

Abthorpe Broadband Association Ltd.

Bringing Broadband to the community since 2003.

Microwave Survey - St Loys; 10am, Monday 16th March 2015

Survey was carried out by Mike Streten and Eric Malcomson

The attached documents are the site documents upon which the readings were noted.

For information:

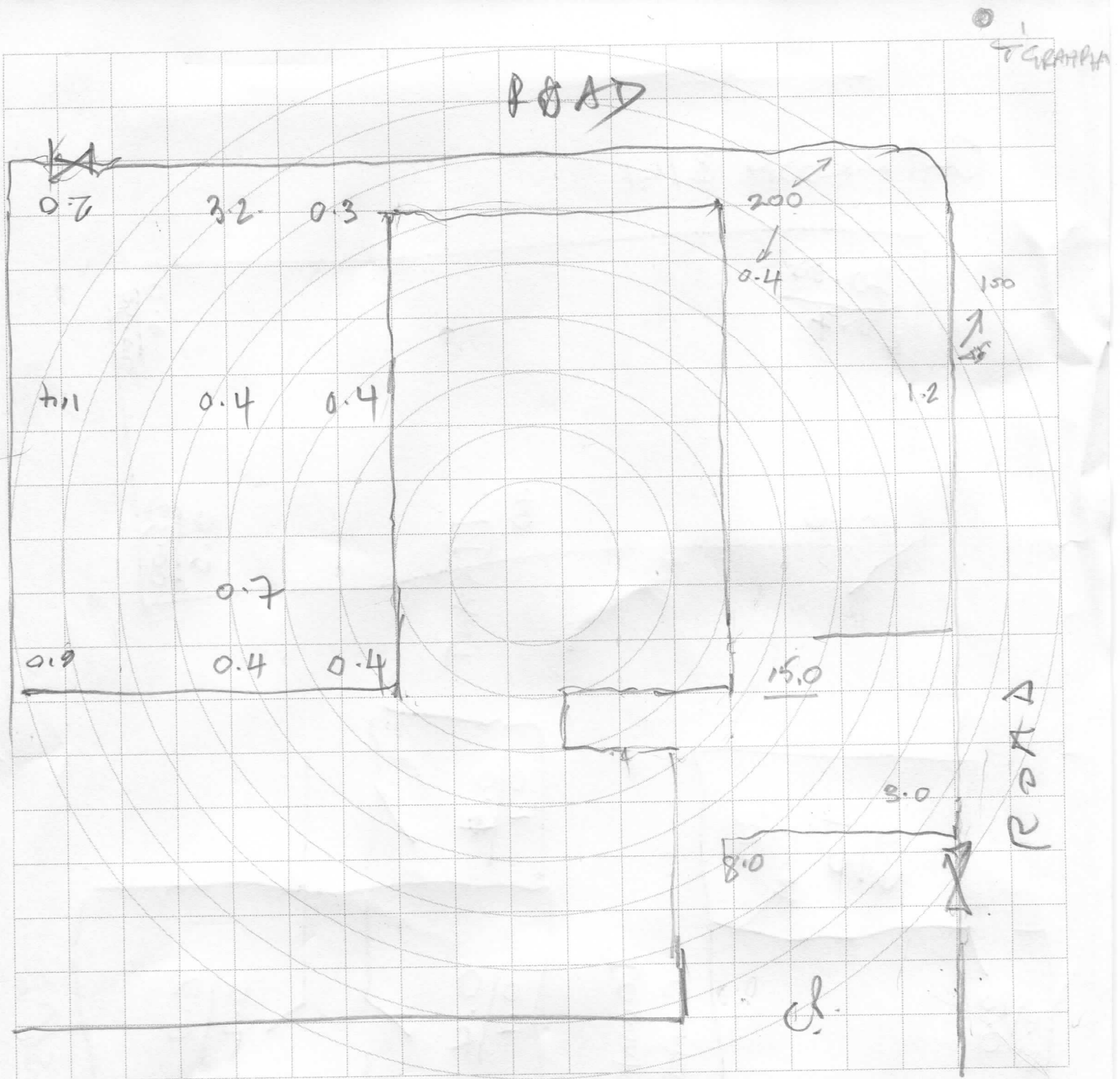
1. Where there is one reading, it is in $\mu\text{W}/\text{m}^2$ (peak reading)
Where there are two readings, they are in $\mu\text{W}/\text{m}^2$ (peak reading/mean reading)
2. Authoritative organisations recommend that $1000 \mu\text{W}/\text{m}^2$ is acceptable in the UK but the EU is moving towards limiting continuous (mean) exposure in schools to $120 \mu\text{W}/\text{m}^2$ or less by 2020.
3. The highest reading we took was a reading of $200 \mu\text{W}/\text{m}^2$ **peak** on the north-west corner boundary of the school and this was emanating from a source outside the school (house opposite).
4. The highest **indoor** readings, with the WiFi receivers switched on, was $60 \mu\text{W}/\text{m}^2$ **peak** in the library, 2m away from the WiFi receiver on the wall. The mean reading at this same point was $0.3 \mu\text{W}/\text{m}^2$
5. Directly under the WiFi receivers in classrooms 3/4 and 5/6 gave readings of $40 \mu\text{W}/\text{m}^2$ peak.

