

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
RESPONSES TO
THE MAJOR QUESTIONS IN THE
The Advisory Council on Historic Preservation (ACHP)
SECTION 3: REPORTING PROGRESS ON THE IDENTIFICATION,
PROTECTION, AND USE OF FEDERAL HISTORIC PROPERTIES

September 2023

1. **How many, and what percentage of your assets, are historic as reported in: (a) your bureau or agency's proprietary database and/or (b) your bureau's or agency's reports to the Federal Real Property Profile MS (FRPP MS)? (Note: To find out about FRPP MS data, you may need to contact your Senior Real Property Officer or the Federal Real Property Council.)**

2. NIST manages an inventory of both listed and eligible National Register resources nationwide on its campus locations in Gaithersburg, Maryland; Boulder, Colorado; Fort Collins, Colorado; and near Kehaka of the island of Kauai, Hawaii. None of NIST's various National Register and National Register eligible properties are or are eligible as NHLs

NIST has 119 assets that meet FRPP criteria and are reported. The statistical data is currently being updated in FRPP in the December 2023 Data Call.

Of the 64 Gaithersburg campus structures comprising the National Register Historic District (listed August 5, 2021), 26 are designated as Contributory Resources and 38 are designated as non-contributory. Thus, the entire campus inventory (100 %) has been surveyed and evaluated in accord with NRHP criteria. For a listing of all resources within the NIST Gaithersburg district, please see Attachment A.

In April 2016 following a comprehensive historical assessment of the campus facilities at the Department of Commerce Boulder Laboratories Building 1, also known as the Central Radio Propagation Laboratory (CRPL) was determined Eligible for listing in the [National Register of Historic Places \(NRHP\)](#) under both criterion A (History) and

criterion C (Design). All other facilities on this campus have been evaluated and determined as ineligible for listing in the NRHP.

NIST's other major campuses located in Fort Collins, CO on the island of K'auai in Kekaha, HI were both been determined eligible for the NRHP as multiple property listings in March, 2020. The Fort Collins campus contains six structures and several associated radio transmission antennae.

The NIST Kekaha, Hawaii campus consists of two structures built in 1972 which are located on a 30 acre site surrounded by the Barking Sands Missile Range (USN Base) and the Pacific Ocean on the west by the Department of Defense.

Evaluation in September, 2019 of the two satellite facilities in accordance with National Register standards and guidelines found that the facilities possess the qualities of significance and integrity necessary for listing on the National Register of Historic Places for their national level of importance under Criterion A in the area of science (National Park Service [NPS] 1983). The radio transmitter facilities in Fort Collins, Colorado, and Kekaha, Hawaii, are integral to transmitting the national standard for time calibrated through the atomic clock located in the previously determined eligible Building 1 at the NIST Boulder campus. The transmitter stations also are historically responsible for the transmitting frequencies that maintain the integrity of the nation's radio airwaves.

2. Have your identification methods changed during this reporting period? Approximately what total percentage or portion of inventory have now been surveyed and evaluated for the National Register, and does this represent an increase from your agency's 2020 progress report, if applicable?

None of our identification methods have changed since the 2020 triennial report. At the time of this Report, all NIST properties have been evaluated and identified as required by Section 110 of the NHPA. The record copies of the studies are filed and maintained in both electronic and hard-copy format by Historic Preservation Officer. Since the 2020 Report, NIST has developed for full public access a series of Historic Preservation web pages that chronicle not only the identification of our historic portfolio but also contain essential documents that both document our federal leadership in best practices concerning stewardship of our rich and diverse inventory of properties, landscapes and settings chronicling significant events in the science of metrology.

