

**PROGRAMMATIC AGREEMENT
AMONG
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
AMES RESEARCH CENTER, THE CALIFORNIA STATE HISTORIC
PRESERVATION OFFICER, AND THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION REGARDING MANAGEMENT OF
FACILITIES, INFRASTRUCTURE, AND SITES AT THE
AMES RESEARCH CENTER, CALIFORNIA**

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*REVISED DRAFT
March 12, 2019*

WHEREAS, the National Aeronautics and Space Administration (“**NASA**”), an Agency of the United States, acting by and through Ames Research Center (“**ARC**”), located at Moffett Field, California, is responsible for the operation, management, leasing, and administration of facilities at ARC; and

WHEREAS, NASA ARC is responsible as the lead agency for compliance under the National Historic Preservation Act of 1966, as amended, (“**NHPA**”) [54 United States Code (“**U.S.C.**”) § 300101 et seq.] for all historic properties at ARC owned by NASA; and

WHEREAS, NASA ARC has determined that operation, management, leasing, and administration of ARC entails Undertakings that may affect historic properties, which are therefore subject to review under Section 106 of the NHPA [54 U.S.C. § 306108 (previously 16 U.S.C. § 470f, hereinafter referred to as Section 106)] and the Section 106 implementing regulations [36 Code of Federal Regulations (“**C.F.R.**”) Part 800]; and

WHEREAS, NASA ARC, in consultation with the California State Historic Preservation Officer (“**SHPO**”) and the Advisory Council for Historic Preservation (“**ACHP**”), has determined that NASA’s Section 106 requirements can be more effectively and efficiently implemented if a programmatic approach is used in accordance with 36 C.F.R. § 800.14(b)(2); and

WHEREAS, execution of this Programmatic Agreement (“**Agreement**”) will facilitate management and expedite adaptive reuse, repair, and maintenance of historic properties at ARC; and

WHEREAS, this Agreement encompasses the entire ARC property (1,864 acres) as illustrated in **APPENDIX A** to this Agreement; and

WHEREAS, a current list of historic properties that have been determined eligible for or have been listed in the National Register of Historic Places (“**NRHP**”) at ARC is contained in **APPENDIX B** to this Agreement; and

WHEREAS, this Agreement does not apply to the listed National Historic Landmark, the Unitary Plan Wind Tunnel, which is covered under an existing agreement among NASA, the National Conference of State Historic Preservation Officers, and the ACHP, dated October 1989, contained in **APPENDIX C**; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b), NASA ARC has invited the ACHP to participate in the consultation, and the ACHP has elected to be a Signatory to the Agreement; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b), NASA ARC contacted the Native American Heritage Commission (“**NAHC**”) to identify Tribes associated with the area covered under this Agreement, and no Federally Recognized Tribes were identified; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b)(2)(ii), NASA ARC contacted individuals or groups who were identified by the NAHC on April 26, 2016, as non-Federally Recognized Native American tribes as Consulting Parties on April 13, 2017, of which, none responded; and

WHEREAS, in accordance with 36 C.F.R. 800.14(b)(2)(ii), NASA ARC has invited its tenants/lessees at ARC that are listed in **APPENDIX E** to participate in the development of this Agreement as Consulting Parties; and

WHEREAS, one tenant, Planetary Ventures, LLC (“**PV**”), which leases a substantial portion of the ARC property, including Moffett Federal Airfield, has elected to participate as a Concurring Party in the development of this Agreement with respect to historic properties it leases at ARC for the duration of such leases or expiration of the PA, whichever occurs first; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b)(2)(ii), NASA ARC has identified other interested parties with demonstrated interest in historic properties at ARC that are listed in **APPENDIX F**, and those interested parties were invited to comment on this Agreement on March 10, 2017, of which, none responded; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b)(2)(ii), NASA ARC has provided the public an opportunity to comment on this Agreement through notifications published on the ARC Historic Preservation Office website (<https://historicproperties.arc.nasa.gov/>) on March 10, 2017, and March 12, 2019; and

WHEREAS, this Agreement shall become effective as of the date of signature by ACHP (“**Effective Date**”).

NOW, THEREFORE, NASA, the SHPO, and the ACHP agree that Undertakings at ARC shall be implemented in accordance with the following stipulations in order to take into account their effects on historic properties and these processes will satisfy NASA’s Section 106 responsibilities for all individual Undertakings addressed in this Agreement.

STIPULATIONS

The terms defined in **APPENDIX G** are applicable throughout this Agreement.

NASA ARC shall ensure that the following measures are implemented:

I. ROLES AND RESPONSIBILITIES

A. NASA Federal Preservation Officer (“**FPO**”)

1. NASA’s FPO in the Environmental Management Division at NASA Headquarters in Washington, D.C., develops, executes, and manages the Cultural Resources Management Program, which is implemented at each of NASA’s 13 centers and component facilities. The FPO provides guidance to the Center Cultural Resources Manager (“**CRM**”) who locally manages cultural resources at each NASA center.

B. NASA ARC Director (“**Center Director**”)

1. Per 36 C.F.R. § 800.2(a), the Center Director is NASA’s agency official who has approval authority for Undertakings under Section 106. The Center Director is the Signatory to this Agreement. Per NASA Policy Requirement (“**NPR**”) 8510.1, the Center Director appoints the CRM and delegates the Section 106 duties pursuant to this Agreement to the CRM.

C. NASA ARC CRM

1. The CRM is responsible for coordination of the preservation program and implementation of the terms of this Agreement, including determining whether undertakings meet the programmatic allowances in this Agreement as described in Stipulation III.C.

2. The CRM shall ensure that all actions prescribed by this Agreement that involve the identification, evaluation, analysis, recording, treatment, monitoring, or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or subject to the approval of personnel who meet the Secretary of the Interior’s Professional Qualification Standards (“**PQS**”) (36 C.F.R. Part 61) (“**Qualified**”) in the relevant discipline (History, Archaeology, Architectural History, Architecture, or Historic Architecture), as appropriate for the types of resources that may be affected by specific Undertakings. If

necessary, per 36 C.F.R. § 800.2(a)(1), the CRM shall engage Qualified consultants in the relevant discipline to identify, evaluate, and document historic properties, to recommend findings of eligibility and effect, and to determine whether treatments of historic properties comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties ("**Standards**") (36 C.F.R. Part 68), as appropriate. As used herein, the term "Qualified Personnel" refers to NASA Qualified personnel as well as Qualified consultants. When joint review by the CRM and Qualified Personnel is required pursuant to this Agreement, if the CRM is Qualified in the discipline(s) implicated in review of an Undertaking, involvement by separate Qualified Personnel is not required.

3. For the purposes of this Agreement, the CRM's responsibilities will include, but are not limited to:

- a) Coordinating the internal review of all projects and activities that may affect historic properties and ensuring that the ARC Director and senior management are included, as appropriate, in project planning and decision-making regarding historic properties at ARC;
- b) Reviewing and ensuring the adequacy and appropriateness of studies completed by Qualified Personnel, including but not limited to the delineation of an Undertaking's Area of Potential Effects ("**APE**"), identification and evaluation efforts, and effects assessments completed by Qualified Personnel in the appropriate discipline for each proposed Undertaking to ensure that all types of historic properties are identified;
- c) Consulting with external agencies regarding the identification, evaluation, and treatment of historic properties at ARC, and serving as the point of contact with the SHPO, the ACHP, and other consulting parties;
- d) Issuing NASA's determinations of eligibility and effect based on findings completed by Qualified Personnel in the appropriate discipline, and issuing approvals of Undertakings per the terms of this Agreement;
- e) Submitting an annual report to the SHPO under Stipulation VII of this Agreement;
- f) Distributing copies of this Agreement and a copy of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Weeks and Grimmer, 1995) to all appropriate ARC personnel involved with carrying out actions under this Agreement; and

g) Developing and facilitating training through live or computer-based programming specifically related to standard operating procedures for the implementation of this Agreement for ARC personnel who may be affected by the terms of this Agreement, including facilities managers, planners, project managers, and real property officers, to increase understanding and awareness of the procedures herein for appropriate implementation.

D. SHPO

1. As required in accordance with Stipulation III, the SHPO shall review and provide comments to NASA's requests for review of adequately documented findings or determinations within 30 calendar days of receipt, per 36 C.F.R. §§ 800.3(c)(4), 800.4(c)(2), and 800.5(c).
2. The SHPO shall identify staff to assist NASA ARC staff with their Section 106 responsibilities who will be reasonably available as a resource and for consultation through site visits, written requests, telephone conversations or electronic media.
3. The SHPO shall consult with NASA ARC staff, to identify consulting parties, including any communities, organizations, or individuals that may have an interest in individual Undertakings and their effects on historic properties.
4. The SHPO shall participate in annual reviews convened by NASA ARC to review the effectiveness of this Agreement in accordance with Stipulation VII.

E. Consulting Parties

1. Consulting parties for individual Undertakings shall be identified pursuant to, and their participation in Undertakings covered under this Agreement shall be governed by, 36 C.F.R. §§ 800.2(c)(5) and 800.3(f). Consulting parties shall be identified as groups or individuals who have a specific interest or association with historic properties within the APE established for each Undertaking, and shall be consulted when Undertakings are reviewed in accordance with Stipulation III.E.1 and III.E.2.

F. The Public

1. Public involvement and the release of information shall be consistent with 36 C.F.R. §§ 800.2(d)(1-3), 800.3(e), and 800.11(c)(1 and 3); 5 U.S.C. § 552, as amended (Freedom of Information Act); and 16 U.S.C. § 470aa-470mm (Archeological Resources Protection Act). NASA ARC shall post notifications

of its Section 106 actions on the ARC Historic Preservation Office website (<https://historicproperties.arc.nasa.gov/>), which is available to the public and provides contact information for public comment.

II. COORDINATION WITH TENANTS/LESSEES

A. NASA ARC shall include its tenants/lessees in the Section 106 review process for Undertakings that may affect the specific historic properties at ARC under lease to said tenants/lessees. Tenants/lessees may elect to participate in the Section 106 review process as a consulting party as provided for in 36 C.F.R. § 800.2(c)(5) for Undertakings that may affect the specific properties under lease to said tenants/lessees in accordance with the regulations set forth in 36 C.F.R. Part 800 and this Agreement.

