

**M. Arch. Design Brief
PART ONE**

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Proposal for a Professional Study

In partial completion of the requirements for the Master of Architecture degree at Texas A&M University and for the Certificate in Historic Preservation

**Base Closure as an Opportunity for Community Development:
Reuse of an Industrial Building at Fort Monroe, Virginia**

Expected Graduation Date

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Project Background

Throughout the history of the United States, the U.S. Military has been a primary government sponsor and custodian of structures that represent every major national building campaign. These building types begin with the first colonial military fortifications built in Jamestown, Virginia during the 17th century and continue down to the anti-terrorism intelligence buildings constructed during the beginning of the 21st century. By 2001, the total number of Department of Defense facilities was estimated at over 350,000 with about 17,300 considered to be historic properties.¹ However, when the Department of Defense decides that it can no longer financially support the existing number of military installations, the process of base closure and realignment is initiated. When a base is slated for closure, a question rises as to what occurs to the numerous historic resources within that post. Through partnerships between the United States Military and local economic and development authorities, the historic resources within the walls of a closing base have been seen as creative opportunities for adaptive reuse and community building. The research conducted during this initial portion of the final study project focused on the process by which a military base is closed and how the historic institutional and industrial structures on these bases and elsewhere have found renewed purposes through adaptive reuse.

The Base Realignment and Closure (BRAC) process originated during the 1960s when the Department of Defense sought to reduce the quantity of bases that were created during World War II and the Korean War. The original procedure, created by President John F. Kennedy's Secretary of Defense Robert McNamara, established a set of criteria that helped select bases for closure without consultation from Congress or the Military. During McNamara's tenure during the 1960s, the Department of Defense closed over sixty bases without any external input.² By 1977, mounting economic and political pressures made it apparent that Congressional participation was necessary when bases were selected for closure. As a result, base closings were halted for over a decade. While this action alleviated the political pressure associated with the closing of bases, the

¹ United States General Accounting Office, *Historic Properties within the Department of Defense: Testimony before the Subcommittee on Military Construction, Committee on Appropriations, House of Representatives*. Henry L. Hinton Jr., United States General Accounting Office (Washington D.C.: March 15, 2001), 2.

² Schwalbe, Stephen R. Col, USAF, "An Expose on Base Realignment and Closure Commissions," *Air and Space Power Journal – Chronicles Online*, June 10, 2003.
<<http://www.airpower.maxwell.af.mil/airchronicles/cc/schwalbe.html>>

funds needed to support the operation of excessive posts increased the economic burden on the government.³

Responding to this financial strain in 1988, Congress and the Secretary of Defense offered a compromise with the authorization of the nine-member Commission on Base Closure and Realignment, to serve as the body that would recommend base closures within the United States. Since this agreement, there have been four separate consecutive Defense Base Closure and Realignment Commissions (BRAC) that recommended the closure of 125 major and 225 minor military establishments. The President confirmed 97 of these closures and 55 major realignments, saving taxpayers an estimated \$16 billion through 2001.⁴ The most recent BRAC commission recommendations were submitted to the President in September of 2005. The President signed into Federal law 21 of the 33 recommendations for closure, representing the most expansive BRAC ever commissioned.⁵

The effects of a base closure on the local community vary by installation and generally reflect the local economy's reliance on the post. While many communities fear that the closure of a local base would result in an economic downturn, in many ways the event can signify an opportunity for a new economic future. At bases closed after 1988, however, more than 110,000, or 80 percent, of the 130,000 civilian jobs lost due to BRAC closures have been replaced.⁶ This success is primarily due to the federal government's emphasis on redevelopment plans being created at the local level by organizations, firms and workers who have a vested interest in the economic success of the affected region.⁷ The enacting of the BRAC 2005 recommendations into Federal Law on November 9, 2005, was the catalyst for areas affected by base closures to begin organizing a Local Redevelopment Authority, or LRA. This broadly inclusive group works on behalf of community officials as the single point of contact for base closure matters and is responsible for gathering community input on the future of the base. David McKinnon, the associate director of the Office of Economic Adjustment states "the LRA's receive the properties at basically 100 percent discounts, in perpetuity. They are required to produce market and feasibility analyses for redevelopment, plans for relevant military

³ Ibid

⁴ Global Security.org, "Base Realignment and Closure (BRAC)," November 2005. <<http://www.globalsecurity.org/military/facility/brac.htm>>

⁵ Donna Miles, "BRAC Deadline Expires; DoD to Begin Closures, Realignments." *American Forces Press Service*. November 9, 2005, <<http://www.defenselink.mil/news/newsarticle.aspx?id=18352>>

⁶ U.S. Department of Defense, Office of Economic Adjustment, *Responding to Change: Communities and BRAC*, (Arlington, VA: 2005), 8.

