10. Project Mitigation

Massport's **Environmental Status and Planning Report (ESPR)** is a unique document within the **Massachusetts Environmental Policy Act (MEPA)** process that provides an overview of Logan Airport operations and environmental conditions and establishes a context for project review and approvals through the MEPA process. Unlike other MEPA documents, the ESPRs and annual **Environmental Data Reports (EDRs)** are not projects within the typical MEPA framework. The ESPRs and EDRs do not take the place of an individual project filing subject to MEPA, nor do they serve as an approval for any specific activity.

Within the traditional MEPA process, project mitigation refers to specific project measures taken to avoid, minimize, and mitigate environmental impacts associated with specific projects. For Logan Airport ESPRs and EDRs, Massport reports on several types of measures aimed to reduce environmental impacts, which are grouped into the following categories:

- **Project mitigation** refers to mitigation measures as prescribed under Massachusetts General Law Chapter 30, Section 61 **(Section 61 or Section 61 Findings and Mitigation Commitments)** for projects required to prepare a state Environmental Impact Report (EIR). The formal Section 61 measures discussed in this chapter are specific to individual projects and include steps taken to avoid and minimize environmental impacts through design, construction, or ongoing operations.
- **Community mitigation** refers to those measures Massport has agreed to take outside of the MEPA process, and these are presented in greater detail within Chapter 2, *Sustainability, Outreach, and Environmental Justice*.
- **Other environmental measures** are programs and initiatives that Massport voluntarily implements, in addition to Section 61 project mitigation and community mitigation efforts, and these include a wide range of other environmental measures that are not project-specific, but rather are aimed at addressing broader impact categories. These include noise abatement measures, ground transportation accessibility improvements, high-occupancy vehicle (HOV) strategies, Massport's *Roadmap to Net Zero by 2031* (*Net Zero by 2031*) initiative, and many other operational measures that

increase Airport efficiency, improve the quality of services provided, and reduce community impacts. These other environmental measures are discussed in Chapter 2, and in applicable subject matter chapters that address topics like ground access, air quality, and noise, among others.

The status of Logan Airport projects with active Section 61 commitments is presented in this chapter. The COVID-19 pandemic significantly reduced Airport activity levels and revenue; prompting Massport, airlines, and tenants to make operational adjustments. However, projects and programs, which were deferred due to reduced passenger activity levels caused by the pandemic, have begun to resume. Massport continues to comply with its project mitigation commitments as outlined in the projects' Secretary's Certificates, which are presented in Appendix A, *MEPA Certificates and Responses to Comments*.

10.1 Projects with Section 61 Commitments

The following projects have ongoing Section 61 mitigation measures, and the current mitigation implementation status for each project as of this publication is summarized in this chapter. Massport continues to track its mitigation commitments, and the forum for reporting on their status is the ESPR and EDR documents. The applicable projects are listed below in the chronological order of their completion:

- **West Garage Project, Executive Office of Energy and Environmental Affairs (EEA)** #9790: Phase I and Phase II construction was completed in 2007.
- **International Gateway Project**, EEA #9791: Phase I was completed in 2004; Phase II was completed in 2007; and the final phase has been changed to the Terminal E Modernization Project (EEA #15434).
- **Replacement Terminal A Project**, EEA #12096: Terminal A opened March 16, 2005.
- **Logan Airside Improvements Planning Project**, EEA #10458: Runway 14-32 opened on November 23, 2006. The Centerfield Taxiway was completed and became fully operational in 2009.
- **Southwest Service Area (SWSA) Redevelopment Program**, EEA #14137: The Rental Car Center (RCC) construction program began in summer 2010, and the first phase of the facility opened in fall 2013. The other project phases were completed in 2014.
- **Logan Airport Runway Safety Areas (RSA) Project**, EEA #14442: Runway 33L RSA construction began in June 2011 and was completed in November 2012. The Runway 33L approach light pier replacement was completed concurrently with Runway 33L RSA construction. Runway 22R Inclined Safety Area (ISA) construction was completed in 2014.
- **Terminal E Modernization Project**, EEA #15434: Phase I of the project was completed in October 2023, and accommodates existing and long-range forecasted passenger demand for international service. Phase I included the construction of 390,000 square feet of terminal space; renovations to the existing Terminal E structure to create a unified building; and adding new four gates permitted and approved as part of the International Gateway West Concourse Project in 1996, but this portion of the project was not constructed. Phase II will involve construction of three additional new aircraft contact gates. See Chapter 4, *Airport Planning*, Section 4.2, for additional information.

- **Logan Airport Parking Project,** EEA #15665: The project involves the phased addition of commercial parking at Logan Airport consistent with the amendment to the Logan Parking Freeze. In 2018, Massachusetts Department of Environmental Protection (MassDEP) and the U.S. Environmental Protection Agency (U.S.EPA) approved an amendment to the **Logan Airport Parking Freeze** to add an additional 5,000 spaces at Logan Airport. Massport filed an EIR, and MEPA issued a Certificate (January 2020) approving new parking in two Airport campus locations; a new garage across from Terminal E (2,000 spaces), and additional floors within the Economy Garage (3,000 spaces). Massport prepared an **Environmental Assessment (EA)** on the project and the Federal Aviation Administration (FAA) issued a **Finding of No Significant Impact (FONSI)**, allowing the project to move forward.

  Construction of the MEPA EEA and FAA joint-approved **Terminal E Garage** in front of the terminal was deferred during the COVID-19 pandemic, but as passenger demand has rebounded, the demand for commercial parking has returned. In late 2023, Massport moved into the preliminary design process for the garage, taking current conditions into account, and has reconfirmed the need for additional parking spaces to encourage long-term parking at the Airport rather than drop-off and pick-up trips.

  Massport has now restarted this deferred project, and the updated program for the project now calls for approximately 4,300 commercial revenue spaces, which would be built in a new garage in front of Terminal E. No parking spaces are being proposed for the Economy Garage at this time. Located in the central terminal area of the Airport, the new garage will also improve connectivity to the existing parking complex and on-Airport roadways.
- **Runway 27 End Runway Safety Area Improvements Project,** EEA #16433: This project will enhance safety for aircraft and passengers in emergency situations by improving the Runway 27 End RSA. The RSA improvements are a required FAA safety project. The project would not extend the runway or affect normal runway operations, capacity, or types of aircraft using the runway. An EA and **Final EIR (FEIR)** were completed in 2023. and Massport issued a Request for Letters of Interest and Requests for Qualifications (RFQs) in late 2023, and a Request for Proposals (RFP) will be issued for a design-build entity in the near future. Project environmental permitting is currently underway as of this filing.

Once projects with ongoing requirements are constructed, mitigation tracking reports on the continuing requirements. Each project discussed below has completed its requisite state and federal environmental reviews and has adopted mitigation plans that have been formalized with individual Section 61 Findings.

Massport tracks both Massport and Logan Airport tenants' progress towards implementing and meeting their environmental mitigation commitments on schedule and in accordance with the requirements outlined in the Section 61 Findings for each project. As each project moves forward through its design and construction phases, its mitigation plan is implemented with ongoing tracking to verify compliance. Once mitigation efforts are completed, those projects are no longer reported in EDRs and ESPRs.

The following sections describe each project's current implementation status for measures that occurred in the reporting period. Previous filings contain historical details on the implementation of mitigation measures. The **Environmental Notification Forms (ENFs)**, **Draft EIRs (DEIR)**, and FEIRs issued for the projects discussed in this chapter are provided in Appendix A, which contains the Secretary's Certificates.

10.2 West Garage Project – EEA #9790

The West Garage is directly connected to the Central Garage, thereby centralizing the two structures parking into a larger, unified, and easily accessible garage. The West Garage Project (**Figure 10-1**) was constructed in two phases. Phase I of the Project provided 3,150 parking spaces consolidated from other areas of Logan Airport. The West Garage Project also included construction of elevated walkways connecting the West Garage to Terminals A and E as well as improvements to the terminal roadways.

10.2.1 Permitting History

- Certificate on the FEIR issued on March 16, 1995.
- Section 61 Findings approved on March 27, 1995.

Figure 10-1 West Garage Project EEA #9790

Terminal Buildings
Project Location
Parking Facilities
Notes: See Table 10-1 for a description of project.
Status as of 12/2022.
Source: Nearmap (November 2022)
0 270 540 Feet

10.2.2 Project Status

The original design of Phase II of the West Garage included the construction of a new parking facility structure adjacent to the West Garage. Instead, Massport concluded it was more cost-efficient to proceed with Phase II by adding three additional levels, Levels 5, 6, and 7, to the existing Central Garage. Phase II of the West Garage Project provided approximately 2,800 additional parking spaces.

- **Phase I** – Construction commenced in October 1995 and the garage opened on September 8, 1998. The elevated walkways to the Terminals were completed in 2002. Improvements to Terminal roadways were completed in 2003.
- **Phase II** – Permitting was completed in 2000 to add three levels to the Central Garage. Construction commenced in 2004 and the entire facility enhancement was completed in 2007.

Table 10-1 and **Table 10-2** list the Section 61 mitigation measures from the West Garage Project FEIR, dated January 31, 1995, and those measures referenced in the Massport Board's vote on the West Garage Project. **Table 10-1** lists each of the continuing Section 61 mitigation commitments for the West Garage Project and Massport's 2022 progress in achieving these measures. **Table 10-2** details the elements and status of the **Alternate Fuel Vehicle (AFV)** Program, which was a key mitigation effort associated with the West Garage Project. While many of the mitigation measures have been previously implemented, this ESPR reports on the mitigation implementation status as of the end of 2022.

