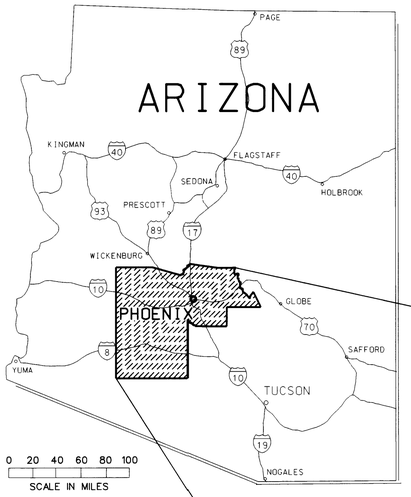
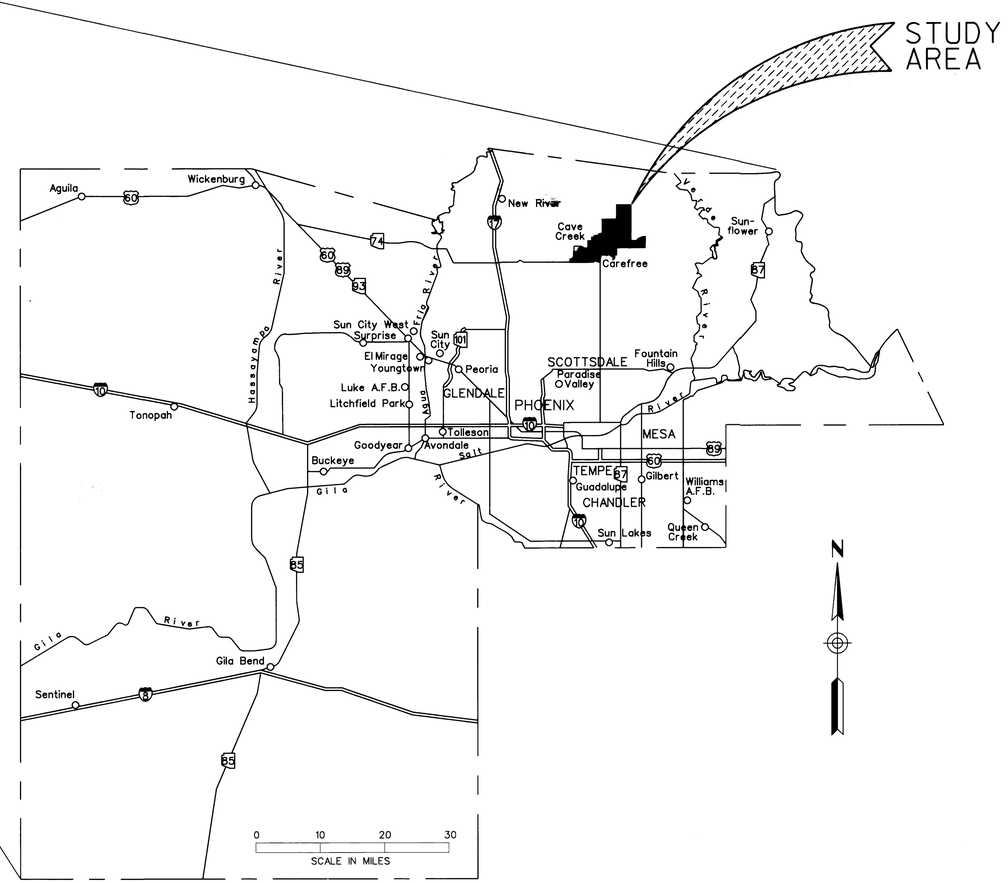
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FLOODPLAIN DELINEATION STUDY OF GALLOWAY WASH MIDDLE BRANCH, WINDMILL WASH, EASTERN PIMA WASH, UNNAMED TRIBUTARY TO STAGECOACH PASS WASH, AND UNNAMED CENTRAL TRIBUTARY TO CAVE CREEK

FCD 00-37





MARICOPA COUNTY

NOTES

1. ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
2. ALL HORIZONTAL COORDINATES ARE BASED ON ARIZONA STATE PLANE COORDINATES BASED ON THE 1983 NORTH AMERICAN DATUM.

STATEMENTS OF PROFESSIONAL REGISTRANTS

THE GROUND CONTROL SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REED DATE SIGNED 12/15/04 ARIZONA, U.S.A.

THE FLOODPLAIN AND FLOODWAY DELINEATIONS WERE PERPARED UNDER MY DIRECT SUPERVISION USING HYDROLOGY FROM FCD 99-14, FCD 01-09 AND NEW HYDROLOGY UNDER THIS CONTRACT.

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 24971 TONY A BOKICH DATE SIGNED 12-15-04 ARIZONA, U.S.A.

CH2MHILL
2625 SOUTH PLAZA DRIVE SUITE 300
TEMPE, AZ
85282-3397

LOCATION MAP

DECEMBER, 2004

SHEET 1 OF 8

CENTRAL FILES
DRAWER # 304

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Carefree Delineation Study of Galloway Wash Middle Branch Windmill Wash, Eastern Pima Wash
FCD 00-37 Drawer 302

UNNAMED CENTRAL TRIBUTARY TO CAVE CREEK									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
Main					Main				
2.2214	2267	1652	9.76	7.49	1.5812	2210.25	2622	7.37	2.66
2.2064	2262.25	1652	9.21	5.22	1.5549	2207.91	2622	7.26	2.48
2.1826	2258.25	2335	10.15	8.13	1.5234	2204.66	2822	6.36	2.66
2.1684	2257.6	2335	9.53	8.49	1.4675	2199.3	2779	6.19	2.95
2.1443	2257.51	2363	6.41	9.46	1.4233	2194.7	2779	5.34	2.67
2.1205	2255.17	2363	10.23	9.02	1.3724	2189.13	2779	5.7	2.23
2.0829	2252.47	2363	11.49	7.72	1.3235	2183.71	2854	5.03	1.47
2.0456	2248.54	2391	9.04	5.72	1.2701	2179.28	2274	5.52	1.91
2.0048	2245.97	2391	10.26	5.05	1.2175	2174.69	2274	5.91	2.3
1.9633	2243.44	2391	10.32	5.29	1.1824	2171.81	2764	4.47	4
1.9389	2241.2	2391	9.76	4.31	1.1329	2166.32	2764	5.28	3.07
1.9192	2239.28	2447	8.33	3.66	1.0627	2159	2764	5.99	3.65
1.9042	2238.8	2447	4.73	5.89	1.0158	2153.21	2764	5.93	3.13
1.8875	2237.97	2447	5.85	6.27	0.9888	2150.92	2849	5.87	3.15
1.8644	2235.19	2447	6.85	4.7	0.9593	2147.95	2849	5.35	3.61
1.8424	2232.84	2447	7.51	3.95	North				
1.8096	2230.46	2467	5.2	4.04	0.9285	2144.98	2092	4.38	3.81
1.7593	2225.87	2467	5.29	2.84	0.9094	2141.45	2092	7.34	4.07
1.7007	2220.63	2467	5.94	2.66	South				
1.6442	2215.52	2467	6.16	2.08	0.9065	2141.86	704	3.97	3.16
1.6113	2213.12	2467	5.12	1.92	0.8919	2141.45	562	1.4	2.56

LEGEND

- 100-YR FLOODPLAIN BOUNDARY
- FLOODWAY BOUNDARY
- HYDRAULIC BASE LINE WITH RIVER MILE
- SECTION LINE
- SECTION CORNER (26 25 / 35 36)
- CROSS SECTION (0.2185)
- FLOW DIVERSION (CFS) (361)
- SURVEY CONTROL, ELEVATION REFERENCE MARK
- BASE FLOOD ELEVATIONS (2505)
- ZONE DESIGNATIONS (ZONE AE)
- CORPORATE LIMITS (Corporate Limits)
- COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY (County Boundary)

ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
CONVERSION FACTOR 1988 NAVD = -2.23
AVERAGE TO 1929 NGVD

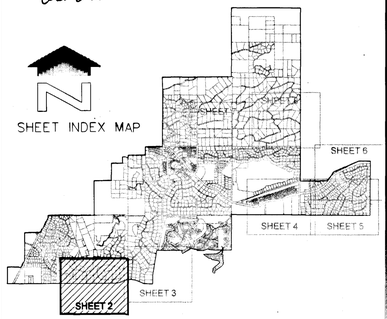
I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date 12/15/04 Signed ARIZONA U.S.A.

SHEET INDEX MAP



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

UNNAMED CENTRAL TRIBUTARY
TO CAVE CREEK
CAREFREE FLOODPLAIN DELINEATION
F.C.D. CONTRACT NO. 2000 C037

Registered Professional Engineer (Civil) CERTIFICATE NO. 24971 TONY A BOKICH Date 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 2 OF 8

200' 0' 200' 400'
SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

MAPPING COMPANY: M&B AERIAL
(INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944fp102.dlv 14-DEC-2004

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	
SECTION LINE	
SECTION CORNER	26 25 / 35 36
CROSS SECTION	
FLOW DIVERSION (CFS)	381
SURVEY CONTROL, ELEVATION REFERENCE MARK	
BASE FLOOD ELEVATIONS	2505
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

ELEVATION REFERENCE MARKS

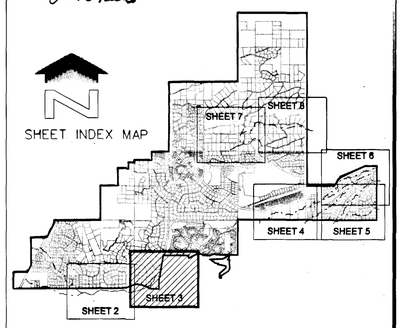
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. CONVERSION FACTOR 1988 NAVD = -2.23 AVERAGE TO 1929 NGVD

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date Signed 12/15/04 ARIZONA, U.S.A.



