

SCOPE OF WORK

Twin Lights Roof Replacement

Twin Lights State Historic Site
Highlands Township, Monmouth County, NJ

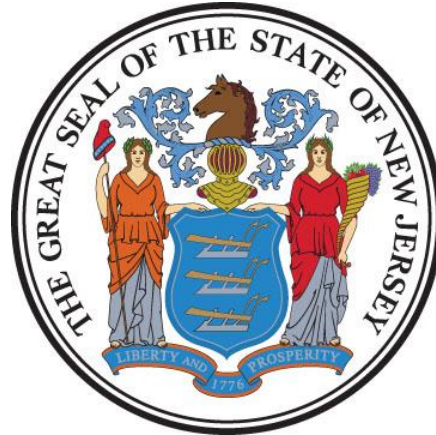
Project No. P1375-00

STATE OF NEW JERSEY

Honorable Mikie Sherrill, Governor
Honorable Dr. Dale G. Caldwell, Lt. Governor

DEPARTMENT OF THE TREASURY

Aaron Binder, State Treasurer



DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Thomas A. Edenbaum, Director

Date: May 7, 2026

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I. OBJECTIVE

The objective of this project is to remove and replace the existing metal roofs on the north tower, south tower, and the main building at the Twin Lights State Historic Site located in Monmouth County.

II. CONSULTANT QUALIFICATIONS

A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

- **P034 Historical Preservation/Restoration**

The Consultant shall also have in-house capabilities or Sub-Consultants pre-qualified with DPMC in:

- **P025 Estimating/ Cost Analysis**
- **P037 Asbestos Design**
- **P038 Asbestos Safety Control Monitoring**
- **P065 Lead Paint Evaluation**

As well as, any and all other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

III. PROJECT BUDGET

A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is \$1,800,000.00.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is \$2,235,000.00.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the client agency’s financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change after notification from the consultant during the design process and in a revised CWE deliverable.

C. CONSULTANT’S FEES

The construction cost estimate for this project *shall not* be used as a basis for the Consultant’s design and construction administration fees. The Consultant’s fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

IV. PROJECT SCHEDULE

A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations. The Consultant’s proposed design and construction schedule shall be in Gantt chart format and calendar day durations with start and finish dates for each task.

<u>PROJECT PHASE</u>	<u>ESTIMATED DURATION (Calendar Days)</u>
1. Site Access Approvals & Schedule Design Kick-off Meeting	14
2. Investigation Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Comment</i>	14
3. Design Development Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Comment</i>	14
4. Final Design Phase	42
• <i>Project Team & DPMC Plan/Code Unit Review & Approval</i>	14

5. Final Design Re-Submission to Address Comments	7 (See Note)
• <i>Project Team & DPMC Plan/Code Unit Review & Approval</i>	14
6. Permit Application Phase	7
• <i>Issue Plan Release</i>	
7. Bid Phase	42
8. Award Phase	28
9. Construction Phase	120
10. Project Close Out Phase	30

Note: The Final Design Phase is considered complete upon the release of Construction Documents by the DPMC Code Group and/or the Department of Community Affairs (DCA).

B. CONSULTANT’S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit ‘A.’** The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, and activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

PROJECT NAME: Twin Lights State Historic Site Roof Replacement
PROJECT LOCATION: Highlands Township, Monmouth County
PROJECT NO: P1375-00
DATE: May 7, 2026

V. PROJECT SITE LOCATION & TEAM MEMBERS

A. PROJECT SITE ADDRESS

The location of the project site is:

Twin Lights State Historic Site
2 Light House Rd.
Highlands, NJ 07732

GPS Coordinates: 40.396256° N, -73.98577° W

See **Exhibit 'B'** for the project site location map.

B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

1. DPMC Representative

Name: Nehad Mohamed, Project Manager
Address: Division of Property Management & Construction
20 West State Street, 3rd Floor
Trenton, NJ 08608-1206
Phone No: (609) 292-6558
E-Mail: Nehad.Mohamed@treas.nj.gov

2. Department of Environmental Protection

Name: Robert Baudo, Project Manager
Address: Department of Environmental Protection
275 Freehold-Englishtown Road
Englishtown, New Jersey 07726
Phone No: (609) 775-7662
E-Mail: Robert.Baudo@dep.nj.gov

VI. PROJECT DEFINITION

A. BACKGROUND

Navesink Twin Lights in Highlands of Monmouth County holds a prominent place in American maritime history (See **Exhibit ‘B’** Site Map). The Twin Lights State Historic Site, established in 1828, consisted of two rubble towers. In 1862, the two towers were replaced with a fortress style structure with a north tower and the south tower. In 1841, the first order Fresnel lens to be used in this country was imported from France and installed in the south tower. In 1862, the north tower was equipped with a 2nd order Fresnel lens. With the installation of these beehive-shaped lenses made of stacked prisms, Twin Lights became the beacon of coastal light in America and seen reflecting in the night sky 70 miles away (See **Exhibit ‘B’** Project Site).

The Navesink Light was the only shore station having a plant for generating electricity. The electric arc lamp replaced oil lamps in the south tower in 1898. Despite making it the most powerful coast light in the United States during the period, many complaints were made from nearby residents about the discomfort and annoyance caused by the brilliance of the flash. With the development of automated lights by the US Coast Guard in 1949, offshore light towers, radar, and other technological navigation equipment in the 20th century, manned lighthouses gradually became obsolete, and the light towers were decommissioned. The Twin Lights stands as a formidable reminder of the important role lighthouses played in the maritime and navigational history of this country.

The Twin Lights State Historic Site is a National Historic Landmark and is found on the United States National Register of Historic Places and the New Jersey Register of Historic Places. The site is operated and managed by the New Jersey State Park Service under the New Jersey Department of Environmental Protection (NJDEP).

B. FUNCTIONAL DESCRIPTION OF THE BUILDING

The north and south lighthouse towers at the Twin Lights State Historic Site were built in 1860 with the north tower built in an octagonal shape and the south tower built square (See **Exhibit ‘C’** Photos). The towers are 228 feet apart at the opposite end built on a castle-like structure. The towers are approximately 53 feet tall. The exteriors of the towers and the main building (ocean front side) are reddish brown sandstone. The north and south watch tower roof are copper with crenellated metal work on top. A door from the watch room allows access onto the exterior walkway that is surrounded by a brownstone parapet wall about three feet high

The main building includes a residence, formerly for the lighthouse keeper, connected to single story spaces originally used for oil storage and workshop rooms. Today, the north area section of the main building functions as a museum and reception area and the south end is used for an office area and presentation room. There are three sections of the main building’s roof (See

Exhibit ‘C’ Photos). Built later, a single floor square entry foyer leading to the 2nd floor apartment and a public restroom was built on the north end of the main building.

The roof on both towers and the metal roof spanning the main building has reached the end of its useful life and requires replacement. Additionally, the roof for the public restroom and the entry foyer are showing some leakage and will also be replaced. The main building has a flagpole not in operation and of historic significance. The pole will be removed and provided to the DEP project team after removal and will not be reinstalled on the rooftop. New vent covers will be created and/or existing provided, as available, to help prevent further leakage (See **Exhibit ‘D’** Correspondance, Roof & Window Memos, Vent Cover). Although, the Twin Lights had painting and gutter modifications throughout time periods it is the desire of DEP to restore the structure back to its historical appearance. An investigation phase for the roofs will be conducted to develop a detailed restoration plan.

The Twin Lights State Historic Site is home to a museum displaying the historical lens technology, gift shop, programs, and guided tours of the towers that connect visitors and students with New Jersey’s nautical and commercial past. All buildings and structures are occupied and will remain open, under the discretion of the Agency, during construction.

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. ROOF SYSTEM INVESTIGATION

1. General

The Consultant shall conduct an investigation to identify the conditions of the roofing system and its related components on the buildings and structures at the Twin Lights State Historic Site (See **Exhibit ‘C’** Photos). The Consultant’s investigation will be used to provide the design, specifications, bid/aware and construction administration services for replacing the existing roofs. The Consultant shall review the research and all documentation, to be used as a guide, for the design and specifications of the new roof replacements (See **Exhibit ‘D’** Correspondance, Roof & Window Memos, Vent Cover). Additionally, it is the Consultant’s responsibility to meet and coordinate with the Agency and/or the Project Team to outline the design and functional requirements necessary for the roof replacements. Modifications and/or changes to meet the Agency’s needs and requirements shall be provided.

All costs for the roof investigation shall be estimated by the Consultant and the amount included in the base bid of their fee proposal.

2. Roof Components

The Consultant shall investigate the roof system components such as roof decking, joints, copings, flashing, soffits, snow guards, sealants, rain funnels, chimney, specialty decorative elements (tower design tops), etc. for various penetrations of any water infiltration and need for repair.

The investigation will be used to identify the roof system's specifications, drainage requirements, and related components. The building's metal roof corrugated sheets, flashings, fascia, gutters, exhausts, plumbing vents, downspouts, and leaders shall all be included in the investigation by the Consultant.

3. Roof Drainage

Investigate the conditions of the roof system drainage. Inspect for broken or separated drainpipe seals and joint connections. Conduct water flow tests for every roof drain or various penetrations for water infiltration prior to the roof demolition to ensure the drains are not blocked and operate properly.

Notify the Agency of any drain blockages discovered so facility staff may take immediate corrective action. It is the Consultant's responsibility to outline the design and functional requirements necessary for the roof replacement. The Consultant shall be responsible to include in the design any drainage system issues discovered during the inspection that are beyond preventative maintenance.

New vent covers will be created and/or existing provided, as available, to help prevent further leakage (See **Exhibit 'D'** Correspondance, Roof & Window Memos, Vent Cover).