⁷ U.S. Department of Defense, *Renewal: Community Reuse of Former Military Bases*, Washington, DC: April, 1999. <<http://www.dod.mil/pubs/reuse042199.html>>

departments and the Federal Department of Housing and Urban Development (HUD), for homeless accommodation by bona fide providers.”⁸ The LRA is also the primary entity responsible for developing and implementing a redevelopment plan for the base.⁹ This plan will take into account community goals and objectives, local needs, market studies, environmental, cultural and historical factors.

The LRA is also required to consult with the appropriate military department during Section 106 Review. Since the 2005 BRAC decisions were signed into federal law in November 2005, any military installation selected for closure or realignment became subject to the Section 106 Review process. Created by the National Historic Preservation Act of 1966, Section 106 of this Act requires all Federal Agencies to evaluate any effects of their actions on historic properties.¹⁰ This review does not mandate the preservation of historic properties, yet it ensures that citizen groups, state, tribal and local governments can voice input on how the Federal agency can avoid, minimize or mitigate the potential adverse impact its actions have on historic properties. According to the Advisory Council on Historic Preservation (ACHP) in their guide “2005 BRAC and the National Historic Preservation Act,” examples of adverse effect are actions such as change in the character of the property’s use or setting, relocation of the property, physical destruction or damage, and alterations inconsistent with accepted preservation practice.¹¹ After analyzing any adverse effects of a base closure on historic properties, the Department of Defense must give the ACHP a reasonable period of time to comment. The result of the consultation between the DoD and the concerned parties will be a programmatic agreement that, according to the ACHP, will outline specific responsibilities and actions of various parties to ensure that historic properties within a closing base will be considered in future planning and uses. Since the military is one of the largest owners of property, buildings and structures within the Federal government, the actions required by Section 106 have played a significant part in ensuring the preservation and continued use of thousands of historic structures.

The most commonly accepted historic preservation practices, and those which are utilized by the Federal Government, are outlined in the Secretary of the Interior’s Standards for the Treatment of Historic Buildings. These standards outline four different strategies that can be used to aid in making decisions concerning historic buildings. The first strategy is **preservation**, which is the treatment that places the most amount of

⁸ Albert Warson, “Fort Mixed Use,” *Mortgage Banking*, Vol. 67 Issue 10 (2007): 63.

⁹ U.S. Department of Defense, Office of Economic Adjustment, 12.

¹⁰ Advisory Council on Historic Preservation, “2005 BRAC and the National Historic Preservation Act: An Introduction to the Section 106 Process,” *Federal Preservation Program Notes*, 2006: 1.

¹¹ *Ibid*, 4.

emphasis on retention of a building's historic fabric. With this treatment, a building is maintained without significant alteration to its existing condition. The second strategy is **restoration**, where the appearance of building is returned to a specific period in time. This usually requires the removal of any additions, alterations or materials that are not specific to the selected period of significance. **Reconstruction** is the third and most extreme of the four treatments. It is the approach that rebuilds a historic building based upon significant historical documentation and descriptions.¹² The fourth treatment is **rehabilitation**. This strategy is also referred to as adaptive reuse, and is generally understood in the United States to be "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."¹³ This process is more desirable than any of the other treatments primarily due to a culture's contemporary needs. Adaptive reuse utilizes heritage buildings for new or traditional uses that were never intended for the structure, therefore impacting the interpretation of heritage significance.¹⁴ The incorporation of this process into city planning helps an urban area achieve a balance in a contemporary society where economics and conservation are needed. When the historic use of a heritage structure is outdated or redundant in its area, adaptive reuse allows for a new use of the building while ensuring its maintenance. Additionally, heritage alone serves as a medium for commercial activity, increasing the value of adapted buildings in a locality looking to increase its economic base.¹⁵

