# Academic Technology Retrofitting PLAN

## The Washington Center

February 28, 2018 Draft (v. 17)

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# Executive Summary

In early 2018, an evaluation of the classrooms, auditorium, and common areas of The Washington Center (TWC) was conducted. This evaluation was to produce a report explaining how TWC could update its academic technologies and modernize its teaching and learning areas. This report summarizes the process followed to develop recommendations for retrofitting TWC teaching and learning areas. Recommendations were based on site visits, a review of literature about teaching and learning locations, discussions with users/stakeholders of the learning areas, and a study of previous reports about the classrooms, auditorium, and common areas.

Site visits were conducted to inspect facilities and to interview users. Site visits resulted in a comprehensive understanding of TWC's teaching/learning areas. The interviews produced a series of themes offered by users. Literature was reviewed and guidelines for classroom renovation/retrofitting were identified and used during the development of recommendations, and last a review of a previous facilities assessment permitted a validation of the 2018 evaluation.

This report contains an explanation of instructional technology guidelines relevant to TWC. Next, this report provides a review and overview of the various teaching/learning facilities. Third, general recommendations are offered for classrooms, the auditorium, and the common areas.

The body of this report and appendices include a series of specific recommendations about retrofitting the teaching and learning areas of TWC. There are also recommendations about staffing, the development of technology policies and procedures, and the creation of an academic technology committee. Appendices summarize interviews, give equipment specifications, and introduce the report's author.

In summary, this report concludes that:

- Existing facilities and technologies are adequate but in need to modernization.
- New classroom computers are needed.
- Classrooms need remodeling, including aesthetics and furniture, especially student chairs.
- Enhanced classroom audio is needed.
- Appropriately sized smart HDTVs are needed in all teaching/learning sites.
- Dry-erase boards are needed in classrooms.
- Video cameras are needed in some, if not all classrooms, including the auditorium.
- Check-out Equipment and a digital media production area should be considered.
- A comprehensive and dynamic academic technology plan should be considered.

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## Introduction

In early 2018, an evaluation of the classrooms, auditorium, and common areas of The Washington Center (TWC) was conducted. This evaluation was to determine if upgrades of academic technology at TWC were needed. Academic technology is defined as *academic/instructional tools used systematically and purposefully for teaching and learning*. In this report academic technology and instructional technology will be used interchangeably.

At the conclusion of the evaluation process, a series of recommendations about TWC's training areas were developed. These recommendations were based on several site visits, a review of literature about teaching and learning locations, discussions with users/stakeholders of the learning areas, and a study of previous reports about the classrooms, auditorium, and common areas.

Site visits were conducted to inspect facilities and to interview users. Site visits resulted in a comprehensive understanding of TWC's teaching/learning areas. The interviews produced a series of themes offered by users. Literature was reviewed and guidelines for classroom renovation/retrofitting were identified and used during the development of recommendations, and the review of a previous facilities assessment was reviewed.

This report contains an explanation of instructional technology guidelines relevant to TWC. Next, this report provides a review and overview of the current status of the various teaching/learning facilities. Third, general recommendations are offered for classrooms, the auditorium, the common areas, and finally for general technologies needed at TWC. The report concludes with a collection of specific recommendations about equipment, staff needs, the development of technology policies and procedures, and the creation of an academic technology committee. Appendices summarize interviews, give equipment specifications, and introduce the report's author.

## I. General Information

Teaching/learning areas at The Washington Center (TWC) consist of nine classrooms when the Blinken Auditorium is divided into three separate areas. Normally, there are six classrooms and the Blinken Auditorium. Classrooms average approximately 500 square feet which means that in a regular classroom configuration they are suitable for 20 students/room. Photographs of each classroom are found in Appendix B.

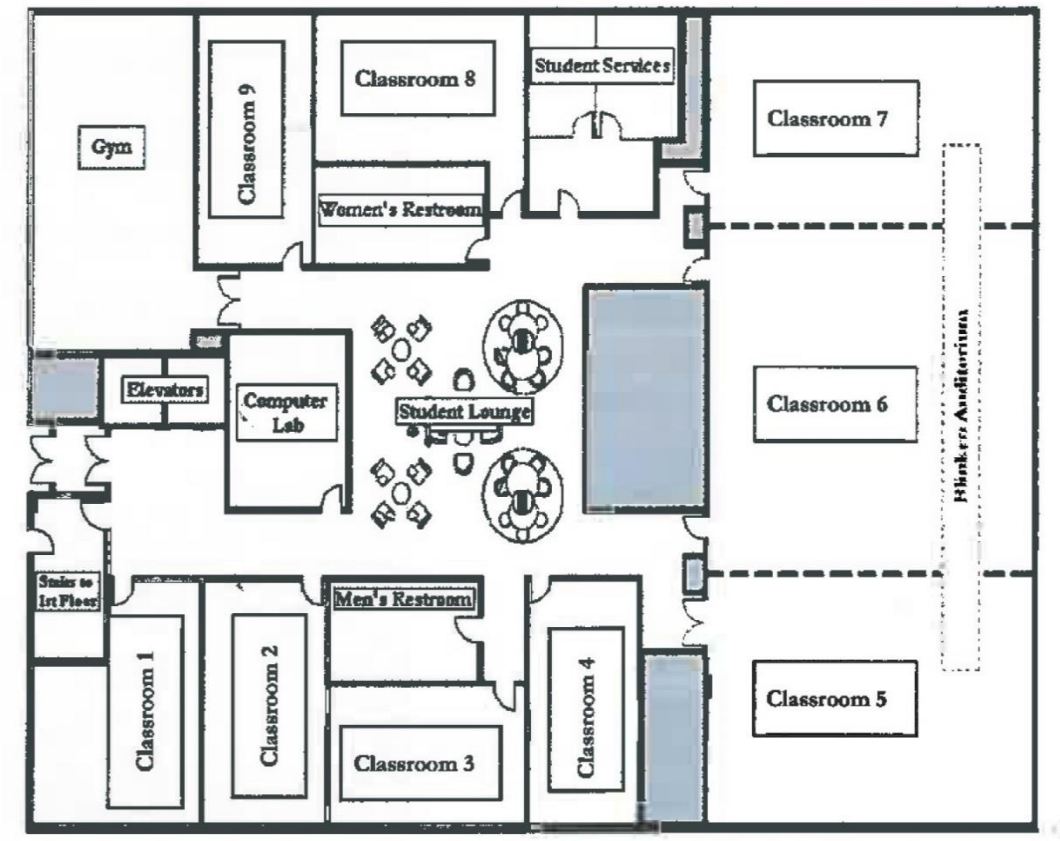
Classrooms are carpeted, have drop ceilings of varying heights, and have chairs for students. Instructional technologies in classrooms include large SMART Boards, relatively small TV monitors, and small or mobile white boards. Lighting is fluorescent.

The auditorium is made up of three areas that can be separated by movable walls. With the walls deployed it seats 160-190 students. When the walls open the Blinking auditorium seats up to 450. There are two large TVs in the front of the auditorium with smaller TVs on two load-bearing walls.

Common areas include a lounge area and a small computer laboratory. Both common areas are in need of retrofitting.

TWC users include a variety of instructors, including full-timers and visiting lecturers. There is not a designated area in TWC for materials production nor instructor preparation.

The charts below describe the teaching and learning centers in TWC.



| Room Name | Total Sq. Ft. | Theater | Boardroom | Classroom | U-Shape |
|---|---|---|---|---|---|
| Room 1 | 454 ft² | 32-35 | 14 | 16 | - |
| Room 2 | 520 ft² | 50 | 22 | 20 | 20 |
| Room 3 | 448 ft² | 42 | 22 | 20 | 18 |
| Room 4 | 475 ft² | 48 | 20 | 20 | 20 |
| Room 5 | 694 ft² | 86-98 | 20 | 26 | 24 |
| Room 6 | 1870 ft² | 160-190 | 36 | 46-50 | - |
| Room 7 | 561 ft² | 55-65 | 20 | 24 | 20 |
| Room 8 | 558 ft² | 46-54 | 24 | 20 | 20 |
| Room 9 | 515 ft² | 40-46 | 20 | 18 | 24 |
| Blinken Auditorium | 3125 ft² | 425-450 | - | - | - |

## II. General Recommendations

Recommendations for retrofitting the instructional areas in The Washington Center are included in this section. Recommendations are based on:

A. Application of guidelines for classroom technology
B. Interviews and discussions with facility users.
C. Review of the facilities
D. Previous studies and reports

Recommendations are organized into four areas:

1) Classrooms
2) Auditorium
3) Common Areas
4) Additional Recommendations

### A. Instructional Technology Guidelines

For decades, classrooms have been equipped with the tools and materials needed by the instructors, teachers, and students who use these facilities. As instructional tools have evolved from audiovisual devices, to instructional media, to instructional technologies, guidelines for the installation and use of the technologies of instruction have also evolved.

