Appendix C

Frequency Analysis Results

March 30, 2009 Geocon Incorporated Letter (Planning Area 1 Infiltration)

Rainfall Station Map

Meadowood Pre-Project Soil Information Exhibit

Meadowood Post-Project Soil Information Exhibit

Meadowood Pre-Project Slope Information Exhibit

Meadowood Post -Project Slope Information Exhibit

Meadowood Pre-Project Ground Cover Information Exhibit

Meadowood Post-Project Land Use Information Exhibit

Meadowood
J-15956
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Drainage Basin 200/2000 is the second drainage basin North to South, labeled as 200 for pre-project and 2000 for post-project. The following acreages for all the unique combinations of soil type, slope analysis, land uses/ground cover, drainage basin boundaries were obtained with GIS Frequency analysis, please refer to Meadowood Pre and Post-project Soil Information Exhibits, Meadowood Pre and Post-project Slope Information Exhibits, Meadowood Pre-project Ground Cover Information Exhibit, and Meadowood Post-project Land Use Information Exhibit in Appendix C.

Basin 200 Pre-project
Total Area = 62.1 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	0.04
FOREST	B	5% - 10%	0.83
FOREST	B	10% - 20%	1.69
FOREST	B	20% and Greater	0.74
FOREST	C/D	10% - 20%	0.01
FOREST	C/D	20% and Greater	0.04
SHRUB	B	5% and Less	0.87
SHRUB	B	5% - 10%	0.22
SHRUB	B	10% - 20%	1.23
SHRUB	B	20% and Greater	3.79
SHRUB	C/D	5% and Less	2.71
SHRUB	C/D	5% - 10%	0.11
SHRUB	C/D	10% - 20%	1.88
SHRUB	C/D	20% and Greater	47.10
GRASS	B	5% - 10%	0.19
GRASS	B	10% - 20%	0.24
GRASS	B	20% and Greater	0.04
GRASS	C/D	10% - 20%	0.08
GRASS	C/D	20% and Greater	0.36

Basin 2000A Post-project (Disturbed)
Total Area = 51.0 AC

Land Use	Soil Type	Slopes	Area (AC)
FOREST	B	10% - 20%	0.01
FOREST	B	20% and Greater	0.01
SHRUB	B	5% and Less	0.30
SHRUB	B	10% - 20%	0.73
SHRUB	B	20% and Greater	1.28
SHRUB	C/D	5% and Less	2.52
SHRUB	C/D	5% - 10%	0.10
SHRUB	C/D	10% - 20%	1.04
SHRUB	C/D	20% and Greater	35.42
GRASS	B	20% and Greater	0.02
GRASS	C/D	5% and Less	0.19
GRASS	C/D	5% - 10%	0.13
GRASS	C/D	20% and Greater	2.95
LOTS	C/D	5% and Less	3.08
LOTS	C/D	20% and Greater	0.66
NON_CONTGS_SW	C/D	5% and Less	0.21
NON_CONTGS_SW	C/D	5% - 10%	0.43
ROAD	B	20% and Greater	0.01
ROAD	C/D	5% and Less	0.38
ROAD	C/D	5% - 10%	0.89
ROAD	C/D	20% and Greater	0.59

Basin 2000B Post-project (Clean Water)
Total Area = 8.5 AC

Land Use	Soil Type	Slopes	Area (AC)
SHRUB	B	20% and Greater	0.01
SHRUB	C/D	5% and Less	0.12
SHRUB	C/D	5% - 10%	0.01
SHRUB	C/D	10% - 20%	0.32
SHRUB	C/D	20% and Greater	7.64
GRASS	C/D	20% and Greater	0.43

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Drainage basin 300/3000 is the third basin North to South, labeled as 300 for pre-project and 3000 for post-project. The following acreages for all the unique combinations of soil type, slope analysis, land uses/ground cover, drainage basin boundaries were obtained with GIS Frequency analysis, please refer to Meadowood Pre and Post-project Soil Information Exhibits, Meadowood Pre and Post-project Slope Information Exhibits, Meadowood Pre-project Ground Cover Information Exhibit, and Meadowood Post-project Land Use Information Exhibit in Appendix C.

Basin 300 Pre-project
Total Area = 58.5 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	C/D	5% and Less	0.49
FOREST	C/D	5% - 10%	0.02
FOREST	C/D	10% - 20%	1.41
FOREST	C/D	20% and Greater	10.31
FOREST	B	5% and Less	0.33
FOREST	B	5% - 10%	1.95
FOREST	B	10% - 20%	7.46
FOREST	B	20% and Greater	2.72
SHRUB	B	10% - 20%	0.01
SHRUB	B	20% and Greater	0.15
SHRUB	C/D	5% and Less	0.63
SHRUB	C/D	5% - 10%	0.16
SHRUB	C/D	10% - 20%	0.72
SHRUB	C/D	20% and Greater	31.82
NONTURF_GRASSLAND	B	5% - 10%	0.21
NONTURF_GRASSLAND	B	10% - 20%	0.05
NONTURF_GRASSLAND	C/D	5% and Less	0.03
NONTURF_GRASSLAND	C/D	10% - 20%	0.01

Basin 3000 Post-project
Total Area = 61.6 AC

Land Use	Soil Type	Slopes	Area (AC)
FOREST	C/D	5% and Less	0.26
FOREST	C/D	5% - 10%	0.01
FOREST	C/D	10% - 20%	0.25
FOREST	C/D	20% and Greater	5.44
FOREST	B	10% - 20%	0.01
FOREST	B	20% and Greater	0.13
SHRUB	B	10% - 20%	0.01
SHRUB	B	20% and Greater	0.02
SHRUB	C/D	5% and Less	0.62
SHRUB	C/D	5% - 10%	0.16
SHRUB	C/D	10% - 20%	0.70
SHRUB	C/D	20% and Greater	31.71
GRASS	C/D	5% and Less	0.62
GRASS	C/D	20% and Greater	5.37
LOTS	C/D	5% and Less	8.47
LOTS	C/D	20% and Greater	2.13
NON_CONTGS_SW	C/D	5% and Less	1.30
NON_CONTGS_SW	C/D	5% - 10%	0.62
ROAD	C/D	5% and Less	2.62
ROAD	C/D	5% - 10%	1.19

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Drainage basin 400/4000 is located at southwest corner of drainage basin 300, labeled as 400 for pre-project and 4000 for post-project. The following acreages for all the unique combinations of soil type, slope analysis, land uses/ground cover, drainage basin boundaries were obtained with GIS Frequency analysis, please refer to Meadowood Pre and Post-project Soil Information Exhibits, Meadowood Pre and Post-project Slope Information Exhibits, Meadowood Pre-project Ground Cover Information Exhibit, and Meadowood Post-project Land Use Information Exhibit in Appendix C.

Basin 400 Pre-project
Total Area = 11.1 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	0.02
FOREST	B	5.001% - 10%	0.92
FOREST	B	10.001% - 20%	2.61
FOREST	B	20.001% and Greater	0.02
FOREST	C/D	5% and Less	0.28
FOREST	C/D	5.001% - 10%	0.17
FOREST	C/D	10.001% - 20%	3.80
FOREST	C/D	20.001% and Greater	2.73
NONTURF_GRASSLAND	B	5% and Less	0.02
NONTURF_GRASSLAND	B	5.001% - 10%	0.02
NONTURF_GRASSLAND	B	10.001% - 20%	0.18
NONTURF_GRASSLAND	C/D	5% and Less	0.04
NONTURF_GRASSLAND	C/D	10.001% - 20%	0.26
NONTURF_GRASSLAND	C/D	20.001% and Greater	0.01

Basin 4000 Post-project
Total Area = 11.2 AC

Land Use	Soil Type	Slopes	Area (AC)
GRASS	C/D	5% and Less	0.34
GRASS	C/D	5% - 10%	0.30
GRASS	C/D	20% and Greater	3.94
LOTS	C/D	5% and Less	4.36
LOTS	C/D	20% and Greater	0.70
NON_CONTGS_SW	C/D	5% and Less	0.16
NON_CONTGS_SW	C/D	5% - 10%	0.35
ROAD	C/D	5% and Less	0.33
ROAD	C/D	5% - 10%	0.74

Basin 7 is located south of Basin 3 and Basin 4. This drainage basin includes two subbasins labeled A' and 'B'.

