

# RENOVATION COST REVIEW & OPINION

## Music Hall & Union Terminal (Museum Center)

### Cincinnati, Ohio



Prepared for:  
Hamilton County  
Board of County Commissioners  
July 21, 2014

# Hines

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## I. EXECUTIVE SUMMARY

The renovation of two treasured cultural icons, Union Terminal (Cincinnati Museum Center) and Music Hall, has been the subject of public discussion in Cincinnati for a number of years. Each building is experiencing systemic dilapidation that naturally accompanies the age of these monuments, and renovation is becoming an increasingly urgent concern if the City desires to keep these structures functioning as valuable public assets.

The Cultural Facilities Task Force (“CFTF”) was established in early 2014 to conduct a preliminary review of Union Terminal and Music Hall, in order to gauge the scope of work necessary to renovate these two civic landmarks and to determine a realistic budget and schedule of work to accomplish the necessary restorations. To this end, the CFTF enlisted the help of esteemed architects, engineers, consultants and contractors. This team of design and construction professionals assessed the condition of the two monuments and issued recommendations as to the scope, budget, and schedule necessary to properly rehabilitate the structures.

In order to provide further confidence regarding the ability to efficiently execute this endeavor, the Hamilton County Board of County Commissioners, via the Tax Levy Review Committee (TLRC), has sponsored an independent third-party review of the preliminary costing work accomplished by the CFTF. Hines, as an international real estate firm with extensive experience developing and restoring cultural facilities and participating in public-private endeavors, was selected to conduct an independent evaluation of the assessment work done to date by the CFTF team regarding Union Terminal and Music Hall.

The primary responsibility of Hines in its engagement with Hamilton County and the TLRC has been to assign an experienced team of architectural, structural, MEP and costing experts to thoroughly review the processes, methods, assumptions, estimates and recommendations of the CFTF, in order to ensure that:

- 1) the proposed renovations are sufficient and appropriate in scope to maintain the structures as functional assets for the next generation of Cincinnati residents;
- 2) the renovations can realistically be accomplished within the budgets and schedules produced by the CFTF team; and
- 3) the TLRC is apprised of any non-essential aspects of the scope and budget that might be deferred or omitted from this impending renovation.

The Executive Summary level findings and recommendations of Hines are as follows:

- Hines believes that the CFTF budget for renovations to Union Terminal requires an additional approximately \$6,755,000. The documentation provided to Hines regarding Union Terminal consisted primarily of study level analyses without specific design documentation, and due to the lack of more complete design drawings and

specifications, the review of this documentation focused primarily on identifying high-level scope gaps and mispricing.

<b><u>Union Terminal</u></b>	
Lintel Replacement	\$ 340,000
Parapet Replacement	\$ 525,000
Expansion Joint Replacement	\$ 250,000
Roofing Membrane	\$ 400,000
Envelope Restoration Consultant	\$ 275,000
Fountain Renovation	\$ 1,275,000
Dalton Street Repairs	\$ 1,475,000
Elevator Modernization	\$ 565,000
Temporary Protection & Security	\$ 1,000,000
Ice Plant Redesign	\$ 300,000
Utility Consumption during Construction	\$ 350,000
<b>Total</b>	<b>\$ 6,755,000</b>

- Hines believes that the CFTF budget for renovations to Music Hall requires an additional approximately \$3,925,000. The amount of information provided to Hines regarding Music Hall was extensive and generally described a well-identified scope of work, allowing for a high level of confidence in the costs being estimated.

<b><u>Music Hall</u></b>	
Escalation	\$ 2,300,000
Loading Dock Renovation	\$ 1,125,000
Temporary Protection & Security	\$ 340,000
Human Traffic Flow Model	\$ 55,000
Roofing Membrane	\$ 40,000
Fire Supression	\$ 65,000
<b>Total</b>	<b>\$ 3,925,000</b>

- Each item listed in the reviews of both Union Terminal and Music Hall should be vetted with the design team and the cost estimators previously enlisted by the CFTF, to ensure that these recommendations are not duplicative or already addressed elsewhere within the CFTF budget.
- Hines believes that it is imperative that any organization entrusted with the responsibility to serve as the development steward of the cultural facilities must apply a process with an extremely high level of cost discipline and execution expertise. In order to achieve the County's and the TLRC's financial objectives, the development steward must apply an owner's mindset and treat the fiduciary funding for the projects as if such were risk capital of the development steward.

With this independent third-part review of the CFTF's recommendations completed, the Hamilton County Board of County Commissioners will be well positioned to make the case that it has responsibly vetted the financial and logistical implications of a full and appropriate renovation of Union Terminal and Music Hall that will revitalize these cultural facilities for the enjoyment of future generations of Cincinnatians to come.