Since the 2020 report, NIST has acquired from a sister agency within the Department of Commerce, a fifth campus of 112 acres located in Erie, Colorado. In August of 2023, NIST engaged the services of a Colorado Professional Archeologist (RPA) meeting all SOI Qualifications to Registered Colorado professional archeological team to perform a Class II Cultural Resource Inventory as set forth in the Colorado *Cultural Resource Survey Manual* of 2007. Results of that survey are expected in the next 90 days. Any areas determined eligible for listing as a result of that Erie Survey would indeed increase the number reported in 2020.

3. Describe reporting mechanisms or programs your agency uses to manage information about historic properties. What information do they contain about your historic properties?

Like many federal agencies NIST uses the standard FRPP definitions to classify its heritage assets. The categories NIST uses to classify heritage assets are:

- National Historic Landmark (NHL) (1) [*not used as NIST has no NHLs*]
- **National Register Listed (NRL) (2)** [*NIST currently has one listed property, namely: the NIST National Register Historic District (August 5, 2021, NRHP listing # 100006800)*]
- **National Register Eligible (NRE) (3)** – Bldg. 1, Boulder, CO; Fort Collins, CO campus; and Kekaha, HI campus)
- **Non-contributing element of NHL/NRL district (4)** – the Gaithersburg NRHP District contains 38 Non-Contributing Resources
- **Not Evaluated (5)** – all properties in NIST Ownership HAVE been evaluated in accord with Section 110 of the NHPA of 1966 as Amended.
- **Evaluated, Not Historic (6)** – On the Boulder campus, 29 of the 30 structures that have all been evaluated were determined ineligible (Not Historic) for listing in the NRHP. Only one such structure there was determined eligible (Building 1, a.k.a. the Radio Building from 1954)

Estimates of future capital expenditure are included in the FRPP. The Federal Preservation Officer checks the FRPP and the regular updates to verify it for accuracy in so far as the above determinations.

Since June of 2020, NIST has created web pages on both its intranet and its public website that provides a wealth of information about the historic resources within its portfolio, helpful research data as well as compliance requirements. See: [Historic Preservation at NIST | NIST](#)

4. Has your agency employed partnerships to assist in the identification and evaluation of historic properties?

NIST does not employ any partnerships to assist in the identification and/or evaluation of historic properties. Given that surveys and historic assessment of 100% of our resources on our four major campuses have been completed, partnerships would serve no purpose for NIST.

5. Provide specific examples of major challenges, successes, and/or opportunities your agency has experienced in identifying historic properties over the past three years.

NIST has been very successful in the identification of historic resources on its various campuses as noted above. To its credit, NIST leadership recognized the importance of the Section 110 evaluation efforts that chronicled the significance of the science conducted at NIST Gaithersburg labs and directed the FPO to list the Gaithersburg campus after it was determined eligible for such listing.

6. Have your agency's programs and procedures to protect historic properties, including compliance with Sections 106, 110 and 111 of NHPA, changed over the past three years in ways that benefit historic properties?

All Section 106 consultations for all campus locations are managed by the Federal Preservation Officer in close coordination with NIST project management staff and leadership. This assures that best practices and character defining features of the NRHP eligible properties are carefully considered and prioritized in proposed Undertakings. Furthermore, NIST established an Architectural Design Review Board in 2018 to review proposed changes to facilities and landscapes on primary Gaithersburg and Boulder campuses. This 5 member board, which meets quarterly, is composed of seasoned architects and landscape design professionals whose responsibility is to make sure that proposed projects are compliant with the campus design guidelines found in the two master plans ([Boulder Laboratories Master Plan | NIST](#) and [NIST Gaithersburg Master Plan | NIST](#)) as well as the Secretary of the Interior's Standards for the Treatment of Historic Structures.

The FPO, NIST Office of the General Counsel and the Maryland SHPO in 2019 signed a Programmatic Agreement for the Gaithersburg Campus that governs day to day maintenance and operational activities. Similarly, NIST and the CO SHPO executed a

Programmatic Agreement for the ongoing maintenance and operational activities affecting long range stewardship for NRHP-eligible Building 1 on the Boulder Campus in 2021 and earlier this year (2023) completed a similar Programmatic Agreement concerning the Fort Collins, CO campus. Copies of these Pas maybe found on the public facing NIST/OFPM website

In order to increase awareness among facilities staff, the FPO has conducted training workshops on both major campus locations.

