BALDWIN
HYDROLOGY – HYDRAULIC

APN 103-010-72

TENTATIVE MAP
5502 RPL
LOG NO. 06-01-002
CLUSTER DESIGN

REGISTERED PROFESSIONAL ENGINEER
HADLEY JOHNSON
No. 14870
EXP. 3-31-11
CIVIL
STATE OF CALIFORNIA

PREPARED BY:

11/17/2010

HADLEY JOHNSON
RCE 14870
6/1/2006
Rev. 11/17/09

SDC DPLU RCVD 09-17-2010
TM5502RPL2

PROJECT DESCRIPTION:

The 31.9 acre Baldwin project is located north of Shady Lane, West of DeLuz Road, South of Patton Oak Road and East of Rancho Santa Margarita Y Las Flores in the community of Fallbrook. The project will take access from DeLuz Road. The project will consist of 10 - 1+ acre parcels, 1-2+ acre parcels, and 3-4+ acre or larger parcels. The project is adjacent to the Country Town Area of Fallbrook and is approx. ½ mile to the downtown area of Fallbrook. The Community Plan Designation is (17) estate allowing 2 ac parcels and 4 ac parcels depending on slope. A cluster design will allow 1 ac parcels provided 40% of the property is placed in open space or limited building easement. The property is now vacant after the Gavilan Mountain fire. Power is existing on the property and an existing FPUD watermain exists along the southerly property line. Water service will be provided by FPUD. Grading for this project will be minimal, averaging 1000 cu yds per parcel, grading for the roadways will be minor except one swale area that will involve 25 ft. of fill and along DeLuz Road for the left turn lane.

The project is on a gentle rolling area with drainage westerly; northerly and easterly. Offsite drainage area: DeLuz Road crosses a drainage area of 63.5 acres offsite from a residential area of Fallbrook. A minor area, 9 acres west of DeLuz Road join the larger area near the access crossing (Street "A")for a total of 72.5 acs. Area No. 1: This 6.8 acs area also crosses under the access road (Street "A") at the same location although this drainage is carried under the access road in a separate culvert. The drainage from this project Area No. 1 & 2 will not impact the on and offsite drainage facilities as the proposed improvements areas flow to a well defined drainage swales along DeLuz Road to the Santa Margarita River 0.75+/- miles downstream. The small flows westerly 2.5, 2 & 2.9 Area 4, 5 & 6 acres sheet flows to a undeveloped portion of the Naval Weapon Facilities of Camp Pendleton Military Reservation. A small area, Area No. 3 flows northerly. This 3 acres also sheet flows to a well defined drainage swale and then into the same swale parallel to DeLuz Road.

The main drainage area, approximately 63.5 acres offsite flows onto the property under DeLuz Road in a 49" x 33" arch culvert. An additional area of 9 acres joins the 62.5 acs and flows under the access road in a proposed 48" culvert The discharge flow Q100 = 126 cfs and the velocity is calculated to be 10 ft/sec. The velocity will be reduced by the rock rip rap at the outlet. If the widening of DeLuz Road onsite is not required, the 48" culvert would only be required under the access road approximately 80 ft. long. The only drainage facility downstream is the culvert under Patton Oaks Road. This 54" culvert is adequate.

A 6.8 acre Area No. 1 will flow to the same drainage area parallel to DeLuz Road and will flow under the access road (street "A") in a 24" culvert. The Q100 flow is calculated to be 15 cfs with a velocity of 7.4 ft/sec. the velocity will be reduced by rock rip rap at the outlet of the culverts.

The onsite erosion and siltation will be mitigated by onsite bio filters. A second area Area No. 2 approximately 7.9 acres with a Q100 of 19.1 cfs will flow offsite in a natural swale and the velocity is calculated to be 7.6 ft/sec. Downstream is the 54" culver under Patton Oak Drive. There are no upstream facilities as the drainage swale starts onsite.

The northerly flow 3 ac +/- Area No. 3 flow offsite in a natural swale. This area has steep slope and minimal development proposed for this area. Any flow to this area will be mitigated by pad bio filters. The only downstream drainage facility is a 24" culvert under Patton Oaks Drive which is adequate to handle the flow. There are no upstream facilities.

7.4 acres Area 4, 5 & 6 of area flow westerly onto Rancho Santa Margarita (Naval Weapon Facility, Camp Pendleton). The erosion and siltation from the pad areas are mitigated by the onsite bio filters. There are no downstream or upstream facilities that will be impacted.

Following is a table of pre and post development C, Tc, I, A, V_{100}, Q_{100}, V_{WQ} and Q_{WQ} each area or point of discharge.

Pre construction
Table of Flows

Area	Acres	C	Tc	I_{100}	I_{WQ}	V_{100}	Q_{100}	V_{WQ}	Q_{WQ}
Offsite	72.5 acs	0.436	18	4.0	0.62	10	126	6	19.6
1	6.8 acs	0.36	9.4	6.2	0.9	7.4	15.2	3	2.2
2	7.9 acs	0.36	9.0	6.3	0.95	7.5	17.9	3.2	2.7
3	3 acs	0.36	9.4	6.2	0.9	7	6.7	2.0	1.0
4	2.5 acs	0.36	9.4	6.2	0.9	5	5.6	2	0.8
5	2 acs	0.36	9.4	6.5	0.9	5	4.5	2	0.64
6	2.9 acs	0.36	10.5	6.0	0.85	5	6.3	2	0.9

Post construction
Table of Flows

Area	Area	C_R	Tc	I_{100}	I_{WQ}	V_{100}	Q_{100}	V_{WQ}	Q_{WQ}
Offsite	72.5 acs	0.436	18	4.0	0.62	10	126	6	19.6
1	6.8 acs	0.454	13	5.0	0.68	7.4	18.5	2	2.6
2	7.9 acs	0.424	10.9	6.3	0.95	7.6	21.1	3.2	3.2
3	3 acs	0.39	9.4	6.2	0.9	7.1	7.3	2.1	1.1
4	2.5 acs	0.50	9.4	6.2	0.9	5	7.8	2	1.13
5	2 acs	0.41	9.4	6.2	0.9	5	5.1	2	0.78
6	2.9acs	0.46	10.5	6.0	0.85	5	7.4	2	1.0
1A	1.2 acs	0.62	10	6.0	0.88	3.5	4.5	1.1	0.65

BALDWIN
HYDRAULIC CALCULATIONS

Offsite AREA 63.5 + 9 = 72.5 ACS

CULVERT UNDER STREET "A"

SOIL GROUP AVERAGE "C"

WATERSHED L = 3300 FT.
WATERSHED H = 835-595 – 240

2/3 4.3 DU/AC 1/3 1 DU/AC

AVERAGE S = 7.4% NATURAL

½ 8.7 + ½ 5.3 = 7

C = 0.48(0.66) + 0.36 (0.33)
C = 0.317 + 0.0119
C = 0.436

Tc = 11 MINS + 7
Tc = 18 MINS.

IWQ = 0.62 INS/HR
I100 = 4.0 INS/HR

Q_{WQ} = 0.436(0.62)(72.5)
Q_{WQ} = 19.6 cfs
Q_{100} = 0.436(4.0()72.5)
Q_{100} = 126 cfs

USE 48" CULVERT WITH HEADWALL

$\frac{HW}{D}$ = 1.6

V = 10.0 ft/sec.

CAPACITY = 126 cfs ∴ OK

AREA 1 6.8 ACS.

