NATIONAL GALLERY OF ART
REPAIR, RESTORATION AND RENOVATION PROGRAM
FY 2010

The National Gallery's Repair, Restoration and Renovation Program, which is comprised of the Master Facilities Plan (MFP) and Ongoing Renovation projects, was developed as an integrated approach to reducing the growing backlog of deferred maintenance. This program of facilities improvements is required to prevent the continued degradation of the physical plant and to ensure optimum operational effectiveness and efficiency of the Gallery's facilities.

The Gallery is a highly complex facility with 1.4 million square feet, a 6.1-acre Sculpture Garden, 3 acres of skylights, and over 1,500 major pieces of equipment, all of which must be maintained under the strictest operational and environmental conditions for the preservation of the art.

Recognizing that the Gallery's buildings were reaching an age at which many components were in need of major repair or replacement, and that some infrastructure systems were reaching the end of their useful lives, the Gallery undertook in 1997 the development of the MFP, with the following goals:

- Continue to safeguard the Gallery's art collection, the visiting public, and staff;
- Extend the useful life of the facilities;
- Limit the extent of gallery closings, maintain the schedule of special exhibitions, and minimize the impact of this work on public educational programs;
- Reduce the risks to the collection, staff, visitors and reduce the potential for emergencies;
- Provide an organizing framework for effective implementation of infrastructure improvements and renovations; and
- Respond to new safety standards and building codes.

While the Gallery's buildings are not in imminent danger of multiple systems breakdowns, the Gallery's MFP is structured to keep the buildings from reaching such a state of disrepair by taking appropriate action in a timely manner.

For FY 2010, a Major Critical Project has been added to the Repair, Restoration, and Renovation Program budget request. This request is for construction funds necessary to repair a systemic structural failure of the anchors that support the National Gallery's East Building's exterior marble veneer. In total, 16,200 panels must be re-installed. The repairs must be undertaken immediately. The initial request for FY 2010 is for $40,000,000.

The Repair, Restoration, and Renovation Program is divided into three overall categories as follows:

Major Critical Project – East Building Stone Repairs: A request to repair the National Gallery's East Building facade.

Master Facilities Plan: The MFP program provides for major building and equipment infrastructure repairs identified as priorities in the MFP. These projects are necessary to prevent the continued degradation of the physical plant and to ensure optimum operational effectiveness and efficiency.

Ongoing Renovation: The Ongoing Renovation program is comprised of five categories: Security; Environmental Compliance; Energy Management; Access, Safety and Building Repairs; and Alterations/Renovations. Projects are reviewed annually and, based on individual priority or urgency, are authorized for design and construction.

- Security: Upgrade and enhancement of exterior security.
- Environmental Compliance: Improvement of the interior environment by continued removal and/or encapsulation of asbestos and lead paint, upgrading exhaust systems, and other measures to ensure adherence to indoor air quality standards.
- Energy Management: Continuation of a comprehensive energy management program to upgrade ventilation systems and climate controls to protect works of art and to reduce energy usage and costs.
- Access, Safety, and Building Repairs: Repair and replacement of equipment and building components and compliance with accessibility legislation and safety regulations.
- Alterations/Renovations: Reconfiguration to accommodate changing programs in order to better utilize existing space.

MAJOR CRITICAL PROJECT
EAST BUILDING STONE REPAIRS

The Gallery's FY 2010 request for East Building exterior stone repairs totals $40,000,000, representing an increase of $40,000,000 over the FY 2009 Budget. This request is for design and construction funds necessary to repair a systemic structural failure of the anchors that support the National Gallery's East Building's exterior marble veneer. The repairs must be undertaken as soon as possible.

The total project cost is currently estimated at $85,000,000. An amount of $40,000,000 is requested for FY 2010 for design and construction.

The East Building of the National Gallery of Art, completed in 1978, was designed by architect I.M. Pei & Partners to complement the Gallery's West Building. The pink marble exterior, characteristic of both buildings, is a veneer on the East Building attached to the building's exterior concrete frame and masonry substrate with stainless steel anchors and clips. The veneer system, which was fairly common in the 1970s, was a departure from the traditional exterior masonry wall construction of the West Building.