Unrelated to this project, in late 2015, Massport completed the West Garage Parking Consolidation Project, which consolidated 2,050 temporary parking spaces within an addition to the West Garage as well as within the existing surface lot between the Logan Office Center and the Harborside Hyatt™. The West Garage addition was located on the site of the existing Hilton™ Hotel parking lot. Construction of these spaces constituted the remainder of the spaces permitted under the Logan Airport Parking Freeze as of that date.[1] On March 20, 2014, the EEA issued an **Advisory Opinion** confirming no **MEPA review** was required for this project. Construction commenced in the spring of 2015 and was completed in 2016.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Parking Pricing	
Parking pricing initiatives: keeping first-hour prices high enough to provide a disincentive for drop-off/pick-up.	**Implemented.** Parking rates were last changed in 2023 as described in Chapter 6, *Ground Access*, Section 6.5.4
Parking pricing initiatives: keeping the weekly price low enough to encourage vacation travelers to park for a week.	**Implemented.** In 2021, Massport began offering parking reservations, making it easier for passengers to organize and guarantee long-term parking. See Chapter 6, Section 6.4.5.3 for more details on parking reservations and Section 6.5.7 for the Long-Term Parking Management Plan.
Massport will consider means to encourage the use of limited amount of on-Airport commercial parking for long-term. Massport will promote environmentally positive modes of airport access by air passengers.	**Implemented.** Massport actively manages a Long-Term Parking Management Plan to help encourage long-term parking by passengers. The Long-Term Parking Management Plan includes initiatives to evaluate parking supply, pricing, and demand. Refer to Chapter 6, Section 6.5.7 for further details.
Once sufficient data is collected, Massport will evaluate parking behavior attributable to modified price rates and then consider further pricing adjustments to assist in achieving Massport's ground transportation goals.	**Implemented.** Massport continuously collects data on parking conditions and behaviors, and then uses findings to assess pricing options and the efficacy of other initiatives. Data on parking conditions in 2022 is presented in Chapter 6, Section 6.4.

1 310 Code of Massachusetts Regulations 7.30 and 40 Code of Federal Regulations 52.1120.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
The Executive Director shall report to Massport annually regarding the effectiveness of the parking pricing policy and recommend appropriate policy adjustments as a part of the process of achieving Massport's ground access goals initiatives.	**Implemented.** Massport maintains a Long-Term Parking Management Plan devised to promote long-term parking among passengers. This plan encompasses evaluating potential initiatives in terms of parking supply, pricing, and demand as detailed in Chapter 6, Section 6.5.7. Additionally, Massport gathers data surrounding parking conditions and behaviors, using the results to assess pricing strategies and the utility of various initiatives. For comprehensive data on the parking conditions as of 2022, refer to Chapter 6, Section 6.4.
Concurrent Ground Access Improvement Mitigation Measures	
Employee Trip Reduction Measures	
Massport will form a Transportation Management Association (Logan TMA) for Logan Airport employees in order to provide new opportunities for the development of targeted transportation demand management (TDM) strategies for Massport and airport tenant employees.	**Implemented.** Massport continues to support the TDM strategies by funding the Logan Sunrise Shuttle at a cost in 2022 of approximately $161,000. Massport continues to conduct outreach through new hire orientation materials and other communication methods to raise awareness of employee commute options with a focus on high-occupancy vehicle (HOV) modes of transportation.
Massport will develop, coordinate, and implement effective TDM strategies to reduce the number of single-occupant trips made by all Logan Airport employees, including outreach to employees about transportation options.	**Implemented.** Massport supports TDM strategies by providing services to Logan Airport employees and by periodically conducting the Massport Employee Survey. Findings from the *2022 Logan International Airport Air Passenger Ground Access Survey* are summarized in Chapter 6, Section 6.5.2. Massport surveys its employees as part of its Massachusetts Department of Environmental Protection (MassDEP) Rideshare reporting requirements.
Massport will encourage participation by all Massport and tenant employees, but will particularly target the Airport's largest tenant employers.	**Implemented.** Massport aims to decrease the number of Airport employees commuting by car to Logan Airport, improve commuting options, and alleviate traffic, and lessen parking demands. Massport continues to run free shuttle services to various parts of the Airport, operate the Sunrise Shuttle for early morning commuters, and provide pedestrian and bicycling facilities. Massport also contributes financing annually to support these initiatives. Additional information can be found in Chapter 6, Section 6.5.8.
Massport will report on the formation and activities of the Logan TMA in the next Generic Environmental Impact Report (GEIR). [Now ESPR]	**Implemented.** Massport continues to support TDM strategies by funding the Logan Sunrise Shuttle at a cost in 2022 of approximately $161,000. Massport conducts outreach through new hire orientation materials and other communication and engagement methods to raise awareness of employee commute options with a focus on HOV modes of transportation.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Massport proposes to implement a new Logan Express service, or other HOV services, depending on the needs of the targeted market before Phase II of the West Garage Project is operational.	**Implemented**. As passenger activity rebounds after COVID-19, Massport is resuming services and restarting certain deferred projects based on passenger needs and overall demand. These include restoring bus services, resuming parking expansion projects and construction, opening a new, suburban Logan Express location, focusing on improvements to employee parking, and enhancing similar types of service offerings. Ridership and service information on Massport's Logan Express Program is provided in Chapter 6, Section 6.3.1.2.
Provide an airport shuttle service from South Station Transportation Center. Massport is preparing a feasibility and business plan for a South Station-Logan Airport shuttle service and will implement this service when the Third Harbor Tunnel is opened for commercial traffic. This service will be modeled on the existing, successful Logan Express services and will include frequent bus service between South Station and the airport terminals. Massport will regularly evaluate the frequency of, and demand for, such shuttle service and will provide such service at the greatest frequency that is practical and effective.	**Implemented.** Massport continues regular collaboration with the Massachusetts Bay Transportation Authority (MBTA) on the Silver Line Airport service and makes adjustments, as necessary. Beginning in May 2012, Massport initiated a pilot program offering free rides on the Silver Line from Logan Airport to downtown Boston to promote HOV usage and heighten awareness of public transit options. The purpose of the program was to encourage ridership by improving operations and customer service. Free service from Logan Airport continues as of the filing of this *2022 ESPR*. Additionally, Massport has purchased ten new MBTA Silver Line buses as part of the MBTA procurement process. In 2022, as passenger demand increased after the pandemic, Massport collaborated with the MBTA to allow for service headways to match passenger needs.
Massport will implement a new water shuttle service in Boston Harbor before the opening of Phase I of the West Garage Project. The water shuttle would run between Logan Airport and one, or possibly more, sites in the Harbor.	**Implemented.** Massport continues to support Boston water taxi service operations. Refer to Chapter 6, Section 6.3.1, for water shuttle ridership information.
The Executive Director shall make recommendations to Massport for budgetary appropriations to establish and implement the new ground access services on a schedule that permits Massport to implement the new ground access services within these time frames.	**Implemented.** Massport's Executive Director or Chief Executive Officer (CEO) recommends budgetary appropriations for ground access services on an annual basis.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Enhancement of Existing HOV Services: Logan Express	
Expand Logan Express hours of service.	**Implemented**. As passenger activity recovers from COVID-19, Massport is restoring service and restarting select postponed projects, and projects are prioritized based on passenger needs and user demand. Updates on projects deferred due to COVID-19 are discussed in Chapter 4, *Airport Planning*, Section 4.1, but can be summarized as follows: • Suspended Logan Express service from Peabody, Woburn, and Back Bay: Services restored in 2022. • Logan Express headways reduced from Braintree and Framingham Logan Express: Headways were restored in 2021, and the new Quincy lot is helping to increase passenger capacity at Braintree as well as a parking expansion at Framingham, which is also helping to improve passenger use. • Postponed construction of additional parking at Framingham Logan Express: Project has resumed and is in the design phase with construction currently estimated to begin in 2024. • New Logan Express suburban location: Peabody Logan Express at the new North Shore location opened in 2022. Current priority initiatives include improvements to Wonderland employee parking, better service offerings for Silver Line 1, and enhancing the Back Bay Logan Express. Schedules are available at http://www.massport.com/logan-airport/to-from-logan/transportation-options/logan-express/.
Provide a guaranteed ride home for Logan Express users.	**Implemented and subsequently modified.** Extended service now provides nearly 24-hour service at several Logan Express locations.
Provide Logan Express price incentives.	**Implemented.** Massport continues to monitor price incentives and implements additional incentives to promote Logan Express ridership, particularly during popular vacation timeframes, holidays, and other periods of peak Airport activity. Updates on incentives for Logan Express Passengers are included in Chapter 6, Section 6.5.7.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Develop an additional Logan Express service.	**Implemented.** Massport opened a fourth Logan Express location in Peabody, Massachusetts in September 2001, several years before the Section 61 commitment date associated with the opening of Phase II of the West Garage Project. The original Back Bay Logan Express service was relocated from Copley Square to Back Bay Station in May 2019, which coincided with promotions like discounted one-way fares and free service from Logan Airport. Security line priority status is also provided to Logan Express Back Bay riders. Massport's plan to operate a new urban Logan Express location between North Station and Logan Airport is currently on hold, although Massport procured buses for this service in 2020. Similarly, planning for potential additional locations in Metro West and on the North Shore is also on hold. Massport is currently moving ahead with final design for an expansion of the Framingham Logan Express Garage (EEA #16168). Peabody Logan Express at the new North Shore location opened in 2022. Danvers Logan Express is expected to open towards the end of 2024.
Enhancement of Existing HOV Services: Water Transportation	
In conjunction with the MBTA, Massport will pursue joint ticketing opportunities for the Hingham Commuter Boat and the Logan Airport Water Shuttle.	**Implemented.** Service is provided from Hingham and Hull directly to Logan Airport via Long Wharf.
Enhancement of Existing HOV Services: Water Transportation	
Massport is reviewing the fee schedules and operating requirements of the dock to make it more accessible and convenient to potential water taxi operators.	**Implemented.** Massport continues to provide free on-Airport shuttle service to the water shuttle dock, serving the Terminals and other locations on the Airport campus.
Initiate a new Boston Harbor Water shuttle service.	**Implemented.** Harbor Express service between Logan Airport and the South Shore, began in November 1996, well before the opening of Phase I of the West Garage in September 1998. In 2001, the MBTA took over operations of this service.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Other Measures	
Coordinate with public and private entities to provide more extensive radio, television, and telephone announcements of poor traffic conditions with suggestions for alternative access modes.	**Implemented.** Massport regularly contacts the media to inform the public about roadway changes, parking shortages, and encourages travelers to use HOV services. Information is disseminated through the Logan Airport email subscriber list, the Massport website, the Fly Logan App, Facebook™, and other social media platforms.
HOV Marketing and advertising. Massport will continue the advertising and marketing programs for HOV services with an emphasis on promoting MBTA, Logan Express and water shuttle services to and from the Airport.	**Implemented.** Massport continues to market Logan Express services via Massport's website and other social media platforms. Information on Logan Express can be found on Massport's website from the following link: https://www.massport.com/logan-airport/getting-to-logan/logan-express.
Prepare an inventory of private scheduled services including origins/destinations, schedule, and cost.	**Implemented.** Massport continues to update and track information about hundreds of privately operated passenger services certified to operate at Logan Airport. Industry changes with such operations make publication of reliable service and schedule information impractical.
Proceed with environmental review and seek funding for construction of the People Mover System.	**Implemented.** Environmental review of the Automated People Mover (APM) was completed as part of the Terminal E Modernization program Environmental Impact Report (EIR).[2] Several options were identified to reduce on-Airport congestion and improve on-Airport ground access efficiency. Initial options included dedicated HOV bus lanes, the creation of an intermodal transportation center with bus service to the Terminals, the construction of an APM, or some combination of these improvements. See Chapter 4, Section 4.1 for more information. These and other options are currently postponed, but will be revisited once passenger levels recover closer to 2019 levels.
Alternative Fuels Program. Massport is carrying out an extensive program to convert existing Massport-owned service vehicles to environmentally preferable sources.	**Implemented. Table 10-2** details Massport's progress in achieving these measures. The current focus is on a transition to non-emitting electric vehicles (EVs) where suitable replacements are available.
Massport will assess progress towards the achievement of HOV goals using on-Airport Automated Traffic Monitoring Systems (ATMS).	**Implemented.** An upgraded Automated Traffic Monitoring System (ATMS) is functioning as planned and designed.