4. Other Items

Investigate any other item not identified above but would be considered part of the roofing system components to identify any other components for removal, secure storage, or reinstallation.

5. Roof System Investigation Presentation and Report

The Consultant shall provide an oral presentation and an investigation report to the Project Team and/or Agency describing the findings of the roof system investigation conducted and the recommendations for repair or replacement with cost estimates. The Consultant may not proceed with the design phase of the project until the Project Team and/or Agency has reviewed the report and approved the recommendations made for this project.

Three (3) bound copies of the "final" approved Roof System Investigation Report shall be

provided to the Agency and Project Team that contains a Table of Contents describing all of the information contained in the document and an Executive Summary with a list of “prioritized” recommendations for repairs and/or replacements and justifications where appropriate.

All supporting documentation such as calculations, photographs, drawings, catalog cuts, correspondence, meeting minutes, the preliminary project construction cost and schedule, and any other data obtained shall be included in the report appendix for reference.

Provide an “Existing Roof Conditions” Section in Division 1 of the specification that describes the roofing components that are to be repaired or replaced based on the approved investigation recommendations and any other information that will assist the Contractor in determining the construction costs of the project.

B. ROOF REPLACEMENT DESIGN REQUIREMENTS

1. New Roof System Design Criteria

Based on the Consultant’s findings of the roof system investigation, the Consultant shall provide the Design, Construction Administration, Permitting and Bid/Award services to replace, in similar-in-kind, the roof systems and related components of the required buildings and structures at the Twin Lights State Historic Site. The roof replacements are to include the north tower, south tower, main building, connected entry foyer of the main building, and the connected public restroom (see **Exhibit ‘B’** Project Site)

The design shall include the replacement and installation of all flashings, gutters, leaders, downspouts, etc. All valleys shall be constructed with new open-valley flashing. Review all roof mounted equipment or features including roof exhausts, plumbing vents, antennas, cameras, satellite dishes, electrical connections or devices and any other roof related materials and provide for the removal and/or replacement, as per Agency request, or reinstallation of those items in the design documents.

The design documents shall specify that the new roofing work must be protected, and the building made watertight at the completion of each day’s work.

The design documents shall address the new roof system or product manufacturer’s installation criteria, such as cleaning and priming, occupancy of the building, access to the building roof, security issues, and approved storage methods of the roofing materials. The manufacturer of the roofing system shall have no less than five (5) years’ successful experience in producing the materials required for this project.

The new roof system shall be in accordance with the latest adopted version ASHRAE energy codes and energy standards. The roof system shall follow the “Factory Mutual Research Corp”

(FMRC) standards and must meet all requirements of Factory Mutual I-90 classification for wind uplift.

Design documents shall also address all State, Federal, and Local regulations regarding safety equipment, such as scaffolding and ladders, handling of materials such as sealants and storage.

Design documents shall address surface preparation prior to any sealant application. All moveable fixtures and appurtenances must be removed to ensure thorough preparation and application to surfaces and replaced upon completion. Adjacent surfaces, such as windows, must be protected from drips and splatters.

Membrane, flashing, adhesive and all materials shall be the single product of a standard manufacturer. New roofing materials, with less than 5 years of successful application in the field, will not be accepted for this project.

This structure is listed on the National Register of Historic Places and is designated a National Historic Landmark. All design, specifications, and construction to the building shall meet the State Historic Preservation Office Approval per Section 106 of the National Historic Preservation Act. An Application for Project Authorization is found under the New Jersey Register of Historic Places Act. All design and specifications shall meet *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

2. Roof System Removal

The Consultant shall provide the design and specifications for the removal and safe disposal of the old roof system and all roofing system components. The design shall include the removal and disposal of the metal corrugated sheets, flashings, fascia, gutters, vents, leaders, and downspouts.

The existing building roofing system and flashings shall be completely removed to the original decking and legally disposed. Remove all roof mounted equipment or features including antennas, satellite dishes, conduit, electrical connections, and any other roof mounted components, as part of this project. Note, the removed items will be replaced, per Agency request, or reinstallation of those items in the design documents.

Design documents shall identify all requirements for safety devices, chutes and/or cranes for roof material removal, scaffolding, dumpster location, protection from exposure to the weather, protection of property and personnel, building access routes and circulation patterns, contractor use of the premises, parking, security procedures, equipment and materials storage, waste disposal, etc.

To minimize disruption to unexcavated areas and enhance the protection of fragile underground utilities, ground mats are to be used if heavy equipment (cranes, tractor trailers, dumpsters etc.)

is expected to travel over or operate from unpaved areas.

The removal of the existing roof systems shall be coordinated with the installation of the new roof to prevent exposure to weather conditions and potential water infiltration into the buildings.

3. Temporary Construction Canopy

The Consultant shall investigate and provide a temporary canopy to prevent roofing materials, construction tools and equipment, dirt and debris, solvents, sealants, bonding adhesives, etc. from injuring personnel using the public access areas of the building during the demolition and construction activities of the project.

Under the discretion of the Agency and/or the project team, the need for construction phasing shall be determined.

4. Roof Drainage

Provide for the cleaning, repair, replacement and additional drains as required and ensure that drainage water will be carried away from the roofing system.

The Consultant shall provide the design and installation for the replaced vent drainage covers, supplied by DEP, located on the exterior walkway of the brownstone parapet (See **Exhibit 'D'** Correspondance, Roof & Window Memos, Vent Cover). The Agency and/or project team shall be consulted about the replacement equipment.

Roof drains shall be tested by the A/E prior to and after the installation of the new roof by the contractor to determine functionality. The Consultants shall test roof drains using a 3/4" hose flowing for 30 minutes. The contractor shall perform the same test prior to starting roof removal and upon completion. Clogged roof drains shall be cleared. All drains shall be removed and reset or repositioned so that the drain is below the roof membrane surface. Provide interior cleaning, repair, replacement and additional drains as required and ensure that drainage water will be carried away from the building foundations, footings, lanes, sidewalks and driveways. Investigate the abandonment of leaking interior drain lines and/or replace as necessary. Install new interior lines where access is impossible for repairs and/or replacement. New drains can be tied into existing drain piping to avoid disturbing interior finishes.

5. Roof System Requirements

The Contractor shall supply only a U.L. Class "A" fire rated roofing system.

6. Insulation

The Consultant shall recommend new high-density rigid insulation boards that comply with

current energy code requirements. Ensure the roofing system manufacturer approves the method of fastening the insulation board through the medium to the roof deck system.

Flat roofs shall be avoided by using tapered insulation or another method to promote positive drainage to the roof drains. Incorporate a roof design that shall slope a minimum of ¼" per foot (½" per foot preferred).

DPMC does not permit Urethane material insulation due to a history of gas release and bubbling under the roofing ply layer(s).

7. Gutter, Leaders, and Fascia

The Consultant shall replace all roof gutters, leaders and repair or replace fascia as necessary.

8. Flashing

Where necessary, all rooftop HVAC curbing, pipe supports, pipe vents and other roof penetrations must have new flashing installed as part of this project.

All pipe flashings are to be pre-molded and provided with stainless steel pipe clamps at each penetration.

9. Chimneys

The Consultant shall provide the design and specifications for any repairs of the chimneys for structural and cosmetic purposes, as directed by the Agency and/or project team, on the main building.

10. Structural Calculations

If the roofing system and/or related components are not a replacement in kind, then the Consultant shall submit a signed and sealed letter or calculations to the DPMC Design and Code Review Unit Manager verifying that the existing roof structure can support all loads of the new roofing system and components per current code requirements or the consultant may submit calculations of the new load as compared to the existing (old) load in order to prove the structure is sufficient.

11. Night Seals

Specify in the design documents that only as much roofing material and flashing as can be made weather tight shall be installed each day. Install temporary watertight night seals around all exposed edges of the roofing assembly at the end of each work day and when work must be postponed due to inclement weather.

12. Fire Protection Program

Address fire protection requirements during the demolition and installation of the roofing system. Language shall be included that states that open flames such as propane torches, kettles, flame cutting, and welding cannot be used on the construction site until a fire watch program has been submitted by the Contractor and approved by the Consultant and Project Team members.

The facility safety officer and fire protection personnel are notified of the work to be done through this process. The facility will not provide a fire watch.

If hot work is needed, the Contractor is required to obtain and conform to the requirements of a hot work permit. The Contractor must contact the New Jersey Division of Fire Safety (DFS) to obtain a hot work permit for the duration of this Project as required by N.J.A.C. 5:70-2.7.

The Contractor shall submit a copy of the DFS Hot Work Permit for the building prior to commencing the hot work. The Contractor will also need to obtain a daily hot work permit from the Facility, as required by the currently adopted version of the International Fire Code, New Jersey Edition, Chapter 29 and by the State's Insurance Carrier. There is no fee for this Permit.

13. Allowable Roof System Installation

The design documents specify the weather and temperature installation restrictions based on the roof system manufacturer's recommendations.

14. State Historic Preservation Office Approval

The Consultant shall complete an "Application for Project Authorization Under the New Jersey Register of Historic Places Act" and submit it to the State Historic Preservation Office for review and approval prior to securing the required UCC permits.

The "Application for Project Authorization Under the New Jersey Register of Historic Places Act" shall be found at: <https://dep.nj.gov/hpo/news/posts/2025/11/21/application-for-project-authorization-under-the-new-jersey-register-of-historic-places-act/>

15. Signage

The Consultant shall provide any required project related Agency approved signage.

16. Unit Prices

If the total amount or quantity of repair work cannot be determined for a roof related item by the roof inspection process, then the Consultant shall include a "Unit Price" Section in Division 1 of the specification for that item. Items may include deteriorated fascia, plywood sheathing, wood

blocking or curbing, vapor barriers, underground drains, etc.