WATERSHED L = 800 FT.
WATERSHED H = 715-600 = 114
S = 14%

Zoning 2AC/DU SOIL GROUP "C"

C = 36

Tc = 3.0 + 6.4 = 9.4 MINS

I_{WQ} = 0.9 INS/HR
I_{100} = 6.2 INS/HR

Q_{WQ} = 0.36(0.4)(6.8)
Q_{WQ} = 2.2 cfs
Q_{100} = 0.36(6.2)(6.8)
Q_{100} = 15.2 cfs

CAPACITY = 15.2 cfs ∴OK

Area 2 7.9 acs.

WATERSHED L = 830 FT.
WATERSHED H = 692-600 = 92'
S = 12%

C = 36

Tc = 2.6 + 6.4 = 9

Q_{WQ} = 0.36(0.95)(7.9)
Q_{wq} = 2.7 cfs
Q_{100} = 0.36(6.3)(7.9)
Q_{100} = 17.9 cfs

Q_{WQ} = 0.95 IN/HR
Q_{100} = 6.3 INS/HR

Area 3 3 acs.

WATERSHED L = 700 FT.
WATERSHED H = 686-610 = 70'
S = 10%

C = 36

Tc = 3 + 6.4 = 9.4

Q_{WQ} = 0.36(0.9)(3)
Q_{wq} = 1.1 cfs V = 2.0 FT/SEC
Q_{100} = 0.36(6.2)(3)
Q_{100} = 6.7 cfs
V_{100} = 7

I_{WQ} = 0.9 IN/HR
I_{100} = 6.2 INS/HR

Area 4 2.5 acs.

WATERSHED L = 450 FT.
WATERSHED H = 714-677 = 37'
S = 8%

C = 36

Tc = 2.5 + 6.9 = 9.4

Q_{WQ} = 0.36(0.9)(2.5)
Q_{wq} = 0.8 cfs
Q_{100} = 0.36(6.2)(2.5)
Q_{100} = 5.6 cfs

I_{WQ} = 0.9 IN/HR
I_{100} = 6.2 INS/HR

Area 5 2 acs.

WATERSHED L = 500 FT.
WATERSHED H = 714-677 = 37'
S = 7.5%

C = 36

Tc = 2.5 + 6.9 = 9.4

Q_{WQ} = 0.36(0.9)(2)
Q_{wq} = 0.64 cfs
Q_{100} = 0.36(6.2)(2)
Q_{100} = 4.5 cfs

I_{WQ} = 0.9 IN/HR
I_{100} = 6.2 INS/HR

Area 6 2.9 acs.

WATERSHED L = 600 FT.
WATERSHED H = 714-670 = 44'
S = 7.3%

C = 36

Tc = 3 + 7.5 = 10.5

Q_{WQ} = 0.36(0.85)(2.9)
Q_{wq} = 0.9 cfs
Q_{100} = 0.36(6.0)(2.9)
Q_{100} = 6.3 cfs

I_{WQ} = 0.85 IN/HR
I_{100} = 6.0 INS/HR

POST CONSTRUCTION

AREA 1A IMPERVIOUS AREA = 0.6 ACS. TOTAL 1.2 ACS.

$C_R = \frac{0.87 \times (0.6) + 0.36(0.6)}{1.2}$ $C_R = 0.62$

$Q_{WQ} = 0.62(0.88)(1.2)$
$Q_{WQ} = 0.65$ cfs
V = 1.1 FT/SEC

WATERSHED L = 750 FT.
WATERSHED H = 715 – 633 = 82
S = 10%

$Q_{100} = 0.62(6.0)(1.2)$
$Q_{100} = 4.5$ cfs
V = 3.5 FT/SEC

Tc = 3.6 + 6.4 = 10
I_{WQ} = 0.88/INS/HR
I_{100} = 6.0 IN/HR

CAPACITY BIO SWALE
EXCEED 4.5 cfs ∴ OK

AREA 1 WITH IMPERVIOUS AREA 1.25 ACS TOTAL 6.8 ACS

WATERSHED H = 706 – 600 = 106
WATERSHED L = 1000 FT.
S = 10%

$C_R = \frac{0.87(1.25) + 0.36(5.55)}{6.8} = CR = 0.454$

$Q_{WQ} = 0.454(0.85)(6.8)$
$Q_{WQ} = 2.6$ cfs V = 2 ft/sec.

Tc = 4 + 6.4 = 10.4
I_{WQ} = 0.85
I_{100} = 6.0 IN/HR

$Q_{100} = 0.454(6.0)(6.8)$
$Q_{100} = 18.55$ cfs

CAPACITY 24" CULVERT $\frac{HW}{D}$ = 2.0 EXCEEDS 18.5 CFS

V = 7.4 FT/SEC.

AREA 2 IMPERVIOUS AREA 1.0 ACS

7.9 ACS. TOTAL

$$Cr = \frac{0.87(1.0) + 6.9(0.36)}{7.9} = 0.424$$

$Q_{WQ} = 0.424(0.95)(7.9)$

$Q_{WQ} = 3.2$ cfs

$V = 3.2$ FT/SEC.

$I_{WQ} = 0.95$

$I_{100} = 6.3$

$Q_{100} = 0.424(6.3)(7.9)$

$Q_{100} = 21.1$ cfs

$V = 7.6$ FT/SEC.

POST CONSTRUCTION

AREA 3 IMPERVIOUS AREA 0.17 ACS

3.0 ACS TOTAL

$$Cr = \frac{0.87(0.17) + 0.36(2.83)}{3.0} = 0.39$$

$Q_{WQ} = 0.39(0.9)(3)$
$Q_{WQ} = 1.1$ cfs V = 2.1 FT/SEC. $I_{WQ} = 0.9$
$I_{100} = 6.2$

$Q_{100} = 0.39(6.2)(3)$
$Q_{100} = 7.3$ cfs

$V_{100} = 7.5$ FT/SEC.

