APPENDIX K

ELECTRIC VEHICLE INFRASTRUCTURE REQUIREMENTS

1.0 EV Charging Station Buildout Requirements

- 1.1 Initial Period Buildout Requirements. MassDOT has submitted to Eversource requests for 2MW of electric capacity at the following service plazas: Natick, Framingham, Ludlow Eastbound, Ludlow Westbound, Blanford Westbound, Blanford Eastbound, Lee Westbound, and Lee Eastbound ("Initial Plazas"). Pursuant to a Memorandum of Understanding between MassDOT and Eversource ("MOU"), MassDOT will need to provide sufficient site planning information (including a detailed site plan for each Service Plaza) to Eversource by the end of June, 2026, so that Eversource may conduct final engineering for the utility interconnection at the Initial Plazas. Pursuant to the Contract Documents, the Operator shall provide this needed information to MassDOT and Eversource by April 1, 2026. The Operator therefore shall conduct sufficient future site planning activities prior to April 1, 2026 so that Electric Vehicle ("EV") chargers may be built out during the interim period in a manner and location at the Initial Plazas that will not interfere with the Operator's long-term site planning or redevelopment activities. Additionally, the Operator shall utilize the full 2MW of power "reserved" by MassDOT at the Initial Plazas to build out EV charging stations at all of the Initial Plazas, to the maximum extent possible, that fully comply with the terms and conditions of the Contract Documents, and such buildout shall be completed no later than December 31, 2026, provided that if Eversource has not completed its distribution system upgrades necessary to commence commercial operation of the EV charging stations, then such deadline will be extended day-for-day until Eversource has completed such upgrades ("Initial Period Build Out Requirements"). The Operator shall be responsible for all costs associated with the Initial Period Buildout Requirements, and shall either directly pay the utility for all costs incurred, or reimburse MassDOT if MassDOT incurs any costs from the utilities. However, for Initial Period Buildout Requirements, the Operator shall not be liable for costs associated with Eversource distribution system upgrades beyond 150% of the estimated "Total Project Costs" provided by Eversource and as shown for each Initial Plaza and attached hereto as Exhibit 1 ("Distribution Cost Threshold"), so long as the Operator is not responsible for costs exceeding the Distribution Cost Threshold. If costs for distribution system upgrades exceed the Distribution Cost Threshold, and such excess cost was not caused by the Operator, MassDOT shall have the option to either pay distribution system upgrade costs in excess of the Distribution Cost Threshold, require the Operator to modify Initial Plaza so that distribution system upgrade costs remain under the Distribution Cost Threshold, or waive the required Initial Period Buildout Requirements at Initial Plazas where distribution system upgrade costs exceed the Distribution System Cost Threshold.
- 1.2 Operating Period Buildout Requirements. The Operator shall construct EV charging stations at all Service Plazas that comply with all technical and performance terms set forth in the Contract Documents. The Operator has continuing buildout obligation of the EV charging stations to meet the requirements of the Contract Documents.

2.0 EV Charging Planning and Report Requirements

- 2.1 Commencing on the 2nd anniversary of the Lease effective date, on an annual basis the Operator shall submit an EV Charging Plan and Report to MassDOT. The EV Charging Plan and Report shall identify anticipated EV charging demand, and changes in EV charging demand over the next 5 years at each Service Plaza, and outline the efforts the Operator will undertake to ensure that each Service Plaza will be able to serve that demand and keep up with evolving regulations, industry standards and best practices to ensure a best in class EV charging experience for customers.
- 2.2 The EV Charging Plan and Report shall also detail the number and capabilities of the EV chargers at each Service Plaza and note the calendar year in which each EV charger was installed, detail any upgrades to existing EV chargers or installations of additional EV chargers that are planned for the coming year, detail the performance of the EV chargers at each service plaza during the previous year including charger uptime and utilization during each month of the prior year, provide a detailed overview of all maintenance and upgrades performed to EV chargers at each Service Plaza over the previous year.
- 2.3 If the uptime of any EV charging station was less than 97% during any month of the previous year, the EV Charging Plan and Report shall detail the reason and describe what actions the Operator has taken and will take to ensure 97% requirements are met in the coming year.
 - **2.3.1** Failure to adhere to uptime requirement of 97% shall result in liquidated damages as provided in Appendix G (Operations and Maintenance Performance Standards) to the Lease.
- 2.4 The EV Charging Plan and Report shall also include projections for the following 5 years related to the demand and need for Medium and Heavy Duty EV charging and other alternative fuels at each Service Plaza, and detail how the Operator will address the needs for Medium and Heavy Duty EV charging, as well as any other alternative fuels.
- 2.5 The EV Charging Plan and Report shall be subject to review and approval by MassDOT. MassDOT may, prior to approval of the EV Charging Plan and Report, identify any deficiencies regarding changing technology needs, industry standards, and overall compliance with the requirements of the Contract Documents.
 - **2.5.1** Upon receipt of any such comments, the Operator shall immediately revise the EV Charging Plan and Report to address those comments and resubmit for MassDOT approval.
- 2.6 MassDOT reserves the right to discuss if changes in technology, industry standards, regulations, and/or charger utilization rate call for changes to be made to the Contract Documents, including this Appendix, to address an evolving EV charging market, and to incorporate any agreed upon changes into the Contract Documents, including this Appendix. MassDOT reserves the right to direct changes to the Contract Documents, including this Appendix, in accordance with