17. Warranty

The roofing manufacturer's warranty shall be for a minimum period of twenty (20) years.

C. SITE REQUIREMENTS

The following project site requirements shall be included in the design documents as appropriate:

1. Customer Use of the Premises

Determine the coordination, policies, and procedures with the Client Agency and the Contractor with respect to parking, material staging, and storage areas, use of Client Agency utilities, allowable hours of construction, the need and location of portable toilets, the need and location of construction and storage trailers, etc. and include the information in Division 1 of the specification.

2. Dumpster

If a dumpster is required, the location shall be shown on the site plan in an area approved by the Client Agency, and the frequency of debris removal shall be identified in the design specification.

3. Special Sequencing

The contract documents must incorporate special sequencing of the work, if necessary, to be coordinated with the Client Agency in order to provide for any functional requirement of the facility. Items shall include, but not be limited to safety/security requirements, pedestrian and vehicle traffic flow, weather and/or seasonal concerns, and shut down of any physical plant functions or services.

4. Site Restoration

Include in the contract documents that the site must be restored to pre-construction conditions after construction has been completed and approved.

D. SPECIAL CONSIDERATIONS

1. Security

Include any special security requirements or policies published by the Client Agency in Division

1 of the specification.

2. Hours of Work

Identify the approved construction work hours for this project in Division 1 of the specification. Special hours required to install the internal roof drains in the building shall be identified if required. Additional construction hours during the day or weekends will be allowed if the Contractor obtains prior approval from the Project Team members. No work is permitted on weekends or State holidays. The facility allows for work to be performed between 7 AM and 3:30 PM. If additional hours of work are allowed, it will be at no added cost to the contract.

3. Trailers

The contractor may provide a storage trailer and meeting room at the construction site if required for the project and in an area approved by the Client Agency.

4. Material Staging

The Client Agency shall approve the construction material staging area and the location shall be shown on the project site plan.

5. Fencing

All fencing that is required around the construction site or elements of the site such as storage trailers, construction materials, buildings, equipment, etc. shall be identified on the design drawings where appropriate.

6. Lightning Protection

Address the temporary removal and replacement of the lightning protection system if applicable.

7. Material Protection

All stored roofing materials and/or other roofing components shall be protected from the elements and moisture with plastic sheet covers or other approved materials.

8. Material Safety Data Sheets (MSDS)

Specify in the contract documents that the Contractor shall provide material safety data sheets on site for all roofing materials used such as sealants, bonding adhesives, solvents, bitumen, etc.

9. Fire Extinguishers

Design documents shall require the Contractor to make provisions for stand-by portable fire extinguishers of proper size and type. They shall be located on the roof and/or near any source of open flame or spark and all employees shall be trained in their proper use.

10. Existing Equipment Removal & Replacement

Identify on the design drawings any existing equipment and materials that must be removed to install any component of the new roofing system such as lights, security cameras, antennas, piping, conduit, etc. and include details indicating the approved methods of reattachment.

11. Daily Cleanup Requirements

Contractor to inspect work area daily for cleanup of miscellaneous debris. Include a magnet sweep of entire work area at end of each day.

12. Debris Safety

Measures should be taken to protect staff and residents from any material or debris that might fall off the roof onto roadways or sidewalks.

E. HAZARDOUS BUILDING MATERIALS

Consultant shall survey the building and related components and, if deemed necessary, collect samples of materials that will be impacted by the construction/demolition activities and analyze them for the presence of hazardous materials including:

1. Asbestos in accordance with N.J.A.C. 5:23-8, Asbestos Hazard Abatement Sub-code.
2. Lead in accordance with N.J.A.C. 5:17, Lead Hazard Evaluation and Abatement Code.
3. PCB's in accordance with 40 CFR 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions. Consultant shall engage a firm certified in the testing and analysis of materials containing PCB's.
4. Mold.

Consultant shall document the procedure, process and findings and prepare a "Hazardous Materials Survey Report" identifying building components impacted by construction activities requiring hazardous materials abatement. Consultant shall provide three copies of the "Hazardous Materials Survey Report" to the Project Manager.

Consultant shall estimate the cost of hazardous materials sample collection, testing, analysis and preparation of the Hazardous Materials Survey Report and include that amount in the fee proposal line item entitled **“Hazardous Materials Testing and Report Allowance,”** refer to paragraph XIII.B.

Based on the Hazardous Materials Survey Report, Consultant shall provide construction documents for abatement of the hazardous materials impacted by the work in accordance with the applicable code, sub-code and Federal regulations.

Consultant shall estimate the cost to prepare construction documents for hazardous materials abatement and include that amount in the fee proposal line item entitled **“Hazardous Materials Abatement Design Allowance,”** refer to paragraph XIII.C.

Consultant shall estimate the cost to provide “Construction Monitoring and Administration Services” for hazardous materials abatement activities and include that amount in the fee proposal line item entitled **“Hazardous Materials Construction Administration Allowance,”** refer to paragraph XIII.D.

There shall be no “mark-up” of sub-consultant or subcontractor fees if sub-consultants or subcontractors are engaged to perform any of the work defined in paragraph VII.E **“Hazardous Building Materials.”** All costs associated with managing, coordinating, observing and administering sub-consultants and subcontractors performing hazardous materials sampling, testing, analysis, report preparation, hazardous materials construction administration services shall be included in the consultant’s lump sum fee proposal.

F. DESIGN MEETINGS & PRESENTATIONS

1. Design Meetings

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

2. Design Presentations

The minimum number of design presentations required for each phase of this project is identified below for reference:

Investigation Phase: One (1) oral presentation at phase completion.

Design Development Phase: One (1) oral presentation at phase completion.

Final Design Phase: One (1) oral presentation at phase completion.

G. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DBC No. P170: Twin Lights Lighthouse Restoration, January 1981, Charles Fitch & Assoc.
- DBC No. P0683-01: Generator House Restoration, 1994, Watson & Henry Assoc.
- DPMC No. P0867-00 Exterior Repairs/Interior Painting Twin Lights Historic Site, February 2023, Holt-Morgan-Russell Architects, P.A.
- ODC No. P0843-00 Twin Lights Historic Site Air Conditioning Systems, Feb 5, 2021, El Taller Colaborativo, PC

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

VIII. PERMITS & APPROVALS

A. NJ UNIFORM CONSTRUCTION CODE PERMIT

The project construction documents must comply with the latest adopted edition of the NJ

Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

<https://www.nj.gov/dca/codes/codereg/ucc.shtml>

The Consultant shall complete the NJUCC permit application and all applicable technical sub-code sections with all technical site data required. The Agent section of the application and certification section of the building sub-code section shall be signed. These documents shall be forwarded to the DPMC Project Manager.

The Consultant may obtain copies of all NJUCC permit applications at the following website:

<https://www.nj.gov/dca/codes/resources/constructionpermitforms.shtml>

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

1. Prior Approval Certification Letters

The issuance of a construction permit for this project may be contingent upon acquiring various “prior approvals” as defined by N.J.A.C. 5:23-1.4. It is the Consultant’s responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control; Water & Sewer Treatment Works Approval; Coastal Areas Facilities Review; Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B; Pinelands Commission; Highlands Council; Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D; Certification that all utilities have been disconnected from structures to be demolished; Board of Health Approval for Potable Water Wells; Health Department Approval for Septic Systems; and Notification to Adjoining Property Owners with N.J.A.C. 5:23-2.17(c). It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

2. Multi-building or Multi-site Permits

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

3. Special Inspections

In accordance with the requirements of the NJUCC N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

https://www.nj.gov/dca/codes/publications/pdf_bulletins/b_03_5.pdf

a. Definition

Special inspections are defined as an independent verification by a certified special inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the contractor and responsible to the Consultant so that there is no possible conflict of interest.

Special inspectors shall be certified in accordance with the requirements in the NJUCC.

b. Responsibilities

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant's Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, **"Permit Fee Allowance."**

The Consultant may refer to the DPMC "Procedures for Architects and Engineers Manual," Paragraph **"9. REGULATORY AGENCY APPROVALS"** which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that

the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

IX. BIDDING AND CONTRACT AWARD RESPONSIBILITIES

The Bidding and Contract Award Phase commences with receipt of the required permits, UCC plan release and verification that funding is in place for construction. The Consultant shall refer to the DPMC “Procedures for Architects and Engineers Manual”, Paragraph “17. BIDDING AND CONTRACT AWARD” for all requirements for this phase available at <https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf>.

X. CONSTRUCTION ADMINISTRATION RESPONSIBILITIES

The A/E and their sub-consultants shall, unless otherwise specified in the project specific Scope of Work, provide site administration during the construction of the project. The services required of such site administration shall include, but shall not be limited to, attend and chair the pre-construction meeting, conduct weekly field observations, attend and chair regularly scheduled bi-weekly job meetings, review/approve shop drawings, submittals, and respond to RFI’s.

The Consultant shall refer to the DPMC “Procedures for Architects and Engineers Manual”, Paragraph “18. CONSTRUCTION PHASE” for all construction administration requirements available at <https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf>.

XI. PROJECT CLOSE-OUT PHASE

The DPMC Project Manager has the full responsibility for the planning, scheduling, and execution of project close-out activities. The A/E is responsible to cooperate with the DPMC Project Manager in the planning, scheduling, and execution of project close-out activities. The Consultant shall refer to the DPMC “Procedures for Architects and Engineers Manual”, Paragraph “19. PROJECT CLOSE-OUT PHASE” for all requirements available at <https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf>.

XII. ENERGY REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project

qualify for approved rebates and incentives.

The Consultant shall review the programs available on the “New Jersey’s Clean Energy Program” website at: <http://www.njcleanenergy.com> as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all applicable rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer’s specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of the programs and utility companies to obtain the entitled financial incentives and rebates for this project.

