**BACKGROUND**

In early 2008, The National Voice of America Museum of Broadcasting (VOA) solicited proposals from qualified firms and teams to provide preliminary design, development and operational business planning for the VOA Museum. The facility is located at the original Voice of America Bethany Station in West Chester, Ohio.

Three teams from across the United States submitted proposals and participated in onsite, formal presentations. Jack Rouse Associates (JRA) was selected and work began in April, 2008.

**PROCESS & DELIVERABLES**

In addition to JRA, the consulting team included Economic Research Associates (ERA) and Management Resources (MR). The consulting team was charged with creating a museum design that optimizes operational sustainability recognizing that no museum can sustain itself on earned income alone.

The process began with a site visit and a review of relevant planning materials that had been completed to-date by others. During this initial visit, the consultant team was introduced to the four entities that will impact the final cohesive museum experience: The Voice of America Museum, Media Heritage’s Greater Cincinnati Museum of Broadcast History, The Gray History of Wireless Museum and the West Chester Amateur Radio Association.

The consulting team worked in concert with the entire National Voice of America Museum of Broadcasting Board of Directors. Five working sessions with the Museum Board were conducted at appropriate intervals and three separate extensive reports have been prepared for the Board:

1. **Master Plan/Programming/Story Line:**
   - Jack Rouse Associates

2. **Economic Feasibility Analysis:**
   - Economic Research Associates

3. **Operating/Business Plan:**
   - Management Resources, Inc.
VOA: GENERAL

CORE STORY PROPOSITION

VOA embodies the importance of democratic culture and shared values, not just raw economic interests or military power, as a basis for international relations. America has a natural advantage in promoting its interests and values in the world because, unlike those who are peddling a partisan, sectarian or factional spin on reality, all we need to do is tell the truth.

The VOA is uniquely enabled to do so. During the last century, the VOA was successful in helping to turn the tide of World War II and in winning the Cold War.

Today sub-national, tribal, ethnic, and religious conflicts are battering peace and stability around the globe. In such a dangerous and uncertain world, the interests of the United States will be challenged in ways we cannot now imagine. The ability to convey ideas and information will remain an important component of American foreign policy. The USA must be able to influence the course of world events through a voice that encourages the forces of freedom and discredits the forces of oppression.

In this global contest for hearts and minds, VOA is the most potent means America has to combat the rising tide of revolutionary ideology.

STORY POINTS

- VOA is “the official voice of the United States.”
- “Throughout its 60+-year history, Voice of America has applied the power of technology to the advance of liberty.”
- “America can tell the truth in the confidence that whatever dark spots may appear in the picture, the average is distinctly to our credit.”
- “VOA manages to convey the breadth and the vigor of the American land.”
- “Even the most powerful dictators in the world can be defeated with the truth, the most powerful weapon available.”
- “In the Cold War there was a reversal of roles: the power radio transmitter became the major weapon of war, and the real weapons of war were kept on a leash.”
- VOA’s basic objectives are to aid in the pursuit of peace, to project the strength and reliability of the USA as a guarantor of peace, to support the desire for peoples to pursue their own destinies, and to articulate the tenets of freedom and the rule of law.
- “The role of the VOA in this effort is an important one because of the ability of radio to surmount the man-made barriers of censorship and suppression, and speak directly to the people … Radio waves are not hindered by borders.”
- “There is no more effective and cheaper means of influencing events in other countries on a daily basis than radio broadcasting … it reaches millions of people.”
- “VOA is one of the biggest-bang-for-the-buck tools in the U.S.’s arsenal to spread American democratic ideals.”
- “No one knows what new information technologies will be available 60 years from now. But two things we do know: first, that the Voice of America will find a way to use them; and second, though these means of delivery may change, the message never will.”
- VOA now: interactive radio, chat lines, Facebook and the future.
The themes of a democratic culture and shared values will be at the heart of all of the chapters of narrative. Since the museum is located at the original Bethany site, close to Cincinnati, the story will be organized as follows:

1. The VOA and Bethany Station
2. Cincinnati broadcast history including Powel Crosley and WLW and wireless communications.