There are a number of degrees to which adaptive reuse can be applied to a building. These include such practices as minimal intervention and compliance to building and fire codes. The most extreme form of adaptive reuse is façadism, where the frontage of a historic building is preserved while multiple storied contemporary buildings are constructed to the rear. Commercial districts utilize this practice extensively in an effort to retain a historic streetscape while allowing for an increase in a building's

¹² U.S. Department of the Interior, National Park Service, "The Secretary of the Interior's Standards for the Treatment of Historic Buildings,"
<http://www.nps.gov/hps/tps/standguide/overview/choose_treat.htm>

¹³ U.S. Department of the Interior, National Park Service, "The Secretary of the Interior's Standards for Rehabilitation: Introduction to the Standards,"
<<http://www.cr.nps.gov/hps/tps/tax/rhb/stand.htm>>

¹⁴ Nathan J. Croft, "Heritage Notions, Perceptions and Representations: a study of adaptive reuse in George Street North, The Rocks, Sydney" (Honours BA Thesis, Macquarie University, 1985), 30.

¹⁵ Ibid, 43.

volume.¹⁶ In all forms of rehabilitation, the materials utilized should be historically sympathetic and be able to be differentiated from the original structure, therefore avoiding the chance of mistaking the new structure for the historical. Adaptation must allow for multiple interpretations concerning historical significance, which should not be limited to one person, class or generation. This interpretation is primarily attributed to the changing notions of heritage significance. Successful adaptive reuse makes it possible to maintain this sense of heritage, meet the demands of the local community and preserve the importance of this heritage by continuing the interaction between community residents and the historical built environment.

Adaptive reuse has proven to be a procedure that, when executed correctly, works to benefit conservation and the economic goals of a community. It has helped to demonstrate that preservation in its purest form is rarely appropriate due to the fact that it removes history from a community, thus creating a static picture of the past. As stated by the 1964 ICOMOS Venice Charter, the preservation of historic properties is ensured through continued use and maintenance.¹⁷ Adaptation has proven to be a practical answer to address pressures facing historic communities that struggle to meet economic realities and strive to continue the maintenance of heritage. The following case studies exemplify not only how a military base rich with historic resources can be reused to meet modern needs, but how industrial structures within the military and the public sector can be adaptively reused into functional and sustainable structures.

Historic Fort Redevelopment

The Presidio

San Francisco, CA

BRAC 1990, transferred to NPS 1994

Designated a National Historic Landmark in 1962, the Presidio is a unique example of how a Military Base can function as a National Park as well as residential and commercial location. In 1972 the area surrounding the Fort was established as the National Park Service's Golden Gate National Recreation Area – with the stipulation that, as soon as the military saw the Presidio was no longer needed, it would be ceded into the surrounding National Park. As a result of the 1990 BRAC commission closures, the

¹⁶ Norman Tyler, *Historic Preservation: An Introduction to Its History, Principles and Practice*, (New York: W.W. Norton & Company, 2000), 153.

¹⁷ Second International Congress of Architects and Technicians of Historic Monuments, *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter)*, Venice, 1964.

oldest continuously used military base in the country was prepared for transfer to the National Park Service. With its transfer in 1994 came the establishment of the Presidio Trust, the LRA charged with transforming the base into an economically sustainable community by 2013. This was to be achieved while still preserving the natural and historic environment of the 1,168 acre former military base.¹⁸ The Trust immediately created a *General Management Plan Amendment*, which proposed that the base would become a "global center dedicated to addressing the world's most critical environmental, social and cultural challenges."¹⁹



Figure 1: A photo of The Presidio's Crissy Field taken circa 1922



Figure 2: A 2008 photo of the Presidio's Crissy Field with the Golden Gate Bridge in the background

This Plan was later updated by *The Presidio Trust Management Plan* in 2002 and focused on a more realistic approach to the management of the site. Emphasis would be placed on preserving the Presidio's cultural, natural, scenic and historic resources for the American people. The Plan also ensured the continued use of the base's existing military buildings by creating public/private long term lease agreements. This then generated revenue that was used to maintain and improve the base's infrastructure, buildings and operation. The plan established seven primary planning districts, each characterized by their unique built resources and heritage. These districts are governed by their own set of design guidelines specific to the district and directing any rehabilitative and new construction projects.²⁰ The Plan states the following in its *Executive Summary*:

"The Trust will make every reasonable effort to reuse historic buildings. Both the Trust and park tenants will adhere to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Guidelines for Rehabilitating Buildings at the Presidio of San Francisco*. Where there is

¹⁸ National Park Service, "National Park: 1994 to Present," *Presidio of San Francisco*, <http://www.nps.gov/archive/prsf/history/nps_period.htm>

¹⁹ The Presidio Trust, "Executive Summary," *The Presidio Trust Management Plan*, May 2002:1

²⁰ The Presidio Trust, "Executive Summary," 11

adequate documentation, historic buildings may be partially restored by removing later additions and recreating documented features. In some cases, new construction will be necessary to adapt old buildings for new uses."²¹

This passage displays how the Presidio Trust acknowledges that one single preservation treatment is not always suitable for all historic buildings and many structures within the base may demand the utilization of a combination of acceptable preservation strategies. However, the creation of the *Guidelines for Rehabilitating Buildings at the Presidio of San Francisco* provides a road map for developers and architects to help guide their design decisions and ensure that existing structures will be reused for public, residential and office use.

Building Adaptive Reuse

Thoreau Center for Sustainability
 Presidio, San Francisco, California
 Tanner Leddy Maytum Stacy Architects

The first land leases awarded for the Presidio were for The Tides Foundation and Equity Community Builders to study and develop four of the base's historic Letterman Hospital Complex Buildings into a center for the study of the environment. Tanner Leddy Maytum Stacy Architects sought to create a design that met both the National Park Service's *Guiding Principles for Sustainable Design* and the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. The four historic hospital buildings, built between 1899 and 1933, were three-story wood and masonry structures comprised of design elements such as expansive wards, large corridor systems, covered porte-cochere entrances, large double-hung windows, and interior features such as wainscoted walls and pressed-metal ceilings.²²



Figure 3: The Letterman hospital buildings circa 1901.

²¹ Ibid

²² Sharon C. Park, "Sustainable Design and Historic Preservation," *CRM*, Vol. 21, No.2. (1998): 13

The architects created a design that maintained the original open floor plan of the wards for air and light circulation, using recycled glass and aluminum curtain wall systems to create necessary workspaces. All of the structure's historic stairs were retained, with added fire sprinkler systems and glazed walls placed at corridors to create light filled stairwells. The areas on the southern sides of the buildings have been converted into conference rooms, with sun shades to prevent direct sun infiltrating the space in the afternoon hours.²³ Preserving the historic climate control of the building, the design retained the absence of a centralized air conditioning system. This decision was made after the mild climate of the area was considered and the historic operable window design was reinstalled. Energy costs were also kept low through the design emphasis on day- and task-lighting. By retaining the structure's historic systems and materials, the designers were "recycling in-place" and lessening strain on landfills. For the portions of the building that could not be kept in place due to deterioration or other factors, 75 percent of those materials were broken down and used as new products.²⁴ The result was an environmentally sensitive project that showcased the new and very appropriate use of the buildings as the Thoreau Center for Sustainable Design, as well as the sustainable nature of historic buildings.



Figure 4: The Letterman complex buildings in 1998, home of the *Thoreau Center for Sustainable Design*

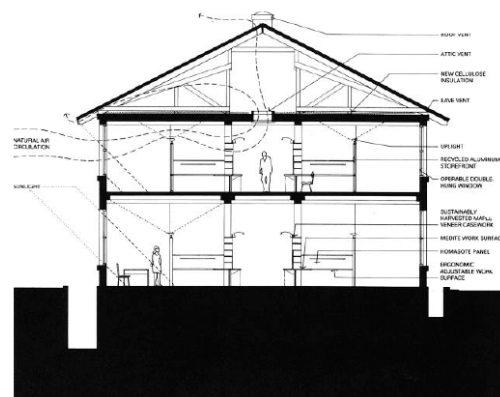


Figure 5: A section of the building showing original features that provide light and air movement.

Montgomery Park
 Baltimore, Maryland
 DMJ+M Architects with Notari Associates

Built in 1925, this eight-story tall, reinforced concrete Art Deco building served as a regional distribution center for the Montgomery Ward department store chain for sixty

²³ Sharon C Park, 15

²⁴ Ibid, 16

years. Closed in 1985, the 1,300,000 square foot U-shaped building was shuttered and remained a closed Brownfield site until 2000 when it was purchased by Himmelrich Development. This local developer, in an effort to persuade the Maryland Department of the Environment to occupy 270,000 square feet of the building, began the process of renovating the structure into a LEED certified office building.²⁵ Due to the structure's listing on the National Register of Historic Places, the architects strove to retain as much historic material as possible while still integrating numerous LEED requirements. They discovered that a number of the principles standard to preservation also qualified as being sustainable.