All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

XIII. ALLOWANCES

A. PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

1. Permits

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

2. Permit Costs

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJUCC permit) and include that amount in its fee proposal line item entitled “**Permit Fee Allowance.**” A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJUCC permit is excluded since it will be paid for by the State.

3. Applications

The Consultant shall complete and submit all permit applications to the appropriate permitting

authorities and the costs shall be paid from the Consultant's permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

4. Consultant Fee

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

B. HAZARDOUS MATERIALS TESTING AND REPORT ALLOWANCE

The Consultant shall estimate the costs to complete the hazardous materials survey, sample collection, testing and analysis and preparation of a "Hazardous Materials Survey Report" noted in paragraph VII.E and enter that amount on the fee proposal line item entitled "**Hazardous Materials Testing and Report Allowance**," Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include, but not be limited to, the following information:

- Description of tasks and estimated cost for the following:
 - Sample collection;
 - Sample testing; and,
 - Preparation of a Hazardous Materials Survey Report.

Any funds remaining in the Hazardous Materials Testing and Report Allowance will be returned to the State at the close of the project.

C. HAZARDOUS MATERIALS ABATEMENT DESIGN ALLOWANCE

The Consultant shall estimate the costs to prepare construction documents for hazardous materials abatement noted in paragraph VII.E and enter that amount on the fee proposal line item entitled "**Hazardous Materials Abatement Design Allowance**." Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

Any funds remaining in the Hazardous Materials Abatement Design Allowance will be returned to the State at the close of the project.

D. HAZARDOUS MATERIALS CONSTRUCTION ADMINISTRATION ALLOWANCE

The Consultant shall estimate the cost to provide Construction Monitoring and Administration Services for hazardous materials abatement as noted in paragraph VII.E and enter that amount on the fee proposal line item entitled “**Hazardous Materials Construction Administration Allowance.**” Consultant shall attach a detailed cost breakdown sheet for use by DPMC during the proposal review and potential fee negotiations. The cost breakdown sheet shall include a description of the tasks to be performed and the estimated cost of each task.

Any funds remaining in the Hazardous Materials Construction Administration Allowance will be returned to the State at the close of the project.

PROJECT NAME: Twin Lights State Historic Site Roof Replacement
PROJECT LOCATION: Highlands Township, Monmouth County
PROJECT NO: P1375-00
DATE: May 7, 2026

XIV. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The client agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW PREPARED BY: Alison F. Gottlieb 5/7/2026
ALISON F. GOTTLIEB, PROJECT MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY: James Wright 5/7/2026
JAMES WRIGHT, MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY: Robert Baudo 5/8/2026
ROBERT BAUDO, PROJECT MANAGER DATE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOW APPROVED BY: Nehad Mohamed 5/12/2026
NEHAD MOHAMED, PROJECT MANAGER DATE
DPMC PROJECT MANAGEMENT GROUP

SOW APPROVED BY: Jeanette M. Barnard 6.30.26
JEANNETTE M. BARNARD, DEPUTY DIRECTOR DATE
DIV PROPERTY MGT & CONSTRUCTION

XV. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled “Procedures for Architects and Engineers,” 3.0 Edition, dated September 2022 available at <https://www.nj.gov/treasury/dPMC/Assets/Files/ProceduresforArchitectsandEngineers.pdf> for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the “Procedures for Architects and Engineers” are provided.

Note that the Deliverables Checklist may include submission items that are “S.O.W. Specific Requirements.” These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as “Required by S.O.W” on the Deliverables Checklist:

INVESTIGATION PHASE;

DESIGN DEVELOPMENT PHASE;

FINAL DESIGN PHASE;

PERMIT APPLICATION PHASE;

BIDDING AND CONTRACT AWARD;

CONSTRUCTION PHASE; and

PROJECT CLOSE-OUT PHASE

XVI. EXHIBITS

- A. SAMPLE PROJECT SCHEDULE FORMAT**
- B. PROJECT SITE LOCATION MAP**
- C. PHOTOS**
- D. CORRESPONDANCE, ROOF & WINDOW MEMOS, VENT COVER PHOTO**

END OF SCOPE OF WORK

Deliverables Checklist Investigation Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
12.3.1.	A/E Statement of Site Visit						
12.3.2.	Narrative Description of Project						
12.3.3.	Building Code Information Questionnaire						
12.3.4.	Space Analysis						
12.3.5.	Special Features						
12.3.6.	Catalog Cuts						
12.3.7.	Site Evaluation						
12.3.8.	Subsurface Investigation						
12.3.9.	Surveys						
12.3.10.	Fine Arts Inclusion						
12.3.11.	Design Rendering						
12.3.12.	Regulatory Approvals						
12.3.13.	Utility Availability						
12.3.14.	Diagrammatic Sketches/Drawings (6 Sets)						
12.3.15.	Specifications (6 Sets)						
12.3.16.	Current Working Estimate/Cost Analysis in CSI Format						
12.3.17.	Project Schedule						
12.3.18.	Formal Presentation						
12.3.19.	Scope of Work Compliance Statement						
12.3.20.	Program Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

Deliverables Checklist Design Development Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
14.4.1.	A/E Statement of Site Visit						
14.4.2.	Narrative Description of Project						
14.4.3.	Building Code Information Questionnaire						
14.4.4.	Space Analysis						
14.4.5.	Special Features						
14.4.6.	Catalog Cuts						
14.4.7.	Site Evaluation						
14.4.8.	Subsurface Investigation						
14.4.9.	Surveys						
14.4.10.	Arts Inclusion						
14.4.11.	Design Rendering						
14.4.12.	Regulatory Approvals						
14.4.13.	Utility Availability						
14.4.14.	Drawings (6 Sets)						
14.4.15.	Specifications (6 Sets)						
14.4.16.	Current Working Estimate/Cost Analysis in CSI Format						
14.4.17.	Project Schedule						
14.4.18.	Formal Presentation						
14.4.19.	Plan Review/Scope of Work Compliance Statement						
14.4.20.	Design development Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

Deliverables Checklist Final Design Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
15.4.1.	A/E Statement of Site Visit						
15.4.2.	Narrative Description of Project						
15.4.3.	Building Code Information Questionnaire						
15.4.4.	Space Analysis						
15.4.5.	Special Features						
15.4.6.	Catalog Cuts						
15.4.7.	Site Evaluation						
15.4.8.	Subsurface Investigation						
15.4.9.	Surveys						
15.4.10.	Arts Inclusion						
15.4.11.	Design Rendering						
15.4.12.	Regulatory Approvals						
15.4.13.	Utility Availability						
15.4.14.	Drawings (6 Sets)						
15.4.15.	Specifications (6 Sets)						
15.4.16.	Current Working Estimate/Cost Analysis in CSI Format						
15.4.17.	Project Schedule						
15.4.18.	Formal Presentation						
15.4.19.	Plan Review/Scope of Work Compliance Statement						
15.4.20.	Final Design Phase Deliverables Checklist						
S.O.W. Reference	S.O.W. Specific Requirements						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date

A/E Name: _____

[illegible]

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC Project Manager the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date _____

[illegible]

Date

A/E Name: _____

[illegible]

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

Consultant Signature

Date _____

[illegible]

Date _____

February 7, 1997
Rev.: January 29, 2002

Responsible Group Code Table

The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

<u>CODE</u>	<u>DESCRIPTION</u>	<u>REPORTS TO ASSOCIATE DIRECTOR OF:</u>
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

Activity ID	Description	Repn	Weeks
<PROJ>			
Design			
CV3001	Schedule/Conduct Predesign/Project Kick-Off Mtg.	CM	
CV3020	Prepare Program Phase Submittal	AE	
CV3021	Distribute Program Submittal for Review	CM	
CV3027	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3022	Review & Approve Program Submittal	CA	
CV3023	Review & Approve Program Submittal	PR	
CV3024	Review & Approve Program Submittal	CM	
CV3025	Consolidate & Return Program Submittal Comments	CM	
CV3030	Prepare Schematic Phase Submittal	AE	
CV3031	Distribute Schematic Submittal for Review	CM	
CV3037	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3032	Review & Approve Schematic Submittal	CA	
CV3033	Review & Approve Schematic Submittal	PR	
CV3034	Review & Approve Schematic Submittal	CM	
CV3035	Consolidate & Return Schematic Submittal Comment	CM	
CV3040	Prepare Design Development Phase Submittal	AE	
CV3041	Distribute D. D. Submittal for Review	CM	
CV3047	Prepare & Submit Project Cost Analysis (DPMC-38)	CM	
CV3042	Review & Approve Design Development Submittal	CA	
CV3043	Review & Approve Design Development Submittal	PR	
CV3044	Review & Approve Design Development Submittal	CM	
CV3045	Consolidate & Return D.D. Submittal Comments	CM	
CV3050	Prepare Final Design Phase Submittal	AE	
CV3051	Distribute Final Design Submittal for Review	CM	
CV3052	Review & Approve Final Design Submittal	CA	
CV3053	Review & Approve Final Design Submittal	PR	
CV3054	Review Final Design Submittal for Constructability	OCS	

