

POST DEVELOPED DRAINAGE AREA CALCULATIONS						
Drainage Area No.	Total Area (Acres)	Runoff Coefficient C	Time of Concentration Tc (Min.)	Rainfall Intensity I <sub>100</sub> (in/hr)	Proposed Flow Q <sub>100</sub> (cfs)	Remarks
1	0.29	0.50	10	9.80	1.42	Flows to Inlet #9, Phase 2 Pond
2	0.80	0.50	10	9.80	3.92	Flows to Inlet #10, Phase 2 Pond
3	1.22	0.50	10	9.80	5.98	Flows Offsite to the East
4	1.59	0.50	10	9.80	7.79	Flows to Inlet #2, Phase 2 Pond
5	1.02	0.50	10	9.80	5.00	Flows to Phase 2 Pond
6	1.31	0.50	10	9.80	6.42	Flows to Inlet #3, Phase 2 Pond
7	1.19	0.50	10	9.80	5.83	Flows to Inlet #1, Phase 2 Pond
8	3.28	0.50	10	9.80	16.07	Flows to Phase 2 Pond
9	1.67	0.50	10	9.80	8.18	Flows to Inlet #4, Phase 2 Pond
10	1.96	0.50	10	9.80	9.60	Flows to Phase 2 Pond
11	1.44	0.50	10	9.80	7.06	Flows to Inlet #5, Phase 1 Pond
12	1.07	0.50	10	9.80	5.24	Flows to Inlet #8, Phase 1 Pond
13	1.79	0.50	10	9.80	8.77	Flows to Inlet #9, Phase 1 Pond
14	2.82	0.50	10	9.80	13.82	Flows Offsite to South
15	0.31	0.50	10	9.80	1.52	Flows to Inlet #7, Phase 1 Pond
16	0.87	0.50	10	9.80	4.26	Flows to Phase 1 Pond
17	1.77	0.50	10	9.80	8.67	Flows Offsite to West
18	1.41	0.50	10	9.80	6.91	Flows to Phase 1 Pond
19	1.16	0.50	10	9.80	5.68	Flows Offsite to West
20	1.93	0.50	10	9.80	9.46	Flows Offsite to West
21	0.84	0.50	10	9.80	4.12	Flows to Inlet #5, Phase 1 Pond
22	1.42	0.50	10	9.80	6.96	Flows to Inlet #5, Phase 1 Pond
23	1.78	0.50	10	9.80	8.72	Flows to Phase 2 Pond
24	0.32	0.50	10	9.80	1.57	Flows to Inlet #6, Phase 1 Pond
<b>TOTAL</b>	<b>33.26</b>				<b>162.97</b>	

\* - PHASE II DRAINAGE AREA 15 AS SHOWN ABOVE INCLUDES A PORTION OF THE DRAINAGE AREA PROVIDED IN PHASE I DRAINAGE AREA 13. THEREFORE, 0.13 ACRES OF PHASE I AREA 13 GOES TO PHASE II AREA 15.  
 - DRAINAGE AREAS 1 AND 2 AS SHOWN ARE THE SAME AS DRAINAGE AREAS 4 AND 3 RESPECTIVELY FROM FONTANNA RANCH PHASE 2.

