

PROGRAMMATIC AGREEMENT
AMONG
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE
NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS,
REGARDING
THE MANAGEMENT OF NASA ASSETS

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REGARDING
THE MANAGEMENT OF NASA FACILITIES

PREAMBLE

National Aeronautics and Space Administration (NASA) Centers are active research institutions that have developed around Highly Technical or Scientific Facilities (HTSF) and as such the design, construction, and physical appearance of NASA Centers are determined largely by functional needs. The challenges facing agencies like NASA were acknowledged in the 1991 Advisory Council on Historic Preservation (ACHP) publication *Balancing Historic Preservation Needs with the Operations of Highly Technical or Scientific Facilities*, prepared in response to a Congressional request seeking counsel on “how a balance could be struck between the preservation of physical reminders of the scientific legacy of the United States and the ongoing operation and upgrading of scientific and technical research facilities.” The ACHP publication aimed to demonstrate how historic HTSF could be managed consistent with the NHPA, in particular Section 106, if the respective parties—preservation regulators and agency resource managers—understood and accounted for one another’s goals. A major theme in this publication was the acknowledgement that modification is expected and necessary to maintain active use of HTSF.

As an agency dedicated to the fields of aeronautics research, human exploration and operations, science, and space technology, NASA must utilize its built assets in a manner that is often at odds with traditional historic preservation approaches—NASA routinely modifies, upgrades, reconfigures, cannibalizes, and replaces its resources, and traditional approaches to preservation are often not feasible. Alteration inconsistent with the Secretary of the Interior’s (SOI’s) Standards for the Treatment of Historic Properties is identified as a potential adverse effect under Section 106, but the SOI standards were written with traditional historic buildings in mind. In the case of HTSF, modification that enables continued use should be viewed as a character-defining feature (CDF) rather than an adverse effect, as it is the active use of the asset that ensures its preservation.

Compounding the challenges of managing HTSF is the fact that NASA assets are more likely to meet NRHP Criteria Consideration G (CCG) because of the agency’s extraordinary mission. According to the NRHP criteria, properties less than 50 years of age are not normally eligible for listing unless they are exceptionally important. As a result, it has become common practice among federal agencies to focus Section 110 surveys on properties 50 years of age or older. Acknowledging the importance of its unique assets, NASA completed an agency-wide evaluation of 335 Space Shuttle Program-related assets in anticipation of the sunset of the program. But this still represented a relatively small percentage of their total portfolio of assets. Today, approximately 56% (or 3,000) of its U.S. real

property assets are less than 50 years of age. Traditional identification of all assets under CCG is not feasible for NASA.

NASA's built infrastructure is also aging. The nature of NASA's activities means that built assets age into obsolescence in a relatively short period of time without continual investment. Once an asset reaches 40 years of age—as roughly half of NASA's assets have—NASA assumes that it has a declining capacity to perform the function for which it was designed. Mission-essential assets are prioritized for regular maintenance, repair, and upgrades to keep them functional, and while work can sometimes be deferred in an office or storage building without compromising the mission, that is not the case for HTSF and other purpose-built assets like laboratories, testing facilities, and buildings housing highly specialized scientific activities that if allowed to decline could severely undermine NASA's ability to carry out its mission. While NASA's real property portfolio ages and the cost of maintenance and upgrades increases, the funding NASA has to work with has remained flat, leaving limited funding to go towards assets that are not mission-critical, many of which are obsolete historic properties.

Furthermore, in 2015 the Office of Management and Budget released the *National Strategy for the Efficient Use of Real Property* (National Strategy), which is the federal framework to improve real property management by freezing growth of the federal real property inventory, measuring performance to identify opportunities for improvements in efficiency, and finally reducing the size of the inventory through consolidation, colocation, or disposal of properties. The National Strategy's companion policy is *Reduce the Footprint*, which requires federal agencies to aggressively dispose of surplus properties, make more efficient use of the Government's real property assets, and reduce the total square footage of their domestic office and warehouse inventory relative to an established baseline. As a result, the NASA Mission Support Council (MSC) has aggressively promoted rightsizing through facilities consolidation and is undertaking an agency-wide review of assets for the purpose of identifying those to sustain, invest in, outgrant, or divest.

The purpose of this Agencywide Programmatic Agreement (APA) is to create an alternate process by which NASA can meet its responsibilities to manage its U.S. real property assets under Sections 106 and 110 of the NHPA in manner that accommodates NASA's unique challenges in managing its historic properties. The APA includes the following components:

- It incorporates an approach to historic property identification that is a hybrid of traditional evaluation and predictive modeling, so that the agency may focus limited financial and personnel resources on recognizing historic properties rather than on demonstrating lack of significance;
- It establishes parameters for determining adverse effects that reflect the HTSF nature of NASA Centers and assets;
- It reinforces the consideration of alternatives to adverse effects in consultation with Section 106 stakeholders at the early stages of asset planning; and

- It establishes programmatic mitigation measures to address cumulative effects, as well as standard asset-specific mitigation for classes of undertakings, that build upon NASA's already robust recordation and information-sharing infrastructure to maximize broad public access, utility, and engagement.

RECITALS

WHEREAS, NASA undertakes activities in the areas of aeronautics research, human exploration and operations, science, and space technology for peaceful benefit of all mankind, and these activities depend upon the maintenance of HTSF at its Centers across the country (Appendix X – NASA Centers) in state-of-the-art condition; and

WHEREAS, NASA Centers are active research institutions that have developed around HTSF (HTSF Districts) and the design, construction, and physical appearance of HTSF Districts are determined largely by functional needs; and

WHEREAS, the unique and specialized purpose of HTSF Districts, and their HTSF character and uses, merit a management approach that provides flexibility to the agency in meeting its responsibilities under Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended (54 USC 306108) (NHPA) and acknowledges the particular constraints within which NASA operates its Centers; and

WHEREAS, NASA recognizes that there are areas within HTSF Districts that have a unique and distinguishable design aesthetic reflective of NASA history and culture (Heritage Zones, Appendix X – Heritage Zones), and that measures should be taken to preserve that aesthetic; and

WHEREAS, to meet agency needs and federal real property directives NASA is applying a data-driven strategy for an agency-wide mission-driven and affordable real property portfolio based upon an evaluation of mission relevance, future need, sustainment costs, and condition of each of its Assets to determine whether to sustain, invest, outgrant, or divest; and

WHEREAS, NASA has determined that its property management activities are undertakings requiring review pursuant to 36 CFR Part 800, the regulations implementing Section 106; and

WHEREAS, NASA integrates the consideration of historic properties into its facilities planning at both the agency and the Center level so that opportunities to avoid adverse effects may be explored in advance of such actions, including reuse by NASA, lease to an outside entity, transfer to another federal agency, and placing the asset on standby or mothball status; and

WHEREAS, the decision to sustain, invest, outgrant, or divest Assets is substantially determined years in advance of the action being carried out through decisions made during the Center master planning

process, and NASA has determined that consideration of feasible alternatives to adverse effects should occur at these early planning stages during the development of the Center Master Plan (CMP); and

WHEREAS, NASA has developed the APA to streamline the Section 106 process so that its limited resources may be used to maximum public benefit consistent with federal agency responsibilities under the NHPA; and

WHEREAS, the APA will apply to multiple individual but similar undertakings across multiple states, such that the use of a programmatic agreement is appropriate to complete the Section 106 process (36 CFR § 800.14(b)(1)(i)); and

WHEREAS, the APA does not invalidate NASA's other programmatic agreements or any other of its Section 106 agreements, including project-specific memoranda of agreement (MOAs); and

WHEREAS, NASA consulted with the ACHP and the National Conference of State Historic Preservation Officers (NCSHPO) pursuant to 36 CFR Part 800; and

WHEREAS, NASA invited 80 federally recognized Indian Tribes (Tribes) (Appendix X – Indian Tribes Invited to Consult) and Tribal Historic Preservation Officers (THPOs) with a demonstrated interest in NASA undertakings at its Centers nationwide to consult on the development of this APA (or Agreement) pursuant to 36 CFR Part 800; and

WHEREAS, NASA invited the National Trust for Historic Preservation (NTHP) and the National Association of Tribal Historic Preservation Officers (NATHPO) to consult (Appendix X – Additional Consulting Parties); and

WHEREAS, NASA provided opportunities for public review and comment through formal public notice in the Federal Register [dates of publication here], and through the NASA Environmental Management Division (EMD) Cultural Resources Management web page; and

NOW, THEREFORE, NASA, ACHP, and NCSHPO agree that implementation of the APA in accordance with the following stipulations will allow NASA to meet its responsibilities under Section 106 of the NHPA for the undertakings subject to the APA.

STIPULATIONS

NASA will ensure the following stipulations are carried out for any Undertaking for which this APA is used to comply with Section 106.

00. APPLICABILITY

00. Use at NASA Centers

The APA shall be used to satisfy Section 106 requirements for Projects at NASA Centers that do not have a Center-wide programmatic agreement in place (Appendix X – NASA Center-wide Programmatic Agreements). At such time as a Center-wide programmatic agreement expires or is terminated, that Center shall be governed by the APA. Should a Center-wide programmatic agreement be executed, the APA shall no longer govern activities at that Center. Centers to which the APA applies shall be referred to in the APA as Participating Centers.

