



# Rehabilitating Buildings

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# Purpose of Presentation

- Maintenance Reserve
- Construction Project Handbook Development

# Maintenance Reserve

- *“Lessee must provide a Repair & Maintenance Plan (R&M Plan) and establish a Repair and Maintenance Reserve after completion of rehabilitation. The R&M Plan will be made part of the Lease once accepted by NPS.” – Request for Proposals*
- R&M Plan establishes annual baseline costs
- Repair & Maintenance Reserve typically ranges from \$1-\$2 per square foot
  - Cyclical and Preventative Maintenance

# Maintenance Obligations

- Routine Cyclical or Preventative Maintenance Obligations
  - Routine building cleaning (interior/exterior)
  - Painting
  - Lubricating
  - Replacing worn parts
  - Lighting repair and replacement
  - Gutter maintenance
  - Weather proofing
- Not included: Major component renewal or renovations.

# Construction Project Handbook

- Project Handbook will guide Lessees through the design and construction phase
  - Stress the importance of selecting project architect and/or project manager early in the process
- Goals of the Handbook
  - Identify applicable design standards and codes
  - Identify the design & review process
  - Establish clear standards for design deliverables
- Research Included:
  - Golden Gate NRA
  - NPS Denver Service Center
  - State of NJ Standards and Local Building Departments

# Construction Project Handbook

## ■ Design Standards

- All designs shall adhere to the Organic Act (39 Stat. 535, 16 U.S.C. 1) specifically:
  - *"To conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."*
- *Facilities will be harmonious with park resources, compatible with natural processes, esthetically pleasing, functional, energy- and water-efficient, cost-effective, universally designed, and as welcoming as possible to all segments of the population. NPS Management Policies, 2006*

# Construction Project Handbook

- NPS Policies and Standards
  - Secretary of Interior Standards for the Treatment of Historic Properties
  - DO 28: Cultural Resource Management and NPS-28: Cultural Resource Management Handbook
  - RM 58: Structural Fire Management
    - Chapter 6 – Structural Fire Protection
    - Chapter 7 – Fire Protection for Historic Structures
  - EO 13653 Preparing the US for Impacts of Climate Change
  - EO 13690 Federal Flood Risk Management Standards
  - EO 13693 Planning for Federal Sustainability in the Next Decade

# Construction Project Handbook

## ■ **NPS Standard Building Codes**

- International Building Code (IBC) 2015, Including Appendices
    - NFPA 101 (Life Safety Code) - Use when the IBC is silent.
  - International Existing Building Code (IEBC) 2015
  - For Accessibility Compliance for Multi-Family Residences under the Fair Housing Act, use:
    - ANSI A117.1 2003 (Accessible and Usable Buildings and Facilities)
    - IBC 2003, Chapter 10 (Dwelling Units and Sleeping Units)
    - IBC 2003, Chapter 11 (Accessibility)
- ABAAS –Architectural Barriers Act Accessibility Standards
- IESNA 10th Edition Illuminating Engineers Society of North America
  - NESC National Electrical Safety Code 2012
  - International Energy Conservation Code (IECC) 2015
  - International Mechanical Code (IMC) 2015
  - ASHRAE Standard
  - International Plumbing Code (IPC) 2015
  - NFPA Codes and Standards



# Construction Project Handbook

- State of NJ Adopted Codes and Standards
  - International Building Code/ 2015, NJ edition (IBC w/ NJ edits)
  - NJ Réhabilitation Subcode (NJAC 5:23-6; NJ UCC, Subchapter 6)
  - International Fire Code/ 2015
  - ICC/ANSI A117.1- 2009
  - National Standard Plumbing Code/2015
  - National Electrical Code (NFPA 70)/ 2014
  - International Energy Conservation Code/ 2015 ( Residential)  
ASHRAE 90.1-2013 (Commercial)
  - International Mechanical Code/ 2015  
One and Two Family Dwellings Subcode (NJAC 5:23-3.21)
  - International Residential Code/2015 ( NJ Edition)
  - International Fuel Gas Subcode/ 2015
  - Barrier Free Subcode (Chapter 11 of IBC/ 2015 & NJAC 5/23-7)
  - ICC/ ANSI A.117.1- 2009
  - <http://www.state.nj.us/dca/divisions/codes/codereg>

# Construction Project Handbook

- 4 Step Design Process
  - Pre-Design or Concept Phase
  - Schematic Design
  - Design Development
  - Construction Documents
- Process mirroring NPS Denver Service Center Standards:  
<http://www.nps.gov/dscw/designbidbuild.htm>



