August 2025

Marblehead Sustainable Heritage:

Project Summary

Marblehead Sustainable Heritage

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I. Acknowledgments

We recognize and appreciate the contributions of the Marblehead community and external advisors, whose input informed the development of the proposed recommendations. Their perspectives helped guide the project and strengthen its alignment with local needs and priorities.

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Duncan Facey, Alternate Member
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Funding Sources

The Marblehead Sustainable Heritage Project was funded through technical assistance resources provided by the Metropolitan Area Planning Council (MAPC). Other funding sources included arts and cultural planning resources from the Barr Foundation.

II. Executive Summary

The Marblehead Sustainable Heritage Project was initiated by the Town of Marblehead in 2023 to align local historic preservation practices with the Town's 2018 pledge to transition to 100% carbon-free energy by 2040. This project builds on recent local actions, including the development of a Climate Vision Plan (2020) and a Net Zero Road Map (2023) as well as the hiring of the Town's first Sustainability Coordinator. Those plans revealed a need to retrofit residential buildings because they account for 44.5% of Marblehead's greenhouse gas emissions. Many of those buildings fall under the purview of the Old and Historic Districts Commission (OHDC), which requires property owners to follow a set of guidelines when making changes that are visible from the public way. These guidelines generally discourage, and in some cases outright prohibit, the installation of clean energy technology such as heat pumps, solar panels, and electric vehicle supply equipment. As a result, the Town asked MAPC to develop revised guidelines that would reduce regulatory barriers for homeowners seeking to install clean energy technology while protecting the character of the Old and Historic Districts. While there are other building types within the Old and Historic Districts, this effort focuses on residential buildings to support residents in making needed energy upgrades where they live.

Developing these revised guidelines entailed comparative research, field observations, and community input. Walking tours in Marblehead and Salem helped participants observe real-world retrofit examples. A community charrette brought together residents and preservation professionals, including representatives from the Newport Restoration Foundation and Historic New England, to share their perspectives. The draft recommendations were reviewed by the OHDC and the Green Marblehead Implementation Committee as well as external experts from the City of Salem's Historical Commission and the Newport Restoration Foundation.

The proposed recommendations give the Town a path forward to establishing clear, predictable guidelines that will allow residents in the Old and Historic Districts to make historically sensitive energy-efficient improvements to their homes. By updating its guidelines and centering both historic character and present-day needs, Marblehead will provide a model for other communities navigating the intersection of historic preservation and climate action.

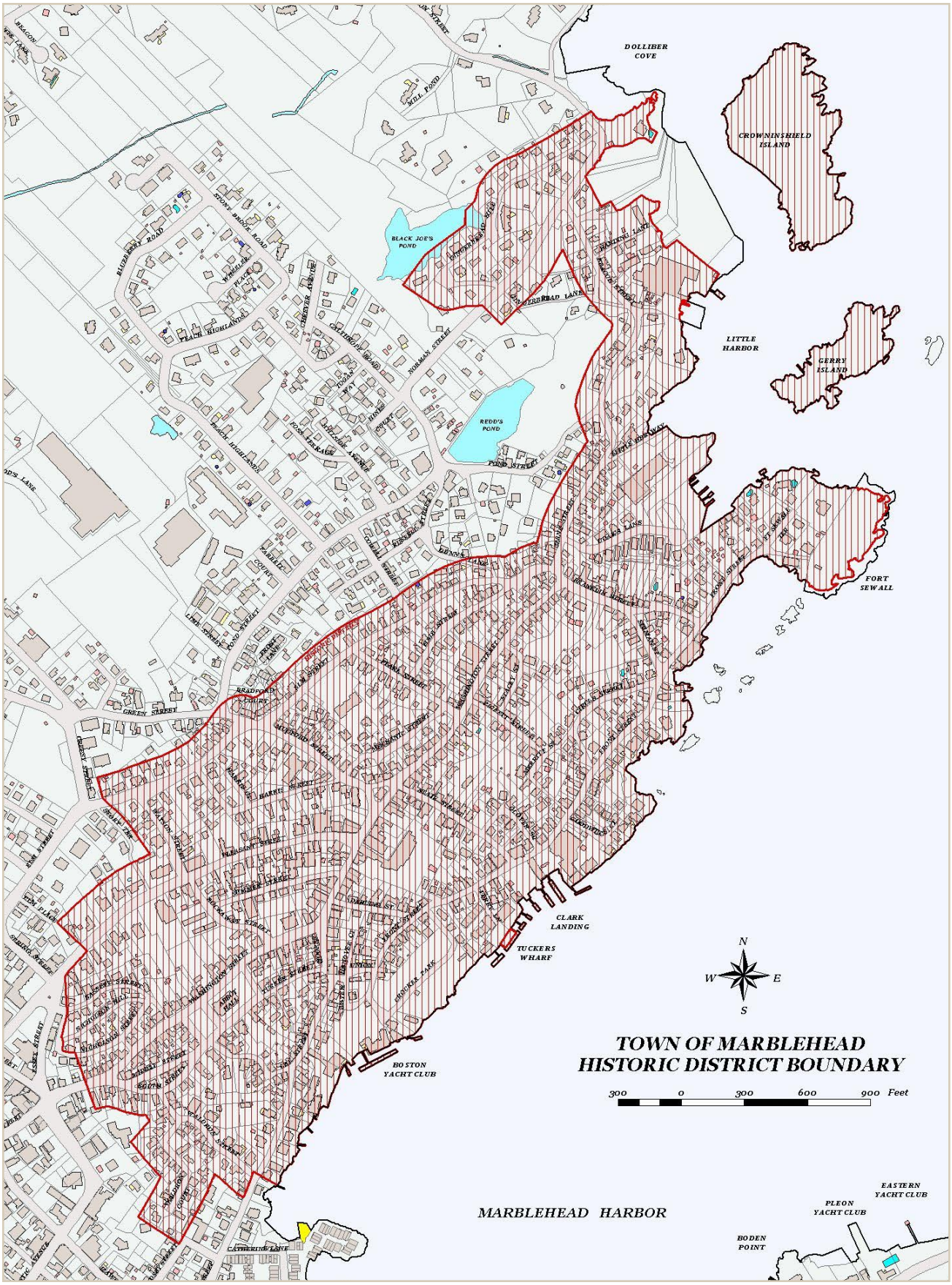
Key Guideline Reforms Proposed

Solar energy systems: Solar energy systems are allowed on historic buildings, including visible locations, if they do not alter the profile of the building and do not obscure historic features.

Air source heat pumps: Outdoor units must be screened; vertical and horizontal line sets are allowed if placed along edges or rooflines and painted to match the building.

Electric vehicle supply equipment: Charging stations may be installed on rear or side elevations and near driveways; installations may be screened, and all equipment should avoid damaging historic features.

Windows: Replacement windows must closely match originals in appearance; double-pane options may be approved.


DOLLIBER COVE
CROWNINSHIELD ISLAND
LITTLE HARBOR
GERRY ISLAND
FORT SEWALL
CLARK LANDING
TUCKERS WHARF
BOSTON YACHT CLUB
MARBLEHEAD HARBOR
EASTERN YACHT CLUB
PLEON YACHT CLUB
BODEN POINT
BLACK JOE'S POND
REDD'S POND
MILL POND
N
W
E
S
TOWN OF MARBLEHEAD
HISTORIC DISTRICT BOUNDARY
300 0 300 600 900 Feet

III. Project Context

Town Commitment to Sustainability:

Marblehead has demonstrated a clear and proactive commitment to sustainability, beginning with its pledge in 2018 to transition to 100% carbon-free energy by 2040 – a goal which exceeds the Commonwealth's target of net-zero emissions by 2050 as established in the 2021 "Next Generation Roadmap for Massachusetts Climate Policy." This local objective has been reinforced through a series of other actions, such as the creation of the Climate Vision Plan (2020), Net Zero Road Map (2023), and the hiring of the Town's first Sustainability Coordinator in 2024.

To reach the ambitious goal the community has set for itself, Marblehead will need to adopt supportive policies and remove barriers to the implementation of clean energy technologies in residential buildings. This includes enabling wider use of solar panels, air-source heat pumps, electric vehicle charging, and energy-efficient windows, especially in older homes where such upgrades can be more challenging to implement.

Town Commitment to Historic Preservation:

The buildings within these districts are central to Marblehead's identity by reflecting over 300 years of history, change, and daily use. They offer a layered record of the town's evolution from a working fishing community, to one that was central to the American Revolution and the founding of the Nation, to an active community today. Their preservation maintains this historically rich and lived-in environment, reinforcing a sense of place and belonging for residents. The OHDC is responsible for stewarding that legacy by reviewing any exterior alterations, constructions, or demolitions within the districts that can be viewed from a public way.

The Commission was established under Chapter 110 of Marblehead's bylaws and Chapter 101 of the Special Act of 1965 – outside the framework of M.G.L. Chapter 40C, which was enacted in 1960 to guide the creation of local historic districts throughout Massachusetts. It also pre-dates the National Historic Preservation Act of 1966. Since its creation 60 years ago, the OHDC has made meaningful contributions to Marblehead's historic identity.

Balancing Sustainability and Historic Preservation

Residential buildings generate 44.5% of Marblehead's greenhouse gas emissions, and a significant portion of these fall under the jurisdiction of the Old and Historic Districts Commission (OHDC). As such, the Town cannot meet its climate goals and objectives without supporting the integration of clean energy retrofits within its historic districts. This presents the OHDC with both a responsibility and meaningful opportunity to advance the Town's 2040 climate goals by supporting action in the very neighborhoods it helps to shape and protect.

To support this, this project seeks to build on Marblehead's foundation of a long-standing commitment to preservation and future-oriented commitment to clean energy by supporting the Commission in aligning its preservation guidelines with contemporary preservation and sustainability goals. Today, there is a growing interest among the residents of the Old and Historic Districts in finding ways to embrace modern clean energy solutions, reflecting a commitment to sustainability that complements the area's historical significance.

While Marblehead has made strong commitments to sustainability and preservation, the intersection of these priorities has revealed gaps in policy and practice. According to Marblehead Town staff, the Commission generally does not approve applications for installation of solar energy systems and although there have been some approvals for air source heat pumps, the location and line sets are often sticking points for approval. This pattern reflects a strict interpretation of historic appropriateness that can inadvertently limit the Town's ability to meet its goals in reducing emissions from residential buildings, despite the growing interest from residents in adopting sustainable upgrades.

This tension surfaced publicly on multiple occasions. In 2023, a homeowner was ordered to remove visible line sets for air source heat pump after losing an appeal of an OHDC decision. That same year, a Town Meeting warrant article sought to reduce the OHDC's authority over sustainable retrofits. Though the article was withdrawn following an agreement to review and revise the Commission's guidelines, the debate underscored the need for updated guidelines that better reflect Marblehead's dual commitments.

The Marblehead Sustainable Heritage Project directly responds to this need, supporting the development of clear, flexible, and balanced recommended language for guideline revision that helps the OHDC align their work with local climate goals while enabling them to continue to thoughtfully steward the town's historic landscape.

IV. Project Overview

The Marblehead Sustainable Heritage Project was designed to support Marblehead in aligning its long-standing commitment to historic preservation with its growing commitment to adopting sustainable, energy-efficient solutions to meet its net-zero 2040 goal. At its core, the project aims to provide new guideline language for OHDC review of proposed modern energy upgrades for solar energy systems, air source heat pumps, electric vehicle supply equipment, and windows for homes within the Old and Historic Districts.

In addition to this main objective, the project pursued several secondary goals.