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

UNNAMED CENTRAL TRIBUTARY

TO CAVE CREEK

CAREFREE FLOODPLAIN DELINEATION

F.C.D. CONTRACT NO. 2000 C037

UNNAMED CENTRAL TRIBUTARY TO CAVE CREEK

R.S.	FP	Q (CFS)	V (FPS)	D (Ft)	R.S.	FP	Q (CFS)	V (FPS)	D (Ft)
Main					Main				
2.2214	2267	1652	9.78	7.49	1.5812	2210.28	2622	7.37	2.86
2.2064	2262.28	1652	9.21	5.22	1.5649	2207.91	2622	7.26	2.48
2.1928	2258.25	2335	10.15	8.13	1.5234	2204.66	2622	6.36	2.66
2.1684	2257.6	2335	9.53	8.49	1.4675	2199.3	2779	6.19	2.95
2.1443	2257.51	2363	6.41	9.46	1.4233	2194.7	2779	5.34	2.67
2.1205	2255.17	2363	10.23	9.02	1.3724	2189.13	2779	5.7	2.23
2.0829	2252.47	2363	11.49	7.72	1.3235	2183.71	2854	5.03	1.47
2.0456	2248.54	2391	9.04	5.72	1.2701	2179.28	2274	5.52	1.91
2.0048	2245.97	2391	10.26	5.05	1.2175	2174.69	2274	5.91	2.3
1.9633	2243.44	2391	10.32	5.29	1.1824	2171.81	2764	4.47	4
1.9389	2241.2	2391	9.76	4.31	1.1329	2166.32	2764	5.28	3.07
1.9192	2239.28	2447	8.33	3.66	1.0627	2159	2764	5.99	3.65
1.9042	2238.8	2447	4.73	5.89	1.0158	2153.21	2764	5.93	3.13
1.8875	2237.97	2447	5.85	6.27	0.9888	2150.92	2849	5.87	3.15
1.8644	2235.19	2447	6.85	4.7	0.9593	2147.95	2849	5.35	3.61
1.8424	2232.64	2447	7.51	3.95	North				
1.8096	2230.46	2467	5.2	4.04	0.9285	2144.98	2092	4.38	3.81
1.7593	2225.87	2467	5.29	2.84	0.9094	2141.45	2092	7.34	4.07
1.7007	2220.63	2467	5.94	2.66	South				
1.6442	2215.52	2467	6.16	2.06	0.9065	2141.86	704	3.97	3.16
1.6113	2213.12	2467	5.12	1.92	0.8919	2141.45	562	1.4	2.56

200′ 0′ 200′ 400′

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 24971 TONY A BOKICH Date Signed 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 3 OF 8

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2'CONTOUR INTERVALS.

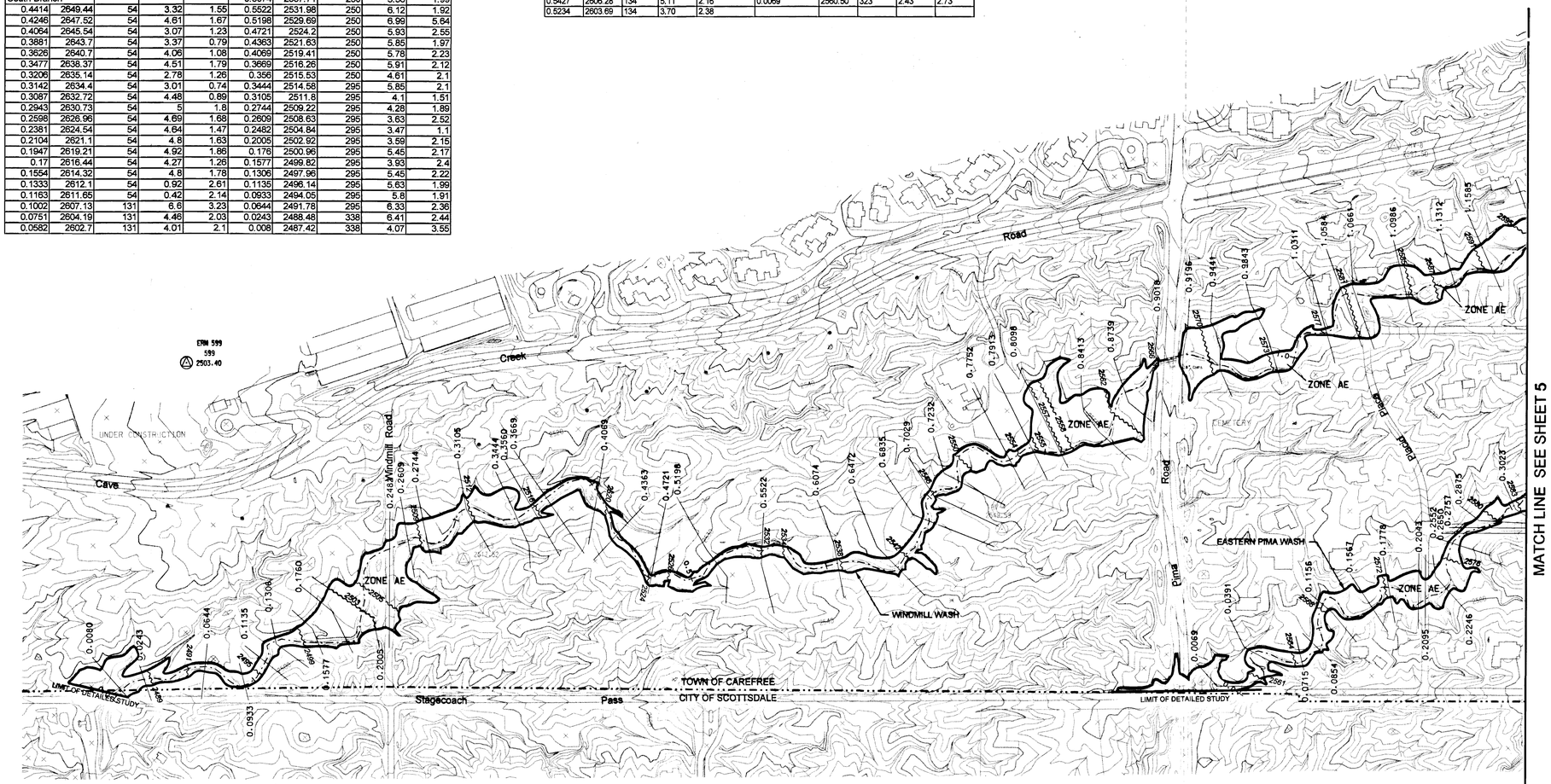
MAPPING COMPANY: M&B AERIAL (INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944flp103.dlv 21-DEC-2004

WINDMILL WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
North Branch					0.0395	2601.37	131	3.27	1.8
1.6576	2646.16	64	5.29	1.94	Combined Branch				
1.6069	2641.73	64	2.5	1.56	1.1975	2595.59	162	3.46	2.87
1.5545	2636.04	64	4.16	1.32	1.1585	2591.64	162	3.38	2.11
1.5334	2634.18	64	3.63	0.98	1.1312	2588.64	162	4.54	1.9
1.5241	2632.89	64	3.72	0.65	1.0986	2584.54	162	3.59	2.31
1.518	2631.73	64	4	0.99	1.0661	2581.93	162	2.48	1.58
1.4884	2628.39	64	4.52	1.72	1.0584	2580.7	162	3.41	0.98
1.4665	2625.6	64	5.33	2.05	1.0311	2577.22	162	5.97	2.73
1.4494	2624.48	64	4.65	1.74	0.9843	2573.23	162	3.66	2.04
1.4322	2622.37	64	3.98	1.48	0.9441	2569.84	162	5.31	2.25
1.4212	2621.5	64	4.75	1.35	0.9196	2569.7	198	1.35	3.76
1.3983	2620.22	64	2.09	2.92	0.9018	2566.1	198	5.75	1.78
1.3577	2615.61	64	0.94	3.39	0.8739	2563.38	198	2.81	2.07
1.3498	2615.61	64	0.62	3.87	0.8413	2560.22	198	2.25	2.17
1.3431	2615.61	64	0.34	4.13	0.8098	2557.08	198	0.92	1.97
1.3364	2612.98	64	1.65	2.54	0.7913	2554.53	198	5.64	1.63
1.3215	2612.99	64	0.45	4.23	0.7752	2553.56	198	4.59	2.14
1.311	2612.99	77	0.31	5.56	0.7232	2548.34	198	3.73	2.31
1.293	2607.4	131	4.38	2.91	0.7029	2545.95	198	6.08	1.85
1.263	2602.71	131	5.54	2.4	0.6835	2544.08	198	5.32	1.97
1.2388	2599.46	131	5.79	3.11	0.6472	2541.08	250	4.91	2.05
South Branch					0.6074	2537.71	250	5.36	1.99
0.4414	2649.44	54	3.32	1.55	0.5522	2531.98	250	6.12	1.92
0.4246	2647.52	54	4.61	1.67	0.5198	2529.69	250	6.99	5.64
0.4064	2645.54	54	3.07	1.23	0.4721	2524.2	250	5.93	2.55
0.3881	2643.7	54	3.37	0.79	0.4363	2521.63	250	5.85	1.97
0.3626	2640.7	54	4.06	1.08	0.4069	2519.41	250	5.78	2.23
0.3477	2638.37	54	4.51	1.79	0.3669	2516.26	250	5.91	2.12
0.3206	2635.14	54	2.78	1.26	0.356	2515.53	250	4.61	2.1
0.3142	2634.4	54	3.01	0.74	0.3444	2514.56	295	5.85	2.1
0.3087	2632.72	54	4.48	0.89	0.3105	2511.8	295	4.1	1.51
0.2943	2630.73	54	5	1.8	0.2744	2509.22	295	4.28	1.89
0.2598	2626.96	54	4.69	1.68	0.2609	2508.63	295	3.63	2.52
0.2381	2624.54	54	4.64	1.47	0.2482	2504.84	295	3.47	1.1
0.2104	2621.1	54	4.8	1.63	0.2005	2502.92	295	3.59	2.15
0.1947	2619.21	54	4.92	1.86	0.176	2500.96	295	5.45	2.17
0.17	2616.44	54	4.27	1.26	0.1577	2499.82	295	3.93	2.4
0.1554	2614.32	54	4.8	1.78	0.1306	2497.96	295	5.45	2.22
0.1333	2612.1	54	0.92	2.61	0.1135	2496.14	295	5.63	1.99
0.1163	2611.65	54	0.42	2.14	0.0933	2494.05	295	5.8	1.91
0.1002	2607.13	131	6.6	3.23	0.0644	2491.78	295	6.33	2.36
0.0751	2604.19	131	4.46	2.03	0.0243	2488.48	338	6.41	2.44
0.0582	2602.7	131	4.01	2.1	0.008	2487.42	338	4.07	3.55