Briefly, six industry-based guidelines were applied to the recommendations for retrofitting the classrooms and instructional spaces of The Washington Center (TWC). Specifically, these guidelines have been applied in this document:

- *Flexibility Rule* – TWC facilities are used for a variety of purposes and by a wide profile of users, thus instructional areas should be flexible, and easy to use.

- *User – Centered Rule* – This rule directs the development of facilities that are not supported by "backstage" crews nor instructional "assistants." Rather, instructors and students control and use resources in teaching areas.
- *Standardization Rule* – Interchangeable classrooms and teaching facilities are more easily used when there is a modest standardization of how the sites are equipped.
- *2W-6W Rule* – This longstanding guideline/rule for viewing projected information, whether on a screen or display, directs that viewers should sit no closer than two screen widths nor farther than six screen widths from whatever display is being used. Thus, viewers of a 60 inch wide, high definition monitor should sit no closer than ten feet or farther away than 30 feet. An adaption of this rule screen width rule that states the screen width (W) for any room of depth (D) = D/6 feet.
- *90 Degree Rule* – This longstanding rule directs that viewers of displays should sit no farther left or right of the center line than 45 degrees.
- *Eye Level Rule* – The middle to bottom of the screen should be approximately at the viewer's eye level.

Schmidt & Reick, (2000)

Manufacturers and trade associations also have rules/guidelines for the installation and use of their products, but the rules listed above have longstanding status in classroom and instructional settings and are easily applied.

B. Interview Themes

During site visits, a number of interviews with TWC classroom stakeholders were held (Appendix A). As a result of these interviews a collection of themes emerged. The themes are:

- Modernization of the classroom facility is needed, including facility aesthetics.
- White Boards are popular and universally requested.
- Smart Boards are not being used and most should be removed.
- Larger HDTVs are needed and most should be reoriented in classrooms.
- The common areas should be redesigned, including the computer laboratory.

C. Review of Facilities

Early in January 2018, an initial visit was made to TWC. First impressions were positive. The Washington Center is a highly respected organization with a dedicated staff who cherish their employment at The Washington Center. The facilities are adequate, but staff discussions and careful investigations clearly demonstrated that remodeling and retrofitting of classrooms is needed. While generalizations should be offered sparingly, the general opinion is that the teaching and training facilities of TWC lag behind its reputation. Upgrading is needed!

D. Previous Reports and Recommendations

In March 2016, a *TWC Instructional Space and Technology Assessment* was conducted. This assessment resulted in a report of the same name. The "project was aimed to evaluate the state of our instructional space and our instructional technology…" The evaluation was conducted "from the point of view of current uses and challenges, as well as the processes used to manage this

space". During the evaluation "all of the major sets of internal stakeholders in the use of this space" were given an opportunity to provide input.

A series of "pain points" were identified in the *Assessment* report, including:

- The wifi was cumbersome an unreliable
- SMART Boards are obsolete
- Dry-erase boards are the overwhelming preference for teaching.
- Noise and air conditioning were sometimes challenging
- Room set ups were problematic since each classroom has many users
- Space is for instruction with limited space for instructors to prepare

The report concluded with a series of recommendations.

1. Maintain the wifi.
    a. Significant enhancements have already been made.
    b. Benchmark our wifi capacity with other similar user experiences.
2. Space and Technology.
    a. Maintain a detailed room-by-room profile of uses for each room and plan space and technology accordingly.
    b. Planned phases for upgrades.
        i. Prioritize upgrades to Room 2, because it is our largest room and the room most likely to be the best showcase for our best technology.
        ii. Identify one or two rooms for dry-erase surfaces.
    c. Process
        i. Frame proposals and solicit broad feedback internally.
        ii. Review upgrades with Paradigm early in planning process.
    d. Evaluate managerial gains from upgrades (e.g., time saved in room set up by installing dry erase surface over rolling boards around).
3. Administrative Mapping
    a. Process mapping of the functions, timelines and roles for all programs and program components.
    b. Documentation and training as needed for those who use the rooms.
    c. Review mapping at the Management level to ensure that TWC supports the use of this space with an appropriate level of human resources and investment.

## III. Facilities Recommendations

General observations and recommendations are included in this section. More specific recommendations are found in this report's appendices.

### A. Facilities Recommendations – Classrooms Overview

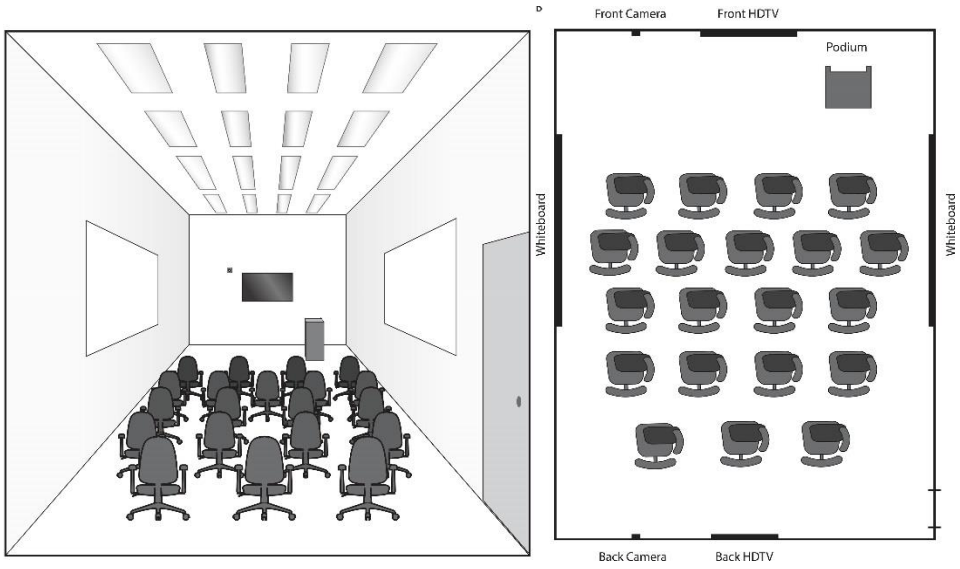
There are nine numbered classrooms, a student common area/lounge, and a computer laboratory. Three of the classrooms (5, 6 & 7) make up the Blinken Auditorium when movable walls are opened. Generally, the remaining six classrooms are configured similarly – they are rectangular with a modestly sized minitor and a large Smart Board in each. There are drop ceilings that range in height, and fluorescent lighting. Floors are carpeted. Walls are painted off-white, and regular chairs are used by students, and movable tables are available. Wall power outlets are few. Classrooms are designed to accommodate approximately 20 students. Below are photographs of a typical classroom. Appendix B contains photographs of all nine classrooms.

### B. General Classroom Recommendations

General equipment and installation guidelines are listed next.

- Smart HDTVs will be installed at the appropriate instructional, long-end of each classroom. This is the wall farthest from the entry (see drawings of each classroom in Appendix C).
- Smartboards should be removed. Smartboards on side walls can remain if they do not interfere with the hanging of dry-erase boards.
- Equipment that is the equivalent of a home theatre system will be installed in each classroom. (Blue Ray DVD/CD players, audio speaker systems, wireless and Bluetooth capability, and multiple computer inputs [VGA, HDMI, Composite, Audio).
- A small podium should be located in each classroom
- Classrooms need to be painted and ceilings and ceiling lighting should be reviewed for replacement.
- Carpeting will be evaluated and replaced where necessary.
- Modern student classroom chairs will replace existing student chairs.