B. With respect to properties that tenants/lessees do not or will not lease at ARC, tenants/lessees may participate in the Section 106 review process as a member of the public, to the extent public consultation is required.

C. All current and future leases of properties at NASA ARC as of the Effective Date of this Agreement are subject to the terms of this Agreement.

D. Tenants/lessees shall submit plans for all tenant/lessee-related activities that may potentially affect historic properties at ARC to the CRM, including activities that are included in tenant/lessee Tax Credit Applications under the Federal Historic Preservation Tax Incentive program (36 C.F.R. Part 67). The CRM shall review proposed activities, ensure that the Undertaking is appropriately reviewed by Qualified Personnel, if necessary, and issue NASA ARC's determinations and approvals for the Undertaking, as appropriate, pursuant to the CRM's responsibilities under Stipulation I.C of this Agreement. Tenant/lessees may submit Tax Credit Applications to the CRM for Section 106 review; however, NASA ARC does not determine whether these activities adhere to the requirements of the Federal Historic Preservation Tax Credit program.

E. NASA ARC and Federal tenants at ARC shall determine which agency will be responsible as the lead agency for compliance under the National Historic Preservation Act of 1966, as amended, for the area such Federal tenant occupies at ARC. The terms for standing delegations of lead agency responsibilities shall be documented in lease agreements and/or Memorandums of Understanding between the Federal agencies.

III. PROJECT REVIEW

A. Determine the Undertaking

1. Consistent with 36 C.F.R. § 800.3(a), the CRM shall determine whether the proposed activity constitutes an Undertaking.

a. If the activity is not an Undertaking, NASA ARC has no further obligations under Section 106 or this Agreement.

b. If the activity is an Undertaking, the CRM will proceed to Stipulation III.B.

B. No Potential to Cause Effects

1. Pursuant to 36 C.F.R. § 800.3(a)(1), if the CRM determines that the Undertaking is the type of activity that has no potential to cause effects, NASA ARC has no further obligations under Section 106 or this Agreement.

2. If the CRM determines that the Undertaking has the potential to cause effects, the CRM will proceed to Stipulation III.C below.

C. Programmatic Allowances

1. The CRM and Qualified Personnel shall review the Undertaking to determine if the Undertaking falls within one or more Programmatic Allowances (“**Allowances**”) listed in Appendix D to this Agreement. Undertakings qualifying for the Allowances must be implemented as specified in Appendix D and shall adhere to *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* (“**Standards**”). Unless otherwise noted in Appendix D, the Allowances are applicable anywhere at ARC and on any type of property (e.g., historic or non-historic). If a property requires further evaluation to determine its eligibility for the NRHP, it shall be treated as a historic property under this Agreement and in accordance with the Allowances for historic properties. A property previously evaluated by Qualified Personnel and determined to be ineligible for listing in the NRHP shall not require reevaluation unless it has since turned 50 years old or has acquired additional significance in association with a newly developed or revised historic context statement, as adopted by Qualified Personnel. An Undertaking shall not be segmented into separate Undertakings to fit within the Allowances.

a. If the CRM and Qualified Personnel agree that the Undertaking falls within one or more Allowances, NASA ARC shall follow the procedure set forth in Stipulation III.C.2 below.

b. If the CRM and Qualified Personnel do not agree regarding whether a particular Undertaking falls within one or more Allowances or if the ARC and Qualified Personnel agree that the activity does not fall within the

Allowances, the CRM will proceed in accordance with Stipulation III.D below.

c. Programmatic Allowances may be revised and added to this Agreement in accordance with Stipulation X. Signatories to this Agreement may propose additions or revisions to the list of Programmatic Allowances by providing a written proposal to the other Signatories, as appropriate. Concurring Parties may also propose additions or revisions by providing a written proposal to the CRM for consideration, which NASA ARC may propose to the other Signatories. Appendix D will be amended upon receipt of written concurrence from all Signatories, in accordance with Stipulation X of this Agreement.

2. Undertakings Meeting Allowances

a. The CRM shall document the determination that the Undertaking falls within one or more Allowances in the Undertaking's file. The CRM shall include this determination in its annual report to the SHPO, in accordance with Stipulation VII of this Agreement. No additional consultation is required, and NASA ARC has no further obligations under Section 106.

b. Per Stipulation VII, the CRM shall maintain appropriate files on all Undertakings that fall within the Allowances. Such files will include, at a minimum, the property name and number, a description of the proposed Undertaking, the name of Qualified Personnel who provided review, and justification for the determination that the Undertaking falls within the Allowances.

D. Determine Potential Effects on Historic Properties

1. Identification of Historic Properties: Pursuant to its responsibilities under Sections 106 and 110 of the NHPA, the CRM and Qualified Personnel shall delineate the Undertaking's APE and make reasonable and good faith efforts to identify historic properties in the APE, in accordance with 36 C.F.R. § 800.4(a) through (c).

a. Resources that are at least 45 years old within the Undertaking's APE shall be evaluated. Additionally, resources that are less than 45 years old and demonstrate exceptional significance according to the guidelines provided in National Register Bulletin No. 22, *Guidelines for Evaluating and Nominating Properties that Have Achieved Significance within the Past Fifty Years*, as determined by Qualified Personnel, shall be evaluated. The CRM and Qualified Personnel shall determine if the APE contains historic properties, including properties of religious and cultural

significance. This may include the review of documentation provided by tenants/lessees and consultation with the SHPO and consulting parties.

b. Per Stipulation VII, the CRM shall maintain an updated list of historic properties as needed to document additional properties that have been determined

eligible for or have been listed in the NRHP, or have become ineligible for or are delisted from the NRHP, to reflect ongoing survey and evaluation of buildings and structures at ARC as they turn 50 years old or are significantly altered. The CRM shall submit the updated list to the Signatories and Concurring Parties with its annual report to the SHPO for concurrence, in accordance with Stipulation VII of this Agreement. NASA ARC will make the updated list available to the public via the ARC Historic Preservation Office website (<https://historicproperties.arc.nasa.gov/>).

2. Results of Identification and Evaluation

a. If the CRM and Qualified Professional determine that no historic properties are located in the APE or that historic properties are located within the APE but that no historic properties will be affected, NASA ARC shall follow the procedure set forth in Stipulation III.D.3.

b. If the CRM and Qualified Professional determine that historic properties may be affected, NASA ARC will proceed in accordance with Stipulation III.E.

3. Finding of No Historic Properties Affected:

The CRM shall document its finding of no historic properties affected in accordance with 36 C.F.R. § 800.11(d)(1-3) and retain records of its finding. Per Stipulation VII, the CRM shall maintain appropriate files on all Undertakings that result in a finding of no historic properties affected. Such files will include, at a minimum, the property name and number, a description of the proposed Undertaking, the APE, the name of Qualified Personnel who provided review, and justification for the finding of no historic properties affected. NASA ARC shall make documentation available to any consulting parties and the public, consistent with applicable confidentiality requirements as described in Stipulation VI. Following satisfactory completion of these steps, no further review pursuant to Section 106 or this Agreement is required. The CRM shall include its finding in its annual report to the SHPO, in accordance with Stipulation VII.B of this Agreement.

If the CRM and Qualified Personnel find that there are historic properties that may be affected by the Undertaking, NASA ARC shall follow the standard Section 106 procedures outlined in 36 C.F.R. § 800.5.

IV. OTHER CONSIDERATIONS

A. Changes to an Approved Scope of Work: NASA ARC shall enact the following actions to address proposed changes to an approved scope of work for an Undertaking:

1. If the CRM and Qualified Personnel determine that the change to an approved scope of work meets a Programmatic Allowance, will be modified to meet a Programmatic Allowance, conforms to the Standards, or has no effect on the property, NASA ARC shall approve the change and conclude its Section 106 review responsibilities.
2. If the CRM and Qualified Personnel determine that the change does not meet a Programmatic Allowance, NASA ARC shall initiate consultation pursuant to Stipulation III.

B. Unexpected Discoveries, Previously Unidentified Properties, or Unexpected Effects:

1. In the event of an unexpected discovery, or if it appears that an Undertaking has affected a previously unidentified property or affected a known historic property in an unanticipated manner, NASA ARC shall:
 - a) Stop all construction activities in the vicinity of the discovery or affected historic property and in any adjacent areas where effects to the resource can reasonably be expected to occur.
 - b) Inspect the construction site to determine the extent of the discovery or effects on historic properties and ensure that construction activities have halted.
 - c) Clearly mark the area of discovery and implement interim measures to protect the discovery from looting and vandalism.
 - d) Ensure that a Qualified archaeologist will inspect the work site to determine the extent and nature of an affected archaeological resource.

e) Ensure that a Qualified architectural historian or historic architect will inspect any unexpected effects and/or damages to affected buildings or structures.

f) Take all reasonable measures to avoid or minimize harm to the property until NASA ARC has completed consultation with the SHPO, and any other consulting parties.

g) Allow construction work to then proceed in the project area outside of the area of discovery.

h) Upon notification of a discovery, the CRM shall immediately notify the FPO, SHPO, and other consulting parties specified for the Undertaking that may have an interest in the discovery, previously unidentified property or unexpected effects, and consult to evaluate the discovery for NRHP eligibility and/or the effects of the Undertaking on historic properties.

i) If human remains are discovered, ensure that there shall be no further excavation or disturbance of any nearby area that may also contain human remains, and immediately notify the NASA ARC Office of Protective Services, which will then notify the Federal Bureau of Investigation and/or the county coroner/medical examiner, as applicable. Discoveries of human remains on Federal or Tribal lands shall be subject to the Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001-3013, 18 U.S.C. § 1170) and the Archeological Resources Protection Act (16 U.S.C. § 470aa-470mm, as amended), as applicable.

