 DI w/ SGD
- q 36" APC (B)

3
- r REMOVE HW
- s REMOVE Culv
- t G2 DI

6
- g G2 DI
- f 18" APC (B) w/ Conc Bkf (FSC)

6
- e G2 DI
- d 14" x 23" OVAL RCP w/ Conc Bkf
- c G2 DI w/ SGD
- b 14" x 23" OVAL RCP w/ Conc Bkf
- a G2 DI

3
- u 36" APC (B)
- v G2 MH
- w 36" APC (B)
- x AFES
- y RSP (SEE DETAILS Sht DD-21)
- am UNLINED V-DITCH (SEE DETAILS Sht DD-6)

6
- x 18" APC (B) w/ Conc Bkf
- y G2 DI w/ SGD
- z 18" ASP

6
- h 18" APC (B)
- i G2 DI
- j 18" APC (B)
- k G2 DI w/ SGD
- l 18" APC (B)
- m G2 DI w/ SGD
- n 18" APC (B)

50
- n G2 DI w/ SGD
- m 18" APC (B)
- l G2 DI w/ SGD
- k 18" APC (B)
- j AFES
- i 18" APC (B)
- h G2 DI w/ SGD
- g 18" APC (B)

3
- ak G2 DI w/ SGD
- aj 18" APC (B)
- ai G2 DI w/ SGD
- ah 18" APC (B)

50
- o 18" ASP w/ END CAP

3
- z 36" APC (B)
- aa REMOVE DI
- ab G2 DI w/ SGD
- ac REMOVE Culv (PORTION)

3
- ag G2 DI
- af 18" APC (B)
- ae G2 DI w/ SGD
- ad 18" APC (B)

3
- al 24" APC (B) w/ Conc Bkf (FSC)

4
- n 36" APC (B) w/ Conc Bkf
- m G2 DI
- l 36" APC (B) w/ Conc Bkf
- k G2 DI w/ SGD
- j 36" APC (B) w/ Conc Bkf

4
- i G2 DI
- h 30" APC (B) w/ Conc Bkf
- g G2 DI
- f Dbl 24" APC (B) w/ Conc Bkf
- e G2 DI w/ SGD
- d Dbl 24" APC (B) w/ Conc Bkf

4
- r REMOVE Culv
- q REMOVE DI

5
- j REMOVE Culv (PORTION)
- i G2 DI w/ SGD
- h REMOVE DI
- g REMOVE HW
- f 36" APC (B) w/ Conc Bkf
- e G2 DI w/ SGD
- d 36" APC (B) w/ Conc Bkf
- c G2 DI w/ SGD
- b 36" APC (B) w/ Conc Bkf
- a G2 DI

5
- m 30" APC (B)
- l G2 DI w/ SGD
- k 36" APC (B)

5
- s 18" APC (B)
- r G2 DI
- q 18" APC (B)
- p G2 DI w/ SGD
- o 18" APC (B)
- n G2 DI w/ SGD

DRAINAGE PLAN

SCALE: 1" = 50'

D-2

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
CLAIRE COUGHLAN	ANALETTE OCHOA	CC	06/02/10
		CC	12/16/10
		CC	05/12/11

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:31:12 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

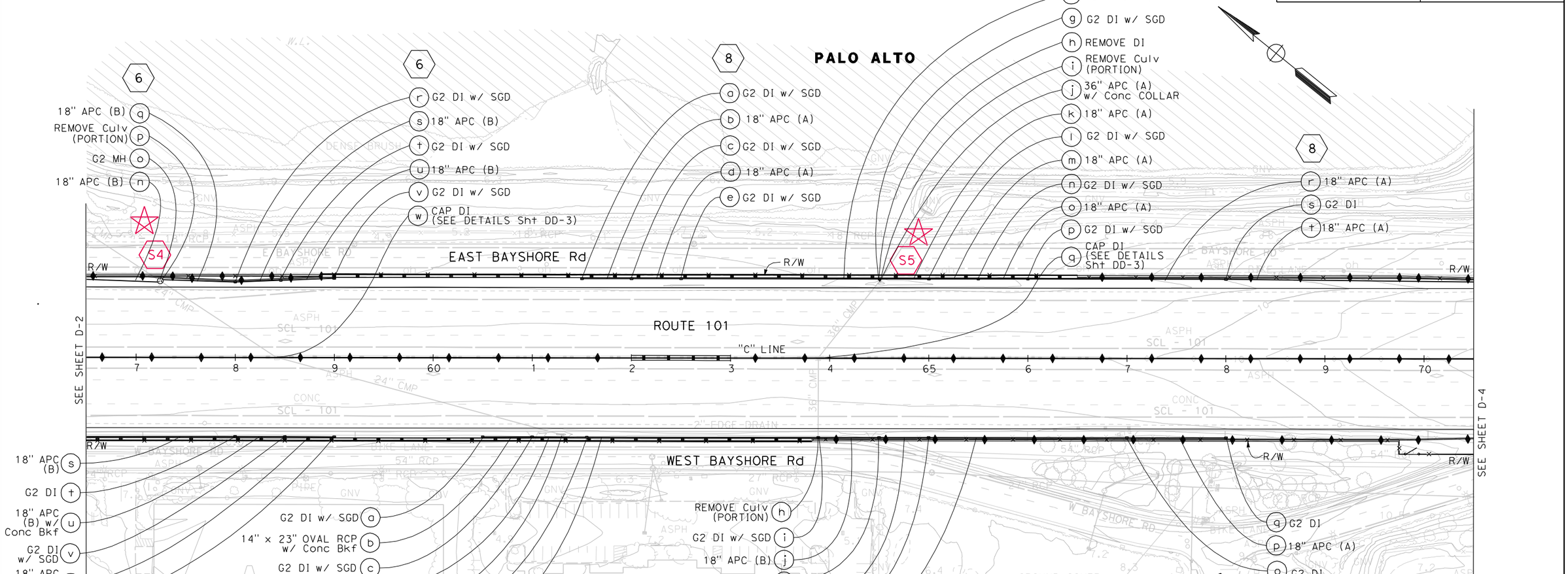
REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-3

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:15 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ia003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

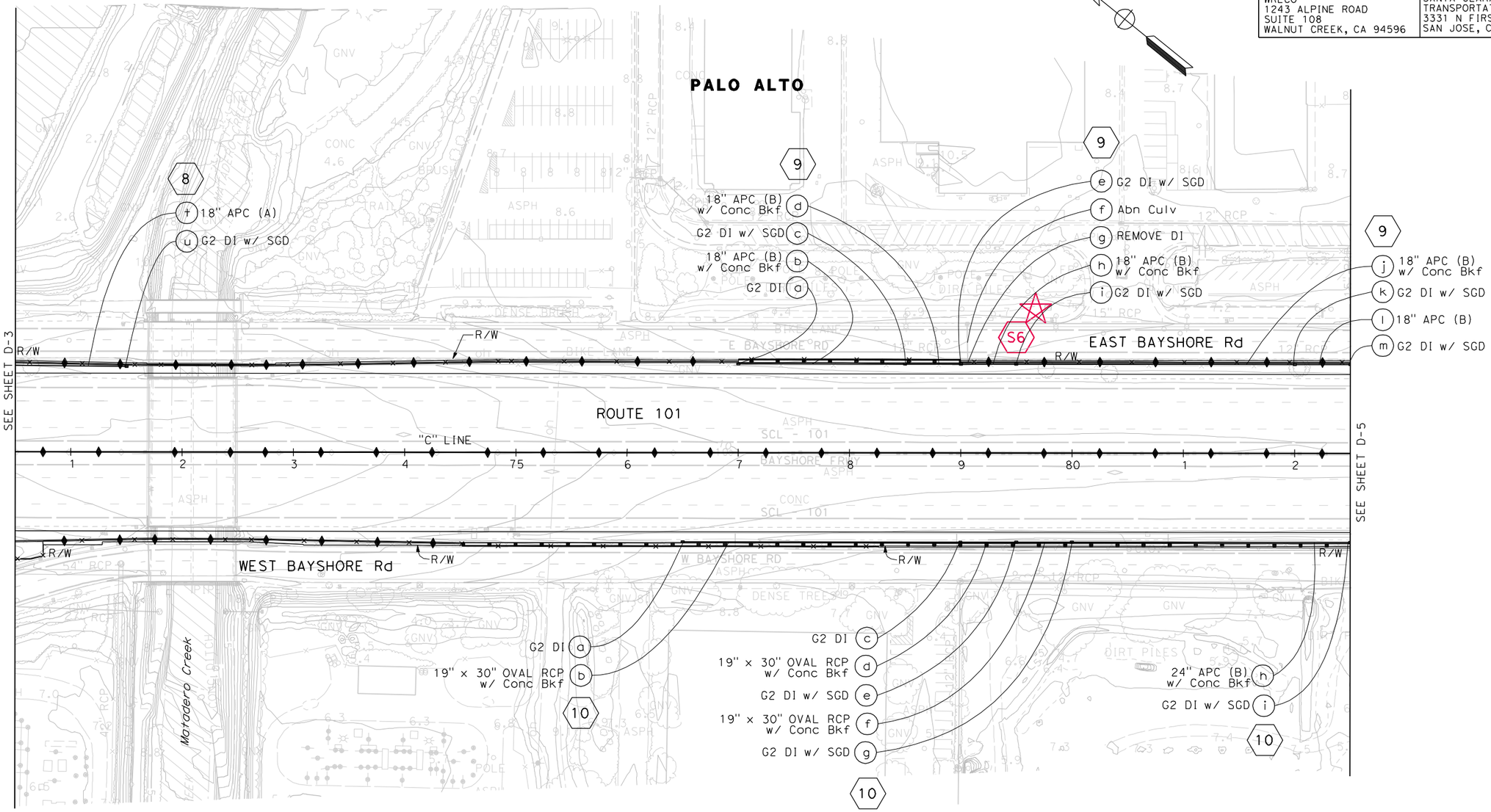
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



DRAINAGE PLAN

SCALE: 1" = 50'

D-4

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CC	05/12/11
CC	12/16/10
CC	06/02/10
REVISED BY	DATE REVISED
CLAIRE COUGHLAN	ANALETTE OCHOA
CALCULATED-DESIGNED BY	CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:19 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ia004.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

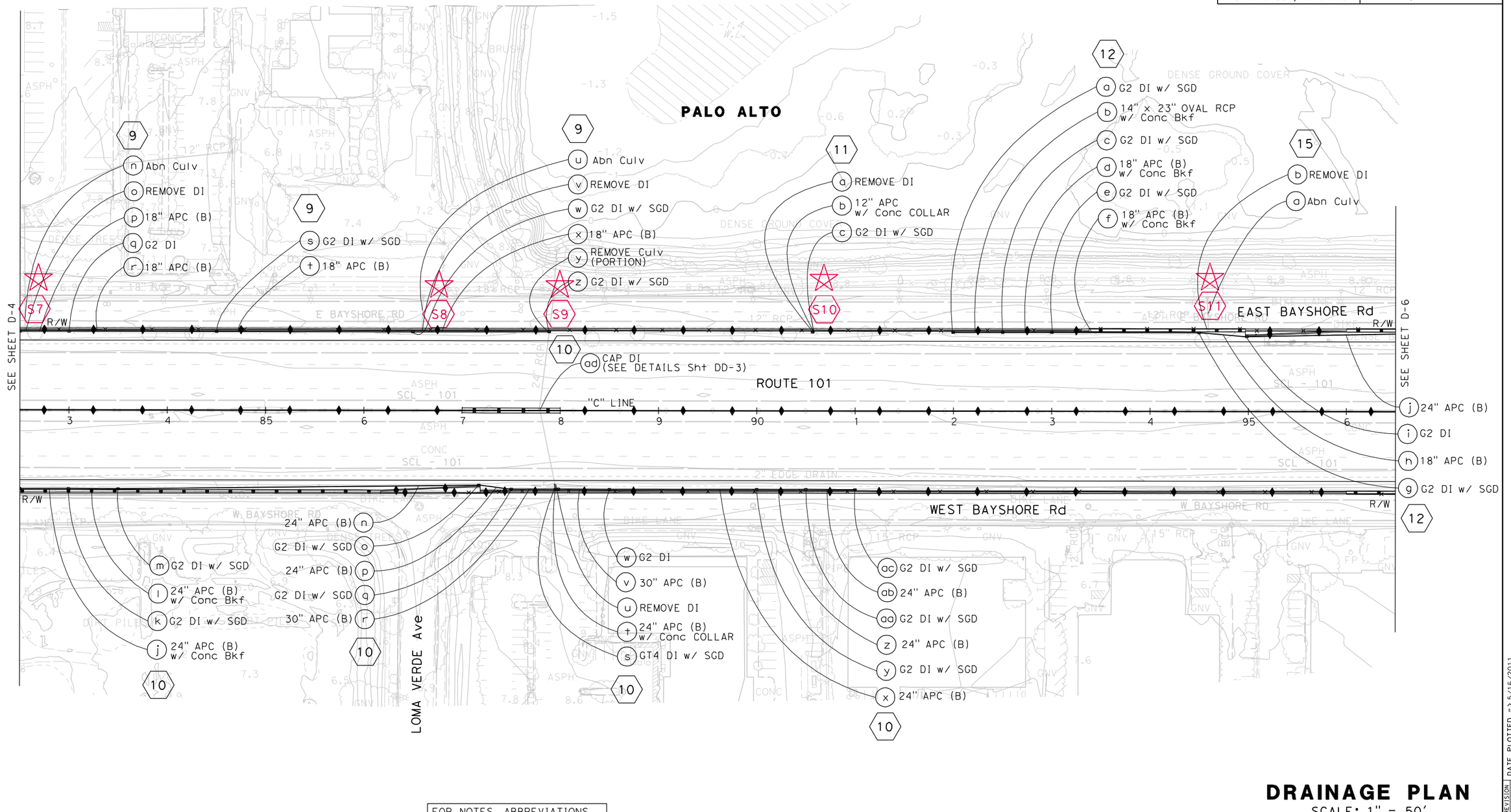
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-5

LAST REVISION	DATE PLOTTED => 5/16/2011
05-12-11	TIME PLOTTED => 4:31:22 PM

	CC	CC	CC	REVISED BY	CLAIRE COUGHLAN	CALCULATED-DESIGNED BY
	05/12/11	12/16/10	06/02/10	DATE REVISED	ANALETTE OCHOA	CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia005.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa
REGISTERED CIVIL ENGINEER

