BAKER 279-1234 Greiner 371-1100

CITY OF SCOTTSDALE
GIS Landbase Mapping

SURVEYORS REPORT
FOR
MICHAEL BAKER JR., INC.

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

Property of
Flood Control District of MC Library
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2801 W. Durango
Phoenix, AZ 85009

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 3-14-95
ARIZONA, U.S.A.

Contract No. 008-R-92
Greiner Project No. E10033101

Greiner

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Greiner

CITY OF SCOTTSDALE GIS PHASE II

SCOPE OF SURVEYING SERVICES

Item 1, Task No. 2 - Mark Aerial Targets

1) Recover aerial target locations utilizing monuments with previously established horizontal coordinates.
2) Paint or paper (biodegradable plastic) aerial target locations.
3) Remove aerial targets that can be removed following the end of aerial flight missions.

Item 2, Task No. 3 - Control Densification

1) Establish horizontal coordinates on additional aerial targets or aerial target positions found not as described (Hunsaker Report).
2) Establish vertical coordinates on additional aerial targets or aerial target positions found not as described (Hunsaker Report) by GPS or traditional surveying methods (two-foot contour areas).

Item 3, Task No. 19 - Conventional Spirit Levels

1) Establish vertical coordinates on aerial targets by traditional surveying methods (differential levels) (one-foot contour areas).

Item 4 - Surveyor's Report

1) Prepare a surveyor's report of the project including horizontal/vertical control submittals, photocopies of field notes, GPS results and least squares adjustments of differential levels.

Greiner

CITY OF SCOTTSDALE GIS PHASE II

COUNTY MAPPING AREAS

SCOPE OF SURVEYING SERVICES

Item 1, Task No. 1 - Mark Aerial Targets

1) Recon of aerial target locations.
2) Paint or paper (biodegradable plastic) aerial target locations.
3) Remove aerial targets that can be removed following end of aerial flight missions.

Item 2, Task Nos. 2 and 3 - Control Densification/Conventional Levels

1) Establish horizontal coordinates on aerial targets by GPS methods.
2) Establish vertical coordinates on aerial targets by GPS or traditional surveying methods.

Item 3, Task No. 5 - Mapping Verification

1) Perform a field survey by traditional surveying methods. Provide client with photocopies of field notes for contour and planimetric feature verification.

Item 4, Task No. 6 - Surveyor's Report

1) Prepare a surveyor's report of the project including horizontal/vertical control submittals, photocopies of field notes, GPS results, least squares adjustments of differential levels. This report will be combined with the surveyor's report of the GIS Phase II project.

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 10-23-97
ARIZONA, U.S.A.

Area:

- Desert Greenbelt, One-Foot Contour Interval

Horizontal:

- NAD 83, Modified State Plane Ground, Central Zone
- *Note:* All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

- NAVD 88, Modified City of Scottsdale Datum
- *Note:* All Vertical Control Converted to NAVD 88 by Greiner
- *Note:* All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 10-21-97
ARIZONA, U.S.A.

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
501	----	979,123.7611	694,859.2044	1,769.76	1, 5
502	----	981,756.2712	694,717.3533	1,813.41	1, 5
503	2153	979,110.7411	697,353.2902	1,791.54	1, 4
504	2152	981,751.1504	697,353.6511	1,841.32	1, 4
505	2103	984,391.8257	697,353.3988	1,888.09	1, 4
506	2102	987,032.9217	697,353.3398	1,933.22	1, 4
507	----	979,109.9050	699,995.9589	1,828.37	1, 5
508	2141	981,750.1126	699,996.3906	1,879.16	1, 4
509	----	----------	----------	1,930.23	1
510	2111	987,031.4821	699,997.0138	1,972.44	1, 4
511	----	----------	----------	2,022.03	1
512	2021	991,938.2365	699,996.2750	2,055.93	1, 4
513	3023	957,819.0166	702,602.2974	1,509.09	1, 4
514	----	960,454.9106	702,729.3157	1,543.34	1, 5
515	2353	963,263.0970	702,640.8263	1,573.95	1, 4
516	----	965,904.4505	702,640.9759	1,611.96	1, 5
517	2263	968,545.8532	702,640.2452	1,652.03	1, 4
518	2142	981,743.2310	702,571.9160	1,905.32	1, 4
519	2113	984,672.4869	702,638.1209	1,967.36	1, 4
520	2112	987,030.6761	702,638.1483	2,016.75	1, 4
521	2023	989,671.9275	702,639.0233	2,074.47	1, 4
522	2022	991,942.6579	702,638.7525	2,117.38	1, 4
523	1353	994,584.1497	702,474.9529	2,145.01	1, 4
524	1352	997,226.5846	702,475.2382	2,184.27	1, 4
525	1263	999,833.7101	702,437.4185	2,221.55	1, 4
526	----	----------	----------	1,521.88	1
527	3011	960,421.0641	705,279.7441	1,546.95	1, 4
528	----	----------	----------	1,583.12	1
529	2361	965,904.6784	705,281.4031	1,628.04	1, 4
530	----	----------	----------	1,670.47	1
531	2251	971,185.2348	705,281.8050	1,720.07	1, 4
532	----	----------	----------	1,774.99	1
533	----	976,502.6945	704,853.7537	1,826.97	1, 5
534	----	979,147.1770	705,261.6648	1,890.23	1, 5
535	2131	981,747.2168	705,282.7202	1,943.48	1, 4
536	2124	984,387.2649	705,282.2568	1,988.01	1, 4
537	2121	987,027.9666	705,282.4412	2,036.94	1, 4
538	2014	989,669.2561	705,283.4245	2,097.97	1, 4
539	2011	991,948.6463	705,283.3507	2,146.98	1, 4
540	----	----------	----------	2,180.54	1
541	1361	997,228.8162	705,117.3152	2,229.31	1, 4
542	----	----------	----------	2,271.10	1
543	3013	957,774.5422	707,863.0983	1,522.57	1, 4
544	3012	960,414.6298	707,923.4153	1,556.16	1, 4
545	2363	963,260.4941	707,923.3881	1,600.01	1, 4
546	2362	965,901.1269	707,923.4764	1,641.05	1, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 10-22-93
ARIZONA, U.S.A.

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
547	2253	968,541.7535	707,923.6302	1,692.27	1, 4
548	2252	971,182.4622	707,924.3987	1,750.08	1, 4
549	2243	973,822.8230	707,923.7690	1,810.05	1, 4
550	----	976,463.2225	707,923.9296	1,871.19	1, 5
551	7188	978,898.8092	707,923.9365	1,926.69	1, 4
552	2132	981,743.5146	707,923.8687	1,984.21	1, 4
553	2123	984,384.6935	707,924.3899	2,030.43	1, 4
554	2122	987,024.7687	707,925.3763	2,075.34	1, 4
555	7068	989,461.2127	707,923.2112	2,123.38	1, 4
556	----	991,951.4983	707,927.3744	2,182.33	1, 5
557	1363	994,589.0409	707,760.1981	2,241.88	1, 4
558	1362	997,233.4023	707,761.5299	2,277.12	1, 4
559	1253	999,864.5340	707,775.2172	2,307.82	1, 4
560	----	----------	----------	1,497.92	1
561	----	----------	----------	1,529.75	1
562	----	----------	----------	1,564.36	1
563	----	----------	----------	1,608.07	1
564	7311	965,660.5704	710,253.7607	1,654.97	1, 4
565	----	----------	----------	1,709.13	1
566	7301	970,980.3355	710,308.4738	1,774.50	1, 4
567	----	----------	----------	1,847.83	1
568	7191	976,260.0748	710,302.2703	1,913.18	1, 4
569	----	----------	----------	1,984.35	1
570	----	981,540.4808	710,300.8459	2,042.23	1, 5
571	----	----------	----------	2,094.64	1
572	7071	986,820.5205	710,298.6888	2,125.72	1, 4
573	----	----------	----------	2,160.59	1
574	----	----------	----------	2,241.91	1
575	----	----------	----------	2,305.20	1
576	6311	997,233.4118	710,394.0131	2,332.71	1, 4
577	----	999,636.7316	710,436.2518	2,373.32	1, 5
578	8072	955,321.4057	712,980.5806	1,504.83	1, 4
579	8063	957,963.2326	712,967.8741	1,532.62	1, 4
580	8062	960,416.4131	712,956.9216	1,572.08	1, 4
581	7313	963,058.5221	712,953.5583	1,626.34	1, 4
582	7312	965,700.8991	712,951.7953	1,679.53	1, 4
583	7303	968,342.0519	712,950.9923	1,735.47	1, 4
584	----	970,911.1344	712,933.9152	1,810.10	1, 5
585	7193	973,623.7923	712,945.0299	1,898.55	1, 4
586	7192	976,264.3280	712,943.0840	1,973.18	1, 4
587	7183	978,903.8565	712,941.6213	2,051.71	1, 4
588	7182	981,541.8576	712,943.4601	2,110.93	1, 4
589	----	----------	----------	2,166.68	1
590	7072	986,821.0665	712,940.6990	2,224.42	1, 4
591	6313	994,603.0158	713,036.6876	2,393.60	1, 4
592	6312	997,244.8868	713,038.1083	2,414.36	1, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 10-21-97
ARIZONA, U.S.A.

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
593	----	----------	----------	2,420.59	1
594	8081	955,315.5152	715,623.4681	1,524.87	1, 4
595	----	----------	----------	1,558.61	1
596	8051	960,417.1791	715,597.2303	1,598.60	1, 4
597	----	----------	----------	1,638.08	1
598	----	----------	----------	1,693.57	1
599	----	----------	----------	1,775.84	1
600	----	----------	----------	1,837.10	1
601	----	----------	----------	1,903.03	1
602	----	----------	----------	2,093.72	1
603	7171	981,544.9907	715,447.8388	2,184.17	1, 4
604	----	----------	----------	2,235.51	1
605	7081	986,824.9073	715,575.3001	2,309.72	1, 4
606	----	994,568.9020	715,636.0945	2,739.51	3, 5
607	6321	997,249.0770	715,674.7345	2,503.32	1, 4
608	----	999,905.2893	713,012.4719	2,548.70	1, 5
609	7323	963,059.5026	718,239.4506	1,712.38	1, 4
610	7322	965,700.5780	718,239.1541	1,801.50	2, 4
611	----	----------	----------	1,824.08	1
612	7292	970,983.8868	718,233.6522	1,924.97	1, 4
613	7203	973,621.4791	718,229.6265	2,031.00	2, 4
614	7202	976,271.3052	718,228.2361	2,558.90	2, 4
615	7173	978,917.1138	718,222.7192	2,123.87	1, 4
616	7172	981,549.9202	718,221.7158	2,465.80	2, 4
617	7083	984,189.7538	718,219.4313	2,304.84	1, 4
618	7082	986,829.3488	718,211.4916	2,375.14	1, 4
619	----	968,366.0859	720,797.1158	1,934.30	3, 5
620	7281	970,984.4912	720,870.4766	2,108.44	1, 4
621	----	----------	----------	2,059.24	1
622	7161	981,546.1295	720,851.7924	2,437.18	1, 4
623	----	988,166.9471	721,501.9262	2,768.46	3, 5
624	7283	968,345.3897	723,506.5042	2,095.90	2, 4
625	7282	970,985.3669	723,502.6935	2,197.70	1, 4
626	----	973,624.0257	723,498.3068	2,302.65	3, 5
627	----	968,064.6088	725,946.9395	2,884.91	3, 5
628	7271	970,975.3330	726,135.1205	2,504.60	2, 4
629	----	973,759.5474	726,071.9091	3,134.15	3, 5

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 10-29-93
ARIZONA, U.S.A.

Area:

- County, Two-Foot Contour Interval

Horizontal:

- NAD 83, Modified State Plane Ground, Central Zone
- *Note:* All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

- NAVD 88, Modified City of Scottsdale Datum
- *Note:* All Vertical Control Converted to NAVD 88 by Greiner
- *Note:* All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)

Greiner

AREA - COUNTY, 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
101		883,539.0199	697,064.0139	1,166.95	3, 5
102		887,711.9369	697,044.2964	1,177.95	3, 5
103		883,668.1295	702,317.2211	1,176.31	3, 5
104		887,742.2092	702,168.3250	1,180.25	3, 5
201		944,706.9022	667,973.4105	1,426.47	3, 5
202		950,011.7460	667,934.9609	1,475.61	3, 5
203		954,056.5600	667,915.0282	1,428.63	3, 5
204		944,750.2384	670,612.4868	1,412.54	3, 5
205		950,042.7945	670,581.0792	1,411.93	3, 5
206		954,077.1801	670,566.4543	1,425.47	3, 5
207		942,191.9974	675,905.3469	1,397.61	3, 5
208		944,792.3731	675,889.3303	1,387.81	3, 5
209		950,159.4753	675,862.7231	1,408.18	3, 5
210		954,128.4521	675,839.6283	1,429.90	3, 5
211		936,905.6173	681,369.7175	1,386.80	3, 5
212		942,158.1152	681,351.0156	1,372.53	3, 5
213		947,648.4375	681,355.3600	1,396.13	3, 5
214		934,248.0335	684,008.2231	1,357.26	3, 5
215		932,102.1649	686,625.7110	1,348.28	3, 5
216		936,868.1753	686,621.1568	1,346.80	3, 5
217		942,157.5458	686,626.1326	1,368.65	3, 5
218		944,800.3270	686,614.3282	1,381.73	3, 5
219		928,738.3096	691,842.1927	1,334.49	3, 5
220		931,382.2128	691,849.2572	1,318.92	3, 5
221	3283	936,670.8651	691,860.7684	1,341.92	2, 4
222	3282	939,314.2832	691,863.2804	1,357.78	2, 4

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
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ROBERT J.
PECHA
Date Signed 10-29-93
ARIZONA, U.S.A.

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 11-17-93
ARIZONA, U.S.A.

Area:

- Mid-Scottsdale, Two-Foot Contour Interval

Horizontal:

- NAD 83, Modified State Plane Ground, Central Zone
- *Note:* All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

- NAVD 88, Modified City of Scottsdale Datum
- *Note:* All Vertical Control Converted to NAVD 88 by Greiner
- *Note:* All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 11-12-97
ARIZONA, U.S.A.

AREA - MID-SCOTTSDALE, 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
705	3214	942,086.5103	689,244.2787	1,368.9	2, 4
706	3211	944,727.8056	689,247.5985	1,383.8	2, 4
711	----	942,013.9040	691,891.8771	1,369.1	3, 5
712	3212	944,658.7491	691,881.7588	1,383.9	2, 4
713	----	947,310.2915	691,878.2930	1,398.5	3, 5
721	3272	939,336.4286	697,149.9161	1,350.1	2, 4
722	3222	944,628.5325	697,169.8284	1,389.8	2, 4
723	3152	949,921.7568	697,213.4897	1,427.7	2, 4
724	3102	955,208.5090	697,280.6454	1,473.2	2, 4
725	3032	960,475.5099	697,345.6158	1,524.4	2, 4
726	2342	965,906.8962	697,358.9123	1,589.4	2, 4
727	2273	968,549.0857	697,357.2917	1,624.8	2, 4
728	2223	973,829.5063	697,354.3422	1,705.3	2, 4
738	3262	939,298.9904	702,409.8204	1,357.4	2, 4
739	3232	944,590.3171	702,463.6644	1,390.1	2, 4
740	3142	949,880.9850	702,495.8183	1,433.1	2, 4
741	----	955,175.3286	702,230.8820	1,481.4	3, 5
742	2233	973,828.0835	702,639.4097	1,746.9	2, 4
743	2143	979,108.7360	702,639.3580	1,850.6	2, 4
750	----	939,473.8185	707,744.3740	1,369.0	3, 5
751	3242	944,560.9836	707,765.3182	1,403.5	2, 4
752	8077	950,038.3900	707,789.9819	1,442.2	2, 4
753	----	955,130.1690	707,837.8277	1,492.2	3, 5
768	8312	934,188.8638	712,994.5501	1,349.7	2, 4
769	8302	939,472.1446	712,991.6908	1,377.3	2, 4
770	8192	944,754.7962	712,989.2489	1,408.5	2, 4
771	----	950,039.2312	712,985.7278	1,450.5	3, 5
785	8322	934,178.6412	718,277.6538	1,367.7	2, 4
786	8292	939,460.2771	718,308.6063	1,390.3	2, 4
787	8202	944,742.8089	718,273.7796	1,430.3	2, 4
788	8172	950,025.6466	718,271.5222	1,529.8	2, 4
789	8082	955,307.9101	718,267.1531	1,584.6	2, 4
790	8052	960,417.7666	718,238.8459	1,689.3	2, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date signed 11-12-93
ARIZONA, U.S.A.

AREA - MID-SCOTTSDALE, 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
803	8211	944,739.1237	720,905.4224	1,458.7	2, 4
805	8332	934,172.8301	723,545.8105	1,401.3	2, 4
806	8282	939,454.6312	723,541.3891	1,426.2	2, 4
807	8162	950,028.9047	723,534.9683	1,715.5	2, 4
828	8221	944,730.7099	726,178.5609	1,543.6	2, 4
834	8342	934,162.7544	729,489.3379	1,457.9	2, 4
835	8272	939,444.9227	728,824.2607	1,517.1	2, 4
836	8222	944,726.4392	728,819.9738	1,636.1	2, 4
856	----	934,167.9930	734,108.2520	1,504.9	3, 5
857	8263	936,810.1188	734,103.5406	1,537.6	2, 4
858	8233	942,091.9857	734,095.0015	1,630.2	2, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 11-16-
ARIZONA, U.S.A.

AREA - SOUTH SCOTTSDALE, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
301	4323	899,525.7122	686,476.7391	1,276.19	1, 4
302	4322	902,167.4912	686,490.2834	1,257.04	1, 4
303	4334	899,557.0429	689,151.8288	1,311.40	1, 4
304	----	----------	----------	1,272.75	1
305	4284	904,861.9374	689,192.5155	1,262.49	1, 4
306	4281	907,485.7014	689,210.1904	1,284.62	1, 4
307	5043	894,233.4964	691,756.1727	1,318.85	1, 4
308	5042	896,944.3104	691,844.4946	1,287.40	1, 4
309	4333	899,585.8588	691,836.9923	1,284.43	1, 4
310	4332	902,228.1397	691,857.4344	1,272.58	1, 4
311	----	904,876.8719	691,995.2148	1,263.83	1, 5
312	----	----------	----------	1,282.53	1
313	----	1,026,293.3204	712,998.1423	1,305.95	1
314	4212	912,806.9796	691,885.8319	1,342.41	1, 4
315	4163	915,450.3831	691,897.6071	1,376.13	1, 4
316	5034	894,282.3151	694,399.9271	1,242.29	1, 4
317	5031	896,927.4279	694,459.5614	1,254.64	1, 4
318	4344	899,606.5894	694,468.9727	1,255.48	1, 4
319	4341	902,256.9707	694,480.5730	1,252.64	1, 4
320	4274	904,908.2040	694,487.8807	1,256.47	1, 4
321	4271	907,561.3707	694,494.4427	1,275.18	1, 4
322	4224	910,212.9483	694,500.2409	1,289.75	1, 4
323	4221	912,858.5724	694,504.6738	1,311.53	1, 4
324	----	----------	----------	1,326.74	1
325	----	918,164.3632	694,553.7899	1,328.40	1, 5
326	4104	920,817.8095	694,568.6171	1,323.52	1, 4
327	4101	923,450.7015	694,582.7214	1,316.49	1, 4
328	5102	891,690.9067	697,008.5442	1,211.09	1, 4
329	----	894,330.3100	697,045.9911	1,223.61	1, 5
330	5032	896,967.1598	697,083.8330	1,230.90	1, 5
331	4343	904,942.1286	697,109.0573	1,236.19	1, 5
332	4342	1,028,951.7328	723,558.1426	1,237.99	1, 4
333	4273	1,026,310.4417	723,561.9241	1,247.13	1, 4
334	4272	907,600.8662	697,116.1884	1,260.77	1, 4
335	4223	910,256.8740	697,120.7679	1,278.47	1, 4
336	4222	912,913.9206	697,125.2485	1,289.50	1, 4
337	4153	915,569.1432	697,151.7418	1,300.24	1, 4
338	4152	918,225.4552	697,179.6797	1,302.56	1, 4
339	4103	920,882.5972	697,252.1442	1,303.21	1, 4
340	4102	923,523.2279	697,230.4967	1,299.90	1, 4
341	4033	926,164.1468	697,207.8750	1,295.18	1, 4
342	4032	928,709.7766	697,132.0095	1,299.10	1, 4
343	3343	931,351.3565	697,140.1899	1,310.09	1, 4
344	3342	933,991.5155	697,148.1576	1,322.76	1, 4
345	3273	936,692.8706	697,133.1637	1,337.38	1, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 11-12-93
ARIZONA, U.S.A.

AREA - SOUTH SCOTTSDALE, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
347	5024	894,339.3310	699,673.2739	1,192.63	1, 4
348	----	896,981.2344	699,730.3649	1,205.22	1, 5
349	4354	899,633.7860	699,729.1103	1,216.98	1, 4
350	----	902,288.9069	699,719.9448	1,226.40	1, 5
351	4264	904,936.0866	699,737.1252	1,235.67	1, 4
352	4261	907,584.6621	699,746.0894	1,246.62	1, 4
353	4234	910,235.4500	699,750.6104	1,260.66	1, 4
354	4231	912,884.7738	699,753.8666	1,270.56	1, 4
355	----	----------	----------	1,276.83	1
356	4141	918,182.5506	699,792.6160	1,283.33	1, 4
357	----	920,834.7568	699,812.9311	1,284.53	1, 5
358	4111	923,476.0253	699,834.5586	1,281.70	1, 4
359	----	----------	----------	1,294.75	1
360	4021	928,800.4351	699,772.2513	1,303.88	1, 4
361	----	----------	----------	1,314.31	1
362	----	----------	----------	1,325.55	1
363	5112	891,703.1194	702,255.8542	1,190.65	1, 4
364	5023	894,348.1363	702,317.1528	1,211.32	1, 4
365	5022	896,993.8396	702,378.3856	1,221.77	1, 4
366	4353	899,640.3087	702,366.0496	1,227.34	1, 4
367	4352	902,299.2212	702,348.9277	1,229.00	1, 4
368	4263	904,933.9143	702,364.9734	1,235.52	1, 4
369	4262	907,568.2772	702,375.8873	1,238.11	1, 4
370	4233	910,213.4060	702,403.0137	1,244.57	1, 4
371	4232	912,854.7514	702,448.4761	1,250.51	1, 4
372	4143	915,497.2905	702,386.4687	1,261.14	1, 4
373	4142	918,138.2933	702,404.2155	1,266.74	1, 4
374	4113	921,086.7370	702,422.3581	1,280.23	1, 4
375	4112	923,450.2036	702,442.9718	1,284.79	1, 4
376	----	----------	----------	1,296.88	1
377	4022	928,767.4929	702,417.2270	1,306.36	1, 4
378	3353	931,398.9191	702,410.3128	1,319.35	1, 4
379	3352	934,033.0025	702,422.6565	1,331.45	1, 4
380	5121	891,713.9852	704,892.3643	1,188.41	1, 4
381	5014	894,356.6798	704,905.9952	1,202.84	1, 4
382	5011	897,002.5985	704,927.2214	1,218.50	1, 4
383	4364	899,644.8841	704,955.5111	1,227.06	1, 4
384	----	----------	----------	1,232.93	1
385	4254	904,931.6010	704,986.8319	1,238.50	1, 4
386	4251	907,567.7564	704,991.3794	1,246.13	1, 4
387	4244	910,211.1710	705,000.5223	1,252.89	1, 4
388	4241	912,851.7751	705,009.2268	1,259.92	1, 4
389	4134	915,495.3684	705,018.8759	1,266.05	1, 4
390	4131	918,134.9421	705,028.6347	1,270.82	1, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 11-16-97
ARIZONA, U.S.A.

AREA - SOUTH SCOTTSDALE, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
391	----	----------	----------	1,278.91	1
392	4121	923,425.7470	705,057.1209	1,286.36	1, 4
393	----	----------	----------	1,296.36	1
394	----	----------	----------	1,306.63	1
395	----	----------	----------	1,319.69	1
396	----	----------	----------	1,334.68	1
397	----	891,721.4051	707,529.8956	1,192.68	1, 5
398	5013	894,363.8348	707,546.1704	1,194.41	1, 4
399	5012	897,010.4414	707,562.4076	1,221.87	1, 4
400	----	----------	----------	1,227.30	1
401	----	902,285.8172	707,618.2474	1,227.16	1, 5
402	----	----------	----------	1,235.91	1
403	----	907,566.2443	707,610.5165	1,242.75	1, 5
404	----	----------	----------	1,250.28	1
405	4242	912,846.3412	707,631.5669	1,257.04	1, 4
406	4133	915,491.4521	707,643.1577	1,266.48	1, 4
407	4132	918,126.2413	707,654.4624	1,271.49	1, 4
408	4123	920,771.6681	707,665.8859	1,286.03	1, 4
409	4122	923,419.1281	707,677.6174	1,292.97	1, 4
410	----	----------	----------	1,302.24	1
411	4012	928,709.3334	707,699.8245	1,313.40	1, 4
412	3363	931,347.8604	707,710.0978	1,327.36	1, 4
413	3362	933,997.8568	707,718.7572	1,339.62	1, 4

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 12-7-93
ARIZONA, U.S.A.

Area:

- Desert Greenbelt, One-Foot Contour Interval

Horizontal:

- NAD 83, Modified State Plane Ground, Central Zone
- *Note:* All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

- NAVD 88, Modified City of Scottsdale Datum
- *Note:* All Vertical Control Converted to NAVD 88 by Greiner
- *Note:* All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 12-7-93
ARIZONA, U.S.A.

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
*510A	----	--------	--------	1,972.59	1
**512	1356	991,937.9556	699,827.3581	-----	4

* ALTERNATE VERTICAL CONTROL

**ALTERNATE HORIZONTAL CONTROL, SUBMITTED WRONG COORDINATE VALUE

Greiner

REGISTERED LAND SURVEYOR
21080
ROBERT J.
PECHA
Date Signed 12-15-93
ARIZONA, U.S.A.

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
* 593	----	999,905.2893	713,012.4719	2,420.59	1, 5
**608	----	999,916.3192	715,838.0659	2,548.70	1

* G.P.S. ON INCORRECT AERIAL CONTROL POINT.
  PREVIOUSLY SUBMITTED AS AERIAL CONTROL NAME 608.

**NEW COORDINATE VALUE. ESTABLISHED BY TRADITIONAL SURVEYING
  METHODS

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 1-31-94
ARIZONA, U.S.A.

Area:

- Desert Greenbelt, One-Foot Contour Interval

Horizontal:

- NAD 83, Modified State Plane Ground, Central Zone
- *Note:* All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

- NAVD 88, Modified City of Scottsdale Datum
- *Note:* All Vertical Control Converted to NAVD 88 by Greiner
- *Note:* All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)
6. Traditional Horizontal (Greiner)

Greiner

AREA - DESERT GREENBELT, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
623A	----	987,074.3750	720,283.7417	2,440.39	1, 6
623B	----	----------	----------	2,439.57	1

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 1-31-94
ARIZONA, U.S.A.

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
DATE SIGNED 2-16-94
ARIZONA, U.S.A.

AREA - SOUTH SCOTTSDALE, 1-FOOT C.I. - REVISED

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
313	----	----------	----------	1,305.95	1
330	----	896,967.1785	697,083.8368	1,230.90	1, 5
331	----	899,627.4143	697,092.9937	1,236.19	1, 5
332	4342	NOT	AVAILABLE	1,237.99	1
333	4273	904,942.1286	697,109.0573	1,247.13	1, 4
337	4153	915,569.0933	697,151.7288	1,300.24	1, 4

Greiner

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
3-17-94
ARIZONA, U.S.A.

AREA - SOUTH SCOTTSDALE, 1-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
* 346	5111	891,696.1799	699,616.4204	1,192.63	1, 4
**347	5024	894,339.3310	699,673.2739	1,205.22	1, 4
**348	----	896,981.2344	699,730.3649	1,211.26	1, 5

* ADDITION OF X, Y, Z

**REVISION OF Z

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

5-11-94

Area:

•North Scottsdale, Two-Foot Contour Interval

Horizontal:

•NAD 83, Modified State Plane Ground, Central Zone

•Note: All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

•NAVD 88, Modified City of Scottsdale Datum

•Note: All Vertical Control Converted to NAVD 88 by Greiner

•Note: All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)
6. Traditional Horizontal (Greiner)
7. Trigonometric Elevations (Greiner)

Greiner

REGISTERED LAND SURVEYOR
21180
ROBERT J. PECHIA
Date Signed 5-11-94
ARIZONA, U.S.A.

AREA - NORTH SCOTTSDALE. 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
701	1337	991,908.3460	686,596.5083	1,676.5	2, 4
702	1339	997.191.2856	686,604.6093	1.931.6	2, 4
703	1083	1,015,669.7586	686,607.8153	2,060.2	2, 4
704	1082	1,018,333.3343	686,606.1652	2,060.1	2, 4
707	1336	991,914.2864	689,243.1441	1,905.4	2, 4
708	1331	997.197.4049	689,250.9702	1,976.5	2, 4
709	1161	1,013,049.6685	689,258.6800	2,092.6	2, 4
710	1091	1,018,333.5214	689,257.9508	2,116.8	2, 4
714	1347	991,919.9003	691,689.3135	1,944.3	2, 4
715	1332	997,205.9620	691,896.2061	2,019.1	2, 4
716	1283	999,845.3505	691,899.9136	2,046.6	2, 4
717-A	1282	1,002,490.4425	691,904.5806	2,076.4	2, 4
717-B	1212	1,007,771.3780	691,907.2029	2,115.2	2, 4
718	1163	1,010,412.6275	691,909.3643	2,127.9	2, 4
719	1162	1,013,055.3803	691,911.0529	2,145.7	2, 4
720	1092	1,018,342.4984	691,912.1287	2,179.7	2, 4
729	1345	991,938.9493	697,181.9881	2,016.4	2, 4
730	1342	997.224.1939	697,187.0064	2,108.0	2, 4
731	1272	1,002,504.0797	697,185.8430	2,161.5	2, 4
732	1222	1,007,790.1264	697,188.0523	2,220.7	2, 4
733	1152	1,013,074.3263	697,198.0384	2.253.5	2, 4
734-A	1103	1,015,716.0823	697,193.5488	2,270.8	2, 4
735	1033	1,020,996.1744	697,181.1288	2,316.6	2, 4
736	1032	1,023,615.2081	697,172.9789	2,370.1	2, 4
737	1021	1,023,618.6971	699,813.0523	2,398.9	2, 4
744	1262	1,002,512.0200	702,476.9511	2,254.7	2, 4
745	1232	1,007,786.3831	702,476.0309	2,301.2	2, 4
746	1113	1,015,732.9883	702,378.4598	2,372.1	2, 4
747	1023	1,020,992.9158	702,465.4483	2,428.8	2, 4
748	1022	1,023,629.4710	702,455.4212	2,457.8	2, 4
749	1011	1,023,635.5491	705,096.4403	2,508.5	2, 4
754-A	1251	1,002,517.6099	705,107.7285	2,295.4	2, 4
755-A	1241	1,007,791.4623	705,111.1352	2,351.6	2, 4
756	1132	1,013,074.8079	707,742.3347	2,458.4	2, 4
757	1013	1,021,001.3724	707,738.0141	2,542.7	2, 4
758	1012	1,023,641.2230	707,738.1287	2,561.6	2, 4
759	319	1,028,924.0726	707,732.6548	2,616.9	2, 4
760	309	1,034,202.6194	707,726.5572	2,701.1	2, 4
761	199	1,039,482.4182	707,719.3823	2,759.5	2, 4
762	189	1,044,758.1240	707,719.5693	3,380.6	2, 4
763	67	1,050,033.0952	707,732.3036	3,700.5	2, 4
764	68	1,052,670.4419	707,735.4286	3,396.7	2, 4
765	69	1,055,177.1345	707,737.7444	3,598.7	2, 4
766	301	1,034,206.2108	710,346.4682	2,882.5	2, 4

Greiner

AREA - NORTH SCOTTSDALE. 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
767	61	1,055,178.1426	710,344.2401	4,142.0	2, 4
772	6302	1,002,527.7864	713,032.8257	2,466.3	2, 4
773	6193	1,005,162.8940	713,031.0277	2,489.5	2, 4
774	6073	1,015,720.7597	713,021.8000	2,569.0	2, 4
775	6063	1,021,002.3972	713,010.7340	2,625.9	2, 4
776	6313	994,603.0158	713,036.6876	2,392.9	2, 4
777	192	1,039,483.5733	712,977.1050	2,937.4	2, 4
778	183	1,042,121.4704	712,974.0546	3,005.7	2, 4
779	73	1,047,398.8980	712,967.2939	3,428.1	2, 4
780	63	1,052,671.2886	712,973.9039	4,087.6	2, 4
781	62	1,055,179.5090	712,982.5292	4,611.3	2, 4
782	291	1,034,213.9366	715,620.8450	2,913.2	2, 4
783	171	1,044,766.7801	715,612.9325	3,255.0	2, 4
784	51	1,055,181.9567	715,619.6939	4,337.8	2, 4
791	6325	991,979.8306	718,312.6737	2,518.2	2, 4
792	6322	997,255.1290	718,313.3881	2,619.9	2, 4
793	6292	1,002,533.2441	718,309.4424	2,616.3	2, 4
794	6203	1,005,176.9035	718,307.2808	2,604.2	2, 4
795	6172	1,013,091.7107	718,306.5742	2,613.3	2, 4
796	6082	1,018,373.8412	718,304.6548	2,682.1	2, 4
797	6052	1,023,661.6800	718,282.1898	2,764.7	2, 4
798	322	1,028,939.9615	718,273.3748	2,866.1	2, 4
799	292	1,034,219.6796	718,265.7126	2,966.1	2, 4
800	202	1,039,498.7281	718,260.8977	3,073.8	2, 4
801	83	1,047,416.3317	718,252.8948	3,781.0	2, 4
802	----	1,055,903.2431	719,341.0806	4,126.3	3, 5
804	91	1,050,061.3633	720,891.6686	4,374.6	2, 4
808	8092	955,305.4523	723,530.6331	1,791.2	2, 4
809	8042	960,423.1303	723,520.0483	1,859.7	2, 4
810	7332	965,704.2571	723,508.9827	2,218.3	2, 4
811	7212	976,280.3114	723,499.6135	2,396.6	2, 4
812	7162	981,550.5992	723,489.1265	2,500.3	2, 4
813	6335	991,983.4342	723,595.8582	2,651.4	2, 4
814	6333	994,621.4017	723,593.1200	2,640.3	2, 4
815	6283	999,901.6871	723,585.2314	2,725.1	2, 4
816	6213	1,005,179.3955	723,575.5505	2,787.4	2, 4
817	6163	1,010,463.2786	723,574.9396	2,713.7	2, 4
818	6093	1,015,747.0385	723,573.5049	2,746.4	2, 4
819	6043	1,021,029.9241	723,568.0612	2,809.4	2, 4
820	6042	1,023,671.7379	723,565.5751	2,848.2	2, 4
821	332	1,028,951.7328	723,558.1426	2,975.7	2, 4
822	282	1,034,229.4848	723,550.3112	3,148.4	2, 4
823	212	1,039,512.7065	723,542.7423	3,249.1	2, 4
824	162	1,044,792.8146	723,535.1171	3,547.0	2, 4

Greiner

AREA - NORTH SCOTTSDALE. 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
825	93	1,047,428.4651	723,531.4462	3,715.9	2, 4
826	92	1,050,064.2832	723,528.7388	3,942.7	2, 4
827	----	1,055,340.5182	723,348.7088	3,997.7	3, 5
829	7101	986,816.0122	726,113.9089	2,655.5	2, 4
830	6031	1,023,678.3148	726,206.2380	2,892.8	2, 4
831	271	1,034,235.8467	726,192.7097	3,211.4	2, 4
832	221	1,039,517.6668	726,186.7138	3,325.1	2, 4
833	----	----------	----------	------	----
837	8152	950,015.1647	728,811.1789	2,000.2	2, 4
838	8103	952,657.5049	728,811.7601	2,115.0	2, 4
839	8033	957,948.5806	728,804.7503	2,225.0	2, 4
840	----	963,296.5572	728,743.9071	2,611.1	6, 7
841	7272	970,954.3330	728,774.6647	2,651.6	2, 4
842	----	976,171.3058	728,967.2744	3,693.3	6, 7
843	7152	981,526.8105	728,747.1859	2,740.2	2, 4
844	7102	986,813.4809	728,742.5454	2,690.1	2, 4
845	7032	991,996.9295	728,739.2430	2,722.4	2, 4
846	6342	997,276.2121	728,869.9384	2,677.4	2, 4
847	6272	1,002,567.3305	728,858.8781	2,735.6	2, 4
848	6222	1,007,851.3239	728,843.9660	2,770.9	2, 4
849	6153	1,010,491.8457	728,848.2976	2,838.3	2, 4
850	6103	1,015,765.9485	728,854.1423	2,977.4	2, 4
851	6102	1,016,404.7748	728,852.2282	2,938.9	2, 4
852	6032	1,023,683.8425	728,848.8347	2,958.5	2, 4
853	223	1,036,882.6474	728,833.2501	3,204.9	2, 4
854	153	1,042,162.2145	728,826.9334	3,293.2	2, 4
855	6021	1,023,695.0172	731,485.7280	2,899.4	2, 4
859	8143	947,373.3191	734,100.6488	1,832.4	2, 4
860	8113	952,659.1240	734,084.0801	2,192.2	2, 4
861	8022	960,437.2922	734,080.3920	3,214.1	2, 4
862	7352	965,715.2453	734,068.2511	2,683.9	2, 4
863	----	974,129.0231	733,946.7972	3,838.1	6, 7
864	7143	978,898.2441	734,037.0625	2,915.2	2, 4
865	7113	984,180.4608	734,025.9563	2,694.7	2, 4
866	7023	989,460.3969	734,019.5759	2,612.4	2, 4
867-A	6355	992,011.0635	734,153.8358	2,606.9	2, 4
868-A	6352	997,293.1673	734,151.6329	2,569.7	2, 4
869-A	6262	1,002,577.0136	734,145.8625	2,627.9	2, 4
870	6232	1,007,857.8939	734,139.1456	2,720.6	2, 4
871	6113	1,015,776.3705	734,139.2944	2,794.2	2, 4
872	6022	1,023,696.2786	734,127.7819	2,859.6	2, 4
873	6131	1,013,139.1732	736,770.7321	2,739.8	2, 4
874	6011	1,023,704.7366	736,767.4007	2,772.6	2, 4

Greiner

AREA - NORTH SCOTTSDALE. 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
875	8362	934,169.0043	739,387.3271	1,548.3	2, 4
876	8252	939,450.4552	739,378.8396	1,656.9	2, 4
877-A	8133	947,373.5367	739,370.8897	2,023.7	2, 4
878	8132	950,014.1259	739,366.8109	2,354.5	2, 4
879	8122	955,308.2113	739,362.4355	2,878.6	2, 4
880	8012	960,447.6262	739,352.3258	2,594.4	2, 4
881	7362	965,709.1881	739,348.5941	2,318.1	2, 4
882	7252	970,998.9198	739,343.0329	2,536.2	2, 4
883	7242	976,273.6921	739,329.3688	2,563.6	2, 4
884-A	7131	981,550.5957	736,673.8063	2,866.7	2, 4
884-B	7133	978,915.2816	739,325.9270	2,527.6	2, 4
885	7122	986,842.3263	739,309.4124	2,542.1	2, 4
886	6365	992,026.0856	739,434.3459	2,470.0	2, 4
887	6362	997,342.5929	739,457.2629	2,481.7	2, 4
888	6253	999,949.1342	739,427.4385	2,497.0	2, 4
889	6252	1,002,589.8354	739,426.0972	2,519.6	2, 4
890	6242	1,007,869.8901	739,422.3307	2,562.1	2, 4
891	6132	1,013,151.1949	739,416.5139	2,613.7	2, 4
892	6122	1,018,434.7194	739,410.9957	2,665.6	2, 4
893	6013	1,021,076.0549	739,409.2252	2,681.2	2, 4
894	6012	1,023,715.8731	739,407.8757	2,701.2	2, 4
895	9305	934,183.1682	744,649.4164	1,679.3	2, 4
896	9302	939,464.8597	744,643.6082	1,895.6	2, 4
897	9192	944,743.2572	744,636.8227	2,023.3	2, 4
898	9182	950,021.8483	744,626.1805	2,187.0	2, 4
899	-----	993,276.9078	744,582.5945	2,356.2	3, 5
900	-----	997,938.8247	744,614.9805	2,370.3	3, 5
901	9201	944,735.6159	747,272.4996	2,042.4	2, 4
902	9292	939,463.1881	749,917.1588	1,796.7	2, 4
903	9172	950,015.7131	749,905.8292	1,896.0	2, 4

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 1-19-99
ARIZONA, U.S.A.

Area:

•North Scottsdale, Two-Foot Contour Interval

Horizontal:

•NAD 83, Modified State Plane Ground, Central Zone

•Note: All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

Vertical:

•NAVD 88, Modified City of Scottsdale Datum

•Note: All Vertical Control Converted to NAVD 88 by Greiner

•Note: All Vertical Control (Elevations) to Actual Target

General Notes:

1. Differential Elevations (Greiner)
2. GPS Elevations (City of Scottsdale)
3. GPS Elevations (Greiner)
4. GPS Horizontal (City of Scottsdale)
5. GPS Horizontal (Greiner)
6. Traditional Horizontal (Greiner)
7. Trigonometric Elevations (Greiner)

Greiner

AREA - NORTH SCOTTSDALE, 2-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
* 776	0313	1,026,293.3204	712,998.1423	2,713.0	2, 4

* REVISION OF GPS NAME PREVIOUSLY SUBMITTED AS NUMBER 6313; CORRECT X, Y, AND Z COORDINATE VALUES ARE PROVIDED

REGISTERED LAND SURVEYOR
21080
ROBERT J.
PECHA
Date Signed 1-19-95
ARIZONA, U.S.A.

Greiner

SCOTTSDALE GIS - PHASE II
Aerial Mapping Control

AREA

- Lost Dog Wash, One-Foot Contour Interval

HORIZONTAL

- NAD 83, Modified State Plane Ground, Central Zone
- Note: All Horizontal Control Converted to Ground Coordinates by the City of Scottsdale

VERTICAL

- NAVD 88, Modified City of Scottsdale Datum
- Note: All Vertical Control Converted to NAVD 88 by Greiner
- Note: All Vertical Control (Elevations) to Actual Target

GENERAL NOTES

- Differential Elevations (Greiner)
- GPS Elevations (City of Scottsdale)
- GPS Elevations (Greiner)
- GPS Horizontal (City of Scottsdale)
- GPS Horizontal (Greiner)
- Traditional Horizontal (Greiner)
- Trigonometric Elevations (Greiner)

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 3-13-97
ARIZONA, U.S.A.

Greiner

AREA - LOST DOG WASH, ONE-FOOT C.I.

Aerial Control Name	GPS Name	Northing	Easting	Elevation	Note
806	8282	939454.6312	723541.3891	1426.62	1, 4
807	8162	950028.9047	723534.9683	1715.21	1, 4
828	8221	944730.7099	726178.5609	1543.39	1, 4
835	8272	939444.9227	728824.2607	1517.19	1, 4
836	8222	944726.4392	728819.9738	1636.11	1, 4
837	8152	950015.1647	728811.1789	2000.52	1, 4
858	8233	942091.9857	734095.0015	1630.18	1, 4
859	8143	947373.3191	734100.6488	1832.29	1, 4
925	----	----------	----------	-------	----
925-A	----	942166.0444	723667.9919	1453.14	1, 5
926	----	944993.3996	723368.5493	1471.51	1, 5
927	----	947192.4722	723476.0195	1543.40	1, 5
928	8271	939449.1112	726180.9278	1468.48	1, 4
929	8224	942090.2346	726178.3696	1523.60	1, 4
929-A	----	942090.2949	726056.8589	1521.27	1, 5
930	----	947375.1497	726175.7502	1601.53	1, 5
931	----	942085.2677	728821.8621	1584.62	1, 5
932	8153	947372.5869	728813.3407	1926.96	4, 7
933	8261	939449.0659	731462.5194	1543.41	1, 4
934	----	942088.3137	731459.2869	1626.15	1, 5
935	8231	944729.3529	731456.3423	1711.36	1, 4
936	----	947366.2986	731488.5255	1804.19	1, 5
937	8141	950016.2083	731450.0446	1949.08	1, 4
938	8262	939451.3973	734099.4191	1567.74	1, 4
939	8232	944732.2715	734091.9388	1701.55	1, 4
940	8142	950016.2426	734091.8348	2007.13	4, 7

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21080
ROBERT J.
PECHA
Date Signed 3-13-95
ARIZONA, U.S.A.

STAR*LEV Adjustment Program
Copyright 1990 STARPLUS SOFTWARE, INC.
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Serial Number 10783

STAR*LEV Version 1.18
Run Date : Wed Oct 13 12:50:36 1993

Summary of Files Used

Input Data File	: gis.dat
Output Listing (This File)	: gis.lst
Adjusted Elevations	: gis.pts
Project Options	: gis.prj
Error Log	: gis.err

Summary of Options Used

Type of Run was Adjustment and Error Propagation

Print Input Data File	: No
Print Summary of All Input Observations	: Yes
Default Standard Error for Elevations	: FIXED
Section Length Units	: Turns
Default Std Error for Diff in Elevations	: 0.009 (FT-Meter/$\sqrt{}$Turn)

Network has 1 fixed elevation stations

Summary of All Unadjusted Input Observations

Number of Stations with Elevations = 130

Station	Elevation	Standard Error	Description
BM_A	1497.5644	FIXED	BRASS CAP IN HANDHOLE
513	1508.8144	*	
543	1521.3444	*	
544	1555.1744	*	
545	1600.0944	*	
546	1641.1244	*	
547	1692.3544	*	
548	1750.1544	*	
549	1810.1144	*	
550	1871.2444	*	
551	1926.7144	*	
533	1827.0244	*	
534	1890.2944	*	
552	1983.7044	*	
553	2030.0544	*	
554	2075.3844	*	
555	2123.3944	*	
556	2182.3544	*	
557	2241.9144	*	
558	2277.1644	*	
559	2307.2844	*	
570	2041.8344	*	
588	2109.8944	*	
603	2183.5144	*	
572	2125.7744	*	
590	2223.8544	*	
605	2309.2344	*	
618	2374.7044	*	
542	2271.1544	*	
525	2221.3644	*	
541	2229.3644	*	
524	2184.3344	*	
576	2333.0544	*	
577	2373.3544	*	
539	2147.1144	*	
522	2117.4244	*	
512	2055.9344	*	
540	2180.5544	*	
523	2146.4244	*	
574	2241.9344	*	
575	2305.2244	*	
538	2097.3944	*	
537	2036.4844	*	
520	2016.9444	*	
510	1971.0444	*	
506	1933.1544	*	
505	1887.8244	*	
504	1840.6444	*	
508	1878.6744	*	
518	1904.6544	*	
535	1943.0144	*	
519	1967.2744	*	
521	2074.9844	*	
509	1930.1544	*	
502	1813.1844	*	
536	1987.9144	*	

514	1543.4144	*
515	1574.1044	*
516	1612.0444	*
529	1628.1244	*
528	1583.1944	*
526	1521.9444	*
511	2021.9844	*
501	1769.7944	*
503	1790.6544	*
507	1827.7544	*
617	2304.9144	*
530	1670.5344	*
517	1652.3644	*
531	1721.2044	*
532	1775.0544	*
TBM1	2352.9144	*
TBM2	2422.1844	*
TBM3	2485.9444	*
593	2420.6244	*
592	2415.4244	*
591	2395.0444	*
607	2505.1744	*
561	1529.7944	*
579	1533.8044	*
TBM20	1541.6044	*
595	1559.1244	*
594	1526.5844	*
608	2548.7444	*
573	2160.6044	*
571	2094.7144	*
589	2166.3144	*
604	2236.1344	*
562	1564.4244	*
580	1571.8944	*
596	1598.8344	*
TBM21	1633.8644	*
609	1713.5944	*
622	2438.4944	*
566	1774.0844	*
583	1735.5744	*
565	1709.2544	*
569	1984.4244	*
597	1638.1344	*
564	1655.0644	*
582	1680.5144	*
598	1693.6544	*
563	1608.1444	*
568	1914.1244	*
TBM4	1974.8744	*
587	2052.7344	*
586	1974.1144	*
602	2094.3644	*
615	2125.2144	*
581	1627.3044	*
560	1497.9744	*
578	1505.0344	*
TBM11	1817.3944	*
TBM12	1867.9544	*
TBM13	1869.3544	*
567	1847.8644	*
585	1899.6844	*
584	1810.1344	*
600	1837.1244	*
601	1903.0444	*
TBM14	1913.4244	*

TBM16	2059.9744	*
625	2198.7544	*
620	2109.8144	*
612	1926.4644	*
599	1775.9444	*
611	1824.2044	*
621	2059.2244	*

Number of Differences in Elevation = 216

At	To	Diff Elev	Length Turns	Std Err
BM_A	513	11.2500	7	0.023
513	BM_A	-11.2000	6	0.022
513	543	12.5300	8	0.025
543	513	-12.4900	8	0.025
543	544	33.8300	3	0.015
544	545	44.9200	4	0.018
545	544	-44.8800	4	0.018
544	543	-33.8000	3	0.015
545	546	41.0300	4	0.018
546	547	51.2300	4	0.018
547	546	-51.2200	4	0.018
546	545	-41.0300	4	0.018
547	548	57.8000	4	0.018
548	549	59.9600	5	0.020
549	548	-59.9900	4	0.018
548	547	-57.8100	4	0.018
549	550	61.1300	5	0.020
550	551	55.4700	4	0.018
551	550	-55.5300	4	0.018
550	549	-61.1500	5	0.020
550	533	-44.2200	4	0.018
533	534	63.2700	5	0.020
534	551	36.4700	4	0.018
551	552	56.9900	4	0.018
552	553	46.3500	4	0.018
553	554	45.3300	4	0.018
554	555	48.0100	4	0.018
555	556	58.9600	4	0.018
556	557	59.5600	4	0.018
557	558	35.2500	3	0.015
558	559	30.1200	3	0.015
559	551	-380.4500	30	0.048
552	570	58.1300	4	0.018
570	588	68.0600	4	0.018
588	603	73.6200	4	0.018
603	552	-199.7300	12	0.030
554	572	50.3900	4	0.018
572	590	98.0800	5	0.020
590	605	85.3800	5	0.020
605	618	65.4700	4	0.018
618	554	-299.2700	18	0.037
559	542	-36.1300	4	0.018
542	525	-49.7900	4	0.018
525	542	49.7100	4	0.018
542	559	36.1400	4	0.018
558	541	-47.8000	4	0.018
541	524	-45.0300	3	0.015
524	541	45.0400	3	0.015
541	558	47.8300	4	0.018
558	576	55.8900	4	0.018
576	577	40.3000	8	0.025

556	539	-35.2400	4	0.018
539	522	-29.6900	4	0.018
522	539	29.6400	5	0.020
539	556	35.2800	4	0.018
522	512	-61.4900	4	0.018
512	522	61.4700	4	0.018
522	540	63.1300	5	0.020
540	523	-34.1300	8	0.025
523	522	-29.0000	6	0.022
556	574	59.5800	5	0.020
574	575	63.2900	6	0.022
575	556	-122.8700	9	0.026
555	538	-26.0000	4	0.018
538	537	-60.9100	5	0.020
537	554	38.7700	4	0.018
537	520	-19.5400	3	0.015
520	510	-45.9000	4	0.018
510	506	-37.8900	5	0.020
506	505	-45.3300	4	0.018
505	504	-47.1800	4	0.018
504	508	38.0300	3	0.015
508	518	25.9800	3	0.015
518	535	38.3600	4	0.018
535	552	40.5600	3	0.015
518	519	62.6200	5	0.020
519	520	49.6400	4	0.018
520	521	58.0400	4	0.018
521	520	-58.0200	4	0.018
505	509	42.3300	4	0.018
509	505	-42.3400	4	0.018
504	502	-27.4600	4	0.018
502	504	27.4600	4	0.018
519	536	20.6400	4	0.018
536	535	-44.9200	4	0.018
544	527	-8.1600	4	0.018
527	514	-3.6000	3	0.015
514	515	30.6900	4	0.018
515	516	37.9400	4	0.018
516	529	16.0800	3	0.015
529	546	13.0100	3	0.015
527	528	36.1800	5	0.020
528	527	-36.1600	5	0.020
527	526	-25.0700	4	0.018
526	527	25.0700	4	0.018
506	511	88.8300	6	0.022
511	522	95.3900	6	0.022
502	501	-43.3900	7	0.023
501	502	43.4100	5	0.020
504	503	-49.9900	4	0.018
503	507	37.1000	4	0.018
507	508	50.8600	4	0.018
618	617	-69.7900	4	0.018
617	618	69.8000	4	0.018
546	530	29.4100	6	0.022
530	517	-18.1700	7	0.023
517	531	68.8400	12	0.030
531	549	88.8700	9	0.026
533	532	-51.9700	6	0.022
532	533	51.9800	6	0.022
576	TBM1	19.8600	1	0.009
TBM1	TBM2	69.2700	4	0.018
TBM2	TBM3	63.7600	3	0.015
TBM3	576	-152.8800	8	0.025
TBM1	593	67.7100	7	0.023
593	TBM1	-67.7300	7	0.023

592	591	-20.3800	5	0.020
591	TBM2	27.1300	6	0.022
TBM3	607	19.2300	2	0.012
607	TBM3	-19.2200	2	0.012
543	561	8.4500	3	0.015
561	579	4.0100	5	0.020
579	TBM20	7.8000	5	0.020
TBM20	579	-7.8300	5	0.020
579	561	-4.0300	4	0.018
561	543	-8.4500	4	0.018
TBM20	595	17.5200	3	0.015
595	TBM20	-17.5400	3	0.015
TBM20	594	-15.0200	3	0.015
594	TBM20	15.0000	3	0.015
TBM3	608	62.8000	4	0.018
608	TBM3	-62.8100	5	0.020
555	573	37.2100	3	0.015
573	555	-37.2200	3	0.015
570	571	52.8800	5	0.020
571	570	-52.8600	5	0.020
588	589	56.4200	4	0.018
589	588	-56.3900	4	0.018
603	604	52.6200	6	0.022
604	603	-52.6400	6	0.022
544	562	9.2500	4	0.018
562	580	7.4700	3	0.015
580	596	26.9400	4	0.018
596	TBM21	35.0300	3	0.015
TBM21	609	79.7300	6	0.022
609	TBM21	-79.6300	6	0.022
TBM21	596	-35.0200	3	0.015
596	580	-26.9500	5	0.020
580	562	-7.4800	4	0.018
562	544	-9.2400	3	0.015
603	622	254.9800	13	0.032
622	603	-254.9300	13	0.032
548	566	23.9300	3	0.015
566	583	-38.5100	7	0.023
583	565	-26.3200	4	0.018
565	547	-16.8500	4	0.018
570	569	-57.4100	4	0.018
569	570	57.4200	5	0.020
TBM21	597	4.2700	4	0.018
597	TBM21	-4.2800	4	0.018
546	564	13.9400	4	0.018
564	582	25.4500	4	0.018
582	598	13.1400	5	0.020
598	582	-13.1500	5	0.020
582	564	-25.4700	4	0.018
564	546	-13.9300	3	0.015
545	563	8.0500	5	0.020
563	545	-8.0700	6	0.022
550	568	42.8800	4	0.018
568	TBM4	60.7500	4	0.018
TBM4	587	77.8600	5	0.020
587	569	-68.3700	5	0.020
TBM4	586	-0.7600	2	0.012
586	602	120.2500	8	0.025
602	615	30.8500	5	0.020
615	TBM4	-150.3100	12	0.030
580	581	55.4100	4	0.018
581	582	53.1800	6	0.022
543	560	-23.3700	5	0.020
560	543	23.3800	5	0.020
560	578	7.0600	5	0.020

549	TBM11	7.2800	5	0.020
TBM11	TBM12	50.5600	5	0.020
TBM12	TBM13	1.4000	5	0.020
TBM13	TBM12	-1.4300	4	0.018
TBM12	TBM11	-50.5500	3	0.015
TBM11	549	-7.3000	5	0.020
TBM11	567	30.4700	2	0.012
567	TBM11	-30.4800	2	0.012
TBM12	585	31.7300	4	0.018
585	TBM12	-31.7400	3	0.015
TBM12	584	-57.8200	4	0.018
584	TBM12	57.8100	3	0.015
TBM13	600	-32.2300	4	0.018
600	TBM13	32.2500	4	0.018
TBM13	601	33.6900	2	0.012
601	TBM13	-33.6900	2	0.012
TBM13	TBM14	44.0700	3	0.015
TBM14	TBM15	69.6000	5	0.020
TBM15	TBM13	-113.7000	7	0.023
TBM15	TBM16	76.9500	5	0.020
TBM16	625	138.7800	7	0.023
625	TBM16	-138.8000	7	0.023
TBM16	TBM15	-76.9600	5	0.020
TBM16	620	49.8400	3	0.015
620	TBM16	-49.8600	3	0.015
TBM15	612	-56.5600	3	0.015
612	TBM15	56.5700	3	0.015
582	599	95.4300	7	0.023
599	611	48.2600	5	0.020
611	612	102.4100	6	0.022
TBM14	621	145.8000	10	0.028
621	TBM14	-145.8500	9	0.026

Network Solution

Final Results

Updated Elevations and Changes from Initial Estimates

Station	Elevation	Change
BM_A	1497.5644	0.0000
513	1508.7875	-0.0269
543	1521.2975	-0.0469
544	1555.1125	-0.0619
545	1600.0141	-0.0803
546	1641.0458	-0.0786
547	1692.2734	-0.0810
548	1750.0752	-0.0792
549	1810.0548	-0.0596
550	1871.1948	-0.0496
551	1926.6937	-0.0207
533	1826.9683	-0.0561
534	1890.2302	-0.0642
552	1983.6634	-0.0410
553	2030.0113	-0.0431
554	2075.3393	-0.0451
555	2123.3771	-0.0173
556	2182.3328	-0.0216
557	2241.8810	-0.0334
558	2277.1222	-0.0422
559	2307.2318	-0.0526
570	2041.7729	-0.0615
588	2109.8210	-0.0734
603	2183.4291	-0.0853
572	2125.7237	-0.0507
590	2223.7968	-0.0576
605	2309.1699	-0.0645
618	2374.6343	-0.0701
542	2271.0968	-0.0576
525	2221.3468	-0.0176
541	2229.3072	-0.0572
524	2184.2722	-0.0622
576	2333.0144	-0.0400
577	2373.3186	-0.0358
539	2147.0765	-0.0379
522	2117.4128	-0.0116
512	2055.9328	-0.0016
540	2180.5428	-0.0116
523	2146.4128	-0.0116
574	2241.9128	-0.0216
575	2305.2028	-0.0216
538	2097.4093	0.0149
537	2036.5395	0.0551
520	2017.0012	0.0568
510	1971.1029	0.0585
506	1933.2150	0.0606
505	1887.8941	0.0697
504	1840.7233	0.0789
508	1878.7467	0.0723
518	1904.7336	0.0792

519	1967.3618	0.0874
521	2075.0312	0.0468
509	1930.2291	0.0747
502	1813.2633	0.0789
536	1988.0089	0.0945
527	1546.9474	-0.0670
514	1543.3436	-0.0708
515	1574.0285	-0.0759
516	1611.9634	-0.0810
529	1628.0396	-0.0848
528	1583.1174	-0.0770
526	1521.8774	-0.0670
511	2022.0339	0.0495
501	1769.8616	0.0672
503	1790.7511	0.0967
507	1827.8689	0.1145
617	2304.8393	-0.0751
530	1670.4662	-0.0682
517	1652.3083	-0.0561
531	1721.1692	-0.0352
532	1774.9933	-0.0611
TBM1	2352.8737	-0.0407
TBM2	2422.1412	-0.0432
TBM3	2485.8994	-0.0450
593	2420.5937	-0.0307
592	2415.3821	-0.0423
591	2395.0062	-0.0382
607	2505.1244	-0.0500
561	1529.7475	-0.0469
579	1533.7686	-0.0358
TBM20	1541.5836	-0.0208
595	1559.1136	-0.0108
594	1526.5736	-0.0108
608	2548.7038	-0.0406
573	2160.5921	-0.0123
571	2094.6429	-0.0715
589	2166.2260	-0.0884
604	2236.0591	-0.0753
562	1564.3575	-0.0669
580	1571.8326	-0.0618
596	1598.7770	-0.0574
TBM21	1633.8020	-0.0624
609	1713.4820	-0.1124
622	2438.3841	-0.1103
566	1773.9966	-0.0878
583	1735.4664	-0.1080
565	1709.1349	-0.1195
569	1984.3536	-0.0708
597	1638.0770	-0.0574
564	1654.9741	-0.0903
582	1680.4271	-0.0873
598	1693.5721	-0.0823
563	1608.0732	-0.0712
568	1914.0834	-0.0410
TBM4	1974.8421	-0.0323
587	2052.7128	-0.0216
586	1974.0798	-0.0346
602	2094.3210	-0.0434
615	2125.1654	-0.0490
581	1627.2444	-0.0600
560	1497.9225	-0.0519
578	1504.9775	-0.0569
TBM11	1817.3524	-0.0420
TBM12	1867.9119	-0.0425
TBM13	1869.3353	-0.0191

585	1899.6476	-0.0368
584	1810.0976	-0.0368
600	1837.0953	-0.0291
601	1903.0253	-0.0191
TBM14	1913.4156	-0.0088
TBM15	1983.0327	0.0083
TBM16	2059.9877	0.0133
625	2198.7777	0.0233
620	2109.8377	0.0233
612	1926.4723	0.0079
599	1775.8358	-0.1086
611	1824.0805	-0.1239
621	2059.2419	0.0175

Statistical Summary

Number of Observations = 216
Number of Unknowns = 129
Degrees of Freedom = 87

Data Type	Count	Weighted Residuals	Error Factor
Stations	130	0.00	0.00
Diff Elev	216	105.58	1.10
Total	346	105.58	1.10

Adjustment passes the Chi Square test at 5% level

Residuals in Observations After Adjustment

Residuals in Observed Differences in Elevations

At	To	Observed	Adjusted	Residual	Std Err	Std Res
BM_A	513	11.2500	11.2231	-0.0269	0.023	1.2
513	BM_A	-11.2000	-11.2231	-0.0231	0.022	1.1
513	543	12.5300	12.5100	-0.0200	0.025	0.8
543	513	-12.4900	-12.5100	-0.0200	0.025	0.8
543	544	33.8300	33.8150	-0.0150	0.015	1.0
544	545	44.9200	44.9016	-0.0184	0.018	1.0
545	544	-44.8800	-44.9016	-0.0216	0.018	1.2
544	543	-33.8000	-33.8150	-0.0150	0.015	1.0
545	546	41.0300	41.0316	0.0016	0.018	0.1
546	547	51.2300	51.2276	-0.0024	0.018	0.1
547	546	-51.2200	-51.2276	-0.0076	0.018	0.4
546	545	-41.0300	-41.0316	-0.0016	0.018	0.1
547	548	57.8000	57.8019	0.0019	0.018	0.1
548	549	59.9600	59.9796	0.0196	0.020	1.0
549	548	-59.9900	-59.9796	0.0104	0.018	0.6
548	547	-57.8100	-57.8019	0.0081	0.018	0.5
549	550	61.1300	61.1400	0.0100	0.020	0.5
550	551	55.4700	55.4989	0.0289	0.018	1.6
551	550	-55.5300	-55.4989	0.0311	0.018	1.8
550	549	-61.1500	-61.1400	0.0100	0.020	0.5
550	533	-44.2200	-44.2265	-0.0065	0.018	0.4
533	534	63.2700	63.2619	-0.0081	0.020	0.4
534	551	36.4700	36.4635	-0.0065	0.018	0.4
551	552	56.9900	56.9696	-0.0204	0.018	1.2
552	553	46.3500	46.3480	-0.0020	0.018	0.1
553	554	45.3300	45.3280	-0.0020	0.018	0.1
554	555	48.0100	48.0378	0.0278	0.018	1.6
555	556	58.9600	58.9557	-0.0043	0.018	0.2
556	557	59.5600	59.5483	-0.0117	0.018	0.7
557	558	35.2500	35.2412	-0.0088	0.015	0.6
558	559	30.1200	30.1096	-0.0104	0.015	0.7
559	551	-380.4500	-380.5381	-0.0881	0.048	1.8
552	570	58.1300	58.1095	-0.0205	0.018	1.2
570	588	68.0600	68.0481	-0.0119	0.018	0.7
588	603	73.6200	73.6081	-0.0119	0.018	0.7
603	552	-199.7300	-199.7657	-0.0357	0.030	1.2
554	572	50.3900	50.3844	-0.0056	0.018	0.3
572	590	98.0800	98.0731	-0.0069	0.020	0.4
590	605	85.3800	85.3731	-0.0069	0.020	0.4
605	618	65.4700	65.4644	-0.0056	0.018	0.3
618	554	-299.2700	-299.2950	-0.0250	0.037	0.7
559	542	-36.1300	-36.1350	-0.0050	0.018	0.3
542	525	-49.7900	-49.7500	0.0400	0.018	2.3
525	542	49.7100	49.7500	0.0400	0.018	2.3
542	559	36.1400	36.1350	-0.0050	0.018	0.3
558	541	-47.8000	-47.8150	-0.0150	0.018	0.9
541	524	-45.0300	-45.0350	-0.0050	0.015	0.3
524	541	45.0400	45.0350	-0.0050	0.015	0.3
541	558	47.8300	47.8150	-0.0150	0.018	0.9
558	576	55.8900	55.8921	0.0021	0.018	0.1
576	577	40.3000	40.3043	0.0043	0.025	0.2
577	559	-66.0900	-66.0868	0.0032	0.022	0.1
556	539	-35.2400	-35.2563	-0.0163	0.018	0.9
539	522	-29.6900	-29.6637	0.0263	0.018	1.5
522	539	29.6400	29.6637	0.0237	0.020	1.2
539	556	35.2800	35.2563	-0.0237	0.018	1.3

512	522	61.4700	61.4800	0.0100	0.018	0.6
522	540	63.1300	63.1300	0.0000	0.020	0.0
540	523	-34.1300	-34.1300	-0.0000	0.025	0.0
523	522	-29.0000	-29.0000	0.0000	0.022	0.0
556	574	59.5800	59.5800	-0.0000	0.020	0.0
574	575	63.2900	63.2900	-0.0000	0.022	0.0
575	556	-122.8700	-122.8700	0.0000	0.026	0.0
555	538	-26.0000	-25.9678	0.0322	0.018	1.8
538	537	-60.9100	-60.8698	0.0402	0.020	2.0
537	554	38.7700	38.7998	0.0298	0.018	1.7
537	520	-19.5400	-19.5383	0.0017	0.015	0.1
520	510	-45.9000	-45.8983	0.0017	0.018	0.1
510	506	-37.8900	-37.8879	0.0021	0.020	0.1
506	505	-45.3300	-45.3209	0.0091	0.018	0.5
505	504	-47.1800	-47.1709	0.0091	0.018	0.5
504	508	38.0300	38.0235	-0.0065	0.015	0.4
508	518	25.9800	25.9868	0.0068	0.015	0.4
518	535	38.3600	38.3625	0.0025	0.018	0.1
535	552	40.5600	40.5673	0.0073	0.015	0.5
518	519	62.6200	62.6282	0.0082	0.020	0.4
519	520	49.6400	49.6394	-0.0006	0.018	0.0
520	521	58.0400	58.0300	-0.0100	0.018	0.6
521	520	-58.0200	-58.0300	-0.0100	0.018	0.6
505	509	42.3300	42.3350	0.0050	0.018	0.3
509	505	-42.3400	-42.3350	0.0050	0.018	0.3
504	502	-27.4600	-27.4600	-0.0000	0.018	0.0
502	504	27.4600	27.4600	0.0000	0.018	0.0
519	536	20.6400	20.6472	0.0072	0.018	0.4
536	535	-44.9200	-44.9128	0.0072	0.018	0.4
544	527	-8.1600	-8.1651	-0.0051	0.018	0.3
527	514	-3.6000	-3.6038	-0.0038	0.015	0.3
514	515	30.6900	30.6849	-0.0051	0.018	0.3
515	516	37.9400	37.9349	-0.0051	0.018	0.3
516	529	16.0800	16.0762	-0.0038	0.015	0.3
529	546	13.0100	13.0062	-0.0038	0.015	0.3
527	528	36.1800	36.1700	-0.0100	0.020	0.5
528	527	-36.1600	-36.1700	-0.0100	0.020	0.5
527	526	-25.0700	-25.0700	0.0000	0.018	0.0
526	527	25.0700	25.0700	-0.0000	0.018	0.0
506	511	88.8300	88.8189	-0.0111	0.022	0.5
511	522	95.3900	95.3789	-0.0111	0.022	0.5
502	501	-43.3900	-43.4017	-0.0117	0.023	0.5
501	502	43.4100	43.4017	-0.0083	0.020	0.4
504	503	-49.9900	-49.9722	0.0178	0.018	1.0
503	507	37.1000	37.1178	0.0178	0.018	1.0
507	508	50.8600	50.8778	0.0178	0.018	1.0
618	617	-69.7900	-69.7950	-0.0050	0.018	0.3
617	618	69.8000	69.7950	-0.0050	0.018	0.3
546	530	29.4100	29.4204	0.0104	0.022	0.5
530	517	-18.1700	-18.1578	0.0122	0.023	0.5
517	531	68.8400	68.8608	0.0208	0.030	0.7
531	549	88.8700	88.8856	0.0156	0.026	0.6
533	532	-51.9700	-51.9750	-0.0050	0.022	0.2
532	533	51.9800	51.9750	-0.0050	0.022	0.2
576	TBM1	19.8600	19.8594	-0.0006	0.009	0.1
TBM1	TBM2	69.2700	69.2675	-0.0025	0.018	0.1
TBM2	TBM3	63.7600	63.7581	-0.0019	0.015	0.1
TBM3	576	-152.8800	-152.8850	-0.0050	0.025	0.2
TBM1	593	67.7100	67.7200	0.0100	0.023	0.4
593	TBM1	-67.7300	-67.7200	0.0100	0.023	0.4
TBM2	592	-6.7600	-6.7592	0.0008	0.009	0.1
592	591	-20.3800	-20.3758	0.0042	0.020	0.2

591	TBM2	27.1300	27.1350	0.0050	0.022	0.2
TBM3	607	19.2300	19.2250	-0.0050	0.012	0.4
607	TBM3	-19.2200	-19.2250	-0.0050	0.012	0.4
543	561	8.4500	8.4500	0.0000	0.015	0.0
561	579	4.0100	4.0211	0.0111	0.020	0.6
579	TBM20	7.8000	7.8150	0.0150	0.020	0.8
TBM20	579	-7.8300	-7.8150	0.0150	0.020	0.8
579	561	-4.0300	-4.0211	0.0089	0.018	0.5
561	543	-8.4500	-8.4500	-0.0000	0.018	0.0
TBM20	595	17.5200	17.5300	0.0100	0.015	0.7
595	TBM20	-17.5400	-17.5300	0.0100	0.015	0.7
TBM20	594	-15.0200	-15.0100	0.0100	0.015	0.7
594	TBM20	15.0000	15.0100	0.0100	0.015	0.7
TBM3	608	62.8000	62.8044	0.0044	0.018	0.3
608	TBM3	-62.8100	-62.8044	0.0056	0.020	0.3
555	573	37.2100	37.2150	0.0050	0.015	0.3
573	555	-37.2200	-37.2150	0.0050	0.015	0.3
570	571	52.8800	52.8700	-0.0100	0.020	0.5
571	570	-52.8600	-52.8700	-0.0100	0.020	0.5
588	589	56.4200	56.4050	-0.0150	0.018	0.9
589	588	-56.3900	-56.4050	-0.0150	0.018	0.9
603	604	52.6200	52.6300	0.0100	0.022	0.5
604	603	-52.6400	-52.6300	0.0100	0.022	0.5
544	562	9.2500	9.2451	-0.0049	0.018	0.3
562	580	7.4700	7.4751	0.0051	0.015	0.3
580	596	26.9400	26.9444	0.0044	0.018	0.3
596	TBM21	35.0300	35.0250	-0.0050	0.015	0.3
TBM21	609	79.7300	79.6800	-0.0500	0.022	2.3
609	TBM21	-79.6300	-79.6800	-0.0500	0.022	2.3
TBM21	596	-35.0200	-35.0250	-0.0050	0.015	0.3
596	580	-26.9500	-26.9444	0.0056	0.020	0.3
580	562	-7.4800	-7.4751	0.0049	0.018	0.3
562	544	-9.2400	-9.2451	-0.0051	0.015	0.3
603	622	254.9800	254.9550	-0.0250	0.032	0.8
622	603	-254.9300	-254.9550	-0.0250	0.032	0.8
548	566	23.9300	23.9214	-0.0086	0.015	0.6
566	583	-38.5100	-38.5302	-0.0202	0.023	0.9
583	565	-26.3200	-26.3315	-0.0115	0.018	0.7
565	547	-16.8500	-16.8615	-0.0115	0.018	0.7
570	569	-57.4100	-57.4192	-0.0092	0.018	0.5
569	570	57.4200	57.4192	-0.0008	0.020	0.0
TBM21	597	4.2700	4.2750	0.0050	0.018	0.3
597	TBM21	-4.2800	-4.2750	0.0050	0.018	0.3
546	564	13.9400	13.9283	-0.0117	0.018	0.7
564	582	25.4500	25.4530	0.0030	0.018	0.2
582	598	13.1400	13.1450	0.0050	0.020	0.3
598	582	-13.1500	-13.1450	0.0050	0.020	0.3
582	564	-25.4700	-25.4530	0.0170	0.018	1.0
564	546	-13.9300	-13.9283	0.0017	0.015	0.1
545	563	8.0500	8.0591	0.0091	0.020	0.5
563	545	-8.0700	-8.0591	0.0109	0.022	0.5
550	568	42.8800	42.8886	0.0086	0.018	0.5
568	TBM4	60.7500	60.7586	0.0086	0.018	0.5
TBM4	587	77.8600	77.8708	0.0108	0.020	0.5
587	569	-68.3700	-68.3592	0.0108	0.020	0.5
TBM4	586	-0.7600	-0.7622	-0.0022	0.012	0.2
586	602	120.2500	120.2411	-0.0089	0.025	0.4
602	615	30.8500	30.8444	-0.0056	0.020	0.3
615	TBM4	-150.3100	-150.3233	-0.0133	0.030	0.4
580	581	55.4100	55.4118	0.0018	0.018	0.1
581	582	53.1800	53.1827	0.0027	0.022	0.1
543	560	-23.3700	-23.3750	-0.0050	0.020	0.3
560	543	23.3800	23.3750	-0.0050	0.020	0.3
560	578	7.0600	7.0550	-0.0050	0.020	0.3
578	560	-7.0500	-7.0550	-0.0050	0.020	0.3

TBM11	TBM12	50.5600	50.5595	-0.0005	0.020	0.0
TBM12	TBM13	1.4000	1.4234	0.0234	0.020	1.2
TBM13	TBM12	-1.4300	-1.4234	0.0066	0.018	0.4
TBM12	TBM11	-50.5500	-50.5595	-0.0095	0.015	0.6
TBM11	549	-7.3000	-7.2976	0.0024	0.020	0.1
TBM11	567	30.4700	30.4750	0.0050	0.012	0.4
567	TBM11	-30.4800	-30.4750	0.0050	0.012	0.4
TBM12	585	31.7300	31.7357	0.0057	0.018	0.3
585	TBM12	-31.7400	-31.7357	0.0043	0.015	0.3
TBM12	584	-57.8200	-57.8143	0.0057	0.018	0.3
584	TBM12	57.8100	57.8143	0.0043	0.015	0.3
TBM13	600	-32.2300	-32.2400	-0.0100	0.018	0.6
600	TBM13	32.2500	32.2400	-0.0100	0.018	0.6
TBM13	601	33.6900	33.6900	0.0000	0.012	0.0
601	TBM13	-33.6900	-33.6900	-0.0000	0.012	0.0
TBM13	TBM14	44.0700	44.0803	0.0103	0.015	0.7
TBM14	TBM15	69.6000	69.6171	0.0171	0.020	0.9
TBM15	TBM13	-113.7000	-113.6974	0.0026	0.023	0.1
TBM15	TBM16	76.9500	76.9550	0.0050	0.020	0.3
TBM16	625	138.7800	138.7900	0.0100	0.023	0.4
625	TBM16	-138.8000	-138.7900	0.0100	0.023	0.4
TBM16	TBM15	-76.9600	-76.9550	0.0050	0.020	0.3
TBM16	620	49.8400	49.8500	0.0100	0.015	0.7
620	TBM16	-49.8600	-49.8500	0.0100	0.015	0.7
TBM15	612	-56.5600	-56.5604	-0.0004	0.015	0.0
612	TBM15	56.5700	56.5604	-0.0096	0.015	0.6
582	599	95.4300	95.4087	-0.0213	0.023	0.9
599	611	48.2600	48.2448	-0.0152	0.020	0.8
611	612	102.4100	102.3917	-0.0183	0.022	0.8
TBM14	621	145.8000	145.8263	0.0263	0.028	0.9
621	TBM14	-145.8500	-145.8263	0.0237	0.026	0.9

Error Propagation

Station Elevation Standard Deviations

Station	Elevation	Std Dev
BM_A	1497.5644	0.000
513	1508.7875	0.017
543	1521.2975	0.026
544	1555.1125	0.029
545	1600.0141	0.031
546	1641.0458	0.033
547	1692.2734	0.035
548	1750.0752	0.037
549	1810.0548	0.039
550	1871.1948	0.041
551	1926.6937	0.043
533	1826.9683	0.045
534	1890.2302	0.045
552	1983.6634	0.046
553	2030.0113	0.049
554	2075.3393	0.050
555	2123.3771	0.051
556	2182.3328	0.052
557	2241.8810	0.054
558	2277.1222	0.055
559	2307.2318	0.055
570	2041.7729	0.048
588	2109.8210	0.050
603	2183.4291	0.051
572	2125.7237	0.054
590	2223.7968	0.056
605	2309.1699	0.058
618	2374.6343	0.058
542	2271.0968	0.057
525	2221.3468	0.059
541	2229.3072	0.056
524	2184.2722	0.058
576	2333.0144	0.057
577	2373.3186	0.058
539	2147.0765	0.053
522	2117.4128	0.054
512	2055.9328	0.056
540	2180.5428	0.057
523	2146.4128	0.058
574	2241.9128	0.056
575	2305.2028	0.057
538	2097.4093	0.052
537	2036.5395	0.051
520	2017.0012	0.051
510	1971.1029	0.053
506	1933.2150	0.053
505	1887.8941	0.054
504	1840.7233	0.053
508	1878.7467	0.052
518	1904.7336	0.050
535	1943.0961	0.049
519	1967.3618	0.051
521	2075.0312	0.053
509	1930.2291	0.055
502	1813.2633	0.055
536	1988.0089	0.051

514	1543.3436	0.036
515	1574.0285	0.037
516	1611.9634	0.037
529	1628.0396	0.035
528	1583.1174	0.037
526	1521.8774	0.036
511	2022.0339	0.055
501	1769.8616	0.057
503	1790.7511	0.055
507	1827.8689	0.054
617	2304.8393	0.060
530	1670.4662	0.039
517	1652.3083	0.044
531	1721.1692	0.044
532	1774.9933	0.048
TBM1	2352.8737	0.058
TBM2	2422.1412	0.060
TBM3	2485.8994	0.060
593	2420.5937	0.061
592	2415.3821	0.061
591	2395.0062	0.062
607	2505.1244	0.061
561	1529.7475	0.029
579	1533.7686	0.032
TBM20	1541.5836	0.036
595	1559.1136	0.038
594	1526.5736	0.038
608	2548.7038	0.062
573	2160.5921	0.053
571	2094.6429	0.050
589	2166.2260	0.052
604	2236.0591	0.054
562	1564.3575	0.031
580	1571.8326	0.033
596	1598.7770	0.036
TBM21	1633.8020	0.038
609	1713.4820	0.041
622	2438.3841	0.057
566	1773.9966	0.040
583	1735.4664	0.041
565	1709.1349	0.039
569	1984.3536	0.049
597	1638.0770	0.040
564	1654.9741	0.034
582	1680.4271	0.035
598	1693.5721	0.038
563	1608.0732	0.035
568	1914.0834	0.045
TBM4	1974.8421	0.048
587	2052.7128	0.049
586	1974.0798	0.049
602	2094.3210	0.053
615	2125.1654	0.054
581	1627.2444	0.036
560	1497.9225	0.030
578	1504.9775	0.034
TBM11	1817.3524	0.040
TBM12	1867.9119	0.042
TBM13	1869.3353	0.043
567	1847.8274	0.042
585	1899.6476	0.043
584	1810.0976	0.043
600	1837.0953	0.045
601	1903.0253	0.044
TBM14	1913.4156	0.044

TBM16	2059.9877	0.046
625	2198.7777	0.050
620	2109.8377	0.048
612	1926.4723	0.044
599	1775.8358	0.041
611	1824.0805	0.043
621	2059.2419	0.049

Elapsed time = 00:00:04

STAR*LEV Adjustment Program
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Serial Number 10783

STAR*LEV Version 1.18
Run Date : Sat Nov 13 07:44:13 1993

Summary of Files Used

Input Data File	: scottsda.dat
Output Listing (This File)	: scottsda.lst
Adjusted Elevations	: scottsda.pts
Project Options	: scottsda.prj
Error Log	: scottsda.err

Summary of Options Used

Type of Run was Adjustment and Error Propagation

Print Input Data File	: No
Print Summary of All Input Observations	: Yes
Default Standard Error for Elevations	: FIXED
Section Length Units	: Turns
Default Std Error for Diff in Elevations	: 0.008 (FT-Meter/√Turn)

Network has 13 fixed elevation stations

Summary of All Unadjusted Input Observations

Number of Stations with Elevations = 116

Station	Elevation	Standard Error	Description
328	1210.6200	FIXED	McKELLIPS
330	1230.6200	FIXED	McDOWELL
331	1235.9500	FIXED	OAK
333	1246.7500	FIXED	OSBORN
334	1260.2700	FIXED	INDIAN SCHOOL
335	1277.5700	FIXED	CAMELBACK
336	1289.1700	FIXED	CHAPARRAL
337	1299.5600	FIXED	JACKRABBIT
339	1302.6100	FIXED	LINCOLN
340	1299.3400	FIXED	INDIAN BEND
342	1298.4700	FIXED	McCORMICK PRKWY
343	1309.4200	FIXED	EASTWOOD
344	1322.3600	FIXED	DOUBLE TREE
362	1325.5500	*	
379	1331.3000	*	
396	1334.6600	*	
413	1339.0000	*	
412	1326.7000	*	
411	1312.0700	*	
TBM30	1309.8200	*	
394	1306.6100	*	
377	1305.9600	*	
378	1319.3700	*	
361	1313.9400	*	
360	1303.7500	*	
395	1319.6700	*	
357	1284.5300	*	
356	1283.2200	*	
373	1266.7500	*	
374	1280.2500	*	
391	1278.9400	*	
390	1269.4500	*	
407	1270.3800	*	
408	1284.8300	*	
409	1291.7900	*	
358	1281.0100	*	
375	1284.5500	*	
392	1286.3800	*	
410	1302.3200	*	
TBM31	1290.0200	*	
393	1296.3800	*	
376	1296.9000	*	
359	1294.7700	*	
355	1276.8400	*	
372	1261.1500	*	
389	1265.0000	*	
TBM32	1265.2900	*	
406	1265.3000	*	
405	1255.8200	*	
388	1259.9400	*	
371	1250.4000	*	
354	1269.9400	*	
404	1250.2900	*	
387	1252.7900	*	
370	1244.5000	*	
353	1259.2900	*	

403	1242.7500	*
386	1244.9000	*
369	1237.4600	*
352	1246.2100	*
402	1235.9200	*
401	1227.1700	*
384	1232.4400	*
385	1238.0400	*
368	1235.0400	*
367	1228.5500	*
350	1226.4200	*
351	1235.7000	*
349	1216.2800	*
348	1210.6100	*
365	1221.1700	*
366	1227.0000	*
383	1226.8500	*
382	1217.9000	*
399	1221.3900	*
400	1226.8500	*
398	1194.3100	*
381	1202.4900	*
364	1210.8100	*
347	1205.0300	*
329	1222.8800	*
346	1191.3800	*
363	1190.1400	*
380	1187.8000	*
397	1191.9600	*
316	1242.2600	*
307	1320.4100	*
308	1286.7900	*
TBM34	1254.1200	*
317	1254.0300	*
309	1283.7700	*
310	1272.0500	*
319	1252.2000	*
TBM35	1255.9300	*
318	1255.3900	*
304	1271.5100	*
302	1256.5400	*
301	1275.5700	*
303	1311.2600	*
320	1255.7000	*
311	1263.8200	*
TBM36	1274.8700	*
321	1274.7400	*
305	1262.4200	*
312	1282.5100	*
306	1284.5900	*
313	1305.1700	*
322	1288.8000	*
327	1316.5000	*
326	1322.9200	*
325	1328.4200	*
324	1326.7700	*
315	1375.8900	*
314	1342.0800	*
323	1311.3000	*

Number of Differences in Elevation = 128

At	To	Diff Elev	Length Turns	Std Err

344	362	3.1900	4	0.017
362	379	5.7500	5	0.019
379	396	3.3600	8	0.024
396	413	4.3400	5	0.019
413	412	-12.3000	3	0.014
412	411	-14.6300	3	0.014
411	TBM30	-2.2500	2	0.012
TBM30	394	-3.2100	1	0.008
394	377	-0.6500	4	0.017
377	378	13.4100	4	0.017
378	361	-5.4300	3	0.014
361	343	-4.4700	3	0.014
361	360	-10.1900	4	0.017
360	342	-5.2600	3	0.014
TBM30	395	9.8500	6	0.020
395	TBM30	-9.8400	3	0.014
339	357	-18.0800	3	0.014
357	356	-1.3100	3	0.014
356	373	-16.4700	4	0.017
373	374	13.5000	3	0.014
374	391	-1.3100	5	0.019
391	390	-9.4900	3	0.014
390	407	0.9300	3	0.014
407	408	14.4500	3	0.014
408	409	6.9600	3	0.014
340	358	-18.3300	3	0.014
358	375	3.5400	3	0.014
375	392	1.8300	3	0.014
392	409	5.3700	3	0.014
409	410	10.5300	3	0.014
410	411	9.8800	3	0.014
375	TBM31	5.4700	3	0.014
TBM31	393	6.3600	2	0.012
393	375	-11.8100	5	0.019
TBM31	376	6.8800	1	0.008
376	359	-2.1300	4	0.017
359	TBM31	-4.7500	4	0.017
337	355	-22.7200	3	0.014
355	372	-15.6900	5	0.019
372	389	3.8500	3	0.014
389	TBM32	0.2900	3	0.014
TBM32	407	5.0800	3	0.014
TBM32	406	0.0100	1	0.008
406	TBM32	-0.0100	1	0.008
TBM32	405	-9.4700	4	0.017
405	388	4.1200	3	0.014
388	371	-9.5400	3	0.014
371	354	19.5400	3	0.014
354	336	19.2700	3	0.014
405	404	-5.5300	3	0.014
404	387	2.5000	3	0.014
387	370	-8.2900	3	0.014
370	353	14.7900	4	0.017
353	TBM33	19.2400	4	0.017
TBM33	335	-0.9900	1	0.008
335	TBM33	0.9900	1	0.008
404	403	-7.5400	3	0.014
403	386	2.1500	3	0.014
386	369	-7.4400	3	0.014
369	352	8.7500	3	0.014
352	334	14.0500	3	0.014
403	402	-6.8300	3	0.014
402	401	-8.7500	3	0.014
401	384	5.2700	3	0.014
384	385	5.6000	3	0.014
385	368	3.0000	3	0.014

368	367	-6.4900	3	0.014
367	350	-2.1300	3	0.014
350	351	9.2800	3	0.014
351	333	11.0800	3	0.014
331	349	-19.6700	3	0.014
349	348	-5.6700	3	0.014
348	365	10.5600	3	0.014
365	366	5.8300	3	0.014
366	383	-0.1500	3	0.014
383	382	-8.9500	3	0.014
382	399	3.4900	3	0.014
399	400	5.4600	3	0.014
400	401	0.3200	3	0.014
399	398	-27.0800	3	0.014
398	381	8.1800	4	0.017
381	364	8.3200	3	0.014
364	347	-5.7800	4	0.017
347	329	17.8500	3	0.014
328	346	-19.2400	3	0.014
346	363	-1.2400	4	0.017
363	380	-2.3400	3	0.014
380	397	4.1600	3	0.014
397	398	2.3300	3	0.014
329	316	19.3800	3	0.014
316	307	78.1500	6	0.020
307	308	-33.6200	8	0.024
308	TBM34	-32.6700	4	0.017
TBM34	317	-0.0900	1	0.008
317	TBM34	0.0900	1	0.008
TBM34	330	-23.5800	4	0.017
308	309	-3.0200	2	0.012
309	310	-11.7200	3	0.014
310	319	-19.8500	4	0.017
319	TBM35	3.7300	3	0.014
TBM35	318	-0.5400	1	0.008
318	TBM35	0.5400	1	0.008
TBM35	331	-20.0800	3	0.014
310	304	-0.5400	3	0.014
304	302	-14.9700	3	0.014
302	301	19.0300	3	0.014
301	303	35.6900	3	0.014
303	309	-27.5900	3	0.014
333	320	8.9500	3	0.014
320	311	8.1200	3	0.014
311	TBM36	11.0500	1	0.008
TBM36	321	-0.1300	3	0.014
321	334	-14.4700	3	0.014
304	305	-9.0900	4	0.017
305	TBM36	12.4100	4	0.017
321	312	7.7700	3	0.014
312	306	2.0800	3	0.014
306	313	20.5800	6	0.020
313	322	-16.3700	3	0.014
322	335	-11.2900	4	0.017
340	327	17.1600	3	0.014
327	326	6.4200	3	0.014
326	325	5.5000	3	0.014
325	324	-1.6500	4	0.017
324	315	49.1200	4	0.017
315	314	-33.8100	3	0.014
314	323	-30.7800	3	0.014
323	336	-22.0700	3	0.014