Figure 6: The Montgomery Ward building prior to rehabilitation.

The building required little structural modification, so the architects focused on reconfiguring the orientation of the building. Rather than keep the original entrance on the eastern side of the building, the entrance was moved to the southern side in the location of the former loading docks. This realignment linked the two wings of the structure, established a location for the building's elevators, and created an interior courtyard.²⁶ The connecting space between wings was covered with a 30,000 square foot green roof designed to minimize the building's heat island effects.²⁷

The building's large expanses of operable steel windows were retained, since they not only were elements original to the building, but they provided day-lighting to all areas of the expansive floor plan. The frames of these windows were refurbished and the glass panes replaced with low-E glazing. The floors of the building are supported by reinforced concrete columns topped with unique mushroom-shaped capitals. In an

²⁵ Naomi Reetz, "A Study in Sustainable Adaptive Reuse," *Environmental Design + Construction*, January/February 2006, 18-19.

²⁶ *Ibid*, 19

²⁷ The Center for Brownfields Initiatives at the University of New Orleans, *EPA Region 3-Montgomery Park Business Center, Baltimore, Maryland*, <<http://www.brownfields.com/feature/Feature-Awards2003-region3.htm>>

effort to retain and reveal this design characteristic of the building, the project architect Werner Mueller developed suspended ceiling panels that hang between the columns. These panels hide all light fixtures and ventilation ducts while revealing the column capital shape. The same technique was utilized on the floor of each level. An elevated floor system was installed on top of the concrete structure in order to hide all under-floor wiring.²⁸ Completed in 2001, the building attained LEED Gold Certification from the US Green Building Council.

This project exemplifies how a vacant, Brownfield building can be revitalized to meet rigorous sustainability requirements while still maintaining its historic integrity. The building is also a visual reminder to the surrounding community of the possibility of economic revitalization. Located in the West Side Empowerment Zone, a portion of Baltimore that has been economically depressed for decades, the redevelopment of this building that sat abandoned for so long has provided numerous job opportunities to local residents. The businesses housed within the structure are estimated to create and retain between 3,500 and 5,000 jobs, 10% of which were reserved for residents of the surrounding neighborhood. This project has also created a wave of reinvestment in the areas surrounding the business park, stimulating growth and a renewed sense of pride in the community.²⁹ Montgomery Park is an extraordinary example of how architectural activities can not only preserve and honor the past, but can minimize the impact buildings have on the natural environment as well as inspire economic sustainability and revitalization.



Figure 7: The Montgomery Ward building after redevelopment



Figure 8: The glass connector between building wings with the green roof in the foreground.

²⁸ Charles Belfoure, "From Baltimore Warehouse to Giant Office Building," *The New York Times*, 22 October 2000, Real Estate

²⁹ Environmental Protection Agency, "Montgomery Park Business Center – Executive Summary," 2.

Tate Modern
 London, England
 Herzog and de Meuron Architects

When the Tate Gallery, home to the most expansive art collection in Britain, outgrew its international modern art exhibit space in 1990, the directors looked to a historic industrial structure to solve their space dilemma. The London Bankside Power Station was built in two phases in 1947 and 1963 by Sir Giles Gilbert Scott on the shores of the River Thames, opposite St. Paul's Cathedral. The brick-clad steel structure was decommissioned in 1981 and lay vacant until the Tate Gallery purchased the structure and conducted an international design competition to generate ideas for the conversion of the site.³⁰ The architecture firm of Herzog and De Meuron were awarded the project primarily due to their proposal's significant retention of the building's original material and layout.

