

EXHIBIT NO. 1

(Reference: Item No. 4{F})

The pulse duration is adjustable from 400 nanoseconds to 12 microseconds. Bi-phase (180°) modulation may be employed in minimum intervals of 400 nanoseconds.

The pulse repetition frequency is also adjusted to the mode of operation, but cannot exceed 50 KHz.

EXHIBIT NO. 2

(Reference: Item No. 4{G})

Simple calculation using the minimum 400 nanosecond pulse/code cell duration yields:

Signal Level	Bandwidth
-3 dB	2.2 MHz
-10 dB	3.7 MHz
-20 dB	12.7 MHz

These values have been confirmed by measurement.

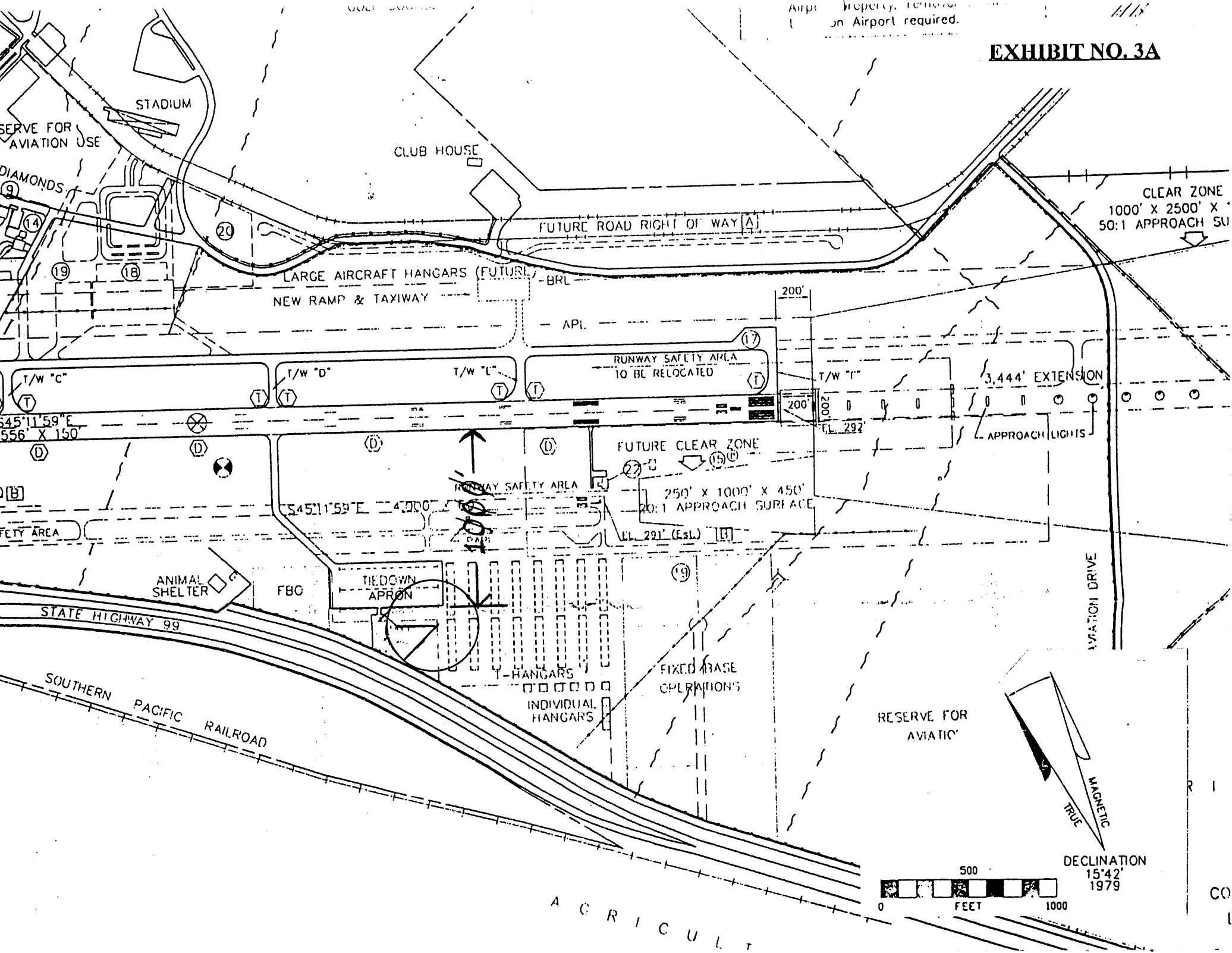
EXHIBIT NO. 3

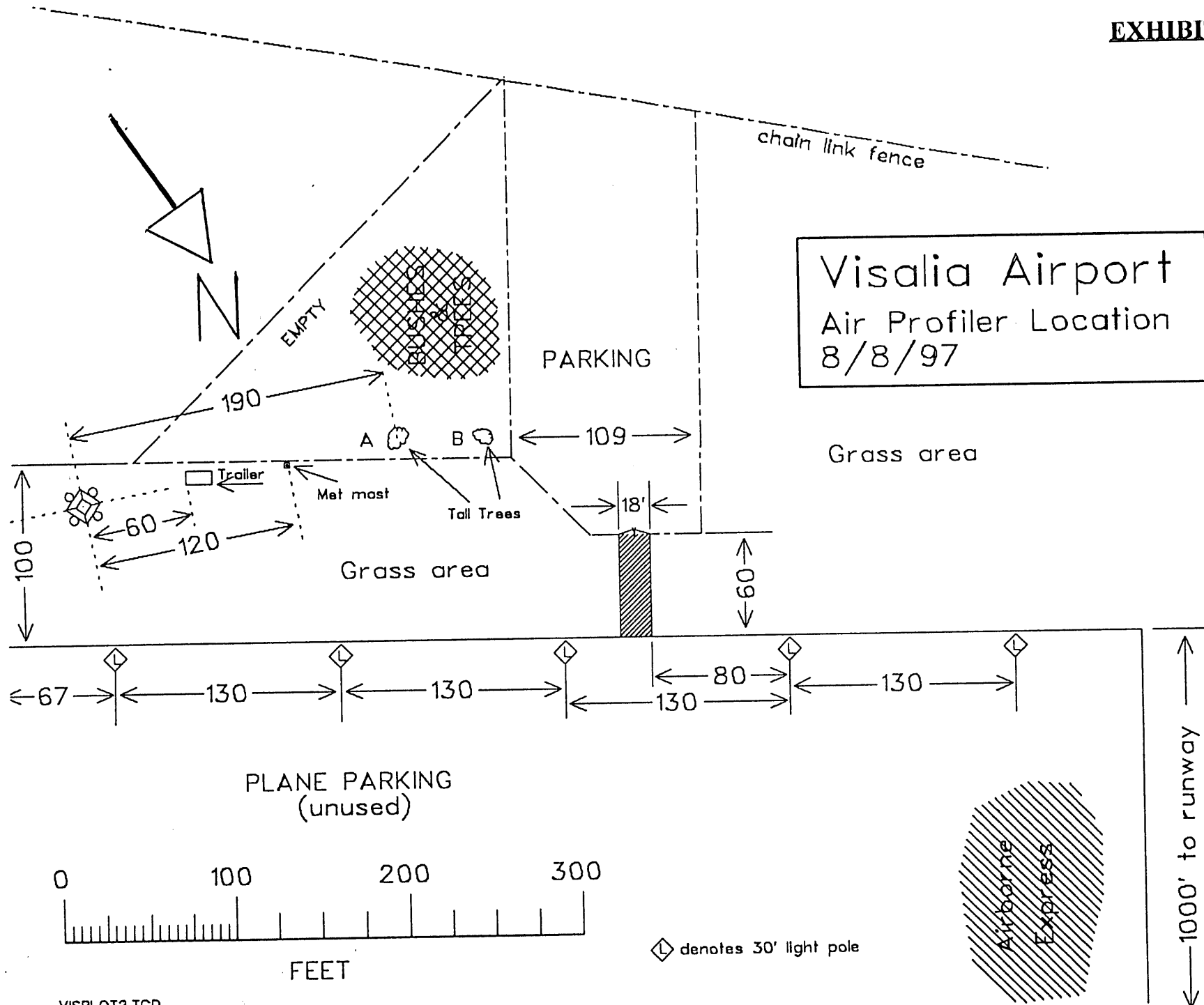
(Reference: Item No. 5{B})

The antenna array will be located on the grounds of the Visalia Municipal Airport near the western boundary, approximately 1070 feet WSW of the runway. Refer to the three attached maps for the exact location of the antenna. There is no Air Traffic Control radar in use at this airport.