the Lease to ensure that the EV charging stations meet charging demand, industry standards and applicable law.

3.0 Charging Station Technical and Performance Requirements

- 3.1 Except as expressly provided otherwise in the Lease, all EV charging stations shall comply with the requirements set forth in this Appendix which are based in part on the NEVI standards and requirements set forth in 23 CFR Part 680 with respect to the design, installation, operation, maintenance, interoperability, connectivity, and utilization of EV charging infrastructure. Failure in any respect to adhere to these requirements will result in the Operator being subject to Section 9.10 of the Lease.
- **3.2** EV charging stations shall have similar amenities to fuel pumps on site, including canopies, lighting, and trash receptacles.
- 3.3 The number of charging ports shall be as set forth in Section 3, provided that such number for each Service Plaza shall be subject to there being available electric capacity at the applicable Service Plaza. The determination of whether there is "available electric capacity" shall include electric capacity that can be made available by making utility upgrades; provided that such upgrades shall not be included in "available electric capacity" if the costs of such upgrades would result in a material increase in the costs of Operator performing the Contract Services under the Lease (considered as a whole), unless MassDOT affords the Operator appropriate compensation, schedule, performance and other relief necessary in connection with such material cost increase in accordance with Section 12 of the Lease to the extent necessary to cause such increase to no longer be a material cost increase. At MassDOT's election, if the upgrades necessary to make available additional electric capacity would result in a material increase in the costs of Operator pursuant to the prior sentence, then (a) Operator shall cooperate with MassDOT (and, at MassDOT's direction, the applicable utility) to advocate for additional available electric capacity at the applicable Service Plaza(s) and take such steps as may be reasonably necessary to secure additional available electric capacity for such Service Plaza(s), and (b) MassDOT may temporarily suspend Operator's obligation to provide the number of charging ports as set forth in Section 3 at the applicable Service Plazas until sufficient electrical capacity is made available or the cost to Operator of the necessary upgrades is reduced such that those costs would no longer result in a material increase in the costs of Operator performing the Contract Services under the Lease (considered as a whole). The Operator shall work with utilities and MassDOT, pursuant to processes as will be dictated by MassDOT and the utilities, to ensure that there is sufficient electric capacity at each Service Plaza to comply with this Section. Without limitation of Operator's obligations set forth in the Lease, including Section 15.16 of the Lease, Operator will monitor utility planning for capacity upgrades, participate in the applicable proceedings, and use its best efforts to obtain such additional capacity for the Service Plazas as may be reasonably expected to be necessary or desirable to meet EV charging requirements and other changes to electric load over the term of the Lease.
- 3.4 By no later than January 1, 2028, the Operator shall ensure that all Service Plazas have a minimum of four network-connected direct current, fast charger ("DCFC")

charging ports and be capable of simultaneously charging at least four EVs. For purposes of determining Operator's compliance with this paragraph, DCFC charging ports associated with dedicated van-accessible parking spaces complying with the Americans with Disabilities Act will not be counted toward the minimum number of DCFC charging ports set forth above. For the avoidance of doubt, van-accessible parking spaces that meet the requirements of the Americans with Disabilities Act but are not dedicated (by signage or otherwise) as accessible parking spaces will be included toward the minimum number of DCFC charging ports set forth above.

