

**PERFORMANCE WORK STATEMENT**  
**FOR**  
**KITTYHAWK CHAPEL SOUND SYSTEM, PROJECTOR, AND AV WIRING**  
**INSTALLATION**  
**WRIGHT-PATTERSON AFB, OH**  
*18 June 2026*

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## 1. GENERAL:

The 88 ABW Chapel requires contractor support to remove old audio/video equipment and install government-provided sound system equipment, projector equipment, sound wiring, and video wiring at Kittyhawk Chapel.

Kittyhawk Chapel dimensions are:

- 82 feet long
- 34 feet wide
- 22 feet high

For this PWS, room direction is defined as follows:

- Front / Platform Area: The front of the chapel where the platform, pulpit, worship team, and projector screen are located.
- Rear / Soundboard Area: The back of the chapel where the soundboard is located.
- House Right: The right side of the chapel when standing at the rear soundboard area and facing the platform.
- House Left: The left side of the chapel when standing at the rear soundboard area and facing the platform.
- Normal work hours are Monday through Friday, 0730 to 1630. Work outside these hours, or during scheduled Chapel events, must be coordinated 48 hours in advance.

The soundboard is located in the rear House Right area of the chapel.

The contractor shall provide all labor, tools, installation services, configuration, testing, cleanup, and basic training required to make the sound and projector system operational within 15 days once Government gives notice to begin. Total contract period of performance shall not exceed 90 days from contract award.

The government will purchase and provide the major equipment, wiring, and supplies listed in this PWS.

## 2. GOVERNMENT-PROVIDED EQUIPMENT TO BE INSTALLED:

The government will provide the following equipment for contractor installation:

Qty	Item
4	RCF HDL10A 1400W 8" 2-Way Active Line Array Speakers
1	RCF SUB8008AS 18" Powered Subwoofer
1	RCF FBHDL10Light Flybar
1	Behringer X32 Digital Soundboard
6	Wireless microphone systems, Shure SLX-D or equivalent
1	Wireless microphone antenna distribution system, if required
1	Wireless microphone rechargeable battery or charging system
1	Digital stage box compatible with Behringer X32 or equivalent
2	Powered floor monitors or equivalent monitor solution
1	AV rack or rack accessories, if required
1	Power conditioner / surge protection setup
1	iPad or approved tablet for wireless soundboard control
1	Dedicated local AV router/access point for iPad control
2	Single-channel passive DI boxes or equivalent
2	Two-channel passive DI boxes or equivalent
12	5-foot XLR cables
12	20-foot XLR cables

6	5-foot instrument cables
1	Laser projector appropriate for chapel worship and presentation use
1	Projector ceiling mount or approved mounting solution
1	Existing projector screen
2	100' XLR/1/4" speaker wiring
4	20' Interspeaker cabling
10	Video wiring, including HDMI, USB-C, Cat6, DVI/adapters, or equivalent
5	Mounting hardware, safety cables, brackets, wall plates, labels, adapters, cable covers, and installation supplies

The contractor shall inspect government-provided equipment before installation.

The contractor shall notify the government if any item should not be installed due to condition, compatibility, safety, or performance concerns.

### **3. OLD EQUIPMENT REMOVAL:**

The contractor shall remove the existing old sound and video equipment from Kittyhawk Chapel.

The current chapel has two slim Bose-style speakers located near the front platform area, one on the House Left side and one on the House Right side.

The contractor shall remove:

- Existing front House Left speaker
- Existing front House Right speaker
- Existing speaker mounts or brackets, if no longer needed
- Existing sound system wiring no longer needed
- Existing video wiring no longer needed
- Existing projector, if being replaced
- Existing projector mount, if not compatible with the new projector
- Old wall plates, connectors, or related hardware no longer needed
- Abandoned or unsafe cable runs

The contractor shall coordinate with the government before disposing of removed government-owned property. Contractor shall use on-base dumpsters as needed.

The government will identify any removed items that must be retained, turned in, or inventoried.

### **4. MAIN SPEAKER AND SUBWOOFER INSTALLATION:**

The contractor shall install four total RCF HDL10A speakers in the front platform in accordance with commercial practices and manufacturer specifications.

Speaker placement shall be:

- Two RCF HDL10A speakers mounted as the main House Left speaker array.
- Two RCF HDL10A speakers mounted as the main House Right speaker array.
- House Left speaker array installed near the existing House Left speaker location at the front platform area.

- House Right speaker array installed near the existing House Right speaker location at the front platform area.