EAST PIMA WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
1.0178	2661.71	71	4.96	1.52	0.4988	2601.90	134	4.23	2.54
0.9929	2657.50	71	4.62	1.77	0.4801	2600.30	134	4.23	2.98
0.9653	2653.04	71	4.19	1.26	0.4600	2598.00	134	4.96	2.04
0.9247	2647.48	71	3.13	1.84	0.4379	2594.96	134	5.54	2.76
0.9088	2646.19	71	5.17	1.96	0.4040	2591.97	134	4.24	2.40
0.8993	2644.06	71	4.54	1.05	0.3869	2590.94	134	4.13	2.59
0.8747	2641.85	71	2.91	1.33	0.3722	2589.32	134	4.19	2.13
0.8560	2639.61	71	3.38	1.07	0.3547	2587.82	134	4.24	2.32
0.8342	2637.29	71	4.25	1.10	0.3381	2586.85	134	3.90	3.05
0.8168	2635.40	71	1.81	1.02	0.3285	2585.89	134	6.06	3.28
0.8111	2635.02	71	3.64	0.69	0.3023	2582.66	134	3.73	2.19
0.8056	2634.01	71	3.79	0.80	0.2875	2579.75	134	3.76	0.90
0.7856	2630.90	71	5.56	2.25	0.2757	2578.76	134	2.30	1.12
0.7661	2628.29	71	4.53	1.72	0.2650	2578.51	134	3.11	1.99
0.7351	2624.56	71	4.66	1.55	0.2552	2577.93	134	4.51	1.86
0.7049	2621.18	71	4.90	1.63	0.2246	2575.38	295	3.90	1.96
0.6852	2619.19	71	4.69	1.78	0.2095	2574.18	295	4.67	1.35
0.6541	2616.40	71	4.98	1.86	0.2043	2573.72	295	3.34	1.79
0.6387	2614.73	71	3.66	2.22	0.1778	2572.11	295	4.55	3.02
0.6098	2612.35	71	3.76	1.94	0.1567	2571.03	295	4.06	3.96
0.5931	2610.90	71	4.27	1.63	0.1156	2568.38	295	5.82	2.73
0.5707	2609.41	71	3.39	1.31	0.0854	2565.71	295	4.03	2.00
0.5548	2608.05	134	3.94	1.19	0.0715	2564.93	295	4.40	2.24
0.5494	2607.73	134	4.12	0.80	0.0391	2562.91	295	4.17	2.07
0.5427	2606.28	134	5.11	2.16	0.0069	2560.50	323	2.43	2.73
0.5234	2603.69	134	3.70	2.38					



LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	
SECTION LINE	
SECTION CORNER	26 25 / 35 36
CROSS SECTION	0.2186
FLOW DIVERSION (CFS)	381
SURVEY CONTROL, ELEVATION REFERENCE MARK	
BASE FLOOD ELEVATIONS	2505
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. CONVERSION FACTOR 1988 NAVD = -2.23 AVERAGE TO 1929 NGVD

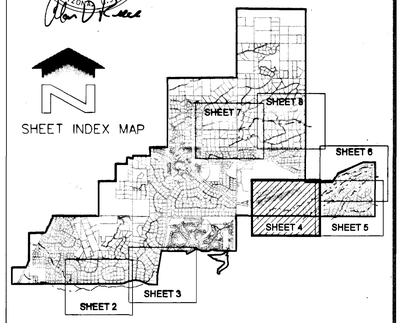
I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE DATE 12/15/04 MARICOPA COUNTY, ARIZONA, U.S.A.

SHEET INDEX MAP



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WINDMILL, EASTERN PIMA AND UNNAMED

CAREFREE FLOODPLAIN DELINEATION

F.C.D. CONTRACT NO. 2000 C037

Registered Professional Engineer (Civil) CERTIFICATE NO. 24971 TONY A. BOKICH DATE SIGNED 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 4 OF 8

200' 0' 200'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2'CONTOUR INTERVALS.

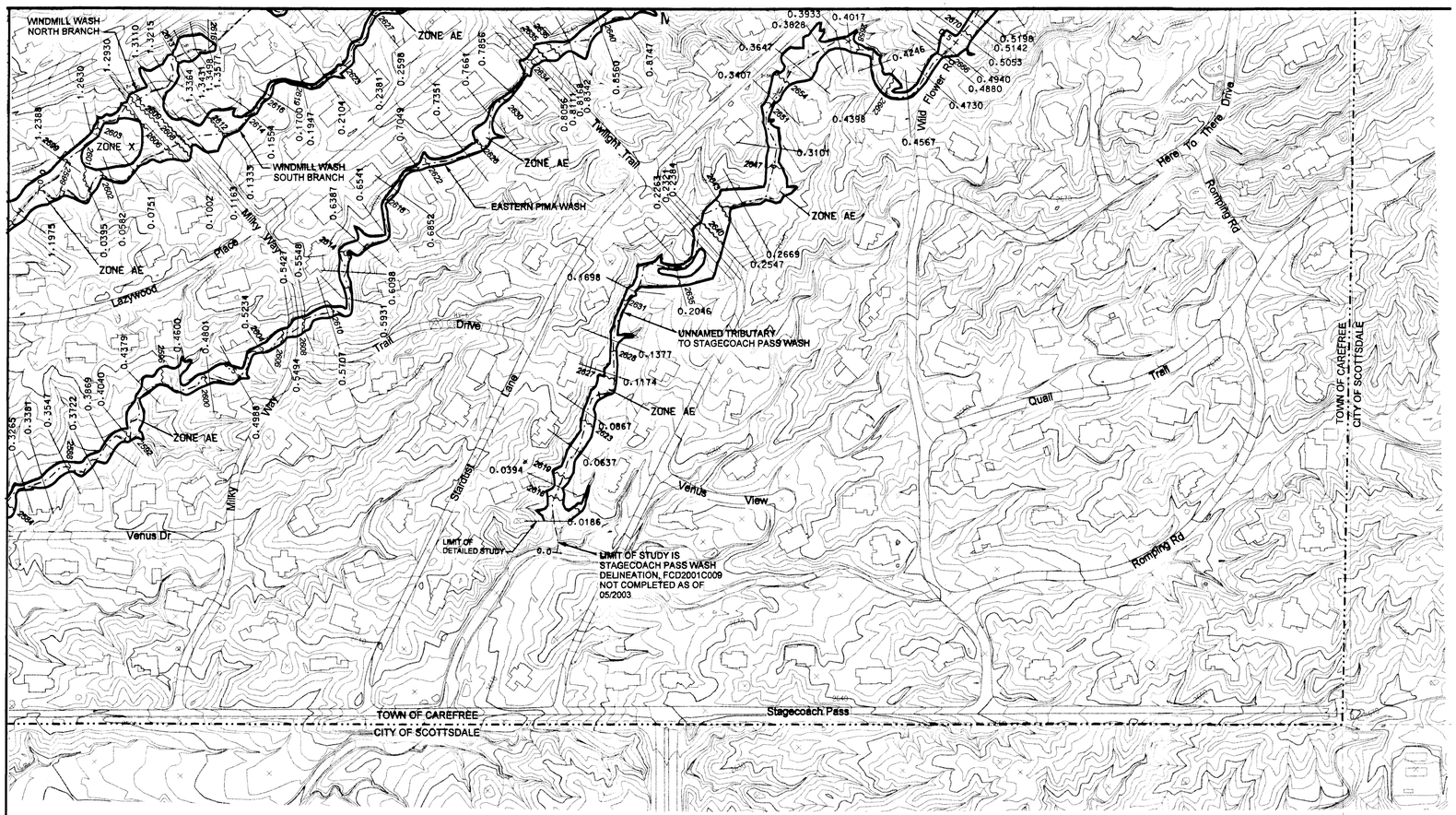
MAPPING COMPANY: M&B AERIAL (INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944flp104.dlv 14-DEC-2004

MATCH LINE SEE SHEET 6

MATCH LINE SEE SHEET 4



WINDMILL WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
North Branch					0.0395	2601.37	131	3.27	1.8
1.6576	2646.16	64	5.29	1.94	Combined Branch				
1.6069	2641.73	64	2.6	1.56	1.1975	2595.59	162	3.46	2.87
1.5545	2636.04	64	4.16	1.32	1.1585	2591.64	162	3.38	2.11
1.5334	2634.18	64	3.63	0.98	1.1312	2588.64	162	4.54	1.9
1.5241	2632.89	64	3.72	0.65	1.0986	2584.54	162	3.59	2.31
1.518	2631.73	64	4	0.99	1.0661	2581.93	162	2.48	1.58
1.4884	2628.39	64	4.52	1.72	1.0584	2580.7	162	3.41	0.98
1.4665	2625.6	64	5.33	2.05	1.0311	2577.22	162	5.97	2.73
1.4494	2624.48	64	4.65	1.74	0.9843	2573.23	162	3.66	2.04
1.4322	2622.37	64	3.98	1.48	0.9441	2569.84	162	5.31	2.25
1.4212	2621.5	64	4.75	1.35	0.9196	2569.7	198	1.35	3.76
1.3983	2620.22	64	2.09	2.92	0.9018	2566.1	198	5.75	1.78
1.3577	2615.61	64	0.94	3.39	0.8739	2563.38	198	2.81	2.07
1.3498	2615.61	64	0.62	3.87	0.8413	2560.22	198	2.25	2.17
1.3431	2615.61	64	0.34	4.13	0.8098	2557.08	198	0.92	1.97
1.3364	2612.98	64	1.65	2.54	0.7913	2554.53	198	5.64	1.63
1.3215	2612.99	64	0.45	4.23	0.7752	2553.56	198	4.59	2.14
1.311	2612.99	77	0.31	5.56	0.7232	2548.34	198	3.73	2.31
1.293	2607.4	131	4.38	2.91	0.7029	2545.95	198	6.08	1.85
1.263	2602.71	131	5.54	2.4	0.6835	2544.08	198	5.32	1.97
1.2388	2599.46	131	5.79	3.11	0.6472	2541.08	250	4.91	2.05
South Branch					0.6074	2537.71	250	5.36	1.99
0.4414	2649.44	54	3.32	1.55	0.5522	2531.98	250	6.12	1.92
0.4246	2647.52	54	4.61	1.67	0.5198	2529.69	250	6.99	5.64
0.4064	2645.54	54	3.07	1.23	0.4721	2524.2	250	5.93	2.55
0.3881	2643.7	54	3.37	0.79	0.4383	2521.63	250	5.85	1.97
0.3626	2640.7	54	4.06	1.08	0.4069	2519.41	250	5.78	2.23
0.3477	2638.37	54	4.51	1.79	0.3669	2516.28	250	5.91	2.12
0.3206	2635.14	54	2.78	1.26	0.356	2515.53	250	4.61	2.1
0.3142	2634.4	54	3.01	0.74	0.3444	2514.58	295	5.85	2.1
0.3087	2632.72	54	4.48	0.89	0.3105	2511.8	295	4.1	1.51
0.2943	2630.73	54	5	1.8	0.2744	2509.22	295	4.28	1.89
0.2598	2626.96	54	4.69	1.68	0.2609	2508.63	295	3.63	2.52
0.2381	2624.54	54	4.64	1.47	0.2482	2504.84	295	3.47	1.1
0.2104	2621.1	54	4.8	1.63	0.2005	2502.92	295	3.59	2.15
0.1947	2619.21	54	4.92	1.88	0.176	2500.96	295	5.45	2.17
0.17	2616.44	54	4.27	1.28	0.1577	2499.82	295	3.93	2.4
0.1554	2614.32	54	4.8	1.78	0.1305	2497.96	295	5.45	2.22
0.1333	2612.1	54	0.92	2.61	0.1135	2496.14	295	5.63	1.99
0.1163	2611.65	54	0.42	2.14	0.0933	2494.05	295	5.8	1.91
0.1002	2607.13	131	8.6	3.23	0.0644	2491.78	295	6.33	2.36
0.0751	2604.19	131	4.46	2.03	0.0243	2488.48	338	6.41	2.44
0.0582	2602.7	131	4.01	2.1	0.008	2487.42	338	4.07	3.55