- **Reduce uncertainty and streamline approval processes:** By providing clear, practical recommendations, the project sought to simplify the process for property owners interested in adopting modern energy and efficiency solutions. This will help property owners navigate the preservation requirements while making sustainable upgrades to their properties.
- **Foster community conversations:** This project sought to involve Marblehead residents, Town staff, and the volunteers who serve on the OHDC and the Green Marblehead Implementation Committee in supporting the Town's sustainability commitments as the community seeks to address environmental challenges that it faces.
- **Serve as a model for other towns:** The project sought to create a set of proposed recommendations that can be adapted by other towns and historic districts facing similar challenges. By demonstrating how sustainability and preservation can be successfully integrated, Marblehead's approach could offer valuable insights to other communities looking to balance these priorities.

V. Guideline Development Process

The project's method followed three connected steps: 1) gathering external knowledge and examples, 2) understanding local conditions, and 3) reconciling best practices with real-world observations. These steps are described in the following sections.

External Knowledge & Comparative Research

Between June and September 2024, the team reviewed the existing OHDC guidelines, enabling legislation, and bylaws. The team also compared Marblehead's framework to national best practices and to approaches in Concord, Nantucket, and Salem. In addition, the team assessed how the current guidelines aligned or conflicted with the Town's Climate Vision Plan and Net Zero Roadmap.

Laurence "Larry" Spang, Chair of the Salem Historic Commission, and Patricia "Patti" Kelleher, Preservation Planner for the City of Salem, shared their experiences supporting clean energy retrofits in a historic context. In December 2024, the draft proposed recommendations were shared with Margaret Back, Preservation Projects Manager at the Newport Restoration Foundation, and with Jeremy Koo, Assistant Director of MAPC's Clean Energy Department and Alison Felix, Principal Planner and Emerging Technologies Specialist with MAPC's Transportation Department. Their feedback helped identify areas needing clarification, ensured technical feasibility, and strengthened the balance between preservation practices and clean energy integration.

Field Observation and Coordination

On August 5, 2024, twenty-seven residents, staff, and commissioners toured twelve Marblehead properties with Sustainability Coordinator Logan Casey. The group then visited ten sites in Salem, led by Spang and Kelleher. This comparative experience gave participants a clearer understanding of good and bad examples of how clean energy solutions could be integrated into Marblehead's Old and Historic Districts in a way that respects both aesthetics and sustainability. Maps of both walking tours are included in Appendix A.

Observations informed a joint meeting of the OHDC and the Green Marblehead Implementation Committee on October 1, 2024. This session surfaced areas of alignment and concern, establishing a foundation for further discussion.

Refinement and Community Review

After the October meeting, the OHDC did not make itself available for further joint meetings. In January 2025, the Project Team and Town staff pivoted to replace the two additional planned joint sessions with an expanded community charrette that included two external experts: Margaret Back and Elizabeth Paliga (Preservation Services Manager, Historic New England). In February 2025, both the OHDC and the Green Marblehead Implementation Committee reviewed the draft proposed recommendations and submitted feedback, included in Appendices D and E.

That public charrette was held on March 19, 2025, at Abbot Hall. Residents discussed priorities related to cost, equity, visibility, and reversibility. Back and Paliga presented retrofit case studies from the Newport Restoration Foundation and Historic New England.

These discussions, combined with technical feedback and local input, refined visual mitigation strategies, clarified permitting considerations, and shaped the structure of the proposed recommendations. Final materials were completed and transmitted to the Town of Marblehead in August 2025.

VI. Comparative Analysis

Review of Existing Policies and Guidelines:

A detailed review of Marblehead's current policies and guidelines, focusing on both historic preservation and climate action, highlighted how the town's existing documents, such as the *Climate Vision Plan* and *Net Zero Roadmap*, align or conflict with the *Old and Historic Districts Commission Guidelines*. This assessment identified key areas where clean energy retrofits could be incorporated into the Old and Historic Districts while adhering to the Town's preservation goals.

Aspect	Old and Historic Districts Commission Guidelines	Climate Vision Plan and Net Zero Roadmap	Key Areas of Alignment between the Climate Vision Plan and Net Zero Roadmap and OHDC Guidelines	Significant Discrepancies between the Climate Vision Plan and Net Zero Roadmap and OHDC Guidelines	Opportunities for Improvement
Energy Efficiency	Promote energy-efficient HVAC and window replacements while preserving historical integrity.	Emphasize super-efficient buildings and retrofitting to reduce emissions.	Both focus on energy efficiency and emissions reduction.	Restrictions on materials and visibility may hinder efficiency improvements.	Adjust guidelines to support optimal energy efficiency upgrades.
Electrification	Allow Electric vehicle supply equipment with minimal visibility.	Support electrification to reduce GHG emissions.	Both support Electric vehicle supply equipment.	Visibility restrictions on Electric vehicle supply equipment may limit accessibility.	Reevaluate visibility restrictions to improve accessibility.
Renewable Energy	Permit PV systems if minimally visible.	Aim for 100% clean energy with local renewable sources.	Both support renewable energy sources.	Strict visibility rules hinder optimal PV placement.	Relax visibility restrictions to support renewable energy goals.
Aesthetic Considerations	Conceal modern equipment to preserve historic character.	Maintain historic character while achieving sustainability.	Both prioritize historic preservation.	Guidelines may hinder timely integration of energy-efficient technologies.	Allow more flexibility in integrating modern technologies.
Material Restrictions	Generally prohibit alternative materials.	Encourage sustainable materials for upgrades.	Both promote sustainable materials.	Prohibition of alternative materials limits energy efficiency improvements.	Allow more material options.
Accessibility and Integration	Installations should be minimally visible.	Promote widespread clean energy adoption.	Both support clean energy infrastructure.	Visibility restrictions may reduce accessibility.	Reassess visibility guidelines to be more flexible to increase usability.
Implementation Complexity	Require detailed applications and reviews.	Focus on practical solutions for net zero emissions.	Both aim for effective sustainability implementation.	Detailed applications may increase complexity and cost.	Simplify application processes to facilitate installations.

Analysis of Regional and National Best Practices:

A comparative analysis for solar energy systems, air source heat pumps, electric vehicle supply equipment, and windows was conducted to evaluate how Marblehead aligns with national historic preservation standards and to assess its position relative to other communities. The full comparative matrix is included in Appendix B.

The analysis drew from guidelines and best practices established by the National Park Service (NPS) and the Advisory Council on Historic Preservation (ACHP), as well as from three selected Massachusetts communities:

- **Salem**: A neighboring community that has agreed to serve as an expert partner for the project.
- **Nantucket**: Often referenced by residents and members of the OHDC as a comparable community because its historic district was also established through a Special Act rather than MGL Chapter 40C. Some of the current OHDC guidelines were adapted from Nantucket's guidelines.
- **Concord**: Chosen for its strong emphasis on history as a central part of its identity, paralleling Marblehead's community values.

This approach allowed for a comparison of Marblehead's guidelines to determine whether Marblehead is an outlier in meeting national preservation standards and whether it aligns with practices observed in similar communities.

Overall, the comparative results suggest that updates to Marblehead's guidelines are needed to bring them into closer alignment with federal preservation standards, reflect the practices of peer communities, and better support the goals outlined in the *Town's Climate Vision Plan* and *Net Zero Roadmap*.

VII. Tensions and Opportunities

Tensions

While the project affirmed community interest in integrating sustainability and historic preservation, it also surfaced concerns about how current practices impact transparency, accountability, and public trust.

Resident Feeback

- Community members expressed strong support for clear, consistent guidelines.
- Concerns were raised about subjectivity, inconsistency, and process barriers.

Preservation vs. Climate Needs

- Strict interpretation of visibility and historic appropriateness that are out of alignment with national best practices are limiting residents' ability to adopt climate-resilient technologies.
- Current guidelines do not reflect the Town's sustainability goals.

Institutional Concerns

- The OHDC makes decisions based on internal principles not reflected in its published guidelines.
- Commissioners have resisted establishing clear guidelines citing a need for absolute flexibility in their decision making, which conflicts with residents' need for predictability.
- The OHDC claims that appropriate mitigation measures, such as painting of line sets, are outside their purview.
- Declaring clean energy systems as "not appropriate" is a subjective decision that falls outside the Commission's designated authority.

As a municipal body, the OHDC plays a formal role in implementing the Town's policies and priorities. Ensuring that its practices support climate and sustainability goals adopted by the municipality is important to strengthen public trust in and support for its work.

Opportunities

This project identified practical pathways to strengthen preservation practices, support clean energy adoption, and reinforce the Town's climate and planning priorities.

Shared Values

- Residents and the OHDC share the values of preserving the districts' character, minimizing visual impact, and maintaining appropriate scale.

Guideline Improvements

- The OHDC has an opportunity to update its current guidelines and to adopt revised guidelines informed by the proposed recommendations for review of solar energy systems, air source heat pumps, electric vehicle supply equipment, and windows. This would allow the OHDC to support the Town's climate goals while continuing to uphold the character of the historic district.
- Clarifying the principles and criteria used in making OHDC decisions and ensuring that they are fully reflected in published documents available to the public.

Mitigation and Support

- Incorporating visual mitigation techniques, such as painting and placement, would help resolve common retrofit challenges related to "visual intrusion."
- Town staff support the Commission through consistent guidance and professional development opportunities and resources, helping to align practices with state and national standards.

VIII. Future Recommendations

To support long-term alignment between preservation and climate goals, the Town should consider additional updates and expansions to the OHDC guidelines. These actions can help ensure the framework remains responsive, inclusive, and grounded in best practices.

- Review the streets in the Historic Districts and set tiers of public ways based on their degree of public visibility; Incorporate the tiered public way system into preservation policies and guidelines to balance preservation goals and practical considerations. Identify each street, path, and waterway by their tier.
- Continually update the Guidelines to comply with changes to State laws and adapt to new technology shifts.
- Consider including guidelines for other sustainable interventions such as solar batteries or permeable pavers.
- Consider expanding the scope of the Guidelines and provide guidance for commercial property owners on applying clean energy improvements.
- Support residents in exploring low-visibility or non-visible clean energy systems, such as geothermal heat pumps, that minimize exterior alterations and may reduce the need for OHDC review or mitigation.

IX. Conclusion

Marblehead's Old and Historic Districts are not obstacles to climate action, but opportunities to demonstrate how heritage protection and sustainability can coexist. This project explored how local historic district commissions can update their guidelines to support sustainability goals while maintaining the distinct character of historic neighborhoods. Community members made clear they want processes that are more predictable and flexible. Aligning OHDC practices with state and national preservation standards, as well as climate policies, can help create this predictability and strengthen public trust. The proposed recommendations and the process used to develop them offer a practical model for other communities navigating the intersection of climate adaptation and historic preservation.

Adapting The Framework

This framework can help other municipalities reflect on and revise their historic guidelines to better align with local climate goals.

- **Frame the issue.** Link climate and preservation mandates in a single thesis statement.
- **Build a cross-department team.** Pair preservation planners with clean energy experts.
- **Document the baseline.** Understand denials/approvals, quantify lost emissions, catalogue local climate goals.
- **Draft a comparative matrix.** Measure local rules against federal standards and peer municipalities.
- **See it on the ground.** Conduct comparative walking tours (hometown + peer city).
- **Facilitate joint sessions + charrettes.** Convene commission, sustainability committee, and residents; capture tensions and ideas.
- **Iterate proposed recommendations.** Circulate drafts, collect expert reviews, and revise.
- **Adopt revisions and share takeaways.** Formally vote to adopt changes, then document lessons to inform future efforts.