00. Exclusion of Projects Affecting National Historic Landmarks (NHLs)

Public Law 96-344, signed by President Carter in September 1980, directed the SOI to conduct a study of “locations and events associated with the historical theme of Man in Space,” to include “potential action alternatives” for their protection. In response, the National Park Service (NPS) initiated the *Man in Space National Historic Landmark Theme Study*, which resulted in the designation of 24 NASA and U.S. Air Force properties as NHLs for their direct contribution to the 1969 moon landing. In October 1989, the *Programmatic Agreement among the National Aeronautics and Space Administration, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation* was executed to resolve adverse effects to NASA’s newly designated NHLs from demolition and modification. The APA does not apply to Assets governed by the NHL PA, being NHLs specifically identified in Attachment 1 of that agreement, so long as that agreement remains in effect.

00. ROLES AND RESPONSIBILITIES

00. NASA

00. NASA Federal Preservation Officer

NASA’s Cultural Resource Management Program is directed by the agency’s Federal Preservation Officer (FPO), EMD, NASA Headquarters. The FPO provides guidance to the Cultural Resource Manager (CRM) at each Center. The FPO is responsible for overseeing the implementation of the APA for the agency, including the initial completion of the APA programmatic mitigation. The FPO shall serve as the liaison between NASA, the ACHP, and the NCSHPO for the purposes of APA implementation,

and shall be NASA's decision-maker on amendments or disputes arising from the APA.

00. NASA Center Cultural Resource Manager

The Center CRM is responsible for implementing NASA Cultural Resource Management Program activities at the Centers. The Center CRM shall distribute a copy of the APA to all appropriate Center personnel involved in carrying out actions under the agreement. The Center CRM shall determine if the APA applies to a Project and shall be responsible for carrying out the terms of the APA at the Center level, including participation in Center master planning efforts, coordinating with Center Construction of Facilities (CoF) Program Managers on the requirements of the APA, and preparing Center content for APA annual reports. The CRM is the primary point-of-contact between NASA and Center Consulting Parties, including the relevant State Historic Preservation Office (SHPO) and Tribes. The Center CRM shall take the lead in preparing the Asset Lists (defined below) and ensuring that Gate-to-Gate (G2G) Surveys are carried out consistent with the terms of the APA. The Center CRM is also responsible for ensuring that NRHP evaluations are carried out by SOI-qualified personnel, and for entering, updating, and maintaining the accuracy of Asset NRHP evaluation status in the NASA Environmental Tracking System (NETS).

00. NASA Center Construction of Facilities Program Manager

The CoF Program Manager is responsible for ensuring that NASA plans for, funds, and carries out NHPA requirements when planning for new mission needs and Projects in coordination with the Center CRM. Under the APA, the CoF Program Manager is responsible for engaging the Center CRM early in the Project planning process to enable meaningful consultation with stakeholders as stipulated herein and for ensuring that Project funding includes the cost of mitigation measures.

00. NASA Center Master Planner

The Center Master Planner is responsible for coordinating with the Center CRM on master planning initiatives, including development, revision, and updating of the CMP. Under the APA, the Center Master Planner shall notify the Center CRM in advance of master planning initiatives, work with the Center CRM to schedule consultation meetings to discuss effects to historic properties, and ensure that such consultation is considered in the master planning process and in developing recommendations to sustain, invest, outgrant, or divest Assets.

00. NASA Center Real Property Accountability Officer

The Center Real Property Accountability Officer is responsible for coordinating with the CRM to ensure Asset evaluation status is accurately reflected in the NASA's Real Property Management System (RPMS).

00. **Advisory Council on Historic Preservation**

At any time, NASA or any party may request ACHP involvement or comment on the implementation of the APA in general or on Projects governed by the procedures set forth in the APA. When invited to comment by a consulting party or any party, the ACHP will follow provisions in Stipulation 00 [Dispute Resolution].

00. **Consulting Parties**

For the purposes of the APA there will be three sets of consulting parties—APA Consulting Parties, Center Consulting Parties, and Center Consulting Tribes. Their respective roles are described below.

00. APA Consulting Parties

The consulting parties to the APA are the ACHP, NCSHPO, the NTHP, and the federally recognized Tribes that elected to participate (Appendix X – Indian Tribes Invited to Consult). Additional APA Consulting Parties may be designated via an amendment to this agreement. The APA Consulting Parties shall consult with respect to the major provisions of the APA, but shall not participate in consultation at the Center level, unless specifically identified by NASA as a Center Consulting Party under Stipulation 00 [Center Consulting Parties].

00. Center Consulting Parties

Center Consulting Parties are consulting parties with a demonstrated interest in historic properties at a Center, with which NASA shall consult under the terms of APA. Center Consulting Parties shall include the respective SHPO(s) for the state in which the Center is located, Tribe(s), representatives of local governments, and other parties consistent with 36 CFR § 800.2. Center Consulting Tribes as described under Stipulation 00 [Center Consulting Tribes] are a subset of Center Consulting Parties.

00. Center Consulting Tribes

When this term is used in the APA, it denotes only the Tribes from within the larger group of Center Consulting Parties. These Tribes have a demonstrated interest in historic and cultural properties at the Center, especially as it comes to ground disturbance.

00. ASSET MANAGEMENT CATEGORIES

NASA shall use Management Categories to manage its Assets at Centers governed by the APA. NASA Assets shall be assigned one of the following Management Categories based upon their known or potential level of historical significance, consistent with the process detailed in Appendix X – Categorization of Assets.

00. Category 1 Assets

Category 1 Assets: (1) possess individual historical significance on a national level; (2) are directly associated with NASA's core missions; and (3) retain a high degree of physical integrity. Category 1 Assets are uniquely representative of NASA's core missions and as such they are not commonplace outside of the agency. They are the most historically significant of NASA's Assets and are afforded the highest level of consideration under the terms of the APA.

00. Category 2 Assets

Category 2 Assets: (1) possess individual historical significance on a national level independent of their association with NASA's core missions, or they possess individual historical significance on the state or local level either in association with or independent of NASA's core missions; and (2) they retain a high degree of physical integrity.

00. Category 3 Assets

Assets that do not meet the criteria for Category 1 or 2 Assets are Category 3 Assets.

00. IDENTIFICATION OF HISTORIC PROPERTIES

To aid in the implementation of the APA and to fulfill its responsibility to identify built historic properties under its ownership or control, NASA shall carry out identification of historic properties as set forth in this stipulation for Participating Centers.

00. Gate-to-Gate Surveys

Within five years of the execution of the APA, a comprehensive gate-to-gate survey of Assets (G2G Survey) shall be performed at Participating Centers. Thereafter, NASA shall update G2G Surveys every ten years.

00. Use of Qualified Professionals

Identification under this stipulation shall be performed by personnel that: (1) meet the *SOI Professional Qualifications Standards* in the field of Architectural History; and (2) possess demonstrated expertise in NASA history and built resources and in applying the NRHP Criteria to NASA (or similar) resources.

00. Scope of G2G Surveys

00. Assets to be Evaluated

Assets shall be evaluated for listing in the NRHP as individual resources within the historic contexts most likely to be relevant to the Asset. If found individually eligible, evaluations shall indicate the level of significance (i.e., national, State, and/or local). NASA shall not be required to evaluate Assets for potential eligibility as contributing properties to a historic district.

For Assets that are less than 50 years of age (i.e., between 40 and 49 years of age) at the time of their evaluation in the G2G Surveys, NASA shall apply the standard NRHP Criteria as if the Asset was 50 years of age or older.

The Center CRM will review the data in NETS to determine which Assets should be evaluated in the G2G Survey. Assets that will not require evaluation in the G2G Survey are those that meet the following criteria:

- They have been evaluated for individual eligibility within the last twenty years with documented SHPO concurrence, and they have not turned 50 years of age since their evaluation; or
- They are in FCCS Facility Classes 5, 7, 8, or 9; or
- They are less than 40 years of age.

00. Preliminary Identification under NRHP Criterion C and CCG

G2G Surveys shall identify Assets less than 40 years of age deemed likely to be eligible under NRHP Criterion C and CCG for exceptional architectural design significance.

00. G2G Survey Reports

G2G Survey Reports shall include a comprehensive list of Assets (Asset List) that provides the following information:

- Asset number, name, date of construction, and FCCS Class Code;
- For formally evaluated Assets, their individual NRHP evaluation status, applicable Criteria, date of most recent evaluation, and date of SHPO concurrence;
- For Assets not evaluated, the reasons for their exclusion per Stipulation 00 [Assets Not Requiring Evaluation];
- Assets identified under Stipulation 00 [Preliminary Identification under NRHP Criterion C and CCG];

- If the Assets are located within a Heritage Zone; and
- The assigned Management Category per Stipulation 00 [Management Categories] under which the Asset will be managed.

G2G Survey Reports shall include maps that show the location of all Assets coded according to Management Category and the boundaries of Heritage Zones.

G2G Survey Reports shall be prepared consistent with applicable SHPO standards. Should the SHPO standards be in conflict with the requirements of the APA, then the APA shall take precedence.

00. Review of G2G Survey Reports

The Center CRM shall submit the G2G Survey Report electronically to the SHPO via email or web-based file share. The SHPO review period shall be 45 days, unless NASA and the SHPO agree in writing to a specified extension. During this review period, the SHPO may perform a site visit to aid in their review of the G2G Survey Report. By the end of the review period, the SHPO shall notify the Center CRM via email of its concurrence or disagreement with the findings.

If the SHPO does not concur with one or more of NASA's findings, then it shall provide notification to the Center CRM in writing that indicates: 1) the findings that are the subject of dispute; and 2) the findings with which it concurs. The Center CRM shall schedule a conference call or meeting with the SHPO to consult regarding the disagreement, and shall invite the Center Consulting Parties to participate. NASA and the SHPO shall work to reach consensus on the findings that are the subject of the dispute. If consensus is reached, then NASA shall incorporate it into the G2G Survey Report.