Tove Valley Broadband plans for immediate future:

TVB intends to switch off and eventually recover the square antenna radio on the chimney stack above the school - this is the one with a shield under it. This radio link to Wappenham Church will be redundant once all the new fibre-optic links have been completed. The remaining antennae provide access points for residents of Lois Weedon and we ask that they remain in place and serviced.

Currently the 6Degrees/BT 100Mbps fibre-optic backhaul (internet connection) is linked to the school's network and may remain so for a period of time. Considerations such as the school's IT plans within the next year and the method used for filtering out adult content and websites will affect when TVB switch the school to the 1000Mbps backhaul from Wappenham.

6Degrees' contract runs out in May 2016.

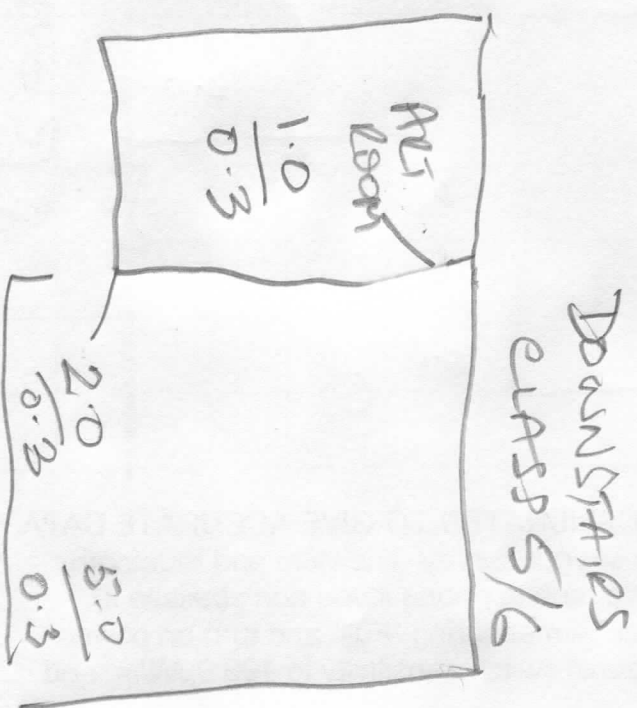
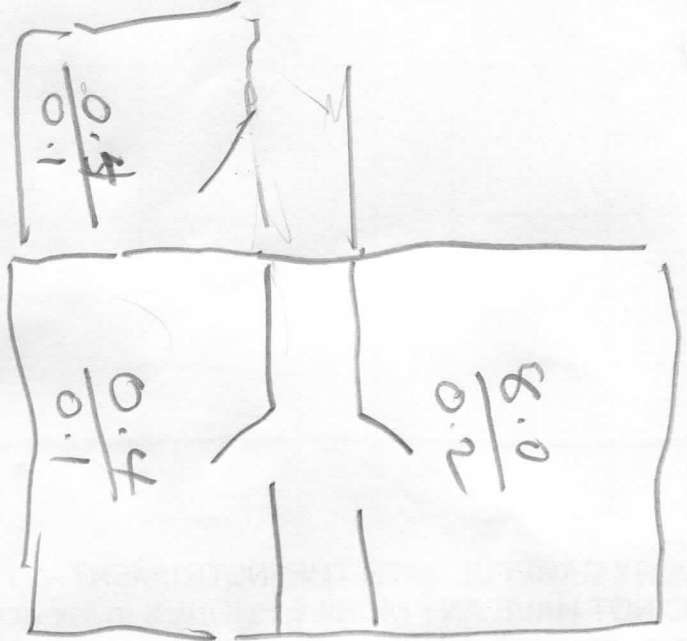


BE VERY CAREFUL WITH THE INSTRUMENT – IT IS CALIBRATED TO GIVE ACCURATE DATA.