## II. SUMMARY OF PRIOR WORK / BASIS OF OPINION

The CFTF in early 2014 assembled a collection of construction and design experts to assess the necessary project scope, budget and schedule associated with the renovations of Union Terminal and Music Hall. This group leveraged previous assessment work completed by design and construction professionals of Union Terminal and Music Hall dating back to 2006.

The CFTF enlisted the expertise, amongst other professional service firms, of such national and local experts as 3CDC, Messer Construction, Turner Construction, GBBN Architects, Lagan Engineering, EAC Associates, Pinnacle Environmental Consultants, THP Limited, Preservation Design Partnership, Heapy Engineering and Glaserworks.

The conclusions and reports of these professionals as directed by the CFTF ultimately formed the body of work upon which Hines has relied and based its review and opinion. The documents provided to and reviewed by Hines are enumerated below.

### Cincinnati Union Terminal / Museum Center – Documents Provided

- Messer Construction Co. - Cincinnati Museum Center: Master Plan Estimate Validation – dated January 30, 2014
- Renovation/Restoration Plan For The Cincinnati Museum Center Volume One 2006/2007 – dated December 2006
- Renovation/Restoration Plan For The Cincinnati Museum Center Volume Two - Appendices 2006/2007 – dated August 2006
- Renovation/Restoration Plan for the Cincinnati Museum Center – Excerpt from Master Plan dated March 13, 2009
- Cincinnati Museum Center - Union Terminal Master Plan Update (Date: May 20, 2011)
- Cincinnati Museum Center - Restoration and Renovation Plan Executive Summary – December 2006
- Messer Construction Company - Cincinnati Museum Center – Union Terminal Restoration Budget Validation Process – Executive Summary dated January 30, 2014
- GBBN Architects – Cincinnati Cultural Facilities Task Force - Union Terminal Restoration Evaluation dated June 18, 2014
- Lagan/GBBN Architects – Cincinnati Cultural Facilities Task Force - Union Terminal Restoration – dated June 19, 2014
- Lagan/GBBN Architects – Cincinnati Cultural Facilities Task Force - Union Terminal Restoration – dated January 24, 2014
- Jaffe Holden Acoustics, Inc. – Summary of Findings for Existing Conditions – dated October 20, 2004
- Heapy Engineering – Cincinnati Museum Center Value Engineering
- CMC Master Plan Study – Appendix A – Analysis of Scopes of Work
- Glaserworks/PDP – Cincinnati Museum Center drawings dated January 2014
- Glaserworks/PDP – Cincinnati Museum Center – Attachment 44 drawings dated October 2010
- Cincinnati Museum Center Master Plan Study for the Hamilton County Department of Facilities and the Tax Levy Review Committee – dated April 20, 2009

- Cincinnati Museum Center at Union Terminal Master Plan Update – dated May 20, 2011
- Letter - City of Cincinnati Department of Transportation and Engineering – dated February 9, 2010
- Recommendations and Comments from Hamilton County Tax Levy Review Consultants – dated July 2009
- Letter - Hamilton County Tax Levy Review Committee – dated July 20, 2009
- Cultural Facilities Task Force – Report and Recommendations to Hamilton County Commissioners – dated June 23, 2014
- Cincinnati Museum Center – Union Terminal Restoration – Estimate Clarifications – dated January 30, 2014

### Cincinnati Music Hall – Documents Provided

- Messer Construction Co. - New Program Estimate RECONCILED (Date: 4/18/14) - Estimate #: 13-0012A
- Music Hall Estimate Reconciliation And Hard Costs Between 3CDC, PCS, Messer and Venue
- PCS Estimate (April 18, 2014)
- Venue Estimate (April 18, 2014)
- Cincinnati Music Hall Enhancements (May 14, 2014)
- Music Hall Program dated June 19, 2014
- Pinnacle Environmental Consultants Inc. Cost Estimate – letter dated May 3, 2011
- EAC Associates Music Hall Elevator Analysis dated August 25, 2011
- General Conditions to complete Asbestos Abatement – Music Hall
- Cultural Facilities Task Force – Report and Recommendations to Hamilton County Commissioners – dated June 23, 2014

### III. HINES' APPROACH

Upon being retained by Hamilton County, Hines immediately began on June 30, 2014 the process of conducting a full diligence effort on the aforementioned documents, together with interviews and physical site visits of both Union Terminal and Music Hall.