2 The APM concept has since been revised and is now conceived as a direct pedestrian connection to the Airport Blue Line Station as part of Phase II of the planned Terminal E Modernization Project.

Table 10-1 West Garage Project Status Report (EEA #9790) Details of On-going Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Massport will assess progress towards the achievement of HOV goals by monitoring parked vehicles using systems such as the parking and revenue control (PARC) system.	**Implemented.** Massport monitors all parking activity at Logan Airport and inventories all commercial parking facilities on a daily basis. PARC systems are at all on-Airport parking locations.
Measuring, Monitoring, and Evaluating Ground Access Improvements	
Monitor HOV Services (Logan Express, MBTA, water shuttle, limousine/bus, and taxi).	**Implemented.** Ridership information is monitored on an ongoing basis and is reported in Chapter 6, Section 6.3.1.
Monitor HOV Services (Logan Express, MBTA, water shuttle, limousine/bus, and taxi).	**Implemented**. Massport's Ground Transportation Operations Center (GTOC) located in the Rental Car Center (RCC) is the 24/7 command center for all transportation information in and around Logan Airport. GTOC staff monitor up to the minute traffic information to ensure Logan Airport bus services are running efficiently.
Monitor passenger activity and employee modes of transportation.	**Implemented.** Results of this air passenger survey are provided Chapter 6, Section 6.5.2.
Massport supports the use of Automated Vehicle Identification (AVI) to monitor, manage, and facilitate efficient traffic operations at Logan Airport and elsewhere on the regional transportation system.	**Implemented.** An AVI system for Massport's Logan Airport shuttles and Logan Express buses was implemented.
Track the effectiveness of ground access measures.	**Implemented.** Massport continues to track the effectiveness of its ground access mitigation programs in its annual Massachusetts Environmental Policy Act (MEPA) filings.

Source: Massport.
Note: Text in *italics* detailing the mitigation measures is from Section IV, Mitigation of the West Garage Final EIR,

Table 10-2 Alternative Fuel Program — Details of On-going Section 61 Mitigation Measures for the West Garage Project (as of December 31, 2022)

Program Element	Projected Date of Completion/ Acquisition	Status
Purchase four electric passenger utility vehicles.	Winter 1995	**Implemented.**
Purchase five electric sedans.	Winter and Summer 1995	**Implemented.**
Build compressed natural gas (CNG) quick-fill station.	Spring 1995	**Implemented.** In 2022, the station dispensed approximately 169,000-gallon equivalents of CNG from the station located in the North Service Area.
Purchase five electric buses.	Spring and Summer 1995	**Implemented.** As of December 2022, 478 electric ground service equipment (eGSE) vehicles were in service and operated by Massport and Logan Airport tenants. Massport purchased 10 Silver Line buses, which are operated by the MBTA with Massport paying for the operating costs for these buses. Massport will purchase 10, new Silver Line buses as part of a forthcoming (Spring 2023) MBTA procurement. In 2017, Massport funded mid-life rebuilds of four Silver Line buses, then rebuilt four additional buses in 2018. A mid-life rebuild extends the useful life of each vehicle by approximately eight years. Massport is collaborating with the Massachusetts Clean Energy Center (MassCEC) to study opportunities for conversion of the ride-for-hire fleet that serves Logan Airport to EVs. The ride-for-hire fleet includes shared ride, rental car, taxi, and limousine vehicles. In early 2022, MassCEC provided a grant to initiate this work as well as some additional funding to increase Logan Airport's EV charging infrastructure.
Install quick-charge kiosks for electric vehicles.	Summer 1995	**Implemented.** At Logan Airport, Massport provides more than 100 landside EV charging ports with dedicated parking spaces. Of these ports, 46 are conveniently located near the Terminals in the adjacent parking garages, and 10 additional ports are located in the Economy Garage, which has free shuttle access to the Terminals.
Develop slow-charge infrastructure.	Ongoing	**Implemented.** The original electric charging infrastructure included 15 inductive charging locations. Currently, there are no vehicles using inductive charging, so these are not used. However, Massport has prioritized the addition of EV charging ports throughout the taxi pool, cell phone, and Logan Express lots.

Source: Massport.

10.3 International Gateway Project (Terminal E) – EEA #9791

The International Gateway Project (**Figure 10-2**) expanded and upgraded Terminal E to provide better service to international passengers. The original Terminal E was opened in 1974 and over time became outdated and too small to accommodate the current international operations.

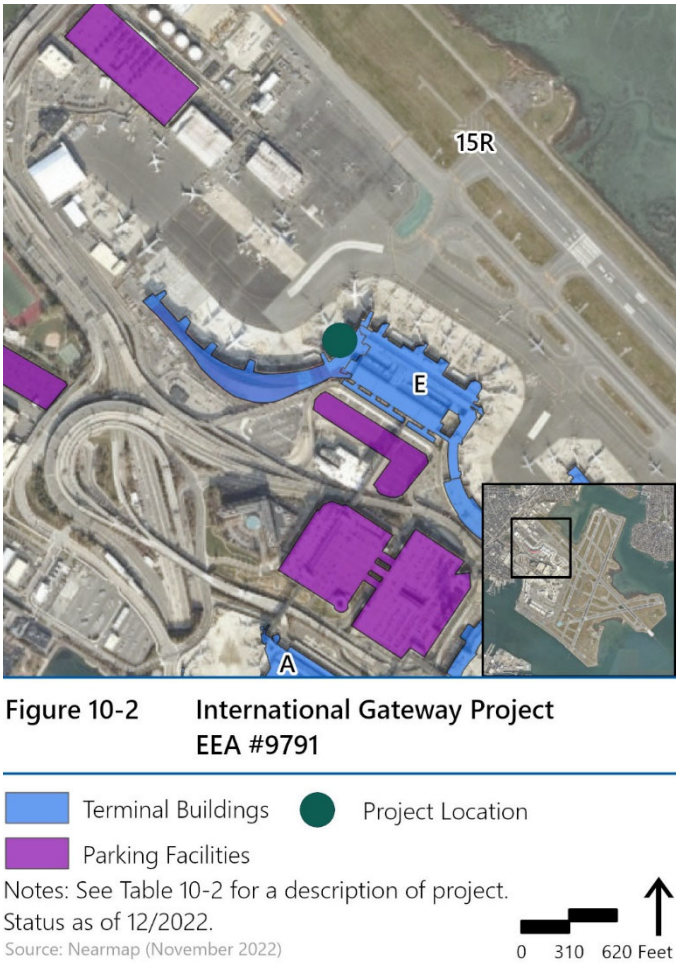

Figure 10-2 International Gateway Project EEA #9791

10.3.1 Permitting History

- Certificate on the FEIR issued on December 2, 1996.
- Section 61 Findings submitted to EEA on June 26, 1997.

10.3.2 Project Status

This project is being constructed in phases:

- **Phase I – Complete.** This phase included a weather-protected, outside airside bus portico with an elevator and escalator linking the ground floor to the second floor to accommodate passengers arriving on remotely parked aircraft which are unable to park at an aircraft gate because it is occupied by another aircraft.
- **Phase II – Complete.** This phase enlarged Logan Airport's congested Federal Inspection Services (FIS) Facility and improved the greeter lobby and the Terminal E ticketing area to maximize passenger convenience and reduce processing times at the terminal. To reduce curb and roadway congestion at Terminal E, this project included a new separated roadway system for arrivals and departures.
- **Future Phase – Transitioned to Terminal E Modernization Project (EEA #15434)**. The West Concourse element of the International Gateway Project and its three additional gates were approved but not constructed. These three gates are now included as Phase I of the ongoing Terminal E Modernization Project which opened in the fall of 2023 (see below).

Construction of Phases I and II of this project commenced in the summer of 1998. Phase I was completed in 2004. The departure level of the terminal, including the new ticketing hall and departure level roadway, opened in May 2003. Phase II enlargement of the FIS Facility and construction of the new arrivals level was completed in July 2007. Preliminary work was completed for the West Concourse including planning for

three additional contact gates that were not constructed. In 2017, Massport reconfigured three existing gates to be compatible with wide-body, double-deck aircraft such as the Airbus-380. Additional information on Terminal area planning is available in Chapter 4, Section 4.2.

As part of a separate project, Massport received approval for the modernization of Terminal E to accommodate existing and forecasted passenger demand for long-range international. An ENF was filed in October 2015. The DEIR/EA was filed in July 2016, and the FEIR/EA was filed in September 2016. The FAA issued a FONSI on November 10, 2016, and a **Record of Decision (ROD)** on November 14, 2016 for the project (see Chapter 4, Section 4.2 for additional information). Phase 1 of the project (four new gates) opened in the fall of 2023. Mitigation commitments associated with the Terminal E Modernization Project (EEA #15434) are discussed later in this chapter.

Table 10-3 lists each of the continuing mitigation measures for the International Gateway Project in the Section 61 Findings, along with Massport's progress in achieving these measures through the end of September 2022. Many of the mitigation measures for this project have long since been implemented, but recent updates have been noted in the tables. Completed design and construction phase measures are described in previous ESPRs and EDRs.