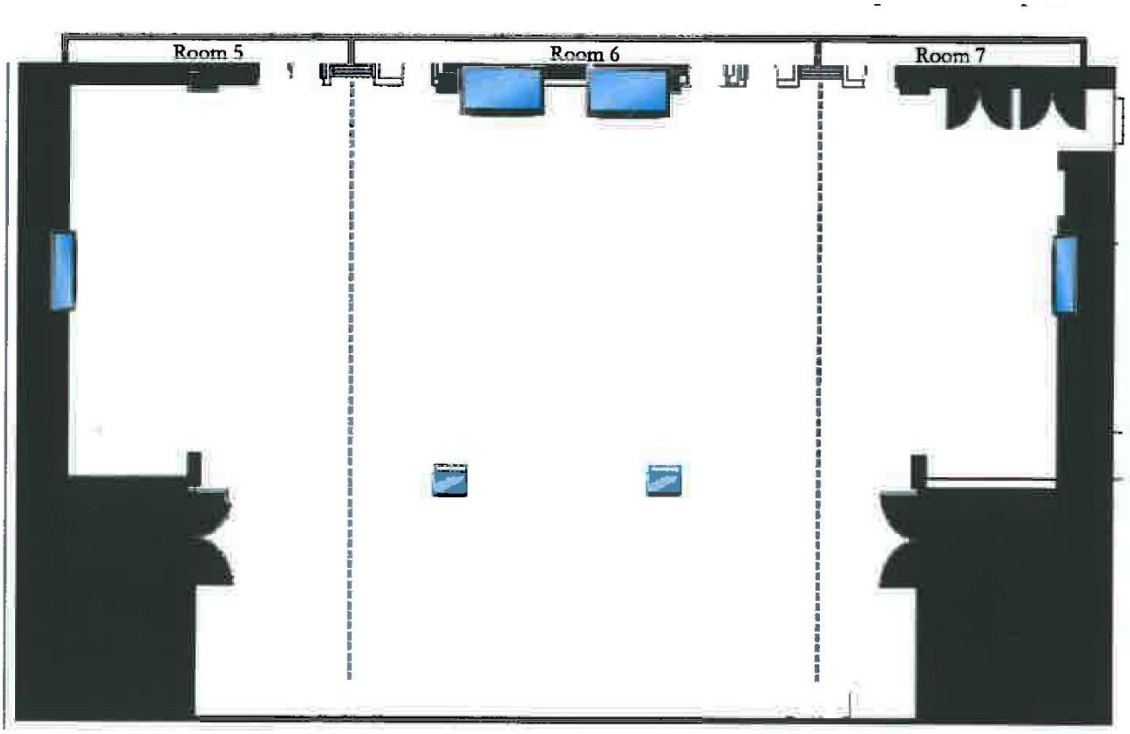
- Existing equipment will be evaluated for continued use, especially existing TVs.




Sample Classroom Configuration

C. Facilities Recommendations – Auditorium Overview

The Blinken Auditorium consists of three classrooms that are usually divided using moveable walls. The auditorium has two large monitors mounted in the front of the room with smaller monitors mounted on load-bearing pillars that are in the main area of the auditorium. Chairs are moveable. There is a podium with control panel also in the front of the auditorium. There is a technology room with audio panel controlling wireless microphones and computer servers adjacent to Classroom 5 the leftmost area of the auditorium when facing the front.



Apparently the moveable walls are normally in a closed position.

D. Auditorium Recommendations

Large computer displays need to be replaced (Appendix D1, a new enhanced audio system is needed (Appendix D3), and general remodeling should be considered. Schematics of the auditorium's three classrooms are included in Appendix C.

E. Facilities Recommendations – Common Areas and Computer Lab Overview

In the center of the basement classroom area is a student lounge and small computer lab. The lounge area contains couches, chairs, and tables. The computer laboratory has computers in stations in the center of the area, and work areas near walls. First impression of these common areas is positive. However, a closer review clear shows that updating is needed.

F. Common Area Recommendations

Common areas need new furniture (Appendix D4), new displays (Appendix D1), and remodeling. The computer laboratory needs new computers, and possibly a reconfiguration. Schematics of the common area are found in Appendix C. Since there is a ”kitchen” area adjacent to the common area, the offering of refreshments in this area, such as single cup coffee maker, should be considered.

## IV. Summary

This report began with a summary of site visit evaluations of the Washington Center’s teaching and learning area, and concludes with a series of general recommendations. Specific recommendations are found in the report’s appendices:

## Appendix A - Interview Results

Site visits to The Washington Center were conducted in early 2018. The purpose of the visits were to view classrooms and to meet with five groups of classroom users. The interviews were informal, lasted approximately one hour each, and were not recorded. The results of those interview sessions are included next.

Group #1

- There are good and bad classrooms, and everyone knows which is which.
- We need much more white board space on the walls.
- Interview rooms (small rooms) are needed.
- We need at least one very “high tech” room.
- A production lab would be nice.
- Small groups of students work together, so our classrooms should be able to support this use.
- The classrooms are in the basement and it “feels” like a basement.

Group #2

- Classrooms need to be reoriented (front).
- It would be nice to be able to record classes.
- We need “usable” technology.
- Audio in the auditorium needs upgrading.
- Staff equipment and software should be regularly updated.
- Larger monitors in classrooms are needed.

Group #3

- More whiteboards are needed.
- Rooms need to be reconfigured.
- Some mobile equipment might be OK.
- Classroom flexibility is a must.
- Course Management System (schoolology) is sparsely used.
- More versatile microphone systems are needed.
- We need a director of Academic Technology

Group #4

- The spaces in the basement are uninspiring.
- Spaces should be inspiriting, contemporary, and inviting.
- Facilities should be inviting.
- A director of technology is needed.
- The entire classroom area needs to be redesigned.

- The perspective of students is needed.

Group #5

- Larger HDTVs are needed
- Audio needs to be improved.
- Smart Boards should be removed.
- More whiteboards are needed.
- Video cameras in classrooms are needed.
- A preparation site for instructors would be nice.
- The computer lab needs to be reconfigured—pods near edges, and genius bar in middle.
- Equipment for check out should be available.
- Cable TV should be available in all classrooms and common areas.

## THEMES

As a result of these interviews a collection of themes emerged. The themes are:

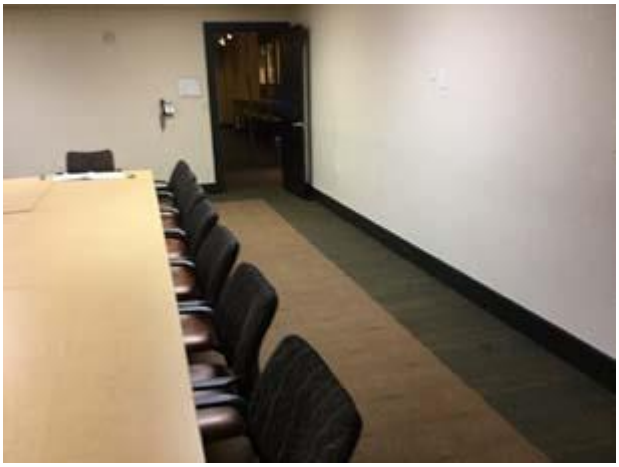
- Modernization of the classroom facility is needed, including facility aesthetics.
- White Boards are popular and universally requested.
- Smart Boards are not being used and most should be removed.
- Larger HDTVs are needed and the most should be reoriented in classrooms.
- The common areas should be redesigned, including the computer laboratory.

## Appendix B – TWC Room Photographs

This section includes photographs taken in February 2018 of the nine classrooms, common area, and computer lab. These photographs are included to provide a baseline of the status of the teaching and learning areas at TWC, and to assist vendors.

