



Request for Proposals (RFP)  
AV Systems Upgrade  
Reference #: NGC109885  
Buy and Sell Reference #: PW-17-00765777  
February 22, 2017

## ADDENDA # 1

This Addendum forms part of the contract documents and is to be read, interpreted, and coordinated with all other parts. The cost of all contained herein is to be included in the contract sum. Acknowledge receipt of this Addendum by inserting its number and date on the Tender Form, specifically article G.3 – Addenda. Failure to identify addenda issued by the NGC **will (M)** result in the immediate disqualification of your proposal.

1. The pricing breakdown in F.4 stops at booth upgrades and doesn't include the Lecture hall at all. Can we suggest that you add at least one category for the Lecture Hall? Or do you want the Lecture Hall equipment buried in the Theatre categories?
  - Section F.4 is now replaced with pages 9 to 10. Please submit your bids using these updated forms.
2. Is the Lecture Hall also only available 3 days per week, or is that restriction only for the Theatre?
  - We were able to reserve a timeslot for the Lecture Hall from May 15<sup>th</sup> to May 29<sup>th</sup> as consecutive days for the renovations. Other days are available if needed, but this will be the only timeslot with more than 3 consecutive days. Exact install dates will be decided between the chosen vendor and the NGC representative once the contract has been awarded. Please see the schedule document that was added for more details. **THE DATES IN THE SCHEDULE DOCUMENT ARE SUBJECT TO CHANGE, AND SHOULD BE USED AS A REFERENCE ONLY. EXACT INSTALLATION DATES WILL BE CONFIRMED ONCE A VENDOR HAS BEEN CHOSEN AND A WORK PLAN HAS BE DONE.**
3. Given that we can only work 3 days/week due to bookings, does that mean that the system needs to be functional every Thursday? Other than the Cinema system, what other systems need to be functional before final system turnover?
  - We have attached a schedule with the large timeslots that have been reserved for various part of the installation. More days are available, but in shorter time slots and will be discussed between the selected vendor and the NGC representative once the contract has been awarded. Other than the large timeslots marked in the schedule we added, the average week will only have 3 consecutive days available, and in that case the basic system needed to run events will have to be operational. All the components that are part of this project will have to be installed by the end of this contract. The only exception is the DCP system, which will have to be installed and operational by April 21<sup>st</sup>, since it is needed for a movie festival hosted on the following week. The new surround sound system does not need to be installed at the same time as the DCP system, it can be installed at a later date, so the DCP system can be tied in to the current Dolby 5.1 system if needed. **THE DATES IN THE SCHEDULE DOCUMENT ARE SUBJECT TO**



**CHANGE, AND SHOULD BE USED AS A REFERENCE ONLY. EXACT INSTALLATION DATES WILL BE CONFIRMED ONCE A VENDOR HAS BEEN CHOSEN AND A WORK PLAN HAS BE DONE.**

4. The Theatre has several rows of delay speakers in the ceiling. Are they being abandoned?
  - Yes, they will be disconnected and left there. They have not been used for several years, and to avoid having to set up scaffolding throughout the entire Auditorium and having to patch all the large holes, we decided to leave the speaker in place, but as much cabling as possible is to be removed.
  
5. After the successful bidder has a structural Engineer inspect the rigging will any necessary repairs be extra to the original contract? Rigging of this age that has potentially not been inspected or maintained for decades could require a wide range of work, up to and including full replacement.
  - Yes, if there are any repairs that must be made they will be extra to the contract.
  
6. Do the veam connections on stage and at the booth require fan-outs or snakes?
  - We will require a 25' snake for the veam connection on stage, with a snake head as a termination point instead of a fan out, since it will be used for small bands or orchestras.  
  
The veam on the back wall in front of the booth will require a 25' fan out, since we will be using that connection to connect the LS9 console during large performances that require the sound to be mixed within the room, we will be putting the LS9 console on a portable table, behind the last row of seat in this set up.  
  
The veam connection in the booth will have to be a fan out that is roughly 6', depending on the exact location of the veam plate, since this will be used to connect the LS9 console in the booth. We plan on keeping the current location for the LS9 sound console as a day to day use.
  
7. Are we required to pull out all A/V related cabling in the Theatre & projection booth, or only what is required to clear conduits/paths for the new cabling?
  - All A/V related cabling in the Theatre and projection booth MUST be taken out. We want to have a clean install with cables that are easily identified and serviced once this contract is over, so taking out all existing A/V cabling is mandatory. All new cables are to be either passed in conduit, or well organised in groups and cables passed above the tiles should be suspended so they don't lay directly on the tiles.
  