AREA 4, 5, 6 SHEET FLOW

AREA 4 IMPERVIOUS AREA 0.7 ACS 2.5 ACS TOTAL

$$Cr = \frac{0.87(0.7) + 0.36(1.8)}{2.5} \quad Cr = 0.50$$

$Q_{WQ} = 0.50(0.9)(2.5)$
$Q_{WQ} = 1.13$ cfs $I_{WQ} = 0.9$
$I_{100} = 6.2$

$Q_{100} = 0.5(6.2)(2.5)$
$Q_{100} = 7.8$ cfs
SHEET FLOW

AREA 5 IMPERVIOUS AREA 0.2 ACS 2.0 ACS TOTAL

$$Cr = \frac{0.87(0.2) + 0.36(1.8)}{2.0} \quad Cr = 0.41$$

$Q_{WQ} = 0.41(0.9)(2.0)$
$Q_{WQ} = 0.78$ cfs $I_{WQ} = 0.9$
$I_{100} = 6.2$

$Q_{100} = 0.41(6.2)(2.0)$
$Q_{100} = 5.1$ cfs SHEET FLOW

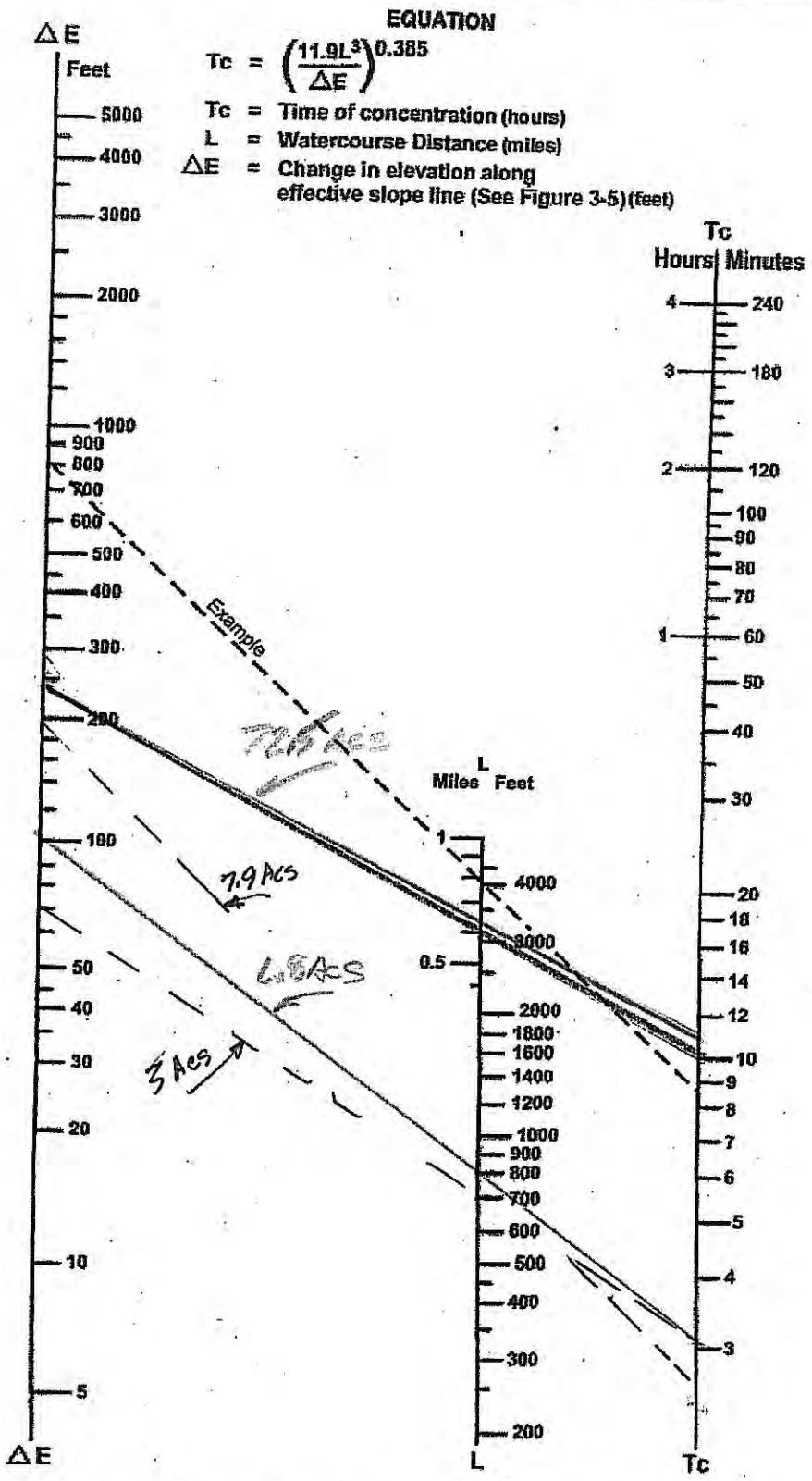
AREA 6 IMPERVIOUS AREA 0.5 ACS 2.7 ACS TOTAL

$$Cr = \frac{0.87(0.5) + 0.36(2.2)}{2.7} \qquad Cr = 0.46$$

$Q_{WQ} = 0.46(0.85)(2.7)$
$Q_{WQ} = 1.0$ cfs

$I_{WQ} = 0.85$
$I_{100} = 6.0$

$Q_{100} = 0.46(6.0)(2.7)$
$Q_{100} = 7.4$ cfs SHEET FLOW



SOURCE: California Division of Highways (1941) and Kirpich (1940)

FIGURE 3-4

Nomograph for Determination of
Time of Concentration (Tc) or Travel Time (Tt) for Natural Watersheds

Note that the Initial Time of Concentration should be reflective of the general land-use at the upstream end of a drainage basin. A single lot with an area of two or less acres does not have a significant effect where the drainage basin area is 20 to 600 acres.

Table 3-2 provides limits of the length (Maximum Length (L_M)) of sheet flow to be used in hydrology studies. Initial T_i values based on average C values for the Land Use Element are also included. These values can be used in planning and design applications as described below. Exceptions may be approved by the "Regulating Agency" when submitted with a detailed study.

Table 3-2

MAXIMUM OVERLAND FLOW LENGTH (L_M)
& INITIAL TIME OF CONCENTRATION (T_i)

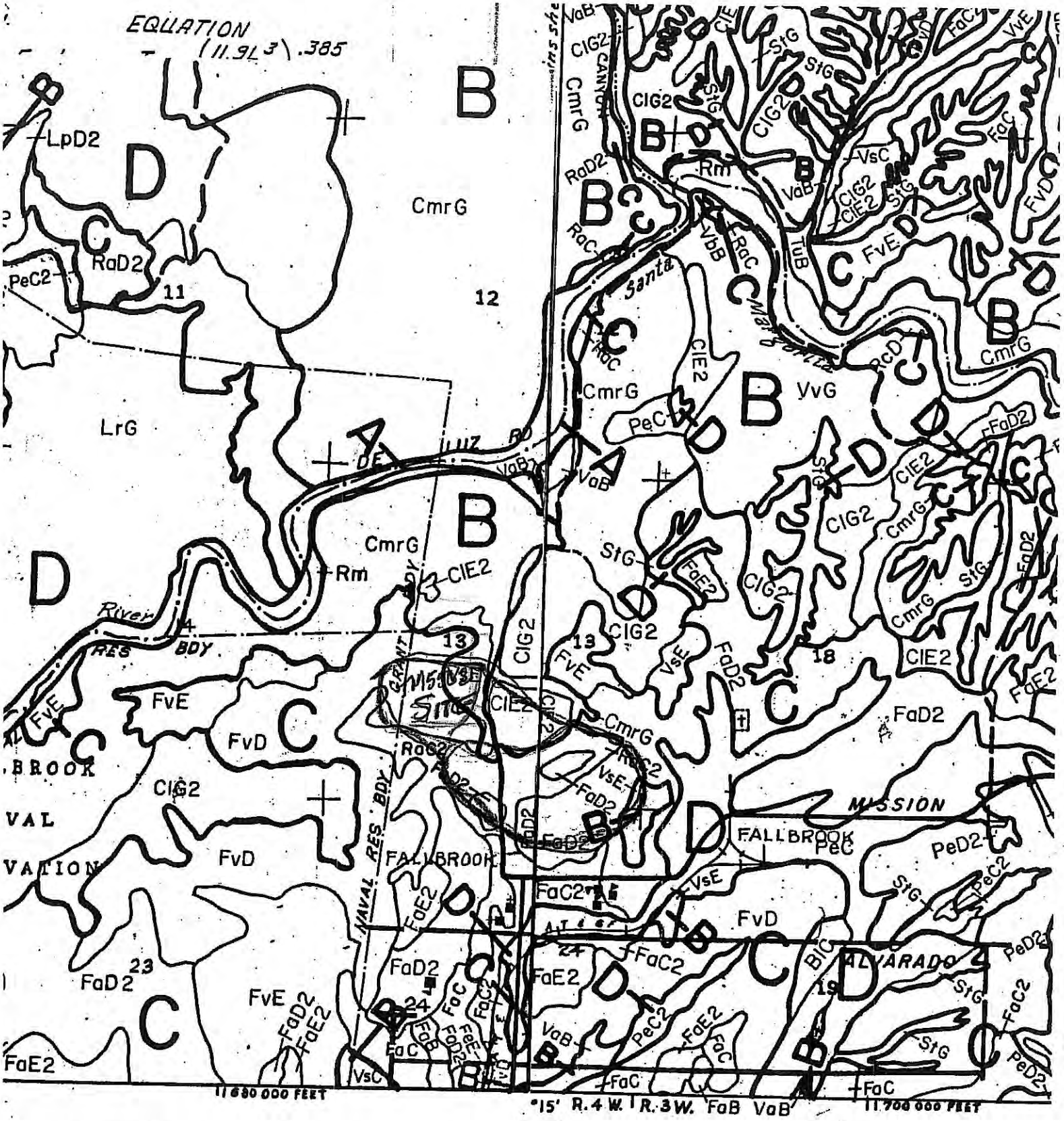
Element*	DU/	.5%		1%		2%		3%		5%		10%	
	Acre	L_M	T_i	L_M	T_i	L_M	T_i	L_M	T_i	L_M	T_i	L_M	T_i
Natural		50	13.2	70	12.5	85	10.9	100	10.3	100	8.7	100	6.9
LDR	1	50	12.2	70	11.5	85	10.0	100	9.5	100	8.0	100	6.4
LDR	2	50	11.3	70	10.5	85	9.2	100	8.8	100	7.4	100	5.8
LDR	2.9	50	10.7	70	10.0	85	8.8	95	8.1	100	7.0	100	5.6
MDR	4.3	50	10.2	70	9.6	80	8.1	95	7.8	100	6.7	100	5.3
MDR	7.3	50	9.2	65	8.4	80	7.4	95	7.0	100	6.0	100	4.8
MDR	10.9	50	8.7	65	7.9	80	6.9	90	6.4	100	5.7	100	4.5
MDR	14.5	50	8.2	65	7.4	80	6.5	90	6.0	100	5.4	100	4.3
HDR	24	50	6.7	65	6.1	75	5.1	90	4.9	95	4.3	100	3.5
HDR	43	50	5.3	65	4.7	75	4.0	85	3.8	95	3.4	100	2.7
N. Com		50	5.3	60	4.5	75	4.0	85	3.8	95	3.4	100	2.7
G. Com		50	4.7	60	4.1	75	3.6	85	3.4	90	2.9	100	2.4
O.P./Com		50	4.2	60	3.7	70	3.1	80	2.9	90	2.6	100	2.2
Limited I.		50	4.2	60	3.7	70	3.1	80	2.9	90	2.6	100	2.2
General I.		50	3.7	60	3.2	70	2.7	80	2.6	90	2.3	100	1.9