The architects entered the project with the philosophy of working with, rather than against, the existing form and materials of the structure, stating:

“When you don't start from scratch, you need specific architectural strategies that are not primarily motivated by taste or stylistic preferences. Our strategy was to accept the physical power of the massive mountain-like brick building and to even enhance it rather than breaking it or trying to diminish it.”³¹

With this in mind, the design team left the Power Station's defining exterior features such as the 325 foot tall external chimney and intricate brickwork intact, instead installing a two-story glass penthouse along the length of the building's roofline as an indication that the building was altered from its original use. This penthouse, or “light beam,” houses the museum's restaurant on its top level, providing diners with expansive views of the river. This structure also brings natural light to interior spaces of the building that the original design had darkened.³² The massive hall that had housed power generators was retooled by the architects to serve as the primary entrance hall for the new museum. Now called Turbine Hall, this 114 ft tall gallery space displays the building's structural skeleton and provides an area for large sculptural exhibits. The plant's boiler rooms, originally of similar height to the turbine hall, run parallel on either side of the central atrium space. The large vertical spaces in these rooms were divided up into

³⁰ Tate Modern, “The Building,” <<http://www.tate.org.uk/modern/building/>>

³¹ Architecture Week, “News: Herzog and de Meuron Pritzker Prize,” 2001.

³² Giles Worsley, “Tate Modern: a giant comes to life and a new era begins,” *The Telegraph*,

three different levels during the rehabilitation in order to serve as the museum's galleries.³³ Essentially, this created a new, functional framework within the old structure.



Figure 9: The Tate Modern exterior

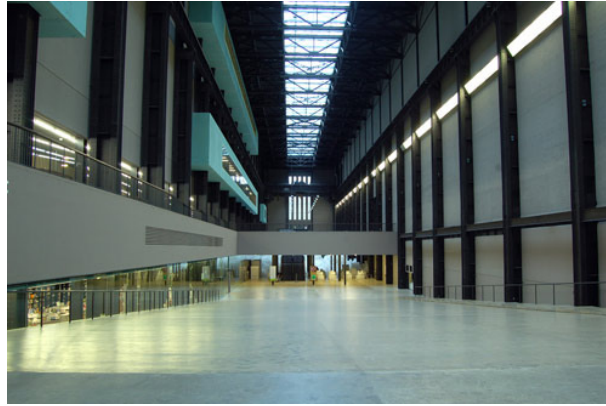


Figure 10: Turbine Hall

Although extensive interior changes were required in order to meet requirements for the building's new use, creative design ensured that its architectural significance was retained. The integration of new forms and materials into the structure has created a dialog between the old and the new. By reusing the structure alone, the architects and the museum's director drastically reduced the amount of waste that demolition and construction of a new structure would have produced. This alone serves as an argument supporting the preservation of existing buildings as a form of sustainability.

Project Goals

The economic sustainability of a proposed use for the final study structure is currently being investigated during a fall 2008 Land Development class. By conducting a basic market analysis for this class, the Highest and Best Use for the structure will be established. For the Master of Architecture Final Study requirement, the goals are as follows:

- Determine a use for the structure that is both appropriate to and distinguishable from its original use.
- Create a program and site plan that responds to and complements the community setting immediately surrounding the structure.
- Integrate materials and forms that are sympathetic to and can be differentiated from the original structure.

³³ Tate Modern

- Develop adaptive reuse schemes at different scales within the building.
- Advocate preservation development as sustainable development through the reuse of existing materials, layouts and with respect to methods.

Project Description

This final study project will evaluate the applicable reuse and rehabilitation opportunities for an industrial building located on a military base scheduled for closure. Fort Monroe is an active Army base located in Hampton, Virginia and was established in 1819. This 570-acre national Historic Landmark District is noted to be the only stone fort in the United States, served as a prison for Confederate President Jefferson Davis after his capture by Union forces in 1866, and was regarded as a Southern safe haven for escaped slaves during the Civil War. It also houses a unique collection of buildings, structures and landscapes that represent the various building campaigns from the course of military and American history. In addition to its unique history, the base is located where the Hampton Roads Harbor and the Chesapeake Bay meet, providing acres of waterfront property, undeveloped land and a marina.³⁴ The 2005 BRAC recommended Fort Monroe for closure in 2011, with the ultimate goal of the base being transformed into an economically sustainable community.