05-13-11
DATE

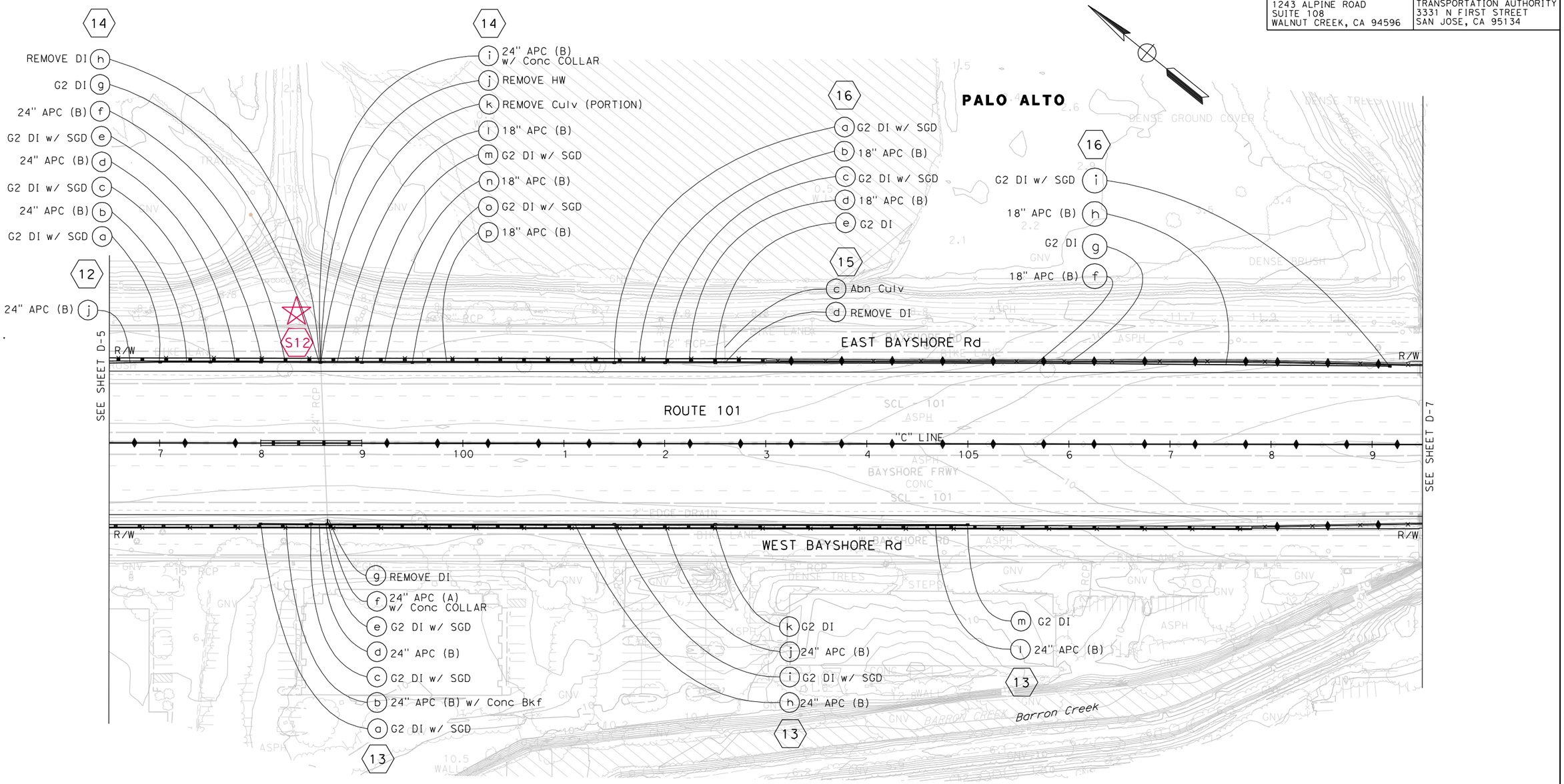
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



DRAINAGE PLAN

SCALE: 1" = 50'

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

D-6

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CLAIRE COUGHLAN | ANALETTE OCHOA

CALCULATED-DESIGNED BY | CHECKED BY

SUPERVISOR: HAN-BIN LIANG

CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:31:25 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ia006.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

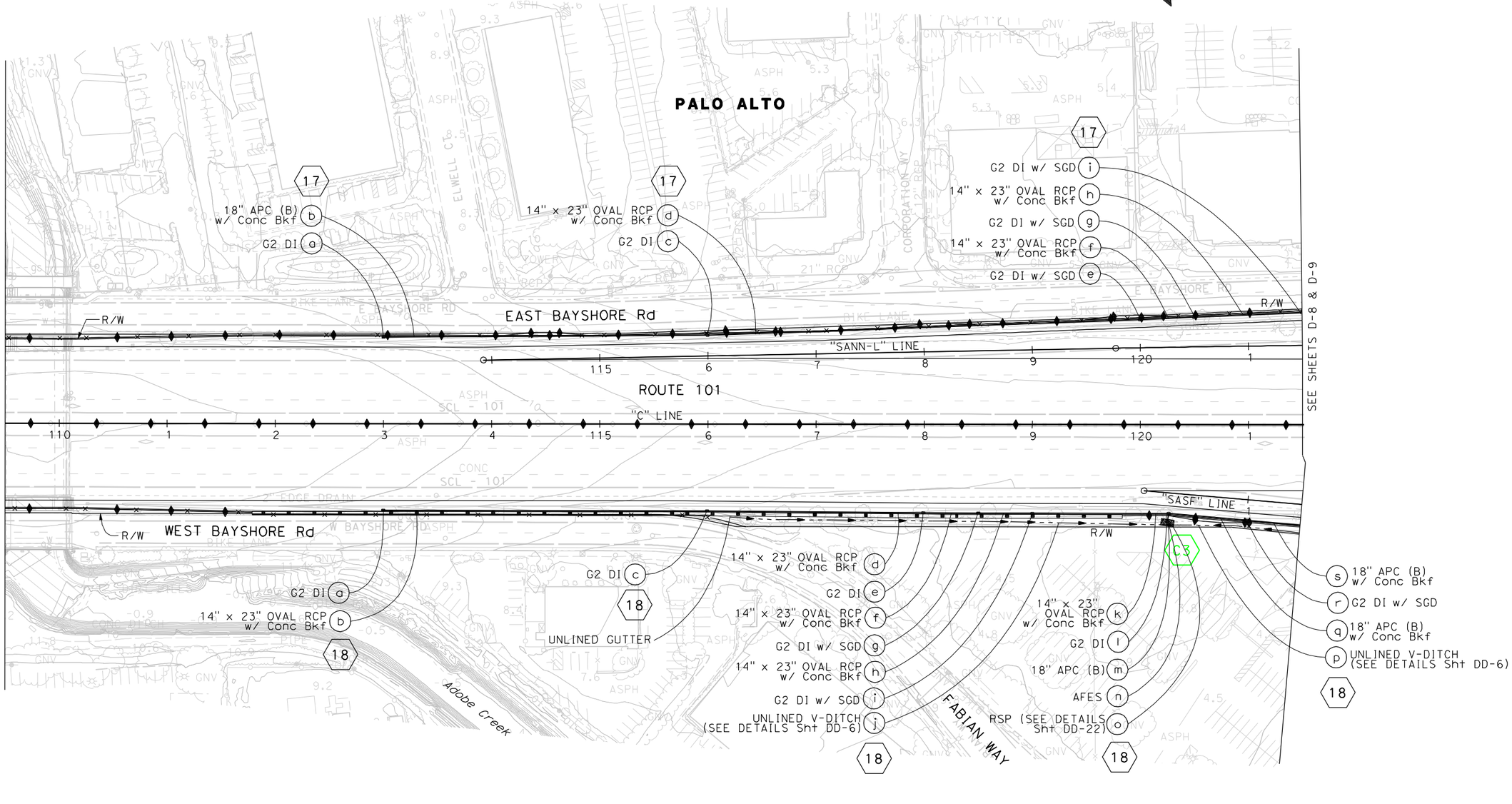
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-7

CC	CC	CC
05/12/11	12/16/10	06/02/10

REVISED BY / DATE REVISED

CLAIRE COUGHLAN / ANALETTE OCHOA

CALCULATED-DESIGNED BY / CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:31:28 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia007.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

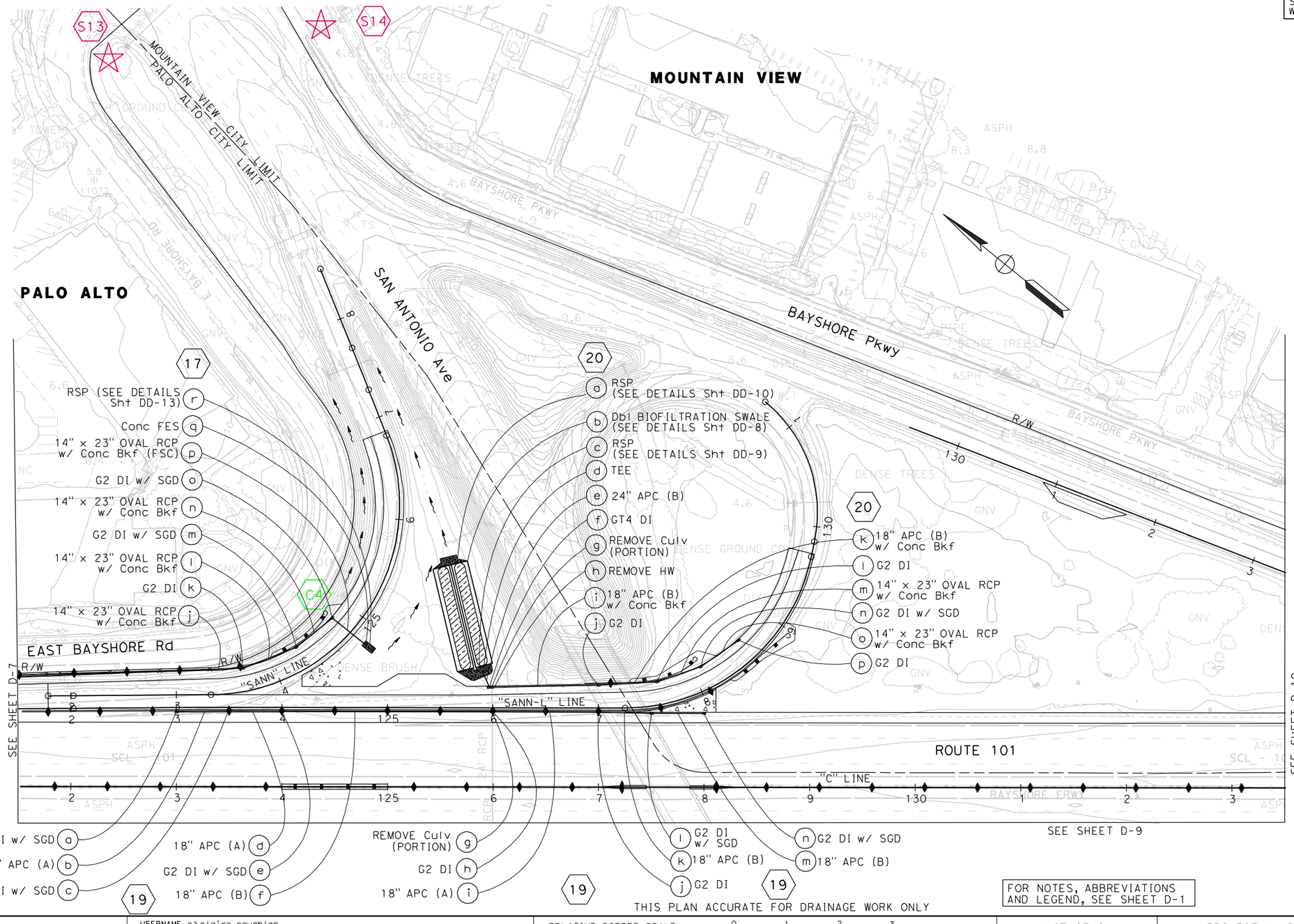
CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

DRAINAGE PLAN

SCALE: 1" = 50'

D-8

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:32 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ia008.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

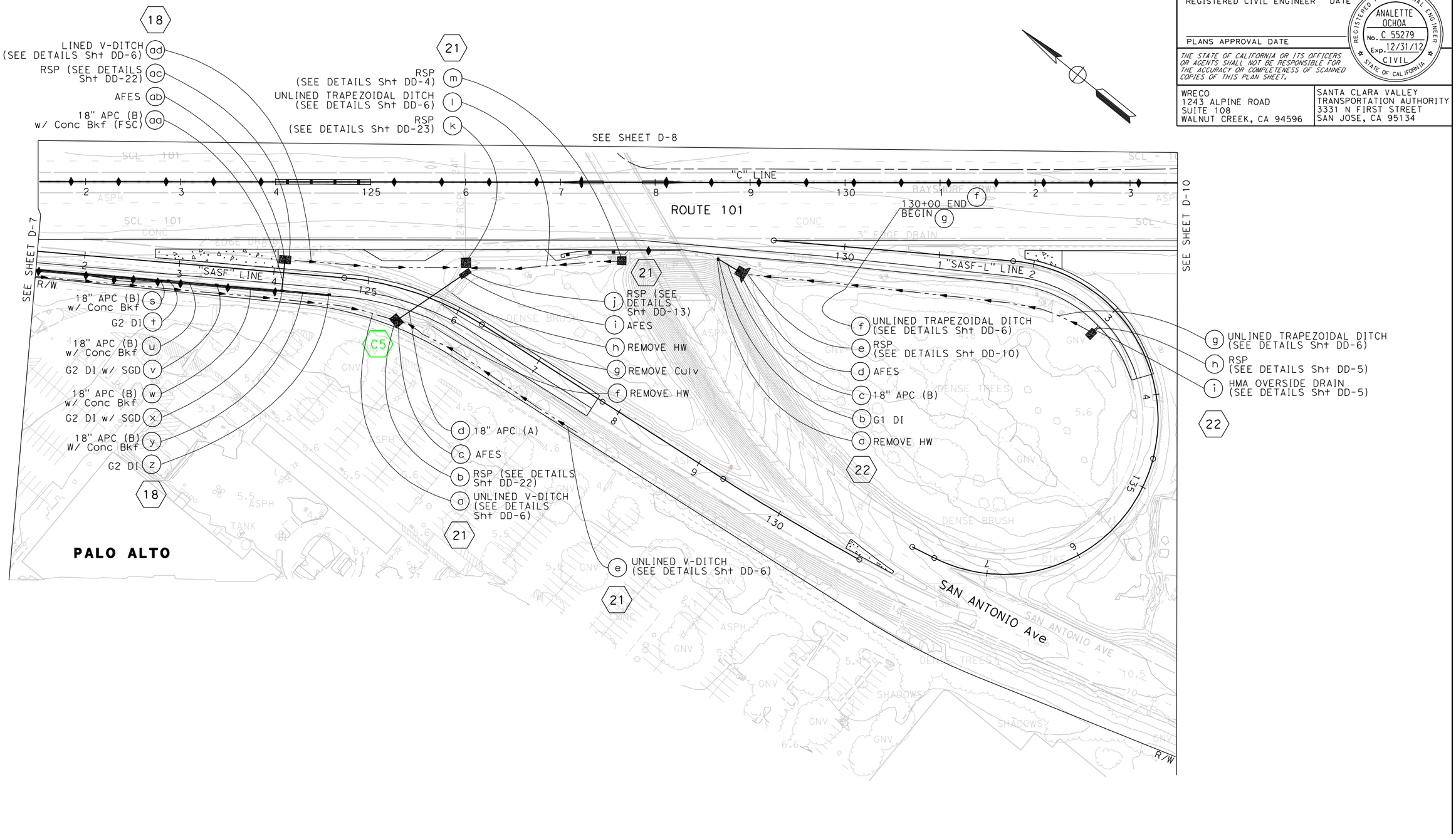
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ANALETTE OCHOA No. C 55279 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-9