If NASA determines that consensus cannot be reached within 30 days of the consultation call or meeting, then it shall do the following as applicable:

00. If there is disagreement regarding the NRHP evaluation of individual Assets under Stipulation 00 [Evaluation of Assets], then the FPO shall submit a formal request to the Keeper of the National Register (Keeper). The submittal to the Keeper shall include the G2G Survey Report, a cover letter indicating the Assets that are the subject of the disagreement, and written comments received from the SHPO and other Center Consulting Parties. NASA shall accept the decision of the Keeper and incorporate it into the G2G Survey Report.

00. If there is disagreement regarding NASA's findings other than the NRHP evaluation of individual Assets under Stipulation 00 [Evaluation of Assets], then the Center CRM shall submit the G2G Survey Report to the FPO,

along with any written comments received from the SHPO and other Center Consulting Parties. The FPO shall consider the input received and render a final decision, after which NASA shall incorporate it into the G2G Survey Report.

NASA shall send a copy of the finalized G2G Survey Report to the SHPO, copying the other Center Consulting Parties, and shall make the report available to the public on the Center website. NASA shall thereafter manage its Assets under the APA consistent with the final G2G Survey Report until the next G2G Survey.

00. Heritage Zone Design Guidelines

Centers with Heritage Zones may elect to develop Heritage Zone Design Guidelines to manage Projects within Heritage Zones in a manner that preserves their unique and distinguishable design aesthetic. If a Heritage Zone falls entirely within identified NRHP-eligible or listed historic district, and that Center has SHPO-approved historic district design guidelines for that historic district, then those design guidelines may be used as Heritage Zone Design Guidelines.

00. PROJECT TYPES

Authorized by NASA Procedural Directive (NPD) 8810.2, *Master Planning for Real Property*, and required by NASA Procedural Requirement (NPR) 8810.1, *Center Master Planning*. Center Master Plans (CMPs) are the localized implementation of the Agency Master Plan (AMP) informed by the strategic planning vision of each Center. CMPs reflect the strategic vision of the Center but align with the AMP through a collaborative process between the Center master planners and Agency master planners in the Office of Strategic Infrastructure's (OSI) Facilities and Real Estate Division (FRED). In the AMP and the CMP, as defined by FRED, Assets are assigned to one of four paths:

00. Sustain

These Assets have clear mission significance, a future need, and are in good condition. The goal is general maintenance to sustain these assets at their current condition. No major/significant investments are known to be needed. Section 106 undertakings on this path may include routine maintenance and repair to occur as need and funding arises.

00. Invest

These Assets have high mission significance, a future need, and are in poor condition. The goal is to rehabilitate these Assets to a mission ready condition. Section 106 undertakings on this path may include major repair, renovation/modification, and new construction.

00. Outgrant

These Assets have low mission significance and no future need but are in good condition. The goal is to keep these Assets standing and used by someone else. Section 106 undertakings on this path include outgrants to federal or non-federal entities.

00. Divest

These Assets have a low mission significance, no future need, and are in poor condition. The goal is to terminate NASA ownership of these Assets ultimately through demolition. Section 106 undertakings on this path are identified as “path to divestment” which considers mothballing, abandonment, or asset transfer to federal and non-federal entities before demolition.

Informed by recommendations from FRED, the Centers further evaluate which path an Asset will take and detail the specific Projects that will occur as a result.

00. CONSULTATION MATRIX

NASA shall determine the appropriate level of consultation for each Project based upon the table below. A description of the Project types listed in the table is provided in Appendix X – NASA Project Types.

		Outside Heritage Zones	Inside Heritage Zones
Sustain	Routine Repair & Maintenance	No Project Review	No Project Review
Invest	Major Repair	No Project Review; Ground Disturbance Protocols Apply	No Project Review; Ground Disturbance Protocols Apply
	Renovation/Modification, within existing envelope	No Project Review	Consult
	Renovation/Modification, beyond existing envelope	No Project Review; Ground Disturbance Protocols Apply	Consult; Ground Disturbance Protocols Apply
	New Construction	No Project Review; Ground Disturbance Protocols Apply	Consult; Ground Disturbance Protocols Apply
Outgrant	Federal/Non-Federal	No Project Review	No Project Review
Divest	Demolition	Consult (Category 1 and 2 Assets, only); Ground Disturbance Protocols Apply	Consult; Ground Disturbance Protocols Apply
	Mothballing/Abandonment	Mitigate (Category 1 and 2 Assets, only)	Consult
	Asset Transfer, to federal entity	No Project Review	No Project Review
	Asset Transfer, non-federal entity	Mitigate (Category 1 and 2 Assets, only)	Consult

00. No Project Review

NASA may proceed with these Projects without individual project review per Stipulation 00 [Individual Project Review]. Adverse effects to Assets, should they occur, will be mitigated through Programmatic Mitigation.

00. Consult

For these Projects, NASA shall consult per Stipulation 00 [Individual Project Review].

00. Mitigate

Should these Projects involve Category 1 or 2 Assets, NASA shall complete mitigation measures per Stipulation 00 [Treatment Measures] as applicable.

00. Ground Disturbance Protocols Apply

For these Projects, NASA shall proceed consistent with Stipulation 00 [Ground Disturbance].

00. CONSIDERATION OF HISTORIC PROPERTIES IN CENTER PLANNING

NASA shall make a reasonable and good faith effort to identify feasible alternatives to adverse effects in the earliest possible stages of Project planning. For Projects within identified Heritage Zones, NASA shall give special consideration to the maintenance of the design aesthetic, and shall, to the extent possible while meeting mission requirements, ensure new construction that is compatible with the Heritage Zone aesthetic. If a Center has SHPO-approved Heritage Zone Design Guidelines in place, the Center shall strive to conform to the guidelines to the extent possible while meeting mission requirements. To these ends, NASA shall carry out the following at Participating Centers.

00. Center Master Plan

00. CMP Consultation Plan

NASA shall engage the Center Consulting Parties in the development of the CMP to allow for consideration of alternatives to avoid adverse effects to historic properties. The Center CRM shall work with Center master planners to develop a consultation plan no later than six months prior to beginning the process to update the CMP. The CMP Consultation Plan shall include:

- the overall CMP update timeline;
- points during the process where consultation meetings with Center Consulting Parties will occur, such as an in-person Center site visit; and

- expected date for the delivery of the draft CMP to the Center Consulting Parties and timeline for their review.

The Center CRM shall deliver a draft CMP Consultation Plan electronically to the SHPO, copying the Center Consulting Parties. The SHPO will have 30 days to review the draft CMP Consulting Plan and to respond to NASA in writing that it does or does not concur with the plan as presented.

00. If the SHPO concurs, then NASA shall consider the CMP Consultation Plan final and shall proceed accordingly.

00. If the SHPO does not concur, then it shall provide suggested revisions to the plan for NASA's consideration. NASA shall have 30 days to evaluate the feasibility of the SHPO's revisions and to finalize the CMP Consultation Plan. NASA shall send the final CMP Consultation Plan to the SHPO, copying the Center Consulting Parties, with a cover letter indicating any revisions that were not accepted and providing justification. Thereafter NASA shall proceed according to the final CMP Consultation Plan.

If the SHPO is not able to attend consultation meetings scheduled under the CMP Consultation Plan, NASA shall provide PowerPoint or similar presentation materials, summary notes, and/or additional supporting materials as appropriate to keep the SHPO informed on the CMP update process. The SHPO shall have 30 days to review these materials and to provide their comments in writing to the NASA Center CRM.

NASA shall maintain a record of potential adverse effects to historic properties discussed during the CMP update process, the alternatives considered, and the final recommendations integrated into the CMP.

00. Integration of Historic Properties into CMP

CMPs shall integrate information about historic properties and Heritage Zones into the development plans, including a specific section listing NHLs, Category 1 and 2 Assets, and describing Heritage Zones and their CDFs. Heritage Zones shall be denoted on the Center regulating and development plans as areas of heightened design sensitivity subject to consultation under the APA.

00. Integrated Cultural Resources Management Plans

Center ICRMPs will be revised to include information relevant to the APA, including:

- A copy of the executed APA, or link to its location;
- Assets Lists for the Center;
- Maps and descriptions of Heritage Zones; and
- Standard Operating Procedures (SOPs) for Center G2G Survey consistent with the APA.

00. REVIEW OF INDIVIDUAL PROJECTS

00. Annual CoF Program Review

Once a year the Center CoF Program Manager and the Center CRM shall meet to discuss upcoming proposed Projects for the fiscal year, and identify any of those Projects that have the potential to adversely affect historic properties per Stipulation 00 [Consultation Matrix].

00. Assigning Management Categories

If a Project is being implemented prior to the completion of the first G2G Survey Report prepared per Stipulation 00 [G2G Survey], then the Center CRM shall assign a Management Category to all Assets within the Project area of potential effects (APE) per Appendix X – Categorization of Assets, and shall utilize these Management Categories for the duration of Project consultation.

00. Projects Occurring Outside Heritage Zones

00. Demolition of Category 1 or 2 Assets

For Projects involving demolition of Category 1 or 2 Assets outside of Heritage Zones, NASA shall follow these procedures. Demolition within Heritage Zones is covered under Stipulation 00 [Projects Inside Heritage Zones]. As indicated in the Consultation Matrix, all other demolition at Participating Centers shall require no Project-specific review and adverse effects, should they occur, will be mitigated through completion of Programmatic Mitigation per Stipulation 00 [Programmatic Mitigation].