Using the recommendation of the Fort Monroe Federal Area Development Agency's (FMFADA) lead architectural history consultant and their preservation architect, as well as the Fort Monroe Reuse Plan as a guide, the final study project will focus on the adaptive reuse of an industrial structure within the North Gate redevelopment area. Constructed in 1934, the Transportation Motor Pool Building is a two-story 48,178 square foot building that was constructed in the Art Deco/ Egyptian Revival Style. This two story rectangular structure has a north-south orientation, with the primary façade facing the historic stone fort to the south. This façade is comprised of three bays, the central bay projects from the principal mass and is flanked on either side by two garage openings of equal size. The construction of this building was funded by the National Industrial Recovery Act and the Public Works Administration, both established as a result of the Great Depression.³⁵ The building is located on the immediate northwest boundary of the most historic portion of Fort Monroe; the redevelopment area distinguished as the Inner Fort Redevelopment Area.³⁶ This historic

³⁴ Wilttrout, Kate, "Group outlines basic scenario for future of historic Fort Monroe." *The Virginian-Pilot*, 22 March 2008, Hampton Roads, 1

³⁵ FMFADA, *Fort Monroe Historic Preservation Design Standards – DRAFT*, October 2008.

³⁶ FMFADA, *Fort Monroe Reuse Plan: Executive Summary*, June 20, 2008.

area is comprised of the original fort and is surrounded by a stone fortification and a moat. The South façade of the Motor Pool building faces this historic area while the eastern portion of the structure is situated along Northgate Road, which is the only northern entrance into the moated fortress.

The Motor Pool Building's open floor plan provides a number of possible opportunities for reuse. Like the Tate Modern project, the large expanses of open floor plan space provide opportunities for the integration of new floor levels, wall configurations and scales. After initial evaluation of the space, a public use that serves the community and requires a significant amount of square footage, such as an entertainment venue or art gallery, has been suggested as the most compatible use for the structure. In order to determine if this use will in fact be the most feasible option for this structure, a basic market analysis will be conducted. Not only will this establish if this location can support a civic use, but it will also supply data that explores the reality of redevelopment of existing buildings.

This parallel investigation of economic feasibility will allow for the application of techniques acquired during semester long studies in Land development. When designers and developers begin a reuse project, the use they intend for the structure may compliment the existing building, but if the surrounding market cannot support the use, then the project will not be successful. Conducting a market analysis prior to establishing a building's new use will help determine the supply and demand of services surrounding the site, thus helping to establish the best use for a site. While a basic economic analysis has already been conducted by FMFADA, studies on specific sites will not be completed until a later point in the planning process.

The challenge of this project will be to create a design scheme that meets the programmatic needs of the building's new use while celebrating the unique form and material of the historic structure. The design will preserve as much of the historic fabric of the structure as possible with emphasis on efficiency and environmental sustainability.



Figure 11: The Motor Pool Building façade from the southwest.

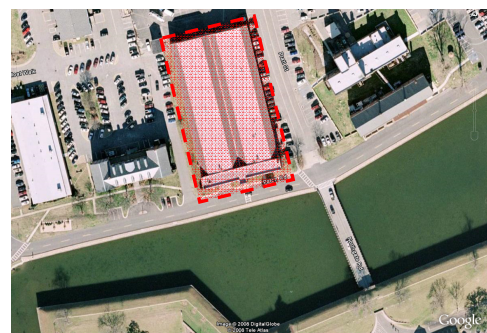


Figure 12: location of the Motor Pool Building (outlined) to the north of the stone fort.

Photo Credits:

1. National Park Service, Golden Gate NRA, Dora Devol Brett Photo Collection, <<http://www.nps.gov/archive/prsf/history/crissy/wcrissy.htm>>
2. The Presidio Trust, *Mission and History*, <<http://www.presidio.gov/trust/>>
3. National Park Service, "Letterman Complex," Presidio of San Francisco, <<http://www.nps.gov/prsf/planyourvisit/letterman-complex.htm>>
4. Sharon C. Park, "Sustainable Design and Historic Preservation," CRM, Vol. 21, No.2. (1998): 15
5. Ibid
6. The Center for Brownfield Initiatives at the University of New Orleans, *EPA Region 3-Montgomery Park Business Center, Baltimore, Maryland*, <<http://www.brownfields.com/feature/Feature-Awards2003-region3.htm>>
7. Montgomery Park, *Photo Gallery: Exterior Photos*.
8. Ibid
9. Tate Modern, "The Building," <<http://www.tate.org.uk/modern/building/>>
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11. FMFADA, *Fort Monroe Historic Preservation Design Standards – DRAFT*, October 2008.
12. Google Earth

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