*See Table 3-1 for more detailed description

Table 3-1
RUNOFF COEFFICIENTS FOR URBAN AREAS

Land Use		Runoff Coefficient "C"				
			Soil Type			
NRCS Elements	County Elements	% IMPER.	A	B	C	D
Undisturbed Natural Terrain (Natural)	Permanent Open Space	0*	0.20	0.25	0.30	0.35
Low Density Residential (LDR)	Residential, 1.0 DU/A or less	10	0.27	0.32	0.36	0.41
Low Density Residential (LDR)	Residential, 2.0 DU/A or less	20	0.34	0.38	0.42	0.46
Low Density Residential (LDR)	Residential, 2.9 DU/A or less	25	0.38	0.41	0.45	0.49
Medium Density Residential (MDR)	Residential, 4.3 DU/A or less	30	0.41	0.45	0.48	0.52
Medium Density Residential (MDR)	Residential, 7.3 DU/A or less	40	0.48	0.51	0.54	0.57
Medium Density Residential (MDR)	Residential, 10.9 DU/A or less	45	0.52	0.54	0.57	0.60
Medium Density Residential (MDR)	Residential, 14.5 DU/A or less	50	0.55	0.58	0.60	0.63
High Density Residential (HDR)	Residential, 24.0 DU/A or less	65	0.66	0.67	0.69	0.71
High Density Residential (HDR)	Residential, 43.0 DU/A or less	80	0.76	0.77	0.78	0.79
Commercial/Industrial (N. Com)	Neighborhood Commercial	80	0.76	0.77	0.78	0.79
Commercial/Industrial (G. Com)	General Commercial	85	0.80	0.80	0.81	0.82
Commercial/Industrial (O.P. Com)	Office Professional/Commercial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (Limited I.)	Limited Industrial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (General I.)	General Industrial	95	0.87	0.87	0.87	0.87

*The values associated with 0% impervious may be used for direct calculation of the runoff coefficient as described in Section 3.1.2 (representing the pervious runoff coefficient, Cp, for the soil type), or for areas that will remain undisturbed in perpetuity. Justification must be given that the area will remain natural forever (e.g., the area is located in Cleveland National Forest).
DU/A = dwelling units per acre
NRCS = National Resources Conservation Service



