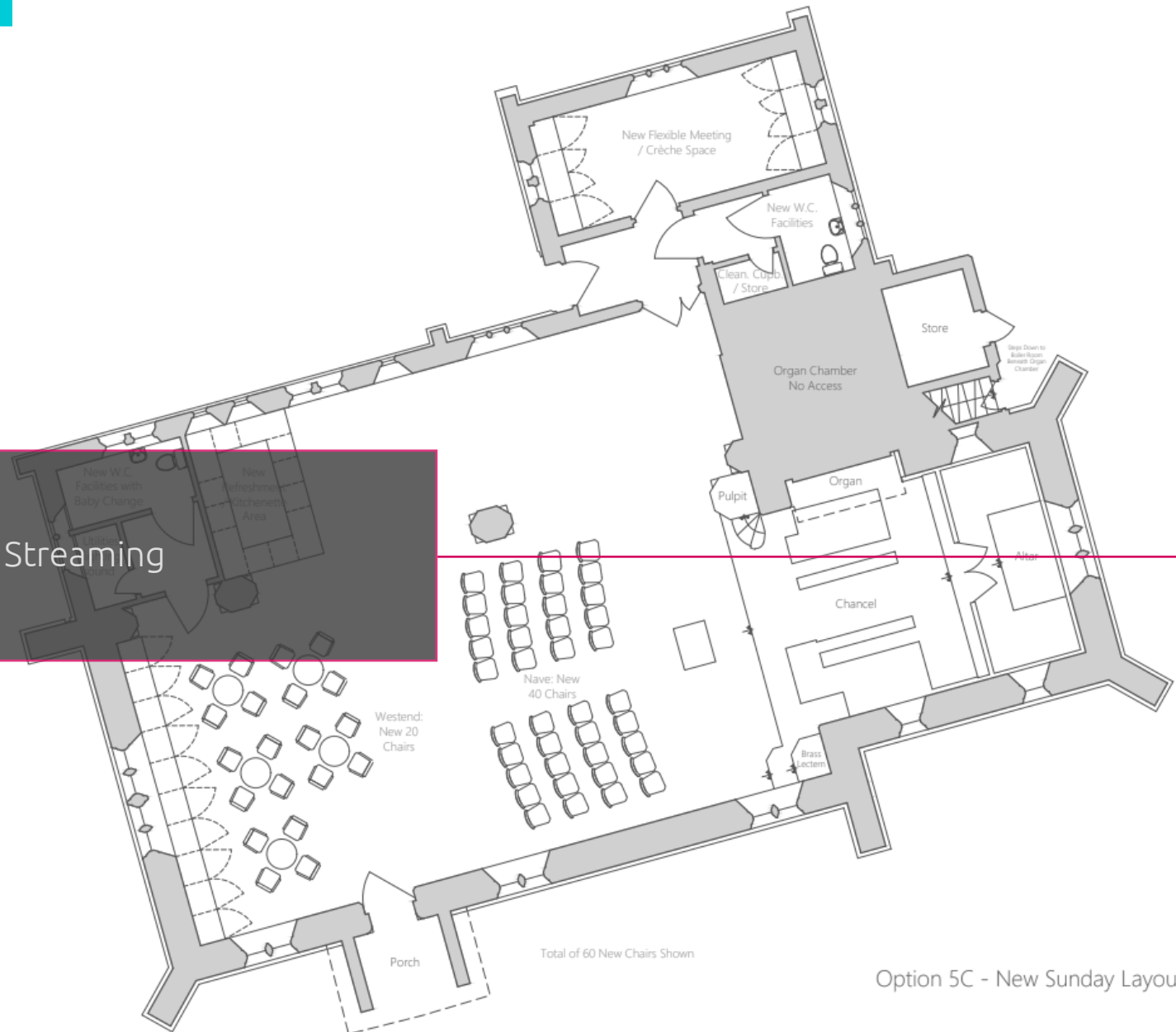


PROPOSAL

Christ Church Sound, AV & Live Streaming Version 1.0



Option 5C - New Sunday Layout

Why NoiseBoys?

We recognise that you have a wide and not particularly easy choice when it comes to choosing an audio, lighting or AV supplier. Here are a few quick reasons why we'd love you to choose us:

You get our commitment.