EAST PIMA WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
1.0178	2661.71	71	4.96	1.52	0.4988	2601.90	134	4.23	2.54
0.9929	2657.50	71	4.62	1.77	0.4801	2600.30	134	4.23	2.98
0.9653	2653.04	71	4.19	1.28	0.4600	2598.00	134	4.96	2.04
0.9247	2647.48	71	3.13	1.84	0.4379	2594.96	134	5.54	2.76
0.9088	2646.19	71	5.17	1.96	0.4040	2591.97	134	4.24	2.40
0.8993	2644.06	71	4.54	1.05	0.3869	2590.94	134	4.13	2.59
0.8747	2641.85	71	2.91	1.33	0.3722	2589.32	134	4.19	2.13
0.8560	2639.61	71	3.38	1.07	0.3547	2587.82	134	4.24	2.32
0.8342	2637.29	71	4.25	1.10	0.3381	2586.85	134	3.90	3.05
0.8168	2635.40	71	1.81	1.02	0.3265	2585.89	134	5.06	3.28
0.8111	2635.02	71	3.84	0.69	0.3023	2582.66	134	3.73	2.19
0.8058	2634.01	71	3.79	0.80	0.2875	2579.75	134	3.76	0.90
0.7656	2630.90	71	5.56	2.25	0.2757	2578.76	134	2.30	1.12
0.7661	2628.29	71	4.53	1.72	0.2650	2578.51	134	3.11	1.99
0.7351	2624.58	71	4.66	1.55	0.2552	2577.93	134	4.51	1.86
0.7049	2621.18	71	4.90	1.63	0.2246	2575.38	295	3.90	1.96
0.6852	2619.19	71	4.69	1.78	0.2095	2574.18	295	4.67	1.35
0.6541	2616.40	71	4.98	1.86	0.2043	2573.72	295	3.34	1.79
0.6387	2614.73	71	3.66	2.22	0.1778	2572.11	295	4.55	3.02
0.6098	2612.35	71	3.76	1.94	0.1567	2571.03	295	4.06	3.96
0.5931	2610.90	71	4.27	1.63	0.1155	2568.38	295	5.82	2.73
0.5707	2609.41	71	3.39	1.31	0.0854	2565.71	295	4.03	2.00
0.5548	2608.05	134	3.94	1.19	0.0715	2564.93	295	4.40	2.24
0.5494	2607.73	134	4.12	0.80	0.0391	2562.91	295	4.17	2.07
0.5427	2606.28	134	5.11	2.16	0.0069	2560.50	323	2.43	2.73
0.5234	2603.69	134	3.70	2.38					

UNNAMED TRIBUTARY TO STAGECOACH PASS WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
0.8707	2712.74	84	5.55	2.26	0.4398	2661.51	152	3.50	2.51
0.8440	2710.16	84	5.40	2.33	0.4246	2659.92	152	5.16	1.94
0.8171	2706.75	84	5.17	1.63	0.4017	2657.81	152	2.71	1.53
0.7934	2704.78	84	4.22	1.83	0.3933	2657.30	152	4.54	1.44
0.7626	2702.49	84	1.28	1.80	0.3828	2656.96	225	3.19	2.51
0.7448	2697.97	84	6.45	2.63	0.3647	2656.48	225	0.92	3.84
0.7265	2694.21	84	5.95	2.47	0.3407	2651.27	225	6.19	1.96
0.6776	2688.71	84	5.49	2.73	0.3101	2648.77	225	6.05	2.57
0.6449	2685.17	84	6.17	2.84	0.2669	2644.43	225	4.52	1.82
0.6242	2682.71	84	6.83	2.81	0.2547	2642.99	225	5.23	1.88
0.6025	2679.48	152	4.89	2.56	0.2384	2640.79	225	3.97	0.92
0.5830	2678.15	152	2.10	4.76	0.2321	2640.00	225	2.18	1.21
0.5624	2674.56	152	5.37	2.13	0.2263	2639.66	225	4.03	1.83
0.5394	2672.02	152	4.24	1.80	0.2046	2635.08	225	5.39	2.33
0.5198	2671.10	152	2.79	2.74	0.1698	2631.76	225	6.68	2.40
0.5142	2670.47	152	4.42	2.73	0.1377	2628.33	225	5.35	3.14
0.5053	2669.86	152	4.26	2.85	0.1174	2627.24	225	5.43	2.87
0.4940	2669.64	152	1.62	4.67	0.0867	2623.77	225	4.48	3.18
0.4880	2666.04	152	5.72	1.90	0.0637	2620.57	225	5.40	2.45
0.4730	2664.42	152	5.18	2.79	0.0394	2618.33	225	6.50	3.06
0.4567	2662.62	152	5.82	2.41	0.0186	2617.10	225	1.71	3.71

LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	
SECTION LINE	
SECTION CORNER	26 25 / 35 36
CROSS SECTION	0.2186
FLOW DIVERSION (CFS)	381
SURVEY CONTROL, ELEVATION REFERENCE MARK	
BASE FLOOD ELEVATIONS	2505
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

ELEVATION REFERENCE MARKS

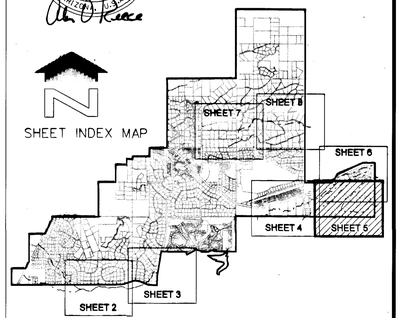
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. CONVERSION FACTOR 1988 NAVD = -2.23 AVERAGE TO 1929 NGVD

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date Signed 12/15/04 ARIZONA, U.S.A.



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WINDMILL, EASTERN PIMA AND UNNAMED TRIBUTARY TO STAGECOACH PASS WASH

CAREFREE FLOODPLAIN DELINEATION

F.C.D. CONTRACT NO. 2000 C037

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 24971 TONY A. BOKICH Date Signed 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 5 OF 8

200' 0' 200' 400'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

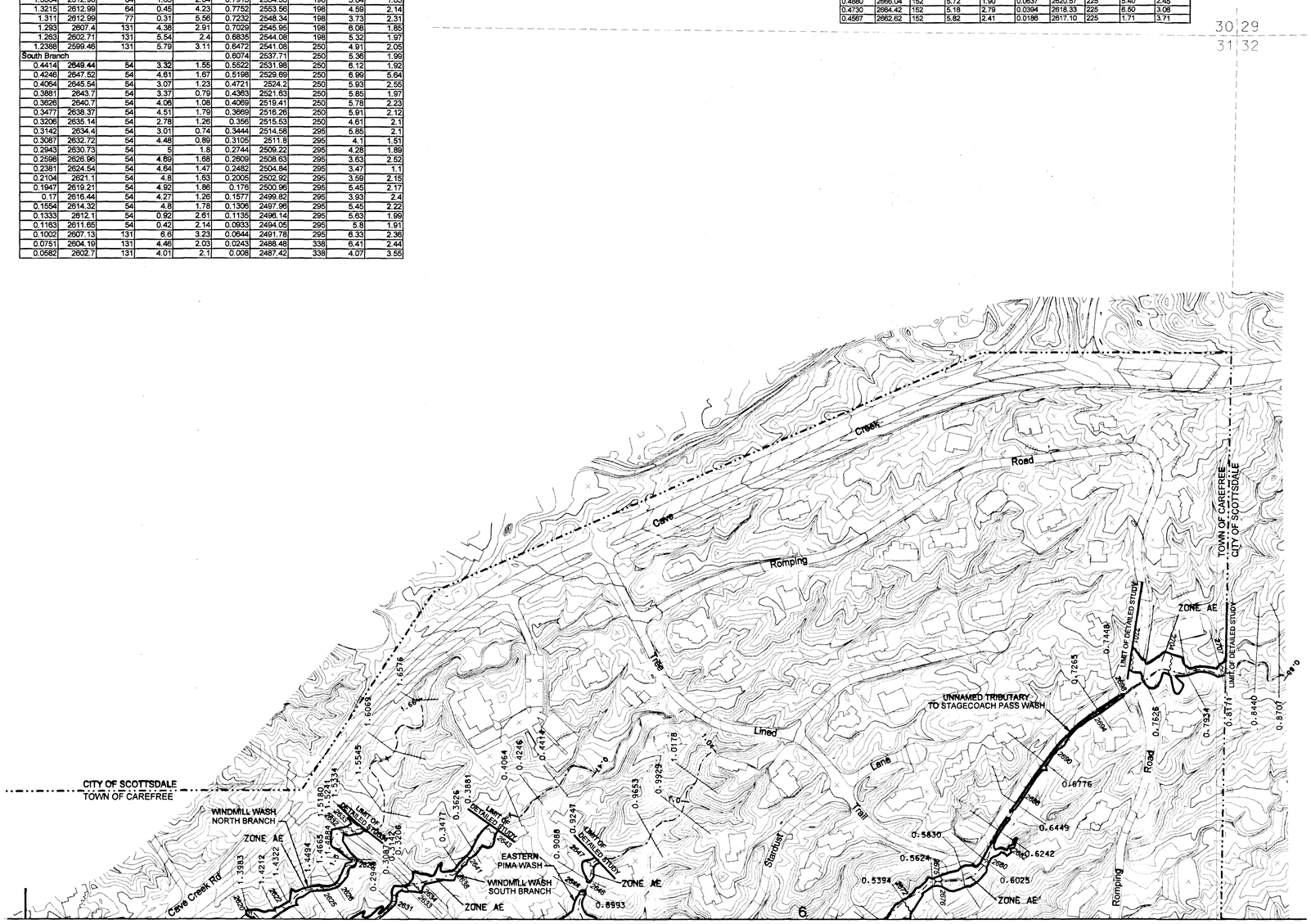
MAPPING COMPANY: M&B AERIAL
(INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944fip105.div 14-DEC-2004