X. Glossary

Advisory Council on Historic Preservation
The Advisory Council on Historic Preservation (ACHP) is an independent federal agency that promotes the preservation, enhancement, and sustainable use of the nation's diverse historic resources, and advises the President and Congress on national historic preservation policy. One of the ACHP's main roles is overseeing the Section 106 review process. They also coordinate with federal agencies to improve their stewardship of historic properties and advise Congress and the White House on preservation policy.

Air Source Heat Pumps
Air Source Heat Pumps (ASHP) are defined as electrical equipment used for heating, ventilation, and air conditioning that supply space heating and/or cooling to a building. Air source heat pumps use one or more outdoor units (typically located on the exterior of a building) to exchange heat with the outdoor air which are connected using refrigerant lines to one or more indoor units to deliver heated and cooled air. Air source heat pumps include, but are not limited to, centrally ducted air source heat pumps, ductless mini-split systems, variable refrigerant flow systems, and air-to-water heat pumps.

Certificate of Appropriateness
The town requires anyone whose property falls within the boundaries of the historic districts to obtain a Certificate of Appropriateness (COA) from the OHDC before any changes are made to the exteriors of structures, fences, walls, driveways, outer structures and signs. A COA constitutes approval from the Town granted to the applicant for the purpose of executing a specific scope of work in the Districts and is valid for one year.

Character-Defining Feature
Features or elements that give a historic building, structure, object, site, or district its visual character and that should be taken into account in order to preserve them to the maximum extent possible.

Electric Vehicle Supply Equipment
Electric Vehicle Supply Equipment (EVSE) refers to equipment for the purpose of transferring electric energy to a battery or other energy storage device in an electric vehicle in order to recharge the vehicle. Most EVSE consists of a charging station and cord- that connects the electric vehicle to the charging station.

Elevation
An exterior building face existing as a vertical plane. A typical building will have four elevations: one primary, one rear, and two side.

Facade
The primary building elevation, typically facing a public way and having a principal building entrance.

Public Way
Any street, sidewalk, or public viewpoint from which a building is ordinarily visible to passers-by.

Screening
A method of hiding an element from view.

Secretary of the Interior's Standards
The Secretary of the Interior's Standards (SOIS) for the Treatment of Historic Properties provides guidance from the Federal government on how to review proposed changes to a variety of historic resources. The Standards are applied to all Federal undertakings and many state and local governments have adopted them as well, making them the foundation for national best practices.

Solar Energy Systems
Solar energy systems (SES) are a device or array of devices that provide generation or storage of electricity from sunlight in the case of solar photovoltaics, or the collection, storage and distribution of solar energy for the purposes of space heating or cooling or water heating.

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XII. Appendix

A. Guideline Development Process

The following section details the multi-step process used to develop the clean energy guidelines for Marblehead's Old and Historic District. These efforts were designed to understand the district's unique preservation challenges, explore how clean energy retrofits have been addressed in similar historic settings, and engage the public in shaping the final guidelines.

Timeline

June –September 2024	Comparative Matrix research
August 2024	Walking tours (Marblehead & Salem)
October 2024	First joint OHDC/Green Marblehead session (common ground + pain points)
December 2024	Preliminary draft of proposed recommendations shared with experts for review
January 2025	Decision to move project forward despite no further joint sessions
February – March 2025	Revised draft of proposed recommendations shared with OHDC, Green Marblehead Implementation Committee, and community charrette participants
April – May 2025	Final draft of proposed recommendations
August 2025	Final version of proposed recommendations and Project Summary transmitted to Town of Marblehead

Walking Tour:

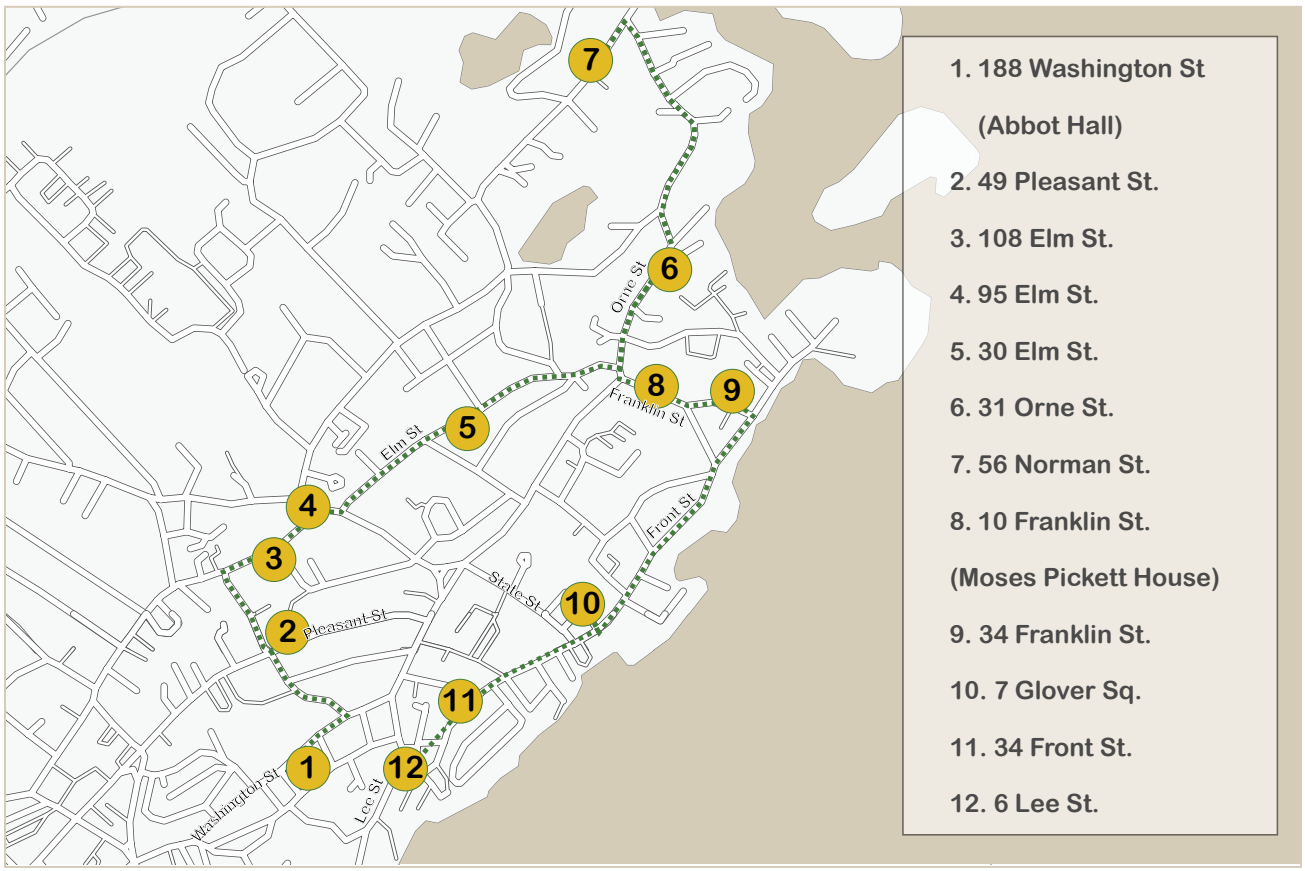
On August 5, 2024, a group of 27 participants – including the MAPC Project Team, Town staff, and residents – joined a walking tour of both Marblehead and Salem's historic districts. Logan Casey, the Sustainability Coordinator for the Town of Marblehead, led the Marblehead portion of the tour. Participants explored 12 buildings within the Old and Historic District, observing firsthand the architectural features that complicate the integration of clean energy systems, particularly in highly visible areas.

Following this, the group traveled to Salem, where they were guided by Laurence (Larry) Spang, Chair of the Salem Historic Commission, and Patricia (Patti) Kelleher, Salem's Historic Preservation Planner. The tour in Salem, which included 11 buildings, showcased how another historic district has addressed clean energy retrofits such as solar energy systems and air source heat pumps while maintaining the integrity of its historic structures.

By comparing these two communities, participants gained a clearer sense of both good and bad examples of clean energy solutions within historic contexts, offering insights into how such strategies might be thoughtfully adapted to Marblehead's Old and Historic Districts.

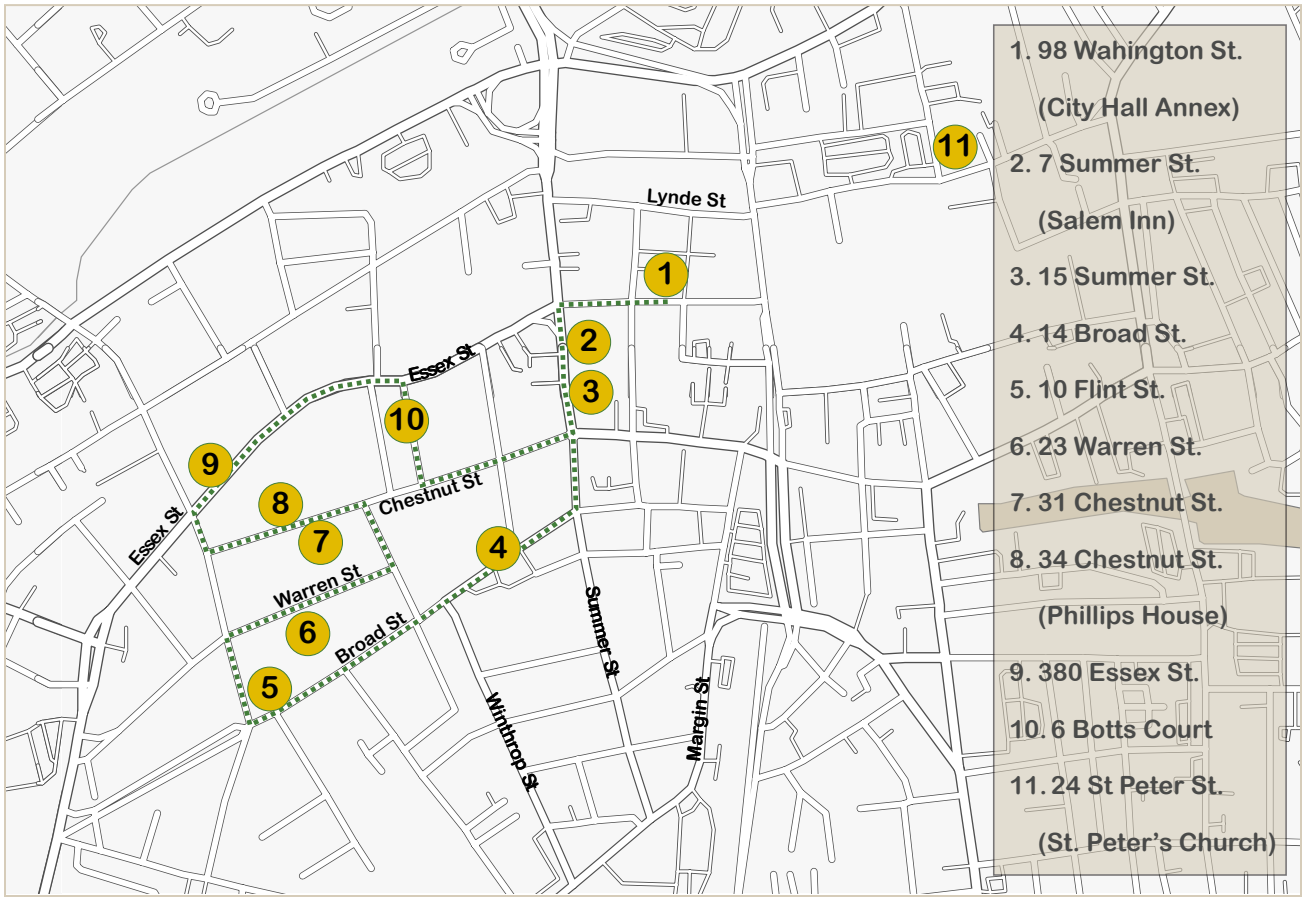
Marblehead Tour Stops

1. **188 Washington Street (Abbot Hall)**: Demonstrate geothermal heat-pump retrofit.
2. **49 Pleasant Street**: Show new construction designed for energy efficiency.
3. **108 Elm Street**: View exposed heat-pump condensers.
4. **95 Elm Street**: Example of highly visible gas meters.
5. **30 Elm Street**: Example of surface-mounted conduits.
6. **31 Orne Street**: Discuss solar potential vs. public visibility.
7. **56 Norman Street**: See interior-routed mini-split line set.
8. **10 Franklin Street (Moses Pickett House)**: Town site weighing insulation and gas phase-out.
9. **34 Franklin Street**: Project combining window work and heat pumps.
10. **7 Glover Square**: Successful concealment of heat-pump equipment.
11. **34 Front Street**: Line sets removed after violation; system idle.
12. **6 Lee Street**: Pipes once disputed, now screened by existing fence.