At such time the CoF program determines that a Project involving demolition of a Category 1 or 2 Asset will move forward, they will notify the Center CRM accordingly, and will work with the Center CRM to prepare a Project Initiation Letter with the following information:

- Description of the Project, with a timeline for completion;

- Assets located within the APE and their corresponding Management Category; and
- A description of the alternatives considered to avoid adverse effects, why they were rejected, and the proposed mitigation per Stipulation 00 [Treatment of Category 1 Assets] and/or Stipulation 00 [Treatment of Category 2 Assets], as applicable.

NASA shall submit the Project Initiation Letter via email to the SHPO, copying the Center Consulting Parties. The SHPO and Center Consulting Parties shall have 30 days to review the Project Initiation Letter and provide comments in writing to the Center CRM. Center Consulting Parties may provide potential alternatives for consideration as well as preferred mitigation measures. NASA shall consider the comments received, and shall notify the SHPO and Center Consulting Parties in writing of its final decision. Thereafter, NASA shall proceed consistent with that decision and, if applicable, APA treatment measures.

00. Mothballing, Abandonment, and Transfer Out of Federal Control

For Projects that involve mothballing, abandonment, or transfer of Category 1 or 2 Assets out of federal control, NASA will notify the SHPO via email, copying the other Center Consulting Parties, and providing the following information:

- Description of the Project, with a timeline for completion;
- Category 1 and 2 Assets that are the subject of the undertaking;
- Measures taken to avoid adverse effects to these Assets and the reasons for their rejection; and
- The selected mitigation measures under Stipulations 00 [Treatment of Category 1 Assets] and 00 [Treatment of Category 2 Assets].

Thereafter NASA shall proceed with the Standard Treatment Measures.

00. **Projects Inside Heritage Zones**

00. Project Initiation

At such time CoF determines that a Project occurring in whole or in part within a Heritage Zone will move forward, they will notify the Center CRM accordingly. The Center CRM will consult the APA Consultation Matrix and, and if consultation is warranted, the CoF will work with the Center CRM to prepare a Project Initiation Letter with the following information:

- Description of the Project, with a timeline for completion;

- Assets located within the APE and their corresponding Management Category; and
- A preliminary determination of effects.

NASA shall submit the Project Initiation Letter via email to the SHPO, copying the Center Consulting Parties. The SHPO and Center Consulting Parties shall have 30 days to review the Project Initiation Letter and provide comments in writing to the NASA Center CRM. Thereafter, NASA will proceed with Stipulation 00 [Concept Review].

00. Concept Review

No later than 45 days after submittal of the Project Initiation Letter, NASA shall consult with the SHPO on the potential effects of the Project on the Heritage Zone and individual Category 1 or 2 Assets within it, and ways to avoid adverse effects. Consultation may be via face-to-face meetings, online meeting platform, conference call, or email.

NASA shall consider the comments received during Concept Review and shall notify the SHPO and Center Consulting Parties in writing of its updated determination of effects and intended path forward, per the below.

00. For Projects involving only demolition, NASA shall proceed with Stipulation 00 [Demolition in Heritage Zones].

00. For Projects involving only mothballing, abandonment, or transfer of Assets out of federal control, NASA shall proceed with Stipulation 00 [Mothballing, Abandonment, and Transfer Out of Federal Control in Heritage Zones].

00. For Projects involving renovation, modification, or new construction, NASA shall proceed with Stipulation 00 [Renovation, Modification, and New Construction in Heritage Zones].

00. Demolition in Heritage Zones

00. If Category 1 or 2 Assets are to be demolished, then NASA shall complete the Standard Treatment Measures for Heritage Zones (Stipulation 00 [Treatment of Heritage Zones]), and for Category 1 and 2 Assets (Stipulations 00 [Treatment of Category 1 Assets] and 00 [Treatment of Category 2 Assets], as applicable.

00. If Category 3 the Asset(s) are to be demolished, then NASA shall complete the Standard Treatment Measures for Heritage Zones (Stipulation 00 [Treatment of Heritage Zones]), only.

00. Mothballing, Abandonment, and Transfer Out of Federal Control in Heritage Zones

NASA shall consider the comments received during Concept Review and shall notify the SHPO and Center Consulting Parties in writing of its final determination of effects and intended resolution. If NASA determines that it will proceed with mothballing, abandonment, or transfer out of federal control within the Heritage Zone, then NASA shall complete the Standard Treatment Measures for Heritage Zones (Stipulation 00 [Treatment of Heritage Zones])

00. Renovation, Modification, and New Construction in Heritage Zones

00. Projects Conforming to Heritage Zone Design Guidelines

For Projects occurring in whole or in part within Heritage Zones that are, as determined by NASA, consistent with SHPO-approved Heritage Zone Design Guidelines, NASA shall submit the 60% Design Package to the SHPO, copying the Center Consulting Parties. The design package shall also include a letter explaining NASA's determination that it conforms to the design guidelines. The SHPO and Center Consulting Parties shall have 30 days to review the 60% Design Package and provide their comments in writing to NASA.

If the SHPO concurs in writing that the design is in conformance with the Heritage Zone Design Guidelines, then NASA may proceed with Project development and execution without further consultation under Stipulation 00 [Projects Conforming to Heritage Zone Guidelines].

If the SHPO does not concur, then it will respond in writing explaining its position with recommendations on how the Project may be revised to bring it into conformance. NASA shall consider SHPO's recommendations and do one of the following:

00. Adopt the recommendations as proposed, in which case NASA shall respond accordingly to the SHPO in writing and thereafter proceed with the Project consistent with the revised design.

00. Adopt the recommendations in part, or reject the recommendations, in which case NASA shall respond to the SHPO in writing, indicating how the recommendations were considered and the

reasons for their rejection. Thereafter, NASA shall proceed with the Project consistent with its chosen path.

00. Projects Not Conforming to Heritage Zone Design Guidelines

NASA shall submit a 60% Design Package to the SHPO, copying the Center Consulting Parties. NASA may elect to include more than one design alternative at this stage to facilitate consultation. The SHPO and Center Consulting Parties shall have 30 days to review the 60% Design Package and provide their comments in writing to NASA.

00. If at any stage in the consultation process the SHPO notifies NASA in writing that the proposed design is acceptable and, in its opinion, will not adversely affect the Heritage Zone or individual Category 1 and 2 Assets, then NASA may proceed with Project development and execution without further consultation under Stipulation 00 [Projects Not Conforming to Heritage Zone Guidelines].

00. If, after reviewing the 60% Design Package, the SHPO does not concur that the Project will not adversely affect the Heritage Zone or individual Category 1 or 2 Assets, then NASA may elect to continue consultation to avoid adverse effects.

If NASA determines that adverse effects cannot be avoided, then it will notify the SHPO, copying the Center Consulting Parties, of its decision in writing, with the intended 60% design, and the mitigation measures proposed under Stipulation 00 [Treatment of Heritage Zones].

00. Inclusion of Center Consulting Party Input in Bid Requirements

If NASA intends to put a Project out to bid, then it will incorporate input received from the SHPO and other Center Consulting Parties into the requirements for the bid package for the purpose of encouraging bidders to develop proposals that avoid adverse effects. Bid requirements packages will clearly indicate if the Project is located within a Heritage Zone, will identify all Category 1 or 2 Assets within the APE, and will indicate where Standard Treatment Measures may be required if adverse effects are not avoided.

00. Re-initiation of Project Consultation

In the event that a Project reviewed under Stipulation 00 [Review of Individual Projects] is not executed within five years of the resolution of consultation for the Project under the APA procedures, or should the scope of a Project change substantially such that the nature of potential adverse effects and the Assets affected would be different than originally understood,

then NASA shall be required to re-initiate Project consultation per Stipulation 00 [Review of Individual Projects].

00. PROGRAMMATIC MITIGATION

For Centers participating in the APA (Participating Centers), NASA will complete the following treatment measure to mitigate for cumulative effects resulting from adverse effects to historic properties from the Undertaking.

00. Digital Map

NASA shall create a new public website where it will maintain a digital map (Digital Map) for the Centers for which the APA applies, reflecting their condition at that time, identifying extant Category 1 Assets and other key Assets and resources, and linking to image, video, and textual resources that describe the historical use and significance of the Asset. The Digital Map will show current satellite imagery, with georeferenced documentary/historic aerials and maps that depict the Centers during several time periods, one of which will be during or immediately after its initial build-out. The Digital Map will link to documentary/historic photography, Historic American Buildings Survey (HABS) or Historic American Engineering Record (HAER) recordation, architectural survey reports, primary resource material such as videos and oral history interviews, and other resources as appropriate. Physical or functional relationships between Assets at different Centers may be represented visually and/or through links.

NASA shall have five years from the execution of the APA to complete an initial, fully functional version of the Digital Map. During this period NASA shall report on the progress of the Digital Map annually under Stipulation 00 [Annual Reporting]. Once the initial version is completed, NASA shall regularly update and add to the Digital Map as a living web-based resource as documentation of Assets becomes available. NASA shall report on development of the Digital Map annually under Stipulation 00 [Annual Reporting], and shall provide the respective SHPOs and consulting parties to the APA the opportunity to review and comment on the Digital Map on an annual basis, including ways to enhance the product and maximize public exposure.

NASA shall maintain the Digital Map for the duration of the APA. Prior to the anticipated termination or expiration, NASA shall consult with the ACHP and NCSHPO to develop a plan for the maintenance of the Digital Map by NASA or another entity or entities, or if no such entity is identified, a plan for the permanent curation of the information contained in the Digital Map.