WINDMILL WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
North Branch					0.0395	2601.37	131	3.27	1.8
1.6576	2646.16	64	5.29	1.94	Combined Branch				
1.6069	2641.73	64	2.5	1.56	1.1975	2595.59	162	3.46	2.87
1.5545	2636.04	64	4.16	1.32	1.1585	2591.64	162	3.38	2.11
1.5334	2634.18	64	3.63	0.98	1.1312	2588.64	162	4.54	1.9
1.5241	2632.89	64	3.72	0.85	1.0986	2584.54	162	3.59	2.31
1.518	2631.73	64	4	0.99	1.0661	2581.93	162	2.48	1.58
1.4884	2628.39	64	4.52	1.72	1.0584	2580.7	162	3.41	0.98
1.4665	2625.6	64	5.33	2.05	1.0311	2577.22	162	5.97	2.73
1.4494	2624.48	64	4.65	1.74	0.9843	2573.23	162	3.66	2.04
1.4322	2622.37	64	3.98	1.48	0.9441	2569.84	162	5.31	2.25
1.4212	2621.5	64	4.75	1.35	0.9196	2569.7	198	1.35	3.76
1.3983	2620.22	64	2.09	2.92	0.9018	2566.1	198	5.75	1.78
1.3577	2615.61	64	0.94	3.39	0.8739	2563.38	198	2.81	2.07
1.3498	2615.61	64	0.62	3.87	0.8413	2560.22	198	2.25	2.17
1.3431	2615.61	64	0.34	4.13	0.8098	2557.08	198	0.92	1.97
1.3364	2612.98	64	1.65	2.54	0.7913	2554.53	198	5.64	1.63
1.3215	2612.99	64	0.45	4.23	0.7752	2553.56	198	4.59	2.14
1.311	2612.99	77	0.31	5.56	0.7232	2548.34	198	3.73	2.31
1.293	2607.4	131	4.38	2.91	0.7029	2545.95	198	6.06	1.85
1.263	2602.71	131	5.54	2.4	0.6835	2544.08	198	5.32	1.97
1.2388	2599.46	131	5.79	3.11	0.6472	2541.08	250	4.91	2.05
South Branch					0.6074	2537.71	250	5.38	1.99
0.4414	2649.44	54	3.32	1.55	0.5522	2531.98	250	6.12	1.92
0.4246	2647.52	54	4.61	1.67	0.5198	2529.69	250	6.99	5.64
0.4064	2645.54	54	3.07	1.23	0.4721	2524.2	250	5.93	2.55
0.3881	2643.7	54	3.37	0.79	0.4363	2521.63	250	5.85	1.97
0.3626	2640.7	54	4.06	1.06	0.4069	2518.41	250	5.78	2.23
0.3477	2638.37	54	4.51	1.79	0.3669	2516.26	250	5.91	2.12
0.3206	2635.14	54	2.78	1.26	0.356	2515.53	250	4.61	2.1
0.3142	2634.4	54	3.01	0.74	0.3444	2514.58	295	5.85	2.1
0.3087	2632.72	54	4.48	0.89	0.3105	2511.8	295	4.1	1.51
0.2943	2630.73	54	5	1.8	0.2744	2509.22	295	4.28	1.89
0.2598	2626.96	54	4.69	1.68	0.2609	2508.63	295	3.63	2.52
0.2381	2624.54	54	4.64	1.47	0.2482	2504.84	295	3.47	1.1
0.2104	2621.1	54	4.8	1.63	0.2005	2502.92	295	3.59	2.15
0.1947	2619.21	54	4.92	1.86	0.176	2500.96	295	5.45	2.17
0.17	2616.44	54	4.27	1.26	0.1577	2499.82	295	3.93	2.4
0.1554	2614.32	54	4.8	1.78	0.1306	2497.96	295	5.45	2.22
0.1333	2612.1	54	0.92	2.61	0.1135	2496.14	295	5.63	1.99
0.1163	2611.65	54	0.42	2.14	0.0933	2494.05	295	5.8	1.91
0.1002	2607.13	131	6.6	3.23	0.0644	2491.78	295	6.33	2.36
0.0751	2604.19	131	4.46	2.03	0.0243	2488.48	338	6.41	2.44
0.0582	2602.7	131	4.01	2.1	0.008	2487.42	338	4.07	3.55

UNNAMED TRIBUTARY TO STAGECOACH PASS WASH									
R.S.	FP	Q (CFS)	V (FPS)	D (FT)	R.S.	FP	Q (CFS)	V (FPS)	D (FT)
0.8707	2712.74	84	5.55	2.26	0.4398	2661.51	152	3.50	2.51
0.8440	2710.16	84	5.40	2.33	0.4246	2659.92	152	5.16	1.94
0.8171	2706.75	84	5.17	1.63	0.4017	2657.81	152	2.71	1.53
0.7934	2704.78	84	4.22	1.63	0.3933	2657.30	152	4.54	1.44
0.7628	2702.49	84	1.28	1.80	0.3828	2656.98	225	3.19	2.51
0.7448	2697.97	84	6.45	2.63	0.3647	2656.48	225	0.92	3.84
0.7265	2694.21	84	5.95	2.47	0.3407	2651.27	225	6.19	1.98
0.6776	2688.71	84	5.49	2.73	0.3101	2648.77	225	6.05	2.57
0.6449	2685.17	84	6.17	2.64	0.2869	2644.43	225	4.52	1.82
0.6242	2682.71	84	6.83	2.81	0.2547	2642.99	225	5.23	1.88
0.6025	2679.48	152	4.89	2.58	0.2384	2640.79	225	3.97	0.92
0.5830	2679.15	152	2.10	4.76	0.2321	2640.00	225	2.18	1.21
0.5624	2674.56	152	5.37	2.13	0.2263	2639.66	225	4.03	1.83
0.5394	2672.02	152	4.24	1.80	0.2046	2635.08	225	5.39	2.33
0.5198	2671.10	152	2.79	2.74	0.1698	2631.76	225	6.68	2.40
0.5142	2670.47	152	4.42	2.73	0.1377	2628.33	225	5.35	3.14
0.5053	2669.86	152	4.26	2.85	0.1174	2627.24	225	5.43	2.87
0.4940	2669.64	152	1.62	4.67	0.0867	2623.77	225	4.48	3.18
0.4880	2666.04	152	5.72	1.90	0.0637	2620.57	225	5.40	2.45
0.4730	2664.42	152	5.18	2.79	0.0394	2618.33	225	6.60	3.06
0.4567	2662.62	152	5.82	2.41	0.0186	2617.10	225	1.71	3.71



200' 0' 200' 400'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

LEGEND

- 100-YR FLOODPLAIN BOUNDARY
- FLOODWAY BOUNDARY
- HYDRAULIC BASE LINE WITH RIVER MILE
- SECTION LINE
- SECTION CORNER (26 25 / 35 36)
- CROSS SECTION
- FLOW DIVERSION (CFS) — 381
- SURVEY CONTROL, ELEVATION REFERENCE MARK
- BASE FLOOD ELEVATIONS — 2505
- ZONE DESIGNATIONS — ZONE AE
- CORPORATE LIMITS — Corporate Limits
- COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY — County Boundary

ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
CONVERSION FACTOR 1988 NAVD = -2.23
AVERAGE TO 1929 NGVD

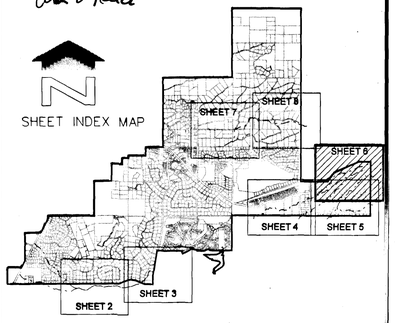
I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date 12/15/04 Signed ARIZONA U.S.A.

SHEET INDEX MAP



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

WINDMILL, PIMA AND UNNAMED TRIBUTARY TO STAGECOACH PASS WASH
CAREFREE FLOODPLAIN DELINEATION
F.C.D. CONTRACT NO. 2000 C037

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 24971 TONY A. BOKICH Date Signed 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 6 OF 8