#### Conceptual Construction

A team of four tenured real estate professionals from the Hines Conceptual Construction Group (CCG) was assigned to analyze the condition of, and necessary renovations to, these two significant structures. The CCG is a central resource to Hines, comprised of technical experts in the fields of electrical engineering, mechanical engineering, architecture, construction management, estimating/scheduling, and design conceiving that are deployed on every Hines development project worldwide. Led by long-tenured industry experts with decades of experience and continual exposure to diverse real estate projects around the globe, Hines CCG represents the aggregation of firm-wide knowledge and the central repository for all of the firm's construction lessons learned. Given its breadth of exposure to construction activities worldwide, Hines CCG is an unparalleled resource for real-time market information regarding the latest trends in architectural design, construction pricing, contracting, building systems, value engineering and risk mitigation.

#### Method of Review

The Hines CCG team arrived in Cincinnati on June 30, and spent the day familiarizing itself with the Union Terminal facility. After conducting informational meetings with Museum staff, GBBN Architects, Messer Construction and Turner Construction, the Hines team spent the balance of the day physically inspecting all pertinent aspects of the Union Terminal facility. On July 1, the process was repeated at Music Hall. The Hines team met with 3CDC and Messer Construction to review the renovation plans to date, and subsequently toured Music Hall while accompanied by architects, contractors, and facility staff familiar with the building.

Subsequent to these on-site building tours and interviews, Hines CCG spent nearly three weeks reviewing in detail the documents, studies, budgets and other correspondence provided by the CFTF (please see Section II for a comprehensive list of documents provided and analyzed). Additionally, Hines CCG conducted numerous follow-up calls with the architects and contractors that formed the basis of the CFTF opinion, in order to ensure clarity and full understanding of the assumptions and thinking that drove the CFTF preliminary budget and recommendations.

In order to ensure that renovation cost estimates reflected the latest labor and commodity pricing trends, Hines CCG utilized its in-house costing database, which tracks detailed construction pricing from all of the firm's ongoing and historical development projects. Additionally, Hines CCG enlisted the support of national contractors, subcontractors, and equipment manufacturers to assess the assumptions made by the CFTF and based its final recommendations in the most thoroughly vetted and real-time information possible.



## IV. PROJECT REVIEW: UNION TERMINAL

### Executive Summary

The recommendations as outlined below suggest that the CFTF budget requires an additional approximately \$6,755,000. Hines has made every effort to determine that the recommended increases are not duplicated elsewhere in the existing CFTF budget. However, it is recommended that these increases be vetted with both the design team and the cost estimators previously enlisted by the CFTF, to ensure that these recommendations are not duplicative.

The amount of documentation provided to Hines regarding Union Terminal was extensive, although the majority consisted of study level analyses, reports and recommendations that included only minimal specific design and/or quantity detail or schedules. Without specific design documentation, the pricing summaries, although itemized and detailed, are in many cases based on benchmarking and historical unit prices and allowances as opposed to specific quantities surveys. Due to the lack of more complete design drawings and specifications, the review of this documentation focused primarily on identifying larger scope gaps and mispricing that were apparent from the pricing breakdowns provided.

### Scope & Budget Considerations

The following represent descriptions and discussions of the issues that were identified and warrant additional consideration and cost adjustments. All identified cost adjustments include our recommended escalation and contingency amounts (ie., +12.5%).

#### I. Building Exterior Envelope

- i. All of the steel lintels should be replaced with a flashing membrane running up the wall 3'0" behind the face brick. Current pricing does not indicate all of the window lintels being replaced. Given the degree of degradation of the other lintels and the effort associated with failing to repair the wall, Hines recommends all of the lintels be removed and replaced. Not repairing all of them now is only prolonging the problem to future years and would only exacerbate the issues the building is currently experiencing.

ADD \$340,000.00

- ii. The current budget anticipates replacing only 50% of the parapets, but all of the reports note that the construction of the parapets is a primary reason for the current wall problems. Hines recommends that *all* of the parapets be recapped and replaced.

ADD \$525,000.00

- iii. A significant portion of the walls are being repaired or rebuilt yet there is no provision for additional expansion joints being added to the existing brick walls. The reports note that some of the current problems are a result of inadequate number of expansion joints. Hines recommends that costs be carried to repair and/or install expansion joints in all exterior walls.