- 3.5 From and after the start of operation of a Service Plaza after the Operator redevelops the Service Plaza, but not later than January 1, 2035, each Service Plaza shall have a charging station with sufficient ports and capabilities to ensure that there is no queue at any time for DCFC charging ports during non-holiday weekday and weekend days, in accordance with Section 11.0. The Operator shall also consider how charging demand will be served during the busiest travel holidays and develop a plan to ensure queue times do not exceed 15 minutes. For Service Plazas that will not be re-developed, the Operator shall comply with the requirements of this Section no later than January 1, 2030. The Operator and MassDOT shall determine and indicate, for each Service Plaza in the Master Revitalization Plan whether such revitalization work amounts to re-development of each Service Plaza under this Section. For avoidance of doubt, the January 1, 2030 deadline shall be the deadline unless the installation of EV chargers prior to the re-development of the Service Plaza would substantially interfere with the revitalization work at the Service Plaza.
- 3.6 From and after December 31, 2026, absent a waiver from MassDOT, the Operator shall ensure that there are EV charging stations for Medium and Heavy Duty vehicles at no less than two Service Plazas in each direction of travel on I-90, provided that if the applicable utility has not completed distribution system upgrades necessary to commence commercial operation of the EV charging stations for Medium and Heavy Duty vehicle, then such deadline will be extended day-for-day until the applicable utility has completed such upgrades unless the utility's delays are caused by or are related to an act or omission of the Operator. In each direction along I-90, at least one EV charging station for Medium and Heavy Duty vehicles shall be east of I-84 (for a total of four EV charging stations for Medium and Heavy Duty vehicles).
 - **3.6.1** The operator shall propose to MassDOT which Service Plazas should be utilized for the required EV charging stations for Medium and Heavy Duty vehicles .
 - 3.6.2 These EV charging stations shall meet the uptime requirements of <u>Section 10.0</u> and shall be designed to meet applicable industry standards in effect, including, but not limited to, those related to safety, power output, connector type, payment options and design, and to serve the needs of projected demand.

- 3.7 From and after December 31, 2035, The Operator shall ensure that across the I-90 corridor the Service Plazas have a combined minimum of 11 charging ports which are rated at charging at 1MW by 2035 to meet the projected Medium and Heavy-Duty vehicles charging demand. MassDOT reserves the right to update the requirements for Medium and Heavy-Duty vehicles charging based on changes to regulations or the Medium and Heavy-duty EV demand along I-90 in the future.
 - 3.7.1 These EV charging stations shall meet the uptime requirements of <u>Section 10.0</u> and shall be designed to meet applicable industry standards in effect, including, but not limited to, those related to safety, power output, connector type, payment options and design, and to serve the needs of projected demand
 - **3.7.2** These EV charging stations shall also be subject to the utilization requirements of <u>Section 11.0</u>.

4.0 EVSE Port, Cable, and Connector Type Requirements

- **4.1** All EV charging connectors shall meet applicable industry standards.
- 4.2 The Operator shall submit information regarding available cable configurations including reach distance and cable management systems. Cables shall be kept off the parking surface for safety and maintenance and shall be able to reach the charging port in all types and brands of EVs.
- 4.3 Each DCFC charging port shall be capable of charging any CCS- compliant vehicle and each DCFC charging port shall have at least one permanently attached CCS Type 1 connector and be capable of charging any J3400 Connector-compliant vehicle and shall have at least one permanently attached J3400 Connector.
- 4.4 In addition to the DCFC charging ports required under this Appendix, the Operator may install up to two additional DCFC charging ports capable of charging any CHAdeMO compliant vehicle at each Service Plaza. These CHAdeMO ports are not required to meet the requirements of Section 5.0.

5.0 EVSE Power Output Requirements

- 5.1 Initial Power Output Requirements: All DCFC charging ports shall support output voltages between 250 volts DC and 920 volts DC. All DCFCs shall have a maximum power delivery rating of at least 300 kW and continuously supply power according to an EV's power delivery request at a rate of no less than 150 kW, simultaneously from each charging port at a charging station, with a minimum charging station power capability at or above 600kW per each 4 charging ports. The DCFC charging stations should conduct power sharing so long as each charging port continues to meet an EV's request for power of at least 150 kW at all times.
- **5.2** Ongoing Power Output Requirements: MassDOT aims to avoid charger obsolescence due to no longer meeting technological, operational, or customer requirements.

5.2.1 Each year the operator shall provide MassDOT with a report detailing the average power supply of all Operator owned chargers. If the average rate of power dispensed from the Operator's bank of chargers is below the national average of power output for public charging (which output power data can be sourced from the US DOE Alternative Fuels Data Center, or other source acceptable to MassDOT) then the Operator shall be subject to Section 9.10 of the Lease.

6.0 Tesla EV Chargers

MassDOT has existing agreements with Tesla for the operation of EV charging stations at the Charlton Eastbound, Charlton Westbound, Lexington, and Newton Service Plazas ("Tesla EV Chargers") that are not in compliance with the requirements of this Appendix. MassDOT reserves the right to contract with Tesla prior to the lease start date to reach an agreement where Tesla EV Chargers become open to all users during the term of Tesla's agreements with MassDOT, and such Tesla EV Chargers shall be exempt from the requirements of this Appendix, and such Tesla EV Chargers shall not count towards the Operator's obligation pursuant to Section 3.2 to construct a minimum of 4 NEVI compliant EV Charging Ports at each Service Plaza. This agreement may incorporate service of CCS plug type and additional payment functionality. The agreement will not include the addition of additional charging ports or an expanded footprint on the service plazas. If the Operator contracts with Tesla in relation to EV Charging or EV Charging Services at any of the Service Plazas, then the Operator shall require that all EV charging stations operated by Tesla, including the existing Tesla EV Chargers, at the Service Plazas comply with or be upgraded to comply with all terms of the Contract Documents, including this Appendix from that point forward.