The contractor shall remove the existing front House Left and House Right speakers and install the new speaker arrays in those same general front-side locations, unless the existing locations are unsafe or structurally unsuitable. Any required change to speaker placement shall be coordinated with the government before installation.

The contractor shall mount, aim, and secure the speakers to provide sound coverage across the primary seating area.

The contractor shall install all required:

- Mounting hardware
- Flybar or compatible speaker mounting hardware
- Safety cables
- Signal wiring
- Power wiring
- Cable management
- Labels

The contractor shall install the RCF SUB8008AS powered subwoofer at the front platform area.

Subwoofer placement shall be:

- Front center of the platform area, where practical
- Clear of aisles, walkways, and emergency egress
- Connected to the Behringer X32 soundboard
- Balanced with the main speakers during testing

## 5. SOUNDBOARD, STAGE BOX, AND NEW AUDIO/VIDEO WIRING INSTALLATION

The Behringer X32 soundboard shall be installed and connected in the rear House Right soundboard area.

The contractor shall install and connect all government-provided audio and video wiring required for the sound and projector system. All wiring shall be routed cleanly, secured, labeled, and protected from trip hazards. All wiring shall be installed to meet facility, safety, and code requirements. The contractor shall not connect to AFNET unless approved by the government.

### 5.1 Audio Wiring Runs

Run	From	To	Cable Type	Purpose
A1	Rear House Right soundboard area	Front platform stage box location	Shielded Cat6, Cat5e, or manufacturer-approved digital snake cable	Connect Behringer X32 to digital stage box
A2	Rear House Right soundboard area	Front platform stage box location	Second shielded Cat6, Cat5e, or approved spare data line	Backup or future stage box/control line
A3	Behringer X32 main left output	House Left main speaker array	Balanced XLR or approved audio signal cable	Main left speaker signal
A4	Behringer X32 main right output	House Right main speaker array	Balanced XLR or approved audio signal cable	Main right speaker signal
A5	Behringer X32 subwoofer output	Front platform subwoofer location	Balanced XLR or approved audio signal cable	Subwoofer signal
A6	Stage box monitor output 1	Front House Left floor monitor	Balanced XLR or approved audio signal cable	Monitor mix 1

A7	Stage box monitor output 2	Front House Right floor monitor	Balanced XLR or approved audio signal cable	Monitor mix 2
A8	Wireless microphone receivers	Behringer X32 or rack input panel	Balanced XLR patch cables	Wireless microphone audio signals
A9	Front platform stage box	DI box/instrument input locations	Balanced XLR patch cables	Keyboard, guitar, tracks, playback, and instruments
A10	Presentation audio wall plate or connection point	Behringer X32 stereo input or approved input channel	Balanced audio cable, 3.5mm to DI, USB audio interface, or approved equivalent	Audio from chapel-provided presentation device
A11	Behringer X32 output	Recording/livestream/audio feed connection point, if available	Balanced XLR or approved audio cable	Future audio feed or recording support

## 5.2 Speaker Wiring and Power Routing

The contractor shall install and connect wiring for the main speakers and subwoofer.

Speaker wiring and power routing shall include:

- Audio signal line to House Left main speaker array
- Audio signal line to House Right main speaker array
- Audio signal line to powered subwoofer
- Power routing to House Left main speaker array
- Power routing to House Right main speaker array
- Power routing to powered subwoofer
- Cable management for all speaker signal and power cables
- Labels at both ends of each cable

The contractor shall connect equipment to existing approved power outlets. No new electrical circuits shall be installed without separate approval by 88<sup>th</sup> civil engineering and Real Property office.

## 5.3 Stage Box and Platform Connection Points

The contractor shall install the stage box or snake at the front platform area. The stage box location shall support worship team and speaker connections.

The stage box shall provide connection points for:

- Pastor or pulpit microphone
- Worship leader microphone
- Vocal microphones
- Keyboard
- Acoustic guitar
- Tracks or playback audio
- Guest speaker audio
- Floor monitor outputs
- Spare input channels, if available

The contractor shall label all stage box inputs and outputs. Labels shall be simple and clear, such as Pastor Mic, Vocal 1, Vocal 2, Keyboard, Guitar, Tracks, Monitor 1, and Monitor 2.

## 5.4 Wireless Microphone Wiring

The contractor shall install and connect wiring for the wireless microphone system.

Wireless microphone wiring shall include:

- Receiver audio outputs to the Behringer X32 or rack input panel
- Antenna distribution wiring, if required
- Power connections for wireless microphone receivers
- Charging station power connection
- Labels for each microphone receiver and matching handheld microphone

Microphones shall be labeled to match the soundboard channels. Example labels are Wireless 1 through Wireless 6.