Noticeable outward tilting of marble panels around the main air intake shaft was first discovered in 2005. Following a preliminary investigation, the Gallery engaged the nationally recognized structural engineering and building forensics firm Robert Silman Associates (RSA) to investigate the problem. RSA has advised the Gallery that the repair work needs to commence as soon as possible so that the entire project can be completed within five years. RSA has warned the Gallery that any deferral of repair work would expose the Gallery staff and its visitors to unacceptable risks.

RSA's thorough structural investigation and analysis included probes where portions of the veneer had been removed to examine the underlying supports, observe the difficulties of the removal process, and mock up possible repair techniques. Probes and ongoing monitoring of the veneer helped RSA make conclusive recommendations.

The investigation concluded that 'locked-in' stresses in the stone veneer and anchorage system are a serious structural problem, posing a risk to the physical safety to Gallery staff and visitors. These 'locked-in' stresses have two underlying causes: the initial shrinkage of the concrete frame and the cyclical seasonal and daily thermal expansion and contraction of the marble panels. RSA concluded that, although the design intent for each panel to 'float' and be independently supported was proper, the problem that manifests itself today is the result of a flawed installation.

Until comprehensive repairs are completed, the Gallery is responding with a monthly program of monitoring and temporary maintenance. When tilted panels are observed, lead wedges are installed to temporarily stabilize the panels. However, the wedges distribute the weight of the displaced panels onto adjacent panels, which further weakens the attachment of adjacent panels, already in need of repair. In addition, the wedges are truly a temporary fix and often the process needs to be repeated because the panels work loose again. For example, during recent site visits RSA found recurring failures over very short timeframes and concluded that temporary stabilization methods are no longer reliably effective.

Therefore, RSA has recommended that the Gallery immediately take temporary measures to protect the public and property against panels potentially falling from the building. Accordingly, a fence has been erected to create a buffer zone around the building, and covered walkways are being constructed at the main entrance to protect staff and visitors as they enter and exit the building.

Because of the increasing risk of a failure, the Gallery proposes an accelerated approach to the repairs. Design will begin immediately and a construction contractor will be hired very early in the design process to consult on project planning and repair methods. The construction contractor will be immediately responsible for scaffolding and staging, and mobilizing the workforce.

With the requested funding for the East Building exterior stone repairs project, the Gallery will overlap the design and construction phases.

MASTER FACILITIES PLAN

The Gallery's FY 2010 request for the Master Facilities Plan (MFP) totals $15,759,000, a decrease of $1,109,000 below the FY 2009 Budget.

The MFP accomplishments, objectives, and FY 2010 requests are discussed below in the following components:

- Exterior, Structural and Architectural Repairs
- Interior Mechanical, Electrical, and Plumbing Systems Replacements
- Life Safety and Security Renovations

Exterior, Structural and Architectural Repairs

FY 2008 Accomplishments: Construction continued on Work Area #3, including architectural, structural, and exterior components associated with the building systems infrastructure work. Work Area #3 provided the swing space for the relocation of conservation labs and workshops displaced by the Work Area #4 construction.

Design began on Work Area #4, the northeast quadrant of the West Building, and the associated relocations. The Work Area #4 design includes all architectural, structural and exterior components including window replacements, fire barriers for smoke control and repairs to finishes associated with the building systems work.

A structural analysis was completed for repairs to the East Building stone veneer. Estimated costs of the repairs, and a timeline for initiation and completion of the repairs has been prepared. (Please see pages 4-3 and 4-4.)

FY 2009 Objectives: Construction will be completed for Work Area #3. The design will be complete for Work Area #4 and the associated relocations. The Work Area #4 construction contract will be ready for award by the end of the fiscal year.