7.0 MassDOT-Owned EV Chargers

MassDOT owns existing EV chargers at the Charlton Eastbound, Charlton Westbound, Natick, Framingham, Lee Eastbound, Lee Westbound, Lexington, Newton, Bridgewater Northbound, Bridgewater Southbound, and Plymouth Service Plazas, and prior to the lease start date may install additional electric vehicle chargers at those Service Plazas or additional Service Plazas (collectively "MassDOT-Owned EV Chargers"). For those MassDOT-Owned EV Chargers that do not comply with the terms of this Appendix, the Operator shall maintain that level of electric vehicle charging services at each of those Service Plazas with 97% uptime until the sooner of when that Service Plaza is redeveloped or when electric vehicle chargers are installed at that Service Plaza that are compliant with the requirements of this Appendix. At such time, any non-compliant MassDOT-Owned EV Chargers shall be removed. Prior to the removal and disposal of the MassDOT-Owned EV Chargers the Operator shall provide MassDOT notice that they will be removed and the option to take custody of the MassDOT-Owned EV Chargers for use elsewhere. As part of that notice to MassDOT the Operator shall indicate the condition of the MassDOT-Owned EV Chargers that are to be removed and the expected remaining lifespan of those EV chargers. Upon receiving notice that MassDOT-Owned EV Chargers are to be removed MassDOT shall have no less than 10 business days to indicate to Operator if MassDOT will take custody of the MassDOT-Owned EV Chargers that are being removed, and if MassDOT does intend to take custody of those chargers the parties shall come to a mutually agreeable arrangement for MassDOT to take custody of them. Prior to the installation of EV chargers that comply with the terms of this Appendix, the Operator may replace the existing MassDOT-Owned EV Chargers with new EV chargers that have the same or greater capabilities so long as the total number or ports is not diminished, and that each port on the replacement EV chargers are capable of charging a CCS and a J3400 compatible vehicle, are equally available to all brands of vehicles, and are enabled to credit card tap to pay functionality. At all times, the Operator shall ensure that the MassDOT-Owned EV Chargers comply with the accessibility requirements of this Appendix.

8.0 Equipment Certification

- 8.1 All EV charging stations shall be certified by an Occupational Safety and Health Administration Nationally Recognized Testing Laboratory. DCFC charging stations shall be certified to the appropriate UL standards for electric vehicle supply equipment ("EVSE") and comply with relevant FCC regulations.
- **8.2** EVSE shall be rated NEMA 3R or better and rated to meet or exceed the environmental conditions in which it will be installed, including but not limited to temperature, elevation, and humidity.
- **8.3** EVSE shall be NEC 625 compliant.

9.0 Interoperability of EV Charging Infrastructure

- 9.1 Charger-to-EV Communication. Charging stations shall conform to ISO 15118-3 and shall have hardware capable of implementing both ISO 15118-2 and ISO 15118-20. Charging station software shall conform to ISO 15118-2 and be capable of plug and charge. Conformance testing for charging station software and hardware shall follow ISO 15118-4 and ISO 15118-5, respectively. Charging stations shall also be backwards compatible to CCS DIN 70121 charging protocol.
- **9.2 Charger-to-Charger Network Communication.** Charging stations shall conform to OCPP 2.0.1.
- **9.3** Charging Network-to-Charging Network Communication. A charging network shall be capable of communicating with other charging networks to enable an EV driver to use a single method of identification to charge at the charging stations that are a part of multiple charging networks. Charging networks shall be capable of communicating with other charging networks in accordance with OCPI 2.2.1.
- **9.4 Network Switching Capability.** Charging stations shall be capable of securely switching from one OCPP-based charging network platform to another without any changes to hardware.

10.0 Minimum Uptime

- **10.1** The Operator shall ensure that each charging port has an average monthly uptime of 97% or more.
 - **10.1.1** A charging port is considered "up" when its hardware and software are both online and available for use, or in use, and the Charging Port successfully

dispenses electricity in accordance with requirements for minimum power level specified in <u>Section 5.0</u>.