2. NASA ARC shall complete the following actions, as required:

a) In accordance with 36 C.F.R. § 800.13(b)(3), within 48 hours of receipt of the notification, the CRM shall provide the SHPO and other consulting parties, as appropriate, with its assessment of the NRHP eligibility of the discovery and the measures it proposes to take to resolve adverse effects. In making its official evaluation, the CRM and Qualified Personnel, in consultation with the SHPO, may assume the discovery to be NRHP-eligible for the purposes of Section 106 pursuant to 36 C.F.R. § 800.13(c). The CRM, the SHPO, and other consulting parties, as appropriate, shall respond within 48 hours of receipt.

b) NASA ARC shall consult with the SHPO and other consulting parties in accordance with the consultation process outlined in Stipulation

III, Project Review, to develop a mutually-agreeable action plan with timeframes to identify the discovery or previously unidentified property, take into account the effects of the Undertaking, resolve adverse effects if necessary, and ensure compliance with applicable Federal, State, and local statutes.

c) NASA ARC shall coordinate any needed modification to the scope of work for the Undertaking necessary to implement recommendations of the consultation and facilitate proceeding with the Undertaking.

d) In cases where discovered human remains are determined to be American Indian, NASA ARC shall consult with the appropriate Tribal representatives and the SHPO. In addition, NASA ARC shall follow the guidelines outlined in the ACHP's *Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects* (2007) and any appropriate State-specific policies that may be in force.

3. Any disputes over the evaluation or treatment of previously unidentified resources will be resolved in accordance with Stipulation VIII of this Agreement.

C. Curation: NASA ARC shall ensure that archaeological artifacts recovered from archaeological investigations or post-review discoveries will be stored in a curatorial repository that meets federal standards stipulated in 36 C.F.R. Part 79 (*Curation of Federally-Owned and Administered Archeological Collections*).

D. Ground-Disturbing Activities: For ground-disturbing activities, the CRM and Qualified Personnel in Archaeology shall determine whether the footprint(s) of proposed activities is confined to areas previously studied for subsurface archaeological deposits, or in previously surveyed areas of low sensitivity, as delineated on the ARC Composite Archaeological Sensitivity Map attached to this Agreement as **APPENDIX H – CONFIDENTIAL**. If Qualified Personnel in Archaeology determine that no further archaeological survey efforts are warranted, because the area has been previously surveyed for cultural resources and no historic properties are present, or due to the low potential for intact subsurface remains supported by existing information from previously conducted investigations with the SHPO's agreement/concurrence, as currently described in the *Ames Research Center Archaeological Resources Study* (2017) on file at ARC and with the SHPO, then no additional archaeological survey work is required.

V. EMERGENCY ACTIONS

A. Except as otherwise noted, this section establishes an alternative procedure to that set forth in 36 C.F.R. § 800.12, as authorized by 36 C.F.R. § 800.12(b)(1), for reviewing emergency Undertakings.

B. General Emergencies. Emergency actions are those actions deemed necessary by NASA ARC as an immediate and direct response to a disaster or emergency declared by the President or the Governor of the State of California, or another immediate threat to life or property. In those situations where unanticipated and sudden events, including, but not limited to, earthquakes, floods, fires, wind, and/or storms that affect the structural stability of a historic property, rendering it an immediate threat to life or property, NASA ARC shall take the necessary steps to comply with the ACHP's regulations for emergency situations (36 C.F.R. § 800.12) and make the historic property safe and secure.

C. Immediate Rescue and Salvage Operations. For immediate rescue and salvage operations conducted in response to an event to preserve life or property, NASA ARC has no Section 106 consultation responsibilities in accordance with 36 C.F.R. § 800.12 (d);

D. Emergency Work Falling Within Programmatic Allowances. If the CRM and Qualified Personnel determine that the emergency Undertaking meets one or more of the Allowances in Appendix D, NASA ARC shall complete the Section 106 review process pursuant to Stipulation III.C.

E. Emergency Work Not Falling Within Programmatic Allowances. If the CRM and Qualified Personnel determine that the emergency Undertaking does not meet the Allowances in Appendix D and would otherwise affect a historic property during this review period:

1. To the extent practicable, the CRM and Qualified Personnel shall propose an emergency Undertaking with treatment measures (avoidance, minimization, and mitigation) that would resolve potential adverse effects during implementation, and request the comments of the SHPO and consulting parties within 3 days of receipt of this information unless NASA ARC determines the nature of the emergency warrants a shorter time period.

2. NASA ARC may provide this information through written requests, telephone conversations, meetings, or electronic media. In all cases, NASA ARC shall clarify that an "expedited review" is being requested for the emergency Undertaking.

3. NASA ARC shall take into account any timely comments provided by the SHPO and/or consulting parties in making a decision on how to proceed.

4. Should the SHPO and/or consulting parties not comment within 3 days, NASA ARC shall proceed with the emergency Undertaking based on the available information.

F. NASA ARC shall notify the SHPO and consulting parties of its final determination of effect, indicating how any comments received were considered in reaching that determination.

G. Extension of Expedited Review Period. Pursuant to 36 C.F.R. § 800.12(d), NASA ARC may conduct expedited review of emergency Undertakings for 30 days from the beginning of the incident period. Should NASA ARC determine that it is necessary to extend the expedited review period for emergency Undertakings beyond the initial 30 days, the CRM shall, in 30-day increments, as needed, notify in writing the ACHP, SHPO, and other consulting parties. Emergency actions under this Agreement are those implemented within 30 days, or such longer period as extended by NASA ARC, from after the emergency has been declared.

H. Emergencies Involving Hangars 1, 2 and 3. Notwithstanding the foregoing Section V.B, in the event of an emergency affecting the structural stability of Hangars 1, 2, or 3 at ARC that poses a threat to life or property, work shall be initiated within 90 days of discovery of that emergency, unless a longer period is agreed to by the CRM. "Work" shall include planning, design and engineering activities undertaken for the purpose of correcting the emergency. When the emergency actions do not qualify for treatment under 36 C.F.R. § 800.12, the process set forth in Section IV.B shall apply.

VI. HANDLING OF SENSITIVE BUT UNCLASSIFIED DATA

A. The Signatories to this Agreement acknowledge that sensitive information about historic properties, including locations of known archaeological or traditional cultural sites, may be generated or received pursuant to this Agreement and shall withhold such information from public disclosure to the extent allowable under Section 304 of the NHPA, 5 U.S.C. § 552, as amended (Freedom of Information Act), and Section 6254.10 of the California Government Code (California Public Records Act), as appropriate. NASA ARC shall only provide sensitive information as determined by Qualified Personnel under confidential cover to Signatories and appropriate consulting parties. NASA ARC shall provide redacted sensitive information to the public, as appropriate.

B. If any Signatory receives a request for information about a historic property related to this Agreement, that Signatory shall notify the other Signatories and, if applicable, NASA ARC will notify the tenant/lessee(s) of the known or potential historic properties covered by the request, within five days of receipt of the request.

C. In response to a request for information and in considering the release of sensitive information about historic properties related to this Agreement, the Signatory shall consider whether the information (a) is publicly available at the time of the request for disclosure; (b) is independent of any disclosure of, or without reference to, proprietary data or otherwise protectable data; (c) is received from a third party having the right to disclose such information without restriction; or (d) is requested of the receiving Signatory pursuant to a court order or other legal requirement.

VII. ANNUAL REPORTING

A. NASA ARC shall provide to the SHPO an annual status report within 12 months of the execution of this Agreement, and every 12 months thereafter until it expires, is extended, or is terminated. The annual status report will address the following:

1. Undertakings implemented during the reporting period that conformed to the Programmatic Allowances as set forth in Stipulation III.C.2 and Appendix D, including, at a minimum, the property name and number, a description of the proposed Undertaking, the APE, the name of Qualified Personnel who provided review, and justification for the determination that the Undertaking falls within the Allowances;
2. Undertakings implemented during the reporting period for which NASA ARC made a finding of “No Historic Properties Affected” under Stipulation III.D.3, including, at a minimum, the property name and number, a description of the proposed Undertaking, the APE, the name of Qualified Personnel who provided review, and justification for the finding of no historic properties affected;
3. Any cases of post-review discovery or unanticipated effects;
4. Problems with implementation of this Agreement or issues encountered during the year, including any comments or concerns raised by the SHPO,

Concurring Parties, other consulting parties, or any new parties (e.g., Tribes) who have expressed interest in consulting;

5. Proposed changes to the Agreement, including any comments or concerns submitted by the SHPO, Concurring Parties, and other consulting parties.

6. All training activities conducted by the CRM and completed by relevant ARC personnel related to implementation of this Agreement, as specified under Stipulation I.C.3.g, during the reporting period.

7. A summary of anticipated projects and issues in the coming year.

B. NASA ARC shall update Appendix B annually to document additional properties that have been determined through prior consultation with the SHPO to be eligible for or have been listed in the NRHP, or have become ineligible for or are delisted from the NRHP, to reflect ongoing survey and evaluation of buildings and structures at ARC as they turn 50 years old or are significantly altered. NASA ARC shall submit the revised Appendix B with the annual status report to the SHPO and concurrently update the public information available on the NASA ARC Historic Preservation Office website.

C. The ACHP and the SHPO shall review the activities carried out pursuant to this Agreement as summarized in the Annual Report. The CRM shall cooperate with the SHPO and the ACHP in their monitoring and review responsibilities.

D. NASA ARC shall convene meeting(s), as necessary, among the Signatories to this Agreement to discuss the annual report and issues or improvements for this Agreement.

VIII. DISPUTE RESOLUTION

A. Should any Signatory object to the manner in which the terms of this Agreement are implemented or to any action carried out or proposed by NASA ARC pursuant to the terms of this Agreement, the objecting Signatory shall consult with NASA ARC and the other Signatories to resolve the objection. NASA ARC shall notify all other Signatories and Concurring Parties of this objection.

B. If, after initiating such consultation, NASA ARC determines that the objection cannot be resolved through consultation, NASA ARC will:

1. Forward all documentation relevant to the dispute, including the NASA ARC's proposed resolution, to the NASA FPO and ACHP. The ACHP shall provide NASA ARC 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 ARC 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 ARC will then proceed according to its final decision.

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

3. NASA's responsibilities to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

C. At any time during implementation of the measures stipulated in this Agreement, should an objection pertaining to this Agreement be raised by a member of the public, the party to this Agreement receiving the objection shall notify the other parties to this Agreement and NASA ARC shall take the objection into account, consulting with the objector and, should the objector so request, with any of the parties to this Agreement to resolve the objection.

IX. ANTI-DEFICIENCY ACT

NASA's obligations under this Agreement are subject to the availability of appropriated funds, and the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. NASA ARC shall make reasonable and good faith efforts to secure necessary funds to implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs NASA's ability to implement the stipulations of this Agreement, NASA ARC shall consult to develop an amendment in accordance with Stipulation X of this Agreement. No provision of this Agreement will be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

X. AMENDMENT AND TERMINATION

A. This Agreement may be amended upon written request by any Signatory. Upon such request, the Signatories shall immediately consult to consider the proposed amendment. Concurring Parties shall be given notice of commencement of consultation. If an amendment is agreed upon by all Signatories, Concurring Parties shall be given an opportunity to review and comment prior to execution of the amendment. This

Agreement may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date of execution by the ACHP.