CALCULATED-DESIGNED BY	CC	05/12/11			
CHECKED BY	CC	12/16/10			
CONSULTANT FUNCTIONAL SUPERVISOR	CC	06/02/10			
HAN-BIN LIANG	REVISED BY	DATE REVISED			
CLAIRE COUGHLAN	ANALETTE OCHOA				

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:35 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ia009.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa
REGISTERED CIVIL ENGINEER

05-13-11
DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

23
a G2 DI
b 14" x 23" OVAL RCP w/ Conc Bkf
c G2 DI w/ SGD
d 14" x 23" OVAL RCP w/ Conc Bkf
e G2 DI
f 18" APC (B) w/ Conc Bkf

23
42" APC (B) p
G2 DI w/ SGD o
42" APC (B) n
G2 DI m
42" APC (B) l
G2 DI w/ SGD k
42" APC (B) j
G2 DI w/ SGD i
18" APC (B) h
G2 DI w/ SGD g

23
q G2 DI w/ SGD
r 42" APC (B)
s G2 DI w/ SGD
t 42" APC (B)
u 42" AUTOMATIC DRAINAGE GATE
v G2 MH (PRESSURE MH FRAME & COVER)
w 18" APC (B) w/ Conc COLLAR

25
a 18" APC (B) w/ Conc COLLAR
b G2 MH (PRESSURE MH FRAME & COVER)
c 36" AUTOMATIC DRAINAGE GATE
d 36" APC (B)
e G2 DI w/ SGD

25
G2 DI w/ SGD g
36" APC (B) f

24
UNLINED V-DITCH (SEE DETAILS Sht DD-6) r
REMOVE Culv s

24
18" ASP w/ END CAP a
Adj DI b
18" ASP c
Adj DI d
18" ASP e
Adj DI f
18" ASP w/ END CAP g

24
Adj DI h

24
18" ASP i
Adj DI j
18" ASP k

24
C6
Adj DI l
18" ASP m
Adj DI n
18" ASP w/ END CAP o

24
C7
UNLINED V-DITCH (SEE DETAILS Sht DD-6) t

S15

PROPOSED R/W

"SANF" LINE

"C" LINE

ROUTE 101

BAYSHORE PKWY

MOUNTAIN VIEW

PALO ALTO

MOUNTAIN VIEW CITY LIMIT

PALO ALTO CITY LIMIT

SEE SHEETS D-8 & D-9

SEE SHEET D-11

R/W

DRAINAGE PLAN

SCALE: 1" = 50'

D-10

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CC	CC	CC	REVISED BY
05/12/11	12/16/10	06/02/10	DATE REVISED
CLAIRE COUGHLAN			CALCULATED-DESIGNED BY
ANALETTE OCHOA			CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION | DATE PLOTTED => 5/16/2011
05-12-11 | TIME PLOTTED => 4:31:38 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ia010.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

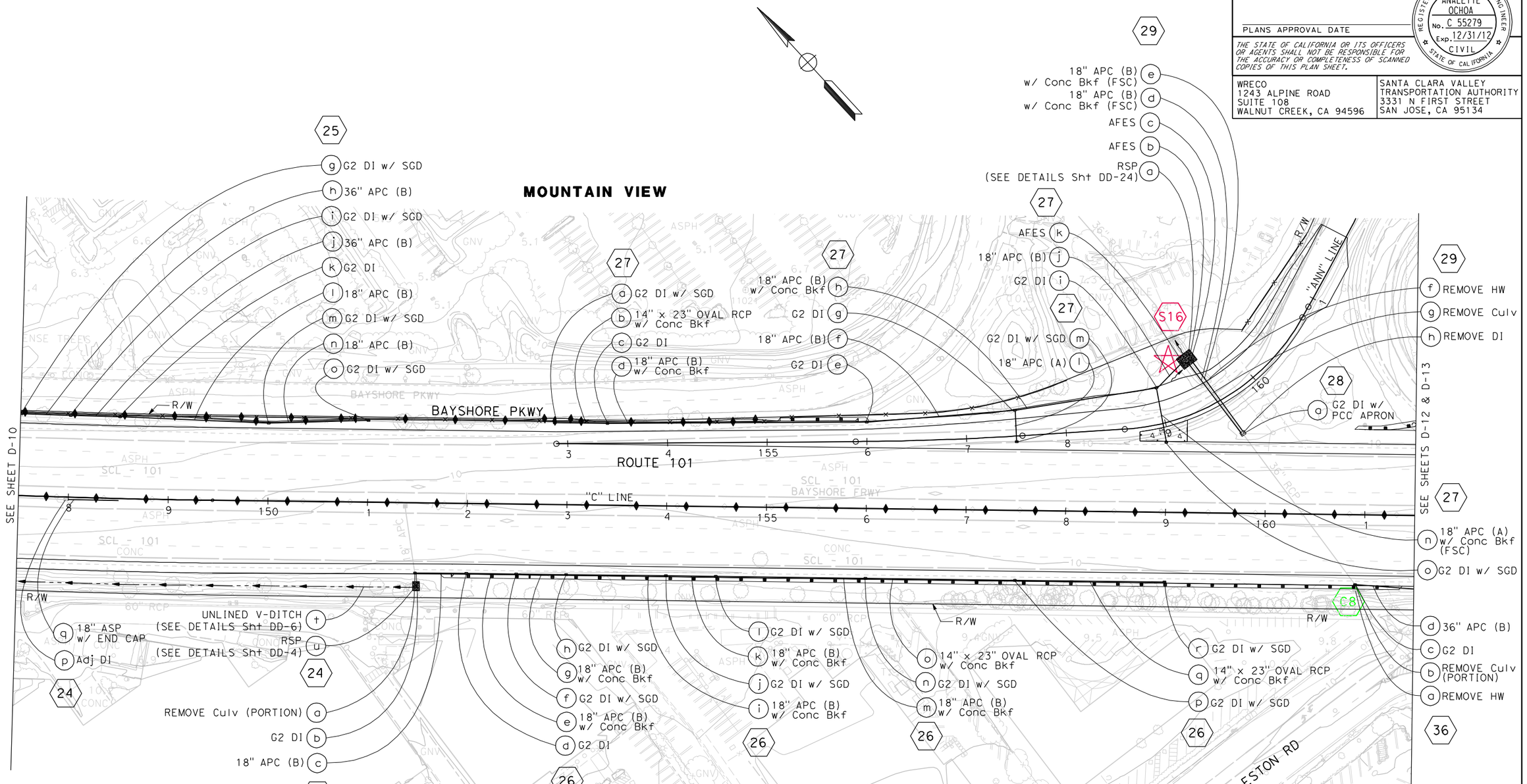
CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

MOUNTAIN VIEW



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-11

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:41 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia011.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

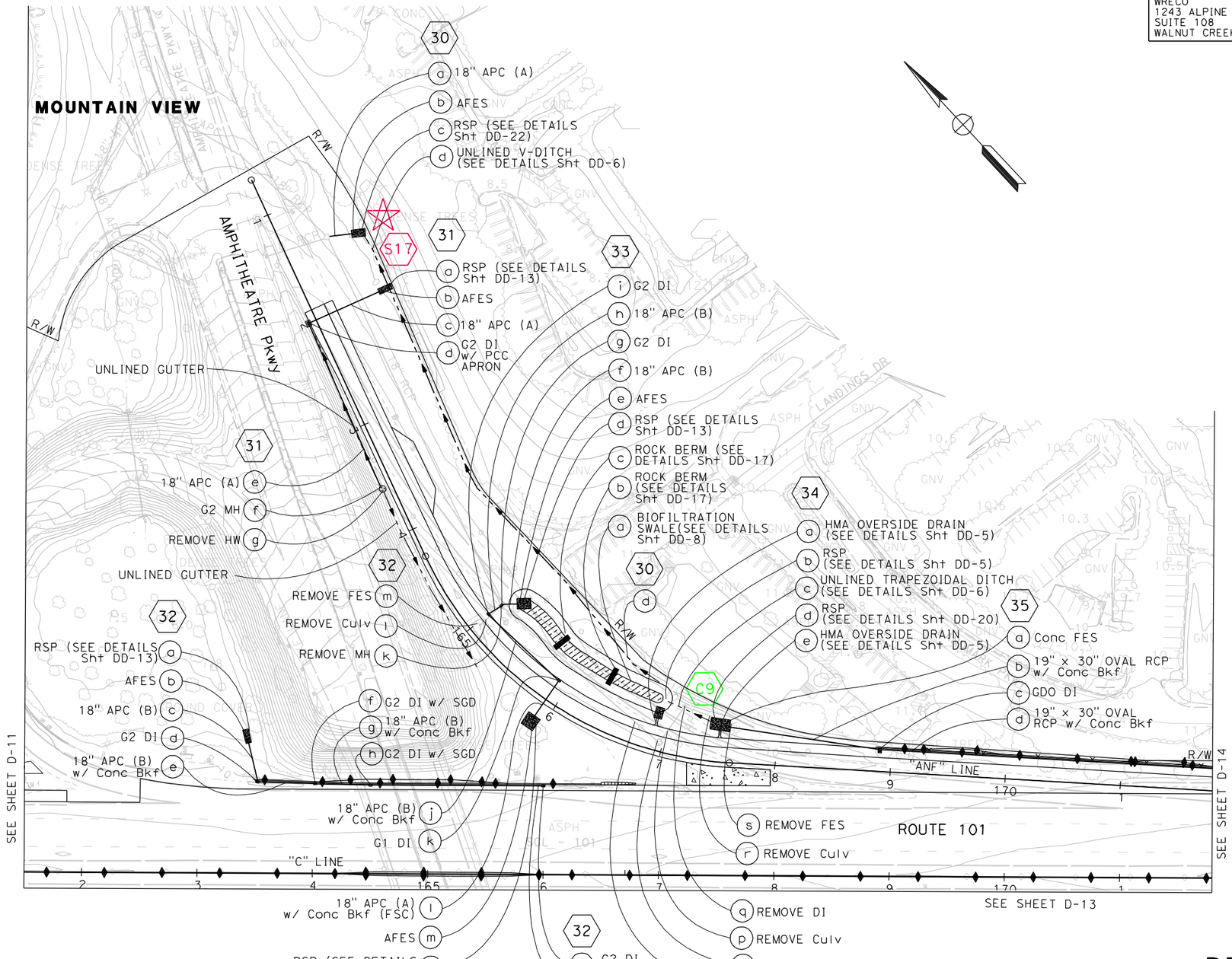
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

DRAINAGE PLAN

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

D-12

CALCULATED-DESIGNED BY	CC	05/12/11
CHECKED BY	CC	12/16/10
CLAIRE COUGHLAN	CC	06/02/10
ANALETTE OCHOA	REVISED BY	DATE REVISED

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:45 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a3301a012.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

SEE SHEET D-12
"C" LINE
ROUTE 101
SEE SHEET D-11
"CSN" LINE
"RSN" LINE
"RSF" LINE
C10
R/W
NORTH RENGSTORFF Ave
AMPHITHEATRE PKWY
MOUNTAIN VIEW
SEE SHEET D-14

37
(h) 18" ASP w/ END CAP
(g) G4 DI
(f) 14" x 23" OVAL RCP

38
(q) BIOFILTRATION SWALE (SEE DETAILS Sht DD-8)
(p) RSP (SEE DETAILS Sht DD-13)
(o) AFES
(n) AFES
(m) REMOVE HW
(l) REMOVE Culv
(k) 18" APC (B) w/ Conc Bkf (FSC)
(j) 18" APC (B) w/ Conc Bkf (FSC)
(i) REMOVE DI

40
(e) 24" APC (B)
(d) G2 DI w/ PCC APRON
(c) 24" APC (B)
(b) AFES
(a) RSP (SEE DETAILS Sht DD-13)

40
(af) 18" APC (A)
(ag) G2 DI

40
(f) G2 DI
(g) 18" CSP
(h) STEEL FES
(i) RSP (SEE DETAILS Sht DD-22)
(j) UNLINED V-DITCH (SEE DETAILS Sht DD-6)

40
(ai) G2 DI
(ah) 18" APC (B)

36
(d) 36" APC (B)
(e) G1 DI
(f) REMOVE HW
(g) 30" APC (B) w/ Conc Bkf (FSC)
(h) REMOVE Culv
(i) REMOVE Culv
(j) REMOVE HW
(k) 30" APC (B)
(l) AFES
(m) RSP (SEE DETAILS Sht DD-22)

37
(e) G4 DI
(d) 18" APC (B)
(c) G4 DI
(b) 18" APC (B)
(a) G2 DI

38
(h) REMOVE Culv
(g) REMOVE HW
(f) AFES
(e) AFES
(d) RSP (SEE DETAILS Sht DD-13)
(c) UNLINED V-DITCH (SEE DETAILS Sht DD-6)
(b) RSP (SEE DETAILS Sht DD-5)
(a) HMA OVERSIDE DRAIN (SEE DETAILS Sht DD-5)

38
(l) AFES
(k) 14" x 23" OVAL RCP w/ Conc Bkf (FSC)

39
(o) REMOVE Culv
(n) REMOVE FES
(m) REMOVE FES

39
(l) G2 DI
(k) 18" APC (B) w/ Conc Bkf

40
(j) G4 DI (Mod)
(i) REMOVE Culv
(h) 14" x 23" OVAL RCP
(g) G4 DI (Mod)
(f) REMOVE DI
(e) REMOVE CULV
(d) UNLINED V-DITCH (SEE DETAILS Sht DD-6)
(c) REMOVE Conc (Misc) (SEE DETAILS Sht DD-12)
(b) LINED V-DITCH (SEE DETAILS Sht DD-6)
(a) REMOVE Conc (Misc)