- We understand the church, having worked primarily with churches large and small, contemporary and traditional, for the last decade and beyond. This means that you gain not only equipment and our award winning installation department, but our ongoing relationship and support after all is handed over.

You're assured of the best kit for your setting.

- We've spent most of our working lives in and around sound, lighting and AV, working for many big names and brands in a professional capacity, so we know what works and what doesn't when it counts. Unlike many companies who are bound to a few brands, we've always worked hard to gain and retain trade accounts with a wide range of industry standard brand names that we know and trust, assuring you of the right product for your needs, not just ones that are more profitable or that help us meet sales targets.

Everything is bespoke.

- From the design of the system to the selection and placement of the speakers to the training we provide with everything we do, we tailor everything to your church, your building and your team, in order that you can get the best results week in, week out, no matter what the technical skill level is where you are.

We stick around.

- Our commitment to you extends way beyond the point at which everything is installed. We believe that everything is easier when it's based on relationship, which is why we get on so well with a great many of our previous customers long after we've installed their systems. Training is a big passion of ours, and we love to see people given the tools - both physical and educational - to serve the bigger visions and purposes in their churches.

You gain the expertise of our award winning installation team.

- Our installations are genuinely second to none, and we are very proud of our work and reputation. Our documentation and work consistently gains approval from bodies such as local diocese, cathedral fabric committees, historic societies and architects because we genuinely care about the buildings that we work in and the people that we work for. Our work in Leicester Cathedral won us an award from RIBA, and we are proud to list buildings such as Chapel Royal, King's College Cambridge, Christ Church Oxford, Wymondham Abbey and many others in our client list.

PROPOSAL OUTLINE

Please find here our recommendations for the installation of new sound, AV and streaming systems at Christ Church. We hope we've interpreted your requirements correctly but if anything is unclear or you think we've missed something, please let us know.

The Brief:

- To install a sound system to give speech reinforcement for services, music playback, as well as small live music scenarios
- To install a screen that can relay song words and video media to the congregation
- To provide a portable screen system that can be deployed as needed, or used independently
- To install a streaming system that will allow the live broadcast of services to online platforms such as YouTube and Facebook Live
- All systems should be as simple to use as possible

Considerations:

- You've advised us that you have some microphones already, we've also included some options for wireless microphone systems
- As requested, we've suggested systems that fit your requirements whilst still being cost effective, as well as some options to upgrade or add various elements to give extra functionality and ease of use if budgets allows
- Please bear in mind that this proposal is based on limited information and we will need to conduct a site survey prior to producing a final quote

Cabling & Installation:

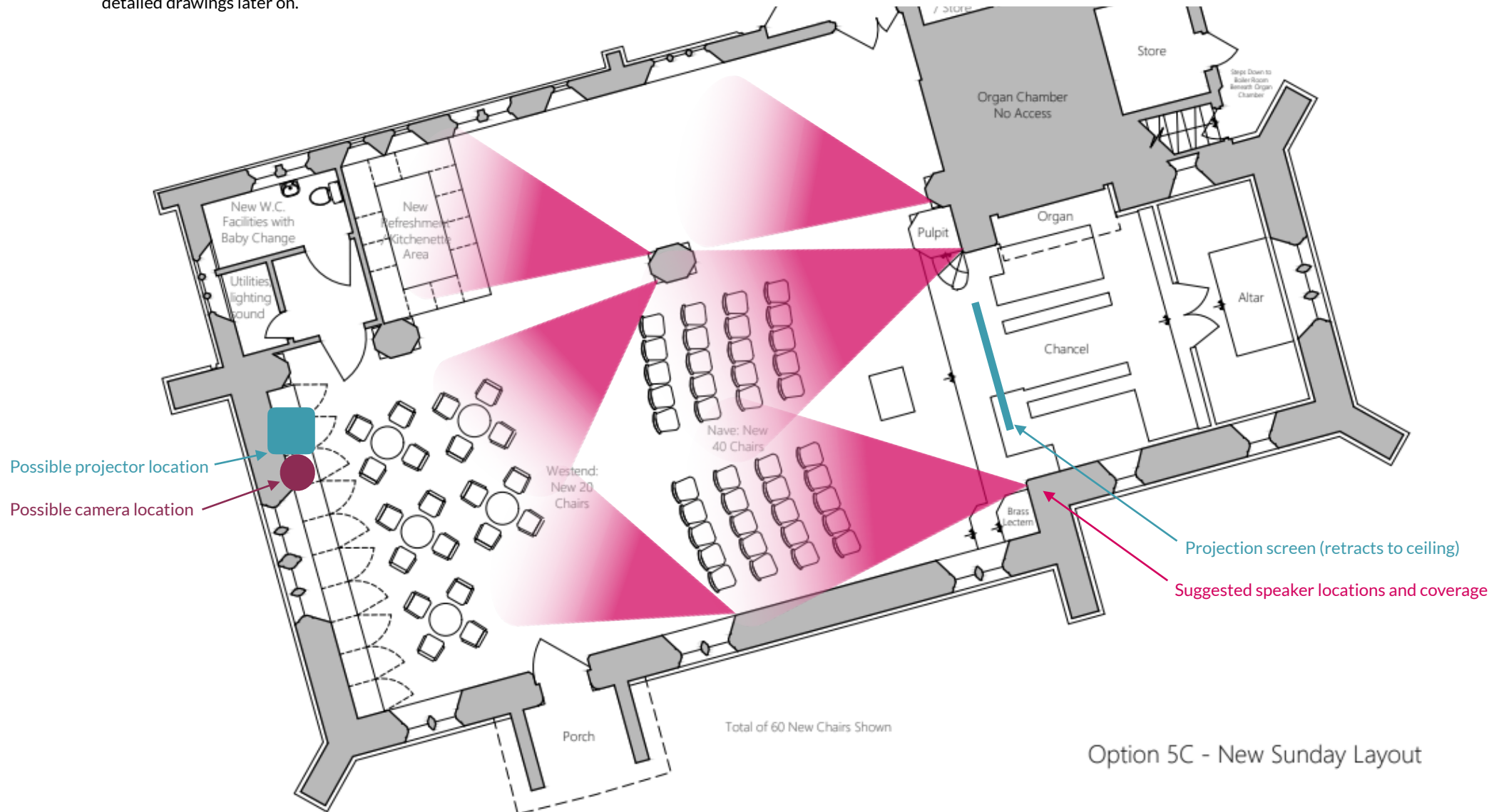
- All cabling will be contained, glued or clipped where most appropriate to do so, with every fixing being treated individually according to the surface to which it is to be attached. All cabling will be painted in to blend with its surface, and no fixings into stonework will be used unless absolutely necessary for safety and securing of equipment
- We are well-versed in installing in buildings such as Christ Church; our due diligence and care saw us attain a RIBA award for our work in Leicester Cathedral, so you can be assured of our respect and care for the building and its fabric

Input/output panels:

- These panels allow you to connect to the system, whether its a wired microphone or a laptop
- The exact number and location of these will require some further discussion, so for now we've just made an allowance in our costings

INITIAL PLAN

Below is an example of where the equipment might be positioned for best coverage. Please bear in mind that this is very rough at this stage and we'll be able to produce more detailed drawings later on.



Option 5C - New Sunday Layout

SOUND

As requested, we've endeavoured to keep the system as simple to use as possible. Below is a basic overview of what is included. We've split it into the main elements required for any professional sound system, as well as some optional extras you might consider if budgets allow.

Main system comprises the following:

- Processing and control
- Amplification
- Speakers
- Signal distribution and containment
- Full training and support

Extras and enhancements:

- MTX matrix system processor
- Subwoofer
- Radio microphones

More detail on each element can be found on the next page.



SOUND

PROCESSING AND CONTROL

At the heart of the audio system is the mixer. We are suggesting an Allen & Heath Qu Pac digital mixer which takes the same powerful technology as their highly regarded Qu series of consoles and shrinks it into a compact rack mount unit. They are discreet, easy to use and well priced.

Main features:

- ▶ 16 mic/line inputs
- ▶ 3 stereo inputs (for CD/laptop audio)
- ▶ 2 stereo outputs
- ▶ 5" touch screen
- ▶ Dedicated iPad app (iPad included) for easy remote operation



Allen & Heath Qu Pac

Upgrade option

You might consider going for a Yamaha MTX-D Matrix Processor which is a step up from the Qu Pac in terms of features and ease of use. The MTX could best be described as a “brain” that will, 90% of the time, look after itself; auto-mixing the microphones as it detects that they are being used, and automatically eliminating any potential audio feedback before it happens. Users will still need control of volumes of course; for adjusting a microphone level to suit a reader who speaks quietly, or for fading music tracks up and down, for instance. These controls will be presented via an intuitive wall panel or a dedicated and custom-written iPad app (iPad included) for maximum flexibility and simplicity of operation.