INLET DESIGN CALCULATIONS												
Inlet No.	Location	Design Storm Frequency (yrs)	Time of Conc. (min)	AREA RUNOFF - Q = CIA				Carry-Over from Upstream Inlet (c.f.s.)	Total Gutter Flow (c.f.s.)	Gutter Capacity (c.f.s.)	Gutter Slope (ft/100ft)	Crown Type
				Intensity (in/hr)	Runoff Coeff. "C"	Area (Ac)	"Q" (c.f.s.)					
1	LINE "A" - STA. 1+58.50	100	10	9.8	0.5	1.19	5.83	0	5.83	10.92	Low	Parabolic
2	LINE "A" - STA. 1+87.50	100	10	9.8	0.5	1.59	7.79	0	7.79	10.92	Low	Parabolic
3	LAT "B-1" - STA. 0+23.11	100	10	9.8	0.5	1.31	6.42	0	6.42	10.92	0.60%	Parabolic
4	LINE "B" - STA. 5+17.25	100	10	9.8	0.5	1.67	8.18	0	8.18	17.78	1.50%	Parabolic
5	LAT "C-1" - STA. 3+40.24	100	10	9.8	0.5	3.70	18.14	0	18.14	---	Low	---
6	LAT "C-2" - STA. 0+20.69	100	10	9.8	0.5	0.26	1.57	0	1.57	11.40	Low	Parabolic
7	LAT "C-3" - STA. 0+16.74	100	10	9.8	0.5	0.31	1.52	0	1.52	11.40	Low	Parabolic
8	LINE "C" - STA. 3+90.50	100	10	9.8	0.5	1.07	5.24	0	5.24	24.30	2.97%	Parabolic
9	EX. PH 2 LINE "E"	100	10	9.8	0.5	0.29	1.42	1.95	3.37	10.92	Low	Parabolic
10	EX. PH 2 LINE "E"	100	10	9.8	0.5	0.80	3.92	0	3.92	10.92	Low	Parabolic
11	LAT "C-4" - STA. 0+32.87	100	10	9.8	0.5	1.79	8.77	0	8.77	24.30	2.97%	Parabolic

**LEGEND**

--- DRAINAGE DIVIDE

→ FLOW DIRECTION

--- 590 --- EXIST. CONTOUR

① DRAINAGE AREA

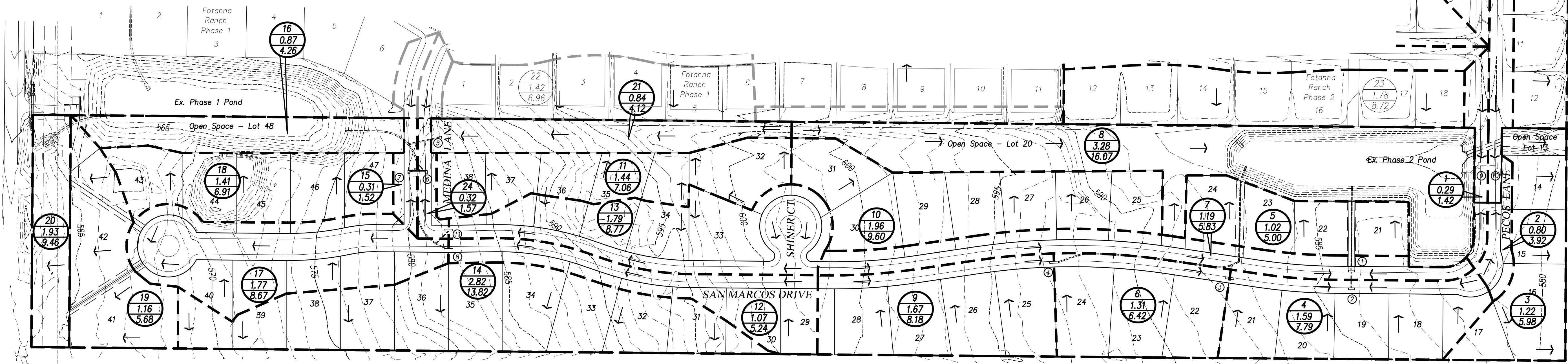
② ACRES

③ RUNOFF, cfs

④ INLET NO.

100 Year

T<sub>c</sub> = 10 min  
 C = 0.50  
 I<sub>100</sub> = 9.80 in/hr.  
 A = Acres  
 Q = 0.50(A)(9.80)



Revision	Date	Description

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**Fontanna Ranch Ph. 3**

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 F-7449

**CAUTION EXISTING UTILITIES !!!**

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE THE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

**BENCHMARK:**  
 "X" ON TOP OF CURB WEST NOSE OF MEDIAN AT ENTRANCE TO FONTANNA RANCH WIMBERLEY LN.  
 ELEV. 570.06

Drawn By:	Checked By:
FC CUNY	FC CUNY
Date:	Project No.:
4-1	
Sheet Title:	
<b>Drainage Area Map</b>	
Scale:	Sheet No.:
1" = 100'	9 of 18

RECORD DRAWING

Fontanna Ranch Ph. 3