In these chapters we find the subjects that take the museum out of the niche category and create the necessary relevance in order to appeal to a wider demographic. International relations, the physical sciences, engineering, history, ethics, government, communications, entrepreneurship and innovation are the major subjects that will be developed in the exhibitions and programs. These are subjects that resonate with many young people, and they can be extracted from the stories of the museum. This approach is essential in order to meet the attendance projections provided by ERA.

The total square footage set aside for museum exhibits and other activities as shown in the design is considered to be an optimal sizing that reflects attendance projections and length of stay. Additional space will be required for museum offices, exhibit repair and storage. It is suggested that the central third of the second floor be viewed as potential museum office and library space and that the basement be set aside for museum storage. The remainder of the second floor could be made available for lease to small commercial entities or other non-profit organizations. Potentially significant income from the leasing of a portion of the second floor has not been included in the museum’s operational revenue estimates.

The master plan anticipates maximizing the space in the existing building for both public and non-public uses while at the same time being respectful of the historic nature of the building. Key building features such as the entry foyer and the grand concourse and balcony will be emphasized by restoring and interpreting them in a manner that is consistent with the overall story.

The preliminary estimated cost to design and construct the museum portion of the VOA building including all exhibit areas, the retail shop, lobby, balcony, event areas, restrooms, catering kitchen, archival storage, meeting rooms and outside patio is $9,831,160. Costs associated with completing the new hvac system, replacing the antiquated electrical system, office space renovation and elevator installation are not included in the museum preliminary cost estimate.

Although exterior design has likewise not been included in the present scope of work, the need to maintain the existing view of the VOA Building along with the entrance drive, provide “design day” accessible parking, maintain large spaces in front of the building to support large events, create small gathering spaces to the rear of the building and, of course, introduce attractive landscaping and entrance signage has been identified as part of the financial feasibility analysis.

A phased approach to museum development is not recommended since any facility can only have one grand opening. The practice of operating a temporary museum open to the general public should be discontinued. Tours targeted towards legitimate donor candidates along with continued use of the museum by the West Chester Amateur Radio Association, Gray Wireless and Media Heritage during the initial development phase is otherwise encouraged.
MARKETING & POSITIONING

JRA believes, and ERA and MR concur, that the success of a museum such as this relies on creating strong connections between the institution and the local population. Residents of the community must be proud of The National Voice of America Museum of Broadcasting. They must share that pride with their family and friends. In that sharing and strong word of mouth lay the keys to success.

Today the area around West Chester is a healthy, growing vibrant suburb. People are attracted to the region because of its neighborhoods, its amenities, its retail and its diverse commercial development. West Chester is generally known for its quality of life.

Most people in the area, however, do not celebrate West Chester and Butler County as an epicenter for some of America’s most important social, technological and political history. They should. Why? Because right down the road from all of the developments that have sprung up in the last few decades was the home of Bethany Station, the most powerful international shortwave transmitting facility in the world during World War II. The Voice of America. The loudest voice in the world.

The National Voice of America Museum of Broadcasting will give residents of the region, as well as visitors and tourists, a reason to celebrate. A reason to be proud of the fact that West Chester (Bethany) is more than just a new suburb; that, in fact, it was home to one of America’s most dramatic and important stories.

- It was from West Chester that the Voice of America first articulated the tenets of freedom to a world that was hungry for that message.
- It was from West Chester that the Voice of America conveyed the breadth and vigor of the American land.
- It was from West Chester that the Voice of America influenced the course of world events throughout its 60-year history.
- It was from West Chester that the engineers at Crosley Broadcasting Corporation in Cincinnati solved some horrendous technology problems.
- It was from West Chester that the power and sophistication of WLW (America’s Station) and the vital mission of the Voice of America came together to help defeat dictators around the world with the most important weapon of all: Truth.

For these and many other reasons, there is definitely cause for West Chester to celebrate and be proud. There is a story and legacy of history, international political intrigue and social culture that came together in a cornfield at Bethany Station. That story is now made relevant to today’s audiences at The National Voice of America Museum of Broadcasting.