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EXHIBIT NO. 3A

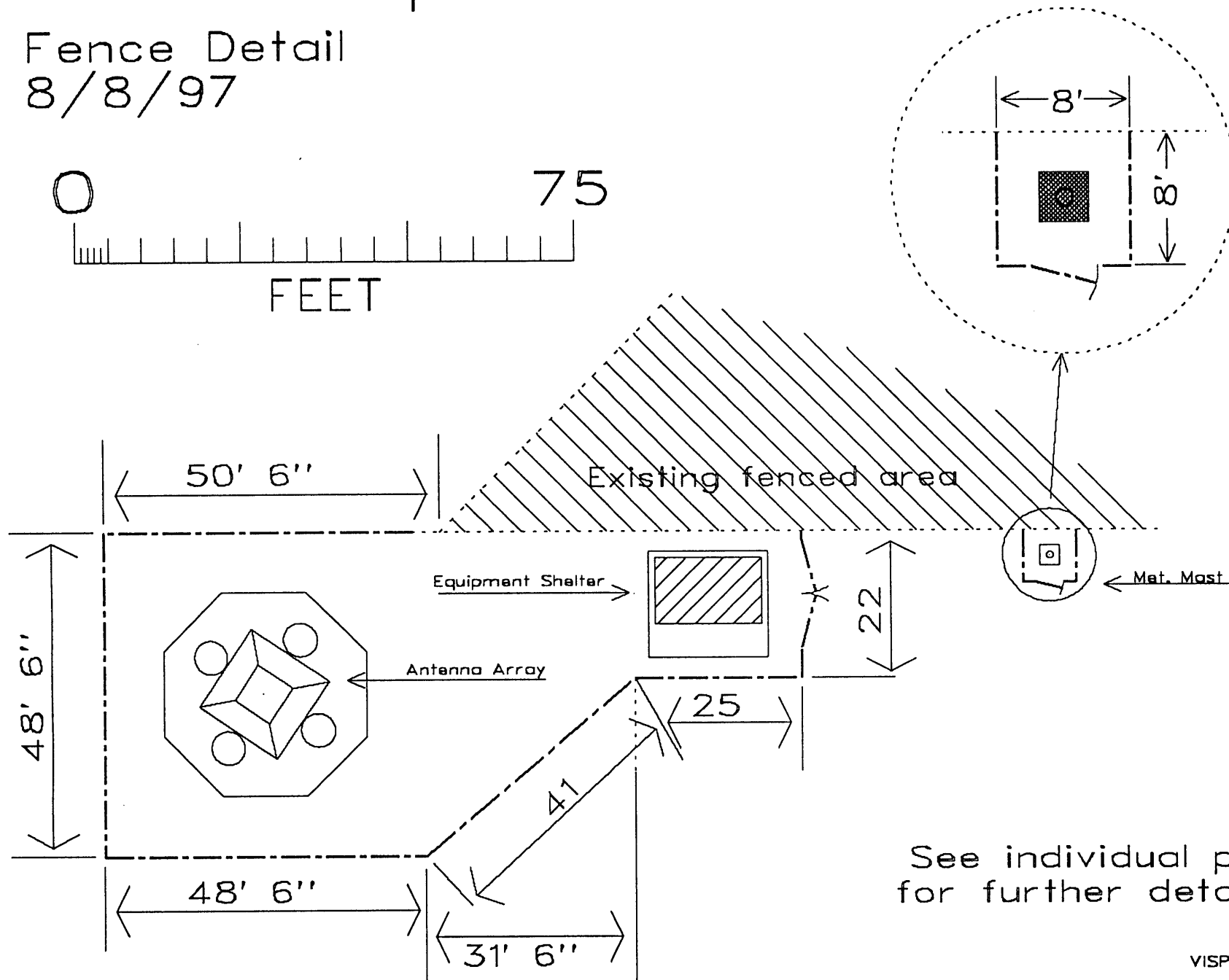




Visalia Airport

Fence Detail
8/8/97

EXHIBIT NO. 3C



VISPLOT5.TCD

EXHIBIT NO. 4

(Reference: Item No. 6)

The antenna system will consist of one steerable micro-patch phased array planar antenna with a sidelobe reduction fence. The antenna will be pointed vertically, with electrically switched delays introduced to point it 21° off vertical, in planes that are 90° from each other. The antenna will have a beamwidth of $\approx 9^\circ$ by 9° , and ≈ 26 dB of gain.

Normal operation will consist of sequential transmissions in each of three (two oblique, one vertical) or five (four oblique, one vertical) directions.

EXHIBIT NO. 5

(Reference: Item No. 10)

The system that would be operated under this requested license is required by the U.S. Environmental Protection Agency (EPA) as part of the Photochemical Assessment Monitoring Station (PAMS) program. The purpose of this system is to continuously monitor the winds aloft for speed, direction and temperature. The data collected by this system will be used for pollution forecasting and scientific studies of the creation and transport of atmospheric pollutants and their precursors.

The upper air profiler to be installed is the LAP-3000 915 MHz Radar Wind Profiler and Radio Acoustic Sounding System (RASS) made by Radian Corporation. It is a remote sensing Doppler radar that produces a continuous speed and direction profile of vertical and horizontal winds in clear air, three kilometers or more above ground level. This system was developed jointly by the NOAA Wave Propagation Laboratory, the NOAA Aeronomy Laboratory, and the Radian Corporation.