- **10.1.2** Charging port uptime shall be calculated on a monthly basis
- **10.1.3** Charging port uptime percentage shall be calculated using the following equation:

 $\mu = (((1,440*Days)-(T_outage-T_excluded))/(1,440*Days)) \times 100$

where:

 μ = port monthly uptime percentage,

Days = total number of days in the month

T_outage = total minutes of outage per calendar month, and

T_excluded = total minutes of outage per calendar month caused by the following reasons outside the charging station Operator's control, provided that the charging station Operator can demonstrate that the charging port would otherwise be operational: electric utility service interruptions, scheduled maintenance, vandalism, or natural disasters.

- **10.1.4** With respect to any issue which resulted in the Operator excluding time from the uptime formula per the definition of T_excluded above, the Operator shall use best efforts to quickly resolve the issue which caused the outage.
- If the Operator utilizes an EV charging station vendor, the Operator shall require its EV charging station vendor to provide notification to the Operator if charging ports are down. On a monthly basis, the Operator shall provide MassDOT a report that includes each EV charging station's performance under this Section. The report shall include detail if uptime requirements are not met and describe what actions the Operator has taken and will take to ensure uptime of at least 97% is met in the next month. MassDOT reserves the right to have third party monitoring of uptime to validate the Operator reporting. In addition, the Operator shall notify MassDOT in each of the following instances: (a) 50% or more of charging ports are down at any Service Plaza and (b) a charging port is down more than 7 consecutive days at any Service Plaza.

11.0 Utilization

- 11.1 MassDOT aims to provide a high-quality customer experience by eliminating queuing at the charging stations, especially during peak periods. In accordance with Section 3.3, Operator shall ensure that no queuing occurs at any Service Plaza during non-holiday weekday and weekend days.
- 11.2 The Operator shall submit a plan to MassDOT for MassDOT's review and acceptance describing how the Operator intends to monitor the absence of

queuing. The Operator may propose innovative approaches and/or technologies to achieve MassDOT's objective.

- **11.2.1** The Operator's plan shall also consider how charging demand will be served during the busiest travel days (e.g., federal holidays) to ensure that on those busiest days there is no more than a 15-minute wait for charging.
- **11.2.2** For Medium and Heavy Duty vehicle charging only, the Operator may consider alternative charging available off the I-90 corridor which may be sufficient to ensure no queuing at the Service Plazas.
- 11.3 In the event that the Operator does not provide MassDOT a satisfactory plan, the Operator shall do the following:
 - **11.3.1** Ensure that during the busiest hour of any day at least one port at a given Service Plaza is available for use;
 - **11.3.2** Monitor, on a daily basis at each Service Plaza, the amount of time (in minutes) when full occupancy occurs.
- **11.3.2.1** Full occupancy is defined as any time when all operable charging ports at a Service Plaza are in use at the same time;
 - **11.3.3** Identify each day what the busiest hour of the day was. The busiest hour of a given day is defined as the sixty-minute period in which the most minutes of full occupancy occurred;
 - **11.3.4** Monitor these items separately for weekdays and weekends:
 - **11.3.5** Maintain the following performance metrics related to passenger vehicle chargers at all Service Plazas individually (i.e., metrics will be developed and reported separately for all 18 Service Plazas):

$$\frac{\sum MFOw}{60*Number\ of\ Weekdays\ in\ a\ Month} < 0.17$$

and

$$\frac{\sum MFO \, wk}{60*Number \, of \, Weekend \, days \, in \, a \, Month} < 0.17$$

Where:

MFOw = Minutes of full occupancy for passenger vehicles within the busiest hour of each non-holiday weekday in a month

MFOwk = Minutes of full occupancy for passenger vehicles within the busiest hour of each non-holiday weekend day in a month

11.3.6 Maintain the following performance metrics related to Medium and Heavy Duty vehicles chargers across all Service Plazas individually (i.e., metrics will be developed and reported separately for all Service Plazas with Medium and Heavy Duty charging):

Utilization Rate < 0.40

Where:

Utilization Rate is calculated as the percentage of time that a charging port is actively in use relative to the total time it is available (i.e. 24 hours), in accordance with the following formula:

Utilization Rate = (Total time in use ÷ Total available hours) × 100

- **11.3.7** If the Operator fails to maintain any of the performance metrics in <u>Section 11.3.5</u> or <u>Section 11.3.6</u> above, then the Operator will be subject to Section 9.10 of the Lease.
- **11.3.8** In addition, if the Utilization Rate as defined in <u>Section 11.3.6</u> is greater than 0.15 in any month, the Operator shall, within 30 days, meet with MassDOT to report on Medium and Heavy Duty vehicle projected demand for charging and discuss any plans the Operator may have to avoid failing to meet the performance metric outlined in <u>Section 11.3.6</u>.
- 11.4 For purposes of determining Operator's compliance with the requirements of this Section 11, including the determination of "full occupancy", "occupancy", "utilization", "queuing", and the performance metrics set forth in Section 11.3, DCFC charging ports associated with dedicated van-accessible parking spaces complying with the Americans with Disabilities Act will not be considered. For the avoidance of doubt, van-accessible parking spaces that meet the requirements of the Americans with Disabilities Act but are not dedicated (by signage or otherwise) as accessible parking spaces will be included in the foregoing determinations.