Salem Tour Stops

1. **Sewell Street Lot (behind City Hall Annex):** Tour start.
2. **7 Summer Street (Salem Inn):** Electric heat pumps.
3. **15 Summer Street:** Solar installation caused slate roof removal.
4. **14 Broad Street:** Electric vehicle charging station.
5. **10 Flint Street:** Required electrical upgrade; unpermitted air source heat pump system.
6. **31 Chestnut Street:** Unpermitted electric vehicle charging station; discussion on screening.
7. **23 Warren Street:** Use of alternative gutter materials.
8. **Chestnut Street (Phillips House):** Energy efficiency and site resilience overview.
9. **380 Essex Street:** Early solar installation example.
10. **6 Botts Court:** First minisplit system in the district.
11. **St. Peter's Church:** Sustainability plan overview.



Joint Sessions:

The project was initially set up with three joint sessions planned between the OHDC and the Green Marblehead Implementation Committee. The goal was to create a structured space for exchanging ideas, building consensus, and ensuring that the final guidelines balanced historic preservation and sustainability.

Only one joint session took place, which was on October 1, 2024. In that hour-long meeting, the Project Team, Town staff, and members of both groups came together to discuss different perspectives on clean energy retrofits in the historic districts. They identified key issues, points of agreement, and how the guidelines might address shared goals.

After this first joint meeting, the OHDC did not make itself available for any additional sessions. While the inability to hold additional sessions was a setback, the insights gathered during the initial meeting, along with input from other engagement efforts such as the Community Charrette, ultimately helped to shape the development of the guidelines.

Community Charrette:

On March 19, 2025, a community charrette was held at Abbot Hall to gather input from Marblehead residents on proposed clean energy guidelines for the Old and Historic Districts. The event included short presentations and an interactive icebreaker to help participants share their household energy preferences. Small group discussions followed, focusing on solar energy systems, air source heat pumps, electric vehicle supply equipment, and windows.

Two experts, Margaret Back of the Newport Restoration Foundation and Elizabeth Paliga from Historic New England, joined the session. They shared their experiences working on clean energy retrofits for historic buildings, offering practical insights that helped ground the conversation in real-world examples.

The charrette highlighted several shared values and tensions:

- **Clarity and Consistency:** Residents expressed frustration with what they viewed as subjective interpretations by OHDC members and process barriers — such as unclear or unwritten rules that vary case by case, and a perception that success depends on knowing how to navigate the system or having prior relationships with commissioners — which make it difficult for the public to engage.
- **Cost Considerations:** While some residents felt cost should not be a factor in determining historic appropriateness, most participants indicated that cost was a valid concern and should be considered by the OHDC.
- **Flexibility and Coexistence:** There was broad agreement that clean energy and preservation can coexist. Residents favored compromise solutions that adapt to individual building characteristics while respecting historic integrity.
- **Reversibility and Visual Mitigation:** Most residents supported design approaches that are reversible and minimize visual impact - such as painting line sets to match building exteriors, shielding condensers, and placing solar energy systems on less visible roof planes.
- **Equity and Fairness:** Several residents expressed concern that outcomes often depend on relationships with OHDC members, and called for more equitable, transparent processes.

The following summaries highlight the main points that emerged from the small group discussions on each topic:

- **Solar Energy Systems:** Support was strongest for installations on non-historic structures or minimally visible locations.
- **Air Source Heat Pumps:** Participants supported strategies like painting line sets, using faux downspouts, and shielding condensers with fences. Concerns were raised about past removals ordered by the OHDC and the lack of clear standards for visual mitigation.
- **Electric Vehicle Supply Equipment:** No formal discussion occurred
- **Windows:** Residents supported wood over vinyl and favored insulated windows, storm windows that can be removed seasonally, and alternative draft mitigation techniques. Simulated divided lights received mixed reactions.

The charrette helped refine community priorities and emphasized the importance of creating guidelines that are clear, adaptable, and grounded in both preservation principles and sustainability goals.

Development of Guidelines:

The MAPC Project Team developed a preliminary set of guidelines by combining community input, technical research, and best practices in preservation. These initial guidelines were circulated to a group of experts for feedback and refinement. The team consulted Jeremy Koo, Assistant Director of MAPC's Clean Energy Department; Alison Felix, Principal Planner and Emerging Technologies Specialist with MAPC's Transportation Department; Patti Kelleher, Salem's Historic Preservation Planner; Larry Spang, Chair of the Salem Historic Commission; and Margaret Back, Preservation Projects Manager at the Newport Restoration Foundation. Their insights identified areas for improvement and clarification, ensured accurate representation of technical clean energy considerations, and strengthened the balance between preservation and sustainability.

Incorporating this expert feedback, the revised draft guidelines were then shared with the OHDC and the Green Marblehead Implementation Committee for their review and comment. Comments from these two groups are included as Appendices D and E. To gather broader community input, the updated guidelines were also shared at the community charrette, providing residents and stakeholders the chance to review, discuss, and contribute additional ideas.

B. Comparative Analysis Tables

The following tables provide a comparative analysis of Marblehead's guidelines against national historic preservation standards and those of selected peer communities (Salem, Nantucket, Concord) to evaluate alignment with regional best practices and local sustainability goals.

Across the four retrofit topics, Marblehead showed a mixed level of conformity with the Secretary of the Interior's Standards and ACHP guidance:

- Fully aligned (Green). The town's guidance for air-source heat-pump installations tracks national best practice, calling for low-profile units, paint-to-match finishes, and reversible mounting—without adding undue barriers.
- Mostly aligned (Orange). Requirements for window work (repair first, weatherize, retain original sash) and for private electric vehicle supply equipment (allowable if screened) generally follow federal preservation principles, but tighter material limits (windows) and strict visibility rules (electric vehicle supply equipment) introduce hurdles not seen in the national guidance.
- Out of alignment (Blue). The solar energy systems section departs from national recommendations by banning any public-way visibility exceeding what NPS and ACHP consider "reasonable accommodation" for renewable energy.

When these same ratings are lined up against Salem, Nantucket, and Concord, only the solar energy systems category places Marblehead outside the regional norm; in air source heat pumps, electric vehicle supply equipment, and windows, Marblehead's guidance falls in the same color band as its peers, showing comparable adherence to the federal standards.

While the analysis compared all four communities' guidelines against national historic preservation standards, only Marblehead's guidelines were further analyzed for alignment with the Marblehead Climate Vision Plan and Net Zero Roadmap. This dual approach provided insight into how Marblehead compares regionally and nationally, as well as where its guidelines align — or could improve alignment -with the Town's climate and sustainability goals.

Overlaying the net zero lens reveals that the blue (solar energy systems) and orange (windows, electric vehicle supply equipment) cells in Marblehead's column pinpoint the very policies that most impede the Town's decarbonization targets — namely the absolute "no-visibility" rule for solar energy systems and the limited material choices for energy-efficient windows.

While this analysis is only one of several inputs informed the proposed recommendations, it highlights where current rules may be creating avoidable barriers to clean-energy retrofits and offers a basis for more consistent, accessible, and preservation-minded guidance.

Color	Meaning
Green	Meets or exceeds national standards or fully aligns with the *Marblehead Climate Vision Plan* and *Net Zero Roadmap*.
Orange	Mostly meets national standards with some differences or partially aligns with the *Marblehead Climate Vision Plan* and *Net Zero Roadmap*.
Blue	Does not meet national standards or is out of alignment with the *Marblehead Climate Vision Plan* and *Net Zero Roadmap.*

Solar Energy Systems (SES)

Criteria	National Historic Preservation Standards	Nantucket	Salem	Concord	Marblehead Guidelines	Marblehead Guidelines Alignment with Marblehead Climate Vision Plan and Net Zero Roadmap
Visibility from Public Way	Panels should be minimally visible to avoid altering historic character.	Minimize visibility; blend with roof design.	Minimize visual impacts; place on rear slopes.	Preference is for placements on secondary elevations.	PV systems must not be visible from Public Way.	Partially Aligned: Visibility restrictions hinder solar adoption but don't out right stop it.
Location and Placement	Install panels on rear slopes or hidden locations.	Consider less visible locations first; minimize impact and visibility.	Minimize visibility; place on rear or side slopes.	Focus on minimizing visibility.	Panels should have no visibility from Public Way.	Out of Alignment: Limits optimal placement for energy generation.
Color Compatibility	Panels should match roof materials in color.	Match roof color and plane.	Choose compatible colors for energy systems.	Choose low-profile panels in complementary colors.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with aesthetic goals.
Mechanical Equipment	Should be unobtrusive and reversible.	Blend with roof design; screen ground equipment.	Screen mechanical units at grade.	Not specifically addressed.	Equipment should not be visible from Public Way.	Partially Aligned: Restrictions may increase installation complexity.
Solar Shingles	Should look like conventional materials and not replace original materials.	Not specifically addressed.	Use low-profile, compatible shingles.	Mentioned, but not specifically addressed.	Not specifically addressed.	Out of Alignment: Lack of guidance limits innovative solutions.
Freestanding Systems	Should be installed to minimize visibility and screened if necessary.	Not specifically addressed.	Not specifically addressed.	Not specifically addressed.	Not specifically addressed.	Out of Alignment: Lack of guidance limits adoption of alternative solutions.
Removal of Historic Materials	Avoid altering historic features to install solar systems.	Not specifically addressed.	Retain original features when installing.	Retain original features when installing.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with preservation goals.
Installation Procedure Impact	Installations should be reversible and not damage historic fabric.	Avoid impact on primary structure; ensure reversibility and compatibility.	Design for minimal impact on historic fabric.	Ensure no perceptible change in massing or roofline; cannot obscure distinctive features.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with preservation goals.