## Denver Service Center Workflows



### Home

### Supplemental Cultural Resource Studies

### Design ▾

#### Design-Bid-Build (DBB) ▾

- [0.0 General](#)
- [1.0 Predesign](#)
- [2.0 Schematic Design](#)
- [3.0 Design Development](#)
- [4.0 Construction Documents](#)

#### Design-Build (DB)

#### Design Standards

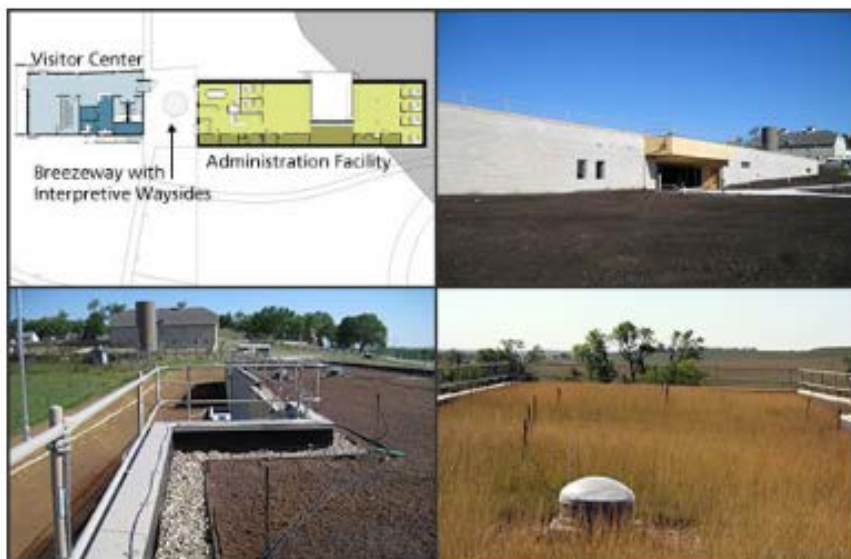
#### Design Deliverables - Content and Format Requirements

### Construction

### Information

### What's New

## Design-Bid-Build (DBB)



Visitor Center and Administration Facility: Early Concept Floor Plan (upper left), Construction (Historic Spring Hill Ranch in background) (upper right), "Green Roof" before Seeding (Historic Spring Hill Ranch in background) (lower left), "Green Roof" 1st Growing Season (lower right). NPS Images.

#### [0.0 General](#)

#### [1.0 Predesign](#)

#### [2.0 Schematic Design](#)

#### [3.0 Design Development](#)

#### [4.0 Construction Documents](#)

# Construction Project Handbook

- Pre-Design or Concept Phase
  - Information included in initial response to RFP and work up towards execution of a lease
  - Proposed Use
  - Proposed Tenants
  - Proposed Design Team (Project Manager, Architect, Historical Architect, Engineers, Etc.)
  - Proposed Technical Scope of Work
  - Proposed Project Schedule

# Construction Project Handbook

- Schematic Design
  - Initiates after lease is signed.
  - Illustrate the scale and relationship of project components.
  - Verify and clarify the technical and spatial assumptions made in the Project Program.

# Construction Project Handbook

- Design Development

- The design continues to be more defined through plans, elevations and sections — the size of rooms, types of materials, and exact placement of the building on the site.
- Specific design issues are addressed and resolved in order to develop detailing.

# Construction Project Handbook

- Construction Documents
  - Set of detailed drawings.
  - Outlines the expected level of performance and quality, both in written and graphic format. Construction documents ensure the final product matches the product ultimately envisioned after working through the design process.
  - When the construction documents are complete, the NPS shall have sufficient information to complete its technical review, perform NEPA, S106 and Section 7 compliance, and for the Lessee, secure the necessary building permits.

# Construction Project Handbook

- Quality Assurance
  - In-Park Staff
  - Middletown Township
  - Denver Service Center for specific disciplines
  - Authority Having Jurisdiction (AHJ) – NPS NERO for all fire detection, protection and life safety engineering issues
  
- Quality Control/Construction Inspection
  - In-Park Staff
  - Middletown Township



# Construction Project Handbook

- Construction Phase
  - Pre-Construction
  - Construction Activities
  - Post Construction Activities (NPS Only)

# Gateway National Recreation Area

## Questions?



National Park Service  
U.S. Department of the Interior