ADD \$250,000.00

- iv. The budget anticipates replacing all the roofs with a 45 mil EPDM roof. The roofs should either be a fully adhered EPDM with a thicker membrane along the lines of 60 to 80 mil, or a hot applied asphaltic roofing system. Either system needs to be an inverted roofing system with the membrane being adhered directly to the existing concrete deck followed by an insulation layer and then a ballast paver. This will provide better performance and as much as 30% longer life. ADD \$400,000.00

- v. Hines suggests that an envelope consultant be hired to analyze and recommend appropriate techniques to employ in the envelope restoration as well as to perform testing of the walls and roofs after the renovations are completed to confirm that the current issues are resolved.

ADD \$275,000.00

## II. Fountain

The fountain is a critical component of this project. If the initial scoping and renovation plans are not adequately handled, expensive and long lasting problems will arise. Although there have been multiple studies regarding the fountain, the complete scope of the fountain's renovation remains unknown until the fountain's surface is removed and the penetrations are revealed. Due to the unknown conditions, it is likely that the contractors are missing scope items and do not have enough cost in their estimate. Hines recommendation is as follows:

- i. It would be beneficial to remove the concrete fountain down to the lead pan and repair it before installing a new fountain system. However, removing the existing fountain without damaging the lead pan is extremely difficult and likely will not be achieved. As a result, the costs for a new fluid applied asphaltic waterproofing system with integrated drainage mats that are tied to a multi-staged or independent drainage system should provided for in the budget.
- ii. Install a new concrete fountain that matches the existing fountain.
- iii. Install a tile or terrazzo surface that is applied with an epoxy grout to provide additional waterproofing and keep the fountain water-tight. This should be done well after the new concrete for the fountain has cured. Part of the issues with the existing fountain is a result of applying coating with too much retained moisture in the concrete.
- iv. Costs to fill up the fountain, including chemical, city water, and sanitary sewer fees, should be included.
- v. The budget included \$5,000,000.00 for this scope. ADD \$1,275,000.00

III. Dalton Street

The budget includes structural slab repairs for 20% of the Dalton Street overpass. The unit costs for repairs are in line with the engineer recommendations to add purlins to support the slab. However, Hines believes the percentage needs to be increased from 20% to 100% to account for all unforeseen conditions regarding the structural slab repairs. In addition, repair of the four skylights above Dalton Street is not detailed in the contractor's proposal and should be addressed. Hidden costs related to road construction (i.e. road closures) should be included in the contractor's proposal. Consider awarding the Dalton Street repair to a heavy highway/roadwork contractor who specializes in this type of work and is familiar with road closures, civil work, overpasses and traffic. The cost of work might come at a premium but will help eliminate risk and possibly accelerate the schedule. The budget included \$250,000.00 for this scope.

ADD \$1,475,000.00

IV. Elevator Modernization and Upgrade

The proposal includes one new elevator and improvement of the ten existing elevators' cab finishes. Hines recommends that the budget include modernization of all elevators and their associated machine rooms to provide a faster, smoother ride and improve safety. This will also help with wait time to improve flow of traffic in the facility.

ADD \$565,000.00

V. Temporary Protection and Security

In renovation projects, safety and security need to be addressed in the contractor's proposal for each phase of the project. Maintaining a safe & healthy working condition for construction team, Museum Center employees and visitors should be a priority. Cost for the following items should be included in the proposal:

- i. Temporary partitions that prevent the general public from accessing the jobsite.
- ii. Temporary covered walkway for the following areas: Rotunda, exterior masonry and Dalton Street.
- iii. Security to regulate the traffic in construction area.
- iv. Dust Protection.
- v. Temporary Signage.

ADD \$1,000,000.00

VI. Ice Plant Design

The proposed replacement central plant is currently designed around the use of three (3) 700 ton centrifugal water chilling units, pumps, cooling towers, and controls. Further study and life-cycle cost analysis should be investigated for the use of two (2) 700 ton chilled water chillers and (2) 350 ton ice/chilled water chillers with plate and frame heat exchangers between the ice loop (glycol) and chilled water loop. The increased flexibility and part load efficiency, ability to make ice with a smaller glycol loop, and the increase in overall system efficiency at the heat transfer and chilled water pumping level should improve operating efficiencies. ADD \$300,000.00

VII. Utility Consumption Costs during Construction

The budget indicates that these costs were excluded, however over a 30 month construction period these costs could become substantial. In the event these costs are not carried within the Owner's soft costs, Hines recommends including cost for this scope. ADD \$350,000.00

VIII. Other Considerations

Hines believes that the following items, although not necessarily cost implications, should be considered as the project proceeds, and represent potential cost savings, operational improvements, or enhancements that could significantly benefit the project.