8. The specified Christie 108-338105-01 lens is a high brightness lens with a zoom ratio of 2.15-3.6:1 but the spec description says that it is a high contrast 1.95-3.26:1. Can you clarify?
  - The correct lens needed is a high contrast lens 2.15-3.6:1 part number 108-404109
  
9. To avoid long cable runs to the subwoofers and front speakers for the cinema system is it possible to put a small rack backstage for the LCR & sub amps? (either behind the screen with the subs, or wall-mounted above the other amp rack, or recommend a location)
  - No, we prefer having all the amps and processors related to the surround sound system in the projection booth to make it easier for tuning and troubleshooting.



10. Do the existing wireless mics for the Lecture Hall currently have rack mounting hardware, or will that need to be provided?
  - They already have the joining plates and rack hardware, no extra hardware is needed to mount them. They only hardware needed is an antenna distribution system.
11. You've asked for the Epiphan Pearl-2 Rackmount plus a 4K camera. Does that mean that you also want the 4K software license for the Pearl-2?
  - Yes we will need the additional 4K software license.
12. Page 26 mentions HD-SDI connection points, but none are on the drawings and it is not mentioned anywhere else in the spec. Can you elaborate?
  - An updated cabling diagram has been added with the HD-SDI connection points. All connection points are to lead back to the projection booth and be organised in racks using patch bays or switchers.
13. Page 28 asks for: Qty 1: "Crestron DM-TX-201-C. Crestron video transmitter. Crestron DM-RMC-4K-SCALER-C-DSP. Crestron video receiver/scaler. This unit is to complete part of a system that is currently in place for portable use." Do you require both units, or is this a typo?
  - It was a typo, we only require one DM-TX-201-C for that item line.
14. Please clarify Ethernet connections vs Crestron HDBaseT connections. Is every "Ethernet" connection on the drawing intended to be able to perform either function via the patchbay, or are there dedicated Ethernet and dedicated video connections?
  - We are looking for your recommendation for this system. We want the flexibility of being able to connect one or two video/audio source, typically using HDMI as well as the possibility to have an RJ45 jack for internet use at most the connection plates. We need the flexibility, but we are hoping to still keep the system simple enough and user friendly. Having Ethernet jacks everywhere and using a few Crestron transmitters/receivers seems to give us the most flexibility, but that solution is not always user friendly, and can lead to confusion if they need to be set up every time. So we are looking for recommendations on a more user friendly system that is still flexible.

We will also have two sources for the internet, which we want to be able to route to any connection plate in the Auditorium via a patch bay in the projection booth, we are open to other solutions if some are available. One internet source will be from our internal network connection which will be used when it's NGC staff using the connection point, this will give them access to internet as well as any documents they keep on our internal corporate network, but it is to be made accessible only to internal staff, and we must have the option to disconnect or de-activate that line when the Auditorium is rented to an external client. The connection for this source is via a Cat6 cable that is already located near the location for the new equipment racks, our ITS department can assist with this cable if any changes are needed. The second line will be a line for internet only for external clients or hall rental, this line is a completely separate and independent network which is run to the back closet of the projection booth. This line is a fiber optic line, and enough slack has been left in the cable to be able to move it to one of the equipment racks if that is the preference. This line will be used for internet access for



external clients, as well as the webcasting system and any equipment in the booth that requires internet connection. It is a dedicated line for the Auditorium and Lecture Hall, so bandwidth is not an issue with this line. We are looking for your recommendations for this external internet line to decide if Firewalls or anything similar is necessary.

All the Ethernet cable is to be at least Cat6 or higher. Some locations in the Auditorium can be Crestron rated cable if it is deemed necessary, but it is not mandatory. The Lecture Hall however must have Crestron rated cabling for any Crestron components related to that system.

15. Page 21 says “Removal and disposal of...”, and page 32 says “Any equipment or cabling removed remains the property of the NGC” Can you clarify what, if any equipment we are responsible for disposing of?

- The lighting fixtures that will be replaced with the new LED lights are an exception, since we have determined they are not worth keeping and repairing. The exact fixtures we dispose of will be determined by the NGC representative in collaboration with the chosen vendor.

The surround sound speakers can be taken by the vendor if we can get a credit for them, otherwise they have to remain the property of the NGC.

All other equipment and cabling that is removed is to remain the property of the NGC, and the NGC representative will provide storage for the equipment as needed, and we will provide large 4’x4’ metal cages/pallets for the cabling that is taken out.

16. Delivery of the equipment, can you tell us the size of the storage room we will have available for each delivery

- As mentioned in the RFP, the NGC has limited space and the delivery dates will be determined by the NGC representative once a work plan has been put in place. There is no dedicated storage room for this project, rooms can be made available for storage short term, and the preference is to have on site what will be installed at that time.