The following information is for Basin A and includes the unique combinations of soil type, slope analysis, land uses/ground cover, drainage basin boundaries were obtained with GIS Frequency analysis, please refer to Meadowood Pre and Post-project Soil Information Exhibits, Meadowood Pre and Post-project Slope Information Exhibits, Meadowood Pre-project Cover Information Exhibit, and Meadowood Post-project Land Use Information Exhibit in Appendix C.

Basin 700A Pre-Project
Total Area = 192.23 acres

LandUse/Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	5% and Less	B	4.52
FOREST	5.001% - 10%	B	18.53
FOREST	10.001% - 20%	B	20.78
FOREST	20.001% and Greater	B	5.48
GRASS	5% and Less	B	2.40
GRASS	5.001% - 10%	B	2.54
GRASS	10.001% - 20%	B	1.90
GRASS	20.001% and Greater	B	0.13
GRASS	5.001% - 10%	D	0.02
FOREST	5% and Less	C/D	5.59
FOREST	5.001% - 10%	C/D	3.68
FOREST	10.001% - 20%	C/D	34.94
FOREST	20.001% and Greater	C/D	80.49
SHRUB	5% and Less	C/D	1.19
SHRUB	5.001% - 10%	C/D	0.04
SHRUB	10.001% - 20%	C/D	0.41
SHRUB	10.001% - 20%	D	0.68
SHRUB	20.001% and Greater	C/D	8.92

Basin 7000A Post-Project
Total Area = 195 acres

LandUse/Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	5% and Less	C	4.28
FOREST	5% - 10%	C	0.23
FOREST	10% - 20%	C	2.86
FOREST	20% and Greater	C	45.06
SHRUB	5% and Less	C	0.95
SHRUB	5% - 10%	C	0.05
SHRUB	10% - 20%	C	1.02
SHRUB	20% and Greater	C	9.08
GRASS	5% and Less	C	7.41
GRASS	5% - 10%	C	0.01
GRASS	10% - 20%	C	1.45
GRASS	20% and Greater	C	39.78
LOTS	5% and Less	C	35.20
MULTI FAM	5% and Less	C	15.45
_NON_CONTGS_SW	5% and Less	C	2.64
_NON_CONTGS_SW	5% and Less	C	0.92
_NON_CONTGS_SW	5% - 10%	C	1.98
_NON_CONTGS_SW	10% - 20%	C	1.01
ROAD	5% and Less	C	15.36
ROAD	5% - 10%	C	4.73
ROAD	10% - 20%	C	1.99
ROAD	20% and Greater	C	1.89
DRIVEWAY	flat	C	1.65

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Drainage basin 700B/7000B is the fourth drainage basin South to North, labeled as 700 for pre-project and 7000 for post-project. The following acreages for all the unique combinations of soil type, slope analysis, land uses/ground cover, drainage basin boundaries were obtained with GIS Frequency analysis, please refer to Meadowood Pre and Post-project Soil Information Exhibits, Meadowood Pre and Post-project Slope Information Exhibits, Meadowood Pre-project Ground Cover Information Exhibit, and Meadowood Post-project Land Use Information Exhibit in Appendix C.

Basin 700B Pre-project
Total Area = 43.8 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	0.43
FOREST	B	5% - 10%	1.05
FOREST	B	10% - 20%	0.78
FOREST	B	20% and Greater	0.08
FOREST	C/D	5% and Less	0.10
FOREST	C/D	5% - 10%	0.03
FOREST	C/D	10% - 20%	0.16
FOREST	C/D	20% and Greater	10.13
SHRUB	B	5% and Less	0.14
SHRUB	B	5% - 10%	0.42
SHRUB	B	10% - 20%	0.31
SHRUB	B	20% and Greater	1.58
SHRUB	C/D	5% and Less	0.38
SHRUB	C/D	5% - 10%	0.04
SHRUB	C/D	10% - 20%	0.41
SHRUB	C/D	20% and Greater	12.56
GRASS	B	5% and Less	5.20
GRASS	B	5% - 10%	5.36
GRASS	B	10% - 20%	3.63
GRASS	B	20% and Greater	0.65
GRASS	C/D	5% and Less	0.03
GRASS	C/D	5% - 10%	0.08
GRASS	C/D	10% - 20%	0.18
GRASS	C/D	20% and Greater	0.04

Basin 7000B Post-project
Total Area = 45.3 AC

Land Use	Soil Type	Slopes	Area (AC)
FOREST	C/D	5% and Less	0.10
FOREST	C/D	5% - 10%	0.03
FOREST	C/D	10% - 20%	0.15
FOREST	C/D	20% and Greater	10.13
SHRUB	B	5% and Less	0.14
SHRUB	B	5% - 10%	0.42
SHRUB	B	10% - 20%	0.31
SHRUB	B	20% and Greater	1.58
SHRUB	C/D	5% and Less	0.38
SHRUB	C/D	5% - 10%	0.04
SHRUB	C/D	10% - 20%	0.41
SHRUB	C/D	20% and Greater	12.56
GRASS	B	5% and Less	0.09
GRASS	B	5% - 10%	0.59
GRASS	B	10% - 20%	0.28
GRASS	B	20% and Greater	0.04
GRASS	C/D	5% and Less	0.79
GRASS	C/D	5% - 10%	0.07
GRASS	C/D	10% - 20%	0.09
GRASS	C/D	20% and Greater	0.27
MEDIAN	C/D	5% and Less	0.49
NON_CONTGS_SW	C/D	5% and Less	0.15
NON_CONTGS_SW_HRC	C/D	5% and Less	1.01
ROAD	C/D	5% and Less	2.77
SCHOOL	C/D	5% and Less	10.33
SCHOOL	C/D	20% and Greater	2.08

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Basin 8 is second basin up from South to North, labeled as 800 for pre-project and 8000 for post-project. The following is the results of the GIS Frequency analysis which was entered into San Diego Hydrology Model (SDHM) and the associated range of controlled outflow (20% of pre-project Q5 to pre-project Q10) and pond volume outputs from SDHM.

Basin 800A (with out Buffer) Pre-project
Total Area = 27.9 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	0.21
FOREST	C/D	5% and Less	0.02
FOREST	C/D	5% - 10%	0.01
FOREST	C/D	10% - 20%	0.09
FOREST	C/D	20% and Greater	3.96
SHRUB	B	5% and Less	0.06
SHRUB	B	5% - 10%	0.10
SHRUB	B	10% - 20%	0.11
SHRUB	B	20% and Greater	1.66
SHRUB	C/D	5% and Less	0.13
SHRUB	C/D	5% - 10%	0.01
SHRUB	C/D	10% - 20%	0.18
SHRUB	C/D	20% and Greater	9.71
GRASS	B	5% and Less	8.42
GRASS	B	5% - 10%	0.70
GRASS	B	10% - 20%	0.80
GRASS	B	20% and Greater	0.10
GRASS	C/D	5% and Less	0.37
GRASS	C/D	5% - 10%	0.64
GRASS	C/D	10% - 20%	0.51
GRASS	C/D	20% and Greater	0.08

Basin 8000A Post-project
Total Area = 26.8 AC

Land Use	Soil Type	Slopes	Area (AC)
FOREST	C/D	5% and Less	0.01
FOREST	C/D	10% - 20%	0.08
FOREST	C/D	20% and Greater	2.66
SHRUB	B	5% and Less	0.05
SHRUB	B	5% - 10%	0.09
SHRUB	B	10% - 20%	0.05
SHRUB	B	20% and Greater	1.66
SHRUB	C/D	5% and Less	0.11
SHRUB	C/D	10% - 20%	0.13
SHRUB	C/D	20% and Greater	7.77
GRASS	B	5% and Less	0.02
GRASS	B	5% - 10%	0.14
GRASS	B	10% - 20%	0.02
GRASS	B	20% and Greater	0.01
GRASS	C/D	5% and Less	1.93
GRASS	C/D	5% - 10%	0.12
GRASS	C/D	20% and Greater	0.48
MEDIAN	C/D	5% and Less	0.47
NON_CONTGS_SW	C/D	5% and Less	0.23
NON_CONTGS_SW_HRC	C/D	5% and Less	0.91
PA1LOTS	C/D	5% and Less	4.5
PA1LOTS	C/D	20% and Greater	0.12
ROAD	C/D	5% and Less	5.22

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Basin 8 is second basin up from South to North, labeled as 800 for pre-project and 8000 for post-project. The following is the results of the GIS Frequency analysis which was entered into San Diego Hydrology Model (SDHM) and the associated range of controlled outflow (20% of pre-project Q5 to pre-project Q10) and pond volume outputs from SDHM.