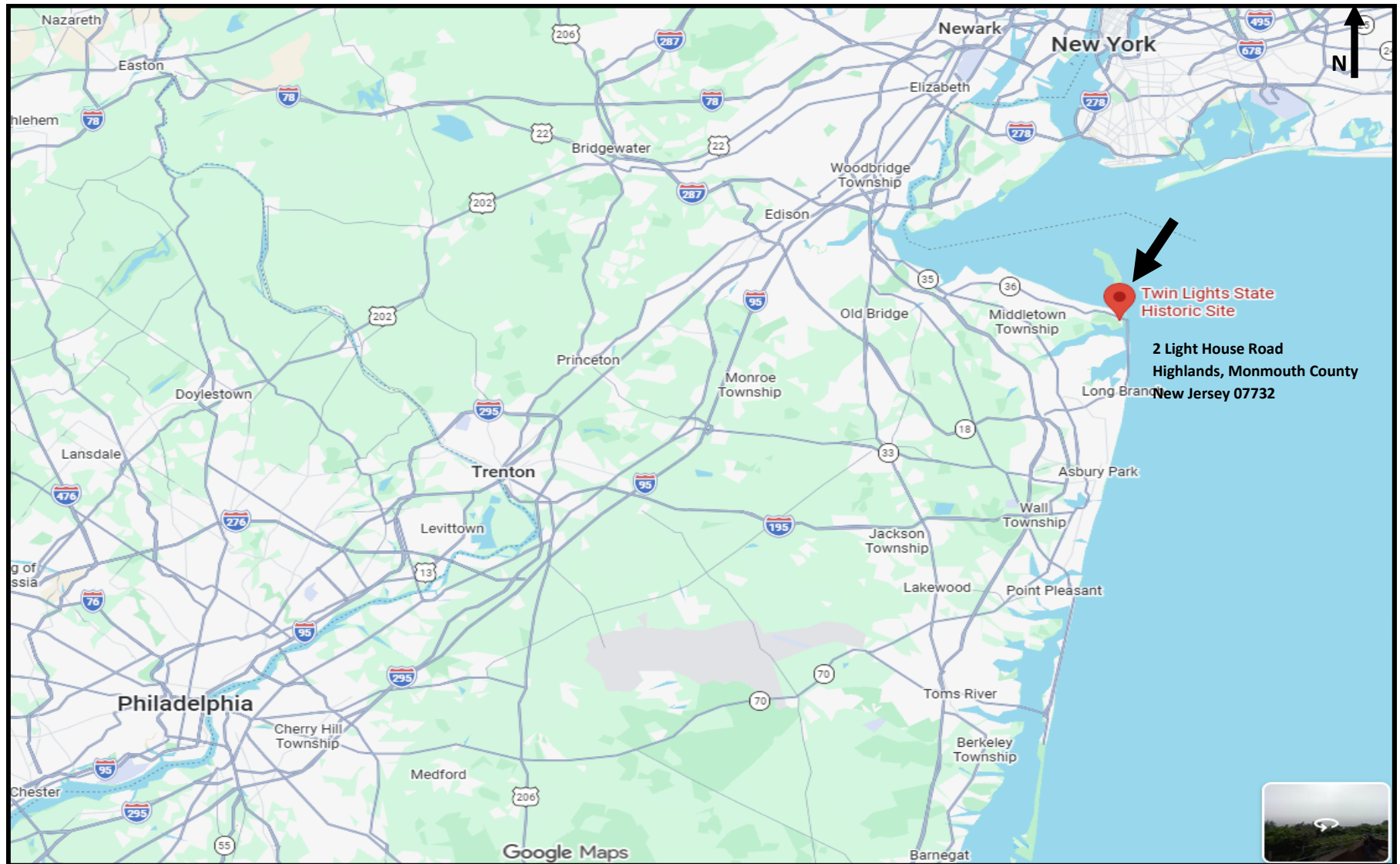
DBCA - TEST

Sheet 1 of 3

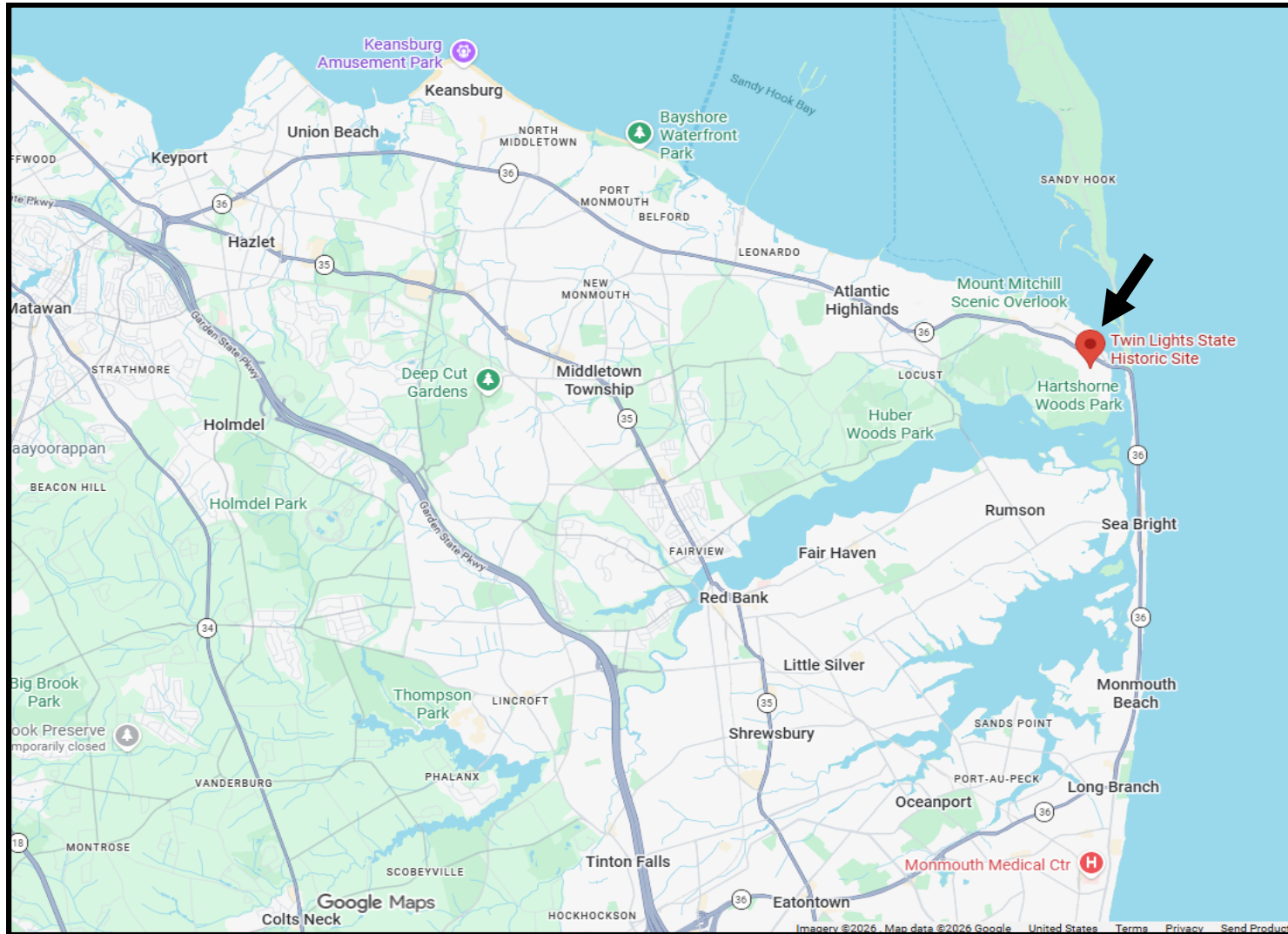
Bureau of Design & Construction Services

EXHIBIT 'A'

NOTE:
Refer to section "TV Project Schedule" of the
Scope of Work for contract phase durations.
© Primavera Systems, Inc.