- i. There is currently budget pricing to investigate the integrity of the piles for the foundation of the existing building. These areas should be investigated as soon as possible so as to mitigate any future risk associated with potential problems with the building's foundations.
- ii. Flag poles and site lighting - In the site embellishments section of the budget estimate there is a line item to "restore" the existing flag poles. As opposed to restoration, our recommendation is to investigate performing the "reconditioning" with a carbon fiber wrap around the flag poles. The carbon fiber comes in a flexible fabric that is bonded to the substrate using a structural epoxy product. Studies have proven that a carbon wrap system can: cost less, last longer, be less invasive, and add significant strength to structures while adding minimal weight & mass.
- iii. Given that all of the lintels are being replaced or refurbished, together with the replacement of a majority of the windows, it is prudent to go ahead and replace *all* of the windows (along the ramp areas and Rotunda) for performance and aesthetics.
- iv. Hines recommends sealing the building after the exterior masonry is properly repaired, lintels replaced, and the new windows installed, flashed, and sealed. Exterior masonry sealant products repel rainwater without changing the pigment of the masonry facade. These products allow any water vapor that enters the building to properly escape.

## V. PROJECT REVIEW: MUSIC HALL

### Executive Summary

The recommendations as outlined below suggest that the CFTF budget requires an additional approximately \$3,925,000. Hines has made every effort to determine that the recommended increases are not duplicated elsewhere in the existing CFTF budget. However, it is recommended that these increases be vetted with both the design team and the cost estimators previously enlisted by the CFTF, to ensure that these recommendations are not duplicative.

The amount of information provided regarding Music Hall was extensive and described overall a well identified scope of work. Although the documents are at a design development stage, they provide enough detail to clearly frame the work anticipated, allowing for a high level of confidence in the scope, quantities, and equipment costs being estimated. The review below focused primarily on scope gaps, mispricing, and alternative recommendations that were apparent from the pricing breakdowns provided.

### Scope & Budget Considerations

The following represent descriptions and discussions of the issues that were identified in our analysis and Hines believes warrant additional consideration/cost adjustments. All identified cost adjustments include our recommended escalation and contingency amounts (ie., +12.5%).

#### I. Escalation

Escalation and cost contingency are risk funds that should be included in project estimates and budgets. Messer's price escalation is currently 2.5%. Hines' recommendation for a project of this complexity and uniqueness is to increase this percentage to 5%. Increasing the escalation to 5% will better cover unknown conditions such as, but not limited, to: material price increases, labor shortages, changes in technology, and supply-demand imbalances. The budget included approximately \$2,000,000.00 for these risk categories. ADD \$2,300,000.00

#### II. Loading Dock

The Music Hall loading dock is an area of significant functional concern. Performance of the loading dock is unacceptable for various reasons: only one loading dock, narrow entry, drivers damaging the building and adjacent structures, large trucks must use empty lot across the street in order to pull into the loading dock area, and delays caused by getting into the loading dock to unload material. It is recommended that additional costs be carried for the loading dock scope of work to insure proper design & engineering standards, safety, service and compliance with local codes.

ADD \$1,125,000.00

III. Temporary Protection and Security

In renovation projects, safety and security need to be addressed in the contractor's proposal for each phase of the project. Maintaining a safe & healthy working condition for the construction team, Music Hall employees and visitors should be a priority. Costs for the following items should be included in the proposal:

- i. Temporary partitions that prevent the general public from accessing the jobsite.
- ii. Temporary covered walkway.
- iii. Security to regulate the traffic in construction area.
- iv. Dust protection.
- v. Temporary signage ADD \$340,000.00

IV. Human Traffic Flow Model

A computer simulation should be run that analyzes the flow of people before and after performances, as well as during intermissions, in order to determine bottlenecks and constraints in the design. Areas that are particularly impacted by human traffic flow include escalators, additional concession stands and toilet rooms. This study will also help to determine how facility management can improve the building's operation with respect to energy consumption, indoor environmental quality, security, and code requirements. ADD \$55,000.00

V. Roofing

The budget anticipates replacing some of the roofs with a 45 mil EDPM roof. This roof should either be a fully adhered EPDM with a thicker membrane, along the lines of 60 to 80 mil, or a hot applied asphaltic roofing system. Either system needs to be an inverted roofing system with the membrane being adhered directly to the existing concrete deck followed by an insulation layer and then a ballast paver. This will provide better performance and as much as 30% longer life. ADD \$40,000.00

VI. Fire Suppression

Music Hall renovations are to include more than doubling the size of the music library. Budget numbers for the clean agent suppression system in this area are approximately \$30,000 to \$32,000. A new system designed to cover the existing library room area and the new library area will be approximately three times this budget allocation.