12.0 Charging Network Connectivity

12.1 Charger-to-Charger Network Communication

- **12.1.1** Charging stations shall communicate with a charging network via a secure communication method. The Operator shall comply with the applicable OCPP requirements set forth in Section 9.2.
- **12.1.2** Charging stations shall have the ability to receive and implement secure, remote software updates and conduct real-time protocol translation,

- encryption and decryption, authentication, and authorization in their communication with charging networks.
- **12.1.3** Charging networks shall perform, and charging stations shall support, remote charger monitoring, diagnostics, control, and smart charge management.
- **12.1.4** Charging stations and charging networks shall securely measure, communicate, store, and report energy and power dispensed, real-time charging-port status, real- time price to the customer, and historical charging-port uptime.

12.2 Charging-Network-to-Charging-Network Communication

A charging network shall be capable of communicating with other charging networks to enable an EV driver to use a single method of identification to charge at the charging stations that are a part of multiple charging networks. The Operator shall comply with the applicable OCPI requirements set forth in <u>Section 9.3</u>.

12.3 Charging-Network-to-Grid Communication

Charging networks shall be capable of secure communication with electric utilities, other energy providers, or local energy management systems.

12.4 Disrupted Network Connectivity

- **12.4.1** Charging stations shall remain functional if communication with the charging network is temporarily disrupted, such that they initiate and complete charging sessions, providing the minimum required power level set forth in <u>Section 5.0</u>, and shall queue sessions to upload data when communication with the charging network is restored.
- **12.4.2** Communications shall include redundancy to prevent outages, fiberoptic preferred with cellular or satellite backup.

13.0 Availability of Charging Stations

- 13.1 Charging stations shall be available for use and sited at locations physically accessible to the public 24 hours per day, seven days per week, year-round, regardless of weather. This Section 12.0 does not prohibit isolated or temporary interruptions in service or access because of maintenance or repairs.
- 13.2 The Operator shall not impose any discriminatory restrictions on charging by any CCS- compliant vehicle or J3400 Connector-compliant vehicle, regardless of manufacturer. As such, vehicles of all manufacturers shall be treated and served in an equal manner on a first come first served basis.
- **13.3** The Operator shall take all actions (e.g., snow plowing, shoveling) to ensure that inclement weather does not prevent access to the charging stations.

14.0 Charging Payment

14.1 Payment Methods

- **14.1.1** Unless charging is permanently provided free of charge to all customers, charging stations shall:
 - (a) Provide for secure payment methods, accessible to persons with disabilities, which at a minimum shall include a contactless payment method that accepts major debit and credit cards, and either an automated toll-free telephone number or a SMS that provides the EV charging customer with the option to initiate a charging session and submit payment;
 - (b) Not require a membership for use (however reasonable discounts can be granted to customers that have memberships);
 - (c) Charge vehicles from all manufacturers equally;
 - (d) Not delay, limit, or curtail power flow to vehicles because of payment method or membership;
 - (e) Provide access for customers that are limited English proficient and accessibility for people with disabilities. Automated toll-free telephone numbers and SMS payment options shall clearly identify payment access for these populations; and
 - (f) Provide a method (e.g., iOS and Android applications or mobilefriendly websites) for customers to submit customer issues and/or complaints in accordance with Section 14.1.2.

14.2 Cybersecurity Strategies

- **14.2.1** The Operator shall align with the appropriate Trust Services Criteria under SOC 2 Type 2, including:
 - (a) **Security:** Ensure that systems are protected against unauthorized access, both physical and logical, safeguarding the integrity and confidentiality of information. Operators must be able to demonstrate robust security measures to protect sensitive transportation data and infrastructure.
 - (b) **Availability:** Ensure that charging infrastructure is reliably available to users.
 - (c) **Processing Integrity:** Operator must ensure that system processing is complete, valid, accurate, timely, and authorized. This involves ensuring that data related to charging sessions, billing, and system operations are processed correctly, which is vital for operational efficiency and user trust.

