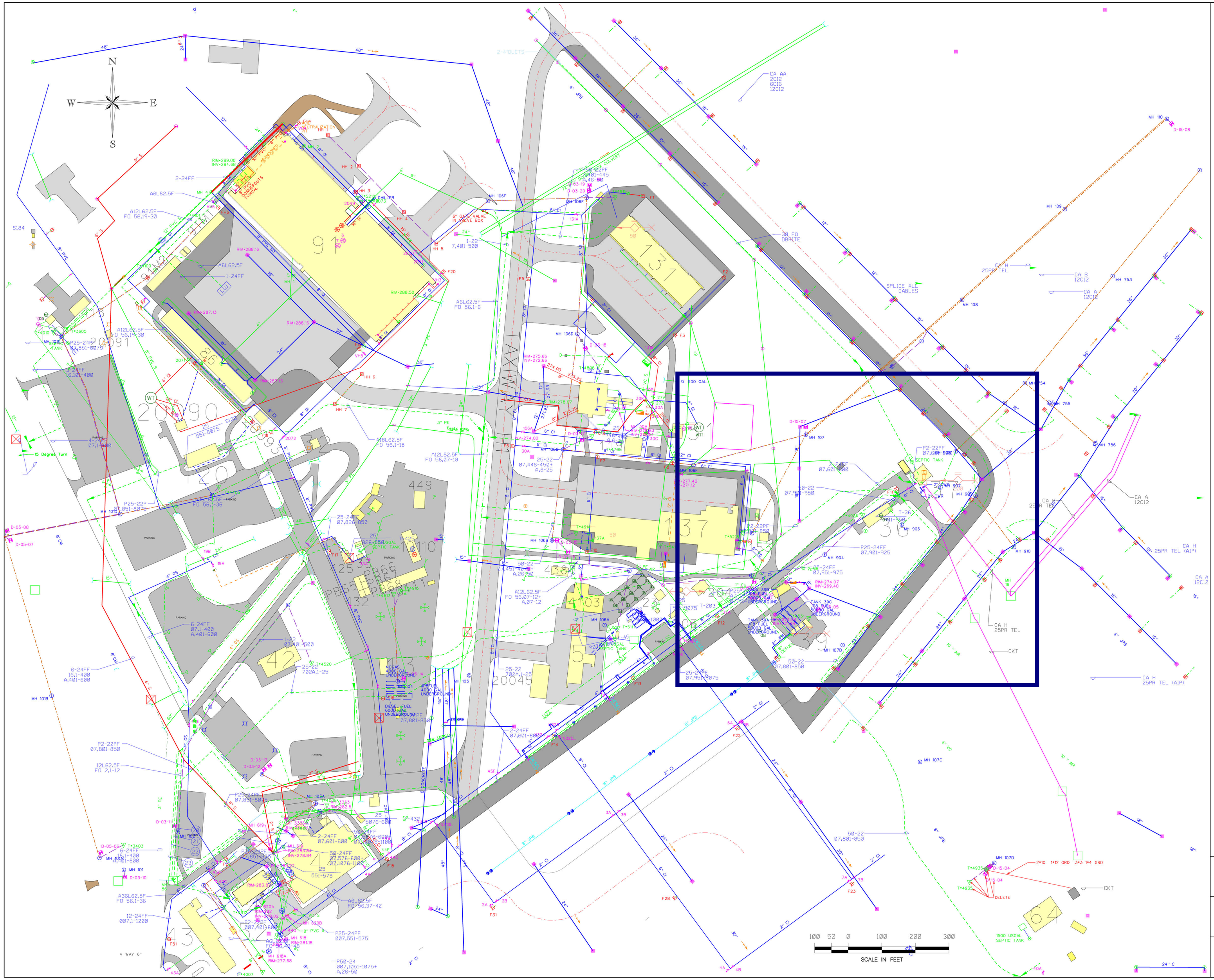
APPENDIX O

FIRE WATER FLOW TEST



UTILITY LEGEND

- WATER
- SANITARY/SEWER
- INDUSTRIAL WASTE
- STORM WATER
- NATURAL GAS
- HEATING/COOLING
- COMMUNICATION
- COMPRESSED AIR
- ELECTRIC
- FUEL

TAXIWAY CENTERLINE

WRALC
ROBINS AIR FORCE BASE, GEORGIA

CONSOLIDATED MAINTENANCE FACILITY
ROBINS AFB.

FILENAME	k:\maps\wallmaps\CE1027.dgn
DRAWING NO.	CE1027.dgn
PREPARED BY	B.G.W.
PREPARED FOR	ELIAS ROLLIE-HARVENS
DATE	6-26-2003
REVISION DATE	
REV	A