### Classroom #1

Classroom #2



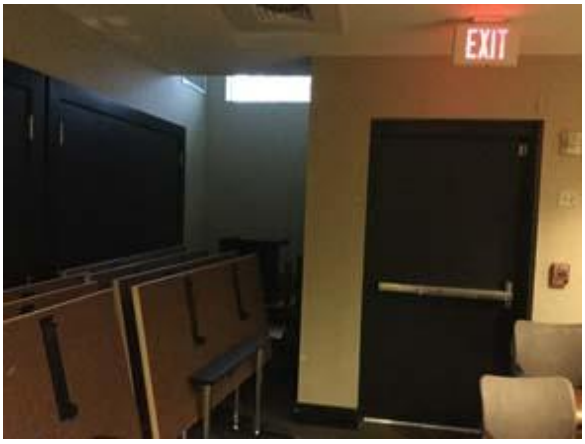
Classroom #3

Classroom #4

Classroom #5

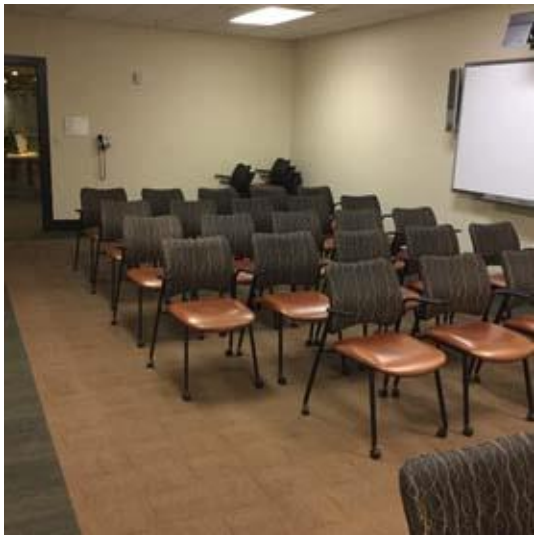
Classroom 6 – Main Auditorium

Classroom #7



Classroom #8

Classroom #9



Common Areas

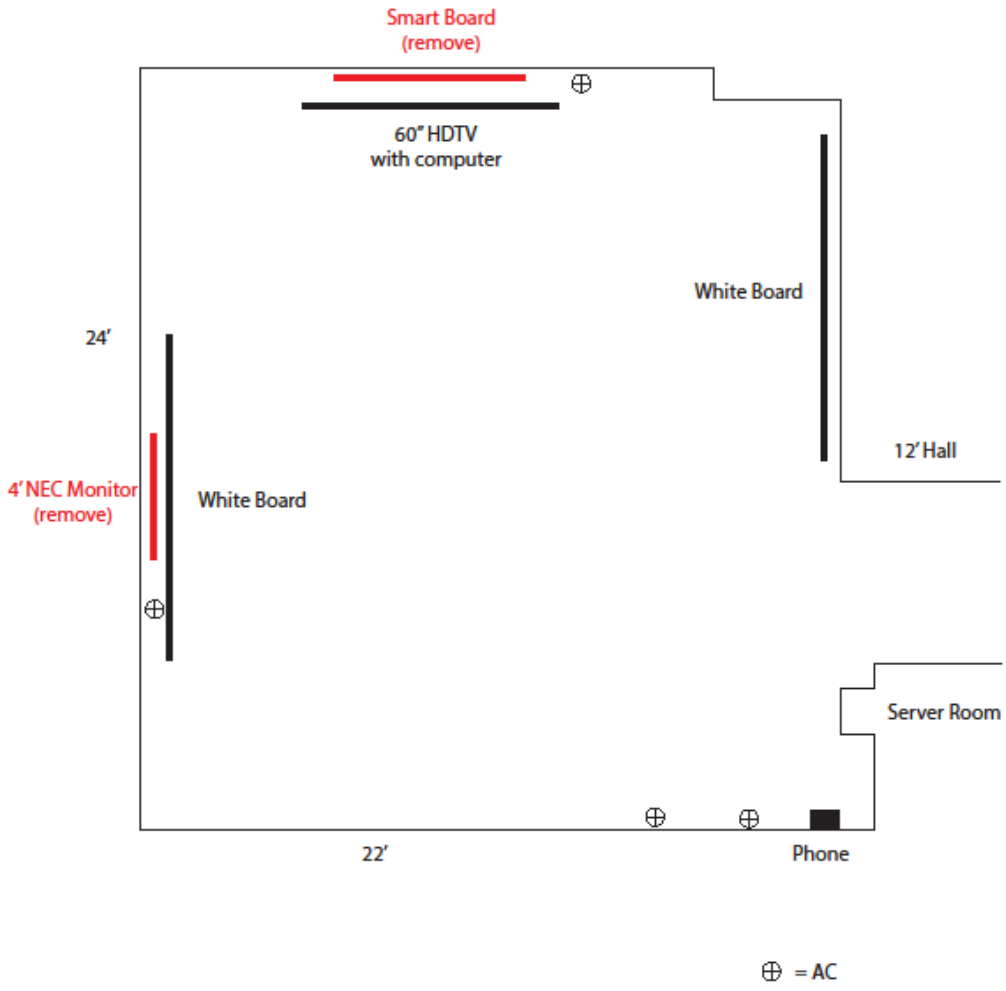
Computer Lab

Appendix C – Classroom Schematics

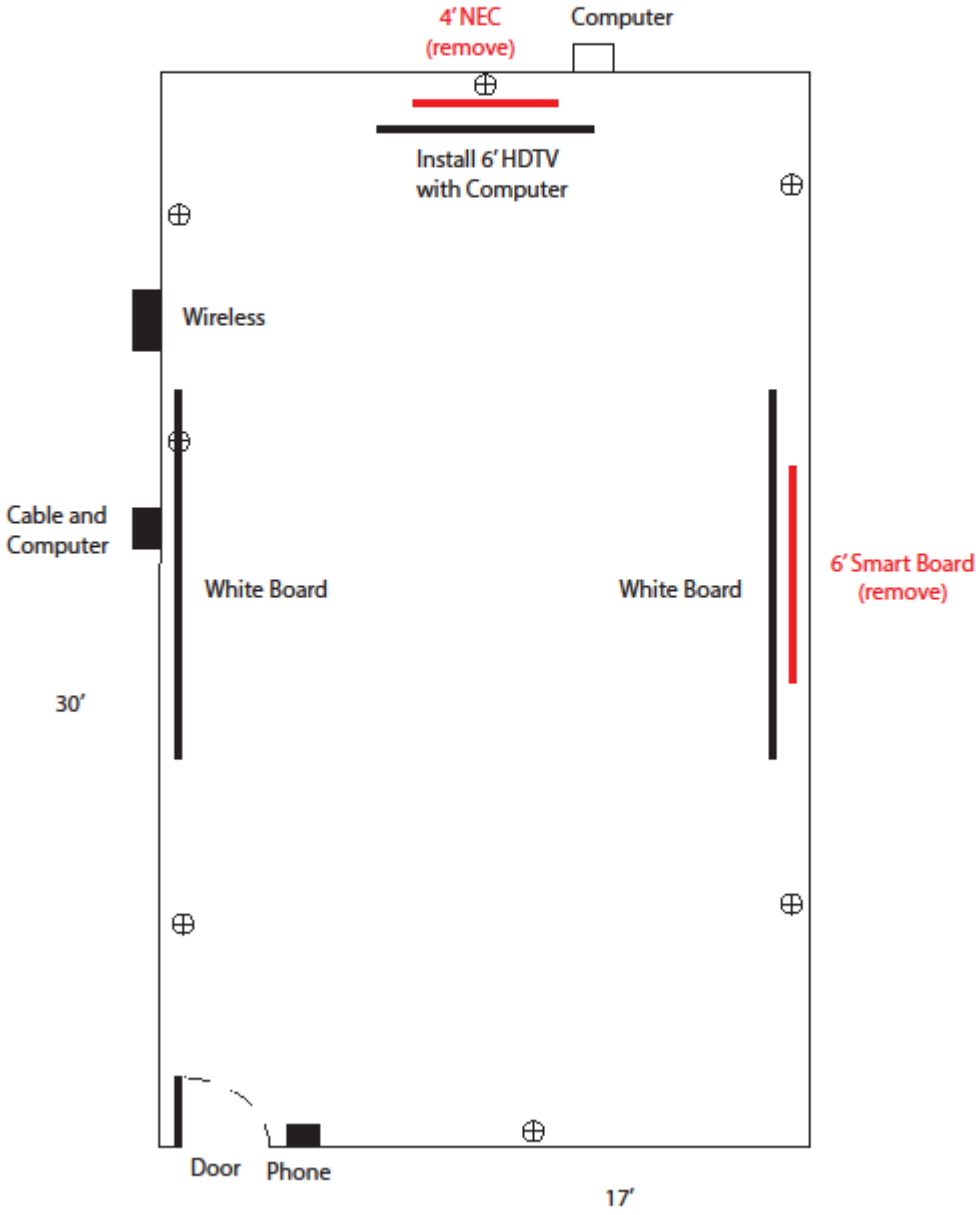
During site visits a line drawing of each TWC classroom was produced. These line drawings show the location of existing academic technology and the recommended placement of new hardware.

Ten foot long white boards would be mounted on the parallel side walls of classrooms 1-4 and 8-9.