Network Solution

Final Results

Updated Elevations and Changes from Initial Estimates

Station	Elevation	Change
328	1210.6200	0.0000
330	1230.6200	-0.0000
331	1235.9500	-0.0000
333	1246.7500	0.0000
334	1260.2700	0.0000
335	1277.5700	-0.0000
336	1289.1700	0.0000
337	1299.5600	-0.0000
339	1302.6100	-0.0000
340	1299.3400	-0.0000
342	1298.4700	-0.0000
343	1309.4200	0.0000
344	1322.3600	0.0000
362	1325.5548	0.0048
379	1331.3108	0.0108
396	1334.6804	0.0204
413	1339.0264	0.0264
412	1326.7300	0.0300
411	1312.1036	0.0336
TBM30	1309.8443	0.0243
394	1306.6297	0.0197
377	1305.9612	0.0012
378	1319.3526	-0.0174
361	1313.9087	-0.0313
360	1303.7252	-0.0248
395	1319.6877	0.0177
357	1284.5254	-0.0046
356	1283.2107	-0.0093
373	1266.7345	-0.0155
374	1280.2299	-0.0201
391	1278.9122	-0.0278
390	1269.4175	-0.0325
407	1270.3429	-0.0371
408	1284.7807	-0.0493
409	1291.7286	-0.0614
358	1281.0046	-0.0054
375	1284.5393	-0.0107
392	1286.3639	-0.0161
410	1302.2411	-0.0789
TBM31	1290.0033	-0.0167
393	1296.3593	-0.0207
376	1296.8833	-0.0167
359	1294.7533	-0.0167
355	1276.8358	-0.0042
372	1261.1388	-0.0112
389	1264.9846	-0.0154
TBM32	1265.2704	-0.0196
406	1265.2804	-0.0196
405	1255.8048	-0.0152
388	1259.9186	-0.0214

354	1269.9062	-0.0338
404	1250.2843	-0.0057
387	1252.7917	0.0017
370	1244.5091	0.0091
353	1259.3089	0.0189
TBM33	1278.5588	0.0288
403	1242.7464	-0.0036
386	1244.8998	-0.0002
369	1237.4632	0.0032
352	1246.2166	0.0066
402	1235.9152	-0.0048
401	1227.1639	-0.0061
384	1232.4305	-0.0095
385	1238.0271	-0.0129
368	1235.0237	-0.0163
367	1228.5303	-0.0197
350	1226.3968	-0.0232
351	1235.6734	-0.0266
349	1216.2797	-0.0003
348	1210.6095	-0.0005
365	1221.1692	-0.0008
366	1226.9990	-0.0010
383	1226.8487	-0.0013
382	1217.8985	-0.0015
399	1221.3882	-0.0018
400	1226.8461	-0.0039
398	1194.3101	0.0001
381	1202.4977	0.0077
364	1210.8234	0.0134
347	1205.0509	0.0209
329	1222.9066	0.0266
346	1191.3838	0.0038
363	1190.1488	0.0088
380	1187.8126	0.0126
397	1191.9764	0.0164
316	1242.2923	0.0323
307	1320.4536	0.0436
308	1286.8488	0.0588
TBM34	1254.1894	0.0694
317	1254.0994	0.0694
309	1283.8272	0.0572
310	1272.1237	0.0737
319	1252.2842	0.0842
TBM35	1256.0221	0.0921
318	1255.4821	0.0921
304	1271.5923	0.0823
302	1256.6410	0.1010
301	1275.6897	0.1197
303	1311.3985	0.1385
320	1255.7065	0.0065
311	1263.8329	0.0129
TBM36	1274.8851	0.0151
321	1274.7514	0.0114
305	1262.4887	0.0687
312	1282.5291	0.0191
306	1284.6167	0.0267
313	1305.2121	0.0421
322	1288.8498	0.0498
327	1316.4931	-0.0069
326	1322.9062	-0.0138
325	1328.3992	-0.0208
324	1326.7400	-0.0300
315	1375.8508	-0.0392
314	1342.0338	-0.0462
323	1311.2469	-0.0531

Statistical Summary

Number of Observations = 128
Number of Unknowns = 103
Degrees of Freedom = 25

Data Type	Count	Weighted Residuals	Error Factor
Stations	116	0.00	0.00
Diff Elev	128	35.69	1.19
Total	244	35.69	1.19

Adjustment passes the Chi Square test at 5% level

Residuals in Observations After Adjustment

Residuals in Observed Differences in Elevations

At	To	Observed	Adjusted	Residual	Std Err	Std Res
344	362	3.1900	3.1948	0.0048	0.017	0.3
362	379	5.7500	5.7560	0.0060	0.019	0.3
379	396	3.3600	3.3696	0.0096	0.024	0.4
396	413	4.3400	4.3460	0.0060	0.019	0.3
413	412	-12.3000	-12.2964	0.0036	0.014	0.2
412	411	-14.6300	-14.6264	0.0036	0.014	0.2
411	TBM30	-2.2500	-2.2593	-0.0093	0.012	0.8
TBM30	394	-3.2100	-3.2146	-0.0046	0.008	0.6
394	377	-0.6500	-0.6685	-0.0185	0.017	1.1
377	378	13.4100	13.3915	-0.0185	0.017	1.1
378	361	-5.4300	-5.4439	-0.0139	0.014	1.0
361	343	-4.4700	-4.4887	-0.0187	0.014	1.3
361	360	-10.1900	-10.1836	0.0064	0.017	0.4
360	342	-5.2600	-5.2552	0.0048	0.014	0.3
TBM30	395	9.8500	9.8433	-0.0067	0.020	0.3
395	TBM30	-9.8400	-9.8433	-0.0033	0.014	0.2
339	357	-18.0800	-18.0846	-0.0046	0.014	0.3
357	356	-1.3100	-1.3146	-0.0046	0.014	0.3
356	373	-16.4700	-16.4762	-0.0062	0.017	0.4
373	374	13.5000	13.4954	-0.0046	0.014	0.3
374	391	-1.3100	-1.3177	-0.0077	0.019	0.4
391	390	-9.4900	-9.4946	-0.0046	0.014	0.3
390	407	0.9300	0.9254	-0.0046	0.014	0.3
407	408	14.4500	14.4379	-0.0121	0.014	0.8
408	409	6.9600	6.9479	-0.0121	0.014	0.8
340	358	-18.3300	-18.3354	-0.0054	0.014	0.4
358	375	3.5400	3.5346	-0.0054	0.014	0.4
375	392	1.8300	1.8246	-0.0054	0.014	0.4
392	409	5.3700	5.3646	-0.0054	0.014	0.4
409	410	10.5300	10.5125	-0.0175	0.014	1.2
410	411	9.8800	9.8625	-0.0175	0.014	1.2
375	TBM31	5.4700	5.4640	-0.0060	0.014	0.4
TBM31	393	6.3600	6.3560	-0.0040	0.012	0.3
393	375	-11.8100	-11.8200	-0.0100	0.019	0.5
TBM31	376	6.8800	6.8800	0.0000	0.008	0.0
376	359	-2.1300	-2.1300	-0.0000	0.017	0.0
359	TBM31	-4.7500	-4.7500	0.0000	0.017	0.0
337	355	-22.7200	-22.7242	-0.0042	0.014	0.3
355	372	-15.6900	-15.6970	-0.0070	0.019	0.4
372	389	3.8500	3.8458	-0.0042	0.014	0.3
389	TBM32	0.2900	0.2858	-0.0042	0.014	0.3
TBM32	407	5.0800	5.0725	-0.0075	0.014	0.5
TBM32	406	0.0100	0.0100	-0.0000	0.008	0.0
406	TBM32	-0.0100	-0.0100	0.0000	0.008	0.0
TBM32	405	-9.4700	-9.4656	0.0044	0.017	0.3
405	388	4.1200	4.1138	-0.0062	0.014	0.4
388	371	-9.5400	-9.5462	-0.0062	0.014	0.4
371	354	19.5400	19.5338	-0.0062	0.014	0.4
354	336	19.2700	19.2638	-0.0062	0.014	0.4
405	404	-5.5300	-5.5205	0.0095	0.014	0.7
404	387	2.5000	2.5074	0.0074	0.014	0.5
387	370	-8.2900	-8.2826	0.0074	0.014	0.5
370	353	14.7900	14.7998	0.0098	0.017	0.6
353	TBM33	19.2400	19.2498	0.0098	0.017	0.6
TBM33	335	-0.9900	-0.9888	0.0012	0.008	0.1
335	TBM33	0.9900	0.9888	-0.0012	0.008	0.1

403	386	2.1500	2.1534	0.0034	0.014	0.2
386	369	-7.4400	-7.4366	0.0034	0.014	0.2
369	352	8.7500	8.7534	0.0034	0.014	0.2
352	334	14.0500	14.0534	0.0034	0.014	0.2
403	402	-6.8300	-6.8313	-0.0013	0.014	0.1
402	401	-8.7500	-8.7513	-0.0013	0.014	0.1
401	384	5.2700	5.2666	-0.0034	0.014	0.2
384	385	5.6000	5.5966	-0.0034	0.014	0.2
385	368	-3.0000	-3.0034	-0.0034	0.014	0.2
368	367	-6.4900	-6.4934	-0.0034	0.014	0.2
367	350	-2.1300	-2.1334	-0.0034	0.014	0.2
350	351	9.2800	9.2766	-0.0034	0.014	0.2
351	333	11.0800	11.0766	-0.0034	0.014	0.2
331	349	-19.6700	-19.6703	-0.0003	0.014	0.0
349	348	-5.6700	-5.6703	-0.0003	0.014	0.0
348	365	10.5600	10.5597	-0.0003	0.014	0.0
365	366	5.8300	5.8297	-0.0003	0.014	0.0
366	383	-0.1500	-0.1503	-0.0003	0.014	0.0
383	382	-8.9500	-8.9503	-0.0003	0.014	0.0
382	399	3.4900	3.4897	-0.0003	0.014	0.0
399	400	5.4600	5.4578	-0.0022	0.014	0.1
400	401	0.3200	0.3178	-0.0022	0.014	0.1
399	398	-27.0800	-27.0781	0.0019	0.014	0.1
398	381	8.1800	8.1876	0.0076	0.017	0.5
381	364	8.3200	8.3257	0.0057	0.014	0.4
364	347	-5.7800	-5.7724	0.0076	0.017	0.5
347	329	17.8500	17.8557	0.0057	0.014	0.4
328	346	-19.2400	-19.2362	0.0038	0.014	0.3
346	363	-1.2400	-1.2350	0.0050	0.017	0.3
363	380	-2.3400	-2.3362	0.0038	0.014	0.3
380	397	4.1600	4.1638	0.0038	0.014	0.3
397	398	2.3300	2.3338	0.0038	0.014	0.3
329	316	19.3800	19.3857	0.0057	0.014	0.4
316	307	78.1500	78.1613	0.0113	0.020	0.6
307	308	-33.6200	-33.6049	0.0151	0.024	0.6
308	TBM34	-32.6700	-32.6594	0.0106	0.017	0.6
TBM34	317	-0.0900	-0.0900	-0.0000	0.008	0.0
317	TBM34	0.0900	0.0900	0.0000	0.008	0.0
TBM34	330	-23.5800	-23.5694	0.0106	0.017	0.6
308	309	-3.0200	-3.0215	-0.0015	0.012	0.1
309	310	-11.7200	-11.7035	0.0165	0.014	1.1
310	319	-19.8500	-19.8395	0.0105	0.017	0.6
319	TBM35	3.7300	3.7379	0.0079	0.014	0.5
TBM35	318	-0.5400	-0.5400	0.0000	0.008	0.0
318	TBM35	0.5400	0.5400	-0.0000	0.008	0.0
TBM35	331	-20.0800	-20.0721	0.0079	0.014	0.5
310	304	-0.5400	-0.5314	0.0086	0.014	0.6
304	302	-14.9700	-14.9513	0.0187	0.014	1.3
302	301	19.0300	19.0487	0.0187	0.014	1.3
301	303	35.6900	35.7087	0.0187	0.014	1.3
303	309	-27.5900	-27.5713	0.0187	0.014	1.3
333	320	8.9500	8.9565	0.0065	0.014	0.4
320	311	8.1200	8.1265	0.0065	0.014	0.4
311	TBM36	11.0500	11.0522	0.0022	0.008	0.3
TBM36	321	-0.1300	-0.1337	-0.0037	0.014	0.3
321	334	-14.4700	-14.4814	-0.0114	0.014	0.8
304	305	-9.0900	-9.1036	-0.0136	0.017	0.8
305	TBM36	12.4100	12.3964	-0.0136	0.017	0.8
321	312	7.7700	7.7777	0.0077	0.014	0.5
312	306	2.0800	2.0877	0.0077	0.014	0.5
306	313	20.5800	20.5954	0.0154	0.020	0.8
313	322	-16.3700	-16.3623	0.0077	0.014	0.5
322	335	-11.2900	-11.2798	0.0102	0.017	0.6
340	327	17.1600	17.1531	-0.0069	0.014	0.5
327	326	6.4200	6.4131	-0.0069	0.014	0.5

325	324	-1.6500	-1.6592	-0.0092	0.017	0.6
324	315	49.1200	49.1108	-0.0092	0.017	0.6
315	314	-33.8100	-33.8169	-0.0069	0.014	0.5
314	323	-30.7800	-30.7869	-0.0069	0.014	0.5
323	336	-22.0700	-22.0769	-0.0069	0.014	0.5

Error Propagation

Station Elevation Standard Deviations

Station	Elevation	Std Dev
328	1210.6200	0.000
330	1230.6200	0.000
331	1235.9500	0.000
333	1246.7500	0.000
334	1260.2700	0.000
335	1277.5700	0.000
336	1289.1700	0.000
337	1299.5600	0.000
339	1302.6100	0.000
340	1299.3400	0.000
342	1298.4700	0.000
343	1309.4200	0.000
344	1322.3600	0.000
362	1325.5548	0.019
379	1331.3108	0.026
396	1334.6804	0.029
413	1339.0264	0.028
412	1326.7300	0.027
411	1312.1036	0.023
TBM30	1309.8443	0.024
394	1306.6297	0.025
377	1305.9612	0.024
378	1319.3526	0.020
361	1313.9087	0.014
360	1303.7252	0.014
395	1319.6877	0.028
357	1284.5254	0.016
356	1283.2107	0.022
373	1266.7345	0.026
374	1280.2299	0.027
391	1278.9122	0.026
390	1269.4175	0.024
407	1270.3429	0.020
408	1284.7807	0.022
409	1291.7286	0.021
358	1281.0046	0.016
375	1284.5393	0.020
392	1286.3639	0.022
410	1302.2411	0.023
TBM31	1290.0033	0.025
393	1296.3593	0.026
376	1296.8833	0.027
359	1294.7533	0.029
355	1276.8358	0.016
372	1261.1388	0.021
389	1264.9846	0.021
TBM32	1265.2704	0.019
406	1265.2804	0.020
405	1255.8048	0.018
388	1259.9186	0.020
371	1250.3724	0.020
354	1269.9062	0.016
404	1250.2843	0.018
387	1252.7917	0.021
370	1244.5091	0.022
353	1259.3089	0.018

403	1242.7464	0.019
386	1244.8998	0.021
369	1237.4632	0.020
352	1246.2166	0.016
402	1235.9152	0.022
401	1227.1639	0.022
384	1232.4305	0.025
385	1238.0271	0.026
368	1235.0237	0.026
367	1228.5303	0.024
350	1226.3968	0.022
351	1235.6734	0.016
349	1216.2797	0.016
348	1210.6095	0.022
365	1221.1692	0.025
366	1226.9990	0.026
383	1226.8487	0.026
382	1217.8985	0.025
399	1221.3882	0.023
400	1226.8461	0.023
398	1194.3101	0.023
381	1202.4977	0.028
364	1210.8234	0.030
347	1205.0509	0.032
329	1222.9066	0.032
346	1191.3838	0.016
363	1190.1488	0.022
380	1187.8126	0.024
397	1191.9764	0.025
316	1242.2923	0.032
307	1320.4536	0.029
308	1286.8488	0.020
TBM34	1254.1894	0.017
317	1254.0994	0.019
309	1283.8272	0.020
310	1272.1237	0.020
319	1252.2842	0.019
TBM35	1256.0221	0.016
318	1255.4821	0.017
304	1271.5923	0.021
302	1256.6410	0.024
301	1275.6897	0.025
303	1311.3985	0.024
320	1255.7065	0.015
311	1263.8329	0.017
TBM36	1274.8851	0.016
321	1274.7514	0.014
305	1262.4887	0.021
312	1282.5291	0.020
306	1284.6167	0.022
313	1305.2121	0.022
322	1288.8498	0.018
327	1316.4931	0.016
326	1322.9062	0.021
325	1328.3992	0.024
324	1326.7400	0.025
315	1375.8508	0.024
314	1342.0338	0.021
323	1311.2469	0.016

Elapsed time = 00:00:03

RECEIVED
GREINER ENGINEERING SCIENCES INC.

GLOBAL POSITIONING SURVEY

For

GREINER, INC.
CITY OF SCOTTSDALE, ARIZONA

by

MOUNTAIN SURVEYING & MAPPING, INC.
7600 EAST ARAPAHOE ROAD, SUITE 101
ENGLEWOOD, COLORADO 80112
(303) 694-0461
(303) 694-3362 FAX

and

GREINER, INC.
7310 NORTH 16TH
PHOENIX, AZ 85020
(602) 275-5400

Project Control Report

I. Introduction

Background Information

The City of Scottsdale, Arizona, had commissioned a G.P.S. control survey in 19 __. At this time, the City has identified a need to update its aerial mapping of the City. During initial investigations, it was discovered some of the original GPS points have been lost to construction projects and a few monuments don't agree with the original GPS survey description. A total of 70 points have been identified for this project.

Horizontal accuracy for this project is 1:100,000.

The original GPS survey will serve as horizontal and vertical control.

II. Field Work

Reconnaissance

The Greiner, Inc. Survey Department recovered all 70 monuments, prepared descriptions and identified their locations on USGS Quad maps for the use of the GPS receiver operators.

Monumentation

For this project, existing monuments were used, as identified in the Section above.

Network Design

This survey was designed to replace control in six areas. Adjacent control from the original GPS survey controlled each of the six small areas.

Mission Planning

The Trimble Navigation software was used to plan the project. An ephemeris file was gathered for one-half hour approximately one week before the field observations were scheduled. The ephemeris file was converted to an almanac file for planning purposes.

We monitored the U.S. Coast Guard information on satellite health for status and incorporated any planned outages into our strategy.

Equipment Used

4	Trimble Geodetic SSE/GPS receivers with dual frequency, dual P-code. Receivers with serial numbers 1685, 1686, 1688 and 1770 were used.
4	Trimble Geodetic L2 antennas.
24	Trimble 9 volt batteries.
4	CTS tripods.
4	Tribrachs.
4	10 meter antenna cables.
4	Compasses.
4	4-Wheel drive vehicles.

The downloading and baseline processing software used was by Trimble Navigation:

GP Survey software Ver. 1.10
Trimnet plus for GP Survey software Ver. 1.10

The equipment was tested for calibration by the zero baseline method by MSM, Inc. personnel. All tribrachs were tested and adjusted by MSM, Inc. personnel.

Each set of equipment was assigned to one individual for the project. Each piece of equipment was color coded to allow easy identification and to keep the equipment separate during field work. Each individual inspected the equipment upon receipt and signed for receiving it. The equipment was inspected by the Survey Manager when returned to the MSM, Inc. supervisor.

Field Procedures for Fast Static Sessions

Each antenna was set up on a tripod for 8-20 minutes for each observing session. The tribrachs were fine leveled using a collimator assembly sensitive to 30" of arc. The tripod legs were set on wood foundations and sandbagged for stability when conditions required. The antenna was oriented to true geographic to the nearest degree by using a compass.

The antenna heights were measured on a slant to three notches on the antenna ground plane for each setup. Trimble HI rods or meter tape measures were used. The Trimble HI rods are faster and more accurate and yield better results in the post processing. All antenna heights were measured to the bottom of the antenna ground plane. If measurements varied by more than 3mm among the three locations on the ground plane, then the setup was releveled. The antenna heights were recorded on the GPS Observation Log Sheets which are part of the project documentation.

All receivers were configured to log data on a 5 second interval. All elevation masks in the receivers were set to 15 degrees while observing. The minimum number of satellites observed was set to three.

Each receiver is capable of determining when enough high quality data has been collected and notifies the operator that the required data has been collected. Kevin Hoffman was in contact with all four of the receiver operators and was in charge of starting and ending all sessions. He would wait until all four receivers had collected adequate data before ending a session.

Field Procedures for Static Sessions

Each antenna was set up on a tripod for 20 minutes for each observing session. The tribrachs were fine leveled using a collimator assembly sensitive to 30" of arc. The tripod legs were set on wood foundations and sandbagged for stability when conditions required. The antenna was oriented to geographic north to the nearest degree by using a compass.

The antenna heights were measured on a slant to three notches on the antenna ground plane for each setup. Trimble HI rods or meter tape measures were used. The Trimble HI rods are faster, more accurate and yield better results in the post processing. All antenna heights were measured to the bottom of the antenna ground plane. If measurements varied by more than 3 mm among the three locations on the ground plane, then the setup was releveled. The antenna heights were recorded on the GPS Observation Log Sheets, which are part of the project documentation.

All receivers were configured to log data on a 5-second interval. All elevation masks in the receivers were set to 15 degrees while observing. The minimum number of satellites observed was set to three. Each receiver was pre-programmed with the four-character point ID and session name.

III. Conditions Affecting Progress

We had planned to use the Fast Static procedure (described above) for the entire project. This technique requires extremely good communications between all four units. We had available two radio systems, a hand held walkie talkies and a truck system which was supported by a repeater. However, even with the two radio systems, we found after the first day, it was more efficient to use the 20-minute static sessions (described above).

Most of the section corners were in road intersections. In the interest of safety, for the public and our own, we decided to work from 11:00 p.m. until 8:00 or 9:00 a.m. This also helped us avoid setting up on hot asphalt, which is not very stable.

IV. Office Procedures/Data Processing Performed

The software used for downloading and baseline processing of data was the GP SURVEY software package from Trimble Navigation LTD. The following is a list of the Version numbers used:

GP SURVEY software Ver. 1.10

Trimnet plus for GP Survey software Ver. 1.10

No sessions were rejected because of bad data.

The equipment used on this project were 4000 SSE Receivers with dual frequency, dual P-code and cross-correlation capability, from Trimble Navigation. Serial numbers of the receivers and the antennas used (Trimble Navigation Geodetic L2) following:

RECEIVERS	*ANTENNAS*
3243A01685	3241A64746
3243A01686	3241A64748
3243A01688	3241A64753
3244A01770	3241A64244

There were no problems created by equipment failures.

After each day's observations were completed, the receivers and the log books were turned in. The data was downloaded from the receivers into a 486/66 computer using the OSM from Trimble.

The data was downloaded into a temporary directory. After all four receivers were downloaded, the computer operator would exit GP Survey and make backups of the raw data on a 3¼ inch 1.44 meg HD floppy diskette.

GP Survey would then be reactivated and from the "LOAD" option, the data would be checked in from files verifying Antenna Type, Receiver Type, Point Number, Point Quality and Antenna Height for each observation. Point numbers and antenna heights were verified against the field logs that the operators completed in the field.

From the PROCESS/BASELINE option the checked-in data is loaded into the current project.

Under OPTIONS we set Notify on Completion to "yes", Log Activity to "standard", Time Display to "GPS" and Solution Display to "all".

Choosing PROCESS/SETUP, we selected the "All Baselines" option; the system takes a few minutes to build the network.

A loop closure was performed after the baseline processor had completed its run. These closures were used to check for any problems in the data.

After the baseline processing was completed, the Trimble TRIMNET software was used to constrain and adjust the network. The GPS Network module was used to read the solution files into the original network project. The network datum used was NAD 83. This network was saved to a disk and is included on a floppy.

The next step was to run the network adjustment module using the GPS Network created in the previous step.

Each of the six areas was adjusted using least square and holding two coordinates from the previous GPS Survey.

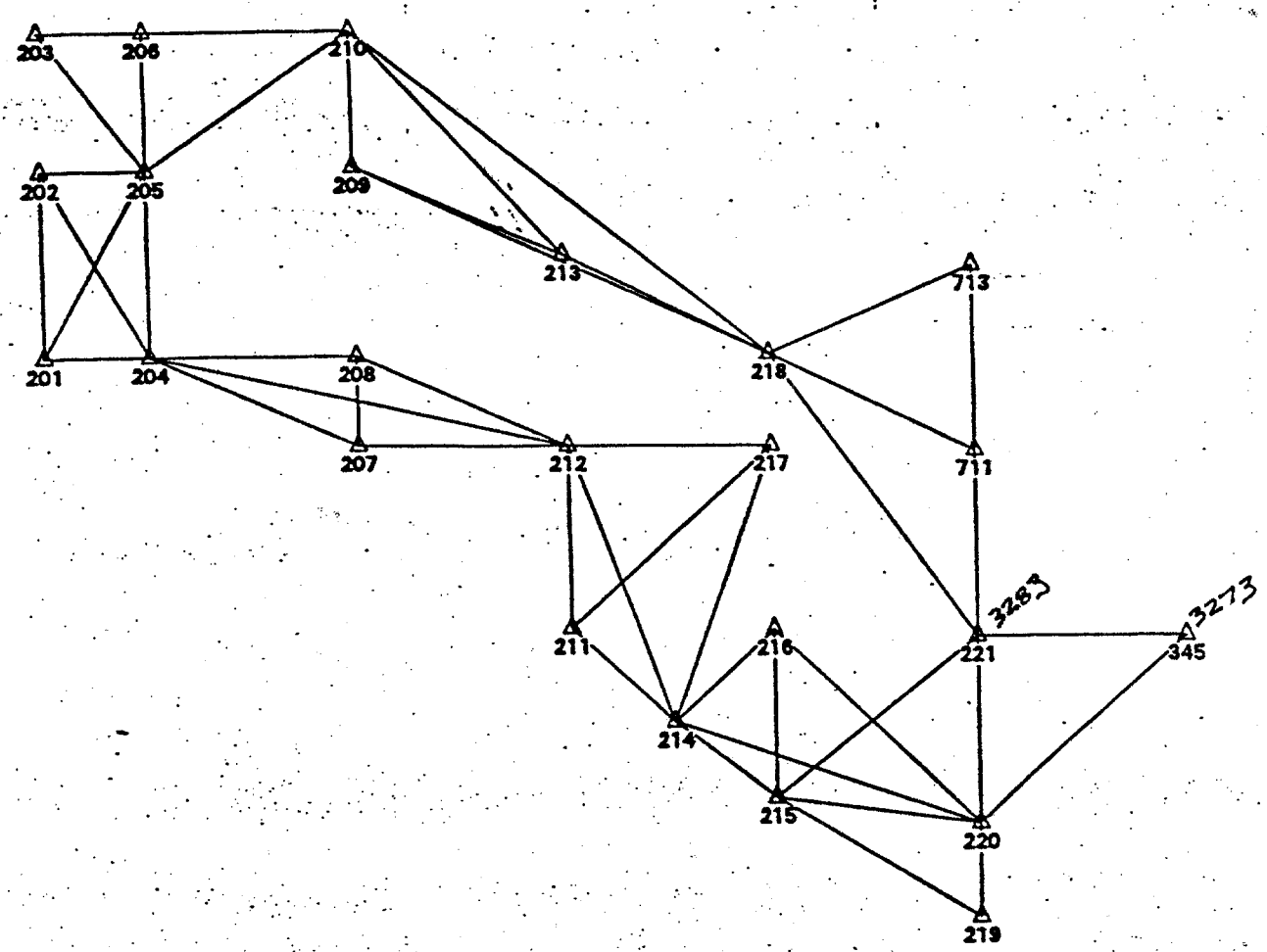
The following reports are included as part of the project documentation:

Final Geodetic Coordinate Listing

Network Maps

TPLANE was used to convert latitude and longitude (geodetic) to state plane using a project elevation of 1400.00 (U.S. feet)

Network Map: SCOTTSDALE



3273 = 1335.0 (US FOOT) 406.9088 M

3283 = 1340.0 (US FOOT) 408.4328 M

1000m

Trimble Navigation Ltd., State Plane Conversion Utility
SCOTTSDA.DAT
Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Project Elevation Factor [1400.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	TOP OF MON. Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:35'48.73103" N	112:01'18.54197" W	434.091	944713.157	667982.331	1424.179	-0:03'29.464"	0.999901174	0.999834214	201
33:36'41.20613" N	112:01'19.06034" W	449.219	950016.962	667943.881	1473.811	-0:03'29.832"	0.999901177	0.999834217	202
33:37'21.21696" N	112:01'19.34464" W	434.898	954060.968	667923.956	1426.826	-0:03'30.050"	0.999901178	0.999834218	203
33:35'49.18507" N	112:00'47.34706" W	429.785	944756.478	670620.889	1410.053	-0:03'12.203"	0.999900988	0.999834028	204
33:36'41.53877" N	112:00'47.77684" W	429.631	950048.003	670589.475	1409.547	-0:03'12.515"	0.999900990	0.999834031	205
33:37'21.44641" N	112:00'47.99418" W	433.935	954081.571	670574.863	1423.669	-0:03'12.691"	0.999900991	0.999834032	206
33:35'23.92341" N	111:59'44.75936" W	425.200	942198.749	675912.697	1395.011	-0:02'37.542"	0.999900664	0.999833705	207
33:35'49.64630" N	111:59'44.97230" W	422.241	944798.621	675896.673	1385.304	-0:02'37.689"	0.999900665	0.999833705	208
33:36'42.73732" N	111:59'45.33534" W	428.666	950164.656	675870.074	1406.381	-0:02'37.951"	0.999900667	0.999833707	209
33:37'21.99803" N	111:59'45.64432" W	435.287	954132.841	675846.987	1428.102	-0:02'38.167"	0.999900668	0.999833708	210
33:34'31.66710" N	111:58'40.13574" W	421.979	936913.421	681375.981	1384.444	-0:02'01.742"	0.999900397	0.999833437	211
33:35'23.62474" N	111:58'40.39340" W	417.584	942164.874	681357.286	1370.022	-0:02'01.931"	0.999900398	0.999833438	212
33:36'17.93507" N	111:58'40.38052" W	424.911	947654.116	681361.621	1394.063	-0:02'01.972"	0.999900398	0.999833438	213
33:34'05.39250" N	111:58'08.93891" W	413.104	934256.364	684013.964	1355.324	-0:01'44.469"	0.999900293	0.999833333	214
33:33'44.17751" N	111:57'37.99820" W	410.408	932110.920	686630.935	1346.479	-0:01'27.348"	0.999900205	0.999833245	215
33:34'31.32308" N	111:57'38.07594" W	409.957	936875.988	686626.377	1345.000	-0:01'27.421"	0.999900205	0.999833245	216
33:35'23.64568" N	111:57'38.04369" W	416.465	942164.314	686631.346	1366.353	-0:01'27.436"	0.999900205	0.999833245	217
33:35'49.78800" N	111:57'38.19642" W	420.288	944806.568	686619.548	1378.896	-0:01'27.538"	0.999900205	0.999833245	218
33:33'10.91969" N	111:56'36.35090" W	405.982	928747.737	691846.372	1331.958	-0:00'53.253"	0.999900076	0.999833116	219
33:33'37.07330" N	111:56'36.27535" W	401.459	931391.110	691853.448	1317.120	-0:00'53.222"	0.999900076	0.999833116	220
33:34'29.38891" N	111:56'36.15546" W	408.433	936678.714	691864.955	1340.000	-0:00'53.176"	0.999900076	0.999833116	221**3283
33:34'29.61568" N	111:55'33.84860" W	406.909	936700.715	697136.307	1335.000	-0:00'18.719"	0.999900009	0.999833050	345**3273
33:35'22.24246" N	111:56'35.80410" W	416.597	942020.695	691896.054	1366.784	-0:00'53.002"	0.999900075	0.999833115	711
33:36'14.63430" N	111:56'35.98084" W	425.555	947316.036	691882.467	1396.175	-0:00'53.120"	0.999900075	0.999833116	713

PROJECT SCOTTSDALE

HA 3273 TO 3283

S 89 45 39 W 5271.3979 (GRID)

5272.2629 (GROUND)

MSM 5272.2083 (GROUND)

1: 96,556

PROJECT SCOTTS

HA 4104 TO 4141

S 63 13 52 E 5849.8886 (GRID)

5850.8385 (GROUND)

MSM 5850.8351 (GROUND)

FLAT

PROJECT SCOTTS 3

HA 4332 TO 4264

N 71 02 03 E 8330.3929 (GRID)

8331.7256 (GROUND)

MSM 8331.6546 (GROUND)

1: 117,338

PROJECT SCOTTS4

HA 212 TO 1011

S49 16 50W 24 333.423 (GRID)

24 339.2052 (GROUND)

MSM 24 339.0288 (GROUND)

1: 137,976

PROJECT SCOTTS 5

HA 3273 TO 3102

N 00 27 23E 18,512.5572 (GRID)

18,515.4539 (GROUND)

MSM 18,515.5332 (GROUND)

1: 153,396

PROJECT SCOTTS MC

HA 7192 TO 8072

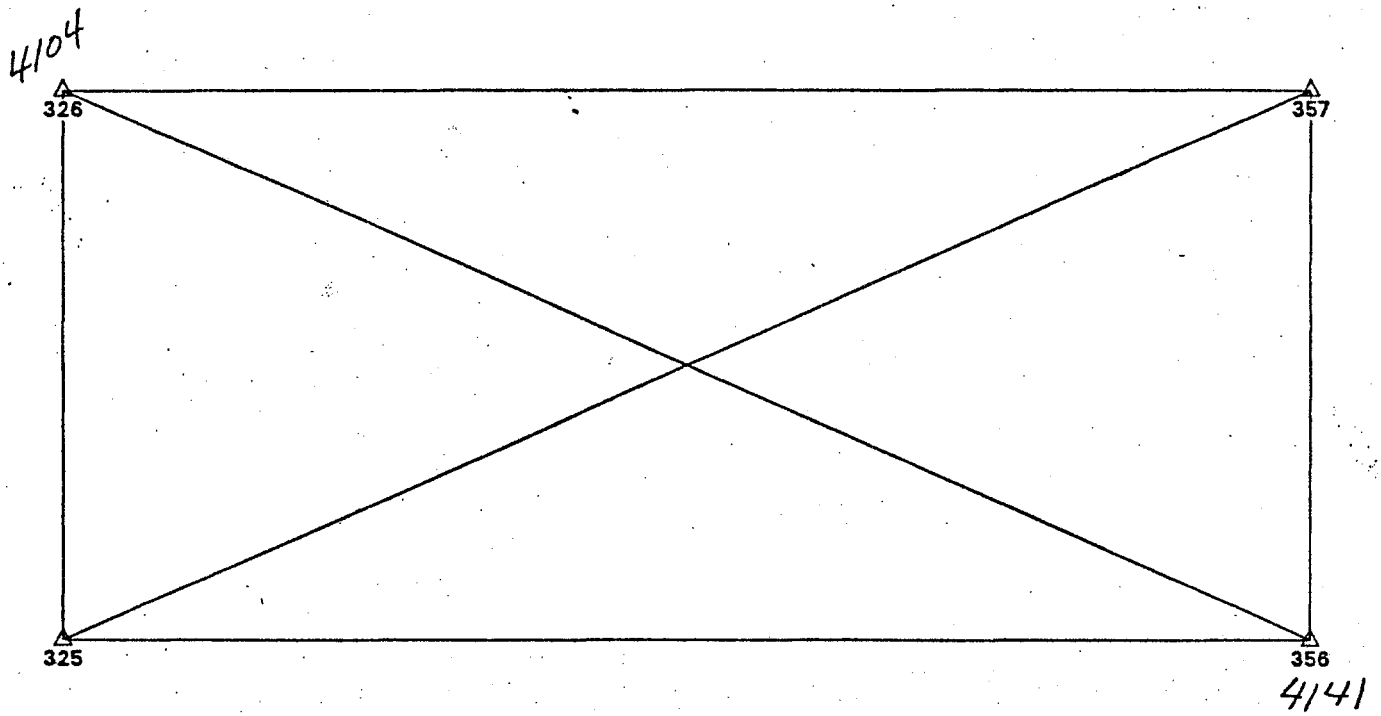
S 00 06 09E 20,938.8026 (GRID)

20,942.6370 (GROUND)

MSM 20,942.4591 (GROUND)

1: 117,717

Network Map: SCOTTS



200m

MOUNTAIN SURVEYING & MAPPING, INC.
SCOTTS.DAT
Trimble Navigation Ltd., State Plane Conversion Utility

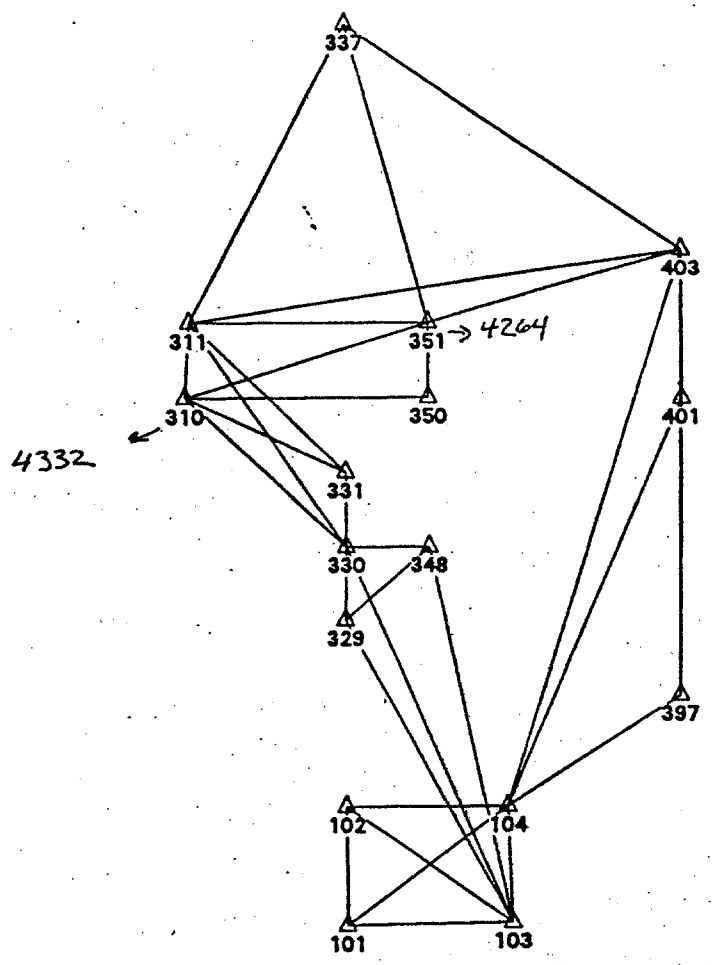
Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Elevation Correction Applied: 0.000 (m)
Project Elevation Factor [1300.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:31'26.32704" N	111:56'04.29301" W	374.332	918175.888	694557.428	1228.120	-0:00'35.508"	0.999900034	0.999837857	325
33:31'52.57519" N	111:56'04.12309" W	372.709	920828.803	694572.268	1222.796	-0:00'35.421"	0.999900034	0.999837857	326**4104
33:31'26.51153" N	111:55'02.41891" W	360.533	918194.067	699795.233	1182.849	-0:00'01.335"	0.999900000	0.999837823	356**4141
33:31'52.74747" N	111:55'02.17930" W	360.935	920845.750	699815.532	1184.169	-0:00'01.203"	0.999900000	0.999837823	357

** = HUNSAKER & ASSOC. CONTROL

Network Map: SCOTTS3



2000m

MOUNTAIN SURVEYING & MAPPING, INC.
SCOTTS4.DAT
Trimble Navigation Ltd., State Plane Conversion Utility

Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Project Elevation Factor [4200.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	Top of Mon. Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:48'49.63603" N	111:53'59.57513" W	763.708	1023626.155	705097.998	2505.600	0:00'33.626"	0.999900030	0.999699151	749**1011
33:54'08.75919" N	111:51'10.53475" W	1257.148	1055887.450	719339.807	4124.493	0:02'07.991"	0.999900428	0.999699549	802
33:51'26.60304" N	111:50'20.83883" W	989.901	1039500.162	723540.649	3247.700	0:02'35.528"	0.999900634	0.999699755	823**212
33:54'03.16585" N	111:50'22.99895" W	1217.966	1055324.836	723346.647	3995.943	0:02'34.499"	0.999900624	0.999699745	827

** = HUNSAKER & ASSOC. CONTROL

MOUNTAIN SURVEYING & MAPPING, INC.
SCOTTS3.DAT
Trimble Navigation Ltd., State Plane Conversion Utility

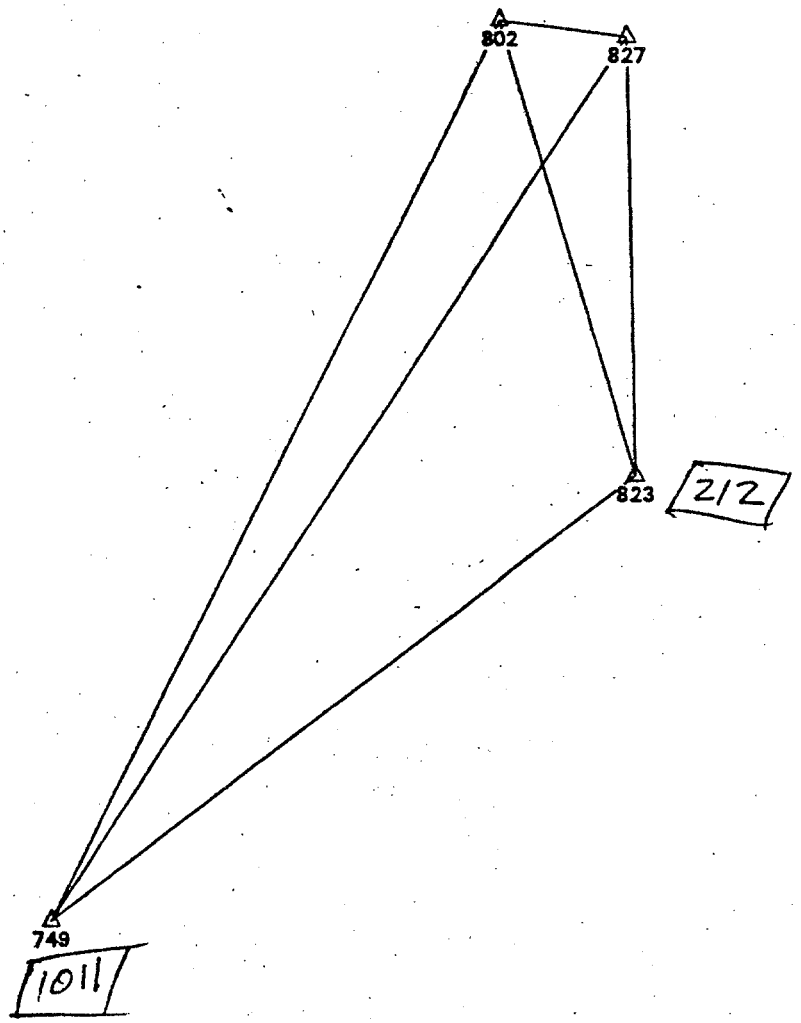
Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Elevation Correction Applied: 30.800 (m)
Project Elevation Factor [1230.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:25'43.80980" N	111:55'34.60746" W	324.209	883557.405	697067.184	1164.725	-0:00'19.065"	0.999900010	0.999841181	101
33:26'25.08941" N	111:55'34.84511" W	327.691	887729.501	697047.433	1176.149	-0:00'19.202"	0.999900010	0.999841181	102
33:25'45.08754" N	111:54'32.63178" W	327.107	883686.494	702319.316	1174.232	0:00'15.077"	0.999900006	0.999841177	103
33:26'25.38945" N	111:54'34.38476" W	328.193	887759.762	702170.481	1177.795	0:00'14.115"	0.999900005	0.999841176	104
33:28'48.67786" N	111:56'36.09040" W	357.125	902242.827	691861.599	1272.717	-0:00'53.008"	0.999900076	0.999841247	310**4332
33:29'14.87993" N	111:56'34.47184" W	354.589	904891.034	691999.352	1264.396	-0:00'52.125"	0.999900073	0.999841244	311
33:27'30.55987" N	111:55'34.83215" W	342.093	894346.558	697049.147	1223.398	-0:00'19.204"	0.999900010	0.999841181	329
33:27'56.64434" N	111:55'34.38821" W	344.442	896982.901	697086.998	1231.106	-0:00'18.962"	0.999900010	0.999841181	330
33:28'22.95999" N	111:55'34.28334" W	346.094	899642.615	697096.125	1236.527	-0:00'18.908"	0.999900010	0.999841181	331
33:31'00.65816" N	111:55'33.60668" W	365.522	915581.180	697154.873	1300.266	-0:00'18.557"	0.999900009	0.999841180	337
33:27'56.78474" N	111:55'03.15218" W	338.344	896996.958	699732.981	1211.099	-0:00'01.738"	0.999900000	0.999841171	348
33:28'49.28924" N	111:55'03.27552" W	343.189	902303.575	699722.580	1226.995	-0:00'01.806"	0.999900000	0.999841171	350
33:29'15.47561" N	111:55'03.07293" W	345.904	904950.229	699739.760	1235.903	-0:00'01.695"	0.999900000	0.999841171	351**4264
33:27'04.74450" N	111:53'31.11084" W	332.689	891738.170	707530.987	1192.547	0:00'48.998"	0.999900065	0.999841236	397
33:28'49.24965" N	111:53'30.03858" W	343.432	902300.489	707619.292	1227.792	0:00'49.627"	0.999900066	0.999841238	401
33:29'41.48456" N	111:53'30.11486" W	348.185	907579.869	707611.562	1243.387	0:00'49.604"	0.999900066	0.999841237	403

** = HUNSAKER & ASSOC. CONTROL

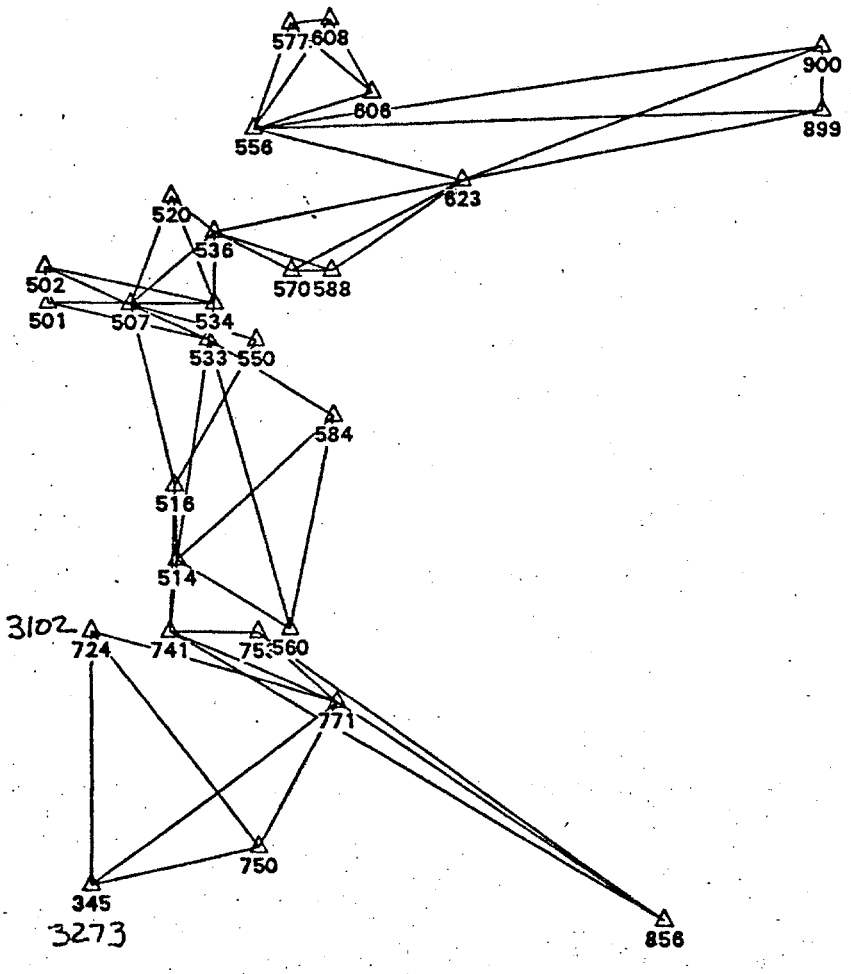
Network Map: SCOTTS4



212 = 3247.7 (US Feet) = 989.9009

1011 = 2505.6 (US Feet) = 763.7084

Network Map: SCOTTS5



3102 = 1471.2 (US Feet) = 448.4227

3273 = 1335.0 (US Feet) = 406.9088

2000m

MOUNTAIN SURVEYING & MAPPING, INC.
SCOTTS5.DAT
Trimble Navigation Ltd., State Plane Conversion Utility

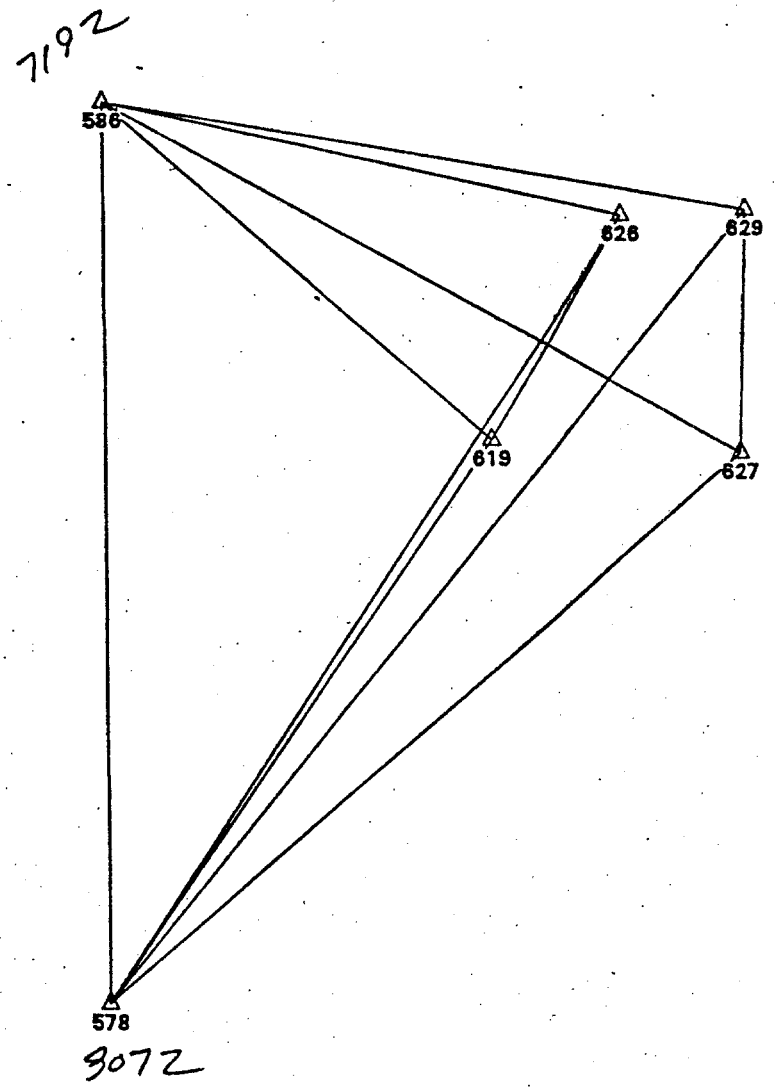
Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Project Elevation Factor [1700.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	Top of Mon. Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:34'29.61568" N	111:55'33.84860" W	406.909	936700.715	697136.307	1335.000	-0:00'18.719"	0.999900009	0.999818701	345**3273
33:41'29.33658" N	111:56'00.80325" W	539.089	979123.190	694862.790	1768.661	-0:00'33.728"	0.999900030	0.999818722	501
33:41'55.37677" N	111:56'02.48707" W	552.318	981755.183	694720.968	1812.063	-0:00'34.669"	0.999900032	0.999818724	502
33:41'29.20374" N	111:55'00.01744" W	556.782	979109.343	699998.527	1826.708	-0:00'00.009"	0.999900000	0.999818692	507
33:38'24.66945" N	111:54'27.69144" W	469.974	960458.046	702731.341	1541.906	0:00'17.898"	0.999900009	0.999818700	514
33:39'18.57594" N	111:54'28.73079" W	490.919	965906.507	702643.017	1610.623	0:00'17.329"	0.999900008	0.999818700	516
33:42'47.55353" N	111:54'28.74320" W	614.446	987028.542	702640.193	2015.895	0:00'17.348"	0.999900008	0.999818700	520
33:41'03.40987" N	111:54'02.53750" W	556.426	976502.648	704855.358	1825.542	0:00'31.869"	0.999900027	0.999818719	533
33:41'29.56804" N	111:53'57.70565" W	575.764	979146.605	705263.188	1888.986	0:00'34.556"	0.999900032	0.999818723	534
33:42'21.40209" N	111:53'57.45154" W	605.626	984385.654	705283.776	1986.957	0:00'34.710"	0.999900032	0.999818724	536
33:41'03.01324" N	111:53'26.20971" W	569.980	976463.183	707924.925	1870.010	0:00'52.017"	0.999900072	0.999818764	550
33:43'36.22050" N	111:53'26.12268" W	664.963	991948.387	707928.368	2181.631	0:00'52.123"	0.999900072	0.999818764	556
33:37'34.52095" N	111:53'02.30280" W	456.135	955390.872	709951.633	1496.503	0:01'05.177"	0.999900113	0.999818805	560
33:41'53.22987" N	111:52'58.06514" W	622.022	981539.435	710301.371	2040.749	0:01'07.651"	0.999900121	0.999818813	570
33:44'52.23379" N	111:52'56.39151" W	723.316	999632.096	710436.744	2373.080	0:01'08.669"	0.999900125	0.999818816	577
33:40'08.07628" N	111:52'26.95609" W	551.348	970912.196	712933.917	1808.882	0:01'24.846"	0.999900192	0.999818883	584
33:41'53.23265" N	111:52'26.79136" W	642.775	981540.693	712943.460	2108.837	0:01'25.002"	0.999900192	0.999818884	588
33:44'02.08264" N	111:51'54.84882" W	834.455	994565.272	715635.560	2737.707	0:01'42.821"	0.999900280	0.999818972	606
33:44'54.88077" N	111:52'25.88447" W	737.770	999900.601	713012.461	2420.500	0:01'25.618"	0.999900194	0.999818886	608
33:42'58.72155" N	111:50'45.45332" W	843.280	988164.588	721500.227	2766.661	0:02'21.294"	0.999900529	0.999819221	623
33:37'32.77238" N	111:55'32.12469" W	448.423	955212.685	697283.751	1471.200	-0:00'17.789"	0.999900008	0.999818700	724**3102
33:37'32.44454" N	111:54'33.59059" W	450.981	955179.511	702233.006	1479.595	0:00'14.624"	0.999900006	0.999818697	741
33:34'57.11680" N	111:53'28.44195" W	416.735	939481.115	707745.402	1367.238	0:00'50.644"	0.999900069	0.999818760	750
33:37'31.98894" N	111:53'27.29133" W	454.117	955134.359	707838.845	1489.883	0:00'51.338"	0.999900070	0.999818762	753
33:36'41.61276" N	111:52'26.44503" W	441.560	950044.432	712985.714	1448.686	0:01'25.001"	0.999900193	0.999818885	771
33:34'04.45852" N	111:48'16.92558" W	458.078	934176.341	734104.054	1502.879	0:03'42.870"	0.999901332	0.999820023	856
33:43'49.04746" N	111:46'12.16414" W	718.239	993275.528	744576.323	2356.421	0:04'53.099"	0.999902275	0.999820967	899
33:44'35.14181" N	111:46'11.70235" W	721.929	997934.533	744608.695	2368.528	0:04'53.453"	0.999902278	0.999820970	900

** = HUNSAKER & ASSOC. CONTROL

Network Map: SCOTTSMC



7192 = 1971.7 (usFeet) = 600.9754
9072 = 1503.2 (usFeet) = 458.1763

1000m

MOUNTAIN SURVEYING & MAPPING, INC.
SCOTTSMC.DAT
Trimble Navigation Ltd., State Plane Conversion Utility

Datum: NAD83
Zone : 0202 Arizona Central
State Plane in: International Feet
Project Elevation Factor [2500.000 (USft)]: 0.000000000

Coordinate Source [ASCII FILE]: c:\93061\coords.dat

Latitude	Longitude	Height (m)	Northing	Easting	Top of Mon. Hgt (USft)	Convergence	Scale factor	Comb. factor	Name
33:37'33.86384" N	111:52'26.48008" W	458.176	955325.559	712980.573	1503.200	0:01'25.014"	0.999900193	0.999780622	578**8072
33:41'01.02932" N	111:52'26.82154" W	600.975	976264.328	712943.084	1971.700	0:01'24.953"	0.999900192	0.999780621	586**7192
33:39'42.85925" N	111:50'53.95115" W	589.028	968367.653	720795.559	1932.503	0:02'16.382"	0.999900495	0.999780924	619
33:40'34.85127" N	111:50'21.95109" W	701.758	973624.547	723496.213	2302.349	0:02'34.178"	0.999900632	0.999781061	626
33:39'39.83923" N	111:49'53.03454" W	878.773	968066.237	725944.362	2883.107	0:02'50.144"	0.999900771	0.999781200	627
33:40'36.17181" N	111:49'51.50039" W	954.743	973760.047	726069.306	3132.354	0:02'51.065"	0.999900778	0.999781207	629

** = HUNSAKER & ASSOC. CONTROL

BK. 1427 SCOTTSDALE GREENBELT

PANEL #	GPS #	TYPE	DESC.	PANEL POINTS REMARKS
585	7193	GPS	FND AS DESC.	SET "Y" PANEL E1/4 COR. SEC. 19
601	—	VERT.	SET HUB	SET "Y" PANEL ± CENT. SEC. 20
584	*Re-GPS	X	FND. N.L. w/ TARGET	SET "Y" PANEL ± SEC. COR. (SFMF)
565	—	VERT.	SET HUB	SET "Y" PANEL ± CENT. SEC. 30
583	7303	GPS	FND. 5/8" REBAR	SET "Y" PANEL E1/4 COR. SEC. 30

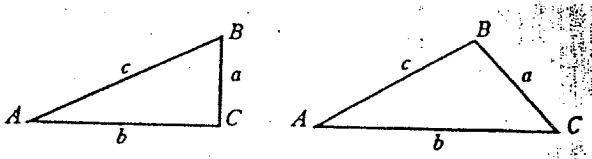
1458

SCOTTSDALE G.I.S.
PHASE II

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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SCOTTSDALE G.I.S.

PG. 1-8

DESC.

PANEL POINTS

GPS #	SEC	QUARTER COR	GE PT #	DESCRIPTION	NOTES
7082	8	NE		Fd AS DESCRIBED	PAINT
4163	16	E		Fd AS DESCRIBED	PAINT
VERT	15	C		Fd COTTON PICKER	PAINT @ T OF 68ST & JACKRABBIT Rd.
4153	15	E		Fd AS DESCRIBED	PAINT
4152	15	NE		Fd AS DESCRIBED	PAINT
*4151	15	N		Fd BC FLUSH	PAINT TOWN OF PARADISE VALLEY BC FLUSH
4104	10	C		Fd AS DESCRIBED	PAINT
4111	11	N		Fd AS DESCRIBED	PAINT
4102	10	NE		Fd AS DESCRIBED	PAINT
4101	10	N		Fd AS DESCRIBED	PAINT
4103	10	E		Fd AS DESCRIBED	PAINT
4141	14	N		Fd AS DESCRIBED	PAINTED EXIST PANEL +

VINCE NECHERO
8/03/93

GPS #	SEC.	QUARTER COR.	GE PT #	DESCRIPTION	NOTES
*4114	11	C		Fd BC FLUSH	PAINT EXISTING PANEL + City of Scottsdale BRASS CAP FLUSH
VERT				SET PK NAIL	PAINT - PK NAIL @ ℄ Cul-de-sac of JACKRABBIT Rd. 100'± W. of ARIZONA CANAL
4134	13	C		Fd AS DESCRIBED	PAINT
4131	13	N		Fd AS DESCRIBED	PAINT - EXISTING PANEL +
4142	14	NE		Fd AS DESCRIBED	PAINT - EXISTING PANEL +
4113	11	E		Fd AS DESCRIBED	PAINT
4112	11	NE		Fd AS DESCRIBED	PAINT - EXISTING PANEL +
4121	12	N		Fd AS DESCRIBED	PAINT
VERT				Fd BC IN HH	PAINT - PT IS ON EASTWOOD (VIA DE VENTURA) BETWEEN WOODSHIRE & VIA DE LAGO

VINCE NECHERO
8/03/93

GPS #	SEC	QUARTER COR.	GE PT #	DESCRIPTION	NOTES
4033	3	E		Fd AS DESCRIBED	PAINT
4032	3	NE		Fd AS DESCRIBED	PAINT
3343	34	E		Fd AS DESCRIBED	PAINT
3342	34	NE		Fd AS DESCRIBED	PAINT
3273	27	E		Fd AS DESCRIBED	PAINT
4212	21	NE		Fd AS DESCRIBED	PAINT
4221	22	N		Fd AS DESCRIBED	PAINT
4281	28	N		Fd AS DESCRIBED	PAINT
4322	32	NE		Fd AS DESCRIBED	PAINT
	33	N		BC IN HH	PAINT – INTERSECTION OF 60ST & THOMAS
4261	26	N		Fd AS DESCRIBED	PAINT

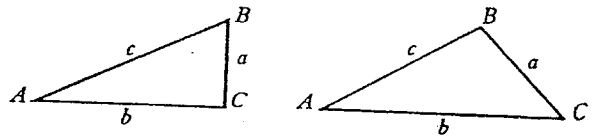
VINCE NECHERO
8/04/93

14L6

SCOTTSDALE G.I.S.
VERI.

TELEDYNE
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

1426

INDEX I

TITLE PAGE.

SCOTTSDALE G.I.S. LEVELS

INDEX

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8	PANEL #607
9-10	PANEL #608
11	PANEL #573
12-13	PANEL #571
14-15	PANEL #589
16-17	PANEL #604
18-21	PANEL #622
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27-29	PANELS #568, #587, TBM #4

1426

INDEX II

1

9-14-93
π = MiHELICH
φ = PRICE

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
1426							
#576						6311	G.L.O. B/C ON FENCE LINE, S. SIDE OF DYNAMITE, 0.5 mi. E/O PIMA (-0.30 to 0.6.)
	22.37						
			2.51				
T.B.M.#1							
	18.28						C.O.S. B/C FLUSH INT. 93rd ST. & DYNAMITE
			0.24				
T.P.							
	18.02						Rock
			0.24				
T.P.							
	18.45						Rock
			0.35				
T.P.							
	19.81						Rock
			4.46				
T.B.M.#2							
	20.26						S. RIM ELEC. MH. IN S/W ± 1.0 MI. E. OF PIMA. S. SIDE OF DYNAMITE

1426 B.M.	+	H.I.	-	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			0.94				
T.P.							Rock
	24.27						
			0.22				
T.P.							Rock
	20.55						
			0.16				
T.B.M #3							INK "□" @ B/W S.SIDE OF DYNAMITE. ± 1.5 MI. E. OF PIMA.
				RETURN	LOOP		
	0.59						
			20.46				
T.P.							Rock
	1.62						
			22.82				
T.P.							Rock
	1.00						
			21.31				
T.P.							Rock
	1.50						

	+	H.I.	−	ELEV	ADJ ELEV.	G.P.S. NO.	DESC.
1426 B.M.							
			23.53				
T.P.							Rock
	1.42						
			19.61				
T.P.							Rock
	1.69						
			21.80				
T.P.							Rock
	0.85						
			18.31				
T.P.							Rock
	1.21						
			14.92				
#576						6311	√-IN. P.O.B. 0.01 HIGH
				END	LOOP		
	171.89		171.88				

1426

(4)

B.M.	+	H.I.	−	ELEV.	ADJ EL.	G.P.S. No.	DESC.
T.B.M. #1							C.O.S. B/C FLUSH INT. 93rd ST. & DYNAMITE
	5.50						
			3.50				
T.P.							Rock
	10.06						
			4.31				
T.P.							Rock
	15.53						
			0.70				
T.P.							Rock
	15.31						
			1.15				
T.P.							Rock
	13.45						
			0.88				
T.P.							Rock
	21.45						
			4.32				
T.P.							Rock
	8.83						
			7.56				
#593							60p. NAIL S. SIDE OF FAIRWAY ± 600' E/O INT. 94th PL. & PEAK VIEW
				RETURN			LOOP

1426 B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	G.P.S. No.	DESC.
	6.93						
			18.36				
T.P.							Rock
	0.73						
			12.58				
T.P.							Rock
	1.85						
			13.55				
T.P.							Rock
	2.14						
			18.77				
T.P.							Rock
	0.85						
			12.41				
T.P.							Rock
	1.60						
			6.19				
T.P.							Rock
	4.76						
			4.73				
T.B.M. #1							√ − IN P.O.B. 0.02 LOW
	108.99		109.01		END	LOOP	

1426 B.M.	+	H.I.	−	ELEV.	ADJ EL.	G.P.S No	DESC.
T.B.M. #2							S. RIM ELEC. MH. IN S/W (PG. 1 THIS BK.)
	2.74						
			9.50				
# 592						6312	G.L.O. B/C @ FENCE COR N.E. COR SEC. 31 (-1.02 TO O.G.)
	0.94						
			24.43				
T.P.							Rock
	1.53						
			20.35				
T.P.							Rock
	8.48						
			2.75				
T.P.							Rock
	14.69						
			3.48				
T.P.							Rock
	8.68						
			3.69				
# 591						6313	G.L.O. B/C ON 1" POST E. 1/4 COR SEC. 31 (-1.41 TO O.G.)
				RETURN	LOOP		
	3.59						

1426

B.M.	+	H.I.	−	ELEV.	ADJ EL.	G.P.S. No.	DESC.
			8.40				
T.P.							Rock
	2.29						
			13.85				
T.P.							Rock
	3.05						
			3.37				
T.P.							Rock
	14.45						
			1.14				
T.P.							Rock
	24.64						
			1.88				
T.P.							Rock
	10.54 ~~9.54~~						
			2.79				
T.B.M. #2							√-IN P.O.B. 0.01 LOW
				END	LOOP		
	95.62		95.63				

1426 B.M.	+	H.I	−	ELEV.		ADJ EL.	G.P.S No.	DESC
T.B.M. #3								INK "□" @ B/W. S. SIDE DYNAMITE RD. (PG 2 THIS BK.)
	17.98							
			8.53					
T.P.								Rock
	13.43							
			3.65					
# 607							6321	G.L.O. B/C ON 1" POST. N. 1/4 COR SEC. 32 (−1.8 TO G.)
					RETURN	LOOP		
	2.26							
			12.99					
T.P.								Rock
	2.62							
			18.11					
T.B.M. #3								√ − IN P.O.B. 0.01 HIGH
					END LOOP			
					END DAY			9-14-93
								C. MIHELICH
								T. PRICE
								SUNNY, WARM
	43.29		43.28					

9-15-93
T = PRICE
ϕ = MIHELICH

1426

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV	GPS No.	DESC.
TBM #3							INK "□" 3/W S. SIDE OF DYNAMITE ± 1.5 mi. E/O PIMA
	15.13						
			1.38				
TP							ROCK
	24.35						
			0.32				
TP							ROCK
	18.26						
			16.62				
TP							ROCK
	24.00						
			0.62				
#608							1" x 2" HUB FLUSH ON HILL APPROX. CENT. OF SEC. 29
				RETURN	LOOP		
	0.18						

1426 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No	Desc.
			24.41				
TP							Rock
	0.26						
			22.81				
TP							Rock
	12.19						
			16.03				
TP							Rock
	2.17						
			12.43				
TP							Rock
	5.01						
			6.94				
TBM #3						P.O.B.	√-IN = 0.01 Low
				END	Loop		
	101.55		101.56				

1426 BM	+	H.I.	-	ELEV.	ADJ ELEV.	GPS No.	DESC.
#555						7068	C.O.S. B/c FLUSH & PIMA RD. & DESERT HIGHLANDS
	15.04						
			1.47				
TP							ROCK
	18.10						
			0.86				
TP							ROCK
	11.80						
			5.40				
#573							60p NAIL N/O REAR COR. LOT 317-318 ON DIAMOND CHOLLA
				RETURN	LOOP		
	5.15						
			11.57				
TP							ROCK
	2.97						
			21.23				
TP							ROCK
	2.18						
			14.72				
#555							P.O.B. ✓-IN = 0.01 LOW
				END	LOOP		
	55.21		55.25				

B.M.	+	H.I.	−	ELEV	ADJ ELEV	GPS No.	DESC.
1426							
#570						—	C.O.S. B/C IN H/H PINN. PK. RD. & 92ND ST. (+0.48 to A.C.)
	14.95						
			0.23				CURB
TP							
	14.56						
			1.89				ROCK
TP							
	14.50						
			2.96				ROCK
TP							
	13.50						
			3.58				ROCK
TP							
	8.19						
			4.16				1" x 2" HUB ON APPROX. 1/4 SEC. LINE ± 2850' N/O PINN. PEAK RD.
#571							
				RETURN	LOOP		
	2.85						

1426 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			14.08				
TP							Rock
	4.50						
			13.63				
TP							Rock
	4.80						
			11.79				
TP							Rock
	2.65						
			13.39				
TP							Rock
	0.38						
			15.15				
#570						P.O.B.	√-IN = 0.02 HIGH
				END	Loop		
	80.28		80.86				

1426

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
#588						—	G.L.O. B/C IN H/J PINN. PK. RD. & DOBSON RD. NORTH (+1.1 to A.C.)
	18.38						
			0.36				
TP							ROCK
	14.61						
			0.53				
TP							ROCK
	19.73						
			0.53				
TP							ROCK
	9.67						
			4.55				
#589							G.L.O B/C 1/4 COR 7/8 IN P/H N/O MARIPOSA GRANDE (+0.45 to O.G)
				RETURN	LOOP		
	4.11						
			9.83				
TP							ROCK
	0.97						

1426 B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	GPS NO.	DESC
			20.32				
TP							ROCK
	0.73						
			11.43				
TP							ROCK
	0.54						
			21.16				
#588						P.O.B.	√-IN = 0.03 HIGH
				END	LOOP		
	68.71		68.71				

1426 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#603						7171	MAR. Co. B/C IN H/H ON PINN. PEAK RD. ± 0.5 MI. EAST OF DOBSON RD. (+0.7 to A.C.)
	17.83						
			2.68				
TP							NAIL
	9.86						
			0.38				
TP							ROCK
	17.78						
			0.28				
TP							ROCK
	21.79						
			0.24				
TP							ROCK
	13.20						
			8.38				
TP							ROCK
	0.73						
			16.61				
#604							5/8" REBAR NEAR WALL CORNER APPROX. CENT SEC. 8 (−0.55 to O.G.)
	15.73						
				RETURN	LOOP		

1426 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC
			2.61				
T.P.							Rock
	12.26						
			15.04				
TP							Rock
	0.32						
			18.57				
TP							Rock
	0.31						
			18.38				
TP							Rock
	1.12						
			12.78				
TP							Rock
	2.69						
			17.69				
#603						P.O.B.	√-IN = 0.02 Low
				END	Loop		
				END	DAY		
	113.62		113.64				

9-15-93
T. Price
Φ - Mihelich
Sunny, warm

1426 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#603						7171.	MAR. Co. B/C IN H/H ON PINN. Pk. RD. (+0.7 to A.C.)
	7.63						
			0.68				
TP							Rock
	10.13						
			0.33				
T.P.							Rock
	22.07						
			0.14				
T.P.							Rock
	24.48						
			0.14				
T.P.							Rock
	23.74						
			0.28				
T.P.							Rock
	24.73						
			0.31				
T.P.							Rock
	22.35						

1426 B.M.	+	H.I.	−	ELEV.	ADJ EL	G.P.S. No.	DESC.
			0.27				
T.P.							Rock
	23.11						
			0.15				
T.P.							Rock
	24.43						
			1.74				
T.P.							Rock
	23.06						
			2.44				
T.P.							Rock
	24.74						
			0.69				
T.P.							Rock
	23.92						
			1.46				
T.P.							Rock
	15.98						
			0.76				
#622						7161	G.L.O. B/C ON 1" POST N. 1/4 COR SEC. 16. (-1.2 TO OG.)
				RETURN	LOOP		

1426 B.M.	+	H.I.	−	ELEV.	ADJ EL	G.P.S. No.	DESC.
							FROM PREV. PG.
	0.32						
			23.72				
T.P.							Rock
	0.76						
			24.10				
T.P.							Rock
	0.20						
			15.54				
T.P.							Rock
	2.67						
			21.23				
T.P.							Rock
	7.29						
			24.67				
T.P.							Rock
	0.29						
			23.87				
T.P.							Rock
	0.24						
			21.63				
T.P.							Rock
	0.54						

1426

B.M	+	H.I.	−	ELEV.	ADJ EL.	G.P.S. No.	DESC.
			24.66				
T.P.							Rock
	0.89						
			24.68				
T.P.							Rock
	0.36						
			24.23				
T.P.							Rock
	0.17						
			21.06				
T.P.							Rock
	0.35						
			11.91				
T.P.							Rock
	0.40						
			8.11				
#603							√- IN P.O.B. + 0.05 HIGH
				END	LOOP		
	284.85		284.80				

1426

B.M.	+	H.I.	−	ELEV.	ADJ EL.	G.P.S. No.	DESC.
#548						2252	C.O.S B/C FLUSH ON PIMA ±. 100' N. OF SIERRA PINTA RD.
	6.20						
			0.78				Rock
T.P.							
	12.25						
*			0.31			* SEE	BK. 1436 PG. 22
T.P.							Rock
	10.72						
			4.09				
#566						7301	1/2" R.B. IN POTHOLE INT. 92nd ST. (SOUTH) & SIERRA PINTA (BEARDSLEY) (+0.5' TO D.G.)
	11.34						
			0.20				Rock
T.P.							
	12.00						
			20.18				Rock
T.P.							
	0.82						
			20.19				Rock
T.P.							
	0.35					* SEE	BK. 1436 PG. 23
*							

1426

B.M.	+	H.I.	−	ELEV.	ADJ EL	G.P.S. No.	DESC.
*							* SEE Bk. 1436 Pg. 23
			6.77				
T.P.							Rock
	9.51						
			1.82				
T.P.							Rock
	3.29						
			15.06				
T.P.							Rock
	0.81						
			12.35				
#583						7303	5/8" R.B. FLUSH W/O.G. INT. 96TH ST & HUALAPAI
	2.09						
			9.82				
T.P.							Rock
	2.31						
			10.85				
T.P.							Rock
	2.85						
			8.33				
T.P.							Rock
	4.06						

1426 B.M.	+	H.I.	−	ELEV.	ADJ EL	G.P.S. No.	DESC.
			8.63				
#565							1"x2" HUB FLUSH w/O.G. S.SIDE OF HUALAPAI & 92nd ST.
	2.72						
			10.62				
T.P.							Rock
	4.50						
			8.80				
T.P.							Rock
	0.22						
			8.23				
T.P.							Rock
	5.79						
			2.43				
#547						2253	C.O.S. B/C FLUSH ON PIMA ± 200' N. OF HUALAPAI. ✓-IN
				END	RUN		

1426 B.M.	+	H.I.	−	ELEV.	ADJ EL.	GPS No.	DESC.
#570							C.O.S. B/C IN H/4 INT. PINN. PK. & 92nd ST. (+0.48 TO A/C)
	1.88						
			15.15				
T.P.							Rock
	4.36						
			16.16				
T.P.							Rock
	2.27						
			15.31				
T.P.							Rock
	2.44						
			21.74				
#569							60p NAIL ± 600' W. OF 93rd ST & VIA MONTOYA
				RETURN LOOP			
	22.75						
			2.96				
T.P.							Rock
	12.30						
			0.07				
T.P.							Rock
	14.10						

1426 B.M.	+	H.I.	−	ELEV	ADJ EL	G.P.S. No.	DESC.
			0.78				
T.P.							Rock
	8.08						
			2.56				
T.P.							Rock
	9.20						
			2.64				
#570							√- IN P.O.B.
				END	LOOP		
				END	DAY		
	77.38		77.37				

9-16-93
C. MIHELICH
T. PRICE
SUNNY, WARM

1426 B.M.	+	H.I.	-	ELEV.	ADJ ELEV.	GPS No.	DESC.
#550						—	CONC. FILLED 2" IRON PIPE: W/CAP BROKEN @ PIMA AND DEER VALLEY RD.'S (FLUSH)
	15.35						
			1.89				
TP							ROCK
	14.82						
			1.95				
TP							ROCK
	13.45						
			0.25				
TP							ROCK
	9.42						
			6.07				
#568						7191	G.L.O. B/C N1/4 COR. SEC. 19 S/O SANDS & VIA DEL SOL (-0.9 to O.G.)
	6.31						
			0.33				
TP							ROCK
	22.51						
			0.25				
TP							ROCK
	17.63						

1426 B.M.	+	H.I	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
			0.14				
TP							Rock
	18.68						
			3.66				
TBM #4							C.O.S. B/c FLUSH ON ADOBE DR. ± 400' EAST OF SANDS DR.
	6.84						
			0.30				
TP							Rock
	24.69						
			0.39				
TP							Rock
	20.69						
			0.41				
TP							Rock
	18.18						
			0.51				
TP							Rock
	10.76						
			1.69				
#587						7183	G.L.O. B/c E 1/4 COR. SEC. 18 N/o CUL-DE-SAC, E/o SANDS & VIA MONTOYA (−1.0 to O.G.)
	4.28						

1426 B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	GPS No.	DESC.
			19.46				
TP							Rock
	1.50						
			17.36				
TP							Rock
	0.72						
			15.97				
TP							Rock
	1.31						
			16.58				
TP							Rock
	14.78						
			21.59				
#569							60p NAIL ± 600' WEST OF 93RD ST. & VIA MONTOYA
				END	RUN		

9-17-93
T = T. PRICE
∅ = C. MIHELICH
SUNNY, WARM

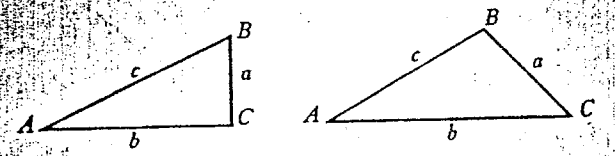
1467

SCOTTSDALE G.I.S.
PHASE II

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

BK. 1427

INDEX I

TITLE PAGE

SCOTTSDALE G.I.S. PHASE II

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11 - 12	PANELS SCOTTSDALE GREENBELT

Bk 1427

INDEX II

BK 1427 SCOTTSDALE GREENBELT PANEL POINTS ①

G.P.S. #	SEC #	1/4 COR.	DESC.	PANEL #	REMARKS
NEW	15	N	1/2" RB IN A.C.	502	EXIST. "+" PANEL ON PINN. PK. RD.
2153	15	E	AS DESCRIBED	503	SET "Y" PANEL ON SCOTTS. RD.
2152	15	NE	AS DESCRIBED	504	EXIST. "+" PANEL INT. SCOTTS & PINN. PK. RD'S
2103	10	E	AS DESCRIBED	505	EXIST. "+" PANEL ON SCOTTS. RD.
2102	10	NE	AS DESCRIBED	506	SET "Y" PANEL @ SCOTTS. AND HAPPY VALLEY
(RE-GPS)	14	C	B/C IN H/H	507	SET "Y" PANEL @ WILLIAMS DR. & 76TH ST.
2141	14	N	AS DESCRIBED	508	SET "Y" PANEL ON PINN. PK. RD.
1356	35	S	AS DESCRIBED	512	EXIST "+" PANEL @ JOMAX RD. & 76TH ST.

8-2-93
T. PRICE
SUNNY, HOT

BK 1427 N. COUNTY AREA

PANEL PANEL POINTS (2)

PANEL #		TYPE	DESC.	REMARKS
203		GPS	C.O.P. B/c FLUSH	SET "Y" PANEL 28TH ST. & NISBET RD.
202	VERT.	GPS	C.O.P. B/c FLUSH	SET "Y" PANEL 28TH ST. & T-BIRD RD.
		VERT.	M.C.E.D. B/c IN H/H	SET "Y" PANEL 28TH ST. & SWEETWATER
201		GPS	C.O.P. B/c IN H/H	SET "Y" PANEL 28TH ST. & CACTUS RD.
204	GPS	VERT.	C.O.P. B/c IN H/H	SET "Y" PANEL 32ND ST. & CACTUS RD.
		VERT.	C.O.P. B/c IN H/H	EXIST. "Y" PANEL 32ND ST. & SWEETWATER
205		VERT.	C.O.P. B/c IN H/H	SET "Y" PANEL 32ND ST. & T-BIRD RD.
		VERT.	SET P.K. NAIL	SET "Y" PANEL ON 32ND ST.
206		GPS	C.O.P. B/c FLUSH	SET "Y" PANEL 32ND ST. & NISBET RD.
		VERT.	C.O.P. B/c FLUSH	SET "Y" PANEL 36TH ST. & NISBET RD. (NORTH MOST OF (2) CAPS. ± 15' APART)
		VERT.	C.O.P. B/c FLUSH	SET "Y" PANEL 36TH ST. & ACOMA DR.

Bk. 1427 N. County Area

Panel Points

Panel #	Type	Desc.	Remarks
	GPS	C.O.P. B/c Flush	Exist. "+" Panel 36th St. & Voltaire Dr.
	Vert.	C.O.P. B/c in H/H	Set "Y" Panel 36th St. & Sweetwater
	GPS	C.O.P. B/c Flush	Set "Y" Panel 36th St. & Sunnyside West
207	GPS	C.O.P. B/c ~~Flush~~ in H/H	Exist. "+" Panel 40th St. & Cholla St. (West most of (2) caps ± 4' Apart)
208	Vert.	C.O.P. B/c in H/H	Set "Y" Panel 40th St. & Cactus Rd.
	Vert.	C.O.P. B/c in H/H.	Set "Y" Panel 40th St. & Sweetwater
209	GPS	Set P.K. Nail	Set "Y" Panel 40th St. & T-Bird Rd.
210	GPS	C.O.P. B/c Flush	Set "Y" Panel 40th St. & Nisbet Rd.
	GPS	Set P.K. Nail	Set "Y" Panel on conc. median West of Int. 44th St. & Par. Vill. Pkwy.
	Vert.	Fnd. P.K. Nail	Exist. "+" Panel on Paradise Valley Parkway ± 800' South of Cactus Rd.

BK. 1427 N. COUNTY AREA PANEL POINTS (4)

PANEL #	TYPE	DESC.	REMARKS
	VERT.	C.O.P. B/C FLUSH	SET 'Y' PANEL 44TH ST. & CHOLLA ST.
	GPS	C.O.P. B/C IN POTHOLE	SET "Y" PANEL TATUM & GOLD DUST
212	VERT.	C.O.P. B/C IN H/H	SET "Y" PANEL TATUM & CHOLLA ST.
211	GPS	M.C.H.D. B/C IN H/H	SET "Y" PANEL TATUM & MTN. VIEW
213	GPS	C.O.P. B/C IN H/H	SET "Y" PANEL TATUM & PAR. VILL. PKWY.
218	GPS	C.O.P. B/C IN H/H	SET "Y" PANEL 56TH ST. & CACTUS
221	EXIST GPS	C.O.S. B/C (DEPRESS)	SET "Y" PANEL INVERGORDON & MTN. VIEW
222	EXIST. GPS	C.O.S. B/C IN H/H	SET "Y" PANEL INVERGORDON (64TH ST.) & SHEA

8-3-93
T. PRICE
SUNNY, HOT

BK. 1427 N. COUNTY AREA PANEL POINTS (5)

PANEL #	Type	DESC.	REMARKS
	GPS	C.O.P. B/C FLUSH	SET "Y" PANEL 52ND ST. & CACTUS RD. ± 10' NORTH OF B/C IN H/H.
	VERT.	C.O.P. B/C FLUSH	SET "Y" PANEL 52ND ST. & CHOLLA ST.
	VERT.	C.O.P. B/C IN H/H	SET "Y" PANEL 52ND ST. & SHEA BLVD.
	VERT.	T.O.P.V. B/C FLUSH	SET "Y" PANEL 52ND ST. & MTN. VIEW RD.
214	GPS	M.C.H.D. B/C ~~FLUSH~~ (DEPRESS)	SET "Y" PANEL 52ND ST. & DOUBLE TREE
215	GPS	M.C.H.D. B/C FLUSH	SET "Y" PANEL 56TH ST. & CABALLO DR.
	VERT.	UNMARKED B/C IN H/H	SET "Y" PANEL 56TH ST. & DOUBLE TREE
216	VERT.	UNMARKED B/C FLUSH	SET "Y" PANEL 56TH ST. & MTN. VIEW RD.
	VERT.	C.O.P. B/C IN H/H	SET "Y" PANEL 56TH ST. & SHEA BLVD.
217	VERT. ~~GPS~~	C.O.P. B/C IN H/H	EXIST. "+" PANEL 56TH ST. & CHOLLA ST.
	GPS	C.O.P. B/C FLUSH	SET "Y" ± 400' W. OF 60TH PL. ON MTN. VIEW

BK. 1427 N. COUNTY AREA

PANEL POINTS

PANEL #	TYPE	DESC	REMARKS
-	VERT.	T.O.P.V. B/C FLUSH	EXIST "+" ± 300' W. OF 60TH ST. ON DOUBLE TREE
	GPS	A.D.O.T. ALUM. CAP IN P/H	SET "Y" ± 400' W. OF MORNING GLORY ON MOCKINGBIRD
219	GPS	5/8" IRON BAR IN H/H	SET "Y" PANEL INVERGORDON & NORTHERN
220	VERT	T.O.P.V. B/C FLUSH	SET "Y" PANEL INVERGORDON & CALLE BRUYIRA
-	VERT.	M.C.H.D. B/C IN P/H	SET "Y" PANEL INVERGORDON & DOUBLE TREE
	VERT.	G.L.O. B/C IN H/H	SET "Y" ± 1/2 MI. W. OF SCOTTS RD. ON DOUBLE TREE
	VERT.	T.O.P.V. B/C IN H/H	SET "Y" MOCKINGBIRD LN. & NORTHERN AVE.
	GPS	T.O.P.V. B/C FLUSH	SET "Y" MOCKINGBIRD LN. & CHENEY DR.

8-4-93
T. PRICE
SUNNY, HOT

BK. 1427 MISC. 1' CONTOUR

PANEL #	GPS #	TYPE	DESC
336	4222	GPS	MCED BC IN HH
335	4223	GPS	MCED BC IN HH
322	4224	GPS	C.O.S. BC IN HH
313	* —	VERT	MCHD BC IN HH
312	* —	VERT	SET PK NAIL
321	4271	GPS	Fd AS DESCRIBED
310	4332	GPS	AHD BC IN HH
334	4272	GPS	Fd AS DESCRIBED
372	4143	GPS	Fd AS DESCRIBED
391	* —	VERT	Fd PK NAIL

PANEL PTS

REMARKS

SET "Y" PANEL @ SCOTTSDALE Rd & CHAPARRAL

SET "Y" PANEL @ SCOTTSDALE Rd & CAMELBACK

SET "Y" PANEL @ 68 ST & CAMELBACK

SET "+" PANEL @ 64 ST & CAMELBACK

SET "Y" PANEL @ LAFAYETTE & 64 ST

SET "Y" PANEL @ 68 ST & INDIAN SCHOOL Rd

SET "Y" PANEL @ 64 ST & THOMAS

SET "Y" PANEL @ SCOTTSDALE Rd & INDIAN SCHOOL

SET "Y" PANEL @ JACKRABBIT & HAYDEN

SET "Y" PANEL @ LINCOLN & GRANITE REEF

PANEL POINTS

BK. 1427 MISC. 1' CONTOUR

PANEL #	GPS #	TYPE	DESCRIPTION	REMARKS
382	5011	GPS	Fd AS DESCRIBED	SET "Y" PANEL @ McDOWEL & GRANITE REEF
381	5014	GPS	C.O.S. BC IN HH	SET "Y" PANEL @ ROOSEVELT & GRANITE REEF
348	5021	GPS	AHD BC IN HH	SET "Y" PANEL ON McKELLIPS 0.5 MILES EAST OF HAYDEN
398	5013	GPS	Fd AS DESCR.	SET PAPER "Y" ON PIMA RD. 0.5 MI. SOUTH OF McDOWELL

8-5-93
SUNNY, HOT
PRICE
NECHERO

BK. 1427 S. COUNTY AREA

PANEL PoinTs

(9)

PANEL #	TYPE	DESC.	REMARKS
	VERT.	SET PK. NAIL	SET "Y" PANEL ON McCLINTOCK ±2000' SOUTH OF McKELLIPS @ BIG SURF ENTRANCE
	VERT.	C.O.T. B/C FLUSH	SET "Y" PANEL MILLER RD. & CURRY
	VERT.	C.O.T. B/C FLUSH	SET "Y" PANEL MILLER RD. & VALERIE DR.
101	GPS	C.O.T. B/C IN H/H	SET "Y" PANEL ON RURAL RD @ RIO SALADO PRKWY. (NORTH MOST OF CAPS. ±12' (pm)
103	GPS	MARICOPA COUNTY BC IN HH	SET "Y" PANEL @ ⊥ OF McCLINTOCK & RIO SALADO PRKWY.
	VERT	C.O.T. BC FLUSH	SET "Y" PANEL IN MEDIAN ON RIO SALADO 0.5 mi. EAST OF SCOTTSDALE Rd.
	VERT	SET CHISLED "X" IN CONC.	SET "Y" ON BRIDGE IN MEDIAN ON McCLINTOCK 0.35 mi NORTH OF RIO SALADO PRKWY
	VERT	SET PK NAIL	SET "Y" ON ℄ RURAL Rd IN MEDIAN 0.375 mi. NORTH OF RIO SALADO PRKWY.