Yamaha MTX5 D Matrix



DCP



App control

SOUND

SPEAKERS

Our speaker of choice for church installations is the Martin Audio CDD series. Not only do they deliver superb sound quality, they're also reasonably priced and come with a variety of mounting options making them well suited for the intricacies of church architecture.

They come in a wide range of driver sizes. Generally speaking, the larger the driver the more dynamic range you get. For your purposes we're recommending a combination of 8" for your main left and right speakers, and 5" for the delays. This is a set up we know works well for both speech and music playback.



Martin CDD Series

AMPLIFICATION

There is little point in having high quality speakers, but powering them from a low quality amplifier, so here we include Crown's XLS series amplifier. Not only do they provide high quality audio, but they also include built in digital signal processing (DSP) to tune and protect all speakers.



Crown XLS amplifier

SOUND

OPTIONAL EXTRAS:

SUBWOOFER

Adding a subwoofer gives greater dynamic range (more oomph!) to your sound and is an addition well worth considering, especially if you're planning live music performances or events such as movie nights with rumbling bass!

Even if you don't go for a sub straight away, it's something that can easily be incorporated into the system at a later date.



Martin Audio SX112 subwoofer

RADIO MICROPHONES

We know you already have some microphones, but you might consider a radio microphone system. These have a wide range of applications as they can be used anywhere (within range of the antenna) and grant the user the freedom to move around whilst still delivering high quality audio.

We would suggest something like the Sennheiser EW range. You can choose from hand held, tie-clip or headset microphones (there is a price difference, we've costed for a tie-clip which tend to be the mid-range)

It is worth noting that cheaper radio mic systems are available, but in our experience these don't work very well and can end up causing a lot of issues so we really don't recommend them. A good wired microphone will always be better than a bad radio mic.



Sennheiser EW100 radio system

PROJECTION

Given the size of Christ Church we think mounting TV's everywhere might not be the most aesthetically pleasing solution. Instead we propose a single motorised projection screen that will deploy from behind the chancel arch and lower to a preset height, allowing good visibility for your congregation. When not in use, the screen will retract up to the ceiling where it will be out of sight. The projector itself will be mounted to either the rear wall, or one of the pillars (this will need to be decided during the site visit as precise measurements are needed). Either way, we'll ensure it is as discreet as possible.

This is a system we've installed in countless churches across the country with great success. The screen is automatically deployed when the projector is turned on, and retracts when it's turned off, making for an elegant, simple to use system.

System comprises:

- Projector (laser light source, 7000 ansi lumen, WUXGA)
- Double drop screen, 2m wide, 16:9 aspect ratio
- All necessary cabling and containment
- All necessary signal distribution and input/output panels



Deployed double-drop screen

PORTABLE DISPLAY

You mentioned you would like a portable display that can be used either as a relay to what is happening on the main screen, or independently - for example in the creche/meeting space. We propose a 55" display on a robust "trolley" stand that is designed specifically to be wheeled about. The screen will take a local input (e.g. laptop or DVD player) and can also be patched into the main video system (although this will only be available if the screen is positioned close to an output panel, the exact locations of which are to be decided).

All of the displays we use are commercial quality as opposed to domestic TVs that can be bought from the high street, meaning they are capable of handling the extended usage required, and are warranted for such. They will also be brighter than domestic models and with better heat management. All screens will be bright and clear for song words, camera pictures if needed, videos and powerpoint, etc.



Example of a display on a trolley stand

STREAMING

LIVE STREAMING

A live streaming system can be as complicated or as straightforward as you want it to be, depending on your requirements. From multi-PTZ camera set-ups with shot selection and vision mixing, to a single fixed camera that broadcasts direct to YouTube with a single push of a button, we've got experience installing professional, reliable streaming systems.