ADD \$65,000.00

VII. Other Considerations

The following items, although not necessarily cost implications, should be considered as the project proceeds. They represent potential cost savings, operational improvements, or enhancements that could significantly benefit the project.

- i. Rework the existing percussion space to alleviate the truck dock congestion and the conflict with the stage column.
- ii. Revisit the efficiency and configuration of the added carriageway space, in order to ensure that this layout maximizes the use of the new area.
- iii. Consider configuring the rehearsal rooms so that they can be utilized as a secondary performance space.
- iv. Review the results of the elevator study:
  - a. The elevator study notes that the ability does not exist to have simultaneous functions at the Auditorium and the Ballroom. However the study does not appear to identify what would be required to provide this ability. This should be investigated as it might expand future revenue possibilities.
  - b. Current design has front and rear loading elevators which the elevator study notes as lowering the efficiencies as it lowers the number of people that will use each car.
  - c. Current elevators are either 4000lb or 5000lb cars but there is no analysis for adding smaller cars.
  - d. The analysis notes that it takes 45 minutes to move the expected patron load, yet the report notes that a majority of the patrons arrive 20 to 30 minutes before the performance. No solution is identified.
- v. Condenser water treatment is covered in all three (3) estimates, varying from reuse of the existing to a new system. Hines' experience with non-chemical water treatment systems like the existing "Dolphin System" has been less than acceptable. It is recommended that replacing the existing non-chemical water treatment system with a more conventional chemical water treatment system be considered.

## VI. HINES' CULTURAL FACILITIES EXPERIENCE

Since the firm's inception in 1957, Hines has earned a reputation for developing landmark real estate projects of the highest caliber across the globe. Hines operates in 115 cities and 18 countries worldwide, and has developed over 215 million square feet of real estate.

Hines' real estate expertise adds value to arts and cultural venues. The same standards of excellence that are necessary to generate economically successful projects for the equity account of Hines are applied when developing museums, symphony halls, performing arts centers and educational buildings.

Hines has developed cultural facilities for a broad range of entities including not-for-profit organizations, municipalities, universities and foundations. Through these experiences, Hines has gained an intimate appreciation for the unique requirements specific to arts and cultural venues – including acoustics, aesthetics, lighting, sight lines, climate control, storage, staging and accessibility. Hines is also versed in interfacing with the donors, trustees, boards, citizen groups and specialty consultants that all have a vested interest in the success of such cultural venues. Hines has provided professional guidance for cultural center clients regarding land acquisition, infrastructure improvements, facility design, construction management, and the creation of optimal environments for works of art in its many mediums.

Hines approaches every project from an ownership perspective, treating the client's dollars as our own and aligning with the client's goals and vision to build an appreciable asset.

### Experience and Added Value

- Hines has completed more than 750 real estate projects worldwide, of every type, size and scope – including major theaters, arts centers, and museums.
- Hines is particularly renowned for completing complex developments within budget and schedule frameworks.
- Hines is experienced in historical renovations and is sensitive to cultural traditions.
- Hines has established close working relationships with internationally renowned architects, theater designers, museum consultants, exhibition designers, acousticians and lighting experts.
- Hines understands local, state and federal public arts funding requirements and is experienced in government negotiations and regulations.
- Hines provides expert architectural management/overview and unmatched technical and construction management services.



## Testimonials

*"It is safe to say that without the assistance and direction that Hines provided, this museum would not have opened on time. Further, without Hines' assistance it certainly would have cost more than the funds available, and it would not have been as well received."*

James H. Burns  
Director, National Postal Museum Development

*"Their in-house technical expertise proved invaluable as early in the project as negotiating bids and as late as during system testing to achieve final occupancy."*

James S. Boney  
Finance Officer, City of Chattanooga  
The Chattanooga, Chattanooga, TN

*"The extraordinary political, financial and technical challenges of the project required that the Padres engage a firm that was experienced in all aspects of project development, and not just in design and construction related issues. Hines was the ideal full-service solution."*

John Moores  
Chairman, San Diego Padres  
(PETCO Park, San Diego, CA)

*"Hines blended the project's highly complex funding sources, which consisted of private philanthropic donations, sales tax based financing proceeds, Federal Transit Administration, HUD, Department of Commerce grants and State of Missouri tax credits, into a seamless whole ensuring timely payments for the project's contractor, architects and vendors."*

Richard C. King  
Union Station Assistance Corporation  
Science City at Union Station

## Relevant Project Summaries

The following pages provide examples of arts & culture projects in which Hines has been involved.