In preparation for construction in Work Area #4, East Building and Connecting Link spaces will be converted into temporary workshops, studios, and offices for occupants of Work Area #4 who cannot be accommodated in the completed Work Area #3 swing space. Work Area #4 has the largest staff population in the West Building and all the occupants and collections will be relocated. Displaced occupants need safe and functional temporary spaces during construction.

FY 2010 Request ($ 2.5 million): Funding is requested to complete Work Area #4. Construction of architectural, structural and exterior components will include window replacements, fire barriers for smoke control and repairs to finishes associated with the building systems work on the ground and main floors. In addition, major architectural changes will be required to reconfigure the old 'conservation corridor' on the ground floor in order to meet current functional requirements and improve safety for the Gallery's collections and staff.

Interior Mechanical, Electrical, and Plumbing Systems Replacements

FY 2008 Accomplishments: Construction continued on Work Area #3 building systems, and the main floor galleries re-opened at the end of the fiscal year. Renovation of the major building systems included mechanical, electrical, plumbing, telephone and data infrastructure. Six air handling units were overhauled, and radiators and re-heat coils were converted from steam to hot water. Water service distribution piping was replaced and associated hazardous materials were abated.

Design was completed and the construction contract was awarded for the renovation of the air conditioning system of the Main Computer Room.

Design began on Work Area #4 in order to proceed into construction on the northeast quadrant of the West Building.

FY 2009 Objectives: Construction will be completed on the remaining Work Area #3 renovation of the major mechanical, electrical and plumbing, telephone, and data infrastructure systems. A seamless transition from Work Area #3 to Work Area #4 is important to the Gallery's art care functions. Work Area #4 is the hub for the care and management of the Gallery's collections. The main floor portion of Work Area #4 houses works of art in the permanent collection, special exhibition gallery space, and support space for the Gallery's Design and Installation program. When Work Area #3 is available for occupancy, the majority of the conservation labs located in Work Area #4, critical to preserving the Gallery's art collection, will be relocated to swing space in this section of the building.

Design will be completed for Work Area #4 to renovate major mechanical, electrical, telephone, and data infrastructure systems. The Work Area #4 construction contract will be ready for award by the end of the fiscal year.

In preparation for Work Area #4 construction, modifications will be made to the mechanical, electrical and plumbing, telephone and data systems that are necessary for creation of swing space in the East Building and Connecting Link. All occupants of Work Area #4 will be relocated to these and other temporary spaces for the duration of the construction.

FY 2010 Request ($9.0 million): Funding is requested to complete Work Area #4 construction to renovate major mechanical, electrical and plumbing, telephone, and data infrastructure systems. Five air handling units will be refurbished, and radiators and re-heat coils will be converted from steam to hot water. Water service distribution piping will be replaced and associated hazardous materials will be abated. Work Area #4 renovations will improve the conservation labs and other critical collections-related functions at the east end of the ground floor. Swing spaces will be converted to permanent use allowing Conservation staff to have adequate lab facilities and a safe work environment.

Life Safety and Security Renovations

FY 2008 Accomplishments: In Work Area #3, the Gallery continued work on the following life safety improvements: the fire alarm speaker/strobe system is being extended to better cover public spaces; security infrastructure is being renovated; smoke

control systems, both mechanical and passive venting through the main floor gallery laylights, have been installed; the permanent and temporary conservation labs and workshops will have code compliant exhaust systems and fire protection systems installed that will make the area safer for the Gallery's collections, staff, and visitors.

A new West Building emergency generator is in place and emergency power distribution continued to be installed.

Design was completed and a construction contract awarded for the fire protection upgrade of the Main Computer Room, located in the East Building.

A concept design study began for necessary improvements to East Building emergency egress.

FY 2009 Objectives: Installation will be completed for the West Building emergency generator and associated emergency power distribution. Security, and other life safety improvements associated with Work Area #3, will be completed.