CAMERAS

From your brief and from looking at your floor plan, there are two paths you can go down depending on how much you want to spend and the level of complexity you're comfortable with:

- ▶ Fixed (block) camera - as the name suggests this is a static camera (doesn't move) which allows for a single shot (often a wide shot to cover the pulpit, chancel and altar). This is the simplest set-up as it doesn't involve recalling camera positions and as such is also the lowest cost option
- ▶ PTZ camera - If multiple shots are required (for example - a close-up of the pulpit, a wide shot of the chancel etc.) then a PTZ (Pan, Tilt, Zoom) camera is the way to go. A PTZ can be preprogrammed with a number of shots which can be selected via remote control
- ▶ Both options will provide high quality, Full-HD images suitable for streaming

HARDWARE STREAMING DEVICE

A hardware streaming device is dedicated to handling the encoding and outputting of video to the internet. The Magewell Ultrastream is specifically configured to work with Youtube and Facebook Live, and is able to stream to both platforms simultaneously. This system is extremely simple to use and is operated either by a button the device itself or via the dedicated Android/iOS app.



Example block camera



Example PTZ camera



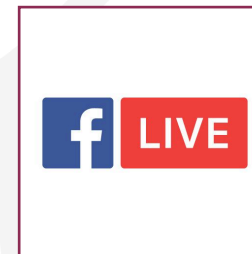
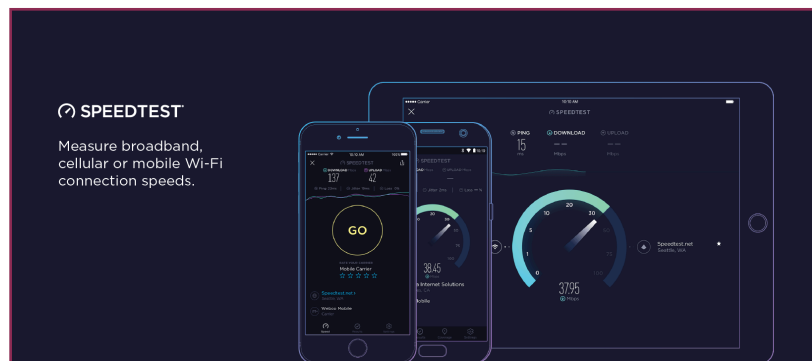
Magewell Ultrastream

INTERNET REQUIREMENTS

A strong and stable internet connection is essential for any high quality, reliable streaming system. It would be worth performing a simple (and free) speed test on your network in order to determine its suitability.

You can perform this by connecting a computer to the WiFi or cable, then going to the website www.speedtest.net and clicking the Go button. The number we're primarily interested in is the upload speed, which is the second test that will be performed automatically. For reference we've included the recommended speeds for two of the most popular streaming platforms below, but we want to allow a buffer on top of these speeds as well for reliable connection, so ideally we are looking for an upload speed of 10Mbps or more.

- ▶ Facebook Live (720p) recommends 4Mbps upload
- ▶ YouTube Live (720p) recommends 4Mbps upload
- ▶ YouTube Live (1080p) recommends 6Mbps upload



COSTINGS

SOUND

Line	Description	
A	Allen & Heath Qu Pac 16 channel mixing console (control via iPad app)	
B	Apple iPad as control interface	
C	Crown XLS amplifier	
D	Martin Audio CDD speakers to include (2x) CDD8 for main left and right and (4x) CCD5 for delays	
E	All necessary input panels	
F	All necessary cabling and containment	
SUB TOTAL		£5,731.17
VAT		£1,146.23
TOTAL		£6,877.40

SOUND OPTIONAL EXTRAS (cost is in addition to those detailed above)

Line	Description	Additional Cost (ex. VAT)
A	Yamaha MTX5 matrix processor, including digital control panel and iPad app	£1743.43
B	Martin Audio SX112 subwoofer, including amplifier	£1380.00
C	Sennheiser EW100 radio system with lapel microphone	£529.00

COSTINGS

PROJECTION

Line	Description		
A	Projector, laser light source, WUXGA, 7000 ansi lumen, including lens, bracket and fixings		
B	Double drop screen, 2m wide, 16:9 aspect ratio, including all fixings, motor and control		
C	All necessary signal processing, switching and distribution		
D	All necessary input panels		
E	All necessary cabling and containment		
		SUB TOTAL	£9,349.51
		VAT	£1,869.90
		TOTAL	£11,219.41

PORTABLE SCREEN

Line	Description		
A	55" professional display on heavy-duty trolley stand		
		SUB TOTAL	£1,320.05
		VAT	£264.01
		TOTAL	£1,584.06