8-9-93 SUNNY, HOT NECHERO, MIHELICH

PANEL PT'S

BK. 1427 S. COUNTY AREA

PANEL #	GPS #	TYPE	DESC.	REMARKS
102				RURAL RD. ± 3/4 mi. S/O McKellip
104				McCLINTOCK ± 3/4 mi. S/O McKellips

BK. 1427 SCOTTSDALE GREENBELT

PANEL PONTS

PANEL #	GPS *	TYPE	DESC.	REMARKS
501	—	NEW	FND. 1/2" REBAR	SET "Y" PANEL ± CENT. SEC. 15
509	—	VERT.	FND. 1/2" REBAR	SET "Y" PANEL ± CENT. SEC. 11
519	2113	GPS	FND. AS DESC.	SET "Y" PANEL E 1/4 COR. SEC. 11
521	2023	GPS	FND. AS DESC.	SET "Y" PANEL E 1/4 COR. SEC. 2
589	—	VERT.	FND. G.L.O. CAP	SET "Y" N/O INT. DOBSON & MARIPOSA GRANDE
604	—	VERT.	FND. 5/8" REBAR	SET "Y" W/O C.D.S. N/O JOPEDA & CHURCH
602	—	VERT.	FND. 5/8" REBAR	SET "Y" N/E OF VENTOSA & FOOTHILLS DR
587	7183	GPS	FND. AS DESC.	SET "Y" E/O INT. SANDS & VIA MONTOYA
568	7191	GPS	FND. AS DESC.	SET "Y" S/O INT. SANDS & VIA DEL SOL
586	7192	GPS	FND. AS DESC.	SET "Y" W/O INT. 96TH PL. & ADOBE
567	—	VERT.	SET 60p NAIL	SET "Y" PANEL ± CENT. SEC. 19

GPS #	SEC	QUARTER COR	DESCRIPTION	NOTES
2142	14	NE	Fd. AS DESCRIBED	PAINT
2113	11	E	Fd AS DESCRIBED	PT FALLS ON WEST EDGE Rd. NEEDS PAINT & PANEL
2112	11	NE	Fd AS DESCRIBED	BENT OVER — NEEDS PAPER
2121	12	N	Fd AS DESCRIBED	PAINT
2022	2	NE	Fd AS DESCRIBED	EXISTING 6'x1' PANEL
2011	1	N	Fd AS DESCRIBED	EXISTING 6'x1' PANEL
1352	35	NE	Fd AS DESCRIBED	PAINT
1361	36	N	Fd AS DESCRIBED	PAINT . CAP MISSING
1362	36	NE	Fd AS DESCRIBED	PAINT
7071	7	N	Fd AS DESCRIBED	PAINT
7072	7	NE	Fd AS DESCRIBED	PAINT
7081	8	N	Fd AS DESCRIBED	PAINT

VINCE NECHERO
8/02/93

GPS #	SEC	Quarter Code	SE PT #	DESCRIPTION	NOTES
4021	2	N		Fd AS DESCRIBED	PAINT — .10 DOWN
4022	2	NE		Fd AS DESCRIBED	PADER
VERT				SET PK NAIL	PAINT - BEGINING @ VIA VENTURA & HAYDEN 550'± WEST TO VIA VENTURA @ McCormick RANCH APTS. 100'± SOUTH TO T. THENCE 50'± EAST, THENCE 300'± SOUTH TO POINT. (BETWEEN TENNIS COURTS)
VERT				SET PK NAIL	PAINT - BEGINING @ HAYDEN & VIA VENTURA 0.5 MI NORTH TO LAS PALOMAS APTS (DELCADENA) (SOUTH) 84 PL TO DEL CAMINO (WEST) TO 84ST (NORTH). PT. IS BETWEEN 8455 & 8444 APTS
VERT				SET PK NAIL	PAINT - PT IS @ T OF DEL NORTE DR & VIA PASEO DEL NORTE
VERT				SET PK NAIL	PAINT - PT IS IN NORTH THRN LANE ON McCormick PRKWY 600'± WEST OF HAYDEN Rd.

VINCE NECHERO
8/09/93

GPS #	SEC	QUARTER COR	GE #	DESCRIPTION	NOTES
1253	25	E		Fd AS DESCRIBED	PAPER
VERT				SET NAIL	PAPER - PT IS 0.5 MI. WEST OF PIMA Rd. ON E VIA DONA - 5'± S. OF Rd.
1353	35	E		Fd AS DESCRIBED	PADER
VERT				SET NAIL	PAPER - BEGINING @ ⅝ OF JOMAX Rd & HAYDEN, GO NE up POWER LINE Rd 0.7 mi. PT. IS 10'± W OF DIRT Rd.
VERT				SET Hub	PADER - BEGINING @ JOMAX & HAYDEN Rds; TO SW DOWN POWER LINE Rd 0.65 Mi. PT IS 10'± E OF DIRT Rd.
VERT				SET Hub	PADER - POINT IS 0.5 mi. EAST ON DIRT Rd FROM ⅝ OF JOMAX Rd & PIMA Rd.
VERT				SET Hub	PADER - FROM PT ABOVE (0.5 mi E. JOMAX & PIMA) GO .3 mi NORTH (THRU BIG BOULDERS) TO T-IN DIRT Rd; 0.1 mi. WEST; 0.2 MI NORTH TO BARBED WIRE FENCE; 250'± EAST ALONG FENCE. PT IS 5'± S. OF Rd.

[illegible] 8/10/93

GPS #	S	Quarter Coc.	Gate #	DESCRIPTION	NOTES
6311	31	N		Fd AS DESCRIBED	PADER
NEW GPS			577	SET Hub	PADER - FROM ⅓ OF DYNAMITE & PIMA Rds; 500' ± EAST ON DYNAMITE TO POWER LINE Rd; 0.5 MI. NE TO 2 POSTS; WEST ALONG FENCE LINE 600' ±.
*3353	35	E	378	Fd AS DESCRIBED	PADER - ONLY 2 LEGS due TO POINT LANDING IN Bird OF PARIDISE BUSH
			739	FD AS DESCRIBED	PAINT - C.O.S. @ ⅓ OF HAYDEN & CACTUS Rds
			721	FD AS DESCRIBED	PAINT - C.O.S. @ ⅓ OF SCOTTSDALE & SHEA Rd.
			738	Fd AS DESCRIBED	PAINT - C.O.S. @ ⅓ OF HAYDEN & SHEA Rds.
			712	Fd AS DESCRIBED	PAINT - C.O.S. @ ⅓ OF CACTUS & 64 ST.
			705	BC FLUSH	PAINT - C.O.P. @ T OF YUCCA & 60 ST
			713	Fd AS DESCRIBED	PAINT - C.O.P. @ ⅓ OF 64 ST & CHOLLA Rd.
3352	35	NE	379	Fd AS DESCRIBED	PADER -

GPS #	SEC	QUARTER COR.	GE #	DESCRIPTION	NOTES
			396	SET PK NAIL	PAINT - .5 MI. E/O # 379. FROM THE ∩ OF HAYDEN & VIA LINDA 350'± E TO 83rd PL. S TO SANBERNALDO. 200'± E,
			362	SET PK NAIL	PAINT - .5 MI W/O # 379 FROM THE ∩ OF DOUBLETREE RANCH Rd & GAINY CLUB Dr. PT IS APPROX. 0.3 MI E. PT IS ON SOUTH EDGE OF Rd NEAR GOLF PARKING LOT.
			359	SET PK NAIL	PAINT - FROM THE ∩ OF SCOTTSDALE Rd & McCORMICK Rd. GO EAST APPROX 0.7 MI. TO SANDDIDER ESTATES (GUARD STATION) GO SOUTH TO CASA GRANDE (FIRST RT.) TO SACATON. PT IS SOUTH APPROX 100'± @ END OF Rd.
8332	33	NE	805	Fd AS DESCRIBED	DADER

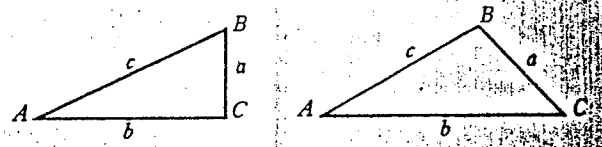
1429

SCOTTSDALE G.I.S. PHASE III

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

SCOTTSDALE G.I.S.

PG.	DESC.
1-14	PANEL POINTS

BK 1429

G.P.S.	PT. #	2013	– PAINTED	Y	
G.P.S.	PT. #	2012	– "	Y	NEEDS RE-PAINT
G.P.S.	PT. #	23[illegible]	"	Y	
G.P.S.	PT. #	22[illegible]	"	Y	NEEDS RE-PAINT
G.P.S.	PT. #	2253	"	Y	NEEDS RE-PAINT
G.P.S.	PT. #	225[illegible]	"	Y	NEEDS REPAINT
G.P.S.	PT. #	2243	"	Y	REPAINT
G.P.S.	PT. #	2242	"	Y	REPAINT
* BUSTED BRASS CAP					NEEDS CAP & NEW G.P.S.
* S.F.N.F # 2132 (IRON PIPE)					
G.P.S.	PT. #	7188		Y	REPAINT
G.P.S.	PT. #	2132		Y	
G.P.S.	PT. #	2123		Y	REPAINT

2
5-[illegible]-93

BX 1429					
G.P.S.	Pt.#	2122	PAINTED	Y	Repoint
G.P.S.	Pt.#	7063	"	Y	Repoint
G.P.S.	Pt.#	2012	"	Y	Repoint OLD TORMET
* (BOSS [illegible] FINISH [illegible] WRITTEN OVER)					
G.P.S.	Pt.#	1363	"	Y	Repoint

NEEDS NEW G.P.S.

BK 1429

G.P.S.	PT.#	—	POINTED	Y	
G.P.S.	PT.#	4252	"	Y	
* G.P.S.	PT.#	4251	"	Y	
G.P.S.	PT.#	4341	"	Y	
G.P.S.	PT.#	4341	"	Y	
G.P.S.	PT.#	4271	"	Y	
* G.P.S.	PT.#	4282	S.F.N.F.	(SEARCH FOR NOT FOUND)	
G.P.S.	PT.#	4284	POINTED	Y	
G.P.S.	PT.#	4272	"	Y	
G.P.S.	PT.#	4261	"	Y	
G.P.S.	PT.#	4263	"	Y	
G.P.S.	PT.#	4254	"	Y	

* NOTE: USED 1/4" Rebar DOWN 40 NOT POTHOLE ± 5' WEST (Nothing Found) BOTH had OLD LOCATION TARGETS

8-3-93

* NEW POINT (BROKEN CUT H) THROUGH GRID INTERSECT

* NEW POINT (PK. THROUGH TILER)

INTERSECTION RE-POINTED (NO GRIDLOCK)

* SET PK. "Y" POINTED

D

8-3-93

BK 1429

G.P.S.	PT.#	4262	Painted	Y	
G.P.S.	PT.#	4251	"	Y	
G.P.S.	PT.#	4244	"	Y	
G.P.S.	PT.#	4241	"	Y	
G.P.S.	PT.#	4232	"	"+"	
G.P.S.	PT.#	4234	"	Y	
G.P.S.	PT.#	4231	"	Y	
G.P.S.	PT.#	4232	"	"+"	

8-9-93

BK 1429

± N'4	SEC. 6		PEPERED	^	(Hubtack
G.P.S.	PT. # 8082		PEPERED	^	(Relay)
* G.P.S.	PT. # 8081		"	^	
* G.P.S.	PT. # 2011		"	Y	
G.P.S.	PT. # 2252		"	Y	
* G.P.S.	# 2252		"	Y	
G.P.S.	PT. # 2361		ZLOSPAINT 1/09 PEPER	Y	
G.P.S.	PT. # 2251			Y	
G.P.S.	PT. # 7301			^	

* ~~[illegible]~~ AS Described IN ½' ABOVE [illegible]

* C.O.S. IN MOTION OVER DRAINAGE WASH

* NO CAP AS/PER DESCRIPTION

* @ INTERSECTION 92nd ST/ & SIERRA VISTA

8-10-93

PK 1429					
* G.P.S.	PT.#	2112 ~~2022~~	PAPERED		* G.L.O. BRASS CAP BENT OVER
G.P.S.	PT.#	2023	PAPER		
* G.P.S.	PT.#	2111	PAPER		RE-CHECK BEFORE FLIGHT
G.P.S.	PT.#	2014	PAINTED		
± CENTER OF 18		(Lop Nail)	PAPERED		PARK COLLEGE BRASS CAP & UNDISTANCE (NORTH ±150' THENCE EAST ±400') FLAGGED-UP (FLOUR. RED)
* G.P.S.	PT.#	7182	PAINTED		* NOT AS DESCRIBED BUT G.L.O. SECTION COR.
G.P.S.	PT.#	7171	PAINTED		
* G.P.S.	PT.#	7181	PAINTED		* NOT REBAR BUT NEW LOCATION C.O.S. IN H/H
± CENTER OF 7		(Hub)	PAPERED		92nd ST. N.W. PINNACLE PEAK FOLLOW FLOUR. FLAGGING
* G.P.S.	PT.# 2241		PAPERED		* S.F.N.F. 5/8" REBAR - FOUND LOP NAIL & FILLINGER
G.P.S.	PT.#	3023	PAPERED		* (8-1-93)

Bk 1429

G.P.S.	pt.#		pointed	Y	G.E. # 578
*G.P.S.	pt.#		pointed	Y	G.E. # 514 - SET P.K. NEW G.P.S.
CENTER OF SECTION			pointed	Y	Flood control GATE NEXT TO GOLF COURSE (COP. NAIL NORTH SIDE C.A.P. DIKE)
G.E.	pt.#	560	pointed	Y	G.E. # 526 → COP. (SOUTH OF FRANKLIN WOLD HOUSING ON 90th ST. #1000' EAST ON N side DESERT SUN. SUBDIV)
E.P.S.	pt.#		pointed	Y	G.E. pt. # 579
G.E.	pt.#	595	pointed	Y	End. G.L.O. CORNER SEC. 5
G.P.S.	pt.#		EXISTING	-|-	End. S1/4 SEC 5 EXISTING "+" POOR SIGNAL
G.E.	pt.#	561	PAPERED	Λ	± 300' W.E. of ROTH'S RESTAURANT

1

8-24-93

8-25-93

BK 1429

G.E.	pt# 528		painted	Y	Fnd O.O.S. B/C 82'd s/ Prinress Fnd P.D.O.F. & Attitude
*	E.P.S. UNIT - JUMPING AROUND				
G.P.S.	pt.#	7313	paperg.	—	F.d. GLO. G.E.# 581
E.P.S.	pt.#	7312	popered	—	Fnd. GLO G.E.# 580
E.P.S.	pt.#	7311	popered	Y	Fnd. O.O.S. B/C G.E.# 564

8-26-93

BK 1429					
G.E. Pt # 530		papered	Y		± Center Sect. 25 (set Hub)
G.E. Pt # 532		papered	Y		± Center Sect. 24 (set Hub) (No Roads)
G.E. Pt # 528		papered	Y		± Center Sect. 36 (set Hub)
E.P.G. Pt #	2263	papered	Y		Find G.L.O. G.E # 517
G.E. Pt # 563		papered	Y		± Center Sect. 31 (Drainage line & Cross Fence on Front)
*G.P.G. Pt #	2271	Re-Paper	Y	G.E. # 596	
G.E. Pt # 597		papered	Y		± Center Sect. 32

8-27-93

BK 1429

G.P.S.	Pt. #	7323	Moved	^	
G.E.	Pt. # 598		Removed	Y	

G.E. # 609

+ ~~[illegible]~~ 1/4 SEC T [illegible] R [illegible]

BK 1429

G.P.S.	Pt. #	[illegible]	[illegible]	Y
G.E.	Pt. #	611	[illegible]	Y
G.E.	Pt. #	619	[illegible]	Y
Re Popped #		G.E. 571		Y

G.E. # 610

± 1/4 Cor. 29/28 (set [illegible])

± Center Sec. 28 (set [illegible])

(12)

8-21-93

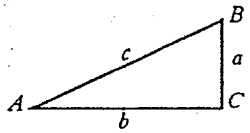
B1429

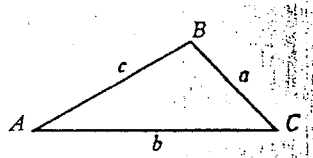
G.P.S. Pt.#	7283	Proposed	Y	
G.G. Pt.#	6227	Proposed	Y	

G.G. Pt. # 6224

± Center Sec. 27

FORMULAE FOR SOLVING RIGHT TRIANGLES





$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

BK 1430

INDEX I

SCOTTSDALE GREENBELT

PG. DESC

1-7 PANEL POINTS

BK 1429

G.P.S.	#	726	PRINTED	Y	
G.P.S.	#	727	PRINTED	Y	
G.P.S.	#	728	PRINTED	Y	
G.P.S.	#	742	PRINTED	Y	
G.P.S.	#	743	PRINTED	Y	
G.P.S.	#	[illegible]	PRINTED	Y	
G.P.S.	#	785	PRINTED	Y	
G.P.S.	#	783	PRINTED	Y	
* G.P.S.	#	771	EXISTING	-/-	

CALLS FOR P.K. → NOW C.O.S. CAPFLUSH
← RE- G.P.S.

9-2-92

BK 1425

G.E.	#400		Painted	Y	
* G.E.	#401		Painted	Y	
* G.E.	#402		Painted	Y	
G.E.	#405		Painted	Y	
G.E.	#407		"	Y	
G.E.	#409		"	Y	
G.E.	#411		2 Log's Paper 1 Log Point	—	
G.E.	#413		EXISTING " "	Y	Painted
G.E.	#751		Painted	Y	
RE-PRINT G.E.					
* G.E.	#545		Painted	—	by OTHERS

1) I.P. in Pothole (Down 0.14')

S.F.N.F. SET P.K. Edge of

SET P.K. ± 5' East of Pothole

± 200' South Pima & Via Linda

(G.P.S.I.T. # 3242)

1430

SCOTTSDALE G.I.S.
PHASE II

TELEDYNE

425

INDEX II

BK 1430 SCOTTSDALE GREEN BELT

G.P.S. PANEL POINTS

8-2-93 ①

G.P.S. #	DESC.
2361	FOUND AS DESCRIBED
2134 *	RE-G.P.S. VAGUE POINT DESC.
2131	FOUND AS DESCRIBED
~~2113~~	~~"~~ ~~"~~ ~~"~~
2142	" " "
2124 *	RE-G.P.S. VAGUE POINT DESC.

BK1430

SCOTTSDALE GREENBELT
G.P.S. PANEL POINTS

G.P.S.#	DESC.
4323	FOUND AS DESCRIBED E 1/4 SEC 32
4334	FOUND AS DESCRIBED C 33
4333	" " " E 1/4 SEC 33
4344	" " " C 34
5031	G.P.S.? N 1/4 SEC 3 NEEDS TO BE CHECKED PRIOR TO FLIGHT.
5034	" " " S/C BENT C.O.T EXIST. 4'+' W/2' WIDE LEGS C 3
5033 *	RE-G.P.S. FOUND STONE W/CHISELED IN H/H EXIST 4'+' PANEL W/2 WIDE LEGS
5102	FOUND AS DESCRIBED EXIST. 4'+' PANEL W/2' WIDE LEGS
5111	" " " " " " " " " " "

8-3-93 ②

G.P.S.#	DESC.
5032 *	RE-G.P.S. NO POINT DESC. GIVEN C.O.S. B/C IN H/H INT SCOTTSDALE & MCDOWELL
4343 *	RE-G.P.S. NO POINT DESC. GIVEN C.O.S. B/C IN H/H INT. SCOTTSDALE & OAK
4354	FOUND AS DESCRIBED C 35 '+' 2' LEGS 1' WIDE.
5021 *	C.O.S. B/C IN H/H INT. MCDOWELL & MILLER N. 1/4 SEC 2 RE-G.P.S.
5024	FOUND AS DESCRIBED C 2 (BROKEN OFF B/C BASE)
5023	" " " E 1/4 SEC 2
5022	" " " N.E. COR SEC 2
4353	" " " E 1/4 SEC. 35

BK 1430 SCOTTSDALE GREENBELT

G.P.S. PANEL POINTS

8-3-93 (1)

G.P.S. #	DESC.
4364	FOUND AS DESCRIBED C36
5112	" " " M.E COR 1)
5122	* RE-G.P.S. FOUND ADOT ALUM CAP IN H/H

BK1430	SCOTTSDALE GREENBELT				3-9-93 (A)
	PANEL POINTS				
G.P.S.#	JESC				
5031	RE-PAINTED	A/C OVERLAY			

BK1430 SCOTTSDALE GREENBELT

PANEL POINTS

8-31-93 (5)

#	DESC.
724	C.O.S. B/C IN H/H INT. SCOTTSDALE RD & GREENWAY (HAYDEN E.) PAINTED "Y" 3.5' LEGS (TYP)
725	M.C.D.E. B/C IN H/H ON SCOTTSDALE RD & PROD. OF BELL RD. ± 600' N. OF FRANK LLOYD WRIGHT BLVD. PAINTED
741	C.O.S. B/C FLUSH INT. GREENWAY & 17TH FL. N. PAINTED "Y" *RE-G.P.S.
740	C.O.S B/C FLUSH INT. HAYDEN & THUNDERBIRD. PAINTED "Y"
723	C.O.S. B/C IN H/H INT. THUNDERBIRD & SCOTTSDALE. PAINTED "Y"
722	G.L.O. B/C IN H/H INT. CACTUS & SCOTTSDALE. PAINTED "Y"

#	DESC.
7066	C.O.P. B/C IN H/H INT. CACTUS & 60TH ST. FND EXIST. "+" W/3.5' LEGS PAINTED OVER "+" RE-G.P.S.?
711	C.O.S. B/C IN H/H INT. CHOLLA & 64TH ST. PAINTED "Y" RE-G.P.S.?
753	C.O.S. B/C IN H/H N.E. COR SEC. 12 ± 1/4 MI. S. OF FRANK LLOYD WRIGHT BLVD. ON PIMA RD. PAINTED "Y"

BK 1430 SCOTTSDALE GREENBELT

PANEL POINTS

9-1-93 (6)

#	
770	END 60p NAIL W/STRADDLERS IN POTHOLE INT. 96TH ST. & CACTUS. "Y"
787	C.O.S. B/C FLUSH INT. 104TH ST. & CACTUS PAINTED "Y"
803	C.O.S. B/C FLUSH INT. 108TH ST. & CACTUS PAINTED "Y"
836	G.L.O. B/C FLUSH W/O.G. N.E. COR SEC. 22 PAPER "Y"
828	G.L.O. B/C ON 1½" POST ±1.1' ABV. O.G. N 1/4 COR SEC 22 PAPER "Y"
807	G.L.O. B/C ON 2" POST ±1.2' ABV. O.G. N.E. COR SEC. 16 PAPER "Y"

BK1430

SCOTTSDALE GREENBELT
PANEL POINTS

GPS #	GREINER #	DESC.
5012	399	END AS DESC. PAINTED "Y"
	402	SET P.K. 0.5 MI. N OF THOMAS ON PIMA RD. (VERT ONLY) PAINTED "Y"
	404	SET P.K. 0.5 MI. N. OF IND. SCHOOL ON PIMA (VERT ONLY) PAINTED "Y"
4133	406	END AS DESC. PAINTED "Y"
4123	408	END AS DESC. PAINTED "Y"
	410	SET P.K. 0.5 MI N OF IND. BENDED ON PIMA (VERT ONLY) PAINTED "Y"
3363	412	END AS DESC. PAPER "Y"

G.P.S #	GREINER #	DESC
(RE-G.P.S.)	750	END C.O.S. B/C FLUSH @ N. MEDIAN BLNS. PIMA & SHEA PAINT & PAPER "Y"
8077 ALT.	752	END AS DESC. PAINT "Y"

1431

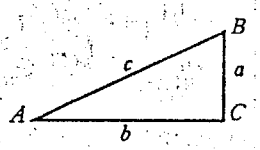
LEUGIS

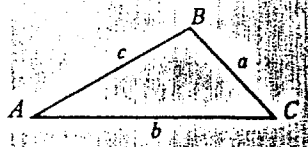
SCOTTS. G.I.S.

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES





$\text{Sin } A = \frac{a}{c} = \text{Cos } B$ $\quad$ $\text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B$ $\quad$ $\text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B$ $\quad$ $\text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A.$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2 + b^2}$

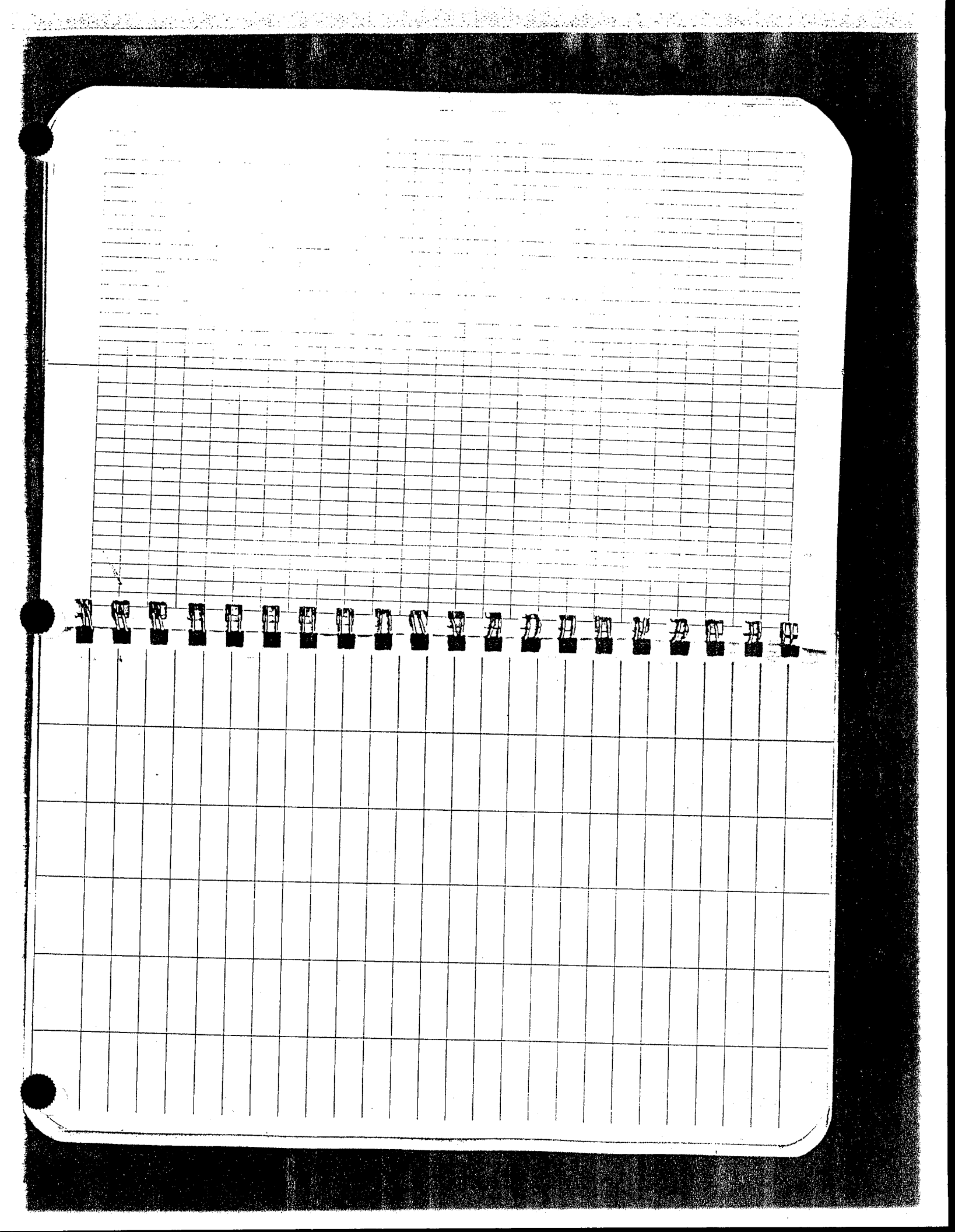
FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

— INDEX — SCOTTSDALE G.I.S.

Page	Description
1 — 30	LEVELS



BK 1431

STA	⊥	HI	–	ELEV.	Adj ELEV	DESCRIPTION
BENCH	BMA			1495.76		BC IN HH @ ⅓ OF PARADISE LN & COTSDALE Rd.
	5.71	1501.47				
TP			4.74	1496.73	1496.73	ROCK
	6.12	1502.85				
TP			4.09	1498.76	1498.75	ROCK
	5.96	1504.72				
TP			4.29	1500.43		ROCK
	5.31	1505.74				
TP			3.51	1502.23		ROCK
	4.48	1506.71				
TP			5.02	1501.69		PVMT.
	7.22	1508.91				
TP			3.52	1505.39		T/C
	5.02	1510.41				
513			3.40	1507.01	1505.98 1507	GLO CAP (dN 0.3) IN DIRT @ NE COR OF PARADISE LN.
	3.35	1510.36				# 513 = 3023 & GREENWAY-HAYDEN Rd.
TP			4.91	1505.45		PVMT.
	3.51	1508.96				
TP			6.93	1502.03		PVMT
	4.32	1506.35				
TP			4.40	1501.95		PVMT
	4.70	1506.65				
TP			5.94	1500.71		PVMT
	4.66	1505.37				
			6.35	1499.02		

(1)

8-11-93

8-11-93

BK 1431

STA	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
	4.39	1503.41				
TP			6.86	1496.55		[illegible]
	5.06	1501.61				
BENCH			5.80	1495.81	1495.76	BC [illegible] OF [illegible] LN & [illegible] Rd. E.O.C. = 0.05

BK 1431

(3)

8-11-93

	+	H.I.	—	Elev.		DESCRIPTION
B.M.				1506.98	1506.98	# 513 G.L.O.
	8.97	1515.95				
T.P.			6.25	1509.70	1509.70	Rock
	7.59	1517.29				
T.P.			6.66	1510.63	1510.62	Rock
	8.27	1518.90				
T.P.			3.43	1515.47	1515.46 ~~1515.45~~	Rock
	5.57	1521.04				
T.P.			5.29	1515.75	1515.74	Rock
	4.71	1520.46				
T.P.			8.04	1512.42	1512.41	Rock
	5.30	1517.72				
T.P.			7.47	1510.25	1510.23	Rock
	4.73	1514.98				
T.P.			1.20	1513.78	1513.76	Rock
	8.79	1522.57				
#543			3.06	1519.51	1519.49	Reset ~~0.5 B/C~~ IN H/H ± 1/4 MI N. OF FRANK LLOYD (3013) WRIGHT BLVD. ON PIMA RD. (+1.27 TO A/C)
					RETURN	LOOP
	2.81	1522.32				
T.P			8.52	1513.80	1513.78	Rock
	1.03	1514.83				
T.P			4.27	1510.56	1510.53	Rock
	7.61	1518.17				

DK 1431

(4)

8-11.93

	+	H.I.	−	Elev.		
T.P.			5.84	1512.33	1512.30	Rock
	7.94	1520.27				
T.P.			11.76	1515.51	1515.48	Rock
	6.52	1522.03				
T.P.			6.51	1515.52	1515.49	Rock
	5.50	1521.02				
T.P.			6.63	1514.39	1514.35	Rock
	3.11	1517.50				
T.P.			7.23	1510.27	1510.23	Rock
	5.68	1515.95				
V-IN			8.93	1507.02	1506.98	#513 G.L.O.

(5)

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BK 1431	+	H.I.	−	ELEV.		
				1519.49		#543 Rebar 4/4 Pipe ±1/4 North Frank Lopez WAPT
	14.59	1534.08				
T.P.			0.35	1533.73	1533.72	Rock
	11.55	1545.28				
T.P.			0.14	1545.14	1545.13	Rock
	11.74	1556.88				
T.B.M.			3.56	1553.32	1553.30	#544 B/C 4/4 Pipe & Bell (#1.05 Down) 3012
	14.17	1567.49				
T.P.			0.25	1567.24	1567.22	Rock
	13.00	1580.24				
T.P.			0.18	1580.06	1580.03	Rock
	15.60	1595.66				
T.P.			0.84	1594.82	1594.79	Rock
	6.24	1601.06				
T.B.M.			2.82	1598.24	1598.20	#545 (B/C FLUSH) 2363
	— LOOP	BACK —				
	0.66	1598.90				
T.P.			12.05	1586.85	1586.81	Rock
	1.54	1588.39				
T.P.			14.19	1574.20	1574.15	Rock
	0.27	1574.47				
T.P.			12.57	1561.90	1561.85	Rock
	1.13	1563.03				
T.B.M.			9.67	1553.36	1553.30	#544

BK 1431						
	+	H.I.	−	Elev.		
	1.24	1554.60				
T.P.			12.89	1541.71	1541.65	Rock
	0.66	1542.37				
T.P.			10.57	1531.~~18~~ 80	1531.73	Rock
	0.48	1532.28				
~~T.P.~~						
V-IN			12.72	1519.56	1519.49	#543
	[illegible]					
	[illegible]		[illegible]			

BK 1431							
	+	H.I.	−	ELEV.			
				1598.20		#545 B/C Flush	
	10.41	1608.61					
T.P.			0.56	1608.05	1608.05	Rock	
	14.04	1622.09					
T.P.			1.23	1620.86	1620.86	Rock	
	15.50	1636.36					
T.P.			0.94	1635.42	1635.42	Rock	
	15.18	1650.60					
T.B.M.			11.37	1639.23	1639.23	#546 B/C Flush	2362
	11.06	1650.29					
T.P.			0.29	1650.00	1650.00	Rock	
	15.31	1665.31					
T.P.			0.65	1664.66	1664.66	Rock	
	16.03	1680.69					
T.P.			0.48	1680.21	1680.21	Rock	
	11.27	1691.48					
T.B.M.			1.02	1690.46	1690.45	#547 B/C Flush	2253
	Loop	Back					
	0.68	1691.14					
T.P.			13.85	1677.29	1677.28	Rock	
	0.67	1677.96					
T.P.			14.28	1663.68	1663.67	Rock	
	0.98	1664.66					
T.P.			12.92	1651.74	1651.73		

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BK.1431						
	+	H.I.	−	ELEV.		
	0.06	1651.80				
T.B.M.			12.56	1639.24	1639.23	#546
	0.27	1639.51				
T.P.			16.50	1623.01	1623.00	Rock
	1.03	1624.04				
T.P.			14.75	1609.29	1609.28	Rock
	0.69	1609.98				
T.P.			10.70	1599.28	1599.27	Rock
	3.14	1602.42				
V-IN			4.21	1598.21	1598.20	#545
	116.32		116.31			

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	+	H.I.	−	Elev.			
BK 14.31							
				1690.45		# 547 B/C Flush	
	13.15	1703.60					
T.P.		~~0.01~~	0.01	1703.59	1703.59	Rock	
	15.06	1718.65					
T.P.		~~0.91~~	0.91	1717.74	1717.74	Rock	
	15.08	1732.82					
T.P.			0.28	1732.54	1732.55	Rock	
	18.79	1751.33					
T.B.M.			3.08	1748.25	1748.26	# 548 B/C Flush	2252
	15.33	1763.58					
T.P.			0.46	1763.12	1763.13	Rock	
	15.16	1778.28					
T.P.			0.41	1777.87	1777.88	Rock	
	13.52	1791.39					
T.P.			0.89	1790.50	1790.52	Rock	
	13.23	1803.73					
T.P.			0.31	1803.42	1803.44	Rock	
	6.90	1810.32					
T.B.M.			2.11	1808.21	1808.23	# 549 B/C Flush	2243
— Loop Back —							
	0.81	1809.02					
T.P.			14.78	1794.24	1794.26	Rock	
	0.46	1794.70					
T.P.			14.55	1780.15	1780.18	Rock	

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BK 1421						
	+	Hi.	−	Elev.		
	0.55	1780.70				
T.P.			17.17	1763.53	1763.56	Rock
	0.08	1763.61				
T.B.M.			15.39	1748.22	1748.25	# 548
	0.25	1748.47				
T.P.			17.49	1730.98	1731.01 ~~1730.~~	Rock
	0.30	1731.28				
T.P.			16.80	1714.48	1714.52	Rock
	0.04	1714.52				
T.P.			15.48	1699.04 ~~1730.00~~	1699.08	Rock
	1.24	1700.28 ~~1731.24~~				
V-IN			9.87	1690.41 ~~1721.39~~	1690.45	# 547
	129.75		129.99			

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	+	H.I.	−	Elev.		
BK 1431						
				1808.23		# 549 B/C Flush
	12.93	1821.16				
T.P.			0.27	1820.89	1820.89	Rock
	14.15	1835.04				
T.P.			0.23	1834.81	1834.82	Rock
	13.40	1848.21				
T.P.			0.25	1847.96	1847.97	Rock
	13.18	1861.14				
T.P.			0.37	1860.77	1860.79	Rock
	13.79	1874.56				
T.B.M.			5.20	1869.36	1869.38	# 550 (Top Pipe B/C Broken)
	13.09	1882.45				
T.P.			0.11	1882.34	1882.37	Rock
	14.58	1896.92				
T.P.			0.30	1896.62	1896.65	Rock
	14.68	1911.30				
T.P.			0.64	1910.66	1910.70	Rock
	14.72	1925.33				
T.B.M.			0.55	1924.83	1924.87	# 551 B/C Flush C.O.S. on Pima (7188)
— Loop Back —						
	0.31	1925.14				
T.P.			15.30	1909.84	1909.88	Rock
	0.39	1910.23				
T.P.			15.64	1894.59	1894.63	Rock

BK 1431						
	+	H.I.	−	ELEV.		
	1.72	1896.32				
T.P.			16.78	1879.54	1879.59	Rock
	0.87	1880.41				
T.B.M.			11.11	1869.30	1869.36	# 550
	0.44	1869.74				
T.P.			14.77	1854.97	1855.03	Rock
	0.09	1855.06				
T.P.			15.71	1839.35	1839.42	Rock
	0.27	1839.62				
T.P.			14.54	1825.08	1825.15	Rock
	0.34	1825.42				
T.P.			11.99	1813.43	1813.51	Rock
	2.14	1815.57				
V-IN			7.42	1808.15	1808.23	# 549
	121.10		121.16			

BK 1431

(13)

8-13-93

	+	H.I.	−	ELEV.		
559				2305.38		# 559 (3/4" PIPE ±8° EAST Edge PAVING ON PIMA) (0.55 dN)
	1.72	2307.10				
TP			23.82	2283.28 ~~2330.92~~	2283.28	ROCK
	0.15	2283.43 ~~2331.07~~				
TP			9.74	2273.69 ~~2321.33~~	2273.70	ROCK
	14.67	2288.36 ~~2336.00~~				
TP			8.19	2280.17 ~~2327.81~~	2280.18	ROCK
	0.40	2280.57 ~~2328.21~~				
542			11.32	2269.25 ~~2316.89~~	2269.27	# 542 (NAIL)
	2.98	2272.23 ~~2319.87~~				
TP			11.20	2261.03 ~~2308.67~~	2261.05	ROCK
	1.20	2262.23 ~~2309.87~~				
TP			16.74	2245.49 ~~2293.13~~	2245.51	ROCK
	1.68	2247.17 ~~2294.81~~				
TP			15.92	2231.25 ~~2278.89~~ ~~2310.73~~	2231.28	ROCK
	1.64	2232.89 ~~2280.53~~				
525			13.43	2219.46 ~~2267.10~~	2219.49	# 525 3/4" IP @ ℄ OF HAYDEN & E. VIA DONA 1263 (0.20 DOWN)
	13.30	2232.76 ~~2280.40~~				
TP			1.64	2231.12 ~~2278.76~~	2231.16	ROCK
	17.57	2248.69 ~~2296.33~~				
TP			0.95	2247.74 ~~2295.38~~	2247.78	ROCK
	14.37	2262.11 ~~2309.75~~				
TP			1.51	2260.60 ~~2308.24~~	2260.65	ROCK
	14.27	2274.87 ~~2322.51~~				

BK 1431

	+	HI	-	ELEV.		DESCRIPTION
						CON'T FROM PREVIOUS Pg.
542			5.70	2269.17 ~~2316.81~~	2269.22	#542
	17.43	2286.60 ~~2334.24~~				
TP			13.86	2272.74 ~~2320.38~~	2272.80	ROCK
	6.94	2279.68 ~~2327.32~~				
TP			1.55	2278.13 ~~2325.77~~	2278.19	ROCK
	24.10	2302.23 ~~2349.87~~				
TP			3.37	2298.86 ~~2346.50~~	2298.93	ROCK
	9.95	2308.81 ~~2356.45~~				
559			3.50	2305.31 ~~2352.95~~	2305.38	#559

E.O.C = 0.07

BK 1431

	+	HI	−	ELEV		DESCRIPTION
558				2275.27		#558 C.O.S. BC FLUSH @ DYNAMITE & PIMA 1362
	2.64	2277.91				
TP			17.27	2260.64	2260.64	PVMT
	1.17	2261.81				
TP			23.03	2238.78	2238.77	ROCK
	1.30	2240.08				
TP			9.73	2230.35	2230.34	PVMT
	0.47	2230.82				
541			3.35	2227.47	2227.46	#541 - BC MISSING - FLUSH @ ℄ DYNAMITE (1361)
	1.04	2228.51				
TP			14.90	2213.61	2213.60	ROCK
	0.22	2213.83				
TP			14.84	2198.99	2198.97	ROCK
	3.21	2202.20				
524			19.76	2182.44	2182.42	#524 - C.O.S. B/C FLUSH DYNAMITE & HAYDEN (1352)
	19.54	2201.98				
TP			0.66	2201.32	2201.30	PVMT
	15.25	2216.57				
TP			0.77	2215.80	2215.77	PVMT
	12.35	2228.15				
541			0.67	2227.48	2227.45	#541
	10.60	2238.08				
TP			9.23	2228.85	2228.82	ROCK
	20.00	2248.85				

BK 1431

	+	HI	−	ELEV		DESCRIPTION
TP			0.68	2248.17	2248.14	PVMT
	23.19	2271.36				
TP			0.92	2270.44	2270.40	PVMT
	7.71	2278.15				
558			2.84	2275.31	2275.27	#558 BC @ PIMA & DYNAMITE E.O.C. = 0.04

BK 1431

	+	HI	−	ELEV.		DESCRIPTION
556				2180.47		#556 - C.O.S. BC FLUSH @ ⅓ OF JOMAX & DYNAMITE
	1.79	2182.26				
TP			10.65	2171.61	2171.61	PVMT
	2.42	2174.03				
TP			12.56	2161.47	2161.47	PVMT
	0.17	2161.64				
TP			11.46	2150.18	2150.18	PVMT
	3.11	2153.29				
539			8.06	2145.23	2145.23	#539 - 3/4" IP IN PVMT (UP - 0.1) (2011)
	0.84	2146.07				
TP			17.28	2128.79	2128.79	PVMT
	0.90	2129.69				
TP			11.41	2118.28	2118.28	PVMT
	9.90	2128.18				
TP			3.87	2124.31	2124.31	PVMT
	2.35	2126.66				
522			11.12	2115.54	2115.54	#522 - 3/4" IP IN PVMT @ JOMAX & HAYDEN (2022) SOUTH
	10.95	2126.49				
TP			2.16	2124.33	2124.34	PVMT
	3.72	2128.05				
TP			10.78	2117.27	2117.28	PVMT
	10.76	2128.03				
TP			1.01	2127.02	2127.03	PVMT
	16.85	2143.87				

BK 1431

	+	HI	−	ELEV		DESCRIPTION
TP			1.07	2142.80	2142.81	PVMT
	8.07	2150.87				
539			5.69	2145.18	2145.19	# 539
	10.03	2155.21				
TP			1.66	2153.55	2153.56	PVMT
	13.75	2167.30				
TP			2.32	2164.98	2164.99	PVMT
	10.00	2174.98				
TP			1.87	2173.11	2173.12	PVMT
	10.10	2183.21				
556			2.75	2180.46	2180.47	#556 - BC FLUSH @ PIMA & JOMAX Rd
						E.O.C. = 0.01

BK 1439

	+	HI	−	ELEV		DESCRIPTION
522				2115.54		#522 – 3/4" IP @ JOMAX & HAYDEN-SOUTH (2022)
	1.41	2116.95				
TP			14.20	2102.75	2102.75	PVMT
	0.13	2102.88				
TP			13.17	2089.71	2089.72	PVMT
	0.51	2090.22				
TP			17.92	2072.30	2072.31	PVMT
	0.23	2072.53				
512			18.48	2054.05	2054.06	# 512 - 3/4" IP ON JOMAX RD 0.5 MI. W. OF HAYDEN (2021)
	18.37	2072.42				
TP			0.52	2071.90	2071.91	PVMT
	14.01	2085.91				
TP			0.73	2085.18	2085.20	PVMT
	15.46	2100.64				
TP			0.71	2099.93	2099.95	ROCK
	16.35	2116.28				
522			0.76	2115.52	2115.54	# 522 - 3/4" IP @ JOMAX & HAYDEN SOUTH E.O.C. = 0.02

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BK 1431

	+	H.I.	−	Elev.		
★T.B.M.				2115.54		#522 ★ SEE BK. 1436 PG. 24
	12.79	2128.33				
T.P.			2.44	2125.89	2125.88	Rock
	22.10	2147.99				
T.P.			4.93	2143.06	2143.04	Rock
	21.68	2164.74				
T.P.			9.37	2155.37	2155.34	Rock
	20.23	2175.60				
T.P.			7.45	2168.15	2168.11	Rock
	14.84	2182.99				
★T.B.M.			4.14	2178.85	2178.80	#540 (60p. No. 1)
	2.01	2180.86				
T.P.			12.69	2168.17	2168.11	Rock
	9.76	2177.93				
T.P.			1.07	2176.86	2176.79	Rock
	7.47	2184.33				
T.P.			11.95	2172.38	2172.30	Rock
	1.42	2173.80				
T.P.			10.02	2163.78	2163.69	Rock
	0.59	2164.37				
T.P.			12.82	2150.55	2150.46	Rock
	2.68	2153.23				
T.P.			15.45	2137.78	2137.68	Rock

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BK 1431						
	+	H.I.	−	Elev.		
	4.30	2142.08				
T.P.			6.47	2135.61	2135.50	Rock
	9.83	2145.44				
T.B.M.			0.72	2144.72	2144.60	# 523 (GLO up 1.4') 1353
	0.35	2145.07				
T.P.			10.69	2134.38	2134.25	Rock
	4.98	2139.36				
T.P.			10.91	2128.45	2128.31	Rock
	2.12	2130.57				
T.P.			7.37	2123.20	2123.05	Rock
	0.83	2124.03				
T.P.			8.31	2115.72	2115.56	Rock
	5.65	2121.37				
T.P.			4.43	2116.94	2116.77	Rock
	4.30	2121.24				
V-IN			5.52	2115.72	2115.54	# 522
	1457.73		1457.75			

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BK 1431

	+	H.I.	−	Elev.		
T.B.M.				2121.52		# 555 (C.O.) B/C Flush Pima & Desert Highlands 7068
	10.85	2132.37				
T.P.			7.31	2125.06	2125.07	Rock
	4.70	2129.76				
T.P.			12.78	2116.98	2117.00	Rock
	1.22	2118.20				
T.P.			13.31	2104.89	2104.92	Rock
	2.66	2107.55				
T.B.M.			12.03	2095.52	2095.56	# 538 (B/C H/H down 0.56) 2014
	1.56	2097.08				
T.P.			14.33	2082.75	2082.80	Rock
	1.11	2083.86				
T.P.			14.67	2069.19	2069.25	Rock
	1.56	2070.75				
T.P.			15.60	2055.15	2055.23	Rock
	0.06	2055.21				
T.P.			9.77	2045.44	2045.53	Rock
	0.42	2045.86				
T.B.M.			11.25	2034.61	2034.71	# 537 (B/C H/H down 0.40) 2121
	12.74	2047.35				
T.P.			2.65	2044.70	2044.81	Rock
	13.89	2058.59				
T.P.			0.72	2057.87	2057.99	Rock

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BK 1431

	+	H.I.	−	Elev.	
	15.85	2073.72			
T.P.			1.47	2072.25	2072.38
	3.24	2075.49			
Y-T.B.M.			2.11	2073.38	2073.52

Rock

#554 (East Cap Flume) Happy Valley / Pima West

8-17-93

BK 1431

	+	H.I.	−	ELEV.		
T.B.M.				2034.71		#537 C.O.S. B/C IN H/H HAPPY VALLEY & 84TH ST S. (+0.38 TO A/C)
	3.31	2038.02				
T.P.			12.24	2025.78	2025.78	Rock
	2.45	2028.23				
T.P.			10.51	2017.72	2017.72	Rock
	6.74	2024.46				
#520			9.29	2015.17	2015.17	G.L.O. B/C ON 2" POST (BENT) N.E. COR SEC. 11 HAPPY VALLEY & HAYDEN. (+0.25 TO O.G.) 2112
	2.95	2018.12				
T.P.			13.66	2004.46	2004.47	Rock
	0.14	2004.60				
T.P.			15.54	1989.06	1989.07	NAIL
	0.34	1989.40				
T.P.			16.73	1972.67	1972.68	Rock
	4.44	1977.11				
#510			7.84	1969.27	1969.28	G.L.O. B/C N. 1/4 COR SEC 11 ± 0.5 MI E. SCOTTSDALE RD. ON HAPPY VALLEY (+1.34 TO O.G.) 2111
	3.63	1972.90				
T.P.			14.63	1958.27	1958.28	Rock
	1.96	1960.23				
T.P.			12.84	1947.39	1947.40	Rock
	1.88	1949.27				

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BK 1431

	+	H.I.	−	ELEV.		
T.P.		1940.86	10.10	1939.17	1939.19	Rock
	1.69	~~AA~~				
T.P.			12.04	1928.82	1928.84	Rock
	6.80	1935.62				
#506			4.24	1931.38	1931.40	2" I.P. FLUSH W/A.C. HAPPY VALLEY & SCOTTSDALE 2102
	0.17	1931.55				
T.P			11.17	1920.38	1920.40	Rock
	0.04	1920.42				
T.P.			14.58	1905.84	1905.86	Rock
	0.65	1906.49				
T.P.			13.13	1893.36	1893.38	Rock
	1.48	1894.84				
#505			8.79	1886.05	1886.07	M.C.H.D. B/C IN H/H ±0.5 MI N. OF PINN. PK RD. ON SCOTTSDALE RD. (+0.20 TO A/C) 2103
	2.51	1888.56				
T.P			12.25	1876.31	1876.34	Rock
	0.96	1877.27				
T.P.			12.94	1864.33	1864.36	Rock
	0.95	1865.23				
T.P.			11.88	1853.40	1853.43	Rock
	0.21	1853.61				

8-17-93

BK 1421

	+	H.I.	−	ELEV.		
#504			14.74	1838.87	1838.90	M.C.H.D. B/C IN H/H PINN. PK & SCOTTSDALE (+0.58 TO A/C) 2152
	11.13	1850.00				
T.P.			1.09	1848.91	1848.94	Rock
	15.16	1864.07				
T.P.			1.26	1862.81	1862.84	Rock
	17.11	1879.92				
#508			3.02	1876.90	1876.93	M.C.H.D. B/C IN H/H MILLER & PINN. PK RD. (+0.41 TO A/C) 2141
	12.74	1889.64				
T.P.			0.53	1889.11	1889.15	Rock
	7.98	1897.09				
T.P.			0.33	1896.76	1896.80	Rock
	10.73	1907.49				
#518			4.61	1902.88	1902.92	M.C.H.D. B/C IN H/H HAYDEN & FINN. PK. RD. (+0.59 TO A/C) 2142
	9.56	1912.44				
T.P.			0.86	1911.58	1911.62	Rock
	12.80	1924.38				
T.P.			0.81	1923.57	1923.61	Rock
	14.54	1938.11				

8-17-93

BK 1431

B.M.	+	H.I.	−	ELEV.		
T.P.			0.49	1937.62	1937.66	Rock
	6.44	1944.06				
#535			2.82	1941.24	1941.29	M.C.H.D. B/C IN H/H PINN. PK. RD & 84TH ST. N. (+0.38 TO A/C) 2131
	12.46	1953.70				
T.P.			0.71	1952.99	1953.04	Rock
	12.28	1965.27				
T.P.			0.95	1964.32	1964.37	Rock
	18.89	1983.21				
#552			1.41	1981.80	1981.85	C.O.S. B/C IN H/H PINN. PK. RD & PIMA √-IN. 2132

8-17-93

BK 1431

B.M.	+	H.I.	−	ELEV		DESC
#518				1902.92		M.C.H.D. B/C IN H/H HAYDEN & PINN. PK RD. 2142
	8.00	1910.92				
T.P.			0.77	1910.15	1910.15	Rock
	13.00	1923.15				
T.P.			0.50	1922.65	1922.65	Rock
	17.69	1940.34				
T.P.			0.20	1940.14	1940.14	Rock
	16.88	1957.02				
T.P.			0.73	1956.29	1956.29	Rock
	9.77	1966.06				
#519			0.52	1965.54	1965.53	M.C.H.D. B/C FLUSH HAYDEN & PARKVIEW LN. EAST 2113
	16.46	1982.00				
T.P.			0.63	1981.37	1981.36	Rock
	14.87	1996.24				
T.P.			0.88	1995.36	1995.35	Rock
	15.89	2011.25				
T.P.			1.67	2009.58	2009.57	Rock
	8.77	2018.35				
#520			3.17	2015.18	2015.17	G.L.O. B/C ON 2" POST (FROM PG. 24 THIS BK.) V-IN 2112

8-18-93

BK 1431

	+	H.I.	−	ELEV.	
*T.B.M.				2015.17	
	15.54	2030.71			
T.P.			0.64	2030.07	
	16.41	2046.48			
T.P.			0.86	2045.62	
	17.99	2063.61			
T.P.			0.91	2062.70	
	14.61	2077.31			
T.B.M.			4.01	2073.30	
	9.51	2082.81			
T.P.			1.26	2081.55	
	9.14	2090.69			
T.P.			0.63	2090.06	
	11.94	2102.00			
T.P.			1.51	2100.49	
	13.27	2113.76			
T.P.			4.97	2108.79	
	10.44	2119.23			
V-IN			3.43	2115.80	2115.54
*					

#520 * SEE BK. 1436 PG. 20

Rock

Rock

Rock

#621 (G.I.S. UPC 5½) 2023

Rock

Rock

Rock

Rock

#522 (1" I.P.) * SEE BK. 1436 PG. 20

8-18-93

BK 1431

	+	H.I.	−	ELEV.	
T.B.M.				1886.07	
	8.25	1894.32			
T.P.			1.48	1892.84	1892.84
	14.17	1907.01			
T.P.			0.57	1906.44	1906.44
	13.24	1919.68			
T.P.			1.33	1918.35	1918.35
	17.46	1935.81			
T.B.M.			7.41	1928.40	1928.41
	— Loop Back —				
	5.15	1933.55			
T.P.			16.50	1917.05	1917.06
	0.93	1917.98			
T.P.			12.11	1905.87	1905.88
	0.37	1906.24			
T.P.			12.11	1894.13	1894.14
	0.52	1894.65			
V-IN			8.57	1886.06	1886.07
	60.09		60.16		

#505 (Maricopa County G/L H/H) 21.03

Rock

Rock

Rock

#509 (Hobbstock + Center Section #11 with old Target)

Rock

Rock

Rock

#505

143L

SCOTSMAN C.I.S. LEVELS

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES

$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2+b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ c = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

1432 INDEX I [

TITLE PAGE

SCOTTSDALE G.I.S. LEVELS

INDEX

PG	DESC.
1	LEVEL PEG TEST
2-11	PANELS #552 — #559
12-15	PANELS #570, #588, #603
16-21	PANELS #572, #590, #605, #618
22-23	PANEL #511
24-25	PANEL #501
26-27	PANELS #503, #507
28-29	PANEL #617

1432

INDEX II

1432

LEVEL

100'

3.320

DIFF. = 4.094

200'

1.525

DIFF. = 4.096

ERROR = 0.002

NO ADJUSTMENT

PEG TEST

①

100'

7.414

10'

5.621

1432

B.M.	+	H.I.	−	ELEV.	
#551				1924.87	
	14.96	1939.83			
			0.58	1939.25	1939.25
TP					
	16.77	1956.02			
			0.69	1955.33	1955.33
TP					
	14.38	1969.71			
			0.55	1969.16	1969.15
TP					
	15.71	1984.87			
			3.01	1981.86	1981.85
#552					
	14.04	1995.90			
			0.60	1995.30	1995.29
TP					
	12.11	2007.41			

②

8-12-93

A - T. PRICE

B - C. MIHELICH

SUNNY, WARM

ADJ. ELEV.	GPS NO.	DESC.
	7188	C.O.S. B/C FLUSH ON PIMA RD ± 200' S/O COUNTRY CLUB TRAIL
		Rock
		Rock
		Rock
	#2132	C.O.S. B/C IN H/H PINN. PK. RD & PIMA (± 0.55 to RIM)
		Rock

1432

B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	GPS No	DESC.
			0.51	2006.90	2006.89		
TP							Rock
	12.39	2019.29					
			0.66	2018.63	2018.62		
TP							Rock
	11.80	2030.43					
			2.22	2028.21	2028.20		
#553						#2123	MAR. Co. B/C IN H/H ON PIMA RD. ± 500' S/O De LA O (+ 0.42 to A.C.)
	14.06	2042.27					
			0.22	2042.05	2042.03		
TP							Rock
	14.41	2056.46					
			0.69	2055.77	2055.75		
TP							Rock
	11.57	2067.34					
			2.04	2065.30	2065.28		
" TP							Rock
	10.51	2075.81					

1432								
B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			2.27	2073.54	2073.52			
#554								C.O.S. B/c FLUSH PIMA RD. & HAPPY VALLEY RD. WEST (2122)
	13.57	2087.11						
			0.45	2086.66	2086.63			
TP								PK. NAIL
	14.50	2101.16						
			0.28	2100.88	2100.85			
TP								ROCK
	13.19	2114.07						
			1.10	2112.97	2112.94			
TP								ROCK
	11.23	2124.20						
			2.65	2121.55	2121.52			
#555						#7068		C.O.S. B/c FLUSH PIMA RD. & DESERT HIGHLANDS
	14.00	2135.55						
			0.33	2135.22	2135.19			
17 TP								ROCK
	18.42	2153.64						

1432								
B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			0.52	2153.12	2153.08			
TP								Rock
	15.11	2168.23						
			0.58	2167.65	2167.61			
TP								Rock
	13.87	2181.52						
			1.01	2180.51	2180.47			
#556							—	C.O.S. B/C FLUSH IN NB LANE PIMA RD. & JOMAX RD. (−)
	13.32	2193.83						
			0.74	2193.09	2193.05			
TP								Rock
	16.84	2209.93						
			0.76	2209.17	2209.13			
TP								Rock
	14.94	2224.11						
			0.79	2223.32	2223.27			
23 TP								Rock
	18.13	2241.45						

1432

B.M.	+	H.I	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			1.38	2240.07	2240.02		
#557						#1363	C.O.S. B/C FLUSH PIMA RD. ± 0.5 NORTH OF JOMAX RD.
	14.94	2255.01					
			4.33	2250.68	2250.63		
TP							Rock
	10.62	2261.30					
			0.74	2260.56	2260.51		
TP							Rock
	15.60	2276.16					
			0.84	2275.32	2275.27		
#558						#1362	C.O.S B/C FLUSH PIMA RD. & DYNAMITE RD.
	11.20	2286.52					
			0.74	2285.78	2285.72		
TP							Rock
	12.86	2298.64					
			0.42	2298.22	2298.16		
29 TP							Rock
	8.31	2306.53					

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
1432							
			1.09	2305.44	2305.38		
#559						#1253	3/4" IRON PIPE 8.5' EAST OF PIMA RD. ±0.5 MI. N/o DYNAMITE (+0.59 to N.G.)
				RETURN	Loop		
	0.90	2306.34					
			9.39	2296.95	2296.89		
TP							ROCK
	0.22	2297.17					
			11.27	2285.90	2285.83		
TP							ROCK
	0.31	2286.21					
			11.03	2275.18	2275.11		
TP							ROCK
	0.84	2276.02					
			13.10	2262.92	2262.85		
TP							ROCK
	1.23	2264.15					
			11.70	2252.45	2252.38		
35 TP							ROCK
	2.23	2254.68					

1432								
B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			8.46	2246.22	2246.15			
TP							Rock	
	0.50	2246.72						
			15.29	2231.43	2231.35			
TP							Rock	
	0.28	2231.71						
			17.16	2214.55	2214.47			
TP							Rock	
	1.11	2215.66						
			12.37	2203.29	2203.21			
TP							Rock	
	0.30	2203.59						
			16.96	2186.63	2186.55			
TP							Rock	
	0.86	2187.49						
			15.05	2172.44	2172.36			
TP							Rock	
	0.37	2172.81						
			13.93	2158.88	2158.79			
42 TP							Rock	
	0.16	2159.04						

1432

B.M.	+	H.I	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			17.89	2141.15	2141.06			
TP								Rock
	0.58	2141.73						
			16.97	2124.76	2124.67			
TP								Rock
	0.38	2125.14						
			16.11	2109.03	2108.94			
TP								Rock
	0.92	2109.95						
			11.08	2098.87	2098.78			
TP								Rock
	0.85	2099.72						
			16.16	2083.56	2083.46			
TP								Rock
	0.15	2083.71						
			11.55	2072.16	2072.06			
48 TP								Rock
	1.21	2073.37						

1432

B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.		DESC.
			15.49	2057.88	2057.78				
TP								Rock	
	1.05	2058.93							
			12.29	2046.64	2046.54				
TP								Rock	
	0.56	2047.20							
			13.16	2034.04	2033.94				
TP								Rock	
	0.58	2034.62							
			12.36	2022.26	2022.15				
TP								Rock	
	0.61	2022.87							
			12.55	2010.32	2010.21				
TP								Rock	
	1.14	2011.46							
			12.60	1998.86	1998.75				
TP								Rock	
	1.14	2000.00							
			10.76	1989.24	1989.13				
55 TP								Rock	
	1.03	1990.27							

1432								
B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.	✓
			13.47	1976.80	1976.69			
TP								
	0.20	1977.00					Rock	
			12.38	1964.62	1964.50			
TP								
	2.29	1966.91					Rock	
			12.60	1954.31	1954.19			
TP								
	1.21	1955.52					Rock	
			13.57	1941.95	1941.83			
59 TP								
	0.76	1942.71					Rock	
			17.72	1924.99	1924.87			
#551							P.O.B.	✓-IN =
			END	DAY			8 MILE LOOP	
	437.33		437.21					

1432

8-13-93 (2)

C. MIHELICH / T. PRICE

B.M.	+	H.I	−	ELEV.		ADJ ELEV	G.P.S. NO.	DESC.
#552				1981.85			2132	C.O.S. B/C IN H/H PINNACLE PK. RD. & PIMA (+0.55 to RIM)
	11.84	1993.69						
			0.73	1992.96	1992.96			
T.P.								Rock
	13.75	2006.71						
			0.76	2005.95	2005.94			
T.P.								Rock
	18.81	2024.76						
			0.51	2024.25	2024.24			
T.P.								Rock
	19.01	2043.26						
			3.28	2039.98	2039.97			
#570								C.O.S. B/C IN H/H PINN. PK RD & 93rd ST. SOUTH. (+0.46 TO A/C)
	16.52	2056.50						
			0.38	2056.12	2056.10			
T.P.								Rock
	22.32	2078.44						
			0.31	2078.13	2078.11			
T.P.								Rock
	18.38	2096.51						

1432

B.M.	+	H.I.	−	ELEV		ADJ ELEV	GRG. NO.	DESC.
			0.12	2096.39	2096.37			
T.P.								Rock
	16.47	2112.86						
			4.82	2108.04	2108.01			
#588							7182	G.L.O. B/C IN H/H FINN. PK. RD & DOBSON S. (+1.11 TO A/C)
	22.47	2130.51						
			0.16	2130.35	2130.32			
T.P.								Rock
	23.24	2153.59						
			0.20	2153.39	2153.36			
T.P.								Rock
	22.67	2176.06						
			0.38	2175.68	2175.64			
T.P.								Rock
	10.76	2186.44						
			4.78	2181.66	2181.62			
#603							7171	M.C.H.D. B/C IN H/H ON FINN. PK. RD. ± 100' E. OF CHURCH RD. NORTH (+0.74 TO A/C)
					RETURN	LOOP		
	2.48	2184.14						

1432

B.M.	+	H.I.	−	ELEV.		ADJ ELEV	G.P.S. NO.	DESC.
			8.12	2176.02	2175.97			
T.P.								Rock
	1.00	2177.02						
			22.86	2154.16	2154.11			
T.P.								Rock
	0.60	2154.76						
			23.89	2130.87	2130.82			
T.P.								Rock
	1.01	2131.88						
			23.45	2108.43	2108.37			
T.P.								Rock
	1.76	2110.19						
			18.79	2091.40	2091.34			
T.P.								Rock
	1.13	2092.53						
			17.39	2075.14	2075.08			
T.P.								Rock
	0.49	2075.63						

1432								
B.M.	+	H.I.	−	ELEV.		ADJ ELEV.	G.P.S NO.	DESC.
			23.37	2052.26	2052.19			
T.P.								Rock
	4.12	2056.38						
			17.95	2038.43	2038.36			
T.P.								Rock
	0.18	2038.61						
			18.38	2020.23	2020.16			
T.P.								Rock
	0.40	2020.63						
			19.45	2001.18	2001.10			
T.P.								Rock
	1.09	2002.27						
			11.43	1990.84	1990.76			
T.P.								Rock
	2.84	1993.68						
			11.75	1981.93	1981.85			
#552								√ IN P.O.B.
	233.34		233.26					

1432

B.M.	+	H.I.	−	ELEV.		ADJ ELEV	G.P.S. NO.	DESC
#554				2073.52				C.O.S. B/C FLUSH HAPPY VALLEY RD.W. & PIMA RD.
	7.15	2080.67						
			0.67	2080.00	2080.00			
T.P.								Rock
	14.63	2094.63						
			0.44	2094.19	2094.19			
T.P.								Rock
	15.65	2109.84						
			0.19	2109.65	2109.65			
T.P.								Rock
	15.87	2125.52						
			1.61	2123.91	2123.90			
#572							7071	C.O.S. B/C FLUSH HAPPY VALLEY RD & 92nd ST.
	19.12	2143.03						
			0.10	2142.93	2142.92			
T.P.								Rock
	19.47	2162.40						
			0.31	2162.09	2162.08			
T.P.								Rock
	21.72	2183.81						

1432								
B.M.	+	H.I.	−	ELEV.		ADJ ELEV.	G.P.S. NO.	DESC.
			0.49	2183.32	2183.31			
T.P.								Rock
	21.21	2204.53						
			0.18	2204.35	2204.34			
T.P.								Rock
	20.46	2224.81						
			2.82	2221.99	2221.98			
#59D							7072	M.C.E.D. B/C IN H/H ON HAPPY VALLEY RD 0.5 MI E. OF 92ND ST (+0.62 TO A/C)
	21.66	2243.65						
			0.15	2243.50	2243.49			
T.P.								Rock
	22.89	2266.39						
			0.14	2266.25	2266.23			
T.P.								Rock
	18.09	2284.34						
			0.44	2283.90	2283.88			
T.P.								Rock
	18.11	2302.01						

1432

B.M.	+	H.I.	−	ELEV		ADJ ELEV	G.P.S. No.	DESC
			0.31	2301.70	2301.68			
T.P.								Rock
	10.81	2312.51						
			5.14	2307.37	2307.35			
#605							7081	C.O.S. B/C IN H/H ON HAPPY VALLEY RD. 0.5 MI. W. OF ALMA SCHOOL RD. (+0.55 TO A/C)
	22.32	2329.69						
			0.29	2329.40	2329.38			
T.P.								Rock
	16.62	2346.02						
			0.33	2345.69	2345.67			
T.P.								Rock
	15.55	2361.24						
			0.30	2360.94	2360.92			
T.P.								Rock
	13.07	2374.01						
			1.17	2372.84	2372.81			
#618							7082	C.O.S. B/C IN H/H HAPPY VALLEY & ALMA SCHOOL (+0.51 TO A/C)
					RETURN	LOOP		
	0.77	2373.61						

1432

B.M.	+	H.I.	−	ELEV.		ADJ ELEV	G.P.S. NO.	DESC.
			11.82	2361.79	2361.76			
T.P.								Rock
	3.95	2365.74						
			17.31	2348.43	2348.40			
T.P.								Rock
	1.44	2349.87						
			19.58	2330.29	2330.26			
T.P.								Rock
	1.05	2331.34						
			21.64	2309.70	2309.67			
T.P.								Rock
	0.13	2309.83						
			15.90	2293.93	2293.90			
T.P.								Rock
	0.65	2294.58						
			19.75	2274.83	2274.80			
T.P.								Rock
	0.39	2275.22						
			22.30	2252.92	2252.89			
T.P.								Rock
	1.71	2254.63						

1432

B.M.	+	H.I.	−	ELEV.		ADJ EL.	G.P.S. NO.	DESC.
			24.82	2229.81	2229.77			
T.P.								Rock
	0.18	2229.99						
			21.90	2208.09	2208.05			
T.P.								Rock
	0.10	2208.19						
			24.39	2183.80	2183.76			
T.P.								Rock
	0.52	2184.32						
			19.40	2164.92	2164.88			
T.P.								Rock
	0.52	2165.44						
			19.45	2145.99	2145.95			
T.P.								Rock
	1.46	2147.45						
			21.65	2125.80	2125.76			
T.P.								Rock
	0.11	2125.91						
			17.37	2108.54	2108.50			
T.P.								Rock
	0.62	2109.16						

1432

B.M	+	H.I.	−	ELEV.		ADJ EL	GPS NO.	DESC
			14.76	2094.40	2094.35			
T.P.								Rock
	2.07	2096.47						
			14.94	2081.53	2081.48			
T.P.								Rock
	0.65	2082.18						
			8.65	2073.53	2073.48			
T.P								TOP BOLT TRAFFIC SIGNAL POLE N.E. COR HAR.VAL. & PIMA
	4.36	2077.89						
			4.32	2073.57	2073.52			
#554								V-IN P.O.B.
	335.08		335.03					

1432

9-13-93 (22)

T = PRICE
Φ = MIHELICH

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#506						2102	2" IRON PIPE FLUSH @ HAPPY VALLEY & SCOTTS RD'S
	11.50						
			2.06				
T.P.							ROCK
	16.27						
			0.84				
TP							ROCK
	18.14						
			1.11				
TP							ROCK
	16.48						
			0.26				
TP							ROCK
	20.81						
			0.27				
TP							ROCK
	15.17						
			5.00				1" x 2" HUB FLUSH E. SIDE POWER LINE RD. ± 0.7 mi. NE OF #506
#511							
	18.32						

1432								
B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			0.72					
TP								Rock
	19.02							
			0.35					
TP								Rock
	18.14							
			0.57					
TP								Rock
	15.93							
			0.49					
TP								Rock
	18.72							
			0.54					
TP								Rock
	9.02							
			1.09					
#522							2022	3/4" Iron Pipe in A.C. on Jomax Rd. ± 1.0 mi. East of Scotts. Rd. (-0.03 to A.C.)
				END		RUN		

1432								
B.M.	+	H.I	−	ELEV.	ADJ. ELEV	GPS No.		DESC.
#502								1/2" REBAR IN P/H ON PINN. PK. RD. ±0.5 MI WEST OF SCOTTS. RD. (+0.15 to AC.)
	4.16							
			11.22					
TP								Rock
	1.78							
			13.47					
TP								Rock
	1.35							
			16.81					
TP								Rock
	0.42							
			16.82					
TP								Rock
	5.06							
			5.09					
TP								Rock
	8.11							
			3.44					
TP								Rock
	6.76							

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV	GPS No.	DESC.
1432							
			4.18				
#501							1/2" REBAR APPROX CENT of SEC. 15 (−0.10 to O.G.)
				RETURN	LOOP		
	3.16						
			10.17				
TP							ROCK
	14.00						
			0.56				
TP							ROCK
	19.58						
			0.74				
TP							ROCK
	13.09						
			2.30				
TP							ROCK
	11.89						
			4.54				
#502							P.O.B. ✓-IN = 0.02 HIGH
				END	LOOP		
	89.[illegible]		89.54				

1432

B.M.	+	H.I.	-	ELEV.
#504				
	1.34			
			15.12	
TP				
	0.14			
			16.30	
TP				
	2.10			
			13.36	
TP				
	2.16			
			10.95	
#503				
	10.41			
			0.47	
TP				
	11.29			
			0.91	
TP				
	12.22			

ADJ. ELEV.	GPS No.	DESC.
	2152	MAR. Co. B/c IN H/H @ PINN. PK & SCOTTS RD's (+0.60 to A.C.)
		Rock
		Rock
		Rock
	2153	MAR Co. B/c IN H/H @ WILLIAMS DR & SCOTTS RD. (+0.79 to AC)
		Rock
		Rock

1432								
B.M.	+	H.I.	−	ELEV.		ADJ ELEV.	GPS No.	DESC.
			1.15					
TP								Rock
	10.38							
			4.67					
#507								C.O.S. B/c in H/H @ Williams Dr. & Miller Rd. (+0.50 to A.C.)
	13.68							
			0.80					
TP								Rock
	16.84							
			0.77					
TP								Rock
	13.34							
			0.57					
TP								Rock
	11.76							
			2.62					
#508						2141		MAR. Co. B/c in H/H on Penn. Pk. Rd. & Miller Rd. (+0.41 to A.C.)
					END	RUN		

1432

BM.	+	H.I.	−	ELEV.
#618				
	1.04			
			24.23	
TP				
	1.61			
			24.26	
TP				
	0.75			
			16.40	
TP				
	1.75			
			10.05	
#617				
				RETURN
	10.43			
			2.58	
TP				
	18.88			

ADJ. ELEV	GPS No.	DESC
	7082	C.O.S. B/C IN H/H HAPPY VALLEY & ALMA SCH. RD'S (+0.51 to A.C.)
		ROCK
		ROCK
		ROCK
	7083	1/2" REBAR N/O SIGN POST & BLOCK FENCE; E/O ALMA SCH. @ SUBDIV. ENTR. (FLUSH)
LOOP		
		ROCK

1432								
B.M.	+	H.I.	−	ELEV.		ADJ. ELEV.	GPS No.	DESC.
			0.66					
TP								ROCK
	24.17							
			0.46					
TP								ROCK
	20.93							
			0.91					
#618								P.O.B. √-IN = 0.01 HIGH
					END	LOOP		9-13-93
								CLOUDY, WARM
					END	DAY		T = PRICE
								P = MCHELICH
	79.56		79.55					

1434

LEVELS

Scottsdale

GIS.

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES

$\text{Sin } A = \frac{a}{c} = \text{Cos } B$ $\quad$ $\text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B$ $\quad$ $\text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B$ $\quad$ $\text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)\,(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)\,(s-b)\,(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

SCOTTSDALE G.I.S.

PG. DESC.

1 - 30 LEVELS

BK 1434

	+	H.I.	−	Elev.	
T.B.M.				1869.38	
	1.17	1870.55			
T.P.			13.13	1857.42 ~~1883.68~~	
	1.28	1858.70 ~~1884.96~~			
T.P.			12.63	1846.07 ~~1872.33~~	
	1.29	1847.36 ~~1873.62~~			
T.P.			9.83	1837.53 ~~1863.79~~	
	0.57	1838.10 ~~1864.36~~			
T.B.M.			12.94	1825.16 ~~1851.42~~	
	16.04	1841.20 ~~1867.46~~			
T.P.			0.97	1840.23 ~~1866.49~~	
	12.15	1852.38 ~~1878.34~~			
T.P.			0.60	1851.78 ~~1878.04~~	
*	13.47	1865.25 ~~1891.51~~			
T.P.			0.29	1864.96 ~~1891.22~~	
	14.04	1879.00 ~~1905.26~~			
T.P.			0.03	1878.97 ~~1905.23~~	
	11.87	1890.84 ~~1917.10~~			
T.B.M.			2.31	1888.53 ~~1914.79~~	
	7.76	1896.29 ~~1922.55~~			
T.P.			4.91	1891.38 ~~1917.64~~	
	10.77	1902.15 ~~1928.41~~			
T.P.			0.38	1901.77 ~~1928.03~~	
*					

(1)
8-7-92

550 (Pipe Filled with Sediment (Broken Brown Top))
Rock
Rock
Rock
533 (Nail & Shiner) Xlevel Point
Rock
Rock
* SEE BK. 1436 Pg. 18
Rock
Rock
534 (P.K. & Shiner)
Rock
* SEE BK. 1436 Pg. 17

8-8-93

Bk 1431	+	H.I.	−	Elev.		
	16.05	1917.85 ~~1944.08~~				
T.P.			0.73	1917.09 ~~1943.35~~	Rock	
	15.39	1932.48 ~~1958.71~~				
T.P.			0.18	1932.30 ~~1958.56~~	Rock	
	11.70	1944.00 ~~1970.26~~				
T.P.			1.10	1942.90 ~~1969.16~~	Rock	
	10.39	1953.29 ~~1979.55~~				
V-IN			11.77	1941.52 ~~1967.78~~	~~1941.29~~	~~#53~~ (Bk 1431) 2131

SEE BK. 1436 PG. 17

8-8-93

BK 1434					
	+	H.I.	−	ELEV	
T.B.M.				1838.90	
	3.16	1842.06			
T.P.			8.50	1833.56	1833.56
	0.63	1834.19			
T.P.			11.57	1822.62	1822.62
	1.90	1824.52			
T.P.			10.11	1814.41	1814.41
	3.13	1817.54			
T.B.M.			6.10	1811.44	1811.44
——	LOOP	BLOCK	——		
	9.77	1821.21			
T.P.			2.12	1819.09	1819.09
	9.18	1828.27			
T.P.			0.24	1828.03	1828.03
	10.18	1838.21			
T.P.			3.40	1834.81	1834.81
	7.87	1842.68			
Y-IN			3.78	1838.90	1838.90
	45.82		45.82		

#504 (BLC H/H) 2152 [illegible]

Rock

Rock

Rock

#502 (1½ Rebar in Pot Hole Downcut)

Rock

Rock

Rock

#504

8-17-93

Blk 1434

	+	H.I.	-	Elev.	
T.B.M.				1965.53	
	1.22	1966.76			
T.P.			6.[illegible]4	1960.22	1960.23
	[illegible]	1966.37			
T.P.			[illegible]	1964.29	1964.30
	[illegible]	1975.91			
T.P.			0.8[illegible]	1975.11	1975.13
	13.51	1988.62			
T.B.M.			2.45	1986.17	1986.19
	1.46	1987.63			
T.P.			12.99	1974.64	1974.6~~6~~7
	2.32	1976.96			
T.P.			13.48	1963.48	1963.51
	0.37	1963.87			
T.P.			12.62	1951.25	1951.29
	[illegible]	1954.28			
T.B.M.			13.[illegible]	1941.25	1941.29

#519 (M.C.H.D. B/C Flush) 2113

Rock

Rock

Rock

#536 (B/C Flush M.C.H.D.) [illegible] 2124

Rock

Rock

Rock

#535 [illegible] (B/C H/H [illegible])

	+	HI	−	ELEV.	Adj. ELEV	DESCRIPTION
558				2275.27		GPS 1362 - GOS BC FLUSH @ ∃ OF PIMA & DYNAMITE
	12.47	2287.74				
TP			0.10	2287.64	2287.64	PVMT
	17.63	2305.27				
TP			0.25	2305.02	2305.02	PVMT
	14.17	2319.19				
TP			0.46	2318.73	2318.73	PVMT
	17.86	2336.59				
576			5.43	2331.16	2331.16	GPS 6311 - GLO CAP ON FENCE LINE (UP 0.30) A19 (0.5 E/O DYNAMITE & PIMA)
	5.27	2336.43				
TP			15.64	2320.79	2320.79	PVMT
	0.67	2321.46				
TP			13.20	2308.26	2308.26	PVMT
	4.01	2312.27				
TP			0.22	2312.05	2312.05	NAIL
	16.82	2328.87				
TP			5.86	2323.01	2323.01	ROCK
	21.55	2344.56				
TP			3.65	2340.91	2340.91	ROCK
	14.26	2355.17				
TP			1.52	2353.65	2353.66	NAIL
	19.45	2373.10				
TP			1.22	2371.88	2371.88	NAIL
	4.22	2376.10				

BK1434

	+	HI	−	ELEV	Adj ELEV.	DESCRIPTION
577			464	2371.46	2371.46	577 - SET Hub ±0.5 mi N/o -576
	4.22	2375.68				
TP			15.77	2359.91	2359.92	NAIL
	2.48	2362.39				
TP			11.38	2351.01	2351.02	ROCK
	2.42	2353.43				
TP			13.54	2339.89	2339.90	NAIL
	2.68	2342.57				
TP			13.97	2328.60	2328.61	NAIL
	2.36	2330.96				
TP			14.55	2316.41	2316.42	NAIL
	2.46	2318.87				
559			13.50	2305.37	2305.38	GPS-1253- 3/4" IP 1' deep 8.5 E/o Pima Rd & Enia Dona Rd.

BK1434

8/19/93

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
556				2180.47	2180.47	556 - C.O.S. BC FLUSH @ ∃ OF JOMAX & PIMA Rd
	12.03	2192.50				
TP			0.17	2192.33	2192.33	NAIL
	13.47	2205.80				
TP			0.28	2205.52	2205.52	NAIL
	15.03	2220.55				
TP			0.29	2220.26	2220.26	NAIL
	16.65	2236.91				
TP			1.50	2235.41	2235.41	Rock
	11.39	2246.80				
574			6.75	2240.05	2240.05	574 - SET HUB ± 0.5 mi E/o ∃ OF JOMAX & PIMA
	15.19	2255.24				
TP			1.74	2253.50	2253.50	Rock
	18.57	2272.07				
TP			0.53	2271.54	2271.54	NAIL
	11.39	2282.93				
TP			10.84	2272.09	2272.09	NAIL
	13.95	2286.04				
TP			1.05	2284.99	2284.99	ROCK
	12.30	2297.29				
TP			3.51	2293.78	2293.78	ROCK
	12.99	2306.77				
575			3.43	2303.34	2303.34	575 - SET HUB ± 0.5 mi N/o 574
	3.31	2306.65				

BK 1434

8.

8/19/93

	+	HI	−	ELEV	Adj ELEV	DESCRIPTION
TP			16.89	2289.76	2289.76	Rock
	0.50	2290.26				
TP			17.94	2272.32	2272.32	NAIL
	11.17	2283.49				
TP			9.60	2273.89	2273.89	NAIL
	1.53	2275.42				
TP			16.43	2258.99	2258.99	Rock
	0.82	2259.81				
TP			22.81	2237.00	2237.00	NAIL
	1.33	2238.33				
TP			14.52	2223.81	2223.81	NAIL
	0.18	2223.99				
TP			15.76	2208.23	2208.23	Rock
	0.38	2208.61				
TP			14.70	2193.91	2193.91	Rock
	0.46	2194.37				
556			13.90	2180.47	2180.47	556
	172.60		172.60			

1434

	+	HI	-	ELEV.	Adj ELEV.	DESCRIPTION
544						544 - C.O.S. BC IN HH @ PIMA & BELL RDS.
	6.14					
TP			6.13			PVMT
	2.53					
TP			6.61			PVMT
	3.40					
TP			7.17			PVMT
	4.62					
527			4.94			527 - C.O.S. BC FLUSH IN MEDIAN.
	5.69					
TP			6.80			PVMT
	3.14					
TP			6.71			PVMT
	3.78					
514			2.70			514 - PK NAIL @ BELL & HAYDEN RDS
	5.45					
TP			1.72			PVMT
	12.93					
TP			0.59			Rock
	7.24					
TP			0.47			Rock
	10.54					
515			2.69			515 - GLO CAP (up - 0.08)

BK 1434

(10)

9-13-93

	+	HI	−	ELEV.	Adj ELEV	DESCRIPTION
515						515-GLO CAP
	9.70					
TP			1.89			ROCK
	9.09					
TP			1.99			ROCK
	12.01					
TP			2.29			ROCK
	15.45					
516			2.14			516 – 2" PIPE – CAP MISSING
	5.99					
TP			3.67			ROCK
	8.31					
TP			3.71			ROCK
	9.90					
529			0.74			529 - 1/2" REBAR W/CAP LS# 19344 (2361)
	7.79					
TP			3.90			PVMT
	7.51					
TP			2.24			ROCK
	8.47					
546			4.62			546-C.O.S. BC FLUSH @ PIMA & UNION HILLS (2362)

BK 1434

(11.)