17. Will we be able to make use of the facility’s waste/cardboard removal or will we have to remove all packaging from the site?

- Yes, you can make use of the NGC’s waste bins

18. In regards to Appendix B: Insurance Requirements, point 2 = does the National Gallery have to be named an additional insured on this coverage as well? If so, would you accept the alternative of our coverage for clients’ property?

- Yes, the National Gallery must be named additional insured.

19. Can we substitute the Christie projector for a Barco B Series Cinema Projector if it meets or exceeds the original specs?

- Yes, a Barco B Series Cinema Projector equivalent to the Christie that is spec’d in the RFP will be accepted. The internal Alchemy Barco server with the larger hard drive option is the preferred choice if Barco is spec’d.



20. We would like approval to provide an alternate Digital Cinema Projector. The following products would be substituted as follows:

RFP Model:	Proposed Alternate:
Christie CP4230	Barco DP4K-32Bx
7kW External power supply	(as req'd for projector)
1.95-3.26.1 High contract lens	Barco 1.38" DC4K (1.95-3.26)
CDXL-45SP-LT lamp	Ushio 4500W DXL-45BA

- a. Refer to Question #19
21. "Structural inspection and certification of the lighting bars, along with any modifications needed to be able to certify the weight capacity for the lights being added in this phase as well as the next, as explained in the stage lighting description"

Question: Can we have this separated, I believe it's going to be hard for us to guess at what will be required for modification unless we had the engineer with us at the site meeting. Can we supply a price for only the inspection and the report? Once the report has been reviewed we could price out any modification at an extra.

- a. The price to have an engineer take a look and certify the lighting bars is to be included. If after inspection some modifications, structural work, or complete replacement is needed, it will be an extra to the project.

Question: As a guide for the future, is the NGC willing to see what the cost of total replacement of each LX position? Obviously this price would be set aside in a separate envelop to our bid.

- a. Unless the engineer says that our current light bars need to be replaced, we do not foresee the need to replace them in the near future.

22. "Installation of various DMX lighting connection points. An electrician provided by the NGC will be responsible to provide all non-dimmable power sources that will be deemed necessary. Refer to **Appendix E – Cabling Diagram** for more details on DMX connection points."

Question: Please see attached Echo Relay Panel Datasheet. Instead of using a standard Relay panel for the LED Lights, I suggest that we price out the Echo Relay Panel which adds a great deal of benefits for the venue. If the NGC is not prepared to have this added, can we still price this for future budget consideration?

- a. We have recently upgraded the processor in our Strand CD80 dimming rack with a Strand C21 processor and do not plan on replacing the entire rack right away. Strand lighting relay packs will be needed to convert 18 dimming circuits into relay switches, and the processor will need to be re-programmed if needed to accommodate for these new relay switches.



23. "Creation and implementation of a new stage lighting plot according to prescribed needs, and provision of a copy of all documentation related to this."

Question: I am assuming that we are deciding where the fixtures are going to be hung and thus why a DMX cables list was not supplied as part of the bid. The cables I will supply will be to exact length therefore there will be no extra should a fixture be moved to another location. I suggest that the NGC provides a cable list to link the DMX between fixtures to ensure that future needs are met.

- a. The placement will be decided between the chosen vendor and the NGC representative once the contract is awarded. We prefer having some flexibility with the DMX cables, since we might have to change the position from time to time for special events, see below for the cable list. All cables are to be DMX 5Pin to 5 Pin cables with black connectors and clear heat shrink tubing section so we can label the cables.

16 x 6' DMX 5Pin cables with black connectors  
18 x 10' DMX 5Pin cables with black connectors  
6 x 15' DMX 5Pin cables with black connectors  
4 x 25' DMX 5Pin cables with black connectors

24. "Ensure that the new system works with the current DMX processor, and have the ability to save pre-sets on the wall control switches that are currently in use."

Question: Not exactly sure what we are asking here. If we are looking to save looks on the existing pre-set station with the new LED Lekos using the existing CD80 dimmer Rack, it will not work. You need a DMX Recording device and new button station. These devices can communicate with the CD80 Rack via DMX. Should these devices be added to the bid package?

- We have looked more deeply into our DMX processor and we have determined that we do NOT need the lighting console to save pre-sets. The pre-sets can be programmed by the master wall switch. So it is no longer a concern that the new DMX lighting board not work with our internal processor and pre-sets.