00. STANDARD TREATMENT MEASURES

00. Treatment of Heritage Zones

When it is determined that mitigation is warranted under Stipulation 00 [Projects Inside Heritage Zones] NASA shall elect to proceed with one of two options.

00. Option 1 – Update Digital Map

NASA shall undertake documentation of the Heritage Zone as it currently exists prior to construction and update the Digital Map, as mitigation for the impact to the Heritage Zone, or NASA shall proceed with Option 2.

00. Option 2 – Research Heritage Zone

NASA shall complete research on the Heritage Zone and its associated design aesthetic, and/or architect(s) involved in creating the design to generate a historic context report for the Heritage Zone. Once completed the research and accompanying report will be uploaded electronically to the Digital Map.

00. Treatment of Category 1 Assets

For Category 1 Assets, NASA shall elect to proceed with one of two options.

00. Option 1 – Recordation

NASA shall prepare a HABS or HAER recordation package for the Asset, which will be formally submitted to the National Park Service (NPS) Heritage Documentation Program (HDP) for accession by the Library of Congress. The recordation shall be Level II, unless no original drawings of the Asset exist, in which case the recordation will be Level I.

NASA shall undertake recordation of the Asset prior to commencing work. Upon completion, NASA shall submit an electronic copy of the final recordation package to the SHPO, and shall upload the electronic version of the recordation package to the Digital Map.

In the event that the Asset has been previously recorded to HABS/HAER standards, then NASA may elect to record an alternate Category 1 Asset to HABS/HAER standards, or shall proceed with Option 2.

00. Option 2 – Alternative Mitigation

NASA shall develop a written mitigation plan that outlines measures proposed to offset the loss of the Asset. Measures in the mitigation plan need not relate directly to the Asset, but must have broad public benefit and be directed towards the preservation and/or interpretation of NASA's historic properties. The mitigation plan shall include: a scope of work with sufficient detail that it could be used as the basis for solicitation of bids; a timeline for completion; and estimated costs to complete the work and a funding plan.

The SHPO shall have 30 days to review NASA's proposed mitigation plan and to respond in writing. If the SHPO concurs with NASA's determination, or if the SHPO fails to respond within 30 days, then NASA shall proceed with the mitigation plan as proposed. If the SHPO objects to NASA's mitigation plan, then the parties shall consult to resolve the disagreement for a period not to exceed 30 days. If an agreement is reached, it shall be documented via email and NASA shall proceed accordingly. If no agreement is reached, then NASA shall follow the procedures of Stipulation 00 [Dispute Resolution].

00. Treatment of Category 2 Assets

For Category 2 Assets, NASA shall prepare digital photographic recordation conforming to the most recent National Park Service (NPS) NRHP requirements for digital images, currently "National Register Photo Policy Factsheet updated 5/15/2013" (Appendix X – NPS Digital Photo Policy). The number of views will be sufficient to capture the exterior and, if applicable, interior character-defining features of the Asset, and will include, at a minimum, the following.

00. Exterior Views

- 10 Exterior views of the Asset within its larger context;
- 8 Exterior views of the entire Asset, together showing all sides; and
- Details of character-defining features.

00. Interior Views (if applicable)

- Multiple views of each primary public space (e.g., lobbies);
- Representative views of major circulation spaces (e.g., hallways);
- Multiple views of functionally significant work spaces (e.g., laboratories, clean rooms, test chambers), including equipment, instruments, and furniture; and
- Representative views of administrative spaces (e.g., offices, meeting rooms).

NASA shall undertake recordation of the Asset prior to commencing work. Upon completion, NASA shall submit an electronic copy of the final recordation package to the SHPO, and shall link the electronic version of the recordation package to the Digital Map.

In the event that the Asset has been previously recorded in a manner consistent with these requirements, then NASA shall upload the recordation package to the Digital Map, if it has not already done so.

00. GROUND DISTURBANCE PROTOCOLS

Other provisions of this APA notwithstanding, NASA will complete surveys or other archaeological studies as outlined in the following section at Participating Centers. All archaeological investigations carried out under these stipulations shall be performed or supervised by personnel that meet the *SOI Professional Qualification Standards*.

00. Assessment of Existing Surveys

Within one year of APA execution, Center CRMs of Participating Centers shall submit all archaeological surveys, evaluations, and predictive models that meet the respective SHPO standards, and that don't have SHPO concurrence, for review. SHPOs and the Center Consulting Tribes shall have 30 days to review and comment on each survey report. NASA shall contact the SHPO and Center Consulting Tribes via phone to confirm their intent and capacity to comment within 30 days from receipt of each survey report. NASA will consider requests from the SHPO and Center Consulting Tribes to extend the review period to 45 days.

If the SHPO or Center Consulting Tribes do not concur on any of the deliverables discussed herein, then NASA shall either:

00. Defer to the SHPO and Center Consulting Tribes and proceed with Stipulation 00 [Identification of Areas of Archaeological Potential];

00. Convene a meeting with the SHPO and Center Consulting Tribes to discuss the disagreement and work towards a consensus resolution; or

00. Forward its findings, along with the SHPO's comments and Center Consulting Tribes' comments, to the Keeper for a decision. The Keeper shall then have 30 days to render its binding decision, which shall be communicated in writing via email to NASA, copying the SHPO and Center Consulting Tribes.

If a previous archaeological survey no longer meets current SHPO standards and the area is defined as warranting a survey, NASA will consider new survey of the area per Stipulation 00 [Identification of Areas of Archaeological Potential].

00. Identification of Areas of Archaeological Potential

00. Assessment of Archaeological Survey Status

Within three years of the execution of the APA, each Participating Center will complete an assessment of its Archaeological Survey Status. The Assessment of Archaeological Survey Status includes three components:

- A map overlay of all areas that have received an archaeological survey that meets the current standards of the respective SHPO and have SHPO concurrence;
- An assessment of archaeological and cultural sensitivity; and
- An Archaeological Disturbance Assessment.

These three sets of GIS-based maps will determine the approach in the event of an undertaking that requires ground disturbance. NASA shall incorporate this archaeological data into a GIS-based tool to determine the need for archaeological survey or other studies and will maintain and update this data set minimally every five years. If there have been no substantive changes to a NASA Center five years after the APA is executed (e.g., new construction), then the next update shall be performed ten years from the date of the creation of the archaeological disturbance assessment, and every five years thereafter.

00. Mapping of Previous Archaeological Surveys

Each Participating Center will create a GIS data layer that illustrates areas that have been surveyed for archaeological resources to standards currently acceptable to the respective SHPO and are in line with regional standards in an effort to avoid future Section 106 consultation.

00. Mapping of Archaeological and Cultural Sensitivity

Each Center will create GIS data layers that illustrate areas that have low, moderate, or high archaeological potential based on the use of an archaeological predictive model. The archaeological predictive model should include all potential archaeological resources and meet the standards of the respective SHPO.

The GIS data layers will include areas of cultural sensitivity as conveyed to NASA by Center Consulting Tribes. GIS data layers capturing areas of cultural sensitivity to Tribes will be created by NASA in consultation with Center Consulting Tribes to determine the nature and scale of these areas of cultural sensitivity and any potential buffers around them.

00. Archaeological Disturbance Assessment

Within three years of the execution of the APA, Participating Centers will complete an archaeological disturbance assessment. Areas will be defined by one of four criteria:

- No potential, indicating areas where no archaeological sites are considered possible (e.g., made land or areas where very heavy grading and/or substantial removal of soil has occurred);
- High disturbance, indicating areas where few to no archaeological sites are considered likely (e.g., areas where moderate to heavy grading and removal of soil has occurred; highly developed areas with a high concentration of infrastructure and underground utilities; areas where soil remediation has occurred);
- Moderate disturbance, indicating areas where archaeological sites may be intact, despite some level of disturbance (e.g., infrastructure exists, but may be limited on a geographic scale both vertically and horizontally; a parking lot or ball field); and
- Negligible disturbance, indicating areas where little to no ground disturbance has occurred (e.g., greenfields).

00. Applying the Archaeological Potential Data

The purpose of these data is to inform planning requirements for a Center's ground disturbing activities. The Archaeological Requirements Matrices (below) outline these requirements, based on the mapping layers outlined in Stipulation 00 [Identification of Areas of Archaeological Potential].

Matrix 1. Previously Surveyed Areas

Archaeological Sensitivity	Level of Previous Ground Disturbance			
	No Potential	High Disturbance	Moderate Disturbance	Negligible Disturbance
Low Archaeological Potential	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring
Moderate Archaeological Potential	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring	No survey; monitoring
High Archaeological Potential	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring	No survey; monitoring

1145 Matrix 2. Areas Not Previously Surveyed

Archaeological Sensitivity	Level of Previous Ground Disturbance			
	No Potential	High Disturbance	Moderate Disturbance	Negligible Disturbance
Low Archaeological Potential	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring	No survey; no monitoring
Moderate Archaeological Potential	No survey; no monitoring	No survey; no monitoring	Archaeological survey; no monitoring	Archaeological survey; no monitoring
High Archaeological Potential	No survey; no monitoring	No survey; no monitoring	Archaeological survey; no monitoring	Archaeological survey; no monitoring

00. Determining the Need for Archaeological and Cultural Studies

In determining the need for an archaeological and cultural study, NASA shall proceed as indicated below.

00. If an area has been previously surveyed archaeologically, based on the GIS data layer, monitoring is only warranted in moderate or high potential areas with negligible disturbance.