9-13-93

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
527 ~~[illegible]~~						Blc Flush on Bell Rd in (NED) (3011)
	10.37					
T.P.			1.93			Rock
	13.64					
T.P.			0.23			Rock
	10.53					
T.P.			4.54			Rock
	16.71					
T.P.			4.11			Rock
	6.02					
528			4.28			Hub (VERT Only)
—	LOOP BACK		—			
	3.85					
T.P.			5.29			Rock
	1.97					
T.P.			14.87			Rock
	3.39					
T.P.			9.37			Rock
	0.21					
T.P.			13.60			
	7.81					
527			0.26			Rock
	[illegible]		[illegible]			

9-13-93

Bk. 1431	+	HT.	—	ELEV.
527				
	2.16			
T.P.			9.18	
	1.66			
T.P.			11.63	
	5.3[illegible]			
T.P.			11.03	
	2.34			
#526			11.64	
— LOOP BACK —				
	4.89			
T.P.			2.59	
	11.08			
T.P.			[illegible].55	
	12.04			
T.P.			.32	
	8.73			
#527			2.21	
	48.[illegible]		48.[illegible]	

Blk Cons. Flush in Bell Rd. [illegible] (3011)

Rock

Rock

Rock

SET 60p NAIL FLUSH

Rock

Rock

Rock

V-ill

PAGE 1434

	+	H.I.	−	ELEV.	
#546					Pima & Union Hills (B/C Flush) (2362)
	4.55				
T.P.			8.64		Asph.
	4.00				
T.P.			2.00		Rock
	9.66				
T.P.			0.95		Rk
	8.82				
T.P.			0.55		Rk
	10.43				
T.P.			2.25		Rk
	10.25				
#530			3.91		Hub
	3.80				
T.P.			4.02		Rk
	9.24				
T.P.			2.06		Rk
	8.75				
T.P.			10.65		Rk
	5.26				
T.P.			6.32		Rk
	3.14				
T.P.			9.84		
	4.65				

9-14-93

BK 1434

	+	HI.	−	ELEV.	
T.P.			8.30		RK
	2.45				
#517			12.27		E.L.O. B/C (UP 0.28) (2263)
	13.39				
T.P.			4.07		RK
	11.22				
T.P.			2.26		RK
	7.86				
T.P.			2.39		RK
	11.11				
T.P.			4.08		RK
	11.51				
T.P.			2.02		RK
	14.89				
T.P.			0.33		RK
	13.21				
T.P.			4.23		RK
	9.35				
T.P.			1.58		RK
	14.33				
T.P.			1.36		RK
	12.06				
T.P.			11.93		
	2.68				

9-14-93

BK 1434

	+	H.I.	−	Elev.
T.P.			12.55	
	3.54			
#541			9.51	
	9.25			
T.P.			2.36	
	11.71			
T.P.			1.81	
	11.62			
T.P.			1.99	
	14.40			
T.P.			1.72	
	11.23			
T.P.			0.[illegible]	
	7.82			
T.P.			1.40	
	11.83			
T.P.			0.32	
	16.02			
T.P.			2.36	
	8.71			
#549			1.48	
	END	RUN		

Rock

G.W.O. (UP 10) (2251)

Rock

Rock

Rock

Rock

Rock

Rock

Rock

V-IN B/C Flush (2243)

9-14-93

EK 1431				
	+	HI.	−	GKU.
# 532				
	4.55			
[illegible]			8.55	
	2.61			
[illegible]			[illegible]	
	[illegible]			
TP			[illegible]	
	1.40			
[illegible]			15.53	
	2.83			
TP			12.23	
	3.32			
# 532			12.34	
	12.29			
TP			2.11	
	14.41			
TP			1.95	
	12.29			
[illegible]			3.04	
	[illegible]			
TP			[illegible]	
	12.98			
[illegible]			1.86	
	6.44			
# 532			6.1[illegible]	

NAIL & SHINGLE

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

532 – HUB – (PANEL DESTROYED)

NAIL

[illegible]

[illegible]

533 – E.O.C. = 0.01

BK 1434

	+	H.I.	−	Elev.	Adj ELEV	DESCRIPTION	
#543						1/2" REBAR IN HH (DN-1.28)	(3013)
	24.59						
TP			20.03			PVMT	
	8.80						
TP			6.10			PVMT	
	5.55						
#561			4.36			561 - NAIL (60d)	
	5.91						
TP			4.47			PVMT	
	2.20						
TP			5.28			Rock	
	11.88						
TP			1.56			Rock	
	4.95						
TP			10.86			Rock	
	7.06						
#579			5.82			579 - GLO CAP (up-1.15)	(8063)
	2.35						
TP			16.45			Rock	
	6.86						
TP			6.62			Rock	
	12.95						
TP			12.78			Rock	
	11.59						

9-15-83

Bk 1424

	+	H.I.	−	ELEV.	Adj ELEV.	DESCRIPTION
TP			0.98			Rock
	13.99					
TBM			3.11			S/16 COR Sec. 5 - GLO CAP - TBM
	2.92					
TP			16.55			Rock
	1.01					
TP			10.69			Rock
	13.91					
TP			12.53			PVMT
	8.39					
TP			9.77			ROCK
	17.49					
#579			2.01			GLO-CAP
	6.17					
TP			1.96			Rock
	2.87					
TP			11.30			ROCK
	5.11					
TP			6.25			Rock
	7.36					
#561			6.03			NAIL
	2.78					
TP			3.83			PVMT

BK1434

	+	H.I.	−	ELEV.	Adj. ELEV.	DESCRIPTION
	2.61					
TP			4.86			ROCK
	21.24					
TP			24.54			PVMT
	4.73					
#543			6.58			1/2" REBAR IN HH

BK 1434

	+	H.I.	−	ELEV.	
T.B.M.					S 1/16 COR SEC. 5 G.L.O.
	8.30				
T.P.			4.83		Rock
	7.99				
T.P.			0.66		Rock
	8.99				
# 595			2.27		End G.L.O. Center Sect. (UP 0.5')
	— Loop Back —				
	2.35				
T.P.			8.74		Rock
	3.14				
T.P.			9.41		Rock
	5.28				
T.B.M.			10.16		V-in 1/16 COR.
	316.05		316.05		

	+	H.I	—	ELEV.	
T.B.M.					S 1/16 COR. SECT 5 G.L.O.
	2.62				
T.P.			10.45		Rock
	4.02				
T.P.			7.83		Rock
	9.44				
#594			12.82		G.L.O. S 1/4 SECT. 5 (UP 12") (8081)
	— Lost	Rock —			
	13.08				
T.P.			6.34		Rock
	7.50				
T.P.			6.50		Rock
	10.95				
T.B.M.			3.69		VIN S 1/16 COR. SECT 5
	47.61		47.63		

BK 1434

	+	H.I.	−	ELEV.		
#544					Pimmel Bell Rd. (B.I.C. H/11)	(3012)
	10.08					
T.P.			6.54		Rock	
	7.65					
T.P.			6.34		Rock	
	7.32					
T.P.			1.48		Rock	
	5.19					
#562			6.63		Hub South side Bell	
	8.12					
T.P.			5.60		Rock	
	6.84					
T.P.			5.95		Rock	
	9.41					
#580			5.35		1/2" Rebar (down 0.2')	(8062)
	6.95					
T.P.			6.36		Rock	
	8.14					
T.P.			3.01		Rock	
	14.39					
T.P.			1.41		Rock	
	13.59					
#596			5.35		1/2 Rebar (up 0.8')	(8051)
	17.77					

BK1434

	+	HI.	−	ELEV.	
T.P.			0.59		Rock
	18.85				
T.P.			2.11		Rock
	14.64				
*T.B.M.			13.53		Rock (*T.B.M. Used To Pick-up H# 597)
	14.01				
T.P.			0.44		Rock
	24.48				
T.P.			0.82		Rock
	16.72				
T.P.			1.14		Rock
	15.02				
T.P.			8.06		Rock
	11.56				
T.P.			0.18		Rock
	11.32				
H# 609			2.74		G.L.O. (UP 1st) (7323)
	LOOP BACK				
	1.03				Rock
T.P.			14.55		Rock
	0.10				
T.P.			5.85		Rock
	[illegible]				

BK 1434

	+	H.I.	−	Elev	
T.P.			[illegible]		
	0.40				
T.P.			14.62		
	0.16				
T.P.			17.90		
	0.99				
* TiB.M.			9.37		
	1.30				
T.P.			16.77		
	0.73				
T.P.			13.26		
	1.08				
# 596			8.10		
	2.06				
T.P.			11.44		
	3.40				
T.P.			14.04		
	0.51				
T.P.			4.50		
	6.95				
T.P.			9.39		
	5.63				
# 580			6.13		
	5.43				

Rock

Rock

Rock

Rock (TiB.M. To # 597)

Rock

Rock

Rock

Rock

Rock

9-16-93

BK1434

	+	HI.	−	ELEV.	
T.P.			6.84		
	4.55				Rock
T.P.			7.69		
	5.77				Rock
T.P.			7.10		
	5.06				Rock
#562			6.66		
	5.44				
T.P.			8.62		
	5.09				Rock
T.P.			6.57		
	6.13				Rock
#544			10.71		
					V-IN

Bk. 1434

	+	H.I.	−	Elev.
*TBM				
	2.66			
TP			5.28	
	6.53			
TP			3.29	
	4.73			
TP			4.79	
	7.74			
#597			4.03	
	4.10			
TP			7.54	
	3.90			
TP			4.06	
	5.39			
TP			8.62	
	5.20			
			2.65	

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Rock (TBM See Page 23 this Book)

Rock

Rock

Rock

NAIL - 60d

Rock

Rock

Rock

TBM

E.O.C. = 0.01

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BK 143H

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
#546						C.O.S. BC FLUSH @ PIMA Rd. & UNION HILLS Rd. (2362)
	5.98					
TP			4.02			ROCK
	6.25					
TP			4.20			PVMT
	9.67					
TP			1.95			PVMT
	13.59					
#564			11.38			C.O.S. BC FLUSH @ 92ST & UNION HILLS - 8' E/O (7311) E/O
	11.36					
TP			3.00			PVMT
	7.63					
TP			2.18			ROCK
	9.38					
TP			2.15			ROCK
	7.55					
#582			3.14			GLO CAP (up+0.90) (7312)
	5.72					
TP			4.05			ROCK
	1.21					
TP			4.95			ROCK
	10.57					
TP			4.25			ROCK
	8.04					

B.M. 1424

	+	HI	−	ELEV	Adj ELEV	DESCRIPTION
TP			4.13			
	9.03					ROCK
# 598			4.05			
	3.94					NAIL
TP			8.17			
	3.37					ROCK
TP			8.12			
	5.48					ROCK
TP			8.67			
	2.29					ROCK
TP			5.03			
	8.73					Rock
# 582			6.97			
	4.18					GLO CAP
TP			10.47			
	3.45					ROCK
TP			10.58			
	2.04					PVMT
TP			5.09			
	1.15					PVMT
# 564			10.15			
	1.72					C.O.S. BC. FLUSH
TP			8.14			
						PVMT

1.71

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BK 1434	+	HI	−	ELEV,	Adj ELEV	DESCRIPTION
	1.71					
TP			6.17			ROCK
	5.45					
#546			8.50			C.O.S. BC FLUSH
						E.O.C. = 0.02

BK1434

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
#545						C.O.S. BC FLUSH @ PIMA 0.5 mi. S/O UNION HILLS
	6.02					
TP			2.78			ROCK
	7.04					
TP			4.53			ROCK
	7.19					
TP			4.42			ROCK
	8.84					
TP			4.05			ROCK
	1.80					
#563			7.06			NAIL-600
	7.01					
TP			4.21			ROCK
	8.30					
TP			11.40			ROCK
	2.82					
TP			8.76			ROCK
	3.28					
TP			8.00			ROCK
	8.11					
TP			8.19			ROCK
	5.08					
#545			2.61			C.O.S. BC FLUSH
						E.O.C. = 0.02

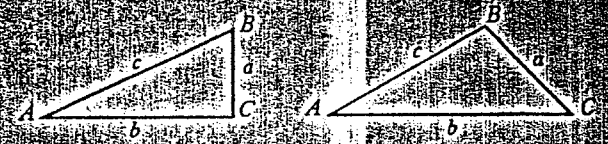
1436

SCOTTSDALE G.I.S. LEVELS

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

1436

INDEX I

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SCOTTSDALE G.I.S. LEVELS

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13	PANEL #601
14-16	TBM'S #14, #15
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18	REPLACE LEG - #533 to #534
19-20	REPLACE LEG - #520 to #521
21	REPLACE LEG - #543 to #560
22	REPLACE LEG - #548 to #566
23	REPLACE LEG - #566 to #583
24	REPLACE LEG - #522 to #540

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INDEX II

1436

9-17-93

PRICE, MIHELICH

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC
TBM #4							
	7.70						C.O.S. B/C FLUSH ON ADOBE DR. ± 400' EAST OF SANDS DR.
			7.29				
TP							Rock
	9.69						
			10.86				
#586						7192	G.L.O. B/C NE COR. SEC. 19 SW OF 96TH PL. & ADOBE (−0.9 to 0.6)
	11.97						
			0.34				
TP							Rock
	21.02						
			0.65				
TP							Rock
	14.14						
			0.30				
TP							Rock
	18.31						
			0.52				
TP							Rock
	19.10						

1436 BM.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			0.78				
TP							Rock
	24.61						
			0.05				
TP							Rock
	8.14						
			7.41				
TP							Rock
	14.83						
			1.82				
#602							5/8" REBAR S. SIDE OF 3' WALL
	2.48						Approx. CENT. SEC. (-0.6 to 0.6)
			17.77				
TP							Rock
	12.21						
			20.06				
TP							Rock
	16.69						
			0.19				
TP							Rock
	23.16						

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			0.45				
TP							ROCK
	15.74						
			0.96				
#615						7173	G.L.O. B/C ON 1" I.P., ± 300' NE OF CUL-DE-SAC, ± 300' N/O FOOTHILLS DR. & VIOLETTA (−1.3 to O.G.)
				RETURN	LOOP		
	0.64						
			20.55				
TP							ROCK
	1.21						
			24.23				
TP							ROCK
	1.82						
			14.15				
TP							ROCK
	22.51						
			11.38				
TP							ROCK
	7.01						

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			8.87				
TP							Rock
	0.64						
			23.65				
TP							Rock
	0.58						
			19.91				
TP							Rock
	4.84						
			23.86				
TP							Rock
	1.25						
			19.97				
TP							Rock
	2.29						
			20.35				
TP							Rock
	0.13						

1436								
B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.	
			3.36					
TP							ROCK	
	4.19							
			7.14					
TBM #4						P.O.B.	√-IN. = 0.03 HIGH	
				END	LOOP			
				END	DAY			
	2269		3.37					

9-17-93
T. PRICE
J. MIHELICH
SUNNY, WARM

9-29-93 ⑥

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV	GPS No.	DESC.
TBM #11							ROCK 0.5 mi. E/o PIMA RD. 0.25 mi. S/o #549 FRM. BK. 1439 Pg. 7
	12.81						
			1.16				
TP							ROCK
	20.69						
			1.87				
#567							1"x2" HUB ± 0.5 mi. E/o #549 APPROX. CENT. OF SEC. 19
				RETURN	LOOP		
	2.13						
			17.86				
TP							ROCK
	1.04						
			15.79				
TBM #11							P.O.B. ✓-IN = 0.01 LOW
				END	LOOP		
	36.67		36.68				

1436

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
TBM #12							Rock 0.5 mi. E/o TBM #11 AT "T" IN DIRT RD. FRM. BK. 1439 Pg. 7
	19.07						
			0.73				
TP							Rock
	16.10						
			3.18				
TP							Rock
	6.69						
			6.36				
TP							Rock
	10.56						
			10.42				
#585						7193	G.L.O. B/c on I.P. E 1/4 Cor. Sec. 19 (−1.1 to O.G.)
	~~10.34~~						
				RETURN	Loop		
	10.34						
			7.23				
TP							Rock
	2.80						

	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
1436 B.M.							
			17.63				
TP							Rock
	0.13						
			20.15				
TBM #12							P.O.B. ✓ +10 = 0.01 Low
				END	Loop		
	65.69		65.70				

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
TBM #12							Rock 0.5 mi. E/o TBM #11 FRM BK. 1439 PG. 7
	3.61						
			21.56				
TP							Rock
	0.03						
			19.57				
TP							Rock
	0.20						
			14.07				
TP							Rock
	1.07						
			7.53				
#584							60P NAIL W/o DIRT RD. APPOX. NE COR. SEC. 30 (SFNF)
				RETURN	LOOP		
	18.76						
			0.57				
TP							Rock
	22.81						

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			0.37				
TP							ROCK
	21.36						
			4.18				
TBM #12						P.O.B.	V-IN = 0.01 Low
				END	LOOP		
	67.84		67.85				

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
TBM #13							60p NAIL @ "Y" IN DIRT RD. ± 0.75 MI. E/O TBM #12 FRM. BK. 1439 PG. 8
	8.59						
			9.24				
TP							ROCK
	9.20						
			20.48				
TP							ROCK
	4.64						
			24.13				
TP							ROCK
	10.10						
			10.91				
#600							1"x2" HUB W/O DIRT RD., W/O FENCE LINE, ± N1/4 SEC. 19
				RETURN	LOOP		
	9.33						
			3.17				
TP							ROCK
	21.30						

1436 B.M.	+	H.I.	−	ELEV.	ADJ ELEV	GPS No.	Desc
			2.61				
TP							Rock
	14.34						
			5.65				
TP							Rock
	8.56						
			9.85				
TBM #13						P.O.B.	√-IN = 0.02 HIGH
				END	Loop		
	86.06		86.04				

1436

B.M.	+	H.I.	−	ELEV.	ADJ ELEV	GPS No.	DESC.
TBM #13							60p NAIL @ "Y" IN DIRT RD. FROM BK. 1439 PG. 8
	16.97						
			2.62				
TP							ROCK
	20.22						
			0.88				
#601							1"x2" HUB ALONG DIRT RD. APPROX. CENT. OF SEC. 20
				RETURN	Loop		
	0.99						
			20.41				
TP							ROCK
	2.80						
			17.07				
TBM #13							P.O.B. ✓-IN = ~~0~~
				END	Loop		
	40.98		40.98				

1436

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
TBM #13							60p NAIL @ "Y" IN DIRT RD. FROM BK. 1439 PG. 8
	20.64						
			0.20				
TP							ROCK
	18.74						
			1.66				
TP							ROCK
	7.17						
			0.62				
TBM #14							BOULDER ALONG TRAIL BEHIND CAMP TRAILER ± 1.8 mi. E/o PIMA RD.
	0.46						
			12.86				
TP							ROCK
	22.43						
			1.63				
TP							ROCK
	22.62						
			2.55				
TP							ROCK
	24.55						
			0.12				
TP							ROCK
	17.31						

1436 B.M.	+	H.I.	−	ELEV.	ADJ ELEV	GPS No.	DESC.
			0.61				
TBM #15							BOULDER @ "Y" IN DIRT RD'S ± 2.2 mi. E/O PIMA RD.
				RETURN	LOOP		
	0.38						
			23.00				
TP							Rock
	0.57						
			20.47				
TP							Rock
	2.01						
			20.76				
TP							Rock
	1.17						
			16.15				
TP							Rock
	6.73						
			10.54				
TP							Rock
	0.09						

1436								
B.M.	+	H.I.	−	ELEV.		ADJ ELEV.	GPS No.	DESC.
			17.59					
TP								ROCK
	2.55							
			18.69					
TBM #13							P.O.B.	√-IN = 0.03 LOW
				END		LOOP		
				END		DAY		
								9-29-93
								T. PRICE
								ϕ - NECHERO
								SUNNY, WARM
	147.42		147.45					

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#534						—	P.K. & SHINER @ COUNTRY CLUB TRAIL & 84TH PL. (SENE)
	8.53						
			0.93				
TP							ROCK
	11.48						
			0.44				
TP							ROCK
	14.16						
			0.57				
TP							ROCK
	12.84						
			8.60				
#551						7188	C.O.S. B/C FLUSH ON PIMA RD. ± 200 S/O COUNTRY CLUB TR.
	47.01		10.54	+36.47			

* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1434 PG. 1,2

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
#534							
							PK & SHINER @ COUNTRY CLUB TRAIL & 84TH PL. (SFNF)
	0.25						
			15.58				
TP							
	1.41						Rock
			13.91				
TP							
	0.45						Rock
			16.46				
TP							
	0.47						Rock
			13.16				
TP							
	3.22						Rock
			9.96				
#533							
							NAIL & SHINER ± 20' S/O. WALL ± 2700' W/O. PIMA RD.
* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1434 PG. 1							
	5.80		69.07	(-63.27)			

→ CHANGE SIGN to +63.27

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#520						2112	G.L.O. B/C on 2" I.P. (BENT) @ Happy Valley Rd. & Hayden Rd.
	15.31						
			1.01				
TP							Rock
	16.22						
			0.23				
TP							Rock
	14.08						
			0.70				
TP							Rock
	18.24						
			3.87				
#521						2023	G.L.O. B/C on 2" I.P. E1/4 Cor. Sec. 2, ±0.5 mi. N/o Happy Valley & Hayden Rd's
	63.85		5.81	+58.04			
				RETURN	Loop		
	1.08						
			20.96				
TP							Rock
	0.98						

1436 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			16.54				
TP							Rock
	0.66						
			12.24				
TP							Rock
	1.12						
			12.12				
#520						P.O.B.	V-IN = 0.02 HIGH
	3.84		61.86	-58.02			
	67.69		67.67				

* NOTE: THIS BENCH LOOP REPLACES LEGS FROM BK. 1431 PG. 29

10-12-93
SUNNY, WARM
π - PRICE
φ - ARCHER

1436

B.M.	+	H.I.	-	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#543						3013	1/2" REBAR IN H/H ON PIMA ± 1/4 MI. N/O FNK. LLOYD W&T.
	2.29						
			14.48				
TP							ROCK
	1.63						
			5.76				
TP							ROCK
	2.32						
			6.81				
TP							ROCK
	1.88						
			5.87				
TP							ROCK
	6.01						
			4.58				
#560						560	60p NAIL ± 100' N/O BLOCK WALL APPROX. S1/4 COR. SEC. 6
	14.13		37.50	-23.37			

* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1439 PG. 4

1436

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
#548							
	2.45					2252	C.O.S. B/C FLUSH. ON PIMA RD. ± 100' N/O. SIERRA PINTA RD.
TP			1.83				
	10.38						ROCK
TP			0.69				
	13.72						ROCK
TP			0.09				
	5.50						ROCK
#566			5.51				
						7301	1/2" REBAR IN P/H @ 92ND ST. S. & SIERRA PINTA
	32.05		8.12	+23.93			

* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1426 PG. 22

1436

B.M.	+	H.I.	-	ELEV.
#566				
	1.17			
			22.98	
TP				
	4.02			
			0.35	
TP				
	11.05			
			15.63	
TP				
	9.58			
			0.90	
TP				
	1.77			
			18.00	
TP				
	0.73			
			8.97	
#583				
	28.32		66.83	-38.51

* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1426 PG. 22,23

ADJ ELEV.	GPS No.	DESC.
	7301	1/2" REBAR IN P/H @ 92ND ST. S. of SIERRA PINTA
		ROCK
		ROCK
		ROCK
		ROCK
		ROCK
	7303	5/8" REBAR @ 96TH ST. AND HUALAPAI DR.

1436

B.M.	+	H.I.	-	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
#522						2022	3/4" I.P. @ JOMAX & HAYDEN RD. SOUTH
	11.78						
			0.76				
TP							ROCK
	13.50						
			1.14				
TP							ROCK
	16.79						
			1.81				
TP							ROCK
	15.17						
			3.89				
TP							ROCK
	15.09						
			1.60			—	60p NAIL WEST SIDE TRANS. TOWER RD., APPROX. CENT. SEC. 36
#540							

* NOTE: THIS LEG REPLACES BENCH RUN FROM BK. 1431 PG. 20

	72.33		9.20		+63.13

10-13-93
T - PRICE
Φ - ARCHER
SUNNY, COOL

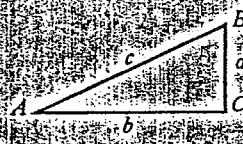
1439

SCOTTSDALE G.I.S. LEVELS

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B$ $\quad$ $\text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B$ $\quad$ $\text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B$ $\quad$ $\text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A;\ b = C \cos A$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A;\ C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A;\ C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c};\ \cos B = \frac{a}{c};\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b};\ \cot B = \frac{a}{b};\ c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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PG. DESC.

1 – 17 LEVELS

BK1437

+	H.I.	-	ELEV.

①

9-27-93

(2)

9-27-93

BK1437	+	HT.	−	Elev.		
#580						1/2 Ribbon Existing Bell Rd.
	10.39					
T.P.			1.20			Rock
	14.39					
T.P.			2.33			Rock
	19.59					
T.P.			1.11			Rock
	16.11					
#581			0.43			G.L.O. (UP 0.90)
	7.85					
T.P.			4.46			Rock
	14.38					
T.P.			2.16			Rock
	13.32					
T.P.			1.47			Rock
	19.22					
T.P.			1.48			Rock
	12.70					
T.P.			7.26			Rock
	7.07					
#582			6.54			G.L.O. (UP 0.90) V-IN

	+	H.I.	−	ELEV.		
BK 1429						
#543						1/2" REBAR IN H/H
	2.41					
T.P.			12.80			Rock
	0.57					
T.P.			10.28			Rock
	0.51					
T.P.			9.80			Rock
	0.32					
T.P.			6.15			Rock
	10.98					
T.P.			3.84			Rock
	7.60					
T.P.			4.08			Rock
	8.46					
T.P			5.69			Rock
	5.72					
#560			7.28			LOOP DEL ~~HOLE~~ (TH 4S4)
	LOOP	BACK				
	7.79					
T.P.			6.21			Rock
	8.99					
T.P.			2.46			Rock
	6.71					
T.P			4.64			Rock

BK1429

	+	HT.	−	ELEV.		
	6.34					
T.P.			2.80			Rock
	12.94					
#543			2.27			V-IN
	79.34		78.30			NO-CHECK RUN-AGAIN
#543						1½ Below in H/H
	2.21					
T.P.			12.88			Rock
	1.77					
T.P.			5.68			Rock
*	4.33					
T.P.			9.18			Rock
	5.05					
T.P.			7.19			Rock
	4.59					
#560			6.54		Rock	Cap. Nail
	— Loop Back —					
	5.06					
T.P.			5.84			
	8.32					
T.P.			2.46			
	8.49					

* SEE Bk. 1436 Pg. 21

9-27-93

BK1439

	+	H.I.	—	Elev.
T.P.			4.56	
	4.24			
T.R.			0.19	
	12.35			
# 543			3.03	
			36.05	

Rock

Rock

1/-in

BK 1429

6

9-28-93

	+	H.I.	−	Elev.	DESCRIPTION
#560					60d NAIL
	6.24				
TP			7.31		ROCK
	5.61				
TP			3.64		ROCK
	5.70				
TP			6.68		PVMT
	7.49				
TP			2.82		PVMT
	5.89				
#578			3.42		GLO CAP IN PARK S/O CANAL (0.5mi E/O 560 GE) (UP 0.15)
	3.22				
TP			5.73		PVMT
	2.84				
TP			7.68		PVMT
	6.44				
TP			5.11		ROCK
	2.97				
TP			1.61		ROCK
	3.87				
#560			6.26		60d NAIL

E.O.C. = 0.01

BK 1439

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
#549						C.O.S. BC FLUSH ON PIMA Rd 0.5 mi S/O 550
	0.18					
TP			13.15			ROCK
	0.08					
TP			10.12			ROCK
	9.60					
TP			0.25			ROCK
	12.77					
TP			1.82			ROCK
	12.67					
TBM#11			2.68			ROCK 0.25 mi S/O 549 & 0.5 mi E/O FENCE (LOCKED GATE)
	7.73					
TP			0.15			ROCK
	11.63					
TP			2.59			ROCK
	14.69					
TP			1.77			ROCK
	12.86					
TP			0.70			ROCK
	11.96					
TBM#12			3.10			ROCK 0.5 mi E/O TBM#11 @ T IN DIRT Rd 200'± E/O SECTION LINE FENCE.
	9.22					
TP			3.52			ROCK

BK 1439

	+	HI	−	ELEV	Adj ELEV	DESCRIPTION-
						CON'T FROM PREVIOUS PG
TP						
	6.53					
TP			8.96			ROCK
	3.93					
TP			9.27			ROCK
	5.56					
TBM #13			2.09			SET NAIL ON DIRT Rd APPROX. 0.75 ± MI E/O TBM #12
	2.23					
TP			3.90			ROCK
	6.26					
TP			0.97			Rock
	9.01					
TP			9.88			ROCK
	3.69					
TBM #12			7.87			TBM #2 - Rock PG 7 THIS BOOK.
	1.59					
TP			11.05			ROCK
	0.50					
TP			11.73			Rock
	0.48					
			13.73			ROCK
	1.13					
			13.70			Rock

BK 1429	+	HI	−	ELEV	Adj ELEV.	DESCRIPTION
						CON'T FROM PREVIOUS PG
	2.27					
TBM#11			6.31			ROCK - PG 7 THIS BOOK
	4.20					
TP			14.07			ROCK
	1.53					
TP			11.82			ROCK
	0.05					
TP			11.01			ROCK
	11.05					
TP			0.20			ROCK
	13.38					
#549			0.41			C.O.S. BC FLUSH
						E.O.C. = 0.04

9-30-93

BK 1439

	+	H.I.	−	ELEV.	
T.B.M. #15					
	14.03				
T.P.			1.50		Rock
	17.33				
T.P.			0.40		Rock
	16.90				
T.P.			0.34		Rock
	14.40				
T.P.			3.45		Rock
	23.81				
T.B.M. #16			3.82		Painted Top Rock
	24.56				
T.P.			0.41		Rock
	24.34				
T.P.			1.12		Rock
	21.83				
T.P.			0.70		Rock
	22.38				
T.P.			0.06		Rock
	23.76				
T.P.			3.53		Rock
	23.71				
T.P.			0.12		Rock
	4.67				
#625			0.12		
		— Loop Back —			

G.L.O. (up 1.08)

9-30-93

	+	H.I.	−	Elev.	
BK 1439					
#625					G.L.O.
	0.07				
T.P.			19.90		Rock
	3.35				
T.P.			21.27		Rock
	0.76				
T.P.			23.65		Rock
	0.34				
T.P.			24.03		Rock
	0.56				
T.P.			23.64		Rock
	0.24				
T.P.			23.19		Rock
	2.12				
T.B.M. #16			11.16		Railroad Track
	2.59				
T.P.			18.81		Rock
	1.86				
T.P.			19.10		Rock
	1.04				
T.P.			19.83		Rock
	2.73				
T.P.			19.11		Rock
	2.17				
T.B.M. #17			10.50		

V-1N

BK 1439

	+	H.I.	−	ELEV.	
T.B.M. #16					Painted Rock
	23.88				
T.P.			2.54		Rock
	24.54				
T.P.			3.92		Rock
	23.48				
#620			17.60		G.L.O. (up 1±0)
— Loop Back —					
#620	10.52				
T.P.			23.55		
	0.22				
T.P.			20.50		
	1.23				
T.B.M. #16			17.78		Painted Rock
	83.87		83.87		

9-30-93

BK 1439

	+	H.I.	−	ELEV.	
T.B.M. #15					
	1.56				
T.P.			20.05		Rock
	1.50				
T.P.			21.58		Rock
	1.85				
#612			19.84		G.L.O. (CP 150)
— Loop Back —					
	20.17				
T.P.			1.02		Rock
	20.34				
T.P.			0.81		Rock
	19.11				
T.B.M. #15			1.22		V-14
	[illegible]		[illegible]		

Bk 4437	+	H.I.	−	E keV.	
#582					G.L.O.
	5.45				
TP			1.61		Rock
	10.32				
TP			0.25		Rock
	15.76				
TP			0.57		Rock
	15.56				
TP			0.77		Rock
	16.55				
TP			1.45		Rock
	19.31				
TP			1.00		Rock
	20.73				
#599			2.60		Hub
	15.11				
TP			4.92		Rock
	13.75				
TP			2.05		Rock
	18.09				
TP			2.85		Rock
	13.25				
TP			2.68		Rock

RK 1439	+	HT.	−	ELEV.	
	10.04				
#611			9.48		60d NAIL
	22.58				
TP			1.11		ROCK
	24.16				
TP			1.36		ROCK
	22.39				
TP			1.19		ROCK
	24.57				
TP			1.44		ROCK
	16.77				
TP			4.82		ROCK
	10.22				
#612			8.36		GLO CAP

BK 1439

	+	HI	−	ELEV.	Adj ELEV	DESCRIPTION
TBM #14						BOULDER ALONG TRAIL BEHIND CAMPTRAILER ± 1.8 mi E/o PIMA Rd. (PG. 14 BK 1436)
	20.57					
TP			5.20			ROCK
	18.43					
TP			11.13			ROCK
	13.68					
TP			0.38			ROCK
	9.48					
TP			1.69			ROCK
	24.47					
TP			6.19			ROCK
	23.66					
TP			1.68			ROCK
	19.36					
TP			1.09			ROCK
	24.17					
TP			1.12			ROCK
	23.13					
TP			3.87			ROCK
	5.87					
#621			4.67			Hub
	3.00					
TP			24.10			ROCK

BK 1437

	+	HI	−	ELEV	Adj ELEV	DESCRIPTION
	1.57					
TP			21.53			Rock
	1.57					
TP			22.60			Rock
	1.00					
TP			18.46			Rock
	9.18					
TP			17.35			Rock
	8.50					
TP			19.55			Rock
	1.20					
TP			13.95			Rock
	0.53					
TP			24.53			Rock
	5.27					
TBM #14			15.60			Boulder

E.O.C. = 0.05

1442

SCOTTSDALE

G.I.S.

LEVELS

TELEDYNE

425

FORMULAE FOR SOLVING RIGHT TRIANGLES

$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $= \frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

1442 INDEX I

TITLE PAGE

SCOTTSDALE G.I.S LEVELS

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5-6	PANEL #395
7-9	PANELS #340, #358, #375,
10-11	PANEL #393, TBM 31
12-13	PANELS #376, #359
14-16	PANELS #403 #386 #369, #352, #334
17-20	PANELS #402, #401, #384 #385, #368, #367, #350, #351, #333
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25	PANELS #332, #338, #341, #345

1442

INDEX II

B.M.	+	H.I.	-	ELEV.
1442				
#412				
	1.42			
			7.29	
TP				
	2.13			
			7.83	
TP				
	2.36			
			5.42	
#411				
	7.95			
			7.60	
TP				
	3.51			
			6.11	
TBM 30				
	6.27			
			9.48	
#394				
	9.71			
			5.84	
TP				
	4.79			

10-18-93 (1)

ADJ. ELEV.	GPS NO.	DESC
	3363	C.O.S. B/C IN H/H, 0.5 mi. N/o VIA DE LA VENTURA, E SIDE PIMA RD. (+0.63 to RIM)
		ROCK
		CURB
	4012	C.O.S. B/C IN H/H @ VIA DE VENTURA, E SIDE PIMA RD. (+1.30 to RIM)
		CURB
		SW BOLT TRAF. SIG. FOUND. NE COR. VIA DE VENTURA & HAYDEN RD.
	—	P.K. NAIL ON SERVICE RD @ Apt's ± 300' S/o VIA DE VENTURA
		CURB

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			4.92				
TP							CURB
	3.62						
			7.48				
TP							CURB
	5.48						
			6.01				
# 377						4022	1/2" REBAR 12' S/O BACK FENCE
	5.77						@ 7973 VIA MARINA (+0.4 to O.G.)
			5.12				
TP							CURB
	7.07						
			3.12				
TP							CURB
	6.88						
			3.38				
TP							CURB
	7.91						
			2.60				
# 378						3353	G.C.O. B/C FLUSH 12' E/O B/WALK
	5.06						E. SIDE DOUBLE TREE RANCH
							RD @ EASTWOOD LANE

B.M.	+	H.I	-	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
1442							
			5.57				
TP							CURB
	3.84						
			6.32				
TP							CURB
	4.50						
			6.94				
#361						( )	B/C IN H/H (NO STAMP) ON VIA DE VENTURA (EASTWOOD) BTWN. VIA DE LAGO & WOODSHIRE (+0.40 to A.C)
	4.23						
			6.65				
TP							CURB
	4.93						
			6.52				
TP							CURB
	4.96						
			5.42				
#343						3343	M.C.E.D. B/C IN H/H @ EASTWOOD LN. & SCOTTSDALE RD. (+0.67 to A.C.)
				END	RUN		

1442

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
#361						( )	B/C IN H/H ON VIA DE VENTURA BTWN VIA DE LAGO & WOODSHIRE
	4.42						
			7.46				
TP							CURB
	3.87						
			6.93				
TP							ROCK
	4.30						
			7.10				
TP							CURB
	4.67						
			5.96				
#360						4021	C.O.S. B/C @ NORTHERN AV. & P.C. OF VIA DE LAGO (+0.15 to A.C.)
	4.03						
			7.03				
TP							ROCK
	2.86						
			7.89				
TP							
	8.08						
			5.31				
#342						4032	M.C.E.D. B/C IN H/H, LT. S.B. LANE SCOTTS RD., 0.5 mi. S/O EASTWOOD (+0.63 to A.C.)

END RUN

1442

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
TBM 30							SW BOLT TRAF. SIG. POLE NE COR VIA DE VENTURA & HAYDEN RD.
	10.79						
			3.81				
TP							ROCK
	3.64						
			1.03				
TP							CURB
	7.14						
			1.50				
TP							ROCK
	4.09						
			8.04				
TP							CURB
	1.47						
			4.61				
TP							ROCK
	6.69						
			4.98				
#395						—	P.K. NAIL ON 84TH ST ± 500' N OF DEL CAMINO DR.
				RETURN	LOOP		
	4.01						

1442 B.M.	+	H.I.	−	ELEV	ADJ. ELEV.	GPS No.	DESC
			6.66				
TP							CURB
	4.53						
			3.83				
TP							CURB
	1.69						
			9.58				
TBM 30							P.O.B. V-IN = 0.01 HIGH
				END	Loop		
				END		DAY	
							10-18-93
							T - PRICE
							φ - MILLELICH
							SUNNY, COOL
	44.05		44.04				

1442

B.M.	+	H.I.	−	ELEV.
#340				
	2.56			
			9.41	
T.P.				
	3.25			
			5.95	
T.P.				
	0.05			
			8.83	
#358				
	6.01			
			0.80	
T.P.				
	7.76			
			11.39	
T.P.				
	5.63			
			3.67	
#375				
	4.65			

10-19-93 (7)

ADJ ELEV	G.P.S. NO.	DESC.
	4102	M.C.E.D. B/C IN H/H INT INDIAN BEND & SCOTTSDALE (+.56 TO A.C.)
		CURB
		CURB
	4111	C.O.S. B/C IN H/H ON INDIAN BEND 0.5 MI WEST OF HAYDEN (+.70 TO A.C.)
		ROCK
		ROCK
	4112	C.O.S. B/C IN H/H INT INDIAN BEND & HAYDEN (+.25 TO A.C.)

1442 B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	G.P.S No.	DESC.
			5.19				
T.P.							
	6.28						Rock
			5.38				
T.P.							
	6.25						Rock
			4.78				
#392							
	6.16						
			4.53				
T.P.							
	6.61						Rock
			4.08				
T.P.							
	5.73						Rock
			4.52				
#409							
	7.47						
			3.58				
T.P.							
	7.51						Rock

4/21 C.O.S. B/C FLUSH INDIAN BEND & 84TH ST.

4/22 C.O.S. B/C IN 4/H INT INDIAN BEND & PIMA (+1.24 TO A.C.)

1442 B.M.	+	H.I.	−	ELEV.	ADJ ELEV	G.P.S. NO.	DESC.
			2.38				
T.P.							Rock
	6.69						
			5.18				
#410							P.K. NAIL ON ℄ PIMA RD @ INT. INNER CIRCLE DR. N.
	7.11						
			4.15				
T.P.							Rock
	7.27						
			3.29				
T.P.							Rock
	7.29						
			4.35				
#411						4012	C.O.S B/C IN H/H @ VIA DE VENTURA & PIMA OFF E. EDGE OF PIMA √-IN
				END	RUN		

B.M.	+	H.I.	−	ELEV	ADJ EL	G.P.S. No.	DESC
1442							
#375						412	C.O.S. B/C IN H/H INT INDIAN BEND & HAYDEN
	7.79						
			5.23				
T.P.							CURB
	6.44						
			4.29				
T.P.							CURB
	6.17						
			5.41				
TBM 31							TOP OF CURB RETURN (B.C.R.) @ N.E. COR. McCORMICK PRKWY & HAYDEN
	8.83						
			4.13				
T.P.							CURB
	5.90						
			4.24				
#393							P.K. NAIL @ INT VIA PASEO DEL NORTE & DEL NORTE DR.
				RETURN	LOOP		
	4.01						

	+	H.I.	−	ELEV.	ADJ EL	G.P.S. NO	DESC.
1442							
B.M.							
			5.64				
T.P.							CURB
	3.88						
			8.06				
T.P.							CURB
	3.63						
			6.74				
T.P.							CURB
	4.41						
			6.00				
T.P.							CURB
	5.36						
			6.66				
#375							√- IN P.O.B. +0.02 HIGH
				END	LOOP		
	56.42		56.40				

1442

B.M.	+	H.I.	−	ELEV	ADJ EL.	G.P.S. No	DESC.
T.B.M. 31							TOP OF CURB RET. (B.C.R.) @ N.E. COR MCCORMICK PKWY & HAYDEN
	8.51						
			1.63				
# 376						—	P.K. NAIL IN L.T. TURN LANE ± 800' W. OF INT. MCCORMICK & HAYDEN
	2.68						
			6.68				
T.P.							CURB
	6.95						
			3.56				
T.P.							Rock
	3.25						
			5.73				
T.P.							Rock
	6.39						
			5.43				
#359						—	P.K. NAIL ± 100' S. OF INT SACATON & CASA GRANDE.
				RETURN	LOOP		
	4.63						

1447								
B.M.	+	H.I.	—	ELEV		ADJ EL.	G.P.S. No.	DESC.
			5.30					
T.P.								
	6.82							Rock
			7.85					
T.P.								
	4.44							CURB
			0.81					
T.P.								
	7.76							CURB
			9.44					
T.B.M. 31								
								√- IN P.O.B. FLAT
				END	LOOP			
				END	DAY			
								C. MIHELICH
								T. PRICE
								10-19-93
								SUNNY, COOL
	46.43		46.43					

1442

B.M.	+	H.I.	−	ELEV.
#404				
	2.58			
			6.70	
TP				
	3.72			
			6.10	
TP				
	6.13			
			7.17	
#403				
	5.49			
			4.93	
TP				
	6.31			
			4.81	
TP				
	6.65			
			6.56	
#386				
	6.67			
			5.33	
TP				
	5.50			

10-20-93 (14)

ADJ. ELEV.	GPS NO.	DESC.
	—	PK NAIL & PIMA RD @ CAMELBACK RD
		CURB
		CONC
	403	PK NAIL & PIMA RD @ INDIAN SCHOOL RD
		ROCK
		ROCK
	4251	STONE IN H/H @ INDIAN SCH. & GRANITE REEF (+1.23 to AC.)
		ROCK

B.M.	+	H.I.	−	ELEV.	ADJ ELEV.	GPS NO.	DESC
1442							
			8.98				
TP							ROCK
	1.78						
			7.08				
#369						4262	3/4" IRON PIN IN H/H @ INDIAN SCHOOL & HAYDEN (+0.65 to AC)
	4.68						
			3.79				
TP							CURB
	6.87						
			3.66				
TP							ROCK
	8.32						
			3.67				
#352						4261	COS B/C IN H/H @ INDIAN SCH & MILLER RD (+0.40 to AC)
	8.31						
			3.18				
TP							CONC
	9.08						

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
1442							
			3.49				
TP							ROCK
	7.81						
			4.48				
#334					4272		C.O.S. B/C IN H/H INDIAN SCHOOL & SCOTTSDALE RD. (+0.50 to A.C.)
				END	RUN		

1442

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC
#403						403	P.K. NAIL & PIMA RD. @ INDIAN SCHOOL RD.
	2.97						
			6.87				
TP							ROCK
	3.78						
			6.49				
TP							CURB
	4.08						
			4.30				
#402						—	P.K. NAIL & PIMA RD. 0.5 mi. N/O THOMAS RD.
	1.34						
			7.98				
TP							ROCK
	5.88						
			7.12				
TP							ROCK
	4.76						
			5.63				
#401						401	P.K. NAIL E. SIDE PIMA RD @ THOMAS RD.
	4.69						
			4.35				
TP							ROCK
	8.35						

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
			4.88				
TP							ROCK
	6.52						
			5.06				
#384						—	C.O.S. B/C IN H/H @ THOMAS & GRANITE REEF (+0.50 to AC)
	7.15						
			5.04				
TP							ROCK
	6.23						
			4.23				
TP							ROCK
	6.24						
			4.75				
#385					4254		REBAR IN POTHOLE @ OSBORN & GRANITE REEF (+0.47 to AC.)
	6.22						
			4.56				
TP							ROCK
	6.18						
			6.34				
TP							CURB
	3.07						

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO.	DESC.
			7.57				
# 368						4263	B/C IN H/H (NO STAMP) OSBORN & HAYDEN RD'S (+0.50 to A.C.)
	5.37						
			6.73				
TP							ROCK
	3.26						
			6.63				
TP							CURB
	5.09						
			6.85				
# 367						4352	C.O.S B/C IN H/H @ THOMAS & HAYDEN RD'S (+0.47 to A.C.)
	7.22						
			6.65				
TP							CURB
	1.48						
			4.65				
TP							
	5.08						
			4.61				
# 350						350	PK. NAIL @ THOMAS RD. & MILLER RD.
	6.11						

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
			3.57				
TP							CURB
	7.45						
			3.43				
TP							CURB
	6.99						
			4.27				
* #351					* 351		* A.C. SHOT @ APPROX. LOCATION OF PANEL (DESTROYED BY CNSTRTN)
	7.55						
			2.36				
TP							ROCK
	7.72						
			4.31				
TP							ROCK
	7.27						
			4.79				
# 333					4273		C.O.S. B/C IN H/H @ OSBORN & SCOTTSDALE RD'S (+0.38 to A.C.)
			END RUN				10-20-93 SUNNY WARM
			END DAY				Π - PRICE Φ - MIHELICH

B.M.	+	H.I.	−	ELEV.
1442				
#340				
	8.23			
			2.03	
TP				
	8.58			
			1.67	
TP				
	9.03			
			4.98	
#327				
	9.82			
			3.97	
TP				
	6.03			
			4.36	
TP				
	5.54			
			6.64	
#326				
	7.61			

ADJ. ELEV.	GPS No.	DESC.
	4102	M.C.E.P. B/C IN H/H @ INDIAN BEND & SCOTTSDALE RD. (+0.56 to A.C.)
		CURB
		WALK
	4101	T.O.P.V. B/C FLUSH @ INDIAN BEND & MOCKINGBIRD LN. (68TH ST.)
		CURB
		CURB
	4104	MAR. CO. B/C IN H/H @ LINCOLN DR. & MOCKINGBIRD (+0.61 to AC)

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS NO	DESC.
			4.07				
TP							CURB
	5.42						
			4.41				
TP							CURB
	5.89						
			4.94				
#325							TOPV B/c FLUSH @ McDONALD & MONTE VISTA (MOCKINGBIRD LN.)
	1.75						
			6.65				
TP							ROCK
	7.12						
			6.16				
TP							ROCK
	5.20						
			6.57				
TP							ROCK
	7.21						
			3.55				
#324						—	GEAR SPIKE FLUSH @ 68TH ST & JACKRABBIT RD.
	11.87						

B.M.	+	H.I.	−	ELEV.	ADJ. ELEV.	GPS No.	DESC.
1442							
			0.51				
TP							ROCK
	15.06						
			0.34				
TP							ROCK
	16.14						
			0.92				
TP							ROCK
	11.34						
			3.52				
#315					4163		T.O.P.V. B/C IN H/H @ JACKRABBIT & INVERGORDON (64TH ST.) (+0.28 to A.C.)
	8.33						
			10.83				
TP							ROCK
	3.21						
			19.81				
TP							ROCK
	0.13						
			14.84				
#314					4212		T.O.P.V. B/C IN H/H @ CHAPARRAL & INVERGORDON (+0.38 to A.C.)
	2.72						

1442 B.M.	+	H.I.	−	ELEV.	ADJ. ELEV	GPS No.	DESC.
			12.87				
T.P.							Rock
	0.23						
			12.62				
TP							Rock
	1.56						
			9.80				
#323						4221	1½" T.P. w/nail in H/H @ 68TH ST. & CHAPARRAL (+0.28 to A.C.)
	1.28						
			10.40				
TP							Rock
	0.84						
			9.77				
TP							Rock
	3.13						
			7.15				
#336						4222	C.O.S. B/C in H/H @ CHAPARRAL & SCOTTSDALE RD
			END RUN				10-29-93 SUNNY, WARM
			END DAY				T - PRICE ϕ - ARCHER

1442

C.O.S. B.M.'S NOT TURNED THROUGH WITH DIFFERENTIAL LEVELS

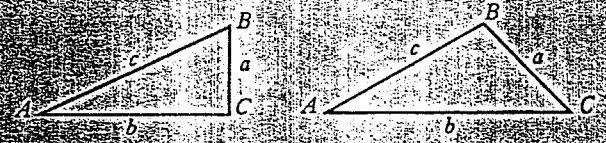
PANEL NO.	GPS NO.	DESC.	C.O.S. ELEV.	'88 DATUM	DIFF. PT. TO GRND.	PANEL ELEV
332	4342		123569	123749		
338	4152		130026	130206		
341	4033	M.C.E.D. B/C FLUSH	129338	129518	0	129518
345	3273	MAR. CO. B/C IN H/H	133510	133690	+048	133738

1443

SCOTTSDALE
G.I.S.
LEVELS

TELEDYNE
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B, \quad \text{Cot } A = \frac{b}{a} = \text{Tan } B,$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B, \quad \text{Sec } A = \frac{c}{b} = \text{Cosec } B,$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B, \quad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A,\ a = C \sin A,\ b = C \cos A.$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c},\ \cos B = \frac{a}{c},\ b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b},\ \cot B = \frac{a}{b},\ c = \sqrt{a^2+b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a},\ c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C,\ C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $= \frac{a+b+c}{2}$; area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

SCOTTSDALE G.L.S.

Pg. DESC.

1 - 30 LEVELS

BK 1443

	+	H.I.	−	Elev.
B.M. #344				
	7.09			
TP			7.55	
	3.84			
TP			5.43	
	5.62			
TP			0.12	
	7.51			
#362			7.77	
	8.81			
TP			10.66	
	5.72			
TP			2.52	
	7.95			
TP			1.51	
	8.83			
TP			11.96	
	5.43			
#379			4.34	
	8.60			
			3.85	
	5.12			
			4.72	
	6.13			

1

10-18-93

C.O.S. BC IN HH @ [illegible] Rd & Via de Ventura
(Down 0.40) #3342

T/C

T/C

T/C

PK NAIL #362 0.5 mi E/o #344 IN GAINEY RANCH
Golf Course ENTRANCE Rd TO PARKING

NAIL

NAIL

NAIL

PVMT

SLD CAP ALONG EQUESTRIAN TRAIL OF GAINEY RANCH
(DOWN 0.14) #3352

NAIL

NAIL

BK 1443

10-18-93 ②

	+	HI.	−	ELEV.	
TP			7.03		PVMT
	4.41				
TP			7.58		T/C
	4.00				
TP			8.03		T/C
	10.54				
TP			4.53		PVMT
	7.13				
TP			7.11		T/C
	5.49				
#396			5.21		DK NAIL 200'± E/O 83RD ST ON SAN BERNARDO
	4.54				
TP			6.55		PVMT
	8.07				
TP			0.73		T/C
	0.98				
TP			4.06		PVMT
	7.35				
TP			3.93		T/C
	6.74				
#413			8.07		C.O.S. BC IN HH 200'± S/O VIA LINDA ON PIMA Rd
	4.93				#3362 (DOWN 0.60) PT IS ON EAST SIDE OF Rd.
TP			6.02		T/C

BK 1443

	+	HT.	−	ELEV.
	1.46			
TP			7.73	
	2.49			
#412			7.43.	

10-18-93

TC

BC IN HH ON PIMA RD. 0.5 mi S/O VIALINDA
(DOWN 0.63) #3363

10-19-93

	+	H.I.	−	ELEV.
BM. #339				
	3.01			
T.P.			8.18	
	1.96			
T.P.			8.97	
	1.35			
#357			7.2[illegible]	
	3.89			
T.P.			6.11	
	5.91			
T.P.			4.67	
	4.18			
#356			4.49	
	5.34			
T.P.			11.09	
	0.38			
T.P.			8.73	
	4.47			
T.P.			3.83	
	4.80			
#373			7.79	
	4.85			
T.P.			4.58	
	7.58			

B/C W/H Essendale Rd/Lincoln G.P.S.#
" " down 0.69
Rock in Pavement
Rock
B/C Hosh (C.O.S.) Lincoln & Cattle Track
G.P.S.#
Rock
Rock
C.O.S. Pothole (dia 0.12) Cattle Track & McDonald
G.P.S.#
Rock
T/C
T/C
McDonald & Worden G.P.S.#
B/C Hosh C.O.S.
T/C

BK 1443

	+	H.I.	-	Elev.	
T.P.			0.67		T/C
	10.30				
#374			3.96		B/C FLUSH HAYDEN & LINCOLN G.P.S.#
	1.54				
T.P.			5.73		T/C
	6.27				
T.P.			4.50		T/C
	6.89				
T.P.			7.46		Rock in Paving
	5.44				
T.P.			6.62		" " "
	7.03				
#391			4.15		B/C FLUSH LINCOLN & GRANITE REEF G.P.S.#
	3.49				
T.P.			7.91		Rock in Paving
	3.58				
T.P.			7.18		" " "
	5.07				
#390			6.52		B/C FLUSH GRANITE REEF & THE DONALD G.P.S.# (Blue Line)
	6.02				
T.P.			5.76		T/C
	5.82				
T.P.			4.62		Rock in Paving
	5.51				

BK 1443

	+	H.I.	−	ELEV.
#407			6.02	
	7.42			
T.P.			3.38	
	7.23			
T.P.			3.06	
	9.29			
#408			3.05	
	6.21			
T.P.			5.84	
	6.96			
T.P.			5.03	
	9.46			
#409			4.80	
	END Loop			

(6)

10-19-93

BLC H/H McDonald & Pima GPS #
(dN 115)

Rock

Rock

BLC H/H Pima (dN 125) GPS #

Rock

Rock

BLC H/H Pima & Indian Bend (dN 129) GPS #

10-20-93

BK1443

	+	H.I.	−	ELEV.	Adj ELEV.	
#337						Blc 4/4 Scottsdale & Jack Rabbit ETP.B.# (dw 0.68)
	0.91					
T.P.			9.71			Rock
	0.49					
T.P.			9.55			
	3.03					
#355			7.89			P.K. Nail in Pine-Sec
	8.33					
T.P.			11.04			Top Edge of Rail Post
	1.92					
T.P.			7.04			T/C
	3.00					
T.P.			8.80			T/C
	3.75					
T.P.			9.32			T/C
	5.30					
#372			1.79			C.O.S. BC FLUSH @ JACKRABBIT & HAYDEN RDS. #4143 (SOUTH BOUND LANE)
	1.68					
TP			0.59			T/C
	4.24					
TP			4.61			PVMT
	6.73					
#389			3.60			IP IN POT HOLE @ ∃ OF JACKRABBIT & 84 ST #4134 (down 1')

BK 1443 10-20-93

	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
	5.24					
TP			6.31			PVMT
	5.05					
TP			4.54			PVMT
	5.46					
						~~BC IN POT HOLE @ JACKRABBIT & PIMA Rds~~
						~~# 4133 (down)~~
TBM			4.61			TBM – T/C @ JACKRABBIT & PIMA
	6.47					
TP			3.61			T/C
	6.00					
TP			4.16			T/C
	5.37					
# 407			4.99			BC IN POT HOLE @ ∃ OF MCDONALD & PIMA Rds
						# 4132 (down 1.15)

BK 1443

	+	HI	−	ELEV.	Adj ELEV.
	4.13				
# 406			4.12		
	4.01				
			4.02		

10-20-93

DESCRIPTION

TBM - T/C @ JACKRABBIT & PIMA.
PG 8 THIS BOOK

BC IN POT HOLE @ JACKRABBIT & PIMA
(down 1.20) # 4133

TBM FROM ABOVE

BK1443

	+	HI	-	ELEV	DESCRIPTION
TBM					TBM - T/C @ JACKRABBIT & PIMA
	3.59				PG. 8 This Book
TP			5.73		T/C
	3.21				
TP			6.29		T/C
	3.75				
TP			6.47		T/C
	5.10				
# 405			6.63		BC IN HH @ ⅓ OF CHAPARRAL & PIMA Rd.
	6.07				# 4242 (DOWN 1.24)
TP			4.77		T/C
	5.63				
TP			4.96		T/C
	6.18				
# 388			4.03		C.O.S. BC FLUSH @ ⅓ OF CHAPARRAL & GRANITE REEF
	2.01				# 4241
TP			6.22		T/C
	3.11				
TP			8.82		PVMT
	4.41				
# 371			4.03		C.O.S. BC IN POT HOLE @ ⅓ OF CHAPARRAL & HAYDEN Rds
					# 4232 (DOWN 0.14)

BK. 1443 10-20-93

	+	HI	-	ELEV.	Adj. ELEV.	DESCRIPTION
#371						C.O.S. BC IN HH @ CHAPARRAL & HAYDEN - #4232
	9.07					
TP			3.16			PVMT
	9.50					
TP			1.41			T/C
	8.80					
#354			3.26			C.O.S. BC IN HH @ ∃ OF CHAPARRAL & MILLER RDS.
	13.16					#4231 (DOWN 0.65)
TP			3.13			T/C
	4.87					
TP			3.61			T/C
	10.04					
#336			2.06			C.O.S. BC IN HH @ ∃ OF CHAPARRAL & SCOTTSDALE
						#4222 (DOWN 0.33)

BK 1443	+	HI	-	ELEV	Adj ELEV.	DESCRIPTION
# 405						BC IN HH @ ⅗ OF CHAPARRAL & PIMA RDS.
	4.97					# 4242 (down 1.24)
TP			6.01			T/C
	3.55					
TP			5.69			T/C
	3.07					
# 404			5.42			PK NAIL @ CAMELBACK & PIMA RDS.
	4.96					
TP			5.86			T/C
	6.35					
TP			4.83			T/C
	6.43					
# 387			4.55			C.O.S. BC FLUSH @ ⅗ OF CAMELBACK & GRANITE REEF
	4.92					# 4244 (down 0.10)
TP			5.89			T/C
	2.93					
TP			11.76			T/C
	3.95					
# 370			2.44			C.O.S. BC FLUSH @ ⅗ OF CAMELBACK & HAYDEN
	6.17					# 4233 (down 0.06)
TP			3.66			T/C

BK 1443

	+	HI	−	ELEV.	Adj ELEV.	DESCRIPTION
	8.68					
TP			2.38			T/C
	6.22					
TP			2.98			T/C
	7.99					
# 353			5.25			STONE IN HH @ ∑ OF CAMELBACK & MILLER RDS. #4234 (DOWN 1.35)
	7.95					
TP			3.80			T/C
	7.58					
TP			3.78			T/C
	8.43					
TP			1.12			T/C
	9.63					
TBM			5.65			~~C.O.S. BC IN HH @ ∑ OF CAMELBACK & SCOTTSDALE RDS #4233 (DOWN)~~
						SW COR OF TRANS @ NE COR OF CAMELBACK & SCOTTSDALE

Bk.1443

	+	H.I.	−	ELEV.
T.B.M.				
	5.54			
#335			6.53	
	6.41			
T.B.M.			5.42	

(14)
10-21-93

Page 13 S.W. Sec. TRANS. Pad / N.E. Cor. Carrolltown Scotts Addic.

Bk. 4/H Carrolltown Scotts Addic. Rd. (dn 1°) G.P.S. # 4223

V-in P.O.B.

10-21-93

BK 1443

	+	H.I.	−	ELEV.
#331				
	1.41			
T.P.			9.09	
	3.34			
T.P.			8.80	
	2.55			
#349			9.08	
	4.81			
T.P.			6.52	
	5.73			
T.P.			6.80	
	4.67			
#348			7.56	
	4.74			
T.P.			4.08	
	12.09			
T.P.			3.06	
	6.34			
#365			5.47	
	6.43			
T.P.			3.67	
	5.75			
T.P.			4.59	
	6.79			

B/C H/H Scottsdale & OAK G.P.S. #4343
(dN 0 24)

T/C

T/C

B/C H/H Oak & Miller (dN 0 70) G.P.S. #4354

T/C

T/C

B/C H/H. Miller & McDowell G.P.S. # 348
(dN 0 94)

T/C

T/C

B/C H/H McDowell & Hayden G.P.S. # 5022
(dN 0 60)

T/C

T/C

BK 1443

	+	H.I.	−	ELEV.	
#366			4.88		Blc 1/4 Hayden & Oak G.P.S. # 4353 (dw 0 34)
	5.89				
T.P.			4.84		Rock in Pavement
	5.50				
T.P.			5.16		T/C
	4.86				
#383			6.40		Blc Petrolite Oak & Granite Reef (dw 0 21) G.P.S. # 4364
	4.78				
T.P.			6.79		Rock in Paving
	2.66				
T.P.			6.08		" " "
	3.83				
#382			7.29		Blc 1/4 Granite Reef / McDowell (dw 0 22) G.P.S. # 5011
	2.20				
T.P.			5.50		Rock
	8.81				
T.P.			2.55		Rock
	5.15				
#399			4.62		✓ P. Petrolite McDowell & Pima (dw 0 48) G.P.S. # 5012
	6.12				
T.P.			3.37		Rock
	7.58				
T.P.			5.24		Rock
	5.77				

BK 1443

	+	H.I.	−	ELEV.
#400			5.40	
	6.55			
T.P.			5.17	
	5.85			
T.P.			5.98	
	5.28			
#401			6.21	

— END LOOP —

10-21-93

along Pima Rd (d.n.o.) ~~G.P.S.~~

Rock

Rock

Pk. Thomas & Pima (#90 East & Pima)
G.P.S. #401

10-21-93

BK 1443

	+	H.I.	−	ELEV.
#399				
	2.42			
T.P.			8.14	
	3.13			
T.P.			9.59	
	0.92			
#398			15.79	
	9.99			
T.P.			0.77	
	9.66			
T.P.			6.26	
	4.77			
T.P.			6.32	
	3.65			
#381			6.54	
	9.68			
T.P.			3.02	
	6.90			
T.P.			5.06	
	4.85			
#364			5.02	

R: Pinnacle Pinnacle mc Dowell (dw 0.48) G.P.S. # 5012

Rock

Rock

T.P. (in Dirt) (dw 0.19) G.P.S # 5013

T/C

T/C

T/C

B/C H/H (dw 0.34) Granite Roof/Roosevelt G.P.S # 5014

Rock in Ruins

" " "

B/C H/H Roosevelt Hopper (dw 0.59) G.P.S # 5023

BK 1443

	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
#364						BC IN HH @ ∩ OF ROOSEVELT & HAYDEN
	5.28					#5023
TP			6.70			T/C
	3.76					
TP			13.09			T/C
	3.93					
TP			2.37			T/C
	6.47					
#347			3.06			PIN IN POT HOLE @ ∩ OF ROOSEVELT & MILLER RDS.
	7.68					#5024 (DOWN 0.17)
TP			2.83			T/C
	8.30					
TP			2.42			T/C
	8.50					
#329			1.38			STONE IN HH @ ∩ OF ROOSEVELT & SCOTTSDALE RDS (DOWN 0.70)

9-22-93

BK 1443

	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
# 328						C.O.T. BC IN HH @ ∑ OF SCOTTSDALE & McKELLIPS Rd.
	2.13					#5102 (DOWN 0.47)
TP			9.58			T/C
	2.03					
TP			9.74			T/C
	3.33					
# 346			7.41			1/2" IP @ ∑ OF MILLER & McKELLIPS Rds
	5.43					#5111 (DOWN 1.25)
TP			1.06			PVMT
	4.04					
TP			11.75			T/C
	12.81					
TP			9.95			T/C
	3.48					
# 363			4.24			BC IN HH @ ∑ OF HAYDEN & McKELLIPS Rds
	4.16					#5112 (DOWN 0.50)
TP			4.58			T/C
	6.44					
TP			6.29			PVMT
	4.78					
# 380			6.85			BC IN HH 0.5 Mi. E/O HAYDEN ON McKELLIPS Rds.
	5.93					#5121 (DOWN 0.60)

BK 1443

9-22-93

	+	HI	-	ELEV	Adj. ELEV.	DESCRIPTION
TP			4.64			ROCK
	6.06					
TP			4.37			ROCK
	6.38					
# 397			5.20			C.O.S. BC IN HH 1.0 MI. E/O HAYDEN ON McKELLIPS Rd.
	5.85					(~~# 5122~~) (DOWN 0.70)
TP			6.20			ROCK
	8.08					
TP			7.07			ROCK
	5.97					
# 398			4.30			IP - 0.5 mi N/O # 397
						# 5013 (DOWN 0.10)

BK1443

	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
#329						STONE IN HH @ ∃ OF SCOTTSDALE & ROOSEVELT Rds (DOWN 0.70)
	8.40					
TP			2.02			T/C
	9.50					
TP			1.49			PVMT
	7.73					
#316			2.74			BC FLUSH @ ∃ OF 68 ST & ROOSEVELT #5034
	8.51					
TP			0.27			PVMT
	11.53					
TP			2.36			ROCK
	15.23					
TP			2.76			ROCK
	22.95					
TP			0.36			ROCK
	23.28					
TP			3.24			ROCK
	6.44					
#307			0.80			GLO CAP #5043 (UP 1.60)
	0.73					
TP			24.01			ROCK
	0.32					
TP			23.18			ROCK
	3.25					

BK 1443

	+	HI	-	ELEV	Adj. ELEV.	DESCRIPTION
TP			7.89			Rock
	5.71					
TP			6.40			Rock
	4.85					
TP			4.28			Rock
	11.08					
TP			5.63			ROCK
	11.64					
TP			4.72			Rock
	9.86					
#308			4.95			1" IP IN DIRT 15'± BEHIND WALK @ SE COR McDowell & 64th
	3.50					#5042 (down 0.55)
TP			9.05			T/C
	1.78					
TP			12.67			T/C
	0.20					
TP			11.90			T/C
	4.07					
T.B.M.			8.60			T/C - SW COR 68th STREET & McDowell
	6.32					
#317			6.42			B/C 4/4 68th STR. & McDowell E.T.S. #5031
	6.44					(down 0.54)
T.B.M.			6.35			V-IN - SW COR. 68th ST/& McDowell

5.27

BK1443

	+	HI	−	ELEV.	Adj. ELEV.	DESCRIPTION
#T.B.M.						TIC @ 68th St. McDonell
	3.26					
T.P.			9.79			TIC
	1.94					
T.P.			8.81			TIC
	2.58					
T.P.			9.48			TIC
	3.29					
#330			6.57			B.C. 1/4 Scottsdale & McDonell (down 0.28) G.P.S. #5032
	— END LOOP —					

BK 1443

	+	H.I.	−	ELEV
#308				
	10.19			
T.P.			8.10	
	6.45			
#309			11.56	
	3.62			
T.P.			9.42	
	3.78			
T.P.			9.00	
	4.41			
#310			5.11	
	4.92			
T.P.			3.50	
	0.67			
T.P.			10.92	
	2.68			
T.P.			10.28	
	2.66			
#319			6.06	
	5.94			
T.P.			6.47	
	7.17			
T.P.			4.[illegible]	

10-25-93

I.R. in Dist N/S Donnell & Galvin Parkway (#5042)

T/C

Blc H/H OAK & 64th STREET G.P.S. # 4333
(down 0.60)

T/C

T/C

Blc H/H Thomas & 64th STR G.P.S. # 4332
(down 0.46)

T/C

T/C

T/C

Blc H/H 68th STREET & Thomas G.P.S. # 4341
(down 0.36)

T/C

T/C

10-25-93

	+	H.I.	—	ELEV.
~~PK 143~~				
	6.88			
~~#318~~				
T.B.M.			5.77	
	5.22			
~~* NEW Paving~~			5.76	
	5.49			
T.B.M.			4.95	
	~~5.55~~			
~~T.P.~~		~~6.40~~		
	~~5.75~~			
	1.24			
T.P.			11.83	
	2.13			
T.P.			9.17	
	4.12			
#331			6.57	
	— END LOOP —			

~~PLUTHOTN ORCH & 68~~

T/C N.E RTN 68th & OAK

OAK & 68th STR (was TAKEN @ INTERSECTION OF TOP NEW PAVING B/C FLOW NOT FOUND)

← T/C N.E. RETURN OAK & 68th

~~T/C~~

T/C

T/C

B/C H/H OAK & JEATTEDALE G.P.S. F4343
(down 0.25)

BK 1443

	+	H.I.	−	Elev.
#310				
	5.52			
T.P.			4.19	
	5.66			
T.P.			7.25	
	5.55			
#304			5.83	
	5.26			
T.P.			7.97	
	3.56			
T.P.			8.82	
	2.59			
#302			10.39	
	8.56			
T.P.			2.87	
	9.67			
T.P.			1.47	
	10.65			
#301			5.51	
	13.48			
T.P.			0.88	
	19.26			
T.P.			0.26	

(27)

10-25-93

B/C 4/4 64th Street & Thomas G.P.S. # 4332

T/C

T/C

B/C 4/4 Thomas & 60th St. G.P.S. # 304
(down 1.4)

T/C

T/C

56th St. & Thomas G.P.S. # 4322
(down 0.40)

Rock

Rock

B/C 4/4 Oak & 56th St. G.P.S. # 4323
(down 0.50)

Rock

Rock

Bm 1443

	+	H.I.	—	ELEV.
	11.87			
#303			7.78	
	4.94			
T.P.			13.17	
	3.16			
T.P.			11.62	
	1.84			
#309			12.77	

— END Loop —

B/c Flush 60th St & OAK GPS #4334

Rock

Rock

B/c H/H Oak & 64th St. GPS #4333

BK 1443

	+	H.I.	−	ELEV.
#333				
	6.08			
TP			3.96	
	8.78			
TP			4.04	
	6.61			
# 320			4.52	
	7.53			
TP			4.07	
	6.39			
TP			3.35	
	6.33			
# 311			4.71	
	13.10			
TBM			2.05	
	1.77			
TP			6.71	
	5.77			
TP			5.06	
	5.28			
# 321			1.18	
	1.40			
TP			7.50	

10-26-93

B/C H/H SCOTTSDALE & OSBORN — E.P. # 4273

(down 0.40)

PVMT

PVMT

C.O.S. BC IN HH @ ½ OF OSBORN & 68 ST

4274 (down 0.76)

T/C

T/C

PK NAIL @ OSBORN & 64 ST

TBM - STONE @ ISR & 64 ST

T/C

T/C

C.O.S. BC IN HH @ INDIAN SCHOOL Rd & 68 ST, N SIDE OF

4271 (down 0.43) WESTBOUND LANE.

T/C

BK 1443

	+	H.I.	−	ELEV.
	2.92			
TP			7.50	
	3.24			
# 334			7.03	

10-26-93

T/C

C.O.S. BC IN HH @ ∃ OF INDIAN SCHOOL & SCOTTSDALE

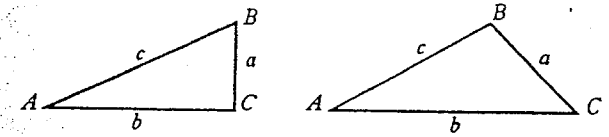
4272 (DOWN 0.50)

1444

SCOTTS.
G.I.S.
LEVELS

NATIONAL
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

SCOTTSDALE G.I.S.

PG. DESC.

1 — 3 LEVELS

BK 1444

1

10-26-93

	+	HI	-	ELEV.	Adj. ELEV.	DESCRIPTION
#304						BC IN HH @ ⅓ OF 60 ST & THOMAS (down 1.16)
	1.22					
TP			7.01			PVMT
	4.36					
TP			7.39			T/C
	2.50					
TP			8.25			PVMT
	7.21					
#305			1.73			C.O.S. BC FLUSH @ 60 ST & Osborn
	5.45					# 4284
TP			4.47			PVMT
	6.57					
TP			5.81			T/C
	7.66					
TP			2.59			PVMT
	11.02					
TBM			5.42			STONE @ Indianschool & 64 ST
						BOOK 1443 pg. 29

BK 1444

(2)

10-26-93

	+	HI	-	ELEV.	Adj. ELEV.	DESCRIPTION
# 321						C.O.S. BC IN HH @ INDIAN SCHOOL & 68 ST
	7.00					# 4271 (DOWN 0.43)
TP			7.21			T/C
	7.38					
TP			2.87			PVMT
	7.23					
# 312			3.76			PK NAIL @ ∃ OF 64 ST & LAFAYETTE RDS.
	6.40					
TP			5.02			PVMT
	6.03					
TP			4.32			PVMT
	4.68					
# 306			5.69			C.O.P. BC FLUSH @ ∃ OF LAFAYETTE & JOKAKE RDS.
	10.87					# 4281
TP			0.30			PVMT
	12.10					
TP			5.65			PVMT
	3.32					
TP			6.63			PVMT
	2.65					
TP			8.35			T/C
	9.88					

10-26-93

BK 1444	+	HI	-	ELEV.	Adj. ELEV.	DESCRIPTION
TP			2.07			T/C
	8.37					
# 313			3.61			BC IN HH @ ℄ OF 64 ST & CAMELBACK RDS. (DOWN 0.74)
	2.98					
TP			8.33			T/C
	1.12					
TP			8.03			T/C
	2.83					
# 322			6.94			C.O.S. MONUMENT IN HH @ ℄ OF 68 ST & CAMELBACK RDS. #4224 (DOWN 0.90)
	6.91					
TP			6.50			T/C
	2.29					
TP			7.35			T/C
	1.28					
TP			7.48			T/C
	4.21					
# 335			4.65			C.O.S. B/C IN H/H @ CAMELBACK & SCOTTSDALE RD. #4223 (DOWN 0.90)

10-29-93
SUNNY, WARM
T - T. PRICE
Φ - D. ARCHER

SOKKIA™

MADE IN U.S.A.

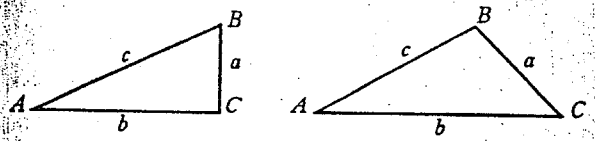
SOKKIA™ 1458

ECONOMY FIELD BOOK

Scottsdale G.I.S.
Parker

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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1458 INDEX I

TITLE PAGE

SCOTTSDALE G.I.S.

INDEX

PG.	DESC.
1-5	SIDE-SHOT McDOWELL MTN. PH.'S
6	SIDE-SHOT PANEL PH. 608
7	H&U @ HEADWALL
8	BENCH LOOP TO H&Y @ HEADWALL
9	NEW PANEL PH.'S SEC'S 14,15,22,23

1458

INDEX II

1458

T @ PP 615 (GPS 7173)
BS PP 614 (GPS 7202)
FS TRAV. PT. "A"

T H.I. = 3.93 FRM CAP
FS H.I. = 5.15 FRM HUB

Hz. ANG.'S

① 155-56-22
② 311-52-34
M = 155-56-17

VT ANG.'S

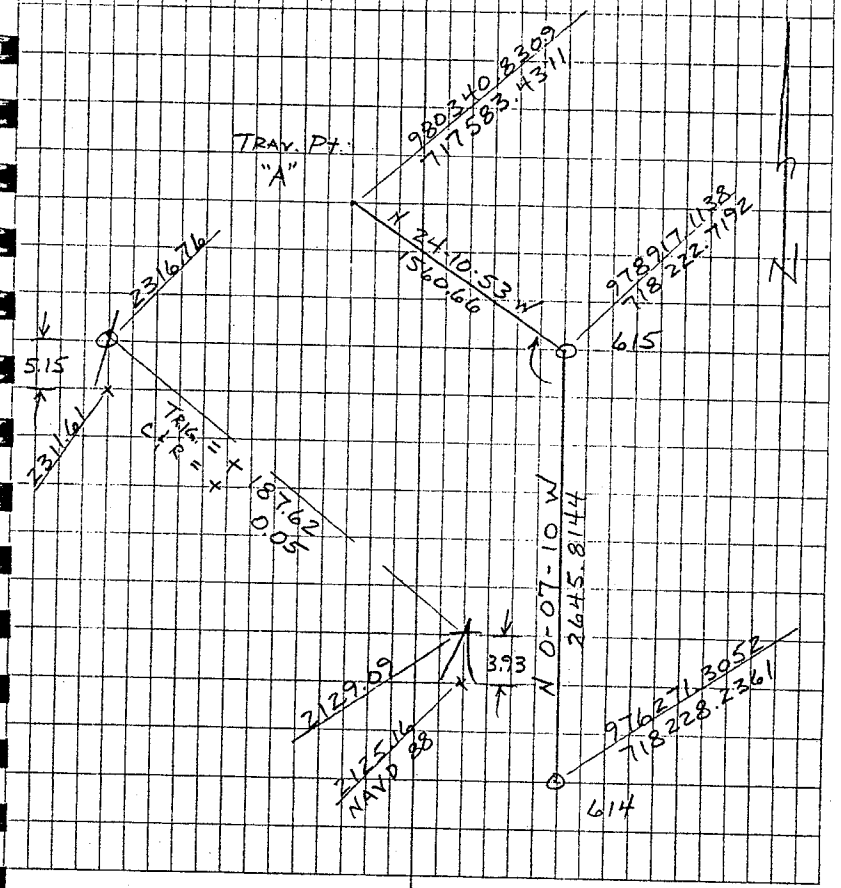
D 83-08-30
R 276-51-08
SUM = 359-59-38
VT ∡ = 83-08-41

FS SL DIST. = 1571.90, .90

FS Hz DIST. = 1560.66

①

G.L.O. B/C ON T.P. 1.2' ABOVE GROUND
G.L.O. B/C ON T.P. SE COR. SEC. 17
SET HUB ON HILL ABOVE HOUSE PAD



1458

T @ TRAV. PT. "A"
BS PP 615 (GPS 7173)
FS PP 842

T H.I. = 5.32 FRM. HUB
BS H.I. = 3.93 FRM. CAP
FS H.I. = 4.27 FRM. NL.

HZ. ANG.'S

I	00-00-07	00-00-02
D	314-18-04	314-17-59
∡	314-17-57	314-17-57
I	179-59-31	179-59-27
R	134-17-15	134-17-16
∡	314-17-44	314-17-49

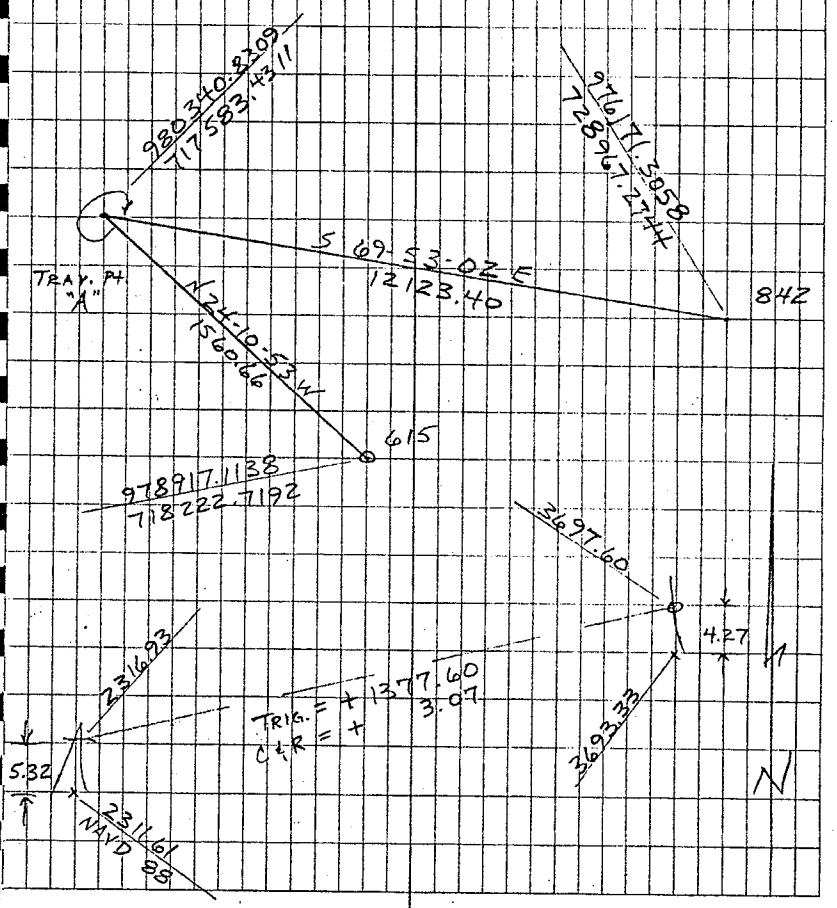
M = 314-17-51

VT. ANG.'S

D 83-30-43
R 276-28-40
SUM = 359-59-23
VT. ∡ = 83-31-02
FS SL. DIST. = 12201.43, .425
FS HZ. DIST. = 12123.40

②

HUB ON HILL ABOVE HOUSE PAD
G.L.O. B/C ON I.P. E 1/4 COR. SEC. 17
SET 60P NL. APPROX. NE COR. SEC. 22



1458

π @ PP 790 (GPS 8052)
BS PP 580 (GPS 8062)
FS PP 840

π H.I. = 3.81 FRM. CAP
FS H.I. = 4.21 FRM NL.

Hz. ANG'S

I	00-00-16	00-00-11
D	164-41-41	164-41-33
∡	164-41-25	164-41-22
I	179-59-46	179-59-36
R	344-41-10	344-40-56
∡	164-41-24	164-41-20

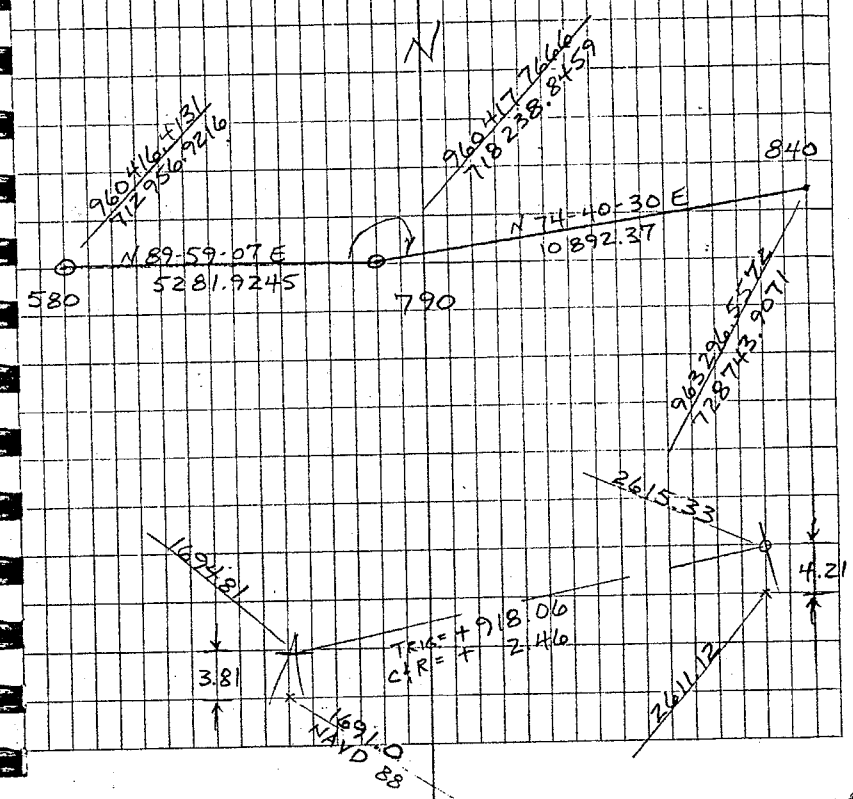
M = 164-41-23

Vt. ANG'S

D 85-10-30
R 274-48-39
SUM = 359-59-09
Vt. ∡ = 85-10-56

FS SL. DIST. = 10930.995, 99
FS Hz. DIST. = 10892.37

G.L.O. B/C ON 3" I.P. 1.55' ABOVE GROUND
1/2" REBAR IN P/H NE COR. SEC. 6
SET 60p NL APPROX. E 1/4 COR. SEC. 34



1458

T @ PP 866 (GPS 7023)
BS PP 864 (GPS 7143)
FS TRAV. PT. "X"

T H.I. = 3.71 FRM. CAP
FS H.I. = 6.52 FRM. NL.

Hz. ANG.'S

I	00-00-12	00-00-21
D	359-48-45	359-48-49
∡	359-48-33	359-48-28
I	179-59-29	179-59-40
R	179-48-04	179-48-15
∡	359-48-35	359-48-35

M = 359-48-33

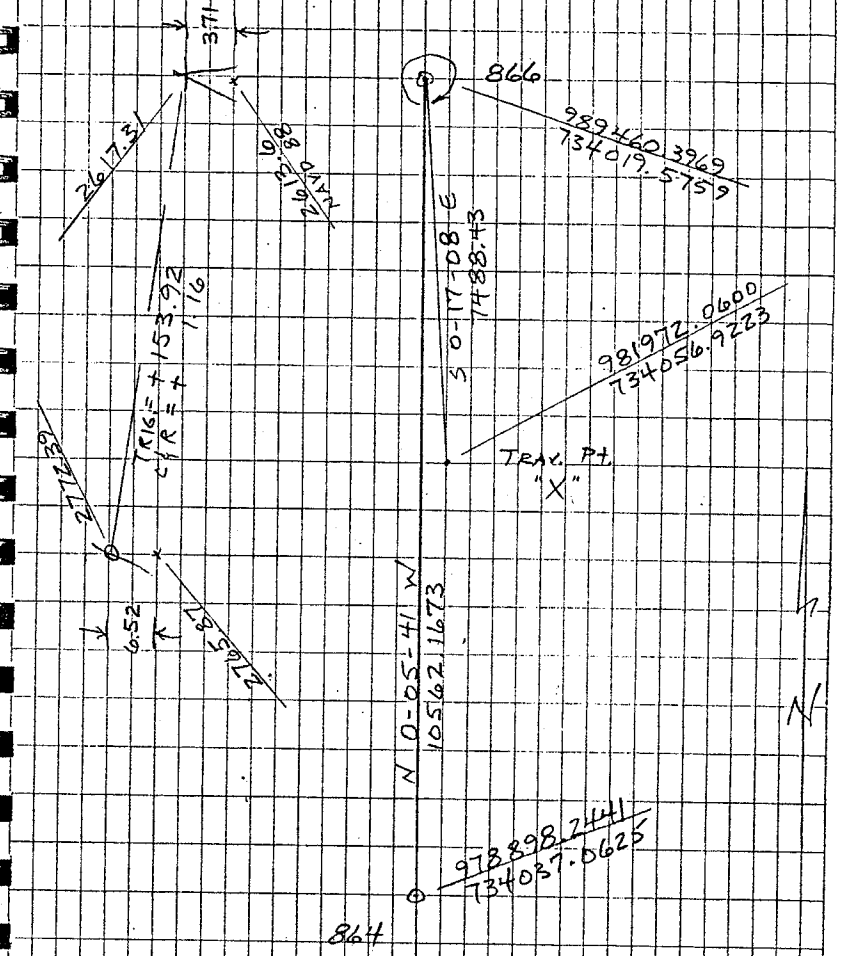
Vt. ANG.'S

D 88-49-04
R 271-10-22
SUM = 359-59-26
Vt ∡ = 88-49-21

FS SL. DIST. = 7490.00, .02
FS HZ. DIST. = 7488.43

(4)

G.L.O. B/C ON 1" I.P. 1.2' ABOVE GROUND
G.L.O. B/C ON I.P. E 1/4 COR. SEC. 14
SET 60D NL. ON DIRT RD. (128TH ST.)



1458

⊼ @ TRAV. PT. "X".
BS PP 866 (GPS 7023)
FS PP 863

⊼ H.I. = 5.37 FEM. NL.
FS H.I. = 5.25 FEM. NL.

HZ ANG.'S

I	00-00-16	00-00-14
D	181-05-43	181-05-37
∡	181-05-27	181-05-23
I	179-59-40	179-59-36
R	01-05-03	01-04-58
∡	181-05-23	181-05-22

M = 181-05-24

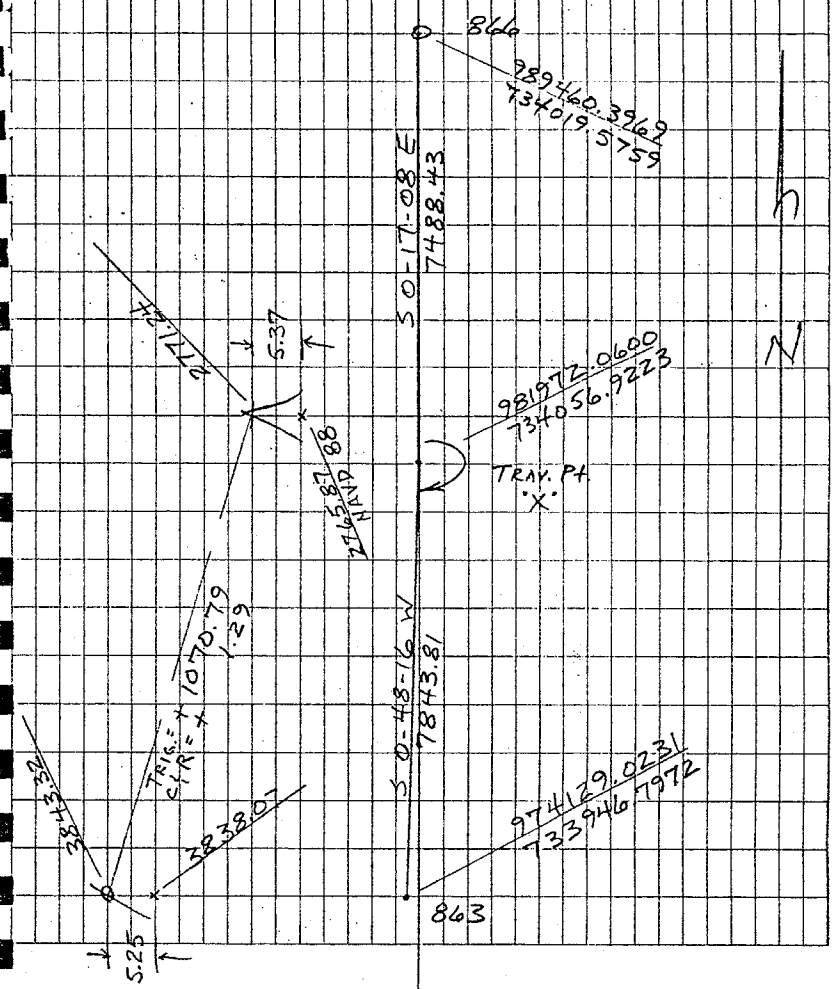
VT. ANG.'S

D 82-13-12
R 277-46-02
SUM = 359-59-14
VT ∡ = 82-13-35

FS SL. DIST. = 7916.57, .56
FS HZ. DIST. = 7843.81

(5)

60P NL ON DIRT RD. (128TH ST.)
G.L.O. B/C ON 1" IP E 1/4 COR SEC. 2
SET 60P NL APPROX. E 1/4 COR. SEC. 23



1458

⑥

π @ PP 606
BS PP 813 (GPS 6335)
FS PP 608

Hz ANG'S

I	00-01-40	00-01-39
D	254-11-47	254-11-43
∡	254-10-07	254-10-04
I	180-01-06	180-01-12
R	74-11-13	74-11-16
∡	254-10-07	254-10-04

M = 254-10-06

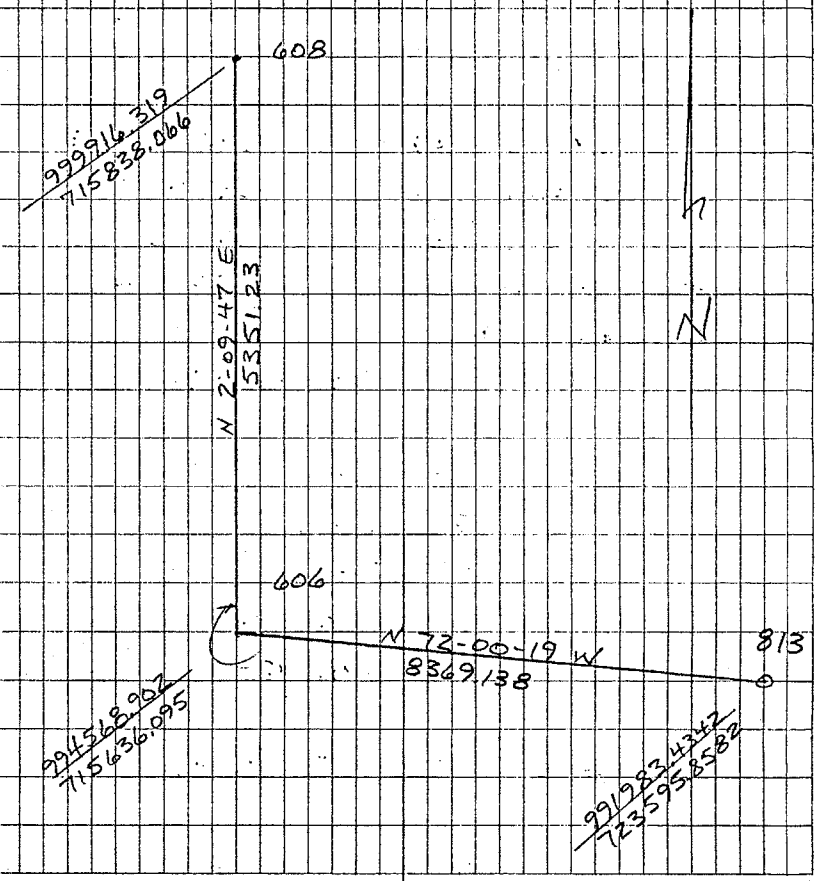
Vt ANG'S

D 92-01-36
R 267-57-38
SUM = 359-59-14
Vt ∡ = 92-01-59

FS SL DIST. = 5354.60, .60

FS Hz. DIST. = 5351.23

HUB ON HILL APPROX. CENT. SEC. 32
G.L.O. B/C ON I.P. SE COR SEC. 33
HUB ON HILL APPROX. CENT. SEC. 29



BK 1458

T @ Panel Point #623 (NAIL)
B.C. Panel Point #618 (BLC H/A)

B.S. Vertz 96-17-38
B.S. Slope Dist 3573.845
* Corrected Hz. Dist: 3552.304
B.S. Ref. Brg: 00-00-31

F.S. H&V @ Headwall (scribed +)
F.S. Vert. ∡ 101-01-41
F.S. Slope Dist: 1667.15
* Corr. Hz Dist: 1636.364

(1) Direct: B.S. 00-00-32
F.S. 340-18-14
∡ 340-17-42

(2) Indirect: B.S. 180-00-00
F.S. (360)+ 160-17-48
∡ 340-17-48

(3) Direct: B.S. 00-00-46
F.S. 340-18-23
∡ 340-17-37

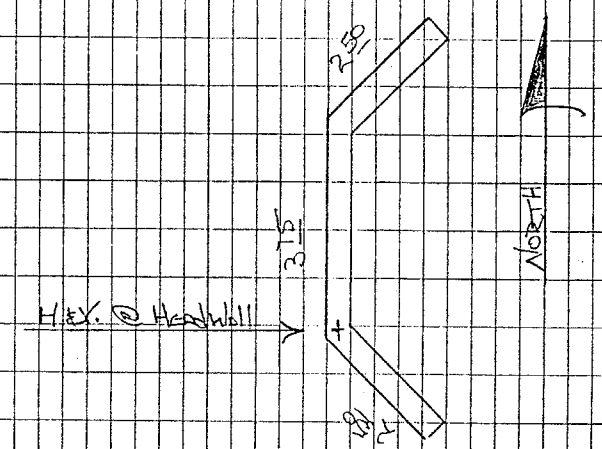
(4) Indirect: B.S. 180-00-17
F.S. (360)+ 160-17-54
∡ 340-17-37

MEAN ∡ 340-17-41

H&V @ Headwall (1) 1-17-94

On top of small peak
@ Happy Valley Rd & Alma School

East of Windy Walk Dr & North of Ballantrae Ridge



T.C.D. Tracker
T Y. Nechero
Instr. W/ H T-2
Clear & Cool ±60°

BK 1458

	+	H.I.	−	Elev.
B.M.#68				2374.63
	5.55	80.18		
TP			10.53	69.65
	13.63	83.28		
TP			0.27	83.01
	9.34	92.35		
TP			0.49	91.86
	24.09	2415.95		
TP			1.04	2414.91
	24.36	39.27		
TP			0.24	39.03
	4.96	43.99		
Howell			3.60	40.39
	3.35	43.74		
SS		43.74	4.17	39.57
TP			22.80	20.94
	0.89	21.83		
TP			24.73	2397.10
	0.31	2397.41		
TP			10.74	86.67
	0.89	87.56		
TP			14.26	73.30
	6.25	79.55		
B.M.#618			4.91	2374.64 ✓
	93.62		93.61	

8

BENCH LOOP TO H&W @ Hardwall 1-17-94

Elc +/41 HAPPY VALLEY & ALMA SCHOOL

PVMT

PVMT

NUTON FH

PVMT

PVMT

SOUTH ⊥ PT OF HOWALL E/O WINDYWALK #
N/O BALLANTRAE RIDGE

℄ WINDY WALK (PVMT) @ HOWALL

PVMT

PVMT

PVMT

T/C

BC IN HH E.O.C = 0.01

PANEL #	GPS #	DESC.	REMARKS
858	8233	FND. AS DESC.	RE-PAINT "Y" INT. VIA LINDA & 128TH ST
934		FND. C.O.S. BC IN HH (DN. 0.5)	PAINT "Y" INT. VIA LINDA & 124TH ST.
931		FND C.O.S. BC FLUSH	PAINT "Y" IN CONC. MED. VIA LINDA E1/4 SEC. 22
929	8224	FND. C.O.S. BC FLUSH IN DIRT	PAPER "Y" BTWN. BUSHES ON VIA LINDA CENT. SEC. 22
929-A		FND. P.K. NAIL IN CONC MED.	PAINT "Y" AS ALTERNATE @ VIA LINDA E/O C.A.P.
925		SET NL IN DIRT CLEARING	PAPER "Y" ± 50' W/O TENNIS CRT. APPROX E1/4 21
940	8142	FND. AS DESC.	PAPER "λ" ± 400' N/O DIRT RD. N. SIDE OF WASH
937	8141	FND. AS DESC.	PAPER "Y" @ EAST TOE OF HILL
837	8152	FND. AS DESC.	RE-PAPER "Y" ON EAST SLOPE OF MTN.
936		SET NL IN DIRT CLEARING	PAPER "Y" @ N. BASE OF HILL S/O WASH

3-3-94
SUNNY, WARM
T. PRICE

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[redacted]

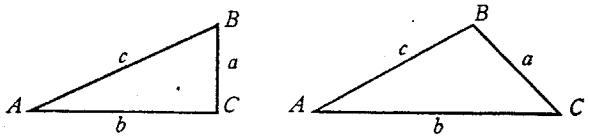
SOKKIA™ 1463

ECONOMY FIELD BOOK

SCOTTSDALE G.I.S.
BAKER

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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1463 INDEX I

SCOTTSDALE G.I.S.