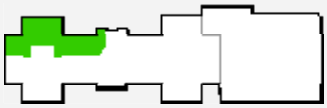
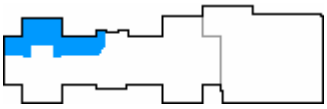
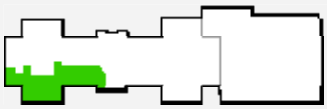
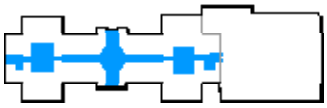
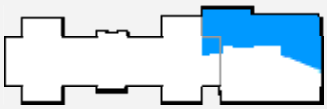
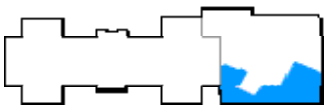
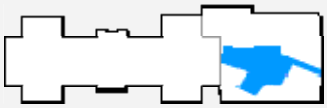
Construction to upgrade the fire protection system of the Main Computer Room will be completed.

Design will be completed for Work Area #4 fire protection, life safety, and security improvements, with a construction contract award to follow.

FY 2010 Request ($4.2 million): Funding is requested for fire protection, life safety, and security improvements in Work Area #4. The fire alarm speaker/strobe system will be extended to better cover public spaces. Smoke control systems, both mechanical and passive venting through the main floor gallery laylights, will be installed. The conservation labs and workshops will have code compliant exhaust systems and fire protection systems that will make the area safer for the Gallery's collections, staff and visitors. In conjunction with Work Area #4, the West Building service entrance, the main non-public egress point for the building and a critical security checkpoint, will be renovated to improve safety, security, and accessibility.

NATIONAL GALLERY OF ART
REPAIR, RESTORATION AND RENOVATION BUDGET
FY 2008 - FY 2010

Description	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
FUND BALANCES, BEGINNING OF YEAR	**$ 2,244,366**	**$ 5,880,607**	**$ 177,739**
BUDGET			
I. Major Critical Project			
East Building Stone Repairs	-	-	40,000,000
II. Master Facilities Plan			
Exterior/Structural Repairs	3,769,280	2,699,000	2,519,000
Interior Systems Replacement	8,883,654	9,610,000	9,001,000
Life Safety & Security	4,583,001	4,559,000	4,239,000
Subtotal - Master Facilities Plan	17,235,935	16,868,000	15,759,000
III. Ongoing Renovation	500,000	500,000	500,000
Total Budget Approved/Pending	17,735,935	17,368,000	56,259,000
TOTAL FUNDS AVAILABLE	**19,980,301**	**23,248,607**	**56,436,739**
OBLIGATIONS			
I. Major Critical Project			
East Building Stone Repairs	-	2,750,000	40,000,000
II. Master Facilities Plan			
Exterior/Structural Repairs	2,463,084	3,360,075	2,412,651
Interior Systems Replacement	7,710,233	11,091,489	8,813,205
Life Safety & Security	3,316,374	5,458,750	4,093,830
Subtotal - Master Facilities Plan	13,489,691	19,910,314	15,319,686
III. Ongoing Renovation	610,003	410,554	836,000
TOTAL OBLIGATIONS	**14,099,694**	**23,070,868**	**56,155,686**
FUND BALANCES, END OF YEAR	**$ 5,880,607**	**$ 177,739**	**$ 281,053**

Work Area	Area Affected	Activities	Floor Levels Involved	Construction Start
1		Construction completed. Includes Sculpture Gallery renovation, repairs to plumbing and electrical distribution, HVAC, replacing steam with hot water.	West Building Ground and above	Complete
1		Includes additional improvements to building systems distribution and controls, fire suppression in some areas, smoke management, and associated abatement.	West Building Ground and above	TBD
2		Construction completed. Includes all building systems distribution, fire suppression in some areas, smoke management, replacing steam with hot water and associated abatement.	West Building Ground and above	Complete
3		Construction completed. Includes all building systems distribution, fire suppression in some areas, smoke management, replacing steam with hot water and associated abatement.	West Building Ground and above	Complete
4		Design is underway. Includes all building systems distribution, air handling unit upgrades, fire suppression in some areas, smoke management, replacing steam with hot water and associated abatement.	West Building Ground and above	2009
5		"Open" Work Area. Circulation will be maintained while building systems are renovated.	West Building Basement, Ground, Main	TBD
6		Building systems renovation.	Connecting Link, Basement, Concourse	TBD
7		Building systems renovation.	Connecting Link, Basement, Concourse	TBD
8		"Open" Work Area. Circulation will be maintained while building systems are renovated.	Basement, Concourse	TBD
9		Building systems renovation.	East Building, Basement, IB, Concourse	TBD
10		Building systems renovation. Includes window wall.	East Building, 5, 6, 7, 8	TBD
11		Building systems renovation. Includes window wall.	East Building, 2, 3, 4	TBD
12		Building systems renovation.	East Building, Basement, IB, Concourse, 1	TBD
13		Building systems renovation.	East Building, 1-8	TBD
14		Building systems and Main Atrium Skylight renovation.	East Building, Concourse through 8	TBD