00. If an area has not been previously surveyed archaeologically, based on the GIS data layer, apply Matrix 2 to determine the level of archaeological work that may be required.

00. Irrespective of archaeological potential and disturbance, if an area has been determined to be culturally sensitive by Center Consulting Tribes, the NASA Center will consult with the Center Consulting Tribes to determine the best path forward.

00. When archaeological monitoring is conducted in lieu of an archaeological survey, an internal memo detailing the results of the ground disturbance will be drafted and included with the annual report per Stipulation 00 [Annual Reporting]. The memo will not be submitted to the SHPO and Center Consulting Tribes, unless an unexpected discovery is made, in which case the Center ICRMP SOP shall be followed.

00. Archaeological Monitoring

Monitoring of areas based on the Matrices will be implemented in lieu of an archaeological survey. One archaeological monitor—the CRM—will be required and Tribal monitor(s) may be used as determined necessary in consultation with Center Consulting Tribes. If cultural resources potentially eligible for listing in the NRHP are recovered, the appropriate steps will be taken to investigate these resources.

00. Monitoring can be conducted by the trained NASA Center CRM. This person does not need to meet SOI standards for archaeology and will be the on-site monitor. The NASA SOI archaeologist must be consulted prior to and during all monitoring activities but does not need to be present for ground disturbing activities.

00. If cultural materials are found, the Center ICRMP SOP for unexpected discovery shall be followed.

00. Archaeological Survey

If an Archaeological Survey is conducted, then NASA shall do so consistent with SHPO and Tribal requirements. NASA shall submit an Archaeological Survey prepared pursuant to this stipulation and depending on the findings, to the SHPO and Center Consulting Tribes for review. Consultation on NASA's findings of eligibility shall be consistent with 36 CFR Part 63 – *Determinations of Eligibility for Inclusion in the National Register of Historic Places*. SHPO and Center Consulting Tribes shall have 30 days to review the report and provide written comments to NASA. NASA shall contact the SHPO and Center Consulting Tribes via phone to confirm those Tribes intent and capacity to comment within 30 days from receipt of draft report.

If the SHPO and Center Consulting Tribes concur within 30 days, then NASA shall finalize the document and submit an electronic copy to the SHPO and Center Consulting Tribes. If the SHPO or any Center Consulting Tribe fails to respond within 30 days, then NASA may finalize the report and submit an electronic copy to the SHPO and Center Consulting Tribes.

If no sites are identified, or if sites are identified but are determined to be not eligible for listing in the NRHP, then the Project will move forward with no further consultation per this stipulation needed.

If sites are identified that are determined to be potentially eligible, then NASA shall do one of the following.

00. Consider modifying the Project to avoid affecting the site;

00. Conduct additional testing to make a definitive determination of eligibility; or

00. Assume eligibility for the site and plan for mitigation.

If there is a disagreement about eligibility evaluation, NASA will forward its findings, along with the SHPO's comments and Center Consulting Tribes' comments, to the Keeper for a decision. The Keeper shall then have 30 days to render its binding decision, which shall be communicated in writing via email to NASA, copying the SHPO and Center Consulting Tribes.

00. Mitigation Plan

If mitigation of an NRHP-eligible or potentially eligible archaeological site is necessary, then NASA, in consultation with the SHPO and Center Consulting Tribes, shall develop a written Mitigation Plan that outlines measures to resolve adverse effects to the site, and shall submit it electronically to the SHPO and Center Consulting Tribes. The Mitigation Plan may include alternative mitigations rather than data recovery measures that contribute towards the public's understanding of the historical significance of NASA owned or controlled archaeological resources. The Mitigation Plan shall include a scope of work with sufficient detail that it could be used as the basis for solicitation of bids.

SHPO and Center Consulting Tribes shall have 30 days to review the Mitigation Plan and provide written comments to NASA. NASA shall contact the SHPO and Center Consulting Tribes via phone to confirm their intent and capacity to comment within 30 days from receipt of the Mitigation Plan. NASA will consider requests from the SHPO and Center Consulting Tribes to extend the review period to 45 days. If the SHPO and Center Consulting Tribes concur within 30 days, then NASA shall move forward with the project. If the SHPO or any Center Consulting Tribe fails to respond within 30 days, then NASA may finalize the Mitigation Plan and submit an electronic copy to the SHPO and Center Consulting Tribes.

If the SHPO or Center Consulting Tribes do not concur, then NASA shall either:

- 00. Convene a meeting between the SHPO and Center Consulting Tribes to discuss the disagreement and work towards a consensus resolution; or
- 00. Forward its findings, along with the SHPO's comments and Center Consulting Tribes' comments, to the ACHP for a decision. The ACHP shall then have 30 days to render its binding decision, which shall be communicated in writing via email to NASA, copying the SHPO and Center Consulting Tribes.

NASA shall notify the SHPO and the Center Consulting Tribes of the decision via email, and then proceed accordingly.

00. GENERAL PROVISIONS

00. The definitions in 36 CFR Part 800 are applicable to the APA and are incorporated by reference herein. Definitions specific to the APA are listed in Appendix X – Definitions.

- Anything “written” and “in writing” refers to hardcopy or electronic communication. All communications, submissions, and reporting shall be in writing and delivered electronically via email or cloud-based file transfer, unless a specific request for a hardcopy is made to the issuing party in writing or it is required by SHPO standards.
- Unless otherwise indicated, “days” shall mean calendar days.

00. ANNUAL REPORTING

Each year following the execution of the APA until it expires or is terminated, NASA’s FPO shall provide APA Consulting Parties an Annual Report summarizing work undertaken pursuant to its terms. The Annual Report shall be organized by Participating Center, and shall include for each Participating Center, the following:

- Digital Map completion status, and once completed, any new information added;
- The status of the G2G Survey;
- Projects reviewed under Stipulation 00 [Individual Project Review] and their outcome;
- Projects for which archaeological monitoring was conducted in lieu of survey;
- Unanticipated discoveries made and the outcome; and
- Category 1 and 2 Assets proposed for demolition or disposal in the coming year.

The Annual Report will also include a general assessment of APA implementation, with any recommended improvements or amendments.

An electronic copy of the Annual Report will be provided by the Center CRM to the Center Consulting Parties. Within 60 days of NASA’s submittal of the Annual Report to the Center Consulting Parties, if any APA Consulting Parties make a request, NASA shall convene a meeting with the APA Consulting Parties to review the implementation of the APA for the previous year and discuss any scheduling changes proposed, any problems encountered, and any disputes and objections received in NASA’s efforts to carry out the terms of the APA. If the APA Consulting Parties determine that an amendment is warranted, then they shall proceed consistent with Stipulation 00 [Amendments].

00. DISPUTE RESOLUTION

Should any signatory to the APA object at any time to any actions proposed or the manner in which the terms of the APA are implemented, NASA shall consult with such party to resolve the objection. If NASA determines that such objection cannot be resolved, NASA will:

00. Forward all documentation relevant to the dispute, including NASA's proposed resolution, to the ACHP. The ACHP shall provide NASA with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, NASA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. NASA will then proceed according to its final decision.

00. If the ACHP does not provide its advice regarding the dispute within the 30-day time period, NASA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, NASA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the APA, and provide them and the ACHP with a copy of such written response.

00. NASA's responsibility to carry out all other actions subject to the terms of the APA that are not the subject of the dispute remain unchanged.

00. UNANTICIPATED DISCOVERIES

NASA shall make all reasonable efforts to avoid disturbing gravesites, including those containing Native American human remains and associated funerary artifacts. If previously unidentified archaeological historic properties or human remains are discovered during ground disturbing activities, NASA shall respond as directed in the Center ICRMP.

00. DURATION

This Agreement shall remain in full force and effect for 15 years after the date of the last signatory's signature. During the 14th year of the APA's duration, NASA shall convene the signatories to consult on an extension of this Agreement. Should the signatories agree to extend the duration of the APA for an additional period, they shall do so per Stipulation 00 [Amendments].

00. ANTI-DEFICIENCY ACT

NASA's future efforts to execute requirements arising from the stipulations of the APA are subject to the provisions of the Anti-Deficiency Act. If compliance with the Anti-Deficiency Act alters or impairs NASA's ability to implement the stipulations of the APA, NASA shall consult in accordance with the amendment and termination procedures found at Stipulation 00 [Amendments] and Stipulation 00 [Termination] of this Agreement. No provision of the APA shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, Title 31 U.S.C. Part 1341.

00. HANDLING OF CONTROLLED UNCLASSIFIED INFORMATION

In the performance of this Agreement, the non-NASA Parties may have access to, be furnished with, or use U.S. Government data, the use and dissemination of which, the Government intends to control. With respect to data specifically marked with a restrictive notice, including but not limited to "Controlled Unclassified Information (CUI)," the non-NASA Parties agree to:

- 00. Use, disclose, or reproduce the data only as necessary under the APA;
- 00. Safeguard the data from unauthorized use and disclosure;
- 00. Allow access to the data only to its employees and related entities (i.e., contractors, subcontractors, grantees, or other entities having a legal relationship with NASA, the SHPO, or ACHP that is assigned, tasked, or contracted to perform activities under this Agreement);
- 00. Except as provided elsewhere in this stipulation, preclude disclosure of the data outside the parties' organizations;
- 00. Notify its employees who may require access to the data about the obligations under this clause and ensure that such employees comply with such obligations, and notify its related entities that may require access to the data about their obligations under this clause; and
- 00. Return or dispose of the data, as NASA may direct, when the data is no longer needed for performance under this Agreement.