B. If any Signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment, as described above. If within 30 days (or another time period agreed to by all Signatories) an amendment cannot be reached, any Signatory may terminate the Agreement upon written notification to the other Signatories. Concurring Parties shall be given notice of Signatories' intent to terminate the Agreement.

C. In the event of termination of this Agreement, NASA ARC shall comply with the provisions of 36 C.F.R. Part 800 for all Undertakings or portions of Undertakings that have not already begun. NASA ARC shall notify the Signatories and Concurring Parties to this Agreement of the course of action it will pursue.

XI. DURATION AND EXTENSION

A. This Agreement will expire in five years from the date of its execution ("**Initial Term**") but upon expiration of the Initial Term will be automatically extended for an additional five year period ("**Extended Term**") unless within two years from the date of execution of the Agreement, the SHPO notifies the other Signatories and Concurring Parties in writing of its intent to terminate the Agreement at expiration of the Initial Term ("**Early Termination Notice**"). The Early Termination Notice shall include written findings explaining SHPO's reasons for seeking to terminate the Agreement upon the expiration of the Initial Term ("**Early Termination Notice Findings**"). Upon receipt of the Early Termination Notice, the Signatories shall consult as provided in Stipulation X.B and attempt to amend the Agreement to address SHPO's Early Termination Notice Findings so that the Agreement, as amended, may remain in effect for the Extended Term.

B. If the event the Agreement remains in effect through the Extended Term, twelve months prior to expiration of this Agreement, the Signatories will consult regarding extension of the Agreement. The Signatories may mutually agree to extend the term of this Agreement through an amendment in accordance with Stipulation X, provided that the original Agreement has not expired.

EXECUTION of this Agreement by NASA ARC, the SHPO, and the ACHP, and implementation of its terms evidence that NASA ARC has afforded the SHPO and ACHP a reasonable opportunity to comment on NASA's management of historic properties at ARC and that NASA ARC has taken into account the effects of its ongoing management on historic

properties at ARC and fully satisfies its Section 106 responsibilities for all individual Undertakings subject to review under this Agreement.

DRAFT

SIGNATORIES TO THIS AGREEMENT:

National Aeronautics and Space Administration, Ames Research Center

_____ **Date:** _____
Eugene Tu, Director

Advisory Council on Historic Preservation

_____ **Date:** _____
John M. Fowler, Executive Director

California State Historic Preservation Officer

_____ **Date:** _____
Julianne Polanco, SHPO

DRAFT

CONCURRING PARTIES TO THIS AGREEMENT:

Planetary Ventures, LLC

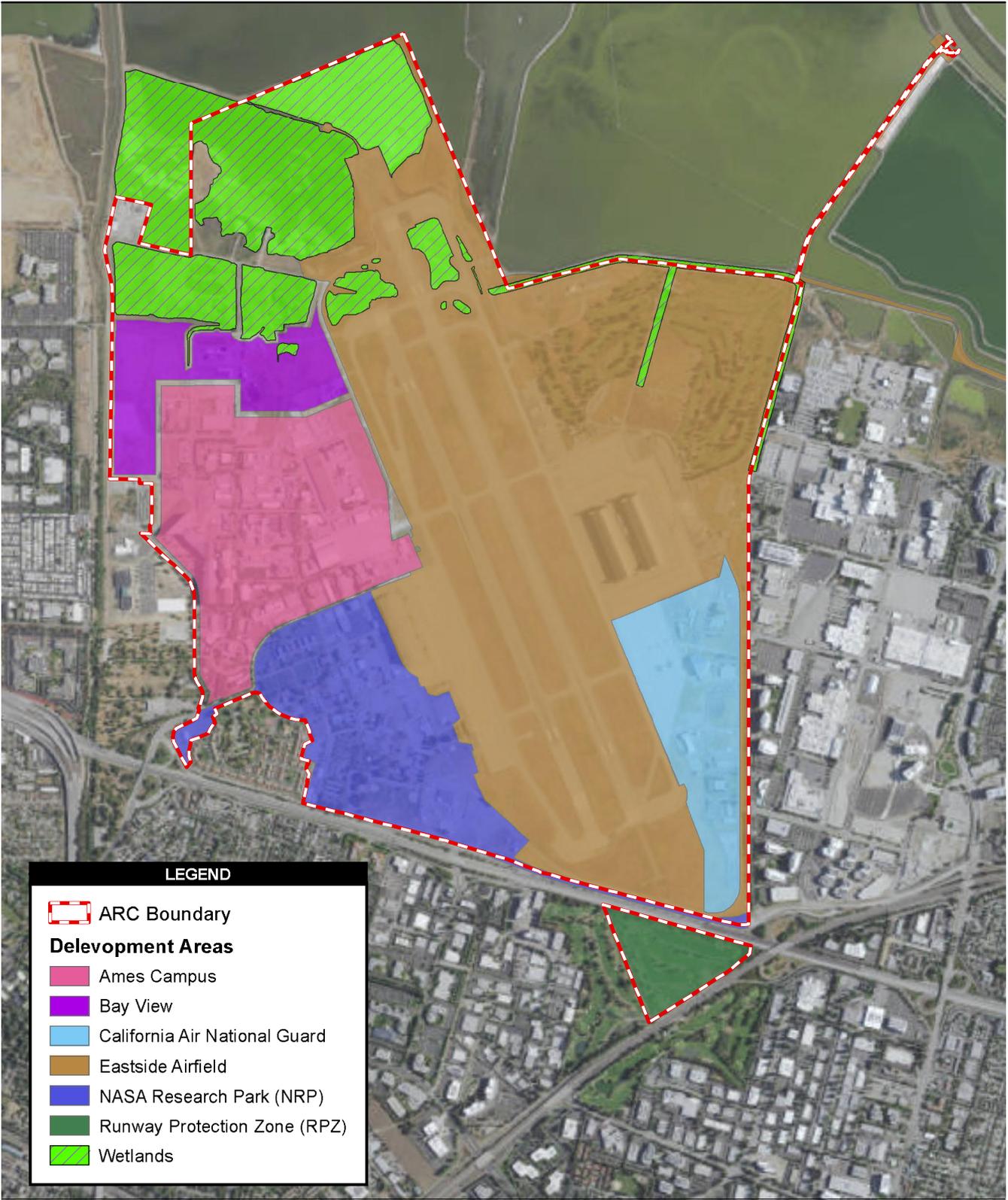
**By: GEV Real Estate, Inc.,
a Delaware corporation
Its: Member**

**By: Google Inc.,
a Delaware corporation,
Its: Sole shareholder**

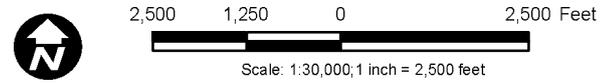
Date: _____

**David Radcliffe
Vice President of Real Estate and
Workplace Services**

DRAFT



Source: ESRI 2014; Bing 2014



Ames Research Center

APPENDIX B

LIST OF HISTORIC PROPERTIES AT ARC

March 12, 2019

Property #	Description	Notes
1	HANGAR ONE	Listed – NAS Sunnyvale Historic District
2	GYMNASIUM	Listed – NAS Sunnyvale Historic District
5	WATER TOWER AND STORAGE TANK	Listed – NAS Sunnyvale Historic District
10	BOILER PLANT FACILITY	Listed – NAS Sunnyvale Historic District
15	SECURITY STATION	Listed – NAS Sunnyvale Historic District
16	PUBLIC WORKS	Listed – NAS Sunnyvale Historic District
17	BLUMBERG ADMINISTRATION AND TELEPHONE EXCHANGE	Listed – NAS Sunnyvale Historic District
17A	MONUMENTS; ANCHOR	Listed – NAS Sunnyvale Historic District
18	UAV RESEARCH BUILDING	Listed – NAS Sunnyvale Historic District
19	INDUSTRY PARTNERS BUILDING	Listed – NAS Sunnyvale Historic District
20	ADMINISTRATION BUILDING	Listed – NAS Sunnyvale Historic District
21	DETACHED GARAGES	Listed – NAS Sunnyvale Historic District
22	DETACHED GARAGES	Listed – NAS Sunnyvale Historic District
23	CARNEGIE MELLON UNIVERSITY	Listed – NAS Sunnyvale Historic District
24	CARNEGIE MELLON UNIVERSITY STORAGE FACILITY	Listed – NAS Sunnyvale Historic District
25	ADMINISTRATION AND AUDITORIUM	Listed – NAS Sunnyvale Historic District
26	VISITOR REGISTRATION AND EMPLOYEE BADGES (VREB)	Listed – NAS Sunnyvale Historic District
32	NORTH FLOODLIGHT TOWER	Listed – NAS Sunnyvale Historic District
33	SOUTH FLOODLIGHT TOWER	Listed – NAS Sunnyvale Historic District

NASA Ames Research Center
 Programmatic Agreement, Appendix B

Property #	Description	Notes
37	SCALE HOUSE	Listed – NAS Sunnyvale Historic District
40	FLAGPOLE AND GROUNDS	Listed – NAS Sunnyvale Historic District
46	AIRCRAFT MAINTENANCE HANGAR 2	Listed – NAS Sunnyvale Historic District
47	AIRCRAFT MAINTENANCE HANGAR 3	Listed – NAS Sunnyvale Historic District
55	BOILER HOUSE, HANGARS 2 & 3	Listed – NAS Sunnyvale Historic District
69	INERT AMMUNITION STORAGE	Eligible – NAS Sunnyvale Historic District
70	FUSE & DETONATOR MAGAZINE	Eligible – NAS Sunnyvale Historic District
71	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
72	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
73	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
74	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
105	AIRFIELD LIGHTING VAULT/TRANSFORMER VAULT	Eligible – NAS Sunnyvale Historic District
106	AIRCRAFT COMPASS CALIBRATION PAD	Eligible – NAS Sunnyvale Historic District
143	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
147	HIGH EXPLOSIVE MAGAZINE	Eligible – NAS Sunnyvale Historic District
158	AIRFIELD FLIGHT/TOWER OPERATIONS BUILDING	Eligible – NAS Sunnyvale Historic District
329	RECEIVER BUILDING	Eligible – NAS Sunnyvale Historic District
442	ORDINANCE HANDLING PAD	Eligible – NAS Sunnyvale Historic District
454	TRANSMISSION BUILDING UHF/VHF	Eligible – NAS Sunnyvale Historic District
MF1000	RUNWAY 32L/14R	Eligible – NAS Sunnyvale Historic District
MF1001	INSTRUMENT RUNWAY 32R/14L	Eligible – NAS Sunnyvale Historic District
MF1002	AIRCRAFT PARKING APRON	Eligible – NAS Sunnyvale Historic District