green maps indicate completed work areas
red maps indicate active work areas
purple maps indicate work areas in design
blue maps indicate future work areas

	Estimated Project Costs by Fiscal Year	Amt ($000)	Prior Years	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019 - 2023
Preliminary design	Exterior Envelope Analyses	$ 160	$ 160	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Air Rebalancing Design / Implementation (all 3 buildings)	$ 1,585	$ 1,246	$ 339	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	MEP Systems Analysis and Preliminary Design	$ 730	$ 730	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	MFP Update East Building and Connecting Link	$ 849	$ -	$ -	$ -	$ -	$ -	$ 849	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Exterior projects	West Building Mall Steps: design	$ 260	$ 260	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	West Building Mall Steps	**$ 2,270**	**$ 2,270**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	West Building Exterior Stone Repairs: design	$ 190	$ 190	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	West Building Exterior Stone Repairs	**$ 1,570**	**$ 1,570**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Connecting Link Structural and Expansion Joint Repairs: design	$ 201	$ 201	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Connecting Link Structural and Expansion Joint Repairs	**$ 1,940**	**$ 1,940**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	East Building Re-Roofing: design	$ 150	$ 150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	East Building Re-Roofing	**$ 2,520**	**$ 2,520**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	West Building Exterior Renovations	$ 1,751	$ -	$ -	$ -	$ -	$ -	$ 1,751	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	West Building Exterior Renovations	**$ 8,387**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,387**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	West Building Site Renovations	$ 655	$ -	$ -	$ -	$ -	$ -	$ 655	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	West Building Site Renovations	**$ 3,132**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,132**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Connecting Link Plaza Renovations	$ 1,100	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,100	$ -	$ -
	Connecting Link Plaza Renovations	**$ 11,099**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,868**	**$ 5,231**
	East Building Exterior Renovations	$ 2,133	$ -	$ 1,013	$ 1,120	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	East Building Exterior Renovations (Glass Walls)	**$ 8,185**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,338**	**$ 3,847**	**$ -**	**$ -**	**$ -**	**$ -**
	East Building Site Renovations	$ 295	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 295	$ -	$ -	$ -
	East Building Site Renovations	**$ 1,412**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,412**	**$ -**	**$ -**
Work Area projects, installing systems in interior spaces	Work Area 1, West Building: design	$ 2,413	$ 1,370	$ -	$ -	$ -	$ -	$ -	$ 1,043	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Work Area 1, West Building	**$ 13,311**	**$ 6,595**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,716**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 2, West Building: design	$ 760	$ 760	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Work Area 2, West Building	**$ 15,155**	**$ 15,155**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 3, West Building: design	$ 2,638	$ 1,623	$ 437	$ 578	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Work Area 3, West Building	**$ 20,210**	**$ 9,666**	**$ 7,914**	**$ 2,630**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 4, West Building: design	$ 4,291	$ 800	$ -	$ 2,486	$ 1,005	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Work Area 4, West Building	**$ 29,347**	**$ -**	**$ -**	**$ 5,853**	**$ 11,667**	**$ 11,827**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 5, West Building: design	$ 5,620	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,620	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Work Area 5, West Building	**$ 35,228**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 16,117**	**$ 19,111**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 6, Connecting Link: design	$ 1,390	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,390	$ -	$ -
	Work Area 6, Connecting Link	**$ 14,596**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,496**	**$ 10,100**
	Work Area 7, Connecting Link: design	$ 1,222	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,222	$ -	$ -
	Work Area 7, Connecting Link	**$ 15,240**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,440**	**$ 9,800**
	Work Area 8, Connecting Link: design	$ 1,214	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,214	$ -
	Work Area 8, Connecting Link	**$ 8,487**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,487**
	Work Area 9, East Building: design	$ 2,199	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,199	$ -	$ -	$ -	$ -	$ -
	Work Area 9, East Building	**$ 12,194**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,194**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 10, East Building: design	$ 1,156	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,156	$ -	$ -	$ -	$ -	$ -
	Work Area 10, East Building	**$ 11,007**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,007**	**$ -**	**$ -**	**$ -**	**$ -**
	Work Area 11, East Building: design	$ 816	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 816	$ -	$ -	$ -	$ -
	Work Area 11, East Building	**$ 8,580**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,580**	**$ -**	**$ -**	**$ -**
	Work Area 12, East Building: design	$ 1,461	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,461	$ -	$ -	$ -	$ -
	Work Area 12, East Building	**$ 11,303**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,303**	**$ -**	**$ -**	**$ -**
	Work Area 13, East Building: design	$ 394	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 394	$ -	$ -	$ -	$ -
	Work Area 13, East Building	**$ 5,085**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 5,085**	**$ -**	**$ -**	**$ -**
	Work Area 14, East Building: design	$ 4,171	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,171	$ -	$ -	$ -
	Work Area 14, East Building	**$ 44,304**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 23,578**	**$ 20,726**	**$ -**