In the event that data exchanged between NASA and the parties include a legend that the non-NASA parties deem to be ambiguous or unauthorized, the non-NASA parties may inform NASA of such condition. Notwithstanding such a legend, as long as such legend provides an indication that a restriction on use or disclosure was intended, the party receiving such data shall treat such data pursuant to the requirements of this clause unless otherwise directed, in writing, by NASA.

Notwithstanding any restrictions on use, disclosure, or reproduction of data provided in this clause, the parties will not be restricted in the use, disclosure, and reproduction of any data that:

- 00. Is publicly available at the time of disclosure or becomes publicly available without breach of this Agreement;
- 00. Is known to, in the possession of, or developed by the receiving party independent of carrying out the receiving party's responsibilities under this Agreement and independent of any disclosure of, or without reference to, proprietary data or otherwise protectable data hereunder;
- 00. Is received from a third party having the right to disclose such information without restriction; or

00. Is required to be produced by the receiving party pursuant to a court order or other legal requirement. If a non-NASA party believes that any of the events or conditions that remove restriction on the use, disclosure, and reproduction of the data apply the non-NASA party will promptly notify NASA of such belief prior to acting on such belief, and, in any event, will notify NASA prior to an unrestricted use, disclosure, or reproduction of such data.

To the extent authorized by federal law (including Section 304 of the NHPA; 36 CFR 800.11(c)(1); 54 U.S.C. § 307103; Section 9 of the Archaeological Resources Protection Act; 16 U.S.C. § 470hh); and the Freedom of Information Act, 5 U.S.C. 552), NASA, the ACHP, and the NCSHPO shall withhold from public disclosure information about the nature or location of cultural resources, including archaeological resources, historic properties, and resources of religious and cultural significance to Indian tribes. NASA shall consult with the Secretary of the Interior pursuant to the ACHP's regulations (at 36 CFR § 800.11(c)(1)) as necessary to withhold information covered by Section 304 of the NHPA.

00. AMENDMENTS

The APA may be amended when such an amendment is agreed to in writing by all signatories, utilizing the amendment template (Appendix X – Amendment Template). The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

00. TERMINATION

If any signatory to the APA determines that the terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation 00 [Amendments]. If within 90 calendar days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the APA upon written notification to the other signatories. If the APA is terminated, NASA shall comply with the provisions of 36 CFR Part 800, Subpart B, for all Projects that have not already begun and their effects resolved.

Execution of the APA by NASA, the ACHP, and the NCSHPO, and implementation of its terms evidence that NASA has taken into account the effects of the undertakings to which the APA applies on historic properties and afforded the ACHP an opportunity to comment.

APPENDIX X	Definitions
APPENDIX X	Indian Tribes Invited to Consul
APPENDIX X	Additional Consulting Parties
APPENDIX X	NASA Centers
APPENDIX X	NASA Programmatic Agreements (APA Applicability)
APPENDIX X	Heritage Zones
APPENDIX X	NASA Facility Classification Coding System (FCCS)
APPENDIX X	Categorization of Assets

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SIGNATORIES:

NASA

Date

[insert agency official name and title]

ACHP

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NCSHPO

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APPENDIX X – Definitions

- "APA Consulting Parties" are the consulting parties to the APA including the ACHP, NCSHPO, the NTHP, NATHPO, and the 80 federally recognized Tribes. Additional APA Consulting Parties may be designated via an amendment to this agreement. The APA Consulting Parties shall consult with respect to the major provisions of the APA.
- "Assets" are buildings and structures that are NASA-owned real property located within the United States, as recorded in RPMS in Facility Classes 1 through 8, and excluding Facility Class 9 (land) and leasehold improvements (Facility Class 10) (Appendix X – FCCS).
- "Asset Lists" are comprehensive lists of NASA Assets that indicates the following: Asset number, name, date of construction, and FCCS Class Code; if applicable, their individual NRHP evaluation status, applicable Criteria, date of most recent evaluation, and date of concurrence, or their reasons for exclusion from evaluation; which assets have been preliminarily identified under NRHP Criteria C and CCG; whether or not the Assets are located within a Heritage Zone; and their assigned Management Category.
- "Centers" shall be understood to mean NASA's primary Centers, as well as component facilities and technical and service support centers in the U.S., thus constituting all NASA-owned real property in the U.S.
- "Center Consulting Parties" are consulting parties with a demonstrated interest in historic properties at a Center, with which NASA shall consult under the terms of APA. Center Consulting Parties shall include the respective SHPO(s) for the state in which the Center is located, Tribe(s), representatives of local governments, and other parties consistent with 36 CFR § 800.2.
- "Center Consulting Tribes" are the Tribes from within the larger group of Center Consulting Parties. These Tribes have a demonstrated interest in historic and cultural properties at the Center, especially as it comes to ground disturbance.
- "Center-wide programmatic agreement" is a Section 106 agreement document that governs all undertakings at a Center. Programmatic agreements that apply to a subset of Assets shall not constitute a Center-wide programmatic agreement.
- "Facility Classification Coding System (FCCS)" is a hierarchical scheme, represented by numerical codes, of real property types and functions that serves as the framework for identifying, categorizing, and analyzing NASA's inventory of land and facilities.
- "G2G Surveys" are comprehensive gate-to-gate survey of Assets at a NASA center by a SOI-qualified architectural historian provided the assets have not been evaluated for individual eligibility within the last twenty years with documented SHPO concurrence, and they have not turned 50 years of age since their evaluation; they are not in FCCS Facility Classes 5, 7, 8, or 9; and they are not less than 40 years of age.

- 1499 • “Heritage Zones” are areas within Centers that possess unique and distinguishable historical
1500 design aesthetic reflective of NASA history and culture that merit special consideration. NASA’s
1501 defined Heritage Zones for the purposes of the APA are shown in Appendix X – Heritage Zones.
- 1502 • “HTSF” means highly technical or scientific facility as described in 1991 ACHP publication
1503 *Balancing Historic Preservation Needs with the Operations of Highly Technical or Scientific*
1504 *Facilities*.
- 1505 • “HTSF District” is a term used in the APA to describe the nature of NASA Centers as active
1506 research institutions that have developed around HTSF and in which the design, construction, and
1507 physical appearance are determined largely by functional needs, and require frequent
1508 modification to stay scientifically relevant.
- 1509 • “Management Categories” are a strategy used in the APA for management which categorizes
1510 NASA assets into three different buckets based on their historical significance, association with
1511 NASA’s core missions, and physical integrity.
- 1512 • “NASA” shall be understood to mean the agency currently known as NASA as well as its
1513 predecessor agency, the National Advisory Committee for Aeronautics (NACA).
- 1514 • “Participating Centers” shall mean NASA Centers to whom the APA applies—namely those that do
1515 not have a Center-wide programmatic agreement.
- 1516 • “Project” shall mean “undertaking” as defined in 36 CFR Part 800.
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APPENDIX X – Indian Tribes Invited to Consult

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APPENDIX X – Additional Consulting Parties

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APPENDIX X – NASA Centers

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APPENDIX X – NASA Programmatic Agreements

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APPENDIX X – Heritage Zones

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APPENDIX X – NASA Facility Classification Coding System (FCCS)

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APPENDIX X – Categorization of Assets

00. CATEGORIZATION OF ASSETS

00. Assets Evaluated When 50 Years of Age or Older

Assets that NASA has evaluated for NRHP eligibility and received SHPO concurrence shall be assigned a Management Category based upon those evaluations as indicated below. Management Categories shall not deviate from the below except in the case of those Assets put forward by NASA as having lost integrity per Stipulation 00 [Loss of Integrity].

00. NRHP Listed or Eligible, Individually – Categories 1 and 2

Assets that are listed in, or eligible for listing in, the NRHP as individual resources will be considered Category 1 Assets if they possess historical significance on a national level and are directly associated with NASA's core missions.

Assets that are listed in, or eligible for listing in, the NRHP as individual resources that possess state or local significance, or are not directly associated with NASA's core missions, will be considered Category 2 Assets.

00. Category 3

Assets that are not individually eligible for listing in the NRHP will be assigned to Category 3.

00. Loss of Integrity

If NASA can demonstrate that an NRHP-listed or NRHP-eligible Asset has lost integrity such that it can no longer convey its historical significance, the Asset will be assigned Category 3. NASA shall provide documentation to support the recategorization of the Asset.

If there is no documented SHPO concurrence for a NASA evaluation, the Asset shall be treated as unevaluated and Stipulation 00 [Categorization of Unevaluated Assets] shall apply.

00. Categorization of Assets Evaluated Prior to Reaching 50 Years of Age

In cases where an Asset was evaluated for NRHP eligibility prior to reaching 50 years of age, and thus evaluated under CCG, the following shall apply.

00. NRHP Listed or Eligible, Individually – Category 1

Assets that are listed in, or eligible for listing in, the NRHP as individual resources and meet CCG will be considered Category 1 Assets.

00. Ineligible Assets That Have Reached 50 Years of Age

With respect to evaluated Assets where all of the following conditions apply: (1) the Asset was less than 50 years of age at the time it was evaluated for NRHP eligibility; (2) the Asset was at that time found ineligible under CCG; and (3) the Asset has since reached 50 years of age; the Asset shall be treated as unevaluated and Stipulation 00 [Categorization of Unevaluated Assets] shall apply.

Assets evaluated prior to reaching 50 years of age shall otherwise be categorized consistent with Stipulation 00 [Assets Evaluated When 50 Years of Age or Older].