NASA Ames Research Center
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Property #	Description	Notes
MF1016	AIRCRAFT TAXIWAY PAVEMENT	Eligible – NAS Sunnyvale Historic District
N200	ADMINISTRATION BUILDING	Listed
N215	7X10 FT. WIND TUNNEL #1	Listed – Ames Wind Tunnel Historic District
N220	TECHNICAL SERVICES BLDG.	Listed – Ames Wind Tunnel Historic District
N221	40X80 FT. WIND TUNNEL	Listed – Ames Wind Tunnel Historic District
N221B	80X120 FT. WIND TUNNEL	Listed – Ames Wind Tunnel Historic District
N226	ADMIN/EDUCATION FACILITY	Listed – Ames Wind Tunnel Historic District
N227	UNITARY PLAN WT.BUILDING	National Historic Landmark; Listed – Ames Wind Tunnel Historic District
N227A	11 FT.TRANSONIC WT	National Historic Landmark; Listed – Ames Wind Tunnel Historic District
N227B	9X7 FT.SUPERSONIC WIND TUNNEL	National Historic Landmark; Listed – Ames Wind Tunnel Historic District
N227C	8X7 FT.SUPERSONIC WIND TUNNEL (STORAGE)	National Historic Landmark; Listed – Ames Wind Tunnel Historic District
N234	THERMAL PROTECTION LABORATORY (ARC JET COMPLEX)	Listed
N238	ARC JET LABORATORY (ARC JET COMPLEX)	Listed
N242	SYSTEMS DEVELOPMENT FACILITY	Eligible
N243	FLT.&GUIDANCE SIMULA.LAB.	Listed

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

WHEREAS, the National Aeronautics and Space Administration (NASA) undertakes research, development, space mission operations, and management use of its facilities which have been designated as National Historic Landmarks (Landmarks) (Attachment 1); and

WHEREAS, such facilities require frequent modification over the life of agency missions to adapt them to meet the requirements of ongoing NASA programs; and

WHEREAS, NASA has determined that such modifications may have an effect on those Landmarks, and has consulted with the National Conference of State Historic Preservation Officers (NCSHPO) and the Advisory Council on Historic Preservation (Council) pursuant to the regulations (36 CFR Part 800) implementing Sections 106 and 110(f) of the National Historic Preservation Act, as amended (16 U.S.C. 470f and 470h-2(f)); and

WHEREAS, the Department of the Interior, National Park Service (NPS) was invited and participated in the consultation;

NOW, THEREFORE, NASA, the NCSHPO, and the Council agree that the programs shall be implemented in accordance with the following stipulations in order to take into account the effect of the programs and specific undertakings on the Landmarks.

Stipulations

NASA will ensure that the following measures are carried out.

I. Categories of Activities

A. When the proposed undertaking involves any of the following activities, NASA shall consult with the appropriate SHPO and, as necessary, the Council in accordance with Stip. II:

- 1. Demolition, dismantling, or relocation of original engineering structures, or of buildings housing facilities;
- 2. Removal or excessing of significant elements of the Landmarks specifically named on the National Register nomination forms;
- 3. New construction not compatible with major portions of the original structure or which alter the characteristics of the

facility which were specified as the reason for its Landmark designation; or

4. Changes in function, purpose, or use of a facility.

B. When the proposed undertaking is limited to the following activities that will not alter the characteristics of the facility which were specified as the reason for its landmark designation, NASA shall develop and implement mitigation measures in accordance with Stipulation III:

1. Replacement of historic hardware or components;
2. Modification of the original structure or equipment used in engineering structures, or buildings housing facilities; or
3. New construction compatible with existing structure, purpose, and operation of the facility.

NASA shall include a description of such activities and mitigation measures in the annual summary of its activities prepared pursuant to Stipulation IV.A.

C. When the proposed undertaking involves none of the activities specified above, NASA may proceed without consultation or the implementation of mitigation measures.

II. Consultation Process

A. Consultation required under Stip. I.A. shall be conducted as follows:

1. NASA shall provide the following documentation to the SHPO for review:
 - a. a description of the undertaking, with photos, maps, and drawings;
 - b. a description of the affected Landmark;
 - c. a description of the effects of the undertaking on the affected Landmark;
 - d. a description of alternatives to the proposed action, which were considered if any, and reasons not chosen;
 - e. a description of any mitigation measures proposed;
 - f. a description of NASA's effort, if appropriate, to obtain and consider views of affected interested persons on the proposed undertaking, including a copy of any comments received; and
 - g. the planning and approval schedule for the proposed undertaking.

Whenever feasible, NASA shall give the SHPO advance notice that such documentation is under preparation, and advise the SHPO of a date certain that it intends to submit the documentation to the SHPO.

2. The SHPO shall respond to a written request for consultation (accompanied by the documentation specified in Stip. II.A.1) within 20 working days, and agree, conditionally agree, or disagree with NASA's proposal.

3. If NASA does not accept the SHPO's conditions, or if NASA and the SHPO disagree, NASA shall notify the Council and forward copies of the documentation specified in Stip. II.A.1, above, along with other information relevant to the dispute.

4. Within 20 working days, the Council shall either: (1) attempt to resolve the dispute; (2) provide NASA with recommendations to be taken into account in implementing the activity; or (3) decide to comment, and comment within 45 working days of that decision. At NASA's request, the time periods in Stips. II.A.2. and II.A.4. will run concurrently. In exceptional circumstances NASA may request accelerated consideration under Stip. II.A.4. and the Council will make a good faith effort to accommodate such requests. The Council may consult with the National Park Service of the Department of the Interior during its review period.

B. The Council and the NCSHPO recognize that operational emergency situations may arise where NASA must take immediate action without prior consultation with the appropriate SHPO or the Council. In such situations, NASA shall notify the Council and the SHPO of such actions as soon as practicable.

III. Mitigation

Mitigation measures shall be carried out prior to undertaking actions specified in Stips. I.A. and I.B.

A. Recordation

1. Recordation shall be done in accordance with the Secretary of the Interior's "Standards for Architectural and engineering Documentation" (Standards) (Federal Register, 48 FR 190, pp. 44730-44734, September 29, 1983).

2. Because original "as-built" drawings and other records are on file at the installations containing Landmark facilities, documentation will normally include the following: (1) reproduction of existing "as-built" drawings and site plans modified on standard size (19 x 24 or 24 x 36) mylar; and (2) provision of black and white archival quality photos with large format negatives of exterior and interior views, as appropriate, as well as special technological features or engineering details.

3. Original copies of all documentation shall be provided to the Secretary of the Interior in accordance with the Standards for incorporation into the National Architectural and Engineering Records in the Library of Congress as provided in Section 101 of the National Historic Preservation Act and implementing procedures. Copies of the documentation shall also be provided to the appropriate SHPO.

B. Salvage

NASA will apply its agreement with the Smithsonian Institution (NASA Management Instruction 4310.4) to determine appropriate retention and curation activities with respect to significant artifacts.

IV. Continuing Coordination

A. On or about December 1, 1990, and annually thereafter, NASA will provide a summary of its activities under this Agreement to the Council and to the NCSHPO.

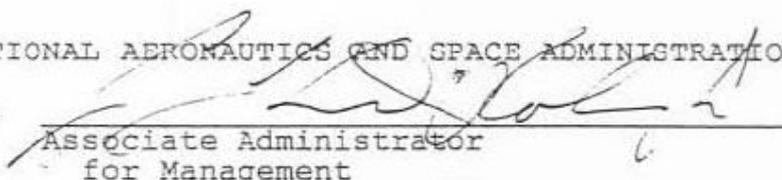
B. In consultation with the appropriate SHPO, the Council may review and comment upon individual undertakings when it determines that historic preservation issues warrant such action.

C. NASA will provide appropriate public information about activities under Stip.I.A. to interested parties upon request.

D. Any party to this Agreement may terminate it by providing 60 days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

Execution of this Programmatic Agreement and carrying out its terms evidences that NASA has afforded the Council and the NCSHPO a reasonable opportunity to comment on its programs affecting Landmarks under Sections 106 and 110(f) of the National Historic Preservation Act, and that NASA has taken into account the effects of its programs on these Landmarks.