40
(m) 24" APC (B)
(n) G2 DI
(o) 18" APC (B)
(p) G2 DI
(p) 18" APC (B)
(r) G2 DI
(s) 18" APC (B) w/ Conc Bkf
(t) UNLINED V-DITCH (SEE DETAILS Sht DD-6)
170+75 END (j)
BEGIN (t)

39

DRAINAGE PLAN

SCALE: 1" = 50'

D-13

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CC	05/12/11	CALCULATED-DESIGNED BY	CLAIRE COUGHLAN
CC	12/16/10	CHECKED BY	ANALETTE OCHOA
CC	06/02/10	CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG
REVISED BY	DATE REVISED	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:48 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ia013.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

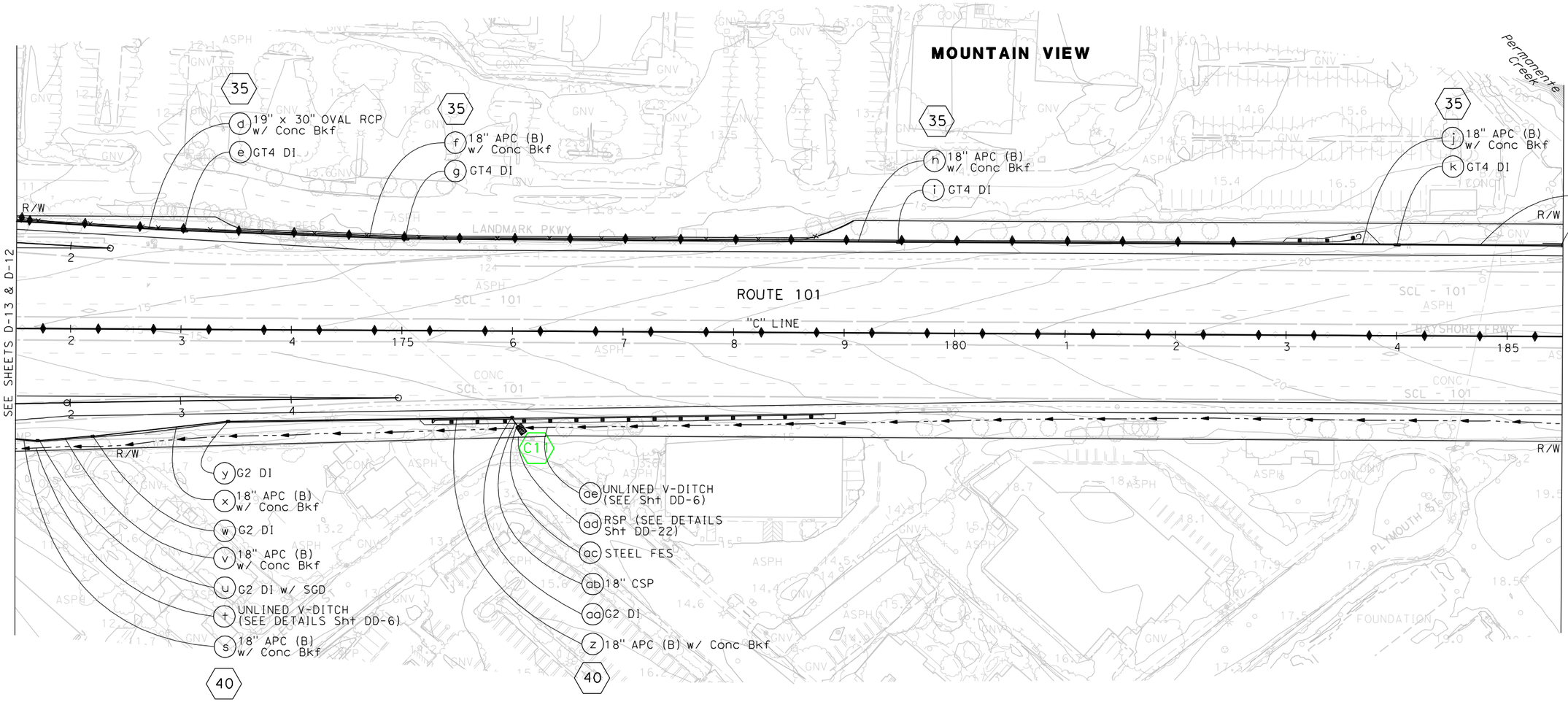
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



DRAINAGE PLAN

SCALE: 1" = 50'

D-14

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA
SUPERVISOR: HAN-BIN LIANG
CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:51 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ia014.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

MOUNTAIN VIEW

CULVERT EXTENSION SEE CONSTRUCTION DETAILS Sht C-46 THROUGH C-49

Permanente Creek

ROUTE 101

"SHNN" LINE

"C" LINE

SEE SHEET D-14

SEE SHEET D-16

41
- n 54" APC w/ Conc COLLAR
- m REMOVE Culv (PORTION)
- l 42" AUTOMATIC DRAINAGE GATE (SEE DETAILS Sht DD-7)
- k 36" APC (A)
- j REMOVE Culv
- i REMOVE DRAINAGE GATE
- h 18" APC (A)
- g G2 DI
- f 18" APC (A)
- e G2 DI w/ SGD

41
- o Adj DI

43
- b G2 DI w/ SGD
- a 36" APC (B)

43
- c REMOVE Culv
- d 36" APC (B)
- e REMOVE DI
- f REMOVE Culv
- g REMOVE DI

43
- h REMOVE Culv
- i G2 DI w/ SGD
- j 36" APC (B)
- k CAP DI
- l G2 DI w/ SGD

43
- p 24" APC (B)
- q REMOVE DI
- r G2 DI w/ SGD
- s 24" APC (A)
- t REMOVE Culv

43
- u Adj DI
- v Adj DI
- w Adj DI

42
- h G2 DI
- i 18" APC (B)
- j 18" ASP

43
- z 24" APC (B) w/ Conc Bkf
- y REMOVE Culv
- x Adj DI

44
- a G2 DI w/ SGD
- b 18" APC (B)
- c Adj DI
- d REMOVE Culv
- e 18" APC (B)
- f REMOVE DI
- m G2 DI w/ SGD
- l REMOVE Culv
- k REMOVE DI
- j REMOVE Culv
- i 18" APC (B)
- h REMOVE Culv
- g G2 DI

41
- a REMOVE DI
- b REMOVE Culv
- c REMOVE DI
- d REMOVE Culv

24" APC (B) m
CAP DI n
REMOVE Culv o

43

42
- a RSP (SEE DETAILS Sht DD-25)
- b LINED V-DITCH (SEE DETAILS Sht DD-6)

42
- c REMOVE HW
- d 18" APC (B) w/ Conc COLLAR
- e STRAIGHT HW
- f RSP (SEE DETAILS Sht DD-4)
- g RSP (SEE DETAILS Sht DD-13)

42
- a AFES
- b 30" APC (B)
- c G2 DI w/ PCC APRON
- d REMOVE FES

45

S18 S19 C12

R/W

DRAINAGE PLAN

SCALE: 1" = 50'

D-15

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

CC	CC	CC	REVISED BY	CLAIRE COUGHLAN	CALCULATED-DESIGNED BY
05/12/11	12/16/10	06/02/10	DATE REVISED	ANALETTE OCHOA	CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:31:54 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ia015.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

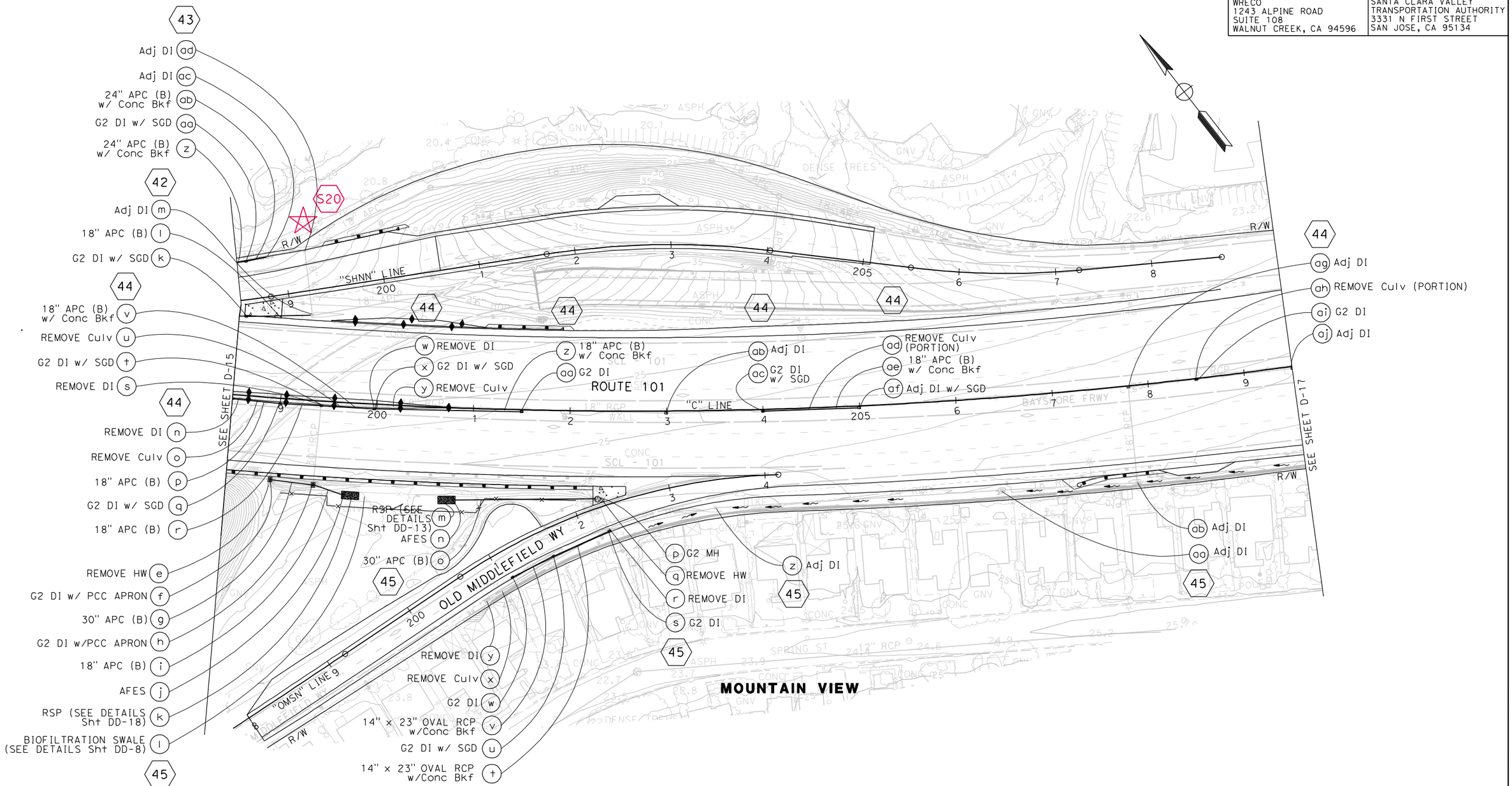
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE: 1" = 50'

D-16

	DESIGNED BY	DRAWN BY	CHECKED BY	DATE REVISED	REVISED BY
05/12/11	CC				
12/16/10	CC				
06/02/10	CC				

CLAIRE COUGHLAN
ANALETTE OCHOA

CALCULATED-DESIGNED BY
CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:31:57 PM

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

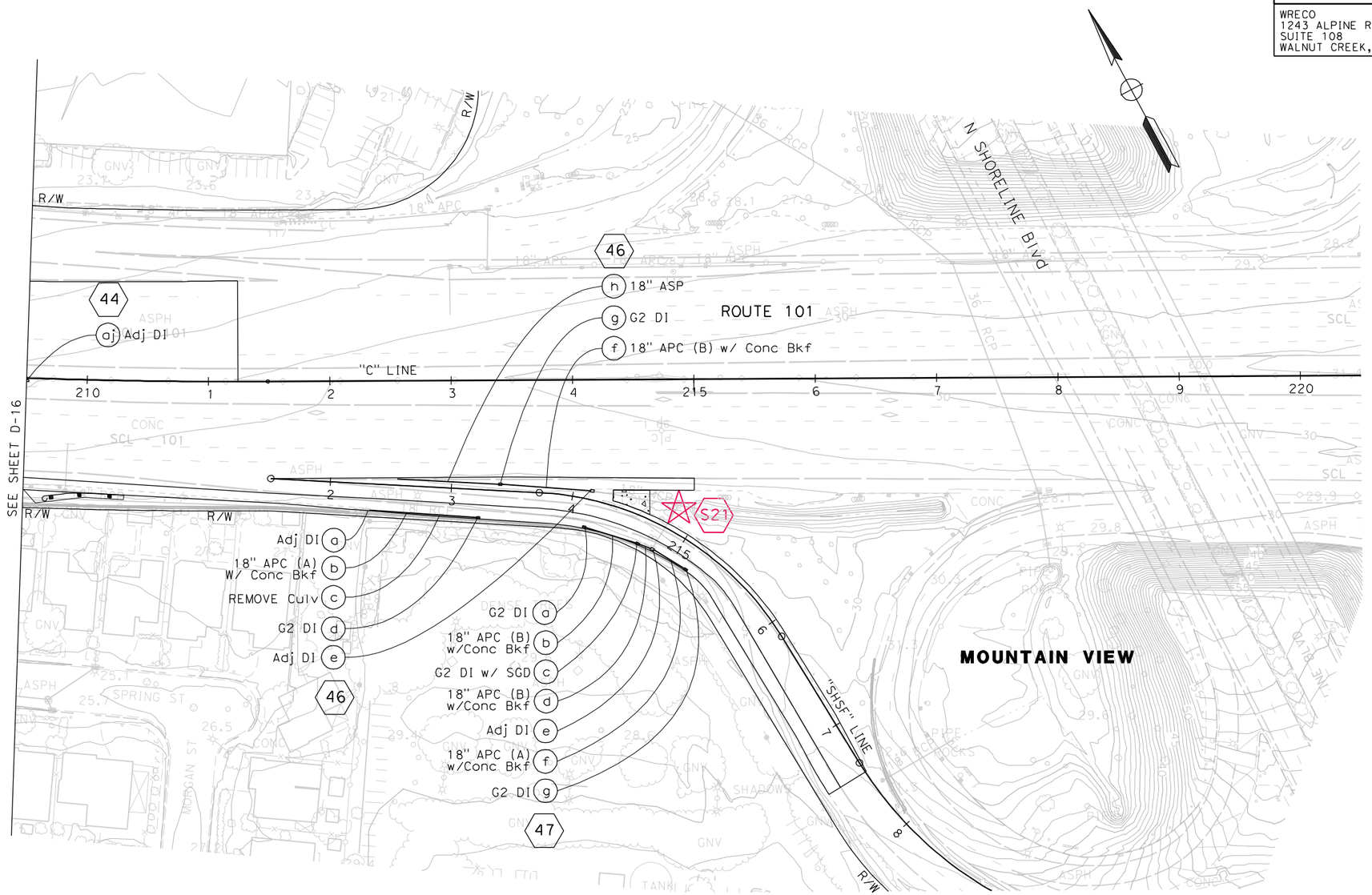
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