Coordinate "central plant" and stand-alone systems projects

Estimated Project Costs by Fiscal Year	Amt ($000)	Prior Years	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019 - 2023
West Building GSA Pipe Connection: design	$ 715	$ 715	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building GSA Pipe Connection	**$ 4,713**	**$ 4,713**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Water Service, Distribution, and Treatment: design	$ 200	$ 200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Water Service, Distribution, and Treatment	**$ 2,071**	**$ -**	**$ 1,179**	**$ 892**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Electrical Service Equipment and Transformers: design	$ 190	$ 190	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Electrical Service Equipment and Transformers	**$ 2,020**	**$ 2,020**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Emergency Generator: design	$ 40	$ 40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Emergency Generator	**$ 2,485**	**$ 1,266**	**$ 1,219**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Chiller Plant: design	$ 797	$ 797	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Chiller Plant	**$ 13,589**	**$ 13,589**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Lightning Protection: design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Lightning Protection	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
West Building Air Handling Unit Upgrades: design	$ 153	$ 120	$ -	$ -	$ 33	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
West Building Air Handling Unit Upgrades	**$ 1,102**	**$ 808**	**$ -**	**$ -**	**$ 294**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Connecting Link / East Building Water Service and Treatment: design	$ 201	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 201	$ -
Connecting Link / East Building Water Service and Treatment	**$ 2,715**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,715**
Connecting Link Air Handling Unit Upgrades: design	$ 126	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 126	$ -
Connecting Link Air Handling Unit Upgrades	**$ 1,339**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,339**
East Building Smoke Control: design	$ 358	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 358	$ -	$ -	$ -	$ -
East Building Smoke Control	**$ 3,162**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 3,162**	**$ -**	**$ -**	**$ -**
East Building Emergency Generator: design	$ 98	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 98	$ -	$ -	$ -	$ -
East Building Emergency Generator	**$ 872**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 872**	**$ -**	**$ -**	**$ -**
East Building Electrical Service Equipment: design	$ 388	$ 80	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 308	$ -	$ -	$ -
East Building Electrical Service Equipment	**$ 2,333**	**$ 860**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,473**	**$ -**	**$ -**
East Building Air Handling Unit Upgrades: design	$ 505	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 505	$ -	$ -	$ -
East Building Air Handling Unit Upgrades	**$ 8,246**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,246**	**$ -**	**$ -**
Conveying Systems Modernizations (elevators, etc.): design	$ 213	$ 40	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 173	$ -	$ -	$ -	$ -	$ -
Conveying Systems Modernizations (elevators, etc.)	**$ 2,485**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,296**	**$ 1,189**	**$ -**	**$ -**	**$ -**
Security Systems Improvements: design	$ 864	$ 245	$ -	$ 619	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Security Systems Improvements	**$ 4,137**	**$ 755**	**$ 313**	**$ 357**	**$ 884**	**$ 809**	**$ -**	**$ 1,019**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Off-Site Relocation Costs	$ 26,128	$ 6,962	$ 2,548	$ 2,702	$ 2,985	$ 3,123	$ 3,267	$ 3,419	$ 1,122	$ -	$ -	$ -	$ -	$ -	$ -
Off-Site Relocation Costs (Extended Plan)	**$ 74,055**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,335**	**$ 6,933**	**$ 7,234**	**$ 7,581**	**$ 8,006**	**$ 8,371**	**$ 31,595**
Total (in $000)	**$ 480,666**	**$ 80,606**	**$ 14,962**	**$ 17,237**	**$ 16,868**	**$ 15,759**	**$ 6,522**	**$ 22,620**	**$ 28,290**	**$ 33,910**	**$ 38,705**	**$ 43,051**	**$ 46,427**	**$ 46,442**	**$ 69,267**