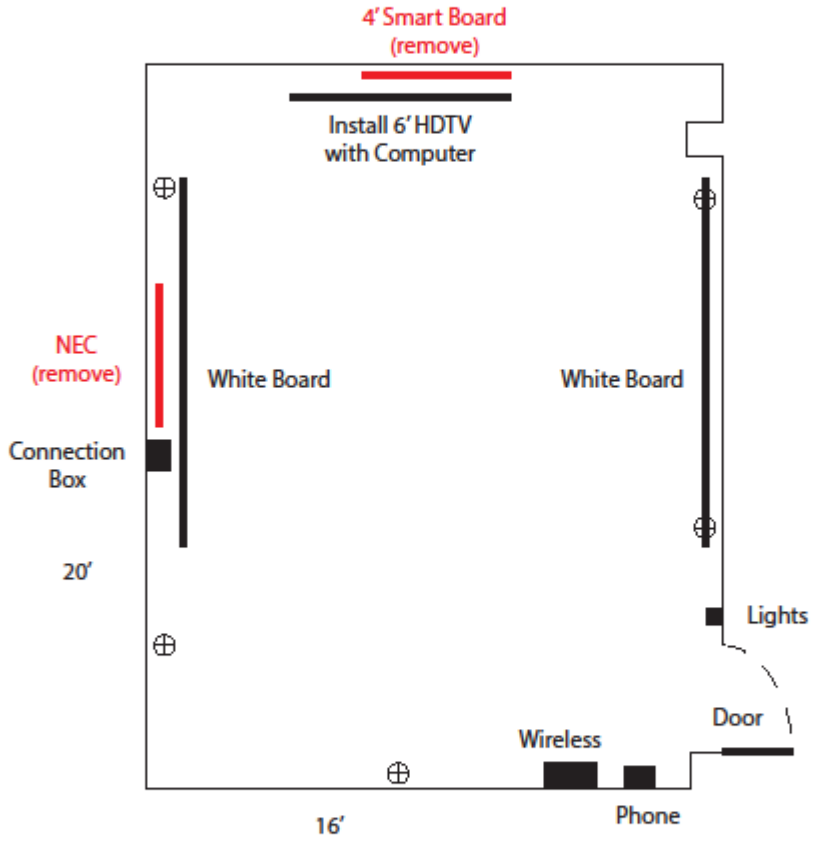
Classroom 1



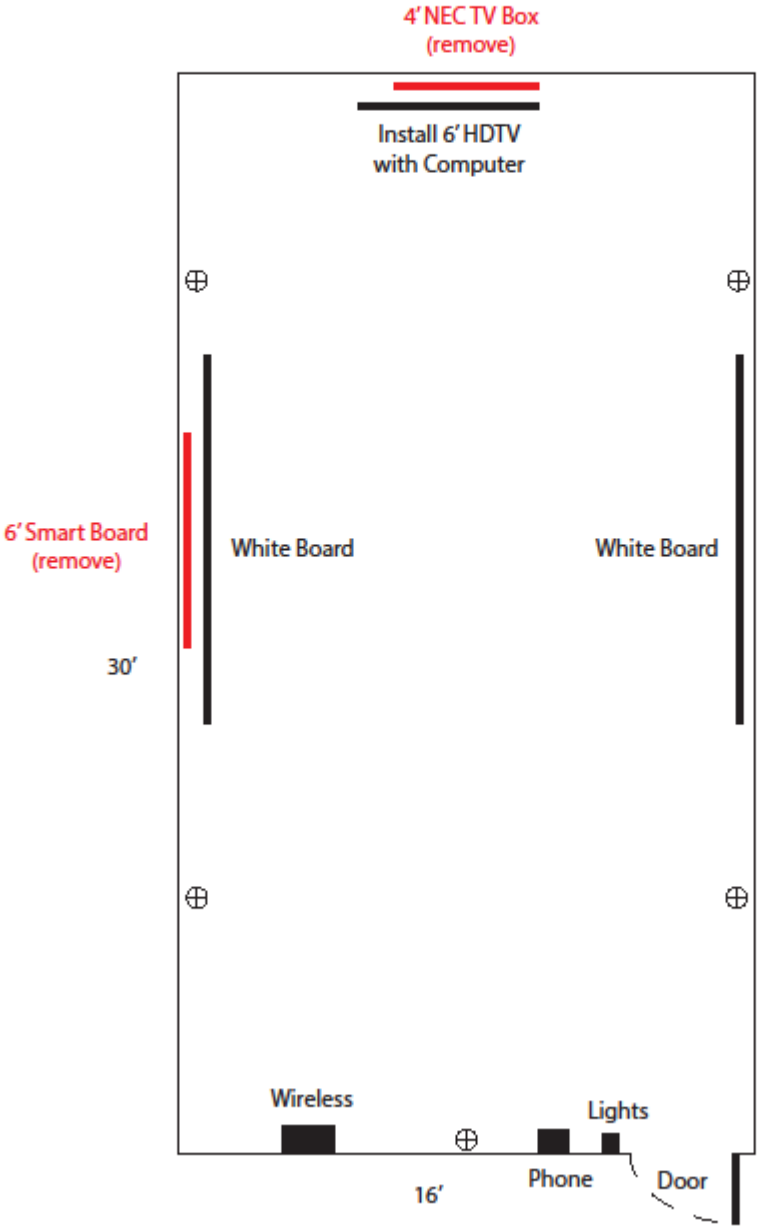
Classroom 2


4' NEC
(remove)
Computer
Install 6' HDTV
with Computer
Wireless
Cable and
Computer
White Board
White Board
6' Smart Board
(remove)
30'
Door
Phone
17'

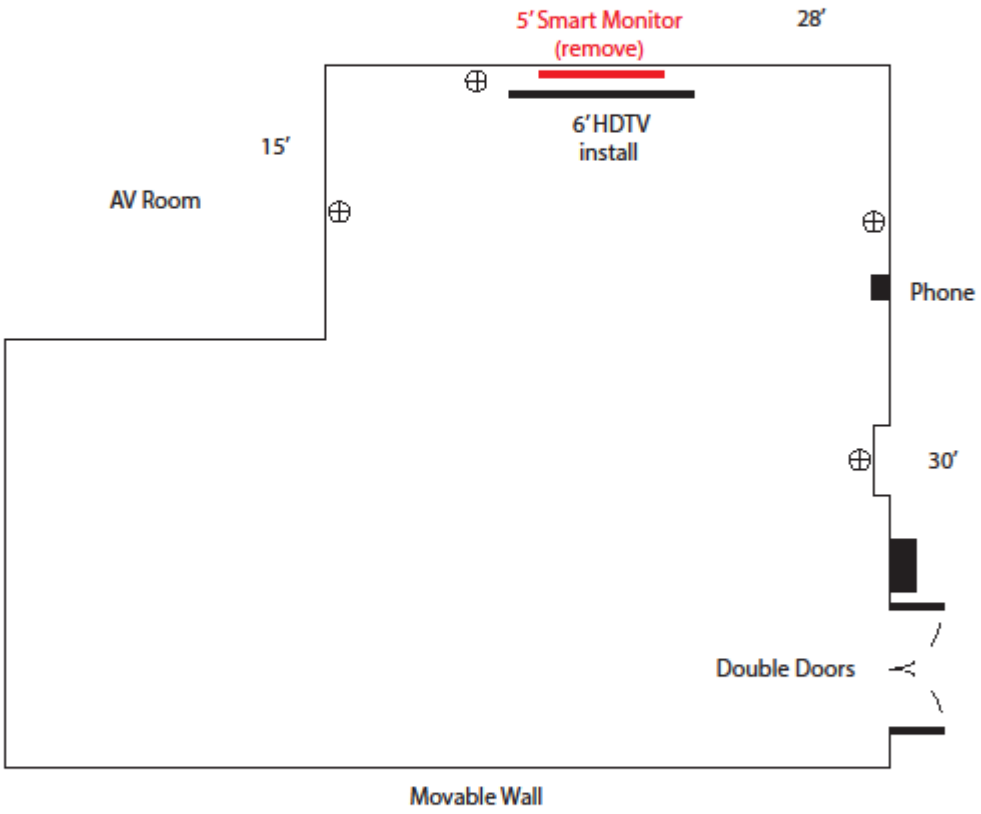
Classroom 3


4' Smart Board
(remove)
Install 6' HDTV
with Computer
NEC
(remove)
White Board
White Board
Connection
Box
20'
Lights
Door
Wireless
Phone
16'