00. **Categorization of Unevaluated Assets**

00. Assets Less Than 50 Years of Age

NASA shall apply the Resource Significance Framework (RSF) Model (Appendix X – RSF Model) to determine the Management Category.

00. Assets 50 Years of Age or Older

If the Asset is in Facility Classes 5 (Hospital and Medical), 7 (Housing and Community), 8 (Utility and Ground Improvements), or 9 (Land), it shall be assigned to Category 3.

For Assets in all other Facility Classes, NASA shall evaluate the resource per NRHP requirements and categorize the resource accordingly.

APPENDIX X – Activities Excluded from Review

The following NASA activities have limited potential to affect historic properties and therefore do not require review under this PA. NASA may undertake these activities without consultation, mitigation, or reporting under this PA, as these are considered routine maintenance and repair. No ground disturbing activity shall be involved in routine maintenance and repair.

With respect to Assets in Categories 1 and 2, routine maintenance and repair shall leave extant material(s) in place where possible. If extant material(s) must be replaced, then it shall be replaced in-kind, i.e., with the same or similar material applied in a manner that is visually consistent with what is being replaced (so that it is matching in color, texture, profile, size, and configuration, as much as possible). If replacement in-kind is not possible, then the activity shall be deemed a modification and managed according to the applicable stipulations in this PA. Routine maintenance and repair will strive to avoid disturbance of historic fabric whenever possible.

1. Exterior Building Maintenance and Repair**Building Maintenance and Repair:**

- General maintenance and repair of buildings and structures, which includes, but is not limited to, painting; siding; roofing; door, ceiling, wall, window, floor covering repair/replacement.
- Elevator repair; filter and light replacement.
- Repairs to existing equipment.
- Repair or in-kind replacement of existing signs or awnings.

Lighting:

- Changes to interior and exterior lighting systems including replacement of or modification to lighting systems in all buildings and facilities so long as they are not character-defining.
- Repair or in-kind replacement of existing significant, character-defining, or contributing exterior light fixtures.

Foundation repair:

- Below-grade repair of brick of all types of foundations so long as work is confined to previously disturbed areas and does not impact or otherwise later previously identified archaeological sites.

Windows and doors:

- Repair of windows and doors, including caulking and weather stripping of existing window or door frames, and installation of new glass in existing sashes or

doors, including retrofitting for double and triple glazing, and replacement of glazing putty.

- Installation of exterior storm windows and doors on historic buildings or structures, provided they conform to the shape and size of the historic windows and doors, and that the meeting rails of storm windows coincide with that of existing sash, and that their installation will not permanently damage historic elements.
- Installation of door or window locks or electronic security apparatus.

Walls and Siding:

- Repair of wall or siding material or in-kind replacement of deteriorated siding or trim.

Painting/lead paint abatement:

- Removal of exterior or interior paint by non-destructive means, limited to hand scraping, low pressure water wash (less than 200 p.s.i.), or paint-removal chemicals, provided that the removal method is consistent with the provisions of 24 C.F.R. Part 35, "Lead-Based Poisoning Prevention in Certain Residential Structures," including Part 35.140, "Prohibited methods of paint removal."
- All lead paint abatement done in accordance with Preservation Brief #37: Appropriate Methods for Reducing Lead Paint Hazards in Historic Housing.
- Application of exterior paint to previously painted surfaces.

Roofing:

- Repair or in-kind replacement of roof cladding and sheeting, flashing, gutters, soffits, and downspouts with no change in roof pitch or configuration.
- Repair or re-framing of structural roof elements as required to improve the drainage and durability of the roof as long as the appearance of the roof lines visible from the front elevation and from other prominent, visible points (for example, the exposed side façade on a corner lot) is not affected.
- New installation of gutters and down spouts, as long as this does not damage historic materials or require removal of historic features.

Disabled Access:

- Repair or in-kind replacement of existing wheelchair ramps, unless the ramps are to be substantially modified.
- Installation of new wheelchair ramps, when the following considerations apply: 1) The ramp will not be a permanent addition to the property; 2) No historic fabric will be permanently damaged in the installation or use of the ramp; 3) Efforts will be made to construct and finish the ramp in a manner that will result in a minimal amount of visual and physical impact on the property, through design considerations, use of materials, and painting wooden ramps whenever possible.

- Substantial modification of an existing wheelchair ramp, provided it is not a character-defining feature of a historic building and the following considerations apply: 1) The ramp will not be a permanent addition to the property; 2) No historic fabric will be permanently damaged in the installation or use of the ramp; 3) Efforts will be made to modify and finish the ramp in a manner that will result in a minimal amount of visual and physical impact on the property, through design considerations, use of materials, and painting wooden ramps whenever possible.

Repointing:

- Repair or repointing of masonry features on historic buildings or structures with the design, size, shape, materials, and repointing to match the original in color, texture, and tooling, and, for historic properties, following the recommended approaches in Preservation Brief No. 2 Repointing Mortar Joints in Historic Brick Buildings.

2. Interior Building Maintenance and Rehabilitation

Green Building Technologies:

- Incorporation of green building technologies to existing historic buildings or structures seeking certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design standards for environmentally sustainable construction provided such construction does not alter or detract from the qualities that contribute to the significance of the historic property(ies).
- Energy conservation measures including modifications to the heating, ventilation, and air condition (HVAC) control systems and conversions to alternative fuels (provided that these elements do not detract from the qualities that make the historic property listed or determined eligible).

Mechanical Systems:

- Installation, replacement or repair of plumbing, HVAC systems and units, electrical wiring and fire protection systems, provided no structural alterations or damage to historic material are involved.
- Restroom improvements for disabled access provided the work is contained within the existing restroom walls.

Electrical:

- Maintenance, repair, removal, modification, upgrading, or replacement of plant and building electrical systems (e.g., building conduit, wiring and lighting, emergency lighting, etc.).

- Upgrading or additional new electrical lines between or among buildings and facilities.

Fire Detection and Suppression:

- Changes to fire detection and suppression systems including routine upgrades and modifications to fire alarm systems, smoke detectors, and sprinkler systems.

Health and Safety:

- General clean-up, encapsulation, and removal and disposal of asbestos-containing materials from buildings and structures provided it does not involve removal or alteration of significant historic elements (for lead paint abatement, see above).

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Interior Spaces:

- Replacement of kitchen or bathroom facilities and fixtures – provided the work is contained within the existing bathroom or kitchen and significant historic fabric will not be damaged, altered, or removed.
- If covering historic features, such as wood floors, then carpet or sheet goods (linoleum or vinyl) shall be installed in a reversible manner, either through tacking or with an underlayment so historic floors shall not be irreversibly damaged.

Basement:

- Installation or repair of concrete basement floor in an existing basement provided no historic materials are damaged.

3. Land and Site Management

Hurricanes:

- Modifications necessary to comply with hurricane codes provided the changes do not alter or detract from the qualities that contribute to the significance of the historic property(ies).

Landscaping:

- Mowing, trimming, and pruning of grass, shrubs, or trees.
- Routine vegetation control activities.
- Maintenance and repair of existing landscape features, including planting, walkways, and statuary.

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- 1835 Erosion Control:
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- 1867 Pest Removal:
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- Removal of dead, diseased, or hazardous vegetation.
 - Treatment of weed infestations that does not violate the chemical label, does not involve ground disturbance, where no features (such as pictographs or petroglyphs) that might be damaged are present, and does not occur within landscaped areas where native plant communities might be harvested.
 - Repairs to, or in-kind replacement of walks and steps, provided it does not involve the removal of historic or character-defining materials.
- General erosion control activities such as gravel or riprap placement on slopes, where minimal grading or preparation is required and no archaeological sites are present.
 - Planting or seeding ground cover and cleanout of existing drainage ditches.
- Replacement of signs, including interpretive signs or exhibit structures, as long as they do not visually intrude on historic property(ies).
 - Installation, repair, or replacement of signs and markers where no ground disturbance will occur, or where installation is confined to disturbed areas or fill, and without movement, removal, or alteration of rock.
- Maintenance and in-kind repair of existing fencing and installation of a new chain link or post and rail fencing.
 - Installation of new fencing provided no identified archaeological sites are present.
- Routine road maintenance, repair, and resurfacing where work is confined to previously maintained surfaces, ditches, culverts, and cut and fill slopes where there are no known historic properties or historic properties would not be affected because proposed work is clearly within disturbed context.
 - Placing marl, gravel, or shell on dirt roads or lots where no new ground disturbance will occur.
 - Repair of existing concrete or asphalt surfaces for curbs, gutters, and retaining walls.
 - Maintenance, repair, and in-kind replacement of non-character-defining street lights, traffic signals, and traffic signs.
- Removal of pests, including insects and rodents, and the removal of animal or bird debris.

Wildlife Habitat Conservation:

- Maintenance and repair of existing property, wetlands, and stream channels. Installation of nesting platforms and boxes. Installation of animal-secure fencing or barriers when consistent with fencing provision above.

Water Systems:

- Changes to water systems including citing, installation, maintenance, repair, removal, and operation of plant water systems including, but not limited to, water wells, cooling water systems, potable water systems, storm sewers, waste water treatment systems, plant drainage, and plumbing.

4. General

Antiterrorism and Force Protection Measures:

- Antiterrorism and force protection measures designed and constructed to prevent or mitigate hostile actions, including cyber threats, as well as to increase capacity and protection for access control, provided such construction does not alter or detract from the qualities that contribute to the significance of the historic property and/or structure.

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APPENDIX X – NASA Project Types

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APPENDIX X – NPS Digital Photo Policy

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APPENDIX X – Amendment Template

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