PG.	DESC
1-5	PANEL POINTS

1463

INDEX II

1463

1-4-94 ①

PANEL #	GPS #	DESC.	REMARKS
701	✓ 1337	FND. AS DESCRIBED +0.5	✓SET PAPER "Y" W. SIDE 56TH ST. @ JOMAX
707	✓ 1336	FND. AS DESCRIBED +0.7	✓SET PAPER "Y" N. SIDE JOMAX RD.
* 714	✓ 1317	FND. PK. IN G.L.O. CAP (up 1.5')	✓SET PAPER "Y" NE COR. JOMAX & 64TH ST.
716	✓ 1283	FND. AS DESCRIBED -0.6	✓SET PAPER "Y" INT. PK. VW. RD. & 64TH ST.
718	✓ 1163	FND. AS DESCRIBED -0.3	✓SET PAPER "Y" W. SIDE RD. ±0.5 mi. N/O LN. MTN.
* 734-A	✓ 1103	FND. AS DESC. (1102 SFNF) -0.1	✓SET PAINT "Y" INT. SCOTTS RD. & WESTLAND
710	✓ 1091	FND. AS DESCRIBED -1.8	✓SET PAPER "Y" N. SIDE CAREF. HWY @ 60TH ST.
719	✓ 1162	FND. AS DESCRIBED +0.9	✓SET PAPER "Y" N. SIDE DIRT RD.'S @ "T"
* 709	✓ 1161	FND. G.L.O. CAP IN GOTO. RIP-RAP (Flush)	✓SET PAPER "Y" S. SIDE AC. @ 60TH ST.
704	✓ 1082	FND. AS DESCRIBED -1.2	✓EXIST. PAINT "+" @ CARE. HWY & 56TH ST.

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1-5-94 (2)

PANEL #	GPS #	DESC.	REMARKS
792 ✓	6322	FND. AS DESCRIBED	SET PAPER "Y" NE COR. SEC 32
817 ✓	6163	FND. AS DESCRIBED	SET PAPER "Y" ± 8' S/O MESQUITE W. SIDE RD.
848 ✓	6222	FND. AS DESCRIBED	SET PAPER "Y" NE COR. SEC. 22
870 ✓	6232	FND. AS DESCRIBED	SET PAPER "K" AMONG BLDRS. N/O TRANS. LN.
890 ✓	6242	FND. AS DESCRIBED	SET PAPER "Y" NW COR TEE JCT. DIRT RD'S
891 ✓	6132	FND. AS DESCRIBED	SET PAPER "K" @ JCT. B.W. FNC. & DRT. RD'S
889 ✓	6252	FND. AS DESCRIBED	SET PAPER "Y" ALONG W. SIDE FNC. LN. & RD.
888 ✓	6253	FND. AS DESCRIBED	SET PAPER "Y" W. SIDE INT. DALE LN & 136TH ST.
815 ✓	6283	FND. AS DESCRIBED	SET PAPER "Y" ALONG B.W. FENC LINE N/S

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PANEL #	GPS #	DESC.	REMARKS
735	✓ 1033	FND. AS DESC. (BIRD BATH GONE)	✓ SET PAPER "Y" IN BK YARD ±400' E/O SCOTTS RD
776	✓ 6313	FND. AS DESCRIBED	✓ SET PAPER "Y" ON N-S FL ± 1/4 MI S/O C.C. RD
			1-7-94
797	✓ 6052	FND. AS DESCRIBED	SET PAPER "Y" ON E-W FL ± 150' E/O N-S FL
796	✓ 6082	FND. AS DESCRIBED	SET PAPER "Y" IN DESERT NE COR. SEC 8
774	✓ 6073	FND. AS DESCRIBED	SET PAPER "Y" ON EXIST "+" PANEL E 1/4 SEC. 7
775	✓ 6063	FND. AS DESCRIBED	✓ SET PAPER "Y" ON EXIST "+" PANEL E 1/4 SEC. 6
760	✓ 0309	FND. AS DESCRIBED	SET PAPER "Y" ± 30' N/O SEC. COR. 24/25
799	✓ 0292	FND. AS DESCRIBED	SET PAPER "Y" ± 200' SW OF INT. FILAREE & 104TH ST.
* 782	✓ 0291	FND BLM CAP (UP 1½)	SET PAPER "Y" N 1/4 COR. SEC. 29

1-6-94

1463

1-10-94 (4)

Panel #	GPS #	Desc.	Remarks
809	✓ 8042	Fnd. as Described	Set Paper "Y" ± 3.0 mi. E/o Pima on Bell Rd
839	✓ 8033	Fnd. as Described	Set Paper "Y" on exist. "X" Panel E1/4 Sec 3
808	✓ 8092	Fnd. as Described	Set Paper "Y" ± 200' N/o Dirt Trl. NE cor. Sec. 9
838	✓ 8103	Fnd. as Described	Set Paper "Y" ± 800' N/o Dirt Trl. E1/4 Sec. 10
			1-11-94
837	✓ 8152	Fnd. as Described	Set Paper "Y" NE cor. Sec. 15
860	✓ 8113	Fnd. as Described	Set Paper "Y" E1/4 cor. Sec. 11
811	✓ 7212	Fnd. as Described	Set Paper "Y" NE cor. Sec. 21

1463

1-12-94 (5)

PANEL #	GPS #	DESC.	REMARKS
841	7272	FND AS DESCRIBED	SET "⅄" PAPER PANEL NE COR. SEC. 27
810	7332	FND AS DESCRIBED	SET "Y" PAPER PANEL NE COR. SEC. 33
		CHECK PANELS FROM	OTHER FIELD BOOKS 1-25-94
736	1032	F.A.D.	"Y" PAINT
737	1021	F.A.D.	"⅄" PAINT S. SIDE SIDEWINDER
747	1023	F.A.D.	"⊢" PAPER
748	1022	F.A.D.	"Y" PAINT
749	1011	F.A.D.	"≻" PAINT
757	1013	F.A.D.	"Y" PAPER
758	1012	F.A.D.	"⅄" PAINT
756	1132	F.A.D.	"Y" PAPER
755-A	1241	F.A.D.	"≻" PAINT
745	1232	F.A.D.	LG "+" PAINT INT. LONE MTN. & HAYDEN
754-A	1251	F.A.D.	"⅄" PAPER
* 744	1262	FND 1/2" RB IN PH RLS TAG	* 14959 "Y" PAPER ± 3' SE OF 3/4" RB DOWN 0.3'

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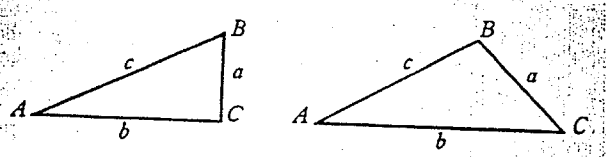
464

ECONOMY
FIELD BOOK

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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SCOTTSDALE G.I.S. PANEL POINTS

P6. DESC.

1-8 PANEL POINTS

1464

PANEL NO.	G.P.S. No.	DESC.
844	7102 ✓	FOUND AS DESC. PAPER +1.1
846	6342 ✓	FOUND AS DESC PAPER ⊖ REBAR BENT
* 867A	6355 ✓	FOUND AS DESC. PAPER +1.2 (MOVED 0.5' MTS. FROM ORIG. PANEL LOCATION)
866	7023 ✓	FOUND AS DESC. PAPER +1.2
865	7113 ✓	FOUND AS DESC PAPER +0.7
864	7143 ✓	FOUND AS DESC. PAPER +0.6
* 884A	7131 ✓	FOUND AS DESC. PAPER +1.35 (MONU. ON ± 2' MOUND OF DIRT.)
843	7152 ✓	FOUND AS DESC. PAPER +1.0

1-4-94 ①

PANEL No.	G.P.S. No.	DESC
829 ✓	7101	+0.9 FOUND AS DESC PAPER
845 ✓	7032	+1.3 FOUND AS DESC PAPER

1464

1-5-94 (2)

PANEL No.	G.P.S. No.		DESC		
813	6335	FOUND AS DESC.	PAPER	+0.55	
* 814	6333	FOUND AS DESC	PAPER	+1.25	
* 884B	7133	FOUND AS. DESC	PAPER	+0.9	
883	7242	FOUND AS DESC	PAPER	+1.0	

1464

1-6-94 ③

PANEL NO	G.P.S. NO	DESC.
892	6122	FOUND AS DESC PAPER +1.05
893	6013	FOUND AS DESC. PAPER +1.65
894	6012	FOUND AS DESC. PAPER +1.1
874	6011	" " " " +1.0
872	6022	" " " " +1.3
855	6021	" " " " +1.0
852	6032	" " " " +1.2
795	6172	" " " " +1.2
		± 75' N OF BARBED FNC LINE

1464

1-7-94 (4)

PANEL NO.	G.P.S. No.	DESC.	
886	✓6365	FOUND AS DESC. PAPER (LABELED AS 6335)	+0.9
885	✓7122	FOUND AS DESC. PAPER	+0.9
847	✓6272	" " " "	+1.0
869A	✓6262	FOUND AS DESC. PAPER	+1.1
868A	✓6352	" " " PAINT	-0

1464

1-10-94 (5)

PANEL No.	G.P.S. No.	DESC.				
831	0271	FOUND	AS	DESC.	PAPER	+0.4
854	0153	"	"	"	"	+0.8
824	0162	"	"	"	"	+0.8

1-11-94 (6)

1464

PANEL NO.	G.P.S. NO.	DESC.				
812	7162	FOUND	AS	DESC.	PAPER	+1.3
818	6093	"	"	"	"	+1.9
800	0202	"	"	"	"	+1.3
777	0192	"	"	"	"	+1.3
778	0183	"	"	"	"	+1.2
762	0189	"	"	"	"	+0.8

1464

1-17-94 ⑦

PANEL No.	G.P.S. No			
			DESC.	
783	✓ 0171	FOUND	AS DESC.	+1.2
*780	✓ 0063	"	" "	(-1.2 TO O.G.)
*825	✓ 0093	"	" "	(-1.5 TO O.G.)
826	✓ 0092	"	" "	+1.1
804	✓ 0091	"	" "	+1.4
801	✓ 0083	"	" "	+0.9

1464

3-3-94 (8)

Pt #	G.P.S. No.	SEC #	COR.	DESC.
926	—	21	N.E.	SET 60P NAIL N. OF C.A.P. CANAL
935	8231	23	N ¼	FOUND AS DESC.
939	8232	23	N.E.	FOUND AS DESC. (EXIST PANEL 2' WIDE LEGS - PARTIAL PAINT & PAPER)
836	8222	22	N.E.	FOUND AS DESC
828	8221	22	N ¼	FOUND AS DESC
927	—	16	E ¼	SET 60P NAIL ± 400' W. OF CUL-DE-SAC. (OLD PAVED RD INSIDE TALIESIN W.)
930	—	15	CENTER	FND 2" B/C IN CONC IN COFFEE CAN FLUSH W/O.G (STAMPED C.F.N SEC.)
807	8162	16	N.E.	FOUND AS DESC.

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[redacted]

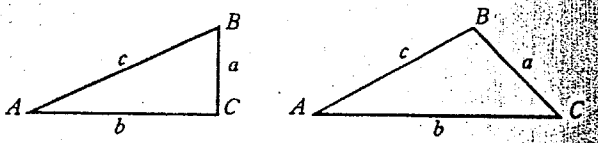
SOKKIA 1465

ECONOMY FIELD BOOK

Scottsdale G.I.S.
Parcel

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



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Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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SCOTTSDALE G.I.S.

PG.	DESC.
1-5	PANEL POINTS

1-3-94

BK 1465						
GRENKIN		G.P.S.				
PT. #		PT. #				
875	✓	8262	FND. AS DESCR.	"Y"	PADDED	UP 0° (DRIVE TO)
896	✓	9302	FND. AS DESCR.	"Y"	PADDED	UP 2° (DRIVE TO)

BK 1465

GRANGER MT. II		G.P.S. #				
895	✓	9365	Find. Lc DESCR.	Y	Tapered	UP 2° (Hike ± 1/4 mile)
902	✓	9292	Find. As DESCR.	Y	Tapered	ON STEEP FLOOD BOTT WATER (UP 1 Eq Rows UP 2° to road) Hike ± 1/4 mile
* Ce. Hike ~ 150' A GRAFT TRIGOT						
901	✓	9201	Find. Lc DESCR.	Y	Tapered	NEXT TO POWER POLE (UP 1°) DRIVE
897	✓	9192	Find. Lc DESCR.	Y	Tapered	ON FENCE (UP 0°) ± 3/8 mile Hike
903	✓	9172	Find. Lc DESCR.	Y	Tapered	UP 1° DRIVE
876	✓	8252	Find. Lc DESCR.	Y	2-legs POINT 1-leg POINT	DOWN 0°

*REPRINT

BK 1465

GREINER
~~Dist.~~

877-A	✓	8122	Find as Descr.	Y	paired	up 1° S.E. of 136th St. & Smoketree (Drive)
878	✓	8122	Find as Descr.	Y	paired	over 3 legs of old road (up 1°) Hike ½ mile
878	✓	7182	*	Y	paired	West of Road (up 0°) (Drive)
879	✓	8122	Find as Descr.	Y	paired	on side slope (up 1°) + ½ Hike +0.8
859	✓	8143	Find as Descr.	Y	paired	(up 1°) Drive

BK 1460

GREINER		GHS.				
8[illegible]	✓	0282	Find. Es Descr.	Y	powered	up 0[7] (Drive)
179	✓	0222	"	Y	powered	up 0[4] (Drive)
823	✓	0212	"	Y	powered	up 0[4] (Drive)
832	✓	0221	*	Y	powered	± 200 East of paved Road (up 0[19/2]) (Drive) +0.7
852	✓	0223	Find. Es Descr.	Y	powered	± 260 N'ly of Barlet Lake Rd (up 0[5]) (Drive)

1-19-94

BK 1465

Gardner Part #		Gardner #				
[illegible]	X	[illegible]	Fnd. [illegible]	Y	*	RE-ROPERED White over Orange
802	X	802	Fnd. As Des	Y	*	" " " " "
784	✓	0051	Fnd. As Des	—	Roped	in Draw (up 1¢) Chemical Brush

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[redacted]

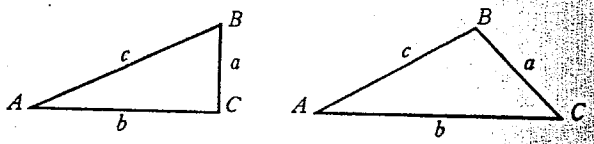
SO[redacted] 1466

[redacted]ECONOMY
[redacted]IELD BOOK

Scotsdale G.I.S.

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



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Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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BK 1466 INDEX I

TITLE PLATE

SCOTTSDALE G.I.S. PHASE

INDEX

PG	DESC.
1-4	PANEL POINTS

BK 14 p6

INDEX II

BK 1466 — [illegible] PANEL G.I.S.

PANEL #	GPS #	SEC #	1/4 COR	DESC.	REMARKS
* 744	✓ 1262	26	NE	FND 3/4" RB -.40 BELOW	SET "Y" PANEL @ INT DIXILETA & HAYDEN
* 754-A	✓ 1251	25	N	FND GLO BC 1/4 COR	SET "Y" PANEL 9' E. OF DIXILETA & ENSUENO 2' BELOW
755	X 1242	24	NE	SFNF	SFNF
757	✓ 1013	1	E	FND AS DESC.	SET "Y" 7.5 E. OF PIMA & HAWKSNEST
756	✓ 1132	13	NE	FND AS DESC.	SET "Y" PANEL 6' E. OF PIMA ROAD -2.3 DOWN
747	✓ 1023	2	E	FND AS DESCRIBED	EXIST "T" PANEL FND @ GLO BC. ALONG N-S FENCE LINE
748	✓ 1022	2	NE	FND 1/4" TOP ON 1" NUT	PAINT "Y" RB IN POT HOLE @ STAGECOACH PASS & MULE TRAIN
749	✓ 1011	1	N	FND AS DESC.	PAINT "Y" 1/2" RB IN HAND HOLE @ STAGE COACH & WINDMILL
736	✓ 1032	3	NE	FND AS DESC.	PAINT "Y" BC IN N.H. INT OF TOM DARLINGTON & STAGECOACH PASS
* 737	✓ 1021	2	N	FND 1/2" RB .1 BELOW	PAINT @ INT OF STAGE COACH & SIDE WINDER
758	✓ 1012	1	NE	FND AS DESC.	PAINT "Y" BC IN N.H. @ STAGE COACH & PIMA

BK 14606

PANEL #	GPS #	SEC #	1/4 COR.	DESC.	REMARK
745	✓ 1232	23	NE	FND AS DESC.	FND EXIST. "+" PANEL INT OF LONE MOUNTAIN & HAYDEN
755-A	✓ 1241	24	N	FND MCHD BC IN -.75	H.N. & LONE MOUNTAIN & GRANITE REEF: PAINT "Y" PANEL
746	✓ 1113	11	E	FND AS DESC.	PAINT "Y" PANAL & WESTLAND & HAYDEN 5' BEFORE END PVMT.
759	✓ 0319	31	NW	FND AS DESC.	SET "Y" PANEL 200' N. OF PVMT. END ON PIMA RD
7606	✓ 0301	30	N	FND AS DESC.	SET "Y" 300' E. OF TOM MORRIS RD: UPHILL BEHIND LOT 4
821	✓ 0332	33	NE	FND AS DESC.	SET "Y" PANEL ± 200' EAST OF OLD DIRT ROAD
820	✓ 6042	4	NE	FND AS DESC.	SET "Y" PANEL UNDER POWER LINES ALONG E-W FENCELINE
* 830	✓ 6031	3	N	FND AS DESC +1.1	SET "K" PANEL ALONG E-W FENCE LINE; SE OF MESQUITE TREE
819	✓ 6043	4	E	FND AS DESC.	SET "Y" PANEL W. OF DIRT RD +1.1
849	✓ 6153	15	E	FND AS DESC +1.5	SET "Y" PANAL ± 1/2 MILE N. OF POWERLINE; ± 500' W OF DIRT RD
* 873	✓ 6131	13	N	FND AS DESC +2.0	SET "T" PANEL ± 1/2 MILE W. OF BOOTLEGGER TANK BC FELL TO W-E OF ROCK BOULDER 2' W OF MESQUITE

BK 466

PANEL #	GPS #	SEC #	1/4 COR	DESC	REMARKS
871	✓ 6113	11	E	FND AS DESC +1.8	SET "Y" PANEL 15 MIN WALK SO. FROM E-W DIRT ROAD
851	✓ 6102	10	NE	FND AS DESC. +1.1	SET "Y" PANEL 15 MIN WALK SO. FROM E-W DIRT ROAD
850	✓ 6103	10	E	FND AS DESC. +1.6	SET "Y" PANEL 15 MIN WALK SO. FROM NE 1/4 OF SEC 10
779	✓ 0073	7	E	FND AS DESC +1.2	SET "Y" PANEL 25 MIN WALK N-E FROM ROAD
761	✓ 0197	34	NE	FND AS DESC +1.5	SET "Y" PANEL WALK DOWN 20 MIN FROM PARK BENCH ROAD
763	✓ 0067	7	NW	FND AS DESC. +1.2	SET "Y" PANEL 10' WEST OF N-S FENCE LINE
764	✓ 0068	6	W	FND AS DESC. +1.8	SET "Y" PANEL ALONG N-S FENCE LINE
765	✓ 0069	6	NW	FND AS DESC +1.0	SET "Y" PANEL 8' S-W OF FENCE INT.
767	✓ 0061	6	N	FND AS DESC +1.5	SET "Y" PANEL IN E-W FENCELINE WEST OF SADDLE
781	✓ 0062	6	NE	FND AS DESC +1.1	SET "Y" PANEL ALONG N. SIDE OF E-W FENCELINE
820	✓ 8012	1	NE	FND AS DESC.	SET "Y" PANEL @ END OF E-W FENCE LINE

BK 1466

④

PANEL #	GPS #	SEC #	1/4 COR	DESC.	REMARKS
881	✓ 7362	36	NE	FND AS DESC.	SET "Y" PANEL S.W. OF DIXIE MINE
928	8271	27	N	~ ~ ~	PAINT "Y" PANEL ON EXIST PARTIAL "Y"
933	8261	26	N	FND AS @ ℄ INT.	PAINT "Y" PANEL @ H.H. IN INT. OF SHEA & 124th ST.
938	8262	26	NE	FND AS DESC.	PAINT "Y" PANEL @ H.H. - S. OF SHEA
806	9282	28	NE	~ ~ ~	SET "Y" PANEL @ b/c IN H/H
835	8272	27	NE	~ ~ ~	SET "Y" PANEL @ b/c IN H/H
859	8143	14	E	~ ~ ~	SET "Y" PANEL - 150° E OF DIRT RD @ GLO CAP
932	8153	15	E	~ ~ ~	SET "Y" PANEL @ ± 800' N/O TOE MTN.

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SOKKIA™ 1467

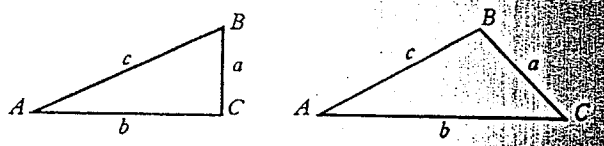
ECONOMY FIELD BOOK

SCOTTSDALE G.I.S.

BAKER

No. 8152-05

FORMULAE FOR SOLVING RIGHT TRIANGLES



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Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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SCOTTSDALE G.I.S

PG.	DESC.
1-3	PANEL POINTS

BK 1467

PANEL CONTROL

PANEL #	GPS #		DESC.
702	1339	✓	FD. AS DESCRIBED
708	1331	✓	FD. AS DESCRIBED
*715	1332	✓	MARICOPA CO. B/C IN H.H. @ DYNAMITE & 64TH ST DOWN 0.5'
730	1342	✓	FD. AS DESCRIBED
731	1272	✓	MARICOPA BRASS CAP FD .77' DOWN IN H.H.
717-A	1282	✓	FD. AS DESCRIBED
732	1222	✓	FD. AS DESCRIBED
717-B	1212	✓	FD. AS DESCRIBED
733	1152	✓	FD AS DESCRIBED
734-A	1103	✓	FD AS DESCRIBED
*720	1092	✓	MARICOPA CO. B.C. IN H.H ALONG POWER POLE LINE RUNNING NORTH .50 DOWN.
703	1083	✓	FD AS DESCRIBED

PANEL PTS.

①

REMARKS

✓ PAINTED 'Y' PANEL @ DYNAMITE & 56TH ST.

✓ PAINTED 'Y' PANEL @ DYNAMITE & 60TH ST

✓ PAINTED 'Y' PANEL @ DYNAMITE & 64TH ST.

✓ PAINTED 'Y' PANEL @ DYNAMITE & N. SCOTTSDALE RD.

✓ PAINTED 'Y' PANEL @ DIXILETA & N. SCOTTSDALE RD.

✓ PAINTED 'Y' PANEL @ DIXILETA & 64TH ST.

✓ PAINTED '+' PANEL OVER EXISTING (1.5 X 6.0 LEGS) PANEL @ LONE MOUNTAIN & SCOTTSDALE RD

✓ PAINTED 'Y' PANEL @ LONE MT. & 62TH ST.

✓ PAINTED '+' PANEL OVER EXISTING 1.5 X 6.0 PANEL @ DOVE VALLEY & SCOTTSDALE RD

✓ PAINTED 'Y' PANEL @ WESTLAND & SCOTTSDALE RD.

✓ PAINTED 'Y' PANEL @ NORTH SIDE CAREFREE HWY & PART PAPER/PART PAINT POWER POLE LINE

✓ PAINTED 'Y' PANEL @ 56TH ST & SEVEN PALMS DR.

BK 1467

PANEL CONTROL

PANEL #	GPS #		DESC.
729	1345	✓	F.D. AS DESCRIBED
791	6325	✓	FD AS DESCRIBED
887	6362	✓	FD AS DESCRIBED
899	—	—	SET 60 penny Nail
900	—	—	Set 60 PENNY NAIL
773	6193	✓	FD. as DESCRIBED
772	6302	✓	FD AS DESCRIBED
816	6213	✓	FD AS DESCRIBED
794	6203	✓	FD AS DESCRIBED
793	6292	✓	FD AS DESCRIBED
862	7352	✓	Fd AS DESCRIBED

PANEL DTS

REMARKS	
✓ PAINTED 'Y' @ WEST of INT. JOMAX & SCOTTSDALE RD.	
PAINTED 'Y' @ Jomax ±120' EAST of 104th ST.	
Set PANEL 'Y' @ 136th St & RIO VERDE	±75 N/O & Rio V. ±25' E/O N/S FENCE
PREVIOUSLY G.P.S. by GRENGER	
PREVIOUSLY G.P.S. by GRENGER	
Set 'Y' PANEL	1/4 CoR follow Power Trans Line. 1.75 miles from Dynamite & Tonto 40' ± S/O RD.
SET 'Y' PANEL	N. TROON PAST PEACEVIEW ±1 MILE 1500' ± N/O PT TRANS LINE
SET 'Y' PANEL	Alma School Sec Trail past fence line 1/2 mile
Set 'Y' Panel	±700' N/O Power line 1.1 miles in N/O yard of Alma school
SET 'Y' Panel	DUE South of 794 ±2000' of Power line.
SET 'Y' PANEL	

BK 1467

PANEL CONTROL

PANEL DOINTS

(3)

PANEL #	GPS #		DESC.	REMARKS	
861	8022	✓	Fd AS DESCRIBED	SET 'Y' PANEL	S/O THOMPSON PEAK TRAIL
876	8252	✓	Fd AS DESCRIBED	REPAINTED 'Y'	136ST & SHEA
882	7252	✓	Fd AS DESCRIBED	SET 'Y' PANEL	
881	7362	✓	Fd AS DESCRIBED	SET 'Y' PANEL	

1481

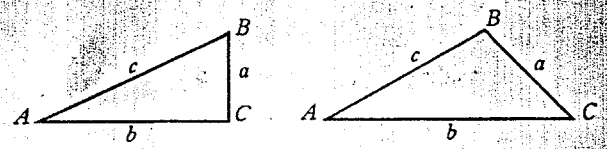
SCOTTSDALE G.I.S.

WRAPPING CHECKS

NATIONAL

425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

1481 INDEX I

TITLE PAGE

SCOTTSDALE G.I.S.
MAPPING CHECKS

INDEX

PG.	JOB I.D	DESC.
1	52094.1	TATUM & CHOLLA (GREEN)
2	52594.1	28TH ST. & T-BIRD
3	52594.2	" " "
4	60194.1	56TH ST. & MTN. VIEW
5	60194.2	" " "
6	60194.3	" " "
7	—	SET TRAV. PT. #969
8	60194.4	INVERGRDN & Calle BRUVIRA
9	60194.5	" " " "
10	60194.6	RE-SHOOT CHOLLA & TATUM
11	60194.7	" " " " "

1481

INDEX II

1481 MAPPING CHECKS

TATUM & CHOLLA

T @ # 212 B/C IN H/H INT TATUM &

BS. # 207 B/C IN H/H INT. 40TH ST.

B.S. 00-00-00

T H.I.: 6.25 BS. PRISM = 5.67

POGO = 20R0

Pt #	CODE	DESC.
1001	32	B.S. INFO
1002	305.4	E/P
1040	306.3	(306.2 INPUT)
1047	203	O.G. (FILE 2) (10.55 POGO)
1096	305.4	E/P (LAST SHOT - POGO: 10.55)

JOB I.D. 52094.1 5-20-94 (1)

FILE 1

CHOLLA

& CHOLLA (GARBAGE FILE)

RE-SHOT

1481 MAPPING CHECKS

28TH ST. & T-BIRD

TC # 202 C.O.P. B/C FLUSH 28TH ST.

BS # 205 C.O.P. B/C IN H/H 32nd ST.

B.S. 00-00-00

S.L.D. = 2646.94 (.164)

T H.I. = 5.44 B.S PRISM = 6.10

POGO = 8.60

PT#	CODE	DESC.
1101	32	B.S INFO (FILE 1)
1104	305	A.C.
1108	307	Y.G.
1138	305	A.C INT. 28TH & SWEETWATER (POGO = 10.00)
1158	305	A.C. (LAST SHOT - POGO = 10.00)

JOB I.D. 52594.1 (2)

MAP 1. FLD

& T-BIRD

& T-BIRD (0.6' BELOW FIN. SURFACE)

BRG. = N 89-19-40 E

HDF 2646.300

1481 MAPPING CHECKS

E OF T-BIRD

TP #202 C.O.P. BC FLUSH

B.S. #205 C.O.P. BC IN HH

BS 00-00-00

T H.I. = 5.44 POGO = 6.00

PT#	CODE		DESC
1201	32	B.S.	INFO (FILE 2)
1202	305	A.C.	
1232	305	A.C	INT 32ND ST. & T-BIRD (POGO = 8.00)
1243	305.4	E/P	
1244	302.5	T.B.C.	
1245	306.3	T.B.W.	
1246	202	G.B.	GROUND SHOTS
1253	202	"	" " @ FENCE (LAST SHOT POGO = 8.00)

JOB I.D. 52594.2 ③

MAP 2 FLD

INT. 28TH ST. & T-BIRD

INT. 32ND ST. & T-BIRD (0.6' BELOW F/S)

BRG = N 89-19-40 E

HD = 2646.300

1481 MAPPING CHECKS

W. OF 56TH ST. & MOUNTAIN VIEW

π @ # 216 B/C FLUSH INT. 56TH ST.

B.S. # 221 C.D.S. B/C FLUSH W. SIDE

B.S. 00-00-00 SLD = 5243.037

π H.I = 5.58 B.S. PRISM = 5.67

POGO = 8.60

Pt#	CODE	DESC.
1260	145	LAWN (O.G.)
1265	132	GRAVEL (EDGE OF BUNKER)
1272	145	LAWN (O.G. POGO = 12.00)
1285	132	GRAVEL (O.G. LAST SHOT POGO = 12.00)

JOB I.D. 60194.1 (4)

MAP 3 FLD

π - C. MIHELICH

ϕ - T. PRICE

& MOUNTAIN VIEW

INVERGORDON @ MTN. VIEW RD

(.033)

BRG. = S 87-50-36 E

HD = 5243.325

1481 MAPPING CHECKS

SW. OF 56TH ST & MTN VIEW

T @ #216

B.S. #221

B.S. 00-00-00

T H.I = 5.58 B.S. PRISM = 5.67

POGO = 12.00

Pt#	CODE	DESC.
1290	132	GRAVEL (O.G.)
1319	101	A.C. (LAST SHOT POGO=12.00)

JOB. I.D. 60194.2 (5)

MAP & FLD

BCG. = S 87-50-36 E

HD = 5243.325

1481 MAPPING CHECKS

S. OF 56TH ST. & MTN VIEW

T @ #216

B.S. #221

B.S. 00-00-00

T H.I. = 5.58 B.S. PRISM = 5.67

POGO = 12.00

Pt#	CODE	DESC.
1330	101	A.C.
1351	145	LAWN (O.G. LAST SHOT — POGO = 12.00)

JOB I.D. 6D194.3

MAP 5 FLD

BRG. = S 87-50-36 E

HD = 5243.325

1481 MAPPING CHECKS

π @ # 220 T.O.P.V. BC FLUSH
BS # 221 C.O.S. BC FLUSH
FS TRAV. PT. # 969 SET P.K.

π H.I. = 5.64 BS PRISM = 5.67
FS PRISM = 5.18

BS 1 = 0-00-00 FS 2 = 182-07-45
FS 1 = 2-07-43 BS 2 = 180-00-01
M = 2-07.43 M = 2-07-44
M = 2-07-44

BM	+	H.I.	−	ELEV.
# 220				1318.92
	5.81	24.73		
			8.07	
TP #969				1316.66
	7.69	24.35		
			5.43	
# 220				1318.92
	13.50		13.50	

SET TRAV. PT. (7)

BRG. = N 0-07-29 E HD = 5288.665

INT. INVERGORDON & CALLE BRUVIRA
W. SIDE INVERGORDON @ MTN. VIEW RD
NAIL IN A.C. WALK

CALC COORDS = N 932088.1702
E 691877.0377

BS	FS
Vt. ∡ = 89-46-15	Vt. ∡ = 90-13-34
SL. D. = 5288.406	SL. D. = 706.509
Hz. D. = 5288.364	Hz. D. = 706.504
Vt. DIFF = +21.769	Vt. DIFF. = −2.782

ADJ. EL. DESC.

T.O.P.V. BC FLUSH @ INVERGORDON
AND CALLE BRUVIRA

P.K. NAIL IN A.C. WALK

P.O.B. ✓-IN = ⊖

1481 MAPPING CHECKS

INVERGORDON & CALLE BRUVIRA W.

π @ TRAV. PT. #969 P.K. NAIL

BS # 220 T.O.P.V. BC FLUSH

BS = 0-00-00 SL D. = 706.512

(.509)

π H.I. = 5.47 BS PRISM = 5.23

POGO = 12.00

Pt. #	CODE	DESC.
1360	145	LAWN (O.G.)
1384	145	" " (LAST SHOT POGO = 12.00)

JOB I.D. 601944 (8)

MAP 6 FLD

IN A.C. WALK

INT. INVERGORDON & CALLE BRUVIRA

BRG = S 02-15-13 W

HD = 706.504

1481 MAPPING CHECKS

INVERGORDON & CALLE BRUVIRA E.

JOB I.D. 60194.5 (9)

MAP 7 FLD

T@ TRAV PT. #969

B.S. #220

B.S. 00-00-00

BRG = S 02-15-13 W

HD = 706.504

T H.I. = 5.47 B.S. PRISM = 5.23

POGO = 12.00

Pt#	CODE	DESC.
1390	145	LAWN (0.6)
1392	145	" " (POGO = 5.00)
1403	111	CONC. S/W (POGO = 2.00)
1407	145	LAWN (0.6 POGO = 5.00)
1413	145	" (" POGO = 5.00)
		(LAST SHOT)

1481 MAPPING CHECKS

RE-SHOOT CHOLLA & TATUM WEST

T @ #212 B/C IN H/H INT. TATUM & CHOLLA (0.70' BELOW FIN. SURFACE)

B.S. #207 B/C IN H/H INT. 40TH ST. & CHOLLA (0.80' BELOW FIN SURFACE)

BS 00-00-00

SL. DIST = 5445.512 (725)

T H.I. = 6.36 B.S. PRISM = 6.02

POGO = 10.50

Pt #	CODE	DESC.
1420	101	A.C.
1437	132	GRAVEL (0.6) (POGO 15.36)
1420 69	101	A.C. (LAST SHOT POGO = 15.36)

JOB I.D. 60194.6

MAP 8, FLD

BRG. = N 89-38-37 W

HD = 5445.774

1481 MAPPING CHECKS

RE-SHOOT TATUM & CHOLLA EAST

T @ # 212

B.S. # 207

B.S 00-00-00

T H.I. = 6.36 B.S. PRISM = 6.02

POGO = 10.50

Pt #	CODE		DESC.
1480	145	LAWN	(O.G.)
1512	145	"	" (POGO = 15.36)
1539	101	A.C.	(POGO = 15.36 LAST SHOT END SET-UP)

JOB I.D. 60194.7

MAP 9 FLD

BRG = N 89-38-27 W

HD = 5445.774

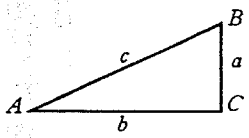
1481

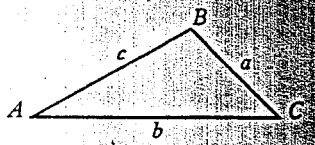
1494

LOST DOG WASH
- BARER -
SCOTTSDALE G.I.S.

NATIONAL
425

FORMULAE FOR SOLVING RIGHT TRIANGLES





$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

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BK. 1494 INDEX I

TITLE PAGE

LOST DOG WASH
BAKER
SCOTTSDALE G.I.S.

INDEX

PG.	DESC.
1	Loop #1 PP #806
2	Loop #2 PP #928, #835
3	Loop #3 PP #933
4	Loop #4 PP #934, #931, #929, #929-A
5	Loop #5 PP #858, #939, #935
6	Loop #6 PP #938
7	Loop #7 PP #836
8	Loop #8 PP #828, #930
9	Loop #9 PP #926
10-12	Loop #10 PP #927, #807
13-15	Loop #11 PP #859
16-18	Loop #12 PP #936, #837, #937

BK. 1494

INDEX II

BK 1494

	+	H.I.	−	Elev.	
B.M. #413				1339.0264	C.O.S. B/C 4/4 Pima Rd & South Vialinda ±500
	6.588				
T.P.			4.184		#1001
	6.379				
B.M. #806			3.206	1426.294	G.P.S. #8282 B/C IN 4/4 SHEA & 112TH ST (IN MEDIAN) (0071) +0.36 TO PANEL EL.
	3.044				
T.P.			6.637	1422.701	#1035 (BLOCK 0073)
	4.526				
B.M. #413			4.926	1339.088	√-IN P.O.B. 0.06 HIGH (BLOCK 0143)

Loop #1 Scottsdale G.I.S.

C:\GIFID\LOW1

①

1494

B.M.	+	H.I.	−	ELEV.
#806				1426.294
	8.278			ADJ 1426.2602
T.P.			3.522	1431.05
T.P.			2.991	1445.185
				ADJ. 1445.1494
#928			2.796	1468.518
				ADJ. 1468.4806
#835			3.272	1516.977
				ADJ 1516.9351
				RETURN
#806			6.851	1426.307
				ADJ. 1426.2602

LOOP #2

(2)

C:\GIFID\LDWZ.COL

DESC.

G.P.S. #8282 B/C IN H/H SHEA & 112TH ST. +0.36 TO P.P.

#1101

#1103 T.B.C. ON BULLNOSE FRANK LLOYD WRIGHT BLVD N. @ SHEA & F.L.R. BLVD.

B/C FLUSH SHEA & 116TH ST

B/C IN H/H SHEA & 120TH ST. (BK0025) +0.25 TO PANEL

LOOP

✓-IN P.D.B. 0.013 HIGH (BK 0049)

1494

B.M.	+	H.I.	-	ELEV
#835				1516.977
	9.061			ADJ 1516.9351
T.P.				1523.856
#933				1543.056
	4.615			ADJ 1543.0206
T.P.				1539.625
#835			7.999	1516.964
				ADJ 1516.9351

LOOP #3

C:\GIFIO\LDW3.COL

B/C IN H/H SHEA & 170TH ST + 0.25 TO P. EL.

#1131

B/C H/H 124TH ST. & SHEA (Block 0062)
(+ 0.39 TO Panel)

#1136

V-IN Pob (0.013 LOW) (Block 0074)

1494

B.M	+	H.I.	−	ELEV.
#933			(ADJ)	1543.0206
	12.652			
T.P.			0.439	1555.233
#934			2.179	1625.657
				ADJ 1625.6533
#931			9.322	1584.624
				ADJ 1584.6159
#929-A	(#929 IN LEVEL)		5.366	1521.287
				ADJ. 1521.2734
T.P.			5.655	1464.834
				ADJ. 1464.8164
T.P.			8.497	1445.169
				(1445.149 ADJ EL FROM PG 2 THIS BK)

LOOP #4

8-16-94 ④

C:\GIFIO\LDW3.COL

	DESC.
	B/C IN H/H INT. SHEA & 124TH ST
#1201	
	B/C IN H/H INT. 124TH ST. & VIA LINDA (+0.5050 PANEL EL.)
	B/C FLUSH INT. 120TH ST. & VIA LINDA.
	P.K. NAIL IN CONC. MEDIAN * ALTERNATE PT. SHOT, (EL #929 - B/C FLUSH IN DIRT MEDIAN = 1523.62)
#1223	B/C IN H/H INT. VIA LINDA & FRANK LLOYD WRIGHT BLVD.
#1103	√-IN INK "□" ON BULLNOSE E.L.R BLVD. N. @ SHEA BLVD.

BK 1494

	+	Hz.	−	elev.
BM #934				1625.657
	9.256			ADJ. 1625.6533
T.P.			3.766	1631.147
#858				1630.187
				ADJ 1630.1783
#939				1701.270
				ADJ 1701.2563
#935				1711.328
				ADJ 1711.3604
T.P.				
#934			11.259	1625.676
				ADJ 1625.6533

Loop #5

G:\GIFIQ\LDW3.COL

B/C H/H via Linda & 124TH

#1231

B/C Flush via Linda & 128TH STREET

B/C H/H Cactus & 128TH STREET
(+0.29 up to Panel)

Iron Pipe (Flush) in Dirt (Extensions of 124TH Cactus)

#1252
Y-in Pob (0.019 High)

BK1494

B.M.	+	H.I.	−	Elev.
#933			(ADJ.)	1543.0206
	7.146			
T.P.			4.705	1545.461
#938			2.303	1567.172
			ADJ	1567.1656
#933			7.214	1543.033
			ADJ	1543.0206

(6)

LOOP #6

C:\GIF10\KDW4.COL

B/C H/H SHED & 124TH STREET

#1261

B/C H/H SHED & 128TH STREET
(+0.57 UP TO PANEL)

✓ IN P.O.B

BK 1494

B.M.	+	H.I.	-	Elev.	
#931			(Adj.)	1584.6159	
	2.852				
T.P.			11.406	1576.067	
T.P.			7.372	1568.304	
				ADJ 1568.3083	
#836			7.189	1636.091	
				ADJ 1636.1058	
T.P.			5.479	1628.927	
				ADJ 1628.9442	
				RETURN	
#931			10.380	1584.587	
				ADJ 1584.6159	

Loop #7

C:\GIF10\LOW5.COL

B/C FLUSH VIA LINDA & 120TH ST.

#1301

#1304 B/C FLUSH INT. 118TH ST. & N. 120TH ST.

G.L.O. B/C FLUSH W/O.G. @ END OF NEW BLOCK WALL N.E. COR SEC. 22

#1313 B/C FLUSH IN "KNUCKLE" @ END OF 120TH ST.

LOOP
(#1320 LAST TURN)
✓-IN P.O.B.

LOOP #8

C:\GIFID\LDW5.COL

1494 B.M.	+	H.I	−	ELEV.	
T.P.				1568.304	#1304 B/C FLUSH INT. 118TH ST & N. 120TH ST.
	10.814			ADJ 1568.3083	
T.P.			3.940	1575.178	#1331
#828			2.374	1544.533	G.L.O. B/C ON 2" I.P. N. 1/4 SEC. 22 (-1.15 TO PANEL EL.)
				ADJ 1544.5438	
#930			4.906	1601.516	2" B/C IN CONC. IN COFEEE CAN CENTER SEC. 15 (FLUSH W/O.G.)
				ADJ 1601.5326	
				RETURN	LOOP (1360 LAST TURN)
T.P.			11.840	1568.278	#1304 √- IN P.O.B.
				ADJ 1568.3083	

Loop #9

C:\GIFIO\LDWS.Col

DC1494					
B.M.	+	H.I.	−	Elev.	
#828				1544.	533
	0.705			ADJ 1544.	5438
T.P.			11.866	1533.	372
#926			10.036	1471.	493
				ADJ 1471.	5053
T.P.			8.468	1537.	238
#828			1.176	1544.	530
				ADJ 1544.	5438

G.L.O. B/C on 2" I.P. N'ly SEC. 22

#1371

60p. Nail Flush

#1384

V-in P.O.B.

Loop #10

BK 1494						
B.M.	+	H.I.	−	ELEV.	ADJ. EL.	
#926				1471.51		Lop Nail (± N.W. Cor SEC. 22
	11.09	1482.60				
T.P.			0.73	81.87		Rock
	16.49	98.36				
T.P.			1.04	97.32		Rock
	15.71	1513.03				
T.P.			0.95	1512.08		Rock
	15.61	27.69				
T.P.			1.24	26.45		Rock
	14.78	41.23				
T.P.			0.89	40.34		Rock
	18.85	59.19				
#927			15.80	1543.39	(154340)	Lop Nail (± W¼ SEC. 15
	14.60	57.99				
T.P.			0.27	57.72		Rock
	18.55	76.27				
T.P.			1.72	74.55		Rock
	20.74	95.29				
T.P.			0.10	95.19		Rock
	21.39	1616.58				
T.P.			0.13	1616.45		Rock
	19.64	36.09				
T.P.			0.75	35.34		Rock
	23.83	1659.17				

BK 494

	+	H.I.	−	ELEV.	ADJ. EL.
T.P.			0.75	1658.42	
	17.35	75.77			
T.P.			0.28	1675.49	
	19.26	94.75			
T.P.			0.04	94.71	
	19.91	1714.62			
T.P.			1.06	1713.56	
	3.99	1717.55			
#807			1.14	1716.41	(1716.43)
	0.74	17.15			
T.P.			23.51	1693.64	
	5.30	98.94			
T.P.			15.74	83.20	
	1.51	84.71			
T.P.			20.81	63.90	
	2.28	66.18			
T.P.			21.83	44.35	
	0.06	44.41			
T.P.			18.04	26.37	
	0.57	26.94			
T.P.			18.97	07.97	
	4.03	12.00			
T.P.			12.95	1599.05	
	7.51	06.56			

Loop # 10 (CONT)

Rock

Rock

Rock

~~G.L.O. B.C. on 2" pipe (N.W. Cor. Sec. 15~~ Rock

G.L.O. B.C. on 2" pipe (N.W. Cor. Sec. 15)
(- 1.22 down to pond)

Rock

Rock

Rock

Rock

Rock

Rock

Loop #10 (CONT.)

BK 494	+	H.I.	−	Elev.	ADJ. EL.	
T.P.			15.17	1591.39		Rock
	0.07	91.46				
T.P.			17.19	74.27		Rock
	0.59	74.86				
T.P.			18.48	56.38		Rock
	0.38	56.76				
T.P.			20.40	36.36		Rock
	2.67	39.03				
T.P.			17.99	21.04		Rock
	1.65	22.69				
T.P.			9.74	12.95		Rock
	2.74	15.69				
T.P.			10.76	04.93		Rock
	0.82	05.75				
T.P.			10.79	1494.96		Rock
	3.19	98.15				
T.P.			21.17	76.98		Rock
	4.06	81.04				
#926			9.57	1471.47	(1471.51)	Y-in P.O.B. (-0.04 low)
	309.94		310.03			

BK1494

	+	H.I.	−	Elev.
#935			(Ad.)	1711.3604
	18.25	1729.61		
T.P.			0.53	29.08
	14.42	43.50		
T.P.			0.30	43.20
	14.65	57.85		
T.P.			0.91	56.94
	12.55	69.49		
T.P.			0.18	69.31
	20.91	90.22		
*T.B.M.			5.19	1785.03 ✓
	5.84	90.87		
T.P.			0.98	89.89
	24.86	1814.75		
T.P.			0.97	1813.78
	22.61	36.39		
T.P.			0.87	35.52
	22.28	57.80		
T.P.			0.07	57.73
	22.29	80.02		
T.P.			0.79	79.23
	22.81	1902.04		
T.P.			0.22	1901.82
	22.85	24.67		

Loop #11

2' I.P @ EXTENSIONS OF 124TH ST. & CACTUS

Rock

Rock

Rock

Rock

#1500 ± 400 L/EST of Fork towards #936 (SOT Loop. No.1)

Rock

Rock

Rock

Rock

Rock

Rock

Loop #11

BK1494	+	H.I.	−	Elev.	
T.P.			0.13	1924.54	Rock
	24.74	1949.28			
T.P.			1.23	48.05	Rock
	16.85	64.90			
T.P.			2.35	62.55	Rock
	19.86	82.41			
*T.B.M.			16.54	1965.87	#1600 (60d. Nail ~~SOUTH~~ WEST side dirt Rd SOUTH OF B19 WASH)
	12.99	1978.86			
T.P.			19.33	59.53	Rock
	2.02	61.55			
T.P.			23.41	38.14	Rock
	0.26	38.40			
T.P.			22.54	15.86	Rock
	0.24	16.10			
T.P.			24.15	1891.95	Rock
	0.36	1892.31			
T.P.			24.36	67.95	Rock
	0.16	68.11			
T.P.			23.33	44.78	Rock
	2.12	46.90	-		
#859			13.55	1833.35	G.L.O. 3" CONC PIPE E 1/4 SEC. 14 (−1' DOWN TO PANEL)
	13.84	47.19			
T.P.			22.71	24.48	Rock
	0.15	1824.63			

Loop # 11

BK1494

	+	H.I.	−	Elev.	
T.P.			23.99	1800.64 ✓	Rock
	0.04	1800.68			
T.P.			23.73	1776.95	Rock
	0.21	1777.16			
T.P.			23.95	53.21	Rock
	0.08	53.29			
T.P.			21.35	31.94	Rock
	0.18	32.12			
T.P.			20.28	11.84	Rock
	0.35	1712.19			
#939			10.93	1701.26 ✓	√-in B/C H/H N.G. Con SEC. 23 (Adj. El. 1701.2563 page 5)

BK.1494

Loop #12

	+	H.I.	−	Elev.	ADJ. EL.	
T.B.M.				1785.03		#1500 (Loop. Nail)
	15.48	1800.51				
T.P.			6.29	94.22		Rock
	16.55	10.77				
#936			6.58	1804.19	(1804.19)	Loop. @ ± toe of mountain @ wash
	22.96	27.15				
T.P.			0.45	26.70		Rock
	19.55	46.25				
T.P.			1.78	44.47		Rock
	24.57	69.04				
T.P.			4.19	64.85		Rock
	20.07	84.92				
T.P.			3.42	81.50		Rock
	24.90	1906.40				
T.P.			0.39	1906.01		Rock
	19.79	25.80				
T.P.			0.89	24.91		Rock
	23.31	48.22				
T.P.			0.26	47.96		Rock
	24.71	72.67				
T.P.			0.62	72.05		Rock
	22.27	94.32				
T.P.			0.87	93.45		Rock
	12.93	2006.38				

Loop #12

BK1494					
	+	H.I.	−	ELEV	ADJ. EL.
#837			5.04	2001.34	(2001.37)
	1.75	2003.09			
T.P.			24.04	1979.05	
	0.32	79.37			
T.P.			24.20	55.17	
	0.59	55.76			
T.P.			13.68	42.08	
	25.00	67.08			
T.P.			1.76	65.32	
	16.90	82.22			
T.P.			1.95	80.27	
	20.71	2000.98			
T.P.			6.64	94.34	
	15.89	2010.23			
T.P.			0.87	2009.36	
	15.83	2025.19			
T.P.			24.39	2000.80	
	0.92	2001.72			
T.P.			23.91	1977.81	
	0.48	1978.29			
T.P.			22.77	55.52	
	2.34	57.86			
#937			7.82	1950.04	(1950.09)
	1.15	51.19			

G.L.O. B/C N.W. COR SEC. 14
(−0.85 Down to Panel)

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

G.L.O. B/C on 1½" Pipe N ¼ SEC. 14
(−1.01 Down to Panel)

Loop #12

BK 1494

	+	H.I.	−	Elev.	ADJ. EL.
T.P.			15.72	1935.47	
	3.96	39.43			
T.P			8.09	31.34	
	6.19	37.53			
T.P.			21.02	16.51	
	0.84	17.35			
T.P.			23.37	1893.98	
	0.40	1894.38			
T.P.			24.79	69.59	
	0.24	69.83			
T.P.			20.11	49.72	
	0.80	50.52			
T.P.			22.10	28.42	
	1.32	29.74			
T.P.			20.58	09.16	
	0.07	09.23			
T.B.M.			24.27	1784.96	(1785.03)

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

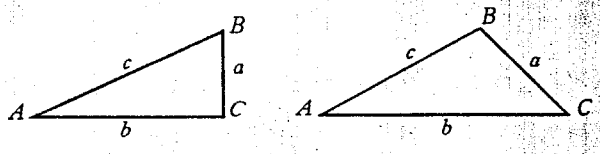
#1500 1/-IN (-0.07 LOW)

1495

LOST DOG WASH
- BAKER -

NATIONAL
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$

$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$

$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

TITLE PAGE

INDEX I

LOST DOG WASH

INDEX

PG	DESC.
1	LEVEL LOOP FOR # 925-A C:\GIF10\LDWG.COL
2	DIAGRAM FOR P.P. # 925-A
3	TRIG EL. FOR P.P. # 932
4	RECIPROCAL TRIG. EL. FOR P.P. # 932
5	TRIG. EL. FOR P.P. # 940
6-7	BENCH LOOP TO PHOTO IDENT. PT.

1495

8-22-94 ①

T.B.M.	+	H.I.	−	ELEV.	DESC. C:\GIF10\LDWG.SOL
T.P.			(ADJ) 1464.8164		#1223 B/C IN H/H INT. VIALINDA & FRANK LLOYD WRIGHT BLVD.
	2.168				
T.P.			13.094	1453.890	#1401
	7.337				
#925			5.549	1453.138	PANEL PT. 925-A WHITE PAINT STRIPE @ JCT. LINE EAST TENNIS COURT SOUTH SERVICE SIDE (SEE DETAIL PG. 2)
			(ADJ) 1453.139		
	9.369				
T.P.			2.873	1464.814	#1223 P.O.B.
			(ADJ) 1464.8164		

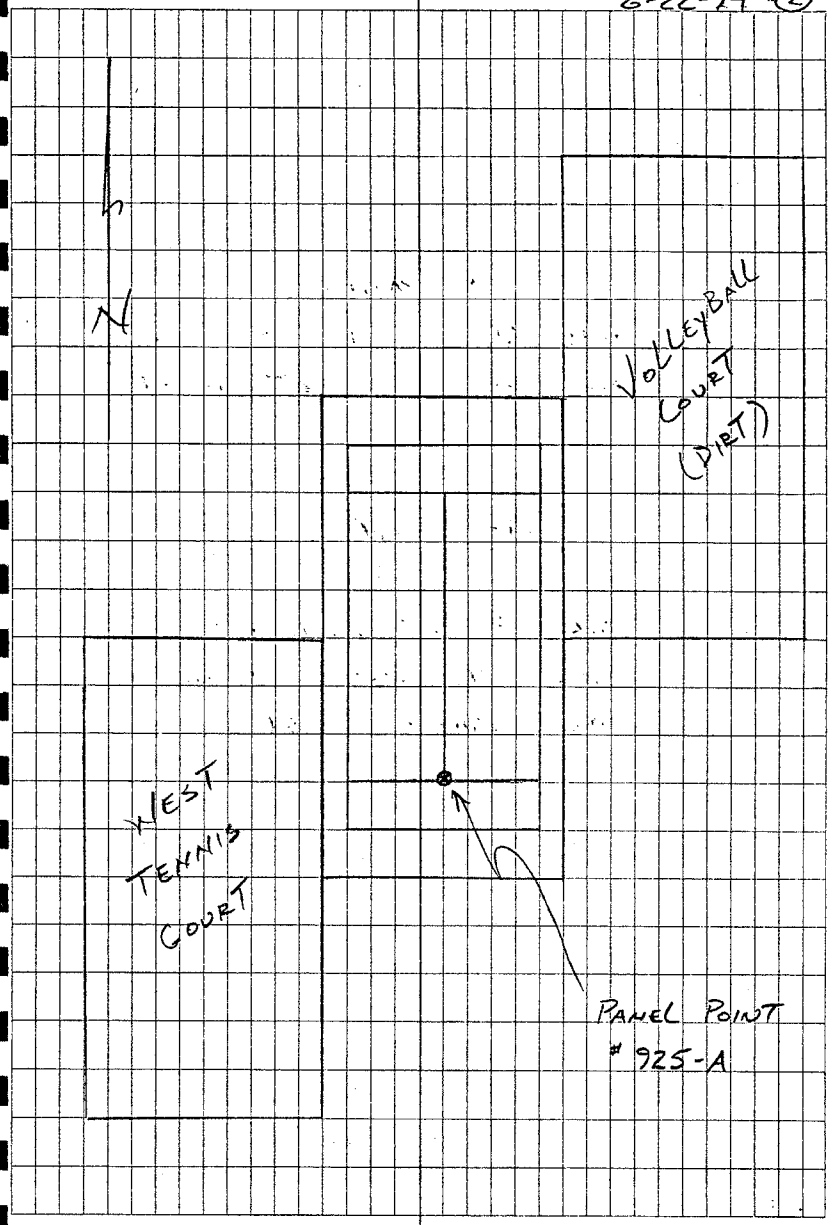
1495

8-22-94 ②

NOTE:

ORIGINAL PANEL PT. #925 WAS DESTROYED AT TIME OF HZ AND VERT. WORK

LOCATED PHOTO IDENTIFIABLE POINT ON EAST TENNIS COURT AT JCT. OF WHITE SERVICE LINES FOR ALTERNATE PANEL #925-A



ORIG. PANEL PT. #925

1495 TRIG EL. FOR PANEL PT. # 932

π @ T.P. # 1313 B/C FLUSH @ END OF
F.S. # 932 G.L.O. B/C ON I.P. E 1/4 SEC.

V+ ANG'S

I 80-10-51	I 80-10-51
D 279-49-03	R 279-49-02
SUM = 359-59-54	SUM = 359-59-53
M = 80-10-54	M = 80-10-55

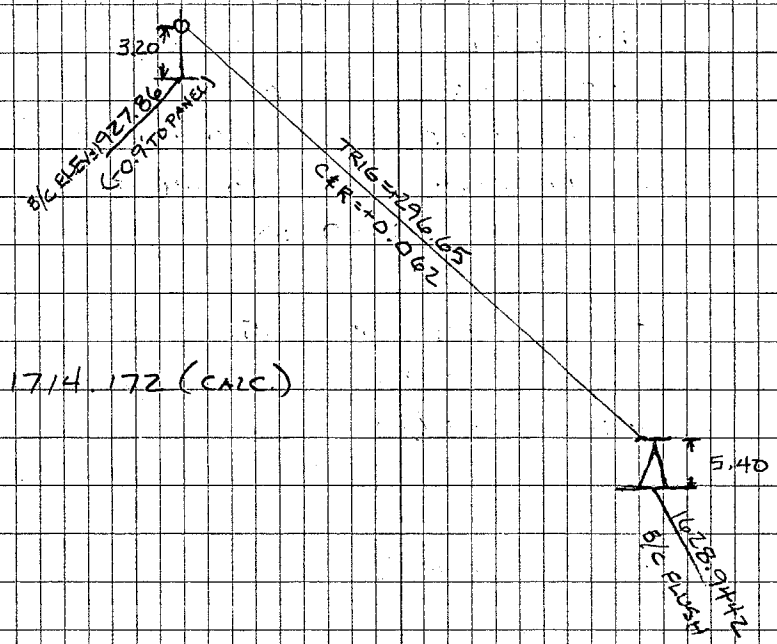
M = 80-10-55

SL DIST = 1739.651, .651
HZ DIST = 1714.139, .138 (MEAS)
V+ DIFF = 296.42, 384
π H.I. = 5.40 F.S. PRISM = 3.20

TRIG. EL. FOR # 932 = 1927.86
(-0.9' TO PANEL)

8-22-94 ③

120TH ST. IN "KNUCKLE" (ADJ EL = 1628.9442)
15 (-0.9' TO PANEL)



1714.172 (CALC.)

1495 RECIPROCAL V+'s FOR PP #932

8-22-94 (4)

T @ #932

F.S. T.P. #1313

V+ ANGS

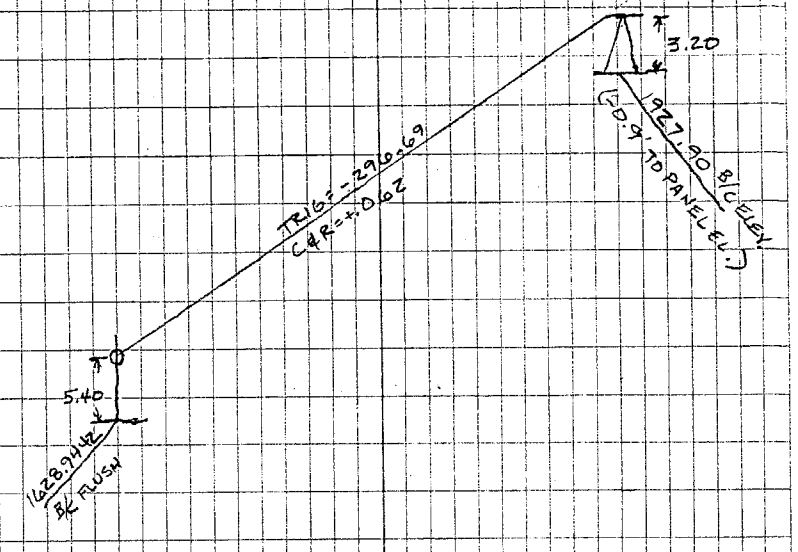
I. 99-48-42	I. 99-48-39
D. 260-10-23	R. 260-10-19
SUM: 359-59-05	SUM: 359-58-58
M= 99-49-10	M= 99-49-10

M= 99-49-10

T H.I. = 3.20 F.S = 5.40

SL DIST = 1739.651

TRIG. EL. FOR #932 = 1927.90
(-0.9' TO PANEL)



1495 TRIG. EL. FOR P.P. # 940

8-22-94 (5)

⊼ @ T.P. # 1600 60P NAIL IN DESERT, FLUSH
F.S. P.P. # 940 G.L.O. B/C ON 3" POST. N.E.

V+ ANG's

I	86-25-06	I	86-25-04
D	273-34-56	R	273-34-59
SUM =	360-00-02	SUM =	360-00-03
M =	86-25-05	M =	86-25-02

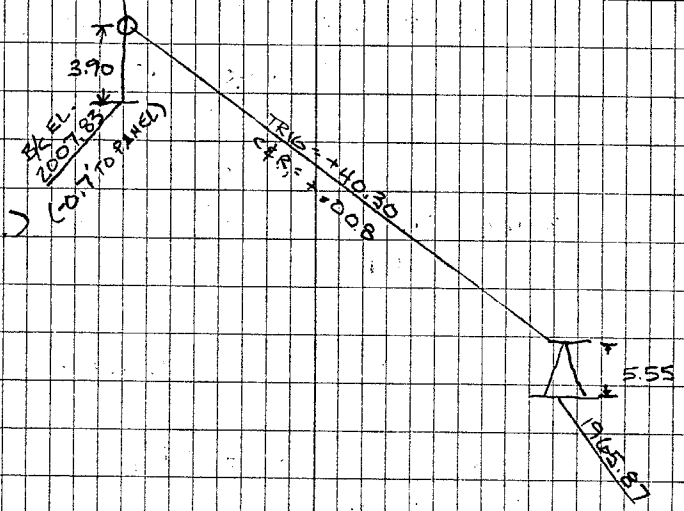
M = 86-25-04

SL. DIST. = 645.015 .015
HZ DIST. = 643.754 .754 (MEAS.) 643.755 (CALC.)
V+ DIFF = +39.95

⊼ H.I. = 5.55 FS. PRISM = 3.90

TRIG. EL. FOR # 940 = 2007.83
(-0.7' TO PANEL)

(ADJ EL = 1965.87)
COR SEC. 14 (-0.7' TO PANEL EL)



⊼ ☺ C. MIHELICH
& T. PRICE
SUNNY, HOT

1495

	+	H.I.	−	Elev.	ADJ. EL.
#835				1516.935	(1516.94)
	0.86	17.795			
T.P.			15.16	1502.64	
	0.32	1502.96			
T.P.			11.87	1491.09	
	3.77	94.86			
T.P.			8.30	86.56	
	0.83	87.39			
T.P.			9.90	77.49	
	3.05	80.54			
T.P.			11.40	69.14	
	3.46	72.60			
T.P.			5.22	67.38	
	~~1.40~~ 1.39	68.77			
T.P.			13.05	55.72	
	2.71	58.43			
T.P.			9.98	48.45	
	1.90	50.35			
T.P.			4.64	45.71	
	3.79	49.50			
* T.B.M.			7.31	1442.19	(1442.23)
	Loop Back				
	7.09	49.28			
T.P.			3.58	45.70	

BENCH RUN 8-29-94

B/C W/H 120th St. & SHEA Blvd.

Rock

Rock

Rock

Rock

Rock

Rock

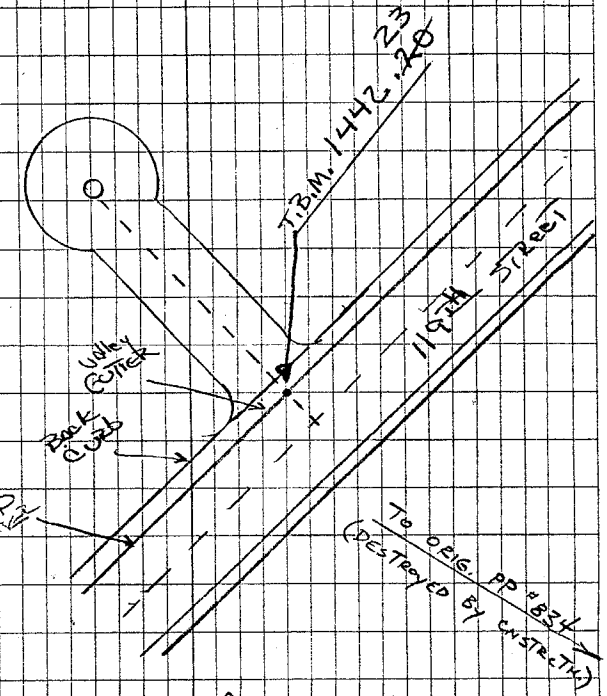
Rock

Rock

BK S/W

P.K. NAIL WEST E.P. @ ℄ Cul-de-Sac (119th & Bella Vista Drive)

BK S/W



Bench Run

1495						
	+	H.I.	−	Elev.	ADJ. EL	
	5.02	50.72				
T.P.			2.28	48.44		Rock
	9.72	58.16				
T.P.			2.94	55.22		Rock
	13.49	68.71				
T.P.			2.62	66.09		Rock
	5.71	71.80				
T.P.			3.55	68.25		Rock
	11.46	79.71				
T.P.			2.69	77.02		Rock
	9.94	86.96				
T.P.			0.09	86.87		Rock
	7.32	94.19				
T.P.			1.59	92.60		Rock
	13.45	1506.05				
T.P.			0.66	1505.39		Rock
	13.84	19.23				
V-IN			2.37	1516.86	(1516.94)	P.O.B. 2/C H/H #835 V-IN = 0.08 Low

8-29-94
SUNNY, HOT
π - ARCHER
φ - WALKOWIAK

EDITED
FIELD DATA

ACTIVE FILES:

Job File:	BAKER MC.JOB
Coord File:	BAKER_MC.CRD
Field Data File:	MAP1.FLD
Plot File:	BAKER_MC.PLT
Summary File:	BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	202	205	N 89 19 39.9 E	
0002	63 REMARK	JOB I.D. 52594.1			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	28TH ST. & T-BIRD			
0005	2 OCCUPY	202	5.44		
0006	32 RADIAL	1101	206		
0007	86	00 00 00.0	91 23 29.0	0.00	
0008		1104	AC		8.60
	FS	90 06 41.0	85 07 58.0	52.82	
0009		1105	AC		8.60
	FS	90 05 28.0	88 56 21.0	157.61	
0010		1106	AC		8.60
	FS	90 21 10.0	89 34 42.0	247.71	
0011		1107	AC		8.60
	FS	90 15 49.0	89 52 26.0	347.56	
0012		1108	VG		8.60
	FS	90 15 48.0	89 56 53.0	395.06	
0013		1109	AC		8.60
	FS	90 15 49.0	89 58 25.0	486.83	
0014		1110	AC		8.60
	FS	90 17 43.0	90 10 00.0	582.47	
0015		1111	AC		8.60
	FS	90 16 49.0	90 14 08.0	631.51	
0016		1112	AC		8.60
	FS	90 15 48.0	90 19 20.0	678.92	
0017		1113	AC		8.60
	FS	90 15 50.0	90 30 10.0	780.34	
0018		1114	AC		8.60
	FS	90 16 03.0	90 31 33.0	883.75	
0019		1115	AC		8.60
	FS	90 15 50.0	90 32 35.0	956.96	
0020		1116	AC		8.60
	FS	90 16 53.0	90 31 42.0	987.93	
0021		1117	AC		8.60
	FS	90 15 15.0	90 31 24.0	1023.71	

	FS	90 15 15.0	90 34 44.0	1128.29		
0023	1119		AC			8.60
	FS	90 15 15.0	90 37 16.0	1230.65		
0024	1120		AC			8.60
	FS	90 16 17.0	90 39 11.0	1320.71		
0025	1121		AC			8.60
	FS	90 16 17.0	90 39 45.0	1357.43		
0026	1122		AC			8.60
	FS	90 15 44.0	90 40 53.0	1395.08		
0027	1123		AC			8.60
	FS	90 15 28.0	90 45 16.0	1495.92		
0028	1124		AC			8.60
	FS	90 15 39.0	90 49 25.0	1602.40		
0029	1125		AC			8.60
	FS	90 15 33.0	90 49 52.0	1704.14		
0030	1126		AC			8.60
	FS	90 15 46.0	90 52 39.0	1805.56		
0031	1127		AC			8.60
	FS	90 15 24.0	90 54 43.0	1857.81		
0032	1128		AC			8.60
	FS	90 15 33.0	90 54 19.0	1890.66		
0033	1129		AC			8.60
	FS	90 15 43.0	90 52 54.0	1922.67		
0034	1130		AC			8.60
	FS	90 15 43.0	90 50 54.0	1958.45		
0035	1131		AC			8.60
	FS	90 15 42.0	90 50 18.0	1993.16		
0036	1132		AC			8.60
	FS	90 15 11.0	90 51 04.0	2096.28		
0037	1133		AC			8.60
	FS	90 15 12.0	90 52 03.0	2199.14		
0038	1134		AC			8.60
	FS	90 15 11.0	90 51 29.0	2301.95		
0039	1135		AC			8.60
	FS	90 15 30.0	90 51 10.0	2404.03		
0040	1136		AC			8.60
	FS	90 15 10.0	90 50 36.0	2506.28		
0041	1137		AC			8.60
	FS	90 15 18.0	90 49 28.0	2597.78		
0042	1138		AC			10.00
	FS	90 15 37.0	90 47 58.0	2642.14		
0043	1139		AC			10.00
	FS	90 15 30.0	90 48 03.0	2686.42		
0044	1140		AC			10.00
	FS	90 15 16.0	90 48 01.0	2789.26		
0045	1141		AC			10.00
	FS	90 15 11.0	90 47 47.0	2893.53		
0046	1142		AC			10.00
	FS	90 15 18.0	90 46 55.0	2995.88		
0047	1143		AC			10.00
	FS	90 15 42.0	90 45 58.0	3097.57		
0048	1144		AC			10.00
	FS	90 15 24.0	90 45 33.0	3144.48		
0049	1145		AC			10.00
	FS	90 15 56.0	90 45 28.0	3179.38		
0050	1146		AC			10.00
	FS	90 15 53.0	90 45 00.0	3215.05		
0051	1147		AC			10.00
	FS	90 15 15.0	90 44 24.0	3316.28		
0052	1148		AC			10.00
	FS	90 14 40.0	90 43 36.0	3416.84		
0053	1149		AC			10.00
	FS	90 14 59.0	90 42 28.0	3519.06		
0054	1150		AC			10.00
	FS	90 15 06.0	90 41 57.0	3623.08		
0055	1151		AC			10.00

	FS	90	15	[illegible]	90	41	[illegible]	[illegible]
0056		1152			AC			10.00
	FS	90	14	57.0	90	40	28.0	3826.75
0057		1153			AC			10.00
	FS	90	15	32.0	90	39	39.0	3928.79
0058		1154			AC			10.00
	FS	90	15	13.0	90	39	12.0	4031.31
59		1155			AC			10.00
	FS	90	15	16.0	90	38	19.0	4129.77
0060		1156			AC			10.00
	FS	90	15	12.0	90	37	47.0	4231.62
0061		1157			AC			10.00
	FS	90	15	16.0	90	36	44.0	4334.02
0062		1158			AC			10.00
	FS	90	15	13.0	90	36	28.0	4402.36

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP2.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	202	205	N 89 19 39.9 E	
0002	63 REMARK	JOB I.D. 52594.2			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	EAST OF T-BIRD			
0005	2 OCCUPY	202	5.44		
0006	32 RADIAL	1201	205		
0007	BS	00 00 00.0	91 28 36.0	0.00	
0008		1202	AC		6.00
	FS	359 29 27.0	92 07 13.0	42.46	
0009		1203	AC		6.00
	FS	359 58 41.0	93 19 50.0	93.93	
0010		1204	AC		6.00
	FS	00 03 41.0	93 33 05.0	145.96	
0011		1205	AC		6.00
	FS	00 06 36.0	93 35 37.0	195.35	
0012		1206	AC		6.00
	FS	00 01 49.0	93 27 05.0	256.48	
0013		1207	AC		6.00
	FS	359 58 07.0	93 09 37.0	314.88	
0014		1208	AC		6.00
	FS	00 01 50.0	92 52 23.0	372.98	
0015		1209	AC		6.00
	FS	359 59 42.0	92 32 33.0	478.86	
0016		1210	AC		6.00
	FS	359 59 57.0	92 24 37.0	582.13	
0017		1211	AC		6.00
	FS	00 01 50.0	92 20 41.0	685.96	
0018		1212	AC		6.00
	FS	00 02 07.0	92 13 46.0	790.19	
0019		1213	AC		6.00
	FS	00 01 37.0	92 07 32.0	895.08	
0020		1214	AC		6.00
	FS	00 03 02.0	92 03 04.0	999.87	
0021		1215	AC		6.00
	FS	00 01 31.0	91 59 21.0	1101.32	
0022		1216	AC		6.00
	FS	359 59 50.0	91 56 34.0	1193.61	
0023		1217	AC		6.00

	FS	00 02 30.0	91 57 [illegible]	[illegible]			
0024	1218		AC				6.00
	FS	00 01 14.0	91 55 05.0	1323.67			
0025	1219		AC				6.00
	FS	00 03 14.0	91 54 50.0	1384.73			
0026	1220		AC				6.00
	FS	00 03 15.0	91 53 28.0	1487.38			
[illegible]27	1221		AC				6.00
	FS	00 03 38.0	91 50 58.0	1590.64			
0028	1222		AC				6.00
	FS	00 04 02.0	91 48 13.0	1693.13			
0029	1223		AC				6.00
	FS	00 03 55.0	91 45 48.0	1793.50			
0030	1224		AC				6.00
	FS	00 03 15.0	91 42 47.0	1895.80			
0031	1225		AC				6.00
	FS	00 00 07.0	91 40 12.0	1985.44			
0032	1226		AC				6.00
	FS	00 01 58.0	91 37 02.0	2088.65			
0033	1227		AC				6.00
	FS	00 06 41.0	91 34 20.0	2191.18			
0034	1228		AC				6.00
	FS	00 10 29.0	91 31 37.0	2293.73			
0035	1229		AC				6.00
	FS	00 12 50.0	91 28 52.0	2395.53			
0036	1230		AC				6.00
	FS	00 16 48.0	91 26 27.0	2497.65			
0037	1231		AC				6.00
	FS	00 19 11.0	91 24 35.0	2575.69			
0038	1232		AC				8.00
	FS	00 14 42.0	91 19 49.0	2647.79			
0039	1233		AC				8.00
	FS	00 16 31.0	91 18 08.0	2718.87			
[illegible]40	1234		AC				8.00
	FS	00 15 48.0	91 15 51.0	2823.30			
0041	1235		AC				8.00
	FS	00 15 01.0	91 13 56.0	2927.17			
0042	1236		AC				8.00
	FS	00 14 40.0	91 11 49.0	3030.58			
0043	1237		AC				8.00
	FS	00 13 57.0	91 10 08.0	3134.57			
0044	1238		AC				8.00
	FS	00 14 30.0	91 08 14.0	3235.44			
0045	1239		AC				8.00
	FS	00 13 19.0	91 06 36.0	3339.19			
0046	1240		AC				8.00
	FS	00 12 58.0	91 04 43.0	3441.00			
0047	1241		AC				8.00
	FS	00 11 11.0	91 03 36.0	3539.36			
0048	1242		AC				8.00
	FS	00 07 58.0	91 02 27.0	3644.04			
0049	1243		EP				8.00
	FS	00 08 45.0	91 01 36.0	3703.07			
0050	1244		TBC				8.00
	FS	00 08 28.0	91 01 07.0	3704.90			
0051	1245		TBW				8.00
	FS	00 08 13.0	91 00 59.0	3709.15			
[illegible]52	1246		OG				8.00
	FS	00 08 13.0	90 59 25.0	3790.81			
[illegible]53	1247		OG				8.00
	FS	00 08 23.0	90 59 22.0	3833.00			
0054	1248		OG				8.00
	FS	00 08 46.0	90 57 44.0	3846.83			
0055	1249		OG				8.00
	FS	00 08 09.0	90 59 26.0	3863.01			
0056	1250		OG				8.00

	FS		00	08	37.0		30	57	29.0	[illegible]
0057		1251				08				6.00
	FS		00	08	50.0		30	56	29.0	3996.41
0058		1252				08				8.00
	FS		00	08	41.0		30	55	29.0	4081.47
0059		1253				08				6.00
	FS		00	08	20.0		30	54	08.0	4148.73

EDITED
FIELD DATA

'IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP3.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	216	221	S 87 50 36.3 E	
0002	63 REMARK	JOB I.D. 60194.1			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	W. OF 56TH ST. & MTN. VIEW			
0005	2 OCCUPY	216	5.58		
0006	32 RADIAL	1260	221		
0007	BS	00 00 00.0	90 04 01.0	0.00	
0008		1260	LAWN		8.60
	FS	156 13 53.0	88 40 44.0	251.32	
0009		1261	CONC		8.60
	FS	156 24 24.0	89 40 06.0	276.45	
0010		1262	CONC		8.60
	FS	156 19 45.0	89 43 12.0	283.29	
0011		1263	LAWN		8.60
	FS	156 13 23.0	89 29 07.0	303.32	
0012		1264	LAWN		8.60
	FS	156 10 34.0	89 27 54.0	318.20	
0013		1265	GRAV		8.60
	FS	156 02 14.0	89 51 20.0	333.29	
0014		1266	LAWN		8.60
	FS	156 06 18.0	89 45 34.0	349.12	
0015		1267	LAWN		8.60
	FS	156 10 14.0	89 52 11.0	400.53	
0016		1268	LAWN		8.60
	FS	156 13 00.0	90 02 29.0	460.73	
0017		1269	GRAV		8.60
	FS	156 12 53.0	90 09 48.0	475.94	
0018		1270	LAWN		8.60
	FS	156 14 46.0	90 07 04.0	492.62	
0019		1271	LAWN		8.60
	FS	156 19 29.0	90 14 33.0	510.43	
0020		1272	LAWN		12.00
	FS	156 13 47.0	90 10 27.0	531.10	
0021		1273	LAWN		12.00
	FS	156 15 43.0	90 12 04.0	592.78	
0022		1274	LAWN		12.00
	FS	156 17 47.0	90 10 43.0	641.21	
0023		1275	GRAV		12.00

	FS	156	17	12.0	89	55	27.0	661.73	
0024		1276			LAWN				12.00
	FS	156	18	36.0	89	56	23.0	740.35	
0025		1277			LAWN				12.00
	FS	156	17	34.0	89	56	13.0	819.64	
0026		1278			LAWN				12.00
	FS	156	16	49.0	89	52	10.0	903.94	
0027		1279			LAWN				12.00
	FS	156	18	25.0	89	33	44.0	939.04	
0028		1280			GRAV				12.00
	FS	156	16	02.0	89	34	43.0	1021.90	
0029		1281			GRAV				12.00
	FS	156	16	28.0	89	36	09.0	1104.03	
0030		1282			GRAV				12.00
	FS	156	18	19.0	89	37	37.0	1184.53	
0031		1283			GRAV				12.00
	FS	156	19	42.0	89	39	18.0	1265.18	
0032		1284			GRAV				12.00
	FS	156	28	55.0	89	39	32.0	1346.33	
0033		1285			GRAV				12.00
	FS	156	32	11.0	89	38	53.0	1410.93	

EDITED
FIELD DATA

ACTIVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP4.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	216	221	S 87 50 36.3 E	
0002	63 REMARK	JOB I.D. 60194.2			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	SW OF 56TH ST. & MTM. VIEW			
0005	2 OCCUPY	216	5.58		
0006	32 RADIAL	1290	221		
0007	BS	00 00 00.0	90 07 13.0	0.00	
0008		1290	GRAV		12.00
	FS	120 04 08.0	89 48 08.0	1518.90	
0009		1291	GRAV		12.00
	FS	120 05 00.0	89 48 24.0	1486.68	
0010		1292	GRAV		12.00
	FS	120 03 17.0	89 48 22.0	1407.06	
0011		1293	GRAV		12.00
	FS	120 02 38.0	89 48 21.0	1326.05	
0012		1294	GRAV		12.00
	FS	120 04 01.0	89 47 33.0	1244.23	
0013		1295	LAWN		12.00
	FS	120 05 05.0	89 45 14.0	1143.74	
0014		1296	LAWN		12.00
	FS	120 08 48.0	89 48 09.0	1128.57	
0015		1297	LAWN		12.00
	FS	120 19 07.0	90 01 17.0	1082.38	
0016		1298	LAWN		12.00
	FS	120 22 42.0	90 02 26.0	1053.44	
0017		1299	CONC		12.00
	FS	120 27 59.0	89 58 46.0	1035.23	
0018		1300	CONC		12.00
	FS	120 29 48.0	89 58 33.0	1025.72	
0019		1301	LAWN		12.00
	FS	120 32 59.0	90 03 35.0	998.61	
0020		1302	LAWN		12.00
	FS	120 36 54.0	90 00 03.0	933.27	
0021		1303	LAWN		12.00
	FS	120 42 03.0	89 56 40.0	867.92	
0022		1304	LAWN		12.00
	FS	120 43 38.0	90 02 05.0	841.48	
0023		1305	LAWN		12.00

0024		1306			LAWN					12.00
	FS	120	43	00.0	90	17	22.0	688.32		
0025		1307			LAWN					12.00
	FS	120	44	56.0	90	21	27.0	627.40		
0026		1308			LAWN					12.00
	FS	120	45	15.0	90	19	01.0	563.77		
27		1309			LAWN					12.00
	FS	120	50	09.0	90	05	06.0	535.75		
0028		1310			LAWN					12.00
	FS	120	45	06.0	90	01	15.0	456.88		
0029		1311			LAWN					12.00
	FS	120	45	17.0	90	00	04.0	395.23		
0030		1312			LAWN					12.00
	FS	120	49	27.0	89	57	29.0	350.76		
0031		1313			LAWN					12.00
	FS	120	54	06.0	89	35	33.0	319.00		
0032		1314			LAWN					12.00
	FS	121	06	33.0	88	14	11.0	277.99		
0033		1315			GRAV					12.00
	FS	121	16	45.0	87	46	41.0	209.26		
0034		1316			GRAV					12.00
	FS	121	38	27.0	86	42	03.0	140.34		
0035		1317			GRAV					12.00
	FS	121	48	04.0	84	43	52.0	77.12		
0036		1318			C&G					12.00
	FS	123	15	15.0	78	36	58.0	33.03		
0037		1319			AC					12.00
	FS	123	25	07.0	78	22	50.0	30.71		

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAPS.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	216	221	S 87 50 36.3 E	
0002	63 REMARK	JOB I.D. 60194.3			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	S. OF 56TH ST. & MTN. VIEW			
0005	2 OCCUPY	216	5.58		
0006	32 RADIAL	1330	221		
0007	BS	00 00 00.0	90 04 07.0	0.00	
0008		1330	AC		12.00
	FS	92 06 30.0	88 16 15.0	191.99	
0009		1331	C&G		12.00
	FS	92 24 03.0	88 18 00.0	204.16	
0010		1332	GRAV		12.00
	FS	91 49 27.0	88 47 05.0	285.34	
0011		1333	GRAV		12.00
	FS	91 52 59.0	89 07 11.0	390.62	
0012		1334	LAWN		12.00
	FS	92 16 50.0	89 22 48.0	484.98	
0013		1335	LAWN		12.00
	FS	91 53 10.0	89 31 57.0	512.76	
0014		1336	LAWN		12.00
	FS	91 59 10.0	89 50 28.0	558.51	
0015		1337	LAKE		12.00
	FS	91 38 33.0	90 05 32.0	602.38	
0016		1338	LAKE		12.00
	FS	91 56 48.0	90 05 08.0	805.63	
0017		1339	LAWN		12.00
	FS	91 55 34.0	90 06 00.0	855.77	
0018		1340	LAWN		12.00
	FS	91 59 27.0	90 18 20.0	901.62	
0019		1341	LAWN		12.00
	FS	91 56 41.0	90 23 35.0	972.05	
0020		1342	LAWN		12.00
	FS	91 57 39.0	90 20 34.0	1042.90	
0021		1343	LAWN		12.00
	FS	91 57 35.0	90 15 27.0	1114.33	
0022		1344	LAWN		12.00
	FS	92 00 14.0	90 14 56.0	1218.43	
0023		1345	[illegible]		12.00

	FS									
0024			1346			LAWN				12.00
	FS			91	57	25.0	90	13	35.0	1428.49
0025			1347			LAWN				12.00
	FS			91	55	52.0	90	11	25.0	1531.74
0026			1348			LAWN				12.00
	FS			91	57	50.0	90	09	38.0	1611.04
27			1349			LAWN				12.00
	FS			91	59	11.0	90	07	15.0	1664.81
0028			1350			LAWN				12.00
	FS			92	00	10.0	89	59	10.0	1712.43
0029			1351			LAWN				12.00
	FS			91	59	57.0	89	58	53.0	1730.45
0030	63	REMARK	00000END000SETUP							

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP6.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	969	220	S 2 15 12.6 W	
0002	63 REMARK	JOB I.D. 60194.4			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	INVERGORDON & CALLE BRUVIRA W.			
0005	2 OCCUPY	969	5.47		
0006	32 RADIAL	1360	220		
0007	89	00 00 00.0	89 50 28.0	0.00	
0008		1360	LAWN		12.00
	F8	141 52 21.0	89 20 55.0	1181.63	
0009		1361	CONC		12.00
	F8	140 23 24.0	89 24 56.0	1163.22	
0010		1362	CONC		12.00
	F8	140 05 41.0	89 25 22.0	1160.01	
0011		1363	LAWN		12.00
	F8	139 00 46.0	89 25 23.0	1150.12	
0012		1364	LAWN		12.00
	F8	138 28 03.0	89 23 54.0	1145.62	
0013		1365	LAWN		12.00
	F8	132 57 58.0	89 26 09.0	1100.86	
0014		1366	LAWN		12.00
	F8	131 36 54.0	89 28 48.0	1095.66	
0015		1367	LAWN		12.00
	F8	128 32 26.0	89 26 51.0	1077.80	
0016		1368	LAWN		12.00
	F8	127 25 16.0	89 26 51.0	1070.52	
0017		1369	LAWN		12.00
	F8	126 46 04.0	89 29 42.0	1067.32	
0018		1370	CONC		12.00
	F8	126 13 21.0	89 30 04.0	1065.00	
0019		1371	CONC		12.00
	F8	125 52 32.0	89 30 23.0	1062.47	
0020		1372	LAWN		12.00
	F8	125 32 01.0	89 31 42.0	1060.98	
0021		1373	LAWN		12.00
	F8	123 36 24.0	89 33 03.0	1054.21	
0022		1374	LAWN		12.00
	F8	122 04 46.0	89 35 06.0	1048.99	
[illegible]		[illegible]	[illegible]		[illegible]

	FS	120	33	41.0	89	41	40.0	1046.33	
0024		1376			LAWN				12.00
	FS	118	44	51.0	89	41	39.0	1045.41	
0025		1377			LAWN				12.00
	FS	116	47	18.0	89	43	13.0	1044.11	
0026		1378			LAWN				12.00
	FS	115	55	55.0	89	43	28.0	1044.20	
27		1379			LAWN				12.00
	FS	112	35	41.0	89	42	18.0	1045.07	
0028		1380			LAWN				12.00
	FS	111	18	30.0	89	40	49.0	1046.77	
0029		1381			LAWN				12.00
	FS	109	06	12.0	89	33	18.0	1050.63	
0030		1382			LAWN				12.00
	FS	107	38	15.0	89	24	13.0	1055.52	
0031		1383			LAWN				12.00
	FS	106	37	41.0	89	16	18.0	1060.85	
0032		1384			LAWN				12.00
	FS	105	20	41.0	89	15	30.0	1067.88	

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP7.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	969	220	S 2 15 12.6 W	
0002	63 REMARK	JOB I.D. 60194.5			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	INVERGORDON & CALLE BRUVIRA E.			
0005	2 OCCUPY	969	5.47		
0006	32 RADIAL	1390	220		
0007	88	00 00 00.0	89 50 23.0	0.00	
0008		1390	LAWN		12.00
	FS	315 05 46.0	89 23 38.0	951.91	
0009		1391	LAWN		12.00
	FS	314 18 42.0	89 26 36.0	949.02	
0010		1392	LAWN		5.00
	FS	312 07 41.0	89 56 27.0	941.43	
0011		1393	LAWN		5.00
	FS	304 48 59.0	90 06 09.0	936.89	
0012		1394	LAWN		5.00
	FS	302 42 50.0	90 08 24.0	941.18	
0013		1395	CONC		5.00
	FS	301 48 01.0	90 07 55.0	932.37	
0014		1396	CONC		5.00
	FS	301 13 19.0	90 08 27.0	935.41	
0015		1397	LAWN		5.00
	FS	298 21 08.0	90 12 14.0	939.47	
0016		1398	LAWN		5.00
	FS	296 10 22.0	90 16 50.0	942.98	
0017		1399	LAWN		5.00
	FS	293 51 51.0	90 21 36.0	948.95	
0018		1400	LAWN		5.00
	FS	291 13 20.0	90 24 05.0	958.39	
0019		1401	LAWN		5.00
	FS	288 39 50.0	90 22 43.0	971.16	
0020		1402	CONC		5.00
	FS	287 24 55.0	90 20 40.0	978.12	
0021		1403	CONC		2.00
	FS	287 01 25.0	90 30 50.0	980.18	
0022		1404	LAWN		2.00
	FS	286 09 10.0	90 29 52.0	986.44	