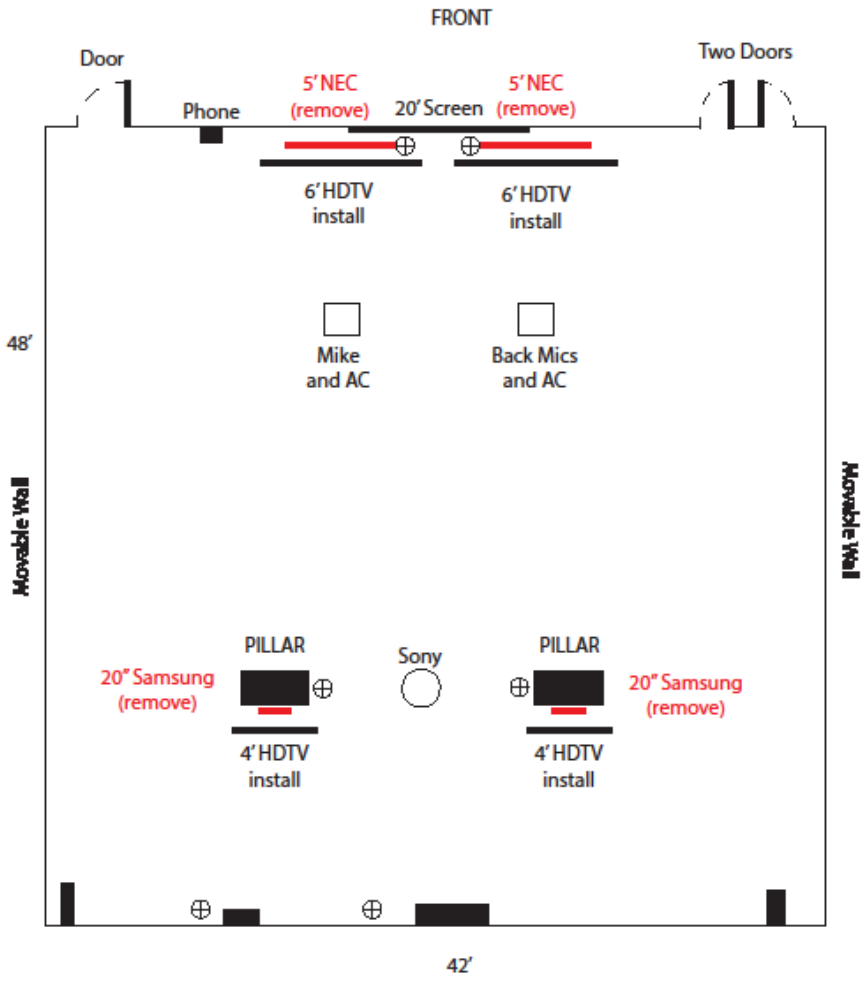
## Classroom 4


4' NEC TV Box
(remove)
Install 6' HDTV
with Computer
6' Smart Board
(remove)
White Board
White Board
30'
Wireless
Lights
Phone
Door
16'

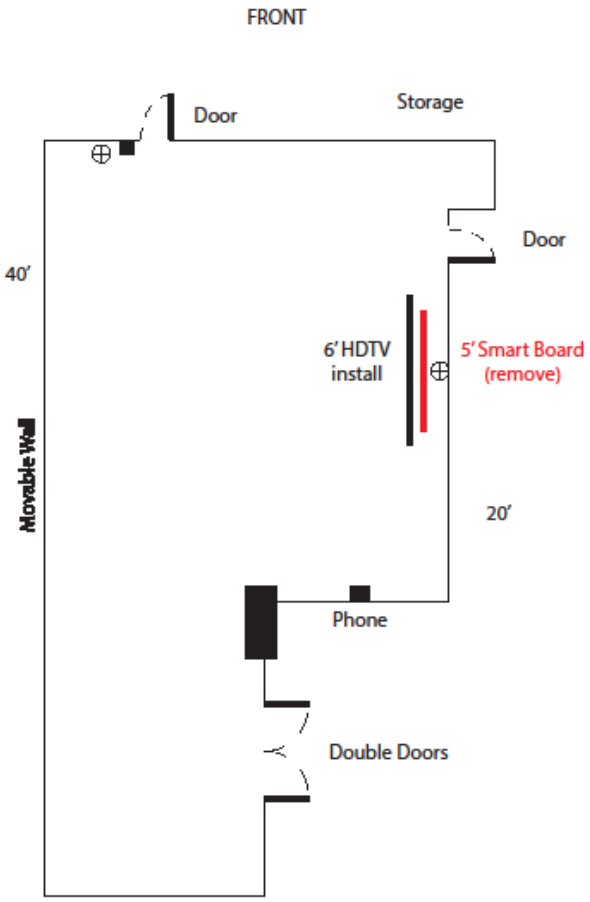
Classroom 5


5' Smart Monitor
(remove)
28'
6' HDTV
install
15'
AV Room
Phone
30'
Double Doors
Movable Wall