## 5.5 Video Wiring Runs

Run	From	To	Cable Type	Purpose
V1	Presentation connection point	Ceiling projector location	HDMI or HDMI-over-Cat6 extender	Main video signal to projector
V2	Presentation connection point	Ceiling projector location	Spare Cat6 or approved video cable	Backup or future video connection
V3	Presentation connection point	Rear House Right soundboard area	HDMI, Cat6, or approved video line	Optional operator/control connection
V4	Presentation connection point	Behringer X32 audio input	Audio cable, DI, USB interface, or approved equivalent	Presentation audio into sound system

## 5.6 Projector Wiring

The contractor shall install and connect wiring for the projector. Projector wiring shall include:

- Video signal cable from presentation connection point to projector
- Signal extender, if required
- Projector power connection to approved power source
- Cable management at ceiling projector location
- Labeled wall plate or connection point for chapel-provided presentation device
- Required adapters for HDMI, USB-C, Cat6, DVI, or approved equivalent connection

The projector shall be connected so a chapel-provided computer or presentation device can send video to the projector. Presentation audio shall route from the chapel-provided device into the Behringer X32 soundboard.

## 5.7 Cable Labeling

The contractor shall label both ends of every installed cable. Labels shall identify source, destination, purpose, and channel or output when applicable.

Examples include:

- X32 MAIN L TO HOUSE LEFT ARRAY
- X32 MAIN R TO HOUSE RIGHT ARRAY
- X32 SUB TO SUBWOOFER
- STAGE BOX TO X32
- MONITOR 1 TO HOUSE LEFT MONITOR
- PROJECTOR HDMI INPUT
- PRESENTATION AUDIO TO X32

## **5.8 Cable Routing and Protection**

The contractor shall route all wiring in a safe and clean manner. The contractor shall:

- Secure cables above ceiling, along walls, or through approved cable paths
- Avoid loose cable across walkways
- Use cable covers where floor runs are unavoidable
- Use wall plates or connection panels where practical
- Keep audio and power cables separated where practical to reduce noise
- Remove abandoned cable that is no longer needed
- Secure any remaining cable that is approved to stay

Leave the chapel clean after wiring work is complete

## **6. WIRELESS MICROPHONES, MONITORS, DI BOXES, AND IPAD CONTROL**

The contractor shall install and configure six wireless microphone systems.

The wireless microphone receivers shall be located at the rear House Right soundboard / rack area.

The contractor shall install:

- Six wireless microphone systems
- Wireless microphone receiver connections to the Behringer X32
- Antenna distribution system, if required
- Wireless microphone charging or rechargeable battery system
- Labels for microphones and receivers

The contractor shall install two powered floor monitors at the front platform area. Monitor placement shall be one monitor on the front House Left platform area and one monitor on the front House Right platform area.

The contractor shall connect DI boxes and instrument inputs at the front platform area for worship team use.

The contractor shall install and configure iPad wireless control for the Behringer X32. The iPad control system shall include:

- iPad or approved tablet setup
- Dedicated local AV router/access point
- Connection to the Behringer X32
- Basic control of main volume, microphones, music levels, and mute functions

The local AV router/access point shall not connect to AFNET unless approved by the government.

## **7. PROJECTOR AND VIDEO WIRING INSTALLATION**

The existing projector is ceiling-mounted.

The contractor shall remove the existing projector and install the new government-provided projector in the same ceiling-mounted projector location, if the location is compatible with the new projector and existing screen.

The government already owns the projector screen.

The contractor shall inspect the existing projector screen and verify the new projector is aligned to the screen.



The contractor shall install:

- New projector
- Compatible projector ceiling mount, if required
- Power connection
- Video wiring
- Signal extender, if required
- Wall plate or connection point for chapel-provided presentation device
- Cable management

The contractor shall run video wiring from the projector to the presentation connection point. The video connection point shall allow a chapel-provided computer or presentation device to connect to the projector.

Video wiring may include:

- HDMI
- USB-C to HDMI
- Cat6 extender
- DVI/adapters, if needed
- Required converters or adapters

The contractor shall route presentation audio from the chapel-provided computer or presentation device into the Behringer X32 soundboard.

## **8. CONFIGURATION, TESTING, AND SOUND BALANCING**

The contractor shall configure and test the completed sound and projector system.