Table 10-3 International Gateway Project Status Report (EEA #9791) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Alternative Fuel Outreach Program	
Massport is working cooperatively with the U.S. Environmental Protection Agency (EPA) and regional utility providers in coordinating an ongoing outreach program aimed at promoting the use of clean-burning alternative fuels. This program, which is also supported by fuel providers, vendors, and state and federal agencies, will offer information to airport tenants in the following areas: • *Notification of grant programs or other financial incentives for vehicle conversions.* • *Assistance in cost-benefit analysis for conversion of conventionally fueled vehicles to Alternative Fuel Vehicles (AFVs).* • *Assistance in placing airport tenants in contact with alternative fuel suppliers and product vendors.*	Implemented. Massport continues to work with the U.S.EPA, regional utility providers, and other stakeholders in evolving Logan Airport's fleets to alternative power sources, in line with available technologies. The AFV Program is designed to replace Massport's conventionally fueled fleet with alternatively fueled or powered vehicles, when feasible, to help reduce emissions associated with Logan Airport operations. Massport now operates more than 100 vehicles powered by CNG, propane, E85 flex fuel, diesel-electric hybrid, gasoline-electric hybrid, and plug-in electric. Massport also established a vehicle procurement policy in 2006 that requires consideration of AFVs when purchases are made. Massport is also collaborating with the FAA, airlines, and suppliers to develop strategies to bring sustainable aviation fuel (SAF) to the Northeast.

Table 10-3 International Gateway Project Status Report (EEA #9791) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
High-Occupancy Vehicle (HOV) Promotion	
Massport will reserve terminal space for ground transportation ticket sales, reservations, and information.	Implemented.
Attractive and distinctive signage and graphics will be utilized inside the terminal and out at the curb to clearly mark access to Logan Express, MBTA, water transportation, and other HOV options.	Implemented.
As HOV services continue to develop and expand at Terminal E, Massport will expand its web page to encompass these new services and initiatives.	Implemented.
Massport and the MBTA will offer, on a trial basis, the sale of MBTA tokens via a vending machine in the baggage claim area of Terminal C.	Implemented.

Source: Massport.
Note: Text in *italics* detailing the mitigation measures is excerpted from the Section 61 Findings submitted to EEA, June 26, 1997.

10.4 Replacement Terminal A Project – EEA #12096

The Replacement Terminal A Project (**Figure 10-3**) replaced the original Terminal A with a main terminal linked to a satellite concourse. The new Terminal A opened on March 16, 2005.

10.4.1 Permitting History

- Certificate on the FEIR issued on November 16, 2000.
- Section 61 Findings submitted to EEA on August 31, 2001.

10.4.2 Project Status

In the spring of 2006, Delta Air Lines and Massport submitted an application for certification of Terminal A under the U.S. Green Building Council's (U.S. GBC) **Leadership in Energy and Environmental Design (LEED®)** Green Building Rating System™. LEED certification was awarded in June 2006, making Terminal A the first airport terminal in the world to be awarded LEED® certification.

Figure 10-3 Replacement Terminal A Project
EEA #12096

Terminal Buildings
Project Location
Parking Facilities
Notes: See Table 10-3 for a description of project.
Status as of 12/2022.
Source: Nearmap (November 2022)
0 310 620 Feet

The following sustainable elements were incorporated into Terminal A:

- **Water conservation** – low-flow toilets and drip, rather than spray, irrigation
- **Atmosphere protection** – zero use of chlorofluorocarbon-based, hydro chlorofluorocarbon-based, or halon refrigerants
- **Energy conservation** – special roofing and paving materials that reflect solar radiation. Solar panels were installed on the roof of Terminal A in 2012
- **Materials and resources conservation** – more than 10 percent of all the building materials used to construct the terminal were from recycled materials
- **Enhanced indoor environmental air quality** – low and volatile organic compound (VOC) free adhesives, sealants, paints, and carpets
- **Sustainable sites** – bicycle racks

Table 10-4 lists each mitigation measure in the Section 61 Findings along with Massport's progress in achieving these measures through the end of September 2023.

Table 10-4 Replacement Terminal A Project Status Report (EEA #12096) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Project Design Mitigation	
Logan Transportation Management Association (TMA) Participation	
Delta Air Lines, Inc. to join Massport's Logan TMA and designate an Employee Transportation Advisor.	Implemented.
Additionally, Delta Air Lines will provide the following services as part of their Transportation Demand Management Program (DMP) through the Logan TMA Transportation subsidy for full-time Delta Air Lines employees at Logan Airport; ride matching/carpooling; vanpooling; guaranteed ride home; preferential parking for high-occupancy vehicles (HOVs); shuttle to and from employee parking.	Implemented.
Recycling Program	
The Replacement Terminal A will be included in Massport's terminal recycling program.	Implemented.
High-Occupancy Vehicle (HOV) Promotion	
HOV access can be accommodated on the departures level and will be designated near main entrances to the terminal building to ensure efficient and convenient unloading by air passengers who use these mode-types to access the Airport. *The inner-most curb of [the arrivals level] will be designated exclusively for HOVs and taxis, similar to the departures level.*	Implemented.
Ground Service Equipment (GSE) Conversion	
In conjunction with the Project, Delta Air Lines will implement a program for conversion of its entire GSE fleet at Terminal A as soon as viable alternative fueled fleet vehicles become available and can be effectively integrated into Delta Air Lines' operations at Terminal A. Delta Air Lines will introduce battery powered baggage tugs and belt loaders with the replacement terminal and convert this portion of the GSE fleet by the end of 2008. This represents over 40 percent of Delta Air Lines' current GSE fleet.	Implemented. Massport is facilitating the replacement of gas- and diesel-powered GSE with electric equivalents, by the end of 2027, as commercially available.
Delta Air Lines will also examine the feasibility of locating a Compressed Natural Gas (CNG) fill station at Terminal A. The availability of a CNG fueling station would facilitate conventionally fueled vehicles to be replaced with CNG-fueled vehicles where this vehicle option is offered. Delta Air Lines will introduce these vehicles into its GSE fleet as soon as they become available and are determined to be feasible and practicable for use at Terminal A.	Implemented. Massport is facilitating the replacement of gas- and diesel-powered GSE with electric equivalents by the end of 2027, as commercially available. Massport is advancing plans to extend the infrastructure for plug-in GSE to other locations.

Table 10-4 Replacement Terminal A Project Status Report (EEA #12096) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Where new alternative fuel vehicles (AFVs) are developed and determined to be cost effective and in available supplies, Delta Air Lines will integrate their use into its Terminal A GSE fleet operations.	**Implemented.** As described earlier, Delta Air Lines has electric baggage tugs and belt loaders and will continue to determine the feasibility of integrating other electric GSE, as available.
Finally, Delta Air Lines will provide Massport with an annual status report/update on the GSE conversion program at Terminal A, for inclusion in Massport's annual Environmental Data Report (EDR).	**Implemented.** Terminal A includes 32 electric charging stations for Delta Air Lines' electric ramp vehicles. As part of an Airport-wide initiative, Massport is facilitating the replacement of gas- and diesel-powered GSE with electric equivalents by the end of 2027, as commercially available.
Operational Mitigation Measures	
Minimizing nighttime movement of aircraft to and from hardstand positions.	**Implemented.**
Using single engine taxiing and pushback to the extent feasible and practicable, recognizing that such use is always at the discretion of the pilot in charge of the aircraft based upon his or her experience and safety and operational considerations.	**Implemented.**
Testing alternative de-icing methods to reduce the amount of glycol usage.	**Ongoing.**

Source: Massport.
Note: Text in *italics* detailing the mitigation measures is excerpted from the Section 61 Findings submitted to EEA, August 31, 2001.

10.5 Logan Airside Improvements Planning Project – EEA #10458

The Logan Airside Improvements Planning Project (**Figure 10-4**) involved the construction of a new unidirectional Runway 14-32 and centerfield taxiway, extension of Taxiway D, realignment of Taxiway N, improvements to the southwest corner taxiway system, and reduction in approach minimums on Runways 22L, 27, 15R, and 33L.

10.5.1 Permitting History

- Certificate on the FEIR issued on June 15, 2001.
- Section 61 Findings on the FEIR dated June 8, 2001.

In June 2002, FAA filed a Final **Environmental Impact Statement (Final EIS)** and issued the federal ROD in August 2002 approving a unidirectional runway and other improvements, but deferred a decision on the centerfield taxiway pending additional review by FAA.

In November 2003, the Superior Court of the Commonwealth modified a 1976 injunction prohibiting construction of a new runway at Logan Airport, pending further environmental review. The injunction modification allowed construction of the runway in accordance with the Secretary of the EEA's Certificate on the FEIR and FAA's ROD on the Final EIS.

In accordance with the Secretary of EEA's Certificate on the FEIR, Massport amended its final Section 61 Findings issued in 2001 to incorporate mitigation measures added or refined through the federal environmental review process. As a result, Massport amended its initial Section 61 Findings on October 21, 2004, to include mitigation measures required in FAA's ROD.

In April 2007, FAA issued an ROD on the centerfield taxiway improvements based on its review of supplemental information.

Figure 10-4 Logan Airside Improvements Planning Project EEA #10458

10.5.2 Project Status

- Runway construction commenced in 2004. Runway 14-32 opened on November 23, 2006. The first full year of operation of Runway 14-32 was 2007.
- Realignment of the southwest corner taxiway system was completed in 2007.
- Taxiway D extension was completed in 2010.
- Taxiway N realignment remains under consideration for a future action.
- Reduction in approach minimums on Runway 15R and 33L were implemented in 2013 following completion of the 33L Light Pier replacement and FAA testing of new **Instrument Landing System (ILS)** equipment.

Reduction in approach minimums on Runway 15R and 33L were approved in the EIS. However, implementation for approach minimum reductions depended upon realignment of the ILS. The construction impacts of relocating the ILS localizer and new Category III ILS equipment were addressed in the environmental review of the RSA enhancements for Runway 33L (EEA #14442). The Category III ILS began operations in 2013.

Table 10-5 summarizes the mitigation measures contained in the amended Section 61 Findings issued on October 21, 2004 and reports on the status of implementation. **Table 10-5** addresses only ongoing requirements, and it is noted when there are recent updates. Documentation on design and construction measures is provided in previous EDRs and ESPRs.