Respectfully Submitted,

Jack Rouse Associates
I am the voice of the world, and I shall move the world as it has not been moved since The Beginning ... I shall stir the soul of the world ... for I am Radio.

Despite satellite and cellular, for millions of captives around the world – captives of ideology or captives of poverty – the rudimentary technology of short- and medium-wave radio is still their lifeline to the outside.

(It was) a time when the center of radio engineering ... was in Greater Cincinnati, not New York or San Francisco.
Imagine a world where the control and dissemination of information have become vital instruments of state power, where the greatest danger is less our enemies dropping the “Big One” than selling the “Big Lie.”

Imagine an information technology that can cut across international boundaries to deliver an uncensored message directly to the people within, people who already own small, portable receiving units for the technology.

Now imagine that the ultimate Bad Guys dominate the technology, that our side isn’t even a participant. And the Bad Guys are using it to sell the Big Lie all over the world, broadcasting the blight of disinformation as preface to grinding the truth to chaff under booted feet and treaded wheels.

This is where the United States found itself in 1939, at the eleventh hour before the eruption of World War II. Dictators in Germany and Japan were using the still new technology of wireless radio to inculcate the masses of Europe and Asia with a relentless homily of racism and classism, hatred and brutality. Hitler and Hirohito’s dominance of international broadcasting allowed the Axis to define the truth; for many, reality became whatever they said it was. In the face of this corrosive threat, Western broadcasters like the BBC World Service and Radio Netherlands spoke out boldly. But America was “silent to the world;” for in 1939 the USA was “the only major power without a government-sponsored international short wave service.”

This dark circumstance set the stage for what might be called a second “Bethany miracle.” For Bethany was the village where Jesus is said to have raised Lazarus from the dead. Twenty centuries later, in rural Ohio, at a secret outpost called Bethany Station, a group of “heroic engineers” resurrected America’s message to the world – the message of truth and hope. Working at highest levels of government and industry, with colleagues in Washington and New York, they created the “siege guns of radio,” turned them on the legions of deceit, and for fifty years they never let up.

Here is the jumping-off point for our storyline. The story of Bethany Station is powerful – alive with drama, local color, patriotism and genius. It is a story of engineering genius, set against the stirring human drama of totalitarianism vs. the truth. Combined with the attendant stories of Cincinnati’s broadcasting heritage and of wireless broadcasting itself, it provides a wealth of material. It is the story of “America’s Voice.”

Yet as a contender for the mindshare and discretionary dollars of the general public, our story faces three significant hurdles:

- It is remote in time. This means that our core audience – those already familiar with the components of our story (World War II, the 50s-60s) – is limited and dwindling. Everyone else has to be introduced and oriented to the broader circumstance before they can be moved by the significance of our specific story. They need context.
- It is complex. The technologies are abstruse and largely outside of common practice. Radio means satellite to today’s youth. And beyond the gear itself, the human players are big and many-layered.
- It took place in a different world. That world was so unlike today’s that it is difficult for those who straddle both to imagine how curious the past must seem to those who did not live it.

Yet there are parallels to current times. Contemporary audiences are acutely aware of:

- the inestimable impact of new information/communication technologies,
- the ongoing struggle of competing ideologies to “define” the truth, and
- the threat of disinformation to traditional American values/our way of life.

These are emotionally resonant issues that have personal relevance to large numbers of people. If, as stated, The National Voice of America Museum of Broadcasting is to generate admissions and other revenues sufficient to offset its operating expenses, we must reach new mass audiences. We must illuminate the above parallels and capitalize on their emotional timbre. We must forge a clear linkage between our society’s current circumstance and the intensity, heroism and glorious achievement of Bethany Station and use that as a springboard to tell our broader story.
Above all else, this means reaching and motivating two critical markets: families, including kids and youth, and school groups. Families are seeking real moments of sharing, play, learning and fun in settings that are friendly, accessible and of the highest quality. Winning their trial and endorsement, much less their longer-term loyalty, means creating an experience that:

- connects to their own lives, is about them as much as the designated topic;
- centers on stories and concentrates on people, linking representative characters and incidents from our topic to today’s realities;
- relays the history and respects the legacy of the VOA, Bethany and the other facets of our story by being real, with the entire exhibition emanating an air of authenticity;
- expresses itself through an interactive/immersive, multi-sensory environment in which the audience helps to create their experience;
- is inclusive, responsive and adaptable;
- reinforces the ideals of community and love of country as expressed through volunteerism and national service;
- provides a distinctive, informal setting where people can meet to relax, share ideas and be sociable.

Educators are searching for much the same kind of atmosphere/experience, with the additional mandates that it:

- establish meaningful touch-points with state and local curricula;
- create tangible learning opportunities;
- accommodate a variety of learning styles and teaching methodologies;
- link the past with the future, the lessons of history with the longings of posterity;
- offer a balanced, factual accounting, avoiding any tinge of sensationalism, revisionism, or partisan advocacy – tell the truth!

As the Museum’s story and exhibits are developed, we must accentuate curricular connections in as many study areas as is practicable:

- World/American/Regional History
- International Relations
- Physical Science/Physics
- Electrical Engineering
- Ethics/Civics/Government
- Communications/Media Studies/Broadcasting
- Entrepreneurship/Innovation

What follows is an overview of what we believe to be the mandatory topics, core story propositions, and underlying story points. From these, once finalized, specific design recommendations will be developed.
GENERAL FINDINGS

OPPORTUNITIES

- The VOA story represents a critically important and dramatic chapter that is not told well elsewhere and could be told very well at this location.

- The historic building is significant, and its park-like setting could provide a unique cultural asset for this part of Southwest Ohio.

- Developing a program of changing exhibitions and marketing the facility as a unique event space could increase attendance, revenue and public awareness.

CHALLENGES

- The story of the VOA and the story and history of broadcasting has a somewhat narrow niche appeal.

- Four separate entities must be seamlessly incorporated into a cohesive visitor experience.

- A business plan must be created to ensure the long-term sustainability of the project.

Successfully capitalizing on these opportunities and meeting these challenges will require:

- Developing core exhibits and programs that are developed and positioned so that guests can understand the relevancy and impact of The Voice of America (VOA) on their own lives. It is with this in mind that the exhibit program has focused on three parallel themes: (1) the impact of new information and communications technologies, (2) the ongoing struggle of competing ideologies to define “truth,” and (3) the threat of disinformation to the traditional American way of life.

- These were important considerations when the VOA began and they remain important considerations today.

- Maintaining close and tight control on expenses and tracking revenues regularly so as to become proactive rather than reactive to any shortfalls.

- Developing a program of special events, marketing promotions and temporary exhibits that create both a reason for repeat visitation and a reason for those who are not interested in the core subject to attend.

- In a stabilized year of 23,000, total operating revenues are projected to be $543,400, total operating expenses are projected to be $505,900, net earnings before interest, taxes, depreciation and amortization is projected to be $17,200.

- The chart above illustrates projected “first year” and “stabilized year” annual attendance for the VOA Museum of Broadcasting.

OPERATIONAL AND ATTENDANCE OVERVIEW

- Peak year, on-site attendance in 2010 is projected to be 30,000, with stabilized attendance of 23,000. These are conservative numbers and do not include revenues and attendance from special exhibitions and events.

- Attendance distribution by type in a stabilized year of 23,000 is:
  - 70%-general public admissions
  - 15%-school groups
  - 12%-memberships
  - 3%-comp attendance

In order to achieve these numbers, the subjects mentioned above must be presented using a variety of methodologies and must be communicated to the public with a robust and sustained marketing and public relations program. There must be a strong focus on interactive and experiential attractions in order to attract younger audiences. However, this must be balanced with realistic operational realities. In addition, the program needs to include a regular schedule of changing exhibits. The opportunity exists to utilize the changing exhibitions program to broaden the subject matter slightly in order to appeal to a wider demographic while at the same time being consistent with the core messages of the institutions.
The “Bethany miracle” is a thrilling adventure story rich with geopolitical intrigue, wartime strategy, incredible feats of engineering, and legendary figures. In many ways -- its all-for-one, can-do spirit, its basis in good old Yankee ingenuity, in the complete commitment of its participants -- it is an archetypal American story.