- (d) Confidentiality: Operators must address the protection of confidential information from unauthorized access. Operators may handle sensitive data, such as user information or proprietary technology details, necessitating stringent confidentiality measures to comply with regulatory requirements and maintain stakeholder trust.
- **14.2.2** The Operator shall implement cybersecurity strategies to ensure charging station operations protect consumer data and protect against the risk of harm to, or disruption of, charging infrastructure and the grid.
- **14.2.3** The Operator shall employ practices that protect customer identity and access management.
- **14.2.4** The Operator shall employ standardized secure protocols utilizing modern encryption and design for Cryptographic Agility.
- **14.2.5** The Operator shall support multiple Public Key Infrastructure PKI).
- **14.2.6** The Operator shall employ measures to ensure incident prevention.
- **14.2.7** The Operator shall employ practices that address software update management and deployment of security patches.
- **14.2.8** The Operator shall implement third-party cybersecurity testing and certification.
- **14.2.9** The Operator shall maintain continuity of cybersecurity operations when communication between the charger and charging network is disrupted.

15.0 Customer Service

15.1 Reporting Outages and Malfunctions

- 15.1.1 The Operator shall ensure that EV charging customers have mechanisms to report outages, malfunctions, and other issues with charging infrastructure. The Operator shall enable access to accessible platforms that provide multilingual services, and receive necessary support and assistance. The Operator shall comply with the American with Disabilities Act's requirements and multilingual access when creating reporting mechanisms.
- **15.1.2** The Operator shall implement procedures (including through iOS and Android applications or mobile-friendly websites) to receive customer complaints and create logs detailing any customer complaints.
- **15.1.3** The Operator shall make available all customer complaint logs and Customer Service Reports to MassDOT upon request.

15.1.4 The Operator shall make available 24/7 customer support via toll-free telephone number clearly posted on or near EVSE. An option to reach customer support by means of text message is preferred. Support should be capable of providing or dispatching service to address customer concerns at the station including rebooting if necessary. Key support includes the ability to initiate a charging session remotely in the event of component failures such as touch screens or credit card readers to avoid stranded drivers. In addition to a support phone number, all EVSE shall be labeled with a unique identifier visible when powered off to facilitate issue reporting.

15.2 Customer Data Privacy

- **15.2.1** The Operator shall take reasonable measures to safeguard consumer data.
- **15.2.2** The Operator shall collect, process, and retain only that personal information strictly necessary to provide the charging service to a consumer, including information to complete the charging transaction and to provide the location of Charging Stations to the consumer.
- **15.2.3** Charging stations and charging networks shall comply with appropriate PCI DSS for the processing, transmission, and storage of cardholder data.

15.3 Communication of Price

- **15.3.1** The price for charging shall be displayed prior to initiating a charging transaction and be based on the price for electricity to charge in \$/kWh.
- **15.3.2** The price for charging displayed and communicated via the charging network shall be the real-time price (i.e., price at that moment in time). The price at the start of the session cannot change during the session.
- **15.3.3** Price structure including any other fees in addition to the price for electricity to charge shall be clearly displayed and explained.

16.0 Traffic Control Devices and On-Premises Signs

- Manual on Uniform Traffic Control Devices for Streets and Highways. The Operator shall ensure that any traffic control devices for EV charging stations, including, but not limited to, traffic signs, signals, pavement markings, directional signs, approved EV signs, and official signs comply with: (a) the MUTCD at 23 CFR Part 655, Subpart F (Traffic Control Devices on Federal-Aid and Other Streets and Highways); and (b) the Massachusetts Amendments to the MUTCD, as amended or supplemented from time to time.
- **16.2** Advertising Signs. The Operator shall ensure that advertising signs for EV charging stations comply with 23 CFR Part 750 (Highway Beautification) and 700 CMR 3.00, to the extent applicable.

16.3 Business Logo Program. If the Operator is going to partake in MassDOT's "blue sign" program, the Operator must include advertisement of the availability of the charging stations at the Service Plaza.

17.0 MassDOT Data Sharing

- **17.1** The Operator shall make charging data and insights available to MassDOT monthly or upon request. This includes but is not limited to:
 - (a) Number and geographic location of charging ports at each Service Plaza
 - (b) Charger specifications at each Service Plaza (e.g., dimensions, power output, connector types, cable lengths, operating temperature, etc.)
 - (c) Charging port usage (number of charging sessions/day, time of use, time of day peaks, session times, sessions overlap, wait time between sessions, idle time post charging, power use kWh)
 - (d) Charging port (uptime, utilization rate, log of malfunctions or faults resulting in downtime)
 - (e) Charging port maintenance logs (schedule and activities)
 - (f) Customer experience complaint logs, Customer Service Reports

If OCPI data is available to the Operator, the Operator shall share that data with MassDOT in a mutually agreed upon format such that MassDOT can utilize the data within MassDOT's existing EV charging dashboard.