Air Source Heat Pumps (ASHP)

Criteria	National Historic Preservation Standards	Nantucket	Salem	Concord	Marblehead Guidelines	Marblehead Guidelines Alignment with Marblehead Climate Vision Plan and Net Zero Roadmap
Visibility from Public Way	Install in locations minimizing visibility from public ways.	No front-yard installations; use screening.	Place on rear facades or hidden locations.	Not specifically addressed.	Emphasize minimal visibility; use screening methods.	Partially Aligned: Visibility restrictions may increase costs.
Visual Impact / Scale and Size	Ensure installations are appropriately scaled and sized.	Minimize visibility; use screening.	Use small, low-profile units.	GSHPs and ductless systems are not visually intrusive.	Minimize visual impact; use smaller or split systems.	Aligned: Supports integration of efficient systems with historic character.
Integration with Existing Environment	Install external components to match building exterior.	Cover or screen components with matching materials.	Paint exposed elements; use landscaping for screening.	GSHPs are well-suited for historic buildings.	Cover external components to match building.	Aligned: Promotes seamless integration with historic architecture.
Reversibility	Modifications should be reversible without damaging historic fabric.	Not specifically addressed.	Design installations to be reversible.	Not specifically addressed.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with preservation goals.

Electric Vehicle Supply Equipment (EVSE)

Criteria	National Historic Preservation Standards	Nantucket	Salem	Concord	Marblehead Guidelines	Marblehead Guidelines Alignment with Marblehead Climate Vision Plan and Net Zero Roadmap
Visibility from Public Way	Place equipment minimally visible or blend with surroundings.	Not specifically addressed.	Install electric vehicle supply equipment stations in the least visible areas, like rear or side facades, away from streets.	Installed in locations with little or no impact on the historical appearance of the building	Minimize visibility; place at rear or far from street.	Partially Aligned: Visibility restrictions may limit accessibility.
Ground Disturbance	Minimize ground disturbance; use existing infrastructure.	Not specifically addressed.	Not specifically addressed.	Not specifically addressed.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with preservation goals.
Visual Impact / Scale and Size	Ensure scale and size are compatible with historic environment.	Not specifically addressed.	Place electric vehicle charging stations at the rear of the property and conceal from view.	Not specifically addressed.	Avoid installing on primary facades; place in less visible areas.	Partially Aligned: Restrictions on visibility may affect practicality.
Material Compatibility	Use materials that blend with or complement historic surroundings.	Not specifically addressed.	Paint post supports and enclosures to blend with building or landscape.	Not specifically addressed.	Not specifically addressed.	Partially Aligned: No direct conflict, but additional guidance could better align with preservation goals.
Integration with Existing Environment	Use aesthetic treatments to blend with historic fabric.	Not specifically addressed.	Screen charging stations with landscaping and/or enclosures	Are shielded from view to the largest extent possible.	Avoid highly visible installations.	Aligned: Promotes integration with historic architecture.
Reversibility	Installations should be reversible without damaging historic elements.	Not specifically addressed.	Design to be reversible.	Involve the least additional structural alterations.	Not specifically addressed.	Partially Aligned: Additional guidance could help align with preservation goals.
Addresses Electric vehicle supply equipment for private homes, businesses, and municipal parking	Installations should be unobtrusive, use existing structures when possible, and minimize visual impact while accommodating unique property needs and preserving historic integrity.	Not specifically addressed.	Focus is only on private homes.	Not specifically addressed.	Focus is only on private homes.	Partially Aligned: Addressing all property types enhances comprehensive planning but may challenge historic integrity.

Windows

Criteria	National Historic Preservation Standards	Nantucket	Salem	Concord	Marblehead Guidelines	Marblehead Guidelines Alignment with Marblehead Climate Vision Plan and Net Zero Roadmap
Visibility from Public Way	Retain and preserve windows that define historic character; avoid major alterations.	No specific mention of visibility from the public way.	Minimize visual impacts; place on rear or side slopes.	Install away from street view.	Windows visible from public ways must use original materials.	Partially Aligned: Requirement for original materials limits energy efficiency improvements.
Material Selection	Explore repair or replacement options; avoid replacement due to minor issues.	Prioritize wood; discourage vinyl and aluminum in historic districts.	Use wood for replacements, alternative materials only if necessary.	Match historic appearance for replacements.	Use natural materials; avoid alternatives unless exposed to ocean.	Partially Aligned: Restriction on alternative materials limits energy efficiency.
Design Compatibility	Replace windows in kind; use compatible substitutes if necessary.	Traditional proportions and true divided-light wood windows required.	Match original appearance closely.	Match historic appearance closely.	Maintain historical accuracy with original materials and configurations.	Out of Alignment: Focus on preserving aesthetics may limit opportunities for energy-efficient upgrades.
Energy Efficiency	Improve thermal efficiency through weatherizing and repairs.	Focus on restoration, weatherization, and use of storm windows.	Consider weatherization improvements.	Improve energy efficiency through weatherizing and storm windows.	Seal air infiltration and use storm windows; maximize solar gain.	Aligned: Promotes energy efficiency while maintaining historic integrity.
Maintenance and Repair	Preserve and repair original windows and doors.	Emphasize preservation, use of passive energy-saving measures.	Maintain and preserve original features.	Maintain and repair original features.	Preserve and restore; use wood storm windows and passive measures.	Out of Alignment: Lack of flexibility may restrict upgrades for energy efficiency.
Installation Methods	Use accurate restoration methods or new designs compatible with historic openings.	Single-glazed wood windows preferred; proper weatherization essential.	Replacement methods that preserve original frame are preferred.	Not specifically addressed.	Full frame replacements preferred; avoid inserts.	Partially Aligned: Not allowing certain window replacements could slow upgrades to ensure energy efficiency in homes.
Non-Invasive Techniques	Not specifically addressed.	Encourage shutters, curtains, and landscaping for energy efficiency.	Not specifically addressed.	Use interior blinds, curtains, and landscaping.	Use interior hangings, curtains, and landscaping for insulation.	Aligned: Promotes non-invasive energy efficiency techniques.

C. Proposed Recommendations for Clean Energy Retrofits in the Old and Historic Districts

The following proposed recommendations were developed to guide the Old and Historic Districts Commission's review of clean energy retrofits in ways that balance preservation priorities with local and state climate goals.

August 2025

Marblehead Sustainable Heritage:

Proposed Recommendations for Clean Energy Retrofits in the Old and Historic Districts

Marblehead Sustainable Heritage

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Purpose of the Proposed Recommendations

The purpose of providing Marblehead with recommendations for guidelines on Old and Historic Districts Commission (OHDC) review of integration of sustainable technologies into buildings inside the Old and Historic District is to ensure that (1) the OHDC and the public have clarity about preservation standards applied to the review process and consistency in the application of those standards; (2) that residents have pathways to align their improvements to property within the OHDC jurisdiction in alignment with state and local climate commitments; and (3) to advance a shared vision for Marblehead that balances preservation with sustainability.

1. Provide Clarity and Consistency in Preservation Standards

The current publicly available guidelines offer limited direction for members of the Old and Historic Districts Commission to evaluate applications for clean energy retrofits in a consistent and transparent manner. This has contributed to a cautious approach that has led to few, if any, approvals for sustainable technologies such as solar panels, heat pumps, insulated windows, and electric vehicle charging. In addition, the current guidelines outright restrict certain interventions and give the Commission broad discretion to determine that an intervention is inappropriate. This has resulted in confusion among property owners about how to integrate sustainable technologies within OHDC guidelines, added expenses resulting from OHDC decisions, and growing tension and frustration within the community. The recommended guidelines would clarify what applications of sustainable technologies in OHDC are allowable and ensure more consistent review of applications to OHDC.

2. Align with Local and State Climate Commitments

There is strong support from residents in aligning their homes with Town and State Greenhouse Gas reduction goals. From the 2019 Marblehead Climate Vision report: “In 2018, Town Meeting voters approved Article 45, affirming, ‘That the Town supports a goal of using 100% carbon-free energy in Marblehead, including in electricity production, building energy use and transportation.’” In 2017 GHG inventory, residential buildings made up 44.5% of GHG emissions in the town, with vehicles making up an additional 36.2% of emissions (Marblehead Net Zero Roadmap).

To meet the Towns Net Zero goals, the community must improve energy efficiency of buildings, while electrifying and decarbonizing buildings. The sustainable technologies included among the recommendations are critical to meeting

these goals, while also providing residents with pathways to save on energy costs. The recommended guidelines would offer a pathway to meeting this goal for buildings in the OHDC jurisdiction.

3. Advance Shared Goals and Vision for Sustainable Marblehead

Residents of Marblehead are proud of the Town's history and historic character and are committed to a sustainable, net-zero future. Preserving Marblehead's historic neighborhoods as a cultural resource need not be incompatible with ensuring its sustainable future. The recommended guidelines and guiding principles ensure that preservation and sustainability priorities can be balanced in decisions made by the OHDC. The recommendations are framed around the question of how clean energy retrofits can be thoughtfully integrated into historic properties. This framing expands the possibility of creative, preservation-sensitive solutions to sustainability and encourages residents to explore sustainable upgrades. It is also in alignment with national historic preservation best practices.

Guiding Principles

The proposed recommendations were developed to align with national historic preservation best practices, including the Secretary of the Interior's *Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings* and guidance from the Advisory Council on Historic Preservation. These best practices can be summarized by the following three guiding principles: [1]

Reversibility — Reversibility refers to the ability to undo or remove any changes or additions made to a historic property without causing damage to the original historic fabric. Any modifications should be designed and implemented in a way that allows them to be removed in the future, returning the building to its previous state.

Distinguishability — Distinguishability means that any new additions or alterations to a historic property should be visually distinct from the original historic elements. While new work should be compatible with the historic character, it should not attempt to create a false sense of history by exactly mimicking original features. This allows observers to clearly differentiate between historic fabric and contemporary interventions.

Scale — Scale refers to maintaining appropriate proportions and sizes for any new elements added to a historic property. New additions or alterations should be designed at a scale that is compatible with and does not overwhelm the existing historic structure. This principle helps preserve the visual integrity and character-defining features of the historic property.

1 National Park Service. 1993. Preservation Brief 32: Making Historic Properties Accessible. Washington, D.C.: U.S. Department of the Interior. https://www.nps.gov/orgs/1739/upload/preservation-brief-32-accessibility.pdf

Recommended Use of the Proposed Recommendations

The following proposed recommendations are intended to replace four existing topic-specific sections of the current OHDC Guidelines, Solar Energy, HVAC & Mechanical Systems, EV Charging, and Windows, with clearer, more current standards that better align with both historic preservation best practices and local climate goals. The recommended guidelines reflect the goals and guiding principles of the project, as defined by the Marblehead community, and best practices in integrating sustainability and historic preservation considerations. While the OHDC may choose to modify the recommended language to better align with existing practices and the character-defining features of the districts, any changes should not make it more difficult for residents and property owners to install clean energy technologies.

Proposed Recommendation 1: Solar Energy Systems

Replace existing "Solar Energy" section of current guidelines with the below language:

Definition of Solar Energy Systems

Solar energy systems (SES) are a device or an array of devices that provide generation or storage of electricity from sunlight in the case of solar photovoltaics, or the collection, storage and distribution of solar energy for the purposes of space heating or cooling or water heating. SES, including but not limited to solar panels, solar shingles, and all accessory equipment, are allowed in the historic district. It is preferable for SES to be placed on non-historic accessory buildings or additions. If that is not possible, SES may be placed on historic buildings. Applicants must complete a roof framing assessment to ensure structural integrity and submit it as supporting documentation with their Certificate of Appropriateness application.

Location of SES

Where practicable, SES on historic buildings should be installed on secondary elevations, set back on flat roofs, and/or placed in other locations not easily visible from the Public Way. Solar installations should be located away from roof edges and ridges so there is a visual distinction between the building roof and the solar device. Where practicable, SESs should be positioned behind architectural features like parapets, dormers, and chimneys to limit visibility from the primary public way. SES should not significantly alter the profile of the building.