COSTINGS

LIVE STREAMING

Line	Description	
A	Block camera, Full-HD, 20x zoom, including bracket and fixings	
B	Hardware streaming encoder	
C	All necessary signal processing, switching and distribution	
D	All necessary input panels	
E	All necessary cabling and containment	
SUB TOTAL		£1,385.00
VAT		£277.00
TOTAL		£1,662.00

STREAMING OPTIONAL EXTRAS (cost is in addition to those detailed above)

Line	Description	Additional Cost (ex. VAT)
A	To replace the Block Camera with a PTZ Camera (allows for multiple shots)	£980.00

INSTALLATION

Line	Description	
A	System design, pre-build, delivery and installation	
B	Access hire and logistics	
C	Full training and support	
SUB TOTAL		£4,675.00
VAT		£935.00
TOTAL		£5,610.00

COST SUMMARY

COST SUMMARY

Line	Description	Cost
A	SOUND COSTS	£5731.17
B	PROJECTION COSTS	£9349.51
C	PORTABLE SCREEN	£1320.05
D	STREAMING COSTS	£1385.00
E	INSTALLATION	£4675.00
	SUB TOTAL	£22,460.73
	VAT	£4,492.15
	TOTAL	£26,952.88

OPTIONAL EXTRAS (cost in addition to those detailed above)

Line	Description	Cost
A	Yamaha MTX5 matrix processor, including digital control panel and iPad app	£1743.43
B	Martin Audio SX112 subwoofer, including amplifier	£1380.00
C	Sennheiser EW100 radio system with lapel microphone	£529.00
D	To replace the Block Camera with a PTZ Camera (allows for multiple shots)	£980.00
	SUB TOTAL	£4,632.43
	VAT	£926.49
	TOTAL	£5,558.92

NEXT STEPS

Contact Us

We hope that we have interpreted your needs correctly. If we haven't, or we've forgotten anything please let us know and we'll amend the quote as necessary.

If you'd like to go ahead with the quote and book an installation date, if there's something you'd like to change or if there's anything else that you'd like to know, please don't hesitate to contact us directly using the details below.

NoiseBoys Contact;	Phill Beynon
Office Number;	01455 550 800
Mobile Number;	07803 050 612
Email Address;	phill.beynon@noiseboys.co.uk
Proposal Date;	11th February 2021
Proposal Reference;	6102

THE SMALL PRINT

We try to keep our T's & C's as straightforward as possible, but we do ask that they are read and adhered to, and that any questions are raised sooner rather than later.

- ▶ This quotation is valid for 30 days. Whilst we will do our best to hold the prices for as long as we can, the pace of change, manufacturing and importation costs of technology products such as those in this proposal mean that the prices are sometimes volatile and prone to change at short notice. Similarly, the pace of change and volatile stock levels may mean that we have to change items quoted to an equivalent of the same or higher specification at point of order, which we reserve the right to do.
- ▶ This pricing assumes that an electricity supply will be in place at all relevant points of the installation, unless stated otherwise. We can provide/extend/move an electrical connection if required, but at further cost.
- ▶ If NoiseBoys are to provide installation, the quote assumes that all activities will be cleared to allow our installers full access to all required areas from 9am - 6pm on all pre-agreed days of installation. Please note that this is not only necessary for us to be able to deliver the installation on time, but also to ensure the safety of others who may otherwise be present in the environment. The installation costs quoted here will rise if significant delays over which we have no control are incurred.
- ▶ We specify high quality equipment and cabling in every instance. We don't believe in the false economy of low-grade equipment and expect our components and installations to last accordingly. As such, the manufacturers that we work with provide good warranties on all equipment and our installation work comes with 12 months of support for recalibration, rectification or replacement of any defective equipment or installation materials. Malfunctions or breakages caused by user error will not be covered, and call outs for such will be chargeable. Following this period, maintenance contracts are available for ongoing support, servicing and updating of equipment, or re-training of personnel as required.
- ▶ Our standard payment terms (unless otherwise arranged in exceptional circumstances) are as follows:
 - 25% of the total due to confirm the order and start the process (following this point there will be a lead-time, which will include any design and manufacture time, the length of which will be advised upon order confirmation)
 - 50% of the total due paid prior to work commencing on site.
 - 25% settlement upon completion/handover.



NoiseBoys Technologies Ltd.

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Leicestershire

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