The engineers and managers of Bethany Station accomplished something that had never been done, in a span of time that no one thought possible, at a pivotal moment in world history. They were local folks acting heroically on the biggest stage of all.

**STORY POINTS**

- At the outbreak of WWII, Axis powers dominated international shortwave radio transmissions.

- Correcting this deficiency soon became an urgent strategic priority, articulated by FDR himself. Robert Sherwood and the Foreign Information Service directed that the first official American broadcast be made in 1941; this initiative ultimately became the VOA.

- “RCA, GE, and Westinghouse were called together in Washington to discuss how to respond to this circumstance. Someone mentioned that Crosley Radio had the real smarts, both with super-power and short wave, and they were invited to the meetings.”

- Crosley President James Shouse called Chief Engineer R.J. “Rocky” Rockwell and asked if he could build 200 kW short wave transmitters. Rockwell’s response: “I don’t know, but I will sure give it a hell of a try.”

- “Crosley Radio, being a smaller, more focused company, was the only one that could meet the challenge without hurting wartime efficiency in other areas.”

- In 24 months, working through war shortages and the “few impossibilities involved,” Crosley engineers transformed 640 acres of Midwest farmland into the most powerful international shortwave transmitting facility in the world”… “the loudest voice in the world.”

- “The technical problems were horrendous. New tubes had to be designed, high-gain rhombic antennas improved, ‘re-entrant termination’ advanced to keep antennas from simply melting.”

- It was “a time of invention and adventure in the field of radio engineering.”

- Bethany Station originally required 3.5 million watts of electricity to operate – “When it became operational, the VOA had the highest priority for electric service. Cincinnati might be blacked-out, but the VOA would still receive electricity”… “Birds landing on these (radio frequency transmission) lines had a tendency to explode, simply vanish into very small pieces.”

- The Bethany team designed and built history’s only high efficiency rhombic antenna system. It was the most efficient operation in the VOA system and the most sophisticated antennae system ever devised. This system generated “a sharp beam with an effective radiated power toward the target area of nearly 10 million watts.”

- From 1942-44, international shortwave broadcasts took place from the studios and transmitters of WLW in Cincinnati. “The truth was on our side … tell the truth and let the world decide.” Hitler called them “the Cincinnati liars.”

- “For 50+ years, Bethany Station broadcast the truth and brought hope to millions trapped in totalitarian regimes – fifty years of broadcasting, 7 days a week, nearly 24 hours a day,” and in 52 languages at its peak.

- “No one really knows the importance of the Station in the downfall of communism.”
The Greater Cincinnati area and the Midwest have a rich radio and television heritage. "Cincinnati is famous for a whole lot more than fictional radio station, WKRP."

Cincinnati was right there with NY, LA and Chicago in the development and popularization of radio and television broadcasting.

Experimental station, WMH, was Cincinnati’s first radio station, securing its first commercial license in December 1921. Through a convoluted process, WMH eventually became WKRC. WSAI, WFBF and WCKY were other successful pioneering stations in the Greater Cincinnati area.

By the end of the 1930s, Cincinnati was originating over 30 hours of radio programming for the national networks.

Among other things, Cincinnati was home to the most powerful AM station ever licensed in the US for broadcasting: "WLW - the broadcasting station for the Queen City of the West."

In 1925, Powel Crosley was the world’s largest manufacturer of radios. He founded the forerunner of WLW to help build demand for his radios.

1948, February, WLWT television begins commercial broadcasting.

1949, WCPO and WKRC television also began broadcasting.

"During the 1950s and 1960s, the Crosley Broadcasting Corporation ventured into television. The company broadcast its own shows, but, eventually, many of these programs became staples of the National Broadcasting Company (NBC)."

