



Radio Data Networks Limited

Smart Wireless & IoT Solutions for Water,
Wastewater, Flooding, Sewers, Environmental
Protection, Railways, Industry & Healthcare



To however it may concern.

Date 22nd June 2023

Our ref: RDN220159

Your Ref: Brampton House

Brampton House, BDT Based Flood Alarm System

Statement of Efficacy

The flood system proposed for Brampton House is based upon proven British technology that has been in service across housing, utility, rail, healthcare, and industrial sectors for over 10-years. It will comprise of a waterside gauge board with visual gratitudes to Environment Agency Standards and internal dual BDT (Bulk Dielectric Transducer) water level sensors with integrated telemetry.

The whole waterside assembly is manufactured from extruded GRP eliminating the need for maintenance and the fear of corrosion or rot. All fittings and screws will be stainless steel. The net result will be the only regular maintenance required with be periodic cleaning and testing of the system.

The system has also two receivers, one located on each floor. Each is 100% independent and will include their own local warning indicator lamps and output relays that can drive any chosen communicator (Supplied by the client) connected to a monitoring station ARC (Alarm Receiving Centre). This combination in total, delivers in effective a triple redundant system with respect to safety.

To our knowledge it is the only such system technology to be accepted by the NHS and equally Network Rail for delivering flood warnings at some of their most critical locations.

For example, the sensor, unlike a float switch which could get stuck, the BDT technology has no moving parts and is self-testing able to detect fouling by silt and equally malicious damage, such as theft, removal from site.

The service life of the system has already been proven to be greater than 10-years with the majority of systems supplied still in service to this day. This particular system has been designed with an extended minimum life of 20-years. To achieve this the waterside BDT sensor will only use European manufactured industrial grade batteries (Saft France) and the communications from waterside (Staff gauge) to the building will not be dependent on any form of cellular 3rd party network to ensure that it doesn't become a victim of the ongoing cellular migration.

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To back up all the technology, will be the visual nature of the waterside gauge board inside which the sensor is housed. So, in the unlikely event of failure there will always remain a fail-safe backup warning all be it visual.

Finally, the system in operation is an affirmative type, whereby the flood sensor constantly and autonomously broadcasts every 10-seconds a healthy "OK message" to the two receivers, which the presence of is constantly monitored and an alarm raised should this messages be lost.

Trusting this information provides adequate reassurance.

Yours sincerely
For and on behalf of
Radio Data Networks Limited



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Managing Director

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