Visual Considerations

The color and reflectivity of SES on historic buildings should be compatible with existing and/or historically appropriate roofing materials. On sloped roofs, solar panels should be low-profile, set flush with the roof, and set back from the edge of the roof to minimize visual impact. On flat roofs, SES are not required to be flush with the roof but cannot protrude more than 45 degrees from the roof plane and three feet in height. Architecturally integrated solar systems (such as solar shingles) should match the historic size and pattern of historically appropriate roofing materials as closely as possible.

Reversibility

SES on historic buildings should be designed and installed to ensure that if removed in the future, there will be minimal impact to the building's historic features and materials. Removing, covering, or altering significant or character-defining features of a building to accommodate SES, including roof slopes, dormers, chimneys, windows, and exterior wood and masonry walls, is discouraged.

Proposed Recommendation 2: Air Source Heat Pumps

Replace existing "HVAC & Mechanical Equipment" section of current guidelines with the below language:

Definition of Air Source Heat Pumps

Air Source Heat Pumps (ASHP) are defined as electrical equipment used for heating, ventilation, and air conditioning that supply space heating and/or cooling to a building. Air source heat pumps use one or more outdoor units (typically located on the exterior of a building) to exchange heat with the outdoor air which are connected using refrigerant lines to one or more indoor units to deliver heated and cooled air. ASHP include, but are not limited to, centrally ducted air source heat pumps, ductless mini-split systems, variable refrigerant flow systems, and air-to-water heat pumps.

Location of ASHP

Wherever possible, ASHP equipment should be installed at the rear of the building and/or on rear elevations in locations not visible from the Public Way. Accessory equipment should be installed to minimize visibility from the Public Way. As technology evolves, equipment should be installed to minimize visibility. Exterior components should be placed at grade to reduce visual intrusion unless it is required to be elevated due to flood risks, snow accumulation, and other environmental risks to mechanical and electrical performance and safety.

Freestanding Exterior Mechanical Equipment of ASHP

Town of Marblehead bylaw §200-28 requires all freestanding exterior mechanical equipment, including but not limited to air conditioning units, compressors, condensers, and fans, to be visually screened, regardless of visibility from the Public Way.

ASHP Equipment and Line Sets

Equipment and line sets (e.g., pipes, conduits, cables, covers) can be routed through interior spaces. When placed on the exterior, they should be positioned in less-visible areas and arranged to avoid obscuring architectural features. Equipment and line sets shall be painted to blend with exterior walls, reducing the overall visual impact. Horizontal pipes may be placed along the bottom edge of the wall, or if necessary, along the roofline. When visibility cannot be fully eliminated, set the installation back from the street and minimize its presence. Limit wall penetration and use the least invasive installation methods to allow future reversibility.

Proposed Recommendation 3: Electric Vehicle Supply Equipment

Replace existing "EV Charging" section of current guidelines with the below language:

Definition of Electric Vehicle Supply Equipment

Electric Vehicle Supply Equipment (EVSE) refers to equipment for the purpose of transferring electric energy to a battery or other energy storage device in an electric vehicle in order to recharge the vehicle. Most EVSE consists of a charging station and cord that connects the electric vehicle to the charging station. Applicants are encouraged to use the least visually noticeable equipment reasonably available that provides the necessary charging capacity. These proposed recommendations apply solely to residential properties such as single-family homes and multi-unit dwellings.

Ground-Mounted and Wall-Mounted Charging Stations

Whenever feasible, ground-mounted and wall-mounted charging stations should be installed in locations that already have existing utility connections and are designated for vehicle parking, such as driveways, garages, or shared parking areas. The preferred order for placement is:

- Rear Elevation: Install EVSE on or at the rear elevation of the building and appropriately screen it to minimize visibility from the Public Way.
- Side Elevation: If rear installation is not feasible, EVSE may be placed on or at side elevations, and should be appropriately screened to minimize visibility from the Public Way.
- Front Elevation/Facade: EVSE should not be placed on or at the front elevation/facade. The Commission may make exceptions to this guideline, based on existing locations of electrical infrastructure and driveway design.

Both ground-mounted and wall-mounted installations should avoid obscuring architectural features like drip caps, molding, and corner boards and minimize visibility from the Public Way.

Visual Impact Considerations

The visual impact of charging stations should be minimized by using smaller, less obtrusive charging units and avoiding large, bulky installations that could detract from the historic character of the property. EVSE should be installed in such a way that they can be removed without causing permanent damage to the historic property.

EVSE Screening

Materials used for EVSE screening should be compatible with the historic materials of the surrounding environment. This means using colors, textures, and finishes that blend with or complement the existing historic materials. Screening may be painted to match the building or use a natural color that blends with the landscaping, depending on which approach results in lower visibility. Other materials or treatments that achieve a similar visual effect may also be appropriate.

Proposed Recommendation 4: Windows

Replace existing "Windows" section of current guidelines with the below language:

Repair, Reuse, and In-Kind Replacement of Historic Windows

The repair and reuse of historic windows is the most appropriate treatment, followed by in-kind replacement. Where one component of a window is deteriorated or broken, repair or replace the individual piece rather than replacing the entire window unit. Repair or selectively replace in-kind existing hardware to ensure window operability, including sash cords, weights, and pulleys. If replacing a single window on an elevation, replicate the existing windows of that elevation.

Weatherization of Historic Windows

Before replacing windows, consider weatherization improvements that have minimal impact to historic fabric including sealing or recaulking around exterior and interior trim, installing weatherstripping, and installing storm windows (either exterior or interior). If traditional weather-stripping exists, it should be replaced in kind. If it does not, then weather-stripping may be installed as needed. Generic storm windows (ex. metal "triple tracks") are not under OHDC purview; however, window manufacturer-specific screens and storm panels (ex. "energy panels") are under the Commission's purview and will require a COA. Wood storm windows are encouraged. Passive energy saving measures such as shutters and curtains are highly encouraged.

Requirements for Window Replacement Application

Applications to repair historic windows or replace window sashes with exact duplicates do not require a Certificate of Appropriateness. Such in-kind replacement must meet the following conditions: no changes in window material, grid pattern (number of divided lites) or grid width, sash widths, glass treatment (single pane), glazing dimensions, or frame type.

Applications for window replacement must include the findings of an energy audit, such as a blower door test, to provide evidence of the current window's negative impact on energy efficiency. Applicants may be asked to complete a window assessment when proposing a window replacement, demonstrating that all repair and restoration options have been considered, and that replacement is the only reasonable option.

Applicants must provide detailed information on the existing and proposed windows, including photos that show the existing window in detail, as well as "cut sheets" for the proposed replacements. The Commission may conduct a site visit to evaluate

the condition of existing windows. In making its decision, the Commission shall consider the feasibility of the following:

- Restoring the entire existing window through repairs to sashes, sills, and individual components;
- Replacing an individual sash;
- Replacing the windows with exact in-kind matches and matching the existing window layout.

Original windows may be replaced in-kind if they are deteriorated beyond feasible repair. Replacement windows should match the original as closely as possible in material, type, size, operation, profile, configuration of lites and muntins, and exterior finish and texture. Existing non-original windows should be replaced with wood or wood-like windows unless they are not historically accurate. Vinyl windows are not appropriate and will not be approved, except when replacing existing vinyl windows in kind.

Full replacement windows frequently come with head, jamb and sill framing. Framing size and configuration should be carefully considered to minimize the impact on the historic window opening. Reduction in glazing size should be avoided.

Single-Pane and Double-Pane Windows Replacement

Single-pane windows should be replaced in kind whenever possible; however, double-pane windows with simulated divided lights and spacers may be allowed on a case-by-case basis. Double-pane windows shall meet the following conditions:

- Simulated divided light muntins should be affixed to the window exterior;
- Muntins with exterior putty profiles must replicate the putty line of traditional single-glazed windows or the existing profiles found at the building;
- Metal spacers should be used between the glass, preferably in bronze or other dark color;
- Muntins should be 3/4” or 7/8” in width depending on the existing original windows or the age and style of the building when the original windows are unknown.

Reflective Glazing

Reflective glazing should be avoided. Clear (non-tinted) and non-reflective glazing and low-e coatings are appropriate. In most cases, glass panes should be vertically oriented (they should be taller, rather than wider) to be historically appropriate.

Window Trim and Decorative Elements

Deteriorated window trim or decorative elements should only be replaced as necessary to match the size, profile, and material of the original elements. For window lintels or hoods

that project from the building plane and are vulnerable to water collection, consider installation of metal drip edges to shed water away from windows. Painted aluminum is acceptable if painted to match trim. Avoid fully encasing wood features in any metal or synthetic material, as this will trap moisture and cause damage.

Window Patterns and Openings

The existing ratio of window openings to solid wall surfaces should be preserved. The historic pattern of window openings (fenestration pattern) should be retained, especially on the primary elevation. Inserting new windows into an elevation or infilling existing windows should be avoided. If creating new openings or infilling existing ones is necessary for a project, locate openings on side or rear elevations. When infilling a window, the existing trim surround and sill should be preserved, with the glazed opening filled with clapboards to maintain the building's historic character.

Acknowledgments

We recognize and appreciate the contributions of the Marblehead community and external advisors, whose input informed the development of the proposed recommendations. Their perspectives helped guide the project and strengthen its alignment with local needs and priorities.

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Learn more about the Sustainable Heritage project in our Project Summary.

D. Comments on First Draft of Proposed Recommendations from the Old and Historic Districts Commission

The following comments were provided by the Old and Historic Districts Commission in response to the initial draft of the proposed recommendations.

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Mariana Vaida, Commission Member
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Paul Pruett, Commission Member
Gary Amberik, Secretary
Michael Fuenfer, Alternate Member
Charles Hibbard, Commission Chair

March 11, 2025

RE: MAPC Proposed Recommendations for OHDC Guidelines

Dear Lindsay,

OHDC has reviewed the proposed language with an eye towards how OHDC guidelines, which represent historic appropriateness goals, can better coordinate with energy-efficient systems in furtherance of Marblehead's sustainability goals. We have provided specific feedback on the attached document, but the Commission would like to suggest a different approach to this endeavor.

OHDC guidelines already communicate that, whenever possible, modern equipment systems should be hidden from view. However, our records show that the vast majority of these systems are either proposed (or installed without approval) within view from the Public Way. Consequently, OHDC contends with "It's not possible because <insert reason> so can it be visible?"

The Commission believes guideline revisions should help set appropriate expectations for proposing energy-efficient systems in the historic districts by offering insight into how OHDC deals with this subjective situation as objectively as possible. The Commission has guiding principles, but has never recorded them, perhaps because there is no code or formula by which appropriate historic appearance can be calculated. However, the Commission believes that publicizing these principles will help frame expectations, discussions, and debate about the visibility of energy-efficient systems. The specifics and wording are subject to change, but are expected to look like the following:

- All views of a property from the Public Way are identified and ranked according to their historically appropriate appearance as it relates to the property overall and to the proposed work.
- Terms such as 'front', 'side', 'back' can have different meanings and significance from property to property, so the terms themselves do not convey a prioritized ranking.
- A structure's age, degree of originality, historic significance, historic setting, historic use, number of extant examples, are considered in evaluations of historic appropriateness.
- A structure's architectural style, scale, and massing relative to the property, the neighborhood, and the district are considered in evaluations of historic appropriateness.
- A phased approach to proposed work is considered in evaluations of historic appropriateness.