7. Has your agency employed partnerships to assist in the protection of historic properties?

As noted earlier, NIST has not used partnerships in the surveying, nor the identification of historic resources.

8. Does your agency use program alternatives such as Programmatic Agreements, Program Comments, and other tools to better manage and protect your agency's historic properties?

Yes, over the last several years NIST, with the essential help of the ACHP federal programs staff, has developed Programmatic Agreements, to better manage the day to day maintenance as well as the long- term renovations affecting Building One at the Department of Commerce Boulder Laboratories, as well as at the Fort Collins and the Gaithersburg campus locations. (See the NIST Historic Preservation Web pages)

9. Provide specific examples of major challenges, successes and/or opportunities your agency has encountered in protecting historic properties over the past three years.

We have recently commenced with the initial construction phase of a major, multi-year renovation and extension to the Radiation Physics Laboratory, one of the original special purpose laboratories built on the Gaithersburg campus from 1962-1964. Working closely with the Maryland Historical Trust (MHT) NIST staff and its consultants devised a façade treatment that, in response to suggestions made by the MHT, references the “A-B-A-B” vertical rhythm of the existing building’s North elevation and is referenced, both vertically and horizontally by articulated scoring and strategic placement of the joints in the new precast panels.



Rendering courtesy of ZGF Architects and Hensel Phelps

Similarly, NIST is presently engaged with the CO SHPO on the design for rehabilitation of two wings (4 and 5) of the NRHP-eligible Building 1 on the Boulder campus. In this case inventive outdoor trellises that actually serve to provide code required seismic bracing have been introduced. These elements allow for the historic cast in place concrete wall panels and exposed frame to be maintained while adding a lively counterpoint that encourages use of the adjacent outdoor space. The design was reviewed as part of a Sect. 106 Consultation with the CO SHPO



Photos of Boulder, Bldg. 1, Wing 5 August 2023, credit: NIST FPO

10. Do your agency's historic federal properties contribute to local communities and their economies? Is the use of historic properties encouraged and promoted within your agency?

The entire Gaithersburg campus is an NRHP eligible Historic District, so yes, the use of 64 historic structures is promoted and encouraged. Because NIST is a major employer surrounded by the City of Gaithersburg, its presence has a positive effect on the local economy.

Similarly, in Boulder the continued use of historic building 1 is anticipated with a phased renovation project that will affect all six wings of this NRHP eligible structure. A familiar landmark along Broadway, a major north-south artery of Boulder, building 1 presents to the local community the primary entrance to the campus. The campus in turn serves a gateway to hikers, bikers, and residents who make maximum use of outdoor recreation areas bordering and part of the campus located at the foot of the Flatirons mountain range.



11. Explain how your agency uses historic properties to foster heritage tourism, when consistent with agency missions.

NIST has not had to date opportunities for the use of its assets in economic development and heritage tourism. However, we involve stakeholders through compliance with the National Environmental Policy Act and the consultation process prescribed under 36 CFR §800 and Section 106 of the NHPA. In the future, we are looking to add to our public museum functions by adding exhibits at our new visitor processing centers that are being planned for both the Boulder and Gaithersburg campus locations

There are no special statutory or legal restrictions that prohibit us from exploring partnerships for local economic development; however, all historic buildings are being used to fulfill our primary mission. Specific proposals would require review by legal counsel.

Since the last reporting period the FPO has presented the NIST Preservation Program to multiple audiences, including college students at the University of Illinois, the University of Virginia, the College of the Holy Cross and at national professional associations such as the Association for Preservation Technology (October 2021), the Design Build

Institute of America (July 2022) and the American Institute of Architects University (December 2023).