"The Taft family also had a major impact in both radio and TV with their WKRC call letters. So did L.B. Wilson and his powerful WCKY, which 'Covered the South like a blanket,' as well as Scripps Howard, which brought a new kind of 'let's put on a show' attitude to early TV."

Starting out as a local syndicator of radio programs, Cincinnati’s Frederic W. Ziv soon became the world’s largest syndicator of radio and television programming.

On July 26, 1954, Cincinnati became one of the first cities in the nation with an educational television station when WCET went on the air from Music Hall.

In the 1960’s-70s, Cincinnati remained a broadcasting powerhouse with three major media conglomerates -- Crosley/Avco, Taft Communications and Scripps-Howard -- based here. All three owned multiple stations around the country and all were considered major players in national broadcasting.

Ruth Lyons, Paul Dixon, Bob Braun, Nick Clooney and many others “kept up the tradition of live audiences, real bands, good singers and strong community ties long after those shows had died in the rest of America’s big cities.”

All are part of the history of a city where the soap opera came of age and local, live TV experienced its golden years.
Southwest Ohio, and specifically Cincinnati, have been important contributors to the history of broadcasting in America, from the very earliest days of radio, through the golden days of live, locally produced television, and beyond. Cincinnati stations have been on the leading edge of progress, both in technical achievement and the production and promotion of programming and performers. Numerous players of national or international significance originated in or passed through the Greater Cincinnati area, adding their personal legacies to a one-of-a-kind regional media heritage.

But the goal of Cincinnati’s pioneering broadcasters was not to achieve a national profile, at least not foremost. It was to entertain and inform its home market -- its neighbors -- to help bring the community together. In this way, Cincinnati is representative of hundreds of other American cities. Ours is a singular story with widespread roots.
POWEL CROSLEY/WLW

CORE STORY PROPOSITION

Powel Crosley, Jr. has been characterized as “the Henry Ford of radio.” He might better have been called the Thomas Edison, or even the PT Barnum, of broadcasting. For his innovations were not limited to radio, but also included television production, sports broadcasting and even a facsimile machine. He was a diviner, an inventor, a developer, an entrepreneur, a manufacturer, a producer, and a consummate promoter. Crosley anticipated the intersection of information, entertainment, sport and technology. His “extended shadow” – WLW, the “Nation’s Station” – was “radio engineer heaven … the 1930s version of NASA, continually testing the limits of just what AM broadcasting could do.”

STORY POINTS

- AM radio was “the only thing on the air, one’s only nighttime contact with the world.”
- WLW was America’s biggest AM station, the first to broadcast at 50 kW and the only ever to broadcast at 500 kW.
- Crosley finagled the Federal Radio Commission into an “experimental” authorization for 500 kW, “first with the special call sign of W8XO, finally as commercial WLW.”
- WLW started beaming at 500,000 watts when President Franklin D. Roosevelt flipped a switch on May 2, 1934. NBC carried the dedication program nationally. Using its 831-foot Blaw-Knox antenna, WLW broadcast at ten times the power of any station, the most powerful station in the world.
- “Building the beast required the combined engineering talents of RCA, General Electric, and Westinghouse.”
- In today’s dollars, the investment might not have cost much less than a space mission.
- “WLW’s tower was an 831-foot half-wave, guyed in the middle with bridge cables.” It was “briefly one of the world’s tallest structures” and weighed nearly a million pounds.
- “Folk tales, probably accurate, tell of talking rain gutters, sparking fences, singing water pipes, and nearby street lights dimming.”
- Crosley perfected and manufactured the first low-priced crystal radio set, the hugely successful “Harko Junior.” “His radio station, WLW, was the proving ground for the early careers of many who went on to global stardom.”
- “His television station became the first NBC affiliate. Many programs that originated there eventually made it big on the networks.”
- Crosley’s Cincinnati Reds baseball team became the first sports franchise ever broadcast, broadcast at night and broadcast in color.
- Crosley helped create the proximity fuse, which, along with the A-bomb and radar, is credited by authorities like Winston Churchill and George S. Patton for helping assure America’s victory in World War II.