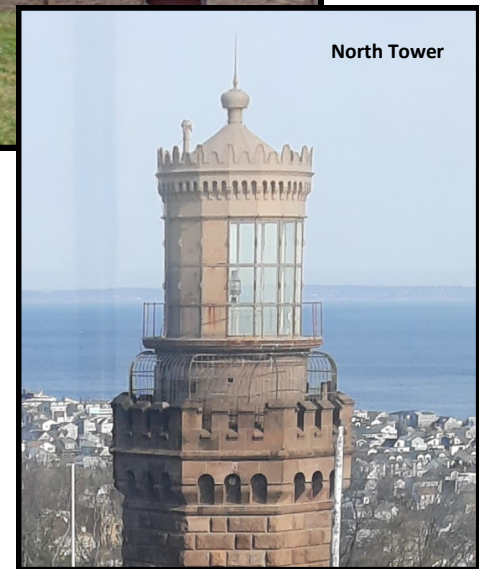
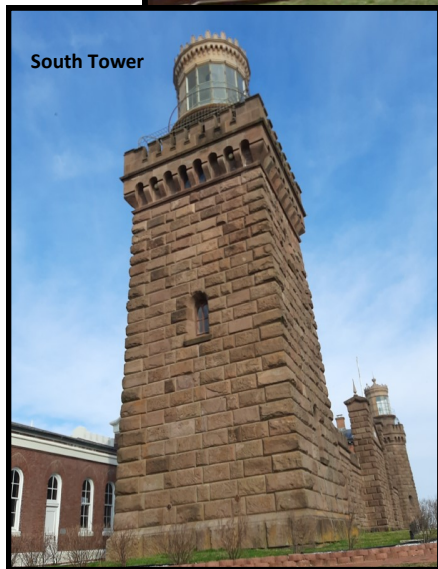
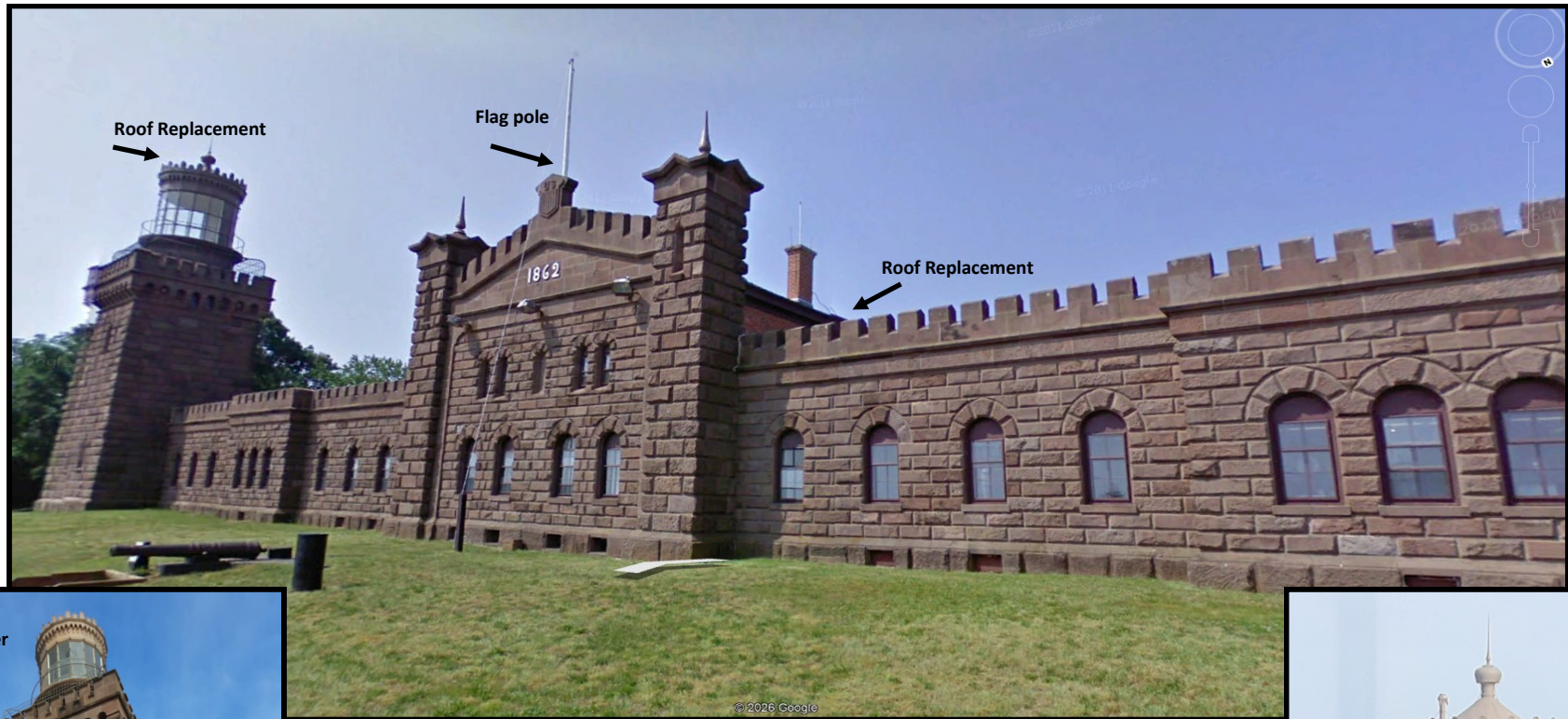
Project Site Location Map
Twin Lights State Historic Site
EXHIBIT 'B'



Project Location Map
Twin Lights State Historic Site
EXHIBIT 'B'



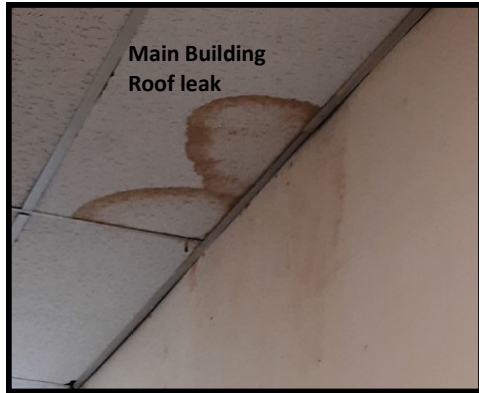
Project Site
Twin Lights State Historic Site
EXHIBIT 'B'



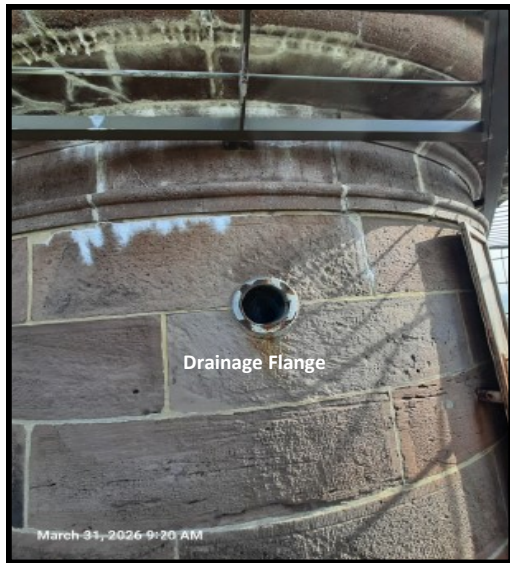
Photos

Twin Lights State Historic Site

EXHIBIT 'C'



Photos
Twin Lights State Historic Site
EXHIBIT 'C'



Photos

Twin Lights State Historic Site

EXHIBIT 'C'

From: [Baudo, Robert \[DEP\]](#)
To: [Gottlieb, Alison \[TREAS\]](#)
Cc: [Wood, Nicholas \[DEP\]](#); [Mitchell-Strehl, Maggie \[DEP\]](#)
Subject: Fw: Roof and Windows Memos
Date: Thursday, April 9, 2026 11:51:13 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[Window Memo from N Wood.pdf](#)
[Roof Letter on SPS Letterhead - V2.pdf](#)
[PXL_20260405_152307401.jpg](#)
[Outlook-pa52044t.png](#)

Good morning Alison,

Please see attached the information and forwarded email chain regarding the Twin Lights Roof project. Nicholas Wood is copied on this email should there are any questions he could answer.

Thank you,

Bob Baudo

Construction Management Specialist 4

NJ Department of Environmental Protection

Office of Resource Development

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

From: Mitchell-Strehl, Maggie [DEP] <[REDACTED]>

Sent: Wednesday, April 8, 2026 9:37 AM

To: Baudo, Robert [DEP] <[REDACTED]>

Cc: Wood, Nicholas [DEP] <[REDACTED]>

Subject: Fw: Roof and Windows Memos

Hey Bob,

Please see Nick's email below and information attached concerning the roof, could you please pass on to treasury and if permitted copy Nick and I so he can answer directly what they might be looking for or what he can provide? Thanks!!!

Maggie Mitchell-Strehl
Superintendent
[REDACTED]

EXHIBIT 'D'



Twin Lights Historic Site
Bulls Island Recreation Area
Delaware & Raritan Canal State Park
State Parks, Forests & Historic Sites
New Jersey Department of Environmental Protection

[REDACTED]
[REDACTED]

From: Wood, Nicholas [DEP] [REDACTED]

Sent: Sunday, April 5, 2026 11:53 AM

To: Mitchell-Strehl, Maggie [DEP] [REDACTED]

Subject: Roof and Windows Memos

Hi Maggie,

I believe I have shared these around before, but a concise (for me) summary of the history of the roof, window, and trim treatments over time are included as attachments here in case it's needed by yourself/ORD/HPO/Admin. I'm trying to slowly bring us in line with the c.1911 appearance of the place because the lighthouse, is at present, a hodge-podge of time periods that never actually appeared this way all at the same time. Thanks to the recently discovered memo to lighthouse keepers we have an amazing window into what they were instructed to paint the building. Period photos show that the guidance was unevenly applied by the keepers here, but that's part of the story too in my opinion.

When I wrote the attached memos the Lantern Room wasn't necessarily to be reconstructed, so I left my recommendations general in hopes of it being repainted to its pre-1980s color. If you all believe there is an opportunity to restore the South Tower to its c.1911 appearance, it would be awesome to

EXHIBIT 'D'

reconstruct the missing South Tower extension off the back as part of this work. This may prove too big of a change, but I guess now's the time to ask as the scope is being created.

The construction folks will have to say what is possible, of course, but the roof on the main part of the building did receive alterations during the 1980s restoration, some structural (removal of the Yankee Gutters in the wings), and some aesthetic (like the partial removal of the dividers in the roof). The decision was made in the 1980s to do so in hope of reducing the amount of leaks in the roof. Ironically they did have significant leaks for years after the project was completed. I suspect the Yankee gutters did contribute to the problem both before and after the restoration but that is probably an ORD / HPO question.

Finally, I've attached an image of one of the vent covers that fell off the building. I have it here in the office and hope it will serve a basis for restoring the many missing covers around the site. If there is concern about rain getting through them, they can be left closed or mostly closed? Having a few spares on hand as part of this venture would be ideal in case of future need. If the construction folks prefer the 1980s bell-shaped covers I have a few of those available here in the office as well that could serve as a pattern to match the existing ones.

Numerous plans, both original and from the later restoration work, are available here and at the National Archives. Please let me know what I can do to support this venture.

Sincerely,

Nick

P.S. I'll see if I can figure out which Antennas matter, since you asked about it the other day.



Nicholas Wood (He/Him)
Resource Interpretive Specialist

Twin Lights Historic Site



State Parks, Forests & Historic Sites

New Jersey Department of Environmental Protection





State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE PARKS, FORESTS & HISTORIC SITES STATE PARK SERVICE

501 East State Street
P.O. Box 420, Mail Code 501-04
Trenton, New Jersey 08625-0420
Tel. (609) 292-2734 • Fax (609) 984-0503
www.nj.gov/dep

PHILIP D. MURPHY
Governor

SHAWN M. LATOURETTE
Commissioner

TAHESHA L. WAY
Lt. Governor

Original April 3, 2025 - Updated December 12, 2025

Subject: Historic Roofing Materials at Twin Lights

Based on the research conducted to date, I recommend that the roofing configuration of the building should remain the same with new terne coated steel or approved equivalent to represent the “tin” roofing. New vent covers should be created to help prevent further leakage. Ideally the Lantern Room would return to it c. 1911 configuration and patinaed copper color.