	FS		285	03	27.0	90	07	18.0	985.13	
0024			1406			CONC				2.00
	FS		285	07	05.0	90	27	06.0	995.05	
0025			1407			LAWN				5.00
	FS		283	33	55.0	90	14	16.0	1004.98	
0026			1408			LAWN				5.00
	FS		281	01	38.0	90	13	24.0	1022.98	
0027			1409			LAWN				5.00
	FS		278	27	09.0	90	10	46.0	1045.41	
0028			1410			LAWN				5.00
	FS		276	29	06.0	90	07	15.0	1067.82	
0029			1411			LAWN				5.00
	FS		275	32	51.0	90	03	29.0	1075.28	
0030			1412			LAWN				5.00
	FS		274	42	05.0	89	52	26.0	1086.75	
0031			1413			LAWN				5.00
	FS		274	17	41.0	89	51	21.0	1089.87	
0032	63	REMARK	00000ENDOOOSETUP							

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAPS.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmsss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	212	207	N 89 38 36.7 W	
0002	63 REMARK	JOB I.D. 60194.6			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	CHOLLA & TATUM WEST			
0005	2 OCCUPY	212	6.36		
0006	32 RADIAL	1420	207		
0007	86	00 00 00.0	89 45 22.0	0.00	
0008		1420	AC		10.50
	FS	47 40 29.0	86 29 21.0	67.87	
0009		1421	C&G		10.50
	FS	47 58 15.0	86 16 21.0	71.18	
0010		1422	C WALK		10.50
	FS	48 04 53.0	86 27 08.0	79.00	
0011		1423	GRAV		10.50
	FS	47 49 59.0	87 49 20.0	120.03	
0012		1424	GRAV		10.50
	FS	47 14 47.0	88 44 13.0	160.96	
0013		1425	GRAV		10.50
	FS	47 06 46.0	89 57 26.0	168.94	
0014		1426	GRAV		10.50
	FS	47 06 46.0	90 04 16.0	165.68	
0015		1427	GRAV		10.50
	FS	46 51 19.0	88 01 13.0	206.44	
0016		1428	LAWN		10.50
	FS	46 37 20.0	88 09 23.0	216.84	
0017		1429	LAWN		10.50
	FS	46 52 01.0	89 46 11.0	244.88	
0018		1430	CONC		10.50
	FS	46 45 00.0	90 09 47.0	273.84	
0019		1431	CONC		10.50
	FS	46 39 08.0	90 13 05.0	285.72	
0020		1432	LAWN		10.50
	FS	46 09 55.0	89 49 33.0	299.36	
0021		1433	LAWN		10.50
	FS	46 02 30.0	89 49 33.0	323.84	
0022		1434	LAWN		10.50
	FS	45 59 14.0	90 16 22.0	337.43	
0023		1435	GRAV		10.50

0024		1436			LAWN			10.50
	FS	46	01	07.0	90	18	57.0	475.27
0025		1437			GRAV			15.36
	FS	46	16	11.0	90	18	13.0	520.46
0026		1438			GRAV			15.36
	FS	46	12	27.0	90	16	44.0	552.39
0027		1439			GRAV			15.36
	FS	46	16	36.0	90	08	50.0	585.82
0028		1440			GRAV			15.36
	FS	46	13	15.0	90	09	57.0	605.93
0029		1441			GRAV			15.36
	FS	46	12	58.0	90	04	54.0	628.88
0030		1442			GRAV			15.36
	FS	46	16	25.0	90	06	41.0	677.18
0031		1443			GRAV			15.36
	FS	46	15	03.0	90	02	25.0	692.36
0032		1444			LAWN			15.36
	FS	46	21	53.0	89	51	52.0	733.16
0033		1445			LAWN			15.36
	FS	46	21	28.0	89	53	24.0	751.81
0034		1446			LAWN			15.36
	FS	46	20	12.0	89	48	10.0	786.37
0035		1447			LAWN			15.36
	FS	46	24	19.0	89	48	30.0	844.87
0036		1448			LAWN			15.36
	FS	46	31	29.0	89	45	21.0	925.92
0037		1449			LAWN			15.36
	FS	46	32	46.0	89	43	59.0	1006.60
0038		1450			LAWN			15.36
	FS	46	46	00.0	89	41	49.0	1100.08
0039		1451			LAWN			15.36
	FS	46	52	07.0	89	29	35.0	1118.18
0040		1452			LAWN			15.36
	FS	46	54	49.0	89	29	15.0	1130.27
0041		1453			LAWN			15.36
	FS	46	56	27.0	89	40	47.0	1153.62
0042		1454			LAWN			15.36
	FS	46	56	19.0	89	43	16.0	1232.90
0043		1455			LAWN			15.36
	FS	46	50	24.0	89	41	53.0	1310.00
0044		1456			LAWN			15.36
	FS	46	48	05.0	89	40	31.0	1373.19
0045		1457			LAWN			15.36
	FS	46	44	50.0	89	38	07.0	1414.30
0046		1458			LAWN			15.36
	FS	46	44	05.0	89	28	44.0	1446.93
0047		1459			LAWN			15.36
	FS	46	43	14.0	89	29	54.0	1504.64
0048		1460			CONC			15.36
	FS	46	43	33.0	89	31	46.0	1517.88
0049		1461			CONC			15.36
	FS	46	43	56.0	89	32	14.0	1530.17
0050		1462			GRAV			15.36
	FS	46	47	09.0	89	33	10.0	1552.85
0051		1463			AC			15.36
	FS	46	52	29.0	89	32	21.0	1580.77
0052		1464			AC			15.36
	FS	46	54	16.0	89	32	58.0	1604.07
0053		1465			GRAV			15.36
	FS	46	55	54.0	89	32	53.0	1634.50
0054		1466			GRAV			15.36
	FS	46	56	12.0	89	32	03.0	1659.76
0055		1467			GRAV			15.36
	FS	46	56	17.0	89	33	17.0	1684.76
0056		1468			GRAV			15.36

	FB									
0057		1469			AC					15.36
	FB		46	51	36.0		69	33	32.0	1767.18

EDITED
FIELD DATA

IVE FILES:
Job File: BAKER_MC.JOB
Coord File: BAKER_MC.CRD
Field Data File: MAP8.FLD
Plot File: BAKER_MC.PLT
Summary File: BAKER_MC.CMD

FIELD DATA ENTRY AND TRAVERSE CALCULATIONS

Field Data File Log

Units of Measurement:
Angles: DDD.mmss Distances: USFeet
Methods of Measurement:
Angles: DIRS Distances: EDM

Rec.	Command	HZ	VT	SD	
0001	1 START	212	207	N 69 38 36.7 W	
0002	63 REMARK	JOB I.D. 60194.6			
0003	63 REMARK	MAPPING CHECKS			
0004	63 REMARK	CHOLLA & TATUM WEST			
05	2 OCCUPY	212	6.36		
06	32 RADIAL	1420	207		
0007	86	00 00 00.0	89 45 22.0	0.00	
0008		1420	AC		10.50
	FS	47 40 29.0	86 29 21.0	67.87	
0009		1421	C&G		10.50
	FS	47 58 15.0	86 16 21.0	71.18	
0010		1422	C WALK		10.50
	FS	48 04 53.0	86 27 08.0	79.00	
0011		1423	GRAV		10.50
	FS	47 49 59.0	87 49 20.0	120.03	
0012		1424	GRAV		10.50
	FS	47 14 47.0	88 44 13.0	160.96	
0013		1425	GRAV		10.50
	FS	47 06 46.0	89 57 26.0	168.94	
0014		1426	GRAV		10.50
	FS	47 06 46.0	90 04 16.0	185.68	
0015		1427	GRAV		10.50
	FS	46 51 19.0	88 01 13.0	206.44	
0016		1428	LAWN		10.50
	FS	46 37 20.0	88 09 23.0	216.84	
0017		1429	LAWN		10.50
	FS	46 52 01.0	89 46 11.0	244.88	
0018		1430	CONC		10.50
	FS	46 45 00.0	90 09 47.0	273.84	
019		1431	CONC		10.50
	FS	46 39 08.0	90 13 05.0	285.72	
020		1432	LAWN		10.50
	FS	46 09 55.0	89 49 33.0	299.36	
0021		1433	LAWN		10.50
	FS	46 02 30.0	89 49 33.0	323.84	
022		1434	LAWN		10.50
	FS	45 59 14.0	90 16 22.0	337.43	
023		1435	CON		10.50

0024		1436			LAWN			10.50
	FS		46 01 07.0		90 18 57.0	475.27		
0025		1437			GRAV			15.36
	FS		46 16 11.0		90 18 13.0	520.46		
0026		1438			GRAV			15.36
	FS		46 12 27.0		90 16 44.0	552.39		
27		1439			GRAV			15.36
	FS		46 16 36.0		90 08 50.0	585.82		
0028		1440			GRAV			15.36
	FS		46 13 15.0		90 09 57.0	605.93		
0029		1441			GRAV			15.36
	FS		46 12 58.0		90 04 54.0	628.88		
0030		1442			GRAV			15.36
	FS		46 16 25.0		90 06 41.0	677.18		
0031		1443			GRAV			15.36
	FS		46 15 03.0		90 02 25.0	692.36		
0032		1444			LAWN			15.36
	FS		46 21 53.0		89 51 52.0	733.16		
0033		1445			LAWN			15.36
	FS		46 21 26.0		89 53 24.0	751.81		
0034		1446			LAWN			15.36
	FS		46 20 12.0		89 48 10.0	786.37		
0035		1447			LAWN			15.36
	FS		46 24 19.0		89 48 30.0	844.87		
0036		1448			LAWN			15.36
	FS		46 31 29.0		89 45 21.0	925.92		
0037		1449			LAWN			15.36
	FS		46 32 46.0		89 43 59.0	1006.60		
0038		1450			LAWN			15.36
	FS		46 46 00.0		89 41 49.0	1100.08		
0039		1451			LAWN			15.36
	FS		46 52 07.0		89 29 35.0	1118.18		
40		1452			LAWN			15.36
	FS		46 54 49.0		89 29 15.0	1130.27		
0041		1453			LAWN			15.36
	FS		46 56 27.0		89 40 47.0	1153.62		
0042		1454			LAWN			15.36
	FS		46 56 19.0		89 43 16.0	1232.90		
0043		1455			LAWN			15.36
	FS		46 50 24.0		89 41 53.0	1310.00		
0044		1456			LAWN			15.36
	FS		46 48 05.0		89 40 31.0	1373.19		
0045		1457			LAWN			15.36
	FS		46 44 50.0		89 38 07.0	1414.30		
0046		1458			LAWN			15.36
	FS		46 44 05.0		89 28 44.0	1446.93		
0047		1459			LAWN			15.36
	FS		46 43 14.0		89 29 54.0	1504.64		
0048		1460			CONC			15.36
	FS		46 43 33.0		89 31 46.0	1517.88		
0049		1461			CONC			15.36
	FS		46 43 56.0		89 32 14.0	1530.17		
0050		1462			GRAV			15.36
	FS		46 47 09.0		89 33 10.0	1552.85		
0051		1463			AC			15.36
	FS		46 52 29.0		89 32 21.0	1580.77		
052		1464			AC			15.36
	FS		46 54 16.0		89 32 58.0	1604.07		
053		1465			GRAV			15.36
	FS		46 55 54.0		89 32 53.0	1634.50		
0054		1466			GRAV			15.36
	FS		46 56 12.0		89 32 03.0	1659.76		
0055		1467			GRAV			15.36
	FS		46 56 17.0		89 33 17.0	1684.76		
0056		1468			GRAV			15.36

	FS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
0057		1469			AC				15.36
	FS	46	51	36.0	89	33	32.0	1767.18	

rdinate File: BAKER MC.CRD
st of Coordinate Points

Point ID	NORTH	EAST	ELEV	Descriptor
202	950011.7460	667934.9609	1475.6100	C.O.P. BC FLUSH
	Method:	KEYBOARD ENTRY		Recalculate: No
205	950042.7945	670561.0792	1411.3500	C.O.P. BC IN HH
	Method:	KEYBOARD ENTRY		Recalculate: No
207	942191.9974	675905.3469	1396.8100	C.O.P. BC IN HH
	Method:	KEYBOARD ENTRY		Recalculate: No
212	942158.1152	681351.0156	1371.8200	C.O.P. BC IN HH
	Method:	KEYBOARD ENTRY		Recalculate: No
216	936668.1753	686621.1568	1346.8000	BC FLUSH (NO STAMP.)
	Method:	KEYBOARD ENTRY		Recalculate: No
220	931382.2128	691649.2572	1316.9200	T.O.P.V. BC FLUSH
	Method:	KEYBOARD ENTRY		Recalculate: No
221	936670.8651	691660.7664	1341.8000	C.O.S. BC (DEPRESS.)
	Method:	KEYBOARD ENTRY		Recalculate: No
969	932086.1702	691677.0377	1316.6600	PK NAIL IN AC WALK
	Method:	KEYBOARD ENTRY		Recalculate: No
1104	949959.1230	667935.4760	1476.9313	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1105	949854.1691	667936.5592	1475.3665	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1106	949764.0446	667936.3421	1474.2743	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1107	949664.1987	667937.4397	1473.2175	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1108	949616.6982	667937.7804	1472.6114	VG
	Method:	FIELD DATA COMPILER		Recalculate: No
1109	949524.9324	667938.4330	1472.6791	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1110	949429.2901	667938.7932	1470.7628	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1111	949380.2851	667939.2812	1469.6619	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1112	949332.6570	667939.6062	1468.6414	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1113	949231.4528	667940.5224	1465.6150	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1114	949128.0541	667941.2037	1464.3555	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1115	949054.6551	667941.7611	1463.3966	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1116	949023.8776	667941.7001	1463.3603	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1117	948968.1076	667942.4305	1463.1213	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1118	948883.5394	667943.1936	1461.0768	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
9	948781.1967	667943.9404	1459.1406	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1120	948691.1507	667944.2005	1457.4326	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1121	948654.4365	667944.4574	1456.7925	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1122	948616.8019	667944.9439	1455.6995	AC
	Method:	FIELD DATA COMPILER		Recalculate: No

1123	[illegible]	[illegible]	[illegible]	[illegible]
	Method:	FIELD DATA COMPILER		Recalculate: No
1124	948409.5501	667946.4653	1443.4695	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1125	948307.8267	667947.2453	1443.7910	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1126	948206.4338	667947.8631	1444.8655	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1127	948154.2171	667948.4345	1442.9525	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1128	948121.3660	667948.5903	1442.6521	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1129	948089.3526	667948.7273	1442.9412	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1130	948053.5567	667948.9642	1443.5327	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1131	948018.8533	667949.2425	1443.3695	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1132	947915.7500	667950.2963	1441.4019	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1133	947812.9133	667951.0381	1439.2541	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1134	947710.1151	667951.8009	1438.0865	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1135	947608.0482	667952.3262	1436.7892	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1136	947505.8077	667953.3079	1435.6908	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1137	947414.3058	667953.8770	1435.2100	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1138	947369.9255	667953.9569	1434.3291	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1139	947325.6594	667954.3663	1433.6511	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1140	947222.6300	667955.2985	1432.2523	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1141	947118.5666	667956.1290	1431.0045	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1142	947016.2189	667956.7761	1430.3495	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
1143	946914.5318	667957.1563	1429.8305	AC
	Method:	FIELD DATA COMPILER		Recalculate: No
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1152	946185.3609	667963.2165	1426.3065	AC
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1395	931566.0709	692649.5165	1315.0008	CONC
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1396	931572.2213	692657.2774	1314.8488	CONC
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1404	931776.7103	692812.9776	1311.5801	LAWN	
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1405	931785.9588	692821.9876	1312.1417	CONC	
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1406	931791.0912	692826.6689	1312.3064	CONC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1407	931814.2192	692843.9495	1312.9801	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1408	931853.1743	692872.6353	1313.1641	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1409	931893.9668	692904.2407	1313.8784	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1410	931925.9417	692932.4601	1314.9015	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1411	931942.2196	692942.3630	1316.0643	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1412	931956.5776	692955.7924	1319.5463	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
[illegible]3	931963.8825	692959.7921	1319.8967	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1420	942208.4795	681305.7170	1371.6360	AC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1421	942211.1660	681303.7926	1372.3073	C&G	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1422	942217.1156	681298.7023	1372.5690	C WALK	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1423	942247.5125	681271.0556	1372.2413	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1424	942276.9550	681242.5109	1371.2286	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1425	942282.6103	681236.8139	1367.8067	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1426	942294.9476	681225.4966	1367.4503	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1427	942309.5262	681210.8652	1374.8126	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1428	942316.5663	681203.1474	1374.6571	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1429	942337.8583	681184.7082	1368.8854	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1430	942356.7365	681164.6291	1366.9022	CONC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1431	942367.1071	681156.1868	1366.5943	CONC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
[illegible]2	942375.3383	681145.0353	1368.5918	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1433	942392.6220	681127.6834	1368.6666	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1434	942402.2381	681118.0627	1366.0759	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1435	942452.4404	681071.6288	1365.0273	LAWN	

	Method:	FIELD DATA COMPILER		Recalculate:	No
1437	942536.4250	680993.5934	1360.0677	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1438	942559.2229	680971.2290	1360.1375	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1439	942583.9915	680946.7509	1361.3218	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
[illegible]	942598.2012	680934.5168	1361.0738	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1441	942614.8385	680918.6999	1361.9316	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1442	942650.3833	680885.9903	1361.5129	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1443	942661.2256	680875.3694	1362.3431	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1444	942691.8736	680846.3999	1364.5656	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1445	942705.3886	680835.5463	1364.2750	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1446	942730.3438	680811.6455	1365.5395	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1447	942773.6106	680772.2533	1365.6610	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1448	942833.9711	680718.1448	1366.7634	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1449	942893.1162	680663.2744	1367.5306	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1450	942964.2628	680602.5037	1368.6635	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1451	942978.8613	680591.6638	1372.7391	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
[illegible]2	942988.3350	680584.1081	1372.9562	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1453	943005.8744	680568.6524	1369.2959	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1454	943064.1060	680514.6477	1368.8524	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1455	943119.2310	680460.9030	1369.7589	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1456	943164.9638	680417.2875	1370.6413	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1457	943194.1924	680388.3581	1371.8640	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1458	943217.8552	680365.9412	1376.0228	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1459	943259.8762	680326.3730	1376.0406	LAWN	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1460	943269.6729	680317.4529	1375.3332	CONC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1461	943278.7903	680309.2082	1375.2272	CONC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1462	943296.3926	680294.8283	1374.9903	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1463	943316.5210	680277.6413	1375.5855	AC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1464	943336.1901	680262.4310	1375.4867	AC	
	Method:	FIELD DATA COMPILER		Recalculate:	No
[illegible]5	943359.0663	680242.3473	1375.7676	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1466	943377.7169	680225.3277	1376.3709	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1467	943396.1211	680206.3981	1375.9715	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No
1468	943417.3199	680191.2609	1376.4753	GRAV	
	Method:	FIELD DATA COMPILER		Recalculate:	No

	Method:	FIELD DATA COMPILER		Recalculate: No
1480	942089.4515	682297.5124	1368.9663	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1481	942089.6136	682284.3048	1369.7079	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1482	942090.3299	682274.1161	1367.5720	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
[illegible]3	942090.7477	682269.0369	1367.0994	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1484	942091.1843	682255.6147	1368.8010	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1485	942093.5919	682217.3302	1365.4297	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1486	942093.7644	682208.7267	1365.3142	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1487	942094.7056	682168.8895	1364.4640	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1488	942097.1659	682145.8761	1364.5432	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1489	942100.3397	682106.2627	1364.1444	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1490	942100.9497	682084.3104	1361.9428	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1491	942105.0734	682066.0301	1359.6641	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1492	942106.0362	682056.2482	1359.6984	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1493	942107.5524	682037.6208	1362.4927	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1494	942109.6599	682009.8304	1365.2005	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1495	942110.5611	681994.0836	1368.8796	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1496	942110.9970	681982.2379	1369.0661	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1497	942111.9604	681967.5192	1367.2593	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1498	942112.7479	681946.5668	1366.4364	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1499	942113.8392	681930.7562	1365.2458	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1500	942115.4160	681907.2337	1366.0528	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1501	942115.7451	681902.5263	1364.3268	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1502	942116.3438	681895.5973	1363.9663	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1503	942116.9566	681887.6739	1364.4476	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1504	942117.3461	681883.7161	1365.9971	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1505	942117.9356	681868.7225	1365.1379	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1506	942120.9572	681841.3747	1364.8740	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1507	942123.5669	681811.0209	1364.7658	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
[illegible]3	942125.2210	681786.6735	1362.1040	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1509	942128.3423	681751.6764	1361.6972	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1510	942130.3075	681727.8750	1361.8438	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1511	942131.2550	681713.0969	1362.5794	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No

	Method:	FIELD DATA COMPILER		Recalculate: No
1513	942131.6130	681693.1150	1359.4487	INLET
	Method:	FIELD DATA COMPILER		Recalculate: No
1514	942133.8798	681666.3958	1359.5145	INLET
	Method:	FIELD DATA COMPILER		Recalculate: No
1515	942134.0506	681664.0328	1360.7406	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
[illegible]	942132.5529	681679.4317	1362.2265	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1517	942138.3443	681646.2273	1362.7128	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1518	942137.3040	681630.8195	1362.4965	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1519	942135.1820	681615.8897	1361.3623	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1520	942136.9087	681602.6060	1362.0630	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1521	942136.5271	681587.9063	1363.3747	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1522	942141.2071	681553.3298	1365.9077	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1523	942141.5969	681540.3247	1366.1156	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1524	942144.8026	681531.0991	1367.9242	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1525	942144.9525	681527.8702	1367.3673	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1526	942145.6676	681517.0369	1367.6559	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1527	942147.1540	681504.7962	1371.2315	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1528	942147.6690	681493.2909	1373.4537	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
[illegible]	942147.9993	681483.4461	1372.8166	LAWN
	Method:	FIELD DATA COMPILER		Recalculate: No
1530	942149.4363	681464.7013	1366.9308	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1531	942149.6079	681456.6015	1366.6834	CONC
	Method:	FIELD DATA COMPILER		Recalculate: No
1532	942149.7920	681442.7714	1366.5251	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1533	942149.7498	681440.4686	1363.7432	INLET
	Method:	FIELD DATA COMPILER		Recalculate: No
1534	942151.5236	681433.6715	1363.6065	INLET
	Method:	FIELD DATA COMPILER		Recalculate: No
1535	942151.6640	681432.2915	1366.5675	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1536	942153.1536	681415.7920	1371.7643	GRAV
	Method:	FIELD DATA COMPILER		Recalculate: No
1537	942154.0797	681403.1960	1373.9901	C WALL
	Method:	FIELD DATA COMPILER		Recalculate: No
1538	942154.4445	681398.4425	1373.8906	C&G
	Method:	FIELD DATA COMPILER		Recalculate: No
1539	942154.4734	681396.4520	1373.3786	AC
	Method:	FIELD DATA COMPILER		Recalculate: No

rdinate File: BAKER MC.CRD
List of Coordinate Points

Point ID	NORTH	EAST	ELEV	Descriptor
202	950011.7460	667934.9609	1475.6100	C.O.P. BC FLUSH
205	950042.7945	670581.0792	1411.3500	C.O.P. BC IN HH
207	942191.9974	675905.3469	1396.6100	C.O.P. BC IN HH
212	942158.1152	681351.0156	1371.8200	C.O.P. BC IN HH
216	936868.1753	686621.1568	1346.6000	BC FLUSH (NO STAMP.)
220	931382.2128	691849.2572	1318.9200	T.O.P.V. BC FLUSH
221	936670.8651	691860.7684	1341.6000	C.O.S. BC (DEPRESS.)
969	932088.1702	691877.0377	1316.6600	PK NAIL IN AC WALK
1104	949959.1230	667935.4760	1476.9313	AC
1105	949854.1691	667936.5592	1475.3685	AC
1106	949764.0446	667936.3421	1474.2743	AC
1107	949664.1987	667937.4397	1473.2175	AC
1108	949616.6982	667937.7804	1472.6114	VG
1109	949524.9324	667938.4330	1472.6791	AC
1110	949429.2901	667938.7932	1470.7626	AC
1111	949380.2551	667939.2812	1469.8619	AC
1112	949332.8570	667939.6062	1468.6414	AC
1113	949231.4528	667940.5224	1465.6150	AC
1114	949128.0541	667941.2037	1464.3555	AC
1115	949054.8551	667941.7811	1463.3988	AC
6	949023.8778	667941.7001	1463.3603	AC
7	948988.1078	667942.4305	1463.1213	AC
1118	948883.5394	667943.1936	1461.0766	AC
1119	948781.1987	667943.9404	1459.1406	AC
1120	948691.1507	667944.2005	1457.4328	AC
1121	948654.4365	667944.4574	1456.7925	AC
1122	948616.8019	667944.9439	1455.8995	AC
1123	948515.9902	667945.7814	1452.7990	AC
1124	948409.5501	667946.4659	1449.4695	AC
1125	948307.8287	667947.2459	1447.7310	AC
1126	948206.4398	667947.8631	1444.8655	AC
1127	948154.2171	667948.4345	1442.9525	AC
1128	948121.3860	667948.5903	1442.6521	AC
1129	948089.3528	667948.7279	1442.9412	AC
1130	948053.5587	667948.9842	1443.5327	AC
1131	948018.8533	667949.2425	1443.3695	AC
1132	947919.7500	667950.2963	1441.4015	AC
1133	947812.9133	667951.0381	1439.2541	AC
1134	947710.1151	667951.8009	1438.0865	AC
1135	947608.0482	667952.3262	1436.7892	AC
1136	947505.8077	667953.3079	1435.6908	AC
1137	947414.3058	667953.8770	1435.2100	AC
1138	947369.9255	667953.9569	1434.3291	AC
1139	947325.6594	667954.3663	1433.6511	AC
1140	947222.8300	667955.2985	1432.2523	AC
1141	947118.5868	667956.1290	1431.0045	AC
2	947016.2189	667956.7761	1430.3495	AC
1143	946914.5318	667957.1563	1429.8305	AC
1144	946867.6200	667957.7669	1429.5903	AC
1145	946832.7234	667957.5268	1429.2096	AC
1146	946797.0520	667957.8267	1429.1789	AC
1147	946695.8240	667959.1577	1428.4461	AC
1148	946595.2690	667960.4712	1427.9564	AC
1149	946493.0420	667960.9104	1427.8345	AC

1150	946383.6311	667961.2075	1427.1093	AC
1151	946287.8570	667962.0444	1426.9194	AC
1152	946165.3609	667963.2165	1426.3065	AC
1153	946083.3119	667963.3035	1426.0549	AC
1154	945980.7989	667964.4144	1425.4170	AC
1155	945882.3384	667965.0738	1425.3719	AC
[illegible]	945780.4946	667966.8565	1424.9107	AC
[illegible]	945678.0805	667966.5633	1425.1269	AC
1158	945609.7520	667967.1256	1424.7506	AC
1202	950012.6208	667977.3808	1473.4792	AC
1203	950012.8821	668028.7214	1469.5934	AC
1204	950013.2991	668080.6304	1466.0093	AC
1205	950013.6592	668129.9194	1462.8063	AC
1206	950014.6145	668190.9587	1459.6109	AC
1207	950015.6070	668249.3374	1457.6930	AC
1208	950015.9180	668307.4499	1456.3578	AC
1209	950017.4006	668413.3153	1453.8123	AC
1210	950018.5785	668516.5390	1450.5754	AC
1211	950019.4220	668620.3010	1446.9960	AC
1212	950020.5240	668724.5035	1444.3234	AC
1213	950021.8200	668829.3689	1441.8684	AC
1214	950022.5881	668934.1282	1439.2843	AC
1215	950024.1742	669035.5430	1436.8477	AC
1216	950025.8001	669127.8000	1434.6144	AC
1217	950025.6256	669200.4824	1433.0005	AC
1218	950026.7931	669257.8039	1430.7826	AC
1219	950026.6826	669318.9011	1428.8409	AC
1220	950027.7823	669421.4458	1426.0117	AC
1221	950028.7188	669524.6834	1423.7668	AC
1222	950029.6160	669627.1626	1421.8197	AC
1223	950030.7366	669727.5160	1419.9280	AC
1224	950032.1877	669829.8006	1418.4510	AC
[illegible]	950034.9635	669919.4201	1417.2697	AC
[illegible]	950035.0476	670022.6484	1416.1937	AC
1227	950033.1870	670125.2158	1415.0292	AC
1228	950031.6565	670227.7968	1414.0369	AC
1229	950030.9036	670329.6150	1413.2498	AC
1230	950028.8397	670431.7649	1412.3758	AC
1231	950027.5890	670509.8279	1411.8197	AC
1232	950031.4851	670581.9880	1411.7240	AC
1233	950030.5768	670653.0649	1411.4127	AC
1234	950031.8909	670757.5084	1410.9260	AC
1235	950033.2992	670861.3824	1410.2763	AC
1236	950034.3693	670964.8011	1409.9327	AC
1237	950035.7991	671068.7874	1409.3083	AC
1238	950036.0560	671169.6785	1409.0515	AC
1239	950037.9849	671273.4266	1408.5927	AC
1240	950039.1354	671375.2477	1408.5194	AC
1241	950041.7541	671473.5787	1407.8317	AC
1242	950046.0509	671578.2401	1407.1293	AC
1243	950045.7632	671637.2892	1406.9818	EP
1244	950046.0853	671639.1193	1407.4696	TBC
1245	950046.3944	671643.3675	1407.5386	TBW
1246	950047.1575	671725.0464	1407.8299	OG
1247	950047.3659	671767.2310	1407.1631	OG
1248	950047.0658	671781.0924	1408.7539	OG
1249	950047.9066	671797.2256	1406.5748	OG
[illegible]	950047.8985	671894.7609	1406.0948	OG
[illegible]	950048.3619	671930.6701	1407.7191	OG
1252	950049.3194	672015.7269	1407.5229	OG
1253	950050.3612	672082.9994	1408.0777	OG
1260	936775.6357	686387.5716	1349.5755	LAWN
1261	936767.1429	686363.8383	1345.3818	CONC
1262	936764.2834	686357.6041	1345.1861	CONC
1263	936756.4197	686339.1871	1346.5068	LAWN
1264	936750.6947	686325.6484	[illegible]	LAWN

1266	936738.8734	686296.9684	1342.2483	LAWN
1267	936720.2561	686246.9440	1344.6940	LAWN
1268	936698.3698	686192.8611	1343.4515	LAWN
1269	936692.7462	686178.7256	1342.4279	GRAV
1270	936686.8532	686163.1264	1342.7724	LAWN
1271	936660.9470	686146.3044	1341.6250	LAWN
1272	936672.5480	686127.4033	1338.7714	LAWN
1273	936650.1384	686069.9376	1338.3065	LAWN
1274	936632.6830	686024.7606	1338.3896	LAWN
1275	936625.0177	686005.6536	1340.7612	LAWN
1276	936596.4354	685932.4827	1341.1702	LAWN
1277	936567.1045	685858.8202	1341.2959	LAWN
1278	936535.9553	685780.4848	1342.4569	LAWN
1279	936523.4712	685747.7051	1347.5729	LAWN
1280	936492.3951	685670.8906	1347.9171	GRAV
1281	936462.3203	685594.4596	1346.0644	GRAV
1282	936433.3199	685519.3629	1348.1213	GRAV
1283	936404.1841	685444.1547	1348.0310	GRAV
1284	936377.7816	685367.3379	1348.4327	GRAV
1285	936355.5027	685306.6954	1349.0876	GRAV
1290	935583.2604	685811.2044	1345.6705	GRAV
1291	935610.7207	685828.0711	1345.4420	GRAV
1292	935677.6883	685871.1388	1345.1822	GRAV
1293	935746.0950	685914.5320	1344.9099	GRAV
1294	935815.5950	685957.7076	1344.9179	GRAV
1295	935900.7965	686010.9913	1345.3198	LAWN
1296	935914.2757	686018.0506	1344.2964	LAWN
1297	935955.0503	686039.9875	1340.0000	LAWN
1298	935980.0618	686054.6047	1339.6572	LAWN
1299	935996.2663	686063.0549	1340.7734	CONC
1300	936003.7272	686067.1863	1340.8347	CONC
1301	936027.6975	686081.5773	1339.3596	LAWN
1302	936083.4525	686115.9880	1340.3843	LAWN
1303	936139.1052	686150.2683	1341.2371	LAWN
1304	936161.5238	686164.2866	1339.8846	LAWN
1305	936227.2651	686207.1599	1338.1948	LAWN
1306	936290.0844	686247.5557	1336.9126	LAWN
1307	936341.4406	686280.3254	1336.4734	LAWN
1308	936394.8875	686314.8471	1337.2679	LAWN
1309	936418.8186	686329.4256	1339.5911	LAWN
1310	936484.6047	686372.9354	1340.2182	LAWN
1311	936536.3781	686406.4146	1340.3755	LAWN
1312	936573.9425	686430.2202	1340.6393	LAWN
1313	936600.8255	686447.1511	1342.6508	LAWN
1314	936635.8440	686468.7423	1348.9372	LAWN
1315	936693.6758	686505.9393	1346.4941	GRAV
1316	936751.7489	686543.2237	1348.4566	GRAV
1317	936804.4776	686578.2605	1347.4621	GRAV
1318	936841.7848	686602.3946	1346.8995	C&G
1319	936843.7123	686603.6590	1346.5645	AC
1330	936676.8081	686606.8856	1346.1739	AC
1331	936664.7554	686604.9421	1346.4374	C&G
1332	936583.5898	686601.3527	1346.4334	GRAV
1333	936478.5726	686593.6422	1346.3843	GRAV
1334	936384.6792	686583.6365	1345.6327	LAWN
1335	936356.7132	686585.0088	1344.5691	LAWN
1336	936311.1267	686580.8097	1341.9352	LAWN
1337	936267.1238	686581.2446	1339.4179	LAKE
1338	936064.6092	686563.5105	1339.1904	LAKE
1339	936014.5743	686560.2269	1336.9015	LAWN
1340	935968.9271	686558.9497	1335.5884	LAWN
1341	935898.6373	686551.6371	1333.7311	LAWN
1342	935827.9845	686546.2770	1334.1632	LAWN
1343	935756.7310	686541.1694	1335.3975	LAWN
1344	935652.9705	686532.7604	1335.1178	LAWN

1345	935346.9140	686524.7282	1334.6891	LAWN
1346	935443.3782	686516.6877	1334.7777	LAWN
1347	935340.3392	686511.9697	1335.3414	LAWN
1348	935261.3047	686505.3975	1335.9345	LAWN
1349	935207.7172	686500.8816	1336.9260	LAWN
1350	935160.2606	686496.9530	1340.8564	LAWN
[illegible]	935142.2789	686495.7547	1342.0104	LAWN
[illegible]	933045.5904	691184.6433	1323.5922	LAWN
1361	933012.7367	691171.2637	1322.0230	CONC
1362	933006.5475	691168.4693	1321.8439	CONC
1363	932985.2860	691157.4454	1321.7382	LAWN
1364	932974.9163	691151.7874	1322.1870	LAWN
1365	932669.5323	691101.6430	1320.9944	LAWN
1366	932847.4340	691087.1776	1320.0984	LAWN
1367	932792.3096	691061.1136	1320.5469	LAWN
1368	932771.5852	691053.1181	1320.4763	LAWN
1369	932760.1371	691047.8579	1319.5606	LAWN
1370	932750.7728	691043.3159	1319.4264	CONC
1371	932744.1489	691041.3107	1319.3064	CONC
1372	932738.2430	691038.5799	1318.8872	LAWN
1373	932705.7194	691022.6775	1318.4172	LAWN
1374	932680.3490	691010.0078	1317.7578	LAWN
1375	932656.3228	690995.9764	1315.7435	LAWN
1376	932626.6032	690980.9705	1315.7326	LAWN
1377	932595.0265	690964.2177	1315.2496	LAWN
1378	932581.3688	690956.6653	1315.1743	LAWN
1379	932527.3209	690928.7260	1315.5332	LAWN
1380	932506.5994	690917.5501	1315.9937	LAWN
1381	932470.7704	690898.5884	1318.3125	LAWN
1382	932447.2734	690884.5396	1321.1396	LAWN
1383	932431.4457	690873.3587	1323.6380	LAWN
[illegible]	932411.0071	690859.2182	1323.9763	LAWN
[illegible]	931388.0796	692521.9409	1320.2183	LAWN
1391	931399.0825	692529.4882	1319.3688	LAWN
1392	931429.7015	692549.8766	1318.1204	LAWN
1393	931523.4230	692624.5833	1315.4720	LAWN
1394	931548.7718	692648.3120	1314.8485	LAWN
1395	931566.0709	692649.5165	1315.0008	CONC
1396	931572.2213	692657.2774	1314.8488	CONC
1397	931609.8831	692685.6261	1313.8050	LAWN
1398	931639.2918	692706.3112	1312.5309	LAWN
1399	931670.4356	692729.0745	1311.1861	LAWN
1400	931706.3942	692756.0801	1310.4349	LAWN
1401	931741.4521	692784.1757	1310.7320	LAWN
1402	931758.9581	692798.0718	1311.2696	CONC
1403	931764.5879	692802.2276	1311.3586	CONC
1404	931776.7103	692812.9776	1311.5801	LAWN
1405	931785.9588	692821.9876	1312.1417	CONC
1406	931791.0912	692826.6689	1312.3064	CONC
1407	931814.2192	692843.9495	1312.9801	LAWN
1408	931853.1743	692872.6353	1313.1641	LAWN
1409	931893.9865	692904.2407	1313.8784	LAWN
1410	931925.9417	692932.4601	1314.9015	LAWN
1411	931942.2196	692942.3630	1316.0643	LAWN
1412	931956.5776	692955.7924	1319.5463	LAWN
1413	931963.8825	692959.7921	1319.8967	LAWN
1420	942208.4795	681305.7170	1371.6360	AC
[illegible]	942211.1680	681303.7926	1372.3073	C&G
[illegible]	942217.1156	681298.7023	1372.5690	C WALK
1423	942247.5125	681271.0558	1372.2413	GRAV
1424	942276.9550	681242.5109	1371.2286	GRAV
1425	942282.6103	681235.8139	1367.8067	GRAV
1426	942294.9476	681225.4966	1367.4503	GRAV
1427	942309.5262	681210.8652	1374.8126	GRAV
1428	942316.5663	681203.1474	1374.6571	LAWN

1430	942356.7380	681164.6691	1366.9022	CONC
1431	942367.1071	681156.1868	1366.5943	CONC
1432	942375.3383	681145.0353	1366.5918	LAWN
1433	942392.6220	681127.6834	1368.6666	LAWN
1434	942402.2381	681118.0827	1366.0759	LAWN
1435	942452.4404	681071.6228	1365.0273	LAWN
[illegible]6	942502.1425	681023.1176	1365.0646	LAWN
[illegible]7	942536.4250	680993.5934	1360.0677	GRAV
1438	942559.2229	680971.2290	1360.1375	GRAV
1439	942583.9915	680948.7509	1361.3218	GRAV
1440	942598.2012	680934.5168	1361.0738	GRAV
1441	942614.8385	680918.6999	1361.9318	GRAV
1442	942650.3833	680885.9903	1361.5129	GRAV
1443	942661.2258	680875.3694	1362.3431	GRAV
1444	942691.8736	680848.3999	1364.5656	LAWN
1445	942705.3886	680835.5483	1364.2750	LAWN
1446	942730.3436	680811.6455	1365.5396	LAWN
1447	942773.6108	680772.2533	1365.6610	LAWN
1448	942833.9711	680718.1448	1366.7834	LAWN
1449	942893.1182	680663.2744	1367.5306	LAWN
1450	942964.2528	680602.5037	1368.6635	LAWN
1451	942978.8613	680591.6638	1372.7391	LAWN
1452	942988.3350	680584.1081	1372.9562	LAWN
1453	943005.8744	680568.6524	1369.2959	LAWN
1454	943064.1060	680514.8477	1368.8524	LAWN
1455	943119.2310	680460.9030	1369.7589	LAWN
1456	943164.9638	680417.2875	1370.6413	LAWN
1457	943194.1924	680388.3581	1371.8640	LAWN
1458	943217.8552	680365.9412	1376.0228	LAWN
1459	943259.8762	680326.3730	1376.0406	LAWN
1460	943269.6729	680317.4529	1375.3332	CONC
1461	943278.7903	680309.2082	1375.2272	CONC
[illegible]2	943296.3928	680294.8263	1374.9903	GRAV
1463	943318.5210	680277.6413	1375.5855	AC
1464	943336.1901	680262.4310	1375.4867	AC
1465	943359.0683	680242.3479	1375.7676	GRAV
1466	943377.7189	680225.3277	1376.3709	GRAV
1467	943396.1211	680208.3981	1375.9715	GRAV
1468	943417.3199	680191.2609	1376.4753	GRAV
1469	943455.0515	680150.7322	1376.4893	AC
1480	942089.4515	682297.5124	1368.9683	LAWN
1481	942089.6136	682284.3048	1369.7079	LAWN
1482	942090.3299	682274.1161	1367.5720	LAWN
1483	942090.7477	682269.0369	1367.0994	LAWN
1484	942091.1843	682255.8147	1368.6010	LAWN
1485	942093.5919	682217.3302	1365.4297	CONC
1486	942093.7644	682208.7267	1365.3142	CONC
1487	942094.7056	682188.8855	1364.4640	LAWN
1488	942097.1659	682145.6761	1364.5432	LAWN
1489	942100.3397	682106.2627	1364.1444	LAWN
1490	942100.9497	682084.3104	1361.9428	LAWN
1491	942105.0734	682066.0301	1359.6641	LAWN
1492	942106.0362	682056.2482	1359.6984	LAWN
1493	942107.5524	682037.6208	1362.4927	LAWN
1494	942109.6599	682009.8304	1368.2005	LAWN
1495	942110.5611	681994.0836	1368.8796	LAWN
1496	942110.9970	681982.2379	1369.0661	LAWN
[illegible]7	942111.9604	681967.5192	1367.2593	LAWN
[illegible]8	942112.7479	681946.5868	1366.4364	LAWN
1499	942113.8392	681930.7562	1365.2458	LAWN
1500	942115.4160	681907.2337	1366.0526	LAWN
1501	942115.7451	681902.5263	1364.3288	GRAV
1502	942116.3436	681895.5973	1363.9683	GRAV
1503	942116.9568	681887.6739	1364.4476	GRAV
1504	942117.3461	681883.7161	1365.9971	LAWN

1507	942123.5569	681811.0209	1364.7658	LAWN
1508	942125.2210	681786.8735	1362.1040	LAWN
1509	942128.3423	681751.6764	1361.6972	LAWN
1510	942130.3075	681727.6750	1361.8436	LAWN
1511	942131.2550	681713.0969	1362.5794	LAWN
1512	942131.7954	681695.8402	1361.2783	LAWN
1513	942131.6130	681693.1150	1359.4487	INLET
1514	942133.8798	681686.3958	1359.5145	INLET
1515	942134.0506	681684.0328	1360.7406	LAWN
1516	942132.5529	681679.4317	1362.2265	LAWN
1517	942138.3443	681646.2273	1362.7128	LAWN
1518	942137.3040	681630.8195	1362.4965	LAWN
1519	942135.1820	681615.8897	1361.3623	LAWN
1520	942136.9087	681602.6060	1362.0630	LAWN
1521	942136.5271	681587.9063	1363.3747	LAWN
1522	942141.2071	681553.3298	1365.9077	LAWN
1523	942141.5969	681540.3247	1366.1156	LAWN
1524	942144.8026	681531.0991	1367.9242	LAWN
1525	942144.9525	681527.8702	1367.3673	CONC
1526	942145.6876	681517.0369	1367.6559	CONC
1527	942147.1540	681504.7962	1371.2315	LAWN
1528	942147.6690	681493.2909	1373.4537	LAWN
1529	942147.9993	681483.4461	1372.8166	LAWN
1530	942149.4383	681464.7019	1366.9308	CONC
1531	942149.6079	681456.6015	1366.8834	CONC
1532	942149.7920	681442.7714	1366.5251	GRAV
1533	942149.7498	681440.4686	1363.7432	INLET
1534	942151.5236	681433.6715	1363.6065	INLET
1535	942151.6840	681432.2915	1366.5675	GRAV
1536	942153.1536	681415.7920	1371.7643	GRAV
1537	942154.0797	681403.1960	1373.9901	C WALL
1538	942154.4445	681398.4425	1373.8906	C&G
1539	942154.4734	681396.4520	1373.3786	AC

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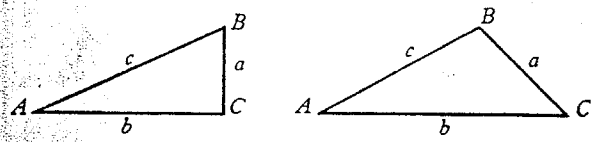
SCOTTSDALE G.I.S.

MAPPING CHECKS

NATIONAL
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)\ (c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)\ (s-b)\ (s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

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SCOTTSDALE G.I.S.
MAPPING CHECKS

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2	52594.1	28TH ST. & T-BIRD
3	52594.2	" " "
4	60194.1	56TH ST. & MTN. VIEW
5	60194.2	" " "
6	60194.3	" " "
7	—	SET TRAV. PT. #969
8	60194.4	INVERGRDN. & Calle Buena
9	60194.5	" " " "
10	60194.6	RE-SHOOT CHOLLA & TATUM
11	60194.7	" " " " "

1481 MAPPING CHECKS

TATUM & CHOLLA

T @ # 212 B/C IN H/H INT TATUM &

BS. # 207 B/C IN H/H INT. 40TH ST.

B.S. 00-00-00

T H.I.: 6.25 B.S. PRISM = 5.67

POGO = 20.20

Pt #	CODE	DESC
1001	32	B.S. INFO
1002	305.4	E/P
1040	306.3	(306.2 INPUT)
1047	203	O.G. (FILE 2) (10.55 POGO)
1096	305.4	E/P (LAST SHOT - POGO: 10.55)

JOB I.D. 52094.1 5-20-94 (1)

FILE 1

CHOLLA

& CHOLLA (GARBAGE FILE)

RE-SHOT

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MAPPING CHECKS

28TH ST. & T-BIRD

TC # 202 C.O.P. B/C FLUSH 28TH ST. & T-BIRD

BS # 205 C.O.P. B/C IN H/H 32ND ST. & T-BIRD (0.6' BELOW FIN. SURFACE)

BS 00-00-00

S.L.D. = 2646.94 (.164)

T H.I. = 5.44 B.S PRISM = 6.10

POGO = 8.60

Pt#	CODE	DESC.
1101	32	B.S INFO (FILE 1)
1104	305	A.C.
1108	307	Y.G.
1138	305	A.C INT. 28TH & SWEETWATER (POGO = 10.00)
1158	305	A.C. (LAST SHOT - POGO = 10.00)

JOB I.D. 52594.1 ②

MAP 1. FLD

BRG. = N 89-19-40 E

HD = 2646.300

1481

MAPPING CHECKS

E. OF T-BIRD

TR # 202 C.O.P. BC FLUSH

B.S. # 205 C.O.P. BC IN HH

BS 00-00-00

T H.I. = 5.44 POGO = 6.00

Pt#	CODE	DESC
1201	32	B.S. INFO (FILE 2)
1202	305	A.C.
1232	305	A.C. INT 32ND ST. & T-BIRD (POGO = 8.00)
1243	305.4	E/P
1244	302.5	T.B.C.
1245	306.3	T.B.W.
1246	202	G.B. GROUND SHOTS
1253	202	" " " @ FENCE (LAST SHOT POGO = 8.00)

JOB I.D. 52594.2 ③

MAP 2 FLD

INT. 28TH ST. & T-BIRD

INT. 32ND ST. & T-BIRD (0.6' BELOW F/S)

BRG = N 89-19-40 E

HD = 2646.300

1481

MAPPING CHECKS

W. OF 56TH ST. & MOUNTAIN VIEW

T @ # 216 B/C FLUSH INT 56TH ST.

B.S. # 221 C.D.S. B/C FLUSH W. SIDE

B.S. 00-00-00 SLD = 5243.037

T H.I = 5.58 B.S. PRISM = 5.67

POGO = 8.60

Pt#	CODE	DESC.
1260	145	LAWN (O.G.)
1265	132	GRAVEL (EDGE OF BUNKER)
1272	145	LAWN (O.G. POGO = 12.00)
1285	132	GRAVEL (O.G. LAST SHOT POGO = 12.00)

JOB I.D. 60194.1

MAP 3 FLD

(4)

T - C. MIHELICH

F - T. PRICE

& MOUNTAIN VIEW

INVERGORDON @ MTN. VIEW RD.

(.033)

BRG = S 87-50-36 E

H.D = 5243.325

1481 MAPPING CHECKS

SW. OF 56TH ST & MTN VIEW

π @ #216

B.S. #221

B.S. 00-00-00

π H.I = 5.58 B.S. PRISM = 5.67

POGO = 12.00

PT#	CODE	DESC
1290	132	GRAVEL (O.G.)
1319	101	A.C. (LAST SHOT POGO=12.00)

JOB. I.D. 601942 (5)

MAP & FLD

BRG. = S 87-50-36 E

HD = 5243.325

1481 MAPPING CHECKS

S. OF 56TH ST. & MTN VIEW

T @ #216

B.S. #221

B.S. 00-00-00

T H.I. = 5.58 B.S. PRISM = 5.67

POGO = 12.00

Pt#	CODE	DESC.
1330	101	A.C.
1351	145	LAWN (O.G. LAST SHOT — POGO = 12.00)

JOB I.D. 60194.3 (6)

MAP S. FLD

BRG. = S 87-50-36 E

HD = 5243.325

1481 MAPPING CHECKS

π @ # 220 T.O.P.V. BC FLUSH
BS # 221 C.O.S. BC FLUSH
FS TRAV. PT. # 969 SET PK

↑ H.I. = 5.64 BS PRISM = 5.67
FS PRISM = 5.18

BS 1 = 0-00-00 FS 2 = 182-07-45
FS 1 = 2-07-43 BS 2 = 180-00-01
M = 2-07-43 M = 2-07-44
M = 2-07-44

BM	+	H.I.	−	ELEV.
# 220				1318.92
	5.81	24.73		
			8.07	
TP #969				1316.66
	7.69	24.35		
			5.43	
# 220				1318.92
	13.50		13.50	

SET TRAV. PT. ⑦

BRG = N 0-07-29 E HD = 5288.665

INT. INVERGORDON & CALLE BRUVIRA
W. SIDE INVERGORDON @ MTN. VIEW RD.
NAIL IN A.C. WALK

CALC COORDS = N 932088.1702
E 691877.0377

BS	FS
Vt. ∡ = 89-46-15	Vt. ∡ = 90-13-34
SL. D. = 5288.406	SL. D. = 706.509
Hz. D. = 5288.364	Hz. D. = 706.504
Vt. DIFF = +21.769	Vt. DIFF = −2.782

ADJ. EL. DESC.

T.O.P.V. BC FLUSH @ INVERGORDON
AND CALLE BRUVIRA

P.K. NAIL IN A.C. WALK

P.O.B. ✓ IN = ~~0~~

1481 MAPPING CHECKS

INVERGORDON & CALLE BRUVIRA W

↑ @ TRAV. PT. # 969 P.K. NAIL IN A.C. WALK

BS # 220 T.O.P.V. BC FLUSH INT. INVERGORDON & CALLE BRUVIRA

BS = 0-00-00 SL D. = 706.512 (.509)

BRG. = S 02-15-13 W

HD = 706.504

↑ H.I. = 5.47 BS PRISM = 5.23

POGO = 12.00

PT #	CODE	DESC.
1360	145	LAWN (O.G.)
1384	145	" " (LAST SHOT POGO = 12.00)

JOB I.D. 601944

MAP 6 FLD

(8)

1481 MAPPING CHECKS

INVERGORDON & CALLE BRUVIRA E.

JOB I.D. 60194.5

MAP 7. FLD

⊼@ TRAV PT. #969

B.S. #220

B.S. 00-00-00

BRG = S 02-15-13 W

HD = 706.504

⊼ H.I. = 5.47 B.S. PRISM = 5.23

POGO = 12.00

Pt#	CODE	DESC.
1390	145	LAWN (0.6)
1392	145	" " (POGO = 5.00)
1403	111	CONC. S/W (POGO = 2.00)
1407	145	LAWN (0.6 POGO = 5.00)
1413	145	" (" POGO = 5.00)
		(LAST SHOT)

1481 MAPPING CHECKS

RE-SHOOT CHOLLA & TATUM WEST

T @ #212 B/C IN H/H INT. TATUM & CHOLLA (0.70' BELOW FIN. SURFACE)

B.S. #207 B/C IN H/H INT. 40TH ST. & CHOLLA (0.80' BELOW FIN. SURFACE)

BS 00-00-00

SL. DIST = 5445.512 (.725)

T H.I. = 6.36 B.S. PRISM = 6.02

POGO = 10.50

Pt #	CODE	DESC.
1420	101	A.C.
1437	132	GRAVEL (0.6) (POGO 15.36)
1420	101	A.C. (LAST SHOT POGO = 15.36)

BRG. = N 89-38-37 W

HD = 5445.774

JOB I.D. 60194.6

MAP 8, FLD

1481 MAPPING CHECKS

RE SHOOT TATUM & CHOLLA EAST

T @ # 212

B.S. # 207

B.S 00-00-00

T HI = 6.36 B.S. PRISM = 6.02

POGO = 10.50

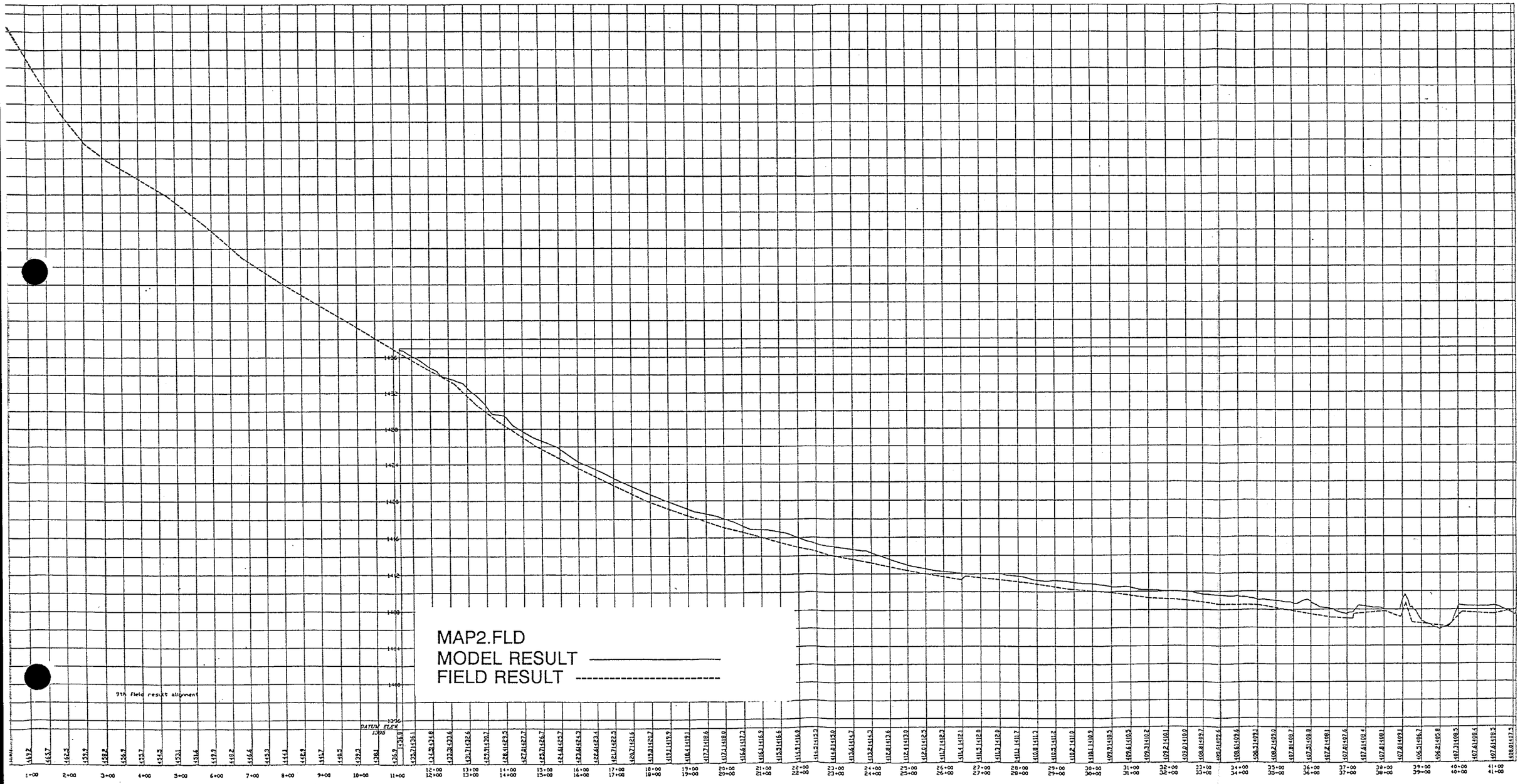
Pt #	CODE	DESC.
1480	145	LAWN (O.G.)
1512	145	" " (POGO = 15.36)
1539	101	A.C. (POGO = 15.36 (LAST SHOT END SET-UP)

JOB I.D. 60194.7

MAP9.FLD

BRG = N 89-38-37 W

HD = 5445.774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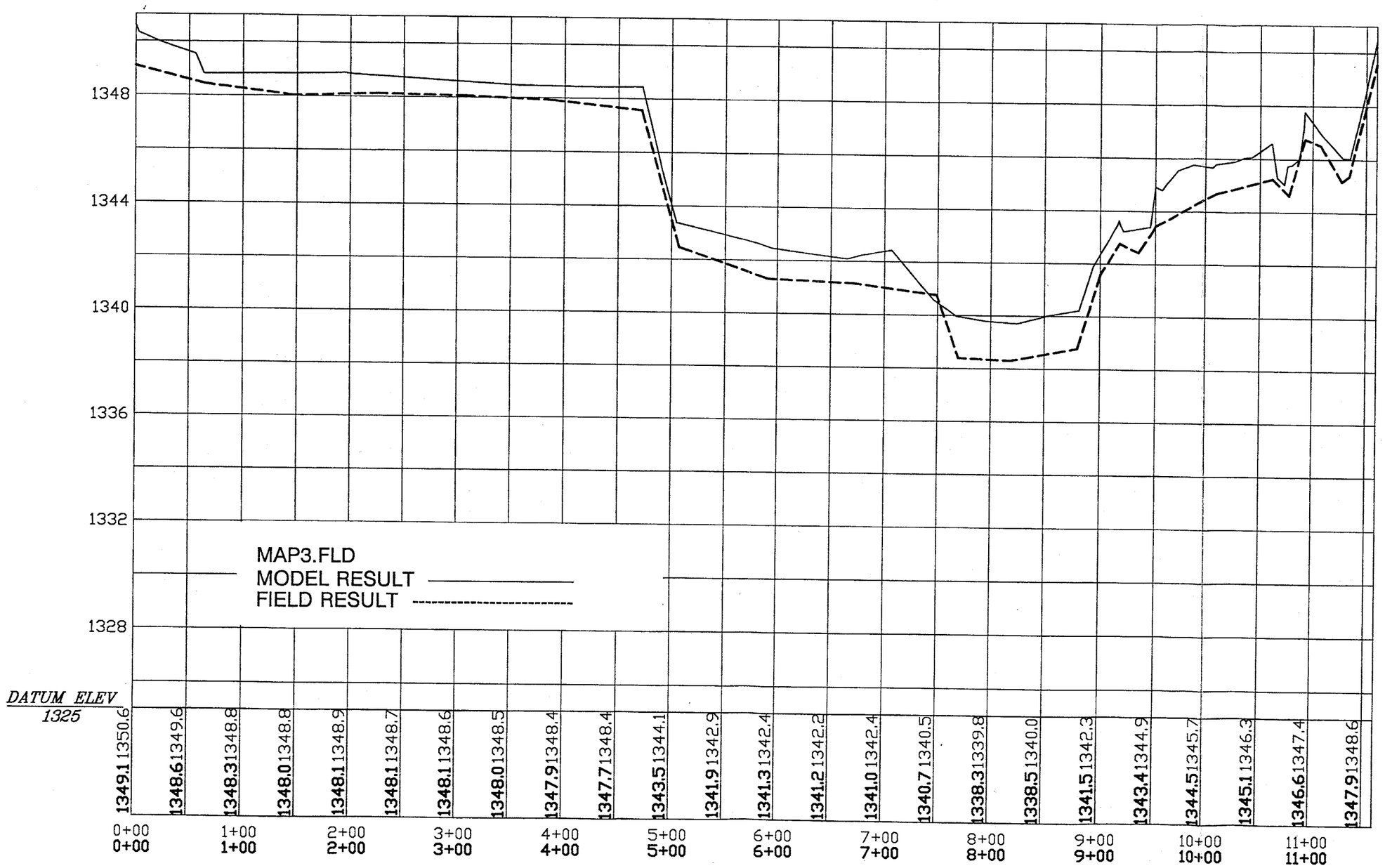
FIELD RESULT
9th field result alignment
DATUM ELEV
1395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1344
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1332
1328
DATUM ELEV
1325
MAP3.FLD
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FIELD RESULT
1349.1 1350.6
1348.6 1349.6
1348.3 1348.8
1348.0 1348.8
1348.1 1348.9
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1348.1 1348.6
1348.0 1348.5
1347.9 1348.4
1347.7 1348.4
1343.5 1344.1
1341.9 1342.9
1341.3 1342.4
1341.2 1342.2
1341.0 1342.4
1340.7 1340.5
1338.3 1339.8
1338.5 1340.0
1341.5 1342.3
1343.4 1344.9
1344.5 1345.7
1345.1 1346.3
1346.6 1347.4
1347.9 1348.6
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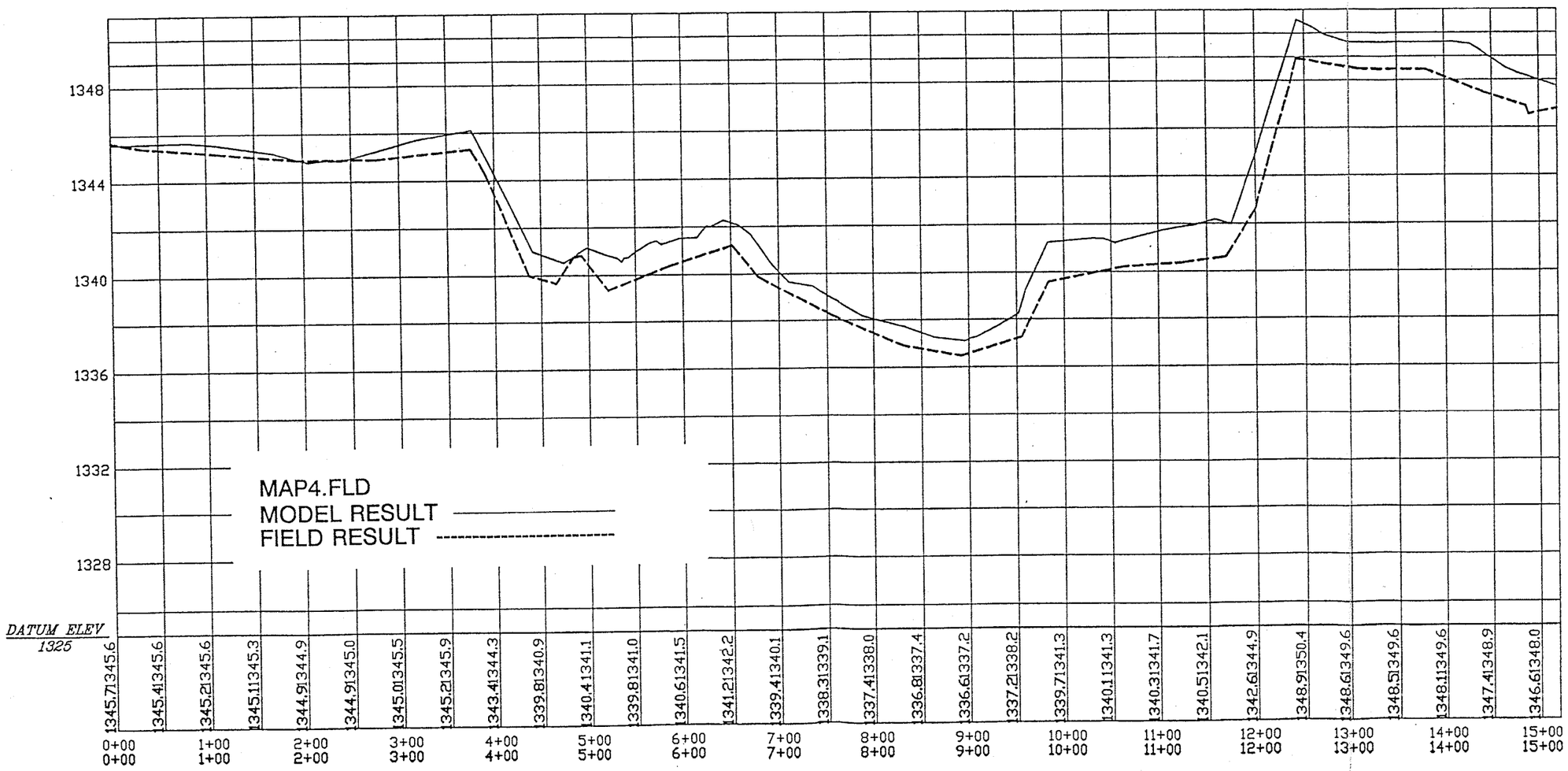
10+00 10+00
11+00 11+00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1336
1332
1328
DATUM ELEV
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MAP4.FLD
MODEL RESULT
FIELD RESULT
1345.7 1345.6
1345.4 1345.6
1345.2 1345.6
1345.1 1345.3
1344.9 1344.9
1344.9 1345.0
1345.0 1345.5
1345.2 1345.9
1343.4 1344.3
1339.8 1340.9
1340.4 1341.1
1339.8 1341.0
1340.6 1341.5
1341.2 1342.2
1339.4 1340.1
1338.3 1339.1
1337.4 1338.0
1336.8 1337.4
1336.6 1337.2
1337.2 1338.2
1339.7 1341.3
1340.1 1341.3
1340.3 1341.7
1340.5 1342.1
1342.6 1344.9
1348.9 1350.4
1348.6 1349.6
1348.5 1349.6
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1347.4 1348.9
1346.6 1348.0
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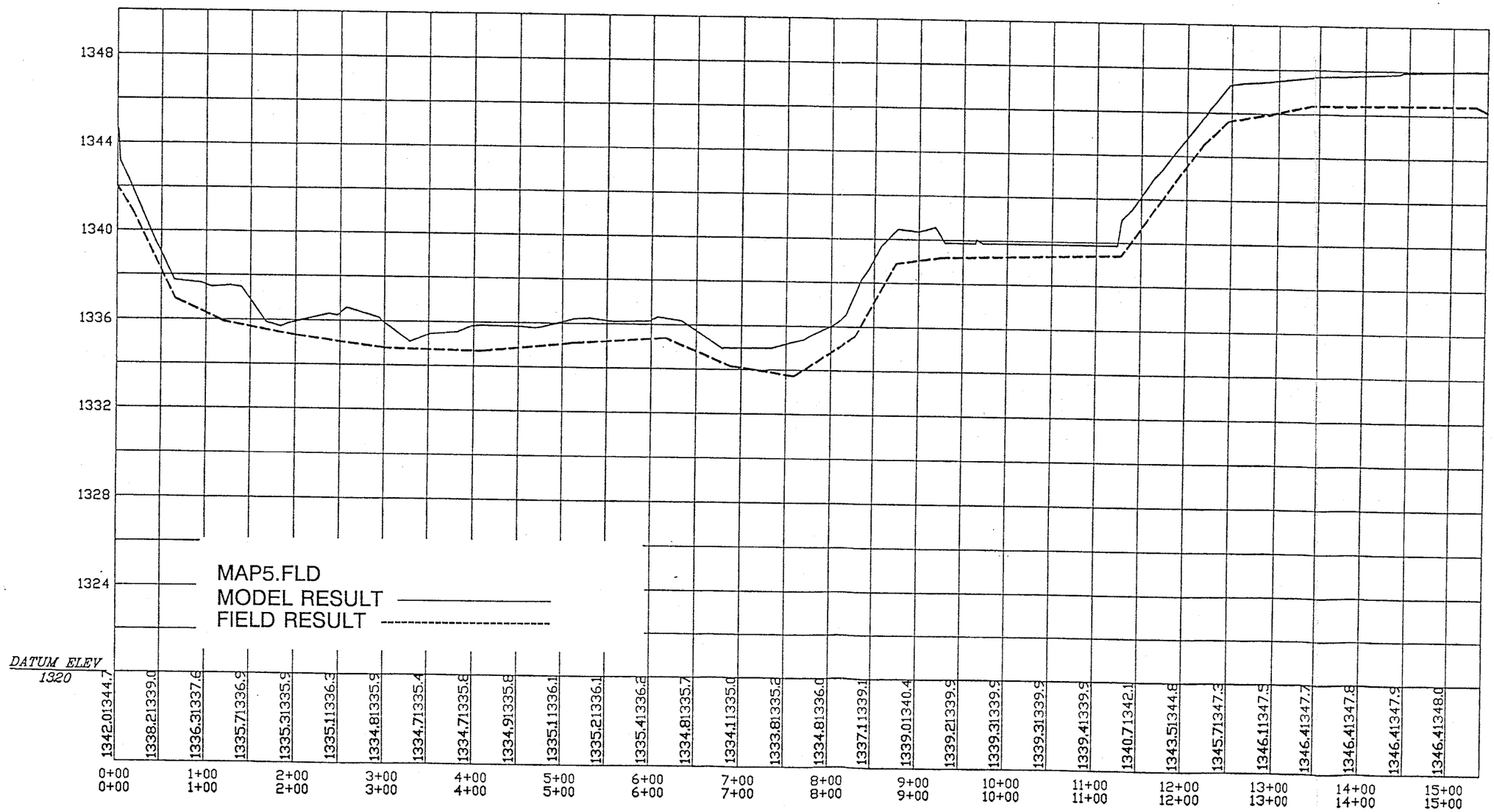
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DATUM ELEV
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1335.7 1336.9
1335.3 1335.9
1335.1 1336.3
1334.8 1335.9
1334.7 1335.4
1334.7 1335.8
1334.9 1335.8
1335.1 1336.1
1335.2 1336.1
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1334.8 1335.7
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1333.8 1335.2
1334.8 1336.0
1337.1 1339.1
1339.0 1340.4
1339.2 1339.9
1339.3 1339.9
1339.3 1339.9
1339.4 1339.9
1340.7 1342.1
1343.5 1344.8
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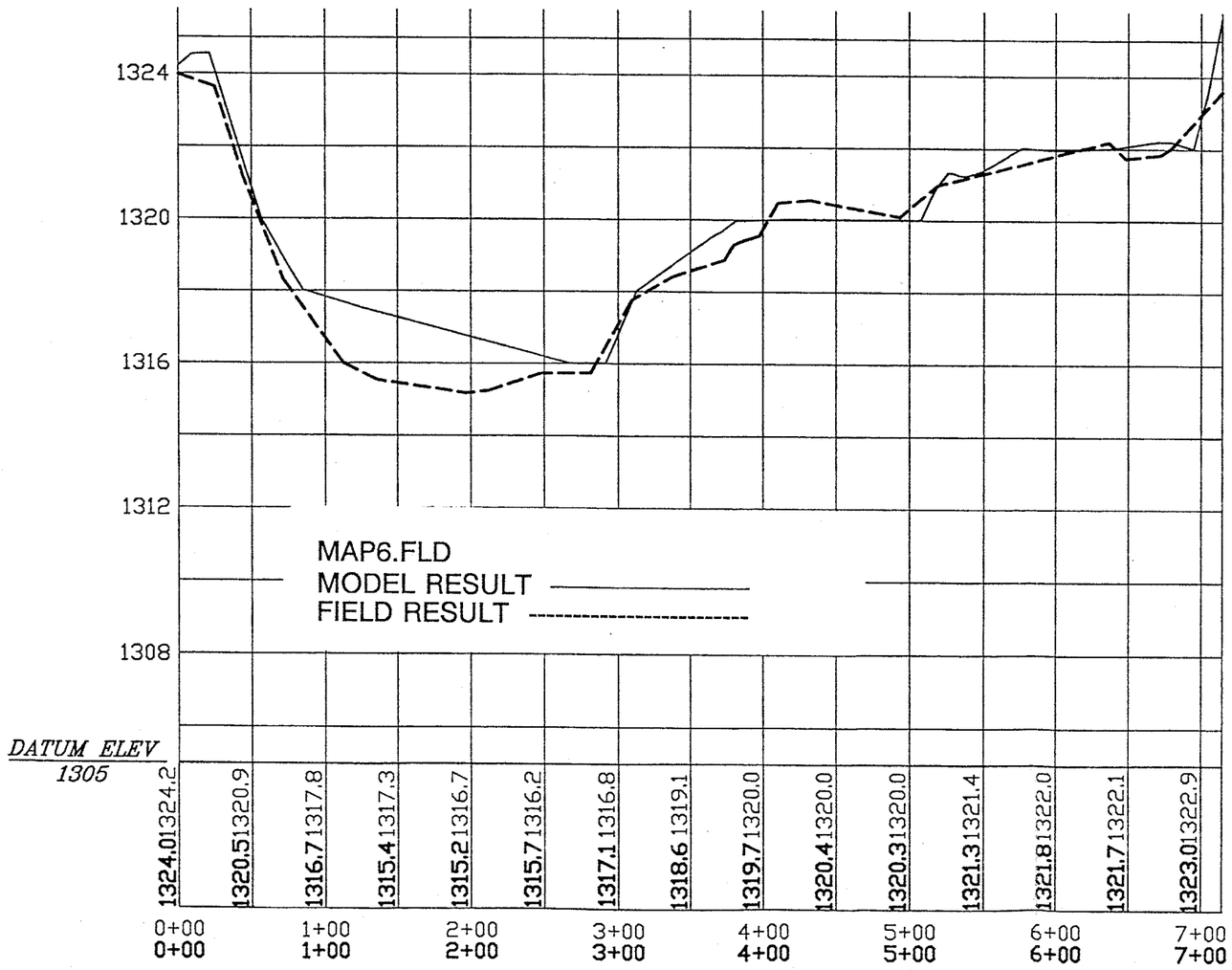
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1312
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FIELD RESULT
DATUM ELEV
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1316.7 1317.8
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1317.1 1316.8
1318.6 1319.1
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1320.4 1320.0
1320.3 1320.0
1321.3 1321.4
1321.8 1322.0
1321.7 1322.1
1323.0 1322.9
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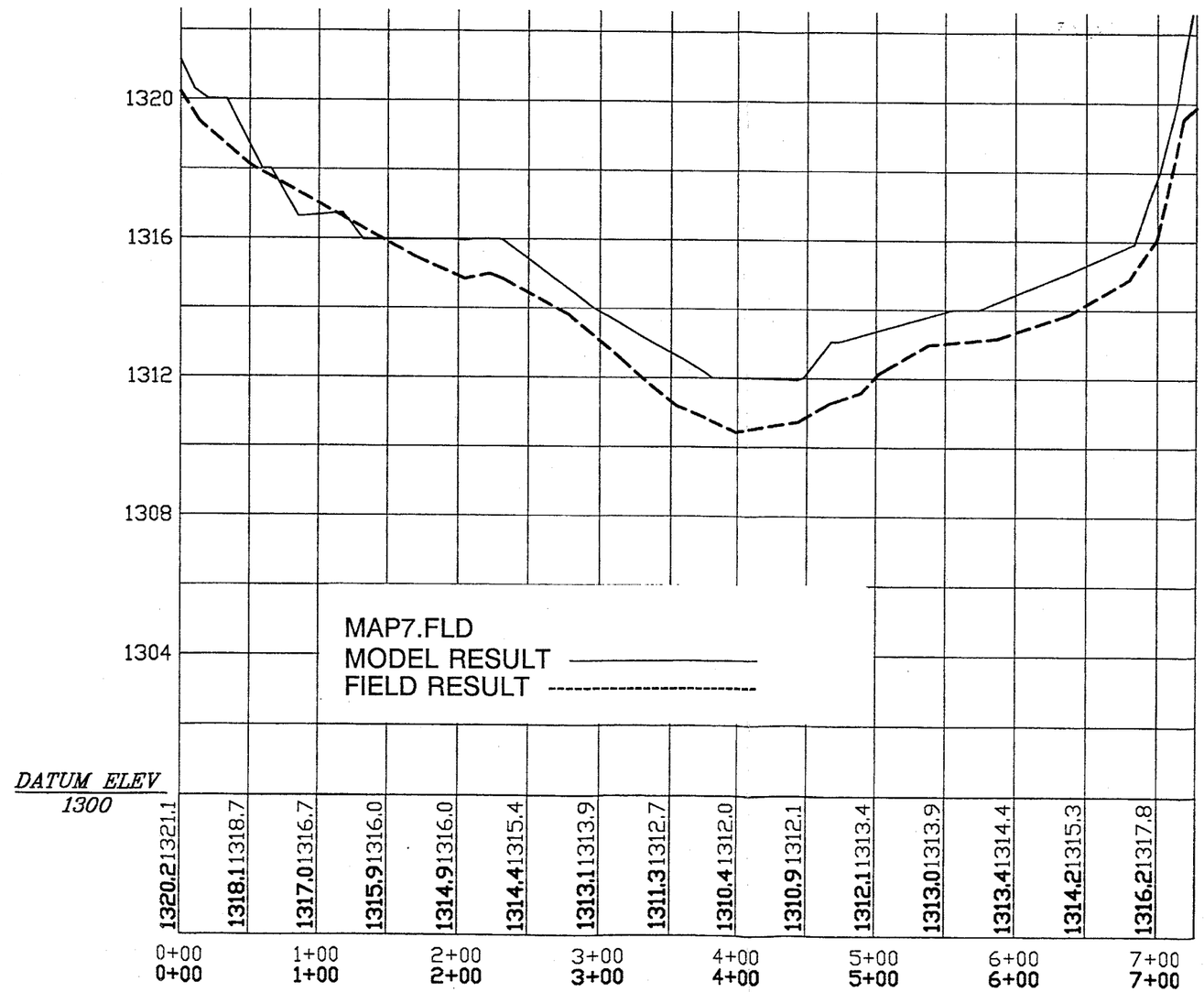
7+00 7+00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1316
1312
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FIELD RESULT
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1314.9 1316.0
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1313.0 1313.9
1313.4 1314.4
1314.2 1315.3
1316.2 1317.8
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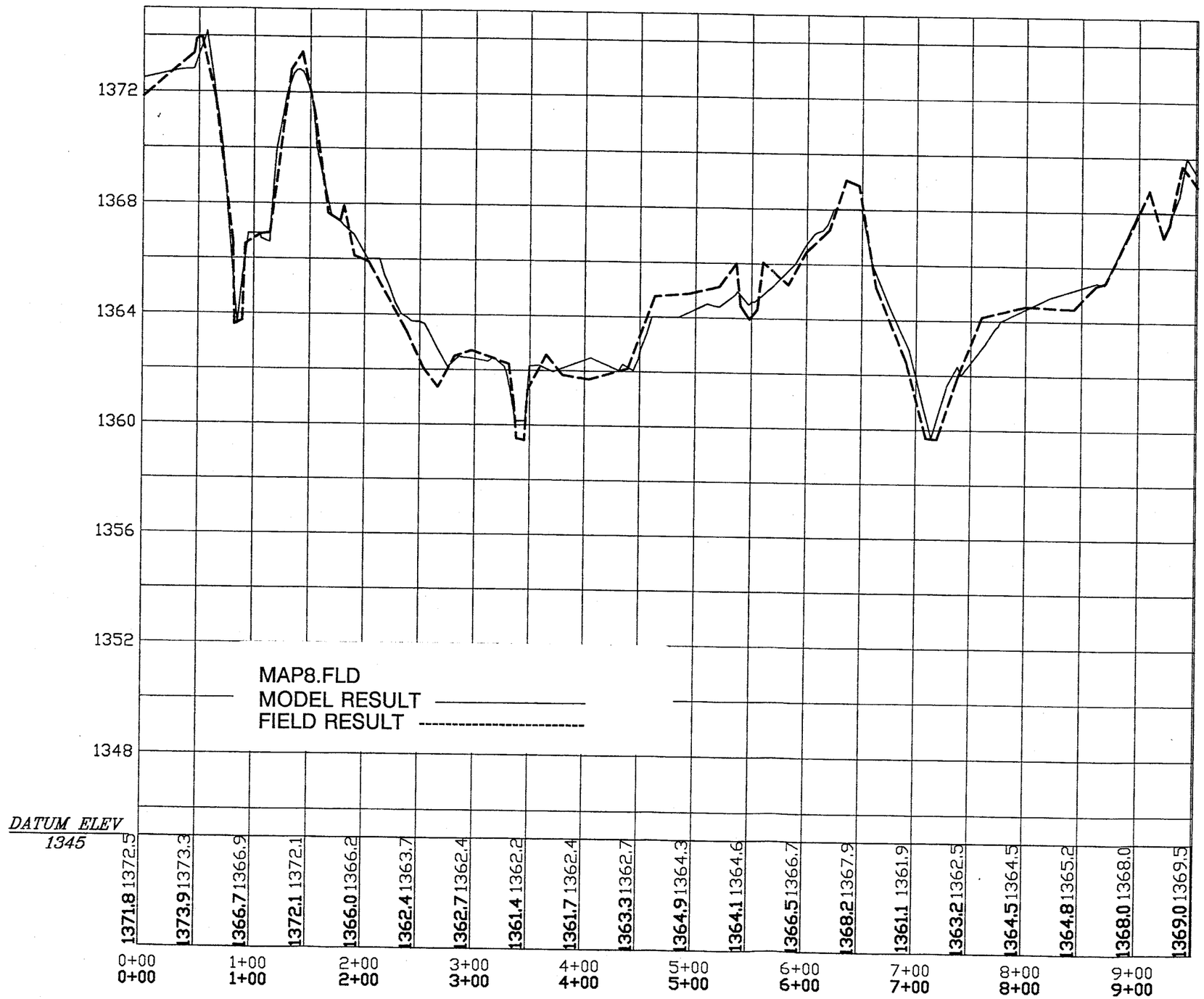
7+00 7+00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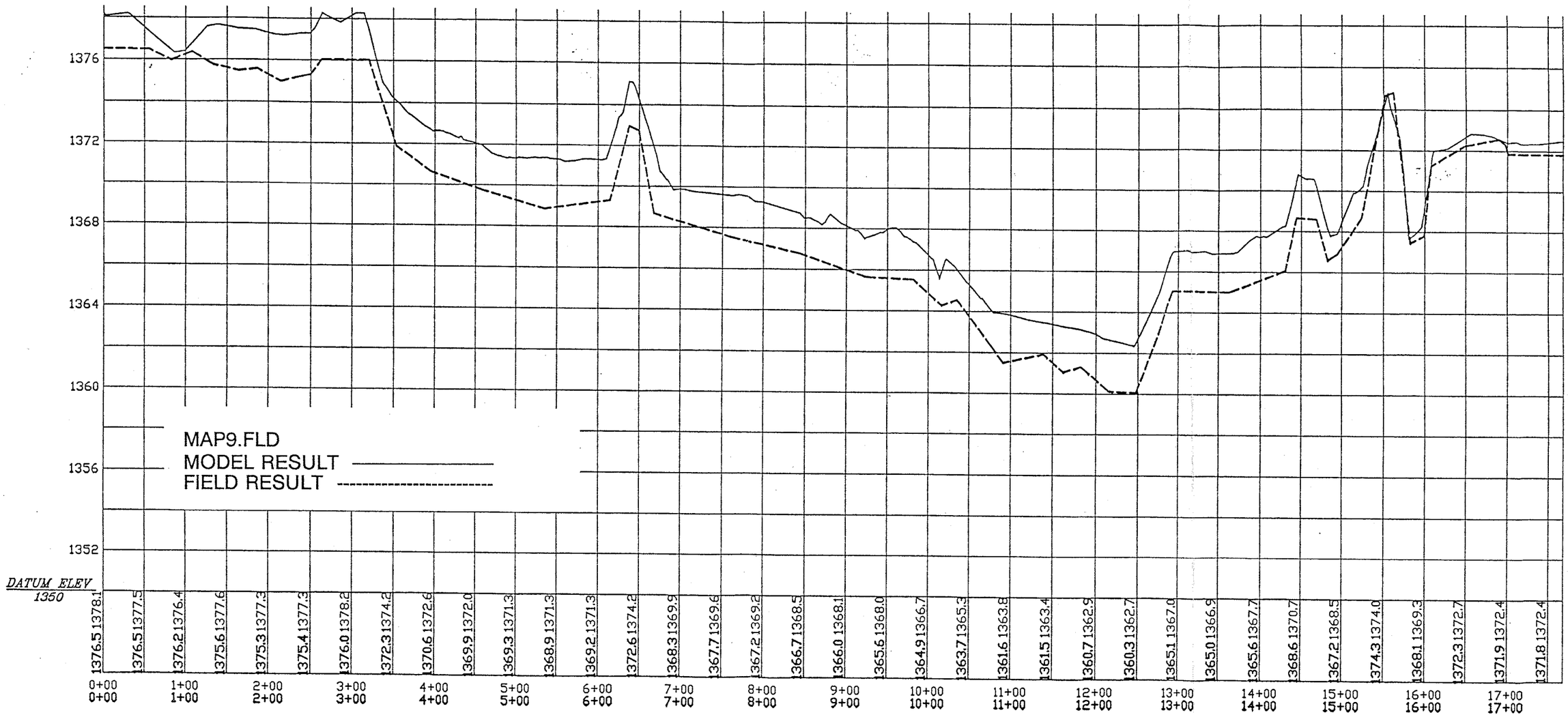
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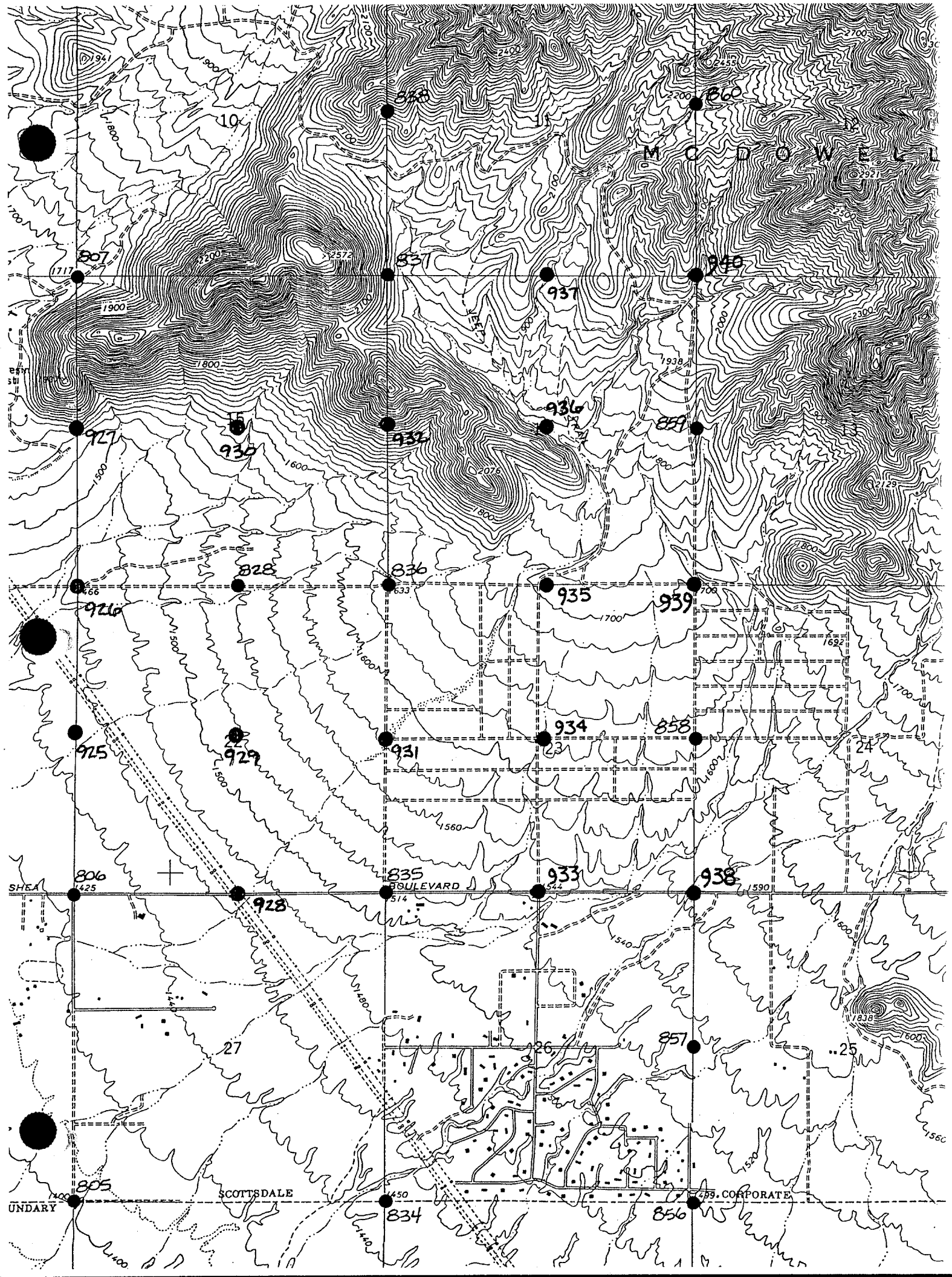
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939
926
934
858
925
929
931
806
835
933
938
928
BOULEVARD
SHEA
857
805
834
856
SCOTTSDALE
CORPORATE
UNDARY
10
11
12
15
16
22
23
24
25
26
27