OTHER CROSLEY INNOVATIONS:

- The first compact economy car – 50 mpg
- Second auto radio – after Motorola
- First push-button radio
- Shelvador refrigerator (first with shelves in the door)
- First non-electric refrigerator (icyball)
- First portable freezer
- First lights on a major league baseball field, night baseball
- First facsimile machine
- First 4-wheel disc brakes
- 35mm camera
- Airplanes (4 different)
- First radio broadcast from an airplane
CORE STORY PROPOSITION
Radio is basically the conversion of sound waves into electrical waves for long distance transmission and receipt. The origins of radio can be traced to the 1800s (1887: Heinrich Hertz first discovers radio waves, 1895: Guglielmo Marconi sends the first wireless radio transmission). In that age, America and the world had no television, no Internet, no instantaneous mass communication of any kind. “Wireless radio connected people to the rest of the world, opened them to new ideas, and brought them all a little closer together.”

STORY POINTS
- Wireless radio revolutionized society, first as a form of person-to-person or station-to-station communication.
- Soon this medium that had saved countless lives in ships at sea was delivering a flood of information and entertainment to the masses.
- Wireless radio has the ability to surmount the man-made barriers of censorship and suppression, and speak directly to the people.
- Jack Gray, a radioman in WWI, became the transmitter supervisor for VOA and worked for Crosley radio stations for 36 years.
- Jack had a lifelong fascination with wireless radio; his collection of wireless memorabilia traces the history of this technology.
- It is “one of the most complete collections of wireless artifacts in the world.”
- Today, a global community of amateur shortwave radio enthusiasts – ham radio operators – carries on the proud wireless tradition, as well as its service to humanity. Over the years amateur radio operators have provided irreplaceable communication and urgently needed contact in countless situations.
- When other forms of communication go down – hardwire, cellular, satellite – wireless radio may be the last communications medium standing; it remains a critical medium during emergencies and civic or natural disasters.
- The West Chester Amateur Radio Association is “dedicated to the assistance of the community and its activities through radio communication, and to the enjoyment, appreciation, sharing and advancement of amateur radio.”
The restored Lobby features the “Dome” and skylight as per the original construction, with the Balcony being opened to the “Grand Concourse.” Orientation graphics would be located here, as well as 3-4 large video screens located on either side of the Lobby showing various VOA programs.

A new sign for the “VOA shop” will entice guests to explore the many offerings in the renovated retail area.
GRAND CONCOURSE

Detailed recreation of the “Great Concourse” – “25-foot ceiling space with curving balcony and six transmitters on two podiums” – overhead oval screen array (Kentucky Derby Museum “The Greatest Race,” April 1985 was a 360-degree multi-media presentation employing 96 slide projectors, now high-def delivery) – tells the “America’s Voice” story articulated in a layered media production (through-line narrative, archival materials, custom animations) – dramatizes the “adventure story” described in the Story Line -- use actors portraying VOA notables & broadcasters to tell the story:

Powel Crosley
William Harlan Hale
John Houseman
Edward R. Murrow
Willis Conover
Leo Sarkisian
This gallery focuses on the role which the Bethany Station played in WWII and the events leading to the Cold War. It will utilize various methods of interpretation to engage the visitor, including media driven experiences and interactives, hands on displays and artifacts. The feature of this section will be the model of the Bethany Station site, where guests will be able to use model cameras to view the site from various locations.
A portion of the restored Control Room becomes a set for a media presentation on the role Bethany Station played during the Cold War. Utilizing “snap glass” technology an image of a control room worker would appear seemingly out of nowhere to tell a portion of the VOA story.
MEDIA THEATER

Media Heritage object or environmental theater with possible multiple screens, integrated scenic/artifact reveals and special effects
Custom interactives illustrating significant technical advances
CINCINNATI BROADCAST HISTORY MUSEUM