Basin 800B (without Buffer) Pre-project
Total Area = 22.8 AC

Ground Cover	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	2.25
FOREST	B	5% - 10%	1.20
FOREST	B	10% - 20%	0.91
FOREST	B	20% and Greater	0.08
FOREST	C/D	5% and Less	0.22
FOREST	C/D	5% - 10%	0.46
FOREST	C/D	10% - 20%	0.65
FOREST	C/D	20% and Greater	5.65
SHRUB	C/D	5% and Less	0.03
SHRUB	C/D	10% - 20%	0.02
SHRUB	C/D	20% and Greater	2.51
GRASS	B	5% and Less	5.87
GRASS	B	5% - 10%	0.12
GRASS	B	10% - 20%	0.31
GRASS	B	20% and Greater	0.01
GRASS	C/D	5% and Less	0.70
GRASS	C/D	5% - 10%	1.20
GRASS	C/D	10% - 20%	0.36
GRASS	C/D	20% and Greater	0.12
ROAD	C/D	5% and Less	0.07
ROAD	C/D	5% - 10%	0.01

Basin 8000B Post-project
Total Area = 26.1 AC

Land Use	Soil Type	Slopes	Area (AC)
FOREST	B	5% and Less	0.06
FOREST	B	5% - 10%	0.08
FOREST	C/D	5% and Less	0.20
FOREST	C/D	5% - 10%	0.43
FOREST	C/D	10% - 20%	0.64
FOREST	C/D	20% and Greater	6.89
SHRUB	C/D	5% and Less	0.04
SHRUB	C/D	10% - 20%	0.03
SHRUB	C/D	20% and Greater	4.00
GRASS	C/D	5% and Less	1.44
GRASS	C/D	5% - 10%	0.20
GRASS	C/D	20% and Greater	0.16
MEDIAN	C/D	5% and Less	0.12
NON_CONTGS_SW_HRC	C/D	5% and Less	0.22
PA1LOTS	C/D	5% and Less	7.09
PA1LOTS	C/D	20% and Greater	0.28
ROAD	C/D	5% and Less	4.20

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Basin 9 is the most Southerly basin, labeled as 900 for pre-project and 9000 for post-project. The following is the results of the GIS Frequency analysis which was entered into San Diego Hydrology Model (SDHM) and the associated range of controlled outflow (20% of pre-project Q5 to pre-project Q10) and pond volume outputs from SDHM.

Basin 900 Pre-project
Total Area = 21.4 AC

Ground Cover	Soil Type	Slopes	Area (AC)
MEADOWOOD			
FOREST	A	5% and Less	0.05
FOREST	A	5% - 10%	0.05
FOREST	A	10% - 20%	0.02
FOREST	A	20% and Greater	0.09
FOREST	B	5% and Less	4.67
FOREST	B	5% - 10%	1.20
FOREST	B	10% - 20%	0.20
FOREST	B	20% and Greater	1.10
FOREST	C/D	5% and Less	0.13
FOREST	C/D	5% - 10%	0.49
FOREST	C/D	10% - 20%	0.88
FOREST	C/D	20% and Greater	3.76
SHRUB	A	10% - 20%	0.02
SHRUB	A	20% and Greater	0.05
SHRUB	C/D	5% and Less	0.01
SHRUB	C/D	10% - 20%	0.08
SHRUB	C/D	20% and Greater	1.76
ROAD	C/D	5% and Less	0.28
ROAD	C/D	5% - 10%	4.15
ROAD	C/D	10% - 20%	0.40
ROAD	C/D	20% and Greater	0.09
			19.48
SEWER TREATMENT			
FOREST	A	5% and Less	1.63
FOREST	A	10% - 20%	0.01
FOREST	A	20% and Greater	0.01
ROAD	C/D	5% and Less	0.16
ROAD	C/D	5% - 10%	0.04
ROAD	C/D	10% - 20%	0.02
ROAD	C/D	20% and Greater	0.05
			1.92

Basin 9000 Post-project
Total Area = 19.1 AC

Land Use	Soil Type	Slopes	Area (AC)
MEADOWOOD			
FOREST	A	5% and Less	0.05
FOREST	A	5% - 10%	0.03
FOREST	A	10% - 20%	0.02
FOREST	B	5% and Less	1.90
FOREST	B	5% - 10%	0.61
FOREST	B	10% - 20%	0.18
FOREST	B	20% and Greater	0.03
FOREST	C/D	5% and Less	0.14
FOREST	C/D	5% - 10%	0.52
FOREST	C/D	10% - 20%	0.87
FOREST	C/D	20% and Greater	4.10
SHRUB	A	20% and Greater	0.05
SHRUB	B	10% - 20%	0.02
SHRUB	C/D	5% and Less	0.01
SHRUB	C/D	10% - 20%	0.08
SHRUB	C/D	20% and Greater	1.77
GRASS	C/D	5% and Less	0.36
GRASS	C/D	20% and Greater	0.50
MEDIAN	C/D	5% and Less	0.17
NON_CONTGS_SW_HRC	C/D	5% and Less	0.26
ROAD	C/D	5% and Less	1.59
ROAD	C/D	5% - 10%	3.57
ROAD	C/D	10% - 20%	0.10
ROAD	C/D	20% and Greater	0.01
			16.94
SEWER TREATMENT			
DIRT	C/D	5% and Less	1.06
DIRT	C/D	5% - 10%	0.07
DIRT	C/D	20% and Greater	0.02
ROOF	C/D	5% and Less	0.21
SEWER_TRMNT	C/D	5% and Less	0.80
			2.16

Project No. 06931-42-01
March 30, 2009

Pardee Homes
12626 High Bluff Drive, Suite 100
San Diego, California 92130

Attention: Ms. Karen Kosup

Subject: MEADOWOOD (PANKEY RANCH)
SAN DIEGO COUNTY, CALIFORNIA
PLANNING AREA 1 INFILTRATION

References: *Update Geotechnical Investigation, Meadowood (Pankey Ranch), San Diego, California,* prepared by Geocon Incorporated dated November 20, 2006 (Project No. 06931-42-01).

Dear Ms. Kosup:

In accordance with your request, we have prepared this letter to provide information with respect to infiltration rates for Planning Area 1 at the subject site. It is our understanding that Pardee is proposing to use hydromodification in Planning Area 1 to satisfy County of San Diego and State of California water quality requirements, and that an estimate of the as-graded soil infiltration rate is required for the hydromodification analysis.

Based on our review of the referenced geotechnical investigation, Planning Area 1 is underlain by alluvium and terrace deposits. Geotechnical borings performed for the referenced investigation encountered interbedded sand, silty sand, clayey sand, silty clay and clayey silt. The sandy portions of the soils should provide moderate to good infiltration characteristics. The silty and clayey portions generally exhibit poor infiltration.

It is our understanding that select grading will be performed in Planning Area 1. Grading operations will include dewatering, removal of compressible and potentially liquefiable alluvium, burying rock generated from cuts on other portions of the project, replacing on-site soils as compacted fill, and capping the upper 5 feet of Planning Area 1 with select sandy soil.