The following conclusions informed my recommendation:

- Repeated damage and leakage from the 1862 slate roof on the main body of the lighthouse necessitated the installation of a new “tin” roof in 1880.
- The roofing in the main building and hyphens remains of the new “tin” type for the remaining 72 years of operation.
- Successive repairs and replacements in the 1950s, 1980s, etc. have retained this look with similar materials.
- The Yankee gutters were removed from the hyphens as part of the 1980s restoration but retained in the main body of the building due to the unusual roof line.
- The towers originally contained vent covers to both regulate airflow and shield the interior from wind driven rain. Some original vent covers remain and others were replaced during the 1980s with a shield to serve the same purpose.
- The lantern room today carry a configuration and color never present during the operation of the lighthouse. The nature of the 1982 restoration leaves us documentation showing the changes but not why the choices were made.
- The original lantern room exterior paint color is difficult to determine from the black and white photos and period documents. In 1910 an Inspector instructed keepers to: “Remove paint from copper hoods of ventilation and from copper watch room doors and let them grow dark with age and the application of a little Keroscene on a rag.”
- Pre-restoration photos of the lantern room shows that these instructions were followed.
- Paint sample analysis or some other technique may help inform the restoration process.

If I can provide any additional information, please do not hesitate to reach out.

Sincerely,

Nicholas Wood
Resource Interpretive Specialist 3
Twin Lights Historic Site

Historic References on Roofing

1868 Secretary of the Treasury Report – Please note the original roof was slate

147. *Highlands of Navesink.*—The stone work requires partial repointing. The slate roof of the keeper's dwelling has been damaged by gales; the tin roofs need repainting, and the barn and stable need rebuilding. This being a station much visited by citizens from all parts of the country, it is proposed, after the completion of the repairs, &c., indicated above, to give some attention to the ornamentation of the grounds.

1880 Secretary of the Treasury Annual Report – Replaced Slate with "Tin" Roofing

195, 196. *Highlands of Navesink, Atlantic Ocean, coast of New Jersey.*—The roof of a portion of the main dwelling at this station was changed, giving it more fall, and thus putting a stop to troublesome leaks. The slate was removed and tin substituted. The roadway from this station to the landing was greatly improved at a comparatively trifling cost, and some necessary repairs were made at the station.

1889 Secretary of the Treasury Annual Report

217, 218. *Highlands of Navesink, entrance to New York Bay, New Jersey.*—New linings were fitted in the domes of the lantern, some repairs to the tin roof made, and the road leading from the bay to the towers graded and put in good condition.

1899 Secretary of the Treasury Annual Report – Rear of Lantern Room Blacked Out.

347, 348. *Navesink, seacoast of New Jersey.*—The fixed white light in the north tower was discontinued on September 15, 1898, but is held in reserve for exhibition in the event of the accidental extinguishing of the electric light in the south tower. Extension to the south tower lantern was completed and a turn and test table for the electric lamps was fitted. The additional cistern was completed and the water-cooling plant for the oil engines was finished. Overflow pipes were fitted. After the establishment of the electric flash light in the south tower many complaints were made by the residents of the neighborhood of great discomfort and annoyance caused by the brilliancy of the flash. To obviate this trouble as far as possible panels Nos. 14, 15, and 16 of the lantern were darkened.

1902 – 1909 – Aerial Shows metal roofing on the main building



EXHIBIT 'D'

1910 Instructions to Keepers concerning the painting of the building

4 Nov. 1910. The following work is to be done.

In the Spring overhaul all ^{wooden} window sashes so that they will operate. Scrape paint off all window sashes, frames and casings, and all doors, door frames, &c unless the woodwork has been recently painted. Smooth off the wood work ~~frames~~ with thin white paint and then paint with ~~the~~ white inside and out.

✓ All inside woodwork except hard woods, floors, and trunks of stairways must be painted white. No exceptions.

2-5-6-7
5
2-8
Paper no more plastered walls and new no paper. Hereafter plastered walls must be painted according to instructions as amended and plastered ceilings white.

✓ Paint inside of all privies white all over.

✓ Paint the brick in water-tubs white.

✓ Paint pedestal north of green after removing old paint and priming with red-lead.

✓ Remove paint from copper hoods of ventilators and from ^{copper} wash room doors and let them grow dark with age and the application of a little kerosene on a rag.

✓ Paint tower stair column black.

✓ Remove paint from all iron work on which the paint is thick, cracked, checked, blistered, or gummy, or on which the paint has not been put on over a priming coat of red-lead. Prime such iron work with two thin coats of red lead and allowing each coat to dry for at least four days.

✓ Put barn and barn yards in thorough order.

✓ Scale oil horses, prime with red lead etc.

✓ Turn in all unnecessary or obsolete material.

✓ Write to office in regard to receipts for building material &c.

✓ Turn in "A" oil.

W. H. Aycock

C. 1935 – Shows “Tin” (likely Terne Coated steel) roofing Pattern and dark lantern room color.



EXHIBIT 'D'

1945 – Roofing Close-up prior to Lighthouse closure & pre-restoration



EXHIBIT 'D'

C. 1955 – Roofing Close-up shortly after Lighthouse Closure & pre-restoration. Please note the additions to the South Tower added in 1898 to accommodate the new Bi-valve Lens. The 1898 and later additions to the South Tower were removed as part of the 1982 restoration.



1960 - 1982 Photo of Noth Tower, showing original green color imparted by the original copper patina.



EXHIBIT 'D'



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE PARKS, FORESTS & HISTORIC SITES STATE PARK SERVICE

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PHILIP D. MURPHY
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SHAWN M. LATOURETTE
Commissioner

March 8, 2025

Subject: Historic Window and Trim Colors at Twin Lights

Based on the research conducted here, it is my recommendation that we should take advantage of the repairs needed to the window casements to install new arch topped storm windows on the ocean facing side of the building and conventional regular storm windows on the back of the building. The towers do not need storm windows but some windows and the lantern rooms do need repairs. These repairs provide the opportunity to bring the Lighthouse Quarters, Towers, and 1909 Powerhouse into closer alignment with how they appeared during the 1911 – 1952 time period. This would involve repainting all windows and surrounding casements in the main body of the lighthouse white. The facia, doors, and other trim, excluding the apartment and bathroom entrances, should be painted brown. The bathroom and apartment entrances should remain their current color.

The following conclusions informed my recommendation:

- From the construction of the lighthouse to its abandonment by the Federal Government, the ocean-facing windows of the lighthouse had an arched top. The wooden replacement windows in the main body of the lighthouse today do include a similar arch-topped profile that is currently obscured by rectangular storm windows and tin shielding.
- When originally installed, the windows, casing, facia, and doors were likely brown.
- In 1910 instructions were issued to keepers here at the Navesink Station concerning, among other things, a directive to paint exterior woodwork white.
- Photographs show that the keepers painted the windows and casing in the main body of the lighthouse white but the facia, tower windows, and doors remained the previous brown color. The new trim colors remain consistent for the remainder of the Lighthouse's active time-period. These colors are the result of the keepers' interpretation of their written instructions.
- As part of the 1981-1986 Twin Lights Restoration Project, new wooden windows and storm windows were placed in the main body of the building. No evidence of paint sample analysis or other research informing the selection of the 1981 paint color are present in the files here.
- The back of the lantern room is blacked out, best representing the post 1898 time-period.

Please let me know if you have any questions.

Sincerely,
Nicholas Wood
Resource Interpretive Specialist 3
Twin Lights Historic Site



Figure 1: 1908 - Keper Ole Anderson and Family. Note the darker window sashes and casing prior to the 1910 instructions.

4 Nov. 1910. The following work is to be done.

In the Spring overhaul all ^{wooden} sashes so that they will operate. Scrape paint off all window sashes, frames and casings, and all doors, door frames, &c unless the woodwork has been recently painted. Smooth off the wood work ~~frames~~ with thin white paint and then paint with ~~the~~ white inside and out.

All inside woodwork except hard woods, floors, and trunks of stairways must be painted white. No exceptions.

25.8.11 Paper no more plastered walls and renew no paper. Hereafter plastered walls must be painted according to instructions as amended and plastered ceilings white.

Paint inside of all privies white all over.

Paint the brick in water-towers white.

Paint pedestal north of privy after removing old paint and priming with red-lead.

Remove paint from copper hoods of ventilators and from watch room doors and let them grow dark with age and the application of a little kerosene on a rag.

Paint tower stair column black.

Remove paint from all iron work on which the paint is thick, cracked, checked, blistered, or gummy, or on which the paint has not been put on over a priming coat of red-lead. Prime such iron work with two thin coats of red lead ~~and~~ allowing each coat to dry for at least four days.

Put barn and barn yard in thorough order.

Scale oil horses, prime with red lead etc.

Turn in all unnecessary or obsolete material.

Write to office in regard to receipts for building material &c.

Turn in "A" oil.

L. H. Alford

Figure 2: 1910 - Excerpt from Lightkeeper's Log showing instructions for wood to be painted white. This appears to have been accomplished between March, 1911 and September, 1911.



Figure 3: 1937 - Keeper Murphy Rockette Posing in front of the South Tower. Note white trim is still present.



Figure 4: c 1940 – Virginia Rockett, Keeper's Daughter, standing next to the kitchen entrance. The color for the kitchen addition varies somewhat after 1910 but is generally gray or white with white trim.