DRAINAGE PLAN

SCALE: 1" = 50'

D-17

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET D-1

THIS PLAN ACCURATE FOR DRAINAGE WORK ONLY

	CALCULATED-DESIGNED BY	REVISED BY	DATE REVISED
	CC	CC	06/02/10
	CC	CC	12/16/10
	CC	CC	05/12/11
	CHECKED BY	CLAIRE COUGHLAN	ANALETTE OCHOA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:32:00 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ia017.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

Appendix C Watershed Map

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

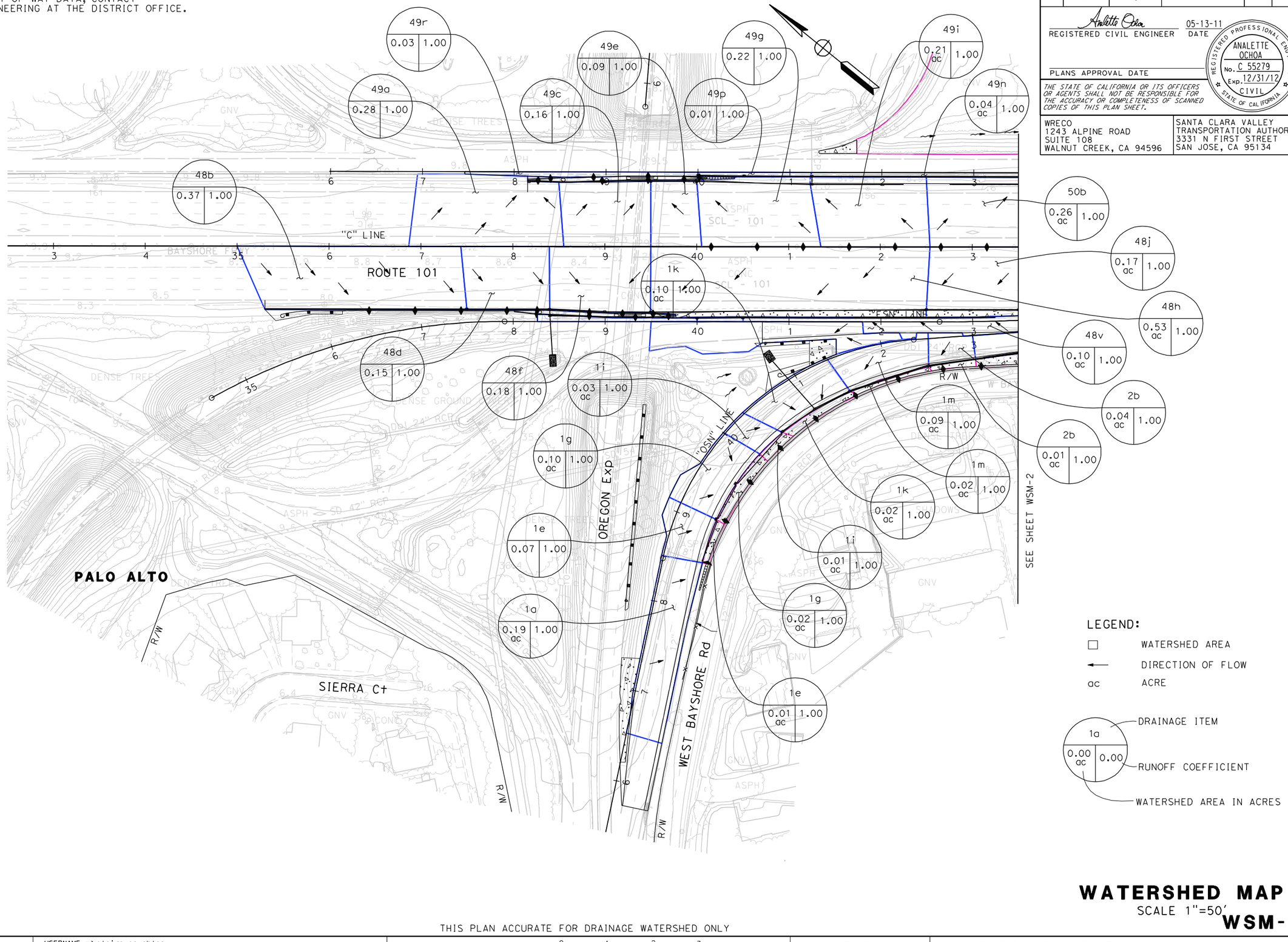
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ANALETTE OCHOA No. C 55279 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



LEGEND:

□ WATERSHED AREA

← DIRECTION OF FLOW

ac ACRE

1a
0.00 ac | 0.00

DRAINAGE ITEM

RUNOFF COEFFICIENT

WATERSHED AREA IN ACRES

WATERSHED MAP

SCALE 1"=50'

WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4134144 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ws001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CLAIRE COUGHLAN
ANALETTE OCHOA

CALCULATED-DESIGNED BY
CHECKED BY

HAN-BIN LIANG

CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

PALO ALTO

EAST BAYSHORE Rd

WEST BAYSHORE Rd

ROUTE 101

BAYSHORE FRWY

AMARILLO Ave

"ENF" LINE

"C" LINE

"ESN" LINE

R/W

SEE SHEET WSM-1

SEE SHEET WSM-3

3y	1.09 ac	0.60
3g	0.19 ac	1.00
501	0.09 ac	1.00
3j	0.06 ac	1.00
31	0.04 ac	1.00
50n	0.09 ac	1.00
50n	0.44 ac	1.00
3n	0.05 ac	1.00
3p	0.10 ac	1.00
3ak	0.09 ac	1.00
3ai	0.09 ac	1.00
6a	0.17 ac	1.00
3ab	0.11 ac	1.00
3ab	0.19 ac	1.00
3ae	0.12 ac	1.00
6c	0.05 ac	1.00
6g	0.01 ac	1.00
3ag	0.09 ac	1.00
6y	0.26 ac	1.00
3x	0.06 ac	1.00
6i	0.13 ac	1.00
6k	0.31 ac	1.00
6m	0.13 ac	1.00
5o	0.19 ac	1.00
50h	0.09 ac	1.00
50h	0.04 ac	1.00
50f	0.04 ac	1.00
50d	0.04 ac	1.00
50b	0.05 ac	1.00
50b	0.26 ac	1.00
481	0.22 ac	1.00
4a	0.04 ac	1.00
4a	0.02 ac	1.00
4c	0.06 ac	1.00
4c	0.02 ac	1.00
4e	0.02 ac	1.00
4e	0.22 ac	1.00
4g	0.23 ac	1.00
4i	0.16 ac	1.00
4k	0.09 ac	1.00
4m	0.15 ac	1.00
5c	0.01 ac	1.00
5a	0.07 ac	1.00
5c	0.22 ac	1.00
5e	0.01 ac	1.00
5e	0.10 ac	1.00
5i	0.02 ac	0.60
5i	0.46 ac	1.00
5i	0.01 ac	0.60
5i	0.28 ac	1.00
5n	0.08 ac	1.00
5r	0.09 ac	1.00
5r	0.005 ac	0.60
5p	0.01 ac	0.60
5n	0.005 ac	0.60

WATERSHED MAP

SCALE 1"=50'

WSM-2

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

LAST REVISION DATE PLOTTED => 5/16/2011
05-12-11 TIME PLOTTED => 4134146 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

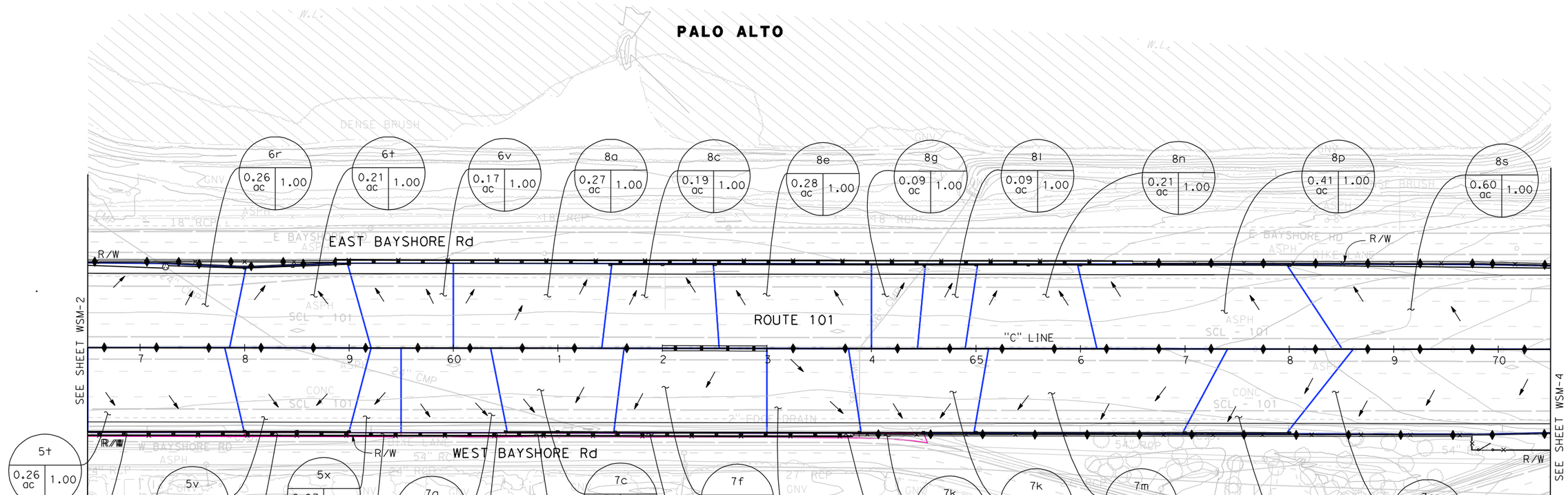
SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



WATERSHED MAP

SCALE 1"=50'

WSM-3

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:34:48 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ws003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

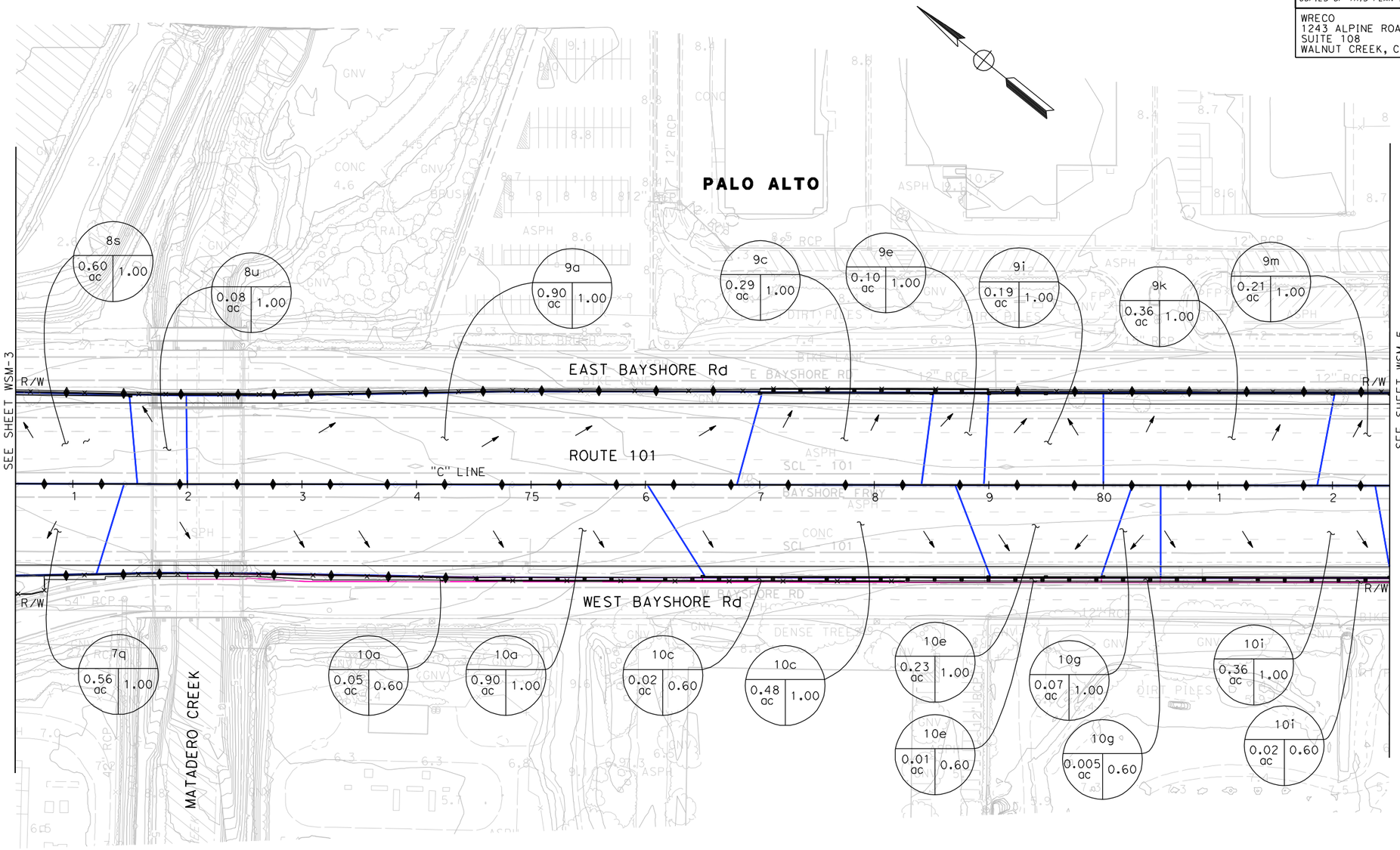
REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

WATERSHED MAP

SCALE 1"=50'

WSM-4

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
CLAIRE COUGHLAN	ANALETTE OCHOA	CC	06/02/10
		CC	12/16/10
		CC	05/12/11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:34:51 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ws004.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

DATE REVISED	REVISED BY	CHECKED BY	CALCULATED-DESIGNED BY
06/02/10	CC	ANALETTE OCHOA	CLAIRE COUGHLAN
12/16/10	CC		
05/12/11	CC		