Laboratory or field tests have not been performed to assess infiltration rates of actual on-site soils. However, it is our opinion that portions of the on-site sandy soils are capable of exhibiting an infiltration rate of 1 inch/hour. We recommend prior to and/or during grading that field and/or laboratory tests be performed on select capping soil to assess permeability and infiltration characteristics.

Should you have any questions regarding this letter, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

Rodney C. Mikesell
GE 2533

RCM:dmc

(2) Addressee
(2) Rick Engineering Company
Attention: Ms. Karen Van Ert

Downloaded 10/10/08 from HMP TAC ftp site

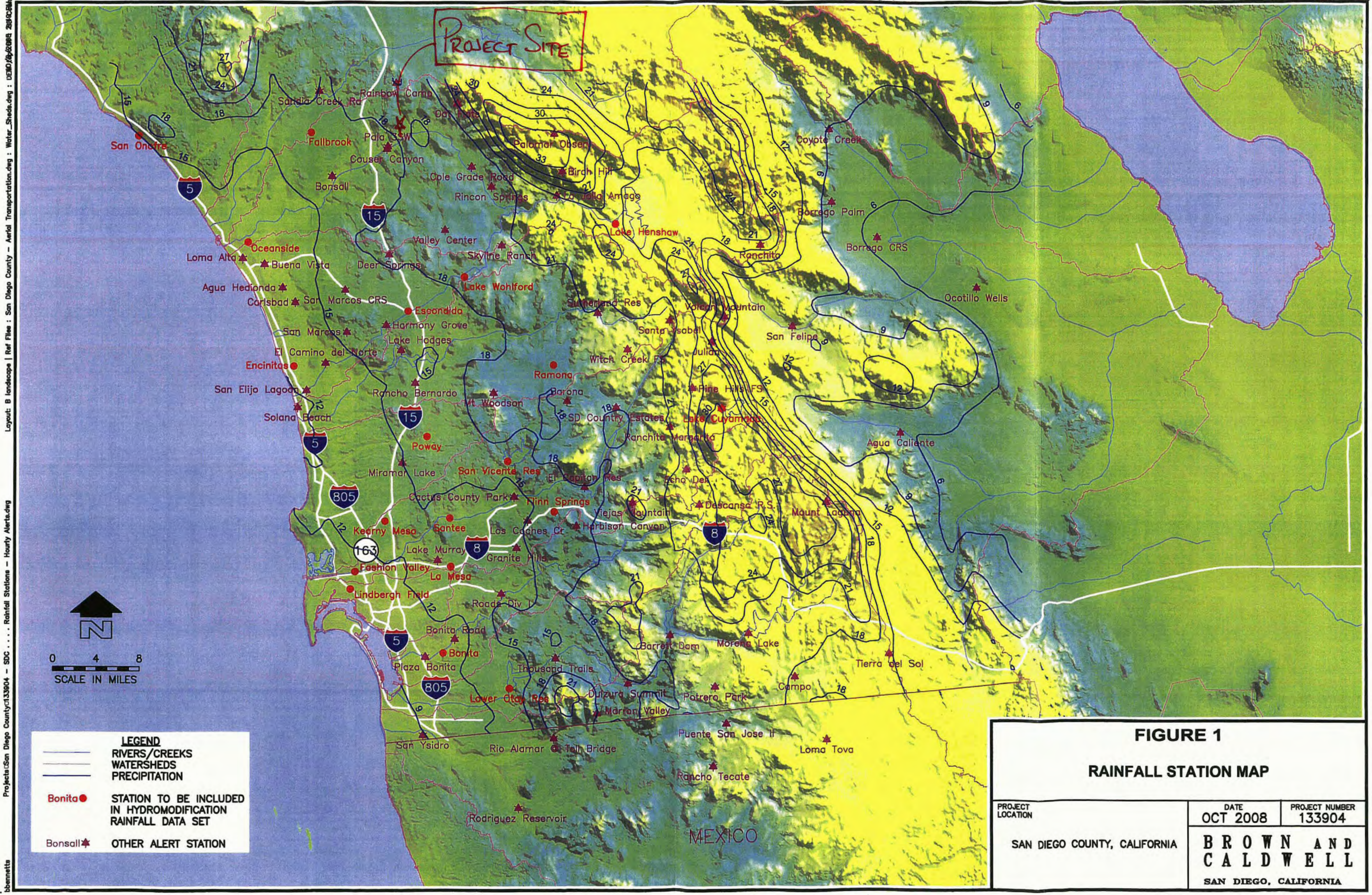
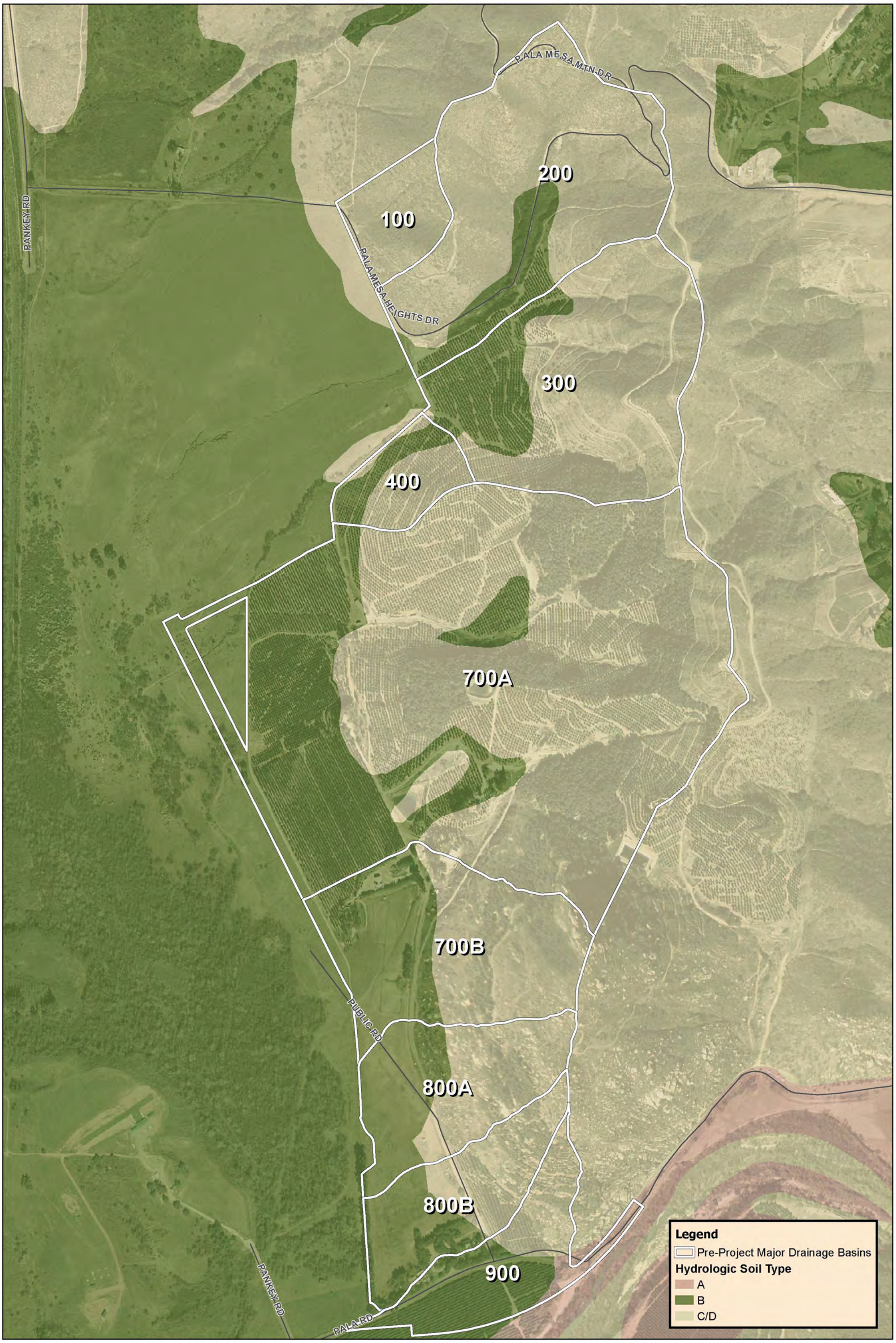