NATIONAL GALLERY OF ART
ONGOING RENOVATION PROGRAM
FY 2010

The Gallery's FY 2010 request for Ongoing Renovations totals $500,000, the same amount as the FY 2009 Budget.

Activities within each category of the Gallery's Ongoing Renovation budget are summarized below.

Security

There are no Security projects currently under consideration.

Environmental Compliance

- Asbestos Removal/Encapsulation: Remediation of asbestos will continue in the course of repair and renovation activities.

Energy Management

- Energy Savings Study: A study is needed to perform an energy audit, and identify and prioritize energy saving repair and renovation projects.

Access, Safety, and Building Repairs

- Staff Salaries: The FY 2010 budget request supports 2 FTE architect positions for the Gallery's Repair, Restoration and Renovation program.

- West Building Wheelchair Lift Modifications: Two wheelchair lifts located on the Ground Floor of the West Building are used to assist disabled persons to traverse between floor levels. Modifications are required to comply with the current recommendations of the Americans with Disabilities Act (ADA) to accommodate powered and oversized wheelchairs. Other modifications to the wheelchair lift cabs and controls required by ADA will also be evaluated.

Alterations/Renovations

There are no Alterations/Renovations projects costing over $25,000 currently under consideration for FY 2010.

NATIONAL GALLERY OF ART
ONGOING RENOVATION BUDGET
FY 2008 - FY 2010

Description	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
FUND BALANCE, BEGINNING OF YEAR	**$ 356,557**	**$ 246,554**	**$ 336,000**
APPROPRIATION	**500,000**	**500,000**	**500,000**
ONGOING RENOVATION PROJECTS			
Security			
Perimeter Surveillance	173,810	-	-
Environmental Compliance			
Asbestos Removal/Encapsulation	485	30,000	30,000
Energy Management	-	-	130,000
Access, Safety, and Building Repairs			
Staff Salaries	216,058	245,000	260,000
West Building Wheelchair Lift Modifications	76,488	-	380,000
Alterations/Renovations			
CAD Services	10,013	20,000	20,000
Carpet Replacement	18,529	15,000	16,000
Protection Services Changing Room	112,431	100,000	-
Other Ongoing Renovation Projects	2,189	554	-
TOTAL, ONGOING RENOVATION PROJECTS	**610,003**	**410,554**	**836,000**
FUND BALANCE, END OF YEAR	**$ 246,554**	**$ 336,000**	**$ -**