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

PALO ALTO

EAST BAYSHORE Rd

WEST BAYSHORE Rd

ROUTE 101

"C" LINE

LOMA VERDE Ave

SEE SHEET D-4

SEE SHEET D-6

9m	0.21 ac	1.00
9q	0.08 ac	1.00
9s	0.18 ac	1.00
9w	0.37 ac	1.00
9z	0.26 ac	1.00
11c	0.49 ac	1.00
10y	0.08 ac	1.00
12a	0.27 ac	1.00
12c	0.20 ac	1.00
12e	0.18 ac	1.00
12i	0.06 ac	1.00
12g	0.13 ac	1.00
14a	0.36 ac	1.00
10k	0.21 ac	1.00
10k	0.01 ac	0.60
10m	0.08 ac	1.00
10m	0.004 ac	0.60
10o	0.58 ac	1.00
10o	0.03 ac	0.60
10q	0.003 ac	0.60
10q	0.06 ac	1.00
10s	0.20 ac	1.00
10s	0.01 ac	0.60
10w	0.18 ac	1.00
10w	0.01 ac	0.60
10y	0.004 ac	0.60
10aa	0.21 ac	1.00
10aa	0.01 ac	0.60
10ac	0.02 ac	0.60
10ac	0.46 ac	1.00
13a	0.82 ac	1.00
13a	0.04 ac	0.60

WATERSHED MAP

SCALE 1"=50'

WSM-5

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:34:53 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ws005.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PALO ALTO

EAST BAYSHORE Rd
ROUTE 101
"C" LINE
WEST BAYSHORE Rd
BAYSHORE FRWY
R/W

SEE SHEET WSM-5

SEE SHEET WSM-7

14c	0.21 ac	1.00
14a	0.36 ac	1.00
14e	0.09 ac	1.00
14g	0.01 ac	1.00
14m	0.19 ac	1.00
14o	0.08 ac	1.00
16a	0.27 ac	1.00
16c	0.22 ac	1.00
16e	0.65 ac	1.00
16g	0.56 ac	1.00
16i	0.06 ac	1.00
13a	0.04 ac	0.60
13a	0.82 ac	1.00
13c	0.01 ac	0.60
13c	0.14 ac	1.00
13e	0.53 ac	1.00
13e	0.03 ac	0.60
13i	0.19 ac	1.00
13i	0.01 ac	0.60
13k	0.50 ac	1.00
13k	0.02 ac	0.60
13m	0.05 ac	0.60
13m	0.82 ac	1.00

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

WATERSHED MAP

SCALE 1"=50'

WSM-6

LAST REVISION — DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:34:56 PM
05-12-11

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

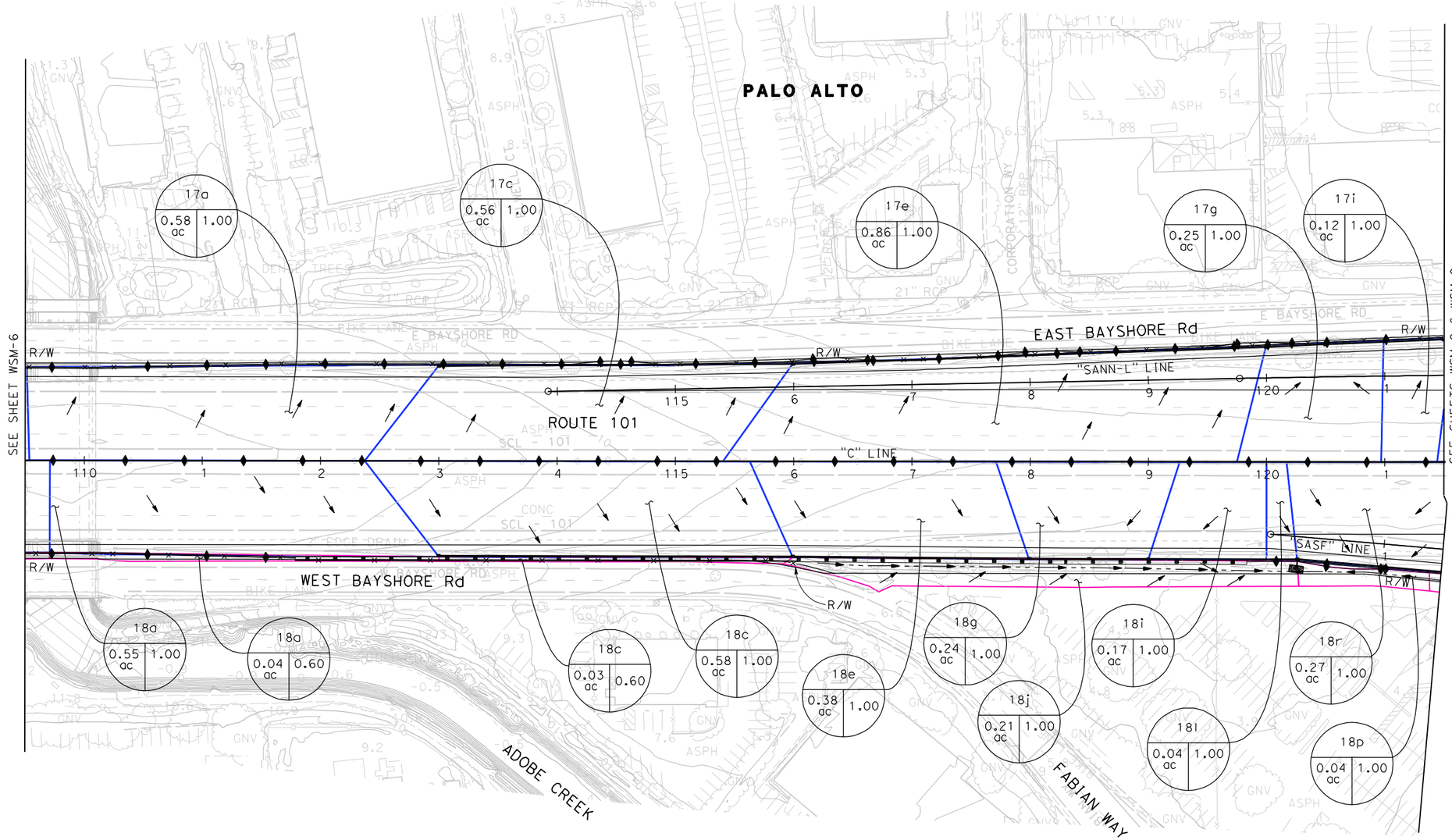
SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CLAIRE COUGHLAN — CALCULATED-DESIGNED BY
ANALETTE OCHOA — CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



WATERSHED MAP

SCALE 1"=50'

WSM-7

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 TIME PLOTTED => 4:34:59 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan DGN FILE => 44a330ws007.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

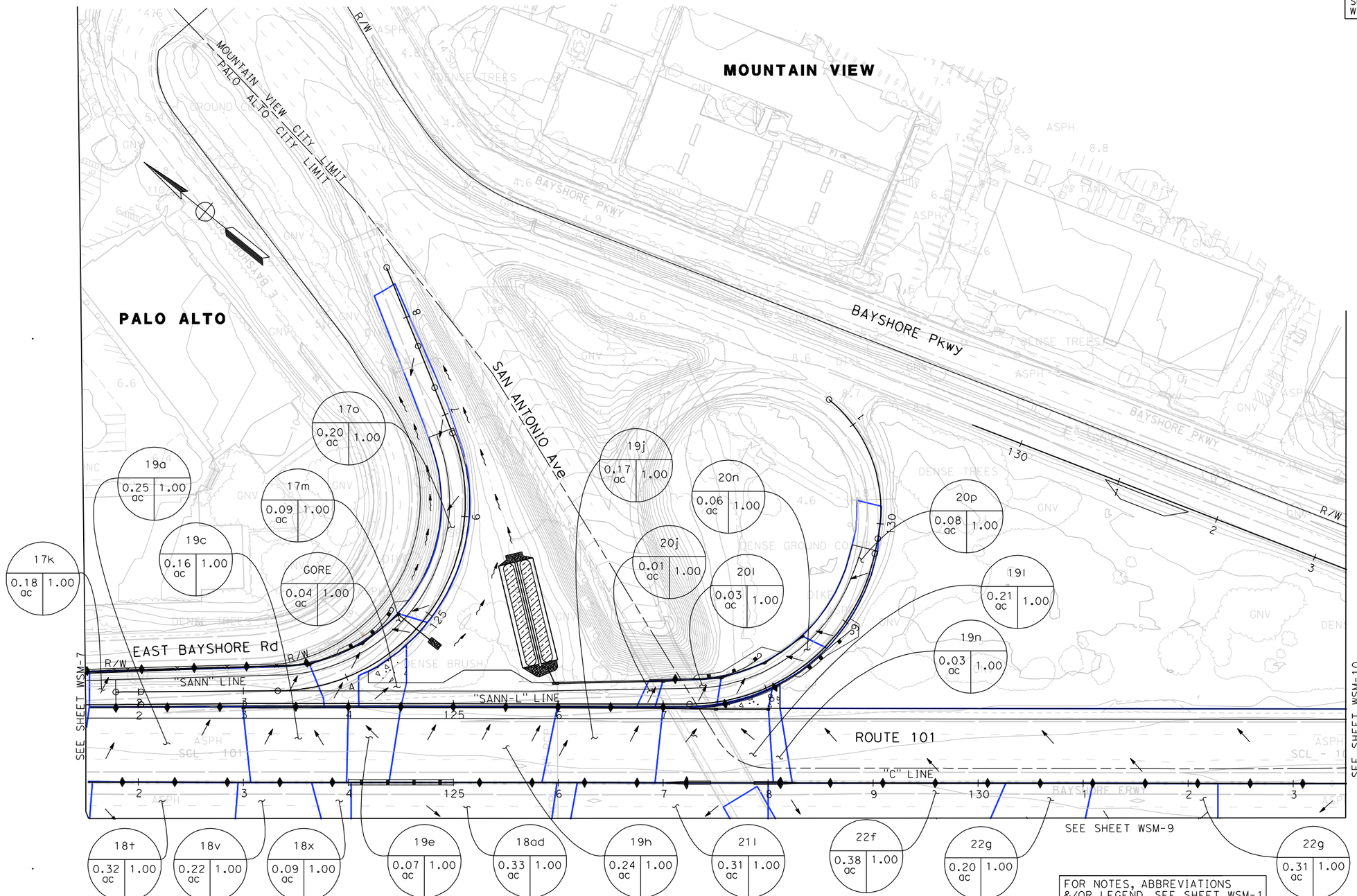
REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

WATERSHED MAP

SCALE 1"=50'

WSM-8

05/12/11	CC		
12/16/10	CC		
06/02/10	CC	REVISED BY	
		DATE REVISED	
	CLAIRE COUGHLAN	CALCULATED-DESIGNED BY	
	ANALETTE OCHOA	CHECKED BY	
	HAN-BIN LIANG	CONSULTANT FUNCTIONAL SUPERVISOR	
	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		

LAST REVISION DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:35:01 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws008.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

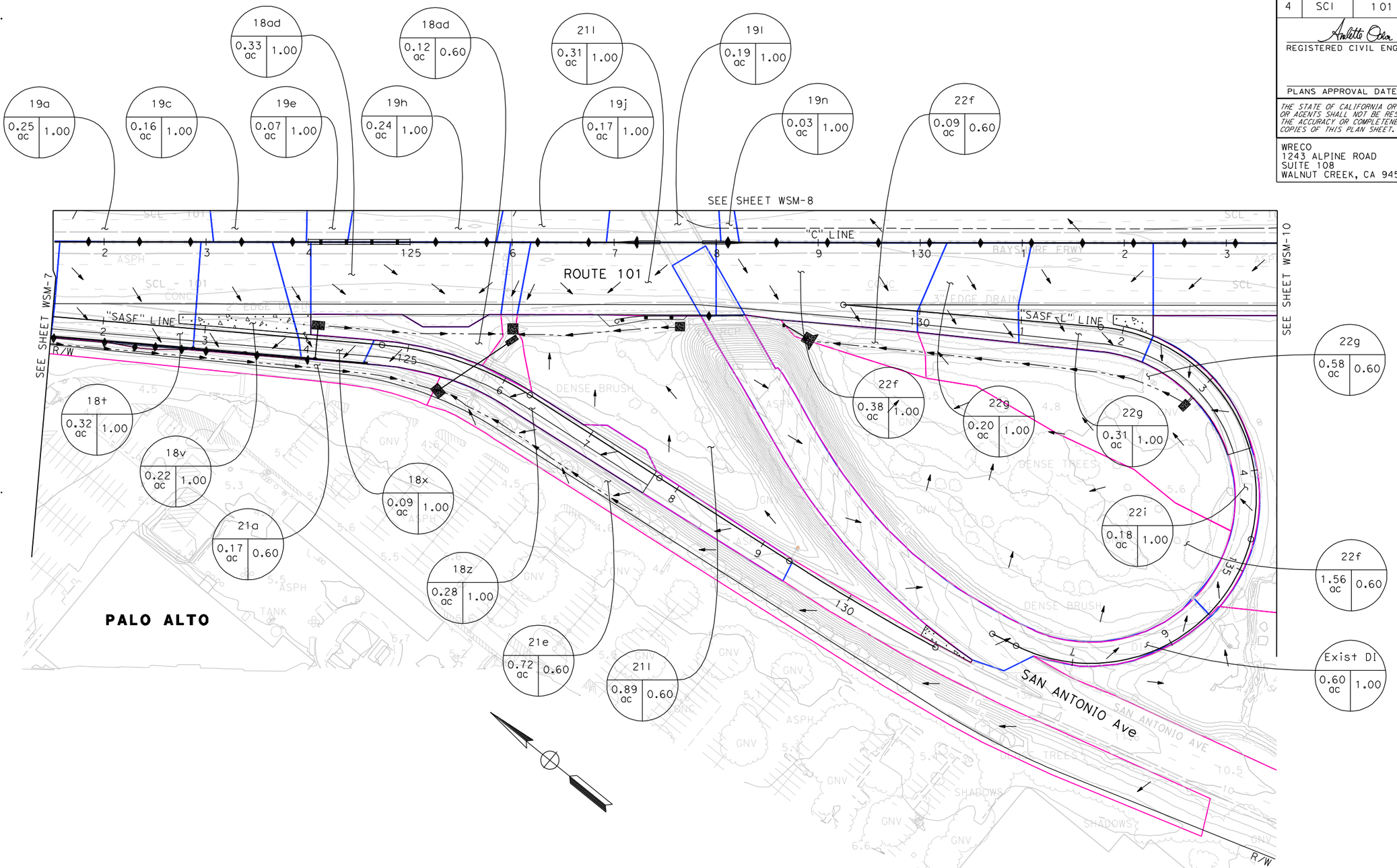
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ANALETTE OCHOA No. C 55279 Exp. 12/31/12 CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



WATERSHED MAP

SCALE 1"=50'