Table 10-5 Logan Airside Improvements Planning Project (EEA #10458) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measures	Status
Runway 14-32 Operations and Construction Mitigation	
Operational procedures for unidirectional Runway 14-32 will include over-water flight operations only, arrival operations in east-to-west direction from Runway 32 approach end, and departure operations from west-to-east direction from the Runway 14 departure end. Massport will enter into contract with appropriate government body and/or community group(s) to enforce intended unidirectional runway, if requested. Lighting, marking, and instrumental components of Runway 14-32 will be designed for a unidirectional runway. No parallel or other type taxiway facility will be constructed to allow east-to-west direction departures from the Runway 32 end. *The Federal Aviation Administration (FAA) endorsed the unidirectional limitations on Runway 14-32 and has agreed to develop air traffic control procedures to ensure safe and efficient operation of the unidirectional limitation, subject to variances that may be required to accommodate particular aircraft emergencies.*	Implemented.
Wind-Restricted Use of Runway 14-32	
Restrict the use of Runway 14-32 to those times when winds are equal to or greater than 10 knots from the northwest or southeast (between 275 degrees and 005 degrees, or 095 degrees and 185 degrees, respectively).	Implemented.
Mitigation Policies/Programs	
Regional Transportation Policy	
Engage in promoting increased utilization of regional airports. *Cooperative transportation planning with the various transportation agencies to ensure an integrated regional transportation infrastructure (including improved highways, public transportation, high-speed rail, private transportation services to improve regional airport access).*	Implemented.
Massport will continue to exercise operational control over Worcester Regional Airport.	Implemented.
Massport will continue to attract new air service to Worcester Regional Airport.	Implemented.
Traveler and air service awareness will be provided to Worcester Regional Airport via marketing campaigns.	Implemented.
Develop and maintain an aviation information database to include: aviation trend tracking reports for distribution to interested parties; statistical summaries of passenger levels, aircraft operations and airline schedule data at major New England regional airports; include a summary of regional airport trends and service developments in an Annual Report.	Implemented.

Table 10-5 Logan Airside Improvements Planning Project (EEA #10458) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measures	Status
Participate in other regional/state aviation forums.	Implemented.
Continue to work with FAA/regional airport directors to complete a New England Airports System Study to evaluate regional airports performance. FAA committed to work with other participants in the preparation of the study.	Implemented.
Encourage transportation initiatives such as commuter rail, rail or other links between regional airports by relevant agencies or other governmental bodies through Transportation Bond Bill or other legislative initiatives to implement an improved effective regional transportation system.	Implemented.
Continue to support inter-city rail planning through the Boston Metropolitan Planning Organization (MPO).	Implemented.
Allow Massport's Logan Express satellite parking lots and stations available for third-party bus and park-and-ride connections to other regional airports, including Worcester, Manchester, and Providence.	Implemented.
Sound Insulation	
Sound insulation is being provided within the Boston Logan Airside Improvements Planning Project Mitigation Contour including the affected residences of Chelsea, East Boston, Winthrop, and Revere. Through special project mitigations, FAA funding will be provided for residences with building code considerations to allow for the necessary upgrades thereby ensuring eligibility and participation in the sound insulation program. If FAA funding is unavailable to complete sound insulation to residences within the Day-Night Average Sound Level (DNL) 65 decibel (dB) contour as a result of project implementation, Massport will provide the funding.	Implemented.
Preferential Runway Advisory System (PRAS)	
Massport will develop and implement a PRAS monitoring system and a new distribution system for reporting that will expand the contents of Massport's Quarterly Noise Reports and will involve the expansion of the distribution list to include the [Massport Community Advisory Committee (Massport CAC)]. Runway utilization, dwell, and persistence reports will be included in the Environmental Status and Planning Report (ESPR) filings with the Massachusetts Environmental Policy Act (MEPA). Massport will continue to work with FAA to design additional reports to enhance the attainment of PRAS and Massport will begin to work with Massport CAC to update PRAS. The current PRAS system will remain in place until superseded.	Implemented.

Table 10-5 Logan Airside Improvements Planning Project (EEA #10458) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measures	Status
Noise Abatement Study	
FAA has committed to undertake a noise abatement study that will include enhancing existing or developing new noise abatement measures applicable to aircraft overflight impacts, which will take into account environmental benefit, operational impact, aviation safety and efficiency, and consistency with applicable legal requirements. The scope of this study has been completed through the joint efforts of FAA, the Massport CAC, and Massport as required by the ROD. Massport will work with the Massport CAC and FAA to assess the existing PRAS at Logan Airport in accordance with Section 10.0 of the Section 61 Findings and will continue to participate in the noise study as contemplated in the ROD.	Implemented.
Peak Period Monitoring and Demand Management Program (DMP)	
Massport will develop and implement a Peak Period Pricing (PPP) program or an alternative DMP. Massport will identify standards to allow airlines to accurately predict scheduling costs and modify accordingly. Massport will establish and maintain a monitoring system. *Massport will comply with its commitments with respect to PPP or alternate DMP. FAA has indicated in the ROD that it stands ready to assist Massport in this endeavor.*	Implemented.
Single Engine Taxi Procedures	
Develop and implement a program designed to maximize the use of single engine procedures by all tenant airlines, consistent with safety requirements, pilot judgment, and federal law requirements.	Implemented.
Report on Progress of Logan Transportation Management Association (TMA).	Implemented.

Source: Massport.

Note: The mitigation measures in *italics* are those that were referenced in FAA's ROD and later incorporated into the Section 61 Findings amended on October 21, 2004.

10.6 Southwest Service Area (SWSA) Redevelopment Program – EEA #14137

Massport completed the consolidated Rental Car Center (RCC), in 2014, which was the major element of the SWSA program. In addition to customer service benefits, consolidation of the rental car operations and their shuttle buses into one coordinated operation has resulted in reduced vehicle miles traveled (VMT) and reduced air emissions. **Figure 10-5** illustrates the location of the SWSA.

Figure 10-5 Southwest Service Area Redevelopment Program EEA #14137

10.6.1 Permitting History

- Certificate on the FEIR issued on May 28, 2010.
- Section 61 Findings submitted to EEA on June 29, 2010.

10.6.2 Project Status

Construction of enabling projects commenced in late summer 2010 and final design of the facility continued through 2011. Although there was a phased opening, the project was completed and fully operational by the end of 2015. Logan Airport's 21 CNG buses and 32 clean diesel or electric buses have replaced the entire fleet of diesel rental car shuttle buses that previously served the individual rental car companies. An additional CNG bus was put into service in 2016, increasing the total to 22 CNG buses. The RCC was awarded Logan Airport's first LEED® Gold certification in 2015.

Table 10-6 outlines Section 61 mitigation commitments of the SWSA Redevelopment Program, which Massport, the construction contractors, and the rental car companies have implemented as part of the design, construction, and operation of the facility. This project is now complete, and measures that were completed in the design and construction phases will no longer be tracked in the EDR or ESPR. The *2017 ESPR* presents the last full summary of those measures. Ongoing Section 61 commitments will continue to be updated annually, as appropriate.

Table 10-6 Southwest Service Area (SWSA) Redevelopment Program (EEA #14137) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Noise Reduction Measures	
Eliminate individual rental car shuttle buses and combine Massport Airport Station buses (routes 22/33/55) through the Unified Bus System; thereby, reducing the overall number of rental car-related buses circulating on-Airport and associated noise.	Implemented.
Airport Transportation System Improvements	
Reduce the rental car shuttle bus fleet by approximately 70 percent through the creation of the Unified Bus System when compared to the 2007 Existing Condition and future No-Build/ No-Action Conditions.	Implemented.
Reduce rental car shuttle bus terminal curbside congestion through the creation of the Unified Bus System resulting in reduced emissions.	Implemented
Utilize clean- and low-emission fuel for the Unified Bus System to further reduce emissions.	Implemented
Install Intelligent Transportation System features, as part of the Unified Bus System to further reduce emissions and improve operational efficiency.	Implemented
Implement new wayfinding signage to increase the efficiency of the circulating vehicles within and around the SWSA.	Implemented
Pedestrian and Bicycle Facilities	
Provide new pedestrian and bicycle facilities, including secure and covered bicycle storage at the Customer Service Center (CSC) and Quick Turnaround Areas (QTA) buildings for employees, customers, and the general public, as well as shower/changing facilities within the QTA buildings for employees.	Implemented.
Provide enhanced pedestrian connections to and from the SWSA, airport terminals, the Logan Office Center, Memorial Stadium Park, Bremen Street Park, the Harborwalk, on-Airport buses, public transit (Massachusetts Bay Transportation Authority (MBTA) Airport Station), along Porter Street, and surrounding East Boston neighborhoods.	Implemented.
Provide street and pedestrian-level lighting and advanced warning signals and/or systems at crosswalks.	Implemented.
Transportation Demand Management (TDM) Plan	
Provide limited SWSA employee parking on-site.	Implemented.
Provide new access to public transit through the Unified Bus System (direct connection to MBTA Blue Line at Airport Station) and new/enhanced pedestrian facilities at the station.	Implemented.
Require rental car companies to participate in the Logan Transportation Management Association (TMA).	Implemented.

Table 10-6 Southwest Service Area (SWSA) Redevelopment Program (EEA #14137) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Alternative-Fuel Vehicles	
The rental car companies would provide fuel-efficient and/or alternative-fueled rental vehicles (quantity to be determined by the rental car companies).	Implemented.

Source: Massport.
Note: The mitigation measures in *italics* are those that were referenced in FAA's ROD, and later incorporated into the Section 61 Findings as amended on June 29, 2010.

10.7 Logan Airport Runway Safety Area (RSA) Project – EEA #14442

As described in previous EDRs and ESPRs, Massport has periodically undertaken RSA improvements and other safety improvements on the Logan Airport airfield. Massport completed safety improvements for Runways 4L, 4R, 22L, and 27 under EEA #5122. In 2005, Massport undertook safety improvements at Runway 22R with the construction of an **Engineered Materials Arresting System (EMAS)** bed at the end of the runway in compliance with FAA directives, although no MEPA review was needed. In 2006, as part of a separate project, Massport installed an EMAS bed beyond the end of Runway 33L. This project considered further safety enhancements to the Runway 33L and Runway 22R RSAs. Massport prepared a combined EA in accordance with **National Environmental Policy Act of 1969 (NEPA)**, and an EIR in accordance with MEPA for the proposed enhancements at the Runway 33L and Runway 22R RSAs. The ENF was filed with MEPA on June 30, 2009, and the Draft EA and EIR was submitted to the FAA and EEA on July 15, 2010. The Final EA and EIR was submitted to the FAA and EEA on January 31, 2011. **Figure 10-6** shows the location of the RSA projects at Logan Airport.