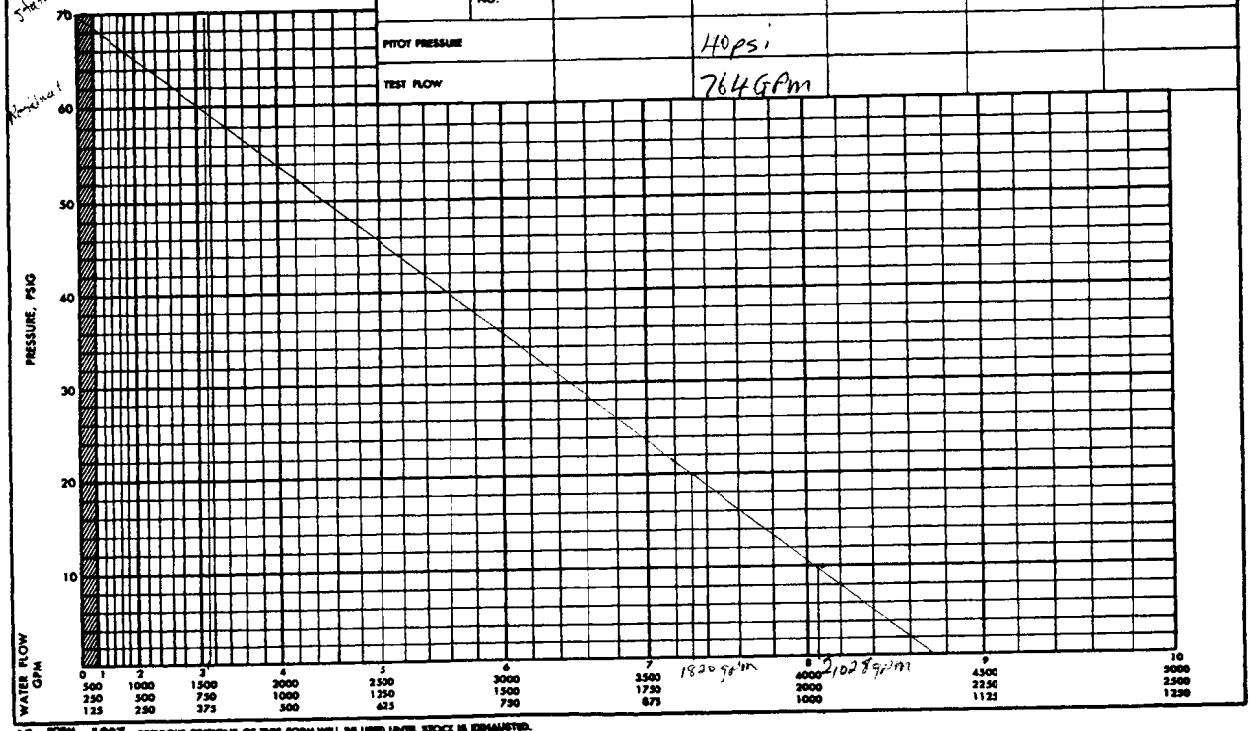
numbers at Bottom of Page obtained by using the "Hazen Williams" formula.

HARVONS

WATER FLOW TEST RECORD
(See sketch and procedure on reverse)

DATE 14NOV03		Test Hyd.	Flow Hyd.			
STATIC PRESSURE		70psi				
RESIDUAL PRESSURE		60psi				
OUTLET	SIZE		2½" orifice			
	NO.					
PITOT PRESSURE			40psi			
TEST FLOW			764GPm			

LOCATION: South of Bldg 137
West of Control Tower



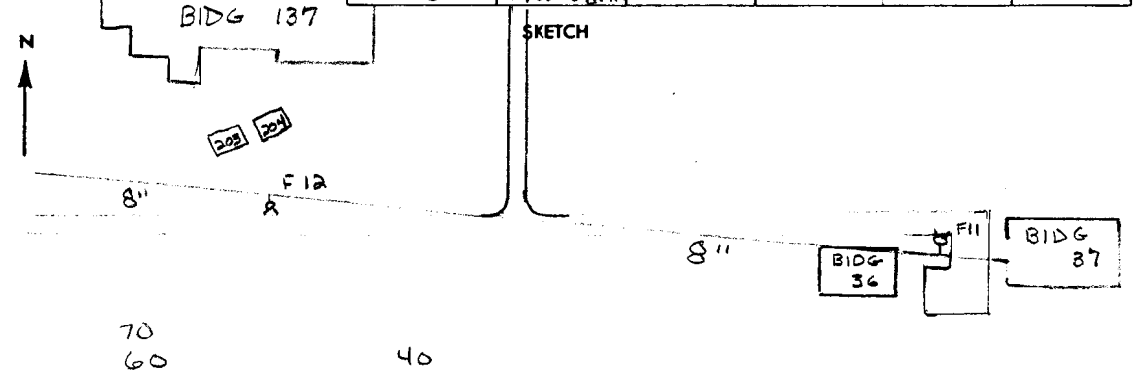
AF FORM JUN 69 1027 PREVIOUS EDITIONS OF THIS FORM WILL BE USED UNTIL STOCK IS EXHAUSTED.

FLOW HYDT(S) F 12

TEST POINT F 11

DATE 4 Nov. 03					
AVAIL @ 20	1820 GPM				
AVAIL @ 10	2,028 GPM				

SKETCH



EXPLANATION

The water flow chart on the opposite side of this sheet is a semilogarithmic scale that has been developed to simplify the process of determining available water in an area. The chart is accurate to a reasonable degree, if one uses a fine point pencil or pen when plotting results. The figures on the vertical and/or horizontal scales may be multiplied or divided by any constant, as may be necessary to fit any problem. For example, if a static pressure is recorded that exceeds 75 psig the vertical pressure scale can be changed to read 10, 20, 30 and up to 150 psig. Also, if a total discharge during a test was less than 1,000 gpm, it would be exceedingly difficult to use the top scale on the horizontal water flow. When flows of low volume exist, the lower or middle scale should be used.

PROCEDURE

1. Determine which scale should be used.
2. Plot the total discharge during test on the chart.
3. Plot the residual pressure during test on the chart.
4. Make a point where these two lines intersect.
5. Plot the static pressure on the vertical scale.
6. Draw a straight line from the static pressure point through the residual pressure point to the water flow scale.
7. Read the GPM available flow at 10 psig and record. (This reading represents the total available water if pressure losses in the fire hydrant, the hydrant branch, and the pump suction hose are disregarded. The 10 psig residual pressure is required by AFM 85-13, Maintenance and Operation of Water Plants and Systems, when rating Air Force water systems.)
8. Read the GPM available flow at 20 psig and record. (This reading represents the total available water that can be relied upon. The 20 psig residual pressure is required by the National Board of Fire Underwriters when rating water systems.)