Project Site
San Onofre
Fallbrook
Sandia Creek Rd
Rainbow Camp
Pala 3SW
Oak Grove
Couser Canyon
Bonsall
Cole Grade Road
Rincon Springs
Palomar Obser
Birch Hill
La Jolla Amago
Lake Henshaw
Coyote Creek
Borrego Palm
Borrego CRS
Ranchita
Ocotillo Wells
Oceanside
Loma Alta
Buena Vista
Valley Center
Skyline Ranch
Deer Springs
Lake Wohlford
Agua Hedionda
Carlsbad
San Marcos CRS
Escondido
Harmony Grove
Lake Hodges
San Marcos
El Camino del Norte
Encinitas
Sutherland Res
Volcan Mountain
Santa Ysabel
San Felipe
Julian
Witch Creek FS
Ramona
Barona
San Elijo Lagoon
Rancho Bernardo
Mt Woodson
Solana Beach
Pine Hills FS
SD Country Estates
Lake Cuyamaca
Ranchita Margarita
Agua Caliente
Poway
Miramar Lake
San Vicente Res
El Capitan Res
Echo Dell
Cactus County Park
Flinn Springs
Viejas Mountain
Descanso R.S.
Mount Laguna
Kearny Mesa
Santee
Los Coches Cr
Harbison Canyon
Lake Murray
Fashion Valley
La Mesa
Granite Hills
Lindbergh Field
Roads Div
Bonita Road
Bonita
Barrett Dam
Morena Lake
Tierra del Sol
Plaza Bonita
Thousand Trails
Campo
Lower Otay Res
Dulzura Summit
Potrero Park
Marron Valley
Puente San Jose II
San Ysidro
Rio Alamar @ Toll Bridge
Loma Tova
Rancho Tecate
Rodriguez Reservoir
MEXICO
0 4 8
SCALE IN MILES
LEGEND
RIVERS/CREEKS
WATERSHEDS
PRECIPITATION
Bonita
STATION TO BE INCLUDED IN HYDROMODIFICATION RAINFALL DATA SET
Bonsall
OTHER ALERT STATION

FIGURE 1

RAINFALL STATION MAP

PROJECT LOCATION	DATE	PROJECT NUMBER
SAN DIEGO COUNTY, CALIFORNIA	OCT 2008	133904

BROWN AND CALDWELL
SAN DIEGO, CALIFORNIA



Meadowood Pre-Project Soil Information

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Exhibit Date: July 17, 2009

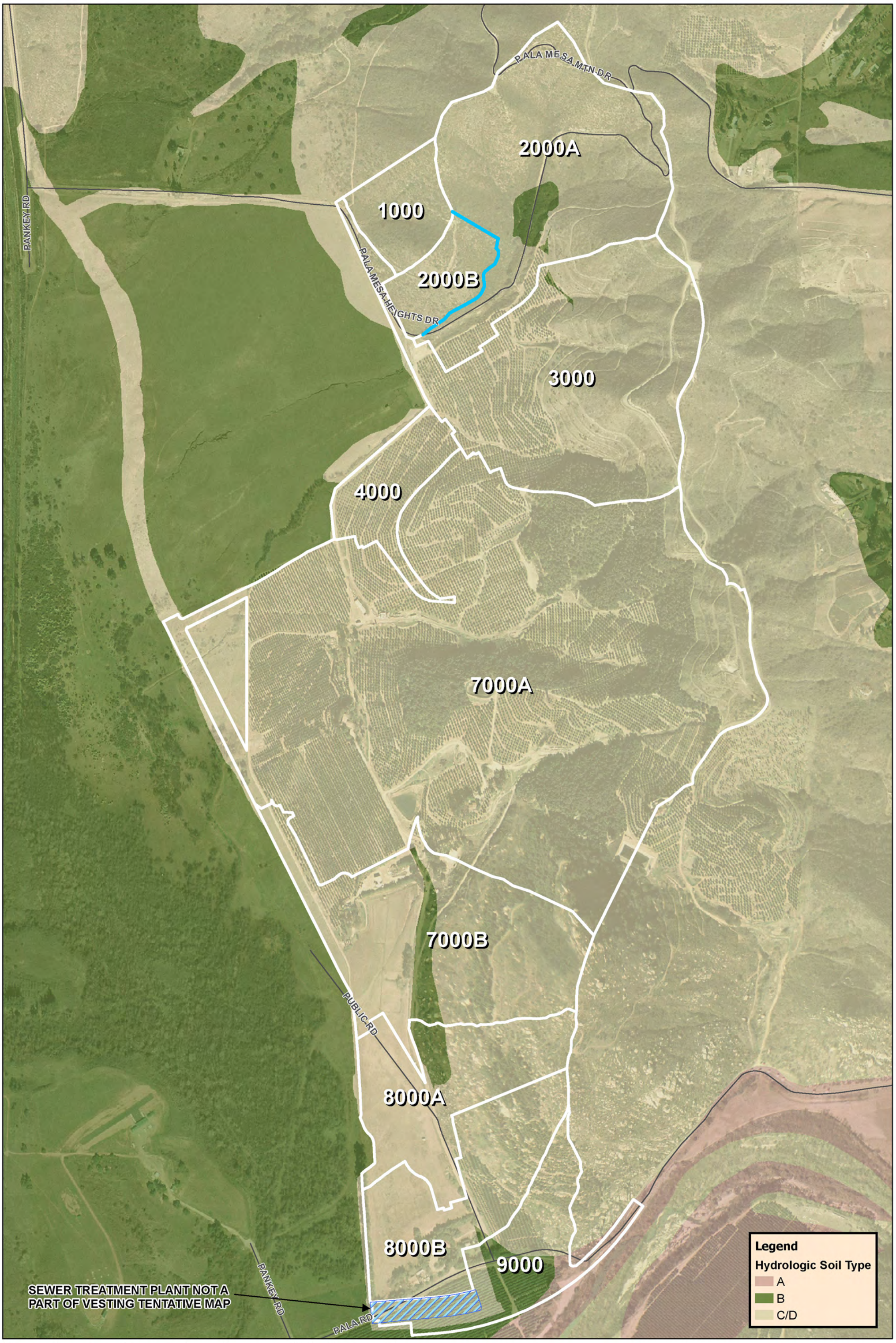
REC JN: 15956

N

0 300 600 1,200 Feet

Data Sources:
SSURGO Soils: 2007
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY



Meadowood Post-Project Soil Information

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Exhibit Date: July 17, 2009

REC JN: 15956

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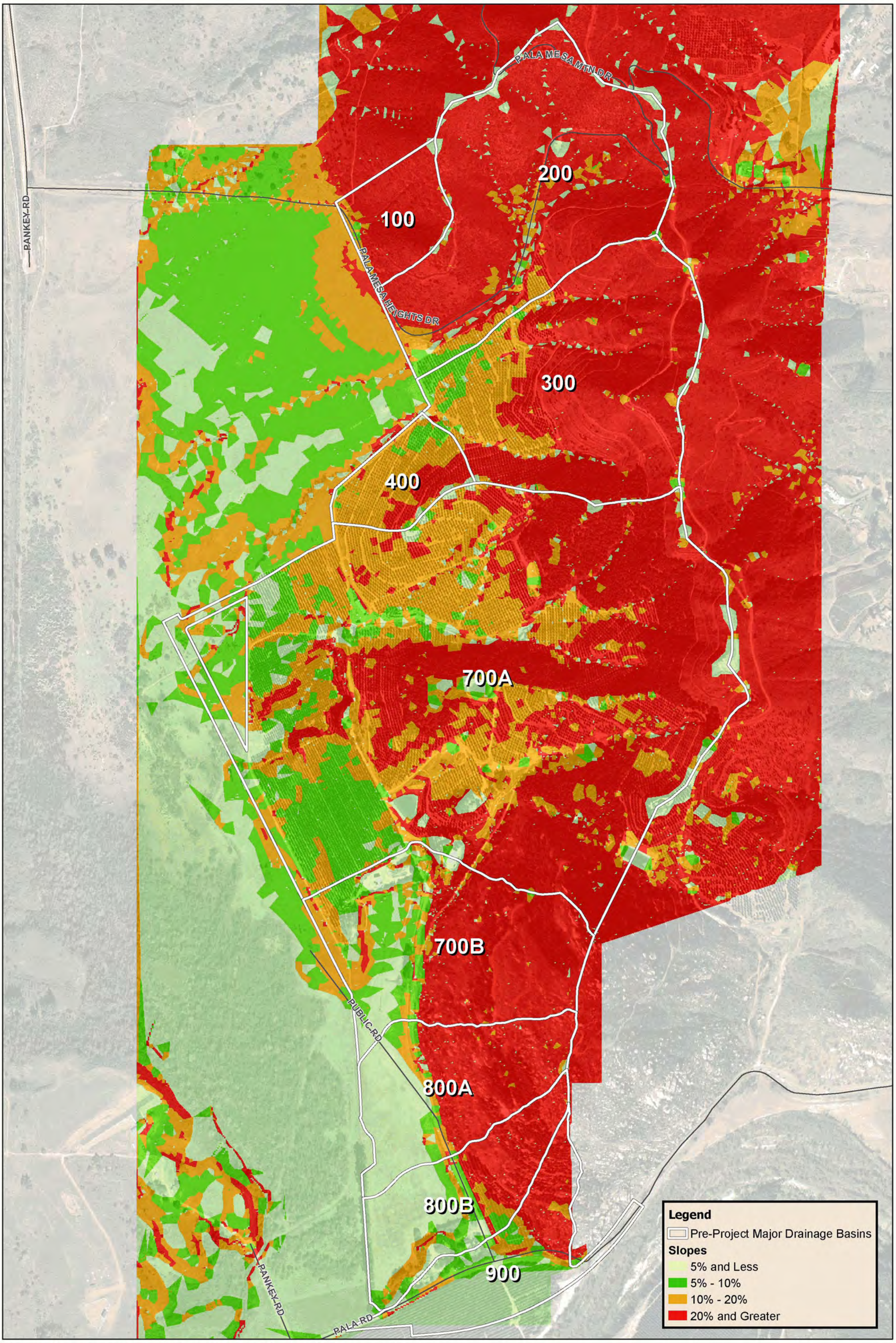
Data Sources:
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY



Meadowood Pre-Project Slope Information

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Exhibit Date: July 17, 2009

REC JN: 15956

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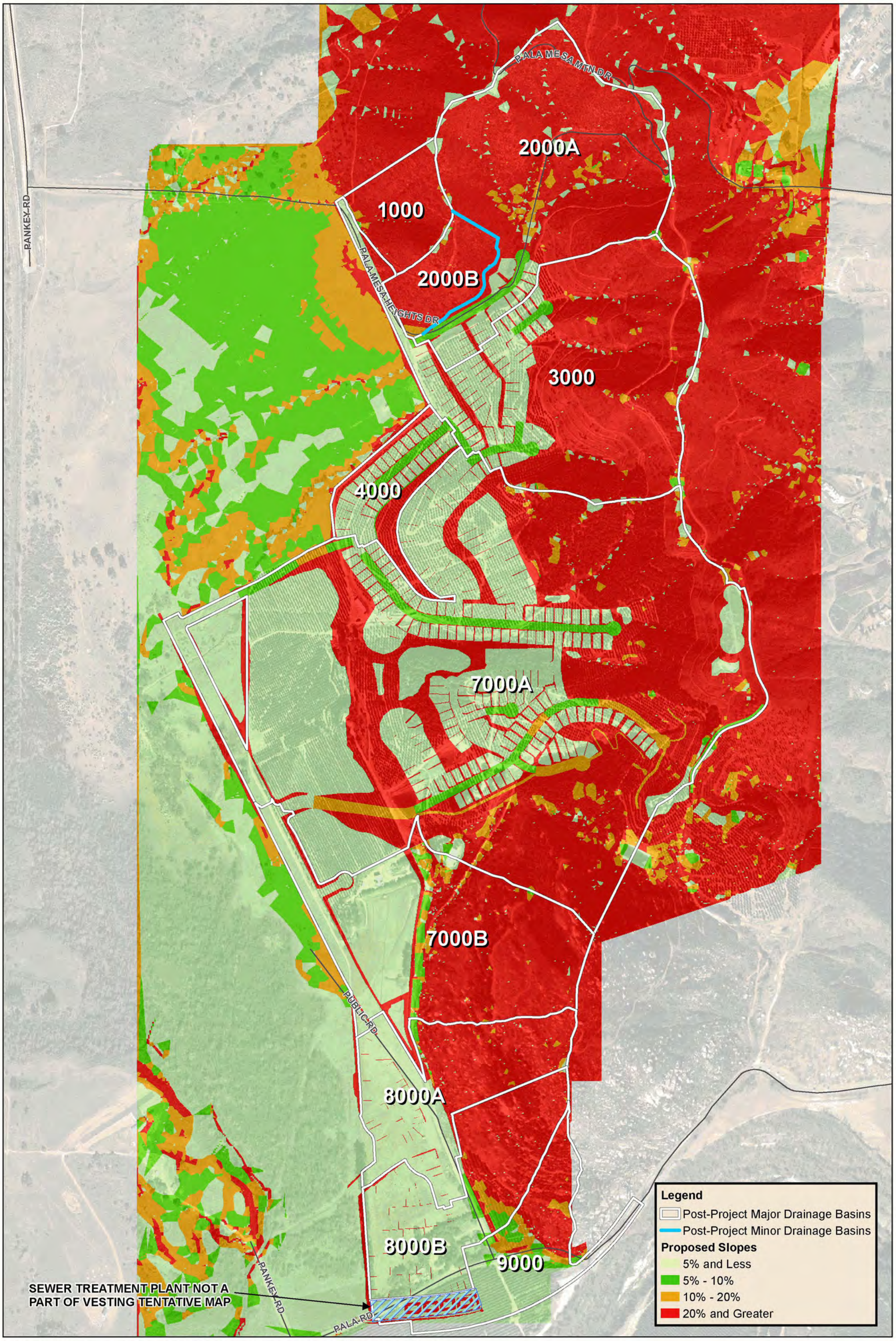
Data Sources:
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY



Meadowood Post-Project Slope Information

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Exhibit Date: July 17, 2009

REC JN: 15956

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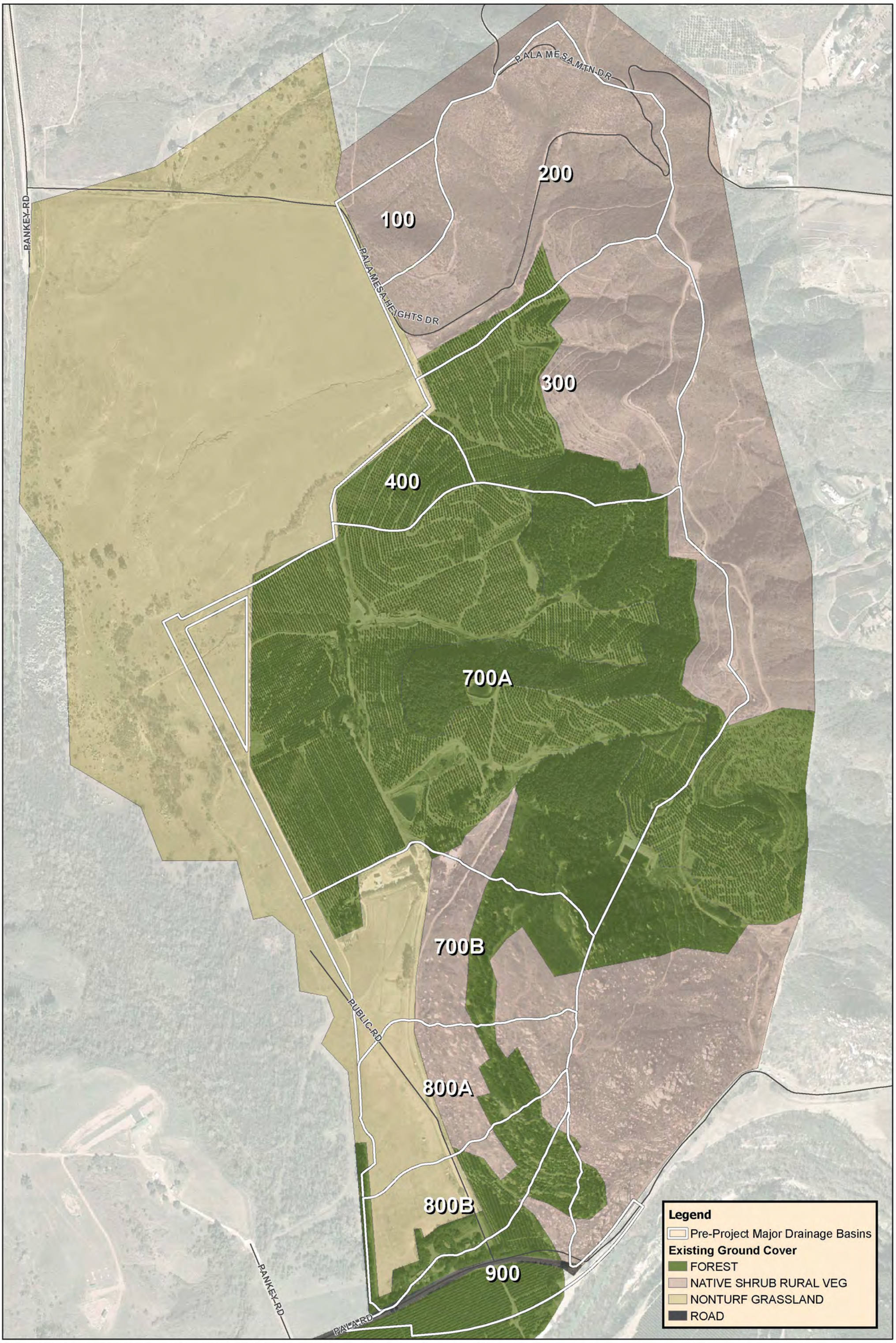
Data Sources:
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY



Meadowood Pre-Project Ground Cover Information

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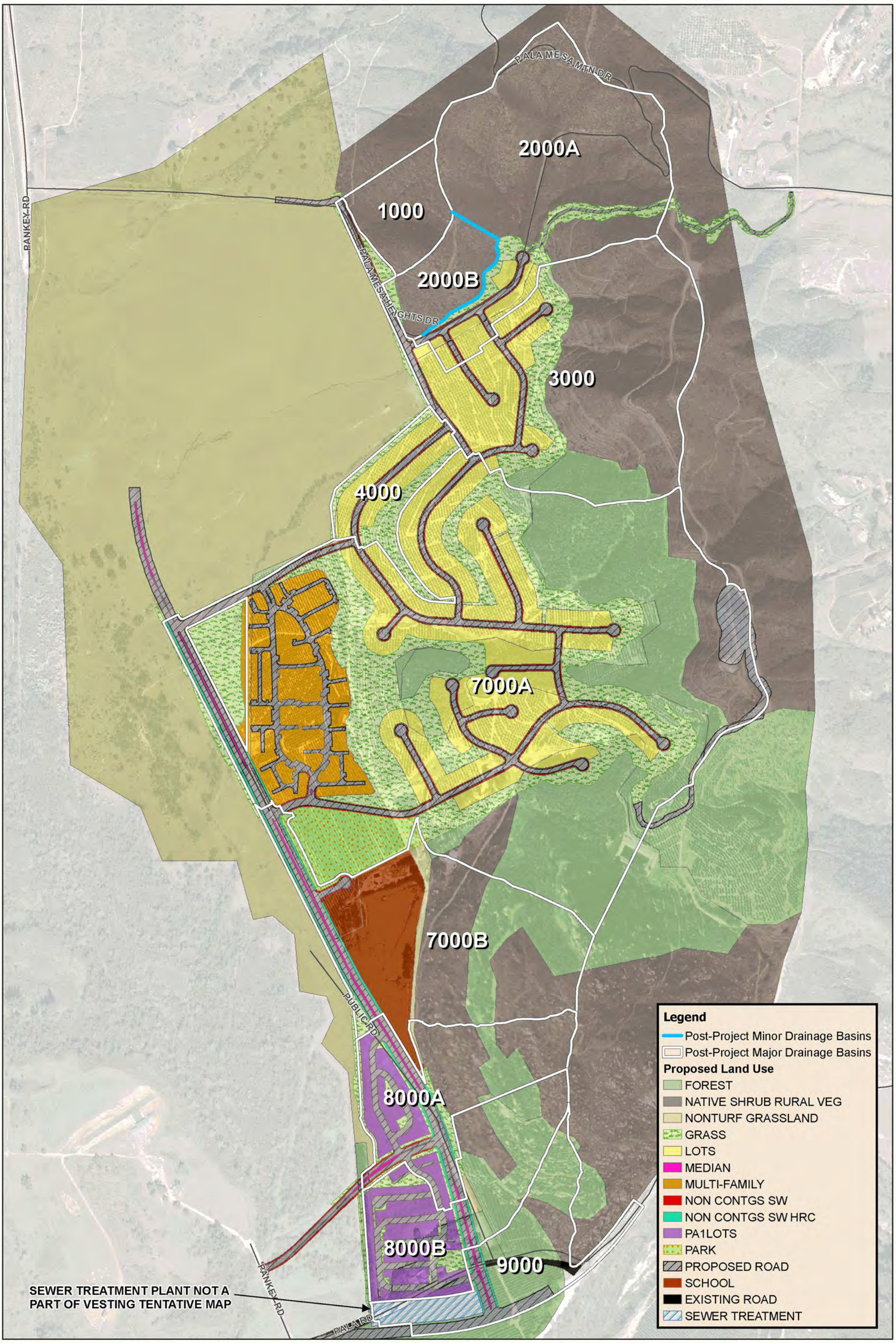
Exhibit Date: July 17, 2009

