THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Planning Department, Montgomery County, Maryland
8787 Georgia Avenue Silver Spring, Maryland 20910

MCPB Date: 11/1/18
Agenda Item # 5

MEMORANDUM

DATE: October 26, 2018

VIA: Gwen Wright, Planning Director
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FROM: Karen Warnick, Chief, Management Services Division (Planning)
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SUBJECT: Worksession #2 - FY20 Operating Budget – Wheaton Headquarters OBI – Auditorium Audio/Visual (A/V) System

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STAFF RECOMMENDATION:
Approval of the revised proposal to prepare the FY20 Planning Department's operating budget at the Base Budget plus New Initiatives level.

BACKGROUND
At the Planning Board's October 11th meeting, the Parks and Planning Departments presented the proposed operating budget impact (OBI) for the new Wheaton Headquarters (Wheaton HQ), including information regarding the background, needed equipment, and cost for the auditorium technical fit-out for the Wheaton HQ Auditorium A/V. This is included in this memo as Attachment 1. The Planning Board requested additional information on the proposed cost and comparable benchmarks.

ORIGINAL REQUEST
To develop the proposed costs, the Parks and Planning Departments first reviewed the specifications for the turnkey auditorium space provided with the building construction. We determined it will only include the conduit for fibernet connections, fixtures for in-room speakers, power for lighting, and power and network floor boxes. Next, we worked with an A/V vendor who has worked on projects of this size and scope to get an estimated cost for the auditorium's A/V system. The vendor gave a range between $800,000 to $1,200,000 which included the design, equipment purchase, installation, training, and a five-year maintenance and support contract.

The **original request** discussed at the October 11th meeting was the mid-point of the range that the A/V vendor provided, $1,000,000, of which $250,000 was for maintenance and support for 5 years. Of the $1,000,000, MCDOT would fund $200,000 and M-NCPPC would fund **$800,000** based on information from the knowledgeable A/V vendor and benchmarks from other government auditorium A/V projects.

REVISED REQUEST
We have not changed the scope of the project. Instead, we have revised the request for the A/V system by reducing $200,000 from the original request by shifting four years of maintenance and support at $50,000 per year to FY21 and beyond. **The revised request is $800,000, with $200,000 coming from MCDOT and the remaining $600,000 coming from M-NCPPC. To help mitigate the cost impact for FY20, this cost will be financed over 6 years at $114,000 per year**. More details are presented later in the memo.

COMPARABLE BENCHMARKS

Since October 11th, the Parks and Planning Departments have documented benchmark projects in government facilities. Below is the list of comparable projects we examined:

- Montgomery County Council 3rd Floor Hearing & Council Conference Rooms (2020) -$750,000 budget
- NASA Goddard Space Flight Center Goett Auditorium, Greenbelt, MD (2018) - $500,000
- City of Rockville Mayor & Council Chambers Upgrade (2010 & 2012) - $854,011
- City of Atlanta HD Production and Master Control Play-Out (2013 and 2014) - $600,000

While none of these projects is an exact comparison, they did provide a sense of confidence that we were in the right ballpark. Detailed information on the benchmark projects is included in Attachment 2 on page 6.

REVISED FUNDING REQUEST

One major difference in our original request from the benchmarked projects was that we included five years of on-going maintenance and support, which we projected to be $50,000 per year or $250,000 for the first 5 years. This includes help desk support, guaranteed call-back time, guaranteed on-site response, video tele-conferencing support, preventative maintenance visits, reporting, replacement part coverage and training and retraining. By including only the first year of maintenance and support, we reduced $200,000 from the original FY20 budget request of $1 million to a **new project total of $800,000**. We will include the $50,000 per year maintenance contract in the budget for FY21 and beyond.

The Parks and Planning Departments collaborated with CAS Purchasing, Finance, and Budget to explore options to fund the A/V system. Since MCDOT has $200,000 earmarked for this project, **the revised total needed for M-NCPPC is $600,000**. By funding this amount through the ISF equipment fund, we can finance the $600,000 purchase over 6 years for $114,000 per year, which we believe will be easier for the Departmental budgets to absorb rather than paying for the entire project in FY20.