North

SCALE 1:24000

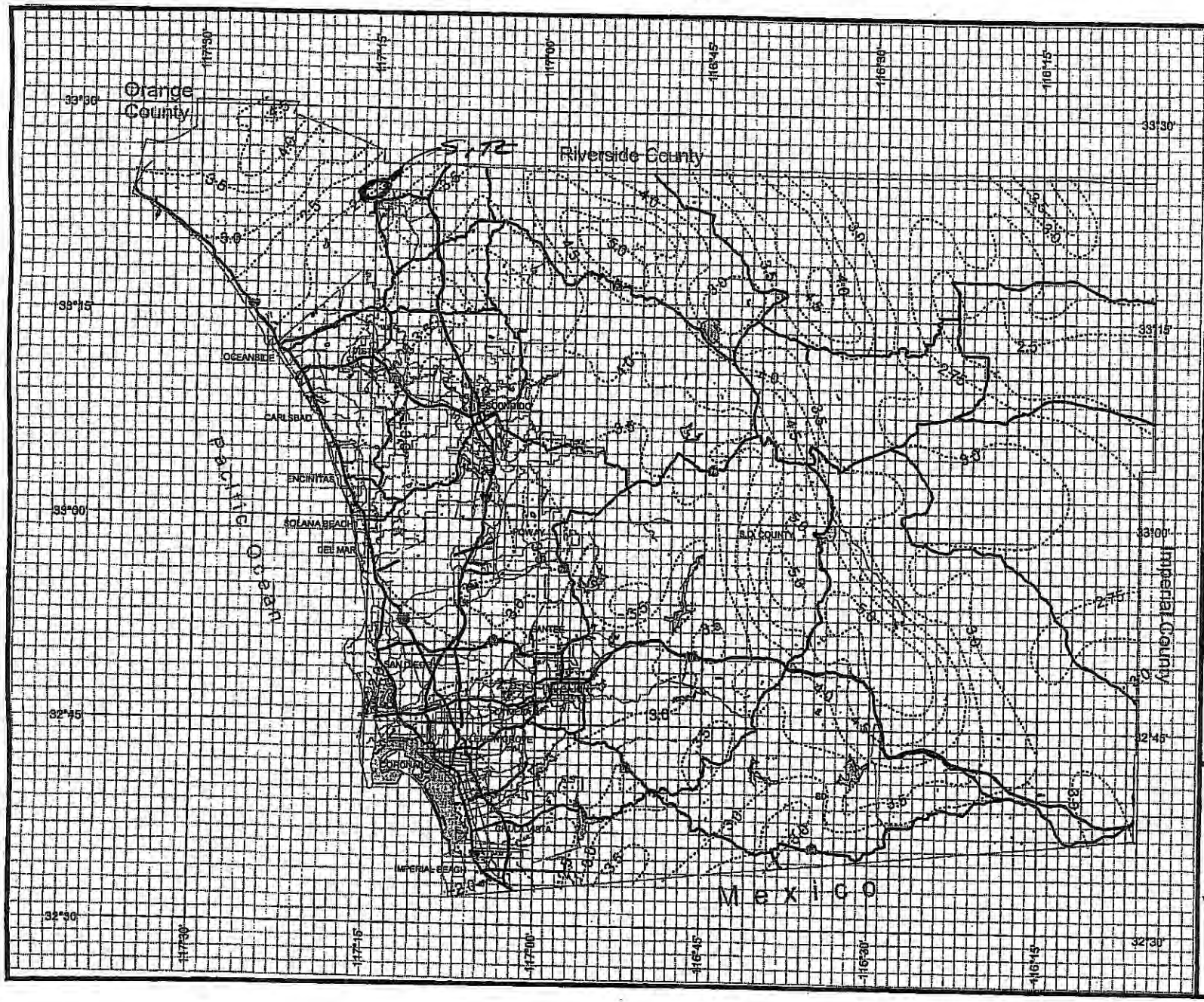
0 2000 4000

0 ¼ mile ½ mile

San Diego County Soils I

HYDROLOGIC SOIL GROU

EDERAL ASSISTANCE — The preparation of this map was nanced in part through a comprehensive planning grant from the epartment of Housing and Urban Development.



County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 6 Hours

Isopluvial (inches)

DPW GIS
Department of Public Works Geographic Information Services

SanGIS
We Have San Diego Covered!

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3 0 3 Miles

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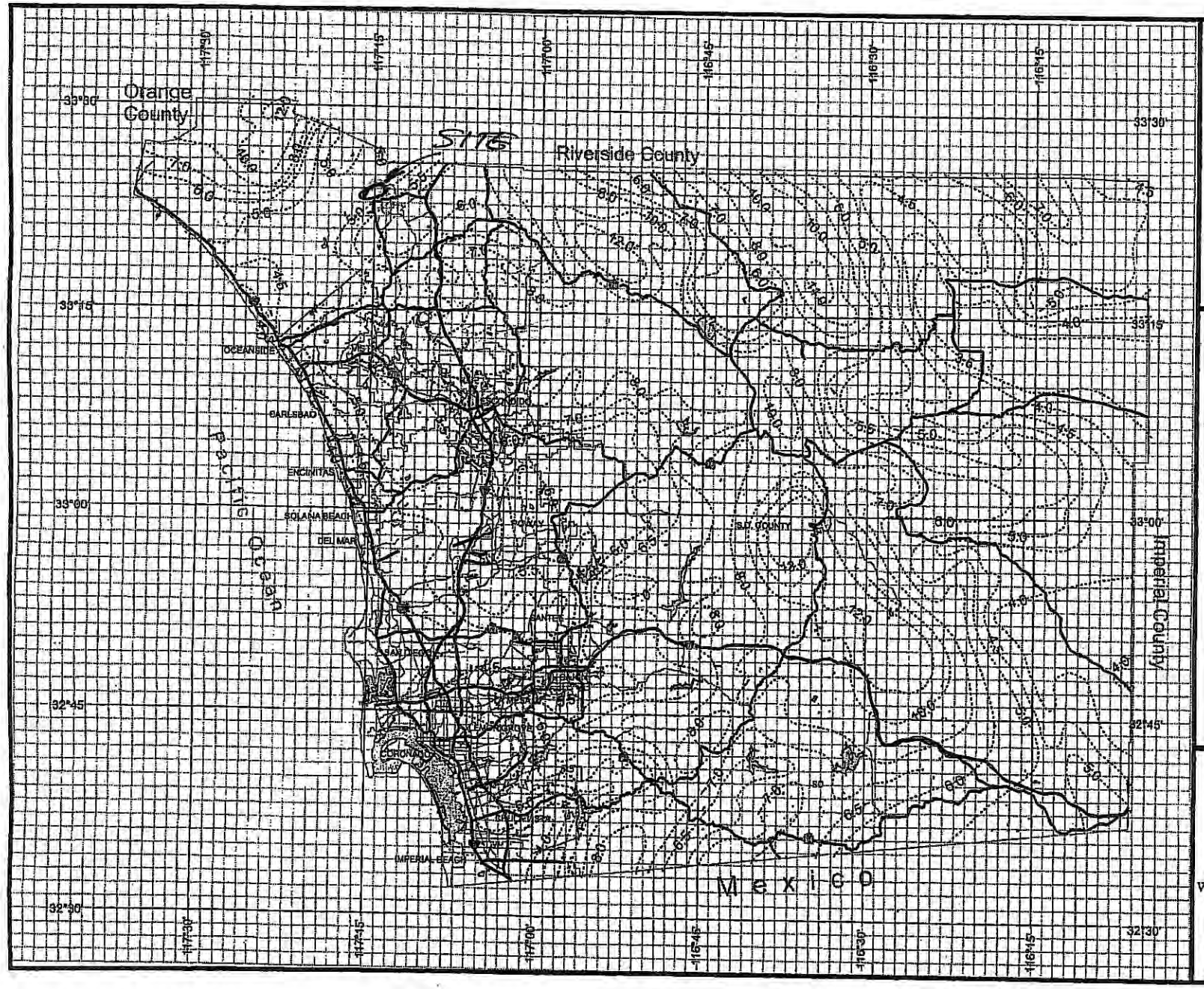

County of San Diego Hydrology Manual

Rainfall Isopluvials

100 Year Rainfall Event - 24 Hours

Isopluvial (inches)

DPW GIS
Department of Public Works
Geographic Information Systems

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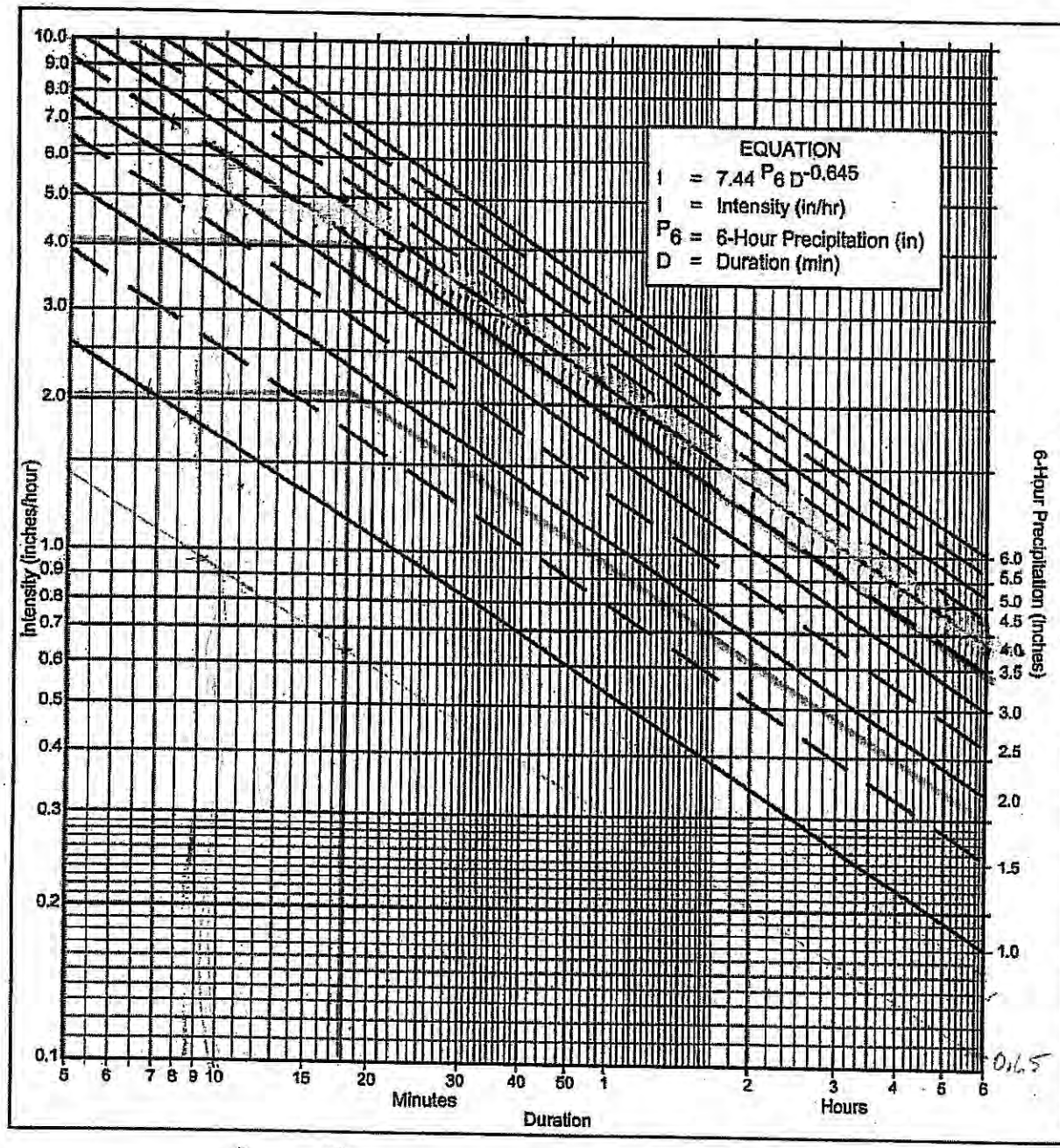