REC JN: 15956

0 300 600 1,200 Feet

Data Sources:
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY



Meadowood Post-Project Land Use Information

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Exhibit Date: July 17, 2009

REC JN: 15956

N

0 300 600 1,200 Feet

Data Sources:
Landiscor Aerial Photo: January 2006

RICK ENGINEERING COMPANY

Appendix D

Summary of Drainage Basin Hydromodification Management Measures

J-15956
January-09
Revised: 'August 18, 2009
Appendix D

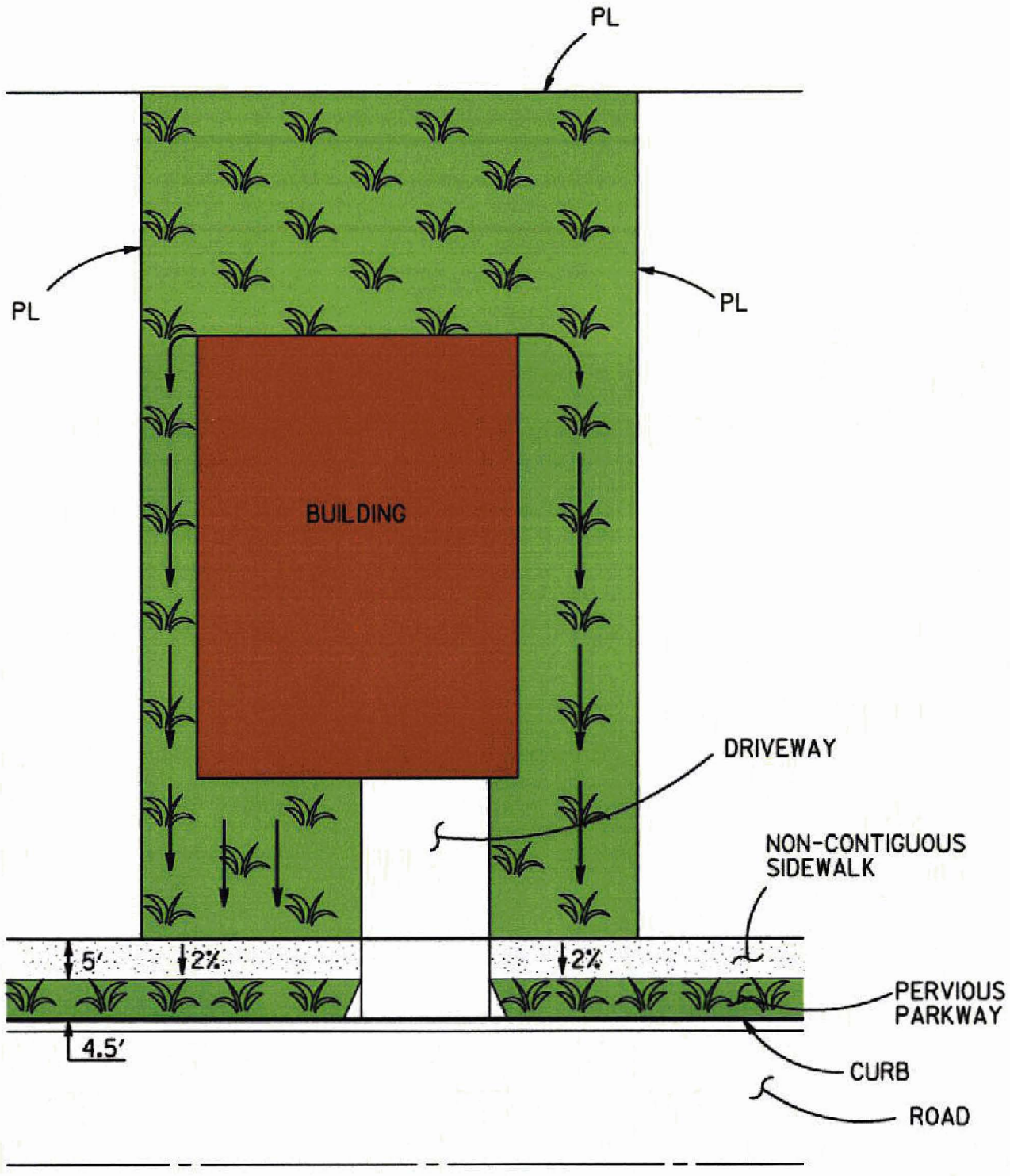
Meadowood Hydromodification Management Measurements

Basin Number	Sub Basin Number	Post-Project Area (AC)	Hydromodification Management Measures
200/2000	200A/2000A	51.00	Noncontiguous Sidewalks*, Dispersed Roof Flow Through Yard*, Pond
	200B/2000B	8.50	N/A
300/3000		61.60	Noncontiguous Sidewalks*, Dispersed Roof Flow Through Yard*, Pond
400/4000		11.20	Noncontiguous Sidewalks*, Dispersed Roof Flow Through Yard*, Pond
700/7000	700A/7000A	195.00	Noncontiguous Sidewalks*, Roof Flow Through Yard*, Pond
	700B/7000B	45.30	Noncontiguous Sidewalks*, Pond
800/8000	800A/8000A	27.20	Dispersed Roof Flow Through Yard*, Porous Driveways, Pond (Infiltration Utilized)
	800B/8000B	23.70	Dispersed Roof Flow Through Yard*, Porous Driveways, Pond (Infiltration Utilized)
900/9000	900A/9000A	16.94	Noncontiguous Sidewalks*, Underground Vault
	900B/9000B	2.16	Underground Vault

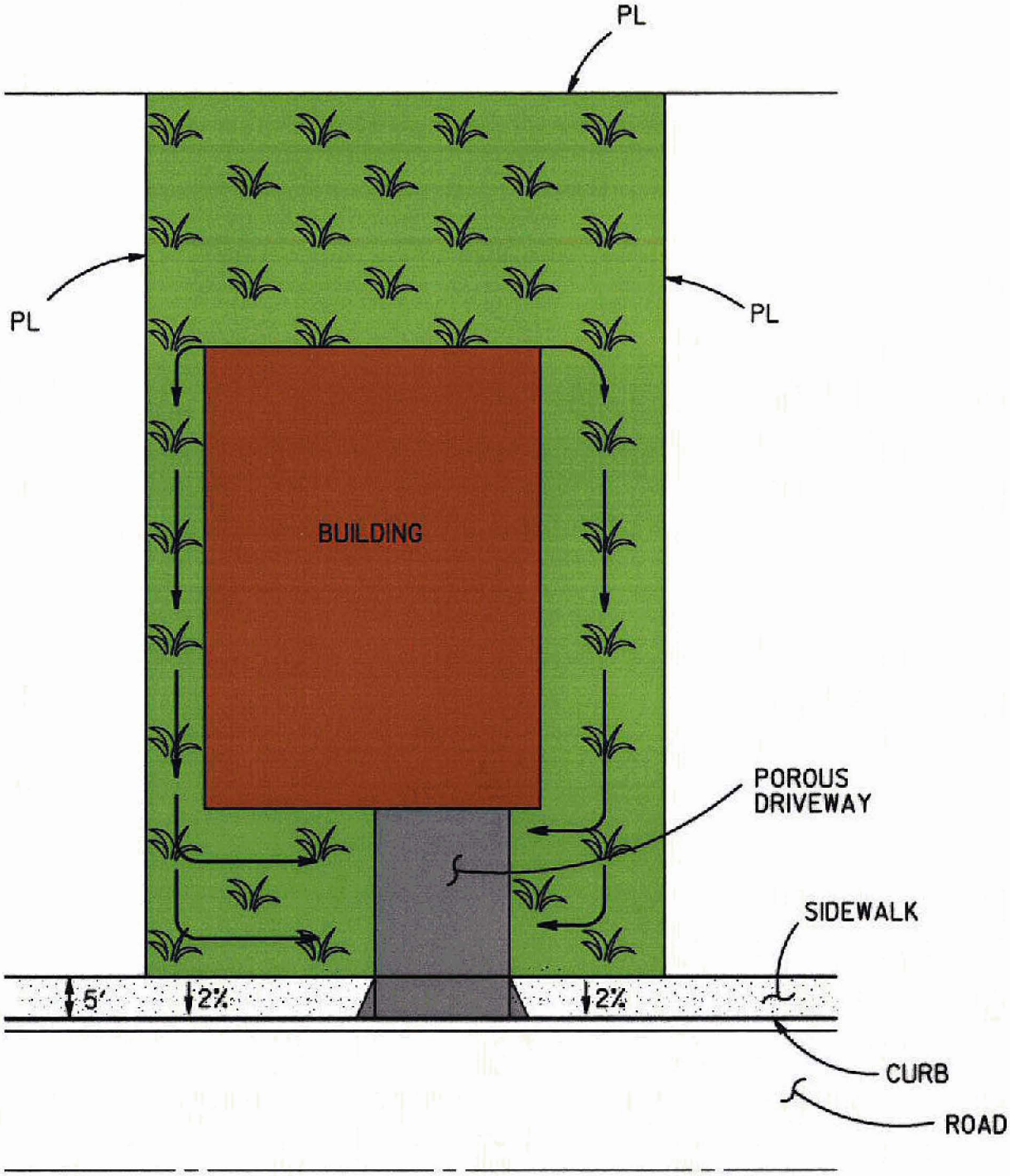
* In SDHM modeled as Impervious Lateral Basin connected to Pervious Lateral Basin connected to Pond

Appendix E

Hydromodification Management Details



TYPICAL DETAIL 1 FOR DRAINAGE BASINS 2000A, 3000, 4000 AND 7000A



TYPICAL DETAIL 2 FOR DRAINAGE BASINS 8000A, AND 8000B