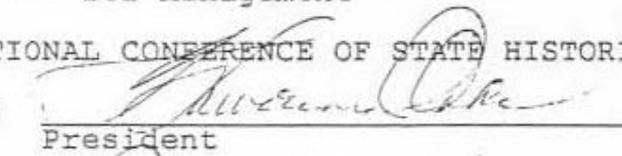
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

By: 

Associate Administrator
for Management

9/20/89
Date

NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS

By: 

President

10/6/89
Date

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: 

Chairman

September 18, 1989
Date

NASA's NATIONAL HISTORIC LANDMARKS

(as of 2/24/89)

1. Variable Density Tunnel (Langley Research Center, Hampton, VA)
2. Full Scale Tunnel (Langley Research Center, Hampton, VA)
3. Eight-Foot High Speed Tunnel (Langley Research Center, Hampton, VA)
4. Unitary Plan Wind Tunnel (Ames Research Center, Moffett Field, CA)
5. Rocket Engine Test Facility (Lewis Research Center, Cleveland, OH)
6. Zero-Gravity Research Facility (Lewis Research Center, Cleveland, OH)
7. Spacecraft Propulsion Research Facility (Lewis Plum Brook Operations Facility)
8. Redstone Test Stand (George C. Marshall Space Flight Center, AL)
9. Propulsion and Structural Test Facility (George C. Marshall Space Flight Center, AL)
10. Rocket Propulsion Test Complex (Stennis Space Center, MS)
11. Saturn V Dynamic Test Stand (George C. Marshall Space Flight Center, AL)
12. Lunar Landing Research Facility (Langley Research Center, Hampton, VA)
13. Rendezvous Docking Simulator (Langley Research Center, Hampton, VA)
14. Neutral Bouyancy Space Simulator (George C. Marshall Space Flight Center, AL)
15. Space Environment Simulation Laboratory (Lyndon B. Johnson Space Center, Houston, TX)
16. Spacecraft Magnetic Test Facility (Goddard Space Flight Center, Greenbelt, MD)
17. Twenty-Five-Foot Space Simulator (Jet Propulsion Laboratory, Pasadena, CA)
18. Pioneer Deep Space Station (Goldstone Deep Communications Complex, CA)
19. Space Flight Operations Facility (Jet Propulsion Laboratory, Pasadena, CA)
20. Apollo Mission Control Center (Lyndon B. Johnson Space Center, Houston, TX)

APPENDIX D

PROGRAMMATIC ALLOWANCES UNDER THIS AGREEMENT

This list of Programmatic Allowances (allowances) applies to activities at NASA Ames Research Center (ARC), Moffett Field, California, that constitute individual undertakings under Section 106 of the National Historic Preservation Act, that based on NASA ARC experience have no or minimal effect on historic properties if implemented as specified in this Appendix D, and will not require additional review by the SHPO and consulting parties under this Agreement. The Center Cultural Resources Manager (CRM) must make a determination of the applicability of these allowances based on review performed by Qualified Personnel, as appropriate, for proposed undertakings. The allowances are divided into the following categories: 1) Historic Buildings and Structures; 2) Non-Historic Buildings and Structures; 3) Site Work; and 4) General.

1. Historic Buildings and Structures

1.1 Foundations

- 1.1.1 Maintenance, repair or in-kind replacement of above-ground footings, foundations, and retaining walls to match the materials, configuration, profile and appearance of the existing system. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 1.1.2 Maintenance, repair, or in-kind replacement of below-grade footings, foundations, and retaining walls in areas limited to previously disturbed soils or areas of Low Archaeological Sensitivity as represented in Appendix H to this Agreement, as determined by a Qualified Archaeologist. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*

1.2 Roofing

- 1.2.1 Maintenance, repair or in-kind replacement of roof materials, cladding and sheathing, underlayment sheathing, flashing, gutters, soffits, downspouts and catch basins with no change in roof pitch or configuration. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 1.2.2 Removal of non-historic, incompatible rooftop features (antennae, equipment, cabling and similar features), *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or substantial alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*
- 1.2.3 Installation of gutters and downspouts, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant historic fabric.*

1.3 Exterior Walls, Siding, and Other Features

- 1.3.1 Maintenance, repair or in-kind replacement of existing exterior walls, siding, trim, rails, joints, stucco, or veneer; existing decking, porches, landings, stairs, railings, guardrails or handrails; existing canopies or awnings; or existing building numbers and signs. *If historic fabric must be*

replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.

- 1.3.2 Repair or repointing of masonry features with the design, size, shape, materials, and repointing to match the original in color, texture, and tooling, and following the National Park Service (NPS) Preservation Brief #2: Repointing Mortar Joints in Historic Brick Buildings.

1.4 Interior Walls, Finishes, and Other Features

- 1.4.1 Maintenance, repair or in-kind replacement of existing interior finishes, including plaster, drywall, trim, tile, and flooring. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 1.4.2 Alteration, removal or replacement of non-character-defining interior floorplan configurations, finishes, cabinetry, systems, equipment, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant historic fabric.*
- 1.4.3 Alteration, removal or replacement of non-historic, incompatible features, including non-period interior additions, equipment, and non-bearing wall and ceiling systems common to tenant improvement work, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*
- 1.4.4 Minor seismic improvements limited to the concealed securement and bracing of plumbing, piping, conduits, ducts, antennas, equipment, communication devices, radio systems, cables, and phone systems.
- 1.4.5 Installation of floor materials over non-character-defining flooring in a reversible manner, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*
- 1.4.6 Installation or repair of concrete basement flooring in an existing basement.

1.5 Windows and Doors

- 1.5.1 Maintenance, repair or in-kind replacement of windows and doors. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 1.5.2 Replacement of non-historic, incompatible features and accessories with historically compatible features, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*
- 1.5.3 In-kind replacement of broken or cracked glass window panes and glaze putty to match characteristics (thickness, color, texture, sheen, waviness) of the existing materials.
- 1.5.4 Installation of new glazing in non-character-defining windows or doors, including retrofitting for double and triple glazing, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*
- 1.5.5 Replacement or alteration of existing non-character-defining hardware for ADA and Code compliance, *provided such alteration does not detract from the qualities that contribute to the*

significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.

- 1.5.6 Reversible application of removable caulking, weather-stripping, and/or thermal insulation window film which is clear and non-reflective.
- 1.5.7 Installation of building access security devices, such as card readers, enhanced locks, and security scanners, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*

1.6 Painting/Lead Paint Abatement

- 1.6.1 Repainting of non-historic surfaces.
- 1.6.2 Repainting of historic surfaces consistent with existing color and finish, provided that abrasive surface preparation treatments such as water blasting, sandblasting, power sanding, and chemical cleaning are not used.
- 1.6.3 Removal of paint by non-destructive means, limited to hand scraping, low pressure water wash (less than 200 p.s.i.), or paint-removal chemicals that do not harm the substrate, in accordance with guidance in NPS Preservation Brief #6: Dangers of Abrasive Cleaning to Historic Buildings.
- 1.6.4 Encapsulation or appropriate patching of lead-based paint by repainting to match existing or historically compatible colors and finishes.
- 1.6.5 Testing, remediation and abatement of lead-based paint and other toxic materials in accordance with guidance in NPS Preservation Brief #37: Appropriate Methods for Reducing Lead Paint Hazards in Historic Housing.
- 1.6.6 Painting of historic woodwork in accordance with guidance in NPS Preservation Brief #10: Exterior Paint Problems on Historic Woodwork.

1.7 Lighting

- 1.7.1 Maintenance, repair or in-kind replacement of light fixtures and lighting systems. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 1.7.2 Removal, replacement or alteration of non-character-defining interior lighting systems.
- 1.7.3 Replacement of non-historic, incompatible fixtures and systems with compatible fixtures and systems, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.*

1.8 Research Equipment and Systems

- 1.8.1 Modification, repair, removal, or addition of non-historic equipment and/or systems utilized to support specialized research (e.g., steam ejectors, vacuum spheres, combustion equipment, process gas reclamation systems, above ground fuel storage tanks, bottle fields, crane and wench systems, satellite dishes, high pressure air production, and storage and distribution systems), *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, obscure, or remove significant historic fabric.*

1.9 Green Building Technologies

- 1.9.1 Incorporation of green building technologies in buildings or structures seeking certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards for environmentally sustainable construction consistent with the *Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings*, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and no significant historic fabric will be damaged, altered, or removed.
- 1.9.2 Reversible replacement of non-character-defining insulation (ceilings, attics, basement spaces).

1.10 Mechanical and Electrical Systems

- 1.10.1 Replacement or installation of internal HVAC equipment, filters, plumbing, telecommunications equipment, or security systems, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.
- 1.10.2 HVAC conversions to alternative fuels.
- 1.10.3 Replacement or installation of electrical systems, including conduit and wiring, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.
- 1.10.4 Replacement or installation of telecommunications, computer, or security systems, including public address systems, facsimile systems, microwave and radio systems, fiber-optic cables, and phone systems, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.
- 1.10.5 Modification or replacement of fire detection and suppression systems, including routine upgrades to fire alarm systems, smoke detectors, and sprinkler systems.
- 1.10.6 Replacement of non-historic, incompatible features with compatible features, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.
- 1.10.7 Upgrading or installing new electrical lines between or among buildings and facilities, provided no exposed conduits, cables, or other equipment is installed.
- 1.10.8 Replacement of exterior equipment, including generators, transformers, and condensers, within the dimensions of existing equipment and footprints, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.
- 1.10.9 Replacement of elevators within existing elevator shafts, provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and does not damage, alter, or remove significant historic fabric.

1.11 Americans with Disabilities Act (ADA) Compliance

- 1.11.1 Improvement or installation of exterior and/or interior wheelchair ramps to meet current ADA requirements, consistent with the guidelines presented in NPS Preservation Brief #32: Making Historic Properties Accessible.

1.12 Health and Safety

- 1.12.1 Hazardous material (materials such as lead paint, lead piping, asbestos, and mold) testing, remediation, and abatement, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and no significant historic fabric will be damaged, altered, or removed.*
- 1.12.2 General clean-up, encapsulation, removal, and disposal of non-significant asbestos-containing materials.
- 1.12.3 Replacement of asbestos-containing materials with similar functioning and visually consistent non-asbestos materials, *provided such alteration does not detract from the qualities that contribute to the significance of the historic property, does not involve removal or alteration of significant historic elements, and no significant historic fabric will be damaged, altered, or removed.*
- 1.12.4 Installation of new flooring (carpeting or sheet flooring) over damaged asbestos flooring and non-historic subflooring.
- 1.12.5 Preventive measures to deter pests or removal of pests, such as termites, insects, and rodents, and animal debris, provided that destructive treatments, such as harmful chemical agents, are not used or that historic materials are not damaged or removed.

1.13 Destructive Testing

- 1.13.1 Conducting small-scale and select destructive testing to expose and assess concealed structural conditions (such as removal of small areas of plaster wall finish) and/or to assess material capacities (such as masonry push testing or concrete slab coring) when performed in areas that are easily repairable or otherwise inconspicuous.
- 1.13.2 Removal of materials in small areas designated for hazardous materials testing, provided it does not require the removal of historic features or alteration of visible contributing elements of historic property.

1.14 Mothballing

- 1.14.1 Securing or mothballing buildings or structures, following guidance in NPS's Preservation Brief #31: Mothballing Historic Buildings.

2. Non-Historic Buildings and Structures

2.1 Foundations

- 2.1.1 Maintenance, repair or replacement of above-ground and below-grade footings, foundations, and retaining walls in areas limited to previously disturbed soils or areas of Low Archaeological Sensitivity as represented in Appendix H to this Agreement, as determined by a Qualified Archaeologist.