Directions for Application:

(1) From precipitation maps determine 6 hr and 24 hr amounts for the selected frequency. These maps are included in the County Hydrology Manual (10, 50, and 100 yr maps included in the Design and Procedure Manual).

(2) Adjust 6 hr precipitation (if necessary) so that it is within the range of 45% to 65% of the 24 hr precipitation (not applicaple to Desert).

(3) Plot 6 hr precipitation on the right side of the chart.

(4) Draw a line through the point parallel to the plotted lines.

(5) This line is the intensity-duration curve for the location being analyzed.

Application Form:

(a) Selected frequency 10/100 year

(b) P_6 = 1.8/1.5 in., P_{24} = 3.5/5.0, $\frac{P_6}{P_{24}}$ = 51/50 %(2)

(c) Adjusted P_6(2) = 1.8/2.5 in.

(d) t_x = 18 min.

(e) I_{10} = 2.1 in./hr. I_{100} = 4.0 in/hr

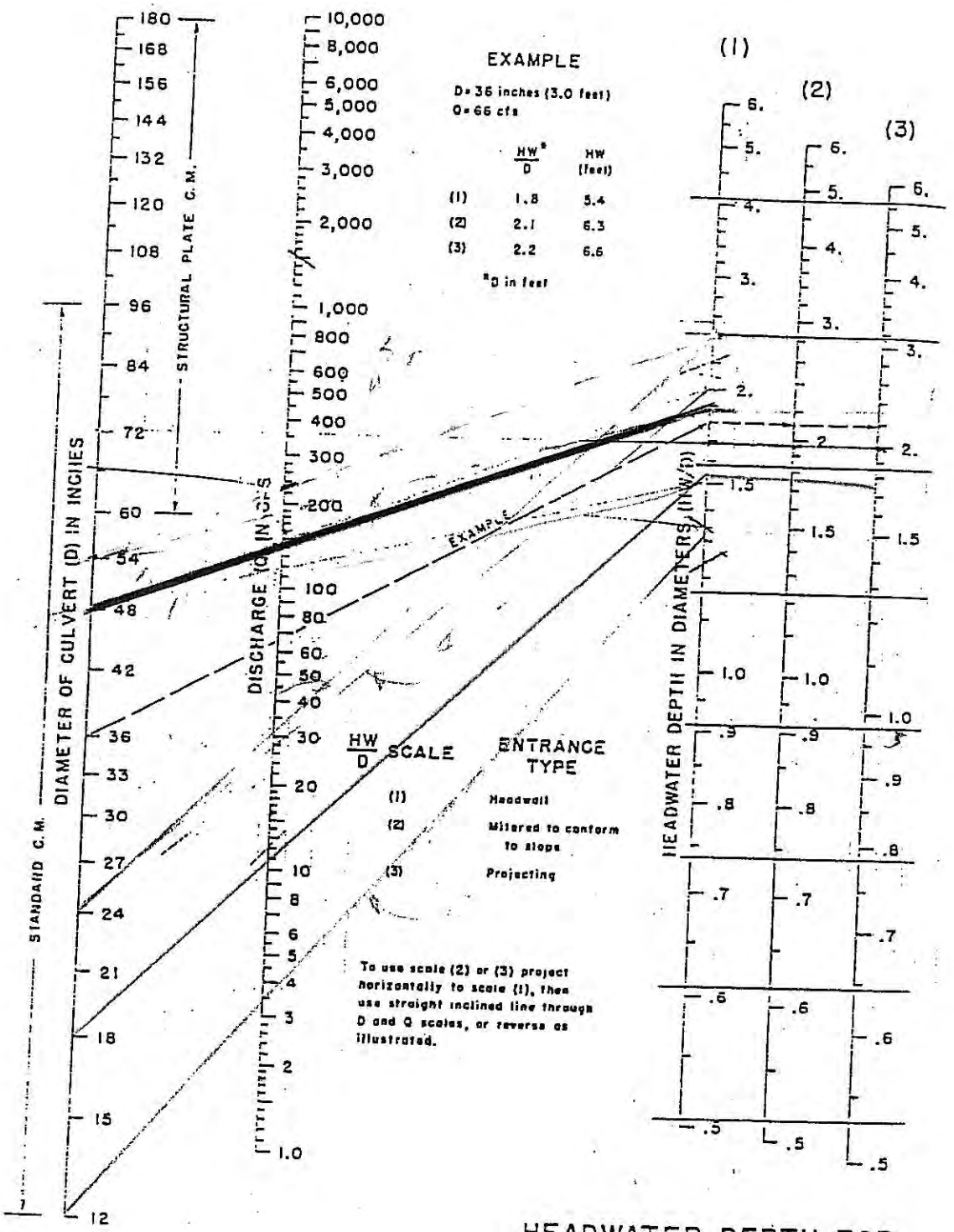
Note: This chart replaces the Intensity-Duration-Frequency curves used since 1965.