WSM-9

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

	REVISED BY	DATE REVISED
CC	CLAIRE COUGHLAN	05/12/11
CC		12/16/10
CC		06/02/10

CALCULATED-DESIGNED BY: ANALETTE OCHOA
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:35:04 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ws009.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CLAIRE COUGHLAN
ANALETTE OCHOA

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

WATERSHED MAP

SCALE 1"=50'

WSM-10

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

LAST REVISION DATE PLOTTED => 5/16/2011
05-12-11 TIME PLOTTED => 4135:06 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws010.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

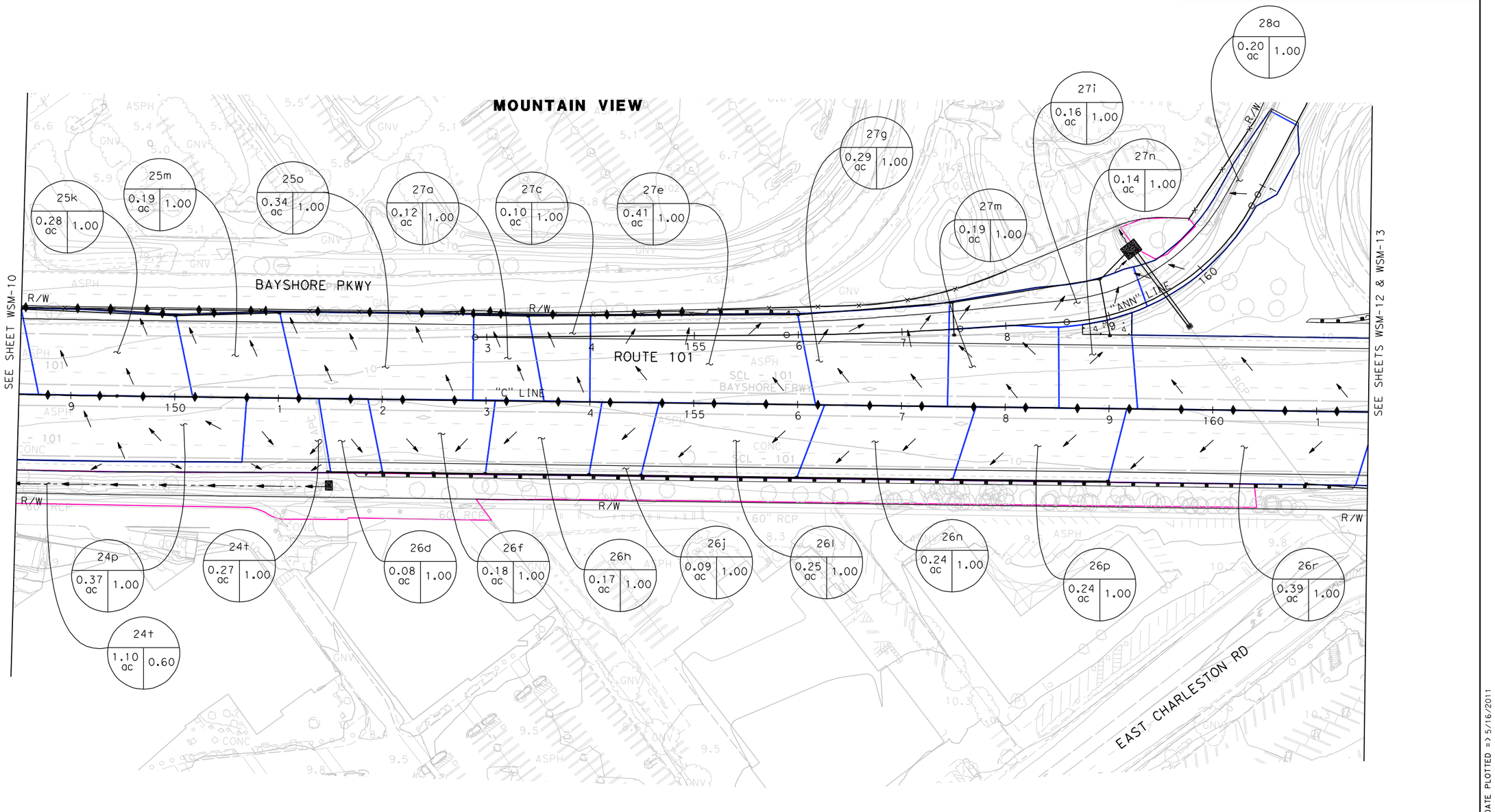
REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



WATERSHED MAP
SCALE: 1"=50'

WSM-11

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

CC	CC	CC	REVISED BY	CALCULATED-DESIGNED BY	CLAIRE COUGHLAN
05/12/11	12/16/10	06/02/10	DATE REVISED	CHECKED BY	ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:35:09 PM

BORDER LAST REVISED 7/2/2010

USERNAME => claire_coughlan
DGN FILE => 44a330ws011.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0712

PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	101	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

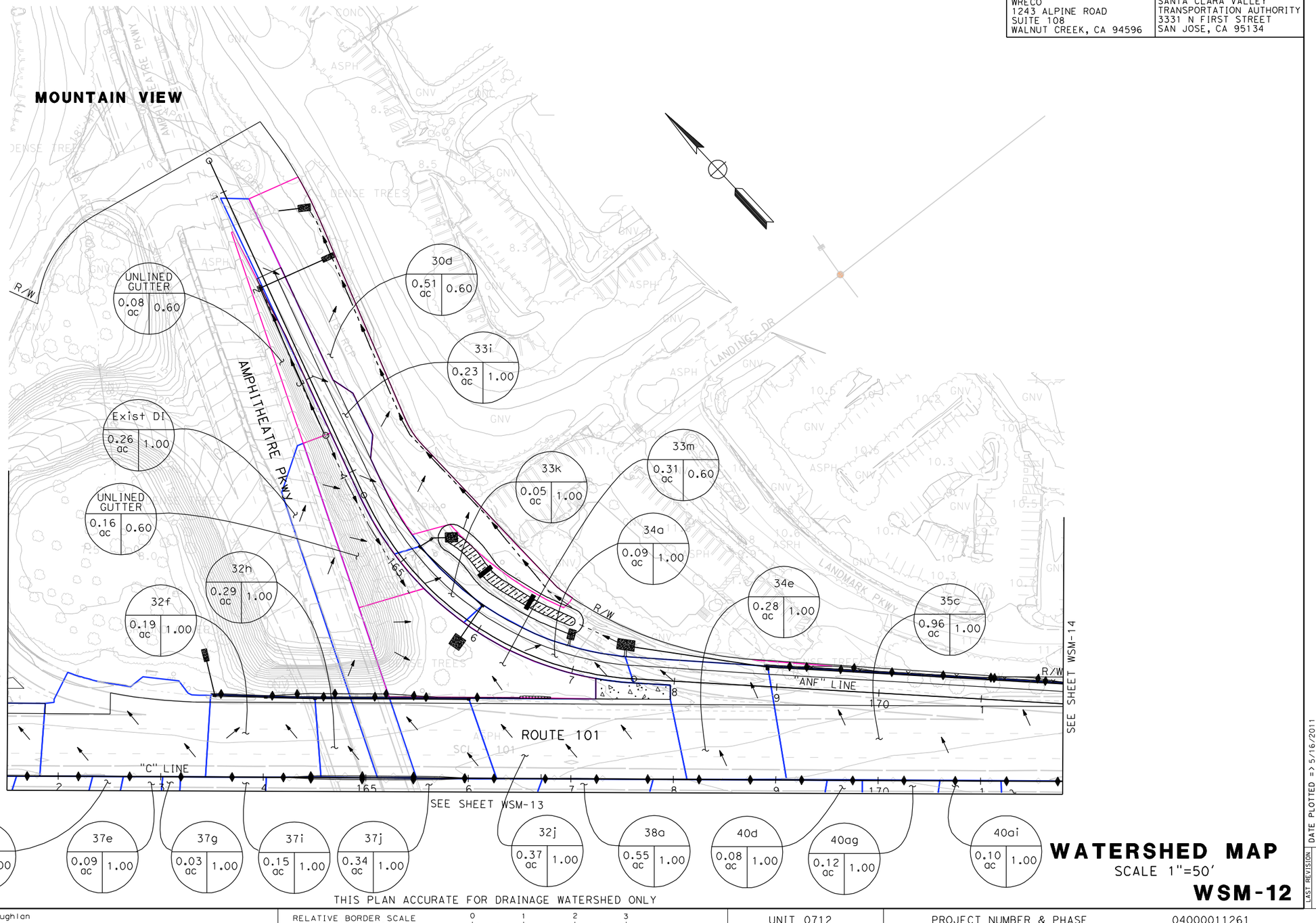
SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

WATERSHED MAP

SCALE 1"=50'

WSM-12

LAST REVISION: 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4:35:11 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws012.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCI	101	48.7/52.0		

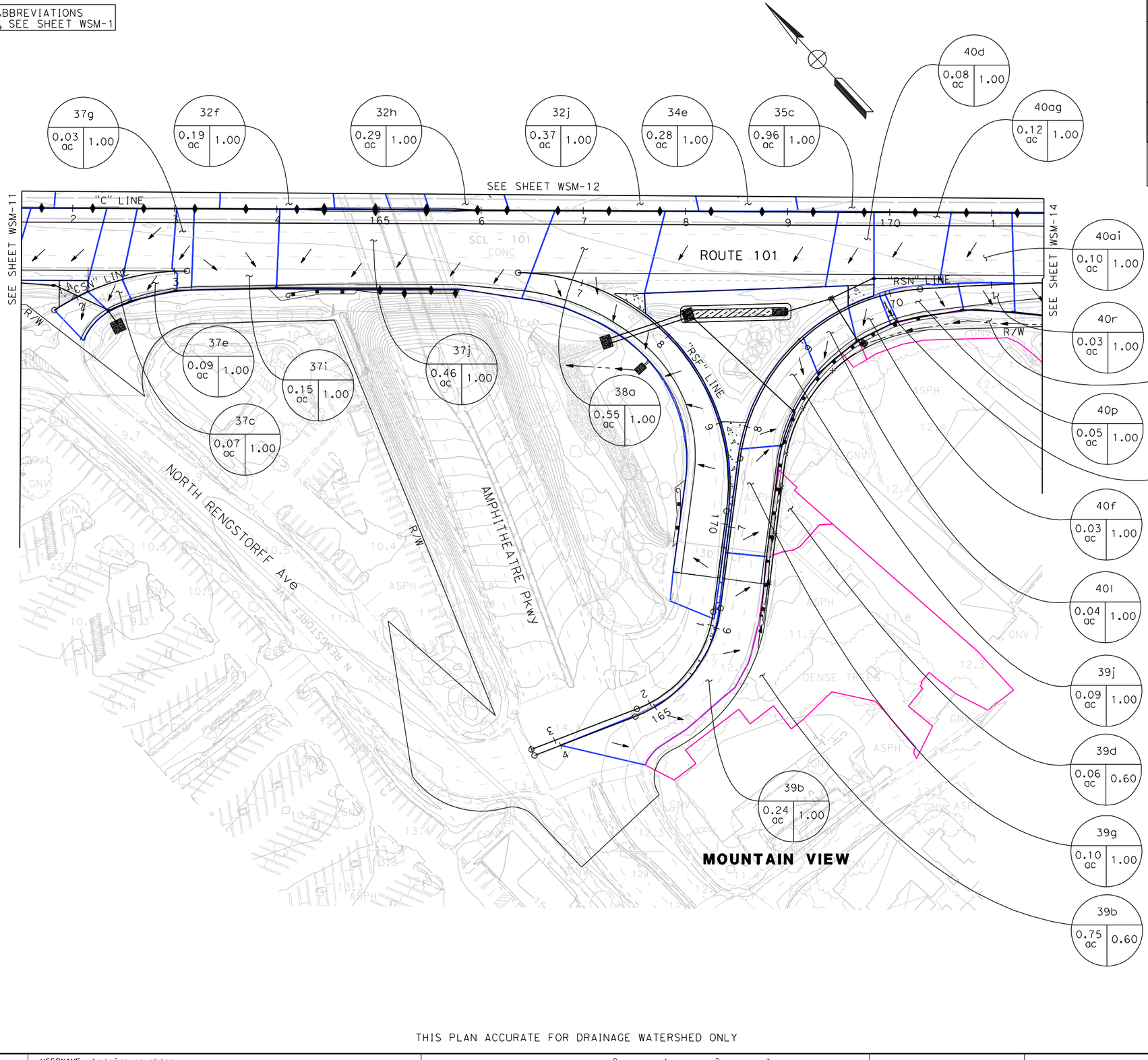
Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



WATERSHED MAP

SCALE 1"=50'

WSM-13

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

REVISED BY	DATE REVISED
CC	06/02/10
CC	12/16/10
CC	05/12/11

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:35:14 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws013.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

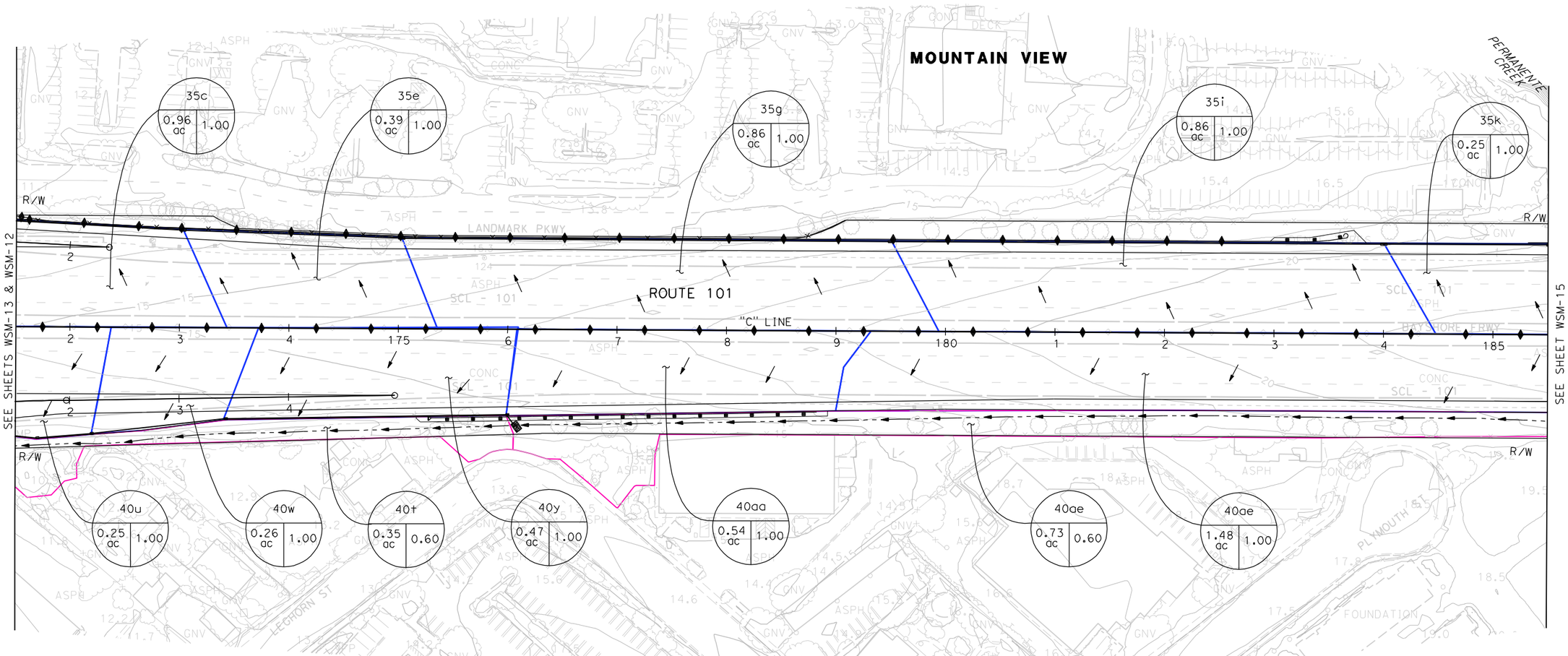
PLANS APPROVAL DATE

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

DATE REVISED	REVISED BY
06/02/10	CC
12/16/10	CC
05/12/11	CC

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



WATERSHED MAP

SCALE 1"=50'