By revising and financing the Auditorium A/V request, the overall **Wheaton HQ OBI for FY20** is reduced from $1,649K to **$963K**, and future years' OBI is projected to be at a more level amount than originally proposed.

REVISED WHEATON HQ OBI	FY20	FY21	FY22/On-going
One Time Costs	$579K	$0	$0
Auditorium A/V[1] (REVISED)	$114K	$164K	$164K
Operating Maintenance	$187K	$1,335K	$1,427K
Security (Park Police)	$83K	$86K	$86K
Transportation Stipend	$0	$334K	$374K
Current Building Expenses (MRO, Parkside, Hillandale)	$0	$($1,018K)	$(1,018K)
REVISED TOTAL Shared by Park and Planning	**$963K**	**$901K**	**$1,033K**
ORIGINAL TOTAL as Proposed October 4, 2018	$1,649K	$615K	$829K

1 - FY20 Auditorium A/V = $114K debt service; FY21 and beyond = $114K debt service + $50K maintenance/support

SUMMARY:

The Parks and Planning Departments sought out additional comparable benchmark projects to ensure our original request was reasonable and explored options to fund the Wheaton HQ Auditorium A/V system. We have not changed the scope of the project but have reduced $200,000 from the original request by shifting four years of maintenance and support at $50,000 per year to FY21 and beyond. The revised budget request for the A/V system is $800,000, with $200,000 coming from MCDOT and the remaining $600,000 coming from M-NCPPC financed over 6 years or $114,000 per year.

New Wheaton Headquarters – Auditorium Audio/Visual
Background and Technical Requirements for A/V Equipment
October 11, 2018

Background
The auditorium in the M-NCPPC Wheaton Headquarters building will be a state-of-the-art, 300-seat room serving the M-NCPPC Planning Board, the Montgomery County Parks and Planning Departments, the County agencies in the building, and the community at large.

The work that is conducted at Planning Board meetings in the HQ's auditorium directly impacts the livability and vitality of communities in the County now and into the future. Master plans are considered, development projects are reviewed, and important policy initiatives are deliberated upon about the future of Montgomery County. Montgomery County residents also have come to expect a high level of transparency, accessibility and technology from Montgomery Parks and Planning during Planning Board meetings, public meetings and other special events hosted in the auditorium.

State-of-the-art audio-visual technology is needed for the Wheaton HQ auditorium to ensure that M-NCPPC provides residents and other stakeholders a transparent view of the work of the Board and wider access to the planning decision-making process, whether in person, with more seating than the current auditorium, or from their homes or places of work. The auditorium also will be a resource for County agencies housed in the HQ building as well as community organizations who want to use the space to host meetings or other events. This means that reliability and ease of use of the audio/visual (A/V) systems is imperative to achieving a seamless, modern and enjoyable experience whether you are an audience member in the room or watching a meeting while streaming from a mobile device at home. In essence, the auditorium will need to be the "smartest" room in the building.

In the current MRO Auditorium, we have made incremental upgrades over the years, but in an a la carte approach, rather than making systematic and integrated changes. Our last upgrade of the A/V equipment was in 2014 and 2015, and it is reaching the end of its lifecycle. By the time the HQ is completed and turned over for occupation, the equipment will be five to six years old. The deficiencies that are experienced with the current setup are due to the fact that we do not have one integrated system, but rather piecemeal retrofits that do not ensure consistency and have led to equipment failures. It is important for the public that having access to the work of the Planning Board is not inhibited by A/V distractions.

Stonebridge Carras will provide a turnkey Auditorium space that will include the conduit for fibernet connections, fixtures for in-room speakers, power for lighting, and power and network floor boxes.

In addition, MCDOT has $200,000 put aside in the project budget for M-NCPPC use for unspecified Auditorium A/V equipment.

All other A/V equipment and integration services will be the responsibility of M-NCPPC.