P6	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Duration	I	I	I	I	I	I	I	I	I	I	I
5	2.63	3.95	5.27	6.59	7.90	9.22	10.54	11.86	13.17	14.49	15.81
7	2.12	3.18	4.24	5.30	6.36	7.42	8.48	9.54	10.60	11.66	12.72
10	1.68	2.53	3.37	4.21	5.05	5.90	6.74	7.58	8.42	9.27	10.11
15	1.30	1.95	2.59	3.24	3.89	4.54	5.18	5.84	6.49	7.13	7.78
20	1.08	1.62	2.15	2.69	3.23	3.77	4.31	4.85	5.39	5.93	6.46
25	0.93	1.40	1.87	2.33	2.80	3.27	3.73	4.20	4.67	5.13	5.60
30	0.83	1.24	1.66	2.07	2.49	2.90	3.32	3.73	4.15	4.56	4.98
40	0.69	1.03	1.38	1.72	2.07	2.41	2.76	3.10	3.45	3.79	4.13
50	0.60	0.90	1.19	1.49	1.79	2.09	2.39	2.69	2.98	3.28	3.58
60	0.53	0.80	1.06	1.33	1.59	1.86	2.12	2.39	2.65	2.92	3.18
90	0.41	0.61	0.82	1.02	1.23	1.43	1.63	1.84	2.04	2.25	2.45
120	0.34	0.51	0.68	0.85	1.02	1.19	1.36	1.53	1.70	1.87	2.04
150	0.29	0.44	0.59	0.73	0.88	1.03	1.18	1.32	1.47	1.62	1.76
180	0.26	0.39	0.52	0.65	0.78	0.91	1.04	1.18	1.31	1.44	1.57
240	0.22	0.33	0.43	0.54	0.65	0.76	0.87	0.98	1.08	1.19	1.30
300	0.19	0.28	0.38	0.47	0.56	0.66	0.75	0.85	0.94	1.03	1.13
360	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.84	0.92	1.00

Intensity-Duration Design Chart - Template

FIGURE

3-1



HEADWATER DEPTH FOR
C. M. PIPE CULVERTS
WITH INLET CONTROL

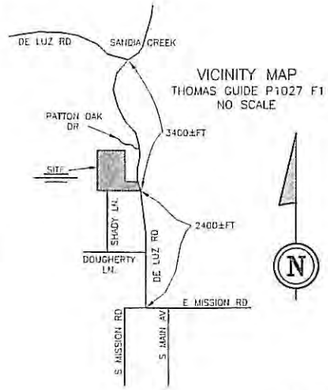
BUREAU OF PUBLIC ROADS JAN. 1963

REGISTERED PROFESSIONAL ENGINEER
HADLEY JOHNSON
NO. 14870
Exp. 3-31-01
CIVIL
STATE OF CALIFORNIA

PRELIMINARY GRADING PLAN
TENTATIVE MAP NO. 5502 RPL

LEGEND

ITEM	S.D.R.S.D./B.M.P.*	SYMBOL
EXIST. CONTOUR		
PROP. CONTOUR		
FILL SLOPE – 2:1	SS-7*	
CUT SLOPE – 1.5:1	SS-7*	
PROP. SPOT ELEVATION		650
PERCOLATION TEST HOLE		#1
PROFILE TEST HOLE		PH
PROPOSED SEPTIC LEACH FIELD		
6" EARTHEN BERM	SS-9	B B
PROP. EARTHEN BROW DITCH	SS-9	
PROP. ROCK RIP RAP (10'x10'x1.0') #2 BACKING OVER 1/4" GRAVEL FILTER BLANKET(0.5' THICK). TYPE 2, Vm7-8 FT/SEC.	D-40/SS-10*	
SILT FENCE	SC-1*	SF SF
STABILIZED CONSTRUCTION ENTRANCE	TC-1*	
GRAVEL BAGS	SC-6*	
BIO FILTER		
GRASS SWALE		
PROPOSED BIOLOGICAL OPEN SPACE (10.69 ACRES)		
BIOLOGICAL OPEN SPACE FENCING AND SIGNAGE		100' 100'
LIMITED BUILDING ZONE ESMT (2.04 ACRES)		



VICINITY MAP
THOMAS GUIDE P1027 F1
NO SCALE

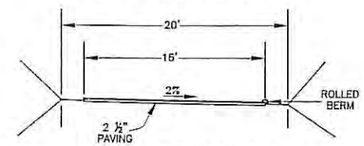
LEGEND

		YARDAGE QUANTITIES YARDAGE CUT 2:1 RATIO	YARDAGE FILL 2:1 RATIO
1	LOT 1 7.25+/- AC GROSS 7.25+/- AC NET	12.0 C.Y. TOP EL=688	39.0 C.Y. TOE EL=669
2	LOT 2 1.07+/- AC GROSS 1.01+/- AC NET	12.2 C.Y. TOP EL=687	3.0 C.Y. TOE EL=684
3	LOT 3 1.21+/- AC GROSS 1.11+/- AC NET	12.0 C.Y. TOP EL=689	15.1 C.Y. TOE EL=686
4	LOT 4 1.16+/- AC GROSS 1.10+/- AC NET	104.0 C.Y. TOP EL=694	60.0 C.Y. TOE EL=693
5	LOT 5 1.36+/- AC GROSS 1.34+/- AC NET	22.5 C.Y. TOP EL=689	134.3 C.Y. TOE EL=679
6	LOT 6 1.17+/- AC GROSS 1.14+/- AC NET	284.5 C.Y. TOP EL=692	105.9 C.Y. TOE EL=683
7	LOT 7 1.17+/- AC GROSS 1.04+/- AC NET	RAISED FOUNDATION	RAISED FOUNDATION
8	LOT 8 1.27+/- AC GROSS 1.02+/- AC NET	11.3 C.Y. TOP EL=717	6.0 C.Y. TOE EL=713
9	LOT 9 1.32+/- AC GROSS 1.11+/- AC NET	43.4 C.Y. TOP EL=696	134.7 C.Y. TOE EL=664
10	LOT 10 1.32+/- AC GROSS 1.22+/- AC NET	RAISED FOUNDATION	RAISED FOUNDATION
11	LOT 11 5.90+/- AC GROSS 5.76+/- AC NET	339.7 C.Y. TOP EL=652	463.4 C.Y. TOE EL=649
12	LOT 12 2.21+/- AC GROSS 2.01+/- AC NET	209.2 C.Y. TOP EL=708	183.6 C.Y. TOE EL=669
13	LOT 13 1.26+/- AC GROSS 1.13+/- AC NET	121.1 C.Y. TOP EL=713	RAISED FOUNDATION
14	LOT 14 4.25+/- AC GROSS 4.01+/- AC NET	27.6 C.Y. TOP EL=669	50.0 C.Y. TOE EL=663

20% DIRECTION OF DRAINAGE & PERCENT OF GRADE

LEGAL DESCRIPTION

A PORTION OF LOT 3 AND THE NW ¼, SE ¼, SECTION 13, T.9S., R.4W. S.B.B.M., AND A PORTION OF RANCHO SANTA MARGARITA Y LAS FLORES, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA



TYPICAL DRIVEWAY SECTION
NO SCALE

OWNER/SUBDIVIDER

CHARLES H. BALDWIN
PH. (650)714-7290
22 CHURCH ST.
MOUNTAIN VIEW, CA 94041

CHARLES BALDWIN — OWNER — DATE 8/14/08

ZONING BOX

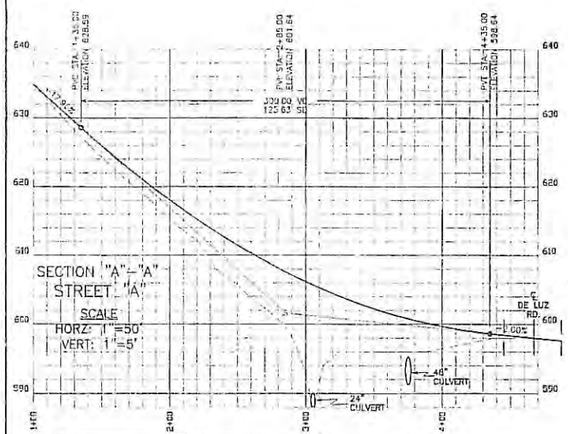
USE REGULATIONS	A-70
NEIGHBORHOOD REGS.	L
DENSITY	0.5
LOT SIZE	2.0 AC.
BUILDING TYPE	C
MAX. FLOOR AREA	–
FLOOR AREA RATIO	–
HEIGHT	G
LOT COVERAGE	–
SETBACK	C
OPEN SPACE	–
SPECIAL AREA REGULATIONS	–