WILD NA2/3000 data extracted from file C:\GIF10\LDW1

Date: 08-17-1994 Time: 06:39

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
413	0.00	1339.0260	0.0000	1339.0260
1001	415.62	1341.4300	-0.0006	1341.4294
1002	961.61	1344.6100	-0.0015	1344.6085
1003	1447.04	1345.1810	-0.0023	1345.1787
1004	2062.26	1347.1550	-0.0032	1347.1518
1005	2715.34	1349.0040	-0.0042	1348.9998
1006	3233.18	1348.0020	-0.0050	1347.9970
1007	3854.47	1351.3060	-0.0060	1351.3000
1008	4434.85	1354.1000	-0.0069	1354.0931
1009	5046.92	1356.4700	-0.0079	1356.4621
1010	5704.60	1355.3240	-0.0089	1355.3151
1011	6285.54	1358.2160	-0.0098	1358.2062
1012	6665.63	1359.8710	-0.0104	1359.8606
1013	7258.31	1360.1210	-0.0113	1360.1097
1014	7862.38	1359.7760	-0.0122	1359.7638
1015	8500.20	1362.2610	-0.0132	1362.2478
1016	9146.30	1363.0830	-0.0142	1363.0688
1017	9809.59	1363.5100	-0.0153	1363.4947
1018	10391.51	1363.0700	-0.0162	1363.0538
1019	10953.48	1367.9270	-0.0171	1367.9099
1020	11494.89	1372.5070	-0.0179	1372.4891
1021	12126.71	1375.2960	-0.0189	1375.2771
1022	12672.41	1378.5700	-0.0197	1378.5503
1023	13245.50	1381.9590	-0.0206	1381.9384
1024	13834.05	1385.9850	-0.0215	1385.9635
1025	14193.17	1388.3650	-0.0221	1388.3429
1026	14794.58	1392.2280	-0.0230	1392.2050
1027	15406.72	1398.3690	-0.0240	1398.3450
1028	15970.86	1403.4290	-0.0249	1403.4041
1029	16535.16	1409.9520	-0.0257	1409.9263
1030	17176.50	1417.8100	-0.0267	1417.7833
1031	17746.84	1419.6620	-0.0276	1419.6344
1032	18366.59	1421.0960	-0.0286	1421.0674
1033	18969.31	1421.0750	-0.0295	1421.0455
1034	19547.72	1423.1180	-0.0304	1423.0876
806	19807.33	1426.2910	-0.0308	1426.2602
1035	20078.66	1422.6980	-0.0313	1422.6667
1036	20678.99	1421.3220	-0.0322	1421.2898
1037	21313.17	1421.2170	-0.0332	1421.1838
1038	21898.89	1419.5920	-0.0341	1419.5579
1039	22437.93	1417.9860	-0.0349	1417.9511
1040	23098.59	1409.6420	-0.0360	1409.6060
1041	23698.75	1403.5150	-0.0369	1403.4781
1042	24310.03	1397.4280	-0.0378	1397.3902
1043	24926.14	1391.7210	-0.0388	1391.6822
1044	25478.08	1388.1620	-0.0397	1388.1223
1045	25888.87	1385.5060	-0.0403	1385.4657
1046	26460.46	1381.8590	-0.0412	1381.8178
1047	27030.38	1378.2470	-0.0421	1378.2049
1048	27650.10	1374.4850	-0.0430	1374.4420
1049	28198.82	1372.1310	-0.0439	1372.0871
1050	28773.72	1367.3210	-0.0448	1367.2762
1051	29311.90	1362.5750	-0.0456	1362.5294
1052	29920.17	1363.4320	-0.0466	1363.3854
1053	30504.16	1363.0870	-0.0475	1363.0395
1054	31123.58	1362.0970	-0.0485	1362.0485
1055	31678.24	1359.9720	-0.0493	1359.9227

1057	32930.02	1359.6390	-0.0513	1359.5877
1058	33542.78	1357.8610	-0.0522	1357.8088
1059	34121.00	1355.0190	-0.0531	1354.9659
1060	34621.49	1356.4860	-0.0539	1356.4321
1061	35177.30	1354.1340	-0.0548	1354.0792
1062	35733.27	1351.6050	-0.0556	1351.5494
1063	36310.01	1348.7340	-0.0565	1348.6775
1064	36941.44	1349.1750	-0.0575	1349.1175
1065	37465.55	1347.1540	-0.0583	1347.0957
1066	37860.66	1346.2940	-0.0589	1346.2351
1067	38293.67	1345.3860	-0.0596	1345.3264
1068	38832.02	1344.9490	-0.0605	1344.8885
1069	39390.36	1341.4880	-0.0613	1341.4267
413	39821.46	1339.0880	-0.0620	1339.0260

110002+00000413	32..01+00190980	331101+00006588	
110003+00001001	32..01+00224640	332101+00004184	83..01+01341430
110004+00001001	32..01+00267680	331101+00007440	
110005+00001002	32..01+00278310	332101+00004260	83..01+01344611
110006+00001002	32..01+00299800	331101+00005635	
110007+00001003	32..01+00185630	332101+00005064	83..01+01345182
110008+00001003	32..01+00314240	331101+00006153	
110009+00001004	32..01+00300980	332101+00004179	83..01+01347156
110010+00001004	32..01+00317390	331101+00006387	
110011+00001005	32..01+00335690	332101+00004538	83..01+01349005
110012+00001005	32..01+00248880	331101+00005279	
110013+00001006	32..01+00268960	332101+00006281	83..01+01348003
110014+00001006	32..01+00324180	331101+00007032	
110015+00001007	32..01+00297110	332101+00003728	83..01+01351307
110016+00001007	32..01+00281790	331101+00007045	
110017+00001008	32..01+00298590	332101+00004251	83..01+01354101
110018+00001008	32..01+00315060	331101+00006428	
110019+00001009	32..01+00297010	332101+00004058	83..01+01356471
110020+00001009	32..01+00335760	331101+00004215	
110021+00001010	32..01+00321920	332101+00005361	83..01+01355325
110022+00001010	32..01+00292750	331101+00007106	
110023+00001011	32..01+00288190	332101+00004214	83..01+01358218
110024+00001011	32..01+00098460	331101+00005426	
110025+00001012	32..01+00281630	332101+00003771	83..01+01359873
110026+00001012	32..01+00289300	331101+00006129	
110027+00001013	32..01+00303380	332101+00005879	83..01+01360123
110028+00001013	32..01+00319290	331101+00003701	
110029+00001014	32..01+00284780	332101+00004046	83..01+01359778
110030+00001014	32..01+00316990	331101+00006187	
110031+00001015	32..01+00320830	332101+00003702	83..01+01362263
110032+00001015	32..01+00333140	331101+00006766	
110033+00001016	32..01+00312960	332101+00005944	83..01+01363086
110034+00001016	32..01+00339340	331101+00004877	
110035+00001017	32..01+00323950	332101+00004450	83..01+01363513
110036+00001017	32..01+00294390	331101+00004736	
110037+00001018	32..01+00287530	332101+00005176	83..01+01363073
110038+00001018	32..01+00259380	331101+00007616	
110039+00001019	32..01+00302590	332101+00002759	83..01+01367930
110040+00001019	32..01+00249840	331101+00007437	
110041+00001020	32..01+00291570	332101+00002857	83..01+01372509
110042+00001020	32..01+00288450	331101+00006200	
110043+00001021	32..01+00343370	332101+00003411	83..01+01375299
110044+00001021	32..01+00278640	331101+00007025	
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110048+00001023	32..01+00287140	331101+00007541	
110049+00001024	32..01+00301410	332101+00003515	83..01+01385988
110050+00001024	32..01+00090520	331101+00005931	
110051+00001025	32..01+00268600	332101+00003551	83..01+01388369
110052+00001025	32..01+00276770	331101+00007210	
110053+00001026	32..01+00324640	332101+00003347	83..01+01392231
110054+00001026	32..01+00303940	331101+00007612	
110055+00001027	32..01+00308200	332101+00001471	83..01+01398372
110056+00001027	32..01+00268010	331101+00007857	
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110058+00001028	32..01+00288680	331101+00008072	
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110060+00001029	32..01+00305680	331101+00008948	
110061+00001030	32..01+00335660	332101+00001090	83..01+01417812
110062+00001030	32..01+00258140	331101+00006358	
110063+00001031	32..01+00312200	332101+00004506	83..01+01419665
110064+00001031	32..01+00280580	331101+00005196	
110065+00001032	32..01+00339170	332101+00003762	83..01+01421099
110066+00001032	32..01+00327720	331101+00006566	

110068+00001033	32..01+00292160	331101+00005902	
110069+00001034	32..01+00286250	332101+00003859	83..01+01423121
110070+00001034	32..01+00139470	331101+00006379	
110071+00000806	32..01+00120140	332101+00003206	83..01+01426294
110072+00000806	32..01+00120410	331101+00003044	
110073+00001035	32..01+00150920	332101+00006637	83..01+01422701
110074+00001035	32..01+00300330	331101+00004418	
110075+00001036	32..01+00300000	332101+00005794	83..01+01421325
110076+00001036	32..01+00318240	331101+00006680	
110077+00001037	32..01+00315940	332101+00006785	83..01+01421220
110078+00001037	32..01+00270600	331101+00003512	
110079+00001038	32..01+00315120	332101+00005137	83..01+01419595
110080+00001038	32..01+00314340	331101+00004849	
110081+00001039	32..01+00224700	332101+00006455	83..01+01417989
110082+00001039	32..01+00341570	331101+00000871	
110083+00001040	32..01+00319090	332101+00009215	83..01+01409645
110084+00001040	32..01+00302560	331101+00001377	
110085+00001041	32..01+00297600	332101+00007504	83..01+01403518
110086+00001041	32..01+00285330	331101+00002512	
110087+00001042	32..01+00325950	332101+00008599	83..01+01397430
110088+00001042	32..01+00288650	331101+00001859	
110089+00001043	32..01+00327460	332101+00007566	83..01+01391723
110090+00001043	32..01+00285860	331101+00003576	
110091+00001044	32..01+00266080	332101+00007135	83..01+01388163
110092+00001044	32..01+00141010	331101+00004315	
110093+00001045	32..01+00269780	332101+00006971	83..01+01385507
110094+00001045	32..01+00278710	331101+00003598	
110095+00001046	32..01+00292880	332101+00007245	83..01+01381859
110096+00001046	32..01+00275070	331101+00003709	
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110098+00001047	32..01+00315420	331101+00003500	
110099+00001048	32..01+00304300	332101+00007262	83..01+01374486
110100+00001048	32..01+00270700	331101+00003798	
110101+00001049	32..01+00278020	332101+00006152	83..01+01372131
110102+00001049	32..01+00263420	331101+00003174	
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110108+00001052	32..01+00291210	331101+00004441	
110109+00001053	32..01+00292780	332101+00004786	83..01+01363087
110110+00001053	32..01+00324340	331101+00005985	
110111+00001054	32..01+00295080	332101+00006975	83..01+01362097
110112+00001054	32..01+00270800	331101+00004917	
110113+00001055	32..01+00283860	332101+00007042	83..01+01359972
110114+00001055	32..01+00278580	331101+00004740	
110115+00001056	32..01+00322340	332101+00004968	83..01+01359744
110116+00001056	32..01+00341210	331101+00005945	
110117+00001057	32..01+00309650	332101+00006050	83..01+01359640
110118+00001057	32..01+00294520	331101+00003974	
110119+00001058	32..01+00318240	332101+00005752	83..01+01357861
110120+00001058	32..01+00320440	331101+00004368	
110121+00001059	32..01+00257780	332101+00007210	83..01+01355020
110122+00001059	32..01+00232910	331101+00006045	
110123+00001060	32..01+00267580	332101+00004578	83..01+01356486
110124+00001060	32..01+00264340	331101+00004245	
110125+00001061	32..01+00291470	332101+00006597	83..01+01354135
110126+00001061	32..01+00263780	331101+00004241	
110127+00001062	32..01+00292190	332101+00006770	83..01+01351606
110128+00001062	32..01+00262700	331101+00004034	
110129+00001063	32..01+00314040	332101+00006905	83..01+01348735
110130+00001063	32..01+00330940	331101+00005438	
110131+00001064	32..01+00300490	332101+00004997	83..01+01349176
110132+00001064	32..01+00242220	331101+00004572	

110134+00001065	32..01+00214170	331101+00005041	
110135+00001066	32..01+00180940	332101+00005901	83..01+01346295
110136+00001066	32..01+00238390	331101+00005840	
110137+00001067	32..01+00194620	332101+00006748	83..01+01345387
110138+00001067	32..01+00209610	331101+00004803	
110139+00001068	32..01+00328740	332101+00005240	83..01+01344949
40+00001068	32..01+00285470	331101+00004653	
141+00001069	32..01+00272870	332101+00008114	83..01+01341488
110142+00001069	32..01+00234120	331101+00004526	
110143+00000413	32..01+00196980	332101+00006926	83..01+01339088

Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
413	0	0	0	0 / 0.0	0	0	1339.0260
413	6.58800	0	0	0 / 0.0	0	190.98	0
1001	0	4.18400	0	0 / 0.0	0	224.64	1341.4300
1001	7.44000	0	0	0 / 0.0	0	267.68	0
1002	0	4.26000	0	0 / 0.0	0	278.31	1344.6110
1002	5.63500	0	0	0 / 0.0	0	299.80	0
1003	0	5.06400	0	0 / 0.0	0	185.63	1345.1820
1003	6.15300	0	0	0 / 0.0	0	314.24	0
1004	0	4.17900	0	0 / 0.0	0	300.98	1347.1560
1004	6.38700	0	0	0 / 0.0	0	317.39	0
1005	0	4.53800	0	0 / 0.0	0	335.69	1349.0050
1005	5.27900	0	0	0 / 0.0	0	248.88	0
1006	0	6.28100	0	0 / 0.0	0	268.96	1348.0030
1006	7.03200	0	0	0 / 0.0	0	324.18	0
1007	0	3.72800	0	0 / 0.0	0	297.11	1351.3070
1007	7.04500	0	0	0 / 0.0	0	281.79	0
1008	0	4.25100	0	0 / 0.0	0	298.59	1354.1010
1008	6.42800	0	0	0 / 0.0	0	315.06	0
1009	0	4.05800	0	0 / 0.0	0	297.01	1356.4710
1009	4.21500	0	0	0 / 0.0	0	335.76	0
1010	0	5.36100	0	0 / 0.0	0	321.92	1355.3250
1010	7.10600	0	0	0 / 0.0	0	292.75	0
1011	0	4.21400	0	0 / 0.0	0	288.19	1358.2180
1011	5.42600	0	0	0 / 0.0	0	98.46	0
1012	0	3.77100	0	0 / 0.0	0	281.63	1359.8730
1012	6.12900	0	0	0 / 0.0	0	289.30	0
1013	0	5.87900	0	0 / 0.0	0	303.38	1360.1230
1013	3.70100	0	0	0 / 0.0	0	319.29	0
1014	0	4.04600	0	0 / 0.0	0	284.78	1359.7780
1014	6.18700	0	0	0 / 0.0	0	316.99	0
1015	0	3.70200	0	0 / 0.0	0	320.83	1362.2630
1015	6.76600	0	0	0 / 0.0	0	333.14	0
1016	0	5.94400	0	0 / 0.0	0	312.96	1363.0860
1016	4.87700	0	0	0 / 0.0	0	339.34	0
1017	0	4.45000	0	0 / 0.0	0	323.95	1363.5130
1017	4.73600	0	0	0 / 0.0	0	294.39	0
1018	0	5.17600	0	0 / 0.0	0	287.53	1363.0730
1018	7.61600	0	0	0 / 0.0	0	259.38	0
1019	0	2.75900	0	0 / 0.0	0	302.59	1367.9300
1019	7.43700	0	0	0 / 0.0	0	249.84	0
1020	0	2.85700	0	0 / 0.0	0	291.57	1372.5090
1020	6.20000	0	0	0 / 0.0	0	288.45	0
1021	0	3.41100	0	0 / 0.0	0	343.37	1375.2990
1021	7.02500	0	0	0 / 0.0	0	278.64	0
1022	0	3.75100	0	0 / 0.0	0	267.06	1378.5730
1022	7.45500	0	0	0 / 0.0	0	317.19	0
1023	0	4.06600	0	0 / 0.0	0	255.90	1381.9620
1023	7.54100	0	0	0 / 0.0	0	287.14	0
1024	0	3.51500	0	0 / 0.0	0	301.41	1385.9880
1024	5.93100	0	0	0 / 0.0	0	90.52	0
1025	0	3.55100	0	0 / 0.0	0	268.60	1388.3690
1025	7.21000	0	0	0 / 0.0	0	276.77	0
1026	0	3.34700	0	0 / 0.0	0	324.64	1392.2310
1026	7.61200	0	0	0 / 0.0	0	303.94	0
1027	0	1.47100	0	0 / 0.0	0	308.20	1398.3720
1027	7.85700	0	0	0 / 0.0	0	268.01	0
1028	0	2.79700	0	0 / 0.0	0	296.13	1403.4310
1028	8.07200	0	0	0 / 0.0	0	288.68	0
1029	0	1.54900	0	0 / 0.0	0	275.62	1409.9540
1029	8.94800	0	0	0 / 0.0	0	305.68	0
1030	0	1.09000	0	0 / 0.0	0	335.66	1417.8120

1030	0.55800	0	0	0 / 0.0	0	258.14	0
1031	0	4.50600	0	0 / 0.0	0	312.20	1419.6650
1031	5.19600	0	0	0 / 0.0	0	280.58	0
1032	0	3.76200	0	0 / 0.0	0	339.17	1421.0990
1032	6.56600	0	0	0 / 0.0	0	327.72	0
1033	0	6.58700	0	0 / 0.0	0	275.00	1421.0780
1033	5.90200	0	0	0 / 0.0	0	292.16	0
1034	0	3.85900	0	0 / 0.0	0	286.25	1423.1210
1034	6.37900	0	0	0 / 0.0	0	139.47	0
806	0	3.20600	0	0 / 0.0	0	120.14	1426.2940
806	3.04400	0	0	0 / 0.0	0	120.41	0
1035	0	6.63700	0	0 / 0.0	0	150.92	1422.7010
1035	4.41800	0	0	0 / 0.0	0	300.33	0
1036	0	5.79400	0	0 / 0.0	0	300.00	1421.3250
1036	6.68000	0	0	0 / 0.0	0	318.24	0
1037	0	6.78500	0	0 / 0.0	0	315.94	1421.2200
1037	3.51200	0	0	0 / 0.0	0	270.60	0
1038	0	5.13700	0	0 / 0.0	0	315.12	1419.5950
1038	4.84900	0	0	0 / 0.0	0	314.34	0
1039	0	6.45500	0	0 / 0.0	0	224.70	1417.9890
1039	0.87100	0	0	0 / 0.0	0	341.57	0
1040	0	9.21500	0	0 / 0.0	0	319.09	1409.6450
1040	1.37700	0	0	0 / 0.0	0	302.56	0
1041	0	7.50400	0	0 / 0.0	0	297.60	1403.5180
1041	2.51200	0	0	0 / 0.0	0	285.33	0
1042	0	8.59900	0	0 / 0.0	0	325.95	1397.4300
1042	1.85900	0	0	0 / 0.0	0	288.65	0
1043	0	7.56600	0	0 / 0.0	0	327.46	1391.7230
1043	3.57600	0	0	0 / 0.0	0	285.86	0
1044	0	7.13500	0	0 / 0.0	0	266.08	1388.1630
1044	4.31500	0	0	0 / 0.0	0	141.01	0
1045	0	6.97100	0	0 / 0.0	0	269.78	1385.5070
1045	3.59800	0	0	0 / 0.0	0	278.71	0
1046	0	7.24500	0	0 / 0.0	0	292.88	1381.8590
1046	3.70900	0	0	0 / 0.0	0	275.07	0
1047	0	7.32100	0	0 / 0.0	0	294.85	1378.2480
1047	3.50000	0	0	0 / 0.0	0	315.42	0
1048	0	7.26200	0	0 / 0.0	0	304.30	1374.4860
1048	3.79800	0	0	0 / 0.0	0	270.70	0
1049	0	6.15200	0	0 / 0.0	0	278.02	1372.1310
1049	3.17400	0	0	0 / 0.0	0	263.42	0
1050	0	7.98400	0	0 / 0.0	0	311.48	1367.3210
1050	3.15600	0	0	0 / 0.0	0	246.42	0
1051	0	7.90200	0	0 / 0.0	0	291.76	1362.5760
1051	5.90100	0	0	0 / 0.0	0	278.74	0
1052	0	5.04400	0	0 / 0.0	0	329.53	1363.4320
1052	4.44100	0	0	0 / 0.0	0	291.21	0
1053	0	4.78600	0	0 / 0.0	0	292.78	1363.0870
1053	5.98500	0	0	0 / 0.0	0	324.34	0
1054	0	6.97500	0	0 / 0.0	0	295.08	1362.0970
1054	4.91700	0	0	0 / 0.0	0	270.80	0
1055	0	7.04200	0	0 / 0.0	0	283.86	1359.9720
1055	4.74000	0	0	0 / 0.0	0	278.58	0
1056	0	4.96800	0	0 / 0.0	0	322.34	1359.7440
1056	5.94500	0	0	0 / 0.0	0	341.21	0
1057	0	6.05000	0	0 / 0.0	0	309.65	1359.6400
1057	3.97400	0	0	0 / 0.0	0	294.52	0
1058	0	5.75200	0	0 / 0.0	0	318.24	1357.8610
1058	4.36800	0	0	0 / 0.0	0	320.44	0
1059	0	7.21000	0	0 / 0.0	0	257.78	1355.0200
1059	6.04500	0	0	0 / 0.0	0	232.91	0
1060	0	4.57800	0	0 / 0.0	0	267.58	1356.4860
1060	4.24500	0	0	0 / 0.0	0	264.34	0
1061	0	6.59700	0	0 / 0.0	0	291.47	1354.1350
1061	4.24100	0	0	0 / 0.0	0	263.78	0
1062	0	6.77000	0	0 / 0.0	0	292.19	1351.6060

1062	4.03400	0	0	0 / 0.0	0	262.70	0
1063	0	6.90500	0	0 / 0.0	0	314.04	1348.7350
1063	5.43800	0	0	0 / 0.0	0	330.94	0
1064	0	4.99700	0	0 / 0.0	0	300.49	1349.1760
1064	4.57200	0	0	0 / 0.0	0	242.22	0
1065	0	6.59300	0	0 / 0.0	0	281.89	1347.1550
1065	5.04100	0	0	0 / 0.0	0	214.17	0
1066	0	5.90100	0	0 / 0.0	0	180.94	1346.2950
1066	5.84000	0	0	0 / 0.0	0	238.39	0
1067	0	6.74800	0	0 / 0.0	0	194.62	1345.3870
1067	4.80300	0	0	0 / 0.0	0	209.61	0
1068	0	5.24000	0	0 / 0.0	0	328.74	1344.9490
1068	4.65300	0	0	0 / 0.0	0	285.47	0
1069	0	8.11400	0	0 / 0.0	0	272.87	1341.4880
1069	4.52600	0	0	0 / 0.0	0	234.12	0
413	0	6.92600	0	0 / 0.0	0	196.98	1339.0880

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW1

Date: 08-17-1994 Time: 06:39

INT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
413	********	BEGINNING	OF LEVELLING	RUN ********				1339.0260
413	6.5880				190.980			
1001		4.1840			224.640			1341.4300
1001	7.4400				267.680			
1002		4.2600			278.310			1344.6100
1002	5.6350				299.800			
1003		5.0640			185.630			1345.1810
1003	6.1530				314.240			
1004		4.1790			300.980			1347.1550
1004	6.3870				317.390			
1005		4.5380			335.690			1349.0040
1005	5.2790				248.880			
1006		6.2810			268.960			1348.0020
1006	7.0320				324.180			
1007		3.7280			297.110			1351.3060
1007	7.0450				281.790			
1008		4.2510			298.590			1354.1000
1008	6.4280				315.060			
1009		4.0580			297.010			1356.4700
1009	4.2150				335.760			
1010		5.3610			321.920			1355.3240
1010	7.1060				292.750			
1011		4.2140			288.190			1358.2160
1011	5.4260				98.460			
1012		3.7710			281.630			1359.8710
1012	6.1290				289.300			
1013		5.8790			303.380			1360.1210
1013	3.7010				319.290			
1014		4.0460			284.780			1359.7760
1014	6.1870				316.990			
1015		3.7020			320.830			1362.2610
1015	6.7660				333.140			
1016		5.9440			312.960			1363.0830
1016	4.8770				339.340			
1017		4.4500			323.950			1363.5100
1017	4.7360				294.390			
1018		5.1760			287.530			1363.0700
1018	7.6160				259.380			
1019		2.7590			302.590			1367.9270
1019	7.4370				249.840			
1020		2.8570			291.570			1372.5070
1020	6.2000				288.450			
1021		3.4110			343.370			1375.2960
1021	7.0250				278.640			
1022		3.7510			267.060			1378.5700
1022	7.4550				317.190			
1023		4.0660			255.900			1381.9590
1023	7.5410				287.140			
1024		3.5150			301.410			1385.9850
1024	5.9310				90.520			

WILD NA2/3000 data extracted from file C:\GIF10\LDW1

Date: 08-17-1994 Time: 06:39

INT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1025		3.5510			268.600			1388.3650
1025	7.2100				276.770			
1026		3.3470			324.640			1392.2280
1026	7.6120				303.940			
1027		1.4710			308.200			1398.3690
1027	7.8570				268.010			
1028		2.7970			296.130			1403.4290
1028	8.0720				288.680			
1029		1.5490			275.620			1409.9520
1029	8.9480				305.680			
1030		1.0900			335.660			1417.8100
1030	6.3580				258.140			
1031		4.5060			312.200			1419.6620
1031	5.1960				280.580			
1032		3.7620			339.170			1421.0960
1032	6.5660				327.720			
1033		6.5870			275.000			1421.0750
1033	5.9020				292.160			
1034		3.8590			286.250			1423.1180
1034	6.3790				139.470			
806		3.2060			120.140			1426.2910
806	3.0440				120.410			
1035		6.6370			150.920			1422.6980
1035	4.4180				300.330			
1036		5.7940			300.000			1421.3220
1036	6.6800				318.240			
1037		6.7850			315.940			1421.2170
1037	3.5120				270.600			
1038		5.1370			315.120			1419.5920
1038	4.8490				314.340			
1039		6.4550			224.700			1417.9860
1039	0.8710				341.570			
1040		9.2150			319.090			1409.6420
1040	1.3770				302.560			
1041		7.5040			297.600			1403.5150
1041	2.5120				285.330			
1042		8.5990			325.950			1397.4280
1042	1.8590				288.650			
1043		7.5660			327.460			1391.7210
1043	3.5760				285.860			
1044		7.1350			266.080			1388.1620
1044	4.3150				141.010			
1045		6.9710			269.780			1385.5060
1045	3.5980				278.710			
1046		7.2450			292.880			1381.8590
1046	3.7090				275.070			
1047		7.3210			294.850			1378.2470
1047	3.5000				315.420			
1048		7.2620			304.300			1374.4850
1048	3.7980				270.700			

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW1

Date: 08-17-1994 Time: 06:39

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1049		6.1520			278.020			1372.1310
1049	3.1740				263.420			
1050		7.9840			311.480			1367.3210
1050	3.1560				246.420			
1051		7.9020			291.760			1362.5750
1051	5.9010				278.740			
1052		5.0440			329.530			1363.4320
1052	4.4410				291.210			
1053		4.7860			292.780			1363.0870
1053	5.9850				324.340			
1054		6.9750			295.080			1362.0970
1054	4.9170				270.800			
1055		7.0420			283.860			1359.9720
1055	4.7400				278.580			
1056		4.9680			322.340			1359.7440
1056	5.9450				341.210			
1057		6.0500			309.650			1359.6390
1057	3.9740				294.520			
1058		5.7520			318.240			1357.8610
1058	4.3680				320.440			
1059		7.2100			257.780			1355.0190
1059	6.0450				232.910			
1060		4.5780			267.580			1356.4860
1060	4.2450				264.340			
1061		6.5970			291.470			1354.1340
1061	4.2410				263.780			
1062		6.7700			292.190			1351.6050
1062	4.0340				262.700			
1063		6.9050			314.040			1348.7340
1063	5.4380				330.940			
1064		4.9970			300.490			1349.1750
1064	4.5720				242.220			
1065		6.5930			281.890			1347.1540
1065	5.0410				214.170			
1066		5.9010			180.940			1346.2940
1066	5.8400				238.390			
1067		6.7480			194.620			1345.3860
1067	4.8030				209.610			
1068		5.2400			328.740			1344.9490
1068	4.6530				285.470			
1069		8.1140			272.870			1341.4880
1069	4.5260				234.120			
413		6.9260			196.980			1339.0880

******** Cumulative distance: 39821.46 feet ********
******** Vertical closure: -0.0620 foot ********
******** Accuracy of leveling: 0.023 foot √Mile ********

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW2.COL

Date: 08-16-1994 Time: 05:54

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
806	0.00	1426.2602	0.0000	1426.2602
1101	488.75	1431.0162	-0.0006	1431.0156
1102	995.05	1438.1462	-0.0013	1438.1449
1103	1397.71	1445.1512	-0.0018	1445.1494
1104	1811.82	1452.2782	-0.0023	1452.2759
1105	2295.64	1461.4852	-0.0030	1461.4822
928	2782.98	1468.4842	-0.0036	1468.4806
1106	3301.49	1477.7172	-0.0043	1477.7129
1107	3798.83	1486.9802	-0.0049	1486.9753
1108	4284.13	1495.9152	-0.0055	1495.9097
1109	4743.25	1504.4972	-0.0061	1504.4911
1110	5194.40	1512.0602	-0.0067	1512.0535
835	5463.39	1516.9422	-0.0071	1516.9351
1111	5810.96	1510.5872	-0.0075	1510.5797
1112	6261.91	1502.1842	-0.0081	1502.1761
1113	6716.34	1494.4622	-0.0087	1494.4535
1114	7170.83	1486.0472	-0.0093	1486.0379
1115	7619.45	1477.7082	-0.0098	1477.6984
1116	8101.21	1468.1772	-0.0105	1468.1667
1117	8575.52	1462.2422	-0.0111	1462.2311
1118	9038.54	1453.4382	-0.0117	1453.4265
1119	9547.96	1443.8982	-0.0123	1443.8859
1120	10054.68	1434.9462	-0.0130	1434.9332
1121	10556.81	1430.3332	-0.0136	1430.3196
806	10832.43	1426.2742	-0.0140	1426.2602

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
835	0.00	1516.9351	0.0000	1516.9351
1131	501.67	1523.8141	0.0012	1523.8153
1132	1020.11	1529.8641	0.0025	1529.8666
1133	1550.88	1533.2211	0.0038	1533.2249
1134	2074.24	1537.7741	0.0051	1537.7792
1135	2398.88	1541.0911	0.0059	1541.0970
933	2653.93	1543.0141	0.0065	1543.0206
1136	3053.30	1539.5831	0.0075	1539.5906
1137	3533.65	1534.7341	0.0087	1534.7428
1138	4068.10	1531.2341	0.0100	1531.2441
1139	4529.65	1527.7301	0.0111	1527.7412
1140	5003.17	1520.9371	0.0123	1520.9494
835	5306.97	1516.9221	0.0130	1516.9351

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110001+00000806 83..11+01426294
110002+00000806 32..01+00233630 331101+00008278
110003+00001101 32..01+00255120 332101+00003522 83..01+01431050
110004+00001101 32..01+00240620 331101+00008139
110005+00001102 32..01+00265680 332101+00001009 83..01+01438181
110006+00001102 32..01+00236780 331101+00009996
110007+00001103 32..01+00165880 332101+00002991 83..01+01445185
110008+00001103 32..01+00198030 331101+00007932
110009+00001104 32..01+00216080 332101+00000805 83..01+01452313
110010+00001104 32..01+00250820 331101+00009683
110011+00001105 32..01+00233000 332101+00000476 83..01+01461519
110012+00001105 32..01+00312600 331101+00009795
110013+00000928 32..01+00174740 332101+00002796 83..01+01468518
110014+00000928 32..01+00267950 331101+00009764
110015+00001106 32..01+00250560 332101+00000531 83..01+01477750
110016+00001106 32..01+00272540 331101+00009738
110017+00001107 32..01+00224800 332101+00000475 83..01+01487014
110018+00001107 32..01+00252430 331101+00009290
110019+00001108 32..01+00232870 332101+00000355 83..01+01495948
110020+00001108 32..01+00245180 331101+00009107
110021+00001109 32..01+00213940 332101+00000525 83..01+01504530
110022+00001109 32..01+00248490 331101+00009161
110023+00001110 32..01+00202660 332101+00001598 83..01+01512094
110024+00001110 32..01+00142320 331101+00008154
110025+00000835 32..01+00126670 332101+00003272 83..01+01516977
110026+00000835 32..01+00146230 331101+00002787
110027+00001111 32..01+00201340 332101+00009142 83..01+01510621
110028+00001111 32..01+00209320 331101+00001349
110029+00001112 32..01+00241630 332101+00009752 83..01+01502219
110030+00001112 32..01+00233890 331101+00000919
110031+00001113 32..01+00220540 332101+00008641 83..01+01494497
110032+00001113 32..01+00220830 331101+00000434
110033+00001114 32..01+00233660 332101+00008849 83..01+01486082
110034+00001114 32..01+00230510 331101+00000425
110035+00001115 32..01+00218110 332101+00008764 83..01+01477742
110036+00001115 32..01+00239400 331101+00000805
110037+00001116 32..01+00242360 332101+00010336 83..01+01468211
110038+00001116 32..01+00242320 331101+00002127
110039+00001117 32..01+00231990 332101+00008062 83..01+01462276
110040+00001117 32..01+00233690 331101+00000530
110041+00001118 32..01+00229330 332101+00009334 83..01+01453472
110042+00001118 32..01+00231660 331101+00000507
110043+00001119 32..01+00277760 332101+00010047 83..01+01443932
110044+00001119 32..01+00247340 331101+00000240
110045+00001120 32..01+00259380 332101+00009192 83..01+01434980
110046+00001120 32..01+00243600 331101+00001756
110047+00001121 32..01+00258530 332101+00006369 83..01+01430366
110048+00001121 32..01+00140220 331101+00002792
110049+00000806 32..01+00135400 332101+00006851 83..01+01426307
110050+00000835 83..11+01516977
110051+00000835 32..01+00259250 331101+00009061
110052+00001131 32..01+00242420 332101+00002182 83..01+01523856
110053+00001131 32..01+00257610 331101+00009418
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110055+00001132 32..01+00286250 331101+00007452
110056+00001133 32..01+00244520 332101+00004095 83..01+01533263
110057+00001133 32..01+00261580 331101+00007730
110058+00001134 32..01+00261780 332101+00003177 83..01+01537816
110059+00001134 32..01+00243080 331101+00008227
110060+00001135 32..01+00081560 332101+00004910 83..01+01541133
110061+00001135 32..01+00122210 331101+00006903
110062+00000933 32..01+00132840 332101+00004980 83..01+01543056
110063+00000933 32..01+00159610 331101+00004615
110064+00001136 32..01+00239760 332101+00008046 83..01+01539625
110065+00001136 32..01+00247540 331101+00003218
110066+00001137 32..01+00232810 332101+00008067 83..01+01534776
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110067+00001137 32..01+00275230 331101+00003919
110068+00001138 32..01+00259220 332101+00007419 83..01+01531276
110069+00001138 32..01+00217750 331101+00004461
110070+00001139 32..01+00243800 332101+00007965 83..01+01527772
110071+00001139 32..01+00227000 331101+00002482
110072+00001140 32..01+00246520 332101+00009275 83..01+01520979
110073+00001140 32..01+00139400 331101+00003784
110074+00000835 32..01+00164400 332101+00007799 83..01+01516964
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Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
806	0	0	0	0 / 0.0	0	0	1426.2940
806	8.27800	0	0	0 / 0.0	0	233.63	0
1101	0	3.52200	0	0 / 0.0	0	255.12	1431.0500
1101	8.13900	0	0	0 / 0.0	0	240.62	0
1102	0	1.00900	0	0 / 0.0	0	265.68	1438.1810
1102	9.99600	0	0	0 / 0.0	0	236.78	0
1103	0	2.99100	0	0 / 0.0	0	165.88	1445.1850
1103	7.93200	0	0	0 / 0.0	0	198.03	0
1104	0	0.80500	0	0 / 0.0	0	216.08	1452.3130
1104	9.68300	0	0	0 / 0.0	0	250.82	0
1105	0	0.47600	0	0 / 0.0	0	233.00	1461.5190
1105	9.79500	0	0	0 / 0.0	0	312.60	0
928	0	2.79600	0	0 / 0.0	0	174.74	1468.5180
928	9.76400	0	0	0 / 0.0	0	267.95	0
1106	0	0.53100	0	0 / 0.0	0	250.56	1477.7500
1106	9.73800	0	0	0 / 0.0	0	272.54	0
1107	0	0.47500	0	0 / 0.0	0	224.80	1487.0140
1107	9.29000	0	0	0 / 0.0	0	252.43	0
1108	0	0.35500	0	0 / 0.0	0	232.87	1495.9480
1108	9.10700	0	0	0 / 0.0	0	245.18	0
1109	0	0.52500	0	0 / 0.0	0	213.94	1504.5300
1109	9.16100	0	0	0 / 0.0	0	248.49	0
1110	0	1.59800	0	0 / 0.0	0	202.66	1512.0940
1110	8.15400	0	0	0 / 0.0	0	142.32	0
835	0	3.27200	0	0 / 0.0	0	126.67	1516.9770
835	2.78700	0	0	0 / 0.0	0	146.23	0
1111	0	9.14200	0	0 / 0.0	0	201.34	1510.6210
1111	1.34900	0	0	0 / 0.0	0	209.32	0
1112	0	9.75200	0	0 / 0.0	0	241.63	1502.2190
1112	0.91900	0	0	0 / 0.0	0	233.89	0
1113	0	8.64100	0	0 / 0.0	0	220.54	1494.4970
1113	0.43400	0	0	0 / 0.0	0	220.83	0
1114	0	8.84900	0	0 / 0.0	0	233.66	1486.0820
1114	0.42500	0	0	0 / 0.0	0	230.51	0
1115	0	8.76400	0	0 / 0.0	0	218.11	1477.7420
1115	0.80500	0	0	0 / 0.0	0	239.40	0
1116	0	10.33600	0	0 / 0.0	0	242.36	1468.2110
1116	2.12700	0	0	0 / 0.0	0	242.32	0
1117	0	8.06200	0	0 / 0.0	0	231.99	1462.2760
1117	0.53000	0	0	0 / 0.0	0	233.69	0
1118	0	9.33400	0	0 / 0.0	0	229.33	1453.4720
1118	0.50700	0	0	0 / 0.0	0	231.66	0
1119	0	10.04700	0	0 / 0.0	0	277.76	1443.9320
1119	0.24000	0	0	0 / 0.0	0	247.34	0
1120	0	9.19200	0	0 / 0.0	0	259.38	1434.9800
1120	1.75600	0	0	0 / 0.0	0	243.60	0
1121	0	6.36900	0	0 / 0.0	0	258.53	1430.3660
1121	2.79200	0	0	0 / 0.0	0	140.22	0
806	0	6.85100	0	0 / 0.0	0	135.40	1426.3070
835	0	0	0	0 / 0.0	0	0	1516.9770
835	9.06100	0	0	0 / 0.0	0	259.25	0
1131	0	2.18200	0	0 / 0.0	0	242.42	1523.8560
1131	9.41800	0	0	0 / 0.0	0	257.61	0
1132	0	3.36800	0	0 / 0.0	0	260.83	1529.9060
1132	7.45200	0	0	0 / 0.0	0	286.25	0
1133	0	4.09500	0	0 / 0.0	0	244.52	1533.2630
1133	7.73000	0	0	0 / 0.0	0	261.58	0
1134	0	3.17700	0	0 / 0.0	0	261.78	1537.8160
1134	8.22700	0	0	0 / 0.0	0	243.08	0
1135	0	4.91000	0	0 / 0.0	0	81.56	1541.1330

933	0	4.98000	0	0 / 0.0	0	132.84	1543.0560
933	4.61500	0	0	0 / 0.0	0	159.61	0
1136	0	8.04600	0	0 / 0.0	0	239.76	1539.6250
1136	3.21800	0	0	0 / 0.0	0	247.54	0
1137	0	8.06700	0	0 / 0.0	0	232.81	1534.7760
1137	3.91900	0	0	0 / 0.0	0	275.23	0
1138	0	7.41900	0	0 / 0.0	0	259.22	1531.2760
1138	4.46100	0	0	0 / 0.0	0	217.75	0
1139	0	7.96500	0	0 / 0.0	0	243.80	1527.7720
1139	2.48200	0	0	0 / 0.0	0	227.00	0
1140	0	9.27500	0	0 / 0.0	0	246.52	1520.9790
1140	3.78400	0	0	0 / 0.0	0	139.40	0
835	0	7.79900	0	0 / 0.0	0	164.40	1516.9640

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW2.COL

Date: 08-16-1994 Time: 05:54

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
806	******** BEGINNING OF LEVELLING RUN ********							1426.2602
806	8.2780				233.630			
1101		3.5220			255.120			1431.0162
1101	8.1390				240.620			
1102		1.0090			265.680			1438.1462
1102	9.9960				236.780			
1103		2.9910			165.880			1445.1512
1103	7.9320				198.030			
1104		0.8050			216.080			1452.2782
1104	9.6830				250.820			
1105		0.4760			233.000			1461.4852
1105	9.7950				312.600			
928		2.7960			174.740			1468.4842
928	9.7640				267.950			
1106		0.5310			250.560			1477.7172
1106	9.7380				272.540			
1107		0.4750			224.800			1486.9802
1107	9.2900				252.430			
1108		0.3550			232.870			1495.9152
1108	9.1070				245.180			
1109		0.5250			213.940			1504.4972
1109	9.1610				248.490			
1110		1.5980			202.660			1512.0602
1110	8.1540				142.320			
835		3.2720			126.670			1516.9422
835	2.7870				146.230			
1111		9.1420			201.340			1510.5872
1111	1.3490				209.320			
1112		9.7520			241.630			1502.1842
1112	0.9190				233.890			
1113		8.6410			220.540			1494.4622
1113	0.4340				220.830			
1114		8.8490			233.660			1486.0472
1114	0.4250				230.510			
1115		8.7640			218.110			1477.7082
1115	0.8050				239.400			
1116		10.3360			242.360			1468.1772
1116	2.1270				242.320			
1117		8.0620			231.990			1462.2422
1117	0.5300				233.690			
1118		9.3340			229.330			1453.4382
1118	0.5070				231.660			
1119		10.0470			277.760			1443.8982
1119	0.2400				247.340			
1120		9.1920			259.380			1434.9462
1120	1.7560				243.600			
1121		6.3690			258.530			1430.3332
1121	2.7920				140.220			
806		6.8510			135.400			1426.2742
	******** Cumulative distance: 10832.43 feet ********							

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW2.COL

Date: 08-16-1994 Time: 05:54

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
	******** Vertical closure: -0.0140 foot ********							
	******** Accuracy of leveling: 0.010 foot √Mile ********							

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW2.COL

Date: 08-16-1994 Time: 05:55

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
835	********	BEGINNING OF LEVELLING RUN ********						1516.9351
835	9.0610				259.250			
1131		2.1820			242.420			1523.8141
1131	9.4180				257.610			
1132		3.3680			260.830			1529.8641
1132	7.4520				286.250			
1133		4.0950			244.520			1533.2211
1133	7.7300				261.580			
1134		3.1770			261.780			1537.7741
1134	8.2270				243.080			
1135		4.9100			81.560			1541.0911
1135	6.9030				122.210			
933		4.9800			132.840			1543.0141
933	4.6150				159.610			
1136		8.0460			239.760			1539.5831
1136	3.2180				247.540			
1137		8.0670			232.810			1534.7341
1137	3.9190				275.230			
1138		7.4190			259.220			1531.2341
1138	4.4610				217.750			
1139		7.9650			243.800			1527.7301
1139	2.4820				227.000			
1140		9.2750			246.520			1520.9371
1140	3.7840				139.400			
835		7.7990			164.400			1516.9221
	********	Cumulative distance: 5306.97 feet ********						
	********	Vertical closure: 0.0130 foot ********						
	********	Accuracy of leveling: 0.013 foot √Mile ********						

WILD NA2/3000 data extracted from file C:\GIF10\LDW3.COL

Date: 08-17-1994 Time: 06:08

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
933	0.00	1543.0206	0.0000	1543.0206
1201	327.23	1555.2336	-0.0005	1555.2331
1202	788.97	1567.7096	-0.0013	1567.7083
1203	1404.95	1579.1486	-0.0023	1579.1463
1204	1599.66	1590.0726	-0.0026	1590.0700
1205	1911.54	1602.2486	-0.0031	1602.2455
1206	2266.43	1614.5786	-0.0037	1614.5749
934	2670.27	1625.6576	-0.0043	1625.6533
1207	3105.70	1621.1086	-0.0051	1621.1035
1208	3599.89	1614.3356	-0.0059	1614.3297
1209	4110.09	1609.6196	-0.0067	1609.6129
1210	4530.95	1604.4246	-0.0074	1604.4172
1211	5034.07	1592.6526	-0.0082	1592.6444
931	5327.67	1584.6246	-0.0087	1584.6159
1212	5660.67	1575.1266	-0.0092	1575.1174
1213	6181.80	1563.7756	-0.0101	1563.7655
1214	6613.36	1553.2816	-0.0108	1553.2708
1215	7081.14	1542.3776	-0.0115	1542.3661
1216	7524.02	1529.7726	-0.0122	1529.7604
1217	7970.61	1523.7686	-0.0130	1523.7556
929	8138.39	1521.2866	-0.0132	1521.2734
1218	8492.10	1515.5926	-0.0138	1515.5788
1219	8744.66	1503.0176	-0.0142	1503.0034
1220	8910.17	1491.1546	-0.0145	1491.1401
1221	9214.47	1482.1696	-0.0150	1482.1546
1222	9630.67	1470.0306	-0.0157	1470.0149
1223	9947.01	1464.8326	-0.0162	1464.8164
1224	10386.18	1467.4706	-0.0169	1467.4537
1225	10934.38	1463.1916	-0.0178	1463.1738
1226	11490.02	1456.0476	-0.0187	1456.0289
1227	12003.27	1449.9356	-0.0195	1449.9161
1103	12421.51	1445.1696	-0.0202	1445.1494

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
934	0.00	1625.6533	0.0000	1625.6533
1231	457.34	1631.1433	-0.0009	1631.1424
1232	1004.39	1632.3083	-0.0019	1632.3064
1233	1567.34	1635.8193	-0.0030	1635.8163
1234	2065.99	1635.0823	-0.0039	1635.0784
858	2641.05	1630.1833	-0.0050	1630.1783
1235	2930.26	1639.5453	-0.0055	1639.5398
1236	3324.16	1651.8283	-0.0063	1651.8220
1237	3652.11	1663.3153	-0.0069	1663.3084
1238	4042.04	1671.3493	-0.0076	1671.3417
1239	4454.60	1683.8813	-0.0084	1683.8729
1240	4889.90	1693.4613	-0.0092	1693.4521
939	5283.47	1701.2663	-0.0100	1701.2563
1241	5650.79	1711.0923	-0.0106	1711.0817
1242	6086.39	1719.2803	-0.0115	1719.2688
1243	6604.76	1727.6513	-0.0124	1727.6389
1244	7092.72	1726.3073	-0.0134	1726.2939
1245	7558.11	1721.3163	-0.0142	1721.3021
935	7932.03	1711.3753	-0.0149	1711.3604
1246	8263.56	1702.0753	-0.0156	1702.0597
1247	8621.08	1690.4603	-0.0162	1690.4441

1248	8935.61	1680.4623	-0.0168	1680.4455
1249	9240.11	1669.4533	-0.0174	1669.4359
1250	9606.02	1657.4543	-0.0181	1657.4362
1251	10015.70	1645.8613	-0.0189	1645.8424
1252	10329.97	1635.9613	-0.0195	1635.9418
934	10618.46	1625.6733	-0.0200	1625.6533

110001+00000933 83..11+01545021
110002+00000933 32..01+00202720 331101+00012652
110003+00001201 32..01+00124510 332101+00000439 83..01+01555233
110004+00001201 32..01+00283070 331101+00013055
110005+00001202 32..01+00178670 332101+00000579 83..01+01567709
110006+00001202 32..01+00328640 331101+00012168
110007+00001203 32..01+00287340 332101+00000729 83..01+01579148
110008+00001203 32..01+00144090 331101+00013187
110009+00001204 32..01+00050620 332101+00002263 83..01+01590072
110010+00001204 32..01+00187010 331101+00012897
110011+00001205 32..01+00124870 332101+00000721 83..01+01602247
110012+00001205 32..01+00239340 331101+00013195
110013+00001206 32..01+00115550 332101+00000865 83..01+01614577
110014+00001206 32..01+00304000 331101+00013258
110015+00000934 32..01+00099840 332101+00002179 83..01+01625657
110016+00000934 32..01+00197240 331101+00004108
110017+00001207 32..01+00238190 332101+00008657 83..01+01621107
110018+00001207 32..01+00222410 331101+00000297
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110028+00000931 32..01+00150360 331101+00002388
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110032+00001213 32..01+00196390 331101+00000121
110033+00001214 32..01+00235170 332101+00010615 83..01+01553282
110034+00001214 32..01+00225820 331101+00000171
110035+00001215 32..01+00241960 332101+00011075 83..01+01542378
110036+00001215 32..01+00193570 331101+00000197
110037+00001216 32..01+00249310 332101+00012802 83..01+01529773
110038+00001216 32..01+00207970 331101+00001483
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110040+00001217 32..01+00129260 331101+00002884
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110042+00000929 32..01+00038980 331101+00005171
110043+00001218 32..01+00314730 332101+00010865 83..01+01515594
110044+00001218 32..01+00126540 331101+00000502
110045+00001219 32..01+00126020 332101+00013077 83..01+01503019
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110058+00001225 32..01+00295140 331101+00000261
110059+00001226 32..01+00260500 332101+00007405 83..01+01456048
110060+00001226 32..01+00268960 331101+00001921
110061+00001227 32..01+00244290 332101+00008033 83..01+01449935
110062+00001227 32..01+00205280 331101+00003731
110063+00001103 32..01+00212960 332101+00008497 83..01+01445169
110064+00000934 83..11+01625657
110065+00000934 32..01+00236610 331101+00009256
110066+00001231 32..01+00220730 332101+00003766 83..01+01631147

110067+00001231 32..01+00261000 331101+00000909
110068+00001232 32..01+00262370 332101+00005824 83..01+01632313
110069+00001232 32..01+00307770 331101+00007762
110070+00001233 32..01+00255180 332101+00004251 83..01+01635824
110071+00001233 32..01+00277100 331101+00003078
110072+00001234 32..01+00221550 332101+00003815 83..01+01635087
110073+00001234 32..01+00302950 331101+00002586
110074+00000858 32..01+00272110 332101+00007485 83..01+01630187
110075+00000858 32..01+00177200 331101+00010453
110076+00001235 32..01+00112010 332101+00001091 83..01+01639550
110077+00001235 32..01+00234940 331101+00012853
110078+00001236 32..01+00158960 332101+00000570 83..01+01651833
110079+00001236 32..01+00201870 331101+00012451
110080+00001237 32..01+00126080 332101+00000964 83..01+01663319
110081+00001237 32..01+00219620 331101+00010857
110082+00001238 32..01+00170310 332101+00002823 83..01+01671353
110083+00001238 32..01+00267780 331101+00012839
110084+00001239 32..01+00144780 332101+00000307 83..01+01683885
110085+00001239 32..01+00231170 331101+00011583
110086+00001240 32..01+00204130 332101+00002003 83..01+01693465
110087+00001240 32..01+00232740 331101+00011146
110088+00000939 32..01+00160830 332101+00003341 83..01+01701270
110089+00000939 32..01+00133270 331101+00011095
110090+00001241 32..01+00234050 332101+00001269 83..01+01711096
110091+00001241 32..01+00179860 331101+00010453
110092+00001242 32..01+00255740 332101+00002265 83..01+01719283
110093+00001242 32..01+00236910 331101+00011695
110094+00001243 32..01+00281460 332101+00003324 83..01+01727654
110095+00001243 32..01+00241860 331101+00006853
110096+00001244 32..01+00246100 332101+00008197 83..01+01726310
110097+00001244 32..01+00234710 331101+00002702
110098+00001245 32..01+00230680 332101+00007693 83..01+01721319
110099+00001245 32..01+00112860 331101+00002954
110100+00000935 32..01+00261060 332101+00012895 83..01+01711378
110101+00000935 32..01+00137300 331101+00001983
110102+00001246 32..01+00194230 332101+00011283 83..01+01702078
110103+00001246 32..01+00122970 331101+00001041
110104+00001247 32..01+00234550 332101+00012656 83..01+01690462
110105+00001247 32..01+00152360 331101+00002222
110106+00001248 32..01+00162170 332101+00012220 83..01+01680465
110107+00001248 32..01+00153350 331101+00001051
110108+00001249 32..01+00151150 332101+00012060 83..01+01669456
110109+00001249 32..01+00135890 331101+00000497
110110+00001250 32..01+00230020 332101+00012496 83..01+01657458
110111+00001250 32..01+00225070 331101+00000525
110112+00001251 32..01+00184610 332101+00012118 83..01+01645865
110113+00001251 32..01+00161840 331101+00000786
110114+00001252 32..01+00152430 332101+00010686 83..01+01635965
110115+00001252 32..01+00138160 331101+00000971
110116+00000934 32..01+00150330 332101+00011259 83..01+01625676

Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
933	0	0	0	0 / 0.0	0	0	1543.0210
933	12.65200	0	0	0 / 0.0	0	202.72	0
1201	0	0.43900	0	0 / 0.0	0	124.51	1555.2330
1201	13.05500	0	0	0 / 0.0	0	283.07	0
1202	0	0.57900	0	0 / 0.0	0	178.67	1567.7090
1202	12.16800	0	0	0 / 0.0	0	328.64	0
1203	0	0.72900	0	0 / 0.0	0	287.34	1579.1480
1203	13.18700	0	0	0 / 0.0	0	144.09	0
1204	0	2.26300	0	0 / 0.0	0	50.62	1590.0720
1204	12.89700	0	0	0 / 0.0	0	187.01	0
1205	0	0.72100	0	0 / 0.0	0	124.87	1602.2470
1205	13.19500	0	0	0 / 0.0	0	239.34	0
1206	0	0.86500	0	0 / 0.0	0	115.55	1614.5770
1206	13.25800	0	0	0 / 0.0	0	304.00	0
934	0	2.17900	0	0 / 0.0	0	99.84	1625.6570
934	4.10800	0	0	0 / 0.0	0	197.24	0
1207	0	8.65700	0	0 / 0.0	0	238.19	1621.1070
1207	0.29700	0	0	0 / 0.0	0	222.41	0
1208	0	7.07000	0	0 / 0.0	0	271.78	1614.3350
1208	3.08100	0	0	0 / 0.0	0	261.91	0
1209	0	7.79700	0	0 / 0.0	0	248.29	1609.6180
1209	3.89000	0	0	0 / 0.0	0	169.88	0
1210	0	9.08500	0	0 / 0.0	0	250.98	1604.4230
1210	0.72500	0	0	0 / 0.0	0	254.92	0
1211	0	12.49700	0	0 / 0.0	0	248.20	1592.6520
1211	1.29400	0	0	0 / 0.0	0	183.00	0
931	0	9.32200	0	0 / 0.0	0	110.60	1584.6240
931	2.38800	0	0	0 / 0.0	0	150.36	0
1212	0	11.88600	0	0 / 0.0	0	182.64	1575.1260
1212	0.83200	0	0	0 / 0.0	0	282.51	0
1213	0	12.18300	0	0 / 0.0	0	238.62	1563.7760
1213	0.12100	0	0	0 / 0.0	0	196.39	0
1214	0	10.61500	0	0 / 0.0	0	235.17	1553.2820
1214	0.17100	0	0	0 / 0.0	0	225.82	0
1215	0	11.07500	0	0 / 0.0	0	241.96	1542.3780
1215	0.19700	0	0	0 / 0.0	0	193.57	0
1216	0	12.80200	0	0 / 0.0	0	249.31	1529.7730
1216	1.48300	0	0	0 / 0.0	0	207.97	0
1217	0	7.48700	0	0 / 0.0	0	238.62	1523.7690
1217	2.88400	0	0	0 / 0.0	0	129.26	0
929	0	5.36600	0	0 / 0.0	0	38.52	1521.2870
929	5.17100	0	0	0 / 0.0	0	38.98	0
1218	0	10.86500	0	0 / 0.0	0	314.73	1515.5940
1218	0.50200	0	0	0 / 0.0	0	126.54	0
1219	0	13.07700	0	0 / 0.0	0	126.02	1503.0190
1219	0.48500	0	0	0 / 0.0	0	69.09	0
1220	0	12.34800	0	0 / 0.0	0	96.42	1491.1560
1220	1.33000	0	0	0 / 0.0	0	86.65	0
1221	0	10.31500	0	0 / 0.0	0	217.65	1482.1710
1221	0.70200	0	0	0 / 0.0	0	210.33	0
1222	0	12.84100	0	0 / 0.0	0	205.87	1470.0310
1222	0.45700	0	0	0 / 0.0	0	234.45	0
1223	0	5.65500	0	0 / 0.0	0	81.89	1464.8340
1223	6.32600	0	0	0 / 0.0	0	214.27	0
1224	0	3.68800	0	0 / 0.0	0	224.90	1467.4710
1224	5.07500	0	0	0 / 0.0	0	262.24	0
1225	0	9.35400	0	0 / 0.0	0	285.96	1463.1920
1225	0.26100	0	0	0 / 0.0	0	295.14	0
1226	0	7.40500	0	0 / 0.0	0	260.50	1456.0480
1226	1.92100	0	0	0 / 0.0	0	268.96	0
1227	0	8.03300	0	0 / 0.0	0	244.29	1449.9350

1103	0	8.49700	0	0 / 0.0	0	212.96	1445.1690
934	0	0	0	0 / 0.0	0	0	1625.6570
934	9.25600	0	0	0 / 0.0	0	236.61	0
1231	0	3.76600	0	0 / 0.0	0	220.73	1631.1470
1231	6.98900	0	0	0 / 0.0	0	284.68	0
1232	0	5.82400	0	0 / 0.0	0	262.37	1632.3130
1232	7.76200	0	0	0 / 0.0	0	307.77	0
1233	0	4.25100	0	0 / 0.0	0	255.18	1635.8240
1233	3.07800	0	0	0 / 0.0	0	277.10	0
1234	0	3.81500	0	0 / 0.0	0	221.55	1635.0870
1234	2.58600	0	0	0 / 0.0	0	302.95	0
858	0	7.48500	0	0 / 0.0	0	272.11	1630.1870
858	10.45300	0	0	0 / 0.0	0	177.20	0
1235	0	1.09100	0	0 / 0.0	0	112.01	1639.5500
1235	12.85300	0	0	0 / 0.0	0	234.94	0
1236	0	0.57000	0	0 / 0.0	0	158.96	1651.8330
1236	12.45100	0	0	0 / 0.0	0	201.87	0
1237	0	0.96400	0	0 / 0.0	0	126.08	1663.3190
1237	10.85700	0	0	0 / 0.0	0	219.62	0
1238	0	2.82300	0	0 / 0.0	0	170.31	1671.3530
1238	12.83900	0	0	0 / 0.0	0	267.78	0
1239	0	0.30700	0	0 / 0.0	0	144.78	1683.8850
1239	11.58300	0	0	0 / 0.0	0	231.17	0
1240	0	2.00300	0	0 / 0.0	0	204.13	1693.4650
1240	11.14600	0	0	0 / 0.0	0	232.74	0
939	0	3.34100	0	0 / 0.0	0	160.83	1701.2700
939	11.09500	0	0	0 / 0.0	0	133.27	0
1241	0	1.26900	0	0 / 0.0	0	234.05	1711.0960
1241	10.45300	0	0	0 / 0.0	0	179.86	0
1242	0	2.26500	0	0 / 0.0	0	255.74	1719.2830
1242	11.69500	0	0	0 / 0.0	0	236.91	0
1243	0	3.32400	0	0 / 0.0	0	281.46	1727.6540
1243	6.85300	0	0	0 / 0.0	0	241.86	0
1244	0	8.19700	0	0 / 0.0	0	246.10	1726.3100
1244	2.70200	0	0	0 / 0.0	0	234.71	0
1245	0	7.69300	0	0 / 0.0	0	230.68	1721.3190
1245	2.95400	0	0	0 / 0.0	0	112.86	0
935	0	12.89500	0	0 / 0.0	0	261.06	1711.3780
935	1.98300	0	0	0 / 0.0	0	137.30	0
1246	0	11.28300	0	0 / 0.0	0	194.23	1702.0780
1246	1.04100	0	0	0 / 0.0	0	122.97	0
1247	0	12.65600	0	0 / 0.0	0	234.55	1690.4620
1247	2.22200	0	0	0 / 0.0	0	152.36	0
1248	0	12.22000	0	0 / 0.0	0	162.17	1680.4650
1248	1.05100	0	0	0 / 0.0	0	153.35	0
1249	0	12.06000	0	0 / 0.0	0	151.15	1669.4560
1249	0.49700	0	0	0 / 0.0	0	135.89	0
1250	0	12.49600	0	0 / 0.0	0	230.02	1657.4580
1250	0.52500	0	0	0 / 0.0	0	225.07	0
1251	0	12.11800	0	0 / 0.0	0	184.61	1645.8650
1251	0.78600	0	0	0 / 0.0	0	161.84	0
1252	0	10.68600	0	0 / 0.0	0	152.43	1635.9650
1252	0.97100	0	0	0 / 0.0	0	138.16	0
934	0	11.25900	0	0 / 0.0	0	150.33	1625.6760

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW3.COL

Date: 08-17-1994 Time: 06:08

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
933	********	BEGINNING	OF LEVELLING	RUN ********				1543.0206
933	12.6520				202.720			
1201		0.4390			124.510			1555.2336
1201	13.0550				283.070			
1202		0.5790			178.670			1567.7096
1202	12.1680				328.640			
1203		0.7290			287.340			1579.1486
1203	13.1870				144.090			
1204		2.2630			50.620			1590.0726
1204	12.8970				187.010			
1205		0.7210			124.870			1602.2486
1205	13.1950				239.340			
1206		0.8650			115.550			1614.5786
1206	13.2580				304.000			
934		2.1790			99.840			1625.6576
934	4.1080				197.240			
1207		8.6570			238.190			1621.1086
1207	0.2970				222.410			
1208		7.0700			271.780			1614.3356
1208	3.0810				261.910			
1209		7.7970			248.290			1609.6196
1209	3.8900				169.880			
1210		9.0850			250.980			1604.4246
1210	0.7250				254.920			
1211		12.4970			248.200			1592.6526
1211	1.2940				183.000			
931		9.3220			110.600			1584.6246
931	2.3880				150.360			
1212		11.8860			182.640			1575.1266
1212	0.8320				282.510			
1213		12.1830			238.620			1563.7756
1213	0.1210				196.390			
1214		10.6150			235.170			1553.2816
1214	0.1710				225.820			
1215		11.0750			241.960			1542.3776
1215	0.1970				193.570			
1216		12.8020			249.310			1529.7726
1216	1.4830				207.970			
1217		7.4870			238.620			1523.7686
1217	2.8840				129.260			
929		5.3660			38.520			1521.2866
929	5.1710				38.980			
1218		10.8650			314.730			1515.5926
1218	0.5020				126.540			
1219		13.0770			126.020			1503.0176
1219	0.4850				69.090			
1220		12.3480			96.420			1491.1546
1220	1.3300				86.650			
1221		10.3150			217.650			1482.1696
1221	0.7020				210.330			

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW3.COL

Date: 08-17-1994 Time: 06:08

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1222		12.8410			205.870			1470.0306
1222	0.4570				234.450			
1223		5.6550			81.890			1464.8326
1223	6.3260				214.270			
1224		3.6880			224.900			1467.4706
1224	5.0750				262.240			
1225		9.3540			285.960			1463.1916
1225	0.2610				295.140			
1226		7.4050			260.500			1456.0476
1226	1.9210				268.960			
1227		8.0330			244.290			1449.9356
1227	3.7310				205.280			
1103		8.4970			212.960			1445.1696

******** Cumulative distance: 12421.51 feet ********
******** Vertical closure: -0.0202 foot ********
******** Accuracy of leveling: 0.013 foot √Mile ********

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW3.COL

Date: 08-17-1994 Time: 06:09

INT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
934	******** BEGINNING OF LEVELLING RUN ********							1625.6533
934	9.2560				236.610			
1231		3.7660			220.730			1631.1433
1231	6.9890				284.680			
1232		5.8240			262.370			1632.3083
1232	7.7620				307.770			
1233		4.2510			255.180			1635.8193
1233	3.0780				277.100			
1234		3.8150			221.550			1635.0823
1234	2.5860				302.950			
858		7.4850			272.110			1630.1833
858	10.4530				177.200			
1235		1.0910			112.010			1639.5453
1235	12.8530				234.940			
1236		0.5700			158.960			1651.8283
1236	12.4510				201.870			
1237		0.9640			126.080			1663.3153
1237	10.8570				219.620			
1238		2.8230			170.310			1671.3493
1238	12.8390				267.780			
1239		0.3070			144.780			1683.8813
1239	11.5830				231.170			
1240		2.0030			204.130			1693.4613
1240	11.1460				232.740			
939		3.3410			160.830			1701.2663
939	11.0950				133.270			
1241		1.2690			234.050			1711.0923
1241	10.4530				179.860			
1242		2.2650			255.740			1719.2803
1242	11.6950				236.910			
1243		3.3240			281.460			1727.6513
1243	6.8530				241.860			
1244		8.1970			246.100			1726.3073
1244	2.7020				234.710			
1245		7.6930			230.680			1721.3163
1245	2.9540				112.860			
935		12.8950			261.060			1711.3753
935	1.9830				137.300			
1246		11.2830			194.230			1702.0753
1246	1.0410				122.970			
1247		12.6560			234.550			1690.4603
1247	2.2220				152.360			
1248		12.2200			162.170			1680.4623
1248	1.0510				153.350			
1249		12.0600			151.150			1669.4533
1249	0.4970				135.890			
1250		12.4960			230.020			1657.4543
1250	0.5250				225.070			
1251		12.1180			184.610			1645.8613
1251	0.7860				161.840			

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW3.COL

Date: 08-17-1994 Time: 06:09

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1252		10.6860			152.430			1635.9613
1252	0.9710				138.160			
934		11.2590			150.330			1625.6733

******** Cumulative distance: 10618.46 feet ********

******** Vertical closure: -0.0200 foot ********

******** Accuracy of leveling: 0.014 foot √Mile ********

WILD NA2/3000 data extracted from file C:\GIF10\LDW4.COL

Date: 08-18-1994 Time: 05:19

POINT 1BER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
933	0.00	1543.0206	0.0000	1543.0206
1261	558.53	1545.4616	-0.0017	1545.4599
1262	1109.94	1547.9186	-0.0034	1547.9152
1263	1655.28	1551.2226	-0.0050	1551.2176
1264	2154.85	1558.6036	-0.0065	1558.5971
938	2638.28	1567.1736	-0.0080	1567.1656
1265	3096.09	1559.2026	-0.0094	1559.1932
1266	3532.18	1552.1866	-0.0107	1552.1759
1267	4046.25	1547.9636	-0.0123	1547.9513
1268	4662.68	1545.6036	-0.0141	1545.5895
933	5275.93	1543.0366	-0.0160	1543.0206

110002+00000933	32..01+00304820	331101+00007146	
110003+00001261	32..01+00253710	332101+00004705	83..01+01545461
110004+00001261	32..01+00282220	331101+00006600	
110005+00001262	32..01+00269190	332101+00004143	83..01+01547918
110006+00001262	32..01+00269620	331101+00006431	
110007+00001263	32..01+00275720	332101+00003127	83..01+01551222
110008+00001263	32..01+00259970	331101+00008893	
110009+00001264	32..01+00239600	332101+00001512	83..01+01558602
110010+00001264	32..01+00279070	331101+00010873	
110011+00000938	32..01+00204360	332101+00002303	83..01+01567172
110012+00000938	32..01+00187370	331101+00002548	
110013+00001265	32..01+00270440	332101+00010519	83..01+01559201
110014+00001265	32..01+00186550	331101+00001971	
110015+00001266	32..01+00249540	332101+00008987	83..01+01552185
110016+00001266	32..01+00241630	331101+00003063	
110017+00001267	32..01+00272440	332101+00007286	83..01+01547961
110018+00001267	32..01+00303770	331101+00004039	
110019+00001268	32..01+00312660	332101+00006399	83..01+01545600
110020+00001268	32..01+00295010	331101+00004647	
110021+00000933	32..01+00318240	332101+00007214	83..01+01543033

Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
933	0	0	0	0 / 0.0	0	0	1543.0210
933	7.14600	0	0	0 / 0.0	0	304.82	0
1261	0	4.70500	0	0 / 0.0	0	253.71	1545.4610
1261	6.60000	0	0	0 / 0.0	0	282.22	0
1262	0	4.14300	0	0 / 0.0	0	269.19	1547.9180
1262	6.43100	0	0	0 / 0.0	0	269.62	0
1263	0	3.12700	0	0 / 0.0	0	275.72	1551.2220
1263	8.89300	0	0	0 / 0.0	0	259.97	0
1264	0	1.51200	0	0 / 0.0	0	239.60	1558.6020
1264	10.87300	0	0	0 / 0.0	0	279.07	0
938	0	2.30300	0	0 / 0.0	0	204.36	1567.1720
938	2.54800	0	0	0 / 0.0	0	187.37	0
1265	0	10.51900	0	0 / 0.0	0	270.44	1559.2010
1265	1.97100	0	0	0 / 0.0	0	186.55	0
1266	0	8.98700	0	0 / 0.0	0	249.54	1552.1850
1266	3.06300	0	0	0 / 0.0	0	241.63	0
1267	0	7.28600	0	0 / 0.0	0	272.44	1547.9610
1267	4.03900	0	0	0 / 0.0	0	303.77	0
1268	0	6.39900	0	0 / 0.0	0	312.66	1545.6000
1268	4.64700	0	0	0 / 0.0	0	295.01	0
933	0	7.21400	0	0 / 0.0	0	318.24	1543.0330

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW4.COL

Date: 08-18-1994 Time: 05:19

INT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
933	******** BEGINNING OF LEVELLING RUN ********							1543.0206
933	7.1460				304.820			
1261		4.7050			253.710			1545.4616
1261	6.6000				282.220			
1262		4.1430			269.190			1547.9186
1262	6.4310				269.620			
1263		3.1270			275.720			1551.2226
1263	8.8930				259.970			
1264		1.5120			239.600			1558.6036
1264	10.8730				279.070			
938		2.3030			204.360			1567.1736
938	2.5480				187.370			
1265		10.5190			270.440			1559.2026
1265	1.9710				186.550			
1266		8.9870			249.540			1552.1866
1266	3.0630				241.630			
1267		7.2860			272.440			1547.9636
1267	4.0390				303.770			
1268		6.3990			312.660			1545.6036
1268	4.6470				295.010			
933		7.2140			318.240			1543.0366
	******** Cumulative distance: 5275.93 feet ********							
	******** Vertical closure: -0.0160 foot ********							
	******** Accuracy of leveling: 0.016 foot √Mile ********							

WILD NA2/3000 data extracted from file C:\GIF10\LDW5.COL

Date: 08-19-1994 Time: 05:27

POINT 'MBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
931	0.00	1584.6159	0.0000	1584.6159
1301	315.13	1576.0619	0.0011	1576.0630
1302	780.19	1567.0419	0.0027	1567.0446
1303	1118.15	1567.7439	0.0039	1567.7478
1304	1268.58	1568.3039	0.0044	1568.3083
1305	1617.27	1577.9879	0.0057	1577.9936
1306	1960.68	1590.2919	0.0069	1590.2988
1307	2331.94	1603.1279	0.0082	1603.1361
1308	2787.65	1613.7519	0.0098	1613.7617
1309	3216.88	1621.5899	0.0113	1621.6012
1310	3720.88	1631.6859	0.0130	1631.6989
1311	4142.01	1633.4829	0.0145	1633.4974
836	4259.04	1636.0909	0.0149	1636.1058
1312	4640.50	1632.9879	0.0162	1633.0041
1313	5236.23	1628.9259	0.0183	1628.9442
1314	5832.59	1633.0049	0.0204	1633.0253
1315	6394.73	1633.2739	0.0224	1633.2963
1316	6933.93	1627.2499	0.0243	1627.2742
1317	7387.67	1615.3859	0.0259	1615.4118
1318	7818.93	1606.0129	0.0274	1606.0403
1319	8212.69	1597.1359	0.0287	1597.1646
1320	8615.38	1590.8849	0.0302	1590.9151
931	8855.80	1584.5849	0.0310	1584.6159

'INT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
1304	0.00	1568.3083	0.0000	1568.3083
1331	416.37	1575.1823	0.0010	1575.1833
1332	981.14	1571.0603	0.0023	1571.0626
1333	1558.60	1571.0313	0.0036	1571.0349
1334	2135.24	1564.9793	0.0050	1564.9843
1335	2605.42	1555.8323	0.0060	1555.8383
1336	2978.02	1544.6423	0.0069	1544.6492
828	3242.81	1544.5363	0.0075	1544.5438
1337	3530.71	1536.4723	0.0082	1536.4805
1338	3987.04	1535.1283	0.0092	1535.1375
1339	4487.50	1535.6313	0.0104	1535.6417
1340	4946.62	1533.2123	0.0115	1533.2238
1341	5162.73	1544.8643	0.0120	1544.8763
1342	5398.16	1557.5183	0.0125	1557.5308
1343	5600.26	1569.9493	0.0130	1569.9623
1344	5790.84	1582.5203	0.0134	1582.5337
1345	5978.80	1594.3263	0.0139	1594.3402
930	6160.16	1601.5183	0.0143	1601.5326
1346	6357.90	1591.5593	0.0147	1591.5740
1347	6566.07	1579.5283	0.0152	1579.5435
1348	6713.15	1569.6783	0.0156	1569.6939
1349	6893.04	1558.4123	0.0160	1558.4283
1350	7039.14	1549.9163	0.0163	1549.9326
1351	7236.35	1540.0223	0.0168	1540.0391
1352	7584.91	1531.7633	0.0176	1531.7809
1353	8024.18	1536.8463	0.0186	1536.8649
1354	8519.49	1535.8073	0.0198	1535.8271
1355	9030.09	1542.2243	0.0209	1542.2452
1356	9431.07	1551.3583	0.0219	1551.3802
1357	9724.15	1563.9193	0.0226	1563.9419

1358	10217.59	1570.5525	0.0257	1570.5780
1359	10853.81	1568.6033	0.0252	1568.6285
1360	11436.15	1572.7763	0.0265	1572.8028
1304	12069.58	1568.2803	0.0280	1568.3083

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
828	0.00	1544.5438	0.0000	1544.5438
1371	315.25	1533.3828	0.0002	1533.3830
1372	676.14	1523.6688	0.0003	1523.6691
1373	1034.24	1512.1938	0.0005	1512.1943
1374	1414.69	1500.5848	0.0007	1500.5855
1375	1865.38	1489.3538	0.0009	1489.3547
1376	2310.72	1478.5538	0.0012	1478.5550
1377	2654.10	1474.2608	0.0013	1474.2621
926	2969.75	1471.5038	0.0015	1471.5053
1378	3355.21	1471.1908	0.0017	1471.1925
1379	3680.34	1479.3288	0.0019	1479.3307
1380	4054.91	1489.6528	0.0021	1489.6549
1381	4510.36	1501.4228	0.0023	1501.4251
1382	4959.77	1514.1568	0.0025	1514.1593
1383	5351.11	1526.3548	0.0027	1526.3575
1384	5738.94	1537.2488	0.0029	1537.2517
828	5926.01	1544.5408	0.0030	1544.5438

110002+00000931 32..01+00119850 331101+00002852
110003+00001301 32..01+00195280 332101+00011406 83..01+01576062
110004+00001301 32..01+00227000 331101+00001016
110005+00001302 32..01+00238060 332101+00010036 83..01+01567042
110006+00001302 32..01+00157580 331101+00003076
110007+00001303 32..01+00180380 332101+00002374 83..01+01567743
110008+00001303 32..01+00062570 331101+00007932
110009+00001304 32..01+00087860 332101+00007372 83..01+01568304
110010+00001304 32..01+00215060 331101+00010821
110011+00001305 32..01+00133630 332101+00001137 83..01+01577988
110012+00001305 32..01+00207350 331101+00013053
110013+00001306 32..01+00136060 332101+00000749 83..01+01590292
110014+00001306 32..01+00216670 331101+00013217
110015+00001307 32..01+00154590 332101+00000381 83..01+01603128
110016+00001307 32..01+00303710 331101+00011142
110017+00001308 32..01+00152000 332101+00000518 83..01+01613753
110018+00001308 32..01+00223420 331101+00009855
110019+00001309 32..01+00205810 332101+00002017 83..01+01621591
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110025+00000836 32..01+00044950 332101+00007189 83..01+01636091
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110132+00001378 32..01+00208270 331101+00010820

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110138+00001381 32..01+00280640 331101+00013020
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110142+00001383 32..01+00232580 331101+00011413
110143+00001384 32..01+00155250 332101+00000519 83..01+01537238
110144+00001384 32..01+00090780 331101+00008468
110145+00000828 32..01+00096290 332101+00001176 83..01+01544530
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Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
931	0	0	0	0 / 0.0	0	0	1584.6160
931	2.85200	0	0	0 / 0.0	0	119.85	0
1301	0	11.40600	0	0 / 0.0	0	195.28	1576.0620
1301	1.01600	0	0	0 / 0.0	0	227.00	0
1302	0	10.03600	0	0 / 0.0	0	238.06	1567.0420
1302	3.07600	0	0	0 / 0.0	0	157.58	0
1303	0	2.37400	0	0 / 0.0	0	180.38	1567.7430
1303	7.93200	0	0	0 / 0.0	0	62.57	0
1304	0	7.37200	0	0 / 0.0	0	87.86	1568.3040
1304	10.82100	0	0	0 / 0.0	0	215.06	0
1305	0	1.13700	0	0 / 0.0	0	133.63	1577.9880
1305	13.05300	0	0	0 / 0.0	0	207.35	0
1306	0	0.74900	0	0 / 0.0	0	136.06	1590.2920
1306	13.21700	0	0	0 / 0.0	0	216.67	0
1307	0	0.38100	0	0 / 0.0	0	154.59	1603.1280
1307	11.14200	0	0	0 / 0.0	0	303.71	0
1308	0	0.51800	0	0 / 0.0	0	152.00	1613.7530
1308	9.85500	0	0	0 / 0.0	0	223.42	0
1309	0	2.01700	0	0 / 0.0	0	205.81	1621.5910
1309	11.74400	0	0	0 / 0.0	0	217.19	0
1310	0	1.64800	0	0 / 0.0	0	286.81	1631.6860
1310	6.90300	0	0	0 / 0.0	0	243.34	0
1311	0	5.10600	0	0 / 0.0	0	177.79	1633.4830
1311	9.79700	0	0	0 / 0.0	0	72.08	0
836	0	7.18900	0	0 / 0.0	0	44.95	1636.0910
836	3.03100	0	0	0 / 0.0	0	93.14	0
1312	0	6.13400	0	0 / 0.0	0	288.32	1632.9880
1312	1.41700	0	0	0 / 0.0	0	291.86	0
1313	0	5.47900	0	0 / 0.0	0	303.87	1628.9270
1313	5.18900	0	0	0 / 0.0	0	304.69	0
1314	0	1.11000	0	0 / 0.0	0	291.67	1633.0060
1314	6.08900	0	0	0 / 0.0	0	284.68	0
1315	0	5.82000	0	0 / 0.0	0	277.46	1633.2750
1315	2.90100	0	0	0 / 0.0	0	227.23	0
1316	0	8.92500	0	0 / 0.0	0	311.97	1627.2510
1316	0.22800	0	0	0 / 0.0	0	156.82	0
1317	0	12.09200	0	0 / 0.0	0	296.92	1615.3880
1317	1.80200	0	0	0 / 0.0	0	159.71	0
1318	0	11.17500	0	0 / 0.0	0	271.55	1606.0150
1318	1.18900	0	0	0 / 0.0	0	178.90	0
1319	0	10.06600	0	0 / 0.0	0	214.86	1597.1380
1319	1.05500	0	0	0 / 0.0	0	160.63	0
1320	0	7.30600	0	0 / 0.0	0	242.06	1590.8880
1320	4.08000	0	0	0 / 0.0	0	115.85	0
931	0	10.38000	0	0 / 0.0	0	124.57	1584.5870
1304	0	0	0	0 / 0.0	0	0	1568.3040
1304	10.81400	0	0	0 / 0.0	0	165.91	0
1331	0	3.94000	0	0 / 0.0	0	250.46	1575.1780
1331	3.71100	0	0	0 / 0.0	0	285.01	0
1332	0	7.83300	0	0 / 0.0	0	279.76	1571.0560
1332	3.84100	0	0	0 / 0.0	0	326.18	0
1333	0	3.87000	0	0 / 0.0	0	251.28	1571.0270
1333	5.18700	0	0	0 / 0.0	0	297.54	0
1334	0	11.23900	0	0 / 0.0	0	279.10	1564.9750
1334	3.81600	0	0	0 / 0.0	0	287.86	0
1335	0	12.96300	0	0 / 0.0	0	182.32	1555.8280
1335	1.02200	0	0	0 / 0.0	0	122.24	0
1336	0	12.21200	0	0 / 0.0	0	250.36	1544.6380
1336	2.26800	0	0	0 / 0.0	0	178.77	0
828	0	2.37400	0	0 / 0.0	0	86.02	1544.5330
828	2.62300	0	0	0 / 0.0	0	97.74	0

1337	8.10400	0	0	0 / 0.0	0	191.44	0
1338	0	9.44800	0	0 / 0.0	0	264.89	1535.1240
1338	7.25800	0	0	0 / 0.0	0	248.92	0
1339	0	6.75500	0	0 / 0.0	0	251.54	1535.6270
1339	8.16200	0	0	0 / 0.0	0	161.02	0
1340	0	10.58100	0	0 / 0.0	0	298.10	1533.2080
1340	12.82400	0	0	0 / 0.0	0	145.60	0
1341	0	1.17200	0	0 / 0.0	0	70.51	1544.8610
1341	13.19500	0	0	0 / 0.0	0	153.02	0
1342	0	0.54100	0	0 / 0.0	0	82.41	1557.5150
1342	13.20100	0	0	0 / 0.0	0	123.56	0
1343	0	0.77000	0	0 / 0.0	0	78.54	1569.9460
1343	13.20600	0	0	0 / 0.0	0	115.09	0
1344	0	0.63500	0	0 / 0.0	0	75.49	1582.5170
1344	13.08100	0	0	0 / 0.0	0	131.00	0
1345	0	1.27500	0	0 / 0.0	0	56.96	1594.3230
1345	12.09800	0	0	0 / 0.0	0	110.56	0
930	0	4.90600	0	0 / 0.0	0	70.80	1601.5160
930	2.72000	0	0	0 / 0.0	0	82.32	0
1346	0	12.67900	0	0 / 0.0	0	115.42	1591.5570
1346	1.11500	0	0	0 / 0.0	0	66.86	0
1347	0	13.14600	0	0 / 0.0	0	141.31	1579.5260
1347	0.94300	0	0	0 / 0.0	0	57.15	0
1348	0	10.79300	0	0 / 0.0	0	89.93	1569.6760
1348	1.43600	0	0	0 / 0.0	0	68.11	0
1349	0	12.70200	0	0 / 0.0	0	111.78	1558.4100
1349	2.18100	0	0	0 / 0.0	0	53.97	0
1350	0	10.67700	0	0 / 0.0	0	92.13	1549.9140
1350	1.66200	0	0	0 / 0.0	0	83.46	0
1351	0	11.55600	0	0 / 0.0	0	113.75	1540.0210
1351	1.41500	0	0	0 / 0.0	0	78.15	0
1352	0	9.67400	0	0 / 0.0	0	270.41	1531.7610
1352	9.77200	0	0	0 / 0.0	0	207.81	0
1353	0	4.68900	0	0 / 0.0	0	231.46	1536.8440
1353	6.74000	0	0	0 / 0.0	0	284.71	0
1354	0	7.77900	0	0 / 0.0	0	210.60	1535.8040
1354	8.34100	0	0	0 / 0.0	0	289.57	0
1355	0	1.92400	0	0 / 0.0	0	221.03	1542.2210
1355	10.19200	0	0	0 / 0.0	0	224.24	0
1356	0	1.05800	0	0 / 0.0	0	176.74	1551.3550
1356	13.07600	0	0	0 / 0.0	0	175.72	0
1357	0	0.51500	0	0 / 0.0	0	117.36	1563.9170
1357	7.29800	0	0	0 / 0.0	0	261.45	0
1358	0	0.86500	0	0 / 0.0	0	231.99	1570.3500
1358	6.86600	0	0	0 / 0.0	0	341.27	0
1359	0	8.61500	0	0 / 0.0	0	294.95	1568.6000
1359	8.11900	0	0	0 / 0.0	0	280.90	0
1360	0	3.94600	0	0 / 0.0	0	301.44	1572.7730
1360	7.34400	0	0	0 / 0.0	0	335.76	0
1304	0	11.84000	0	0 / 0.0	0	297.67	1568.2780
828	0	0	0	0 / 0.0	0	0	1544.5330
828	0.70500	0	0	0 / 0.0	0	113.02	0
1371	0	11.86600	0	0 / 0.0	0	202.23	1533.3720
1371	0.77300	0	0	0 / 0.0	0	138.84	0
1372	0	10.48700	0	0 / 0.0	0	222.05	1523.6580
1372	1.63700	0	0	0 / 0.0	0	144.91	0
1373	0	13.11200	0	0 / 0.0	0	213.19	1512.1840
1373	0.33400	0	0	0 / 0.0	0	190.19	0
1374	0	11.94300	0	0 / 0.0	0	190.26	1500.5750
1374	0.50700	0	0	0 / 0.0	0	193.11	0
1375	0	11.73800	0	0 / 0.0	0	257.58	1489.3440
1375	0.70800	0	0	0 / 0.0	0	174.44	0
1376	0	11.50800	0	0 / 0.0	0	270.90	1478.5430
1376	1.74000	0	0	0 / 0.0	0	156.96	0
1377	0	6.03300	0	0 / 0.0	0	186.42	1474.2500

1377	7.27900	0	0	0 / 0.0	0	152.72	0
926	0	10.03600	0	0 / 0.0	0	162.93	1471.4930
926	10.83900	0	0	0 / 0.0	0	172.70	0
1378	0	11.15200	0	0 / 0.0	0	212.76	1471.1800
1378	10.82000	0	0	0 / 0.0	0	208.27	0
1379	0	2.68200	0	0 / 0.0	0	116.86	1479.3190
1379	11.59600	0	0	0 / 0.0	0	237.89	0
1380	0	1.27200	0	0 / 0.0	0	136.68	1489.6430
1380	11.91000	0	0	0 / 0.0	0	269.49	0
1381	0	0.14000	0	0 / 0.0	0	185.96	1501.4130
1381	13.02000	0	0	0 / 0.0	0	280.64	0
1382	0	0.28600	0	0 / 0.0	0	168.77	1514.1470
1382	13.12500	0	0	0 / 0.0	0	242.06	0
1383	0	0.92700	0	0 / 0.0	0	149.28	1526.3450
1383	11.41300	0	0	0 / 0.0	0	232.58	0
1384	0	0.51900	0	0 / 0.0	0	155.25	1537.2380
1384	8.46800	0	0	0 / 0.0	0	90.78	0
828	0	1.17600	0	0 / 0.0	0	96.29	1544.5300

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW5.COL

Date: 08-19-1994 Time: 05:27

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
931	******** BEGINNING OF LEVELLING RUN ********							1584.6159
931	2.8520				119.850			
1301		11.4060			195.280			1576.0619
1301	1.0160				227.000			
1302		10.0360			238.060			1567.0419
1302	3.0760				157.580			
1303		2.3740			180.380			1567.7439
1303	7.9320				62.570			
1304		7.3720			87.860			1568.3039
1304	10.8210				215.060			
1305		1.1370			133.630			1577.9879
1305	13.0530				207.350			
1306		0.7490			136.060			1590.2919
1306	13.2170				216.670			
1307		0.3810			154.590			1603.1279
1307	11.1420				303.710			
1308		0.5180			152.000			1613.7519
1308	9.8550				223.420			
1309		2.0170			205.810			1621.5899
1309	11.7440				217.190			
1310		1.6480			286.810			1631.6859
1310	6.9030				243.340			
1311		5.1060			177.790			1633.4829
1311	9.7970				72.080			
836		7.1890			44.950			1636.0909
836	3.0310				93.140			
1312		6.1340			288.320			1632.9879
1312	1.4170				291.860			
1313		5.4790			303.870			1628.9259
1313	5.1890				304.690			
1314		1.1100			291.670			1633.0049
1314	6.0890				284.680			
1315		5.8200			277.460			1633.2739
1315	2.9010				227.230			
1316		8.9250			311.970			1627.2499
1316	0.2280				156.820			
1317		12.0920			296.920			1615.3859
1317	1.8020				159.710			
1318		11.1750			271.550			1606.0129
1318	1.1890				178.900			
1319		10.0660			214.860			1597.1359
1319	1.0550				160.630			
1320		7.3060			242.060			1590.8849
1320	4.0800				115.850			
931		10.3800			124.570			1584.5849
	******** Cumulative distance: 8855.80 feet ********							
	******** Vertical closure: 0.0310 foot ********							
	******** Accuracy of leveling: 0.024 foot √Mile ********							

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW5.COL

Date: 08-19-1994 Time: 05:28

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1304	********	BEGINNING	OF LEVELLING	RUN ********				1568.3083
1304	10.8140				165.910			
1331		3.9400			250.460			1575.1823
1331	3.7110				285.010			
1332		7.8330			279.760			1571.0603
1332	3.8410				326.180			
1333		3.8700			251.280			1571.0313
1333	5.1870				297.540			
1334		11.2390			279.100			1564.9793
1334	3.8160				287.860			
1335		12.9630			182.320			1555.8323
1335	1.0220				122.240			
1336		12.2120			250.360			1544.6423
1336	2.2680				178.770			
828		2.3740			86.020			1544.5363
828	2.6230				97.740			
1337		10.6870			190.160			1536.4723
1337	8.1040				191.440			
1338		9.4480			264.890			1535.1283
1338	7.2580				248.920			
1339		6.7550			251.540			1535.6313
1339	8.1620				161.020			
1340		10.5810			298.100			1533.2123
1340	12.8240				145.600			
1341		1.1720			70.510			1544.8643
1341	13.1950				153.020			
1342		0.5410			82.410			1557.5183
1342	13.2010				123.560			
1343		0.7700			78.540			1569.9493
1343	13.2060				115.090			
1344		0.6350			75.490			1582.5203
1344	13.0810				131.000			
1345		1.2750			56.960			1594.3263
1345	12.0980				110.560			
930		4.9060			70.800			1601.5183
930	2.7200				82.320			
1346		12.6790			115.420			1591.5593
1346	1.1150				66.860			
1347		13.1460			141.310			1579.5283
1347	0.9430				57.150			
1348		10.7930			89.930			1569.6783
1348	1.4360				68.110			
1349		12.7020			111.780			1558.4123
1349	2.1810				53.970			
1350		10.6770			92.130			1549.9163
1350	1.6620				83.460			
1351		11.5560			113.750			1540.0223
1351	1.4150				78.150			
1352		9.6740			270.410			1531.7633
1352	9.7720				207.810			

WILD NA2/3000 data extracted from file C:\GIF10\LDW5.COL

Date: 08-19-1994 Time: 05:28

POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1353		4.6890			231.460			1536.8463
1353	6.7400				284.710			
1354		7.7790			210.600			1535.8073
1354	8.3410				289.570			
1355		1.9240			221.030			1542.2243
1355	10.1920				224.240			
1356		1.0580			176.740			1551.3583
1356	13.0760				175.720			
1357		0.5150			117.360			1563.9193
1357	7.2980				261.450			
1358		0.8650			231.990			1570.3523
1358	6.8660				341.270			
1359		8.6150			294.950			1568.6033
1359	8.1190				280.900			
1360		3.9460			301.440			1572.7763
1360	7.3440				335.760			
1304		11.8400			297.670			1568.2803

******** Cumulative distance: 12069.58 feet ********

******** Vertical closure: 0.0280 foot ********

******** Accuracy of leveling: 0.019 foot √Mile ********

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW5.COL

Date: 08-19-1994 Time: 05:29

INT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
828	******** BEGINNING OF LEVELLING RUN ********							1544.5438
828	0.7050				113.020			
1371		11.8660			202.230			1533.3828
1371	0.7730				138.840			
1372		10.4870			222.050			1523.6688
1372	1.6370				144.910			
1373		13.1120			213.190			1512.1938
1373	0.3340				190.190			
1374		11.9430			190.260			1500.5848
1374	0.5070				193.110			
1375		11.7380			257.580			1489.3538
1375	0.7080				174.440			
1376		11.5080			270.900			1478.5538
1376	1.7400				156.960			
1377		6.0330			186.420			1474.2608
1377	7.2790				152.720			
926		10.0360			162.930			1471.5038
926	10.8390				172.700			
1378		11.1520			212.760			1471.1908
1378	10.8200				208.270			
1379		2.6820			116.860			1479.3288
1379	11.5960				237.890			
1380		1.2720			136.680			1489.6528
1380	11.9100				269.490			
1381		0.1400			185.960			1501.4228
1381	13.0200				280.640			
1382		0.2860			168.770			1514.1568
1382	13.1250				242.060			
1383		0.9270			149.280			1526.3548
1383	11.4130				232.580			
1384		0.5190			155.250			1537.2488
1384	8.4680				90.780			
828		1.1760			96.290			1544.5408

******** Cumulative distance: 5926.01 feet ********

******** Vertical closure: 0.0030 foot ********

******** Accuracy of leveling: 0.003 foot √Mile ********

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIFIO\LDW6.COL

Date: 08-23-1994 Time: 05:26

POINT NUMBER	CUMUL. DISTANCE	MEASURED ELEVATION	VERTICAL DIFF.	ADJUSTED ELEVATION
1223	0.00	1464.8164	0.0000	1464.8164
1401	519.62	1453.8904	0.0008	1453.8912
1402	863.82	1451.3494	0.0013	1451.3507
925	1043.81	1453.1374	0.0016	1453.1390
1403	1243.94	1453.0794	0.0019	1453.0813
1404	1674.71	1458.3174	0.0025	1458.3199
1223	2011.75	1464.8134	0.0030	1464.8164

```
 01+00001223 83..11+01464816
002+00001223 32..01+00311450 331101+00002168
110003+00001401 32..01+00208170 332101+00013094 83..01+01453890
110004+00001401 32..01+00183140 331101+00003750
110005+00001402 32..01+00161060 332101+00006291 83..01+01451350
110006+00001402 32..01+00125330 331101+00007337
110007+00000925 32..01+00054660 332101+00005549 83..01+01453138
110008+00000925 32..01+00054360 331101+00005379
110009+00001403 32..01+00145770 332101+00005437 83..01+01453080
110010+00001403 32..01+00236940 331101+00006251
110011+00001404 32..01+00193830 332101+00001013 83..01+01458318
110012+00001404 32..01+00193930 331101+00009369
110013+00001223 32..01+00143110 332101+00002873 83..01+01464814
```

W I L D N A 3 0 0 0 F I E L D B O O K

Point	Back	Fore	Inter	N / S	Set Out	Dist	Height
1223	0	0	0	0 / 0.0	0	0	1464.8160
1223	2.16800	0	0	0 / 0.0	0	311.45	0
1401	0	13.09400	0	0 / 0.0	0	208.17	1453.8900
1401	3.75000	0	0	0 / 0.0	0	183.14	0
1402	0	6.29100	0	0 / 0.0	0	161.06	1451.3500
1402	7.33700	0	0	0 / 0.0	0	125.33	0
925	0	5.54900	0	0 / 0.0	0	54.66	1453.1380
925	5.37900	0	0	0 / 0.0	0	54.36	0
1403	0	5.43700	0	0 / 0.0	0	145.77	1453.0800
1403	6.25100	0	0	0 / 0.0	0	236.94	0
1404	0	1.01300	0	0 / 0.0	0	193.83	1458.3180
1404	9.36900	0	0	0 / 0.0	0	193.93	0
1223	0	2.87300	0	0 / 0.0	0	143.11	1464.8140

NA2/3000 Version 11-93

WILD NA2/3000 data extracted from file C:\GIF10\LDW6.COL

Date: 08-23-1994 Time: 05:26

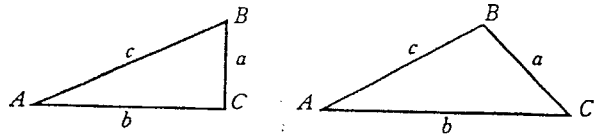
POINT NUMBER	BACK SIGHT	FORE SIGHT	INTER. POINT	SETTING OUT	MEASURED DISTANCE	NBR REP	STAND DEV.	HEIGHT OF POINT
1223	******** BEGINNING OF LEVELLING RUN ********							1464.8164
1223	2.1680				311.450			
1401		13.0940			208.170			1453.8904
1401	3.7500				183.140			
1402		6.2910			161.060			1451.3494
1402	7.3370				125.330			
925		5.5490			54.660			1453.1374
925	5.3790				54.360			
1403		5.4370			145.770			1453.0794
1403	6.2510				236.940			
1404		1.0130			193.830			1458.3174
1404	9.3690				193.930			
1223		2.8730			143.110			1464.8134
	******** Cumulative distance: 2011.75 feet ********							
	******** Vertical closure: 0.0030 foot ********							
	******** Accuracy of leveling: 0.005 foot /Mile ********							

1495

LOST DOG WASH
- BAKER -

NATIONAL
425

FORMULAE FOR SOLVING RIGHT TRIANGLES



$$\text{Sin } A = \frac{a}{c} = \text{Cos } B \qquad \text{Cot } A = \frac{b}{a} = \text{Tan } B$$

$$\text{Cos } A = \frac{b}{c} = \text{Sin } B \qquad \text{Sec } A = \frac{c}{b} = \text{Cosec } B$$

$$\text{Tan } A = \frac{a}{b} = \text{Cot } B \qquad \text{Cosec } A = \frac{c}{a} = \text{Sec } B$$

Given	Required	Solution
A, c	B, a, b	$B = 90° - A, a = C \sin A, b = C \cos A.$
A, b	B, a, c	$B = 90° - A, a = b \tan A, C = \frac{b}{\cos A}.$
A, a	B, b, c	$B = 90° - A, b = a \cot A, C = \frac{a}{\sin A}.$
a, c	A, B, b	$\sin A = \frac{a}{c}, \cos B = \frac{a}{c}, b = \sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan A = \frac{a}{b}, \cot B = \frac{a}{b}, c = \sqrt{a^2 + b^2}$

FORMULAE FOR SOLVING OBLIQUE TRIANGLES

Given	Required	Solution
A, a, b	B, c	$\sin B = \frac{b \sin A}{a}, c = \frac{a \sin C}{\sin A}$
A, B, a	b	$b = \frac{a \sin B}{\sin A}$
a, b, C	A, c	$A + B = 180° - C, C = \frac{a \sin C}{\sin A}$
a, b, c	Area	side $\frac{a+b+c}{2}$, area $= \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	area $= \frac{bc \sin A}{2}$
A, B, C, a	Area	area $= \frac{a^2 \sin B \sin C}{2 \sin A}$

MADE IN U.S.A.

