Information for Meeting of the Town Council dated 15th September 2014

10 . The Moorside Room

c. To consider and agree the installation of a loop system

d. To consider and agree the purchase of loop system

Prior to the July meeting 4 companies were contacted to provide a quotation for the installation of a loop system at The Moorside Room.
Subsequent to the meeting only 2 companies were available to undertake a site visit and carry out a thorough inspection of the premises in order to provide a quotation of the most suitable Audio Equipment to best satisfy the proposed usage of the room.

LOOP SYSTEM

http://www.cooperfire.com/sites/default/files/product/tech-docs/WEB_Guide_to_loops.pdf
http://www.cdssecurity.co.uk
http://www.ampetronic.com/UK

Quotation 1 submitted by Cormeton Electronics Ltd

QUANTITY	**AFILS EQUIPMENT DESCRIPTION**
Induction Loop Equipment	
1	Ampetronic ILD 300 Loop Driver
1	Single Core Cable 50m (1.5mm)
1	Loop Signage
1	Induction loop receiver and field strength monitor
1	Installation, Commissioning & Certification of Above

The cost of this work would be ***£1250.00 ex VAT***

Audio Equipment

QUANTITY	**AUDIO INPUT EQUIPMENT DESCRIPTION**
Wireless Microphone System	
1	Revolabs 8 channel fusion wireless receiver and charging station
6	Revolabs directional table top wireless microphone
1	Revolabs wearable wireless microphone
1	Installation, Commissioning & Certification of Above

The cost of this audio equipment would be ***£7,159.90 ex VAT***

Prior to the site visit the following audio equipment was proposed

ADDITIONAL EQUIPMENT (Consideration) QUANTITY	**AUDIO INPUT EQUIPMENT DESCRIPTION**	
Input Equipment Approximate Costs		
1	Budget Radio Mic Kit	£ 150.00 – 300.00
1	Pro-Audio Discreet Radio Mic Kit	£ 500.00 – 750.00

Quotation 2 submitted by WB Electrical

Induction Loop specification:

- 1 x Ampetronic ILD 300 Loop Driver
- Appropriate induction loop cable
- Appropriate loop signage
- 1 x field strength monitor and induction loop receiver

The cost of this work would be ***£2,100.00 ex VAT***

Audio Equipment:

- 1 x Revolabs 8 channel fusion wireless receiver and charging station
- 6 x Revolabs directional table top wireless microphone
- 1 x Revolabs wearable wireless microphone

The cost of this audio equipment would be ***£7,750.00 ex VAT***

ADDITIONAL QUOTES PROVIDED WITHOUT A SITE VISIT AND BASED ON INFORMATION PROVIDED VIA EMAIL AND SITE DRAWINGS FOR THE PROVISION OF A BASIC LOOP SYSTEM

Quotation 3 submitted by Specialist Audio Services This quotation is a ball park figure based on information provided via email and site drawings

*Supply, install and commission *
1 x Induction Loop amplifier
1 x Loop cable (Copper foil or Cable dependent on requirement)
1 x Radio Microphone
1 x Crescendo Loop Tester
4 x Loop Signage
All connecting Leads & Cables
Free 1yr System Health check
£800.00 ex VAT

Quotation 4 submitted by CDS Security & Fire This quotation is a ball park figure based on information provided via email and site drawings
Ref: Induction Loop
To install a C-Tec PDA102R Induction Loop system comprising of:
1 x free standing loop amplifier
2 x Amp microphones to be sited on either end wall at a height of approx 2 - 2.5m
1 x 50m loop cable to be sited behind skirting board

Please Note:

i. A 230V, 3Amp Un-switched Fused Spur would be required adjacent amplifier
ii. Normally the microphone is sited centrally on the ceiling however as the ceiling is 5m high, a hanging microphone would be required or, as I have quoted, two microphones at either end of the room on the wall. Therefore a cable would need to be installed from the skirting up to the height of the microphone (probably in mini trunking)
iii. The loop cable is to be installed behind the skirting (I am assuming this is easy access) the loop cable must be segregated from high voltage mains cables

Cost: £699.00 + VAT

Can we use a portable loop system?

Unfortunately we would not be able to quote for a "Portable Induction Loop System" as they simply aren't suitable for the application in question.