- 2.1.2 Installation of below-grade waterproofing in areas limited to previously disturbed soils or areas of Low Archaeological Sensitivity as represented in Appendix H to this Agreement, as determined by a Qualified Archaeologist.

2.2 Roofing

- 2.2.1 Maintenance, repair or in-kind replacement of existing roof materials, cladding and sheeting, underlayment sheathing, flashing, gutters, soffits, downspouts and catch basins with no change in roof pitch or configuration.
- 2.2.2 Replacement or alteration of roofing materials, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.2.3 Reframing of structural roof elements to improve the drainage or durability of the roof, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.2.4 Removal of rooftop features (antennae, equipment, cabling, and similar features).
- 2.2.5 Installation of rooftop features (antennae, equipment, cabling, and similar features), *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.2.6 Repair or installation of gutters and downspouts.

2.3 Exterior Walls, Siding, and Other Features

- 2.3.1 Maintenance, repair or in-kind replacement of existing exterior walls, siding, trim, rails, joints, stucco, veneer, decking, porches, landings, stairs, railings, guardrails, handrails, canopies, awnings, building numbers, and signs.
- 2.3.2 Replacement or alteration of existing exterior building elements or materials, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.4 Interior Walls, Finishes, and Other Features

- 2.4.1 Maintenance, repair, replacement, or alteration of interior finishes, including plaster, drywall, ceiling tile, trim, tile, and flooring.
- 2.4.2 Alteration, removal or replacement of interior floorplan configurations, cabinetry, systems, and equipment.
- 2.4.3 Installation or repair of concrete basement floors.

2.5 Windows and Doors

- 2.5.1 Maintenance, repair or in-kind replacement of windows and doors.
- 2.5.2 Replacement or alteration of windows and doors, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.5.3 Installation, replacement or alteration of glazing in existing windows or doors, including retrofitting for double and triple glazing.
- 2.5.4 Installation, replacement or alteration of hardware for ADA and Code compliance.
- 2.5.5 Energy conservation measures to meet standard reductions in energy use, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.5.6 Installation of building access security devices, such as card readers, enhanced locks, and security scanners, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.6 *Painting/Lead Paint Abatement*

2.6.1 Repainting of exterior surfaces, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.6.2 Encapsulation or appropriate patching of lead-based paint.

2.7 *Lighting*

2.7.1 Maintenance, repair, or removal of exterior light fixtures and lighting systems.

2.7.2 Replacement or alteration of exterior light fixtures and systems, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.7.3 Maintenance, repair, replacement, alteration, or removal of interior light fixtures or lighting systems.

2.8 *Research Equipment and Systems*

2.8.1 Modification, repair, removal, or addition of equipment and/or systems utilized to support specialized research (e.g., steam ejectors, vacuum spheres, combustion equipment, process gas reclamation systems, above ground fuel storage tanks, bottle fields, crane and wench systems, satellite dishes, high pressure air production, and storage and distribution systems), *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.9 *Green Building Technologies*

2.9.1 Incorporation of green building technologies in buildings or structures seeking certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards for environmentally sustainable construction, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.9.2 Replacement of insulation (ceilings, attics, basement spaces).

2.10 *Mechanical and Electrical Systems*

2.10.1 Repair, replacement or installation of HVAC equipment, filters, plumbing, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.10.2 HVAC conversions to alternative fuels.

2.10.3 Repair, replacement or installation of electrical systems, including conduit and wiring, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.10.4 Repair, replacement or installation of telecommunications, computer, or security systems, including public address systems, facsimile systems, microwave and radio systems, fiber-optic cables, and phone systems, *provided such alteration, if in a historic district or adjacent to a*

historic property, does not detract from the qualities that contribute to the significance of historic properties.

- 2.10.5 Repair, replacement or installation of fire detection and suppression systems, including routine upgrades to fire alarm systems, smoke detectors, and sprinkler systems.
- 2.10.6 Upgrading or installing new electrical lines between or among buildings and facilities, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.10.7 Replacement of equipment, such as generators, transformers, and condensers, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.10.8 Replacement of interior elevators.

2.11 Americans with Disabilities Act (ADA) Compliance

- 2.11.1 Improvement or installation of wheelchair ramps to meet current ADA requirements, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

2.12 Health and Safety

- 2.12.1 Hazardous material (materials such as lead paint, lead piping, asbestos, and mold) testing, remediation, and abatement.
- 2.12.2 General clean-up, encapsulation, removal, and disposal of asbestos-containing materials.
- 2.12.3 Replacement of asbestos-containing materials, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 2.12.4 Preventative measures to deter pests or removal of pests, such as termites, insects, and rodents, and animal debris.

2.13 Destructive Testing

- 2.13.1 Destructive testing to expose and assess concealed structural conditions (such as removal of small areas of plaster wall finish) and/or to assess material capacities (such as masonry push testing or concrete slab coring).
- 2.13.2 Removal of materials in small areas designated for hazardous materials testing.

2.14 Demolition

- 2.14.1 Demolition of properties and associated infrastructure determined not eligible for the NRHP by NASA with concurrence from the SHPO.

3. Site Work

3.1 Circulation Features

- 3.1.1 Maintenance, repair, or replacement of existing circulation features where activities conform to the original footprint and/or are performed in previously disturbed soils, including:
 - a. Paved surfaces (such as roads, sidewalks, paths, curbs, gutters, driveways, parking areas, runways, and taxiways)
 - b. Traffic control devices (such as traffic signals and signs, lane delineators, pavement markings, and traffic surveillance systems)

c. Street lights and street signs

- 3.1.2 Placement of gravel or aggregate on existing unpaved dirt roads, paths, or lots where no new ground disturbance will occur, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 3.1.3 Restriping of existing paved surfaces for bike paths and routes.
- 3.1.4 Installation of the following circulation features for ADA and Code compliance where no new ground disturbance will occur:
 - a. Sidewalk curb cuts, ramp, and warning detection strips
 - b. Contrasting stripes at curbs or exterior stairs
 - c. Painted stripes or symbols on paved surfaces

3.2 Landscaping

- 3.2.1 Maintenance of existing landscaping, including mowing, trimming, and pruning of grass, plantings, shrubs, or trees.
- 3.2.2 Vegetation control activities, including collection and removal of dead, diseased, hazardous, invasive, or potentially damaging vegetation, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 3.2.3 Prevention of pest (such as termites, insects, rodents) infestation through installation of nonpermanent traps and barriers, and removal of pests and animal debris, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 3.2.4 Erosion control activities (such as gravel or riprap placement) where activities are constructed in a reversible manner, are located at or adjacent to existing paved areas.
- 3.2.5 Planting or seeding ground cover.
- 3.2.6 Cleanout of existing drainage ditches.
- 3.2.7 Maintenance, repair, or in-kind replacement of contributing small-scale landscape features, including planters, statuary, trash bins, and signage. *If historic fabric must be replaced, it will be replaced in-kind to match the configuration, material, size, detail, and construction method of the historic fabric.*
- 3.2.8 Maintenance, repair, replacement, or alteration of non-contributing small-scale landscape features, including planters, statuary, trash bins, and signage, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*
- 3.2.9 Repair or replacement of existing non-contributing recreational equipment (such as park benches, playground equipment, or outdoor athletic facilities), *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

3.3 Fencing

- 3.3.1 Maintenance, repair, or in-kind replacement of existing fencing.
- 3.3.2 Addition of doors, gates, or other openings within existing fencing lines for access and security improvements, *provided such alteration does not involve removal or alteration of significant*

historic elements, does not damage, alter, or remove significant historic fabric, and, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.

3.4 Wayfinding and Interpretive Signage

- 3.4.1 Placement of exterior interpretive signage and public exhibits installed in a reversible manner, located at existing walkways and paved areas, are no more than 6 sq. ft. in size, and where there is no impact to the historic integrity and character-defining features of historic properties.

3.5 Utilities

- 3.5.1 Maintenance, repair, or replacement of existing below-grade utilities.
- 3.5.2 Maintenance, repair, or replacement of existing above-grade utilities and related features where activities consist of one of the following:
- a. Conform to the original footprint and general size / volume;
 - b. Conform to the original footprint and size / volume is increased by a maximum of 10 percent, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties; or*
 - c. Are located within existing structures, as described in sections 1.10 and 2.10 above.
- 3.5.3 Installation of new above-ground utilities or utility systems where activities are located on existing foundations or paved areas, support on-going existing operations, and are no more than 40 sq. ft. in volume, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

3.6 Airfield Systems

- 3.6.1 Maintenance, repair, or replacement of existing air traffic control devices and systems where activities:
- a. Are located on existing foundations or paved areas, support on-going existing operations.
 - b. Are associated with guidance signage, runway and approach lighting systems, runway/taxiway striping and markings, wind cones, weather sensors, instrument landing systems, beacons, and lighting bars.

3.7 Ground Disturbing Activities

- 3.7.1 Any activity for the purposes of maintenance, repair, or replacement of below-grade systems that causes ground disturbance in areas that have been surveyed for cultural resources and no historic properties are present, or in areas of Low Archaeological Sensitivity as represented in Appendix H to this Agreement, as determined by a Qualified Archaeologist.
- 3.7.2 Installation of new below-grade utilities in areas limited to previously disturbed soils or areas of Low Archaeological Sensitivity as represented in Appendix H to this Agreement, as determined by a Qualified Archaeologist.

3.8 Demolition

- 3.8.1 Demolition of properties and associated infrastructure determined not eligible for the NRHP by NASA with concurrence from the SHPO.

3.9 Non-Construction Related Temporary Structures

- 3.9.1 Temporary placement (not to exceed 12 months) of non-construction related trailers, tents, and portable structures on parking lots or other existing paved surfaces.

3.10 Construction-Related Temporary Structures

- 3.10.1 Temporary placement (not to exceed the duration of the construction project) of construction-related barriers and traffic control devices (such as concrete barriers, fencing, and traffic signals and signs) and standalone construction-related structures (such as scaffolding, barriers, screening, fences, protective walkways, signage, office trailers, construction trailers, tents, or self-contained restrooms).

3.11 Wildlife Habitat Conservation

- 3.11.1 Maintenance and repair of existing property, wetlands, and stream channels.
3.11.2 Installation, maintenance, or repair of nesting platforms, boxes, and burrows.
3.11.3 Installation, maintenance, repair, or extension of animal-secure fencing or barriers.
3.11.4 Maintenance of vegetation and ground surface features in wildlife habitat areas.