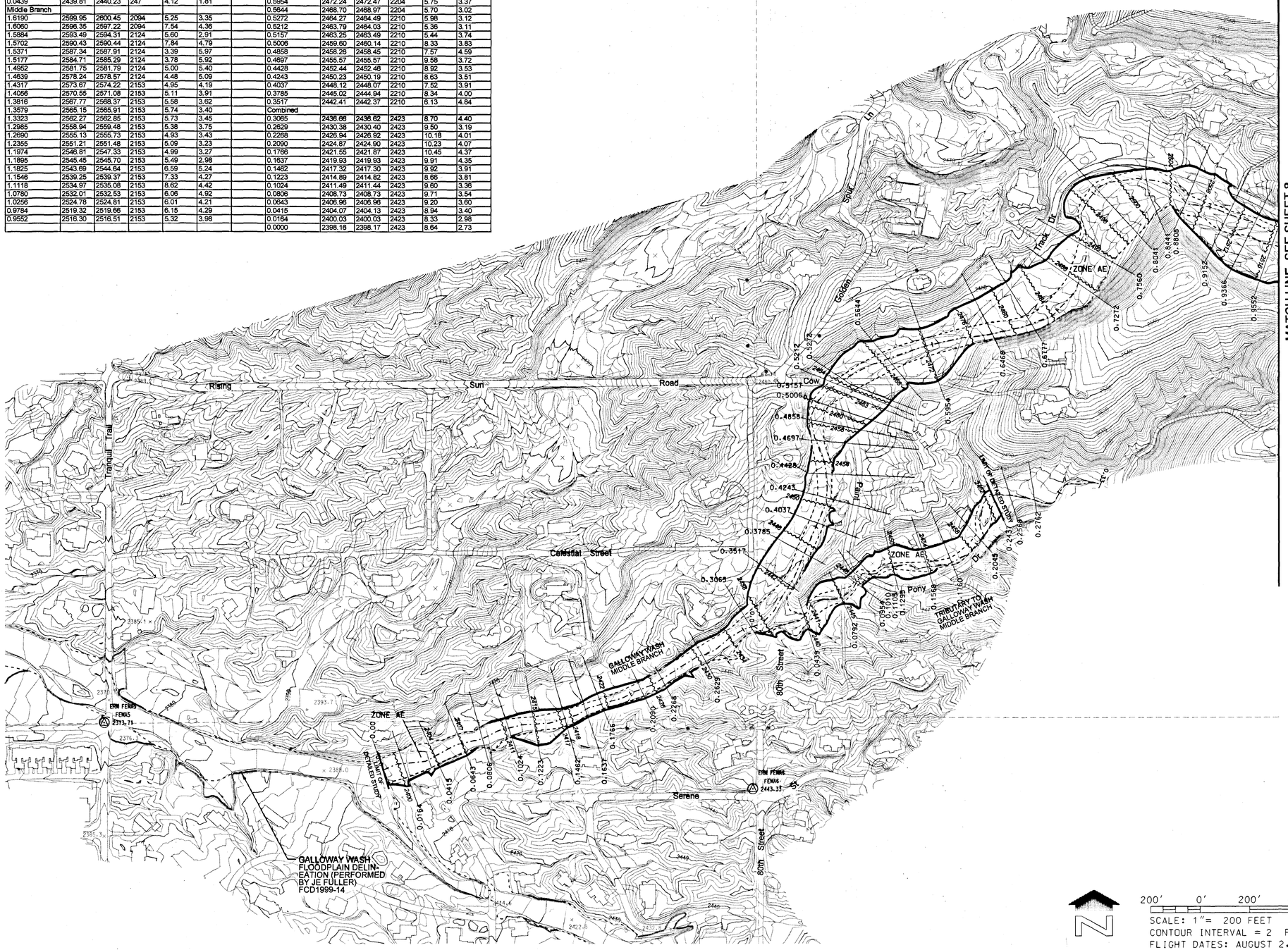
THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2'CONTOUR INTERVALS.

MAPPING COMPANY: M&B AERIAL (INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944flp106.dlv 14-DEC-2004

GALLOWAY WASH MIDDLE BRANCH												
R.S.	FP	FW	Q (CFS)	V (FPS)	D (FT)		R.S.	FP	FW	Q (CFS)	V (FPS)	D (FT)
Middle Branch 2												
0.2437	2462.65	2463.20	209	3.12	1.68		0.9366	2513.68	2513.95	2153	5.50	3.39
0.2045	2458.98	2459.33	228	4.32	1.64		0.9152	2510.67	2511.08	2179	6.29	2.98
0.1760	2455.75	2456.37	228	4.25	1.26		0.8808	2506.43	2506.91	2179	6.75	2.98
0.1568	2453.81	2454.24	228	4.07	1.18		0.8441	2501.84	2502.32	2179	6.86	2.45
0.1295	2451.00	2451.55	228	3.60	1.52		0.8041	2496.89	2497.40	2179	5.78	1.85
0.1105	2449.20	2449.70	228	4.33	1.38		0.7560	2491.34	2491.39	2179	6.35	2.89
0.1010	2448.40	2448.69	247	4.92	1.32		0.7272	2487.63	2488.09	2179	5.82	2.57
0.0954	2447.75	2447.86	247	4.11	2.09		0.6777	2481.71	2481.71	2179	5.79	3.44
0.0792	2444.93	2445.01	247	3.98	1.07		0.6468	2477.93	2478.34	2204	7.03	3.09
0.0439	2439.81	2440.23	247	4.12	1.81		0.5954	2472.24	2472.47	2204	5.75	3.37
Middle Branch							0.5644	2468.70	2468.97	2204	5.70	3.02
1.6190	2599.95	2600.45	2094	5.25	3.35		0.5272	2464.27	2464.49	2210	5.98	3.12
1.6060	2596.35	2597.22	2094	7.54	4.36		0.5212	2463.79	2464.03	2210	5.36	3.11
1.5884	2593.49	2594.31	2124	5.60	2.91		0.5157	2463.25	2463.49	2210	5.44	3.74
1.5702	2590.43	2590.44	2124	7.84	4.79		0.5006	2459.60	2460.14	2210	8.33	3.83
1.5371	2587.34	2587.91	2124	3.39	5.97		0.4858	2458.26	2458.45	2210	7.57	4.59
1.5177	2584.71	2585.29	2124	3.78	5.92		0.4697	2455.57	2455.57	2210	9.58	3.72
1.4952	2581.75	2581.79	2124	5.00	5.40		0.4428	2452.44	2452.48	2210	8.92	3.53
1.4639	2578.24	2578.57	2124	4.48	5.09		0.4243	2450.23	2450.19	2210	8.63	3.51
1.4317	2573.87	2574.22	2153	4.95	4.19		0.4037	2448.12	2448.07	2210	7.52	3.91
1.4056	2570.55	2571.08	2153	5.11	3.91		0.3785	2445.02	2444.94	2210	8.34	4.00
1.3816	2567.77	2568.37	2153	5.58	3.62		0.3517	2442.41	2442.37	2210	6.13	4.84
1.3579	2565.15	2565.91	2153	5.74	3.40		Combined					
1.3323	2562.27	2562.85	2153	5.73	3.45		0.3065	2436.66	2436.62	2423	8.70	4.40
1.2985	2558.94	2559.48	2153	5.38	3.75		0.2629	2430.38	2430.40	2423	9.50	3.19
1.2690	2555.13	2555.73	2153	4.93	3.43		0.2268	2426.94	2426.92	2423	10.18	4.01
1.2355	2551.21	2551.48	2153	5.09	3.23		0.2090	2424.87	2424.90	2423	10.23	4.07
1.1974	2546.81	2547.33	2153	4.99	3.27		0.1766	2421.55	2421.87	2423	10.45	4.37
1.1895	2545.45	2545.70	2153	5.49	2.98		0.1637	2419.93	2419.93	2423	9.91	4.35
1.1825	2543.69	2544.64	2153	6.59	5.24		0.1462	2417.32	2417.30	2423	9.92	3.91
1.1546	2539.25	2539.37	2153	7.33	4.27		0.1223	2414.89	2414.82	2423	8.66	3.81
1.1118	2534.97	2535.08	2153	8.62	4.42		0.1024	2411.49	2411.44	2423	9.60	3.36
1.0780	2532.01	2532.53	2153	6.06	4.92		0.0806	2408.73	2408.73	2423	9.71	3.54
1.0256	2524.78	2524.81	2153	6.01	4.21		0.0643	2406.96	2406.96	2423	9.20	3.60
0.9784	2519.32	2519.66	2153	6.15	4.29		0.0415	2404.07	2404.13	2423	8.94	3.40
0.9552	2516.30	2516.51	2153	5.32	3.98		0.0164	2400.03	2400.03	2423	8.33	2.98
							0.0000	2398.16	2398.17	2423	8.64	2.73



LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	
SECTION LINE	
SECTION CORNER	26 25 / 35 36
CROSS SECTION	0.2198
FLOW DIVERSION (CFS)	361
SURVEY CONTROL, ELEVATION REFERENCE MARK	
BASE FLOOD ELEVATIONS	2505
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

ELEVATION REFERENCE MARKS

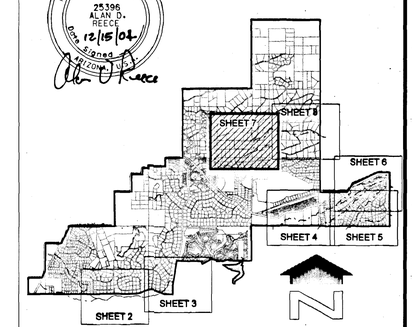
NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. CONVERSION FACTOR 1988 NAVD = -2.23 AVERAGE TO 1929 NGVD

I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION
FEMA 5	2373.71	BRASS CAP N: 1,028,893.59 E: 699,813.40
FEMA 6	2443.33	BRASS CAP N: 1,028,625.68 E: 702,432.55

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date Signed 12/15/04 ARIZONA, U.S.A.



SHEET INDEX MAP

NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GALLOWAY WASH MIDDLE BRANCH

CAREFREE FLOODPLAIN DELINEATION

F.C.D. CONTRACT NO. 2000 C037

Registered Professional Engineer (Civil) CERTIFICATE NO. 24971 TONY A. BOKICH Date Signed 12-15-04 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