TITLE PAGE

INDEX I

LOST DOG WASH

INDEX

PG	DESC.
1	LEVEL LOOP FOR # 925-A C:\GIF10\LDWG.COL
2	DIAGRAM FOR P.P. # 925-A
3	TRIG EL. FOR P.P. # 932
4	RECIPROCAL TRIG. EL. FOR P.P. # 932
5	TRIG. EL. FOR P.P. # 940

8-22-94 ①

C:\GIF10\LDWG.COL

	+	H.I.	−	ELEV.	DESC.
1495 T.B.M.					
T.P.				(ADJ) 1464.8164	#1223 B/C IN H/H INT. VIA LINDA & FRANK LLOYD WRIGHT BLVD.
	2.168				
T.P.			13.094	1453.890	#1401
	7.337				
#925			5.549	1453.138	PANEL PT. 925-A WHITE PAINT STRIPE @ JCT. LINE EAST TENNIS COURT SOUTH SERVICE SIDE (SEE DETAIL PG. 2)
				(ADJ) 1453.139	
	9.369				
T.P.			2.873	1464.814	#1223 P.O.B.
				(ADJ) 1464.8164	

1495

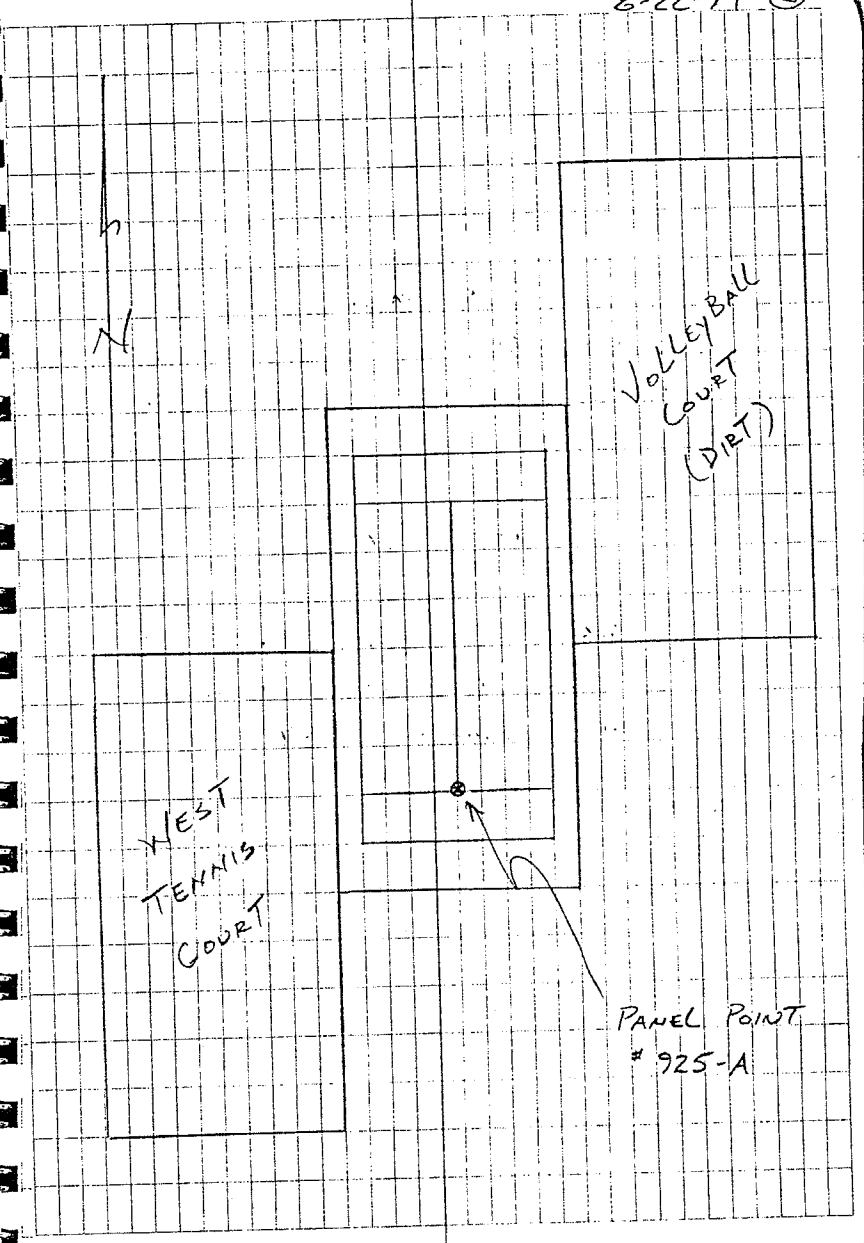
8-22-94 (2)

NOTE:

ORIGINAL PANEL PT. #925 WAS DESTROYED AT TIME OF HZ AND VERT. WORK

LOCATED PHOTO IDENTIFIABLE POINT ON EAST TENNIS COURT AT JCT. OF WHITE SERVICE LINES FOR ALTERNATE PANEL #925-A

ORIG. PANEL PT. #925



8-22-94 (3)

1495 TRIG EL. FOR PANEL PT. # 932

π @ T.P. # 1313 B/C FLUSH @ END OF
F.S. # 932 G.L.O. B/C ON I.P. E 1/4 SEC.

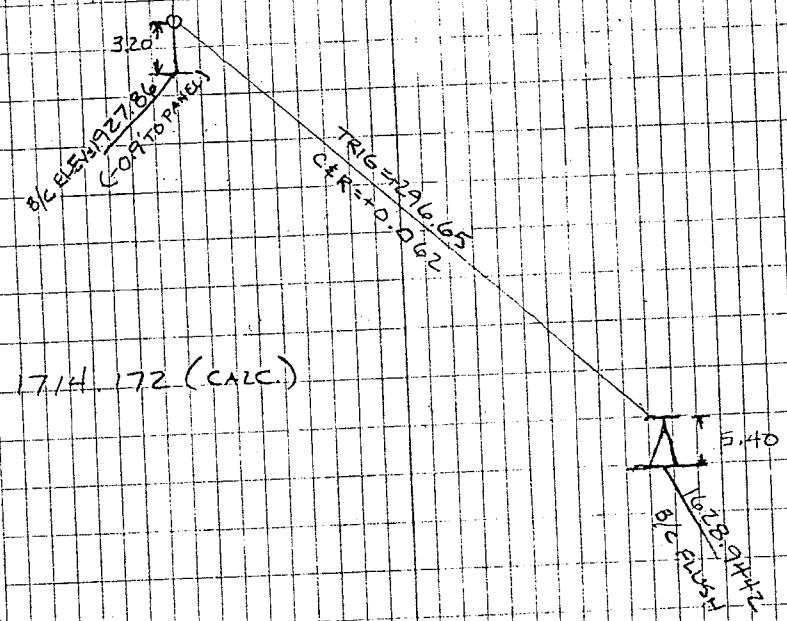
V+ ANG'S

I 80-10-51	I 80-10-51
D 279-49-03	R 279-49-02
SUM = 359-59-54	SUM = 359-59-53
M = 80-10-54	M = 80-10-55
M = 80-10-55	

SL DIST = 1739.651, .651
HZ DIST = 1714.139, .138 (MEAS.)
V+ DIFF = 296.42, 3.84
π H.I. = 5.40 F.S. PRISM = 3.20

TRIG. EL. FOR # 932 = 1927.86
(-0.9' TO PANEL)

120TH ST. IN "KNUCKLE" (ADJ. EL = 1628.9442)
15 (-0.9' TO PANEL)



1714.172 (CALC.)

1495 RECIPROCAL V+'S FOR PP #932

8-22-94 ④

T @ #932

F.S. T.P. #1313

V+ ANGS

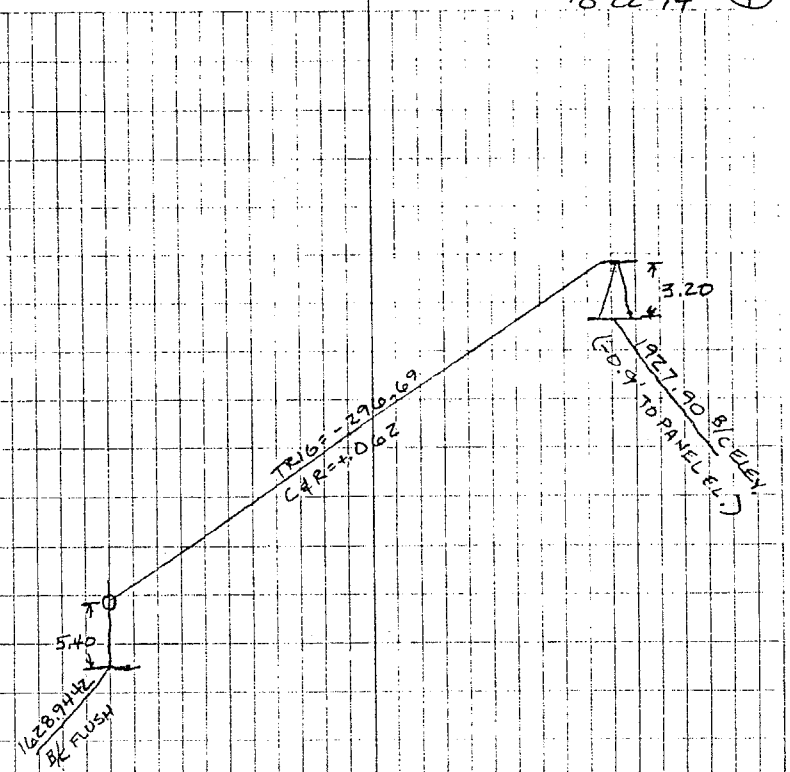
I. 99-48-42	I. 99-48-39
D. 260-10-23	R. 260-10-19
SUM: 359-59-05	SUM: 359-58-58
M= 99-49-10	M= 99-49-10

M= 99-49-10

T H.I. = 3.20 F.S. = 5.40

SL. DIST = 1739.651

TRIG. EL. FOR #932 = 1927.90
(-0.9' TO PANEL)



1495 TRIG. EL FOR P.P. # 940

⊼ @ T.P. # 1600 60P NAIL IN DESERT. FLUSH (ADJ EL = 1965.87)
F.S. P.P. # 940 G.L.O. B/C ON 3" POST. N.E. COR SEC. 14 (-0.7' TO PANEL EL)

V+ ANG's

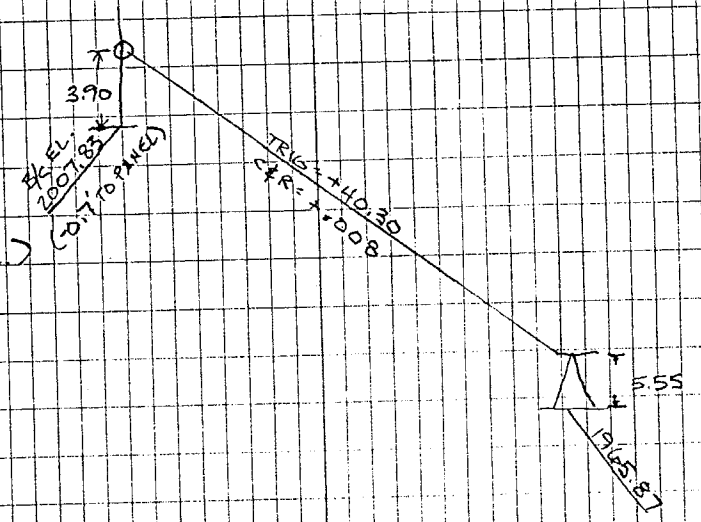
I 86-25-06	I 86-25-04
D 273-34-56	R 273-34-59
SUM = 360-00-02	SUM = 360-00-03
M = 86-25-05	M = 86-25-02

M = 86-25-04

SL. DIST. = 645.015 .015
HZ DIST. = 643.754 .754 (MEAS.) 643.755 (CALC.)
V+ DIFF = +39.95

⊼ H.I. = 5.55 F.S. PRISM = 3.90

TRIG. EL FOR # 940 = 2007.83
(-0.7' TO PANEL)



⊼ ☺ C. MIHELICH
& T. PRICE
SUNNY, HOT

```
#######################################################################
#     GE_SS  SATELLITE  SELECTION                                     #
#######################################################################
```

ally disabled satellites : 20 22

CH.1 ========== NEW STATIC CHAIN =====

```
#######################################################################
#     BL.1    925-A              836                08/19/94 08:06:50 PM #
#######################################################################
```

BL_SE.1 START / END (COMMON) EPOCHS

08/19/94 08:06:50 PM to 08/19/94 08:12:00 PM

BL_OI.1 OPERATION INFORMATION

	Rover			Reference		
Point id	925-A			836		
Sensor/Controller id	001662/094838			001659/094778		
Operation mode	STS			STS		
Observation rate (s)	10.0			10.0		
Ht reading/Ant offset (m)	1.900	/0.091		1.316	/0.441	
Eccentricity E/N/H (m)	0.000	/0.000	/0.000	0.000	/0.000	/0.000

SI.1 SATELLITE INFORMATION

SV id	L1_C_CA	L1_P_CO	L2_C_P	L2_P_CO	L1_P_SQ	L2_P_SQ
6	0	32	32	0	0	32
16	0	32	32	0	0	32
17	0	32	32	0	0	32
23	0	32	32	0	0	32
26	0	32	27	0	0	27

BL_EA.1 ELEVATION / AZIMUTH

---

sat id :			16	6	17	23	
hh:mm:ss	PDOP	GDOP					
20:06:50	3.6	3.9	33/ 44	79/ 5	44/291	29/215	
20:07:00	3.6	3.9	33/ 44	79/ 5	44/291	29/215	
20:07:10	3.6	3.9	33/ 44	79/ 5	44/291	29/215	
20:07:20	3.6	3.9	33/ 44	79/ 6	44/291	29/215	
20:07:30	3.6	3.9	33/ 44	79/ 6	44/291	30/215	
sat id :			16	6	17	26	23
hh:mm:ss	PDOP	GDOP					
20:07:40	3.4	3.7	33/ 44	79/ 6	44/292	30/118	30/215
20:07:50	3.4	3.7	33/ 44	79/ 7	44/292	30/118	30/215
20:08:00	3.4	3.6	32/ 44	79/ 7	44/292	30/118	30/215
20:08:10	3.4	3.6	32/ 44	79/ 7	44/292	30/118	30/215
20:08:20	3.4	3.6	32/ 44	80/ 7	44/292	30/118	30/215
20:08:30	3.3	3.6	32/ 44	80/ 8	44/292	30/118	30/215
20:08:40	3.3	3.6	32/ 44	80/ 8	44/292	30/118	30/216
20:08:50	3.3	3.6	32/ 44	80/ 8	44/292	31/118	30/216
20:09:00	3.3	3.6	32/ 44	80/ 9	44/292	31/118	30/216
20:09:10	3.3	3.6	32/ 44	80/ 9	44/292	31/117	30/216

20:09:20	3.3	3.6	32/ 44	80/ 9	44/292	31/117	30/216
20:09:30	3.3	3.6	32/ 44	80/ 10	44/293	31/117	30/216
20:09:40	3.3	3.6	32/ 44	80/ 10	44/293	31/117	30/216
20:09:50	3.3	3.6	32/ 44	80/ 10	44/293	31/117	31/216
20:10:00	3.3	3.6	32/ 44	80/ 11	44/293	31/117	31/216
20:10:10	3.3	3.6	32/ 43	80/ 11	44/293	31/117	31/216
20:10:20	3.3	3.6	31/ 43	80/ 11	44/293	31/117	31/216
20:10:30	3.3	3.6	31/ 43	80/ 12	44/293	31/117	31/216
20:10:40	3.3	3.6	31/ 43	80/ 12	44/293	31/117	31/216
20:10:50	3.3	3.6	31/ 43	81/ 13	45/293	31/117	31/216
20:11:00	3.3	3.6	31/ 43	81/ 13	45/293	31/117	31/216
20:11:10	3.3	3.6	31/ 43	81/ 13	45/294	31/117	31/216
20:11:20	3.3	3.6	31/ 43	81/ 14	45/294	31/116	31/216
20:11:30	3.2	3.6	31/ 43	81/ 14	45/294	31/116	31/216
20:11:40	3.2	3.6	31/ 43	81/ 15	45/294	31/116	31/216
20:11:50	3.2	3.5	31/ 43	81/ 15	45/294	31/116	31/216
20:12:00	3.2	3.5	31/ 43	81/ 15	45/294	31/116	31/216

BL_PI.1 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 470
Total number of parameters : 99
Epoch independent parameters : 3
Rms of weight unit : .0018 m

BL_FS.1 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
16	6	1	1
17	6	1	1
26	6	1	1
23	6	1	1
16	6	5	2
17	6	5	2
26	6	5	2
23	6	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 1296.
RMS ACTUALLY COMPUTED = 810.

#	RMS	RMS/RMS1	AMBIGUITIES			
1	.001	1.000	0	0	-23	0
2	.002	1.189	-1	1	-24	1
3	.002	1.273	1	-1	-22	-1
4	.002	1.481	-1	0	-24	0
5	.002	1.532	0	-1	-23	-1
6	.003	1.691	-2	2	-25	2
7	.003	1.732	-1	0	-23	1
8	.003	1.752	-2	1	-25	1

```
  9  .003    1.781       0    1  -23    1
 10  .003    1.795       1    0  -22    0

 #   RMS   RMS/RMS1     AMBIGUITIES
    ---------------------------------

  1  .002    1.000       0    0    0    0    0    0  -23    0
  2  .003    1.573
  3  .004    2.391
  4  .005    3.047
  5  .006    3.132
  6  .006    3.492
  7  .008    4.275
  8  .009    4.719
  9  .009    4.764
 10  .009    4.855


-------------------------------------------------------------------------
* FARA Summary                                          Iteration :   1 *
-------------------------------------------------------------------------

rms a priori          :   10.0 [mm]   rms float            :    1.6 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms float < rms a priori)                : 100.000 [%]

rms fix 1             :    1.8 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms fix 1 < rms a priori)                : 100.000 [%]

Error prob. alpha     :    .001 [%]
Probability that (rms fix 1 < rms fix 2)                   : 100.000 [%]

-------------------------------------------------------------------------
* Ambiguity Resolution successful *
-------------------------------------------------------------------------

Number of epochs with GDOP =< 8 :       32
Total number of common epochs   :       32

Observation time (GDOP =< 8)    :      310 sec
Recommendation                  :      303 sec


BL_CS.1    CYCLE  SLIP  INFORMATION
-----------------------------------

Total no of cycle slips : 0


BL_FC.1    FINAL  COORDINATES
-----------------------------

Rov:925-A  Ref:836  Amb:Y  08/19/94 08:06:50 PM
Cartesian :
   X   -1978626.5923  m      Y  -4937182.6755  m    Z   3508874.4027  m
  dX     -1601.2783  m     dY       227.1860  m   dZ      -679.8495  m
  sX         0.0004  m     sY         0.0007  m   sZ         0.0004  m
Geodetic :
 Lat  33 35 23.66984 N    Lon 111 50 20.22321 W    h       413.6309  m
```

```
dLat        25.28505     dLon      1  0.92217     dh       -55.8251  m
sLat         0.0004  m   sLon         0.0003  m   sh         0.0008  m
Distance :
Slope      1754.3948  m    sSlope   0.0003  m
```

CH.2 ========== NEW STATIC CHAIN =====

```
#######################################################################
#     BL.2    925-A-2            836                 08/19/94 08:12:40 PM #
#######################################################################
```

BL_SE.2 START / END (COMMON) EPOCHS

08/19/94 08:12:40 PM to 08/19/94 08:18:20 PM

BL_OI.2 OPERATION INFORMATION

	Rover	Reference
Point id	925-A-2	836
Sensor/Controller id	001662/094838	001659/094778
Operation mode	STS	STS
Observation rate (s)	10.0	10.0
Ht reading/Ant offset (m)	1.900 /0.091	1.316 /0.441
Eccentricity E/N/H (m)	0.000 /0.000 /0.000	0.000 /0.000 /0.000

BL_SI.2 SATELLITE INFORMATION

SV id	L1_C_CA	L1_P_CO	L2_C_P	L2_P_CO	L1_P_SQ	L2_P_SQ
6	0	35	35	0	0	35
16	0	35	35	0	0	35
17	0	35	35	0	0	35
23	0	35	35	0	0	35
26	0	35	35	0	0	35

BL_EA.2 ELEVATION / AZIMUTH

sat id :			16	6	17	26	23
hh:mm:ss	PDOP	GDOP					
20:12:40	3.2	3.5	31/ 43	81/ 17	45/294	32/116	32/216
20:12:50	3.2	3.5	30/ 43	81/ 17	45/294	32/116	32/216
20:13:00	3.2	3.5	30/ 43	81/ 18	45/295	32/116	32/217
20:13:10	3.2	3.5	30/ 43	81/ 18	45/295	32/116	32/217
20:13:20	3.2	3.5	30/ 43	81/ 19	45/295	32/116	32/217
20:13:30	3.2	3.5	30/ 43	81/ 19	45/295	32/115	32/217
20:13:40	3.2	3.5	30/ 43	81/ 20	45/295	32/115	32/217
20:13:50	3.2	3.5	30/ 43	82/ 20	45/295	32/115	32/217
20:14:00	3.2	3.5	30/ 43	82/ 21	45/295	32/115	32/217
20:14:10	3.2	3.5	30/ 43	82/ 21	45/295	32/115	32/217
20:14:20	3.2	3.5	30/ 43	82/ 22	45/295	32/115	32/217
20:14:30	3.2	3.5	30/ 43	82/ 22	45/295	32/115	33/217
20:14:40	3.2	3.5	30/ 43	82/ 23	45/296	32/115	33/217
20:14:50	3.2	3.5	30/ 43	82/ 23	45/296	32/115	33/217
20:15:00	3.2	3.5	30/ 43	82/ 24	46/296	32/115	33/217
20:15:10	3.1	3.5	30/ 43	82/ 24	46/296	32/115	33/217
20:15:20	3.1	3.5	29/ 43	82/ 25	46/296	32/115	33/217
20:15:30	3.1	3.5	29/ 43	82/ 25	46/296	32/115	33/217
20:15:40	3.1	3.5	29/ 43	82/ 26	46/296	32/114	33/217
20:15:50	3.1	3.5	29/ 43	82/ 26	46/296	32/114	33/217

20:16:00	3.1	3.5	29/ 43	82/ 27	46/296	32/114	33/217
20:16:10	3.1	3.5	29/ 43	82/ 27	46/296	33/114	33/217
20:16:20	3.1	3.5	29/ 43	82/ 28	46/297	33/114	33/217
20:16:30	3.1	3.5	29/ 43	82/ 29	46/297	33/114	33/217
20:16:40	3.1	3.5	29/ 43	82/ 29	46/297	33/114	33/217
20:16:50	3.1	3.5	29/ 43	82/ 30	46/297	33/114	34/217
20:17:00	3.1	3.5	29/ 43	82/ 30	46/297	33/114	34/218
20:17:10	3.1	3.5	29/ 43	83/ 31	46/297	33/114	34/218
20:17:20	3.1	3.5	29/ 43	83/ 32	46/297	33/114	34/218
20:17:30	3.1	3.5	29/ 43	83/ 32	46/297	33/114	34/218
20:17:40	3.1	3.5	29/ 43	83/ 33	46/297	33/113	34/218
20:17:50	3.1	3.5	28/ 43	83/ 34	46/297	33/113	34/218
20:18:00	3.1	3.5	28/ 43	83/ 34	46/298	33/113	34/218
20:18:10	3.1	3.5	28/ 43	83/ 35	46/298	33/113	34/218
20:18:20	3.1	3.5	28/ 43	83/ 36	46/298	33/113	34/218

BL_PI.2 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 525
Total number of parameters : 108
Epoch independent parameters : 3
Rms of weight unit : .0017 m

BL_FS.2 FARA STATISTICS
---

iguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
16	6	1	1
17	6	1	1
26	6	1	1
23	6	1	1
16	6	5	2
17	6	5	2
26	6	5	2
23	6	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 1296.
RMS ACTUALLY COMPUTED = 576.

#	RMS	RMS/RMS1	AMBIGUITIES			
1	.001	1.000	0	0	0	0
2	.002	1.358	-1	1	-1	1
3	.002	1.442	1	-1	1	-1
4	.002	1.731	1	0	1	0
5	.002	1.836	0	1	0	1
6	.003	1.950	-1	0	-1	0
7	.003	2.101	0	-1	0	-1
8	.003	2.131	2	-1	2	-1
9	.003	2.146	-2	2	-2	2
10	.003	2.187	1	0	0	-1

```
  #   RMS    RMS/RMS1     AMBIGUITIES
 ----------------------------------

    .002     1.000        0    0    0    0    0    0    0    0
  2 .004     2.173
  3 .004     2.384
  4 .005     2.664
  5 .005     3.080
  6 .005     3.111
  7 .006     3.700
  8 .006     3.815
  9 .009     5.188
 10 .009     5.561


-------------------------------------------------------------------------
* FARA Summary                                          Iteration :   1 *
-------------------------------------------------------------------------

rms a priori          :   10.0 [mm]   rms float            :    1.5 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms float < rms a priori)                : 100.000 [%]

rms fix 1             :    1.7 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms fix 1 < rms a priori)                : 100.000 [%]

Error prob. alpha     :     .001 [%]
Probability that (rms fix 1 < rms fix 2)                   : 100.000 [%]

-------------------------------------------------------------------------
* Ambiguity Resolution successful *
-------------------------------------------------------------------------

Number of epochs with GDOP =< 8 :        35
Total number of common epochs   :        35

Observation time (GDOP =< 8)    :       340 sec
Recommendation                  :       300 sec


BL_CS.2    CYCLE  SLIP  INFORMATION
----------------------------------

Total no of cycle slips : 0


BL_FC.2    FINAL  COORDINATES
----------------------------

Rov:925-A-2  Ref:836  Amb:Y  08/19/94 08:12:40 PM
Cartesian :
   X  -1978626.5881  m      Y  -4937182.6613  m    Z   3508874.4002  m
  dX     -1601.2741  m     dY       227.2002  m   dZ      -679.8520  m
  sX         0.0003  m     sY         0.0006  m   sZ         0.0004  m
Geodetic :
 Lat  33 35 23.67004 N    Lon 111 50 20.22326 W    h       413.6173  m
dLat        25.28485     dLon      1  0.92222     dh       -55.8387  m
sLat         0.0004  m   sLon         0.0003  m   sh         0.0007  m
```

Distance :
Slope 1754.3937 m sSlope 0.0003 m

: ========== NEW STATIC CHAIN =====

```
#######################################################################
#     BL.3    926                 836                 08/19/94 07:22:40 PM #
#######################################################################
```

BL_SE.3 START / END (COMMON) EPOCHS

08/19/94 07:22:40 PM to 08/19/94 07:28:00 PM

BL_OI.3 OPERATION INFORMATION

	Rover	Reference
Point id	926	836
Sensor/Controller id	001662/094838	001659/094778
Operation mode	STS	STS
Observation rate (s)	10.0	10.0
Ht reading/Ant offset (m)	1.900 /0.091	1.316 /0.441
Eccentricity E/N/H (m)	0.000 /0.000 /0.000	0.000 /0.000 /0.000

BL_SI.3 SATELLITE INFORMATION

SV id	L1_C_CA	L1_P_CO	L2_C_P	L2_P_CO	L1_P_SQ	L2_P_SQ
5	0	33	33	0	0	33
6	0	33	33	0	0	33
16	0	33	33	0	0	33
17	0	33	33	0	0	33
24	0	33	0	0	0	0
26	0	33	0	0	0	0

BL_EA.3 ELEVATION / AZIMUTH

sat id :			5	16	6	17
hh:mm:ss	PDOP	GDOP				
19:22:40	10.0	10.4	25/178	50/ 55	60/333	32/269
19:22:50	10.0	10.3	25/178	50/ 55	60/333	32/269
19:23:00	9.9	10.2	25/178	50/ 55	60/333	32/269
19:23:10	9.9	10.2	25/178	50/ 55	60/333	32/269
19:23:20	9.8	10.1	25/178	50/ 55	60/333	32/269
19:23:30	9.8	10.1	25/178	50/ 55	61/333	32/269
19:23:40	9.7	10.0	25/178	50/ 55	61/333	32/269
19:23:50	9.7	10.0	25/178	50/ 55	61/333	32/269
19:24:00	9.6	9.9	25/178	50/ 55	61/333	32/269
19:24:10	9.6	9.9	25/178	50/ 54	61/333	32/269
19:24:20	9.5	9.8	25/178	50/ 54	61/333	33/270
19:24:30	9.5	9.8	25/178	49/ 54	61/333	33/270
19:24:40	9.4	9.7	25/178	49/ 54	61/334	33/270
19:24:50	9.4	9.7	24/178	49/ 54	61/334	33/270
19:25:00	9.3	9.6	24/178	49/ 54	61/334	33/270
19:25:10	9.3	9.6	24/178	49/ 54	61/334	33/270
19:25:20	9.2	9.5	24/178	49/ 54	61/334	33/270
19:25:30	9.2	9.5	24/178	49/ 54	61/334	33/270
19:25:40	9.1	9.4	24/178	49/ 54	61/334	33/270
19:25:50	9.1	9.4	24/178	49/ 54	62/334	33/270
19:26:00	9.0	9.3	24/178	49/ 54	62/334	33/270

19:26:10	9.0	9.3	24/178	49/ 54	62/334	33/270
19:26:20	8.9	9.2	24/178	49/ 54	62/334	33/270
19:26:30	8.9	9.2	24/178	49/ 53	62/334	33/271
19:26:40	8.8	9.1	24/178	49/ 53	62/334	33/271
19:26:50	8.8	9.1	24/178	49/ 53	62/334	33/271
19:27:00	8.7	9.0	24/178	49/ 53	62/335	33/271
19:27:10	8.7	9.0	23/178	49/ 53	62/335	33/271
19:27:20	8.7	8.9	23/178	48/ 53	62/335	33/271
19:27:30	8.6	8.9	23/178	48/ 53	62/335	33/271
19:27:40	8.6	8.8	23/178	48/ 53	62/335	33/271
19:27:50	8.5	8.8	23/178	48/ 53	62/335	33/271
19:28:00	8.5	8.8	23/178	48/ 53	62/335	34/271

BL_PI.3 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 462
Total number of parameters : 102
Epoch independent parameters : 3
Rms of weight unit : .0016 m

BL_FS.3 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
5	6	1	1
16	6	1	1
24	6	1	1
17	6	1	1
26	6	1	1
5	6	5	2
16	6	5	2
17	6	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 720.
RMS ACTUALLY COMPUTED = 720.

#	RMS	RMS/RMS1	AMBIGUITIES		
1	.001	1.000	0	0	0
2	.001	1.084	0	1	-1
3	.002	1.146	0	-1	1
4	.002	1.313	-1	-4	3
5	.002	1.314	-1	-3	2
6	.002	1.356	-1	3	-3
7	.002	1.357	0	2	-2
8	.002	1.407	-1	4	-4
9	.002	1.456	0	-2	2
10	.002	1.479	-1	2	-2

#	RMS	RMS/RMS1	AMBIGUITIES

1	.002	1.000	0	0	0	0	0	0	0	0
2	.004	2.514								
3	.004	2.577								
[illegible]	.005	3.194								
5	.006	3.628								
6	.006	3.762								
7	.006	4.053								
8	.007	4.296								
9	.007	4.642								
10	.008	5.204								

---

* FARA Summary Iteration : 1 *

---

rms a priori : 10.0 [mm] rms float : 1.5 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms float < rms a priori) : 100.000 [%]

rms fix 1 : 1.6 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms fix 1 < rms a priori) : 100.000 [%]

Error prob. alpha : .001 [%]
Probability that (rms fix 1 < rms fix 2) : 100.000 [%]

[illegible]mbiguity Resolution successful *

Number of epochs with GDOP =< 8 : 0
Total number of common epochs : 33

Observation time (GDOP =< 8) : 0 sec
Recommendation : --- sec

---

* Warning : Recommendation not applicable *

BL_CS.3 CYCLE SLIP INFORMATION

Total no of cycle slips : 0

BL_FC.3 FINAL COORDINATES

Rov:926 Ref:836 Amb:Y* 08/19/94 07:22:40 PM
Cartesian :

[illegible]	-1978535.0678	m	Y	-4936710.6941	m	Z	3509595.3967	m
dX	-1509.7538	m	dY	699.1674	m	dZ	41.1445	m
sX	0.0005	m	sY	0.0013	m	sZ	0.0004	m

Geodetic :
Lat 33 35 51.64028 N Lon 111 50 23.73775 W h 419.2616 m

```
dLat          2.68539     dLon      1  4.43671     dh        -50.1944  m
sLat          0.0006  m   sLon         0.0003  m   sh          0.0013  m
Distance :
Slope      1664.2970  m    sSlope   0.0003  m
```

CH.4 ========== NEW STATIC CHAIN =====

```
#######################################################################
#     BL.4    927                 836                 08/19/94 07:02:50 PM #
#######################################################################
```

BL_SE.4 START / END (COMMON) EPOCHS

08/19/94 07:02:50 PM to 08/19/94 07:08:50 PM

BL_OI.4 OPERATION INFORMATION

	Rover			Reference		
Point id	927			836		
Sensor/Controller id	001662/094838			001659/094778		
Operation mode	STS			STS		
Observation rate (s)	10.0			10.0		
Ht reading/Ant offset (m)	1.500	/0.091		1.316	/0.441	
Eccentricity E/N/H (m)	0.000	/0.000	/0.000	0.000	/0.000	/0.000

BL_SI.4 SATELLITE INFORMATION

SV id	L1_C_CA	L1_P_CO	L2_C_P	L2_P_CO	L1_P_SQ	L2_P_SQ
5	0	37	37	0	0	37
6	0	37	37	0	0	37
16	0	37	37	0	0	37
17	0	37	37	0	0	37
24	0	37	37	0	0	37

BL_EA.4 ELEVATION / AZIMUTH

sat id :			5	16	24	6	17
hh:mm:ss	PDOP	GDOP					
19:02:50	3.1	3.5	35/179	56/ 67	26/ 53	52/325	26/260
19:03:00	3.1	3.5	35/179	56/ 67	26/ 53	52/325	27/260
19:03:10	3.1	3.5	34/179	56/ 67	26/ 53	52/326	27/260
19:03:20	3.1	3.5	34/179	56/ 67	25/ 53	52/326	27/260
19:03:30	3.1	3.5	34/179	56/ 67	25/ 54	52/326	27/260
19:03:40	3.1	3.5	34/179	56/ 67	25/ 54	53/326	27/261
19:03:50	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:00	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:10	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:20	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:30	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:40	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:04:50	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:05:00	3.1	3.5	34/179	56/ 66	25/ 54	53/326	27/261
19:05:10	3.1	3.5	34/179	56/ 65	25/ 54	53/326	27/261
19:05:20	3.1	3.5	33/179	56/ 65	25/ 54	53/326	27/261
19:05:30	3.1	3.5	33/179	56/ 65	25/ 54	53/326	27/261
19:05:40	3.1	3.5	33/179	55/ 65	25/ 54	53/326	27/261
19:05:50	3.1	3.5	33/179	55/ 65	25/ 54	53/326	27/261
19:06:00	3.1	3.5	33/179	55/ 65	25/ 54	53/327	27/261

19:06:10	3.1	3.5	33/179	55/ 65	25/ 54	54/327	27/262
19:06:20	3.1	3.5	33/179	55/ 65	25/ 54	54/327	27/262
19:06:30	3.1	3.5	33/179	55/ 65	24/ 54	54/327	28/262
19:06:40	3.1	3.5	33/179	55/ 64	24/ 54	54/327	28/262
:06:50	3.1	3.5	33/179	55/ 64	24/ 55	54/327	28/262
19:07:00	3.1	3.5	33/179	55/ 64	24/ 55	54/327	28/262
19:07:10	3.1	3.5	33/179	55/ 64	24/ 55	54/327	28/262
19:07:20	3.1	3.5	33/179	55/ 64	24/ 55	54/327	28/262
19:07:30	3.1	3.5	32/179	55/ 64	24/ 55	54/327	28/262
19:07:40	3.1	3.5	32/179	55/ 64	24/ 55	54/327	28/262
19:07:50	3.1	3.5	32/179	55/ 64	24/ 55	54/327	28/262
19:08:00	3.1	3.4	32/179	55/ 64	24/ 55	54/327	28/262
19:08:10	3.1	3.4	32/179	55/ 63	24/ 55	54/327	28/262
19:08:20	3.1	3.4	32/179	55/ 63	24/ 55	54/327	28/262
19:08:30	3.1	3.4	32/179	55/ 63	24/ 55	54/327	28/263
19:08:40	3.1	3.4	32/179	55/ 63	24/ 55	55/327	28/263
19:08:50	3.1	3.4	32/179	55/ 63	24/ 55	55/328	28/263

BL_PI.4 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 555
Total number of parameters : 114
Epoch independent parameters : 3
Rms of weight unit : .0023 m

BL_FS.4 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
5	16	1	1
24	16	1	1
6	16	1	1
17	16	1	1
5	16	5	2
24	16	5	2
6	16	5	2
17	16	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 1728.
RMS ACTUALLY COMPUTED = 1536.

#	RMS	RMS/RMS1	AMBIGUITIES			
1	.002	1.000	0	0	0	0
2	.002	1.011	1	-1	2	3
3	.003	1.250	1	-1	1	2
	.003	1.268	2	-1	2	4
5	.003	1.320	2	-2	3	5
6	.003	1.340	1	0	1	2
7	.003	1.362	0	-1	1	1
8	.003	1.366	4	-2	3	6

```
  9  .003    1.374       0    0    1    1
 10  .003    1.417       3   -2    4    7

 #   RMS   RMS/RMS1     AMBIGUITIES
    ---------------------------------

  1  .002    1.000       0    0    0    0    0    0    0    0
  2  .004    1.828
  3  .004    1.843
  4  .005    2.005
  5  .005    2.234
  6  .005    2.331
  7  .006    2.428
  8  .006    2.631
  9  .007    2.850
 10  .007    2.887

-----------------------------------------------------------------------
* FARA Summary                                          Iteration :   1 *
-----------------------------------------------------------------------

rms a priori          :   10.0 [mm]   rms float            :    1.9 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms float < rms a priori)                : 100.000 [%]

rms fix 1             :    2.3 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms fix 1 < rms a priori)                : 100.000 [%]

Error prob. alpha     :    .001 [%]
Probability that (rms fix 1 < rms fix 2)                   : 100.000 [%]

-----------------------------------------------------------------------
* Ambiguity Resolution successful *
-----------------------------------------------------------------------

Number of epochs with GDOP =< 8 :        37
Total number of common epochs   :        37

Observation time (GDOP =< 8)    :       360 sec
Recommendation                  :       300 sec


BL_CS.4    CYCLE  SLIP  INFORMATION
-----------------------------------

Total no of cycle slips : 0


BL_FC.4    FINAL  COORDINATES
-----------------------------

Rov:927  Ref:836  Amb:Y  08/19/94 07:02:50 PM
Cartesian :
  X  -1978373.0117  m      Y  -4936395.7284  m    Z   3510165.7770  m
 dX     -1347.6977  m     dY      1014.1331  m   dZ       611.5248  m
 sX         0.0006  m     sY         0.0012  m   sZ         0.0007  m
Geodetic :
 Lat  33 36 13.39272 N    Lon 111 50 22.44801 W    h       441.1864  m
```

```
dLat        24.43783     dLon      1  3.14697     dh       -28.2696  m
sLat         0.0005  m   sLon         0.0004  m   sh         0.0014  m
Distance :
Slope      1794.0785  m    sSlope   0.0004  m
```

CH.5 ========== NEW STATIC CHAIN =====

```
#######################################################################
#     BL.5    929-A              836                08/19/94 08:27:00 PM #
#######################################################################
```

BL_SE.5 START / END (COMMON) EPOCHS

08/19/94 08:27:00 PM to 08/19/94 08:33:00 PM

BL_OI.5 OPERATION INFORMATION

	Rover	Reference
Point id	929-A	836
Sensor/Controller id	001662/094838	001659/094778
Operation mode	STS	STS
Observation rate (s)	10.0	10.0
Ht reading/Ant offset (m)	1.900 /0.091	1.316 /0.441
Eccentricity E/N/H (m)	0.000 /0.000 /0.000	0.000 /0.000 /0.000

BL_SI.5 SATELLITE INFORMATION

SV id	L1_C_CA	L1_P_CO	L2_C_P	L2_P_CO	L1_P_SQ	L2_P_SQ
6	0	37	37	0	0	37
16	0	37	37	0	0	37
17	0	37	37	0	0	37
23	0	37	37	0	0	37
26	0	37	37	0	0	37

BL_EA.5 ELEVATION / AZIMUTH

sat id :			16	6	17	26	23
hh:mm:ss	PDOP	GDOP					
20:27:00	3.0	3.4	25/ 43	84/ 77	48/303	35/109	38/220
20:27:10	3.0	3.4	25/ 43	84/ 78	48/303	35/109	38/220
20:27:20	3.0	3.4	25/ 43	83/ 78	48/303	35/109	38/220
20:27:30	3.0	3.4	25/ 43	83/ 79	48/303	35/108	38/220
20:27:40	3.0	3.4	25/ 43	83/ 80	48/303	35/108	38/220
20:27:50	3.0	3.4	24/ 43	83/ 81	49/303	35/108	38/220
20:28:00	3.0	3.4	24/ 43	83/ 82	49/304	35/108	38/221
20:28:10	3.0	3.4	24/ 43	83/ 82	49/304	35/108	38/221
20:28:20	3.0	3.4	24/ 43	83/ 83	49/304	36/108	38/221
20:28:30	3.0	3.4	24/ 43	83/ 84	49/304	36/108	38/221
20:28:40	3.0	3.4	24/ 43	83/ 85	49/304	36/108	39/221
20:28:50	3.0	3.4	24/ 43	83/ 85	49/304	36/108	39/221
20:29:00	3.0	3.4	24/ 43	83/ 86	49/304	36/108	39/221
20:29:10	3.0	3.5	24/ 43	83/ 87	49/304	36/108	39/221
20:29:20	3.0	3.5	24/ 43	83/ 88	49/304	36/107	39/221
20:29:30	3.0	3.5	24/ 43	83/ 88	49/305	36/107	39/221
20:29:40	3.0	3.5	24/ 43	83/ 89	49/305	36/107	39/221
20:29:50	3.0	3.5	24/ 43	83/ 90	49/305	36/107	39/221
20:30:00	3.0	3.5	24/ 43	83/ 90	49/305	36/107	39/221
20:30:10	3.0	3.5	24/ 43	83/ 91	49/305	36/107	39/221

20:30:20	3.0	3.5	23/ 43	83/ 92	49/305	36/107	39/221
20:30:30	3.0	3.5	23/ 43	83/ 93	49/305	36/107	39/221
20:30:40	3.0	3.5	23/ 43	83/ 93	49/305	36/107	39/221
20:30:50	3.0	3.5	23/ 43	83/ 94	49/305	36/107	39/221
20:31:00	3.0	3.5	23/ 43	83/ 95	49/305	36/107	39/221
20:31:10	3.0	3.5	23/ 43	83/ 95	49/306	36/106	40/222
20:31:20	3.0	3.5	23/ 43	83/ 96	49/306	36/106	40/222
20:31:30	3.0	3.5	23/ 43	83/ 96	49/306	36/106	40/222
20:31:40	3.0	3.5	23/ 43	83/ 97	49/306	36/106	40/222
20:31:50	3.0	3.5	23/ 43	83/ 98	49/306	36/106	40/222
20:32:00	3.0	3.5	23/ 43	83/ 98	49/306	36/106	40/222
20:32:10	3.0	3.5	23/ 43	83/ 99	49/306	36/106	40/222
20:32:20	3.0	3.5	23/ 43	83/100	50/306	36/106	40/222
20:32:30	3.0	3.5	23/ 43	82/100	50/306	36/106	40/222
20:32:40	3.0	3.5	23/ 43	82/101	50/307	36/106	40/222
20:32:50	3.0	3.5	22/ 43	82/101	50/307	37/106	40/222
20:33:00	3.0	3.5	22/ 43	82/102	50/307	37/105	40/222

BL_PI.5 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 555
Total number of parameters : 114
Epoch independent parameters : 3
Rms of weight unit : .0018 m

BL_FS.5 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
16	6	1	1
17	6	1	1
26	6	1	1
23	6	1	1
16	6	5	2
17	6	5	2
26	6	5	2
23	6	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 1296.
RMS ACTUALLY COMPUTED = 696.

#	RMS	RMS/RMS1	AMBIGUITIES			
1	.002	1.000	0	0	0	0
2	.002	1.526	1	-1	1	-1
3	.003	1.616	-1	1	-1	1
4	.003	1.816	1	0	1	0
5	.003	1.872	-1	0	-1	0
6	.003	1.889	-1	-1	0	-1
7	.003	1.969	-2	0	-1	1
8	.003	2.026	0	-2	1	-2

9	.003	2.124	1	1	0	1
10	.003	2.132	-1	0	0	1

#	RMS	RMS/RMS1	AMBIGUITIES							
1	.002	1.000	0	0	0	0	0	0	0	0
2	.005	2.795								
3	.005	2.809								
4	.006	3.381								
5	.006	3.549								
6	.007	3.663								
7	.007	3.788								
8	.007	3.990								
9	.007	4.058								
10	.008	4.289								

```
-----------------------------------------------------------------------
* FARA Summary                                          Iteration :   1 *
-----------------------------------------------------------------------

rms a priori          :   10.0 [mm]   rms float            :    1.8 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms float < rms a priori)                : 100.000 [%]

rms fix 1             :    1.8 [mm]
Error prob. alpha     :   5.000 [%]
Probability that (rms fix 1 < rms a priori)                : 100.000 [%]

Error prob. alpha     :    .001 [%]
Probability that (rms fix 1 < rms fix 2)                   : 100.000 [%]

-----------------------------------------------------------------------
* Ambiguity Resolution successful *
-----------------------------------------------------------------------

Number of epochs with GDOP =< 8 :        37
Total number of common epochs   :        37

Observation time (GDOP =< 8)    :       360 sec
Recommendation                  :       300 sec


BL_CS.5    CYCLE  SLIP  INFORMATION
-----------------------------------

Total no of cycle slips : 0


BL_FC.5    FINAL  COORDINATES
-----------------------------

Rov:929-A  Ref:836  Amb:Y  08/19/94 08:27:00 PM
Cartesian :
 X    -1977962.0431  m      Y  -4937481.6857  m    Z   3508866.1808  m
 dX      -936.7291  m     dY       -71.8242  m   dZ      -688.0714  m
 sX         0.0003  m     sY         0.0006  m   sZ         0.0005  m
Geodetic :
 Lat  33 35 22.90190 N    Lon 111 49 51.98843 W    h       434.3972  m
```

```
dLat        26.05299     dLon        32.68739     dh        -35.0588  m
sLat         0.0004  m   sLon         0.0003  m   sh         0.0007  m
Distance :
Slope      1164.5009  m    sSlope   0.0003  m

CH.6  ======================================  NEW  STATIC  CHAIN  =====

#######################################################################
#     BL.6    930                 836                 08/19/94 07:45:00 PM #
#######################################################################

BL_SE.6    START / END  (COMMON)  EPOCHS
-----------------------------------------
  08/19/94 07:45:00 PM  to  08/19/94 07:50:40 PM

BL_OI.6    OPERATION  INFORMATION
---------------------------------
                            Rover                        Reference
Point id                    930                          836
Sensor/Controller id        001662/094838                001659/094778
Operation mode              STS                          STS
Observation rate (s)        10.0                         10.0
Ht reading/Ant offset (m)   1.900  /0.091                1.316  /0.441
Eccentricity E/N/H (m)      0.000   /0.000   /0.000      0.000   /0.000   /0.000

BL_SI.6    SATELLITE  INFORMATION
---------------------------------
 SV id   L1_C_CA   L1_P_CO    L2_C_P   L2_P_CO   L1_P_SQ   L2_P_SQ
   5        0        18        18        0         0        18
   6        0        35        35        0         0        35
  16        0        35        35        0         0        35
  17        0        35        35        0         0        35
  23        0        35        35        0         0        35
  26        0        35        35        0         0        35

BL_EA.6    ELEVATION / AZIMUTH
------------------------------

 sat id :                 5       16        6       17       26       23
 hh:mm:ss PDOP GDOP
 19:45:00  5.2  5.3  16/176  42/ 47  70/343  38/279  23/127  20/211
 19:45:10  5.1  5.3  16/176  42/ 47  70/344  38/280  23/127  20/211
 19:45:20  5.1  5.2  16/176  42/ 47  70/344  38/280  23/127  20/211
 19:45:30  5.1  5.2  16/176  42/ 47  70/344  38/280  23/127  20/211
 19:45:40  5.1  5.2  15/176  41/ 47  70/344  38/280  24/127  20/211
 19:45:50  5.0  5.2  15/176  41/ 47  70/344  38/280  24/127  20/211
 19:46:00  5.0  5.2  15/176  41/ 47  70/344  38/280  24/127  20/211
 19:46:10  5.0  5.1  15/176  41/ 47  70/344  38/280  24/127  21/211
 19:46:20  5.0  5.1  15/176  41/ 47  70/344  38/280  24/127  21/211
 19:46:30  4.9  5.1  15/176  41/ 47  70/344  38/280  24/127  21/211
 19:46:40  4.9  5.1  15/176  41/ 47  70/344  38/280  24/127  21/211
 19:46:50  4.9  5.0  15/176  41/ 47  70/345  39/280  24/127  21/211
 19:47:00  4.9  5.0  15/176  41/ 47  71/345  39/280  24/127  21/211
 19:47:10  4.9  5.0  15/176  41/ 47  71/345  39/281  24/127  21/211
 19:47:20  4.8  5.0  15/176  41/ 47  71/345  39/281  24/127  21/211
 19:47:30  4.8  4.9  15/176  41/ 47  71/345  39/281  24/127  21/211
 19:47:40  4.8  4.9  15/176  41/ 47  71/345  39/281  24/126  21/211
 19:47:50  4.8  4.9  15/176  41/ 47  71/345  39/281  24/126  21/211
 sat id :                16        6       17       26       23
```

hh:mm:ss	PDOP	GDOP					
19:48:00	4.8	4.9	41/ 47	71/345	39/281	24/126	21/212
19:48:10	4.7	4.9	40/ 47	71/345	39/281	24/126	21/212
19:48:20	4.7	4.9	40/ 47	71/346	39/281	24/126	21/212
19:48:30	4.7	4.9	40/ 47	71/346	39/281	24/126	22/212
19:48:40	4.7	4.9	40/ 47	71/346	39/281	24/126	22/212
19:48:50	4.7	4.8	40/ 46	71/346	39/281	25/126	22/212
19:49:00	4.6	4.8	40/ 46	71/346	39/282	25/126	22/212
19:49:10	4.6	4.8	40/ 46	72/346	39/282	25/126	22/212
19:49:20	4.6	4.8	40/ 46	72/346	39/282	25/126	22/212
19:49:30	4.6	4.8	40/ 46	72/346	39/282	25/126	22/212
19:49:40	4.6	4.8	40/ 46	72/346	39/282	25/126	22/212
19:49:50	4.6	4.7	40/ 46	72/347	39/282	25/126	22/212
19:50:00	4.5	4.7	40/ 46	72/347	39/282	25/126	22/212
19:50:10	4.5	4.7	40/ 46	72/347	39/282	25/125	22/212
19:50:20	4.5	4.7	40/ 46	72/347	39/282	25/125	22/212
19:50:30	4.5	4.7	40/ 46	72/347	39/282	25/125	22/212
19:50:40	4.5	4.7	39/ 46	72/347	40/282	25/125	22/212

BL_PI.6 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 579
Total number of parameters : 108
Epoch independent parameters : 3
Rms of weight unit : .0016 m

FS.6 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
5	6	1	1
16	6	1	1
17	6	1	1
26	6	1	1
23	6	1	1
5	6	5	2
16	6	5	2
17	6	5	2
26	6	5	2
23	6	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 7776.
RMS ACTUALLY COMPUTED = 5400.

#	RMS	RMS/RMS1	AMBIGUITIES				
1	.001	1.000	-1	0	-1	-1	-1
2	.002	1.209	-1	1	-2	0	-2
3	.002	1.347	-1	-1	0	-2	0
4	.003	1.697	-2	0	-1	-2	-2
5	.003	1.759	0	0	-1	0	0

6	.003	1.768	0	1	-2	1	-1
7	.003	1.789	-1	2	-3	1	-3
8	.003	1.806	-2	-1	0	-3	-1
9	.003	1.819	1	0	0	0	1
[illegible]	.003	1.843	1	1	-1	1	0

#	RMS	RMS/RMS1	AMBIGUITIES									
1	.002	1.000	0	0	0	0	0	-1	0	-1	-1	-1
2	.005	2.903										
3	.005	3.108										
4	.005	3.337										
5	.005	3.341										
6	.006	3.942										
7	.006	3.953										
8	.007	4.141										
9	.007	4.439										
10	.007	4.471										

---

* FARA Summary Iteration : 1 *

---

rms a priori : 10.0 [mm] rms float : 1.6 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms float < rms a priori) : 100.000 [%]

[illegible] fix 1 : 1.6 [mm]
[illegible]or prob. alpha : 5.000 [%]
Probability that (rms fix 1 < rms a priori) : 100.000 [%]

Error prob. alpha : .001 [%]
Probability that (rms fix 1 < rms fix 2) : 100.000 [%]

---

* Ambiguity Resolution successful *

Number of epochs with GDOP =< 8 : 35
Total number of common epochs : 35

Observation time (GDOP =< 8) : 340 sec
Recommendation : 290 sec

BL_CS.6 CYCLE SLIP INFORMATION

Total no of cycle slips : 0

BL_FC.6 FINAL COORDINATES

[illegible]
Rov:930 Ref:836 Amb:Y 08/19/94 07:45:00 PM
Cartesian :

X	-1977603.3164	m	Y	-4936687.2398	m	Z	3510221.4295	m
dX	-578.0024	m	dY	722.6217	m	dZ	667.1773	m

```
  sX          0.0004  m     sY          0.0010  m   sZ          0.0004  m
Geodetic :
 Lat  33 36 15.17873 N    Lon 111 49 50.53132 W    h        458.9272  m
dLat        26.22384     dLon        31.23028     dh        -10.5288  m
[illegible]  0.0005  m   sLon         0.0003  m   sh          0.0009  m
Distance :
Slope      1140.7868  m    sSlope   0.0005  m


CH.7  ========================================  NEW  STATIC  CHAIN  =====

#######################################################################
#     BL.7    931                 836                 08/19/94 08:40:40 PM #
#######################################################################

BL_SE.7    START / END  (COMMON)  EPOCHS
----------------------------------------
  08/19/94 08:40:40 PM  to  08/19/94 08:46:30 PM

BL_OI.7    OPERATION  INFORMATION
----------------------------------
                              Rover                        Reference
Point id                      931                          836
Sensor/Controller id          001662/094838                001659/094778
Operation mode                STS                          STS
Observation rate (s)          10.0                         10.0
Ht reading/Ant offset (m)     1.900  /0.091                1.316  /0.441
Eccentricity E/N/H (m)        0.000   /0.000   /0.000      0.000   /0.000   /0.000

[illegible] I.7    SATELLITE  INFORMATION
[illegible] ------------------------------
 SV id   L1_C_CA   L1_P_CO    L2_C_P   L2_P_CO   L1_P_SQ   L2_P_SQ
    6        0        36        34         0         0        34
   16        0        36        36         0         0        36
   17        0        36        36         0         0        36
   23        0        36        36         0         0        36
   26        0        36        36         0         0        36

BL_EA.7    ELEVATION / AZIMUTH
------------------------------

 sat id :                 16       6       17       26       23
 hh:mm:ss PDOP GDOP
 20:40:40  3.0  3.6  19/ 43  80/121  51/312  38/101  44/225
 sat id :                 16      17       26       23
 hh:mm:ss PDOP GDOP
 20:40:50  5.1  6.0  19/ 43  51/312  38/101  44/225
 20:41:00  5.0  6.0  19/ 43  51/312  38/101  44/225
 sat id :                 16       6       17       26       23
 hh:mm:ss PDOP GDOP
 20:41:10  3.0  3.7  19/ 43  79/122  51/312  38/101  44/225
 20:41:20  3.0  3.7  19/ 43  79/122  52/312  38/101  44/225
 20:41:30  3.0  3.7  19/ 43  79/123  52/312  38/101  44/225
 20:41:40  3.0  3.7  19/ 43  79/123  52/312  38/101  44/225
 [illegible]:41:50  3.0  3.7  19/ 43  79/123  52/313  38/100  44/225
 [illegible] 42:00  3.0  3.7  19/ 43  79/123  52/313  38/100  44/225
 20:42:10  3.0  3.7  19/ 43  79/124  52/313  38/100  44/225
 20:42:20  3.0  3.7  19/ 43  79/124  52/313  38/100  44/225
 20:42:30  3.0  3.7  19/ 43  79/124  52/313  38/100  44/225
 20:42:40  3.0  3.7  19/ 43  79/125  52/313  38/100  44/225
```

20:42:50	3.0	3.7	19/ 43	79/125	52/313	38/100	44/225
20:43:00	3.0	3.7	18/ 43	79/125	52/313	38/100	45/226
20:43:10	3.0	3.7	18/ 43	79/125	52/313	38/100	45/226
20:43:20	3.0	3.7	18/ 43	78/126	52/314	38/100	45/226
43:30	3.0	3.7	18/ 43	78/126	52/314	38/ 99	45/226
20:43:40	3.0	3.7	18/ 43	78/126	52/314	39/ 99	45/226
20:43:50	3.0	3.7	18/ 43	78/126	52/314	39/ 99	45/226
20:44:00	3.0	3.7	18/ 43	78/127	52/314	39/ 99	45/226
20:44:10	3.0	3.7	18/ 43	78/127	52/314	39/ 99	45/226
20:44:20	3.0	3.7	18/ 43	78/127	52/314	39/ 99	45/226
20:44:30	3.0	3.7	18/ 43	78/127	52/314	39/ 99	45/226
20:44:40	3.0	3.7	18/ 43	78/128	52/315	39/ 99	45/226
20:44:50	3.0	3.8	18/ 43	78/128	52/315	39/ 99	45/226
20:45:00	3.0	3.8	18/ 43	78/128	52/315	39/ 99	45/226
20:45:10	3.0	3.8	18/ 43	78/128	52/315	39/ 99	45/226
20:45:20	3.0	3.8	18/ 43	78/128	52/315	39/ 98	45/226
20:45:30	3.0	3.8	18/ 43	78/129	52/315	39/ 98	46/226
20:45:40	3.0	3.8	17/ 43	77/129	52/315	39/ 98	46/227
20:45:50	3.0	3.8	17/ 43	77/129	52/315	39/ 98	46/227
20:46:00	3.0	3.8	17/ 43	77/129	52/315	39/ 98	46/227
20:46:10	3.1	3.8	17/ 43	77/130	53/316	39/ 98	46/227
20:46:20	3.1	3.8	17/ 43	77/130	53/316	39/ 98	46/227
20:46:30	3.1	3.8	17/ 43	77/130	53/316	39/ 98	46/227

BL_PI.7 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 536
Total number of parameters : 111
Epoch independent parameters : 3
Rms of weight unit : .0024 m

BL_FS.7 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
6	16	1	1
17	16	1	1
26	16	1	1
23	16	1	1
6	16	5	2
17	16	5	2
26	16	5	2
23	16	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 1296.
RMS ACTUALLY COMPUTED = 678.

	RMS	RMS/RMS1	AMBIGUITIES			
1	.002	1.000	0	0	0	0
2	.003	1.254	1	0	1	0

3	.003	1.342	-2	-2	-1	-3
4	.003	1.394	1	2	0	2
5	.003	1.415	-1	0	-1	0
6	.003	1.428	-1	-2	0	-2
7	.003	1.478	-3	-2	-2	-3
8	.004	1.521	2	2	1	2
9	.004	1.535	-1	0	-1	-1
10	.004	1.575	1	1	0	1

#	RMS	RMS/RMS1	AMBIGUITIES							
1	.002	1.000	0	0	0	0	0	0	0	0
2	.004	1.633								
3	.005	1.847								
4	.006	2.255								
5	.006	2.461								
6	.006	2.536								
7	.007	2.702								
8	.007	2.941								
9	.008	3.112								
10	.009	3.573								

---

* FARA Summary Iteration : 1 *

---

rms a priori : 10.0 [mm] rms float : 2.6 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms float < rms a priori) : 100.000 [%]

rms fix 1 : 2.4 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms fix 1 < rms a priori) : 100.000 [%]

Error prob. alpha : .001 [%]
Probability that (rms fix 1 < rms fix 2) : 100.000 [%]

---

* Ambiguity Resolution successful *

Number of epochs with GDOP =< 8 : 36
Total number of common epochs : 36

Observation time (GDOP =< 8) : 350 sec
Recommendation : 301 sec

BL_CS.7 CYCLE SLIP INFORMATION

Total no of cycle slips : 0

BL_FC.7 FINAL COORDINATES

Rov:931 Ref:836 Amb:Y 08/19/94 08:40:40 PM

```
Cartesian :
   X  -1977186.1620  m      Y  -4937811.1314  m    Z   3508874.9894  m
  dX      -160.8480  m     dY      -401.2699  m   dZ      -679.2628  m
  sX         0.0005  m     sY         0.0009  m   sZ         0.0008  m
Geodetic :
 Lat  33 35 22.82838 N    Lon 111 49 19.30725 W    h       453.7297  m
dLat        26.12651     dLon         0.00621     dh       -15.7263  m
sLat         0.0005  m   sLon         0.0004  m   sh         0.0011  m
Distance :
Slope       805.1631  m    sSlope   0.0005  m


CH.8  ======================================  NEW  STATIC  CHAIN  =====

#######################################################################
#     BL.8    934                 836                 08/19/94 08:53:10 PM #
#######################################################################

BL_SE.8    START / END  (COMMON)  EPOCHS
-----------------------------------------
  08/19/94 08:53:10 PM  to  08/19/94 08:59:10 PM

BL_OI.8    OPERATION  INFORMATION
---------------------------------
                            Rover                        Reference
Point id                    934                          836
Sensor/Controller id        001662/094838                001659/094778
Operation mode              STS                          STS
Observation rate (s)        10.0                         10.0
Reading/Ant offset (m)      1.900  /0.091                1.316  /0.441
Excentricity E/N/H (m)      0.000   /0.000   /0.000      0.000   /0.000   /0.000

BL_SI.8    SATELLITE  INFORMATION
---------------------------------
 SV id   L1_C_CA   L1_P_CO    L2_C_P   L2_P_CO   L1_P_SQ   L2_P_SQ
    6        0        37        37         0         0        37
   16        0         2         0         0         0         0
   17        0        37        37         0         0        37
   23        0        37        37         0         0        37
   26        0        37        37         0         0        37

BL_EA.8    ELEVATION / AZIMUTH
------------------------------

 sat id :                 6       17       26       23
 hh:mm:ss PDOP GDOP
 20:53:10  5.5  6.2  74/137  54/321  40/ 94  49/230
 20:53:20  5.5  6.2  74/137  54/321  40/ 94  49/230
 sat id :                 6       17       26       23
 hh:mm:ss PDOP GDOP
 20:53:30  5.5  6.2  74/137  54/321  40/ 93  49/230
 20:53:40  5.5  6.3  74/137  54/321  40/ 93  49/230
 20:53:50  5.6  6.3  74/137  54/321  40/ 93  49/230
 20:54:00  5.6  6.3  74/137  54/321  40/ 93  49/230
 20:54:10  5.6  6.3  74/138  54/321  40/ 93  49/230
 20:54:20  5.6  6.3  73/138  54/321  40/ 93  49/230
 20:54:30  5.6  6.3  73/138  54/321  40/ 93  49/230
 20:54:40  5.6  6.4  73/138  54/322  40/ 93  49/230
 20:54:50  5.6  6.4  73/138  54/322  40/ 93  49/230
 20:55:00  5.7  6.4  73/138  54/322  40/ 93  49/230
```

20:55:10	5.7	6.4	73/138	54/322	40/ 92	49/230
20:55:20	5.7	6.5	73/138	54/322	40/ 92	50/231
20:55:30	5.7	6.5	73/139	54/322	40/ 92	50/231
20:55:40	5.7	6.5	73/139	54/322	40/ 92	50/231
20:55:50	5.8	6.5	73/139	54/322	40/ 92	50/231
20:56:00	5.8	6.5	73/139	55/323	40/ 92	50/231
20:56:10	5.8	6.6	73/139	55/323	40/ 92	50/231
20:56:20	5.8	6.6	72/139	55/323	40/ 92	50/231
20:56:30	5.8	6.6	72/139	55/323	40/ 92	50/231
20:56:40	5.8	6.6	72/139	55/323	40/ 91	50/231
20:56:50	5.9	6.7	72/139	55/323	40/ 91	50/231
20:57:00	5.9	6.7	72/140	55/323	40/ 91	50/231
20:57:10	5.9	6.7	72/140	55/323	40/ 91	50/231
20:57:20	5.9	6.7	72/140	55/324	40/ 91	50/231
20:57:30	5.9	6.7	72/140	55/324	40/ 91	50/232
20:57:40	6.0	6.8	72/140	55/324	40/ 91	51/232
20:57:50	6.0	6.8	72/140	55/324	40/ 91	51/232
20:58:00	6.0	6.8	72/140	55/324	40/ 91	51/232
20:58:10	6.0	6.8	72/140	55/324	40/ 91	51/232
20:58:20	6.0	6.9	72/141	55/324	40/ 90	51/232
20:58:30	6.1	6.9	71/141	55/324	40/ 90	51/232
20:58:40	6.1	6.9	71/141	55/325	40/ 90	51/232
20:58:50	6.1	7.0	71/141	55/325	40/ 90	51/232
20:59:00	6.1	7.0	71/141	55/325	40/ 90	51/232
20:59:10	6.2	7.0	71/141	55/325	40/ 90	51/232

BL_PI.8 PROCESSING INFORMATION

```
-----------------------------------
ber of observations rejected :        0
ber of observations used     :      446
Total number of parameters   :      114
Epoch independent parameters :        3
Rms of weight unit           :      .0023 m
```

BL_FS.8 FARA STATISTICS

```
---------------------------
```

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
16	6	1	1
17	6	1	1
26	6	1	1
23	6	1	1
17	6	5	2
26	6	5	2
23	6	5	2

```
-------  FARA  ------------------------------  Iteration :  1  --------

 NUMBER OF AMBIGUITY SETS=                                  216.
 RMS ACTUALLY COMPUTED   =                                  192.
```

#	RMS	RMS/RMS1	AMBIGUITIES		
1	.002	1.000	0	0	0

2	.002	1.015	-1	-1	0
3	.003	1.336	0	1	0
4	.003	1.375	0	-1	1
5	.003	1.401	1	0	1
6	.003	1.410	-1	-2	0
7	.003	1.425	0	-2	1
8	.003	1.468	-1	1	-1
9	.003	1.480	-1	0	-1
10	.003	1.481	1	2	0

#	RMS	RMS/RMS1	AMBIGUITIES						
1	.002	1.000	0	0	0	0	0	0	0
2	.004	1.640							
3	.004	1.672							
4	.004	1.676							
5	.004	1.745							
6	.004	1.970							
7	.005	2.025							
8	.005	2.157							
9	.005	2.179							
10	.006	2.440							

```
-----------------------------------------------------------------------
* FARA Summary                                          Iteration :   1 *
-----------------------------------------------------------------------

rms a priori            :   10.0 [mm]   rms float            :    2.3 [mm]
Error prob. alpha       :   5.000 [%]
Probability that (rms float < rms a priori)                  : 100.000 [%]

rms fix 1               :    2.3 [mm]
Error prob. alpha       :   5.000 [%]
Probability that (rms fix 1 < rms a priori)                  : 100.000 [%]

Error prob. alpha       :    .001 [%]
Probability that (rms fix 1 < rms fix 2)                     : 100.000 [%]

-----------------------------------------------------------------------
* Ambiguity Resolution successful *
-----------------------------------------------------------------------

Number of epochs with GDOP =< 8 :        37
Total number of common epochs   :        37

Observation time (GDOP =< 8)    :       360 sec
Recommendation                  :       323 sec


BL_CS.8    CYCLE  SLIP  INFORMATION
-----------------------------------

Total no of cycle slips : 0


BL_FC.8    FINAL  COORDINATES
-----------------------------
```

```
Rov:934  Ref:836  Amb:Y  08/19/94 08:53:10 PM
Cartesian :
   X  -1976443.7174  m      Y  -4938119.4898  m    Z   3508882.0473  m
  dX       581.5966  m     dY      -709.6283  m   dZ      -672.2049  m
  sX         0.0005  m     sY         0.0012  m   sZ         0.0010  m
Geodetic :
 Lat  33 35 22.83357 N    Lon 111 48 48.13395 W    h       466.2462  m
dLat        26.12132     dLon        31.16709     dh        -3.2098  m
sLat         0.0005  m   sLon         0.0004  m   sh         0.0015  m
Distance :
Slope      1137.4033  m    sSlope   0.0004  m


CH.9  ======================================  NEW  STATIC  CHAIN  =====

#######################################################################
#     BL.9    936                 836                 08/19/94 09:18:00 PM #
#######################################################################

BL_SE.9    START / END  (COMMON)  EPOCHS
----------------------------------------
  08/19/94 09:18:00 PM  to  08/19/94 09:24:30 PM

BL_OI.9    OPERATION  INFORMATION
----------------------------------
                            Rover                        Reference
Point id                    936                          836
Sensor/Controller id        001662/094838                001659/094778
Operation mode              STS                          STS
Observation rate (s)        10.0                         10.0
Reading/Ant offset (m)      1.900  /0.091                1.316  /0.441
Eccentricity E/N/H (m)      0.000   /0.000   /0.000      0.000   /0.000   /0.000

BL_SI.9    SATELLITE  INFORMATION
----------------------------------
 SV id   L1_C_CA   L1_P_CO    L2_C_P   L2_P_CO   L1_P_SQ   L2_P_SQ
    6         0        40        39         0         0        39
   17         0        40        40         0         0        40
   23         0        40        40         0         0        40
   26         0        40        28         0         0        28

BL_EA.9    ELEVATION / AZIMUTH
------------------------------

 sat id :                17      23
 hh:mm:ss PDOP GDOP
 21:18:00 ---- ----  58/340  58/243
 sat id :                 6      17      23
 hh:mm:ss PDOP GDOP
 21:18:10 ---- ----  62/150  59/340  58/243
 21:18:20 ---- ----  62/150  59/340  58/243
 21:18:30 ---- ----  62/150  59/340  58/243
 21:18:40 ---- ----  61/150  59/341  59/243
 21:18:50 ---- ----  61/150  59/341  59/243
 21:19:00 ---- ----  61/150  59/341  59/244
 21:19:10 ---- ----  61/150  59/341  59/244
 21:19:20 ---- ----  61/150  59/341  59/244
 21:19:30 ---- ----  61/150  59/341  59/244
 21:19:40 ---- ----  61/150  59/342  59/244
 21:19:50 ---- ----  61/150  59/342  59/244
```

sat id :			6	17	26	23
hh:mm:ss	PDOP	GDOP				
21:20:00	11.9	13.5	61/150	59/342	41/ 77	59/244
21:20:10	12.0	13.6	61/150	59/342	41/ 77	59/244
21:20:20	12.1	13.6	61/150	59/342	41/ 77	59/244
21:20:30	12.1	13.7	61/150	59/342	41/ 76	59/245
21:20:40	12.2	13.8	60/151	59/342	41/ 76	59/245
21:20:50	12.3	13.9	60/151	59/343	41/ 76	59/245
21:21:00	12.4	14.0	60/151	59/343	41/ 76	59/245
21:21:10	12.5	14.1	60/151	59/343	41/ 76	59/245
21:21:20	12.5	14.2	60/151	59/343	41/ 76	60/245
21:21:30	12.6	14.2	60/151	59/343	41/ 76	60/245
21:21:40	12.7	14.3	60/151	59/343	41/ 76	60/245
21:21:50	12.8	14.4	60/151	59/343	41/ 76	60/245
21:22:00	12.9	14.5	60/151	59/344	41/ 76	60/246
21:22:10	12.9	14.6	60/151	59/344	41/ 75	60/246
21:22:20	13.0	14.7	60/151	59/344	40/ 75	60/246
21:22:30	13.1	14.8	60/151	59/344	40/ 75	60/246
21:22:40	13.2	14.9	59/151	59/344	40/ 75	60/246
21:22:50	13.3	15.0	59/151	59/344	40/ 75	60/246
21:23:00	13.4	15.0	59/151	59/344	40/ 75	60/246
21:23:10	13.4	15.1	59/151	59/345	40/ 75	60/246
21:23:20	13.5	15.2	59/151	59/345	40/ 75	60/247
21:23:30	13.6	15.3	59/151	59/345	40/ 75	60/247
21:23:40	13.7	15.4	59/151	59/345	40/ 75	60/247
21:23:50	13.8	15.5	59/151	59/345	40/ 74	60/247
21:24:00	13.9	15.6	59/152	59/345	40/ 74	60/247
21:24:10	14.0	15.7	59/152	59/345	40/ 74	61/247
21:24:20	14.0	15.8	59/152	59/346	40/ 74	61/247
21:24:30	14.1	15.9	59/152	59/346	40/ 74	61/247

BL_PI.9 PROCESSING INFORMATION

Number of observations rejected : 0
Number of observations used : 454
Total number of parameters : 123
Epoch independent parameters : 3
Rms of weight unit : .0024 m

BL_FS.9 FARA STATISTICS

Ambiguities to be resolved :

SVid	Ref SVid	Carrier	Wavelength factor
6	17	1	1
26	17	1	1
23	17	1	1
6	17	5	2
26	17	5	2
23	17	5	2

------- FARA ---------- Iteration : 1 --------

NUMBER OF AMBIGUITY SETS= 216.
RMS ACTUALLY COMPUTED = 204.

RMS RMS/RMS1 AMBIGUITIES

1	.002	1.000	3	5	2
2	.003	1.318	4	3	4
3	.003	1.334	2	7	0
4	.003	1.409	2	4	2
5	.003	1.438	2	6	1
6	.003	1.466	3	7	1
7	.003	1.498	3	3	3
8	.004	1.640	1	6	0
9	.004	1.657	3	4	3
10	.004	1.659	4	5	3

#	RMS	RMS/RMS1	AMBIGUITIES					
1	.002	1.000	0	0	1	3	5	2
2	.004	1.500						
3	.005	2.027						
4	.005	2.036						
5	.005	2.106						
6	.005	2.137						
7	.005	2.189						
8	.006	2.542						
9	.006	2.578						
10	.006	2.584						

FARA Summary Iteration : 1 *

---

rms a priori : 10.0 [mm] rms float : 2.4 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms float < rms a priori) : 100.000 [%]

rms fix 1 : 2.4 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms fix 1 < rms a priori) : 100.000 [%]

Error prob. alpha : .001 [%]
Probability that (rms fix 1 < rms fix 2) : 100.000 [%]
* Less than 5 satellites ! Additional iteration invoked *

------- FARA ---------- Iteration : 2 --------

NUMBER OF AMBIGUITY SETS= 512.
RMS ACTUALLY COMPUTED = 464.

#	RMS	RMS/RMS1	AMBIGUITIES		
1	.002	1.000	3	5	2
2	.003	1.318	4	3	4
3	.003	1.334	2	7	0
4	.003	1.409	2	4	2
5	.003	1.438	2	6	1
6	.003	1.466	3	7	1

7	.003	1.498	3	3	3
8	.004	1.640	1	6	0
9	.004	1.657	3	4	3
10	.004	1.659	4	5	3

#	RMS	RMS/RMS1	AMBIGUITIES					
1	.002	1.000	0	0	1	3	5	2
2	.004	1.500						
3	.005	2.027						
4	.005	2.036						
5	.005	2.106						
6	.005	2.137						
7	.005	2.189						
8	.006	2.542						
9	.006	2.578						
10	.006	2.584						

---

* FARA Summary Iteration : 2 *

---

rms a priori : 10.0 [mm] rms float : 2.4 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms float < rms a priori) : 100.000 [%]

rms fix 1 : 2.4 [mm]
Error prob. alpha : 5.000 [%]
Probability that (rms fix 1 < rms a priori) : 100.000 [%]

Error prob. alpha : .001 [%]
Probability that (rms fix 1 < rms fix 2) : 100.000 [%]

---

* Ambiguity Resolution successful *

Number of epochs with GDOP =< 8 : 0
Total number of common epochs : 40

Observation time (GDOP =< 8) : 0 sec
Recommendation : --- sec

---

* Warning : Recommendation not applicable *

BL_CS.9 CYCLE SLIP INFORMATION

Total no of cycle slips : 0

BL_FC.9 FINAL COORDINATES

Rov:936 Ref:836 Amb:Y* 08/19/94 09:18:00 PM

Cartesian :

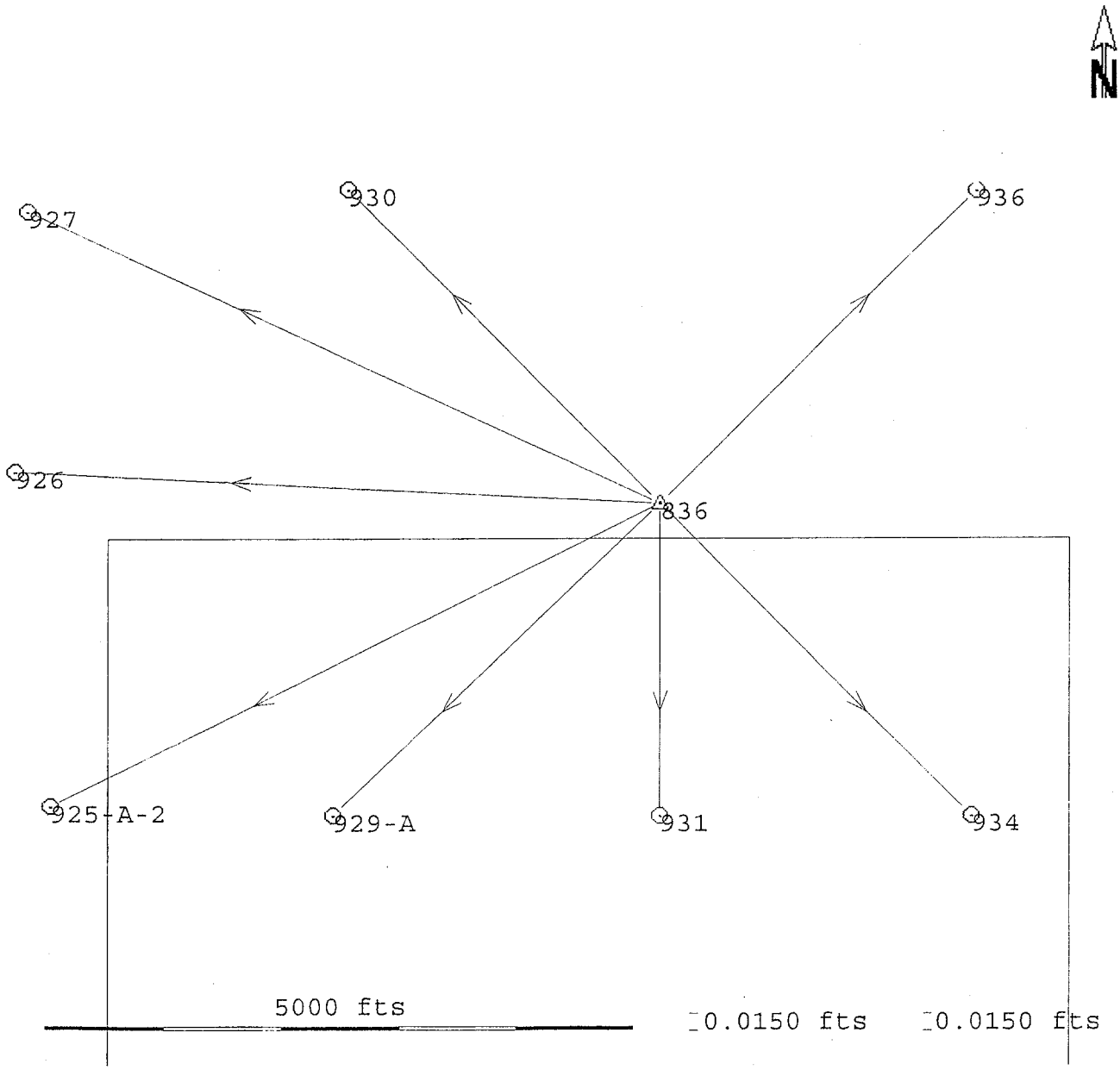
X	-1976119.5173	m	Y	-4937338.9795	m	Z	3510252.6374	m
dX	905.7967	m	dY	70.8820	m	dZ	698.3852	m
	0.0007	m	sY	0.0029	m	sZ	0.0022	m

Geodetic :

Lat	33 36 15.06179	N	Lon	111 48 47.70880	W	h	520.7372	m
dLat	26.10690		dLon	31.59224		dh	51.2812	m
sLat	0.0005	m	sLon	0.0006	m	sh	0.0036	m

Distance :

Slope	1145.9641	m	sSlope	0.0008	m


N
930
936
927
926
836
925-A-2
929-A
931
934
5000 fts
0.0150 fts
0.0150 fts

Leica SKI Software 8/26/94 12:51 PM
SURVEYORS SERVICE CO.

Coordinate set: LOST DOG WASH
Coordinate type: Grid
Reference ellipsoid: GRS 1980
Projection set: ARIZONA CENTRAL
Unit: fts

Point id	Easting	Northing	Orth. height	N
836	728815.3686	944730.8053	1636.1189	-95.9119
925-A	723664.4074	942170.9175	1453.1597	-96.1055
925-A-2	723664.4029	942170.9374	1453.1149	-96.1055
926	723365.0241	944997.7115	1471.5412	-96.0136
927	723472.4734	947196.3484	1543.3941	-95.9348
929-A	726052.8009	942095.1829	1521.2543	-96.0694
930	726171.6687	947378.9890	1601.5495	-95.8856
931	728817.2566	942090.1574	1584.6187	-96.0070
934	731454.1573	942093.2020	1625.6439	-95.9677
936	731484.8477	947372.0295	1804.2295	-95.7774

Attributes

925-A F: TENNIS COURT SE SERVICE LINE
934 F: city of scottsdale hand hole

Qxx-Matrices

Point Id	m0	q11	q12	q13	q22	q23	q
836	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
925-A	0.0059	0.0560	-0.0058	-0.0369	0.0309	0.0110	0.1
925-A-2	0.0056	0.0473	-0.0032	-0.0237	0.0269	0.0093	0.1
926	0.0052	0.1382	-0.0129	-0.2479	0.0342	0.0225	0.6
927	0.0075	0.0436	-0.0011	-0.0608	0.0276	-0.0152	0.3
929-A	0.0059	0.0434	-0.0007	-0.0040	0.0247	0.0079	0.1
930	0.0054	0.0930	-0.0132	-0.1277	0.0309	0.0239	0.3
931	0.0080	0.0474	0.0012	0.0148	0.0259	0.0123	0.2

934	0.0074	0.0506	0.0042	0.0221	0.0274	0.0162	0.4
936	0.0078	0.0411	0.0162	0.1155	0.0714	0.3021	2.2