12. If your agency is subject to the requirement of the Federal Assets Sale and Transfer Act (Property) and the Federal Property Management Reform Act (described above) how will their requirements affect your agency’s ability to protect and use its historic properties?

NIST evaluates the condition of its all of its properties, including historic properties, through the Facilities Assessment Program/ Facility Condition surveys of all facilities that are conducted on a recurring, periodic schedule.

13. How is your agency meeting the requirements of EO 13693, Planning Sustainability in the Next Decade?

The ongoing 20-year Gaithersburg Comprehensive Master Plan shall stipulate what has become common practice at the NIST campuses nationwide, that historic assets be repurposed. To this end historic buildings on the campuses have typically been used for same purpose(s) since their dates of original construction. Underpinning this Goal, the text shall include a provision similar to: *“Preserve and enhance structures with established historic and cultural value, and protect and document important archeological finds.”*

NIST has aggressively pursued various HVAC upgrades incorporating more efficient motors;

NIST reroofs its campus structures with white roofs;

NIST recently completed an Energy Savings Performance Contract for a 15-acre solar array that has been documented in the first few years of use to provide the 579-acre Gaithersburg campus with 5% electrical savings;

NIST is nearing completion on a Co-Gen renewable energy facility that shall provide

All building modernizations and new facility construction will be designed to meet EO 13693.

14. Does your agency use, or has it considered using, Section 111 (now 54 U.S.C. Explain how your agency has used Section 111 (16 U.S.C. § 306121) of the NHPA to lease or exchange its historic properties?

NIST does not have unilateral authority to transfer, out-lease, or sell their historic properties. If an opportunity arises where use of this authority would be considered advantageous, NIST would work with Office of the General Counsel for review, legal counsel, and direction.

Thus, our agency does not utilize this provision of the NHPA since all of its owned properties are within secured perimeters that provide for limited public access. Furthermore, new master plans for both Gaithersburg and Boulder project additions, rather than reductions in foot print.

15. Explain how your agency has employed the use of partnerships to assist in the use of historic properties.

NIST does not have partnerships for the preservation of historic properties because all historic buildings are preserved and utilized in fulfilling its mission. Due to the highly specialized nature of most of our mission-critical space, NIST has not actively sought out partnerships to locate other agency functions in historic properties.

However, in historic Building 1 in Boulder we do provide laboratory space for the Institute for Telecommunication Sciences (ITS), a division of the National Telecommunication and Information Administration. Similarly, at the Gaithersburg campus, we provide office space for the Office of Security of the U.S. Department of Commerce in Buildings 303 and 101, both contributory structures to the NIST Gaithersburg historic district.

16. Provide specific examples of major challenges, successes, and/or opportunities your agency has encountered in using historic properties over the past three years.

During last three years, we have improved our management of historic properties. Significant changes, accomplishments, and program progress since the last report include:

- Evaluation and updating the Real Property inventory database to reflect the building's historic status as described above.
- Close and careful review of all Office of Facilities & Property Management design and construction projects to assure absolute compliance with the SOI Standards.
- Special historic preservation principles and practices training to Office of Facilities and Management personnel to inform and instruct staff about their stewardship responsibilities

- NIST now requires that all design and construction projects affecting exteriors and certain interiors of its eligible resources have as part of its project team a historic preservation trained professional who meets the SOI qualification standards.
- Thorough documentation, analysis and coordination with the SHPO in order to determine effects for all Section 106 projects.
- Development and utilization of Programmatic Agreements for the Gaithersburg, Boulder and Fort Collins historic properties
- Creation of an electronic log of all Section 106 cases showing project status at any given time.
- Coordination of work with the NIST Office of Safety, Health and Environment in the NEPA evaluation of projects and work sites.

*Submitted September 26, 2023
by NIST FPO, Phillip W. Neuberg, FAIA*

END OF REPORT