# Hines

## Hines Role

Owner  
Redeveloper

## Location

2 Massachusetts Avenue NE  
Washington, DC

West side of Union Station bounded by Massachusetts Avenue and North Capitol Street on Capitol Hill

## Architect

Shalom Baranes Associates

## Net Rentable Area

Office:	848,000 SF
Retail:	10,000 SF
Museum:	70,000 SF

## Awards

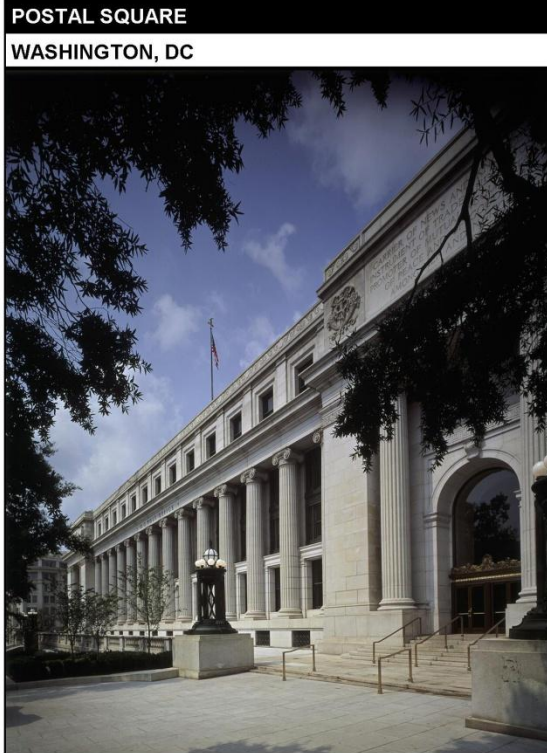
AIA Awards 1992

## Completion Date

1993

## Summary

In 1990, Hines was hired by the United States Postal Service to renovate and restore its historic city post office in Washington, D.C. Later renamed Postal Square, the project includes 950,822 square feet of office space, 10,000 square feet of retail services, a 40,000-square-foot postal facility, a 75,000-square-foot National Postal Museum and parking for 420 cars. The historic renovation and completion of a new 300,000-square-foot structure addition to the inner courtyard was completed in June of 1992. The Postal Museum, which was designed by Florance Eichbaum Esocoff King, was completed in July of 1993. The Historic Lobby at Postal Square is available to corporations and non-profit organizations as a special occasion venue.



# Hines

**Hines Role**  
Development Manager

**Location**  
2601 Main Street  
Houston, Texas

Approximately three miles south of downtown Houston

**Architect**  
Jose Rafael Moneo

**Net Rentable Area**  
185,000 SF

**Completion Date**  
2000

## Summary

The Museum of Fine Arts Audrey Jones Beck Building is a three-story, 185,000-square-foot building constructed on Main Street directly across from the existing Museum of Fine Arts, Houston. The building is clad in Indiana gray limestone and is connected to the original museum and a new 600-car parking facility via a newly constructed tunnel. The Museum of Fine Arts, Houston contains galleries, a restaurant, a museum store and curatorial space. The building also houses the museum's permanent antiquities and European collections. After its completion in early 2000, the gallery space from the Audrey Jones Beck Building, coupled with the existing Museum of Fine Arts, Houston buildings, raised the museum's rank in square footage among art museums to sixth in the nation.

MUSEUM OF FINE ARTS HOUSTON  
HOUSTON, TX



# Hines

**Hines Role**  
Development Manager

**Location**  
1672 Drexel Avenue  
17th Street behind Lincoln Road Mall

**Architect**  
Gehry Partners, LLP

**Net Rentable Area**  
100,000 SF

**Completion Date**  
2000

## Summary

Hines, The New World Symphony and architect Frank Gehry collaborated to design a unique facility that serves as a premier educational laboratory for innovations in the teaching and experience of classical music. The campus, located in the heart of Miami Beach, was designed to explore new performance formats, including large in-theater video displays and a projection wall and audio system for outdoor presentations. In addition to engaging existing local audiences, the campus has attracted new audiences for classical music nationally and internationally. The project was completed in 2011.

**NEW WORLD SYMPHONY CENTER**  
**MIAMI BEACH, FL**



# Hines

**Hines Role**  
Development Manager

**Location**  
Downtown Orlando across from City Hall and near lively Church Street Market

**Architect**  
Barton Myers Associates

**Net Rentable Area**  
350,000 SF

**Completion Date**  
2014

**Summary**  
Hines served as development manager for Dr. P. Phillips Performing Arts Center serves, the new home for the Orlando Ballet, Orlando Opera and Orlando Philharmonic Orchestra.