Need
The Auditorium in the new Wheaton HQ will require a state-of-the-art and user-friendly A/V system to meet the needs of the space. The goal is to provide an integrated system where one staff member can control the entire room (including audio, visual, lighting and multi-media sources) from a single dashboard on a computer or tablet. This type of integration is standard for a room of this size (300-person capacity) and the high-profile nature of public meetings, which will be streamcast to the online audience.

The technology needs of the auditorium require design/build support for audio, visual technology, lighting, integration and ADA accessibility with each of the elements. Support and maintenance will be needed for upkeep of the equipment and systems and remote trouble-shooting.

The Wheaton HQ auditorium needs to be capable to "go live" over fibernet with high-definition (HD) video and audio without the threat of degradation at the source to the County Cable Montgomery control room. By including modern audio, video and lighting, this will ensure a clean feed of content for Montgomery Parks and Planning and other county agency tenants.

As stated above, there were incremental upgrades made to the current auditorium in A/V technology in 2014 and 2015. Most of the equipment has already reached the end of its lifespan—with two more years to go until HQ construction is completed—and will not allow for seamless integration in the new Wheaton HQ.

Some existing equipment that could possibly be repurposed from the current MRO Auditorium to the new Wheaton HQ include:
- Hard-mounted dais microphones
- Wireless microphones
- Dais voting hardware

The items that have reached the end of their lifespan and will not be viable in the new Wheaton HQ include:
- Cameras—purchased in 2014 and have reached the end of their lifespan.
- Ceiling monitors—purchased in 2014 and have reached the end of their lifespan.
- Dais monitors—purchased in 2014 and have reached the end of their lifespan.
- Projector—purchased in 2014 and is no long efficient due to bulb degradation and heat produced.
- Granicus (video capture) encoders—out of warranty starting in 2019 and will need to be upgraded in the new Wheaton HQ.

With FY20 funding for this effort, M-NCPPC will secure an A/V vendor through a Request for Proposals (RFP) process with broadcast integration experience to create the necessary systems to provide reliable audio, video, lighting for the room audience and the online audience. Additionally, we want to have full integration with the already existing video system, including the Sony Anycast switcher and Granicus (online streaming video provider).

Montgomery Parks and Planning are requesting **$800,000** in FY20 for the Wheaton HQ auditorium A/V project. The total cost to procure a vendor and purchase the required equipment is $1 million. MCDOT already has $200,000 set aside in existing funding to apply to this project.

Technical Requirements for A/V Equipment Needed for Wheaton HQ Auditorium
In order to provide a high level of A/V service and support for this "smart" room, the following equipment and A/V integration is needed.

VIDEO

Cameras
- Six (6) robotic ceiling mounted HD cameras that will feed into a "one-man-band" switcher on the dais such as a Sony Anycast.

Monitors
- Eight (8) large HD 60" monitors to be hung from the ceiling in the auditorium.
- One (1) large HD 60" monitor in pre-function area.
- Thirteen (13) individual 16:9 HD wide-screen monitors (non-touch screen) for the dais.
- Confidence monitor on façade of dais for work session table attendees to see presentation video.

Digital Signage
- Digital signage system that is cloud-based to allow for content updates to run on in-room monitors and monitors in the building.

Projector
- One (1) Laser Projector to be ceiling-mounted.
- Network Connection
- Network connections at each dais position for laptop connection.

AUDIO (Microphones/speakers)
- Thirteen (13) hard-wired push-to-talk long goose-neck microphones with on/off capability with ten (10) high-quality wireless microphones (mix of hand-held and table-top) for the work session table.
- Zoned speaker system with the ability to control individual mics on a mixer.

LIGHTING
- Lighting grid specific for HD broadcast production integrated into system. The need includes low-heat emitting fixtures and pre-set configuration capability to allow for flexibility to appropriately light a Planning Board meeting or a special event.

A/V INTEGRATION
- Audio, video and lighting will need to be integrated into one system to ensure a high-performing A/V workflow and ease of use. The integration includes the following:
  - Run fiber connection to Auditorium through conduit.
  - Encoder/receiver integration in A/V closet for audio/video/lighting/multi-media source control.
  - HVAC control with temperature control and text messaging alert capability.
  - Emergency power integration.
  - Integration with Granicus online video streaming service, VOIP phone line for conference calls and Microsoft Office platforms such as Skype for Business
  - Audio system integration with outside lobby speaker and monitor.