3.12 Antiterrorism and Force Protection Measures

- 3.12.1 Antiterrorism and force protection measures designed and constructed to prevent or mitigate hostile actions, including controlled access to facilities through closure of existing access routes and increased security at existing gates, *provided such alteration, if in a historic district or adjacent to a historic property, does not detract from the qualities that contribute to the significance of historic properties.*

4. General

4.1 Lease of Real Property

- 4.1.1 Leasing historic and non-historic buildings and structures to public or private entities, provided such leases will adhere to the terms of this Agreement.

Redacted

Appendix E
NASA Research Park Partner List

APPENDIX F

LIST OF CONSULTING PARTIES AT ARC

Name	Address
California Air National Guard	129th Rescue Wing Moffett Federal Airfield, California

APPENDIX G

GLOSSARY/ TERMS AND DEFINITIONS

ACHP: the Advisory Council on Historic Preservation or a Council member or employee designated to act for the Council.

Adverse Effect: Harm to those qualities or characteristics that qualify the property listing in the NRHP, either directly or indirectly caused by a federal agency's action. The adverse effect may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. The criteria of adverse effect are identified in 36 C.F.R. § 800.5(a)(1); examples of adverse effects are given in 36 C.F.R. § 800.5(a)(2).

Area of Potential Effects (APE): "The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." [36 C.F.R. § 800.16(d)].

Archaeological Site: A location that contains the physical evidence of past human behavior that allows for its interpretation, that is at least 50 years of age, and for which a boundary can be established.

Artifact: An object made or modified by humans.

Avoidance: Modification of a project or other undertaking so that effects on cultural resources that would have resulted from the originally proposed actions do not occur.

Building: "A structure created to shelter any form of human activity, such as a house, barn, church, hotel, or similar structure. Building may refer to a historically related complex such as a courthouse and jail or a house and barn." [36 C.F.R. § 60.3(a)]

Character or Character-defining: qualities such as distinctive materials, features, and spaces that convey the property's historical significance as interpreted under the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

Concurring Party: A consulting party invited to concur in the agreement document in accordance with 36 C.F.R. § 800.6(c)(3), but who does not have the authority to amend or terminate the agreement. Like an invited signatory's signature, a concurring party signature is not required to execute the agreement; a concurring signature is essentially an endorsement of the agreement. Thus, the refusal to sign by any party asked to concur in the agreement does not prevent the agreement from being executed. For the purposes of this

Agreement, Concurring Parties only applies to Planetary Ventures, LLC.

Consultation: “The process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process. The Secretary’s ‘Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act’ provide further guidance on consultation.” [36 C.F.R. § 800.16(f)]

Consulting Party: A party with a consultative role in the Section 106 of NHPA consultation process. For the purposes of this Agreement, Consulting Parties mean the SHPO; NASA’s tenants/lessees at ARC; other Applicants for NASA permits or approvals at ARC; and individuals and organizations with a demonstrated interest in an undertaking due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking’s effects on historic properties. [36 C.F.R. § 800.2(c)]

Contributing: A building, site, structure, or object within a historic district which adds to the values or qualities of the district because it was present during the period of significance, relates to the documented significance of the district, and possesses historic integrity. A contributing resource may also meet NRHP criteria independently.

Cultural Resources: Cultural resources include, but are not limited to, the following broad range of items and locations: (1) archaeological materials (artifacts) and sites dating to the prehistoric, historic, and ethnohistoric periods that are currently located on the ground surface or are buried beneath it; (2) standing structures that are over 50 years of age or are important because they represent a major historical theme or era; (3) cultural and natural places, select natural resources, and sacred objects that have importance for Native Americans and ethnic groups; and (4) American folk-life traditions and arts.

Cultural resources include anything that is an “historic property” as defined in 36 C.F.R. § 800.16(1)(1); an “archeological resource” as defined in Archaeological Resources Protection Act, Section 3(1) and the Act’s Uniform Regulations, 43 C.F.R. Part 7, Protection of Archaeological Resources, Section 7.3(a); a Native American “cultural item” as defined in Native American Graves Protection and Repatriation Act, Section 2(3); or part of a “collection” as defined in 36 C.F.R. § 79.4(a).

Cultural Resources Manager (CRM): Designated person at each NASA Center responsible for ensuring Center activities comply with cultural resources management regulations. Consults with the SHPO and the ACHP on historic preservation issues related to the Center’s cultural resources. Provides support to the FPO on Agency cultural resources management reporting and data calls. The CRM will have qualifications as defined by the Secretary of the Interior’s Professional Qualification Standards (PQS) in Archaeology, Architectural History, Architecture or Historic Architecture, or the CRM will work with consultants having PQS as necessary for each specific undertaking.

Curation: “The practice of documenting, managing, preserving, and interpreting museum collections according to professional museum and archival practices.” (62 Federal Register

33707, 6-20-97. Secretary of the Interior's Historic Preservation Professional Qualification Standards: Curation).

Effect: Alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register. [36 C.F.R. § 800.16(i)]

Effective Date of the Agreement: The date of the last Signatory to sign the Agreement.

Eligible for the National Register of Historic Places: Properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the National Register criteria. [36 C.F.R. § 800.16(l)(2)]

Federal Preservation Officer: A qualified official designated by the head of each Federal agency who shall be responsible for coordinating that Agency's activities under the NHPA. [National Historic Preservation Act, Section 110(c)]

Historic District: A geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history. [36 C.F.R. § 60.3(d)] Historic resources that add to the district's overall sense of time and place are classified as contributing elements. Severely altered historic properties and resources of more recent construction are classified as noncontributing elements.

Human Remains and Associated Funerary Objects: The physical remains of the body of a person of Native American ancestry. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets. For the purposes of determining cultural affiliation, human remains incorporated into a funerary object, sacred object, or object of cultural patrimony must be considered as part of that item. [43 C.F.R. § 10.2 (d)(1)]. Funerary objects are those objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later

Historic or Historic Property: any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. [36 C.F.R. § 800.16(l)(1)]

In-kind: New work shall match all physical and visual aspects of existing materials, including design, form, color, finish, texture, workmanship, and to the greatest extent possible, materials. "In-kind" mortar will also match the strength and joint tooling of

existing mortar, as appropriate, to repoint or reconstruct masonry elements. “In-kind” utility or MEP systems will match basic visual and functional aspects of system components (such as installing new pipes and ducts) and not necessarily materials where those elements are not visible or not important in defining overall historic character.

Integrated Cultural Resources Management Plan (ICRMP): A document that defines the procedures and outlines plans for managing cultural resources on federal installations. An ICRMP is integrated with other land management and development plans, as possible. ARC will update their plan every 10 years.

Inventory: The process of locating cultural resources and gathering information about them through archaeological and architectural surveys, ethnographic fieldwork, or archival searches.

Memorandum of Agreement: The document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties. [36 C.F.R. § 800.16(o)]

Mitigation: Measures carried out to avoid or reduce the effects of undertakings on cultural resources. These measures may include relocation or redesign or other modifications of the undertaking itself, or recovery of materials and data from the historic property to be affected.

National Historic Landmark (NHL): A district, site, building, structure, or object, in public or private ownership, judged by the Secretary of the Interior to possess national significance in American history, archaeology, architecture, engineering and culture, and so designated by him. [36 C.F.R. § 65.3(i)] NHLs are automatically listed in the National Register of Historic Places.

National Register of Historic Places (NRHP): A list “composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.” Also referred to as “NRHP,” or “the National Register,” it is maintained by the NPS for the Secretary of the Interior [National Historic Preservation Act, Section 101(a)(1)(A)].

Native American: “Of, or relating to, a tribe, people, or culture that is indigenous to the United States.” [Native American Graves Protection and Repatriation Act, Section 2(9)]

No Adverse Effect: The situation in which an undertaking by virtue of its presence has an effect on a property listed or eligible for listing in the NRHP, but whose effects will not “alter, directly or indirectly, any of the characteristics of the historic property that qualify the property for inclusion in the National Register.” [36 C.F.R. § 800.5(a)(1)]

Noncontributing: A building, site, structure, or object within a historic district which does not add to the values or qualities of the district because it was not present during the period of significance, does not contribute to the documented significance of the district,

no longer possesses historic integrity due to alterations, or does not independently meet NRHP criteria.

Non-historic: Any prehistoric or historic district, site, building, structure, or object that is not included in, nor eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. Non-historic may be used to refer to noncontributing buildings, sites, structures or objects within historic districts.

Object: A material thing of functional, aesthetic, cultural, historical or scientific value that may be, by nature or design, movable yet related to a specific setting or environment [36 C.F.R. § 60.3(j)]

Outreach: Activities designed to inform and educate the public about cultural resources and cultural resource management. These activities may be conducted at a NASA facility or at locations in the community.

Previously Disturbed Soils: Soils that have been moved in the past (such as commonly found above existing utility trenches), are not likely to possess intact and distinct soil horizons, and have reduced likelihood of possessing historic properties within their original depositional contexts in the area and to the depth to be excavated.

Programmatic Agreement (Agreement): The document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations in accordance with 36 C.F.R. § 800.14(b). [36 C.F.R. § 800.5(t)]

Repository: A facility such as a museum, archaeological center, laboratory or storage facility managed by a university, college, museum, other educational or scientific institution, a Federal, State or local Government agency or Indian tribe that can provide professional, systematic and accountable curatorial services on a long term basis. [36 C.F.R. § 79.4(j)]

Section 106 Consultation or Section 106 Review: See “Consultation,” above.

Signatories: For the purposes of this Agreement, Signatories mean NASA, the ACHP, and the SHPO.

Site: The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure. [36 C.F.R. § 60.3 (1)]

State Historic Preservation Officer (SHPO): The official who advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development. [36 C.F.R. § 800.2(c)(1)]

Structure: A work made up of interdependent and interrelated parts in a definite pattern of

organization. Constructed by man, it is often an engineering project large in scale. [36 C.F.R. § 60.3(p)]

Tribal Historic Preservation Officer (THPO): The tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d)(2) of the NHPA. [36 C.F.R. § 800.16(w)]

Undertaking: A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency." Undertakings include "those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval. [36 C.F.R. § 800.16(y)]

Redacted

Appendix H
Archaeological Sensitivity Map