To coin the term loosely, portable systems are "designed" to cater for close proximity and face to face conversations only. They are not suitable for use in scenarios such as The Moorside Room where the speaker and hearing aid user may be potentially at any two points in the room. This is due to the limited capabilities of the integral microphone and the very weak magnetic field generated by the units.

Not only are portable loops extremely limited to their applications they generally produce substandard results to the hearing aid user. Because of this we tend to distance ourselves from portable loops so not to taint our reputation.

I have attached a BBC report which may offer some further insight into the use of portable loops.

To achieve the results required at The Moorside Room, we would only be able to recommend a perimeter loop (as quoted previously) or a phased array system (which would require lifting the floor tiles).

Also, here are a few key points from the UK's leading manufacturer of compliant systems, Ampetronic.

"1. Being battery powered they have very low output, also someone has to make sure that the unit is charged up or has fresh batteries before each use.
2. The microphone is integral in the unit, this means that it will have very directional pick-up, also the microphones in these units are very low quality and have a very short effective range. There is also a chance of feedback as the microphone is close to the coil.
3. The units are too small to have an efficient loop coil, to generate a useful magnetic field to cover more than a meter you need to have a larger loop coil and drive a larger current through it.
4. We have tested several of these units and found them to be underpowered and the signal quality varies from poor and muffled to poor and distorted.

But apart from that most of them look horrible and having one of them stuck in front of you could be embarrassing as most hearing aid users really don't want to draw attention to the fact that they have a hearing aid. Generally we say that the microphone in the hearing aid will work better than a portable loop amplifier."

Below is a link to Ampetronics website which elaborates more on the points above.

http://www.ampetronic.com/Products/Loop-Amplifiers/Portable-Systems/

I'm sorry we could not be more help on this occasion but as always, if you require any further information please do not hesitate to contact me.

Kind regards

Alan Wood (Engineer)
Cormeton Electronics Limited

The original quote provided on the basis of information shared prior to the site visit detailed basic equipment provision as follows:

1	**Budget Radio Mic Kit**	**£ 150.00 - 300.00**
1	**Pro-Audio Discreet Radio Mic Kit**	**£ 500.00 - 750.00**

What would this equipment facilitate?

The "budget kit" detailed in our quotation was for a single belt pack and lavalier microphone (tie clip style). Since surveying the room it was apparent that a single microphone would not be sufficient for your

requirements. Not only would you require 1 microphone pack per person but an audio mixer would be required to combine the microphones into a single output channel for the induction loop system. The other concern with this is that there would be a degree of "indirect discrimination" by means of identifying that all members (with the exception of the hearing impaired user) of the meeting should "mic up" to cater for the hearing impaired member of the meeting. This is something which is avoidable if desk mounted microphones are installed as they do not directly identify that there may be users of the induction loop system.

The "pro audio kit" detailed in our quotation was the baby brother of the £13,500 system I mentioned to you earlier this week. The price in the original quotation was for a single microphone and receiver system only. Because it has been identified that several microphones would be required this means that additional receivers and mixers would be required to make the microphone array suitable for connection to the induction loop.

The Revolabs equipment we have specified in our latest quotation is unique in the fact that no additional mixers or receivers are required until the limit of 8 microphones has been reached. This offers a significant cost saving over most other microphone systems which would require separate receivers and mixers.

The reason we have quoted for 6 desk mounted microphones is that the manufacturer has advised that each microphone would only provide suitable cover of 2 seating positions. Cover of a 3rd seating position may be possible but the audio level and quality would be reduced and in turn render the induction loop system a hindrance more than an aid. With an induction loop system, the quality of the signal delivered to the hearing aid can only be as good as the one provided from the input (microphones).

Would it be possible to use a 'Voice Tracker Array' with the loop system? This has good reviews on amazon.com with mention of several speakers, significant distances and convert a microphone to wireless:
http://www.ehow.co.uk/how_7494110_convert-wired-mic-wireless-mic.html
http://en-uk.sennheiser.com/plug-on-transmitter-wired-wireless-microphone-skp-100-g3

This could definitely be used with an induction loop system but this is a hard wired solution and would require cables run to the meeting table.