OTHER REQUIREMENTS
- Vendor must provide a solution that is within the budget, that is scalable and meets the needs of M-NCPPC that are industry standard.
- VOIP accessibility for audio from the Auditorium to the in-house staff (can call an extension to hear audio from landline).
- ADA Accessibility features will be used, such as assistive listening devices.
- Ability for rolling smart board monitor to plug into fiber connection/network connection in the room in multiple locations.
- Ability for Apple Air Play or similar technology to allow source data to be used on display system.
- Provide integration with a mult box for members of the media to receive a clean audio feed.

PROJECTED SCHEDULE
- Vendor determined by February 2019
- Vendor to begin work with design completed and approved by August 2019
- Installation by vendor starts May 2020
- Installation and testing completed by July 2020
- Go live with first Planning Board meeting September 2020

New Wheaton Headquarters – Auditorium Audio/Visual
BENCHMARKS

The Parks and Planning Departments committee researched and reviewed several examples of local government auditorium audio-visual (A/V) projects that we used as the benchmark for our operating budget impact (OBI) for the Wheaton HQ auditorium A/V funding request.

All the examples are for auditoriums with smaller seating capacities and yet the costs for the completed projects are only somewhat lower than the $800,000 requested for the Wheaton HQ Auditorium A/V.

Montgomery County Council 3rd Floor Hearing Room & Council Conference Room (2020)
Legal capacity – Hearing Room: 269 and Conference Room: 48
Budget: $750,000
The Montgomery County Council is about to distribute an RFP for their 3rd Floor Council Hearing Room and Council Conference Room for A/V upgrades to design and implement state of the art A/V conference technology to provide a technology solution for dated equipment. The preliminary budget for this project is $750,000 inclusive of all design, equipment, installation, and training as well as indirect costs such as service and maintenance. Our source indicated that this is a preliminary number and that they anticipate that the final amount may be higher. The Montgomery County Council has a full-time broadcast engineer on staff along with other engineering support for their hearing and conference rooms. The Council also has dedicated staff to provide on-site A/V support for all users.

This project is the most similar to our project in terms of size and scope. However, Montgomery Parks and Planning do not have engineering support on staff or dedicated staff to provide on-site A/V user support. M-NCPPC will meet these needs through a highly user-friendly system requiring a greater amount of integration for up front automation and a higher level of annual contractual engineering support.

Montgomery County Council
3rd Floor Hearing Room

NASA Goddard Space Flight Center Goett Auditorium, Greenbelt, MD (2018)
Room Capacity: 200
Cost: $500,000
This project included the purchase and integration of audio-visual components for an auditorium for NASA. This project was strictly a presentation-style auditorium experience for lectures and videos. It did not include a live streaming server and encoder, dais monitors, ceiling monitors, or ADA closed-captioning.

NASA Goddard Space Flight Center
Goett Auditorium, Greenbelt, MD

City of Rockville HD Tapeless Workflow and Mayor and Council Chambers Upgrade (2010 and 2012)
Room Capacity: 75
Cost: $854,011
This project included expenditures of $504,000 in 2010 and $350,011 in 2012 for an upgrade to an HD tapeless workflow for the City of Rockville cable channel and Mayor and Council Chambers. Although the scope of this benchmark case is not the same as the scope for Wheaton and was executed 10 years ago, the basic features are the same in capturing footage and streaming live to the in-room and online audience. The upgrade included ceiling monitors, dais monitors, lighting grid.

City of Rockville HD Tapeless Workflow
and Mayor and Council Chambers Upgrade
(2010 and 2012)

City of Atlanta HD Production and Master Control Play-Out (2013 and 2014)
Cost: $600,000
The City of Atlanta upgraded their cable channel master control to full HD in a project that included upfront design, construction coordination, system implementation planning and program management. The scope included a retrofit to a fully HD workflow including new robotic cameras, audio system and web streaming service.

City of Atlanta
HD Production and Master Control Play-Out