Old and Historic Marblehead Districts Commission

c/o Community Planning and Development Department
Mary Alley Municipal Building, 7 Widger Road
Marblehead, Massachusetts 01945
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- Marblehead's historic record is typically given priority over other historical records in evaluations of historic appropriateness.
- The preponderance of a proposed change that would be similarly situated to an existing condition in the districts is considered in evaluations of historic appropriateness.
- Existing identical or similar features in the districts that lack documented OHDC approval might not be precedential and might not be considered in evaluations of historic appropriateness.
- The physical condition of a structure, or portion thereof, is not considered in evaluations of historic appropriateness.
- An applicant's resources as related to the cost of the work are not considered in evaluations of historic appropriateness.
- Evidence forming the basis for valuation must be verifiable and, when warranted, supported by written documentation from an appropriate credible source.

Although not currently recorded, the OHDC process observes these principles. OHDC determinations are further modified according to the specific set of conditions presented by the property and the application. If enough facts and factors are identical between two separate properties and proposed scopes of work, the same outcome is likely. However, because no two properties are exactly alike, there is always a chance that the outcomes could be different.

These principles would be the backdrop for revised OHDC guideline language about energy efficient systems that has specificity, but is not a code or formula.

- Energy-efficient systems are not historically appropriate in appearance. If proposed to be all or partially visible from the Public Way, at least one of the following mitigation measures must be incorporated for consideration of historic appropriateness:
  - Location: maximize equipment distance away from the Public Way and from locations that will detract from a historically appropriate appearance.
  - Orientation: orient equipment to minimize visibility.
  - Screening: screen equipment with historically-appropriate cladding or structure.
  - Disguise: disguise as a historically-appropriate feature.
- Mitigation measures are evaluated against existing precedents in the districts known to the Commission to be historically appropriate.
- Landscaping is not within OHDC purview and cannot serve as a mitigation measure.
- Color and paint are not within OHDC purview and cannot serve as a mitigation measure.
- Other mitigation measures may be proposed in addition to, but not in lieu of, those listed.
- Conduits, pipes, cables, etc. related to energy-efficient systems are subject to same mitigation measures as the equipment itself.
- Both EV chargers and charging cords must be concealed.

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- Only vertical heat pump and air conditioning unit line sets (refrigerant piping and wiring) are eligible for outside locations. Horizontal or diagonal line sets must be located within the structure.
- Solar panels are not eligible for disguise.

OHDC guidelines already address the topic of windows, and specifically the simulated-divided lite (SDL) type. Windows are a historic feature much more complex than modern energy-efficient systems. Given that windows consume an outsized portion of our time, the Commission has abundant incentive to improve the guidelines; however, that will require much more time than we have available at this point.

In conclusion, the Commission hopes that MAPC will see the merits in what we have proposed in lieu of the previous document. The contents of this letter are provisional and shall not be publicized or distributed without prior approval from OHDC. The Commission respectfully requests a response no later than March 14th advising of the specifics that MAPC intends to publicize at the March 19th meeting. Thank you for your assistance with this initiative.

Respectfully,

Charles Hibbard, OHDC Commission Chair

Cc: Old & Historic District Commission
Lisa Lyons
Logan Casey
Thatcher Kezer

Suggested Revised Guidelines for Marblehead Old and Historic District Commission

Draft February 6, 2025

Guiding Principles:[1]

- **Reversibility -** Reversibility refers to the ability to undo or remove any changes or additions made to a historic property without causing damage to the original historic fabric. Any modifications should be designed and implemented in a way that allows them to be removed in the future, returning the building to its previous state.
- **Distinguishability -** Distinguishability means that any new additions or alterations to a historic property should be visually distinct from the original historic elements. While new work should be compatible with the historic character, it should not attempt to create a false sense of history by exactly mimicking original features. This allows observers to clearly differentiate between historic fabric and contemporary interventions.
- **Scale -** Scale refers to maintaining appropriate proportions and sizes for any new elements added to a historic property. New additions or alterations should be designed at a scale that is compatible with and does not overwhelm the existing historic structure. This principle helps preserve the visual integrity and character-defining features of the historic property.

Commented [CH1]: Understand where this suggested principle comes from, but it overlooks a reality; work approved by OHDC becomes part of the structure's history, never to be undone.

Commented [CH2]: Historic appropriateness means to be respectful of and sympathetic to the existing structure and its prior history, so new additions or alterations should blend and harmonize with the existing structure as much as possible.

Commented [CH3]: Although this principle seems sound, scale doesn't really factor into the energy efficiency systems described in this letter.

Public Way Tiered System

Commented [CH4]: OHDC guidelines already include a definition of the 'Public Way' and OHDC already employs a tiered approach in its evaluations. The language here fails to account for the actual varied conditions. Main streets do not necessarily have the highest public visibility. Each view from the Public Way must be judged on its merits.

Marblehead's historic district is densely populated, and properties are often visible from multiple "public ways," including streets, sidewalks, parks, and waterways. The term "public way" in Massachusetts refers to areas accessible to and viewable by the general public. The density of the historic district makes it highly likely that exterior architectural features on many properties are visible from at least one public way. Since the visibility of these features determines whether the Old and Historic Districts Commission (OHDC) needs to review proposed modifications, it's crucial to assess the extent of visibility before beginning any work.

To assist property owners in meeting these guidelines, a tiered approach manages installations based on their visibility from different types of public ways. This system ensures that the level of review aligns with the degree of public visibility, balancing preservation goals with proposed modifications.

1. **Main Streets (Highest Public Visibility)**
    - **Description:** These are the primary roads or streets in a historic district, often with the most pedestrian, bicycle, and vehicle traffic. They represent the public face of the district.

[1] preservation-brief-32-accessibility.pdf (nps.gov) (page 2)

- **Regulations:** The most stringent guidelines apply. Modern installations (solar panels, EV chargers, heat pumps) should be minimally visible or concealed from view.
- **Permitting:** Requires extensive review by the Historic District Commission. Installations should blend with or be shielded by architectural features to preserve historic character.

2. **Secondary Streets (Moderate Public Visibility)**
    - **Description:** These are less trafficked streets, where properties are less visible compared to main streets.
    - **Regulations:** Moderate flexibility. Modern installations may be permitted if they are discreetly placed or designed to harmonize with the building's appearance.
    - **Permitting:** Review is still required, but there is more room for flexibility. For example, solar panels might be permitted on roofs that are not directly facing the street.
3. **Common Paths/Waterways (Lowest Public Visibility)**
    - **Description:** These include paths used by pedestrians, bicyclists, or waterways that are not heavily trafficked or viewed by the general public.
    - **Regulations:** Most flexible. Installations such as solar panels or heat pumps on parts of buildings only visible from these areas should be permitted with minimal restrictions.
    - **Permitting:** Likely to receive permitting with fewer conditions since these buildings have limited public exposure. The focus would be on ensuring that installations do not interfere with scenic views or natural landscapes.

SOLAR

Definition of Solar Energy Systems (SES)

Commented [CH5]: Detailed technical definition is not required.

Solar energy systems (SES) are a device or array of devices that provide generation or storage of electricity from sunlight in the case of solar photovoltaics, or the collection, storage and distribution of solar energy for the purposes of space heating or cooling or water heating. SES, including but not limited to solar panels, solar shingles, and all accessory equipment, are allowed in the historic district. It is preferable for SES to be placed on non-historic accessory buildings or additions. If that is not possible, SES may be placed on historic buildings. Applicants must complete a roof framing assessment to ensure structural integrity and submit it with their Certificate of Appropriateness application.

Commented [CH6]: This is commentary does not belong here.

Commented [CH7]: Not within OHDC purview.

Location of SES

Where practicable, SES on historic buildings should be installed on secondary elevations, set back on flat roofs, and/or placed in other locations not easily visible from the Public Way. Solar installations should be located away from roof edges and ridges so there is a visual distinction

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between the building roof and the solar device. Where practicable, solar arrays should be positioned behind architectural features like parapets, dormers, and chimneys to limit visibility.

Commented [CH8]: This guarantees a solar installation will stick out on a structure. See prior comment re: 'distinguishability'.

Visual Considerations

The color and reflectivity of SES on historic buildings should be compatible with the roof. On sloped roofs, solar panels should be low-profile, set flush with the roof, and set back from the edge of the roof to minimize visual impact. On flat roofs, solar panels are not required to be flush with the roof but cannot protrude more than 45 degrees from the roof plane, as this aligns with optimal sun exposure, and three feet in height. Architecturally integrated solar systems (such as solar shingles) should match the historic size and pattern of historically appropriate roofing materials as closely as possible.

Commented [CH9]: Currently, solar panels are incapable of matching the appearance of any historically appropriate roof shingles. Solar panels cannot be disguised and so must be minimized or removed from view from the Public Way. All specifications will be excluded (ex. 'three feet in height') as they cannot be applied to all conditions and meet historic appropriateness.

Reversibility

SES on historic buildings should be designed and installed to ensure that if removed in the future, there will be minimal impact to the building's historic features and materials. Removing, covering, or altering significant or character-defining features of a building to accommodate solar energy systems, including roof slopes, dormers, chimneys, windows, and exterior wood and masonry walls, is discouraged.

AIR SOURCE HEAT PUMPS

Definition of Air Source Heat Pumps (ASHP)

Commented [CH10]: Detailed technical definition is not required.

Air Source Heat Pumps are defined as electrical equipment used for heating, ventilation, and air conditioning that supply space heating and/or cooling to a building. Air source heat pumps use one or more outdoor units (typically located on the exterior of a building) to exchange heat with the outdoor air which are connected using refrigerant lines to one or more indoor units to deliver heated and cooled air. Air source heat pumps include, but are not limited to, centrally ducted air source heat pumps, ductless mini-split systems, variable refrigerant flow systems, and air-to-water heat pumps.

Location of ASHP

Wherever possible, Air Source Heat Pump equipment should be installed at the rear of the building and/or on rear facades in locations not visible from the Public Way. Accessory equipment should be installed to minimize visibility from the Public Way. As technology evolves, equipment should be installed to minimize visibility. Exterior components should be placed at grade or mounted from the ground at a height not to exceed 24 inches to reduce the risks from snow accumulation, flooding, and other environmental risks, and should be adjacent to rear or non-visible facades whenever feasible.

Commented [CH11]: Not within OHDC purview; these factors having nothing to do with historic appropriateness.

Freestanding Exterior Mechanical Equipment of ASHP

Town of Marblehead bylaw §200-28 requires all freestanding exterior mechanical equipment, including but not limited to air conditioning units, compressors, condensers, and fans, to be visually screened, regardless of visibility from the Public Way, either by a method such as low fencing or evergreen vegetation.

Commented [CH12]: Not within OHDC purview; not an OHDC bylaw.

ASHP Equipment and Line Sets

Equipment and line sets (pipes, conduits, cables, and covers) can be routed through interior spaces. When placed on the exterior, they should be positioned in less-visible areas and arranged to avoid obscuring architectural features. Equipment and line sets shall be painted to blend with exterior walls, reducing the overall visual impact. Horizontal pipes may be placed along the bottom edge of the wall, or if necessary along the roofline. When visibility cannot be fully eliminated, set the installation back from the street and minimize its presence. Limit wall penetration and use the least invasive installation methods to allow future reversibility.

Commented [CH13]: Not within OHDC purview; color is excluded. Could be suggested, "Secondary to the location and routing of line sets, the Commission may request painting them to minimize visibility from the Public Way."

EV CHARGING

Definition of Electric Vehicle Supply Equipment (EVSE)

Commented [CH14]: Detailed technical definition is not required.