The Runway 33L RSA improvements included a 600-foot-long RSA beyond the end of the runway, and an EMAS bed, which includes portions set upon a 460-foot long by 300-foot-wide pile-supported deck extending over Boston Harbor. Additional elements of the RSA improvements included two emergency access ramps located on both sides of the deck and a relocation of the perimeter access road. Construction of the pile-supported deck was completed in November 2012.

Figure 10-6 Logan Airport Runway Safety Area Improvement Program EEA #14442

Terminal Buildings
Project Location
Parking Facilities

Notes: See Table 10-6 for a description of project.
Status of as 12/2022.
Source: Nearmap (November 2022)

0 725 1450 Feet

10.7.1 Permitting History

- Certificate on the Final EA and EIR issued on March 18, 2011.
- FAA issued a FONSI on April 4, 2011, which documents that the proposed federal action is consistent with the NEPA and other applicable environmental requirements and will not significantly affect the quality of the human environment with the mitigation requirements referenced in **Table 10-7**.
- Section 61 Findings were submitted to EEA on May 27, 2011 and published in the *Environmental Monitor* on June 8, 2011.
- Certificate on the **Notice of Project Change (NPC)** for the replacement of the Runway 33L approach light pier was issued on March 9, 2012.
- On April 12, 2012, the FAA found that the replacement of the Runway 33L approach light pier was a **Categorical Exclusion (CATEX)** and thus exempt from further consideration under NEPA.

10.7.2 Project Status

- Runway 33L RSA construction commenced in June 2011 and was completed in November 2012.
- Replacement of the Runway 33L approach light pier commenced in July 2012 and was completed in November 2012. The upgraded Category III system was put into service in 2013.
- The Runway 22R improvements were completed in 2014.

The Runway 33L RSA project replaced the inner 500 feet of the existing light pier. As construction progressed on the Runway 33L RSA improvements, Massport determined that it would be feasible to replace the remaining Runway 33L approach light pier.

In the summer of 2012, Massport began replacing approximately 1,900 feet of the existing timber light pier that extends approximately 2,400 feet southeast of Runway End 33L. The existing timber pier was replaced with a new concrete structure along the runway centerline, approximately 10 feet south of the old pier, using concrete pilings. The in-kind replacement reduced the total number of pilings significantly, from over 500 to approximately 150. As part of the reconstruction, the new light pier was also constructed to accommodate upgraded **navigational aids (NAVAIDs)**. The pier improvements provide the

infrastructure necessary to support NAVAIDs that facilitate implementation of the reduced aircraft approach minimums previously reviewed and approved by the FAA in a ROD dated August 2, 2002 for the Logan Airside Improvements Planning Project identified as EEA #10458. Massport filed an NPC with MEPA for the proposed light pier replacement on January 31, 2012. On March 9, 2012, the Secretary of the EEA issued an NPC Certificate determining that no further MEPA review was required for the light pier replacement. On April 12, 2012, the FAA found the replacement of the Runway 33L approach light pier was eligible for a CATEX and thus was exempt from further review under NEPA.

The Runway 22R improvements completed in 2014 enhanced the existing RSA by constructing an ISA, similar to the ISA constructed at the Runway 22L end. Construction of the Runway 22R ISA has been completed. **Table 10-7** lists the Section 61 mitigation commitments for the Logan Airport RSA Project and Massport's progress in achieving these measures.

Table 10-7 Logan Airport Runway Safety Area Improvement Program (EEA # 14442) Section 61 Mitigation Commitments to be Implemented (as of December 31, 2022)

Mitigation Measure	Status
Protected Resources	
Eelgrass (Runway-End 33L Only)	
Develop a mitigation program that will replace lost eelgrass area and functions by creation of new eelgrass, at a 3:1 replacement to loss ratio.	Implemented.
Salt Marsh (Runway-End 22R Only)	
Restore new salt marsh at a 2:1 replacement to loss ratio.	Implemented.
Monitor compensatory salt marsh for success and invasive plant species, and implement an invasive species control plan.	Implemented. Annual monitoring and agency reporting continued through 2022.
Shellfish	
Monitor pilings and substrate at Runway 33L.	Implemented.
Restore approximately 1.1 acres of habitat.	Implemented.
Harvest and transplant shellfish from the footprint of the Runway 22R Inclined Safety Area (ISA).	Not Implemented.
Execute Memorandum of Agreement (MOA) with the Massachusetts Division of Marine Fisheries for resource enhancement.	Implemented.

Table 10-7 Logan Airport Runway Safety Area Improvement Program (EEA # 14442) Section 61 Mitigation Commitments to be Implemented (as of December 31, 2022)

Mitigation Measure	Status
State-Listed Rare Species	
Identify equivalent area of pavement for removal to maintain area of available habitat at Logan Airport for the upland sandpiper if required by the Massachusetts Natural Heritage and Endangered Species Program.	Implemented.

Source: Massport.
Note: The mitigation measures in *italics* are those that were referenced in FAA's ROD and later incorporated into the Section 61 Findings as amended on May 27, 2011.

10.8 Terminal E Modernization – EEA #15434

The Terminal E Modernization Project will add seven new gates to Terminal E in two phases, with four gates in Phase I and three gates in Phase 2. Of the seven gates, three were already approved under MEPA in 1996 for the International Gateway Project, but the International Gateway Project MEPA-approved gates were never constructed. The existing concourse, terminal core, and terminal roadway frontages are collectively, known as the "Project," and these areas will also be extended. Implementation of the Project will better accommodate the current and projected demand for international travel that is expected to occur, regardless of the Project's status.

Figure 10-7 Terminal E Modernization EEA #15434

Terminal Buildings
Project Location
Parking Facilities
Notes: See Table 10-7 for a description of project.
Status as of 12/2022.
Source: Nearmap (November 2022)
0 310 620 Feet

Figure 10-7 shows the location of the Terminal E Modernization Project. **Table 10-8** lists each of the Section 61 mitigation commitments for the Terminal E Modernization Project and Massport's progress in achieving these measures. Future EDRs and ESPRs will provide updates, as available.

10.8.1 Permitting History

- Certificate on the ENF issued on December 16, 2015.
- Certificate on the Draft EIR issued on September 16, 2016.
- Certificate on the FEIR issued on November 10, 2016
- FAA FONSI and ROD issued on November 14, 2016.
- Section 61 Findings approved on January 19, 2017.

10.8.2 Project Status

Construction of the Project began in 2019 with an enabling project to replace the Logan Gas Station constructed within the SWSA along Jeffries Street. In June 2020, the construction program was slowed in response to the COVID-19 pandemic and resulting passenger and revenue declines; however, four new gates will be added to International Terminal E with completion of Phase I in summer of 2023. Currently, Phase II of the project is deferred. A revised schedule to complete the remaining tasks, which include the completion of the three gates and pedestrian connection with the Blue Line Airport Station, will be provided in future EDRs and ESPRs.

Table 10-8 Terminal E Modernization Project (EEA #15434) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Overall Project Benefits	
Provide pedestrian access between Terminal E and Massachusetts Bay Transportation Authority (MBTA) Airport Blue Line-Station.	Upon completion of Phase II, a covered pedestrian connection between Terminal E and the MBTA Blue Line Airport Station will be constructed to improve passenger convenience. Various approaches are under consideration and will be further documented in subsequent environmental filings and EDRs or ESPRs.
Construct roadway and curb improvements to improve vehicle flow, high occupancy vehicle (HOV) access, and reduce air and GHG emissions.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Site Terminal E additions so as to buffer the adjacent neighborhoods from aircraft noise.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Seek Leadership in Energy and Environmental Design (LEED®) certification at Silver level or better; meet or exceed Massachusetts (MA) LEED® Plus program goals.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Provide 400 Hz of power and pre-conditioned air at the new aircraft gates.	400 Hz power and preconditioned air will be installed at the new gates when constructed.

Table 10-8 Terminal E Modernization Project (EEA #15434) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Site Planning and Sustainable Design/Greenhouse Gas Reduction	
Incorporate sustainable design in design, construction, and operations including:	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Improved building envelope;	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Improved Air Handling Units;	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Efficient water loops;	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Reduced interior lighting power density.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Specify roofing materials with a minimum reflectance rating of 0.70 and emittance value of at least 0.75 for a minimum of 75% of the available roof area. Install non-glare roofing materials.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Incorporate infrastructure for collection, storage, and handling of recyclable materials.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Require contractor to develop a construction waste management plan that requires diversion or reduction of construction waste by at least 75%.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Establish a project-specific goal for sourcing materials extracted, harvested, recovered, and or manufactured within New England.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Design project to achieve energy efficiencies of a minimum of 20% below the MA Energy Code.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Include water conservation devices that reduce water use by 20% below code.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Include a minimum of 25,000 square feet of roof top solar photovoltaic system (approximately 300kW). Heat restroom hot water with solar units.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR. The Terminal E expansion includes a planned 300,000-kilowatt hour (kWh) rooftop solar array.
Incorporate occupancy sensors in all indoor areas to reduce electrical demand.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Evaluate other energy efficiency/greenhouse gas reduction measures as project design progresses.	Phase I is complete and Phase II is being advanced consistent with the decisions on these measures, as recorded in the Final EA or EIR.

Table 10-8 Terminal E Modernization Project (EEA #15434) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Air Quality	
Reduce operational-related carbon dioxide (CO_2) emissions associated with the Project by a minimum of 30% percent.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Stormwater Management	
Replace and upgrade stormwater management.	Phase I is complete and Phase II is being advanced consistent with the commitments in the Final EA or EIR.
Construction Period Impacts	
In accordance with DEP's Clean Air Construction Initiative, the Authority will require that construction contractors to install emission control devices such as diesel oxidation catalyst and/or particulate filters on certain equipment types (i.e., front-end loaders, backhoes, excavators, cranes, and air compressors).	Implemented.
Retrofitting of certain construction equipment types with emission controls such as diesel oxidation catalyst and/or particulate filters.	Implemented.
Selection of high efficiency "temporary" space heating/cooling systems.	Implemented.
Remediate subsurface contamination, as necessary, if encountered during tank removals or other excavation activities as part of construction (in compliance with the Massachusetts Contingency Plan).	Implemented.
Soil treatment and reuse on site as part of a Soil Management Plan.	Implemented.
Voluntary compliance with the requirements of City of Boston noise ordinances, including restrictions on the types of equipment that can be used, and limitations on the hours when certain activities can take place (the City of Boston noise ordinance establishes restrictions during the construction hours between 7:00 PM and 7:00 AM).	Implemented.
Construction worker vehicle trip limitation, including requiring contractors to provide off-Airport parking and use of high-occupancy vehicle transportation modes for employees.	Implemented.
Implement Indoor Air Quality (IAQ) Management Plan during construction.	Implemented.