The 350,000-square-foot facility features a 2,700-seat amplified theater; a 1,700-seat acoustical, multipurpose hall; a 300-seat community theater; an outdoor plaza with stage; numerous rehearsal rooms; ample administrative offices and extensive educational programming space. Additionally, the site plan was designed to accommodate future expansion for a 200-room hotel, 400 condominium units and commercial office space.

Barton Myers Associates created a dynamic and welcoming venue that incorporates elements of light, water and other aspects of the natural ecology. Hines collaborated with Damian Doria and Edward Arenius of Artec Consultants Inc. to assure a superb acoustical design for the Center.

DR. PHILLIPS CENTER FOR THE PERFORMING ARTS

ORLANDO, FL



# Hines

**Hines Role**  
Development Manager

**Location**  
A 120 acre wooded site near downtown Bentonville, Arkansas

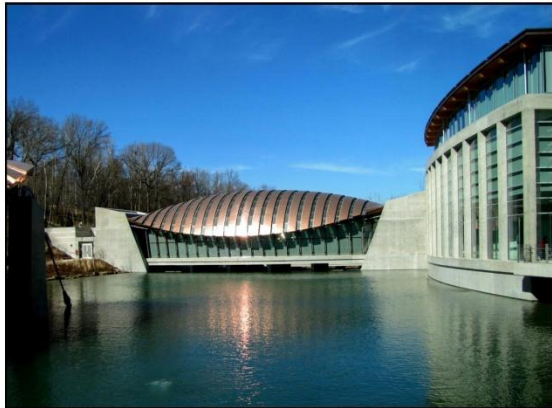
**Architect**  
Moshe Safdie

**Net Rentable Area**  
200,000 SF in five pavilions

**Completion Date**  
2011

**Summary**  
Completed in 2011, Crystal Bridges Museum of American Art showcases a permanent collection spanning five centuries of American masterworks from the Colonial era to the current day. In addition to the galleries, the Museum complex encompasses a library, a hands-on experience studio and drop-in studio, a glass enclosed gathering hall for lectures, films and other events, a museum store, restaurant and outdoor concert and event space. In addition, more than three miles of walking and biking trails wind through the Museum's 120 acre grounds. As development manager for the project, Hines provided innovative solutions for a number challenges related to the unique design and location.

CRYSTAL BRIDGES MUSEUM OF AMERICAN ART  
BENTONVILLE, AR



# Hines

**Hines Role**  
Development Manager

**Location**  
Los Angeles

**Architect**  
Gehry Partners

**Net Rentable Area**  
293,000 SF

**Completion Date**  
2003

## Summary

Opened in October 2003, this 293,000 square foot facility is the crowning jewel of the Performing Arts Center and serves as the home for the Los Angeles Philharmonic and Master Chorale. Designed by famed architect Frank Gehry, it houses the 2,265-seat Walt Disney Concert Hall, the 266-seat Roy and Edna Disney/CalArts Theater and two amphitheaters. Hines was involved as development manager for two years between 1994 and 1996 to help reduce a \$150 million budget gap through redesign, value engineering and reorganization of the project. Hines worked closely with a myriad of contractors to keep the design aesthetically aligned with Gehry's original vision while reducing costs by \$50 million. Hines was also instrumental in re-negotiating the air-rights lease above the county-funded parking garage. Simultaneously, Hines assisted in a fundraising effort to kick-off the private-sector capital campaign to close the remaining budget gap.



# Hines

**Hines Role**  
Development Manager

**Location**  
Main Street & Pershing Road  
Kansas City, Missouri

**Net Rentable Area**  
293,000 SF

**Completion Date**  
2003

## Summary

Science City at Union Station is a \$263 million adaptive reuse of Kansas City, Missouri's Union Station. Completed in 1914 and listed on the National Register of Historic Places, Union Station is now the second largest train station in North America (behind Grand Central Station in Manhattan). The project had two major goals: the creation of Science City, an interactive science museum, and the restoration of Union Station, Kansas City's greatest landmark. The project also included construction of an intermodal transportation center. Approximately 80,000 square feet of restaurants, shops and office space occupy renovated portions of Union Station which, in concert with Science City's 280,000-square-foot presence, establishes the site as a major attraction and destination for Kansas City and the central Midwest area. Financing for the project consisted of approximately \$36 million in federal funds, over \$100 million in private donations and \$118 million provided through a bi-state sales tax initiative. Science City at Union Station was completed in 1999.

SCIENCE CITY @ UNION STATION  
KANSAS CITY, MO