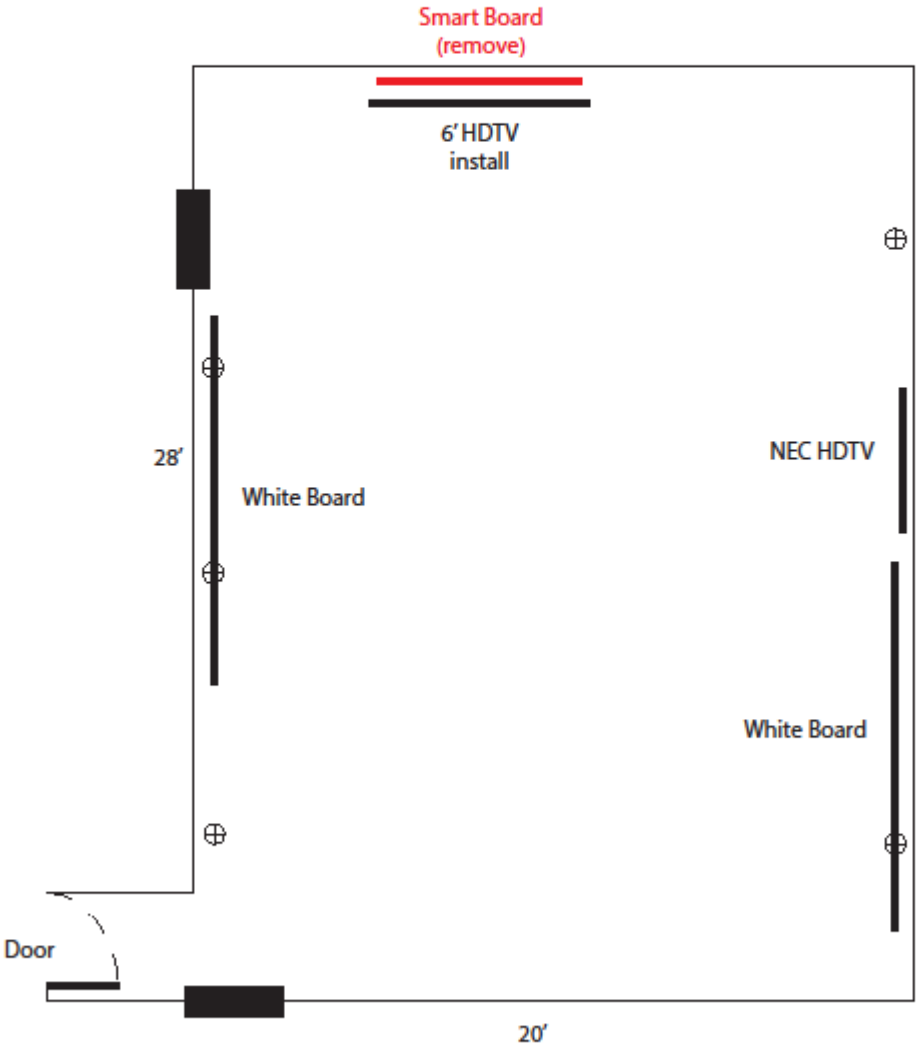
Classroom 6
Auditorium



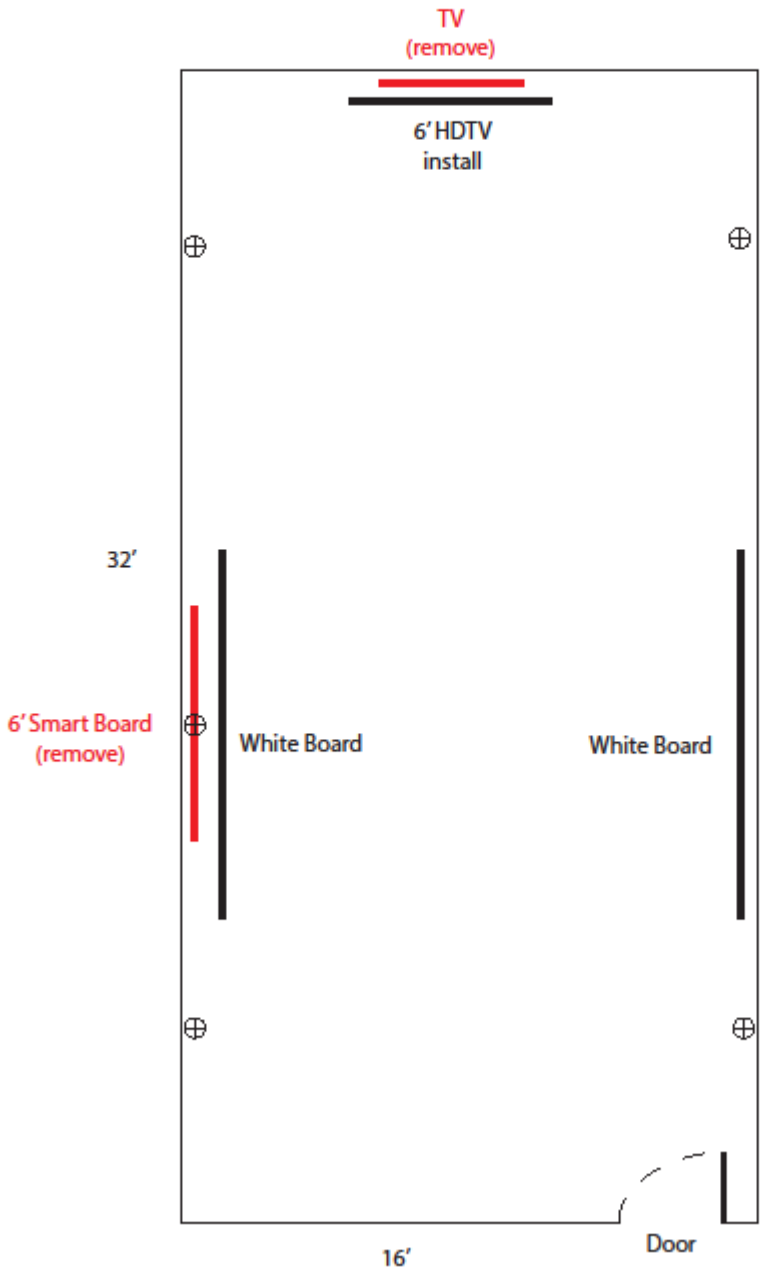
Classroom 7


FRONT
Door
Storage
Door
40'
6' HDTV
install
5' Smart Board
(remove)
Movable Wall
20'
Phone
Double Doors

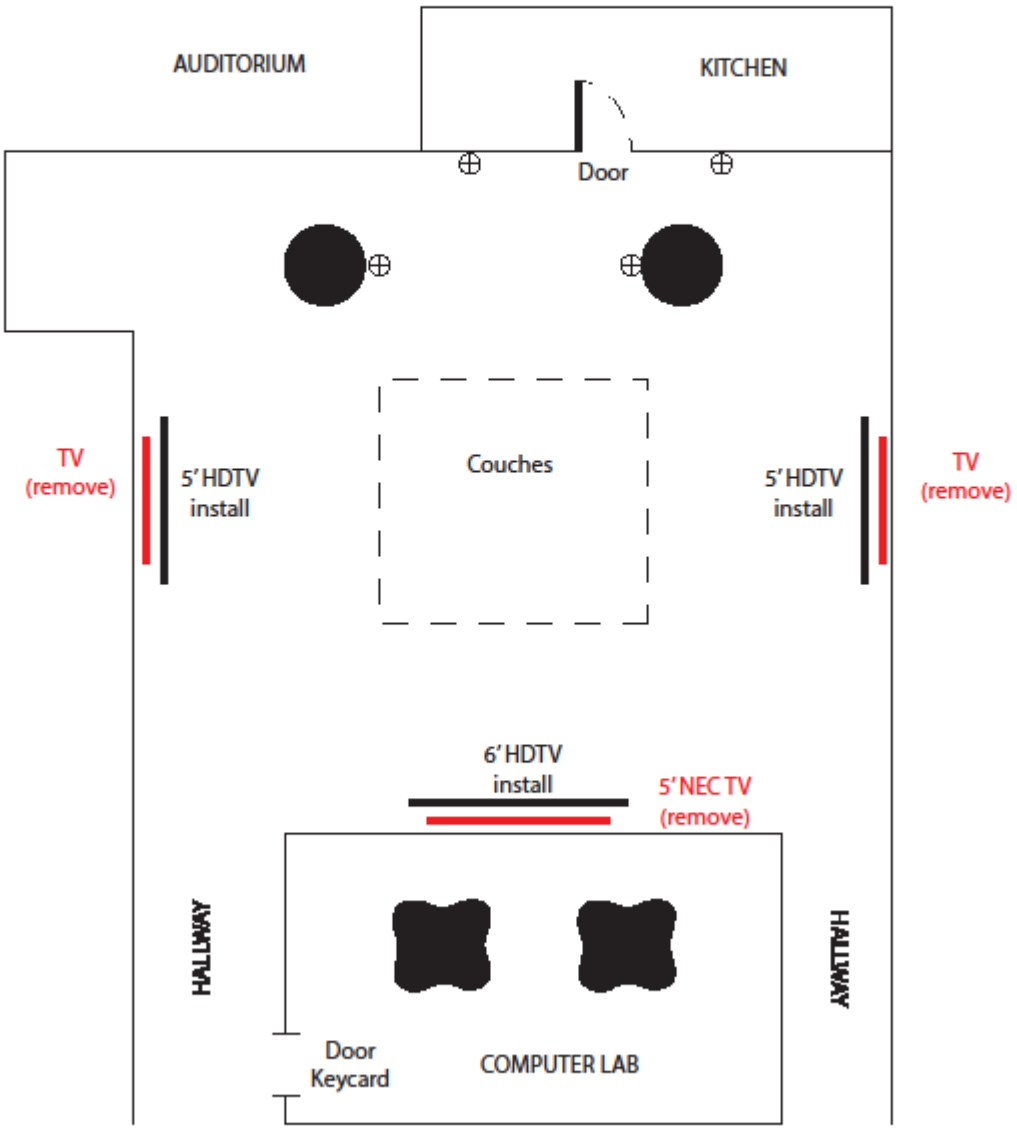
Classroom 8


Smart Board
(remove)
6' HDTV
install
28'
White Board
NEC HDTV
White Board
Door
20'

## Classroom 9


TV
(remove)
6' HDTV
install
32'
6' Smart Board
(remove)
White Board
White Board
16'
Door

## Common Room


AUDITORIUM
KITCHEN
Door
TV
(remove)
5' HDTV
install
Couches
5' HDTV
install
TV
(remove)
6' HDTV
install
5' NEC TV
(remove)
HALLWAY
HALLWAY
Door
Keycard
COMPUTER LAB

# Appendix D – Equipment Recommendations

## D1 – HDTV Recommendations

Based on industry standards, including the 2w x 6w rule, the regular display for TWC classrooms should be a 65" (diagonal; ~58" horizontal) Smart HDTV. 75" displays could be considered but nothing smaller than 65" should be considered, with exceptions noted on classroom schematic drawings.

The minimal specifications for classroom displays include:

- HD or Ultra HD displays
- Smart TVs with built-in wireless and web browser
- Required Inputs
    - HDMI
    - RF input
    - Composite
    - Ethernet
    - VGA

Recommended HDTV

**LG UHD Led TV UJ6200 Series**

65" Ultra HD
Smart TV with Built In WIFI
3HSDMI inputs
2 USB inputs
1RF input
1 composite input
1 Ethernet input
VGA input is required

---

CHIEF brand upgraded fixed wall mounts are an option for mounting HDTVs

D2 – Computer Recommendations

Computers installed in each classroom and the computer laboratory should be upgraded.

Recommended Replacement Micro-Desktop Computer

**Dell OptiPlex 7050 Micro**

- Intel Core i7 processor
- Operating System Windows 7
- Microsoft Office Home and Business 2016
- 16GB of DDR4 Memory
- 500GB Hard drive
- Intel Dual Band Wireless (802.11ac)
- VGA Adapter Card
- Dell KM636 Wireless Keyboard with wireless mouse

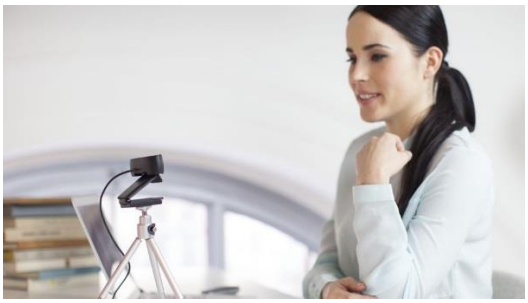
Approximate Cost/Unit $1200

A number of inexpensive Logitech USB video cameras are an excellent way to add video and audio to classrooms.

One Logitech C920 web camera should be purchased for each classroom. These cameras cost less than $100 each. When combined with Zoom videoconferencing software, TWC would have an effective and inexpensive videoconferencing solution.

**Logitch C920C video cameras**

mfg. Part: 960-000764 | CDW Part: 2588857 | UNSPSC: 45121520



D3 – Classroom Audio Enhancement

Audio enhancement in the smaller, stand-alone classrooms may not be mandatory, but since the auditorium requires a significant upgrading of audio, it would be cost effective to consider modest audio enhancement systems for all classrooms.

An example of a modern system is included next:

Teacher with Lavalier-type audio enhancement

One vendor of well-reviewed classroom audio systems is Audioenhancement.com. Their recommendations are included next.