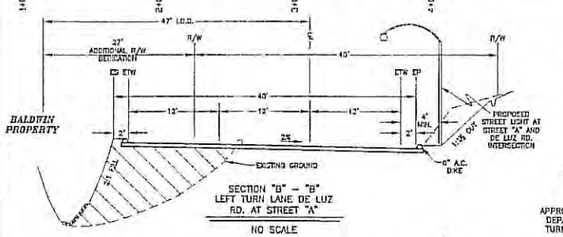
APN 103-010-72 TRA 75070

SUPPLEMENTAL INFORMATION

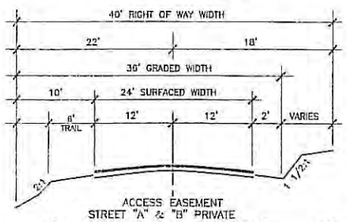
1. EXISTING ZONING: A-70 2 AC. LIMITED AGRICULTURAL
2. COMMUNITY PLANNING: FALLBROOK
3. GENERAL PLAN DESIGNATION: (17) ESTATE RESIDENTIAL
4. REGIONAL CATEGORY: 1.3 ESTATE DEVELOPMENT AREA (EDA)
5. WATER: FALLBROOK PUBLIC UTILITY DISTRICT
6. SEWER/SEPTIC: FALLBROOK PUBLIC UTILITY DISTRICT
7. NUMBER OF LOTS: 14
8. NUMBER OF DWELLING UNITS: 14
9. NUMBER OF ACRES: 31.9± AC GROSS 30.2± AC NET
10. TOPOGRAPHY: AERIAL AEROGEODETIC CORP JAN 27, 2006
11. FIRE PROTECTION: NORTH CO. FIRE PROTECTION DISTRICT
12. SCHOOL DISTRICTS: FALLBROOK ELEMENTARY AND FALLBROOK HIGH SCHOOL DISTRICT
13. FEES TO BE PAID IN LIEU OF DEDICATION FOR PARK LANDS.
14. NO SPECIAL ASSESSMENT ACT PROCEEDINGS ARE PROPOSED.
15. STREET LIGHTS TO BE INSTALLED IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARDS.
16. ALL CUT SLOPES: 2 : 1
17. ALL FILL SLOPES: 2 : 1
18. POTABLE WATER LINES ON OR NEAR THIS PROPERTY ARE AS SHOWN.
19. MINIMUM LOT SIZE: 2 AC
20. GRADING: NO GRADING IS PROPOSED.
21. NO BUILDINGS ON PROPERTY.
22. PROPOSED OPEN SPACE
    - LOT 1 4.86 ACRES
    - LOT 11 4.03 ACRES
    - LOT 14 1.33 ACRES
    - TOTAL: 10.22 ACRES

    LIMITED BLDG. ESMT.
    - LOT 1 1.10 ACRES
    - LOT 9 0.28 ACRES
    - LOT 10 0.51 ACRES
    - LOT 11 1.06 ACRES
    - LOT 12 0.49 ACRES
    - LOT 14 0.60 ACRES
    - TOTAL: 4.04 ACRES

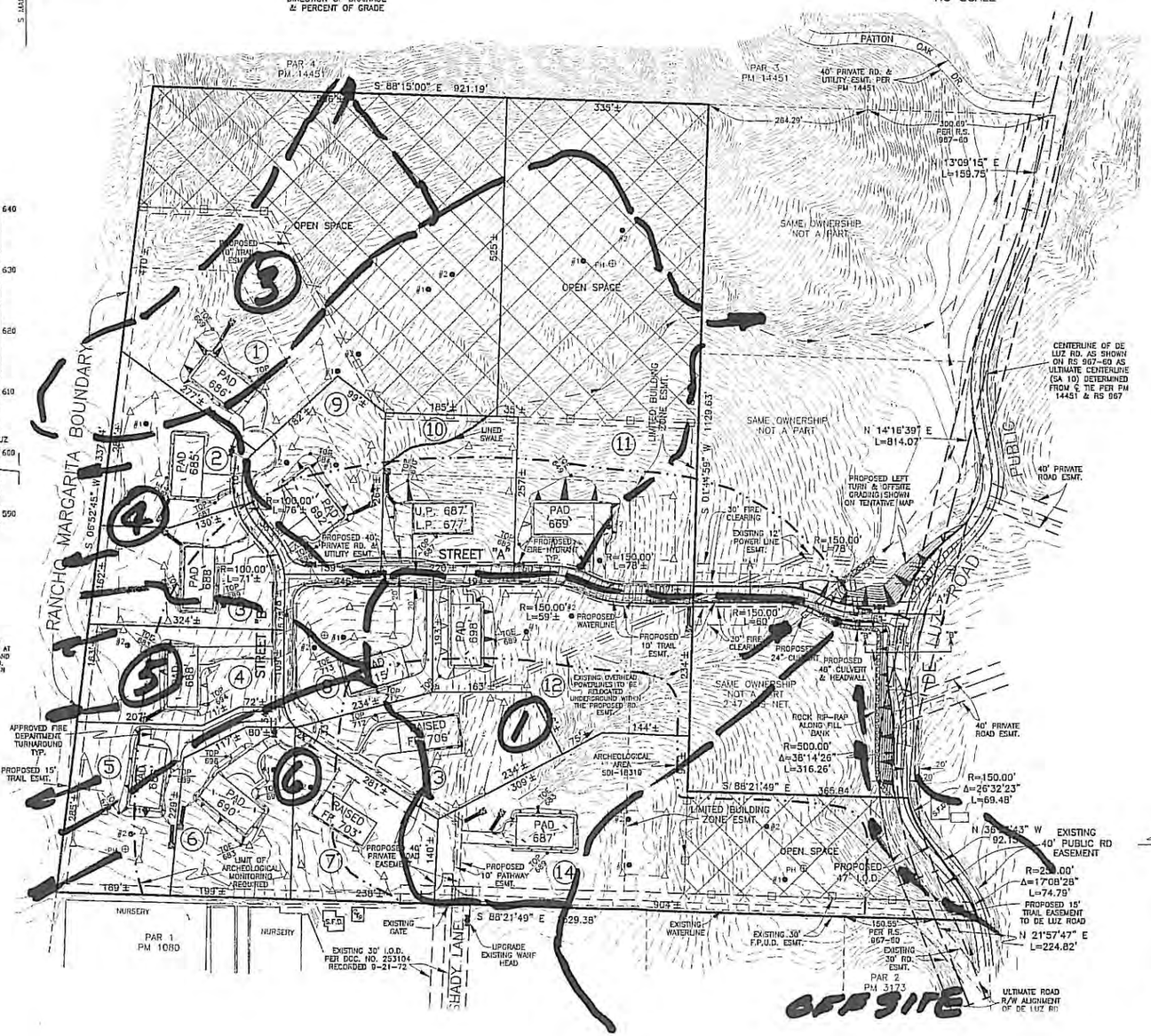




SECTION "B" – "B"
LEFT TURN LANE DE LUZ RD. AT STREET "A"
NO SCALE



GRAPHIC SCALE: 1" = 100'



HADLEY JOHNSON, RCE 14870 — DATE Aug 18, 2010

NOTE

"THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY."

SOLAR NOTE

ALL PARCELS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF ONE HUNDRED (100) SQUARE FEET OF SOLAR ACCESS FOR EACH FUTURE DWELLING UNIT ALLOWED BY THIS SUBDIVISION AS REQUIRED BY SECTION 81.401(m) OF THE SUBDIVISION ORDINANCE.