18.0 Third-Party Data Sharing

- **18.1** The Operator shall make the following data fields available, free of charge, to third-party software developers in real-time, via application programming interface:
 - (a) Unique charging station name or identifier;
 - (b) Address (street address, city, state, and zip code) of the property where the charging station is located;
 - (c) Geographic coordinates in decimal degrees of exact charging station location;
 - (d) Operator name;
 - (e) Charging network provider name;
 - (f) Charging station status (operational, under construction, planned, or decommissioned);
 - (g) Charging station access information:

- i. Charging station access type (public or limited to commercial vehicles); and
- ii. Charging station access days/times (hours of operation for the Charging station);
- (h) Charging port information:
 - i. number of Charging ports;
 - ii. unique port identifier;
 - iii. connector types available by port;
 - iv. DCFC charging level by port;
 - v. power delivery rating in kWs by port;
 - vi. accessibility by vehicle with trailer (pull-through stall) by port (yes/no); and
 - vii. real-time status by port in terms defined by OCPI 2.2.1; and
- (i) Pricing and payment information: (a) pricing structure; (b) real-time price to charge at each charging port, in terms defined by OCPI 2.2.1; and (c) payment methods accepted at the charging station.
- 18.2 To ensure accessibility, transparency, and ease of use for EV users, all EV charging hardware deployed under this contract must be at all times fully integrated and visible on no less than the three most commonly used open-source mapping and/or charging applications (currently identified as: PlugShare, ChargeHub, and Open Charge Map) so long as the applications do not impose a substantial cost or unreasonable barriers on the Operator for doing so.

19.0 Accessibility Requirements

- 19.1 The Operator shall design and construct each EV charging station to be accessible and usable by people with disabilities. To comply with this requirement, the Operator shall ensure that EV charging stations proposed by the Operator provide functional accessibility at each EV charger, including but not limited to the feasibility of a person using a mobility device such as a wheelchair or walker to park and exit their vehicle, use the charger display screen easily, access and interface with the charger (HMI and plug), bring the plug to the charging port (considering the variation in charging port locations by vehicle type), plug in, reenter their vehicle while charging, access all site amenities, and reverse the process at the end of a charging session. If multiple connector types are deployed, accessibility must be provided for each.
- **19.2** The Operator shall comply with all applicable design and construction requirements under:

- (a) the ADA, ABA, and Rehabilitation Act;
- (b) to the extent not inconsistent with any of the foregoing, the U.S. Access Board's Design Recommendations for Accessible Electric Vehicle Charging Stations; and
- (c) 521 Code Mass. Regs. (Architectural Access Board).
- 19.3 The Operator shall comply with the Commonwealth's Enterprise Accessibility Standards and Web Accessibility Standards (https://www.mass.gov/policy-advisory/enterprise-information-technology-accessibility-policy). These standards encompass the principles of Section 508 of the Rehabilitation Act, the World Wide Web Consortium's Web Content Accessibility Guidelines, version 2.1, level A and AA Guidelines (WCAG 2.1 Standards), and the concept of usability for individuals with disabilities.
- 19.4 The Operator is required to provide accessible electronic deliverables. For purposes of this Section, "accessible" shall be construed to mean accessible and usable by people with disabilities, including use with assistive technologies. For the purposes of this Section, the term "electronic deliverables" includes, but is not limited to any or all of the following: presentations, trainings, specifications, pamphlets, studies, reports, web pages, and applications. Deliverables, or components thereof, such as plans, drawings, schedules, field notes, measurements, or calculations that cannot reasonably be made accessible shall be exempt from these requirements, subject to review and approval by MassDOT. Developer shall build accessibility into every phase of its Work and will work, at its expense, to resolve any accessibility issues identified.
- 19.5 The Operator shall provide accommodation for persons requiring assistance with EV chargers, due to age or ability, in a manner that matches or exceeds what is available for customers requiring assistance with traditional fueling services.

20.0 O&M Requirements

- **20.1** The Operator shall operate and maintain all charging stations in accordance with the Contract Documents, including this Appendix, throughout the Operating Period.
- **20.2** The Operator shall not move a charging station that complies with the terms of this Appendix to another location, or sell or take a charging station out of service (unless contemporaneously replaced with another functioning charging station), for any reason without prior written approval from MassDOT.

EXHIBIT 1

EVERSOURCE DISTRIBUTION SYSTEM UPGRADE COST ESTIMATES

Location Name	Estimated Total Project Cost
Lee Eastbound	\$100,000
Lee Westbound	\$100,000
Blandford Eastbound	\$100,000
Blandford Westbound	\$100,000
Ludlow Eastbound	\$1,100,000
Ludlow Westbound	\$100,000
Framingham Westbound	\$150,000
Natick Eastbound	\$450,000

\$2,650,000