SHEET 7 OF 8

200' 0' 200' 400'
SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

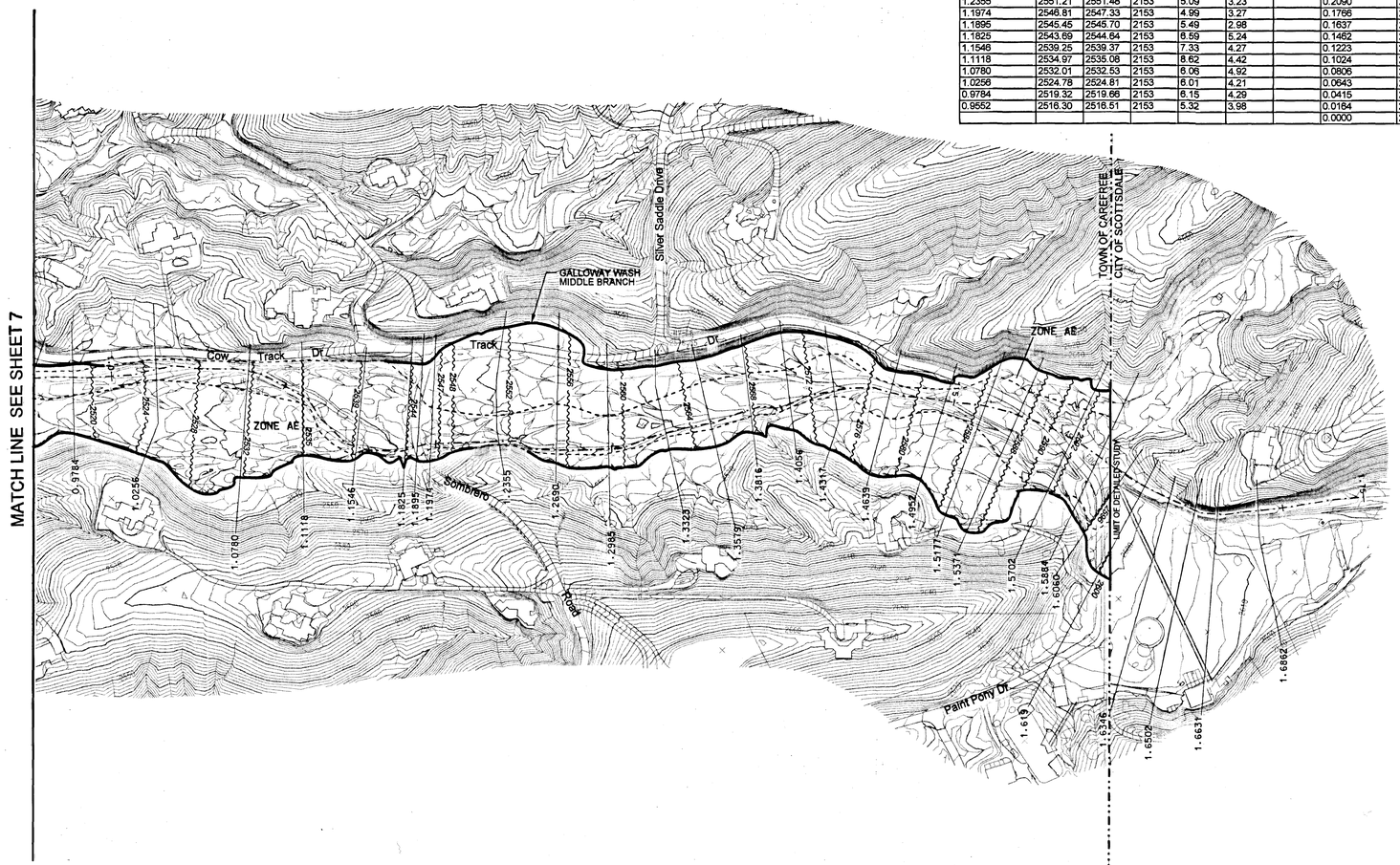
THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2'CONTOUR INTERVALS.

MAPPING COMPANY: MAB AERIAL (INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944fp07.div 14-DEC-2004

GALLOWAY WASH MIDDLE BRANCH												
R.S.	FP	FW	Q (CFS)	V (FPS)	D (FT)		R.S.	FP	FW	Q (CFS)	V (FPS)	D (FT)
Middle Branch 2												
0.2437	2462.65	2463.20	209	3.12	1.68		0.9366	2513.66	2513.95	2153	5.50	3.39
0.2045	2458.98	2459.33	228	4.32	1.64		0.9152	2510.67	2511.08	2179	6.29	2.98
0.1760	2455.75	2456.37	228	4.25	1.26		0.8808	2506.43	2508.91	2179	6.75	2.98
0.1568	2453.81	2454.24	228	4.07	1.18		0.8441	2501.84	2502.32	2179	6.86	2.45
0.1295	2451.00	2451.55	228	3.60	1.52		0.8041	2496.89	2497.40	2179	5.78	1.85
0.1105	2449.20	2449.70	228	4.33	1.38		0.7560	2491.34	2491.39	2179	6.35	2.89
0.1010	2448.40	2448.69	247	4.92	1.32		0.7272	2487.63	2488.09	2179	5.82	2.57
0.0954	2447.75	2447.86	247	4.11	2.09		0.6777	2481.71	2481.71	2179	5.79	3.44
0.0792	2444.93	2445.01	247	3.98	1.07		0.6468	2477.93	2478.34	2204	7.03	3.09
0.0439	2439.81	2440.23	247	4.12	1.81		0.5954	2472.24	2472.47	2204	5.75	3.37
Middle Branch							0.5644	2468.70	2468.97	2204	5.70	3.02
1.6190	2599.95	2600.45	2094	5.25	3.35		0.5272	2464.27	2464.49	2210	5.98	3.12
1.6060	2596.35	2597.22	2094	7.54	4.36		0.5212	2463.79	2464.03	2210	5.36	3.11
1.5884	2593.49	2594.31	2124	5.60	2.91		0.5157	2463.25	2463.49	2210	5.44	3.74
1.5702	2590.43	2590.44	2124	7.84	4.79		0.5006	2459.60	2460.14	2210	8.33	3.83
1.5371	2587.34	2587.91	2124	3.39	5.97		0.4858	2458.26	2458.45	2210	7.57	4.59
1.5177	2584.71	2585.29	2124	3.78	5.92		0.4697	2455.57	2455.57	2210	9.68	3.72
1.4952	2581.75	2581.79	2124	5.00	5.40		0.4428	2452.44	2452.48	2210	8.92	3.53
1.4639	2578.24	2578.57	2124	4.48	5.09		0.4243	2450.23	2450.19	2210	8.63	3.51
1.4317	2573.67	2574.22	2153	4.95	4.19		0.4037	2448.12	2448.07	2210	7.52	3.91
1.4056	2570.55	2571.08	2153	5.11	3.91		0.3785	2445.02	2444.94	2210	8.34	4.00
1.3816	2567.77	2568.37	2153	5.56	3.62		0.3517	2442.41	2442.37	2210	6.13	4.84
1.3579	2565.15	2565.91	2153	5.74	3.40		Combined					
1.3323	2562.27	2562.85	2153	5.73	3.45		0.3065	2436.66	2436.62	2423	8.70	4.40
1.2985	2558.94	2559.48	2153	5.38	3.75		0.2629	2430.38	2430.40	2423	9.50	3.19
1.2690	2555.13	2555.73	2153	4.93	3.43		0.2268	2426.94	2426.92	2423	10.18	4.01
1.2355	2551.21	2551.48	2153	5.09	3.23		0.2090	2424.87	2424.90	2423	10.23	4.07
1.1974	2546.81	2547.33	2153	4.99	3.27		0.1766	2421.55	2421.87	2423	10.45	4.37
1.1895	2545.45	2545.70	2153	5.49	2.98		0.1637	2419.93	2419.93	2423	9.91	4.35
1.1825	2543.69	2544.64	2153	8.59	5.24		0.1462	2417.32	2417.30	2423	9.92	3.91
1.1546	2539.25	2539.37	2153	7.33	4.27		0.1223	2414.89	2414.82	2423	8.66	3.81
1.1118	2534.97	2535.08	2153	8.62	4.42		0.1024	2411.49	2411.44	2423	9.60	3.36
1.0780	2532.01	2532.53	2153	6.06	4.92		0.0806	2408.73	2408.73	2423	9.71	3.54
1.0256	2524.78	2524.81	2153	6.01	4.21		0.0643	2406.96	2406.96	2423	9.20	3.60
0.9784	2519.32	2519.66	2153	6.15	4.29		0.0415	2404.07	2404.13	2423	8.94	3.40
0.9552	2516.30	2516.51	2153	5.32	3.98		0.0164	2400.03	2400.03	2423	8.33	2.98
							0.0000	2398.16	2398.17	2423	8.64	2.73



LEGEND

100-YR FLOODPLAIN BOUNDARY	
FLOODWAY BOUNDARY	
HYDRAULIC BASE LINE WITH RIVER MILE	
SECTION LINE	
SECTION CORNER	26 25 / 35 36
CROSS SECTION	0.2198
FLOW DIVERSION (CFS)	381
SURVEY CONTROL, ELEVATION REFERENCE MARK	
BASE FLOOD ELEVATIONS	2505
ZONE DESIGNATIONS	ZONE AE
CORPORATE LIMITS	Corporate Limits
COUNTY, PARISH, STATE OR INTERNATIONAL BOUNDARY	County Boundary

ELEVATION REFERENCE MARKS

NOTE: ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. CONVERSION FACTOR 1988 NAVD = -2.23 AVERAGE TO 1929 NGVD

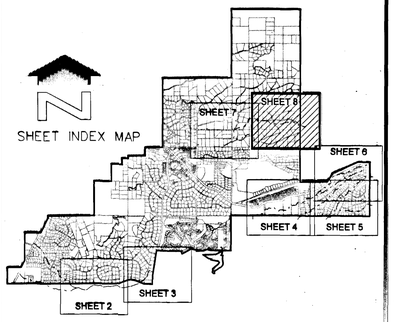
I.D. NUMBER	ELEVATION (FT)	DESCRIPTION/LOCATION

NOTES

1.) HORIZONTAL DATUM IS NAD 83 STATE PLANE GRID COORDINATES, ARIZONA CENTRAL ZONE.
2.) TOWN LIMITS APPROXIMATE.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 25396 ALAN D. REECE Date Signed 12/16/02 ARIZONA, U.S.A.

SHEET INDEX MAP



NO.	REVISION	BY	DATE
2			
1			

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

GALLOWAY WASH MIDDLE BRANCH

CAREFREE FLOODPLAIN DELINEATION

F.C.D. CONTRACT NO. 2000 C037

200' 0' 200' 400'

SCALE: 1"= 200 FEET
CONTOUR INTERVAL = 2 FEET
FLIGHT DATES: AUGUST 2, 2001

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 24917 TONY A BOKICH Date Signed 12-15-02 ARIZONA, U.S.A.