- 1) DO NOT HAVE ANY MOBILE PHONES in the vicinity of your survey. The WiFi and Bluetooth these devices use will give readings! (Point the device at a mobile phone if you don't believe it)
- 2) SWITCHES : sensitivity to $1999\mu\text{W}/\text{m}^2$ - signal to "Peak" – measuring "Full" and turn on power.
- 3) Once the reading has settled down (probably to near zero) switch sensitivity to $199.9\mu\text{W}/\text{m}^2$ and wait for signal to settle down again.
- 4) hold the meter away from your body.
- 5) The meter is sensitive to "polarisation" and WiFi equipment may transmit with horizontal or vertical pol. so when taking readings, turn the meter through 90deg. to test.

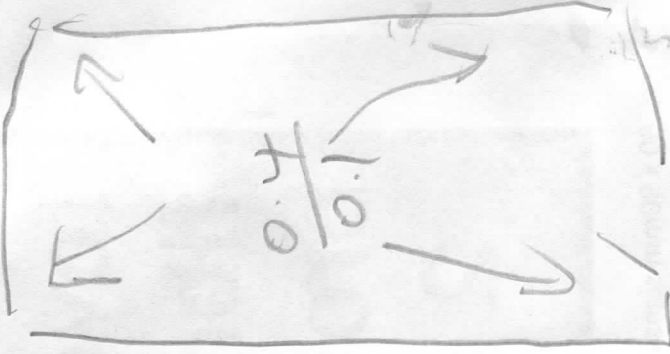
On the back of this sheet are the various regulations, guidelines and recommendations from authoritative organisations but generally you are looking for **less than $120\mu\text{W}/\text{m}^2$** equivalent to 0.2Volt/metre, the current recommendations that schools should aspire to for **constant exposure** to WiFi. The regulations state that **$1000\mu\text{W}/\text{m}^2$** equivalent to 0.6Volt/metre is acceptable in the UK.

CLASSROOM 3/4

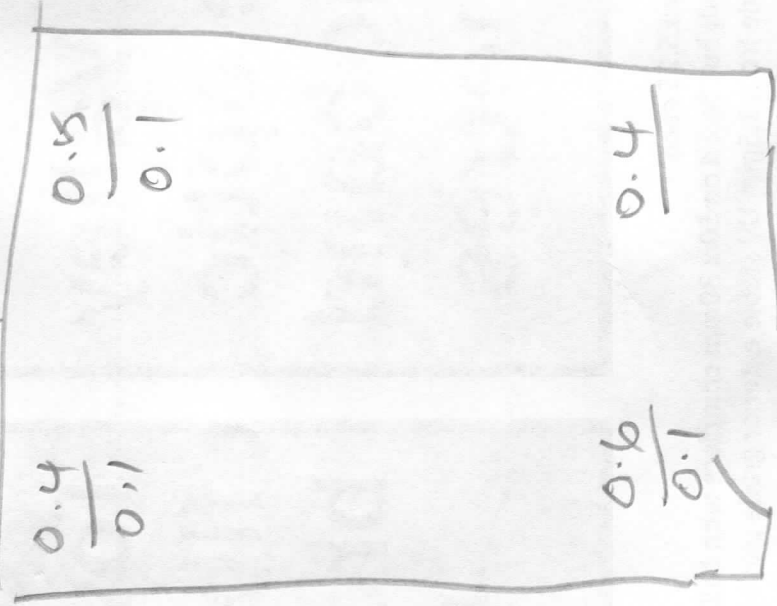


Flute
 100 Pads

SCHOOL
HALL



RECEPTION



LIBRARY



CLASS 2