25. Item lists:

Question: What connector is required on the ETC Source Four LED Series 2, the fixtures come with a power-con cable and a choice of connector? The plug-in strip on stage where not accessible and I was not able to determine the type during the site visit.

- The power-con should be terminated with a 15amp twist lock connector. All the dimmable circuits on the lighting bars are 20amp twist, so the NGC electrician will be installing 15amp twist receptacles for all the non-dimmable circuits to avoid confusion.

Question: The M2GO, does not include a littlelite or a DMX Cable, should these items be included? Please specify littlelite type and DMX Cable Length.

- a. According to the "Included Items" list provided by Martin Lighting, there is a 13" LED desk light P/N 91613090 that is included with the console.

Yes, a 3' DMX 5Pin XLR to 5Pin LXR cable should be supplied with the console to connect it to the connection plate in the projection booth. The NGC already has other assorted lengths that might be needed if it's used in other locations.



26. The following is a complete replacement to the items listed Section C under the heading **Surround Sound System.**

Quantity	Part Number	Description
3	JBL 4732	JBL 3 Way Left Center Right main speakers, these will be run in Bi-Amp mode
3	JBL 4642A	JBL Passive Dual 18" subwoofers, these will have one amp each in bridge mode
14	JBL 9320	JBL 2 way full range surround speakers
9	DSi-2000	Crown DSI 2000 cinema series amplifiers. The same amps will be used for the whole system to simplify trouble shooting and emergency servicing
1	DSi-8Mn	Crown Projection Booth Monitor for DSI series amplifiers
1	Dolby CP750	Dolby CP750 7.1 surround sound processor
7	F122-2448-00	Primacoustic 24"x48" acoustic panels. 2" thick with beveled edges and finished in black. This part number is for boxes of 6 panels. A total of 42 panels are needed
2	F122-2424-00	Primacoustic 24"x24" acoustic panels. 2" thick with beveled edges and finished in black. This part number is for boxes of 12 panels. A total of 24 panels are needed
10	F122-2415-00	Primacoustic 24"x24"x34" ark accents acoustic panels. 2" thick with beveled edges and finished in black. This part number is for boxes of 2 panels. A total of 20 panels are needed
13	F101-1003-00	Primacoustic push on impaler. Metal brackets to mount the acoustic panels. This part number is for a box of 24. A total of 312 push on impalers are needed

These panels are to be mounted in the alcoves on each side of the Auditorium to reduce the room flutter effect and improve the audio quality and speech intelligibility.



27. The following are in addition to the items listed Section C under the heading **Stage Lighting**

Quantity	Part Number	Description
14	ETC CSLINEAR1	ETC ColorSource Linear 1 fixture measuring 0.5m wide for use in the alcoves and the front of the stage. These items will be portable and do not need to be permanently installed.
14	ETC DPA-A	ETC 5ft PowerCon to parallel blade U-ground (Edison) connector. These are included with the fixture, this product code simply specifies how we want the PowerCon terminated by ETC.
6	ETC CSLBD	ETC ColorSource Linear barn door (2x .5 meter sections). Barn door will only be needed for a few fixtures.
4	ETC CSLVNLH.5	ETC ColorSource Linear Very narrow linear horizontal lens.
4	ETC CSLWLH.5	ETC ColorSource Linear Wide linear horizontal lens.
4	ETC CSLXWLH.5	ETC ColorSource Linear Extra wide linear horizontal lens
6	ETC CSLVNL.5	ETC ColorSource Linear Very narrow linear vertical lens.

28. For all items specified within the RFP and Addendum, the NGC will consider equivalents. Please submit equivalent part numbers and specification sheets as part of the technical submission. Bidders must cross reference the NGC requested part number to the suggested equivalent part number.

29. Appendix E, Cabling Diagram has been replaced by the 2 following documents.

- Appendix E - Cabling Diagram v2 (ENG)
- Appendix E - Cabling Diagram v2 (FRA)





**F.4 FINANCIAL PROPOSAL**

Based on the full requirements found in Section C of this RFP, please provide NGC your price to provide the services described, without taxes.

PRICING	
Description	Cost
<b>Main Speaker System</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Surround Sound System</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Stage Lighting</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>DCP Projector</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>ClearComm System</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Webcasting</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Simultaneous Interpretation</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Cabling Infrastructure</b>	
Removal	\$
Equipment	\$
Installation	\$



PRICING	
Description	Cost
<b>Booth Upgrades</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Wireless Mics</b>	
Removal	\$
Equipment	\$
Installation	\$
<b>Lecture Hall</b>	
Removal	\$
Equipment	\$
Installation	\$
Any other costs not included in the above. Please provide details:	\$
TOTAL	\$