CH2MHILL

	BY	DATE
DESIGN	ROL	03/07/03
DESIGN CHK.	LAP	03/07/03
PLANS	ROL	09/04/03
PLANS CHK.	TAB	09/04/03

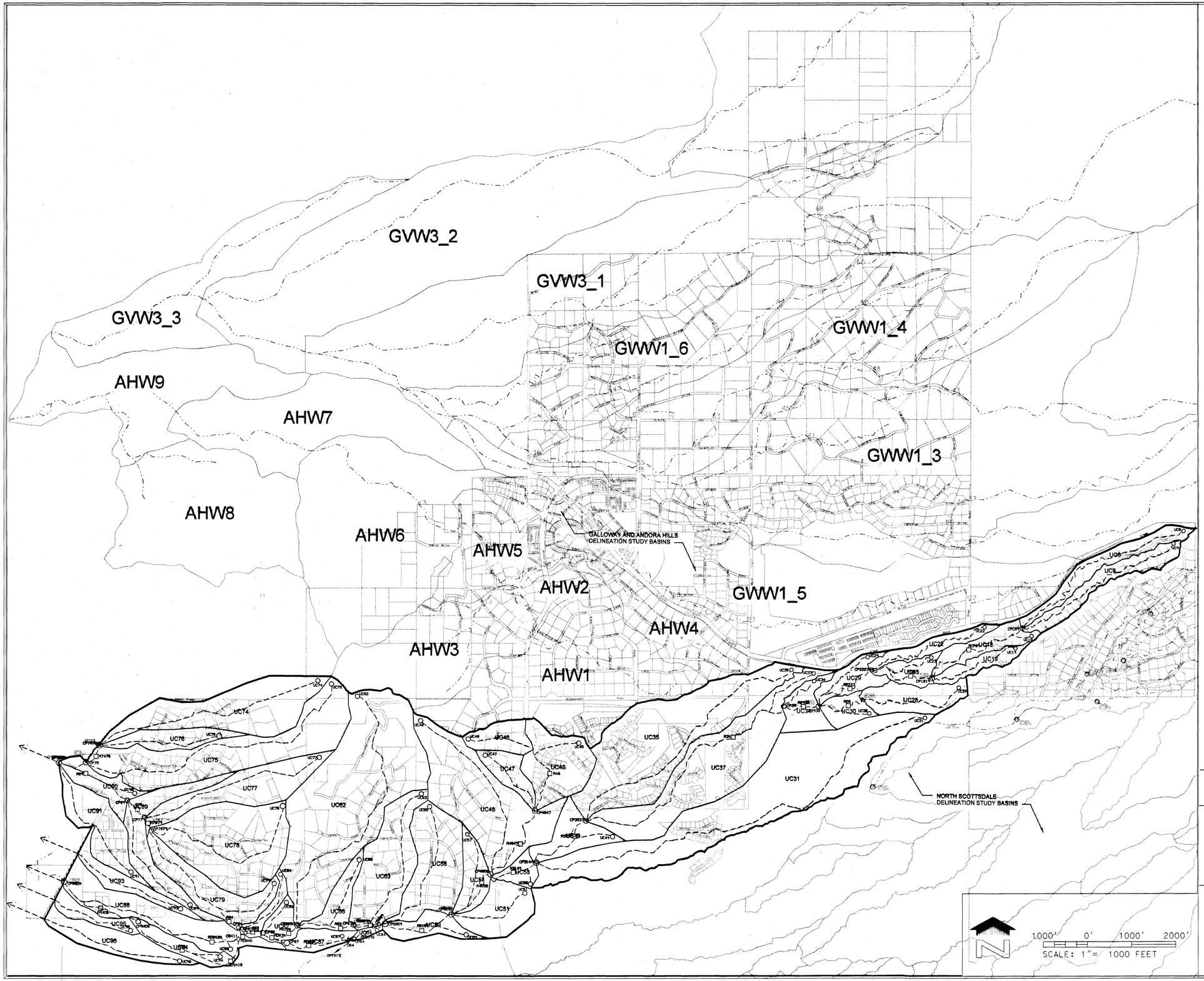
SHEET 8 OF 8

THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS TO NATIONAL MAP ACCURACY STANDARDS FOR 1"= 200' HORIZONTAL SCALE AND 2' CONTOUR INTERVALS.

MAPPING COMPANY: M&B AERIAL (INTERNAL JOB # FCD-1184)

GROUND CONTROL SURVEY DATA PROVIDED BY AZTEC ENGINEERING

2944flp108.dlv 14-DEC-2004



LEGEND

SUBBASIN

ROUTING

DIVERSION

COMBINE

HEC-1 IDENTIFIER

UNNAMED CENTRAL TRIB. TO CAVE CREEK FLOW PATH (APPROXIMATE)

NOTES

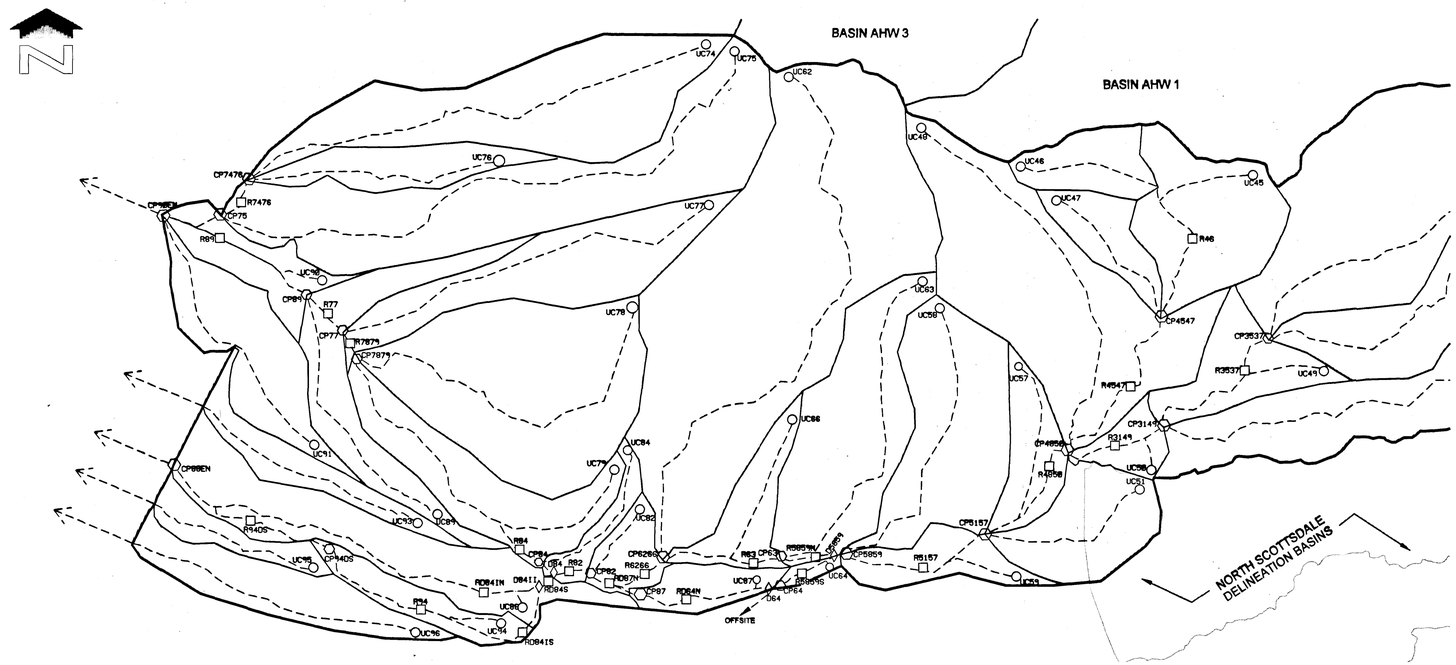
Registered Professional Engineer (Civil) CERTIFICATE NO. 24971 TONY A. BOKICH Date Signed 01-15-04 ARIZONA, U.S.A.

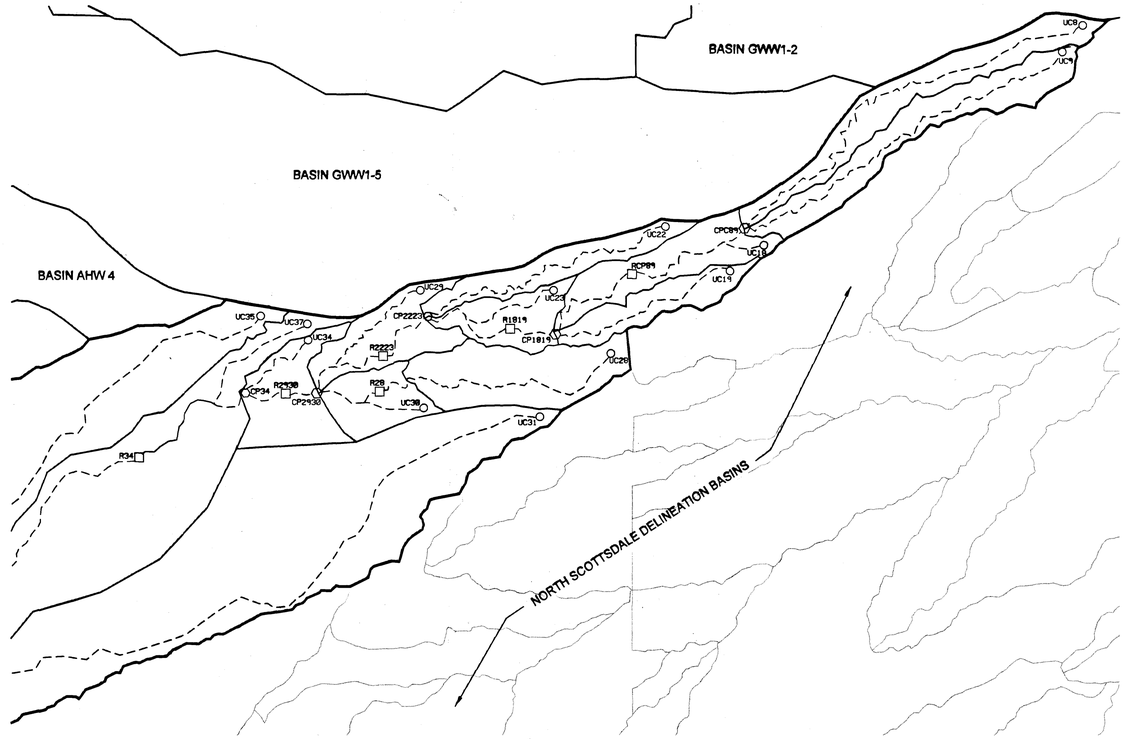
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CH2MHILL

FIGURE 4 - HEC1 SCHEMATIC
UNNAMED CENTRAL TRIBUTARY
TO CAVE CREEK
CAREFREE DRAINAGE MASTER PLAN
F.C.D. CONTRACT NO. 2000C037

ES-FIG04.DLV 14-DEC-2004





LEGEND

- UC38 — SUBBASIN
- R28 — ROUTING
- DB4 — DIVERSION
- CP2738 — COMBINE
  - HEC-1 IDENTIFIER
- FLOW PATH (APPROXIMATE)

NOTES

24971
TONY A. BOKICH
12-15-04
ARIZONA U.S.A.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

CH2MHILL

FIGURE 6 - HEC1 SCHEMATIC

CAREFREE DRAINAGE MASTER PLAN

F.C.D. CONTRACT NO. 2000C037

2944fig06.div 14-DEC-2004