Testing shall include:

- Main House Left speaker array
- Main House Right speaker array
- Subwoofer
- Wireless microphones
- Behringer X32 soundboard
- iPad wireless control
- Stage box / snake connection
- Stage inputs
- DI boxes
- Floor monitors
- Playback audio
- Projector
- Existing projector screen
- Video connection from chapel-provided device to projector
- Audio connection from chapel-provided device to Behringer X32
- Cable labeling and signal routing

The contractor shall balance and tune the sound system to provide consistent audio coverage throughout the primary seating area of the chapel.

The contractor shall test sound levels from multiple listener locations in the auditorium and adjust the system as needed.

Adjustments may include:

- Speaker levels
- Speaker aiming
- Subwoofer balance
- Microphone levels
- Monitor levels
- System EQ
- Feedback reduction

The goal is for the loudest and quietest measured listener areas to remain within approximately 6 dB, where practical, to support clear spoken word and balanced worship music across the sanctuary.

The system shall support:

- Spoken word
- Worship music
- Wireless microphones
- Presentation audio
- Worship lyrics
- Scripture slides
- Sermon slides
- Announcements
- Video playback

## **9. BASIC TRAINING AND TURNOVER**

The contractor shall provide up to two (2) hours of basic hands-on training for up to five (5) chapel.

Training shall include:

- Turning the sound system on and off
- Turning the projector system on and off
- Using the Behringer X32 soundboard
- Using the iPad control
- Using wireless microphones
- Charging or replacing microphone batteries
- Adjusting main volume
- Muting and unmuting microphones
- Connecting instruments through DI boxes
- Using floor monitors
- Connecting a chapel-provided presentation device to the projector
- Routing presentation audio through the sound system
- Basic troubleshooting

The contractor shall provide a simple printed and digital guide with photos showing:

- Equipment locations

- Startup steps
- Shutdown steps
- Cable connections
- Wireless microphone charging
- Basic soundboard use
- Basic projector use
- Presentation device connection points
- Basic troubleshooting

## 10. PERIOD OF PERFORMANCE AND ACCEPTANCE CRITERIA

The contractor shall complete all removal, installation, configuration, testing, training, and turnover within 15 days once Government gives notice to begin. Total contract period of performance shall not exceed 90 days from contract award.

Milestone	Target Date
Site verification	Within 5 calendar days after notice to begin
Installation schedule	Within 3 calendar days after site verification
Government-provided equipment staging	Within 3 days after installation schedule
Old equipment removal	Within 15 days after government notice to begin
New equipment and wiring installation	Within 15 days after government notice to begin
Configuration and testing	Within 15 days after government notice to begin
Basic training and final walkthrough	Within 15 days after government notice to begin
Final turnover	Within 15 days after government notice to begin

The government will accept the work when:

- Old front House Left and House Right speakers are removed
- Old unused sound and video wiring is removed or secured
- Four RCF HDL10A speakers are installed and operational
- House Left speaker array is installed and operational
- House Right speaker array is installed and operational
- Subwoofer is installed and operational
- Behringer X32 soundboard is connected and operational
- Stage box / snake is connected from rear House Right soundboard area to front platform area
- Digital snake or stage box wiring is installed from rear House Right soundboard area to front platform area
- Main speaker audio lines are installed and labeled for House Left and House Right speaker arrays
- Subwoofer audio line is installed and labeled
- Monitor audio lines are installed and labeled
- Wireless microphone receiver lines are installed and labeled
- Stage box inputs and outputs are labeled
- Six wireless microphone systems are installed and operational
- Wireless microphone charging or battery system is operational
- iPad wireless control is operational
- Floor monitors are installed and operational
- DI boxes and instrument inputs are operational
- New sound wiring is installed, secured, and labeled

- New video wiring is installed, secured, and labeled
- Projector video line is installed from presentation connection point to ceiling projector
- Presentation audio line routes into the Behringer X32 soundboard
- All installed cables are labeled at both ends
- All wiring is routed safely and secured
- Cable paths do not create trip hazards
- Projector is installed in the ceiling projector location and operational
- Projector is aligned to the existing projector screen
- Projector receives video signal from a chapel-provided presentation device
- Presentation audio routes through the Behringer X32 soundboard
- System is tested for speech, worship music, and presentation use
- Sound system is balanced and tested from multiple seating locations
- Loudest and quietest measured listener areas are within approximately 6 dB where practical
- Spoken word and worship music are clear across the primary seating area
- Basic training is completed
- Printed and digital user guide is provided
- System is ready for chapel use within 15 days once Government gives notice to begin.  
Total contract period of performance shall not exceed 90 days from contract award.

## 11. CHAPEL PHOTOS