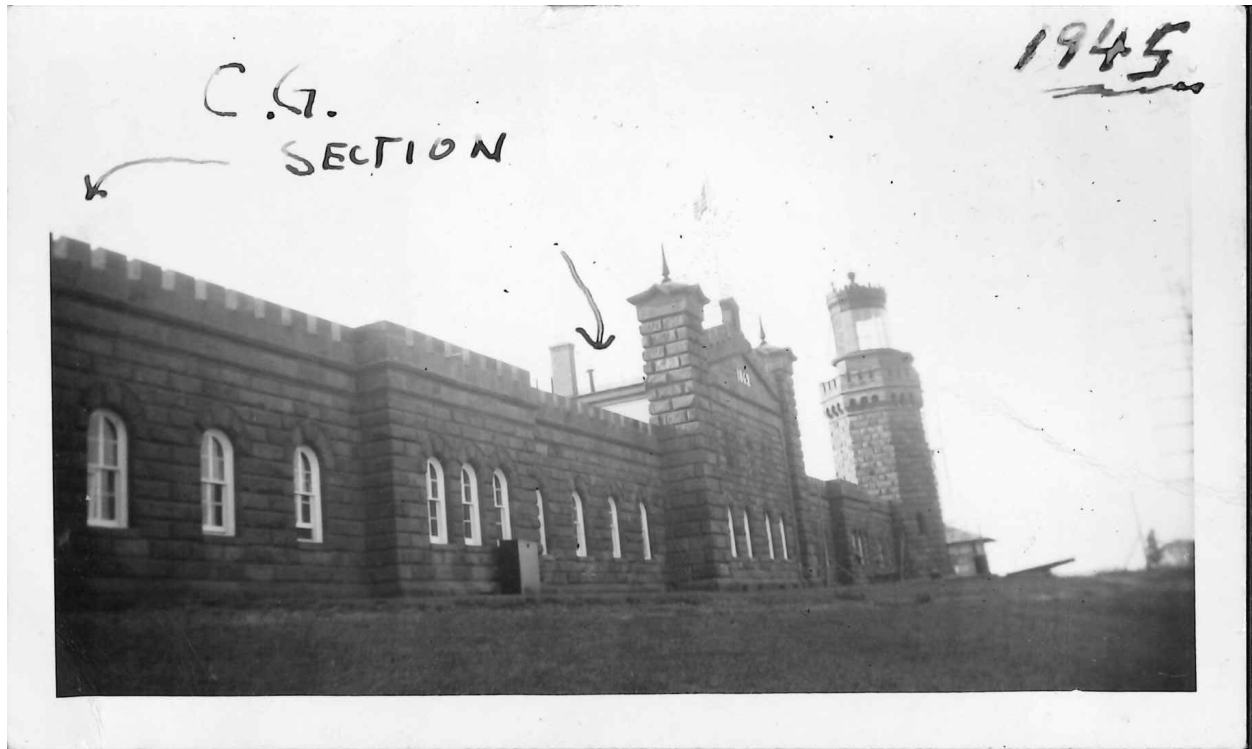


Figure 5: 1945 - Photo of Oceanside windows and facia. Note that the window trim has remained white and the facia remains brown.



Figure 6: ca. 1940 Keeper Murphy Rockette posing with the South Tower. Note that the tower window trim is brown.



Figure 7: 1940s - James Sorrentino sitting on the stoop outside the lighthouse. Note the brown door behind him and the white trim windows next to him.



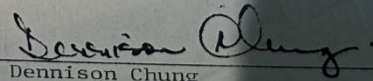
Figure 8: 1979 - Photo of Rumson Garden Club's summer party showing white trim on the windows.

SUMMARY - JOB MEETING No. 7

June 18, 1981

1. Meeting opened 10:10 A.M.
2. Progress schedule was reviewed:
 - a. Repointing of stonework is on schedule.
 - b. Roofing is behind due to carpenter's strike. Mr. Hahr is awaiting definite notification as to whether the strike is settled.
 - c. Sample of window unit to be delivered any day now.
3. The following items were discussed:
 - a. Mr. Vibbert will write to the Coast Guard notifying them that the light in the North Tower will have to be disconnected for a period of 2½ months, as of end of June 1981 through mid September 1981.
 - b. Painting schedule and color board was handed over to Mr. MacQuaide which will be reviewed by the Department of Parks Personnel.
 - c. Mr. Hahr will get in touch with State Police with regards to the removal of the Marine antenna on the South Tower.
 - d. Work on chimneys are completed. Question was brought up as to its watertightness. It was agreed that the chimneys will be tested with a hose as soon as roof is completed on the hyphen.
 - e. Mr. MacQuaide instructed the Architect to go ahead with storm windows for apartments. The Architect will get in touch with Mr. Gross as to the procedures to obtain additional funds for the purchase and installation of such windows.
 - f. Existing roof sheathing of hyphen was inspected and found to be in acceptable condition.
 - g. The General Contractor is to instruct the workers on the job to refrain from using the Superintendent's office in the future, due to valuable items in the area.
 - h. Existing pipe support located at observation level of North Tower to remain in order to facilitate electrical conduit to lens light.

We shall appreciate notification of exceptions to this summary of discussions and decisions within ten days of its receipt. In the absence of such notification, it shall be considered by us a statement of fact.


Dennison Chung
Charles Fitch & Associates, P.A.

sb
cc: All in attendance
Mr. M. Levitan (1)
Mr. Burrows Harris (2)
Mr. D. Turner

Figure 9: 1981 - Meeting minutes relating to the Twin Lights Restoration Project. Note 3b., noting that a paint selection was chosen by the Architect and provided to Park Staff.

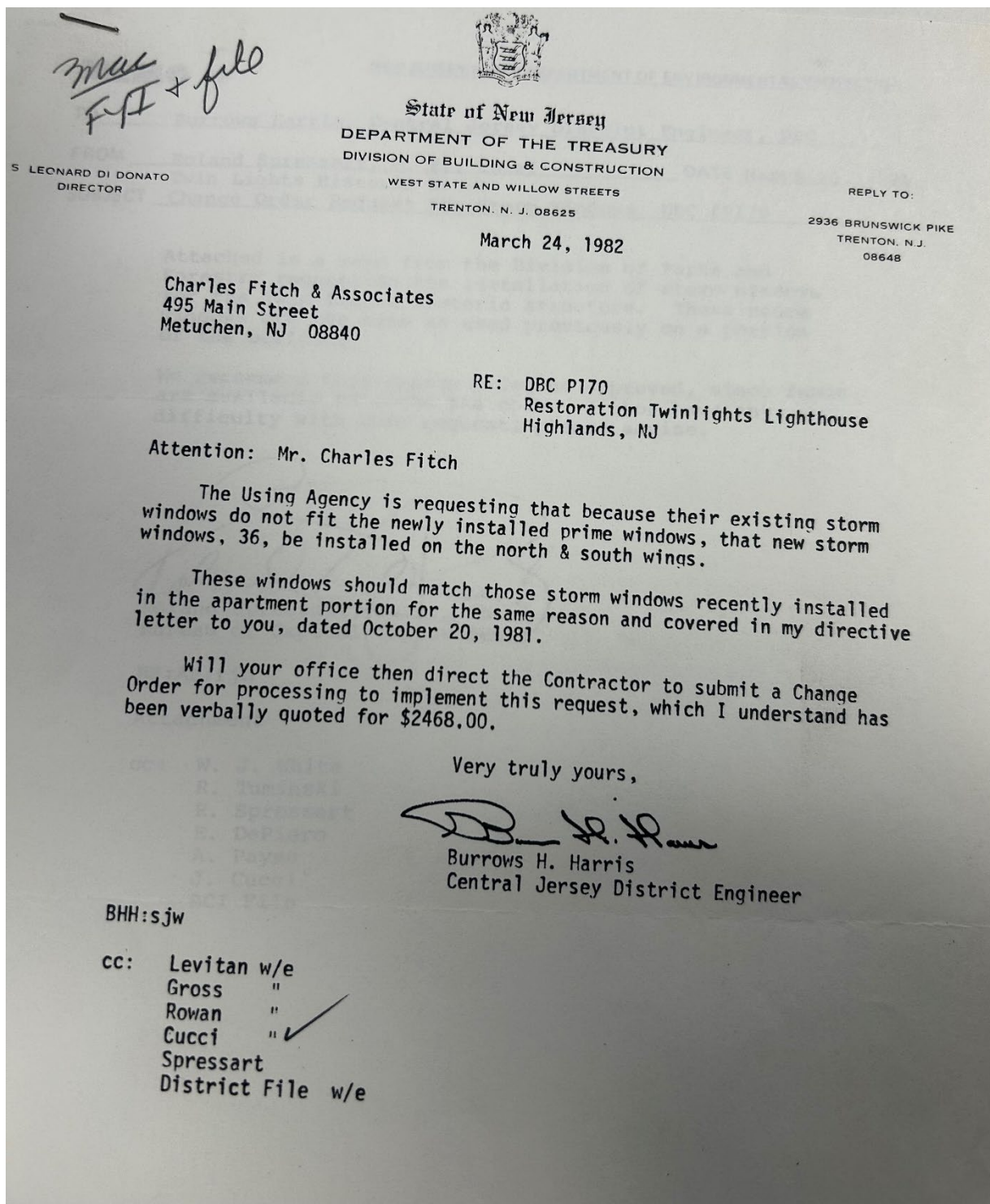


Figure 10: 1982 - Memo from the Central Jersey District Engineer informing the architect in charge of the Twin Lights restoration that the previous storm windows do not fit and new ones must be acquired.



Figure 11: 1983 - Photo of Fall cleanup showing the trim on the windows has changed to brown. This change took place sometime between Spring 1982 and Fall 1983.



EXHIBIT 'D'