WSM-14

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

LAST REVISION DATE PLOTTED => 5/16/2011
05-12-11 TIME PLOTTED => 4:35:16 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws014.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa — 05-13-11
REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

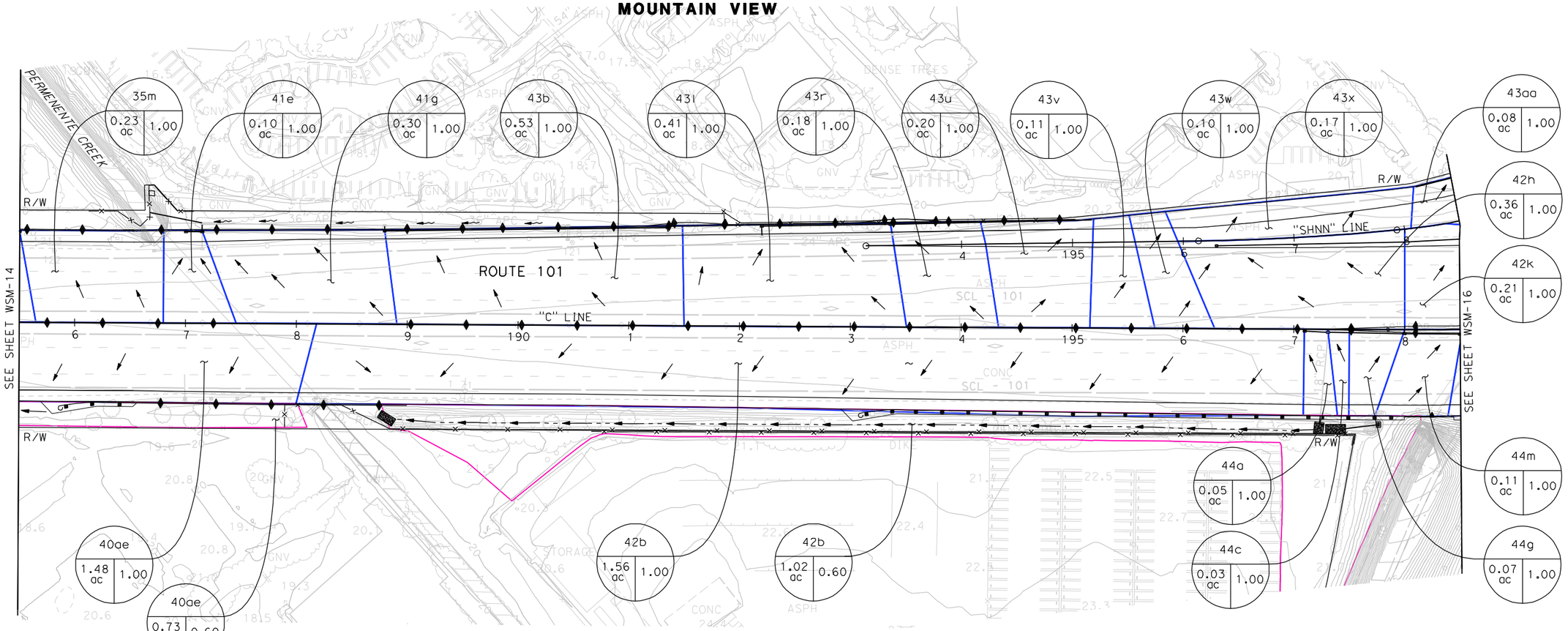
REGISTERED PROFESSIONAL ENGINEER — ANALETTE OCHOA — No. C 55279 — Exp. 12/31/12 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

MOUNTAIN VIEW



WATERSHED MAP

SCALE 1"=50'

WSM-15

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

CALCULATED-DESIGNED BY	CLAIRE COUGHLAN	REVISED BY	CC
CHECKED BY	ANALETTE OCHOA	DATE REVISED	06/02/10
CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG		CC 12/16/10
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans		CC 05/12/11

LAST REVISION | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:35:19 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws015.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

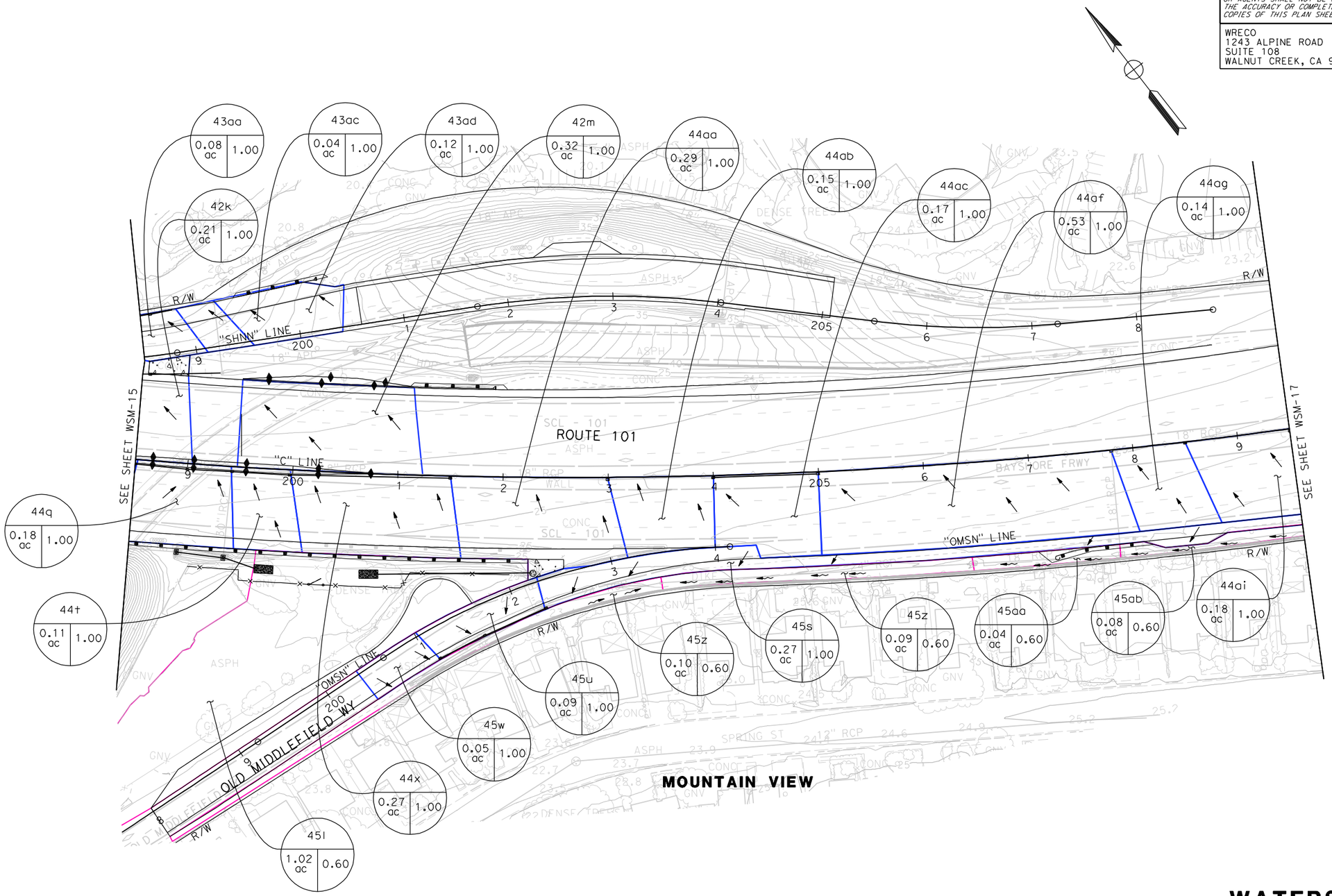
REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134



WATERSHED MAP

SCALE 1"=50'

WSM-16

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

CALCULATED-DESIGNED BY	CC	05/12/11
CHECKED BY	CC	12/16/10
	CC	06/02/10
REVISED BY		DATE REVISED
CLAIRE COUGHLAN		
ANALETTE OCHOA		

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 05-12-11 | DATE PLOTTED => 5/16/2011 | TIME PLOTTED => 4:35:22 PM

BORDER LAST REVISED 7/2/2010 | USERNAME => claire_coughlan | DGN FILE => 44a330ws016.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0712 | PROJECT NUMBER & PHASE 04000011261

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	SCl	1 01	48.7/52.0		

Analette Ochoa 05-13-11
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ANALETTE OCHOA
No. C 55279
Exp. 12/31/12
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

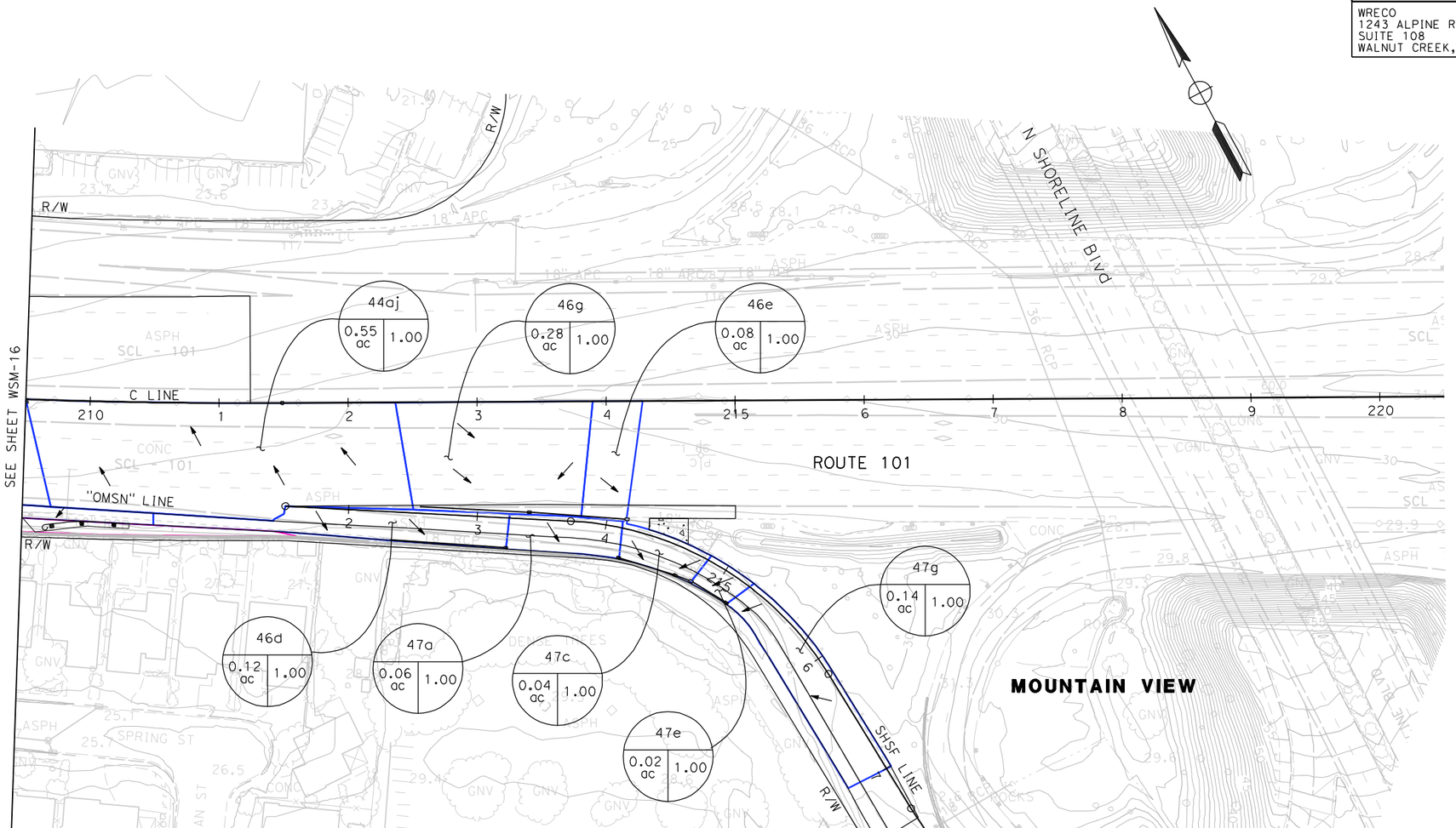
SANTA CLARA VALLEY
TRANSPORTATION AUTHORITY
3331 N FIRST STREET
SAN JOSE, CA 95134

DATE REVISED	REVISED BY
06/02/10	CC
12/16/10	CC
05/12/11	CC

CALCULATED-DESIGNED BY: CLAIRE COUGHLAN
CHECKED BY: ANALETTE OCHOA

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



WATERSHED MAP

SCALE 1"=50'

WSM-17

THIS PLAN ACCURATE FOR DRAINAGE WATERSHED ONLY

FOR NOTES, ABBREVIATIONS &/OR LEGEND, SEE SHEET WSM-1

LAST REVISION 05-12-11
DATE PLOTTED => 5/16/2011
TIME PLOTTED => 4135:24 PM

BORDER LAST REVISED 7/2/2010
USERNAME => claire_coughlan
DGN FILE => 44a330ws017.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0712
PROJECT NUMBER & PHASE 04000011261