Table 10-8 Terminal E Modernization Project (EEA #15434) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Construction Traffic Operations	
Construction-related traffic will be required to access and egress through the North Gate using only state and federal highways and the Airport roadway network. Construction- related traffic on local East Boston roadways will be prohibited.	Implemented.
Construction Traffic Operations	
Construction employee parking spaces will not be permitted on the construction site nor will provisions be made for them elsewhere on-Airport with the exception of a small number of spaces for supervisory personnel. The Authority will require contractors on this Project to implement construction worker vehicle trip management measures, including requiring off-Airport parking and HOV transportation modes for contractor employees.	Implemented.
Police details will be employed, as needed, to manage traffic and ensure public safety.	Implemented.
Construction Air Quality	
Construction emissions will be reduced and controlled by mandatory contractor implementation of the following best practices:	Implemented.
Construction Air Quality	
Encouragement for construction-worker site access/egress using dedicated buses and vans;	Implemented.
Reduction of exposed erodible surface areas to the extent feasible;	Implemented.
Covering of exposed surface areas with pavement or vegetation in an expeditious manner and periodic watering;	Implemented.
Minimizing equipment idling times;	Implemented.
Reduction of on-site vehicle speeds;	Implemented.
Ensuring contractor implementation of appropriate fugitive dust and equipment exhaust controls;	Implemented.
Use of low- or zero-emissions equipment to the maximum extent feasible; and	Implemented.
Use of covered haul trucks during materials transportation.	Implemented.

Table 10-8 Terminal E Modernization Project (EEA #15434) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Construction Noise	
Require construction equipment to deploy noise-reduction measures, such as the use of proper mufflers, measures to limit noise from truck traffic. Primarily operate only during daylight hours (7:00 AM to 7:00 PM).	Implemented.

Source: Massport.

10.9 Logan Airport Parking Project – EEA #15665

Logan Airport Parking Project includes the construction of up to 5,000 new commercial parking spaces in front of Terminal E which is currently used for surface parking. The updated Logan Airport Parking Project will add approximately 4,300 commercial revenue spaces, which would be built in a new garage in front of Terminal E. No parking spaces are being proposed for the Economy Garage at this time. Located in the central terminal area of the Airport, the new Garage will also improve connectivity to the existing parking complex and Airport roadways.

The approximately 4,300 spaces will be accommodated in a nine-story facility, with commercial parking beginning on the second floor. The facility will be served by EV charging facilities to support Massport's Net Zero goal.

The new Garage will be connected to existing facilities:

- New pedestrian bridges will connect from the garage to Terminal C Pier A and from the garage to the west side of Terminal E.
- The existing pedestrian bridge between the West Garage and Terminal E will be dismantled for the portion within the footprint of the new garage and the

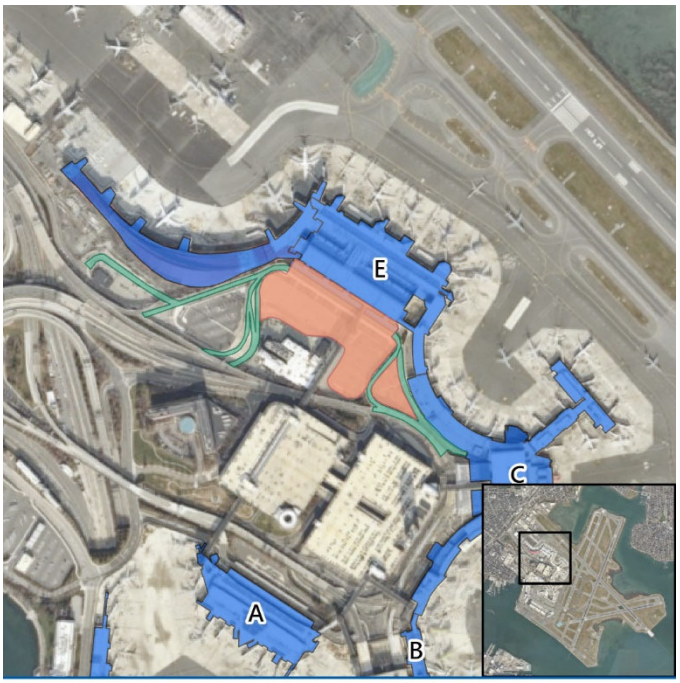

Figure 10-8 Logan Airport Parking Project EEA #15665

walkway will be integrated into the Garage floor plan to allow for better vehicular and pedestrian circulation.

- A vehicular bridge will connect the fourth level of the West Garage to the new garage.

In addition, the Project will also include roadway enhancements and curb reconfiguration to improve vehicle access, particularly for HOV, and minimize idling time at curbs.

Future EDRs and ESPRs will provide updates on the project, as available. **Figure 10-8** shows the location of the Logan Airport Parking Project. **Table 10-9** lists each of the Section 61 mitigation commitments for the Logan Airport Parking Project and Massport's progress in achieving these measures.

10.9.1 Permitting History

- Certificate on the ENF issued on May 5, 2017.
- Certificate on the Draft EIR issued on August 2, 2019.
- Certificate on the FEIR issued on January 30, 2020.

10.9.2 Project Status

In 2018, MassDEP and the U.S.EPA approved an amendment to the Logan Parking Freeze to add an additional 5,000 spaces at Logan Airport. Massport filed an Environmental Impact Report (EIR) and MEPA issued a Certificate (January 2020) approving new parking in two Airport campus locations in a new Garage across from Terminal E (2,000 spaces), and additional floors at Economy Garage (3,000 spaces).

Construction of the MEPA- and FAA-approved Garage in front of Terminal E was put on pause during the pandemic. As passenger demand has rebounded, the demand for commercial parking has again increased. In late 2023, Massport moved into the preliminary design process for the garage, taking current conditions into account, and reconfirmed the need for additional parking spaces to encourage long-term parking at the Airport, rather than two trips for drop-off and pick-up.

The updated Garage in front of Terminal E will continue to comply with the Logan Airport Parking Freeze and allow Massport to recover 2,000 lost spaces formerly located in Central Garage and in Terminal B Garage lost due to HOV and RideApp initiatives at Terminals B and C. As of this filing, Logan Airport accommodates 7,000 commercial spaces below the Logan Airport Parking Freeze. With the new garage, the Airport will remain 3,000 commercial spaces below the Logan Airport parking freeze limit. Further details on this project are included in Chapter 4, Section 4.1.

Table 10-9 Logan Airport Parking Project (EEA #15665) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Overall Project Benefits	
Accommodate existing and anticipated air passenger demand for parking to reduce drop-off/pick-up mode share and associated vehicle miles travelled (VMT) and on-Airport and off-Airport air emissions.	Preliminary design is ongoing and mitigation measures will follow when design and implementation proceed. The new parking spaces will be constructed to reduce drop-off and pick-up mode share and associated vehicle miles traveled and on-Airport and off-Airport air emissions.
Reuse existing developed areas (i.e., the Project sites avoid undeveloped, greenfield lands).	The surface parking lot in front of Terminal E is fully developed and currently in use for parking.
Selecting project sites with community input that are in areas already used for parking, are on existing bus/shuttle routes, and are separated from nearby residential communities	The surface parking lot in front of Terminal E was selected as the project site with community input. It is on existing bus or shuttle routes and are separated from nearby residential communities.
Providing added noise barrier benefits in conjunction with the Terminal E Modernization Project, through the expansion of the existing Economy Garage.	The project no longer includes building atop the Economy Garage and is fully located in the center of the Airport, away from the community.
Providing dynamic signage/messaging, parking reservation system, and parking guidance via electronic space occupancy detection to reduce on-Airport circulation as well as associated VMT and air emissions.	Final design will include these measures to reduce on-Airport circulation as well as associated VMT and air emissions.
Sustainability and Resiliency	
Incorporating measures from the U.S.GBC Parksmart rating system into the project's technology, structural design, and operation	Mitigation measures will be implemented when design and construction proceeds.
Reducing lighting power densities from a base of 0.19 watts per square foot to a maximum of 0.05 watts per square foot.	Mitigation measures will be implemented when design and construction proceeds.
Installing occupancy sensors and photocells on all applicable interior and exterior lighting	Mitigation measures will be implemented when design and construction proceeds.
Installing programmable thermostats where applicable (i.e., mechanical/electrical rooms)	Mitigation measures will be implemented when design and construction proceeds.
Designing the parking decks to be open air, negating the need for ventilation systems	All new parking spaces will be open air.
Performing building commissioning in accordance with ASHRAE Guideline 0-2005 and ASHRAE Guideline 1.1-2007	Mitigation measures will be implemented when design and construction proceeds.
Incorporating a solar photovoltaic (PV) system at the new garage in front of Terminal E capable of offsetting 50 percent of the facility's total energy consumption.	Mitigation measures will be implemented when design and construction proceeds.