Electric Vehicle Supply Equipment (EVSE) refers to equipment for the purpose of transferring electric energy to a battery or other energy storage device in an electric vehicle. Most EVSE consists of a charging station and cords that connect the electric vehicle to the charging station. Applicants are encouraged to use the lowest profile EVSE reasonably available that provides the necessary charging capacity.

Location of EVSE

For private residential properties, EVSE should be installed in and/or near existing parking facilities and be located as close to an existing electrical service panel as practicable.

Commented [CH15]: Not within OHDC purview; these factors have nothing to do with historic appropriateness.

Freestanding and Wall-Mounted Charging Stations

Wherever possible, freestanding and wall-mounted charging stations should be placed in areas already designated for utilities or vehicle-related infrastructure, such as driveways, garages, and parking lots. The preferred order for placement on buildings is:

Commented [CH16]: Cannot assign a value to the visibility from the front, side or back – there is no consistent view hierarchy amongst properties in the Districts. Additionally, the terms 'front', 'side', 'rear' apply differently from property to property.

- Rear Facades: Install charging stations on the rear of the building to minimize visibility from the Public Way and maintain the building's primary architectural features.
- Side Facades with Screening: If rear installation is not feasible, charging stations may be placed on side facades, and must be appropriately screened. Screening mitigates visual impact, making the positioning the stations far back on the side wall less critical when effective screening is in place.

Wall-Mounted Charging Stations

Wall-mounted charging stations should not be installed on primary facades. In all cases, installations should avoid obscuring architectural features like drip caps, molding, and corner boards.

Visual Considerations

The visual impact of charging stations should be minimized by using smaller, less obtrusive charging units and avoiding large, bulky installations that could detract from the historic character of the property. Bollard-style ports are an example of a less intrusive design. EVSE should be installed in such a way that they can be removed without causing permanent damage to the historic property. Best practice is that ground disturbance should be limited to the minimum extent necessary for the project and must not exceed the depth of existing utility infrastructure or previously documented excavations, in an effort to protect potential archaeological material located belowground.

Commented [CH17]: Not within OHDC purview; these factors have nothing to do with historic appropriateness.

Use of Materials and Landscaping

Materials or landscaping used in the construction of EVSE screening should be compatible with the historic materials of the surrounding environment. This means using colors, textures, and finishes that blend with or complement the existing historic materials. Paint post supports and/or enclosures should be painted to either match the building or in a dark natural color that blends with the landscaping, depending on which option is less visible.

Commented [CH18]: Not within OHDC purview; landscaping is excluded.

Commented [CH19]: Not within OHDC purview.

WINDOWS

Commented [CH20]: Window repair vs. replacement is extremely complicated. Style, originality, appearance, visibility and context are just a few of the factors that must be evaluated. OHDC evaluation process can be improved, but proposed edits should be condensed: 1)Promote preservation/restoration. 2) Clarify the facts and factors to be addressed in any proposed replacement.

Repair, Reuse, and In-kind Replacement of Historic Windows

The repair and reuse of **historic windows** is the most appropriate treatment, followed by in-kind replacement. Where one component of a window is deteriorated or broken, repair or replace the individual piece rather than replacing the entire window unit. Repair or selectively replace in-kind existing hardware to ensure window operability, including sash cords, weights, and pulleys. If replacing a single window on a facade, replicate the existing windows of that facade.

Weatherization of Historic Windows

Before replacing windows, consider weatherization improvements that have minimal impact to historic fabric including sealing or recaulking around exterior and interior trim, installing weatherstripping, and installing storm windows (either exterior or interior). If traditional weather-stripping exists, it should be replaced in kind. If it does not, then weather-stripping may be installed as needed. Generic storm windows (ex. metal “triple tracks”) are not under OHDC purview; however, window manufacturer-specific screens and storm panels (ex. “energy panels”) are under the Commission’s purview and will require a COA. Wood storm windows are encouraged. Passive energy saving measures such as shutters and curtains are highly encouraged.

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Requirements for Window Replacement Application

Applications to repair historic windows or replace window sashes with exact duplicates will be reviewed under a Certificate of Non-Applicability. Such in-kind replacement must meet the following conditions: no changes in window material, grid pattern (number of divided lites) or grid width, sash widths, glass treatment (single pane), glazing dimensions, or frame type.

Applicants must complete a window assessment when proposing a window replacement, demonstrating that all repair and restoration options have been considered, and that replacement is the only reasonable option.

Additionally, applicants must complete an energy audit to provide evidence of the window's impact on energy efficiency.

Applicants must provide detailed information on the existing and proposed windows, including photos that show the existing window in detail, as well as "cut sheets" for the proposed replacements. The Commission may conduct a site visit to evaluate the condition of existing windows. In making its decision, the Commission shall consider the feasibility of the following in light of cost, labor, window condition, and increased energy efficiency:

- Restoring the entire existing window through repairs to sashes, sills, and individual components;
- Replacing an individual sash;
- Replacing the windows with exact in-kind matches and matching the existing window layout.

Original windows may be replaced in-kind if they are deteriorated beyond feasible repair. Replacement windows should match the original as closely as possible in material, type, size, operation, profile, configuration of lites and muntins, and exterior finish and texture. Existing non-original windows should be replaced with wood or wood-like windows unless they are not historically accurate. Vinyl windows are not appropriate and will not be approved, except when replacing existing vinyl windows in kind.

Full replacement windows frequently come with head, jamb and sill framing. Framing size and configuration should be carefully considered to minimize the impact on the historic window opening. Reduction in glazing size should be avoided.

Single-pane and Double-pane Windows Replacement

Single-pane windows should be replaced in kind whenever possible; however, double-pane windows with simulated divided lights and spacers may be allowed on a case-by-case basis. Double-pane windows shall meet the following conditions:

- Simulated divided light muntins should be affixed to the window exterior;

Commented [CH21]: Repairs executed in compliance with OHDC repair clause do not require application.

Commented [CH22]: No such document.

Commented [CH23]: This does not work for a variety of reasons. Window repair vs. replacement evaluation must be done by a knowledgeable, objective party. OHDC is working to craft a process.

Commented [CH24]: Not within OHDC purview; this factor has nothing to do with historic appropriateness.

Commented [CH25]: OHDC cannot make cost a factor.

- Muntins with exterior putty profiles must replicate the putty line of traditional single-glazed windows or the existing profiles found at the building;
- Metal spacers should be used between the glass, preferably in bronze or other dark color;
- Muntins should be 3/4" or 7/8" in width depending on the existing original windows or the age and style of the building when the original windows are unknown.

Reflective Glazing

Reflective glazing should be avoided. Clear (non-tinted) and non-reflective glazing and low-e coatings are appropriate. In most cases, glass panes should be vertically oriented (they should be taller, rather than wider) to be historically appropriate.

Window Trim and Decorative Elements

Deteriorated window trim or decorative elements should only be replaced as necessary to match the size, profile, and material of the original elements. For window lintels or hoods that project from the facade plane and are vulnerable to water collection, consider installation of metal drip edges to shed water away from windows. Copper is recommended and should be left to weather naturally; painted aluminum is acceptable if painted to match trim. Avoid fully encasing wood features in any metal or synthetic material, as this will trap moisture and cause damage.

Commented [CH26]: Type of material that is appropriate varies from structure to structure.

Commented [CH27]: Not within OHDC purview.

Window Patterns and Openings

The existing ratio of window openings to solid wall surfaces should be preserved. The historic pattern of window openings (fenestration pattern) should be retained, especially on primary facades. Inserting new windows into a facade or infilling existing windows should be avoided. If creating new openings or infilling existing ones is necessary for a project, locate openings on side or rear facades. When infilling a window, the existing trim surround and sill should be preserved, with the glazed opening filled with clapboards to maintain the building's historic character.

E. Comments on First Draft of Proposed Recommendations from the Green Marblehead Implementation Committee

The following comments were provided by the Green Marblehead Implementation Committee in response to the initial draft of the proposed recommendations.

Green Marblehead Implementation Committee

ABBOT HALL
188 Washington Street
MARBLEHEAD, MASSACHUSETTS 01945

March 17th, 2025

Dear Lindsay,

Thank you for providing the Green Marblehead Implementation Committee with the opportunity to comment on and respond to the proposed recommendations for updating the Old and Historic Districts Commission's (OHDC's) guidelines. The Committee met on Thursday, March 13th to discuss the draft guidelines that were shared to the group.

Overall, the Committee members generally agreed that the proposed recommendations accurately reflected the conversations that took place during the Marblehead and Salem Historic District tour, as well as the Joint workshop session that was held with OHDC. The recommendations regarding Solar Energy Systems, heat pumps, EV charging, and windows are good starting places for discussion around the concerns brought by the Committee, as well as from members of the Sustainable Marblehead community group. The additional clarification and detail of the proposed recommendations would improve the experience of historic building owners seeking guidance on permissibility and restrictions regarding installing green and clean appliances on their historic property. This would directly address the concerns around lack of clarity of the current guidelines and would provide applicants with additional information about OHDC's principles of historic preservation before they sought a Certificate of Appropriateness.

Committee members reviewed and commented on the various appliance guidelines proposed, with notable themes of the conversation included below. Additionally, Committee members requested future conversations surrounding permeable pavement, to assist in limiting the amount of impervious surface required and reducing run-off from predicted increases in annual rainfall due to climate change.

Solar Energy Systems

The Committee noted that this proposed guidance softens compared to current OHDC guidelines, which currently suggests that solar systems "are not appropriate to historic buildings." Members agreed that the recommended guidelines gave applicants a clearer understanding of where to locate a solar system, and how to visually and mechanically integrate the appliance into the historic property. The proposed recommendations give an applicant additional context into how the Commission determines the appropriateness of an installation, and benefits OHDC by providing additional guiding principles when

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considering solar projects at their discretion. Additionally, the Committee approved of the flexibility of the guidelines if solar energy systems become more athletically appealing as new technologies are introduced.

Air Source Heat Pumps

The Committee agreed that allowing horizontal lines is an improvement to the guidelines when mechanically required and were satisfied with the necessary shielding from the Public Way through positioning in less viewable areas and painting to reduce overall visual impact. Members also commented on edge cases where heat pump equipment would need to potentially be exposed to a public way and generally agreed that the guidance on placement, as well as the Public Way Tiered System, would provide additional guidance to OHDC and residents when considering how to advance carbon-free HVAC solutions.

EV Charging

The Committee generally approved of the proposed recommendations around EV charging and commented on the success of historic building owners working with OHDC in the past to install EV charging on their historic properties. Committee members highlighted the Commonwealth's EV Charging by Right Law for multi-unit dwellings, Chapter 239 of Acts of 2024, which was recently signed into law and signaled the Commonwealth's endorsement of expanding equitable EV charging access for all residents.

Windows

There was general agreement that the recommended guidelines provided a great deal of information for building owners to consider improvements. Members noted that there are many brands of historically styled double-paned windows that may alleviate some of the atheistic concerns surrounding the replacement of historic single-paned windows and may not be easily distinguishable to a non-architectural eye. Members advocated for windows and storm windows that allowed for the historic building to still be "visually read" by the eye, while providing flexibility to building owners on how to improve their building's energy-efficiency.

With the Old and Historic Districts making up a significant portion of the Marblehead community by area and by number of households, supporting clean and green energy projects for historic building owners a key in achieving Marblehead's community goal of Net Zero Greenhouse Gas Emissions by 2040. The Green Marblehead Implementation Committee hopes that this opportunity to develop updated guidance with OHDC will yield improvements that will support the historic integrity and climate resilience of the Old and Historic Districts. Thank you to the team at MAPC for your support in the discussions and developing these proposals.

Sincerely,

The Green Marblehead Implementation Committee