# The Washington Center

## Proposed Audio Enhancement Project

### Project Description

Provide our standalone mini audio systems for the six standard classrooms of the Washington Center. Provide three GL-300 systems that can be tied together using ITC control panels for the three classrooms that make up the Blinken Auditorium. When opening the operative walls in the Auditorium, the ITC control panels will allow users to tie the audio systems together. Similarly, when closing the operative walls, the ITC control panels will allow the audio systems in those Auditorium classrooms to run independently again.

### Proposed Solutions per Classrooms/Spaces

**Smaller Classrooms/Meeting Spaces:** Provide an Audio Enhancement CA30 Mini Media Systems w/Two CS-12 ceiling speakers for each of the six (6) smaller classroom meeting spaces (Rooms 1, 2, 3, 4, 8 and 9). These classrooms are the perfect size for our Mini Media system using two of our ceiling speakers to distribute the audio from any source connected to classroom display. These classrooms are not large enough to need microphones added to these systems. Plan to mount the CA-30 amplifiers behind the classroom display, connect the amplifier to the two CS-12 ceiling speakers installed in ceiling, and connect display audio output to Amplifier audio input.

**Blinken Auditorium Classrooms/Meeting Spaces:** Provide three easy to use (3) GL-300 XD Pal Systems w/Four CS-12 Speakers for the three Auditorium Classrooms (Rooms 5, 6, and 7). Provide ceiling mounted plenum enclosure for amplifiers and accessories (power connections provided by other). Connect Classroom Display audio output in each room to Amplifier Input 5 on each room's amplifier. Provide Three (3) ITC-1 Wall Touch Controllers for Auditorium /Large Classrooms. These Touch controllers will be programmed to control audio inputs/outputs of amplifier to allow for easy add/remove of secondary room audio to primary room.

**Common Spaces/Other:** Currently, there are no plans to provide Audio Enhancement solutions to any of the common spaces (including Gymnasium, Student Lounge, Computer Lab or Student Services).

### Installation/Warranty/Professional Development/User Support Information

Our Installation Team will schedule our system installations to best fit The Washington Center's operating schedule. This project should take two-three days to complete.

Audio Enhancement provides a Five-Year Warranty on most of our Audio Enhancement products.

Audio Enhancement provides an extensive offering of great resources on our company web site (www.audioenhancement.com). Professional development, Research and Studies, Frequently Asked Questions (FAQs), Tips and Tricks, Manuals, Troubleshooting Guides, etc.

In addition, we have an excellent Technical Support Center. A representative can be reached at: 1.800.932.3078

D4 – Classroom Furniture and White Boards

One recommendation that has been made by all stakeholders is the need for significant improvement in classroom white boards. The classroom schematics show the recommended placement and size for whiteboards. Additionally, new student chairs/desks are needed. One vendor that can supply modern furniture is Steelcase. A recommended student chair/desk is shown in the picture below.

An improvement of the furnishings for the common area has also been recommended by stakeholders. Steelcase options are shown below.

Steelcase Node Chairs National Essay Chair

Common Area Furniture

Steelcase has a collection of common area furniture, such as is show below. Copies of catalogs are available online. A recommended Steelcase vendor in the Washington, D.C. area is

**Larry Saenz** | Senior Account Executive
re | DISTRICT
REDEFINING HOW WE WORK
AUTHORIZED Steelcase DEALER
GSA Packaged Office Contract GS-27F-017CA
DUNS 80-696-1103 Cage Code: 6Y5G2
SBA 8(a) Certified
66 Canal Center Plaza Ste 310 | Alexandria | VA | 22314

The pictures below shows a Steelcase whiteboard wall. While this option may be considered, it is probably more appropriate to mount whiteboards on classroom walls.

Classroom White Boards

D5 – Video Production and Post Production

It is recommended that a modest local production area for instructional materials development be considered. While a full-scale production facility is not recommended, but a video production and post production system should be considered. The core of this capability would be a modern Mac Pro desktop computer with display. A computer editing table is needed also.

Digital Media Production Suite

**Mac Pro**

- 3.2 GNZ 8-core Zeon W Processor
- 1 TB storage
- 27” Retina 5K 5120 by 2880 P3 Display
- Magic Mouse 2
- Magic Keyboard
- Final Cut Pro X
  Approximate Cost - $5000
- Microsoft Office for OS
  Approximate Cost - $500
- Adobe Suite
  Approximate Cost - $500
- Steelcase Computer Table
  Approximate Cost - $500

Example Pricing Quote from B&H Photo/Video
==========
==========
1 BELLO 41" COMPUTER DESK w/24D TOP SHELF C/REG 249.95 249.95
#BECD8841/CD8841
1 APPLE MACPRO/8C X E5/3.0G/32GB/512/D700/REG 4,599.00 4,599.00

This complete computer system would have a standard configuration of Microsoft Office, Adobe Suite, and Final Cut Pro video editing software.

Additionally, a modest collection of production equipment is needed, including video camera, digital still camera, and tripods. This equipment would be available for check out by students and instructors for course projects or simple course materials.

**Sony HDR-CX675 handycam**

- 32 GB Flash Memory
- Battery
- AC Adapter
- HDMI cable
- USB cable
- Operating guide
  Approximate Cost/item - $500
- Sony Camera Case Model LCSAU11
  Approximate Cost/item - $15
- Sunpak Platinum Plus 585D 58” Tripod
  Approximate Cost - $30

**Canon EO5 Digital SLR Camera with EF-S 18-55 mm Lens**

Approximate Cost - $600

- 64GB SDXC memory
  Approximate Cost - $30
- Digpro Cary Case (DP38)
  Approximate Cost - $12

Lightweight Bosch Tripod
Cost = $35

## D6 – Additional Recommendations

Four additional academic technology needs should be considered – An Academic Technology Plan, personnel needs, check-out equipment, and remodeling.

Academic Technology Plan – An dynamic Academic Technology plan provides short and long term guidance for the use of the technologies of instruction. This plan should be developed by an Academic Technology Committee made up of internal and external stakeholders of TWC. Online learning is becoming mainstream, and while the mission of TWC is to provide onsite experiences for visiting students, the Academic Technology plan should discuss and plan for a measured move into online teaching and learning.

Personnel—most education and training organizations have a person with the job title of instructional designer on staff. This person has a background in pedagogy, instructional systems design, and media production. Generally, this person would have a Master of Science degree in instructional design or preferably a doctoral degree in instructional design and technology.

The TWC instructional designer would work with instructors to design courses and course modules, produce instructional materials, and provide training in instructional strategies, media use and production, and course evaluation. Maintaining the course management system would also be a duty of the instructional designer. The instructional designer could also teach courses in TWC.

Check-out equipment—a modest collection of equipment for check out by students and instructors, including laptops, digital still and motion cameras, tripods, and ipads. An iPad Kiosk is shown below.

Remodeling—retrofitting classrooms with academic technology is a necessary step in the process of modernizing the teaching and learning areas of TWC. Remodeling of these areas should also be considered, including new drop ceilings, painting, re-carpeting, and the addition of super graphics on walls, and glass partitions. One suggestion made by several was to rename the classrooms using important Washington DC landmarks, such as the Potomac room instead of classroom #1 for example.

Appendix E - Consultant Background

**Michael Simonson** earned his Ph.D. from the University of Iowa in Instructional Systems. He was named Professor of the Year for the Fischler School of Education at Nova Southeastern University in 2013 were he is currently employed. He has an affiliated appointment with NSU's College of Health Care Sciences. In 2016 he has named to the Hall of Fame of the U.S. Distance Learning Association. Simonson has authored four major textbooks dealing with distance education, instructional technology, instructional computing, and instructional media, and has four additional books of readings. Mike has over 200 scholarly publications, and in excess of 250 professional presentations dealing with distance education and instructional technology. He is editor of two academic journals and one yearly convention Proceedings, and also co-authors a book series. He has been an active grant writer. He was an external evaluator South Dakota's *Connecting the Schools* and *Digital Dakota Network* projects, and was a consultant for the U.S. Army Research Institute and the U.S. Navy's Surface Warfare Officers School where he developed a facilities design plan for the School. He also works with various health professionals such as the University of Miami's School of Nursing. Mike's area of research interest is the diffusion of instructional technologies in various organizations. Simonson was honorably discharged as a Captain from the United States Marine Corps.

References

Schmidt, W. & Rieck, D. (2000). *Managing media services: Theory and practice*. Greeenwood, CO: Libraries Unlimited.

Recommended Vendors

Audio Enhancement

Gary M. Evans | Senior Director – Southeast Region
Audio Enhancement, Inc.
Mobile: 561.635.3076
Phone: 800.383.9362
Tech Support: 800.932.3578

Furniture

Larry Saenz | Senior Account Executive

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