Table 10-9 Logan Airport Parking Project (EEA #15665) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Relocating the existing solar PV system at the new garage in front of Terminal E capable of offsetting 50 percent of the facility's total energy consumption, including all lighting and power required for its electric vehicle (EV) charging stations.	Mitigation measures will be implemented when design and construction proceeds.
Reserving parking spaces for alternative fuel vehicles (e.g., EVs) amounting to at least 1 percent of total spaces and assigning preferred parking spaces for other low-emitting and fuel-efficient vehicles amounting to at least another 1 percent of total spaces.	Mitigation measures will be implemented when design and construction proceeds.
Installing 11 EV charging stations (22 ports) in the new garage in front of Terminal E.	Mitigation measures will be implemented when design and construction proceeds.
Designing and building the proposed garages to accommodate expanded EV charging infrastructures to accommodate 150 percent of demand.	Mitigation measures will be implemented when design and construction proceeds.
Integrating vertical landscaping into the façade of the new garage in front of Terminal E.	Mitigation measures will be implemented when design and construction proceeds.
Adhering to durable design principles and a preventative maintenance plan to extend facility lifespan and avoid greenhouse gas emissions caused by future large-scale construction and renovation activities.	Mitigation measures will be implemented when design and construction proceeds.
Installing and applying only no- or low-volatile organic compound (VOC) coatings, paints, and sealants.	Mitigation measures will be implemented when design and construction proceeds.
Installing halon-free fire suppression systems in each garage.	Mitigation measures will be implemented when design and construction proceeds.
Complying with Massport's Floodproofing Design Guide and elevating critical equipment and systems above the designated design flood elevations.	Mitigation measures will be implemented when design and construction proceed.
Implementing an active recycling program to reduce the amount of waste sent to regional landfills/incinerators and to reduce greenhouse gas emissions associated with material disposal.	Mitigation measures will be implemented when design and construction proceeds.
Displaying educational materials to convey the facilities' environmentally sustainable design and operations.	Mitigation measures will be implemented when design and construction proceeds.

Table 10-9 Logan Airport Parking Project (EEA #15665) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Construction Period Mitigation	
Providing on-Airport storage areas for construction materials.	Mitigation measures will be implemented when design and construction proceeds.
Coordinating the arrival of large construction equipment among various on-Airport projects and limiting their arrival or removal during peak travel hours (both Airport and commuter peaks).	Mitigation measures will be implemented when design and construction proceeds.
Developing specific truck routing and/or staging plans for implementation by the various contractors.	Mitigation measures will be implemented when design and construction proceeds.
Requiring construction managers to prepare: • *Draft Soil Management Plan;* • *Draft Stormwater Pollution Prevention Plan;* • *Draft Management Plan for Dewatering, if needed;* • *Draft Health and Safety Plan.*	Mitigation measures will be implemented when design and construction proceeds.
Employing a Construction Waste Management Plan that requires at least 85 percent of materials to be recycled or reused.	Mitigation measures will be implemented when design and construction proceeds.
Controlling rodents through routine inspection, monitoring, and treatment.	Mitigation measures will be implemented when design and construction proceeds.
Prioritizing the use of construction equipment and materials that are repurposed, reused, or recycled (or contain recycled content), where feasible.	Mitigation measures will be implemented when design and construction proceeds.
Prioritizing construction equipment and materials that are sourced regionally (i.e., within 300 miles of the Project sites) to reduce greenhouse gas emissions associated with their transport.	Mitigation measures will be implemented when design and construction proceeds.
Using regional (i.e., within 75 miles) labor to the greatest extent practicable.	Mitigation measures will be implemented when design and construction proceeds.
Encouraging construction companies to provide off-Airport parking for their employees and to provide shuttle services from these locations (shuttles are required to use the Coughlin Bypass road to access the Airport).	Mitigation measures will be implemented when design and construction proceeds.
Requiring all construction vehicle/equipment to follow anti-idling procedures and all construction managers to provide associated training.	Mitigation measures will be implemented when design and construction proceeds.
Requiring the use of low- or zero-emissions equipment, where practicable.	Mitigation measures will be implemented when design and construction proceeds.

Table 10-9 Logan Airport Parking Project (EEA #15665) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Requiring the retrofitting of appropriate diesel construction equipment with diesel oxidation catalyst and/or particulate filters.	Mitigation measures will be implemented when design and construction proceeds.
Requiring contractors to use Ultra Low Sulfur Diesel Fuel (ULSD).	Mitigation measures will be implemented when design and construction proceeds.
Maintaining low on-site vehicle speeds.	Mitigation measures will be implemented when design and construction proceeds.
Deploying air quality and fugitive dust management best practices, such as reducing exposed erodible surface areas through appropriate materials and equipment staging, covering exposed surface areas with pavement or vegetation in an expeditious manner, and stabilizing soil with cover or periodic watering.	Mitigation measures will be implemented when design and construction proceeds.
Using and maintaining construction equipment appropriately to avoid unnecessary noise and applying noise-reduction measures to reduce noise from pile driving by at least 5 A-weighted decibels (dBA) below their unmitigated levels 1.	Mitigation measures will be implemented when design and construction proceeds.
Requiring trucks to access the Project sites by Route 1A, Interstate 90, Coughlin Bypass Road, and the main Airport roadway only or other routes in compliance with transportation safety requirements.	Mitigation measures will be implemented when design and construction proceeds.
Prohibiting trucks from using local streets.	Mitigation measures will be implemented when design and construction proceeds.
Specifying truck routes in contractors' construction specifications.	Mitigation measures will be implemented when design and construction proceeds.
Using concrete production and batching plants with access via Route 1A or Interstate 90.	Mitigation measures will be implemented when design and construction proceeds.
Encouraging construction workers to use MBTA transit services, Logan Express, the water shuttle, and other high-occupancy modes of travel.	Mitigation measures will be implemented when design and construction proceeds.
Putting into place an Erosion and Sedimentation Control Program, in compliance with the Stormwater Pollution Prevention Plan, to protect water quality and to minimize construction phase impacts to Boston Harbor.	Mitigation measures will be implemented when design and construction proceeds.
Deploying spill prevention measures and sedimentation controls throughout the construction phases to prevent pollution from construction equipment and erosion.	Mitigation measures will be implemented when design and construction proceeds.

Table 10-9 Logan Airport Parking Project (EEA #15665) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Using the following erosion and sedimentation controls throughout the construction phases: • *Perimeter barriers such as straw wattles or compost-filled "silt sock" barriers will be placed around upland work areas to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site;* • *Existing catch basins within the work sites will be protected with barriers (where appropriate) or silt sacks;* • *Open soil surfaces will be stabilized within 14 days after grading or construction activities have temporarily or permanently ceased.*	Mitigation measures will be implemented when design and construction proceeds.
Ground Access Improvement, Trip Reduction, and Emissions Reduction	
Implement the following ground access improvement, trip reduction, and emission reduction initiatives: • *Advance the electrification of ground service equipment, pursuant to which all ground service equipment will be replaced no later than the end of 2027 (as available);* • *Expand Logan Express capacity by 10 percent;* • *Increase the percentage of zero emission taxi, livery, and RideApp vehicles (i.e., those associated with companies such as Uber and Lyft) by providing: high-speed electric vehicle charging stations at all taxi, livery, and RideApp pools; and taxi and RideApp queue priority to electric vehicles (subject to negotiation with companies).*	Mitigation measures will be implemented when design and construction proceeds.

Source: Massport.

10.10 Runway 27 End Runway Safety Area Improvements Project – EEA #16433

The purpose of the project is to enhance safety for aircraft and their passengers in emergency situations by improving the Runway 27 End RSA. The project would advance an overriding public interest of safety consistent with Title 49 of U.S. Code Section 47101, which states "the safe operation of the Airport and airway system is the highest aviation priority." The project is a required FAA safety project that would not extend the runway or affect normal runway operations, capacity, or types of aircraft using the runway. The location of the project is illustrated in **Figure 10-9**.

Figure 10-9 Runway 27 End Runway Safety Area Improvements Project EEA #16433

Terminal Buildings
Project Location
Parking Facilities

Notes: See Table 10-9 for a description of project.
Status as of 12/2022.
Source: Nearmap (November 2022)

0 350 700 Feet

An RSA is a flat surface surrounding the runway that is clear of obstructions. The FAA requires Airports to provide RSAs at runway ends and on the sides of a runway to reduce risk of injury and damage to aircraft. Runway 9-27 is 7,001 feet long and 150 feet wide. It is classified as a Runway Design Code D-V runway. The FAA design standards for a D-V runway require an RSA measuring 1,000 feet long beyond each end of the runway and a width of 500 feet. The Runway 27 End is located on the east end of the runway, and eastern edge of the airfield, adjacent to Boston Harbor. The Runway 27 End RSA is only 150 feet long and does not meet FAA's RSA length requirement of 1,000 feet for a full dimension RSA. The location of the Project is illustrated in **Figure 10-9**. The FAA determined the preferred option to enhance the Runway 27 End RSA is an approximately 650-foot long by 300-foot-wide RSA on pile supported deck with an EMAS installed on the deck.

10.10.1 Permitting History

- Certificate on the ENF issued on October 8, 2021.
- Certificate on the Draft EIR issued on August 29, 2022.
- Certificate on the FEIR issued on January 30, 2023.
- FAA FONSI issued on March 1, 2023.

10.10.2 Project Status

A request for quote (RFQ) and Letter of Interest (LOI) was issued in January 2024, and an RFP will be issued for a design-build entity in Spring 2024. **Table 10-10** lists each of the Section 61 mitigation commitments for the Runway 27 End Runway Safety Area Improvements Project and Massport's progress in achieving these measures.

Table 10-10 Runway 27 End Runway Safety Area Improvements Project (EEA #16433) Details of Ongoing Section 61 Mitigation Measures (as of December 31, 2022)

Mitigation Measure	Status
Land Containing Shellfish	
Contribute funding to Massachusetts Department of Marine Fisheries (DMF) shellfish restoration program.	Mitigation measures will be implemented when design and construction proceeds.
Coastal Wetlands	
Provide in-lieu fee (U.S. Army Corps of Engineers [U.S.ACE]) for impacts to mud flat.	To be determined.
Potential wetland mitigation (associated with piles and emergency egress ramps) based on U.S.ACE and Massachusetts Department of Environmental Protection (MassDEP) guidance.	Mitigation measures will be implemented when design and construction proceeds.
Potential mud flat mitigation in the form of shoreline restoration.	Mitigation measures will be implemented when design and construction proceeds.
State Threatened and Endangered Species	
Replace lost upland grassland habitat by removing existing pavement.	Mitigation measures will be implemented when design and construction proceeds.
Construction Period Mitigation	
In-water time of year restriction for silt producing construction activities of February 15 to June 30.	Mitigation measures will be implemented when design and construction proceeds.
Turbidity curtains will be used to surround the in-water work area to contain any turbidity that may be created by the construction activities.	Mitigation measures will be implemented when design and construction proceeds.
A vibratory pile driver will be used as much as possible, and a ramp up or soft start for hammer driving with padding on top of the pile will lessen noise impacts.	Mitigation measures will be implemented when design and construction proceeds.
Restore upland grassland habitat disturbed by construction.	Mitigation measures will be implemented when design and construction proceeds.

Source: Massport.