Media Heritage environments with embedded interactives – stylized vignettes:
Crosley Square, Uncle Al set/Larry Smith’s Attic, Lyons/Dixon/Braun studio
A renovated retail shop will entice guests with its many varied offerings. Video screens located in the shop will carry VOA programming from around the world.
**PROJECT BUDGET** *(As of February 27, 2009)*

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<td>0002</td>
<td>On site (General construction contingency related to exhibits)</td>
<td>$200,000</td>
</tr>
<tr>
<td>0003</td>
<td>Exhibit Lighting</td>
<td>$325,000</td>
</tr>
<tr>
<td>0004</td>
<td>Wayfinding Graphics NIC</td>
<td>$25,000</td>
</tr>
<tr>
<td>0005</td>
<td>Restrooms</td>
<td>$100,000</td>
</tr>
<tr>
<td>1000</td>
<td>Lobby</td>
<td>$50,000</td>
</tr>
<tr>
<td>1200</td>
<td>Orientation Graphics</td>
<td>$50,000</td>
</tr>
<tr>
<td>2000</td>
<td>Catering kitchen (NIC)</td>
<td>$100,000</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>$100,000</td>
</tr>
<tr>
<td>3000</td>
<td>Gift Shop/Ticketing</td>
<td>$100,000</td>
</tr>
<tr>
<td>3000</td>
<td>450 Square ft. approx. @ $220 per</td>
<td>$100,000</td>
</tr>
<tr>
<td>4000</td>
<td>Event Space/ Changing Exhibits (NIC)</td>
<td>$100,000</td>
</tr>
<tr>
<td>4000</td>
<td>2,000 square ft. approx. @ $30 per, for base building finishes</td>
<td>$100,000</td>
</tr>
<tr>
<td>5000</td>
<td>VOA Exhibits</td>
<td>$2,925,000</td>
</tr>
<tr>
<td>5000</td>
<td>All galleries 6,500 square ft. @ $450 per</td>
<td>$2,925,000</td>
</tr>
<tr>
<td>7000</td>
<td>Media Heritage Theater</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>7000</td>
<td>Unit Cost, Media hardware, software and Scenic</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>8000</td>
<td>Media Heritage Gallery</td>
<td>$1,215,000</td>
</tr>
<tr>
<td>8010</td>
<td>Approx. 2,700 square ft. @ $450 per</td>
<td>$1,215,000</td>
</tr>
<tr>
<td>9000</td>
<td>Gray History of Wireless Museum</td>
<td>$680,000</td>
</tr>
<tr>
<td>9000</td>
<td>Approx. 1,600 square ft. @ $425 per</td>
<td>$680,000</td>
</tr>
<tr>
<td>10000</td>
<td>Level 2</td>
<td>$250,000</td>
</tr>
<tr>
<td>10001</td>
<td>Balcony Area - Graphic enhancements - Unit Cost</td>
<td>$25,000</td>
</tr>
<tr>
<td></td>
<td>Meeting rooms (NIC)</td>
<td>$100,000</td>
</tr>
<tr>
<td></td>
<td>Archival storage (NIC)</td>
<td>$125,000</td>
</tr>
<tr>
<td>11000</td>
<td>Contingency</td>
<td>$900,000</td>
</tr>
<tr>
<td></td>
<td>Exhibit Contingency at 9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>$9,831,160</strong></td>
</tr>
</tbody>
</table>

**NOTE:** The budget listed at left is a "Range of Magnitude Estimate" based on averaged costs per square foot, and is not based upon any actual bids from contractors. The breakout of the individual elements is based both on their level of complexity in this design as well as a comparison to the cost of similar items from past projects. A more precise detailed budget can only be developed at the end of the Schematic phase, upon receipt of actual contractor bids.

Estimates above include the following assumptions:

- No factor for yearly cost escalation
- Limited development of new software
- Royalty/rights fees not included.
- Budget does not include:
  - hvac system completion
  - electrical system replacement
  - office space renovation
  - elevator installation
  - “design day” parking
  - outdoor lighting
  - attractive landscaping
  - other exterior enhancements